



Field Programming Reference

For

***TK-2180/ 3180/
7180/ 8180***

Version:

1.11

Last Updated:

Aug, 2004

Language:

English

Type:

K

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1 SETTING UP THE KPG-89D

You can configure various functions of the transceiver using the KPG-89D. You can write the configuration data into the transceiver by connecting it to a PC with the KPG-89D. You can also edit and print out the configuration data of the transceiver using the KPG-89D.

1.1 System Requirements

You must prepare the following devices and operating systems to install the KPG-89D.

Table 1-1 System Requirements

PC	IBM PC or compatible with Windows operating system
Hard Disk	10 MB or more free hard disk spaces
Memory	32 MB
CD-ROM	A CD-ROM drive that can be accessed directly or via Network.
Monitor	A monitor having the resolution of 800 x 600 pixels and 256 or more colors.
OS	Microsoft Windows XP Microsoft Windows 2000 Microsoft Windows Me Microsoft Windows 98
Communication Port	A PC must have at least one asynchronous serial communication port to communicate with the transceiver. You can select the communication port from COM 1 - COM 20 ports.
Connection cable	You must connect the transceiver to a computer using the KPG-36/ 46 programming cable. A D-sub 9-pin female to D-sub 25-pin male gender changer may be required.

Note: The KPG-89D may not work properly due to the insufficient resource when running it with other softwares.

1.2 Connecting the Transceiver to the PC

Follow the procedures below to connect the PC to the transceiver.

1. Turn the PC OFF.

2. Connect the 25-pin connector of the KPG-36/ 46 programming cable to one of the COM 1 - COM 20 ports on the PC.

Connect the DB-25-pin male to DB-9-pin male gender changer to the KPG-36/ 46 programming cable when the COM port is a 9-pin connector.

3. Turn the PC ON.
4. Turn the transceiver OFF.
5. Connect the modular connector of the KPG-36/ 46 programming cables to the female connector of the transceiver.
6. Turn the transceiver ON.

1.3 Installing the KPG-89D

Follow the procedures below to install the KPG-89D to the PC.

Note:

- ◆ You must have the administrative privilege in order to install the KPG-89D with Windows 2000/XP.
 - ◆ To update the software, uninstall the old version before installing the newer version.
1. Stop running all programs on the PC (including the virus-checking program).
 2. Insert the KPG-89D CD-ROM into the CD drive.
 3. You can install the KPG-89D with one of the following methods.
 - Double-click the CD-ROM drive icon > "Setup.exe".
 - Select "RUN" > "setup.exe" in the CD-ROM drive.
 - Click "Control Panel" > "Add/Remove Programs > "Install" ("Program" in Windows 2000/XP).

1.4 Uninstalling the KPG-89D

Follow the procedures below to uninstall the KPG-89D from the PC.

Note:

- ◆ You must exit the KPG-89D before uninstalling it.
 - ◆ You must have the administrative privilege in order to uninstall the KPG-89D with Windows 2000/XP.
 - ◆ To update the software, uninstall the old version before installing the newer version.
1. Click “Control Panel” > “Application addition/ removal” > “Install”. (Click “Add Programs” when using Windows 2000/XP.)
 2. Select “KPG-89D” from the program list.
 3. Click “Application addition/ removal”. (Click “Change/ Delete Programs” when using Windows 2000/XP.)

2 BASIC OPERATION

This section describes basic operations of the KPG-89D.

Note: We recommend you storing the data configured with the KPG-89D to the hard disc or the external storage device.
(Refer to 4 File Menu.)

2.1 Starting and Exiting the KPG-89D

Select “Start” > “All programs” > “KENWOOD FPU” > “KPG-89D” to start the KPG-89D.

Note: You can start the KPG-89D by opening the folder where you installed the KPG-89D, and then double-click the “Kpg89d.exe”.

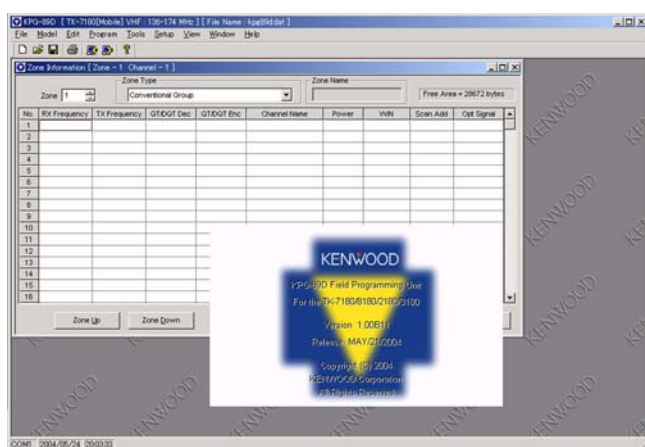


Figure 2-1 Starting Screen of the KPG-89D

The Main window of the KPG-89D appears.

The splash logo appears in the center of the screen for a while and it automatically disappears. You can also make the logo disappear by pressing any key on the keyboard or clicking a mouse button.

Select “File” > “Exit” to exit the KPG-89D.

2.2 Initializing the Window

Select the transceiver model to configure. (Refer to 5 Model Menu.)

Model name, model type, frequency bandwidth, and data file name appear on the title bar located on the top of the window. (Refer to 3.1.1 Title Bar.)

2.3 Writing the Configuration Data to the Transceiver

Follow the procedures below to write the configuration data to the transceiver.

1. Enter all necessary data.

Select the item to configure in the **Edit** menu and enter data in the window. (Refer to 6 Edit Menu.)

2. Writing data to the transceiver

Select “Program” > “Write Data to the Transceiver”.
(Refer to 7 Program Menu.)

2.4 Modifying the Configuration Data

Follow the procedures below to modify the configuration data.

1. Read the configuration data from the transceiver.

Select “Program” > “Read Data from the Transceiver”.
(Refer to 7 Program Menu.)

2. Edit the data on the PC.

Select the item to configure in the **Edit** menu and enter data in the window. (Refer to 6 Edit Menu.)

3. Write the updated data to the transceiver

Select “Program” > “Write Data to the Transceiver”.
(Refer to 7 Program Menu.)

2.5 Editing the Configuration Data and Writing to the Transceiver

Follow the procedures below to edit the configuration data and write it to the transceiver.

1. Open the configuration data stored in the hard disk drive or other storage devices.

Select “File” > “Open” to open the configuration data.
(Refer to 4 File Menu.)

2. Editing the configuration data using the KPG-89D

Select the item to configure in the **Edit** menu and enter data in the window. (Refer to 6 Edit Menu.)

3. Writing the configuration data to the Transceiver

Select “Program” > “Write Data to the Transceiver”.
(Refer to 7 Program Menu.)

2.6 Displaying Help

Click "Help" to open the **KPG-89D HTML Help** window.
Press **[F1]** to display the Help Topics of the selected item.
(Refer to [12 Help Menu](#).)

3 MENU DESCRIPTION

3.1 Main Window

The title bar, menu bar, and tool bar appear on the top of this window. The status bar appears in the lower part of this window.

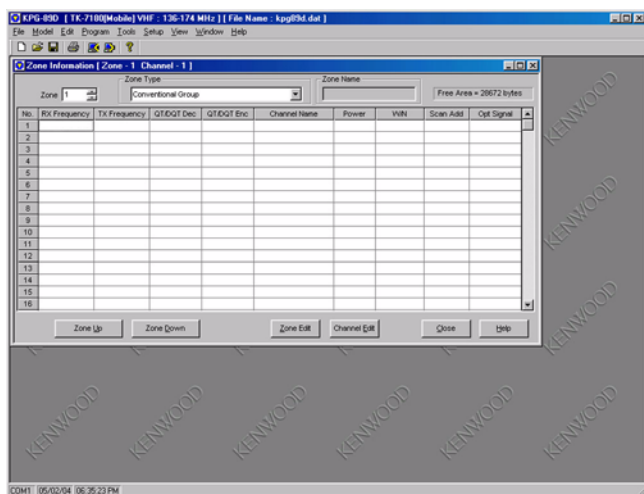


Figure 3-1 Main Window

3.1.1 Title Bar

The title bar shows the model name, the frequency range, and the configuration data file name. (Refer to 5 Model Menu.)



Figure 3-2 Title Bar

3.1.2 Menu Bar

The **Menu** bar allows you to configure the functions of the transceiver using the KPG-89D. Click the menu title to open the pulldown list. The menu commands stored in the menu appears. (Refer to 3.2 Menu Command Description.)

Note: The Window menu appears on the menu bar only when the function is selected in the **Edit** menu and the window of the function is displayed.

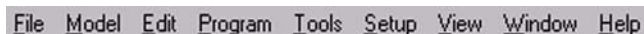


Figure 3-3 Menu Bar
(When the Window menu is displayed.)



Figure 3-4 Menu Bar
(When the Window menu is not displayed.)

3.1.3 Toolbar

Frequently used icons are shown on the Toolbar. Click the "Toolbar" icon to execute the function.










Figure 3-5 Toolbar

Note:

- ◆ You can display or hide the Toolbar by selecting "View" > "Toolbar". (Refer to 10.2 Toolbar.)
- ◆ You can drag-and-drop the Toolbar to any desired position.

Table 3-1 Descriptions of the Buttons on the Toolbar

Button	Function
 New	This icon is for the New function in the File menu. This function allows you to clear the current configuration data and create the new configuration data. (Refer to 4.1 New.)
 Open	This icon is for the Open function in the File menu. This function allows you to open the configuration data stored in the hard disk or other external storage devices. (Refer to 4.2 Open.)
 Save	This icon is for the Save function in the File menu. This function allows you to save the current configuration data to the hard disk or other external storage devices. (Refer to 4.3 Save.)
 Print	This icon is for the Print function in the File menu. This function allows you to print out the configuration data. (Refer to 4.5 Print.)
 Read	This icon is for the Read Data from the Transceiver function in the File menu. This function allows you to read the configuration data from the transceiver by using the KPG-89D. (Refer to 7.1 Read Data from the Transceiver.)
 Write	This icon is for the Write Data to the Transceiver function in the File menu. This function allows you to write the data to the transceiver using the KPG-89D. (Refer to 7.2 Write Data to the Transceiver.)
 About KPG-89D	This icon is for the About KPG-89D function in the File menu. (Refer to 12.2 About KPG-89D.)

3 MENU DESCRIPTION

3.1.4 Status Bar

The status bar shows the serial communication port used to perform the data communication between the KPG-89D and the transceiver, and the current data and the date.



Figure 3-6 Status Bar

Note:

- ◆ You can display or hide the status bar by selecting “View” > “Status Bar”. (Refer to 10.3 Status Bar.)
- ◆ Double-click “COM” to open the **COM port** window.

3.2 Menu Command Description

Following are the descriptions of the Menu Commands.

3.2.1 File Menu

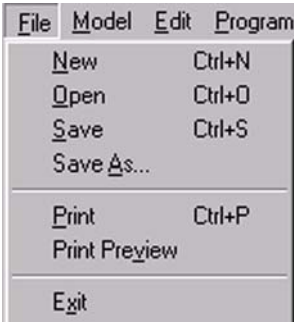


Figure 3-7 File Menu

Table 3-2 Function list of the File Menu

Function	Description
New	This function allows you to clear the current configuration data and create the new configuration data. (Refer to 4.1 New.)
Open	This function allows you to open the configuration data stored in the hard disk or other external storage devices. (Refer to 4.2 Open.)
Save	This function allows you to save the current configuration data to the hard disk or other external storage devices. (Refer to 4.3 Save.)
Save As	This function allows you to name the current configuration data and save it to the hard disk or other external storage devices. (Refer to 4.4 Save As.)
Print	This function allows you to print out the configuration data. (Refer to 4.5 Print.)
Print Preview	This function allows you to view the print image of the configuration data. (Refer to 4.6 Print Preview.)
Exit	This function allows you to exit the KPG-89D program. (Refer to 4.7 Exit.)

3.2.2 Model Menu



Figure 3-8 Model Menu

Table 3-3 Function List of the Model Menu

Function	Description
Model Information	This function allows you to configure the model name and the frequency. (Refer to 5.1 Model Information.)

3.2.3 Edit Menu

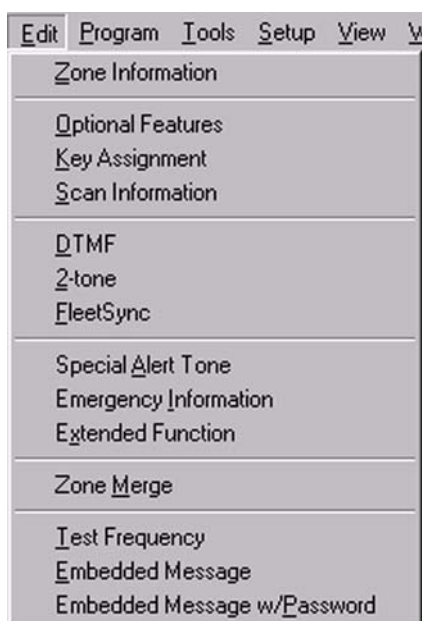


Figure 3-9 Edit Menu

Table 3-4 Function List of the Edit Menu

Function	Description
Zone Information	This function allows you to configure the Zone data. (Refer to 6.1 Zone Information Window.)
Optional Features	This function allows you to configure the transceiver's functions. (Refer to 6.7 Optional Features Window.)
Key Assignment	This function allows you to assign functions to the PF keys. (Refer to 6.8 Key Assignment Window.)
Scan Information	This function allows you to configure the Scan function parameters. (Refer to 6.9 Scan Information Window.)
DTMF	This function allows you to configure the DTMF parameters. (Refer to 6.10 DTMF Window.)
2-tone	This function allows you to configure the 2-tone signaling parameters. (Refer to 6.11 2-tone Window.)
FleetSync	This function allows you to configure the FleetSync function. (Refer to 6.12 FleetSync Window.)
Special Alert Tone	This function allows you to configure the Special Alert Tone parameters. (Refer to 6.13 Special Alert Tone Window.)
Emergency Information	This function allows you to configure the Emergency Mode parameters. (Refer to 6.14 Emergency Information Window.)
Extended Function	This function allows you to configure the optional board, the Auxiliary ports, and the Modulation Line parameters. (Refer to 6.15 Extended Function Window.)

Function	Description
Zone Merge	You can use the Zone Merge function. (Refer to 6.16 Zone Merge Window.)
Test Frequency	This function allows you to configure the Test Frequency (Test Channel) used in Test Mode. (Refer to 6.17 Test Frequency.)
Embedded Message	This function allows you to configure the characters to be stored in the transceiver. (Refer to 6.18 Embedded Message Window.)
Embedded Message w/ Password	This function allows you to configure the characters to be stored in the transceiver and the password to protect the stored characters. (Refer to 6.19 Embedded Message w/Password.)

3.2.4 Program Menu

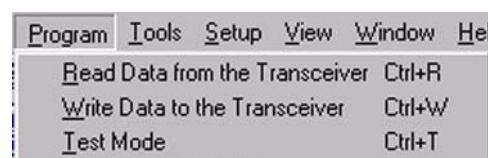


Figure 3-10 Program Menu

Table 3-5 Function List of the Program Menu

Function	Description
Read Data from the Transceiver	This function allows you to read the configuration data from the transceiver by using the KPG-89D. (Refer to 7.1 Read Data from the Transceiver.)
Write Data to the Transceiver	This function allows you to write the configuration data to the transceiver using the KPG-89D. (Refer to 7.2 Write Data to the Transceiver.)
Test Mode	This function allows you to test or adjust the transceiver using the KPG-89D. (Refer to 7.3 Test Mode.)

3.2.5 Tools Menu



Figure 3-11 Tools Menu

Table 3-6 Function List of the Tools Menu

Function	Description
Transceiver Information	This function allows you to read the data from the transceiver. (Refer to 8.1 Transceiver Information.)

3.2.6 Setup Menu

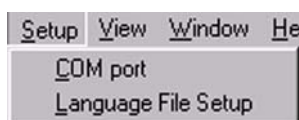


Figure 3-12 Setup Menu

Table 3-7 Function List of the Setup Menu

Function	Description
COM port	You can assign the serial communication port used to make the data communication between the KPG-89D and the transceiver to the serial communication port of the PC. (Refer to 9.1 COM port.)
Language File Setup	You can select the language used in the KPG-89D. (Refer to 9.2 Language File Setup.)

3.2.7 View Menu



Figure 3-13 View Menu

Table 3-8 Function List of the View Menu

Function	Description
Tree View	This function allows you to view the contents of the Edit menu in the list format. (Refer to 10.1 Tree View.)
Toolbar	This function allows you to display/hide the Toolbar . (Refer to 10.2 Toolbar.)
Status Bar	This function allows you to display/hide the Status bar. (Refer to 10.3 Status Bar.)

3.2.8 Window Menu

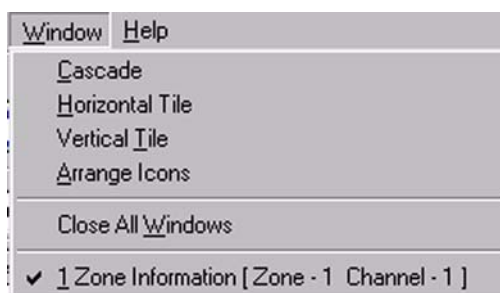


Figure 3-14 Window Menu

Table 3-9 Function List of the Window Menu

Function	Description
Cascade	This function allows you to rearrange the opened windows in an overlapped fashion (cascade format). (Refer to 11.1 Cascade.)
Horizontal Tile	This function allows you to rearrange the opened windows in the horizontal tiles fashion. (Refer to 11.2 Horizontal Tile.)
Vertical Tile	This function allows you to rearrange the opened windows in the vertical tiles fashion. (Refer to 11.3 Vertical Tile.)
Arrange Icons	This function allows you to rearrange the icons of the minimized windows. (Refer to 11.4 Arrange Icons.)
Close All Windows	This function allows you to close all the opened windows. (Refer to 11.5 Close All Windows.)
Opened Window List	This function allows you to list all opened windows. When clicking the title of the window, the selected window appears. (Refer to 11.6 Opened Window List.)

3.2.9 Help Menu

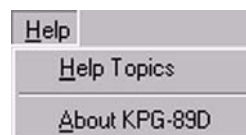


Figure 3-15 Help Menu

Table 3-10 Function List of the Help Menu

Function	Description
Help Topics	This function allows you to search for the help topics. (Refer to 12.1 Help Topics.)
About KPG-89D	This function allows you to view the information about the KPG-89D. (Refer to 12.2 About KPG-89D.)

3.3 Shortcut Keys

You can configure the following shortcut keys using the KPG-89D.

3.3.1 Menu Bar Operation

Table 3-11 Shortcut Keys Used in the Menu Bar

Key Name	Function
[Alt] [F10]	You can use the Menu Bar. The File menu opens in the same way as the cursor is placed on the "File" in the menu bar.
[←] [→]	You can select the menu title using [←] and [→] after selecting the menu bar using [Alt] or [F10].
[↑] [↓]	You can open the selected menu and select the function to be executed.
[Enter]	Press [Enter] while selecting the menu title to open the menu. Press [Enter] while the menu is opened to execute the selected function.

3.3.2 File Menu Operation

Table 3-12 Shortcut Keys used in the File Menu

Key Name	Function
[Ctrl] + [N]	Select File > New. (Refer to 4.1 New.)
[Ctrl] + [O]	Select File > Open. (Refer to 4.2 Open.)
[Ctrl] + [S]	Select File > Save. (Refer to 4.3 Save.)
[Ctrl] + [P]	Select File > Print. (Refer to 4.5 Print.)

3.3.3 Zone Information (Conventional Group) Window

Table 3-13 Zone Information (Conventional Group) Window Shortcut Keys

Key Name	Function
[F7]	The Zone number can be increased in steps of 1.
[F8]	The Zone number can be decreased in steps of 1.
[F9]	You can display the Zone Edit (Conventional Group) window. (Refer to 6.2 Zone Edit Window (Conventional Group).)
[F11]	You can display the Channel Edit window. (Refer to 6.3 Channel Edit Window.)
[Shift] + [F3]	You can display the Channel Copy window. You can also copy the configured channel data to the specified channel. (Refer to 6.3.19 Channel Copy ([Shift] + [F3]).)
[Shift] + [F4]	You can display the Frequency Copy window. You can copy the Receive Frequency data to the Transmission Frequency data. (Refer to 6.3.20 Frequency Copy ([Shift] + [F4]).)
[Shift] + [F5]	You can display the QT/DQT Copy window. You can copy the QT/DQT Decode of the selected channel to the "QT/DQT Encode" data. (Refer to 6.3.20 Frequency Copy ([Shift] + [F4]).)
[Shift] + [F7]	You can display the Channel Jump window. You can jump to the specified channel. (Refer to 6.3.21 Channel Jump.)

3.3.4 Zone Information (Trunking System) Window

Table 3-14 Zone Information (Trunking System) Window Shortcut Keys

Key Name	Function
[F6]	You can display the Repeater Information window. (Refer to 6.4 Repeater Information Window.)
[F7]	The Zone number can be increased in steps of 1.
[F8]	The Zone number can be decreased in steps of 1.
[F9]	You can display the Zone Edit (Trunking system) window. (Refer to 6.5 Zone Edit Window.)
[F11]	You can display the GID Edit window. (Refer to 6.6 GID Edit Window.)
[Shift] + [F3]	You can display the GID Copy window. You can copy the selected GID data to the specified GID. (Refer to 6.6.18 GID Copy ([Shift] + [F3]).)

3 MENU DESCRIPTION

Key Name	Function
[Shift] + [F7]	You can display the GID Jump window. You can jump to the specified GID. (Refer to 6.6.19 GID Jump.)

3.3.5 Program Menu

Table 3-15 Shortcut Keys used in the Program Menu

Key Name	Function
[Ctrl] + [R]	Select “Program” > “Read Data from the Transceiver”. (Refer to 7.1 Read Data from the Transceiver.)
[Ctrl] + [W]	Select “Program” > “Write Data to the Transceiver”. (Refer to 7.2 Write Data to the Transceiver.)
[Ctrl] + [T]	Select “Program” > “Test Mode”. (Refer to 7.3 Test Mode.)

3.3.6 Help Menu

Table 3-16 Shortcut Keys used in Help Menu

Key Name	Function
[F1]	You can display the KPG-89D HTML Help window. The help topic for the selected operation appears when the [F1] key is pressed. (Refer to 12 Help Menu.)

4 FILE MENU

4.1 New

Select “File” > “New” to create the new data file. You can clear the current configuration data and create the new data file.

The default file name for a new file will be “kpg89d.dat”.

Follow the procedures below to create a new file.

1. Select “File” > “New”.

A warning message appears.



Figure 4-1 File New

2. You can select one of the following options.

- Click “OK”.
You can delete all of the opened configuration data.
You can clear the current configuration data and create a new data file.
- Click “Cancel”.
The opened configuration data will not be deleted.
No file will be created.

4.2 Open

This function allows you to open the configuration data file stored in the hard disk or other external storage devices (file extension: .dat/ .sdt).

Follow the procedures below to open the configuration data.

1. Select “File” > “Open”.

The **Open** window appears.

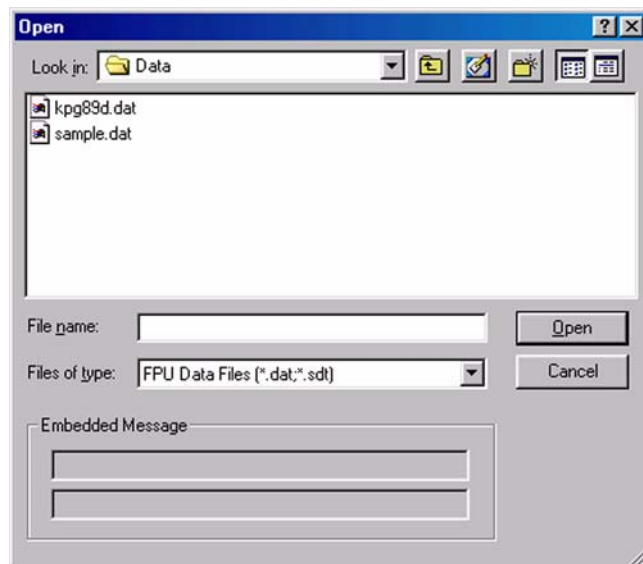


Figure 4-2 File Open

2. Select the configuration data file to open.

Select a file name you want to open.

The embedded message appears if the selected file contains an embedded message. ([Refer to 6.18 Embedded Message Window.](#))

3. Click “Open”.

You can read the file selected at the previous step using the KPG-89D.

The error message appears when the selected file contains data that is not supported by the KPG-89D.



Figure 4-3 File Open Error Message

4.3 Save

This function allows you to store the current configuration data to the hard disk or other external storage devices. Follow the procedures below to save the configuration data.

- 1. Select "File" > "Save".
The configuration data is stored as a new file.
A warning message appears if a file with the same name exists in the destination folder.

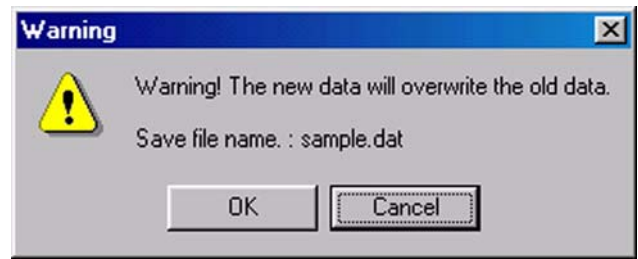


Figure 4-4 File Save

- 2. You can select one of the following options.
 - Click "OK".
You can store the new configuration data to the storage device.
 - Click "Cancel".
This option allows you to stop saving the configuration data. The new configuration data will not be stored.

4.4 Save As

This function allows you to name the current configuration data and store it to the hard disk or other external storage devices. Follow the procedures below to name and save the configuration data.

- 1. Select "File" > "Save As".
The **File Type Confirmation** window appears.

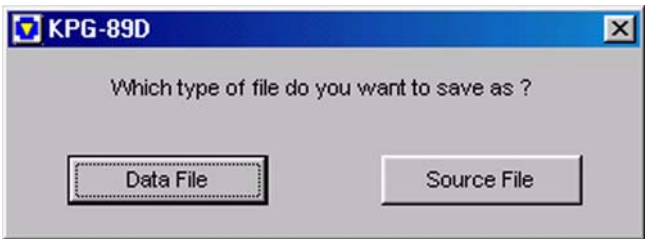


Figure 4-5 Save As Confirmation Window

- 2. Click "Data File" to store the configuration data as a data file, or Source File to store the data as a source file.
The **Save As** window appears.

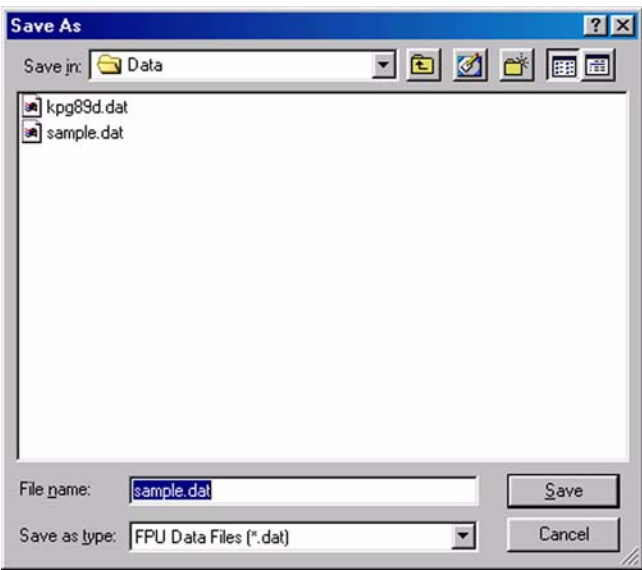


Figure 4-6 Save As

- 3. Enter the file name.
You can assign a maximum of 32 characters to a file name. When assigning 33 or more characters, the following error message appears.

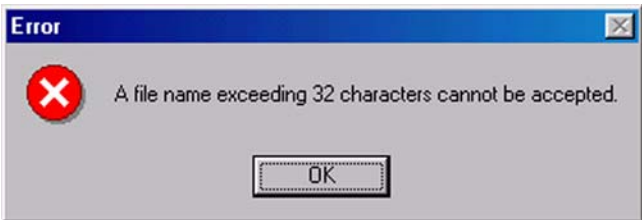


Figure 4-7 Save As Error Message

- 4. Click "Save".
You can store the configuration data with the file name entered in the previous step.
A warning message appears if a file with the same name exists in the target folder.



Figure 4-8 Save As Warning Message

5. You can select one of the following options.

- Click "Yes".
You can store the new configuration data to the storage device.
- Click "Cancel".
This option allows you to stop saving the configuration data. The current configuration data will not be stored.

4.5 Print

You can print out the configuration data.

Follow the procedures print the configuration data.

1. Select "File" > "Print".

The Printout List appears and you can view the KPG-89D configuration data.

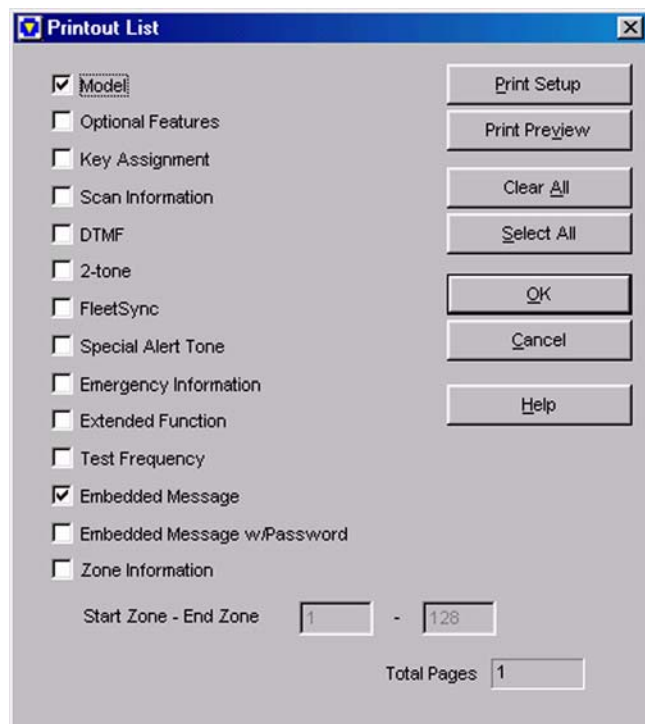


Figure 4-9 Printout List 1

2. Confirm the checkbox of the configuration data item that you want to print.



Figure 4-10 Printout List 2

Note:

- The **Model** checkbox and the **Embedded Message** checkbox are checked as default configuration.
- The **Start Zone** edit box and the **End Zone** edit box appear when checking the **Zone Information** checkbox

3. Click "OK".

You can print out the KENWOOD KPG-89D Transceiver Programming Information. (Refer to 4.6 [Print Preview](#).)

4.5.1 Print List Item

■ Model

You can configure the "Model Information" parameters to print. (Refer to 5.1 [Model Information](#).)

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Checked (Enabled)	

■ Optional Features

You can configure the Optional Features parameters to print. ([Refer to 6.7 Optional Features Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Key Assignment

You can configure the Key Assignment parameters to print. ([Refer to 6.8 Key Assignment Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Scan Information

You can configure the Scan Information parameters to print. ([Refer to 6.9 Scan Information Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ DTMF

You can configure the DTMF parameters to print. ([Refer to 6.10 DTMF Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ 2-tone

You can configure the 2-tone parameters to print. ([Refer to 6.11 2-tone Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ FleetSync

You can configure the FleetSync parameters to print. ([Refer to 6.12 FleetSync Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Special Alert Tone

You can configure the Special Alert Tone parameters to print. ([Refer to 6.13 Special Alert Tone Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Emergency Information

You can configure the Emergency Information parameters to print. ([Refer to 6.14 Emergency Information Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Extended Function

You can configure the Extended Function parameters to print. ([Refer to 6.15 Extended Function Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Test Frequency

You can configure the Test Frequency parameters to print. ([Refer to 6.17 Test Frequency.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Embedded Message

You can configure the Embedded Message parameters to print. ([Refer to 6.18 Embedded Message Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Checked (Enabled)	

■ Embedded Message w/Password

You can configure the Embedded Message w/ Password parameters to print. ([Refer to 6.19 Embedded Message w/Password.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Zone Information

You can configure the Zone Information parameters to print. ([Refer to 6.1 Zone Information Window.](#))

Range	Check (Enable)	The parameters can be printed.
	Uncheck (Disable)	The parameters will not be printed.
Default	Unchecked (Disabled)	

■ Start Zone - End Zone

You can configure the start zone and the end zone only when the **Channel Information** checkbox is checked.

You can select the channel to print from the channels 1 to 128.

Note: The value of the Start Channel must be lower than the End Channel value. The End Channel will be equal to the Start Channel if you enter the higher value in the Start Channel than the End Channel.

Range	Start Zone	End Zone
	1 - 128	1 - 128
Default	1	128

■ Total Pages

The total number of pages appears.

■ Print Setup Button

Click "Print Setup" to display the Print Setup window. You can configure the printer used to print out the configuration data, the paper size, and the paper rotation.

■ Print Preview Button

Click "Print Preview" to display the **Print Preview** window. ([Refer to 4.6 Print Preview.](#))

■ Clear All Button

Click "Clear All" to uncheck all checkboxes.

■ Select All Button

Click "Select All" to check all checkboxes.

■ OK Button

Click "OK" to print the checked items.

■ Cancel Button

Click "Cancel" to close the **Printout List** window without printing any parameters.

■ Help Button

Click "Help" to display the **KPG-89D HTML Help** window. The help topics for Print appear. ([Refer to 12 Help Menu.](#))

4.6 Print Preview

You can view the print image after selecting items to be printed in the Print Out List.

Follow the procedures to preview the print image.

- 1. You can select one of the following options.
 - Select “File” > “Print Preview”.
The **Printout Preview** window appears and the print image will be displayed.
 - Click “Print Preview” in the **Printout List** window. (Refer to 4.5.1 Print List Item.)
The **Printout Preview** window appears and the print image of the items selected in the Print List will be displayed.

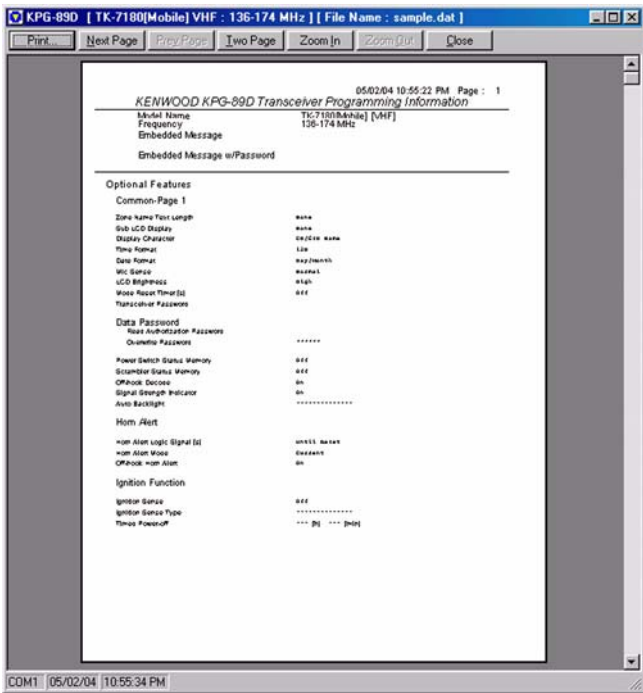


Figure 4-11 Print Preview

4.6.1 Toolbar in the Print Preview

You can switch the display and move to the other page by clicking the buttons on the toolbar located on the top of the window.

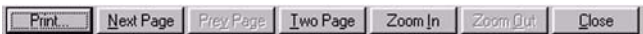


Figure 4-12 Print Preview Toolbar

Print Button

Click “Print” to display the **Print List** window. (Refer to 4.5.1 Print List Item.)

Next Page/ Prev Page Button

Click “Next Page” to view the next page of the current print image.

Click “Prev Page” to view the previous page of the current print image.

- Note:**
- ◆ You can click “Next Page” only when there are more than one page(s).
 - ◆ You can click “Prev Page” only when there are preceding page(s).

Two Page/ One Page Button

Click “Two Page” to display two pages at the same time.

Click “One Page” to display only one pages at the same time.

- Note:**
- ◆ The “Two Page” button appears when the layout of the print image is “One Page”.
 - ◆ The “One Page” button appears when the layout of the print image is “Two Page”.
 - ◆ The two page display is disabled when clicking “Zoom In” while the layout of the print image is two page. When clicking “Zoom Out”, the layout of the print image returns to Two Page.

Zoom In/ Zoom Out Button

Click “Zoom In” to enlarge the print image.

Click “Zoom Out” to zoom out the print image.

- Note:**
- ◆ You can click “Zoom In” only when the print image can be enlarged.
 - ◆ You can click “Zoom Out” only when the print image can be zoomed out.
 - ◆ You can enlarge the print image when the magnifying glass icon appears on the image. You can zoom out the print image when the cursor returns to normal.

Close Button

Click “Close” to close the **Print Preview** window and return to the main window or the **Print Out List** window.

4.7 Exit

This function allows you to exit the KPG-89D program.

Follow the procedures to exit the KPG-89D.

1. Select "File" > "Exit".

The confirmation dialog box appears to exit the KPG-89D program.



Figure 4-13 File Exit 1

2. You can select one of the following options.

- Click "No".

Close the confirmation dialog box. In this case, you cannot exit the KPG-89D program.

- Click "Yes".

You can immediately exit the KPG-89D program when the configuration data has not been modified or already stored. The confirmation dialog box appears to ask you to store the configuration data if you have modified the configuration data.

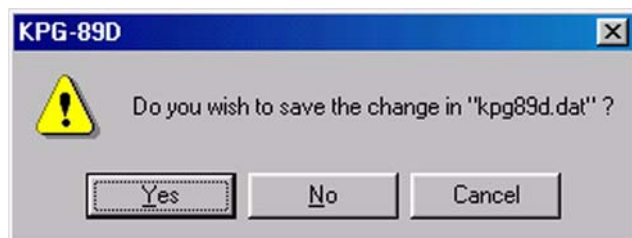


Figure 4-14 File Exit 2

3. You can select one of the following options.

- Click "Cancel".

Close the confirmation dialog box. In this case, you cannot exit the KPG-89D program.

- Click "No".

You can exit the KPG-89D program without storing the configuration data to the storage device.

- Click "Yes".

The **Save As** window appears. ([Refer to 4.4 Save As.](#))

You can exit the KPG-89D program after storing the configuration data to the storage device.

5 MODEL MENU

5.1 Model Information

You can configure the transceiver's model type and frequency in the **Model Information** window.

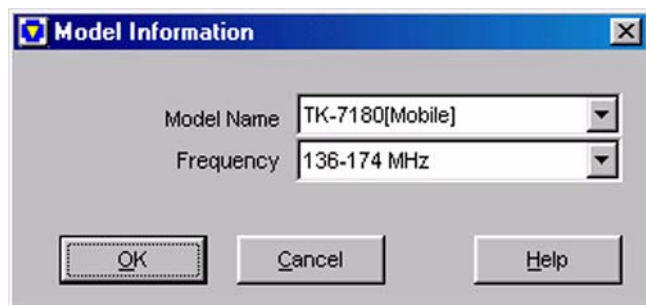


Figure 5-1 Model Information Window

Note:

- ◆ The following warning messages appear when clicking "OK".
 - The frequency can be changed without changing the model name (TK-2180/ 3180 and TK-7180/ 8180).

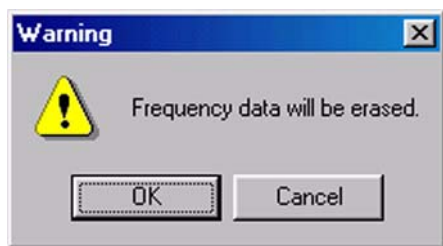


Figure 5-2 Model Information Warning Message 1

- The Model Name (TK-2180/ 3180 and TK-7180/ 8180) is changed without changing the frequency.



Figure 5-3 Model Information Warning Message 2

- Both of the Model Name (TK-2180/ 3180 and TK-7180/ 8180) and the frequency are changed.



Figure 5-4 Model Information Warning Message 3

- ◆ Click "OK" to delete all configured data and create a new data with the selected Model Type and the transmit/receive frequency. Click "Cancel" to return to the **Model Information** window without changing the model type and the transmit/receive frequency.

5.1.1 Model Name

This function allows you to select the model name from the pulldown menu.

Range	<ul style="list-style-type: none">• TK-2180 [Portable]• TK-3180 [Portable]• TK-7180 [Mobile]• TK-8180 [Mobile]
Default	TK-7180 [Mobile]

5.1.2 Frequency

You can configure the frequency bandwidth to transmit/receive. You can select the frequency bandwidth according to the model type using the pulldown menu.

Model	Market Code	Transmit/Receive Frequency [MHz]	Default
TK-2180	K	136 - 174	136 - 174
TK-3180	K	450 - 520 400 - 470	450 - 520
TK-7180	K	136 - 174	136 - 174
TK-8180	K	450 - 520 400 - 470 *1	450 - 520

*1 Supports the updated version

6 EDIT MENU

6.1 Zone Information Window

In the **Zone Information** window, configure the zone data to be used when the transceiver is transmitting and receiving.

A maximum of 128 zones in the Conventional Group/Trunking system can be configured to the transceiver.

A maximum of 512 CH/GIDs can be configured to the transceiver. (Refer to 6.3 Channel Edit Window.)

6.1.1 Common to Conventional Group/Trunking System



Figure 6-1 Zone Information Window

■ Zone

Configure the Zone number to be configured. Enter a value directly in the edit box or click the spin button to configure.

Range	1 - 128
Default	1

■ Zone Type

Configure the Zone Type. Select the Zone Type from the pulldown menu.

Range	Conventional Group/ Trunking System
Default	Conventional Group

■ Zone Name

Configure the Zone Name. Enter the Zone Name directly in the edit box to configure the Zone Name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space)! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	**1 - 128 (The Zone number is automatically entered.)

■ Free

Displays the remaining amount of memory that can be used for the **Zone Information** window.

■ Zone Up/Zone Down Button

Click "Zone Up" to move up the Zone number.

Click "Zone Down" to move down the Zone number.

■ Close Button

Click "Close" to close the **Zone Information** window.

■ Help Button

Click "Help" to open the **KPG-89D HTML Help** window. Help and topics about Zone Information are displayed. (Refer to 12 Help Menu.)

6.1.2 Conventional Group



Figure 6-2 Zone Information Window (Conventional Group)

■ Receive Frequency

Configure the frequency to be used when the transceiver receives. Enter the frequency directly in the edit box to configure the frequency.

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, a confirmation message appears, and the value is replaced with the frequency value automatically (upper limit value or lower limit value) configured at the **Model Information** window > **Frequency**.
- ◆ Other items on the same channel can be configured only when Receive Frequency value is configured to Receive Frequency.

- ◆ When Receive Frequency is deleted, other items on the same channel are also automatically deleted.
- ◆ When Receive Frequency is configured, the same value as Receive Frequency is configured to Transmit Frequency.

■ Transmit Frequency

Configure the frequency to transmit. Enter the frequency directly in the edit box to configure the frequency.

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, a confirmation message appears, and the value is replaced with the frequency value automatically (upper limit value or lower limit value) configured at the **Model Information > Frequency**.
- ◆ Transmit Frequency can be configured only when a value is configured in the **Receive Frequency** edit box.

■ QT/DQT Dec (Decode)

Configure the signaling for standby to be used when the transceiver is receiving. Select the QT tone or DQT code from the pulldown menu, or directly enter it in the edit box.

● When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverted)	D023I - D754I
Default	None	

● When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverted)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- ◆ A maximum of 5-digit QT and DQT having numbers and "N", "D", "I" and "." (period) can be entered.
- ◆ When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- ◆ When a text string prefixed by "D" is entered, the entry is configured as a DQT code.

- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ QT/DQT Dec can be configured only when a value is configured in the **Receive Frequency** edit box.

■ QT/DQT Enc (Encode)

Configure the signaling for calling to be used when the transceiver is transmitting. Select the QT tone or DQT code from the pulldown menu, or directly enter it in the edit box.

● When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverted)	D023I - D754I
Default	None	

● When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverted)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- ◆ A maximum of 5-digit QT and DQT having numbers and "N", "D", "I" and "." (period) can be entered.
- ◆ When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- ◆ When a text string prefixed by "D" is entered, the entry is configured as a DQT code.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ QT/DQT Enc can be configured only when a value is configured in the **Receive Frequency** edit box.

■ Channel Name

Configure the channel name of the channel to be configured. The channel name can be entered directly in the edit box to configure the channel name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	CH nnn (The channel number is entered automatically.)

Note:

- ◆ When the entire content of the edit box is deleted, this item will be configured as a blank.
- ◆ Channel Name can be configured only when a value is configured in the **Receive Frequency** edit box.

■ Power (Transmit Power)

Configure the transmit power of each channel. Select the desired transmit power from the pulldown menu.

Range	High/ Low
Default	High

Note: Transmit Power can be configured only when a value is configured in the **Receive Frequency** and **Transmit Frequency** edit boxes.

■ W/N (Wide/ Narrow)

Configure the channel bandwidth of each channel. Select the desired channel bandwidth from the pulldown menu.

Range	Wide/ Narrow
Default	Wide

Note: W/N can be configured only when a value is configured in the **Receive Frequency** edit box.

■ Scan Add

From the pulldown menu, select whether or not the transceiver scans each channel during the scan.

Range	Yes/ No
Default	Yes

Note: Scan Add can be configured only when a value is configured in the **Receive Frequency** edit box.

■ Optional Signaling

Configure the Optional Signaling of each channel. Select the desired Optional Signaling from the pulldown menu.

Range	None/ DTMF/ 2-tone 1/ 2-tone 2/ 2-tone 3/ 2-tone 4/ FleetSync
Default	None

Note: Optional Signaling can be configured only when a value is configured in the **Receive Frequency** edit box.

■ Zone Edit Button

Click “Zone Edit” to open the **Zone Edit** window. (Refer to 6.2 Zone Edit Window (Conventional Group).)

Note: An error message appears when there is no data configured to a zone.

■ Channel Edit Button

Click “Channel Edit” to open the **Channel Edit** window. (Refer to 6.3 Channel Edit Window.)

■ Channel Copy ([Shift] + [F3])

Existing channel data can be copied to other channels.

To do this, follow the procedures below:

1. Select the channel to be copied.

The channel can be selected by clicking the channel number.

2. Press **[Shift] + [F3]** on the keyboard.

The **Channel Copy** window appears.

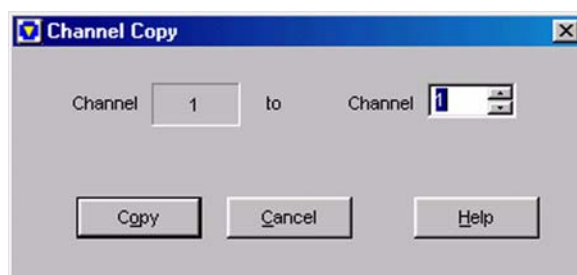


Figure 6-3 Channel Copy Window

3. Select the desired channel to copy to.

Enter a value directly in the edit box or click the spin button to configure.

4. Click “Copy”.

The configured data is copied to the copy target channel.

Note:

- ◆ This operation is possible only when data is currently configured to the copy source channel.
- ◆ Only numbers within the range 1 to 250 can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Frequency Copy ([Shift] + [F4])

Data configured to **Receive Frequency** can be copied to Transmit Frequency of the same channel.

To do this, follow the procedures below:

1. Select the channel to be copied.

The channel can be selected by clicking the channel number.

2. Press **[Shift] + [F4]** on the keyboard.

The **Frequency Copy** window appears.

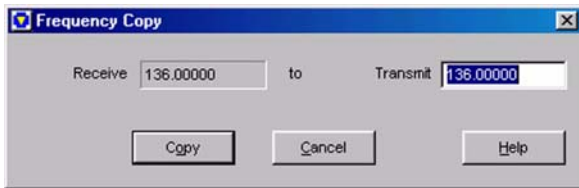


Figure 6-4 Frequency Copy Window

3. Click "Copy".

the Receive Frequency data is copied to Transmit Frequency of the same channel.

Note:

- ◆ This operation is possible only on channels in which data is currently configured to Receive Frequency.
- ◆ Receive Frequency configuration data cannot be copied to other channels.
- ◆ When a frequency is entered directly in the **Frequency Copy** window, that value is configured as the frequency of Transmit Frequency. In this case, only frequencies up to 9-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ QT/DQT Copy ([Shift] + [F5])

Data configured to **QT/DQT Decode** can be copied to QT/DQT Encode of the same channel.

To do this, follow the procedures below:

1. Select the channel to be copied.

The channel can be selected by clicking the channel number.

2. Press **[Shift] + [F5]** on the keyboard.

The **QT/DQT Copy** window appears.

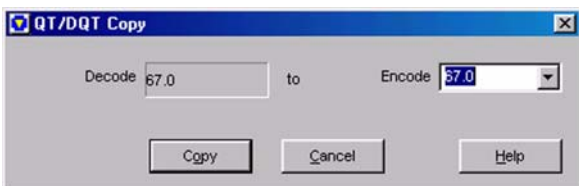


Figure 6-5 QT/DQT Copy Window

3. Click "Copy".

QT/DQT Decode data is copied to QT/DQT Encode of the same channel.

Note:

- ◆ This operation is possible only on channels in which data is currently configured to QT/DQT Decode.
- ◆ QT/DQT Decode configuration data cannot be copied to other channels.
- ◆ When the QT/DQT Encode value is selected or entered directly in the **QT/DQT Copy** window, that value is configured as QT/DQT Encode. In this case, a maximum of 5-digit QT and DQT having numbers and "N", "D", "I" and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Channel Jump ([Shift] + [F7])

Specified channels can also be jumped to.

To do this, follow the procedures below:

1. Press **[Shift] + [F7]** on the keyboard.

The **Channel Jump** window appears.

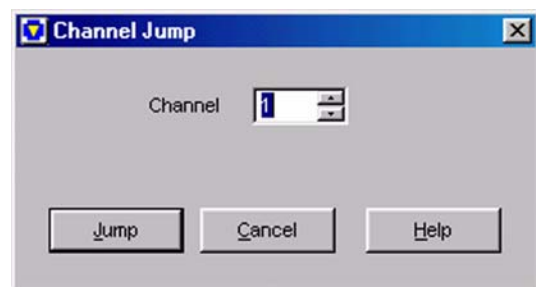


Figure 6-6 Channel Jump Window

2. Enter the channel number to be displayed.

Enter a value directly in the edit box or click the spin button to configure.

3. Click "Jump".

The specified channel appears.

Note:

- ◆ Only numbers within the range 1 to 250 can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Context Menu

If you select and right-click the channel number, Context Menu appears, and then operations such as copy and delete of configuration data can be performed.



Figure 6-7 Context Menu

Table 6-1 Context Menu

Function	Description
Copy	Copies the currently selected channel data.
Paste	Pastes the copied channel data.
Delete	Deletes the currently selected channel data.
to Clipboard	Copies the currently selected channel data to the Clipboard as text data.
to Clipboard (w/headings)	Copies the currently selected channel data to the Clipboard as text data with a heading.

6.1.3 Trunking System



Figure 6-8 Zone Information Window (Trunking System)

■ Encode ID

Configure the Encode ID to be used when the transceiver transmits. Enter the Encode ID number directly in the edit box to configure the Encode ID number.

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this item will be configured as a blank.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Decode ID

Configure the Decode ID to be used when the transceiver is receiving. Enter the Decode ID number directly in the edit box to configure the Decode ID number.

Range	Blank/ 1 - 250
Step	1
Default	A value entered by Encode ID

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the value of the **Decode ID** edit box is deleted, the other items of the same Group ID are automatically deleted.

■ GID Name

Configure the Group ID name of the Group ID to be configured. Enter the Group ID name directly in the edit box to configure the Group ID name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	GR nnn (The Group ID number is automatically entered.)

Note:

- ◆ When the entire content of the edit box is deleted, this item will be configured as a blank.
- ◆ GID Name can be configured only when a value is configured in the **Decode ID** edit box.

■ Call (Call Indicator)

Configure whether or not to leave behind a call indicator when a user cannot answer a call. (Refer to FUNC 17.2.6 Call Indicator.)

Range	Check (Enable)	Activates the Call Indicator when a GID is received.
	Uncheck (Disable)	Does not activate the Call Indicator when a GID is received.
Default	Unchecked (Disabled)	

Note: Call can be configured only when a value is configured in the **Decode ID** edit box.

■ Power (Transmit Power)

Configure the transmit power of each channel. Select the desired transmit power from the pulldown menu.

Range	High/ Low
Default	High

Note: Power can be configured only when a value is configured in the **Decode ID** and **Encode ID** edit boxes.

■ Transpond

Configure to enable or disable the Transpond function by each Group ID. Select the desired Transpond from the pulldown menu.

Range	Yes/ No
Default	No

Note:

- ◆ Transpond can be configured only when a value is configured in the **Decode ID** and **Encode ID** edit boxes.
- ◆ Transpond cannot be configured when an item other than "None" is selected in the **Opt Signal** pulldown menu.

■ Scan Add

From the pulldown menu, select whether or not the transceiver scans each Group ID during the scan.

Range	Yes/ No
Default	Yes

Note: Scan Add can be configured only when a value is configured in the **Decode ID** edit box.

■ Optional Signaling

Configure the Optional Signaling of each Group ID. Select the desired Optional Signaling format from the pulldown menu.

Range	None/ DTMF/ FleetSync
Default	None

Note: Optional Signal can be configured only when a value is configured in the **Decode ID** edit box.

■ TA (Talk Around)

Configure to enable or disable the Talk Around function by each Group ID. Select the desired Talk Around option from the pulldown menu.

Range	Yes/ No
Default	No

Note: TA can be configured only when a value is configured in the **Decode ID** edit box.

■ Repeater Button

Click "Repeater" to open the **Repeater Information** window. ([Refer to 6.4 Repeater Information Window.](#))

Note: An error message appears when there is no data configured to a zone.

■ Zone Edit Button

Click "Zone Edit" to open the **Zone Edit** window. ([Refer to 6.5 Zone Edit Window.](#))

Note: An error message appears when there is no data configured to a zone.

■ GID Edit Button

Click "GID Edit" to open the **GID Edit** window. ([Refer to 6.6 GID Edit Window.](#))

■ GID Copy ([Shift] + [F3])

Existing GID data can be copied to other channels.

To do this, follow the procedures below:

1. Select the GID to be copied.
The GID can be selected by clicking the GID number.
2. Press **[Shift] + [F3]** on the keyboard.
The **GID Copy** window appears.

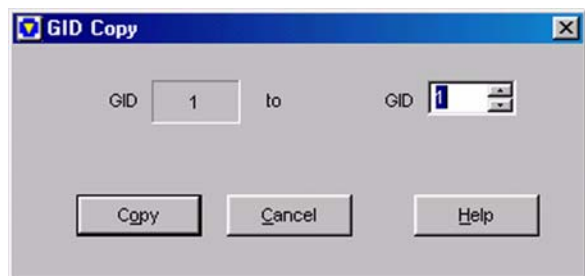


Figure 6-9 GID Copy Window

3. Select the desired GID to copy to.
Enter a value directly in the edit box or click the spin button to configure.
4. Click "Copy".
The configured data is copied to the copy target GID.

Note:

- ◆ This operation is possible only when data is currently configured to the copy source GID.
- ◆ Only numbers within the range 1 to 250 can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ GID Jump ([Shift] + [F7])

Specified GIDs can also be jumped to.

To do this, follow the procedures below:

1. Press **[Shift] + [F7]** on the keyboard.

The **GID Jump** window appears.

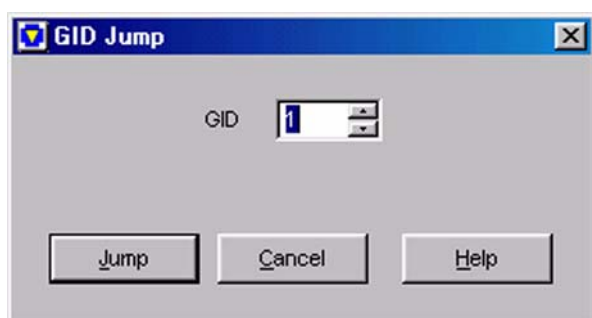


Figure 6-10 GID Jump Window

2. Enter the GID number to be displayed.

Enter a value directly in the edit box or click the spin button to configure.

3. Click "Jump".

The specified GID appears.

Note:

- ◆ Only numbers within the range 1 to 250 can be entered.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Context Menu

If you click the GID number to select the GID and right-click the GID number, Context Menu appears, and operations such as copy and delete of configuration data can be performed.



Figure 6-11 Context Menu

Table 6-2 Context Menu

Function	Description
Copy	Copies the currently selected GID data.
Paste	Pastes the copied GID data.
Delete	Deletes the currently selected channel data.
to Clipboard	Copies the currently selected GID data to the Clipboard as text data.
to Clipboard (w/headings)	Copies the currently selected GID data to the Clipboard as text data with a heading.

6.2 Zone Edit Window (Conventional Group)

Click "Zone Edit" in the **Zone Information** window (Conventional Group) to open the **Zone Edit** window.

In the **Zone Edit** window, configures the zones when the transceiver transmits and receives in Conventional Group.



Figure 6-12 Zone Edit Window

6.2.1 Zone Name

Configure the Zone Name. Enter the Zone Name directly in the edit box to configure the Zone Name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space)! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	**1 - **128 (The zone number is automatically entered.)

Note: When the entire content of the edit box is deleted, this item will be configured as a blank.

6.2.2 Data Zone-CH/GID

Configure the Zone-CH/GID to be used when communicating data. Enter a value for Zone-CH/GID directly in the edit box, or select it from the pulldown menu. (Refer to FUNC 16.1.2 Data Zone-CH/GID.)

Range	None/ Existing Zone-CH/GID
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When None is configured in the **Zone** edit box, None will be configured also in the **CH/GID** edit box.
- ◆ When an unavailable Zone-CH/GID is entered, an error message appears, and the value returns to its original value.
- ◆ When a value is configured in the **Zone** edit box, and either "Close" is clicked or writing data with the **CH/GID** edit box in a None state, an error message appears.

6.2.3 Home Channel

Configure the channel to move when the **PF Home CH/GID** key is pressed. Enter a value for Home Channel directly in the edit box, or select it from the pulldown menu. (Refer to FUNC 2.7 Home CH/GID.)

Range	None/ Configured channels
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ Home Channel can be configured only when **PF Home CH/GID** is configured to any key.
- ◆ When an unavailable channel is entered, an error message appears, and the value returns to its original value.

6.2.4 Home Channel Operator Selectable

Configure whether or not to enable changes to Home CH/GID by using PF. When Home Channel Operator Selectable is enabled, the currently selected channel can be changed to Home CH/GID by holding down the **PF Home CH/GID** key for 3 seconds. (Refer to FUNC 16.1.4 Home Channel Operator Selectable.)

Range	Check (Enable)	Enables Home Channel Operator Selectable.
	Uncheck (Disable)	Disables Home Channel Operator Selectable.
Default	Unchecked (Disabled)	

Note: Home Channel Operator Selectable can be configured only when **PF Home CH/GID** is configured to any key.

6.2.5 Optional Signaling Decode Condition

Configure the Optional Signaling decode conditions. The transceiver emits a Call Alert Tone, displays Call Alert and performs the Transpond operation when Optional Signaling is decoded and signaling matches. (Refer to FUNC 16.1.5 Optional Signaling Decode Condition.)

Select the desired Optional Signaling Decode Condition from the pulldown menu.

Range	QT/DQT	Optional Signaling performs decoding only when QT/DQT matches.
	Carrier	Optional Signaling performs decoding when a Carrier (signal) is detected regardless of QT/DQT Mode.
Default	QT/DQT	

6.2.6 Audio Control

Configure the conditions for deactivating mute in conjunction with the QT/DQT and Optional Signaling. When the configured conditions are met, the transceiver disables muting and sends received signal. (Refer to FUNC 16.1.6 Audio Control.)

Select the desired Audio Control condition from the pulldown menu.

Range	QT/DQT	QT/DQT is used to monitor communications within a Talkgroup. Mute is canceled by QT/DQT. Conditions remain unchanged even if the transceiver transmits.
	QT/DQT and Optional Signaling	Mute is not canceled unless Optional Signaling matches. When Optional Signaling matches, QT/DQT disables mute. When the transceiver transmits, it enters Monitor Mode, and Optional Signaling is disabled. For this reason, mute is disabled by QT/DQT after transmission ends.
	QT/DQT or Optional Signaling	When Optional Signaling does not match, QT/DQT cancels mute. Mute is not canceled by Carrier Squelch while Optional Signaling matches. Mute cancelling conditions remain unchanged even if the transceiver transmits.
Default	QT/DQT	

6.2.7 Time-out Timer (TOT)

Configure the time that the transceiver is allowed to transmit continuously. Enter a value for Time-out Timer directly in the edit box, or click the spin button to configure the Time-out Timer. (Refer to FUNC 11.1.1 Time-out Timer.)

Range	15 - 1200 s
Step	15 s
Default	60 s

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ A value less than 15 seconds is discarded.

6.2.8 TOT Pre-alert

Configure the time for notifying a user that transmission is about to end as configured by Time-out Timer. An Alert Tone sounds when the end of transmission by Time-out Timer exceeds the configured time. (Refer to FUNC 11.1.2 TOT Pre-alert.)

Enter a value for TOT Pre-alert directly in the edit box or click the spin button to configure the TOT Pre-alert .

Range	Off/ 1 - 10 s
Step	1 s
Default	Off

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value of the range.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When "0" is entered, Off will be configured.

6.2.9 TOT Rekey Time

Configure the time that a user can make the next transmission after Time-out Timer is expired. Enter a value for TOT Rekey Time directly in the edit box or click the spin button to configure the TOT Rekey Time. (Refer to FUNC 11.1.3 TOT Rekey Time.)

Range	Off/ 1 - 60 s
Step	1 s
Default	Off

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value of the range.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When "0" is entered, Off will be configured.

6.2.10 TOT Reset Time

Configure the time to reset Time-out Timer. Enter a value for TOT Reset Time directly in the edit box or click the spin button to configure the TOT Reset Time. (Refer to FUNC 11.1.4 TOT Reset Time.)

Range	Off/ 1 - 15 s
Step	1 s
Default	Off

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value of the range.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When "0" is entered, Off will be configured.

6.2.11 BCL Override

Configure to enable or disable the BCL Override function. When BCL Override is enabled, transmission is still possible even if Busy Channel Lockout is enabled. (Refer to FUNC 12.2 BCL Override.)

Range	Check (Enable)	Enables BCL Override.
	Uncheck (Disable)	Disables BCL Override.
Default	Unchecked (Disabled)	

6.2.12 Zone Add

Configure whether or not the transceiver scans the current zone during the scan.

Range	Check (Enable)	Performs scanning.
	Uncheck (Disable)	Does not perform scanning.
Default	Checked (Enabled)	

Note: Zone Add cannot be configured when an item other than "Multi" is currently selected in the **Scan Type** pulldown menu in the **Scan Information** window.

6.2.13 Scan List

Configure whether or not the transceiver performs the list-scan to the current zone according to the Scan List. Also configure Scan List Table for the list scan. (Refer to [6.2.15 Scan List Table Window](#).)

Range	Check (Enable)	Performs the list scan.
	Uncheck (Disable)	Does not perform the list scan.
Default	Unchecked (Disabled)	

Note: Scan List cannot be configured when an item other than "List" is currently selected in the **Scan Type** pulldown menu in the **Scan Information** window.

6.2.14 Table Button

Click "Table" to open the **Scan List Table** window. (Refer to [6.2.15 Scan List Table Window](#).)

6.2.15 Scan List Table Window

Configure the zone for the List Scan. The transceiver scans according to the configuration in the **Scan List Table** window.

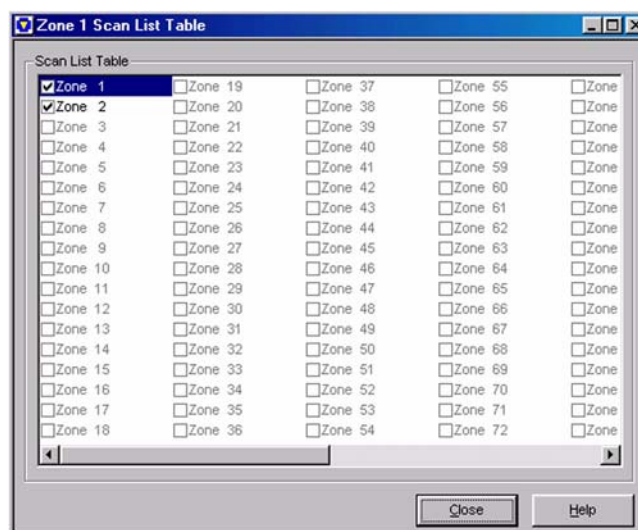


Figure 6-13 Scan List Table Window

Range	Check (Enable)	Performs the list scan.
	Uncheck (Disable)	Does not perform the list scan.
Default	Checked (Enabled)	

Note:

- ◆ The display of zones without configuration data is disabled.
- ◆ The **Scan List Table** window can be configured only when the **Scan List** check box is checked.

6.3 Channel Edit Window

Click "Channel Edit" in the **Zone Information** window to open the **Channel Edit** window.

In the **Channel Edit** window, configures the channels when the transceiver transmits and receives in Conventional Group.

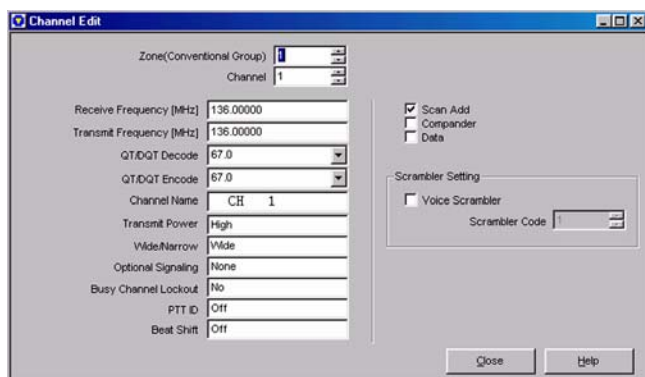


Figure 6-14 Channel Edit Window

6.3.1 Zone (Conventional Group)

Configure the Zone number to be configured. Enter a value directly in the edit box or click the spin button to configure the zone number.

Range	1 - 128
Step	1
Default	Same value as Zone in Zone Information

Note:

- ◆ The zone for which "Trunking system" is selected in the **Zone Type** pulldown menu cannot be configured.
- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.

6.3.2 Channel

Configure the channel number to be configured. Enter a value directly in the edit box or click the spin button to configure the channel number.

Range	1 - 250
Step	1
Default	Channel number currently selected in Zone Information

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.

6.3.3 Receive Frequency

Configure the frequency to be used when the transceiver receives. Enter the frequency directly in the edit box to configure the Receive Frequency.

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, a confirmation message appears, and the value is replaced with the frequency value automatically (upper limit value or lower limit value) configured in the **Model Information** window > **Frequency**.
- ◆ Other items can be configured only when the Receive Frequency is configured to the **Receive Frequency** edit box.
- ◆ When the content of the **Receive Frequency** edit box is deleted, other items on the same channel are also automatically deleted.
- ◆ If the **Transmit Frequency** edit box is not configured when the **Receive Frequency** edit box is configured, the same value as the **Receive Frequency** edit box is configured to the **Transmit Frequency** edit box.

6.3.4 Transmit Frequency

Configure the frequency to transmit. Enter the frequency directly in the edit box to configure the Transmit Frequency.

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, a confirmation message appears, and the value is replaced with the frequency value automatically (upper limit value or lower limit value) configured at the **Model Information** window > **Frequency**.
- ◆ Transmit Frequency can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.5 QT/DQT Dec (Decode)

Configure the signaling for standby to be used when the transceiver is receiving. Select the desired QT tone or DQT code from the pulldown menu, or directly enter a value in the edit box.

- When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverted)	D023I - D754I
Default	None	

- When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverted)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- A maximum of 5-digit QT and DQT having numbers and "N", "D", "I", and "." (period) can be entered.
- When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- When a text string prefixed by "D" is entered, the entry is configured as a DQT code.
- When the entire content of the edit box is deleted, None will be configured.
- When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- QT/DQT Dec can be configured only when a value is configured in the Receive Frequency edit box.

6.3.6 QT/DQT Enc (Encode)

Configure the signaling for calling to be used when the transceiver is transmitting. Select the QT tone or DQT code from the pulldown menu, or directly enter a value in the edit box.

- When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverted)	D023I - D754I
Default	None	

- When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverted)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- A maximum of 5-digit QT and DQT having numbers and "N", "D", "I", and "." (period) can be entered.
- When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- When a text string prefixed by "D" is entered, the entry is configured as a DQT code.
- When the entire content of the edit box is deleted, None will be configured.
- When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- QT/DQT Enc can be configured only when a value is configured in the Receive Frequency edit box.

6.3.7 Channel Name

Configure the channel name of the channel to be configured. Enter characters for Channel Name directly in the edit box to configure the Channel Name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	CH nnn (The channel number is entered automatically.)

Note:

- When the entire content of the edit box is deleted, this item will be configured as a blank.
- Channel Name can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.8 Transmit Power

Configure the transmit power of each channel. Select the transmit power from the pulldown menu.

Range	High/ Low
Default	High

Note: Transmit Power can be configured only when a value is configured in the **Receive Frequency** and **Transmit Frequency** edit boxes.

6.3.9 Wide/ Narrow

Configure the channel bandwidth of each channel. Select the desired channel bandwidth from the pulldown menu.

Range	Wide/ Narrow
Default	Wide

Note: Wide/ Narrow can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.10 Optional Signaling

Configure the signaling for individual calling. Alert Tone sounds and Transpond is started when the received Optional Signaling matches the Optional Signaling the transceiver is standing by for. (Refer to FUNC 18.2 Optional Signaling.)

Select the desired Optional Signaling from the pulldown menu.

Range	None /DTMF/ 2-tone 1/ 2-tone 2/ 2-tone 3/ 2-tone 4/ FleetSync
Default	None

Note: Optional Signaling can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.11 Busy Channel Lockout

Configure to enable or disable the Busy Channel Lockout function. When Busy Channel Lockout is configured to enabled, transmission can be automatically restricted to prevent interference with calls from other stations. (Refer to FUNC 12.1 Busy Channel Lockout.)

Select the desired Busy Channel Lockout from the pulldown menu.

Range	No	Disables Busy Channel Lockout.
	QT/DQT Tone	Enables Transmission when the QT/DQT configured to a channel matches the received QT/DQT.
	Optional Signaling	Enables Transmission when Optional Signaling matches.
	Carrier only	Disables Transmission while the carrier is being received.
Default	No	

Note: Busy Channel Lockout can be configured only when a value is configured in the **Receive Frequency** and **Transmit Frequency** edit box.

6.3.12 PTT ID

Configure the timing of PTT ID transmission. Select the PTT ID from the pulldown menu. (Refer to FUNC 14.2 PTT ID (CH/GID Information).)

● PTT ID Type is DTMF:

Range	Off	Does not transmit the PTT ID.
	BOT	Transmits the PTT ID when the PTT switch is pressed.
	EOT	Transmits the PTT ID when the PTT switch is released.
	Both	Transmits the PTT ID when the PTT switch is pressed and released.
Default	Off	

● PTT ID Type is FleetSync:

Range	Off	Does not transmit the PTT ID.
	BOT	Transmits the PTT ID when the PTT switch is pressed.
	EOT	Transmits the PTT ID when the PTT switch is released.
	Both	Transmits the PTT ID when the PTT switch is pressed and released.
	List 1 - 100 (FleetSync only)	Selcall is performed when the PTT switch is pressed.
Default	Off	

● PTT ID Type is ANI Board:

Range	Off	Does not transmit the PTT ID.
	On	Transmits the ANI code of the ANI Board. The transmission timing is configured on the ANI Board.
Default	Off	

Note:

- ◆ The PTT ID can be configured only when a value is configured in the **Receive Frequency** and **Transmit Frequency** edit boxes.
- ◆ At List 1 to 100, the ID currently configured on the **FleetSync** window > the **ID List** tab is displayed.
- ◆ When “Close” is clicked but the configured ID is not available, an error message appears.
- ◆ When the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to another item from “ANI Board”, Off will be automatically configured.
- ◆ When the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to “ANI Board” from “DTMF” or “FleetSync”, Off will be automatically configured.
- ◆ If List 1 to 100 is configured when the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to another item from “FleetSync”, Off will be automatically configured.

6.3.13 Beat Shift

Configure to enable or disable the Beat Shift function. When Beat Shift is enabled, radio interference caused by oscillators in the transceiver can be avoided.

Due to the configuration of the transceiver’s circuits, the harmonics of the oscillators mounted for the microcomputer may interfere with receiving performance. Radio interference can be avoided by slightly shifting the frequency of the oscillators. (Refer to FUNC 1.8 Beat Shift.)

Select the desired Beat Shift option from the pulldown menu.

Range	Transceiver	Enables Beat Shift on the transceiver.
	VGS-1	Enables Beat Shift on the VGS-1.
	Transceiver and VGS-1	Enables Beat Shift on the transceiver and the VGS-1.
	Off	Disables Beat Shift.
Default	Off	

Note:

- ◆ Beat Shift can be configured only when a value is configured in the **Receive Frequency** edit box.
- ◆ Beat Shift may be automatically enabled when a specific frequency is entered to the **Receive Frequency** edit box.

6.3.14 Scan Add

From the pulldown menu, select whether or not the transceiver scans the current channel during the scan.

Range	Check (Enable)	Performs scanning.
	Uncheck (Disable)	Does not perform scanning.
Default	Checked (Enabled)	

Note: Scan Add can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.15 Compander

Configure to enable or disable the Compander function. When Compander is enabled, noise can be reduced to improve the S/N ratio (Signal to Noise Ratio).

The Compander function compresses audio signals at transmission modulation, and expands them at receiving demodulation to improve the S/N ratio. This function compresses the width of transmission signals at transmission, and expands the width at receiving to restore the signals. (Refer to FUNC 1.7 Compander.)

Range	Check (Enable)	Enables Compander.
	Uncheck (Disable)	Disables Compander.
Default	Unchecked (Disabled)	

Note: Compander can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.16 Data

Configure which of data communications or voice communications the channel is to be used for.

Range	Check (Enable)	The channel is used for data communications.
	Uncheck (Disable)	The channel is used for voice communications.
Default	Unchecked (Disabled)	

Note: Data can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.17 Voice Scrambler

Configure to enable or disable the Voice Scrambler function. When Voice Scrambler is enabled, voice communications are scrambled so that conversations can be made with higher secrecy. (Refer to FUNC 29 Voice Scrambler.)

Range	Check (Enable)	Enables Voice Scrambler.
	Uncheck (Disable)	Disables Voice Scrambler.
Default	Unchecked (Disabled)	

Note: Voice Scrambler can be configured only when a value is configured in the **Receive Frequency** edit box.

6.3.18 Scrambler Code

Configure the Scrambler Code. The original voice can be restored only when the Scrambler Code of the transmitting and receiving transceivers matches. (Refer to FUNC 29 Voice Scrambler.)

Enter a value directly in the edit box or click the spin button to configure the Scrambler Code.

Range	1 - 16
Step	1
Default	1

Note:

- ◆ Scrambler Code can be configured only when a value is configured in the **Receive Frequency** edit box.
- ◆ Scrambler Code can be set only when “Voice Scrambler” is selected in the **Extended Function** window > the **Optional Board** pulldown menu.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.3.19 Channel Copy ([Shift] + [F3])

Existing channel data can be copied to other channels.

To do this, follow the procedures below:

1. Select the channel to be copied.
2. Press **[Shift] + [F3]** on the keyboard.

The **Channel Copy** window appears.

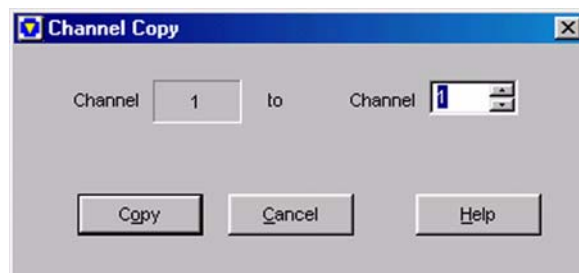


Figure 6-15 Channel Copy Window

3. Enter a value directly in the edit box or click the spin button to configure the channel number.

4. Click “Copy”.

The configured data is copied to the copy target channel.

Note:

- ◆ This operation is possible only when data is currently configured to the copy source channel.
- ◆ A maximum of 3-digit numberd (250) can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.3.20 Frequency Copy ([Shift] + [F4])

Data configured to Receive Frequency can be copied to Transmit Frequency of the same channel.

To do this, follow the procedures below:

1. Select the channel to be copied.
2. Press **[Shift] + [F4]** on the keyboard.

The **Frequency Copy** window appears.

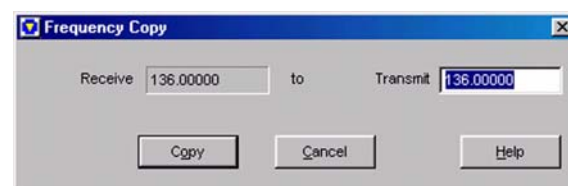


Figure 6-16 Frequency Copy Window

3. Click “Copy”.

the Receive Frequency data is copied to Transmit Frequency of the same channel.

Note:

- ◆ This operation is possible only on channels in which values are currently configured to the **Receive Frequency** edit box.
- ◆ Receive Frequency configuration data cannot be copied to other channels.
- ◆ When a frequency is entered directly in the **Frequency Copy** window, that value is configured as the frequency of Transmit Frequency. In this case, only frequency up to 9-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.3.21 QT/DQT Copy ([Shift] + [F5])

Data configured to QT/DQT Decode can be copied to QT/DQT Encode of the same channel.

To do this, follow the procedures below:

1. Select the channel to be copied.
2. Press **[Shift] + [F5]** on the keyboard.

The **QT/DQT Copy** window appears.

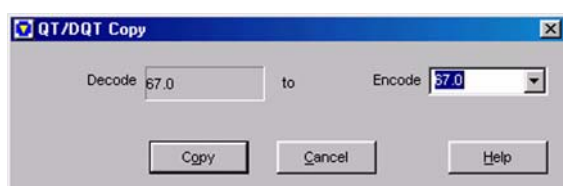


Figure 6-17 QT/DQT Copy Window

3. Click "Copy".

QT/DQT Decode data is copied to QT/DQT Encode of the same channel.

Note:

- ◆ This operation is possible only on channels in which values are currently configured to the **QT/DQT Decode** edit box.
- ◆ QT/DQT Decode configuration data cannot be copied to other channels.
- ◆ When the QT/DQT Encode value is selected or entered directly in the **QT/DQT Copy** window, that value is configured as QT/DQT Encode. In this case, a maximum of 5-digit QT and DQT having numbers and "N", "D", "I", and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.4 Repeater Information Window

Click "Repeater" in the **Zone Information** window to open the **Repeater Information** window.

In the **Repeater Information** window, configure the repeaters that are used by the transceiver in the LTR Trunking System.

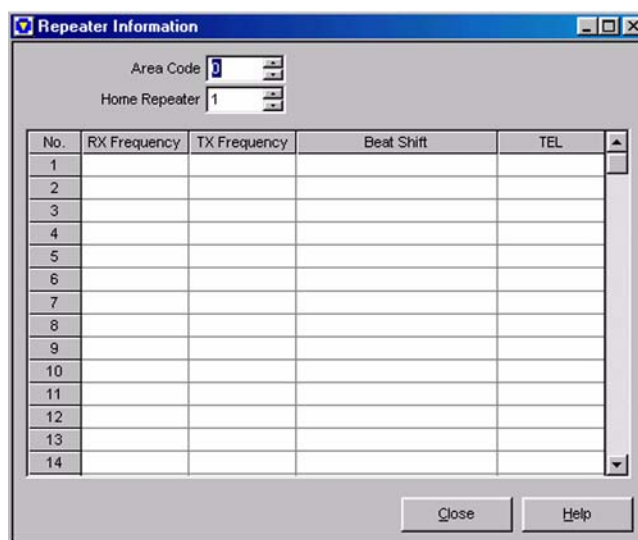


Figure 6-18 Repeater Information Window

6.4.1 Area Code

Configure the Area Code. The Area Code function is used to prevent radio interface caused by jamming from neighboring systems. Normally, configure the Area Code to "0". However, when there is radio interference, configure the Area Code of one of the systems to "0" and the other to "1". (Refer to FUNC 17.3.1 Area Code.)

Range	0/ 1
Step	1
Default	0

Note:

- ◆ Only "0" or "1" can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.4.2 Home Repeater

Configure the repeater number of the Home Repeater. Enter a value directly in the edit box or click the spin button to configure the Home Repeater. (Refer to FUNC 17.3.2 Home Repeater.)

Range	1 - 20
Step	1
Default	1

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.4.3 Receive Frequency

Configure the Receive Frequency of the repeater. Directly enter to the **No. 1** to **No. 20** edit boxes to configure the Receive Frequency. (Refer to FUNC 17.3.3 Repeater Information Table.)

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ Other items can be configured only when the Receive Frequency is configured in the **Receive Frequency** edit box.
- ◆ When the content of the **Receive Frequency** edit box is deleted, other items on the same number also are automatically deleted.
- ◆ If the **Transmit Frequency** edit box is not configured when the **Receive Frequency** edit box is configured, a value shifted 5 MHz from the Receive Frequency value will be configured to Transmit Frequency.

6.4.4 Transmit Frequency

Configure the Transmit Frequency of the repeater. Directly enter to the **No. 1** to **No. 20** edit boxes to configure the Transmit Frequency. (Refer to FUNC 17.3.3 Repeater Information Table.)

Range	TK-2180/ 7180	136 - 174 MHz
	TK-3180/ 8180	450 - 520 MHz 400 - 470 MHz
Default	Blank	

Note:

- ◆ Available frequency range varies depending on the transceiver model. (Refer to FUNC 1.2 Receive/Transmit Frequency.)
- ◆ A maximum of 9-digit frequency and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ Other items can be configured only when values are configured to the Receive Frequency edit box.
- ◆ When the content of the **Transmit Frequency** edit box is deleted, other items on the same number also are automatically deleted.

6.4.5 Beat Shift

Configure to enable or disable the Beat Shift function. When Beat Shift is enabled, radio interference caused by oscillators in the transceiver can be avoided.

Due to the configuration of the transceiver's circuits, the harmonics of the oscillators for the microcomputer may interfere with receiving performance. The radio interference can be avoided by slightly shifting the frequency of the oscillators. (Refer to FUNC 17.3.3 Repeater Information Table.)

Select the desired Beat Shift option from the **No. 1** to **No. 20** pulldown menu.

Range	Transceiver	Enables Beat Shift on the transceiver.
	VGS-1	Enables Beat Shift on the VGS-1.
	Transceiver and VGS-1	Enables Beat Shift on the transceiver and the VGS-1.
	Off	Disables Beat Shift.
Default	Off	

Note:

- ◆ Beat Shift can be configured only when a value is configured in the **Receive Frequency** edit box.
- ◆ Beat Shift may be automatically enabled when a specific frequency is entered to the **Receive Frequency** edit box.

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- ◆ “VGS-1” and “Transceiver VGS-1” can only be selected when “VGS-1” is selected in the **Extended Function** window > the **Optional Board** tab.

6.4.6 TEL

Configure whether or not the repeater is to use PSTN. Select the desired TEL option from the **No. 1** to **No. 20** pulldown menu. (Refer to FUNC 17.3.3 Repeater Information Table.)

Range	Yes	PSTN is used.
	No	PSTN is not used.
Default	No	

Note: Telephone can be configured only when a value is configured in the Receive Frequency edit box.

6.5 Zone Edit Window

Click “Zone Edit” in the **Zone Information** window to open the **Zone Edit** window.

In the **Zone Edit** window, configure the zones when the transceiver transmits and receives in the LTR Trunking System.

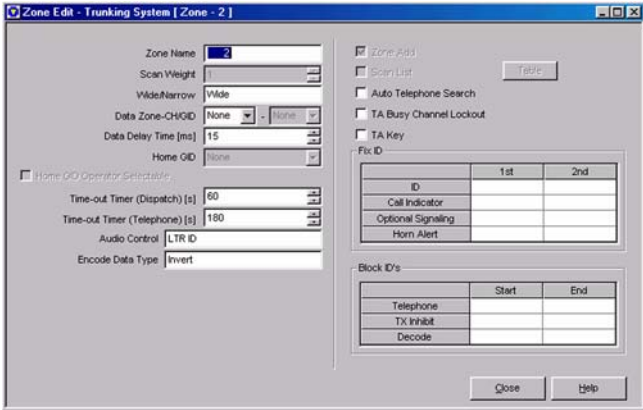


Figure 6-19 Zone Edit Window

6.5.1 Zone Name

Configure the Zone Name. Enter the Zone Name directly in the edit box to configure the Zone Name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	**1 - **128 (The zone number is automatically entered.)

Note: When the entire content of the edit box is deleted, this item will be configured as a blank.

6.5.2 Scan Weight

Configure the time that the LTR ID from the repeater is decoded during the scan. Enter a value directly in the edit box or click the spin button to configure the Scan Weight. (Refer to FUNC 17.1.2 Scan Weight.)

Range	1 - 8
Step	1
Default	1

- Note:**
- ◆ Only 1 to 8 can be entered.
 - ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
 - ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
 - ◆ Scan Weight can be configured only when the **PF Scan** key is configured to any key.
 - ◆ 1 Weight Unit is about 500 ms .

6.5.3 Wide/ Narrow

Select the Channel Spacing of channels on which the transceiver operates. Select Channel Spacing from the pulldown menu.

Range	Wide/ Narrow
Default	Wide

6.5.4 Data Zone-CH/GID

Configure the Zone-CH/GID to be used when communicating data. Enter a value for Zone-CH/GID directly in the edit box, or select it from the pulldown menu. (Refer to FUNC 17.1.4 Data Zone-CH/GID.)

Range	None/ Existing Zone-CH/GID
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered. When "0" is entered, 1 will be configured.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When None is configured in the **Zone** edit box, None will be configured also in the **CH/GID** edit box.
- ◆ When an unavailable Zone-CH/GID is entered, an error message appears, and the value returns to its original value.
- ◆ When a value is configured in the **Zone** edit box, and either "Close" is clicked or writing data with the **CH/GID** edit box in a None state, an error message appears.

6.5.5 Data Delay Time

Configure the time until LTR data is transmitted after transmission starts. Use this item, for example, when it is difficult to establish a link from the transceiver to a repeater.

Enter a value for Data Delay Time directly in the edit box or click the spin button to configure Data Delay Time. (Refer to FUNC 17.1.5 Data Delay Time.)

Range	0 - 100 ms
Step	1 ms
Default	15 ms

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.5.6 Home GID

Configure the Group ID to move to when the **PF Home CH/GID** key is pressed. Enter a value for Home GID directly in the edit box, or select it from the pulldown menu. (Refer to FUNC 2.7 Home CH/GID.)

Range	None/ Configured Group ID
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered. When "0" is entered, "1" is configured.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ Home GID can be configured only when PF Home CH/GID will be configured to any key.
- ◆ When an unavailable channel is entered, an error message appears, and the value returns to its original value.

6.5.7 Home GID Operator Selectable

Configure whether or not to enable changes to Home CH/GID by using PF. When Home GID Operator Selectable is enabled, the currently selected channel can be changed to Home CH/GID by holding down the **PF Home CH/GID** key for 3 seconds. (Refer to FUNC 17.1.7 Home GID Operator Selectable.)

Range	Check (Enable)	Enables Home GID Operator Selectable.
	Uncheck (Disable)	Disables Home GID Operator Selectable.
Default	Unchecked (Disabled)	

Note: Home GID Operator Selectable can be configured only when PF Home CH/GID is configured to any key.

6.5.8 Time-out Timer (Dispatch)

Configure the maximum time that the transceiver is allowed to transmit continuously when a user is talking by Dispatch ID. Enter a value for Time-out Timer (Dispatch) directly in the edit box, or click the spin button to configure the Time-out Timer (Dispatch). (Refer to FUNC 17.1.8 Time-out Timer (Dispatch).)

Range	15 - 600 s
Step	15 s
Default	60 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ A value less than 15 seconds is discarded.

6.5.9 Time-out Timer (Telephone)

Configure the maximum time that the transceiver is allowed to transmit continuously when a user is talking by Telephone ID. Enter a value for Time-out Timer (Telephone) directly in the edit box, or click the spin button to configure the Time-out Timer (Telephone). (Refer to FUNC 11.2.2 Time-out Timer (Telephone).)

Range	15 - 600 s
Step	15 s
Default	180 s

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Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ A value less than 15 seconds is discarded.

6.5.10 Audio Control

Configure the conditions for deactivating mute in conjunction with LTR ID and Optional Signaling. Select the desired Audio Control option from the pulldown menu. (Refer to FUNC 18.3 Signaling (Audio Control).)

Range	LTR ID	Deactivates mute when LTR ID matches. Mute canceling conditions remain unchanged even if the transceiver transmits.
	LTR ID and Optional Signaling	Unmuting, Call Alert Tone, Call Alert display, and Transpond operation are activated when Optional Signaling matches LTR ID. Once the configured Optional Signaling is detected, it retains the status until it is reset. After the configured Optional Signaling is detected, the transceiver unmutes if the same LTR ID is detected. When the transceiver transmits, it enters Monitor Mode, and Optional Signaling is disabled. For this reason, mute is deactivated by LTR ID after transmission ends.
Default	LTR ID	

6.5.11 Encode Data Type

Configure whether or not to invert the logic of the LTR Message to send. Select the desired Encode Data Type from the pulldown menu. (Refer to FUNC 17.1.1 Encode Data Type.)

Range	Normal	Does not invert the logic of the LTR Message.
	Invert	Inverts the logic of the LTR Message.
Default	Invert	

6.5.12 Zone Add

Configure whether or not the transceiver scans the current zone during the scan.

Range	Check (Enable)	Performs scanning.
	Uncheck (Disable)	Does not perform scanning.
Default	Checked (Enabled)	

Note: Zone Add cannot be enabled when an item other than "Multi" is currently selected in the **Scan Information** window > the **Scan Type** pulldown menu.

6.5.13 Scan List

Configure whether or not the transceiver scans the current zone during the list scan. Also configure Scan List Table for the list scan. (Refer to 6.5.25 Scan List Table Window.)

Range	Check (Enable)	Performs a list scan.
	Uncheck (Disable)	Does not perform a list scan.
Default	Unchecked (Disabled)	

Note: Scan List cannot be enabled when an item other than "List" is currently selected in the **Scan Information** window > the **Scan Type** pulldown menu.

6.5.14 Table Button

Click "Table" to open the **Scan List Table** window. (Refer to 6.5.25 Scan List Table Window.)

Note: "Table" can be clicked only when the **Scan List** checkbox is checked.

6.5.15 Auto Telephone Search

Configure whether or not to search for the current zone during the Auto Telephone Search. The Auto Telephone Search function automatically searches for and connects a connectable repeater. (Refer to FUNC 17.1.14 Auto Telephone Search.)

Range	Check (Enable)	Performs a search when an Auto Telephone Search is executed.
	Uncheck (Disable)	Does not perform a search when an Auto Telephone Search is executed.
Default	Unchecked (Disabled)	

Note: Even in Zones that are not checked in the **Auto Telephone Search** checkbox, that Zone is searched when an Auto Telephone Search is executed from that Zone.

6.5.16 TA Busy Channel Lockout

Configure to enable or disable the TA Busy Channel Lockout function. When TA Busy Channel Lockout is configured to enabled, transmission can be automatically restricted to prevent interference with calls from other stations. (Refer to FUNC 13.2.1 TA Busy Channel Lockout.)

Range	Check (Enable)	Enables TA Busy Channel Lockout.
	Uncheck (Disable)	Does not enable TA Busy Channel Lockout.
Default	Unchecked (Disabled)	

6.5.17 TA Key

Configure the availability of **PF Talk Around** key operations in the Trunking system. This is used to prevent a user from operating the Talk Around function by the **PF Talk Around** key. (Refer to FUNC 13.2.2 TA Key.)

Range	Check (Enable)	Enables operation of the PF Talk Around key.
	Uncheck (Disable)	Does not enable operation of the PF Talk Around key.
Default	Unchecked (Disabled)	

6.5.18 ID (Fix ID)

Configure an LTR ID having a higher Priority than Group ID. When the Fix ID is received, the transceiver switches to the Fix ID even if it is receiving on the Group ID, and the transceiver can receive by that Fix ID. (Refer to FUNC 17.1.17 Fix ID.)

Enter a value directly in the **1st** and **2nd** edit boxes or click the spin button to configure the Fix ID.

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.5.19 Call Indicator (Fix ID)

Configure activation of the Call Indicator function when a Fix ID is received. Select the desired Call Indicator option from the **1st** or **2nd** pulldown menu. (Refer to FUNC 17.1.17 Fix ID.)

Range	Yes	Activates the Call Indicator when a Fix ID is received.
	No	Does not activate the Call Indicator when a Fix ID is received.
Default	No	

Note: Call Indicator (Fix ID) can be configured only when values are configured to the **ID (Fix ID)** edit box.

6.5.20 Optional Signaling (Fix ID)

Configure the Optional Signaling when a Fix ID is received. Select the desired Optional Signaling from the **1st** or **2nd** pulldown menu. (Refer to FUNC 17.1.17 Fix ID.)

Range	None/ DTMF/ FleetSync
Default	None

Note: Optional Signaling (Fix ID) can be configured only when values are configured to the **ID (Fix ID)** edit box.

6.5.21 Horn Alert (Fix ID) (TK-7180/ 8180 only)

Configure activation of the Horn Alert function when a Fix ID is received. Select the desired Horn Alert option from the **1st** or **2nd** pulldown menu. (Refer to FUNC 17.1.17 Fix ID.)

Range	Yes	Activates the Horn Alert when a Fix ID is received.
	No	Does not activate the Horn Alert when a Fix ID is received.
Default	No	

Note: Horn Alert (Fix ID) can be configured only when values are configured to the **ID (Fix ID)** edit box.

6.5.22 Telephone (Block IDs)

Configure the ID for when the transceiver is connected to a telephone line. Directly enter a value to the **Start** and **End** edit boxes to configure the Telephone.

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When a value is entered to the **Start** edit box, "250" will be configured to the **End** edit box.
- ◆ The **End** edit box can be configured only when a value is configured in the **Start** edit box.
- ◆ When the content of the **Start** or **End** edit box is deleted, the value of the other edit box will be substituted by a blank.
- ◆ When the value of the **End** edit box is smaller than the value of the **Start** edit box, "250" will be configured to the **End** edit box.

6.5.23 Transmit Inhibit (Block IDs)

Configure the ID to be inhibited after an ID is received. The Transmit Inhibit function does not allow a user to transmit immediately after the transceiver has received a specific ID. (Refer to FUNC 17.1.18 Transmit Inhibit (Block IDs).)

Directly enter a value to the **Start** and **End** edit boxes to configure Transmit Inhibit.

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When a value is entered to the **Start** edit box, "250" will be configured to the **End** edit box.
- ◆ The **End** edit box can be configured only when a value is configured in the **Start** edit box.
- ◆ When the content of the **Start** or **End** edit box is deleted, the value of the other edit box will be substituted by a blank.
- ◆ When the value of the **End** edit box is smaller than the value of the **Start** edit box, "250" will be configured to the **End** edit box.

6.5.24 Decode (Block IDs)

Configure the ID to restrict a user to transmit and use the transceiver exclusively for receiving. Directly enter a value to the **Start** and **End** edit boxes to configure the Decode. (Refer to FUNC 17.1.19 Decode (Block IDs).)

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When a value is entered to the **Start** edit box, "250" will be configured to the **End** edit box.
- ◆ The **End** edit box can be configured only when a value is configured in the **Start** edit box.
- ◆ When the content of the **Start** or **End** edit box is deleted, the value of the other edit box will be substituted by a blank.
- ◆ When the value of the **End** edit box is smaller than the value of the **Start** edit box, "250" will be configured to the **End** edit box.

6.5.25 Scan List Table Window

Configure the zone to perform the List Scan. The transceiver scans according to the configuration in the **Scan List Table** window.

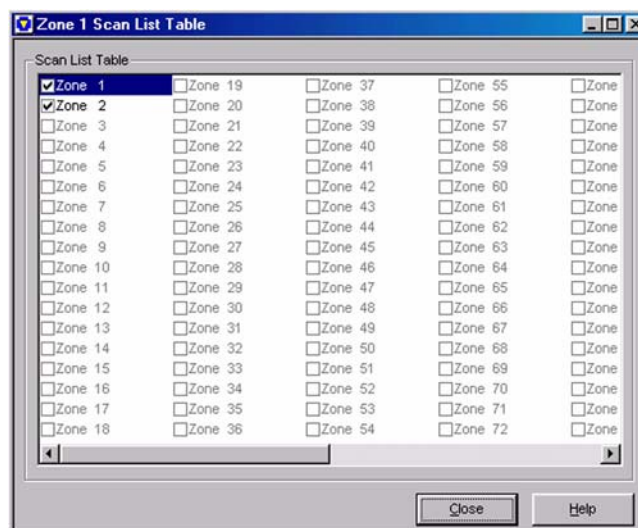


Figure 6-20 Scan List Table Window

Range	Check (Enable)	Performs the list scan.
	Uncheck (Disable)	Does not perform a list scan.
Default	Checked (Enabled)	

Note:

- ◆ The display of zones without configuration data is disabled.
- ◆ The **Scan List Table** window can be configured only when the **Scan List** check box is checked.

6.6 GID Edit Window

Click “GID Edit” in the **Zone Information** window to open the **GID Edit** window.

In the **GID Edit** window, configure the Group ID when the transceiver transmits and receives in the LTR Trunking System.



Figure 6-21 GID Edit Window

6.6.1 Zone (Trunking System)

Configure the Zone number to be configured. Enter a value directly in the edit box or click the spin button to configure the Zone number.

Range	1 - 128
Step	1
Default	Same value as Zone in Zone Information

Note:

- ◆ The zone selected as “Conventional Group” in the **Zone Type** pulldown menu cannot be configured.
- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.

6.6.2 GID

Configure the GID number to be configured. Enter a value directly in the edit box or click the spin button to configure the channel number.

Range	1 - 250
Step	1
Default	Group ID currently selected in Zone Information

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.

6.6.3 Encode ID

Configure the LTR ID to transmit. Enter a value directly in the edit box or click the spin button to configure the Encode ID.

Range	Blank/ 1 - 250
Step	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, a blank is configured.

6.6.4 Decode ID

Configure the LTR ID to receive. Enter a value directly in the edit box or click the spin button to configure the Decode ID.

Range	Blank/ 1 - 250
Step	1
Default	Value configured to Encode ID

6 EDIT MENU

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the content of the **Decode ID** edit box is deleted, other items on the same GID also are automatically deleted.

6.6.5 GID Name

Configure the GID name of the Group ID to be configured. Enter the GID Name directly in the edit box to configure the GID Name.

Range	A maximum of 12 alphanumeric characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	CH nnn (The channel number is entered automatically.)

Note:

- ◆ When the entire content of the edit box is deleted, this item will be configured as a blank.
- ◆ GID Name can be configured only when a value is configured in the **Decode ID** edit box.

6.6.6 Transmit Power

Configure the Transmit Power of each GID. Select the desired Transmit Power from the pulldown menu.

Range	High/ Low
Default	High

Note: Transmit Power can be configured only when a value is configured in the **Encode ID** and **Decode ID** edit boxes.

6.6.7 Optional Signaling

Configure the signaling for individual calling. Alert Tone sounds and Transpond is started when the received Optional Signaling matches the Optional Signaling the transceiver is standing by for. (Refer to FUNC 18.2 Optional Signaling.)

Select the desired Optional Signaling format from the pulldown menu.

Range	None/ DTMF/ FleetSync
Default	None

Note: Optional Signaling can be configured only when a value is configured in the **Decode ID** edit box.

6.6.8 PTT ID

Configure the timing of PTT ID transmission. Select the desired PTT ID option from the pulldown menu. (Refer to FUNC 14.2 PTT ID (CH/GID Information).)

When PTT ID Type is DTMF:

Range	Off	Does not transmit the PTT ID.
	BOT	Transmits the PTT ID when the PTT switch is pressed.
	EOT	Transmits the PTT ID when the PTT switch is released.
	Both	Transmits the PTT ID when the PTT switch is pressed and released.
Default	Off	

When PTT ID Type is FleetSync:

Range	Off	Does not transmit the PTT ID.
	BOT	Transmits the PTT ID when the PTT switch is pressed.
	EOT	Transmits the PTT ID when the PTT switch is released.
	Both	Transmits the PTT ID when the PTT switch is pressed and released.
	List 1 - 100 (FleetSync only)	Selcall is performed when the PTT switch is pressed.
Default	Off	

When PTT ID Type is ANI Board:

Range	Off	Does not transmit the PTT ID.
	On	Transmits the ANI code of the ANI Board. The transmission timing is configured on the ANI Board.
Default	Off	

Note:

- ◆ PTT ID can be configured only when a value is configured in the **Encode ID** and **Decode ID** edit boxes.
- ◆ At List 1 to 100, the ID currently configured on the **FleetSync** window > the **ID List** tab is displayed.
- ◆ When an unavailable ID is configured when "Close" is clicked, an error message appears.
- ◆ When the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to another item from "ANI Board", Off will be automatically configured.
- ◆ When the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to "ANI Board" from "DTMF" or "FleetSync", Off will be automatically configured.
- ◆ If List 1 to 100 is configured when the **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu is changed to another item from "FleetSync", Off will be automatically configured.

6.6.9 Call Indicator

Configure whether or not to leave behind a call indicator when a user cannot answer a call. (Refer to FUNC 17.2.6 Call Indicator.)

Range	Check (Enable)	Activates the Call Indicator when a GID is received.
	Uncheck (Disable)	Does not activate the Call Indicator when a GID is received.
Default	Unchecked (Disabled)	

Note: Call Indicator can be configured only when a value is configured in the **Decode ID** edit box.

6.6.10 Horn Alert (TK-7180/ 8180 only)

Configure activation of the Horn Alert terminal when a GID is received. (Refer to FUNC 9 Horn Alert Function.)

Range	Check (Enable)	Activates the Horn Alert when a GID is received.
	Uncheck (Disable)	Does not activate the Horn Alert when a GID is received.
Default	Unchecked (Disabled)	

Note: Horn Alert can be configured only when a value is configured in the **Decode ID** edit box.

6.6.11 Scan Add

Configure whether or not the transceiver scans the current GID during the scan.

Range	Check (Enable)	Performs scanning.
	Uncheck (Disable)	Does not perform scanning.
Default	Checked (Enabled)	

Note: Scan Add can be configured only when a value is configured in the **Decode ID** edit box.

6.6.12 Transpond

Configure whether or not to transmit a Transpond to the Dispatcher after the transceiver receives a call by LTR ID. (Refer to FUNC 15 Transpond Function.)

Range	Check (Enable)	Transmits a Transpond.
	Uncheck (Disable)	Does not transmit a Transpond.
Default	Unchecked (Disabled)	

Note: Transpond can be configured only when a value is configured in the **Encode ID** and **Decode ID** edit boxes.

6.6.13 Talk Around

Configure to enable or disable the Talk Around function by GID. (Refer to FUNC 13 Talk Around Function.)

Range	Check (Enable)	Enables Talk Around.
	Uncheck (Disable)	Disables Talk Around.
Default	Unchecked (Disabled)	

Note: Talk Around can be configured only when a value is configured in the **Decode ID** edit box.

6.6.14 Compander

Configure to enable or disable the Compander function. When Compander is enabled, noise can be reduced to improve the S/N ratio (Signal to Noise Ratio).

The Compander function compresses audio signals at transmission modulation, and expands them at receiving demodulation to improve the S/N ratio. This function compresses the width of transmission signals at transmission, and expands the width at receiving to restore the signals. (Refer to FUNC 1.7 Compander.)

Range	Check (Enable)	Enables Compander.
	Uncheck (Disable)	Disables Compander.
Default	Unchecked (Disabled)	

Note: Compander can be configured only when a value is configured in the **Decode ID** edit box.

6.6.15 Data

Configure which of data communications or voice communications GID is to be used for.

Range	Check (Enable)	The GID is used for data communications.
	Uncheck (Disable)	The GID is used for voice communications.
Default	Unchecked (Disabled)	

Note: Data can be configured only when a value is configured in the **Decode ID** edit box.

6.6.16 Voice Scrambler

Configure to enable or disable the Voice Scrambler function. When Voice Scrambler is enabled, voice communications are scrambled so that conversations can be made with higher secrecy. (Refer to FUNC 29 Voice Scrambler.)

Range	Check (Enable)	Enables Voice Scrambler.
	Uncheck (Disable)	Disables Voice Scrambler.
Default	Unchecked (Disabled)	

Note: Scrambler can be configured only when a value is configured in the **Decode ID** edit box.

6.6.17 Scrambler Code

Configure the Scrambler Code. The original voice can be restored only when the Scrambler Code of the transmitting and receiving transceivers matches. (Refer to FUNC 29 Voice Scrambler.)

Enter a value directly in the edit box or click the spin button to configure the Scrambler Code.

Range	1 - 16
Step	1
Default	1

Note:

- ◆ Scrambler Code can be configured only when a value is configured in the **Decode ID** edit box.
- ◆ Scrambler Code can be configured only when "Voice Scrambler" is selected in the **Extended Function** window > the **Optional Board** pulldown menu.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.6.18 GID Copy ([Shift] + [F3])

Configured GID data can be copied to other channels.

To do this, follow the procedures below:

1. Select the GID to be copied.
2. Press **[Shift] + [F3]** on the keyboard.

The **GID Copy** window appears.

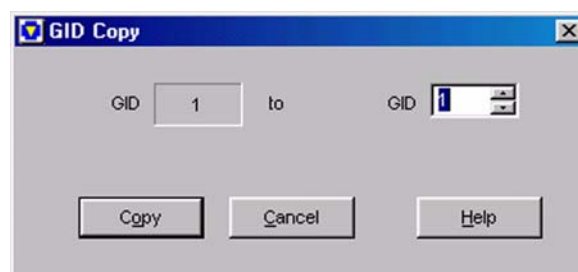


Figure 6-22 GID Copy Window

3. Select the desired GID to copy to.
Enter a value directly in the edit box or click the spin button to configure.

4. Click "Copy".

The configured data is copied to the copy target GID.

Note:

- ◆ This operation is possible only when data is currently configured to the copy source GID.
- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.7 Optional Features Window

In the **Optional Features** window, configure receiving and transmission when various transceivers are used, configure transceiver operation at receiving receivingand transmission, and configure the various functions to suit the transceiver operating conditions.

The **Optional Features** window has the following tabs, and display can be switched by clicking of these tabs.

- **Common-Page 1** tab
- **Common-Page 2** tab
- **Common-Page 3** tab
- **Conventional** tab
- **Trunking** tab
- **VGS-1** tab

6.7.1 Common-Page 1 Tab

In the **Common-Page 1** tab, configure the transceiver display, passwords, Horn Alert, Ignition, and other items.

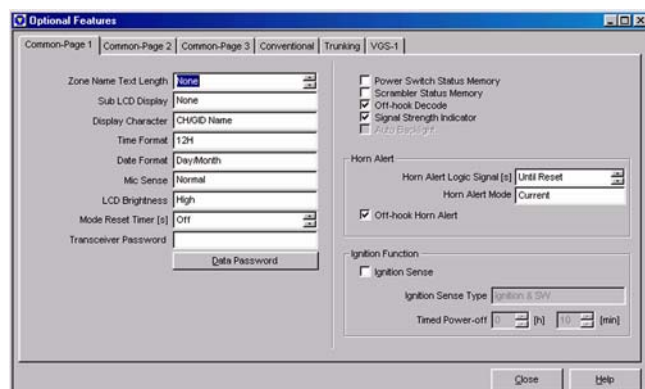


Figure 6-23 Common-Page 1 Tab

■ Zone Name Text Length

Configure the number of characters for when the Zone Name is displayed on the main display. Enter a value directly in the edit box or click the spin button to configure the Zone Name Text Length. (Refer to FUNC 3.7.2 Zone Name Text Length.)

Range	None/1 - 12
Step	1
Default	None

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

- ◆ When "0" is entered, None will be configured.
- ◆ When the setting value of Zone Name Text Length is increased, the text length at CH/GID Name or Zone-CH/GID Number is decreased by the corresponding amount.

■ Sub LCD Display

Configure the content that is normally displayed on the Sub LCD. Select the desired Sub LCD Display option from the pulldown menu. (Refer to FUNC 3.6 Sub LCD.)

Range	None	Nothing appears on the display.
	Zone Number	Displays the zone number.
	CH/GID Number	Displays the CH/GID number.
	OST List Number	Displays the OST List number.
Default	None	

■ Display Character

Configure the content that is normally displayed on the main display. Select the desired Display Character option from the pulldown menu. (Refer to FUNC 3.7.5 Display Character.)

Range	CH/GID Name	Displays the CH/GID name.
	Zone-CH/GID Number	Displays the zone number and CH/GID number.
Default	CH/GID Name	

■ Time Format

Configure whether or not to configure the clock display format to the 12-hour clock or the 24-hour clock. Select the desired Time Format from the pulldown menu.

Range	12H	Displays in the 12-hour clock format.
	24H	Displays in the 24-hour clock format.
Default	12H	

■ Data Format

Configure the order that month and day are displayed. Select the desired Date Format from the pulldown menu.

Range	Day/Month	Displays the date in day/month order.
	Month/Day	Displays the date in month/day order.
Default	Day/Month	

■ Mic Sense

Configure the Mic Gain during regular operation. Select the desired Mic Sense option from the pulldown menu. (Refer to FUNC 1.12 Mic Sense Control.)

Range	Normal/ High
Default	Normal

■ LCD Brightness (TK-7180/ 8180 only)

Configure the brightness of the backlight LED on the LCD. Select the desired LCD Brightness option from the pulldown menu. (Refer to FUNC 3.4.2 LCD Brightness.)

Range	High/ Low/ Off
Default	High

■ Mode Reset Timer

Configure the operation standby time after the transceiver enters each mode. The original mode is returned to if no key is pressed within the time set here.

Enter a value for Mode Reset Timer directly in the edit box or click the spin button to configure the Mode Reset Timer.

Range	Off/ 1 - 300
Step	1
Default	Off

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Transceiver Password

Configure the password to prevent unauthorized persons from using the transceiver. The transceiver can be operated by entering the correct password.

Enter the Transceiver Password directly in the edit box to configure the Transceiver Password. (Refer to FUNC 5.1 Transceiver Password.)

Range	Blank/ 0 - 999999
Default	Blank

Note: A maximum of 6-digit numbers can be entered.

■ Data Password Button

Click "Data Password" to open the **Data Password** window.

■ Data Password Window

In the **Data Password** window, Read Authorization Password and Overwrite Password can be configured.

● Read Authorization Password

Configure the password for protecting internal data on the transceiver, for example, to prevent the operating frequency from being read. When data is read, using the KPG-89D, from a transceiver configured with a Read Authorization Password, the Read Authorization Password must be entered on the PC. If the password does not match, the data configured on the transceiver cannot be read.

Enter the Read Authorization Password directly in the edit box to configure the Read Authorization Password. (Refer to FUNC 5.2 Read Authorization Password.)

Range	Blank/ 0 - 999999
Default	Blank

Note:

- ◆ A maximum of 6-digit numbers can be entered.
- ◆ When a Read Authorization Password is configured on the master side of the transceiver, the Cloning cannot be initiated unless the password matches.

● Overwrite Password

Configure the password for protecting internal data on the transceiver, for example, to prevent the frequency data from being read. When writing data to the transceiver configured with an Overwrite Password using the KPG-89D, the Overwrite Password must be entered on the PC. Data cannot be written to the transceiver if the password does not match.

Enter the Overwrite Password directly in the edit box to configure the Overwrite Password. (Refer to FUNC 5.3 Overwrite Password.)

Range	Blank/ 0 - 999999
Default	Blank

Note:

- ◆ A maximum of 6-digit numbers can be entered.
- ◆ Entered values appear as "***".

■ Confirmation

Enter the password configured to Overwrite Password for confirmation when the Overwrite Password is being configured.

Range	Blank/ 0 - 999999
Default	Blank

Note:

- ◆ A maximum of 6-digit numbers can be entered.
- ◆ Entered values appear as “*”.
- ◆ When no number is entered in the **Overwrite Password** edit box, the **Confirmation** display will be skipped.
- ◆ An error message appears when the value entered at the **Confirmation** display differs from the Overwrite Password.

■ Power Switch Status Memory (TK-7180/ 8180 only)

Configure whether or not to retains the power ON/OFF status.

Range	Check (Enable)	Retains the power ON/OFF status.
	Uncheck (Disable)	Does not retain the power ON/OFF status.
Default	Unchecked (Disabled)	

■ Scrambler Status Memory

Configure the status memory operation of the Scrambler Code. When Scrambler Status Memory is enabled, the Scrambler enable or disable status is retained. (Refer to FUNC 29.1.2 Scrambler Status Memory (Scrambler), 29.1.4 Scrambler Status Memory (SC20-460 Scrambler).)

Range	Check (Enable)	Enables Scrambler Status Memory.
	Uncheck (Disable)	Disables Scrambler Status Memory.
Default	Unchecked (Disabled)	

■ Off-hook Decode (TK-7180/ 8180 only)

Configure whether or not to disable QT/DQT and Optional Signaling linked with Mic Hook On/Off, and disable mute by Carrier Squelch. (Refer to FUNC 18.5 Off-hook Decode.)

Range	Check (Enable)	Enables QT/DQT Signaling Squelch regardless of Mic Hook On/Off status. Optional Signaling is activated in accordance with the Audio Control configuration.
	Uncheck (Disable)	Squelch opens when a Carrier is received if Mic Hook is Off. Optional Signaling is activated in accordance with the Audio Control configuration when Mic Hook is On.
Default	Checked (Enabled)	

■ Signal Strength Indicator

Configure whether or not to display the transceiver's receiving state. (Refer to FUNC 3.5.1 Signal Strength Indicator.)

Range	Check (Enable)	Displays the receiving state.
	Uncheck (Disable)	Does not display the receiving state.
Default	Checked (Enabled)	

■ Auto Backlight (TK-2180/ 3180 only)

Configure to enable or disable the Auto Backlight function. When the Auto Backlight function is enabled, the backlight LED lights by pressing any key other than the **PTT** switch and the **Volume** Control. (Refer to FUNC 3.4.1 Backlight.)

Range	Check (Enable)	Enables the Auto Backlight function.
	Uncheck (Disable)	Disables the Auto Backlight function.
Default	Unchecked (Disabled)	

■ Horn Alert Logic Signal (TK-7180/ 8180 only)

Configure activation of the Horn Alert port when the Horn Alert function is activated. Enter a value for Horn Alert Logic Signal directly in the edit box or click the spin button to configure the Horn Alert Logic Signal. (Refer to FUNC 9.4.1 Horn Alert Logic Signal.)

Range	Until Reset	Horn Alert port remains active until the Optional Signaling matching state is reset.
	1 - 30 s	Horn Alert port remains active for configured time.
	Pulse	Horn Alert port remains active 3 times at 500 ms intervals. Horn Alert port is active for 1 second, inactive for 500 ms and active for 1 second only when the Fix ID is received.
Step	1 s	
Default	Until Reset	

Note:

- ◆ Only numbers and “U” and “P” can be entered.
- ◆ When “U” or “P” is entered, Until Reset will be configured.
- ◆ When “U” or “P” is entered, the second character cannot be entered.
- ◆ When the entire content of the edit box is deleted, Until Reset will be automatically configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Horn Alert Mode (TK-7180/ 8180 only)

Configure to enable or disable the Horn Alert function. Select the desired Horn Alert Mode option from the pulldown menu. (Refer to FUNC 9.4.3 Horn Alert Mode.)

Range	Current	Horn Alert standby state is disabled when the transceiver is turned OFF even with the Horn Alert in a standby state. When the transceiver is turned ON, the transceiver always starts up with the Horn Alert disabled.
	Status Memory	Remains Horn Alert standby state. Turn the transceiver OFF when the Horn Alert is in the standby state. Then turn the transceiver ON again, the Horn Alert starts up with the standby state.
	Startup	The transceiver always starts up with the Horn Alert in the standby state.
Default	Current	

■ Off-hook Horn Alert (TK-7180/ 8180 only)

Configure whether to activate the Horn Alert linked with Mic Hook when the Horn Alert is activated. (Refer to FUNC 9.4.2 Off-hook Horn Alert.)

Range	Check (Enable)	Activates Horn Alert linked with Mic Hook.
	Uncheck (Disable)	Deactivates Horn Alert linked with Mic Hook.
Default	Checked (Enabled)	

■ Ignition Sense (TK-7180/ 8180 only)

Configures whether or not to automatically turn the transceiver ON/OFF according to the status of Ignition On/Off. (Refer to FUNC 8 Ignition Sense.)

Range	Check (Enable)	Enables Ignition Sense.
	Uncheck (Disable)	Disables Ignition Sense.
Default	Unchecked (Disabled)	

Note: A warning message appears when writing data under the following conditions:

- The **Ignition Sense** checkbox is checked.
- “Ignition only” is selected from the **Ignition Sense Type** pulldown menu.

■ Ignition Sense Type (TK-7180/ 8180 only)

Configures activation of Ignition Sense. Select the desired Ignition Sense Type from the pulldown menu. (Refer to FUNC 8.1 How to Use the Ignition Sense Terminal.)

Range	Ignition only	When the Ignition Sense terminal becomes a High state, the transceiver is automatically turned ON, and turned OFF when it becomes a Low state. The transceiver cannot be turned ON/OFF by pressing the Power switch.
	Ignition&SW	The transceiver can be turned OFF by pressing the Power switch even if the car engine is running (namely Ignition Sense terminal is in a High state). However, the state of the Power switch is not retained. The transceiver is turned ON when the state of the Ignition Sense terminal varies from Low to High.
Default	Ignition&SW	

Note:

- ◆ Ignition Sense Type can be configured only when the **Ignition Sense** checkbox is checked.
- ◆ A warning message appears when writing data under the following conditions:
 - The **Ignition Sense** checkbox is checked.
 - "Ignition only" is selected in the **Ignition Sense Type** pulldown menu.

■ Timed Power-off (TK-7180/ 8180 only)

Configure the time that the transceiver power is automatically turned OFF after the car engine is turned Off (Ignition Sense terminal is in a Low state). Enter the Timed Power-off time directly in the edit box or click the spin button to configure the Timed Power-off. (Refer to FUNC 8.2 Timed Power-off.)

Range	0 h 0 min - 8 h 00 min	
Step	[h]	1 h
	[min]	10 min
Default	0 h 10 min	

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ The hour value also spins down when the spin button is clicked when the minute value is "00".
- ◆ The hour value also spins up when the spin button is clicked when the minute value is "50".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, the lower limit value will be configured.
- ◆ A value less than a single step is discarded.
- ◆ Timed Power-off can be configured only when the **Ignition Sense** checkbox is checked.

6.7.2 Common-Page 2 Tab

In the **Common-Page 2** tab, tone volume, various modes, Proceed Tone, and activation at transceiver startup can be configured.

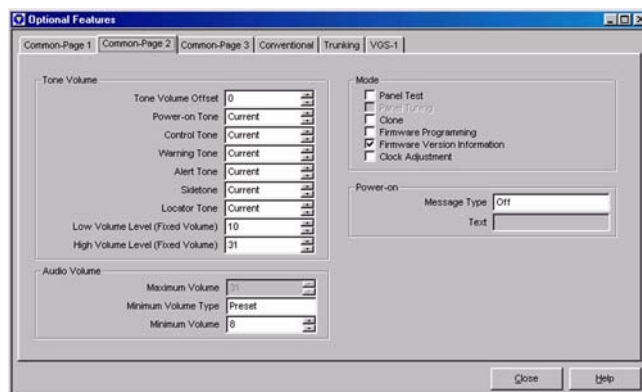


Figure 6-24 Common-Page 2 tab

■ Tone Volume Offset

Configure how small or large the volume level of the standard tone is to be shifted from the fixed Volume position. Enter a value for Tone Volume Offset directly in the edit box or click the spin button to configure the Tone Volume Offset. (Refer to FUNC 4.4 Tone Volume Offset.)

Range	-5 - +5
Step	1
Default	0

Note:

- ◆ Only "0" to "5", "+", and "-" can be entered between the number "0" and "5".
- ◆ When any number other than "0" is entered, the value is prefixed with "+".
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Power-on Tone

Configure the volume of the tone to sound when the transceiver is turned ON. Enter a value for Power-on Tone directly in the edit box or click the spin button to configure the Power-on Tone. (Refer to FUNC 4.5 Tone Volume.)

Range	Off	Does not emit the Power-on Tone.
	Current	Power-on Tone volume is linked with the Volume control.
	1 - 31	The tone sounds at a fixed volume. The larger the numerical value, the louder the volume becomes.
	Selectable	The tone volume changes linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

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Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit.
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.
- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Control Tone

Configure the volume of the tone to sound when any key is pressed. Enter a value directly in the edit box or click the spin button to configure the Control Tone. (Refer to FUNC 4.4 Tone Volume.)

Range	Off	Does not emit Control Tone.
	Current	Control Tone volume is linked with the Volume control.
	1 - 31	Emit Control Tone at a fixed volume level. The larger the numerical value, the louder the volume becomes.
	Selectable	The tone volume changes linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit.
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.
- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Warning Tone

Configure the Warning Tone volume to sound. Enter a value directly in the edit box or click the spin button to configure the Warning Tone. (Refer to FUNC 4.5 Tone Level.)

Range	Off	Does not emit Warning Tone.
	Current	Warning Tone volume is linked with the Volume control.
	1 - 31	Emits Warning Tone at a fixed volume level. The larger the numerical value, the louder the volume becomes.
	Selectable	Warning Tone volume is linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit.
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.
- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Alert Tone

Configure the volume level of the tone to sound when the transceiver receives a called by Optional Signaling. Enter a value directly in the edit box or click the spin button to configure the Alert Tone. (Refer to FUNC 4.5 Tone Volume.)

Range	Off	Does not emit Alert Tone.
	Current	Alert Tone volume is linked with the Volume control.
	1 - 31	Emits Alert Tone at a fixed volume. The larger the numerical value, the louder the volume becomes.
	Selectable	Alert Tone volume is linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit.
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.
- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Sidetone

Configure the volume of Sidetone to sound when talking becomes possible or when transmission ends. Enter a value directly in the edit box or click the spin button to configure the Sidetone. (Refer to FUNC 4.5 Tone Volume.)

Range	Off	Does not emit Sidetone.
	Current	Sidetone volume is linked with the Volume control.
	1 - 31	Emits Sidetone at a fixed volume. The larger the numerical value, the louder the volume becomes.
	Selectable	The tone volume changes linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit. "
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.
- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Locator Tone

Configure the volume of Locator Tone to sound at start and end of automatic transmission in Emergency Mode. Enter a value directly in the edit box or click the spin button to configure the Locator Tone. (Refer to FUNC 4.5 Tone Volume.)

Range	Off	Does not emit Locator Tone.
	Current	Locator Tone volume is linked with the Volume control.
	1 - 31	Emits Locator Tone at a fixed volume. The larger the numerical value, the louder the volume becomes.
	Selectable	The tone volume changes linked with the PF Fixed Volume level. (Refer to FUNC 4.6 Selectable Tone Level.)
Step	1	
Default	Current	

Note:

- ◆ Only numbers and "C" and "S" can be entered. "C" and "S" can be entered only for the 1st digit.
- ◆ When "C" is entered, Current will be configured.
- ◆ When "S" is entered, Selectable will be configured.

- ◆ When the entire content of the edit box is deleted or 0 is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Low Volume Level (Fixed Volume)

Configure the Low Volume Level when the volume is changed by pressing the **PF Fixed Volume** key. Enter a value for Low Volume Level directly in the edit box or click the spin button to configure the Low Volume Level. (Refer to FUNC 4.6 Selectable Tone Level.)

Range	1 - 31 (High Volume Level or less)
Step	1
Default	10

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ High Volume Level (Fixed Volume)

Configure the High Volume Level when the volume is changed by pressing the **PF Fixed Volume** key. Enter a value for High Volume Level directly in the edit box or click the spin button to configure the Low Volume Level. (Refer to FUNC 4.6 Selectable Tone Level.)

Range	(Low Volume Level or more) 1 - 31
Step	1
Default	31

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Maximum Volume (TK-2180/ 3180 only)

Configure the Maximum Volume. The Maximum Volume function restricts the volume level not to exceed the configured volume even if the Volume is increased.

Enter a value for Maximum Volume directly in the edit box or click the spin button to configure the Maximum Volume. (Refer to FUNC 4.3 Maximum Volume.)

Range	0 - 31
Step	1
Default	31

Note:

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- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Minimum Volume Type

Configures activation of Minimum Volume. Select the desired Minimum Volume Type from the pulldown menu.

Range	Preset/ Lowest Limit
Default	Preset

■ Minimum Volume

The Minimum Volume function differs between the TK-2180/ 3180 and TK-7180/ 8180 transceivers. Enter a value for Minimum Volume directly in the edit box or click the spin button to configure the Minimum Volume. (Refer to FUNC 4.2 Minimum Volume.)

● TK-2180/ 3180

Configure the minimum volume to be retained even if the **Volume** control is turned down fully. When "0" is configured, the transceiver mutes when the **Volume** is turned down fully.

● TK-7180/ 8180

• When Minimum Volume Type is configured to Preset:

Configure the volume when the transceiver is turned ON again after the transceiver is turned OFF with the **Volume** control turned down fully.

• When Minimum Volume Type is configured to Lowest Limit:

Configure the minimum volume even if the **Volume** control is turned down fully. When "0" is configured, the receiving tone is switched Off when the **Volume** control is turned down fully.

Range	0 - 31	
Step	1	
Default	TK-2180/ 3180	0
	TK-7180/ 8180	8

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Panel Test

Configure whether or not to enable Panel Test Mode.

Range	Check (Enable)	Enables Panel Test Mode.
	Uncheck (Disable)	Disables Panel Test Mode.
Default	Unchecked (Disabled)	

■ Panel Tuning

Configure whether or not to enable Panel Tuning Mode.

Range	Check (Enable)	Enables Panel Tuning Mode.
	Uncheck (Disable)	Disables Panel Tuning Mode.
Default	Unchecked (Disabled)	

■ Clone

Configure whether or not to enable Clone Mode.

Range	Check (Enable)	Enables Clone Mode.
	Uncheck (Disable)	Disables Clone Mode.
Default	Unchecked (Disabled)	

■ Firmware Programming

Configure whether or not to enable Firmware Programming Mode.

Range	Check (Enable)	Enables Firmware Programming Mode.
	Uncheck (Disable)	Disables Firmware Programming Mode.
Default	Unchecked (Disabled)	

■ Firmware Version Information

Configure whether or not to enable to display the Firmware Version of the transceiver

Range	Check (Enable)	Enables display of the Firmware Version.
	Uncheck (Disable)	Disables display of the Firmware Version.
Default	Checked (Enabled)	

■ Clock Adjustment

Configure whether or not to enable Clock Adjustment Mode. (Refer to FUNC 30.4 Adjustment Time.)

Range	Check (Enable)	Enables Clock Adjustment Mode.
	Uncheck (Disable)	Disables Clock Adjustment Mode.
Default	Unchecked (Disabled)	

■ Message Type (Power-on)

Configure the type of message to display when the transceiver is turned ON. Select the desired Message Type from the pulldown menu. (Refer to FUNC 3.7.6 Power-on Text, 30.2 Time Display at Power ON.)

Range	Off	Nothing appears on the display.
	Text	The text string set at "Text (Power-on)" is displayed.
	Clock	Displays the time.
Default	Off	

■ Text (Power-on)

Configure the message to be appeared when the transceiver is turned ON. Enter the desired text message directly in the edit box. (Refer to FUNC 3.7.6 Power-on Text.)

Range	A maximum of 12-character text string
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	Blank

Note: Text (Power-on) can be configured only when "Off" or "Clock" is selected from the **Message Type** pulldown menu.

6.7.3 Common-Page 3 Tab

In the **Common-Page 3** tab, the battery and PTT ID options can be configured.

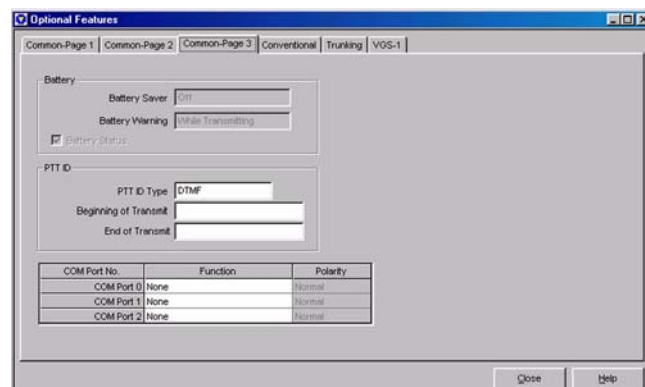


Figure 6-25 Common-Page 3 Tab

■ Battery Saver (TK-2180/ 3180 only)

Configure Battery Saver. The Battery Saver function turns Off the receiver circuit intermittently to save battery consumption. (Refer to FUNC 1.13 Battery Saver.)

Select the desired Battery Saver option from the pulldown menu.

Range	Off/ Short/ Medium/ Long
Default	Off

Note: Short is 400 ms, Medium is 800 ms and Long is 1600 ms for the receiver circuit shut down period.

■ Battery Warning (TK-2180/ 3180 only)

Configure whether or not to emit a beep or blink the LED when the battery power is low. Select the desired Battery Warning option from the pulldown menu. (Refer to FUNC 3.5.2 Battery Status/Warning.)

Range	Off	Transmits as usual and the battery warning does not appear regardless of the battery voltage.
	While Transmitting	Battery level is checked when radio is transmitting.
	Always	Battery level is checked regardless of condition of radio.
	Always w/ Beep	Battery level is checked regardless of condition of radio. Beep sounds when level of battery is low
Default	While Transmitting	

■ Battery Status (TK-2180/ 3180 only)

Configure the Battery Status. When the Battery Status function is enabled, the battery status is displayed in four stages according to the remaining battery capacity. (Refer to FUNC 3.5.2 Battery Status/Warning.)

Range	Check (Enable)	Displays the remaining battery capacity.
	Uncheck (Disable)	Does not display the remaining battery capacity.
Default	Checked (Enabled)	

■ PTT ID Type

Configure the PTT ID type. Select the desired PTT ID Type from the pulldown menu. (Refer to FUNC 14.1 PTT ID Type.)

Range	DTMF/ FleetSync/ ANI Board
Default	DTMF

Note: “ANI Board” cannot be selected from the **PTT ID Type** pulldown menu when an item other than “ANI Board” is selected in the **Extended Function** window > the **Optional board** pulldown menu. (Refer to 6.15.2 [Optional Board Tab \(TK-7180/ 8180 only\)](#).)

■ Beginning of Transmit

Configure the ID codes to transmit in the BOT when “DTMF” is currently selected in the **PTT ID Type** pulldown menu. Enter the ID codes directly in the edit box to transmit the ID. (Refer to FUNC 14.1.1 Beginning of Transmit.)

Range	A maximum of 16-digit DTMF code
Available Codes	# * A B C D 0 1 2 3 4 5 6 7 8 9
Default	Blank

Note: Beginning of Transmit cannot be configured when “FleetSync” or “ANI Board” is currently selected from the **PTT ID Type** pulldown menu.

■ End of Transmit

Configure the ID codes to transmit at the EOT when “DTMF” is currently selected in the **PTT ID Type** pulldown menu. Enter the ID codes directly in the edit box to transmit the ID. (Refer to FUNC 14.1.2 End of Transmit.)

Range	A maximum of 16-digit DTMF code
Available Codes	# * A B C D 0 1 2 3 4 5 6 7 8 9
Default	Blank

Note: End of Transmit cannot be configured when “FleetSync” or “ANI Board” are currently selected from the **PTT ID Type** pulldown menu.

■ Function

Configure Function to assign to COM port 0 - 2. Select the desired Function option from the **COM port 0 - 2** pulldown menu. (Refer to FUNC 7 Communications Port.)

● TK-2180/ 3180

Table 6-3 Available Functions for COM Ports

Range	COM port	
	COM port 0	COM port 1
None	Enables as the KPG-89D COM port.	The port is disabled.
Data	Enables as the KPG-89D/FleetSync COM port.	

Note: Nothing can be configured to the **COM port 1** edit box when “VGS-1” is currently selected from the **Extended Function** window > the **Optional Board** pulldown menu.

● TK-7180/ 8180

Table 6-4 Available Functions for COM Ports

Range	COM port		
	COM port 0	COM port 1	COM port 2
None	Enables as the KPG-89D COM port.	Operation is restricted.	
Data	Enables as the KPG-89D/ FleetSync COM port.		
GPS	-	Operates as the COM port of the GPS receiver unit.	
Data + GPS Data Output	Enables as the KPG-89D/ FleetSync COM port. Outputs GPS position data to the PC.		

Note:

- ◆ “GPS” cannot be selected in the **COM Port 0** edit box.
- ◆ “Data” and “Data + GPS Data Output” cannot be configured simultaneously.
- ◆ Nothing can be configured to the **COM port 1** edit box when “VGS-1” is currently selected in the **Extended Function** window > the **Optional Board** pulldown menu.

■ Polarity

Configure whether or not to invert the data logic of COM port 0 - 2. Select the desired Polarity option from the pulldown menu.

Range	Invert	Inverts the data logic of the COM port.
	Normal	Does not invert the data logic of the COM port.
Default	Normal	

6.7.4 Conventional Tab

In the **Conventional** tab, the Conventional Group configuration can be changed.

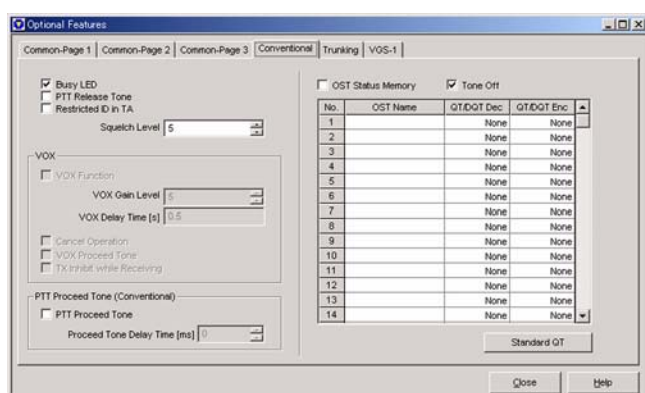


Figure 6-26 Conventional Tab

■ Busy LED

Configure whether or not to light the Busy LED when the transceiver is receiving a carrier. (Refer to FUNC 3.1 Busy LED.)

Range	Check (Enable)	Lights the Busy LED.
	Uncheck (Disable)	Does not light the Busy LED.
Default	Checked (Enabled)	

■ PTT Release Tone

Configure whether or not to emit the PTT Release Tone. The PTT Release Tone function notifies the end of conversation to a user when conversation ends and the **PTT** switch is released. (Refer to FUNC 4.8 PTT Release Tone.)

Range	Check (Enable)	Emits PTT Release Tone.
	Uncheck (Disable)	Does not emit PTT Release Tone.
Default	Unchecked (Disabled)	

■ Restricted ID in TA

Configure whether or not to restrict the transmission of the PTT ID even if the **PTT** switch is pressed in Talk Around Mode. (Refer to FUNC 14.3 Restricted ID in TA.)

Range	Check (Enable)	Does not send the PTT ID in the Talk Around Mode.
	Uncheck (Disable)	Sends the PTT ID in the Talk Around Mode.
Default	Unchecked (Disabled)	

■ Squelch Level

Configure the Squelch Level. The Squelch Level is the value to allow the transceiver to detect a carrier sfrom the received signal. When the received signal is weak, set a loose Squelch level. When there are unwanted weak signals, set a tight Squelch Level to adjust the communications state. (Refer to FUNC 1.6 Squelch Level.)

Enter a value directly in the edit box or click the spin button to configure the Squelch Level.

Range	0 - 9
Step	1
Default	5

Note:

- ◆ Only 0 to 9 can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.

■ VOX Function (TK-2180/ 3180 only)

Configure whether or not to activate the VOX function after the transceiver is turned ON. (Refer to FUNC 28 VOX.)

Range	Check (Enable)	Activates the VOX function.
	Uncheck (Disable)	Deactivates the VOX function.
Default	Unchecked (Disabled)	

■ VOX Gain Level (TK-2180/ 3180 only)

Configure the microphone sensitivity when the VOX function is in use. Enter a value directly in the edit box or click the spin button to configure the VOX Gain Level. (Refer to FUNC 28.1.1 VOX Gain Level.)

Range	1 - 10
Step	1
Default	5

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ VOX Delay Time (TK-2180/ 3180 only)

Configure the time that the transceiver holds transmission after the VOX function is used for transmission. This item is used to continue the transmission without interrupting. (Refer to FUNC 28.1.2 VOX Delay Time.)

Select the desired VOX Delay Time from the pulldown menu.

Range	0.3/ 0.5/ 1.0/ 1.5/ 2.0/ 3.0 s
Default	0.5 s

■ Cancel Operation (TK-2180/ 3180 only)

Configure Cancel Operation. The Cancel Operation function disables the VOX function when the **PTT** switch is pressed while the VOX function is enabled. (Refer to FUNC 28.1.4 Cancel Operation.)

Range	Check (Enable)	Disables the VOX function when the PTT switch is pressed.
	Uncheck (Disable)	Does not disable the VOX function when the PTT switch is pressed.
Default	Unchecked (Disabled)	

■ VOX Proceed Tone (TK-2180/ 3180 only)

Configure whether or not to emit a tone to notify the start of transmission to a user when the VOX function is used for a transmission. (Refer to FUNC 28.1.5 VOX Proceed Tone.)

Range	Check (Enable)	Emits Proceed Tone when transmission starts using the VOX function.
	Uncheck (Disable)	Does not emit Proceed Tone when transmission starts using the VOX function.
Default	Unchecked (Disabled)	

■ TX Inhibit while Receiving (TK-2180/ 3180 only)

Configure whether or not to transmit using the VOX function while the speaker does not mute. (Refer to FUNC 28.1.3 TX Inhibit while Receiving.)

Range	Check (Enable)	VOX is not used while the speaker is not muted.
	Uncheck (Disable)	VOX is used even while the speaker is not muted.
Default	Unchecked (Disabled)	

■ PTT Proceed Tone (Conventional)

Configure whether or not to emit the PTT Proceed Tone when the transceiver is ready for conversation after the **PTT** switch is pressed. (Refer to FUNC 4.9 PTT Proceed Tone.)

Range	Check (Enable)	Emits the PTT Proceed Tone.
	Uncheck (Disable)	Does not emit the PTT Proceed Tone.
Default	Unchecked (Disabled)	

■ Proceed Tone Delay Time (Conventional)

Configure the time that the PTT Proceed Tone sounds from the speaker. This item is used to restrict the start of the transmission from the transmitter being cut off on the receiver. (Refer to FUNC 4.10 Proceed Tone Delay Time.)

Enter a value for Proceed Tone Delay Time directly in the edit box or click the spin button to configure the Proceed Tone Delay Time.

Range	0 - 6000 ms
Step	1 ms
Default	0 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ The Proceed Tone Delay Time can be configured only when the **PTT Proceed Tone** checkbox is checked.

■ OST Status Memory

Configure whether or not to store the OST codes currently selected for each channel on the transceiver even if the channel is changed or the transceiver is turned OFF. (Refer to FUNC 19.1 OST Status Memory.)

Range	Check (Enable)	Stores the OST codes.
	Uncheck (Disable)	Does not store the OST codes.
Default	Unchecked (Disabled)	

■ Tone Off

Configure to enable or disable the Tone Off function. The Tone Off function enables selection of "No Tone". (Refer to FUNC 19.2 Tone Off.)

Range	Check (Enable)	Enables Tone Off.
	Uncheck (Disable)	Disables Tone Off.
Default	Checked (Enabled)	

■ OST Name (OST List)

Configures the name of QT/DQT Encode/Decode pairs for OST. Directly enter a value to the **No. 1** to **No. 40** edit box to configure the OST Name. (Refer to FUNC 19.4 OST Table.)

Range	A maximum of 12-character text string
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	Blank

■ QT/DQT Dec (OST List)

Configure the QT/DQT to standby for. Select the desired QT/DQT Dec option from the **No. 1** to **No. 40** pulldown menus, or enter a value in the edit box to configure QT/DQT Dec. (Refer to FUNC 19.4 OST Table.)

● When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverse)	D023I - D754I
Default	None	

● When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverse)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- ◆ A maximum of 5-digit QT and DQT having numbers and "N", "D", "I" and "." (period) can be entered.
- ◆ When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- ◆ When a text string starting with "D" is entered, the entry is configured as a DQT code.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ QT/DQT Enc (OST List)

Configure the QT/DQT for calling the other party. Directly enter a value to the **No. 1** to **No. 40** edit box to configure the QT/DQT Enc. (Refer to FUNC 19.4 OST Table.)

● When selecting from the pulldown menu:

Range	QT	67.0 - 250.3 Hz
	DQT (Normal)	D023N - D754N
	DQT (Inverse)	D023I - D754I
Default	None	

● When entering directly in the edit box:

Range	QT	67.0 - 254.1 Hz
	DQT (Normal)	D000N - D777N
	DQT (Inverse)	D000I - D777I
Step	QT	0.1 Hz
	DQT	1
Default	None	

Note:

- ◆ A maximum of 5-digit QT and DQT having numbers and "N", "D", "I" and "." (period) can be entered.

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- ◆ When only numbers and "." (period) are entered, the entry is configured as a QT tone.
- ◆ When a text string starting with "D" is entered, the entry is configured as a DQT code.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Standard QT Button

When "Standard QT" is clicked, 39 tones for QT specified in EIA-603 can be configured to OST Name, QT/DQT Dec and QT/DQT Enc. The table below shows the available tones.

Table 6-5 Values Configured by the Standard QT Button

No.	OST Name	QT/DQT Dec.	QT/DQT Enc.
1	67.0	67.0	67.0
2	69.3	69.3	69.3
3	71.9	71.9	71.9
4	74.4	74.4	74.4
5	77.0	77.0	77.0
6	79.7	79.7	79.7
7	82.5	82.5	82.5
8	85.4	85.4	85.4
9	88.5	88.5	88.5
10	91.5	91.5	91.5
11	94.8	94.8	94.8
12	97.4	97.4	97.4
13	100.0	100.0	100.0
14	103.5	103.5	103.5
15	107.2	107.2	107.2
16	110.9	110.9	110.9
17	114.8	114.8	114.8
18	118.8	118.8	118.8
19	123.0	123.0	123.0
20	127.3	127.3	127.3
21	131.8	131.8	131.8
22	136.5	136.5	136.5
23	141.3	141.3	141.3
24	146.2	146.2	146.2
25	151.4	151.4	151.4
26	156.7	156.7	156.7
27	162.2	162.2	162.2
28	167.9	167.9	167.9
29	173.8	173.8	173.8
30	179.9	179.9	179.9
31	186.2	186.2	186.2
32	192.8	192.8	192.8

No.	OST Name	QT/DQT Dec.	QT/DQT Enc.
33	203.5	203.5	203.5
34	210.7	210.7	210.7
35	218.1	218.1	218.1
36	225.7	225.7	225.7
37	233.6	233.6	233.6
38	241.8	241.8	241.8
39	250.3	250.3	250.3
40		None	None

6.7.5 Trunking Tab

In the **Trunking** tab, the Trunking System configuration can be changed.

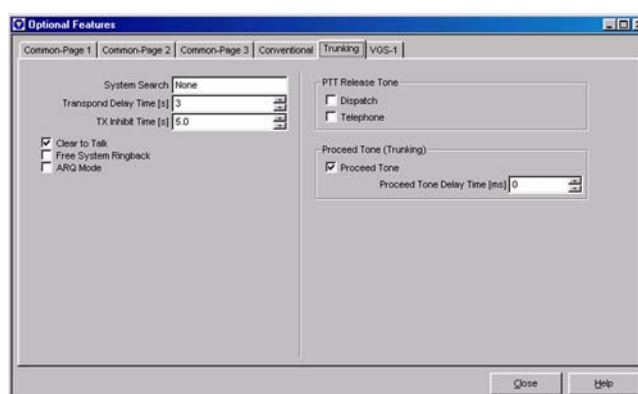


Figure 6-27 Trunking tab

■ System Search

Configure how the transceiver automatically searches for available systems automatically. Select the desired search method from the pulldown menu. (Refer to FUNC 17.5 System Search.)

Range	None/ Manual/ Auto
Default	None

■ Transpond Delay Time

Configure the time from receiving of the Group ID configured with Transpond until transmission of the Transpond. Enter a value for Transpond Delay Time directly in the edit box or click the spin button to configure the Transpond Delay Time. (Refer to FUNC 15.4.1 Transpond Delay Time.)

Range	0 - 300 s
Step	1 s
Default	3 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ TX Inhibit Time

Configure the time that transmission is restricted after the TX Inhibit ID is received. Enter a value for TX Inhibit Time directly in the edit box or click the spin button to configure the TX Inhibit Time. (Refer to FUNC 17.1.18 Transmit Inhibit (Block IDs).)

Range	0.5 - 8.0 s
Step	0.5 s
Default	5.0 s

Note:

- ◆ A maximum of 2-digit numbers and only "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 0.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.

■ Clear to Talk

Configure whether or not to emit the Delay Tone when the transceiver attempts to connect to the repeater more than 3 times by pressing the **PTT** switch, and/or emit the Busy Tone when all repeaters are busy. (Refer to FUNC 17.6 Clear to Talk.)

Range	Check (Enable)	Emits the Tone.
	Uncheck (Disable)	Does not emit the Tone.
Default	Checked (Enabled)	

■ Free System Ringback

Configure whether or not to emit the Ringer Tone to notify a user when the link is established to the repeater and the PSTN is allowed. (Refer to FUNC 17.4.3 Free System Ringback.)

Range	Check (Enable)	Enables the Free System Ringback function.
	Uncheck (Disable)	Disables the Free System Ringback function.
Default	Unchecked (Disabled)	

■ ARQ Mode

Configure to enable or disable the ARQ Mode function. The ARQ function stops data communications in the Trunking System by a one-time link. (Refer to FUNC 17.7 ARQ Mode.)

Range	Check (Enable)	Enables ARQ Mode.
	Uncheck (Disable)	Disables ARQ Mode.
Default	Unchecked (Disabled)	

■ Dispatch (PTT Release Tone)

Configure whether or not to emit the PTT Release Tone when the Dispatch ID transmission ends. (Refer to FUNC 4.8 PTT Release Tone.)

Range	Check (Enable)	Emits PTT Release Tone.
	Uncheck (Disable)	Does not emit PTT Release Tone.
Default	Unchecked (Disabled)	

■ Telephone (PTT Release Tone)

Configure whether or not to emit the PTT Release Tone when the Telephone ID transmission is ended. (Refer to FUNC 4.8 PTT Release Tone.)

Range	Check (Enable)	Emits PTT Release Tone.
	Uncheck (Disable)	Does not emit PTT Release Tone.
Default	Unchecked (Disabled)	

■ PTT Proceed Tone (Trunking)

Configure whether or not to emit the PTT Proceed Tone when the transceiver is ready for conversation after the **PTT** switch is pressed. (Refer to FUNC 4.9 PTT Proceed Tone.)

Range	Check (Enable)	Emits PTT Proceed Tone.
	Uncheck (Disable)	Does not emit PTT Proceed Tone.
Default	Checked (Enabled)	

■ Proceed Tone Delay Time (Trunking)

Configure the time that the Proceed Tone sounds in the transmitting transceiver. This function is used on the receiver to avoid eliminating the beginning of transmission. (Refer to FUNC 4.10 Proceed Tone Delay Time.)

Enter a value for Proceed Tone Delay Time directly in the edit box or click the spin button to configure the Proceed Tone Delay Time.

Range	0 - 6000 ms
Step	1 ms
Default	0 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ The Proceed Tone Delay Time can be enabled only when the **Proceed Tone** checkbox is checked.

6.7.6 VGS-1 Tab

In the **VGS-1** tab, the VGS function can be configured. The **VGS-1** tab can be configured only when "VGS-1" is selected in the **Extended Function** window > the **Optional Board** pulldown menu.

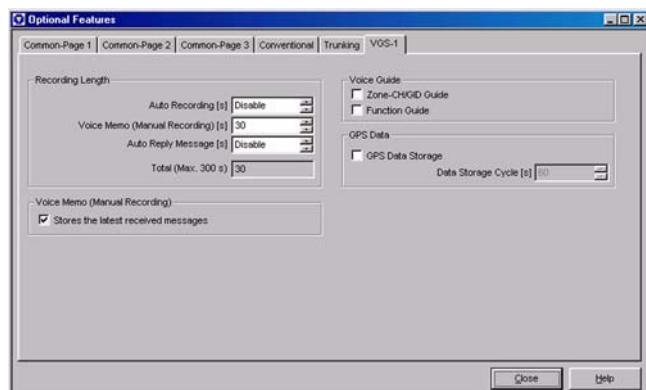


Figure 6-28 VGS-1 Tab

■ Auto Recording

Configure the max recording time for Auto Recording. The Auto Recording function automatically records the transmitted or received voices. (Refer to FUNC 31.1 Auto Recording.)

Enter a value directly in the edit box or click the spin button to configure the Auto Recording.

Range	Disable/ 30
Default	Disable

Note:

- ◆ Only 30 can be entered.
- ◆ When the entire content of the edit box is deleted, Disable will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ The Auto Recording function cannot be used when Disable is configured in the **Auto Recording** edit box.
- ◆ A maximum of 300 seconds total recording time is available for all of Auto Recording, Voice Memo and Auto Reply Message.

■ Voice Memo (Manual Recording)

Configure the max recording total time for Voice Memo. The Voice Memo function manually records the transmitted or received voices. (Refer to FUNC 31.2 Voice Memo.)

Enter a value for Voice Memo directly in the edit box or click the spin button to configure the Voice Memo.

Range	Disable/ 30 - 300 s
Step	30 s
Default	Disable

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, Disable will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.
- ◆ The Voice Memo function cannot be used when Disable is configured in the **Voice Memo** edit box.
- ◆ A maximum of 300 seconds total recording time is available for all of Auto Recording, Voice Memo and Auto Reply Message.

■ Auto Reply Message

Configure the max recording total time for Auto Reply Message. The Auto Reply Message function enables a user to record a Voice Message even if he is away from the transceiver. (Refer to FUNC 31.3 Auto Reply Message.)

Enter a value directly in the edit box or click the spin button to configure the Auto Reply Message.

Range	Disable/ 30 - 300 s
Step	30 s
Default	Disable

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, Disable will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.
- ◆ The Auto Reply Message function cannot be used when Disable is configured in the **Auto Reply Message** edit box.
- ◆ A maximum of 300 seconds total recording time is available for all of Auto Recording, Voice Memo and Auto Reply Message.

■ Stores the latest received messages

Configure the recording method when Voice Memo is used. (Refer to FUNC 31.2 Voice Memo (Manual Recording).)

Range	Check (Enable)	New recording data will be overwritten to old recording data. Messages in old recorded channels are erased.
	Uncheck (Disable)	New recording data cannot be written when all recording channels are full.
Default	Checked (Enabled)	

Note: Stores the latest received messages cannot be configured when Disable is configured in the **Voice Memo** edit box.

■ Zone CH/GID Guide (Voice Guide)

Configure whether or not to announce the selected Zone-CH/GID Number when the Zone-CH/GID is changed. (Refer to FUNC 31.5 Voice Guide.)

Range	Check (Enable)	Announces the Zone-CH/GID Number.
	Uncheck (Disable)	Does not announce the Zone-CH/GID Number.
Default	Unchecked (Disabled)	

■ Function Guide (Voice Guide)

Configure whether or not to announce the configured Key Function when the **PF** key on the transceiver is pressed. (Refer to FUNC 31.5 Voice Guide.)

Range	Check (Enable)	Announces the Key Function.
	Uncheck (Disable)	Does not announce the Key Function.
Default	Unchecked (Disabled)	

■ GPS Data Storage (TK-7180/ 8180 only)

Configure whether or not to store FleetSync GPS data. (Refer to FUNC 31.6 GPS Data Storage.)

Range	Check (Enable)	Stores GPS data.
	Uncheck (Disable)	Does not store GPS data.
Default	Unchecked (Disabled)	

Note: GPS Data Storage can be configured only when "GPS" is configured in the **COM port 2** pulldown menu on the **Common-Page 3** tab.

■ Data Storage Cycle (TK-7180/ 8180 only)

Configure the interval time that the FleetSync GPS data is written to the VGS-1. Enter the Data Storage Cycle directly in the edit box or click the spin button to configure the Data Storage Cycle. (Refer to FUNC 31.6 GPS Data Storage.)

Range	1 - 3600 s
Step	1 s
Default	60 s

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ Data Storage Cycle can be configured only when the **GPS Data Storage** checkbox is checked.

6.8 Key Assignment Window

In the **Key Assignment** window, assign functions to the transceiver's **PF** keys.

The **Key Assignment** window has the following tabs, and the tab sheet can be switched by clicking the tab title.

- **General** tab
- **Top/Side** tab (TK-2180/ 3180 only)
- **Front** tab (TK-2180/ 3180 only)
- **Panel** tab (TK-7180/ 8180 only)
- **Mic Key** tab
- **Call** tab
- **Direct CH/GID** tab

6.8.1 Available Functions to the PF Keys

The following functions can be assigned to the **PF** keys.

Table 6-6 Available Functions

Name of Function	Description
None	No function. When the None key is pressed, the Key-entry Error Tone sounds.
2-tone	When the PF 2-tone key is pressed, the 2-tone code can be selected from the 2-tone Encode List. Then, when the PTT switch or [Side 2]/ [■] is pressed, the 2-tone code is sent. (Refer to FUNC 21 2-tone.)
Auto Reply Message	When the PF Auto Reply Message key is pressed, the Auto Reply Message function is activated or deactivated when the VGS-1 is installed. (Refer to FUNC 31.3 Auto Reply Message.)
Auto Telephone	When the PF Auto Telephone key is pressed, the LTR system is automatically connected to the PSTN line to make a call. (Refer to FUNC 17.1.14 Auto Telephone Search.)
Autodial	When the PF Autodial key is pressed, Autodial List appears and a user can select the desired DTMF code. The DTMF code can also be entered directly. Then, when the PTT switch or [Side 2]/ [■] is pressed, the DTMF code is sent. (Refer to FUNC 20 DTMF.)
Autodial Programming	When the PF Autodial Programming key is pressed, the DTMF Autodial List can be configured, changed, or erased. (Refer to FUNC 20.4.2 DTMF Autodial Programming.)

Name of Function	Description
AUX	When the PF AUX key is pressed, the AUX Output terminal is toggled between activa and inactive. The port output changes when the AUX key is pressed, and external devices connected to the AUX port can be controlled. This function is available only for the TK-2180/ 3180 transceivers.
AUX A	When the PF AUX A key is pressed, the AUX A Output terminal is toggled between activa and inactive. The port output changes when the AUX A key is pressed, and external devices connected to the AUX A port can be controlled. This function is available only for the TK-7180/ 8180 transceivers.
AUX B	When the PF AUX B key is pressed, the AUX B Output terminal is toggled between activa and inactive. The port output changes when the AUX B key is pressed, and external devices connected to the AUX B port can be controlled. This function is available only for the TK-7180/ 8180 transceivers.
Call 1/2/3/4/5/6	When one of the PF Call 1 - PF Call 6 keys is pressed, the assigned FleetSync Status, the DTMF code or 2-tone code is sent. (Refer to FUNC 1.11 Call Key.)
CH/GID Down	When the PF CH/GID Down key is pressed, the CH/GID number is decreased in steps of 1. Holding down the key to decrease the CH/GID number in steps of 1 at the 200 ms intervals. (Refer to FUNC 2.5 Changing CH/GID.)
CH/GID Recall	When the PF CH/GID Recall key is pressed, the Last Called Zone-CH/GID is called during the scan. (Refer to FUNC 23.7.16 CH/GID Recall.)
CH/GID Up	When the PF CH/GID Up key is pressed, the CH/GID number is increased insteps of 1. Holding down the key for at least one second to increase the CH/GID number in steps of 1 at the 200 ms intervals. (Refer to FUNC 2.5 Changing CH/GID.)
Channel Entry	Specify the channel number directly using the Keypad. (Refer to FUNC 2.6 Channel Entry.)
Clock	When the PF Clock key is pressed, the current time is appears. (Refer to FUNC 30 Clock Function.)
Direct CH/GID 1 - Direct CH/GID 5	When one of the PF Direct CH/GID 1 - PF Direct CH/GID 5 keys is pressed, the channel is changed to the configured CH/GID. (Refer to FUNC 2.8 Direct CH/GID.)
Display Character	When the PF Display Character key is pressed, the CH/GID Name or Zone-CH/GID Number appears on the main display. (Refer to FUNC 3.7.5 Display Character.)

Name of Function	Description
Emergency	When the PF Emergency key is pressed, the transceiver enters Emergency Mode. (Refer to FUNC 24 Emergency Mode.)
Fixed Volume	Each time the PF Fixed Volume key is pressed, the tone level varies High, Low, Off, and returns to High. (Refer to FUNC 4 Sound.)
Function	When the PF Function key is pressed, the transceiver waits for another key entry. If Mode Reset Timer is activated and the next key is not pressed before the Mode Reset Timer expires, Function Mode resets. (Refer to FUNC 26 Function port.)
Home CH/GID	When the PF Home CH/GID key is pressed, the channel is changed to Home CH/GID. (Refer to FUNC 2.7 Home CH/GID.)
Horn Alert	When the PF Horn Alert key is pressed, the Horn Alert function is enabled. (Refer to FUNC 9 Horn Alert.)
Key Lock	When the PF Key Lock key is pressed, the Key Lock function is enabled. This function is available only for the TK-2180/ 3180 transceivers. (Refer to FUNC 1.9 Key Lock.)
Backlight	When the PF Backlight key is pressed, the backlight LED lights. This function is available only for the TK-2180/ 3180 transceivers. (Refer to FUNC 3.4.1 Backlight.)
LCD Brightness	When the PF LCD Brightness key is pressed, the LCD Brightness can be adjusted. This function is available only for the TK-7180/ 8180 transceivers. (Refer to FUNC 3.4.2 LCD Brightness.)
Low Transmission Power	The transmission power changes as follows while the PF Low Transmission Power key is pressed: <ul style="list-style-type: none"> • Low Transmission Power • High Transmission Power
Monitor	When the PF Monitor key is pressed, the QT/DQT is temporarily forced to cancel and the Squelch is controlled only by incoming signals. (Refer to FUNC 18.6 Monitor.)
Monitor Momentary	While the PF Monitor Momentary key is pressed, the QT/DQT is temporarily defeated and the Squelch is controlled only by incoming signals. (Refer to FUNC 18.6 Monitor.)
OST	When the PF OST key is pressed, the Encode/Decode code pair of QT/DQT can be changed. (Refer to FUNC 19 OST.)
Playback	When the PF Playback key is pressed, the recorded data plays back and new voice message can be stored to the VGS-1. (Refer to FUNC 31 VGS.)
Public Address	When the PF Public Address key is pressed, the Public Address function is enabled or disabled. (Refer to FUNC 4.12 Public Address.)

Name of Function	Description
Scan	When the PF Scan key is pressed, the scan starts or stops. (Refer to FUNC 23 Scan.)
Scan Delete/Add	When the PF Scan Delete/Add key is pressed, selected Zone-CH/GID will be deleted/ added from the Scan List. (Refer to FUNC 23.7.1 Scan Del/Add.)
Scrambler	When the PF Scrambler key is pressed, the Voice Scrambler function is enabled or disabled. When the PF Scrambler key is held down for 1 second, the Scrambler codes can be selected from 1 - 16. (Refer to FUNC 29 Voice Scrambler.)
Selcall	When the PF Selcall key is pressed, the ID number can be selected from ID List or enter the value directly. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Selcall can be made. (Refer to FUNC 22.1.2 Selective Call.)
Selcall+Status	When the PF Selcall+Status key is pressed, the ID Status and Status number can be selected from the ID Status List or enter the value directly. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Status is transmitted. (Refer to FUNC 22.2 Selective Call.)
Send the GPS data	When the PF Send GPS key is pressed, the GPS data received via the COM port is transmitted manually to the Base station. (Refer to FUNC 22.6 GPS.)
Speaker Attenuation	When the PF Speaker Attenuation key is pressed, the volume is lowered temporarily. (Refer to FUNC 4.11 SP Attenuation.)
Squelch Level	When the PF Squelch Level key is pressed, the Squelch tightness can be changed. (Refer to FUNC 18.8 Squelch Level.)
Squelch Off	When the PF Squelch Off key is pressed, the Squelch is disabled and signals can be heard. (Refer to FUNC 18.7 Squelch.)
Squelch Off Momentary	The Squelch is disabled and signals can be heard while the PF Squelch Off Momentary key is pressed. (Refer to FUNC 18.7 Squelch.)
Status	When the PF Status key is pressed, the Status number can be selected from Status List or enter the value directly. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Status is transmitted. (Refer to FUNC 22.3 Status Message.)
Talk Around	When the PF Talk Around key is pressed, the Talk Around function is enabled or disabled. (Refer to FUNC 13 Talk Around.)
Telephone Disconnect	When the PF Telephone Disconnect key is pressed, the call that was being made is disconnected. (Refer to FUNC 17.4 Telephone InterConnect.)

Name of Function	Description
Transceiver Password	When the PF Transceiver Password key is pressed, the transceiver cannot be used without entering the password, and the transceiver waits for the password. (Refer to FUNC 5.1 Transceiver Password.)
Volume Down	When the PF Volume Down key is pressed, Volume is decreased in steps of 1. When the key is held down for 1 second, volume is decreased in steps of 1 at 100 ms intervals. This function is available only for the TK-7180/ 8180 transceivers. (Refer to FUNC 2.2 Adjusting the Volume.)
Volume Up	When the PF Volume Up key is pressed, Volume is increased in steps of 1. When the key is held down for 1 second, volume is increased in steps of 1 at 100 ms intervals. This function is available only for the TK-7180/ 8180 transceivers. (Refer to FUNC 2.2 Adjusting the Volume.)
VOX	When the PF VOX key is pressed, the VOX Gain Level can be configured. When the PF VOX key is held down for 2 seconds, the VOX function can be turned On or Off. This function is available only for the TK-2180/ 3180 transceivers. (Refer to FUNC 28 VOX.)
Zone Down	When the PF Zone Down key is pressed, the Zone number is decreased in steps of 1. Holding down the key for 1 second or more, the Zone number is decreased in steps of 1 at 200 ms intervals. (Refer to FUNC 2.4 Changing the Zone.)
Zone Up	When the PF Zone Up key is pressed, the Zone number is increased in steps of 1. Holding down the key for 1 second or more, the Zone number is increased in steps of 1 at 200 ms intervals. (Refer to FUNC 2.4 Changing the Zone.)

6.8.2 General Tab

In the **General** tab, the Key Assignment function can be configured.

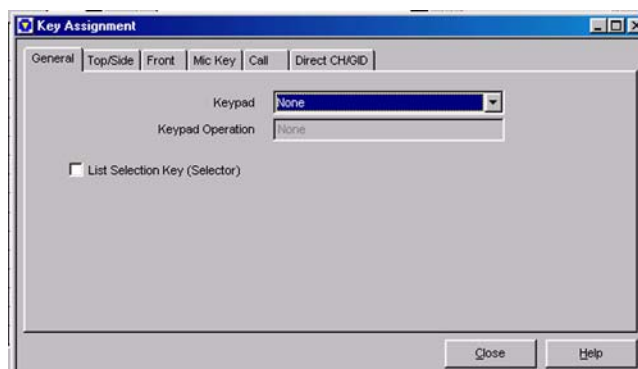


Figure 6-29 General Tab

■ Keypad

Configure the type of Keypad. Select the desired Keypad option from the pulldown menu.

Range	TK-2180/ 3180	None/ 12 key
	TK-7180/ 8180	None/ 12 key (Mic)/ 16 key (Mic)
Default	None	

■ Keypad Operation

Configure how the key is to be used. Select the desired Keypad Operation from the pulldown menu. (Refer to FUNC 1.10 Keypad Operation.)

Range	None	No function is configured.
	Channel Entry	When the Channel Entry key is pressed, channels can be specified directly.
	OST	When the OST key is pressed, OST List 1 to 40 can be specified directly.
	DTMF (Autodial)	When the DTMF (Autodial) key is pressed, the DTMF codes can be selected and transmitted.
	DTMF (Keypad Auto PTT)	Each time the DTMF (Keypad Auto PTT) key is pressed, the DTMF code can be transmitted directly.
	FleetSync (Selcall)	When the FleetSync (Selcall) key is pressed, the Fleet/ ID number can be entered directly, or the stored Selcall List can be selected. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Selcall is transmitted.
	FleetSync (Status)	When the FleetSync (Status) key is pressed, the Status number is entered directly, or the stored Status List is selected. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Status is sent.
	FleetSync (Selcall + Status)	When the FleetSync (Selcall + Status) key is pressed, the Fleet/ID or Status number is entered directly, or the stored Selcall/ Status List is selected. Then, when the PTT switch or [Side 2]/ [■] is pressed, the Status is sent.
Default	None	

Note: No function can be assigned when "None" is selected in the **Keypad** pulldown menu.

■ List Selection Key (Selector)

Configure whether or not to perform mode specific operations when **Selector**, **[⤴]/ [⤵]** are pressed in the respective mode.

Range	Check (Enable)	Performs mode specific operations.
	Uncheck (Disable)	Does not perform mode specific operations.
Default	Unchecked (Disabled)	

6.8.3 Top/Side Tab (TK-2180/ 3180 only)

In the **Top/Side** tab, select the function to assign to **Selector** or the **AUX/ Side** keys from the **Function** and **2nd Function** pulldown menus.

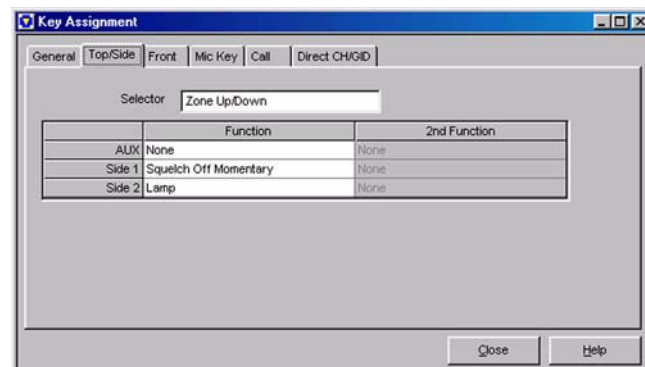


Figure 6-30 Top/Side Tab

■ Selector

Configure the function to assign to the **Selector**. Select the desired Selector option from the pulldown menu.

Range	None	No function. When Selector is rotated, the Key-entry Error Tone sounds.
	Zone Up/Down	When Selector is rotated, the Zone number is increased or decreased in steps of 1.
	CH/GID Up/Down	When Selector is rotated, the CH/GID number is increased or decreased in steps of 1.
Default	Zone Up/Down	

■ AUX/ Side 1/ Side 2 (Function/2nd Function)

Select the function to assign to the **PF** keys from the **Function** and **2nd Function** pulldown menu.

Range	Refer to 6.8.1 Available Functions to the PF Keys.	
Default	Function	AUX: None Side 1: Squelch Off Momentary Side 2: Lamp
	2nd Function	None

Note:

- ◆ The **2nd Function** pulldown menu can be configured only when "Function" in Key Function List is selected from the **Function** pulldown menus in each tab.
- ◆ When a PF key is selected, the selected **PF** key in the **Key Image** window appears in red.

6.8.4 Front Tab (TK-2180/ 3180 only)

In the **Front** tab, select the function to assign to front keys from the **Function** and **2nd Function** pulldown menu.

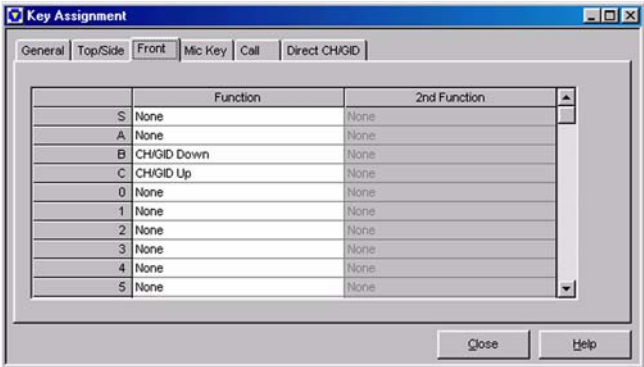


Figure 6-31 Front Tab

Range	Refer to 6.8.1 Available Functions to the PF Keys.	
Default	Function	S: None A: None B: CH/GID Down C: CH/GID Up 0 - 9: None *: None #: None
	2nd Function	None

Note:

- ◆ The **2nd Function** pulldown menu can be configured only when “Function” in Key Function List is selected from the **Function** pulldown menus in each tab.
- ◆ 0 - 9, “*” and “#” cannot be configured when “None” is selected in the **General** tab > the **Keypad** pulldown menu.
- ◆ When a PF key is selected, the selected **PF** key in the **Key Image** window appears in red.

6.8.5 Panel Tab (TK-7180/ 8180 only)

In the **Panel** tab, select the function to assign to panel keys from the **Function** and **2nd Function** pulldown menu.

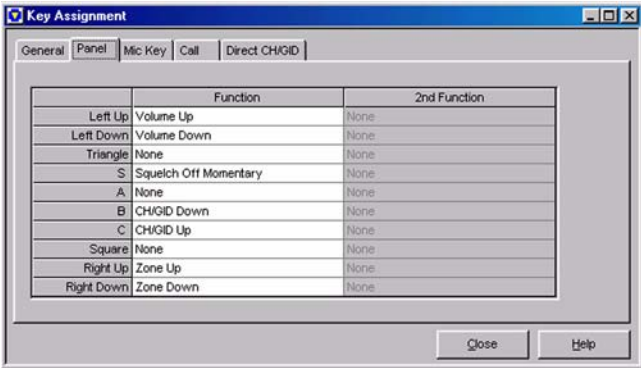


Figure 6-32 Panel Tab

Range	Refer to 6.8.1 Available Functions to the PF Keys.	
Default	Function	Left Up: Volume Up Left Down: Volume Down Triangle: None S: Squelch Off Momentary A: None B: CH/GID Down C: CH/GID Up Square: None Right Up: Zone Up Right Down: Zone Down
	2nd Function	None

Note:

- ◆ The **2nd Function** pulldown menu can be configured only when “Function” in Key Function List is selected for the **Function** pulldown menus in each tab.
- ◆ When a PF key is selected, the selected **PF** key in the **Key Image** window appears in red.

6.8.6 Mic Key Tab

In the **Mic Key** tab, select the function to assign to the mic key from the **Function** and **2nd Function** pulldown menu.

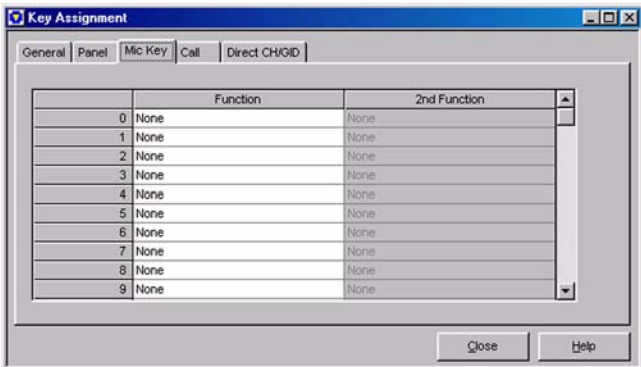


Figure 6-33 Mic Key Tab

● TK-2180/ 3180

Range	Refer to 6.8.1 Available Functions to the PF Keys.	
Default	Function	PF 1: None PF 2: None
	2nd Function	None

● TK-7180/ 8180

Range	Refer to 6.8.1 Available Functions to the PF Keys.	
Default	Function	0 - 9: None *: None #: None A: None B: None C: None D: None
	2nd Function	None

Note:

- ◆ The **2nd Function** pulldown menu can be configured only when "Function" in Key Function List is selected from the **Function** pulldown menus in each tab.
- ◆ 0 - 9, "*", "#", A, B, C, and D cannot be configured when "None" is selected in the **General** tab > the **Keypad** pulldown menu (TK-7180/ 8180 transceivers).
- ◆ A, B, C, and D cannot be configured when "12 Key" is selected in the **General** tab > the **Keypad** pulldown menu (TK-7180/ 8180 transceivers).
- ◆ When a PF key is selected, the selected **PF** key in the **Key Image** window appears in red.

6.8.7 Call Tab

In the **Call** tab, configure the number that is configured to the list corresponding to each signaling on the **PF Call 1 - PF Call 6** keys.

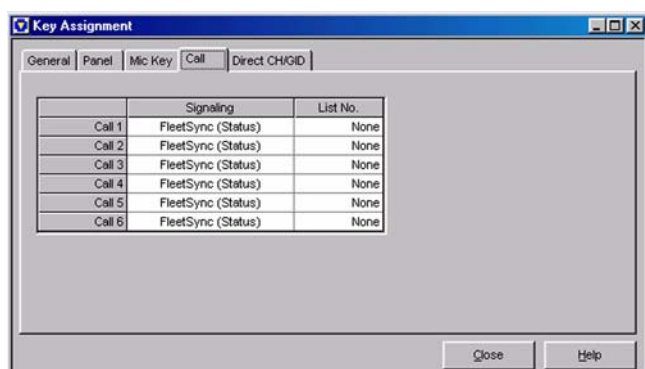


Figure 6-34 Call Tab

■ Signaling (Call 1 - Call 6)

Configure the signaling of the **PF Call 1 - PF Call 6** keys. Select the desired Call 1 - 6 Signalling format from the pulldown menu. (Refer to FUNC 1.11 Call Key.)

Range	DTMF/ 2-tone/ FleetSync (Status)
Default	FleetSync (Status)

Note:

- ◆ The **Signaling** pulldown menu can be configured only when "Call 1" - "Call 6" in the Key Function List is selected from the **Function** pulldown menus in each tab.
- ◆ "None" is selected in the **List Number** pulldown menu when the **Signaling** pulldown menu configuration is changed.

■ List Number (Call 1 - Call 6)

Configure the number to the corresponding list for each signaling. Select the desired Call 1 - 6 List Number from the pulldown menu. (Refer to FUNC 1.11.Call Key.)

Range	DTMF/2-tone	None/ 1 - 32
	FleetSync (Status)	None/ 1 - 90
Default	None	

Note: Only numbers configured to the list are displayed.

6.8.8 Direct CH/GID Tab

In the **Direct CH/GID** tab, the **PF Direct CH/GID 1 - PF Direct CH/GID 6** keys can be configured.

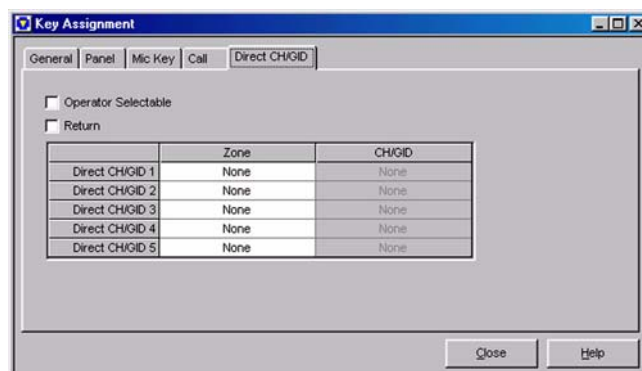


Figure 6-35 Direct CH/GID Tab

■ Operator Selectable

Configure whether or not to allow a user to change the Direct CH/GID using the **PF Direct CH/GID 1 - PF Direct CH/GID 6** keys. (Refer to FUNC 2.8 Direct CH/GID.)

Range	Check (Enable)	Allows a user to change Direct CH/GID.
	Uncheck (Disable)	Does not allow a user to change Direct CH/GID.
Default	Unchecked (Disabled)	

■ Recall

Configure whether or not the original CH/GID can be recalled the same **PF Direct CH/GID 1 - PF Direct CH/GID 6** key is pressed again after the channel is changed to a new channel using the **PF Direct CH/GID 1 - PF Direct CH/GID 6** keys. (Refer to FUNC 2.8 Direct CH/GID.)

Range	Check (Enable)	The original CH/GID is recalled when the same PF Direct CH/GID 1 - PF Direct CH/GID 6 key is pressed again.
	Uncheck (Disable)	The original CH/GID cannot be recalled when the same PF Direct CH/GID 1 - PF Direct CH/GID 6 key is pressed again.
Default	Unchecked (Disabled)	

■ Zone (Direct CH/GID 1 - Direct CH/GID 6)

Configure new Zone to be changed when one of the **PF Direct CH/GID 1 - PF Direct CH/GID 6** keys is pressed. Enter the Zone number directly in the **Direct CH/GID 1 - 6** edit boxes, or select it from the pulldown menu. (Refer to FUNC 2.8 Direct CH/GID.)

Range	None/ Existing Zone
Default	None

Note:

- ◆ The **Zone** pulldown menu can be configured only when "Direct CH/GID 1" - "Direct CH/GID 6" in Key Function List is selected from the **Function** pulldown menus.
- ◆ None is configured in the **CH/GID** pulldown menu when the **Zone** pulldown menu configuration is changed.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When an unavailable zone is entered, an error message appears and the value returns to its original value.
- ◆ When the **Zone** pulldown menu is available, and either "Close" is clicked or writing data with "None" selected from the **CH/GID** pulldown menu, an error message appears.

■ CH/GID (Direct CH/GID 1 - Direct CH/GID 6)

Configure the CH/GID to move to when one of the **PF Direct CH/GID 1 - PF Direct CH/GID 6** keys is pressed. Select the desired Direct CH/GID 1 - 6 numbers from the pulldown menu. (Refer to FUNC 2.8 Direct CH/GID.)

Range	None/ Existing CH/GID
Default	None

Note:

- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When an unavailable CH/GID is entered, an error message appears, and the value returns to its original value.
- ◆ When the **Zone** pulldown menu can be configured, and either "Close" is clicked or writing data with "None" selected from the **CH/GID** pulldown menu, an error message appears.

6.9 Scan Information Window

In the **Scan Information** window, various scan functions can be configured.

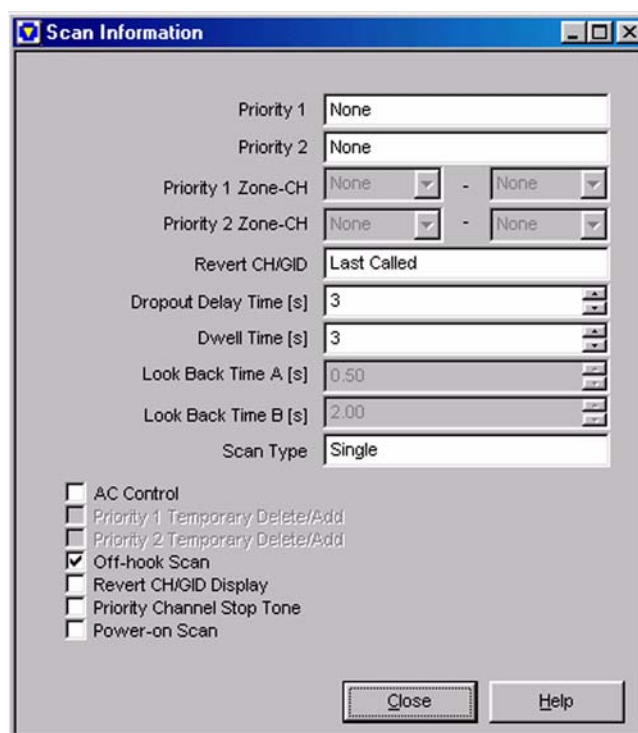


Figure 6-36 Scan Information Window

6.9.1 Priority 1

To configure Priority 1 channel, select the desired Priority 1 option from the pulldown menu. (Refer to FUNC 23.7.4 Priority 1/Priority 1 Zone-CH.)

Range	None	Priority 1 is not assigned.
	Fixed	The channel configured in the Priority 1 Zone-CH pulldown menu is used as Priority 1. (Refer to 6.9.3 Priority 1 Zone-CH.)
	Selected	The current channel is set to Priority 1.
	Operator Selectable	A user can configure Priority 1. To configure Priority 1, press and hold the PF Scan key for 2 seconds.
Default	None	

Note: “Selected” cannot be configured in the **Priority 1** pulldown menu when “Selected” is already configured in the **Priority 2** pulldown menu.

6.9.2 Priority 2

To configure Priority 2, select the desired Priority 2 option from the pulldown menu. (Refer to FUNC 23.7.5 Priority 2/Priority 2 Zone-CH.)

Range	None	Priority 2 is not assigned.
	Fixed	The channel configured in the Priority 2 Zone-CH pulldown menu is used as Priority 2. (Refer to 6.9.3 Priority 1 Zone-CH.)
	Selected	The current channel is set to Priority 2.
	Operator Selectable	A user can configure Priority 2. To configure Priority 2, press and hold the PF Scan key for 2 seconds.
Default	None	

Note: “Selected” cannot be configured in the **Priority 2** pulldown menu when “Selected” is already configured in the **Priority 1** pulldown menu.

6.9.3 Priority 1 Zone-CH

Configure the Zone-CH/GID to be used as Priority 1. Enter a value for Zone-CH/GID directly in the edit box or select it from the pulldown menu. (Refer to FUNC 23.7.4 Priority 1/Priority 1 Zone-CH.)

Range	None/ Zone-CH/GID of existing Conventional Group
Default	None

Note:

- ◆ This function cannot be configured when an item other than “Fixed” or “Operator Selectable” is selected from the **Priority 1** pulldown menu.
- ◆ A maximum of 3-digit numbers can be entered. When “0” is entered, 1 will be configured.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When None is configured in the **Zone** edit box, None will be configured also in the **CH/GID** edit box.
- ◆ When an unavailable Zone-CH/GID is entered, an error message appears and the value returns to its original value.
- ◆ When a value is configured in the **Zone** edit box, and either “Close” is clicked or writing data with the **CH/GID** edit box in a “None” state, an error message appears.
- ◆ If the same Zone number is configured in the **Zone Information** window > the **Zone Type** pulldown menu that the **Trunking System** is selected, both **Zone** and **CH/GID** edit boxes are configured as None.

6.9.4 Priority 2 Zone-CH

Configure the Zone-CH/GID to be used as Priority 2. Enter a value for Zone-CH/GID directly in the edit box or select it from the pulldown menu. (Refer to FUNC 23.7.5 Priority 2/Priority 2 Zone-CH.)

Range	None/ Zone-CH/GID of existing Conventional Group
Default	None

Note:

- ◆ This function cannot be configured when an item other than “Fixed” or “Operator Selectable” is selected from the **Priority 2** pulldown menu.
- ◆ A maximum of 3-digit numbers can be entered. When “0” is entered, 1 will be configured.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When None is configured in the **Zone** edit box, None will be configured also in the **CH/GID** edit box.
- ◆ When an unavailable Zone-CH/GID is entered, an error message appears and the value returns to its original value.
- ◆ When a value is configured in the **Zone** edit box, and either “Close” is clicked or writing data with the **CH/GID** edit box in a None state, an error message appears.

- ◆ If the same Zone number is configured in the **Zone Information** window > the **Zone Type** pulldown menu that the **Trunking System** is selected, both **Zone** and **CH/GID** edit boxes are configured as None.

6.9.5 Revert CH/GID

Configure the Zone-CH/GID to be used for the transmission when the **PTT** switch is pressed during the scan. Select the desired Revert CH/GID Type from the pulldown menu. (Refer to FUNC 23.7.6 Revert CH/GID.)

Range	Last Called	Transmits on the last called Zone-CH/GID when the PTT switch is pressed during the scan. Transmits on the current Zone-CH/GID when the PTT switch is pressed while the scan is paused.
	Last Used	Transmits on the last transmitted Zone-CH/GID when the PTT switch is pressed during the scan. Transmits on the current Zone-CH/GID when the PTT switch is pressed while the scan is paused.
	Selected	Transmits on the new CH/GID after the Zone-CH/GID is changed regardless of the scanning status.
	Selected + TalkBack	Transmits on the new Zone-CH/GID after the Zone-CH/GID is changed during the scan. Transmits on the current Zone-CH/GID while the scan is paused.
	Priority 1	Transmits by Priority 1 regardless of the scanning status.
	Priority 1 + TalkBack	Transmits by Priority 1 during the scan. Transmits on the current Zone-CH/GID while the scan is paused.
	Priority 2	Transmits by Priority 2 regardless of the scanning status.
	Priority 2 + TalkBack	Transmits by Priority 2 during the scan. Transmits on the current Zone-CH/GID while the scan is paused.
Default	Last Called	

Note:

- ◆ “Priority 1” or “Priority 1 + Talk Back” cannot be selected from the **Revert CH/GID** pulldown menu when None or Selected is configured in the **Priority 1** pulldown menu.

- ◆ “Last Called” will be configured when “None” or “Selected” is selected from the **Priority 1** pulldown menu while “Priority 1” or “Priority 1 + Talk Back” is selected for the **Revert CH/GID** pulldown menu.
- ◆ “Priority 2” or “Priority 2 + Talk Back” cannot be selected for the **Revert CH/GID** pulldown menu when None or Selected is configured in the **Priority 2** pulldown menu.
- ◆ “Last Called” is configured when “None” or “Selected” is selected from the **Priority 2** pulldown menu while “Priority 2” or “Priority 2 + Talk Back” is selected from the **Revert CH/GID** pulldown menu.

6.9.6 Dropout Delay Time

Configure the delay time to resume scanning after the transceiver stops receiving. Enter a value for Dropout Delay Time directly in the edit box or click the spin button to configure the Dropout Delay Time. (Refer to FUNC 23.7.7 Dropout Delay Time.)

Range	0 - 300 s
Step	1 s
Default	3 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.9.7 Dwell Time

The scan is paused when the **PTT** switch is pressed. For the Dwell Time, configure the time until the scan is resumed after transmission ends. (Refer to FUNC 23.7.8 Dwell Time.)

Enter a value for Dwell Time directly in the edit box or click the spin button to configure the Dwell Time.

Range	0 - 300 s
Step	1 s
Default	3 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.9.8 Look Back Time A

Configure the time to send the Priority Channel is inspected from the normal channel when no carrier is detected on the Priority Channel during the Priority Scan. Configure the shorter interval time than Look Back Time B because there is a possibility that the transceiver always waits the Priority Channel signal. (Refer to FUNC 23.7.9 Look Back.)

Enter a value for Look Back Time A directly in the edit box or click the spin button to configure the Look Back Time A.

Range	0.50 - 5.00 s
Step	0.05 s
Default	0.50 s

Note:

- ◆ A maximum of 3-digit frequency and “.” (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 0.50 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.
- ◆ The **Look Back Time A** edit box cannot be configured when “None” is selected from the **Priority 1** and **Priority 2** pulldown menus.

6.9.9 Look Back Time B

Configure the time to scan the Priority Channel from the normal channel when incoming QT/DQT does not match own QT/DQT even though a carrier is detected on the Priority Channel during the Priority Scan. (Refer to FUNC 23.7.9 Look Back.)

Enter a value for Look Back Time B directly in the edit box or click the spin button to configure the Look Back Time B.

Range	0.50 - 5.00 s
Step	0.05 s
Default	2.00 s

Note:

- ◆ A maximum of 3-digit frequency and “.” (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 0.50 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.
- ◆ The **Look Back Time B** edit box cannot be configured when “None” is selected from the **Priority 1** and **Priority 2** pulldown menus.

6.9.10 Scan Type

To configure the scan options of the transceiver, select the desired Scan Type from the pulldown menu. (Refer to FUNC 23.7.10 Scan Type.)

Range	Single	Scans Add CH/GID within the zone when the scan starts. The Priority Channel also is scanned when the Priority Channel is configured.
	Multi	Scans Add CH/GID of all zones configured as Add. The Priority Channel is also scanned when the Priority Channel is configured.
	List	Scans the Add CH/GID configured in Scan List of the zone when the scan starts. Priority Channel is also scanned when the Priority Channel is configured.
Default	Single	

6.9.11 AC Control

Configure whether or not to disable QT/DQT on the Priority Channel and the Squelch is controlled by a carrier during the Priority Scan. (Refer to FUNC 23.7.11 AC Control.)

Range	Check (Enable)	QT/DQT on the Priority Channel is disabled and the Squelch is controlled by a carrier.
	Uncheck (Disable)	QT/DQT on the Priority Channel is disabled and the Squelch is not controlled by a carrier.
Default	Unchecked (Disabled)	

6.9.12 Priority 1 Temporary Delete/Add

Configure to allow the Temporary Delete/Add operations on Priority 1 when the **PF Scan Del/Add** key is pressed while the scan is paused on Priority 1.

Range	Check (Enable)	Temporary Delete/Add is allowed on Priority 1.
	Uncheck (Disable)	Temporary Delete/Add is not allowed on Priority 1.
Default	Unchecked (Disabled)	

Note: Priority 1 Temporary Delete/Add cannot be configured when "None" is selected in the **Priority 1** pulldown menu.

6.9.13 Priority 2 Temporary Delete/Add

Configure to allow the Temporary Delete/Add operations on Priority 2 when the **PF Scan Del/Add** key is pressed while the scan is paused on Priority 2.

Range	Check (Enable)	Temporary Delete/Add is allowed on Priority 2.
	Uncheck (Disable)	Temporary Delete/Add is not allowed on Priority 2.
Default	Unchecked (Disabled)	

Note: Priority 2 Temporary Delete/Add cannot be configured when "None" is selected in the **Priority 2** pulldown menu.

6.9.14 Off-hook Scan (TK-7180/ 8180 only)

Configure the Off-hook Scan function. Scanning options can be configured in the Off-hook Scan function depending on the Mic Hook status.

Range	Check (Enable)	The scan starts by pressing the PF Scan key regardless of the On-hook or Off-hook status.
	Uncheck (Disable)	Scanning starts when the PF Scan key is pressed in the On-hook state. However, in the Off-hook state, an error occurs and the scan cannot be started. When the On-hook state is changed to Off-hook in Scan Mode, scanning is paused on Revert CH/GID. Scanning is resumed when it becomes the On-hook state.
Default	Checked (Enabled)	

6.9.15 Revert CH/GID Display

Configure whether or not to display Revert Zone-CH/GID during the scan.

Range	Check (Enable)	Displays Revert Zone-CH/GID.
	Uncheck (Disable)	Revert Zone-CH/GID is not displayed and "SCAN" appears.
Default	Unchecked (Disabled)	

6.9.16 Priority Channel Stop Tone

Configure whether or not to emit the Priority Channel Stop Tone when a channel is changed or a carrier is received, and the transceiver stops on a Priority Channel.

Range	Check (Enable)	Emits the Priority Channel Tone.
	Uncheck (Disable)	Does not emit the Priority Channel Tone.
Default	Unchecked (Disabled)	

6.9.17 Power-on Scan

Configure whether or not to start the scan when the transceiver is turned ON.

Range	Check (Enable)	Starts the scan when the transceiver is turned ON.
	Uncheck (Disable)	Does not start the scan when the transceiver is turned ON.
Default	Unchecked (Disabled)	

6.10 DTMF Window

In the **DTMF** window, configure the DTMF-signaling options.

The **DTMF** window has the following tabs. The tab sheet can be selected by clicking each tab.

- **Encode** tab
- **Decode** tab
- **Autodial List** tab

6.10.1 Encode Tab

In the **Encode** tab, configure the DTMF Encode options.

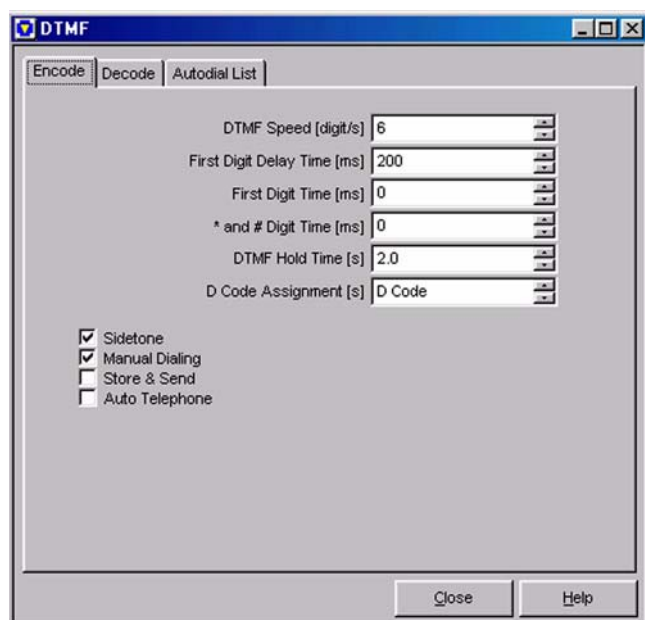


Figure 6-37 Encode Tab

DTMF Speed

Configure the DTMF automatic transmission speed when it is used for PTT ID, Autodial or Store & Send. Enter a value directly in the edit box or click the spin button to configure the DTMF Speed. (Refer to FUNC 20.2.1 DTMF Speed.)

Range	6/ 8/ 10/ 15 digit/s
Default	6 digit/s

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 6 will be configured.
- ◆ When a value other outside the available range is entered, the value is configured as follows:
 - 6 will be configured when "0" to "5" or "7" is entered.
 - 8 will be configured when "9" is entered.
 - 10 will be configured when "11" - "14" is entered.
 - 15 will be configured when "16" or more is entered.

First Digit Delay Time

Configure the First Digit Delay Time function. The First Digit Delay Time function is a delay time to transmit the DTMF codes when the **PTT** switch is pressed. (Refer to FUNC 20.2.2 First Digit Delay Time.)

Enter a value for First Digit Delay Time directly in the edit box or click the spin button to configure the First Digit Delay Time.

Range	0 - 1000 ms
Step	50 ms
Default	200 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.

First Digit Time

The First Digit Time function adjusts the time length of the first DTMF digit. (Refer to FUNC 20.2.3 First Digit Time.)

Enter a value for First Digit Time directly in the edit box or click the spin button to configure the First Digit Time.

Range	0/ 100/ 500/ 1000 ms
Default	0 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value other outside the available range is entered, values are configured as follows:
 - 0 will be configured when "1" - "99" is entered.
 - 100 will be configured when "101" - "499" is entered.
 - 500 will be configured when "501" - "999" is entered.
 - 1000 will be configured when "1001" or more is entered.

■ * and # Digit Time

Configure * and # Digit Time. * and # Digit Time are the transmission extended time of the * Tone and # Tone when the DTMF code is automatically transmitted. (Refer to FUNC 20.2.4 * and # Digit Time.)

Enter a value for First Digit Time directly in the edit box or click the spin button to configure the First Digit Time.

Range	0/ 100/ 500/ 1000 ms
Default	0 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value other outside the available range is entered, values are configured as follows:
 - 0 will be configured when "1" - "99" is entered.
 - 100 will be configured when "101" - "499" is entered.
 - 500 will be configured when "501" - "999" is entered.
 - 1000 will be configured when "1001" or more is entered.

■ DTMF Hold Time

Configure the time to return to receive after the key is released while using Keypad Auto PTT. Enter a value for DTMF Hold Time directly in the edit box or click the spin button to configure the DTMF Hold Time. (Refer to FUNC 20.2.5 DTMF Hold Time.)

Range	Off/ 0.5 - 2.0 s
Step	0.5 s
Default	2.0 s

Note:

- ◆ A maximum of 2-digit number and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.

■ D Code Assignment

Configure whether to use the **[D]** key as the DTMF D Code, or to use it as a pause during the transmission of Store & Send, Auto Telephone or PTT ID. Enter a value directly in the edit box or click the spin button to configure the D Code Assignment. (Refer to FUNC 20.2.6 D Code Assignment.)

Range	D Code/ 1 - 16 s
Step	1 s
Default	D Code

Note:

- ◆ A maximum of 2-digit numbers and "D" can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When "D" is entered, the D Code will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Sidetone

Configure whether or not to monitor the DTMF transmission tone through the speaker while the DTMF code is transmitted. (Refer to FUNC 20.2.7 DTMF Sidetone.)

Range	Check (Enable)	Emits the DTMF transmission tone.
	Uncheck (Disable)	Does not emit the DTMF transmission tone.
Default	Checked (Enabled)	

■ Manual Dialing

Configure to enable or disable the Manual Dialing function. Manual Dialing allows you to transmit the DTMF tone corresponding to the key when **[0]** - **[9]**, **[*]**, **[#]** on the Mic Keypad are pressed while transmitting by pressing the **PTT** switch. (Refer to FUNC 20.1.1 Manual Dialing.)

Range	Check (Enable)	Enables Manual Dialing.
	Uncheck (Disable)	Disables Manual Dialing.
Default	Checked (Enabled)	

■ Store & Send

Configure to enable or disable the Store & Send function. With the Store & Send function, the desired DTMF codes can be transmitted using a keypad. A series of DTMF code can be entered and then it can be transmitted later. A maximum of 30 digits can be transmitted in a single Store & Send operation. (Refer to FUNC 20.1.2 Store & Send.)

Range	Check (Enable)	Enables Store & Send.
	Uncheck (Disable)	Disables Store & Send.
Default	Unchecked (Disabled)	

■ Auto Telephone

Configure to enable or disable the Auto Telephone function. If Auto Telephone is enabled, the Auto Telephone function can be used when the transceiver enters Autodial Mode. (Refer to FUNC 20.2.8 Auto Telephone.)

Range	Check (Enable)	Enables Auto Telephone.
	Uncheck (Disable)	Disables Auto Telephone.
Default	Unchecked (Disabled)	

6.10.2 Decode Tab

In the **Decode** tab, the DTMF decode options can be configured.



Figure 6-38 Decode Tab

■ Code (Decode)

Configure the standby code for individual calling. Enter the desired codes directly to the **No. 1** and **No. 2** edit boxes. (Refer to FUNC 20.3.1 1st Code/2nd Code.)

Range	A maximum of a 10-digit string	
Available Codes	# * 0 1 2 3 4 5 6 7 8 9 A B C D	
Default	Decoder 1	159D
	Decoder 2	A68*

■ Transpond (Decode)

Configure whether or not to enable Transpond when the standby code matches. From the **Transpond No. 1** or **No. 2** pulldown menu, select the desired option. (Refer to FUNC 20.3.2 Decode Response.)

Range	Yes	Enables Transpond when the standby code matches.
	No	Disables Transpond when the standby code matches.
Default	No	

■ Alert Tone (Decode)

Configure the Alert tone when the standby codes match. Enter a value directly in the **Alert Tone No. 1** or **No. 2** edit box or click the spin button to configure the Alert Tone. (Refer to FUNC 20.3.2 Decode Response.)

Range	Off/ 1 - 8	
Step	1	
Default	Decoder 1	1
	Decoder 2	2

Note:

- ◆ Only 1 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When "0" is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Stun Code

Configure the Stun standby code. Enter the desired string directly in the edit box to configure the Stun Code. (Refer to FUNC 20.3.3 Stun.)

Range	A maximum of a 10-digit string	
Available Codes	# * 0 1 2 3 4 5 6 7 8 9 A B C D	
Default	Blank	

■ Stun Code Response

Configure transceiver action when the Stun Codes matches. Select the desired Stun Code Response option from the pulldown menu. (Refer to FUNC 20.3.3 Stun.)

Range	TX Inhibit	Restricts the transmission.
	Transceiver Inhibit	Restricts the transmission and receiving. All transceiver operations are restricted. When the PTT switch is pressed, the Warning Tone sounds. If a key is pressed, the Key-entry Error Tone sounds.
Default	TX Inhibit	

Note: The Stun Code Response cannot be configured when the **Stun Code** edit box is a blank.

■ Auto Reset Timer (Auto Reset)

Configure the time to reset the DTMF match state automatically. Enter the time directly in the edit box or click the spin button to configure the Auto Reset Timer. (Refer to FUNC 20.3.4 Auto Reset Timer.)

Range	Off/ 1 - 300 s
Step	1 s
Default	10 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When "0" is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ LED (Auto Reset)

Configure whether or not to turn Off the Selective Call Alert LED after Auto Reset Timer expires. (Refer to FUNC 20.3.4 Auto Reset Timer.)

Range	Check (Enable)	Selective Call Alert LED is turned out after Auto Reset Timer expires.
	Uncheck (Disable)	Selective Call Alert LED is not turned out after Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: The LED (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

■ Alert (Auto Reset)

Configure whether or not to stop emitting the Alert Tone after Auto Reset Timer expires. (Refer to FUNC 20.3.4 Auto Reset Timer.)

Range	Check (Enable)	Stops emitting Alert Tone after Auto Reset Timer expires.
	Uncheck (Disable)	Does not stop emitting Alert Tone after Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: Alert (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

■ Monitor (Auto Reset)

Configure whether or not to reset the DTMF match state after the Auto Reset Timer is expires. (Refer to FUNC 20.3.4 Auto Reset Timer.)

Range	Check (Enable)	Resets the DTMF match state.
	Uncheck (Disable)	Does not reset the DTMF match state.
Default	Checked (Enabled)	

Note: Monitor (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

■ Clear to Transpond

Configure to enable or disable the Clear to Transpond function. The Clear to Transpond function waits for sending Transpond until the channel becomes free, while other users are using the channel. (Refer to FUNC 20.3.5 Clear to Transpond.)

Range	Check (Enable)	Enables Clear to Transpond.
	Uncheck (Disable)	Disables Clear to Transpond.
Default	Unchecked (Disabled)	

■ Selective Call Alert LED

Configure whether or not to make Selcall Alert LED blink when the code is received. (Refer to FUNC 20.3.6 Selective Call Alert LED.)

Range	Check (Enable)	Makes Selcall Alert LED blink.
	Uncheck (Disable)	Does not make Selcall Alert LED blink.
Default	Checked (Enabled)	

6.10.3 Autodial List Tab

In the **Autodial List** tab, the Autodial List options can be configured.

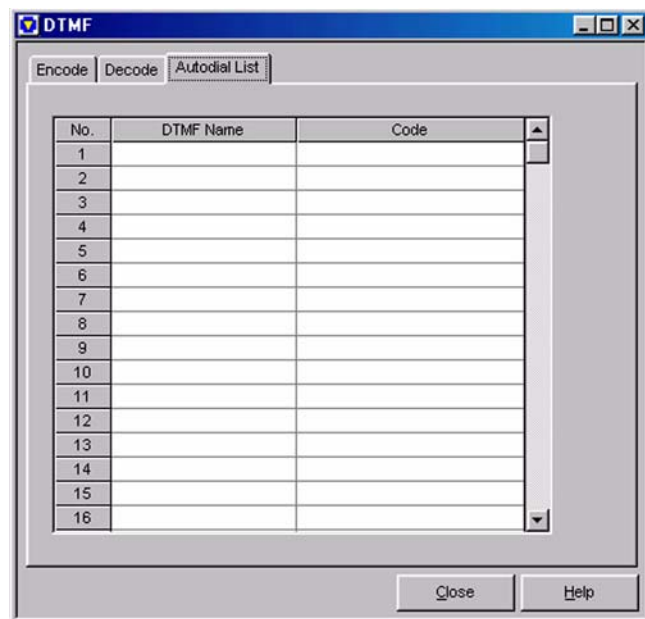


Figure 6-39 Autodial List Tab

■ DTMF Name (Autodial List)

Configure the name of the DTMF code to be used for the Autodial function. Enter the code to the **No. 1** to **No. 32** edit boxes to configure the DTMF Name. (Refer to FUNC 20.4.1 Autodial List.)

Range	A maximum of a 12-digit string
Available Codes	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	Blank

■ Code (Autodial List)

Configure the DTMF code to be used for autodialing. Directly enter the code to the **No. 1** to **No. 32** edit boxes to configure the code. (Refer to FUNC 20.4.1 Autodial List.)

Range	A maximum of a 16-digit string
Available Codes	# * 0 1 2 3 4 5 6 7 8 9 A B C D
Default	Blank

6.11 2-tone Window

In the **2-tone** window, the 2-tone Signaling options can be configured.

The **2-tone** window has the following tabs. Each tab can be selected by clicking the tab title.

- **Encode** tab
- **Decode (2-tone 1)** tab
- **Decode (2-tone 2)** tab
- **Decode (2-tone 3)** tab
- **Decode (2-tone 4)** tab

6.11.1 Encode Tab

In the **Encode** tab, 2-tone Encode options can be configured.

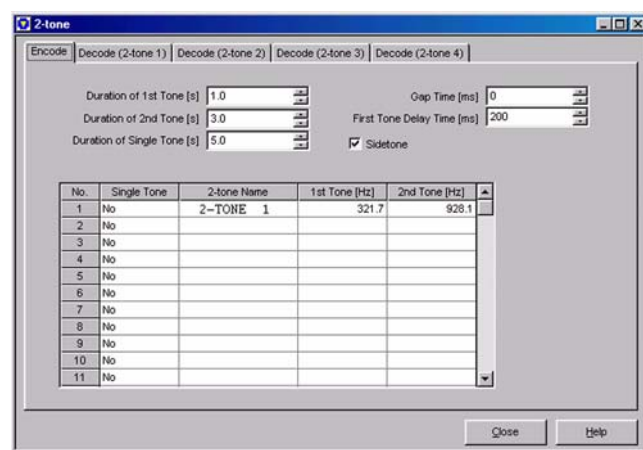


Figure 6-40 Encode Tab

■ Duration of 1st Tone

Configure the 1st Tone Encode time when the 2-tone in the 2-tone Encode Memory List is transmitted. Usually, 1 second is configured. (Refer to FUNC 21.2.1 Duration of 1st Tone.)

Enter the time directly in the edit box or click the spin button to configure the Duration of 1st Tone.

Range	0.5 - 1.5 s
Step	0.1 s
Default	1.0 s

Note:

- ◆ A maximum of 2-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 0.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Duration of 2nd Tone

Configure the 2nd Tone Encode time when the 2-tone in the 2-tone Encode Memory List is transmitted. Usually, 3 seconds are configured. (Refer to FUNC 21.2.2 Duration of 2nd Tone.)

Enter the time directly in the edit box or click the spin button to configure the Duration of 2nd Tone.

Range	1.0 - 4.0 s
Step	0.1 s
Default	3.0 s

Note:

- ◆ A maximum of 2-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 1.0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Duration of Single Tone

Configure the Single Tone Encode time when the Single Tone in the 2-tone Encode Memory List is transmitted. Usually, 5 seconds are configured (Refer to FUNC 21.2.3 Duration of Signal Tone.)

Enter the time directly in the edit box or click the spin button to configure the Duration of Single Tone.

Range	3.0 - 10.0 s
Step	0.1 s
Default	5.0 s

Note:

- ◆ A maximum of 3-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 3.0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ Gap Time

Configure the 1st Tone and 2nd non-modulation time when the 2-tone in the 2-tone Encode Memory List is transmitted. Usually, 0 ms is configured. (Refer to FUNC 21.2.4 Gap Time.)

Enter the time directly in the edit box or click the spin button to configure Gap Time.

Range	0 - 500 ms
Step	100 ms
Default	0 ms

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.

■ First Tone Delay Time

Configure the Delay Time to transmit the first tone when transmitting 2-tone. (Refer to FUNC 21.2.5 First Tone Delay Time.)

Enter the time directly in the edit box or click the spin button to configure the First Tone Delay Time.

Range	0 - 1000 ms
Step	50 ms
Default	200 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, 0 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A value less than a single step is discarded.

■ Sidetone

Configure whether or not to emit the 2-tone transmission tone from the speaker while the 2-tone is transmitted. (Refer to FUNC 21.2.6 Sidetone.)

Range	Check (Enable)	Emits the 2-tone transmission tone.
	Uncheck (Disable)	Does not emit the 2-tone transmission tone.
Default	Checked (Enabled)	

■ Single Tone (2-tone Encode Memory List)

Configure the code transmitted by List number to be defined as a Single Tone format for each List number. Select the desired Single Tone from the **No. 1** to **No. 20** pulldown menus. (Refer to FUNC 21.2.7 2-tone Encode Memory List.)

Range	Yes	Defines the code as a Single Tone.
	No	Does not define the code as a Single Tone.
Default	No	

■ 2-tone Name (2-tone Encode Memory List)

Configures the name for each List number. Enter the name to the **No. 1** to **No. 32** edit boxes to configure the 2-tone Name. (Refer to FUNC 21.2.7 2-tone Encode Memory List.)

Range	A maximum of a 12-digit string	
Available Characters	(space)! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~	
Default	List 1	2-TONE 1
	List 2 - 32	Blank

■ 1st Tone (2-tone Encode Memory List)

Configure the 1st Tone frequency. Enter the desired frequency to the **No. 1** to **No. 32** edit boxes to configure the 1st Tone frequency. (Refer to FUNC 21.2.7 2-tone Encode Memory List.)

Range	Blank/ 288.5 - 3106.0 Hz	
Step	0.1 Hz	
Default	List 1	321.7 Hz
	List 2 - 32	Blank

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured. A blank is also configured to the **2nd Tone** edit box.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ 2nd Tone (2-tone Encode Memory List)

Configure the 2nd Tone frequency. Enter the desired frequency to the **No. 1** to **No. 32** edit boxes to configure the 2nd Tone frequency. (Refer to FUNC 21.2.7 2-tone Encode Memory List.)

Range	Blank/ 288.5 - 3106.0 Hz	
Step	0.1 Hz	
Default	List 1	928.1 Hz
	List 2 - 32	Blank

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured. "Yes" is selected to the Single Tone.
- ◆ 2nd Tone cannot be configured when "Yes" is selected in the **Single Tone** pulldown menu.
- ◆ 2nd Tone can be configured only when the **1st Tone** edit box is configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

6.11.2 Decode Tab

In the **Decode** tab, the 2-tone Signaling Decode options can be configured. 2-tone 1, 2-tone 2, 2-tone 3, and 2-tone 4 can be configured as Optional Signaling to each Conventional Group channel.

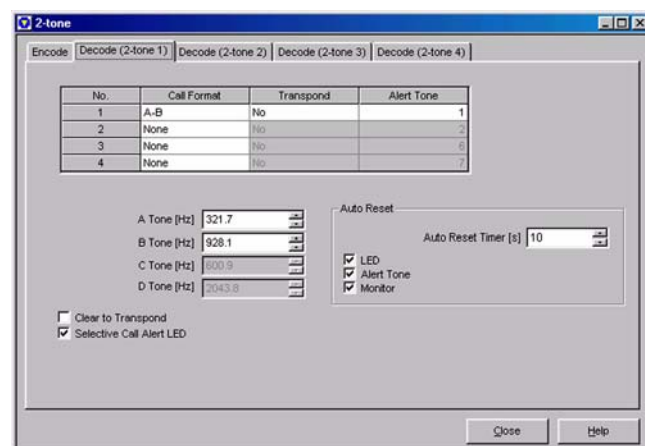


Figure 6-41 Decode Tab

■ Call Format (Decoder 1 - 4)

Configure the combination of 2-tone code to be decoded. Select the desired Call Format from the **Call Format No. 1** to **No. 4** edit boxes. (Refer to FUNC 21.3.1 Decoder 1 - 4.)

Range	None/ A-B/ A-C/ A-D/ B-A/ B-C/ B-D/ C-A/ C-B/ C-D/ D-A/ D-B/ D-C/ Long A/ Long B/ Long C/ Long D	
Default	Decoder 1	A-B
	Decoder 2 - 4	None

Table 6-7 Call Format

A-B	Waits for A Tone and B Tone	Usually, the transceiver waits for the First Tone for 1 second and the Second Tone for 3 seconds.
A-C	Waits for A Tone and C Tone	
A-D	Waits for A Tone and D Tone	
B-A	Waits for B Tone and A Tone	
B-C	Waits for B Tone and C Tone	
B-D	Waits for B Tone and D Tone	
C-A	Waits for C Tone and A Tone	
C-B	Waits for C Tone and B Tone	
C-D	Waits for C Tone and D Tone	
D-A	Waits for D Tone and A Tone	
D-B	Waits for D Tone and B Tone	The transceiver waits for the Single Tone for 5 seconds or longer.
D-C	Waits for D Tone and C Tone	
Long A	Waits for A Tone	
Long B	Waits for B Tone	
Long C	Waits for C Tone	
Long D	Waits for D Tone	

Note:

- ◆ "None" cannot be selected from the **Call Format** pulldown menu of Decoder 1.
- ◆ Items except "None" cannot be selected at the same time from the **Call Format** pulldown menu.

■ Transpond (Decoder 1 - 4)

Configure whether or not to enable Transpond when the standby code matches. Select the desired Transpond option from the **Transpond No. 1 to No. 4** edit boxes. (Refer to FUNC 21.3.1 Decoder 1 - 4.)

Range	Yes	Enables Transpond when the standby code matches.
	No	Disables Transpond when the standby code matches.
Default	No	

Note: Transpond cannot be configured when "None" is selected from the **Call Format** edit box.

■ Alert Tone (Decoder)

Configure Alert Tone when the standby code matches. Enter the Alert Tone number directly in the **Alert Tone No. 1 to No. 4** edit boxes or click the spin button to configure Alert Tone number. (Refer to FUNC 21.3.1 Decoder 1 - 4.)

Range	Off/ 1 - 8	
Step	1	
Default	Decoder 1	1
	Decoder 2	2
	Decoder 3	6
	Decoder 4	7

Note:

- ◆ Only 0 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, 1 will be configured.
- ◆ When "0" is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ Alert Tone cannot be configured when "None" is selected from the **Call Format** pulldown menu.

■ A Tone

Configure the tone signal frequency to wait for. Enter the A Tone frequency directly in the edit box or click the spin button to configure the A Tone frequency. (Refer to FUNC 21.3.2 A Tone/ B Tone/ C Tone/ D Tone.)

Range	288.5 - 3106.0 Hz
Step	0.1 Hz
Default	321.7 Hz

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 288.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ A Tone can be configured when one of the following values is selected from the **Call Format** pulldown menu.
 - A-B
 - A-C
 - A-D
 - B-A
 - C-A
 - D-A
 - Long A

■ B Tone

Configure the tone signal frequency to wait for. Enter the B Tone frequency directly in the edit box or click the spin button to configure the B Tone frequency. (Refer to FUNC 21.3.2 A Tone/ B Tone/ C Tone/ D Tone.)

Range	288.5 - 3106.0 Hz
Step	0.1 Hz
Default	928.1 Hz

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 288.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ B Tone can be configured when one of the following values is selected from the **Call Format** pulldown menu.
 - B-A
 - B-C
 - B-D
 - A-B
 - C-B
 - D-B
 - Long B

■ C Tone

Configure the tone signal frequency to wait for. Enter the C Tone frequency directly in the edit box or click the spin button to configure the C Tone frequency. (Refer to FUNC 21.3.2 A Tone/ B Tone/ C Tone/ D Tone.)

Range	288.5 - 3106.0 Hz
Step	0.1 Hz
Default	600.9 Hz

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 288.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ C Tone can be configured when one of the following values is selected from the **Call Format** pulldown menu.
 - C-A
 - C-B
 - C-D
 - A-C
 - B-C
 - D-C
 - Long C

■ D Tone

Configure the tone signal frequency to wait for. Enter the D Tone frequency directly in the edit box or click the spin button to configure the D Tone frequency. (Refer to FUNC 21.3.2 A Tone/ B Tone/ C Tone/ D Tone.)

Range	288.5 - 3106.0 Hz
Step	0.1 Hz
Default	2043.8 Hz

Note:

- ◆ A maximum of 5-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, 288.5 will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.
- ◆ D Tone can be configured when one of the following values is selected from the **Call Format** pulldown menu.
 - D-A
 - D-B
 - D-C
 - A-D
 - B-D
 - C-D
 - Long D

■ Clear to Transpond

Configure to enable or disable the Clear to Transpond function. The Clear to Transpond function waits for sending Transpond until the channel becomes free, while other users are using the channel. (Refer to FUNC 21.3.4 Clear to Transpond.)

Range	Check (Enable)	Enables Clear to Transpond.
	Uncheck (Disable)	Disables Clear to Transpond.
Default	Unchecked (Disabled)	

■ Selective Call Alert LED

Configure whether or not to make Selcall Alert LED blink when the code is received. (Refer to FUNC 20.3.6 Selective Call Alert LED.)

Range	Check (Enable)	Makes Selcall Alert LED blink.
	Uncheck (Disable)	Does not make Selcall Alert LED blink.
Default	Checked (Enabled)	

■ Auto Reset Timer

Configure the duration to automatically reset the 2-tone matching status. Enter a value for Auto Reset Timer directly in the edit box or click the spin button to configure the Auto Reset Timer. (Refer to FUNC 21.3.3 Auto Reset Timer.)

Range	Off/ 1 - 300 s
Step	1 s
Default	10 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, Off will be configured.
- ◆ When "0" is entered, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or lower limit value of the range.

■ LED (Auto Reset)

Configure whether or not to turn Off the Selective Call Alert LED after Auto Reset Timer expires. (Refer to FUNC 21.3.3 Auto Reset Timer.)

Range	Check (Enable)	Selective Call Alert LED is turned Off after Auto Reset Timer expires.
	Uncheck (Disable)	Selective Call Alert LED is not turned Off after Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: The LED (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

■ Alert Tone (Auto Reset)

Configure whether or not to stop emitting Alert Tone after Auto Reset Timer expires. (Refer to FUNC 21.3.3 Auto Reset Timer.)

Range	Check (Enable)	Stop emitting Alert Tone after Auto Reset Timer expires.
	Uncheck (Disable)	Does not stop emitting Alert Tone after Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: The Alert Tone (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

■ Monitor (Auto Reset)

Configure whether or not to reset the DTMF matching status after Auto Reset Timer expires. (Refer to FUNC 21.3.3 Auto Reset Timer.)

Range	Check (Enable)	Resets the 2-tone matching status.
	Uncheck (Disable)	Does not reset the 2-tone matching status.
Default	Checked (Enabled)	

Note: Monitor (Auto Reset) cannot be configured when Off is configured to the **Auto Reset Timer** edit box.

6.12 FleetSync Window

You can configure the FleetSync function in the **FleetSync** window.

This window consists of the following tabs and you can switch the window by clicking the tabs.

- **General 1 Tab**
- **General 2 Tab**
- **Parameter Tab**
- **ID List Tab**
- **Status List Tab**
- **GPS Tab**
- **Target Tab**

6.12.1 General 1 Tab

This **General 1** tab allows you to configure the general FleetSync functions.

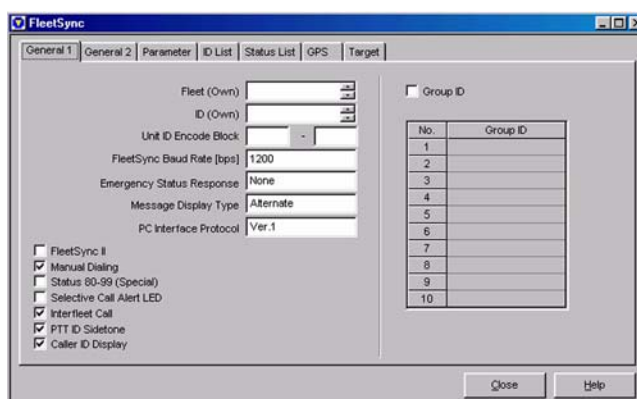


Figure 6-42 General 1 Tab

■ Fleet (Own)

Configure the Fleet of the FleetSync ID. Configure the Fleet by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.1 Own Fleet/ ID.)

Range	Blank/ 100 - 349
In steps of	1
Default	Blank

Note:

- ◆ Only 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured. The **ID (Own)** edit box will be left blank.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **ID (Own)** edit box is blank when the value is entered, the **ID (Own)** edit box is configured to "1000".
- ◆ The error message appears when trying to write data while the **Fleet (Own)** edit box is configured to a blank if one of the following pulldown menu is configured as FleetSync.
 - The **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu
 - The **Emergency Information** window > the **Emergency ID** pulldown menu

■ ID (Own)

Configure the ID of the FleetSync ID. Configure the ID (OWN) by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.1 Own Fleet/ ID.)

Range	Blank/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured. The **Fleet (Own)** edit box will be also left blank.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **Fleet (Own)** edit box is a blank when the value was entered, the **Fleet (Own)** edit box is configured to "100".
- ◆ The error message appears when trying to write data while the **ID (Own)** edit box is configured to a blank if one of the following pulldown menu is configured as FleetSync.
 - The **Optional Features** window > the **Common-Page 3** tab > the **PTT ID Type** pulldown menu
 - The **Emergency Information** window > the **Emergency ID** pulldown menu

■ Unit ID Encode Block (Start/ End)

This function allows a user to configure the range of the FleetSync ID that can be called by the transceiver. Configure the Unit ID Encode Block by entering the number in Start and End edit boxes. (Refer to FUNC 22.9.2 Unit ID Encode Block.)

Range	Blank/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **End** edit box is a blank or the value configured to the box is smaller than the value configured to the **Start** edit box, the **End** edit box is configured to "4999".
- ◆ If the value configured to the **Start** box is larger than the value configured to the **End** edit box, the same value as the **Start** edit box is configured to the **End** edit box.
- ◆ If the Start edit box is configured to a blank, the **Start** edit box is configured to "1000".

■ FleetSync Baud Rate

The function allows you to select the desired data communication speed of the MSK Modem in the FleetSync system. Select the desired FleetSync Baud Rate from the pulldown menu. (Refer to FUNC 22.9.4 FleetSync Baud Rate.)

Range	1200 bps	Enables data communication at 1200 bps. This configuration is recommended for normal communications.
	2400 bps	Enables data communication at 2400 bps. With this configuration, a user can transmit more data in shorter time as compared with 1200 bps. However, errors are more likely to occur as communications are performed at high speeds. The data communications area is smaller than 1200 bps.
Default	1200 bps	

■ Emergency Status Response

You can configure the transceiver's operation after receiving the Emergency Status. Select the desired Emergency Status Response from the pulldown menu. (Refer to FUNC 22.3.14 Emergency Status Response.)

Range	None	The transceiver works as normal.
	Alert Tone	Alert Tone configured in the Emergency Status sounds when receiving the Emergency Status. Press any key other than Volume Up/ Down to stop the Alert Tone.
	Horn	The Horn Alert terminal is activated when receiving the Emergency Status. The operation of the Horn varies depending on the Horn Alert configuration.
Default	None	

Note:

- ◆ You cannot select "Horn" for the TK-2180/ 3180 transceivers.
- ◆ If the TK-2180/ TK-3180 is selected in the **Model Information** window > the **Model Name** pulldown menu, the Horn will be configured to None.

■ Message Display Type

This function allows you to configure the display when receiving the Status/ Short Message. You can select the desired Message Display Type from the pulldown menu. (Refer to FUNC 22.9.19 Message Display Type.)

Range	Fixed	"STM/ SDM" appears on the display when receiving a call. A user can scroll the message when the message is longer than 13 characters.
	Alternate	"STM/SDM" and Selcall ID appears alternatively when receiving a call.
Default	Alternate	

■ PC Interface Protocol

Configure the PC Interface Protocol. Select the desired PC Interface Protocol from the pulldown menu. (Refer to FUNC 22.9.25 PC Interface Protocol.)

Range	Ver.1	The Ver. 1 is used as the PC Interface Protocol.
	Ver.2	The Ver. 2 is used as the PC Interface Protocol.
Default	Ver.1	

Note: The same PC Interface Protocol as the TK-280/ 780/ 7150 is used for the Ver. 1.

■ FleetSync II

You can configure the FleetSync II format to be used for data communications. The FleetSync II is a new FleetSync format utilizing FEC (Forward Error Correction) technology. This format corrects errors in order to perform more reliable data communications than conventional data communications. (Refer to FUNC 22.9.6 FleetSync II.)

Range	Check (Enable)	The FleetSync II format is used for data communications.
	Uncheck (Disable)	The FleetSync format is used for data communications.
Default	Unchecked (Disabled)	

■ Manual Dialing

You can enable or disable the Manual Dialing function. When this function is enabled, you can directly enter the Fleet/ID using the [\wedge] / [∇] keys. (Refer to FUNC 22.9.7 Manual Dialing.)

Range	Check (Enable)	The Manual Dialing function is enabled.
	Uncheck (Disable)	The Manual Dialing function is disabled.
Default	Checked (Enabled)	

■ Status 80 - 99 (Special)

You can enable or disable the Status 80 - 99 (Special) transmission. (Refer to FUNC 22.3.13 Status 80 - 99 (Special).)

Range	Check (Enable)	The Status 80 - 99 (Special) transmission is enabled.
	Uncheck (Disable)	The Status 80 - 99 (Special) transmission is disabled.
Default	Unchecked (Disabled)	

■ Selective Call Alert LED

This function makes the Selcall Alert LED blink when receiving a code. (Refer to FUNC 20.3.6 Selective Call Alert LED.)

Range	Check (Enable)	The Selcall Alert LED blinks.
	Uncheck (Disable)	The Selcall Alert LED does not blink.
Default	Unchecked (Disabled)	

■ Interfleet Call

You can enable or disable the Interfleet Call. This function allows a user to make a call using the FleetSync ID having the different Fleet. It also prevents Interfleet IDs from being used inadvertently. (Refer to FUNC 22.9.6 3 Interfleet Call.)

Range	Check (Enable)	The Interfleet Call function is enabled.
	Uncheck (Disable)	The Interfleet Call function is disabled.
Default	Checked (Enabled)	

■ PTT ID Sidetone

This function allows the transceiver to emit the FleetSync ID transmission tone when sending the FleetSync ID. (Refer to FUNC 22.1.2 PTT ID Sidetone.)

Range	Check (Enable)	The FleetSync ID transmission tone sounds.
	Uncheck (Disable)	The FleetSync ID transmission tone does not sound.
Default	Checked (Enabled)	

■ Caller ID Display

This function allows the transceiver to display the received PTT ID. (Refer to FUNC 22.1.1 Caller ID Display.)

Range	Check (Enable)	The received PTT ID appears on the display.
	Uncheck (Disable)	No PTT ID appears on the display.
Default	Checked (Enabled)	

■ Group ID

You can enable or disable the Group Call. (Refer to FUNC 22.9.8 Group ID.)

Range	Check (Enable)	The Group Call function is enabled.
	Uncheck (Disable)	The Group Call function is disabled.
Default	Unchecked (Disabled)	

■ Group ID (1 - 10)

You can configure the Divisional ID. You can configure a maximum of 10 divisions. You can configure the Group ID by directly entering the value in the edit box. (Refer to FUNC 22.9.8 Group ID.)

Range	Blank/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Divisional ID if the **Group ID** checkbox is not checked.
- ◆ Both calling and called radio **is needed this setting**.
- ◆ 80, 140, 150 and 160 series don't support this function.
- ◆ This group ID is supported interfleet call.

6.12.2 General 2 Tab

This **General 2** tab allows you to configure the general function of the FleetSync function.

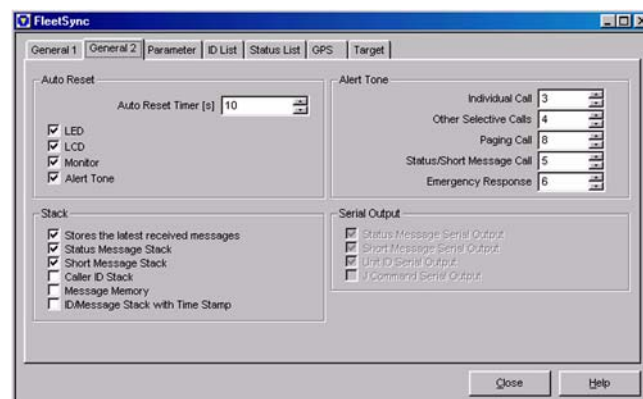


Figure 6-43 General 2 Tab

■ Auto Reset Timer (Auto Reset)

You can figure the duration from the time when the FleetSync matches to the time when the status is reset. Configure the Auto Reset Timer by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.5 Auto Reset Timer.)

Range	Off/ 1 - 300 s
In steps of	1 s
Default	10 s

Note:

- ◆ A maximum of 3-digit number can be entered.
- ◆ When the entire content of the edit box is deleted, Off will be configured.

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- ◆ When 0 is entered in the edit box, Off will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ LED (Auto Reset)

Configure the Selective Call Alert LED to stop blinking when the Auto Reset Timer expires. (Refer to FUNC 22.9.5 Auto Reset Timer.)

Range	Check (Enable)	The Selective Call Alert LED stops blinking when the Auto Reset Timer expires.
	Uncheck (Disable)	The Selective Call Alert LED does not stop blinking even if the Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: You cannot configure the LED when the **Auto Reset Timer** edit box is configured to Off.

■ LCD (Auto Reset)

Configure the display to return to the channel display when the Auto Reset Timer expires. (Refer to FUNC 22.9.5 Auto Reset Timer.)

Range	Check (Enable)	The display returns to the channel display when the Auto Reset Timer expires.
	Uncheck (Disable)	The display does not return to the channel display even if the Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: You cannot configure the LCD when the **Auto Reset Timer** edit box is configured to Off.

■ Monitor (Auto Reset)

Configure the match status of the Selective Call to be reset when the Auto Reset Timer expires. (Refer to FUNC 22.9.5 Auto Reset Timer.)

Range	Check (Enable)	This match status of the Selective Call is reset.
	Uncheck (Disable)	This match status of the Selective Call does not reset.
Default	Checked (Enabled)	

Note: You cannot configure the Monitor function when the **Auto Reset Timer** edit box is configured to Off.

■ Alert Tone (Auto Reset)

Configure the Alert Tone to stop sounding when the Auto Reset Timer expires. (Refer to FUNC 22.9.5 Auto Reset Timer.)

Range	Check (Enable)	The Alert Tone stops sounding when the Auto Reset Timer expires.
	Uncheck (Disable)	The Alert Tone sounds even if the Auto Reset Timer expires.
Default	Checked (Enabled)	

Note: You cannot configure the Alert Tone when the **Auto Reset Timer** edit box is configured to Off.

■ Stores the latest received messages

This function allows you to configure the method to store Caller ID, Status Message and Short Message. (Refer to FUNC 22.7.1 Stores the latest received message.)

Range	Check (Enable)	The transceiver stacks a maximum of 15 received messages. When the transceiver receives the 16th message, it deletes the first message and stacks 2nd - 16th messages (always last 15 messages).
	Uncheck (Disable)	The transceiver stacks a maximum of 15 received messages. When the transceiver receives the 16th message, it does not stack the 16th messages.
Default	Checked (Enabled)	

■ Status Message Stack

You can configure the Stack Memory to store the status message. (Refer to FUNC 22.3.4 Status Message Stack.)

Range	Check (Enable)	The Stack Memory stacks the status message.
	Uncheck (Disable)	The Stack Memory does not stack the status message.
Default	Checked (Enabled)	

■ Short Message Stack

You can configure the Stack Memory to store the short message. (Refer to FUNC 22.4.3 Short Message Stack.)

Range	Check (Enable)	The Stack Memory stacks the short message.
	Uncheck (Disable)	The Stack Memory does not stack the short message.
Default	Checked (Enabled)	

■ Caller ID Stack

You can configure the Stack Memory to store the Caller ID. (Refer to FUNC 22.7.2 Caller ID Stack.)

Range	Check (Enable)	The Stack Memory stacks the Caller ID.
	Uncheck (Disable)	The Stack Memory does not stack the Caller ID.
Default	Unchecked (Disabled)	

■ Message Memory

This function allows the transceiver to stack Caller ID, Status Message, and Short Message even if the transceiver is turned OFF. (Refer to FUNC 22.7.4 Message Memory.)

Range	Check (Enable)	The message is stored even if the transceiver is turned OFF.
	Uncheck (Disable)	The message is deleted when the transceiver is turned OFF.
Default	Unchecked (Disabled)	

■ ID/ Message Stack with Time Stamp

This function allows the transceiver to stack Caller ID, Status Message, and Short Message with the time stamp. (Refer to FUNC 22.7.3 ID/ Message Stack with Time Stamp.)

Range	Check (Enable)	The Time Stamp is stacked.
	Uncheck (Disable)	The Time Stamp is not stacked.
Default	Unchecked (Disabled)	

■ Individual Call (Alert Tone)

You can configure the Alert Tone to be emitted from the transceiver when it receives an individual call. You can select one of eight tones configured in the **Special Alert Tone** window. (Refer to FUNC 22.9.20 Alert Tone (Individual).)

Configure the Individual Call by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 8
In steps of	1
Default	3

Note:

- ◆ Only 1 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Other Selective Calls (Alert Tone)

You can configure the tone to be emitted when the transceiver receives other Selective Calls other than Individual ID. You can select one of eight tones configured in the **Special Alert Tone** window. (Refer to FUNC 22.9.21 Alert Tone (Other Selective Calls).)

Configure the Other Selective Calls by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 8
In steps of	1
Default	4

Note:

- ◆ Only 1 to 8 number can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Paging Call (Alert Tone)

You can configure the tone to be emitted from the transceiver when it receives an Paging Call. You can select one of eight tones configured in the **Special Alert Tone** window. (Refer to FUNC 22.9.22 Alert Tone (Status/Short Message Call).)

Configure the Paging Call by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 8
In steps of	1
Default	8

Note:

- ◆ Only 1 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Status/Short Message Call (Alert Tone)

You can configure the tone to be emitted from the transceiver when it receives an Status/ Short Message Call. You can select one of eight tones configured in the **Special Alert Tone** window. (Refer to FUNC 22.9.22 Alert Tone (Status/Short Message Call).)

Configure the Status/ Short Message Call by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 8
In steps of	1
Default	5

Note:

- ◆ Only 1 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Emergency Response (Alert Tone)

You can configure the Tone to be emitted when the Emergency Response is configured to Alert. You can select one of eight tones configured in the **Special Alert Tone** window. (Refer to FUNC 22.9.23 Alert Tone (Emergency Response).)

Configure the Emergency Response by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 8
In steps of	1
Default	6

Note:

- ◆ Only 1 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Status Message Serial Output

This function allows the transceiver to send the Status Message and the caller's Fleet and ID from the transceiver's COM port when the transceiver receives a Status Message. (Refer to FUNC 22.3.6 Status Message Serial Output.)

Range	Check (Enable)	The transceiver sends the Status Message from the COM port.
	Uncheck (Disable)	The transceiver does not send the Status Message from the COM port.
Default	Checked (Enabled)	

Note: The Status Message Serial Output function cannot be configured if "Data" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Short Message Serial Output

This function allows the transceiver to send the Short Message and the caller's Fleet and ID from the transceiver's COM port when it receives a Short Message. (Refer to FUNC 22.4.5 Short Message Serial Output.)

Range	Check (Enable)	The transceiver sends the Status Message from the COM port.
	Uncheck (Disable)	The transceiver does not send the Status Message from the COM port.
Default	Checked (Enabled)	

Note: The Short Message Serial Output function cannot be configured if "Data" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Unit ID Serial Output

This function allows the transceiver to send the received Fleet and ID from the transceiver's COM port when it receives a PTT ID. (Refer to FUNC 22.9.17 Unit ID Serial Output.)

Range	Check (Enable)	The transceiver sends the Status Message from the COM port.
	Uncheck (Disable)	The transceiver does not send the Status Message from the COM port.
Default	Checked (Enabled)	

Note: The Unit ID Serial Output function cannot be configured if "Data" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ J Command Serial Output

The function allows the transceiver to send the command when the transceiver status is changed (transmission, receiving, and a function is enabled or disabled, etc.). You can configure the transceiver to send the command from the COM port. (Refer to FUNC 22.9.17 Unit ID Serial Output.)

Range	Check (Enable)	The transceiver sends the Status Message from the COM port.
	Uncheck (Disable)	The transceiver does not send the Status Message from the COM port.
Default	Unchecked (Disabled)	

Note: The J Command Serial Output function cannot be configured if "Data" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

6.12.3 Parameter Tab

This **Parameter** tab allows you to configure the parameters used in FleetSync.

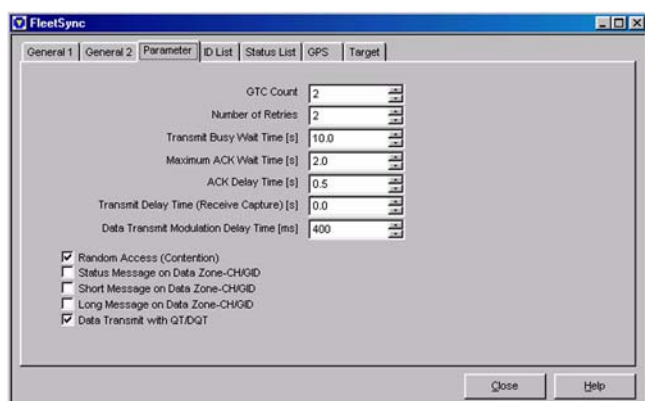


Figure 6-44 Parameter Tab

■ GTC Count

You can configure the number of times for the transceiver to send the GTC. GTC (Go To Channel) is a message that allows the transmitting party to take the receiving party to the data channel. (Refer to FUNC 22.9.9 GTC Count.)

Configure the GTC Count by directly entering value in the edit box or clicking the spin buttons.

Range	0 - 5
In steps of	1
Default	2

Note:

- ◆ Only 0 to 5 can be entered.

- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Number of Retries

If the transceiver does not receive the ACK for the Maximum ACK Wait Time, it resends data. You can configure the number of retries. Configure the number of retries by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.10 Number of Retries)

Range	0 - 8
In steps of	1
Default	2

Note:

- ◆ Only 0 to 8 can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Transmit Busy Wait Time

You can configure the maximum time for the transceiver to withhold the FleetSync data transmission. The transmission is cancelled when the line is busy even if the Transmit Busy Wait Time expires. (Refer to FUNC 22.9.11 Transmit Busy Wait Time.)

Configure the Transmit Busy Wait Time by directly entering value in the edit box or clicking the spin buttons.

Range	0.5 - 60.0 s
In steps of	10.0 s
Default	0.1 s

Note:

- ◆ A maximum of 3-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0.5".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Maximum ACK Wait Time

You can configure the wait time for receiving the ACK after ending data transmission. Configure the Maximum ACK Wait Time by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.12 Maximum ACK Wait Time.)

Range	0.5 - 60.0 s
In steps of	0.1 s
Default	2.0 s

Note:

- ◆ A maximum of 3-digit numbers and "." (period) can be entered.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0.5".

■ ACK Delay Time

You can configure the duration between the time when the transceiver receives data and the time when it sends the ACK. Configure the ACK Delay Time by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.13 ACK Delay Time.)

Range	0.1 - 60.0 s
In steps of	0.1 s
Default	0.5 s

Note:

- ◆ A maximum of 3-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0.1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Transmit Delay Time (Receive Capture)

The Transmit Delay Time is the duration to transmit unmodulated signal prior to the data transmission. Configure the Transmit Delay Time by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.14 Transmit Delay Time (Receive Capture).)

Range	0.0 - 25.0 s
In steps of	0.1 s
Default	0.0 s

Note:

- ◆ A maximum of 3-digit numbers and "." (period) can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0.0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Data Transmit Modulation Delay Time

You can configure the duration between the time when the transceiver starts transmitting and the time when it starts modulating the MSK data. Configure the Data Transmit Modulation Delay Time by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.9.15 Data Transmit Modulation Delay Time.)

Range	0 - 6000 ms
In steps of	1 ms
Default	400 ms

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ Random Access (Contention)

You can enable or disable the Random Access function. This function allows you to randomize the transmission start time for each transceiver to transmit the data when the channel becomes free. (Refer to FUNC 22.9.16 Random Access (Contention).)

Range	Check (Enable)	The Random Access function is enabled.
	Uncheck (Disable)	The Random Access function is disabled.
Default	Checked (Enabled)	

■ Status Message on Data Zone-CH/GID

You can enable or disable the Status Message On Data Zone-CH/GID function. This function allows the transceiver to automatically change to the Data Zone-CH/GID to send the Status Message. (Refer to FUNC 22.3.5 Status Message On Data Zone-CH/ GID.)

Range	Check (Enable)	The Status Message On Data Zone-CH/ GID function is enabled.
	Uncheck (Disable)	The Status Message On Data Zone-CH/ GID function is disabled.
Default	Unchecked (Disabled)	

■ Short Message on Data Zone-CH/GID

You can enable or disable the Short Message On Data Zone-CH/GID function. This function allows the transceiver to automatically change the channel to the Data Zone-CH/GID to send the Short Message. (Refer to FUNC 22.4.4 Short Message On Data Zone-CH/GID.)

Range	Check (Enable)	The Short Message On Data Zone-CH/ GID function is enabled.
	Uncheck (Disable)	The Short Message On Data Zone-CH/ GID function is disabled.
Default	Unchecked (Disabled)	

■ Long Message on Data Zone-CH/GID

You can enable or disable the Long Message On Data Zone-CH/GID function. This function allows the transceiver to automatically change to the Data Zone-CH/GID to send the Long Message. (Refer to FUNC 22.5.3 Long Message On Data Zone-CH/GID.)

Range	Check (Enable)	The Long Message On Data Zone-CH/ GID function is enabled.
	Uncheck (Disable)	The Long Message On Data Zone-CH/ GID function is disabled.
Default	Unchecked (Disabled)	

■ Data Transmit with QT/DQT

You can configure the QT/DQT configured to the channel used for data transmission. (Refer to FUNC 25.1.4 Data Transmit with QT/DQT.)

Range	Check (Enable)	The QT/DQT is replaced.
	Uncheck (Disable)	The QT/DQT is not replaced.
Default	Checked (Enabled)	

6.12.4 ID List Tab

This **ID List** tab allows you to configure the FleetSync ID used in FleetSync.

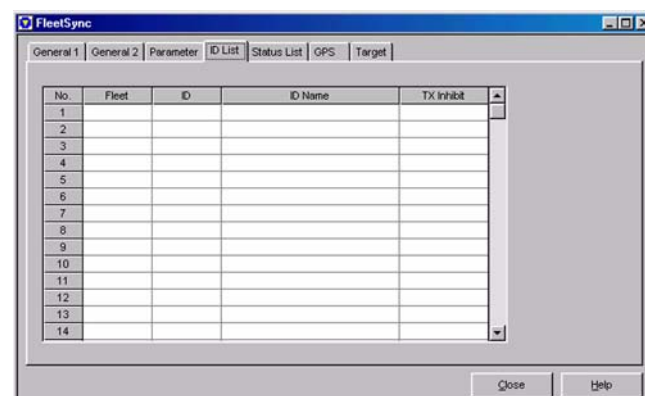


Figure 6-45 ID List Tab

■ Fleet

Configure the Fleet of the FleetSync ID. Configure the Fleet by directly entering value in the **No. 1** to **No. 100** edit boxes of Fleet or clicking the spin buttons. (Refer to FUNC 22.2.3 ID List.)

Range	Blank/ ALL (0)/ 100 - 349
In steps of	1
Default	Blank

Note:

- ◆ Only 3-digit numbers and "." can be entered.
- ◆ When the entire content of the edit box is deleted, all relevant numbers will be deleted.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ ID

Configure the ID of the FleetSync ID. Configure the ID by directly entering value in the **No. 1** to **No. 100** edit boxes of ID or clicking the spin buttons. (Refer to FUNC 22.2.3 ID List)

Range	Blank/ ALL (0)/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers and "." can be entered.
- ◆ When the entire content of the edit box is deleted, all relevant numbers will be deleted.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

■ ID Name

You can configure the caller's ID name. Configure the ID Name by directly entering value in the **No. 1** to **No. 100** edit boxes of ID Name or clicking the spin buttons. (Refer to FUNC 22.2.3 ID List.)

Range	A maximum of 12 characters
Available Characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	ID 001 - ID 100 (The channel number is automatically entered.)

Note:

- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ You must configure the **Fleet** edit box and the **ID** edit box are configured before configuring the ID Name.

■ TX Inhibit

You can enable and disable the transmission to the receiving party. Select the desired TX Inhibit option from the pulldown menu. (Refer to FUNC 22.2.3 ID List.)

Range	Yes	The transmission to the caller is restricted.
	No	The transmission to the caller is enabled.
Default	No	

Note: You must configure the **Fleet** edit box and the **ID** edit box before configuring the TX Inhibit function.

6.12.5 Status List Tab

This tab allows you to configure the Status to use the Status Message function.

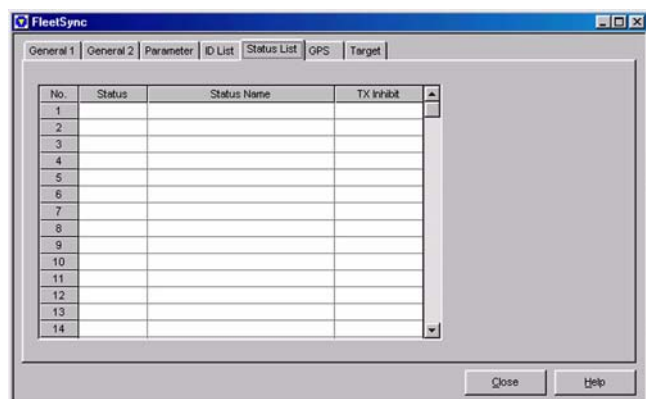


Figure 6-46 Status List Tab

Table 6-8 Reserved Status List

Status	Function	Operation at the receiving party
10 - 79	User Status	Normal Status receiving Operation
80	Default Status	
81 - 87	Undefined	
88	Emergency Reset Command	This status resets the Emergency Status.
89	Horn Alert Activation Command	This status activates the Horn Alert function.
90	Remote Stun Transmission Restriction Command	The transceiver transmits the ACK and restricts the transmission. In this case, the Current Status is configured to "93".
91	Remote Stun Transmission and receiving Restriction Command	The transceiver transmits the ACK and restricts the transmission. In this case, the Current Status is configured to "94".
92	Remote Stun Reset Command	The transceiver transmits the ACK and disables the Stun function. In this case, the Current Status is configured to "80".
93	Remote Stun Transmission Restriction Response	-
94	Remote Stun Transmission and receiving Restriction Response	-
95 - 99	Reserved Status for Emergency 98: Man Down Status 99: Emergency Status other than Man Down	The transceiver transmits the ACK/Alert/ Horn/ None

■ Status

You can configure the Status Number. Configure the Status Number by directly entering value in the **No. 1** to **No. 90** edit boxes of Status or clicking the spin buttons. (Refer to FUNC 22.3.11 Status List.)

Range	Blank/ 10 - 90
In steps of	1
Default	Blank

Note:

- ◆ Only 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, all relevant numbers will be deleted.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Status Number that is already configured.

■ Status Name

You can configure the Status name. Configure the Status Name by directly entering value in the **No. 1** to **No. 90** edit boxes of Status Name or clicking the spin buttons. (Refer to FUNC 22.3.11 Status List.)

Range	Enter a maximum of 16 characters.
Available Characters	(space)! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	Blank

Note:

- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ You cannot configure the Status Name if the **Status** edit box is not configured.

■ TX Inhibit

You can enable and disable the transmission to the receiving party. You can select the TX Inhibit option from the pulldown menu (No. 1 to No. 90). (Refer to FUNC 22.3.11 Status List.)

Range	Yes	The transmission to the caller is restricted.
	No	The transmission to the caller is enabled.
Default	No	

Note: You cannot configure the TX Inhibit if the **Status** edit box is not configured.

6.12.6 GPS Tab (TK-7180/ 8180 only)

This **GPS** tab allows you to configure the GPS function

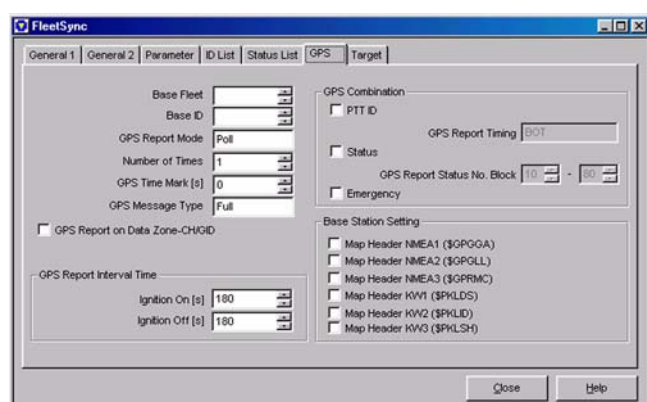


Figure 6-47 GPS Tab

Note: You cannot configure the GPS functions using the **GPS** tab in the TK-2180/ 3180 transceivers.

■ Base Fleet

You can configure the FleetSync ID to send the GPS data. Configure the Base Fleet by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.1 Base Fleet/ ID.)

Range	Blank/ 100 - 349
In steps of	1
Default	Blank

Note:

- ◆ Only 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ The Base Fleet cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1 - COM port 2**.

■ Base ID

You can configure the FleetSync ID to send the GPS data. Configure the Base ID by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.1 Base Fleet/ ID.)

Range	Blank/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ The Base Fleet cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1 - COM port 2**.

■ GPS Report Mode

This function allows you to select the transmission method: Transmit the GPS data automatically or transmit after receiving the command. Select the GPS Report Mode from the pulldown menu. (Refer to FUNC 22.6.3 GPS Report Mode.)

Range	Poll	The transceiver sends the GPS data when receiving the GPS data transmission request from the Base station.
	Auto	The transceiver sends the GPS data with the duration configured in the GPS Report Interval.
Default	Poll	

Note: The GPS Report Mode cannot be configured if “GPS” is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ Number of Times

You can configure the number of times to automatically send the GPS data after receiving the GPS data request when “Poll” is selected from the desired GPS Report Mode pulldown menu. Configure the number of times by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.4 Number of Times.)

Range	1 - 60
In steps of	1
Default	1

Note:

- ◆ Only 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to “1”.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ The Number of Times cannot be configured if “GPS” is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ GPS Time Mark

This function allows the transceiver to configure the Offset duration to send the GPS data with the UTC (Coordinated Universal Time). Configure the GPS Time Mark by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.7 GPS Time Mark.)

Range	0 - Maximum value of the GPS Report Interval Time (a maximum of 3599 s)
In steps of	1 s
Default	0 s

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to “0”.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ The maximum value can be obtained by comparing the Ignition On (GPS Report Interval Time) and Ignition Off (GPS Report Interval Time), and then subtracting 1 from the smaller value.
- ◆ When the configured value is longer than the GPS Report Interval, the maximum value, which is obtained by comparing the Ignition On (GPS Report Interval Time) with Ignition Off (GPS Report Interval Time) and subtracting 1 from the smaller value, will be automatically configured.
- ◆ The GPS Time Mark cannot be configured if “GPS” is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ GPS Message Type

You can configure the Air format to send the GPS data. Select the desired GPS Message Type from the pulldown menu.

Range	Full	This message has the same format as the TK-780/7150. The transmission period is approximately 500 ms. The transceiver sends the GPS data, such as \$GPGGA, \$GPRMC, and \$GPGLL.
	Short	The transmission period is approximately 320 ms. The transceiver sends the GPS data, such as \$GPGLL. When the base station receives the Short GPS data, a part of data is output as a blank data even if the \$GPGGA and \$GPRMC are configured to PC serial-out.
Default	Full	

Note:

- ◆ The GPS Message Type cannot be configured if “GPS” is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.
- ◆ When “Full” is selected, the same format as the TK-780/7150 is used.

■ GPS Report on Data Zone-CH/GID

You can configure the transceiver to automatically change the channel to Data Zone-CH/GID to send the GPS Report. (Refer to FUNC 22.6.8 GPS Report On Data Zone-CH/GID.)

Range	Check (Enable)	The transceiver sends the GPS data using the Data Zone-CH/GID.
	Uncheck (Disable)	The transceiver does not send the GPS data using the Data Zone-CH/GID.
Default	Unchecked (Disabled)	

Note: The GPS Report on Data Zone-CH/GID function cannot be configured if “GPS” is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ Ignition On (GPS Report Interval Time)

You can configure the interval to send the GPS data while the vehicle is moving if the GPS Report Mode is configured to “AUTO”. Configure the Ignition On by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.5 GPS Report Interval (GPS Data when Ignition On).)

Range	1 - 3600 s
In steps of	1 s
Default	180 s

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "1".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ When the entered value is smaller than the value configured to the **GPS Time Mark** edit box, the value, which is one second less than the entered value, will be automatically configured to the GPS Time Mark.
- ◆ The Ignition On function cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ Ignition Off (GPS Report Interval Time)

You can configure the interval to send the GPS data while the car is parked if the GPS Report Mode is configured to "AUTO". Configure the Ignition Off by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.6 GPS Report Interval (GPS Data when Ignition Off).)

Range	1 - 3600 s
In steps of	1 s
Default	180 s

Note:

- ◆ A maximum of 4-digit number can be entered.
- ◆ When the entire content of the edit box is deleted, "1" is configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ When the entered value is smaller than the value configured to the **GPS Time Mark** edit box, the value, which is one second less than the entered value, is automatically configured to the GPS Time Mark.
- ◆ The Ignition Off function cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ PTT ID (GPS Combination)

You can configure the transceiver to send the GPS data with the PTT ID (FleetSync) of the transceiver. (Refer to FUNC 22.6.2 GPS Combination.)

Range	Check (Enable)	The transceiver sends the GPS data with the PTT ID (FleetSync).
	Uncheck (Disable)	The transceiver does not send the GPS data with the PTT ID (FleetSync).
Default	Unchecked (Disabled)	

Note: The PTT ID cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ GPS Report Timing (GPS Combination)

You can configure the timing for the transceiver to send the GPS data with the PTT ID (FleetSync). Select the desired GPS Report Timing from the pulldown menu. (Refer to FUNC 22.6.2 GPS Combination.)

Range	BOT/ EOT/ Both (BOT)/ Both (EOT) /Both
Default	BOT

Note:

- ◆ The GPS Report Timing cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.
- ◆ You cannot configure the GPS Report Timing if the **PTT ID** checkbox is not checked.

■ Status (GPS Combination)

You can configure the transceiver to send the Status Message with the GPS data. (Refer to FUNC 22.6.2 GPS Combination.)

Range	Check (Enable)	The transceiver sends the Status Message with the GPS data.
	Uncheck (Disable)	The transceiver does not send the Status Message with the GPS data.
Default	Unchecked (Disabled)	

Note:

- ◆ The Status cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.
- ◆ The GPS data will not be contained in the Power On Status Message or Power Off Status Message.

■ GPS Report Status No. Block (GPS Combination)

You can configure the range of the Status Number that the transmission restriction is applied when sending the GPS data. Configure the GPS Report Status No. Block by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 22.6.2 GPS Combination.)

Range	10 - 80	
In steps of	1	
Default	Start	10
	End	80

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, "10" will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

- ◆ If the value configured to the **Start** box is larger than the value configured to the **End** edit box, the same value as the **Start** edit box will be configured to the **End** edit box.
- ◆ If the value configured to the **End** box is smaller than the value configured to the **Start** edit box, the same value as the **End** edit box will be configured to the **Start** edit box.
- ◆ The GPS Report Status No. Block cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ Emergency (GPS Combination)

You can configure the transceiver to send the Emergency ID with the GPS data. (Refer to FUNC 22.6.2 GPS Combination.)

Range	Check (Enable)	The transceiver sends the Emergency ID with the GPS data (FleetSync).
	Uncheck (Disable)	The transceiver does not send the Emergency ID with the GPS data (FleetSync).
Default	Unchecked (Disabled)	

Note: The Emergency function cannot be configured if "GPS" is not selected in the **Optional Features** window > the **Common-Page 3** tab > **COM port 1** or **COM port 2**.

■ Map Header NMEA 1 (\$GPGGA)

A NMEA-0183 standard command.

This function allows the transceiver to send the \$GPGGA data to the Mapping software.

Range	Check (Enable)	The transceiver sends the \$GPGGA data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$GPGGA data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header NMEA 1 (\$GPGGA) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Map Header NMEA 2 (\$GPGLL)

A NMEA-0183 standard command.

This function allows the transceiver to send the \$GPGLL data to the Mapping software.

Range	Check (Enable)	The transceiver sends the \$GPGLL data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$GPGLL data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header NMEA 2 (\$GPGLL) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Map Header NMEA 3 (\$GPRMC)

A NMEA-0183 standard command.

This function allows the transceiver to send the \$GPRMC data to the Mapping software.

Range	Check (Enable)	The transceiver sends the \$GPRMC data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$GPRMC data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header NMEA 3 (\$GPRMC) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Map Header KW 1 (\$PKLDS)

You can configure the Map Header KW1 (\$PKLDS) to send the KENWOOD's unique sentence of the \$PKLDS data to the Mapping application software.

The transceiver can abstract the \$PKLDS + ID + Status data from the received GPS data and send the \$PKLDS + ID + Status data from the COM port.

Range	Check (Enable)	The transceiver sends the \$PKLDS data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$PKLDS data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header KW 1 (\$PKLDS) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Map Header KW 2 (\$PKLID)

You can configure the Map Header KW2 (\$PKLID) to send the KENWOOD's unique sentence of the \$PKLID data to the Mapping application software.

The transceiver can abstract the \$PKLID + ID + Status data from the received GPS data and send the \$PKLID + ID + Status data from the COM port.

Range	Check (Enable)	The transceiver sends the \$PKLID data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$PKLID data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header KW 2 (\$PKLID) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

■ Map Header KW 3 (\$PKLSH)

You can configure the Map Header KW3 (\$PKLSH) to send the KENWOOD's unique sentence of the \$PKLSH data to the Mapping application software.

The \$PKLSH data is consisting of the \$GPGLL data and ID. The transceiver can abstract the \$PKLSH + ID + Status data from the received GPS data and send the \$PKLSH + ID + Status data from the COM port.

Range	Check (Enable)	The transceiver sends the \$PKLSH data to the Mapping software.
	Uncheck (Disable)	The transceiver does not send the \$PKLSH data to the Mapping software.
Default	Unchecked (Disabled)	

Note: The Map Header KW 3 (\$PKLSH) function cannot be configured if only "None" is configured in the **Optional Features** window > the **Common-Page 3** tab > **COM port 0 - COM port 2**.

6.12.7 Target Tab

This tab allows you to configure the GPS function.

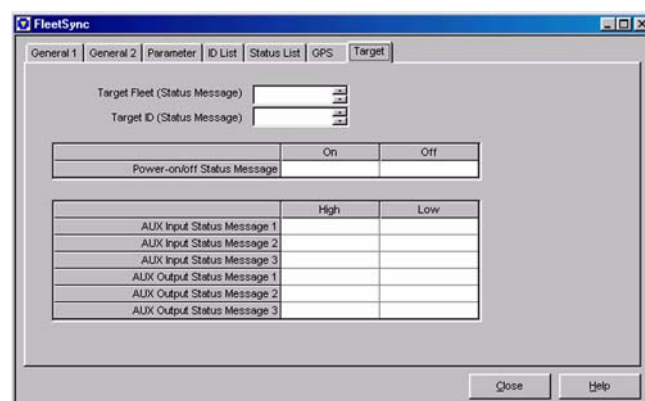


Figure 6-48 Target Tab

■ Target Fleet (Status Message)

You can configure the receiving party's FleetSync ID to send the following Status Messages. (Refer to FUNC 22.3.12 Destination Fleet/ ID (Status Message).)

- Status Message transmission using the AUX IN terminal
- Power-on Status Message transmission
- Power-off Status Message transmission
- Status Message transmission using the **PF** keys and the **PF CALL** key

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Configure the Target Fleet (Status Message) by directly entering value in the edit box or clicking the spin buttons.

Range	Blank/ ALL (0)/ 100 - 349
In steps of	1
Default	Blank

Note:

- ◆ A maximum of 3-digit numbers and "." can be entered.
- ◆ When entire content of the edit box is deleted, a blank will be configured.
- ◆ When A or 0 is entered in the edit box, ALL will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the Target ID (Status Message) edit box is a blank when the value is entered, the **Target ID (Status Message)** edit box will be configured to "1000".
- ◆ An error message appears when trying to write data while one of the Target Fleet (Status Message) items is configured to a blank.
 - The **General 1** tab > the **Fleet (Own)** edit box
 - The **General 1** tab > the **ID (Own)** edit box

- ◆ The error message appears when trying to write data while one of the Target ID (Status Message) items is configured to a blank.
 - The **General 1** tab > the **Fleet (Own)** edit box
 - The **General 1** tab > the **ID (Own)** edit box

■ Target ID (Status Message)

You can configure the receiving party's FleetSync ID to send the following Status Messages. (Refer to FUNC 22.3.12 Destination Fleet/ ID (Status Message).)

- Status Message transmission using the AUX IN terminal
- Power-on Status Message transmission
- Power-off Status Message transmission
- Status Message transmission using the **PF** and **PF CALL** keys

Configure the Target ID (Status Message) by directly entering value in the edit box or clicking the spin buttons.

Range	Blank/ ALL (0)/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ Only 4-digit numbers and "." can be entered.
- ◆ When entire content of the edit box is deleted, a blank will be configured.
- ◆ When A or 0 is entered in the edit box, ALL will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **Target Fleet (Status Message)** edit box is blank when the value is entered, the **Target Fleet (Status Message)** edit box will be configured to "100".

■ Power-on/off Status Message (On/ Off)

You can configure the Status Message that is sent when the transceiver is turned ON or OFF. Configure this message by directly entering value to the **Status Message On/ Off** edit box. (Refer to FUNC 22.3.9 Power-on Status Message and 22.3.10 Power-off Status Message.)

Range	Blank/ 10 - 99
In steps of	1
Default	Blank

Note:

- ◆ Only 2-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the range is entered, it is replaced with the lower limit value of the range.

■ AUX Input Status Message 1 - 3 (On/ Off) (TK-7180/ 8180 only)

This function allows you to configure the Status Message that is sent when the status of the AUX IN terminal changes. Configure the Message by directly entering value in the **High/ Low** edit boxes of AUX Input Status Message 1 - 3. (Refer to FUNC 22.3.7 AUX Input Status Message.)

Range	Blank/ 10 - 99
In steps of	1
Default	Blank

Note:

- ◆ Only 2-digit numbers can be entered.
- ◆ When entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the range is entered, it is replaced with the lower limit value of the range.
- ◆ GPS data is not added eve if GPS conivation enables.

■ AUX Output Status Message 1 - 3 (On/ Off) (TK-7180/ 8180 only)

You can configure the Status No. to switch the status of the AUX IN terminal (Low > High or High > Low) when receiving the Status Message. Configure the Message by directly entering value in the **High/ Low** edit boxes of AUX Output Status Message 1 - 3. (Refer to FUNC 22.3.8 AUX Output Status Message.)

Range	Blank/ 10 - 99
In steps of	1
Default	Blank

Note:

- ◆ Only 2-digit numbers can be entered.

- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When a value outside of the range is entered, it is replaced with the lower limit value of the range.

6.13 Special Alert Tone Window

You can configure the Alert Tone in the **Special Alert Tone** window. You can configure the Alert Tone suitable to the environment when receiving a call with the Optional Signaling.

The **Special Alert Tone** window consists of the **Alert Tone 1** to **Alert Tone 8** tabs you can switch the display by clicking the tabs.

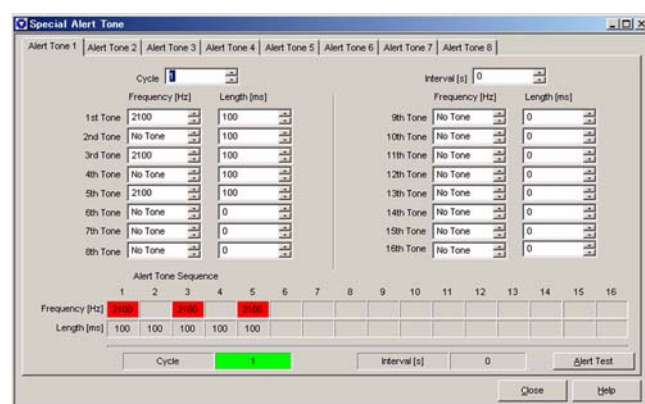


Figure 6-49 Special Alert Tone Window

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The default Alert Tone of each tab is as follows.

Table 6-9 Default Alert Tone

Item		Alert Tone 1	Alert Tone 2	Alert Tone 3	Alert Tone 4	Alert Tone 5	Alert Tone 6	Alert Tone 7	Alert Tone 8
Cycle		1	1	1	1	Infinite	Infinite	Infinite	Infinite
Interval [s]		0	0	0	0	10	5	5	2
1st Tone	Freq. (Hz)	2100	770	1630	640	1340	1480	770	1170
	Length (ms)	100	30	30	50	50	200	30	50
2nd Tone	Freq. (Hz)	No Tone	No Tone	940	940	700	770	No Tone	1480
	Length (ms)	100	30	30	50	50	200	30	50
3rd Tone	Freq. (Hz)	2100	770	1630	1340	No Tone	1480	770	1170
	Length (ms)	100	30	30	50	0	200	30	50
4th Tone	Freq. (Hz)	No Tone	No Tone	940	1630	No Tone	770	No Tone	1480
	Length (ms)	100	30	30	50	0	200	30	50
5th Tone	Freq. (Hz)	2100	770	1630	1920	No Tone	1480	770	1170
	Length (ms)	100	30	30	50	0	200	30	50
6th Tone	Freq. (Hz)	No Tone	No Tone	940	No Tone	No Tone	770	No Tone	1480
	Length (ms)	0	30	30	0	0	200	30	50
7th Tone	Freq. (Hz)	No Tone	770	1630	No Tone	No Tone	No Tone	770	1170
	Length (ms)	0	30	30	0	0	0	30	50
8th Tone	Freq. (Hz)	No Tone	No Tone	940	No Tone	No Tone	No Tone	No Tone	1480
	Length (ms)	0	30	30	0	0	0	30	50
9th Tone	Freq. (Hz)	No Tone	770	No Tone	No Tone	No Tone	No Tone	770	1170
	Length (ms)	0	30	0	0	0	0	30	50
10th Tone	Freq. (Hz)	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	1480
	Length (ms)	0	30	0	0	0	0	30	50
11th Tone	Freq. (Hz)	No Tone	770	No Tone	No Tone	No Tone	No Tone	770	1170
	Length (ms)	0	30	0	0	0	0	30	50
12th Tone	Freq. (Hz)	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	1480
	Length (ms)	0	30	0	0	0	0	30	50
13th Tone	Freq. (Hz)	No Tone	770	No Tone	No Tone	No Tone	No Tone	770	1170
	Length (ms)	0	30	0	0	0	0	30	50

Item		Alert Tone 1	Alert Tone 2	Alert Tone 3	Alert Tone 4	Alert Tone 5	Alert Tone 6	Alert Tone 7	Alert Tone 8
14th Tone	Freq. (Hz)	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	1480
	Length (ms)	0	0	0	0	0	0	0	50
15th Tone	Freq. (Hz)	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone
	Length (ms)	0	0	0	0	0	0	0	0
16th Tone	Freq. (Hz)	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone	No Tone
	Length (ms)	0	0	0	0	0	0	0	0

6.13.1 Cycle

You can configure the number of times for the Alert Tone to sound. Select the desired **Alert Tone** tab and configure the Cycle by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 4.7 Alert Tone Pattern.)

Range	Infinite/ 1 - 255
In steps of	1
Default	Refer to Table 6-9 Default Alert Tone

Note:

- ◆ A maximum of 3-digit numbers and “1” can be entered.
- ◆ The Alert Tone continues sounding infinitely when configuring to “Infinite”.
- ◆ When entire content of the edit box is deleted, the edit box will be configured to “Infinite”.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

6.13.2 Interval

You can configure the timing to repeat the Alert Tone. Select the desired **Alert Tone** tab and configure the Interval by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 4.7 Alert Tone Pattern.)

Range	0 - 255
In steps of	1
Default	Refer to Table 6-9 Default Alert Tone

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to “0”.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

6.13.3 Frequency (1st Tone - 16th Tone)

You can configure the frequency of the tone. The frequency configured to the Alert Tone appears on the **Alert Tone Sequence** window. (Refer to FUNC 4.7 Alert Tone Pattern.)

Select the desired **Alert Tone** tab and configure the Frequency by directly entering value in the edit box or clicking the spin buttons.

Range	No Tone/ 400 - 2500 Hz
In steps of	10 Hz
Default	Refer to Table 6-9 Default Alert Tone

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When 0 is entered or the entire content of the edit box is deleted, No Tone will be configured.
- ◆ Gap will be configured when "No Tone" is selected.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ A value less than 10 Hz is rounded off.

6.13.4 Length (1st Tone - 16th Tone)

You can configure the tone length. The frequency configured to the Alert Tone appears on the **Alert Tone Sequence** window. (Refer to FUNC 4.7 Alert Tone Pattern.)

Select the desired **Alert Tone** tab and configure the Length by directly entering value in the edit box or clicking the spin buttons.

Range	0 - 2500 ms
In steps of	10 ms
Default	Refer to Table 6-9 Default Alert Tone

Note:

- ◆ A maximum of 4-digit numbers can be entered.
- ◆ When entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ No tone sounds when 0 is selected.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ A value less than 10 ms is rounded off.

6.13.5 Alert Tone Sequence

The configured Cycle, Interval, Frequency, and Length appear on the display.



Figure 6-50 Alert Tone Sequence

6.13.6 Alert Test Button

The **Alert Test** window appears to play back the simulated Tone pattern of the Alert Tone Sequence using the beep of a PC appears.

Note:

- ◆ The "Alert Test" button does not appear on Windows Me/ 98.
- ◆ The tone does not sound if a PC is not equipped with a sound card.

6.13.7 Alert Test Window

You can play the simulated Tone pattern of the Alert Tone Sequence using the beep of a PC.

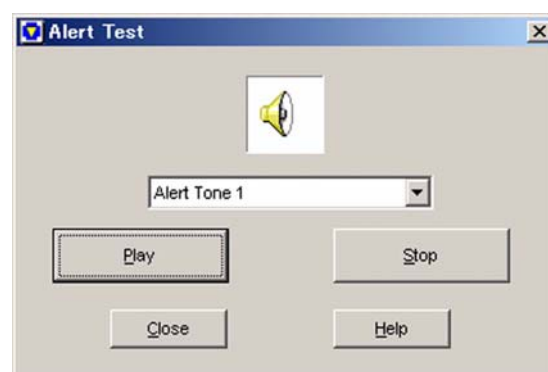


Figure 6-51 Alert Test Window

Note:

- ◆ The "Alert Test" button does not appear on Windows Me and 98.
- ◆ The tone does not sound if a PC is not equipped with a sound card.

■ Alert Tone Select Pulldown Menu

Select the desired Alert Tone Pattern to play.

Note: You cannot select the desired Alert Tone Pattern when one of the Alert Tone Patterns is being played back.

■ Play Button

The selected Alert Tone Pattern is played back.

Note: You cannot click “Play” when one of the Alert Tone Patterns is being played.

■ Stop Button

The Alert Tone Pattern stops playing when this “Stop” button is pressed.

6.14 Emergency Information Window

You can configure the Emergency Mode in the **Emergency Information** window.

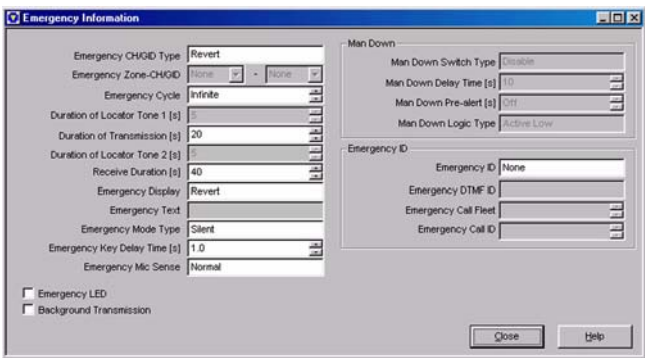


Figure 6-52 Emergency Information Window

6.14.1 Emergency CH/GID Type

You can configure the type of the CH/GID that operates in Emergency Mode. Select the desired Emergency CH/GID Type from the pulldown menu. (Refer to FUNC 24.1.1 Emergency CH Type.)

Range	Selected	The transceiver transmits or receives using the Selected Channel when it enters Emergency Mode.
	Fixed	The transceiver transmits and receives using the Zone-CH/GID configured in Emergency Zone-CH/GID when it enters Emergency Mode.
Default	Revert	

6.14.2 Emergency Zone-CH/GID

You can configure the Emergency Zone-CH/GID used in Emergency Mode. Configure the Emergency Zone-CH/GID by entering a value in the edit box or selecting from the pulldown menu. (Refer to FUNC 24.1.2 Emergency Zone-CH/GID.)

Range	None/ Existing Zone-CH/GID
Default	None

Note:

- ◆ You can configure the Emergency Zone-CH/GID when “Fixed” is selected from the **Emergency CH/GID Type** pulldown menu.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When the Zone edit box is configured to None, the **CH/GID** edit box will be also configured as None.
- ◆ The error message appears if the entered Zone-CH/GID does not exist, and the transceiver returns to the previous value.
- ◆ An error message appears when trying to write data or clicking “Close” while a value is configured to the **Zone** edit box and the **CH/GID** edit box will be configured as None.
- ◆ An error message appears when trying to write data or clicking “Close” while “Fixed” is selected from the **Emergency CH/GID** pulldown menu and the **Emergency Zone-CH/GID** edit box will be configured as None.

6.14.3 Emergency Cycle

You can configure the number of times to repeat emergency transmission and receiving in Emergency Mode. Configure the Emergency Cycle by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 24.1.3 Emergency Cycle.)

Range	Infinite/ 1 - 200
In steps of	1
Default	Infinite

Note:

- ◆ A maximum of 3-digit numbers and "I" can be entered.
- ◆ When the value is configured to 0 or entire content of the edit box is deleted, the cycle will be configured to Infinite.
- ◆ The transceiver keeps alternating transmission and receiving until the **PF Emergency** key is pressed again or the transceiver is turned OFF when "Infinite" is selected.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the ANI board if the "ANI Board" is selected from the **Emergency ID** pulldown menu.

6.14.4 Duration of Locator Tone 1

This function allows you to configure the duration of the Alert Tone to sound before Emergency Mode begins automatic transmission. The tone sounds when the transceiver alternates transmission and receiving while it repeats automatic transmission and receiving. (Refer to FUNC 24.1.4 Duration of Locator Tone 1.)

Configure the Duration of Locator Tone 1 by directly entering value in the edit box or clicking the spin buttons.

Range	0 - 255 s
In steps of	1 s
Default	5 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Duration of Locator Tone 1 if "Silent" is selected from the **Emergency Mode Type** pulldown menu.
- ◆ You cannot configure the Duration of Locator Tone 1 if "ANI Board" is selected from the **Emergency ID** pulldown menu.

6.14.5 Duration of Transmission

This function configures the transmission duration in Emergency Mode. The transceiver makes the automatic receiving in Emergency Mode after the Duration of Transmission Time expires. (Refer to FUNC 24.1.5 Duration of Transmission.)

Configure the Duration of Transmission by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 60 s
In steps of	1 s
Default	20 s

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the value is configured to 0 or entire content of the edit box is deleted, the duration will be configured to 1 second.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Duration of Transmission if "ANI Board" is selected from the **Emergency ID** pulldown menu.

6.14.6 Duration of Locator Tone 2

This function allows you to configure the duration of Alert Tone to sound before Emergency Mode begins automatic receiving. The Tone sounds when the transceiver alternates transmission and receiving while it repeats automatic transmission and receiving. (Refer to FUNC 24.1.6 Duration of Locator Tone 2.)

Configure the Duration of Locator Tone 2 by directly entering value in the edit box or clicking the spin buttons.

Range	0 - 255 s
In steps of	1 s
Default	5 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, this duration will be configured to "0".
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Duration of Locator Tone 2 if the "Silent" is selected from the **Emergency Mode Type** pulldown menu.
- ◆ You cannot configure the Duration of Locator Tone 2 if the "ANI Board" is selected from the **Emergency ID** pulldown menu.

6.14.7 Receive Duration

This function configures the receiving duration in Emergency Mode. The transceiver returns to Emergency Automatic Transmission Mode after the Receive Duration expires. (Refer to FUNC 24.1.7 Receive Duration.)

Configure the Receive Duration by directly entering value in the edit box or clicking the spin buttons.

Range	1 - 180 s
In steps of	1 s
Default	40 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the value is configured to 0 or entire content of the edit box is deleted, the duration will be configured to 1 second.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You cannot configure the Receive Duration if the “ANI Board” is selected from the **Emergency ID** pulldown menu.

6.14.8 Emergency Display

You can configure the items to be displayed in Emergency Mode. Select the desired Emergency Display option from the pulldown menu. (Refer to FUNC 24.1.8 Emergency Display.)

Range	Selected	The previous channel appears even if the transceiver enters Emergency Mode.
	Text	A pre-programmed message configured as Emergency Text appears during Emergency Mode.
Default	Selected	

6.14.9 Emergency Text

The Emergency Text is the text displayed on the main display when “Text” is selected in the **Emergency Display** edit box. Configure the Emergency Text by directly entering the characters in the edit box. (Refer to FUNC 24.1.9 Emergency Text.)

Range	A maximum of 12 characters
Available characters	(space) ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ [\] ^ _ ` A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z { } ~
Default	Blank

Note:

- ◆ You cannot configure the Emergency Text if “Selected” is selected from the **Emergency Display** pulldown menu.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.

6.14.10 Emergency Mode Type

You can configure the transceiver to emit the received voice. Select the desired Emergency Mode Type from the pulldown menu. (Refer to FUNC 24.1.10 Emergency Mode Type.)

Range	Silent	The transceiver mutes the received voice in Emergency Mode.
	Audible	The transceiver emits the received voice in Emergency Mode.
Default	Silent	

6.14.11 Emergency Key Delay Time

You can configure the duration from the time when the **PF Emergency** key is pressed to the time when the transceiver enters Emergency Mode. The transceiver enters Emergency Mode when the **PF Emergency** key is pressed for the Emergency Key Delay Time. This delay time prevents the transceiver from unintentionally entering this mode.

Configure the Emergency Key Delay Time by directly entering value in the edit box or clicking the spin buttons.

Range	Off/ 0.1 - 5.0 s
In steps of	0.1 s
Default	1.0 s

Note:

- ◆ A maximum of 3-digit numbers and “.” (period) can be used.
- ◆ When the value is configured to 0 or the entire content of the edit box is deleted, the duration will be configured to Off.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.

6.14.12 Emergency Mic Sense

This function allows you to configure the Mic Gain in Emergency Mode. Select the desired Emergency Mic Sense option from the pulldown menu. (Refer to FUNC 1.12 Mic Sense Control.)

Range	Normal	The Mic Gain is configured to Normal.
	High	The Mic Gain is configured to High.
Default	High	

6.14.13 Emergency LED

This function allows the transceiver to turn On the TX LED and BUSY LED to light when the transceiver transmits in Emergency Mode. (Refer to FUNC 24.1.12 Emergency LED.)

Range	Check (Enable)	The LED lights.
	Uncheck (Disable)	The LED does not light.
Default	Unchecked (Disabled)	

6.14.14 Background Transmission

This function allows the transceiver to overwrite the transmitted voice with 1630 Hz tone and emit the tone every 1 second in Emergency Mode. (Refer to FUNC 24.1.13 Background Transmission.)

Range	Check (Enable)	The transceiver overwrites the transmitted voice with 1630 Hz tone and emit the tone every 1 second in Emergency Mode.
	Uncheck (Disable)	The transceiver does not overwrite the transmitted voice with 1630 Hz tone and emit the tone every 1 second in Emergency Mode.
Default	Unchecked (Disabled)	

Note: You cannot configure the Background Transmission if the "ANI Board" is selected from the **Emergency ID** pulldown menu.

6.14.15 Man Down Switch Type (TK-2180/ 3180 only)

You can configure the input port to enable the Man Down Switch. Select Man Down Switch Type from the pulldown menu.

Range	Disabled	The Man Down Switch is disabled.
	Internal	The internal Man Down Switch is enabled.
Default	Disabled	

6.14.16 Man Down Delay Time (TK-2180/ 3180 only)

You can configure the duration from the time when the Man Down Switch is switched On to the time when the Man Down Switch is enabled. The transceiver enters Emergency Mode when the Man Down Switch is enabled. You can use the Man Down Delay Time to prevent the

Emergency function from being activated unintentionally. (Refer to FUNC 24.1.14 Man Down Delay Time.)

Configure the Man Down Delay by directly entering value in the edit box or clicking the spin buttons.

Range	Off/ 1 - 70 s
In steps of	1 s
Default	10 s

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the value is configured to 0 or the entire content of the edit box is deleted, the duration will be configured to Off.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ When the configured value is less than the value configured to the **Man Down Pre-alert** edit box, the value, which is 1 second less than the duration configured to the **Man Down Delay Time** edit box, is automatically configured.
- ◆ You cannot configure the Man Down Delay Time when "Disable" is selected in the **Man Down Switch Type** pulldown menu.

6.14.17 Man Down Pre-alert (TK-2180/ 3180 only)

You can configure the Man Down Pre-alert. Man Down Pre-alert is one of the Alert Tones to sound from the time when the Man Down Switch is switched On to the time when the Man Down Switch is enabled.

When the Man Down Switch is enabled unintentionally, the transceiver emits the Pre-alert before activating the Emergency function to notify a user that the switch is switched On. (Refer to FUNC 24.1.15 Man Down Pre-alert.)

Configure the Man Down Pre-alert by directly entering value in the edit box or clicking the spin buttons. The Man Down Pre-alert duration must be less than the Man Down Delay Time.

Range	Off/ Man Down Delay Time - 1 s (A maximum of 69 s)
In steps of	1 s
Default	Off

Note:

- ◆ A maximum of 2-digit numbers can be entered.
- ◆ When the value is configured to 0 or the entire content of the edit box is deleted, the duration will be configured to Off.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ When the value configured to the **Man Down Delay Time** edit box is less than the value configured to the **Man Down Pre-alert** edit box, the value, which is 1 second less than the duration configured to the **Man Down Delay Time** edit box, is automatically configured to the **Man Down Pre-alert** edit box.

- ◆ You cannot configure the Man Down Pre-alert function when "Disable" is selected in the **Man Down Switch Type** pulldown menu.

6.14.18 Man Down Logic Type

You can configure the logic of the Man Down Switch (External Switch). Select the desired Man Down Switch Type from the pulldown menu. (Refer to FUNC 24.1.16 Man Down Logic Type.)

Range	Active Low	The Ext Switch is enabled when the input port becomes low.
	Active High	The Ext Switch is enabled when the input port becomes high.
Default	Active Low	

Note: You cannot configure the Man Down Logic Type when "Disable" is selected in the **Man Down Switch Type** pulldown menu.

6.14.19 Emergency ID

This function allows you to configure the control type and the code to be sent for each time the transceiver starts automatic transmission and receiving in Emergency Mode. Select Emergency ID from the pulldown menu.

Range	None	The transceiver transmits and receives according to the configuration in the KPG-89D.
	DTMF	The transceiver transmits and receives according to the configuration in the KPG-89D. The transceiver sends the DTMF code configured at Emergency DTMF ID when it transmits in Emergency Mode.
	FleetSync	The transceiver transmits and receives according to the configuration in the KPG-89D. The transceiver sends the FleetSync Selcall ID first configured in the "Emergency Call Fleet" and "Emergency Call ID".
	ANI Board	The transceiver transmits and receives in conjunction with the ANI board control.
Default	None	

Note: You cannot configure the ANI board if the "ANI Board" is selected in the **Function** window > **Optional Board**.

6.14.20 Emergency DTMF ID

You can configure the DTMF code to be sent first in Emergency Mode. Configure the Emergency DTMF ID by directly entering value in the edit box. (Refer to FUNC 24.1.18 Emergency DTMF ID.)

Range	16-digit characters
Available Codes	# * 0 1 2 3 4 5 6 7 8 9 A B C D
Default	Blank

Note:

- ◆ You cannot configure the Emergency DTMF ID if any other than the "DTMF" is selected from the **Emergency ID** pulldown menu.
- ◆ An error message appears when trying to write data to the transceiver in the following conditions.
 - "DTMF" is selected from the **Emergency ID** pulldown menu.
 - The Emergency **DTMF ID** edit box is configured to a blank.

6.14.21 Emergency Call Fleet

You can configure the Call Fleet to be sent first in Emergency Mode. Configure the Emergency Call Fleet by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 24.1.19 Emergency Call Fleet.)

Range	Blank/ ALL (0)/ 100 - 349
In steps of	1
Default	Blank

Note:

- ◆ You cannot configure the Emergency Call Fleet if any other than the "FleetSync" is selected from the **Emergency ID** pulldown menu.
- ◆ A maximum of 3-digit numbers and "." can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When A or 0 is entered in the edit box, ALL will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **Emergency Call ID** edit box is a blank when the value is entered, the **Emergency Call ID** edit box will be configured to ALL.
- ◆ An error message appears when trying to write data to the transceiver in the following conditions.
 - "FleetSync" is selected from the **Emergency ID** pulldown menu.
 - The **Emergency Call Fleet** edit box is configured to a blank.

6.14.22 Emergency Call ID

You can configure the Call ID to be sent first in Emergency Mode. Configure the Emergency Call ID by directly entering value in the edit box or clicking the spin buttons. (Refer to FUNC 24.1.20 Emergency Call ID.)

Range	Blank/ ALL (0)/ 1000 - 4999
In steps of	1
Default	Blank

Note:

- ◆ You cannot configure the Emergency Call ID if any other than the "FleetSync" is selected from the **Emergency ID** pulldown menu.
- ◆ A maximum of 4-digit numbers and "." can be entered.
- ◆ When the entire content of the edit box is deleted, a blank will be configured.
- ◆ When A or 0 is entered in the edit box, the edit box will be configured to ALL.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ If the **Emergency Call Fleet** edit box is a blank when the value is entered, the **Emergency Call Fleet** edit box will be configured to ALL.
- ◆ An error message appears when trying to write data to the transceiver in the following conditions.
 - "FleetSync" is selected from the **Emergency ID** pulldown menu.
 - The **Emergency DTMF ID** edit box will be configured to a blank.

6.15 Extended Function Window

You can configure the Extended Function in the **Extended Function** window.

6.15.1 Extended Function (TK-2180/ 3180 only)

You can configure the Optional Board in the **Extended Function** window.

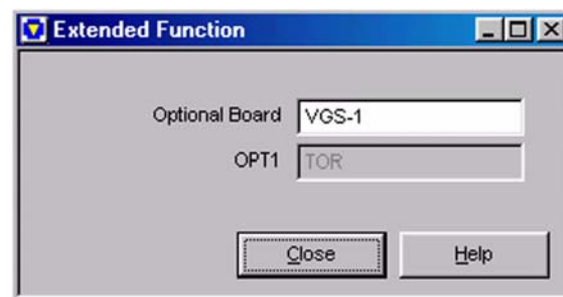


Figure 6-53 Extended Function Window

■ Optional Board

You can configure the installed Optional Board. Select the desired Optional Board from the pulldown menu.

Range	None/ Voice Scrambler/ VGS-1/ ANI Board
Default	None

■ OPT1

You can configure the operation of the OPT terminal. Select the desired OPT1 option from the pulldown menu.

Range	COR	The transceiver notifies a user that it is receiving a carrier.
	TOR	The transceiver notifies a user that it received the GID in Trunking system and QT/ DQT is matched in Conventional Groups.
	LOK (Continuous)	The transceiver notifies a user that voice communication is active when transmitting in Trunking system/ Conventional Group.
Default	TOR	

Note:

- ◆ You cannot select the desired **OPT1** pulldown menu if the "Voice Scrambler" or "GPS-1" is selected from the **Optional Board** pulldown menu.
- ◆ You cannot select "LOK (Continuous)" from the **OPT1** pulldown menu if "None" is selected from the **Optional Board** pulldown menu.
- ◆ The configuration varies depending on the ANI Board is used in Conventional Groups or Trunking system. Refer to the ANI Board manual for details.

6.15.2 Optional Board Tab (TK-7180/ 8180 only)

This tab allows you to configure the Optional Board.

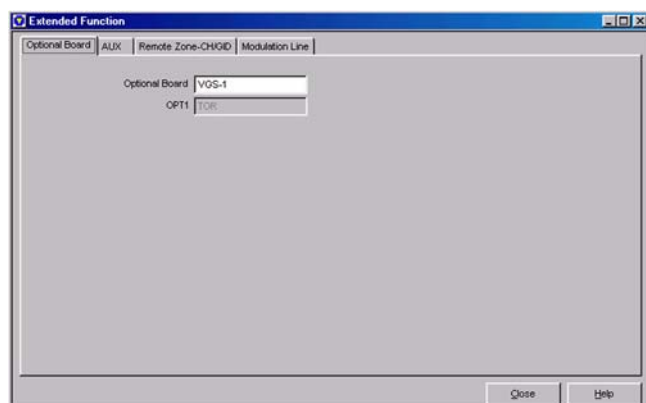


Figure 6-54 Optional Board Tab

Optional Board

You can configure the installed Optional Board. Select Man Down Switch Type from the pulldown menu.

Range	None/ Voice Scrambler/ VGS-1/ ANI Board
Default	None

Note: The **OPT 1** pulldown menu is configured to "TOR" when "None" is selected from the **Optional Board** pulldown menu and "LOK (Continuous)" is selected from the **OPT 1** pulldown menu.

OPT1

You can configure the operation of the OPT terminal. Select the desired OPT1 option from the pulldown menu.

Range	COR	The transceiver notifies a user that it is receiving a carrier.
	TOR	The transceiver notifies a user that it received the GID in Trunking system and QT/ DQT is matched in Conventional Groups.
	LOK (Continuous)	The transceiver notifies a user that voice communication is active when transmitting in Trunking system/ Conventional Group.
Default	TOR	

Note:

- ◆ You cannot select the desired **OPT1** pulldown menu if the "Voice Scrambler" or "VGS-1" is selected from the **Optional Board** pulldown menu.
- ◆ You cannot select "LOK (Continuous)" from the **OPT1** pulldown menu if "None" is selected from the **Optional Board** pulldown menu.

- ◆ The configuration varies depending on the ANI Board is used in Conventional Groups or Trunking system. Refer to the ANI Board manual for details.

6.15.3 AUX Tab (TK-7180/ 8180 only)

This **AUX** tab allows you to configure the AUX function

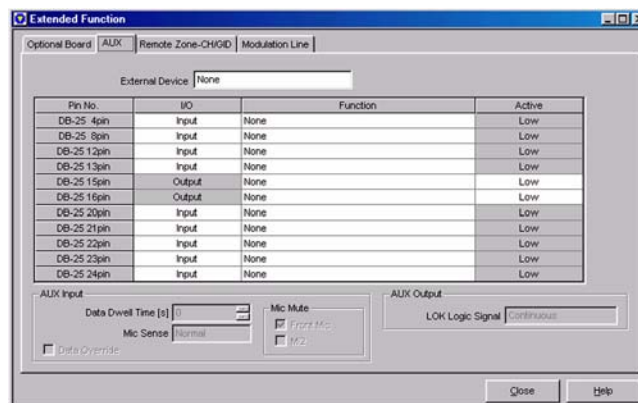


Figure 6-55 AUX Tab

With the selection from the **External Device** pulldown menu, the default AUX function is as follows.

Table 6-10 AUX Default (None)

Pin No.	I/O	Function	Active
DB-25 4-pin	Output	None	Low
DB-25 8-pin	Output	None	Low
DB-25 12-pin	Input	None	Low
DB-25 13-pin	Input	None	Low
DB-25 15-pin	Output	None	Low
DB-25 16-pin	Output	None	Low
DB-25 20-pin	Output	None	Low
DB-25 21-pin	Input	None	Low
DB-25 22-pin	Output	None	Low
DB-25 23-pin	Input	None	Low
DB-25 24-pin	Input	None	Low

Table 6-11 AUX Default (KDS-100)

Pin No.	I/O	Function	Active
DB-25 4-pin	Output	None	Low
DB-25 8-pin	Output	LOK	Low
DB-25 12-pin	Input	Mic Mute	Low
DB-25 13-pin	Input	External PTT (Data)	Low
DB-25 15-pin	Output	None	Low
DB-25 16-pin	Output	None	Low
DB-25 20-pin	Output	TOR or Channel Busy	Low

Pin No.	I/O	Function	Active
DB-25 21-pin	Input	Speaker Mute	Low
DB-25 22-pin	Input	None	Low
DB-25 23-pin	Input	None	Low
DB-25 24-pin	Input	DTC	Low

Table 6-12 AUX Default (KGP-2A/ 2B)

Pin No.	I/O	Function	Active
DB-25 4-pin	Output	None	Low
DB-25 8-pin	Output	LOK	Low
DB-25 12-pin	Input	Mic Mute	Low
DB-25 13-pin	Input	External PTT (Data)	Low
DB-25 15-pin	Output	None	Low
DB-25 16-pin	Output	None	Low
DB-25 20-pin	Output	TOR or Channel Busy	Low
DB-25 21-pin	Input	Speaker Mute	Low
DB-25 22-pin	Input	Display Off	Low
DB-25 23-pin	Input	None	Low
DB-25 24-pin	Input	DTC	Low

External Device

You can configure the External Device. Select the desired External Device from the pulldown menu.

Range	None/ KDS-100/ KGP-2A/2B
Default	None

Note: All I/O ports and functions will be automatically configured when the "KDS-100" or "KGP-2A/2B" is selected. (Refer to Table 6-11 AUX Default (KDS-100), Table 6-12 AUX Default (KGP-2A/ 2B))

I/O

You can configure the input and output of each Function port. Select the desired Pin No. from the **I/O** pulldown menu.

Range	Input/ Output
Default	Refer to Table 6-10 AUX Default (None) Refer to Table 6-11 AUX Default (KDS-100) Refer to Table 6-12 AUX Default (KGP-2A/ 2B)

Note:

- ◆ You cannot select input or output for Pin No.15 and Pin No.16 since they are fixed to Output.
- ◆ "None" is selected in the function pulldown menu of the Pin No. when the **I/O** pulldown menu is changed.

Function

You can configure the functions that you can assign to each Function port. Select the desired Pin No. from the Function pulldown menu.

Range	Refer to Table 6-13 Assigning Functions to the Auxiliary Input Ports Refer to Table 6-14 Assigning Functions to the Auxiliary Output Ports
Default	Refer to Table 6-10 AUX Default (None) Refer to Table 6-11 AUX Default (KDS-100) Refer to Table 6-12 AUX Default (KGP-2A/ 2B)

Note:

- ◆ You cannot select the function that is already assigned to other Pin No.
- ◆ "Low" is selected in the **I/O** pulldown menu of the Pin No. when the **Active** pulldown menu is changed.

Table 6-13 Assigning Functions to the Auxiliary Input Ports

Function Name	Description
Data PTT	<p>The Data PTT is the PTT port for data communications.</p> <p>This terminal changes the channel of the transceiver to Data Zone-CH/GID to start the transmission.</p> <p>The transceiver moves to the Data CH/GID to start the transmission when the PF Data PTT port becomes low.</p> <p>The transmission ends when the Data PTT port becomes High. The transceiver stands by on the data channel during the Data CH/GID Dwell Time. The transceiver returns to the Voice channel after the Data CH/GID Dwell Time expires.</p> <p>"REMOTE CTRL" appears on the main display when the Data PTT is enabled.</p> <p>You can assign the following functions to the Data PTT port.</p> <ul style="list-style-type: none"> ■ Modulation Line You can configure the modulation line for the PF Data PTT port. The following modulation lines are available. Mic (the audio line of the Mic located on the front of the transceiver) MI2 Line (the audio modulation line of the D-sub connector located on the rear of the transceiver) DI Line (the data modulation line of the D-sub connector) The normal Modulation Line is the DI line. ■ w/QT/DQT You can configure the QT/DQT configured to the Conventional Group channel to be replaced when the transceiver transmits the code from the Data PTT port. Normally, only the QT/DQT is replaced. ■ w/STE You can configure the STE (Squelch Tail Eliminator) to be transmitted after transmitting the QT/DQT code configured in the Conventional Group channel using the Data PTT port. Normally, the STE is transmitted.

Function Name	Description
External PTT (Voice)	<p>External PTT (Voice) is the transmission request PTT port for Voice channels.</p> <p>This port is used for the transmission request from the headset or external microphone.</p> <p>The transceiver starts transmitting when the Ext. PTT (Voice) port becomes Low.</p> <p>The transmission ends the transmission when the PF Ext. PTT (Voice) port becomes High. If the CH/GID is Data CH/GID, the transceiver moves to the lowest Voice CH/GID in the current zone and transmits.</p> <p>You can configure the following functions to the Ext. PTT (Voice) port.</p> <ul style="list-style-type: none"> ■ Modulation Line You can configure the Modulation line for the PF Ext. PTT (Voice) port. The following modulation lines are available. Mic (the audio line of the Mic located on the front of the transceiver) MI2 Line (the audio modulation line of the D-sub connector located on the rear of the transceiver) DI Line (the data modulation line of the D-sub connector) The default modulation line is the MI2 line. ■ w/QT/DQT You can configure the QT/DQT configured to the Conventional Group channel to be replaced when the transceiver transmits the code from the PF Ext. PTT (Voice) port. Normally, only the QT/DQT is replaced. ■ w/STE You can configure the STE (Squelch Tail Eliminator) to be transmitted after transmitting the QT/DQT code for the Conventional Group channel using the PF Ext. PTT (Voice) port. Normally, the STE is transmitted.

Function Name	Description	Function Name	Description
External PTT (Data)	<p>The Data PTT is the PTT port for data communications. You can use the port as follows.</p> <p>■ Using the External PTT (Data) port with DTC The External PTT port is used for the transmission request PTT in ARQ Mode if it is used with the DTC. After activating the DTC, transmit the data activating the Ext. PTT (Data) port.</p> <p>■ Using the External PTT (Data) port with CH/GID Select A-D The External PTT port is used as the transmission request PTT for an external data communication device if it is used without using the Direct Channel (DTC) function. However, the transceiver transmits on the current CH/GID without moving to the Data Zone-CH/GID. “REMOTE CTRL” appears on the main display when the External PTT (Data) port is active. You can configure the following functions to the Ext. PTT (Data) port.</p> <p>■ Modulation Line You can configure the modulation line for the Ext. PTT (Data) port. The following modulation lines are available. Mic (the audio line of the Mic located on the front of the transceiver) MI2 Line (the audio modulation line of the D-sub connector located on the rear of the transceiver) DI Line (the data modulation line of the D-sub connector) The normal Modulation Line is the DI line.</p> <p>■ w/QT/DQT You can configure the QT/DQT for the Conventional Group channel to be replaced when the transceiver through the Ext. PTT (Data) port. Normally, only the QT/DQT is replaced.</p> <p>■ w/STE You can configure the STE (Squelch Tail Eliminator) to be transmitted after transmitting the QT/DQT code configured in the Conventional Group channel using the PF Ext. PTT (Data) port. Normally, the STE is transmitted.</p>	DTC	<p>This port allows the transceiver to move to the Data Zone-CH/GID for data communications, and activate ARQ Mode. When performing data transmission in LTR Trunking system, the transceiver is normally required to link to a repeater prior to each data transmission. Therefore, the data transmission may fail when the System is busy and there is no available channel in the repeater. To solve this problem, ARQ Mode allows you to complete data communications in Trunking system by making a single link. The transceiver does not transmit the EOT after the ARQ is once linked. This function retains the link by using the Hang Up Time of the repeater while communicating with ACK signals. With this function, you can use the Air Time effectively. The transceiver enters ARQ Mode when the PF DTC port becomes low. “REMOTE CTRL” appears on the main display when the DTC is active.</p>
		Speaker Mute	<p>The speaker audio output line mutes when this port is used. The transceiver mutes when the PF Speaker Mute port becomes Low. The mute function is disabled when this port becomes High.</p>
		Mic Mute	<p>The Mic modulation line mutes when this port is used. The Mic Line (Front Mic, MI2) mutes when the PF Mic Mute port becomes Low. The mute function is disabled when this port becomes High.</p>
		External Monitor	<p>This port activates the Monitor function. The transceiver activates the Monitor function when the PF Ext. Monitor port becomes Low. The transceiver disables the Monitor function when the PF Ext. Monitor port becomes High.</p>
		External Hook	<p>This port functions the same as Local Mic Hook. The Microphone becomes On-hook when the Ext. Hook port becomes Low. The Microphone becomes Off-hook status when the port becomes High. You can reset Off-hook Decode, Off-hook Horn Alert, Off-hook Scan, and Optional Signaling in the same way as the Local Mic Hook. When both the Local Mic Hook and the External Hook are Off-hook, the transceiver is active in Off-hook status. If either of them is switched On, the transceiver operates in On-hook status.</p>
CH/GID Select A-D	<p>This port is the CH/GID Select port to be used with the Remote CH/GID List. You can configure the port in the order of Configure CH/GID Select A > CH/GID Select B > CH/GID Select C > CH/GID Select D. “REMOTE CTRL” appears on the main display when the CH/GID Select A - D port is active.</p>	Emergency	<p>This port allows the transceiver to activate the Emergency function. You can configure the Emergency Key Delay Time to prevent this function from being activated unintentionally. (24 Emergency Function) The transceiver enters Emergency Mode when the PF Emergency port becomes low. Emergency Mode operates according to the Emergency Information configuration.</p>

6 EDIT MENU

Function Name	Description
AUX In Status Message 1 - 3	This port is used as the trigger port to send the FleetSync Status Message. The transceiver sends the Status Message to the FleetSync configured in Target Fleet/ ID when the status of the AUX IN changes (High > Low or Low > High). You can configure 2 statuses (High > Low, Low > High) to each port. These ports are normally used as the sensor port for telemetry purposes.
Display Off	This port becomes active when the external device (KGP-2A) enters Emergency Mode. The transceiver also enters Emergency Mode when the port becomes active. The transceiver returns to the previous channel when the port becomes inactive. This port works according to the following condition. <ul style="list-style-type: none"> Emergency CH/GID Emergency Display Emergency Text Emergency Audio Emergency LED The Panel key does not work while this port is active.

Table 6-14 Assigning Functions to the Auxiliary Output Ports

Function Name	Description
LOK	The transceiver notifies a user that voice communication is active when transmitting in Trunking system/ Conventional Group. In Trunking system, this port becomes active when the transceiver connects to a repeater. Otherwise, this port is inactive. In Convention Groups, this port becomes active (low) upon transmission. Otherwise, this port is inactive. There are two types of LOK Logic Signals: Continuous and Pulse. This port is always low when Continuous is selected. The port becomes active for the first 30 ms, then it returns to open level when Pulse is selected.
COR	The transceiver notifies a user that it is receiving a carrier. This port becomes active when receiving a carrier in Trunking system or Conventional Group. Otherwise, this port is inactive.
TOR	The transceiver notifies a user that it received the GID in Trunking system and QT/ DQT is matched in Conventional Groups. This port becomes active when receiving a call with GID in Trunking system. Otherwise, this port is inactive. This port becomes active when receiving a carrier on the channel that the QT/DQT Decode is configured or QT/DQT Decode is not configured in Conventional Groups. Otherwise, this port is inactive.
AUX A	The port output changes in conjunction with the PF AUX A port. A user can control an external device connected to the AUX A port.

Function Name	Description
AUX B	The port output changes in conjunction with the PF AUX B port. A user can control an external device connected to the AUX B port.
System Busy	The transceiver notifies a user that all repeaters in the Trunking system are busy. This port becomes active when no channel is available in the repeater in Trunking system. Otherwise, this port is inactive.
PTT Out	The transceiver notifies a user the PTT switch is pressed. This function is available when an optional board or an external device is connected to the transceiver. This port becomes active when the PTT switch is pressed. Otherwise, this port is inactive.
Channel Busy	This port notifies a user that the remote control request from the external device is rejected. This port becomes active in the following conditions. Otherwise, this port is inactive. <ul style="list-style-type: none"> ■ Transmission All transmissions (including automatic transmission and the transmission using the PTT switch) ■ Emergency Emergency Mode status ■ During Mode When selecting FleetSync Selcall List or transmitting DTMF Autodial and System Search, or LTR Handshake and Public Address
COR or Channel Busy	This port becomes active when the COR port or Channel Busy port is active. When neither of ports is disabled, this port becomes inactive.
TOR or Channel Busy	This port becomes active when the TOR port or Channel busy port is active. When neither of ports is disabled, this port becomes inactive. This port is used to connect the KDS-100 to the transceiver. With this port, you can restrict the transmission request to the KDS-100 when you do not want the transceiver to be controlled with an external device.
TXS	This port notifies a user that the transceiver is transmitting. This port becomes active during transmission. Otherwise, this port is inactive.
AUX Out Status Message 1 - 3	This port is used to change the status of the transceiver when it receives the FleetSync Status Message. This port switches the Status of the AUX Out port (High > Low or Low > High) when the received Status Message matches the Status number configured to the port. You can configure 2 statuses (High > Low, Low > High) to each port. This port is normally used to remotely control the transceiver by connecting an external device to the AUX Out port.

■ Active

You can configure the operation of each Function Input or Output port when the port becomes active.

Select the desired port from the Pin No. Active pulldown menu.

Range	High/ Low
Default	Refer to Table 6-10 AUX Default (None) Refer to Table 6-11 AUX Default (KDS-100) Refer to Table 6-12 AUX Default (KGP-2A/ 2B)

Note:

- ◆ “Low” is selected in the **Active** pulldown menu when the “Output” is selected in **I/O** pulldown menu.
- ◆ “Low” is selected in the **Active** pulldown menu when the “Input” is selected in **I/O** pulldown menu and you cannot switch input and output.

■ Data Dwell Time (AUX Input)

This function allows you to configure the delay time from the time when the PF Data PTT port or PF DTC port is activated to the time when the transceiver returns to the Voice CH/GID. (Refer to FUNC 25.1.3 Data CH/GID Dwell Time.)

Configure the Data Dwell Time by directly entering value in the edit box or clicking the spin buttons.

Range	0 - 300 s
In steps of	1 s
Default	0 s

Note:

- ◆ A maximum of 3-digit numbers can be entered.
- ◆ When the entire content of the edit box is deleted, “0” will be configured.
- ◆ When a value outside of the available range is entered, it is replaced with the upper limit value or the lower limit value of the range.
- ◆ You can configure the Data Dwell Time only if the “Data PTT” or “DTC” is selected in a **Function** pulldown menu of Pin No.

■ Mic Sense (AUX Input)

You can configure the Mic. Gain of the External PTT. (Refer to FUNC 1.12 Mic Sense Control.)

Select the desired Mic Sense option from the pulldown menu.

Range	Normal	The Mic Gain is configured to Normal.
	High	The Mic Gain is configured to High.
Default	Normal	

Note: You can configure the Mic Sense only when the “External PTT (Voice)” or “External PTT (Data)” is selected in a **Function** pulldown menu of Pin No.

■ Data Override (AUX Input)

You can select the priority either voice communications or data communications. (Refer to FUNC 25.1.6 Data Override.)

Range	Check (Enable)	This option gives higher priority to the external device to make data communications. If the transceiver receives the transmission requests from the PF Ext. PTT (Data) port, PF Data PTT port, PF DTC port, or PF CH/GID Select A - D port, it always cancels the current option and changes to make data communication. The transceiver moves to the Data CH/GID if the Data CH/GID is configured. The “Data” appears on the main display when the transceiver is controlled by external devices. In this case, a user cannot use any keys on the transceiver other than Power switch, and the PF Emergency key.
	Uncheck (Disable)	The transceiver key control has the priority. If the transceiver receives the transmission requests from the PF Ext. PTT (Data) port, PF Data PTT port, PF DTC port, or PF CH/GID Select A - D port, it always ignores transmission.
Default	Unchecked (Disabled)	

Note: You can configure the Data Override only when the following port is selected in a **Function** pulldown menu of Pin No.

- Data PTT
- External PTT (Data)
- CH/GID Select A - D
- DTC

■ Front Mic (Mic Mute)

You can enable the Front Mic Mute function when the Mic Mute port is active.

Range	Check (Enable)	The Front Mic is muted
	Uncheck (Disable)	The Front Mic is not muted
Default	Checked (Enabled)	

Note: You can configure the Front Mic only when the “Mic Mute” is selected in a **Function** pulldown menu of Pin No.

■ MI2 (Mic Mute)

You can enable the MI2 Mute function when the Mic Mute port is active.

Range	Check (Enable)	The MI2 is muted
	Uncheck (Disable)	The MI2 is not muted
Default	Unchecked (Disabled)	

Note: You can configure the MI2 only when the “Mic Mute” is selected in a **Function** pulldown menu of Pin No.

■ LOK Logic Signal (AUX Output)

You can configure the LOK Active Type. Select the desired LOK Logic Signal from the pulldown menu.

Range	Continuous	The port is always low when the LOK Logic Signal is activated.
	Pulse	The port becomes low for the first 3 ms, then it returns to the open level.
Default	Continuous	

Note: You can configure the LOK Logic Signal only when the “LOK” is selected in a **Function** pulldown menu of Pin No.

6.15.4 Remote Zone-CH/GID Tab (TK-7180/ 8180 only)

You can configure the Remote CH/GID List.

The Remote CH/GID List allows external devices to change the transceiver's Zone-CH/GID. The transceiver can move to a maximum of 15 Zone-CH/GIDs by using CH/GID Select A - CH/GID Select D port.

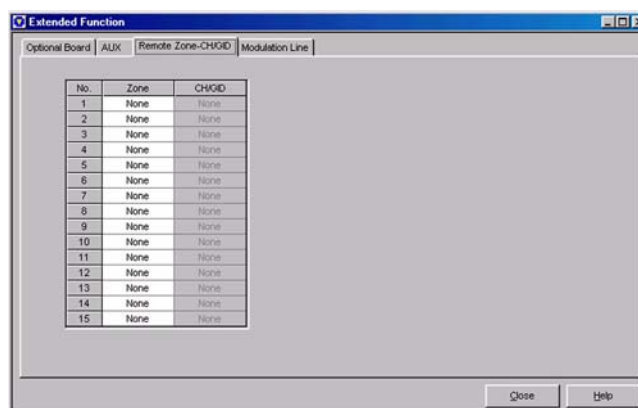


Figure 6-56 Remote Zone-CH/GID Tab

A error message appears when the Remote Zone-CH/GID tab is clicked while the Zone-CH/GID is not selected in the order starting from “CH/GID Select A” in the **AUX** tab > the **Function** pulldown menu.

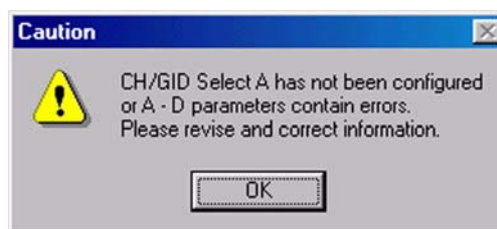


Figure 6-57 Remote Zone-CH/GID Error Message

Following are the configuration in the **AUX** tab > the **Function** pulldown menu and the target Remote CH/GID No. in the Remote CH/GID List.

Table 6-15 When only the CH/GID Select A is Configured.

Target CH/GID	AUX Input Port
	CH/GID Select A
Current CH/GID	High
Remote CH/GID No.1	Low

Table 6-16 When CH/GID Select B and CH/GID Select A are Configured.

Target CH/GID	AUX Input Port	
	CH/GID Select B	CH/GID Select A
Current CH/GID	High	High
Remote CH/GID No. 1	High	Low
Remote CH/GID No. 2	Low	High
Remote CH/GID No. 3	Low	Low

Table 6-17 When CH/GID Select C, CH/GID Select B and CH/GID Select A are Configured

Target CH/GID	AUX Input Port		
	CH/GID Select C	CH/GID Select B	CH/GID Select A
Current CH/GID	High	High	High
Remote CH/GID No. 1	High	High	Low
Remote CH/GID No. 2	High	Low	High
Remote CH/GID No. 3	High	Low	Low
Remote CH/GID No. 4	Low	High	High
Remote CH/GID No. 5	Low	High	Low
Remote CH/GID No. 6	Low	Low	High
Remote CH/GID No. 7	Low	Low	Low

Table 6-18 When CH/GID Select D, CH/GID Select C, And CH/GID Select B and CH/GID Select A are Configured.

Target CH/GID	AUX Input Port			
	CH/GID Select D	CH/GID Select C	CH/GID Select B	CH/GID Select A
Current CH/GID	High	High	High	High
Remote CH/GID No. 1	High	High	High	Low
Remote CH/GID No. 2	High	High	Low	High
Remote CH/GID No. 3	High	High	Low	Low
Remote CH/GID No. 4	High	Low	High	High
Remote CH/GID No. 5	High	Low	High	Low
Remote CH/GID No. 6	High	Low	Low	High

Target CH/GID	AUX Input Port			
	CH/GID Select D	CH/GID Select C	CH/GID Select B	CH/GID Select A
Remote CH/GID No. 7	High	Low	Low	Low
Remote CH/GID No. 8	Low	High	High	High
Remote CH/GID No. 9	Low	High	High	Low
Remote CH/GID No. 10	Low	High	Low	High
Remote CH/GID No. 11	Low	High	Low	Low
Remote CH/GID No. 12	Low	Low	High	High
Remote CH/GID No. 13	Low	Low	High	Low
Remote CH/GID No. 14	Low	Low	Low	High
Remote CH/GID No. 15	Low	Low	Low	Low

■ Zone (Remote Zone-CH/GID List)

You can configure the Zone. Configure the Zone by entering a value in the edit box or selecting from the pulldown menu. (Refer to FUNC 27 Remote CH/GID List.)

Range	None/ Existing Zone-CH/GID
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered. When "0" is entered in the edit box, the edit box will be configured to "1".
- ◆ When the entire content of the edit box is deleted, "None" will be configured.
- ◆ When the **Zone** edit box is configured to "None", the **CH/GID** edit box will also be configured to "None".
- ◆ An error message appears if the entered Zone-CH/GID does not exist and the transceiver returns to the previous value.

■ CH/GID (Remote Zone-CH/GID List)

You can configure the CH/GID. Configure the CH/GID by entering a value in the edit box or selecting from the pulldown menu. (Refer to FUNC 27 Remote CH/GID List.)

Range	None/ Existing Zone-CH/GID
Default	None

Note:

- ◆ A maximum of 3-digit numbers can be entered. When “0” is entered in the edit box, the edit box will be configured to “1”.
- ◆ When the entire content of the edit box is deleted, None will be configured.
- ◆ When the **Zone** edit box is configured to “None”, the **CH/GID** edit box will also be configured to “None”.
- ◆ An error message appears if the entered Zone-CH/GID does not exist and the transceiver returns to the previous value.
- ◆ An error message appears when trying to write data while a value is configured to the **Zone** edit box and the **CH/GID** edit box is configured to None.
- ◆ An error message appears if you try to configure the already configured Remote Zone-CH/GID.

6.15.5 Modulation Line Tab
(TK-7180/ 8180 only)

You can make the following configurations for Mic PTT, External PTT (Voice), External PTT (Data) and Data PTT.

- Connect to Modulation Line
- w/QT/DQT
- w/STE

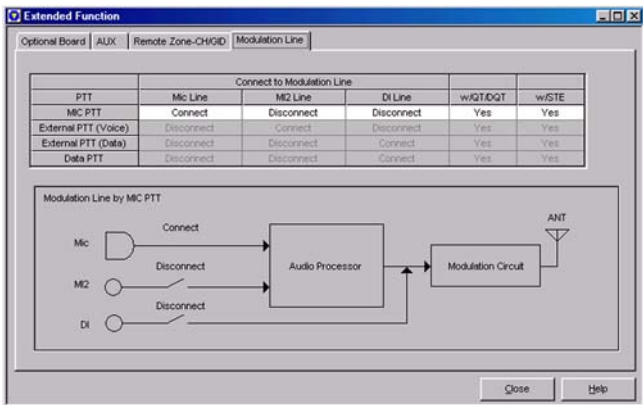


Figure 6-58 Modulation Line Tab

The status of the modulation line appears on the top of the window.

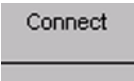


Figure 6-59 When Connect is Selected.



Figure 6-60 When Disconnect is Selected.

Following are defaults of the modulation line.

Table 6-19 Default Modulation Line

PTT	Connect to Modulation Line		
	Mic Line	MI2 Line	DI Line
Mic PTT	Connect	Disconnect	Disconnect
Extended PTT (Voice)	Disconnect	Connect	Disconnect
Extended PTT (Data)	Disconnect	Disconnect	Connect
Data PTT	Disconnect	Disconnect	Connect

Note: You cannot configure the modulation line unless the items in the **AUX** tab > the **Function** pulldown menu are configured.

■ Mic Line

You can enable the Mic Line. Select the desired Mic Line option from the pulldown menu.

Range	Connect/ Disconnect
Default	Refer to Table 6-19 Default Modulation Line

■ MI2 Line

You can enable the MI2 Line. Select the desired MI2 Line option from the pulldown menu.

Range	Connect/ Disconnect
Default	Refer to Table 6-19 Default Modulation Line

■ DI Line

You can enable the DI Line. Select the desired DI Line from the pulldown menu.

Range	Connect/ Disconnect
Default	Refer to Table 6-19 Default Modulation Line

■ w/QT/DQT

You can configure the QT/DQT in the Conventional Group to be replaced.

Range	Yes	The QT/DQT is replaced.
	No	The QT/DQT is not replaced.
Default	Yes	

■ w/STE

You can select whether or not to transmit STE (Squelch Tail Eliminator) after transmitting the QT/ DQT code configured in the Conventional Group.

Range	Yes	The transceiver transmits the STE.
	No	The transceiver does not transmit the STE.
Default	Yes	

6.16 Zone Merge Window

Zone Merge is the function allowing you to store the Zone Data in the Source File in order to integrate the Zone information. With this function, you do not need to enter the information when making similar configurations (Repeater Channel, etc.).

You can also copy the Zone information in the Source file to the Data file.

With this function, the Data Zone-CH/GID information edited in the **Zone Edit** window can be stored in the Source File. If a Zone using several Zones is stored, an unexpected Data Zone-CH/GID is configured when copying the Zone Information in the Source file. You must check the Zone Edit before copying the Zone Information in the Source File to the Data File.

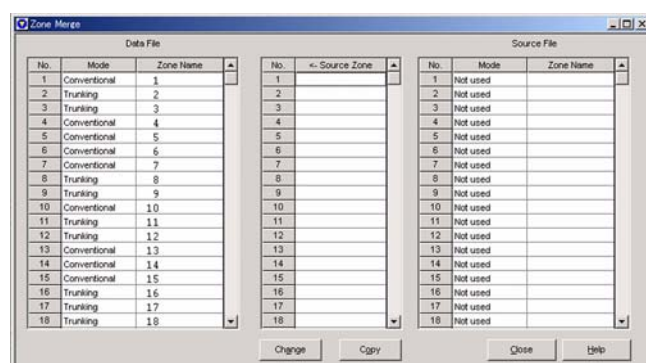


Figure 6-61 Zone Merge Window 1

6.16.1 Creating the Source File from the Data File

You can create a maximum of 20 Source Files using the configured Zone data. You can create a maximum of 20 source files.

1. Click "Change".

"Data Zone ->" appears on the display.



Figure 6-62 Zone Merge Window 2

2. Enter the data file No. to be copied on the source file in the "Data Zone ->" column.

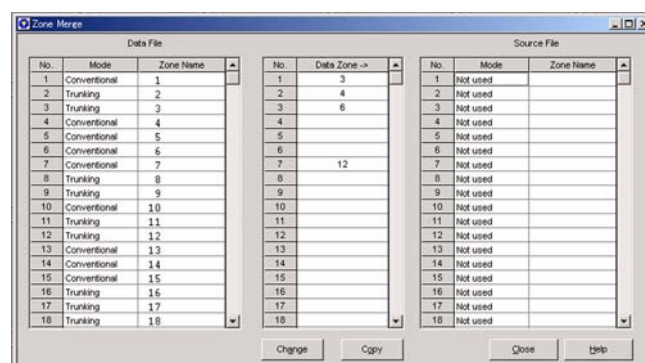


Figure 6-63 Zone Merge Window 3

3. Click "Copy".

The Zone information is copied to the source file.

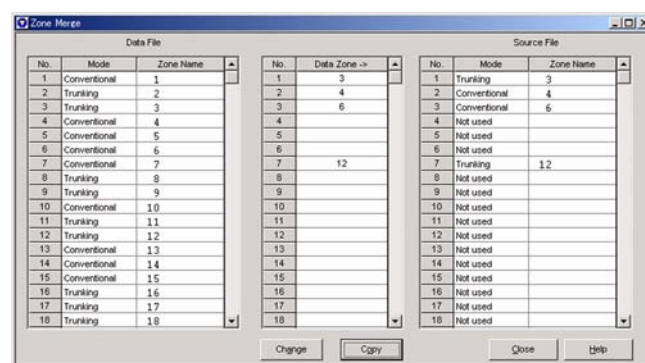


Figure 6-64 Zone Merge Window 4

6.16.2 Copying the Zone Information from the Source File to the Data File

- 1. Click “Change”.
“<- Source Zone” appears on the display.

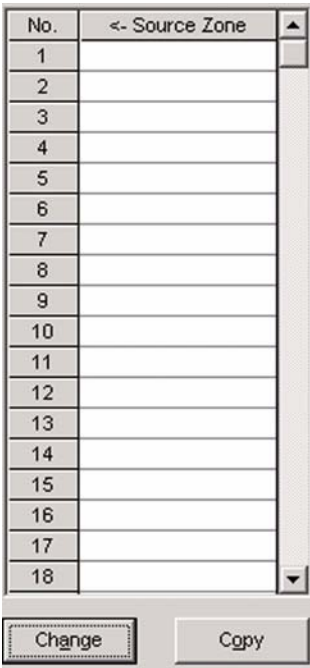


Figure 6-65 Zone Merge Window 5

- 2. Enter the source file No. to be copied on the data file in the **Source Zone** column.

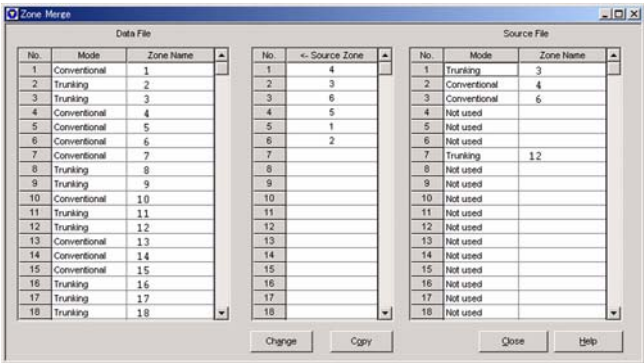


Figure 6-66 Zone Merge Window 6

- 3. Click “Copy”.
The Zone information is copied to the data file.

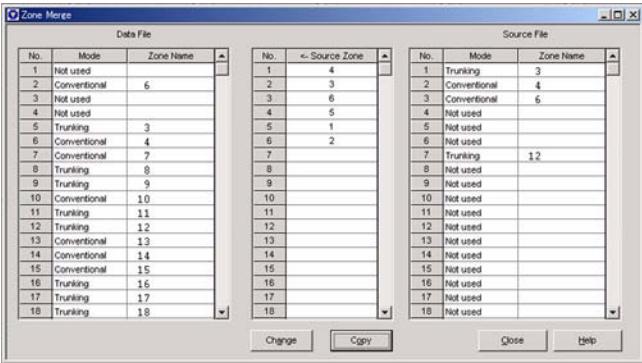


Figure 6-67 Zone Merge Window 7

6.17 Test Frequency

You can configure the test frequency to test the transceiver in this window. You can configure a maximum of 16 channels.



Figure 6-68 Test Frequency Window

6.17.1 Receive/ Transmit

You can configure the test frequency. Configure the test frequency by entering number in the Receive and Transmit edit boxes.

Range	Refer to Table 6-20 Test Frequency Range
Default	Refer to Table 6-21 Default Test Frequency of the TK-2180/ 7180 Refer to Table 6-22 Default Tuning Frequency of the TK-3180/ 8180 (450 - 520 MHz) Refer to Table 6-23 Default Tuning Frequency of the TK-3180/ 8180 (400 - 470 MHz)

Table 6-20 Test Frequency Range

Model	Market Code Type	Transmit and Receive Frequency [MHz]
TK-2180/ 7180	K	136 - 174
TK-3180/ 8180	K	450 - 520 400 - 470

Table 6-21 Default Test Frequency of the TK-2180/ 7180

Channel No.	Receive Frequency [MHz]	Transmit Frequency [MHz]
1	155.05000	155.10000
2	136.05000	136.10000
3	173.95000	173.90000
4	155.00000	155.00000
5	155.20000	155.20000
6	155.40000	155.40000
7	177.95000	177.90000
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-

Table 6-22 Default Tuning Frequency of the TK-3180/ 8180 (450 - 520 MHz)

Channel No.	Receive Frequency [MHz]	Transmit Frequency [MHz]
1	485.05000	485.10000
2	450.05000	450.10000
3	519.95000	519.90000
4	485.00000	485.00000
5	485.20000	485.20000
6	485.40000	485.40000
7	-	-
8	-	-
9	-	-

Channel No.	Receive Frequency [MHz]	Transmit Frequency [MHz]
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-

Table 6-23 Default Tuning Frequency of the TK-3180/ 8180 (400 - 470 MHz)

Channel No.	Receive Frequency [MHz]	Transmit Frequency [MHz]
1	435.05000	435.10000
2	400.05000	400.10000
3	469.95000	469.90000
4	435.00000	435.00000
5	435.20000	435.20000
6	435.40000	435.40000
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-

6.18 Embedded Message Window

You can configure the message that is stored in the transceiver in the **Embedded Message** window. You can store a message with a maximum of 64 characters (combination of alphabets and numerals) in the transceiver. You can embed the specific information of the transceiver, such as the control number and the name of the configuration data written in the repeater.

You can read the embedded messages from the transceiver using the KPG-89D. (Refer to 7.1 Read Data from the Transceiver.)

The Embedded Message appears on the **Open** window when the configuration data is opened. (Refer to 4.2 Open.)



Figure 6-69 Embedded Message Window

Directly enter the characters in the edit box.

Range	A message with a maximum of 64 characters and symbols (You can enter a maximum of 32 characters and symbols in an edit box.)
Default	Blank

6.19 Embedded Message w/Password

You can configure the message and the password to the transceivers in the **Embedded Message w/Password** window. You can configure a message with up to 64 characters (combination of alphabets and numerals) to the repeater. You can also configure the password to protect the message. You can embed the specific information of the transceiver, such as the control number and the name of the configuration data written in the transceiver.

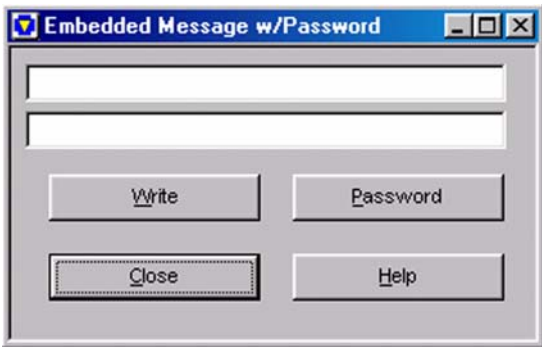


Figure 6-70 Embedded Message w/Password Window 1

Directly enter the characters in the edit box.

Range	A message with a maximum of 64 characters and symbols (You can enter a maximum of 32 characters and symbols in an edit box.)
Default	Blank

6.19.1 Writing the Configuration Data to the Transceiver

You can write the entered message to the transceiver. Follow the procedures below to write the message into the transceiver.

- 1. Enter the message.
- 2. Click “Write”.

The password entry display appears if the password is already configured.



Figure 6-71 Embedded Message w/Password Window 2

- 3. Enter the password and click “OK”.

When the entered password is correct the message is written to the transceiver, and the the following message appears.



Figure 6-72 Embedded Message w/Password Window 3

Note:

- ◆ The following error message appears if no password is configured. Click “OK” on the above display to write the message to the transceiver.



Figure 6-73 Embedded Message w/Password Confirmation Message

- ◆ The following error message appears when the password is not correct. The **Password Entry** window closes when entering a wrong password three times in a row.



Figure 6-74 Embedded Message w/Password Error Message

- ◆ When the message is written with the Embedded Message w/ Password function, the message is stored as a separate data from the configuration data.

6.19.2 Configuring and Changing the Password

You can configure the password and change it.

Follow the procedures below to write the message into the transceiver.

1. Click "Password".

The Warning message appears. Click "OK" to open the **Password Change** window.

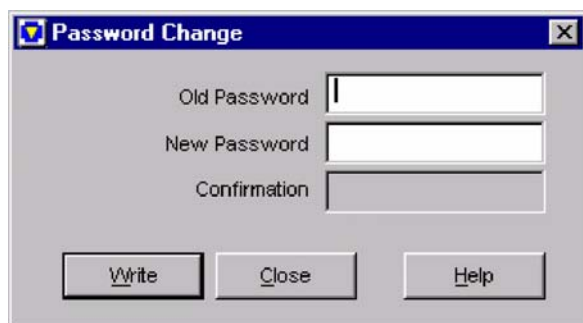


Figure 6-75 Embedded Message w/Password Warning Message

2. Enter the password.

Enter a maximum of 6 characters in the edit box.

Old Password: Enter the old password in this box.

New Password: Enter the new password.

Confirm: Enter the same password as the New Password to confirm it.



Figure 6-76 Embedded Message w/Password Window 4

3. Click "Write".

When the entered password is correct the message is written to the transceiver, and the the following message appears.



Figure 6-77 Embedded Message w/Password Window 5

Note:

- ◆ The following error message appears when the old password is not correct.



Figure 6-78 Embedded Message w/Password Error Message

- ◆ The following error message appears when the new password does not match the password entered in the confirm box.



Figure 6-79 Embedded Message w/Password Error Message

7 PROGRAM MENU


7.1 Read Data from the Transceiver

This function allows you to read the configuration data from the transceiver with the KPG-36/ 46 programming cable by using the KPG-89D. (Refer to 1.2 Connecting the Transceiver to the PC.)

Follow the procedures to read data from the transceiver.

1. You can select one of the following options.

- Select “Program” > “Read Data from the Transceiver”.

- Click “” icon on the **Toolbar**.

The **Read Data from the Transceiver** window appears.

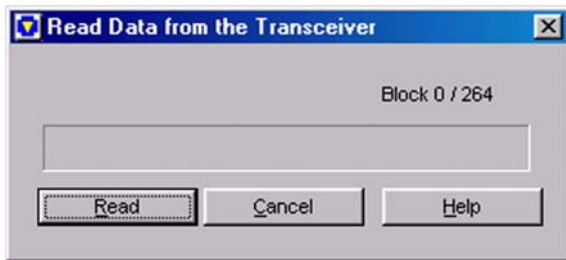


Figure 7-1 Read Data from the Transceiver Window 1

2. Click “Read”.

A PC starts reading the configuration data from the transceiver.

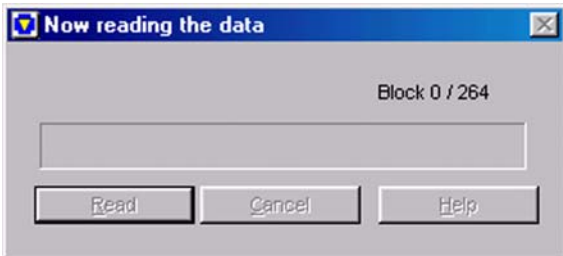


Figure 7-2 Read Data from the Transceiver Window 2

- If the Data Password is configured to the Transceiver:

Click “Read” to open the **Input Password** window.



Figure 7-3 Input Password Window

Enter the password in the **Password** edit box and click “OK”.

A PC starts reading the configuration data from the transceiver when the password is correct.

Note:

- ◆ Embedded Message appears if the configuration data contains embedded message.
- ◆ The error message appears when the password is not correct. The **Input Password** window closes when entering a wrong password three times in a row.
- ◆ The entered numbers appear as *.

3. Click “OK”.

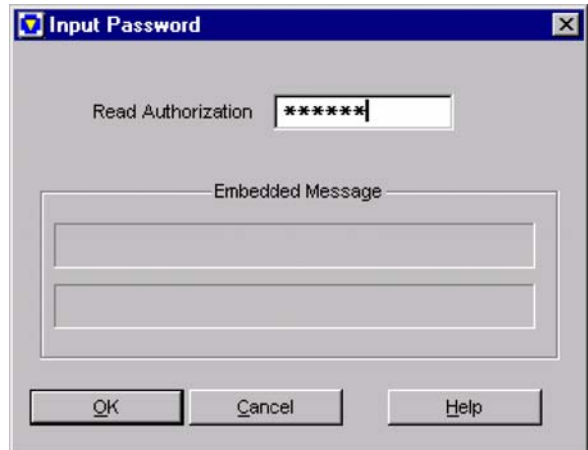


Figure 7-4 Read Data from the Transceiver Window 3

Note:


- ◆ A PC cannot read the configuration data from the transceiver when the transceiver does not respond even if “Read” is clicked. In this case, you must ensure the power of the transceiver and the connection between the PC and the transceiver, and then start the operation again.
- ◆ An error message appears when the transceiver’s model type is different from the model type selected in the KPG-89D. In this case, you must ensure the transceiver’s model type and start the operation again.
- ◆ An error message appears when the COM port does not open and you cannot read the configuration data from the transceiver. In this case, you must ensure the COM port

configuration in the **COM port** window, and then start the operation again. (Refer to 9.1 COM port.)

7.2 Write Data to the Transceiver

This function allows you to write the configuration data to the transceiver connected to the PC with the KPG-36/ 46 programming cable by using the KPG-89D. (Refer to 1.2 Connecting the Transceiver to the PC.)

Follow the procedures to read data from the transceiver.

1. You can select one of the following options.
 - Select "Program" > "Write Data to the Transceiver".
 - Click the "  " icon on the **Toolbar**.

The **Write Data to Transceiver** window appears.

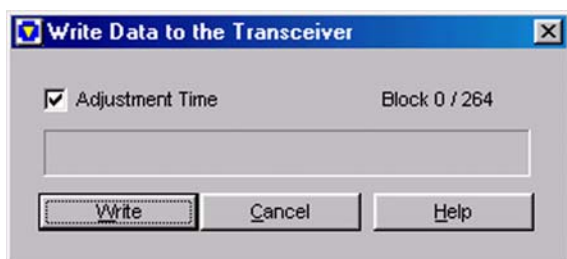


Figure 7-5 Write Data to the Transceiver Window 1

2. Check the **Adjustment Time** checkbox if you want to adjust the PC's clock while writing data to the transceiver. (Refer to 7.2.1 Adjustment Time.)
3. Click "Write".

The PC starts writing the configuration data to the transceiver.

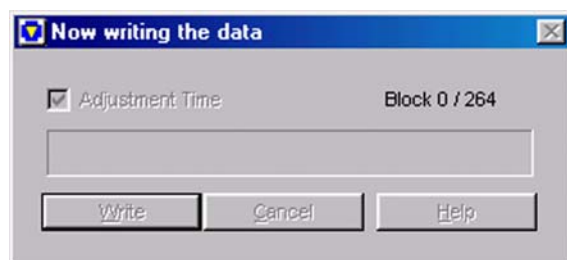


Figure 7-6 Write Data to the Transceiver Window 2

- If the Overwrite Password is configured to the transceiver:

Click "Write" to open the **Input Password** window.



Figure 7-7 Input Password Window

- If the Read Authorization Password or Overwrite Password is configured to the configuration data:

A warning message appears when clicking "Write".



Figure 7-8 Write Data to the Transceiver Window Warning message

Click "OK" to start writing the configuration data to the transceiver.

The data writing completion message appears when a PC properly writes the confirmation to the transceiver.

4. Click "OK".

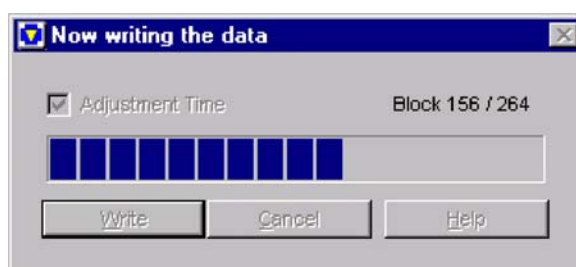


Figure 7-9 Write Data to the Transceiver Window 3

Note:

- ◆ The PC cannot write the configuration data to the transceiver when the transceiver does not respond even if "Write" is clicked. In this case, you must ensure the power of the transceiver and the connection between the PC and the transceiver, and then start the operation again.
- ◆ An error message appears when the transceiver's model type is different from the model type selected in the KPG-89. In this case, you must ensure the transceiver's model type and start the operation again.

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◆ An error message appears when the COM port does not open and you cannot read the configuration data from the transceiver. In this case, you must ensure the COM port configuration in the **COM port** window, and then start the operation again. (Refer to [9.1 COM port.](#))

7.2.1 Adjustment Time

This function allows you to adjust the time when writing the data to the transceiver using the KPG-89D.

Range	Check (Enable)	You can adjust the time while writing data to the transceiver.
	Uncheck (Disable)	You do not adjust the time while writing data to the transceiver.
Default	Checked (Enabled)	

7.3 Test Mode

You can configure the data used to perform various tests and adjustments in the Test Mode window when using the transceiver in **Test Mode**. In this mode, you can make various adjustments, such as checking the RF environment of the location and the adjustment of the receive frequency, before installing the transceiver. You can start the test without writing data since the Encode/Decode signaling and the test frequency are already configured. (Refer to [6.17 Test Frequency.](#))

You can modify the test and other configuration data using the KPG-89D.

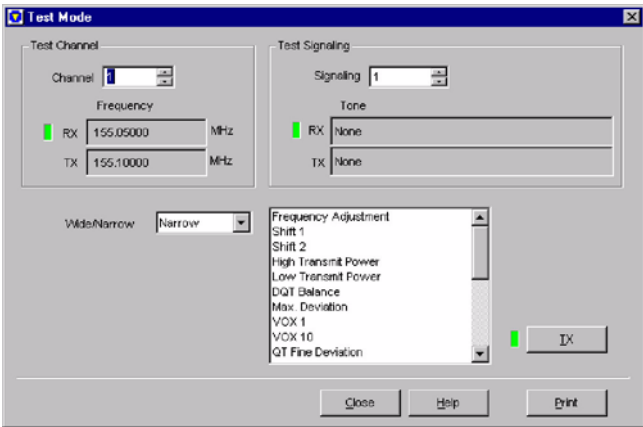


Figure 7-10 Test Mode Window

7.3.1 Test Channel

You can select the channel to test. Configure the Test Channel by directly entering value in the edit box or clicking the spin buttons. (Refer to [6.17 Test Frequency.](#))

The frequency configured to the selected channel number appears in the **Frequency** window.

Range	Channel Number configured in the Test Frequency window (1 - 16)
Default	1

Note:

- ◆ When all edit boxes are deleted, the previously used value is configured.
- ◆ You cannot select the number of the channel that is not configured in the **Test Frequency** window.

7.3.2 Test Signaling

You can configure the test signaling. Configure the Test Signaling by directly entering value in the edit box or clicking the spin buttons.

The Decode Tone/ Encode Tone configured to the selected Signaling Number appears in the **Tone** window.

Range	1 - 17
Default	1

Note: When all edit boxes are deleted, the previously used value is configured.

7.3.3 Wide/ Narrow

You can configure the transmission bandwidth of the test channel. You can select the bandwidth using the pulldown menu.

Range	Wide/ Narrow
Default	Narrow

7.3.4 TX Button

Click "TX" to toggle between transmission and reception.

7.3.5 Print Button

Click "Print" to print out the Tuning Data.

7.3.6 Tuning Mode

You can make various adjustments for the functions used in Test Mode in Tuning Mode. Double-click the function in the list box in the **Test Mode** window to view the adjustment window of the selected function. (Refer to Table 6-25 Function List in Tuning Mode.)

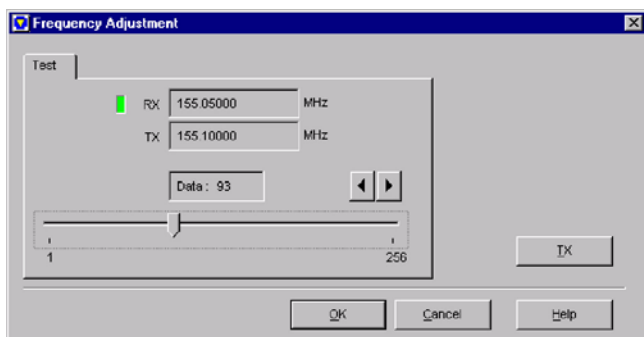


Figure 7-11 Tuning Mode Window
(Single Reference Level Adjustment)

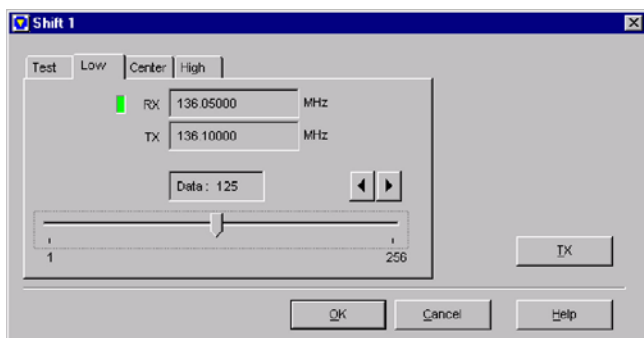


Figure 7-12 Tuning Mode Window
(3 Reference Level Adjustments)

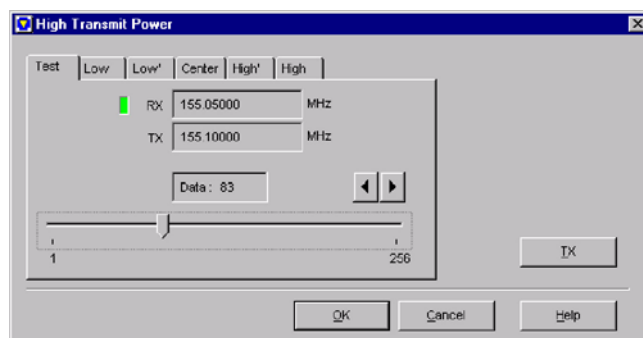


Figure 7-13 Tuning Mode Window
(5 Reference Level Adjustments)

■ Adjustment Bar

You can configure the transmit adjustment value. Configure the adjustment value using the slide bar.

Range	1 - 256
Default	Last configuration data

■ Volume (TK-7180/ 8180 only)

You can configure the volume. Configure the volume level using the slide bar.

Range	0 - 31
Default	Last configuration data

Table 7-1 Functions in Tuning Mode

Function	Reference Level Adjustment	Wide/ Narrow	Remarks
Frequency Adjustment	1	-	
Shift 1	3	-	
Shift 2	3	-	
Max High Transmit Power	5	-	TK-7180/ 8180 only
Max Low Transmit Power	5	-	TK-7180/ 8180 only
High Transmit Power	5	-	
Low Transmit Power	5	-	
DQT Balance	1/ 3	Wide/ Narrow	
Max Deviation	1/ 3	Wide/ Narrow	
VOX 1	1	-	TK-2180/ 3180 only
VOX 10	1	-	TK-2180/ 3180 only
QT Fine Deviation	1/ 3	Wide/ Narrow	

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Function	Reference Level Adjustment	Wide/ Narrow	Remarks
DQT Fine Deviation	1/ 3	Wide/ Narrow	
LTR Fine Deviation	3	Wide/ Narrow	
DTMF Fine Deviation	1	Wide/ Narrow	
MSK Deviation	1	Wide/ Narrow	Adjustment value range: 1 - 64
Single Tone Deviation	1	Wide/ Narrow	
Sensitivity 1	5	-	
Sensitivity 2	5	-	TK-2180/ 3180 only
Squelch Open	3	Wide/ Narrow	
Low RSSI	3	Wide/ Narrow	
Squelch Tight	3	Wide/ Narrow	
High RSSI	3	Wide/ Narrow	
Battery Warning Level	1	-	TK-2180/ 3180 only

8 TOOLS MENU

8.1 Transceiver Information

The information configured in the transceiver appears on the Transceiver Information window.

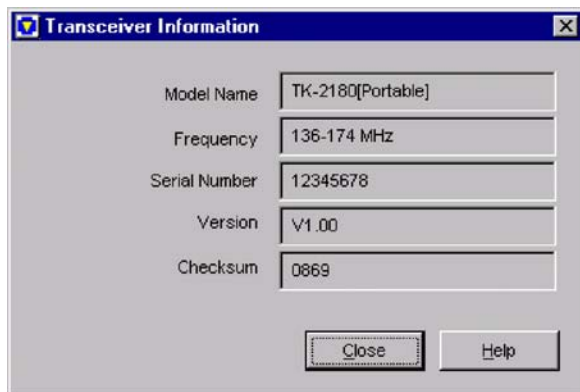


Figure 8-1 Transceiver Information Window

8.1.1 Model Name

The model name of the transceiver appears. ([Refer to 5.1.1 Model Name.](#))

8.1.2 Frequency

The frequency configured in the transceiver appears. ([Refer to 5.1.1 Model Name.](#))

8.1.3 Serial Number

The Serial Number configured in the transceiver appears.

8.1.4 Version

The firmware version of the transceiver appears.

8.1.5 Checksum

The checksum used to transmit/receive data appears.

9 SETUP MENU

9.1 COM port

You can select the COM port of a PC to communicate with the transceiver.

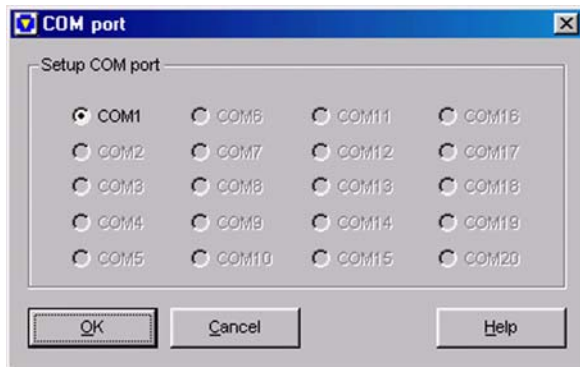


Figure 9-1 COM Port Window

Select the COM port from COM 1 - COM 20 and click "OK".

9.2 Language File Setup

You can select the language for the KPG-89D using the **Language File Setup** window.

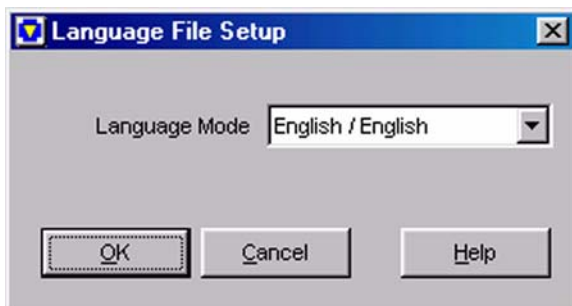


Figure 9-2 Language File Setup Window

From the dropdown list, you can select the language.

Note: The selected language in the **Language File Setup** window is applied to all KPG-89D software functions.

10 VIEW MENU

10.1 Tree View

This window displays the functions in the **Edit** menu. Double-click each item to display the window of the selected item.

The **Tree View** window can be docked to the KPG-89D window.

You can remove the **Tree View** window from the KPG-89D window by double-clicking the frame of the window.

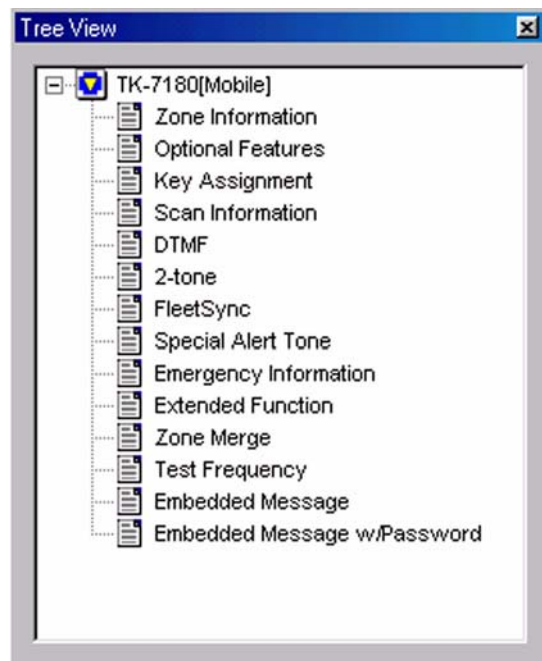


Figure 10-1 Tree View Window

10.2 Toolbar

You can display/ hide the toolbar. You can display or hide the toolbar by selecting "View" > "Toolbar". ([Refer to 3.1.3 Toolbar.](#))

10.3 Status Bar

You can display/ hide the status Bar. You can display or hide the status bar by selecting "View" > "Status Bar". ([Refer to 3.1.4 Status Bar.](#))

11 WINDOW MENU

The **Window** menu appears when the function is selected in the **Edit** menu and the window of the function is displayed. You can rearrange and close the opened windows.

11.1 Cascade

You can rearrange the opened windows in an overlapped fashion (cascade format) by selecting “Cascade”.

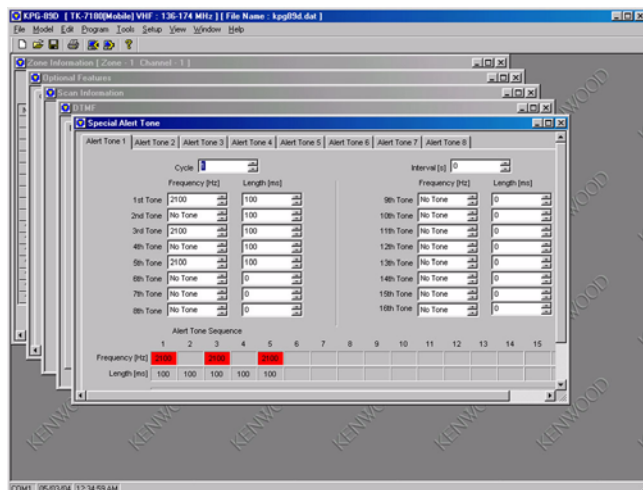


Figure 11-1 Cascade

11.2 Horizontal Tile

You can rearrange the opened windows in the horizontal tiles fashion by selecting “Horizontal Tile”.

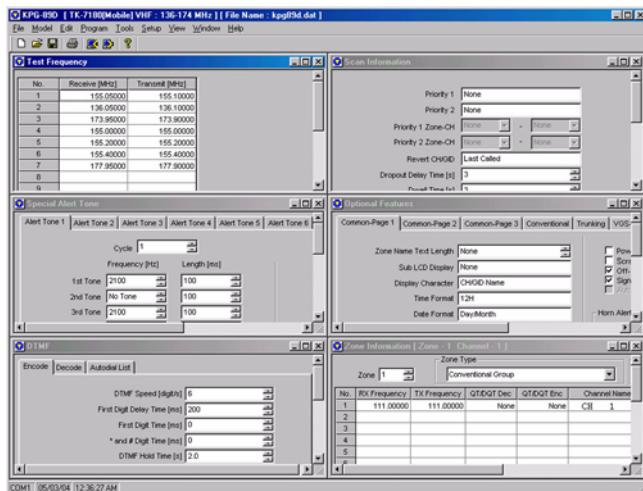


Figure 11-2 Horizontal Tile

11.3 Vertical Tile

You can rearrange the opened windows in the vertical tiles fashion by selecting “Vertical Tile”.

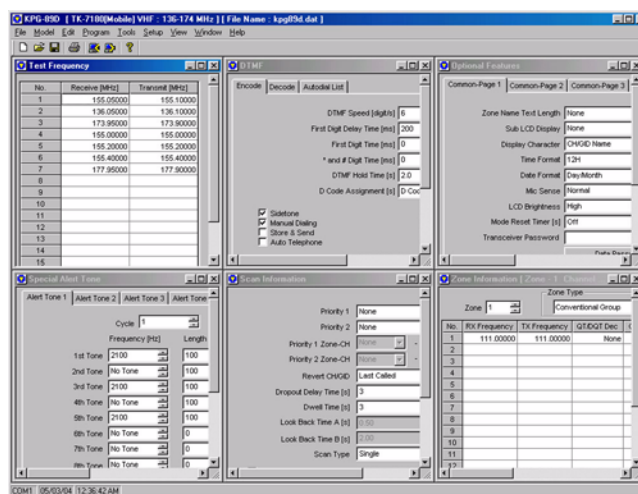


Figure 11-3 Vertical Tile

11.4 Arrange Icons

You can rearrange the icons of the minimized windows by selecting “Arrange Icons”.

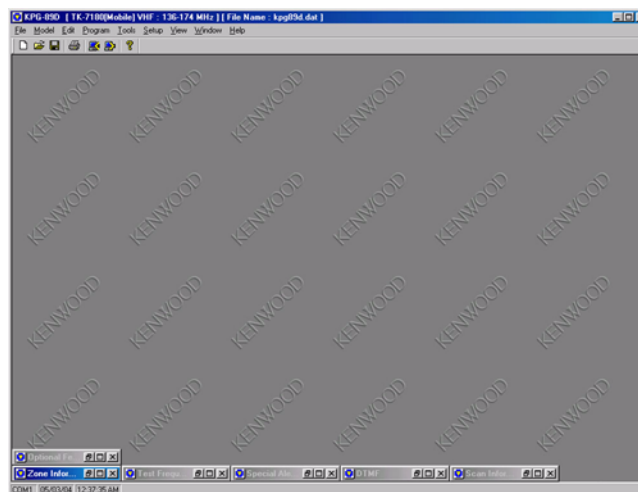


Figure 11-4 Arrange Icons

11.5 Close All Windows

You can close all opened windows by selecting “Closes All Windows”.

11.6 Opened Window List

This function allows you to list all opened windows. When clicking the title of the window, the selected window appears.

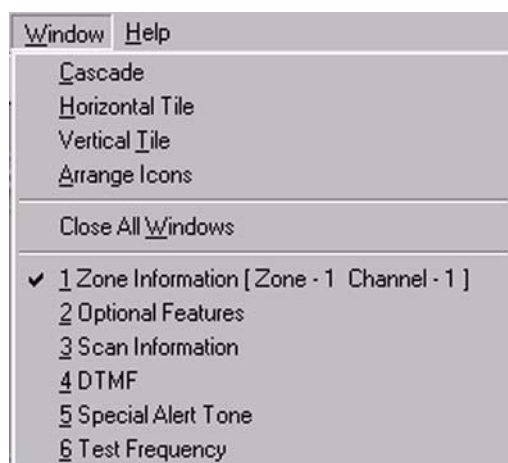


Figure 11-5 Opened Window List

12.1 Help Topics

You can display the KPG-89D HTML Help window by selecting “Help” > “Help Topics”. In this window, you can search for the help topics relating to the operations and functions of the KPG-89D.

This window consists of the following tabs and you can switch the display by clicking the tabs.

- Contents Tab
- Index Tab
- Search Tab

12.1.1 Contents Tab

You can search for the help topics from the menu bar. The menu bar has 8 items; **File**, **Model**, **Edit**, **Program**, **Tools**, **Setup**, **View** and **Window**.

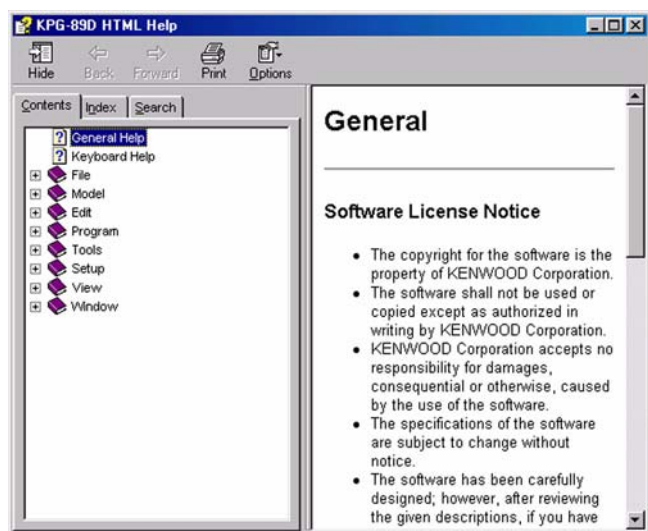


Figure 12-1 Contents Tab

The help text appear in the right frame of the **Help** window when clicking “?” or “”. The “” icon appears when double-clicking “” or the “+” mark. The detailed help topics appear.

12.1.2 Index Tab

You can search the help topic from the Keyword list. Enter the Keyword into the edit box, then double-click the keyword in the Keyword list or click “Display”.

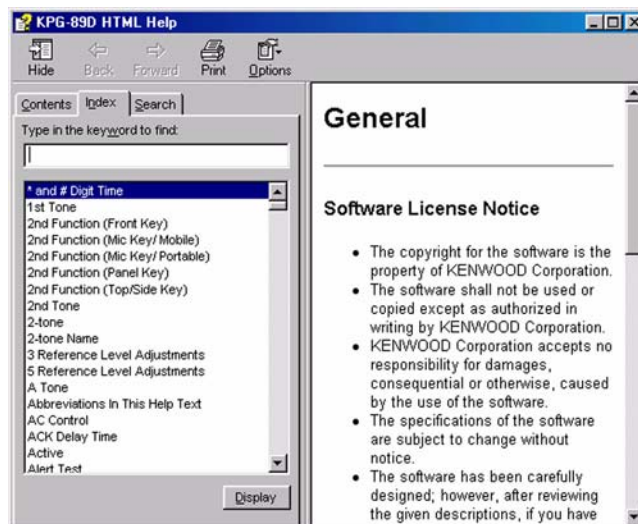


Figure 12-2 Index Tab

12.1.3 Search Tab

You can search the help topic with the word or phrases in the document. Enter the Keyword into the edit box, then double-click the keyword in the Keyword list or click “Display”.

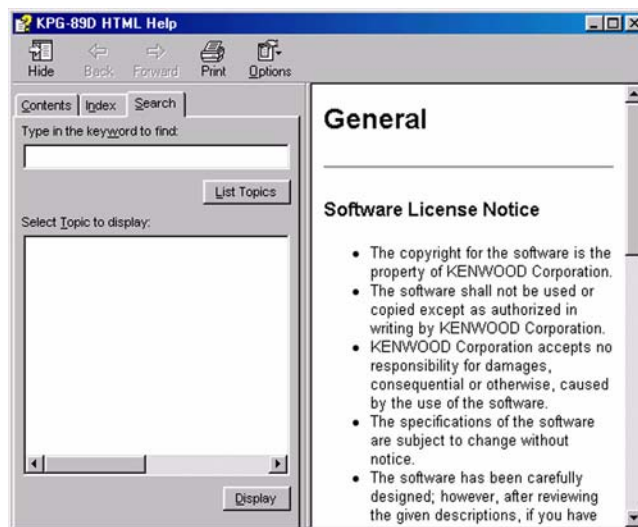


Figure 12-3 Search Tab

12.2 About KPG-89D

You can view the information about the KPG-89D.

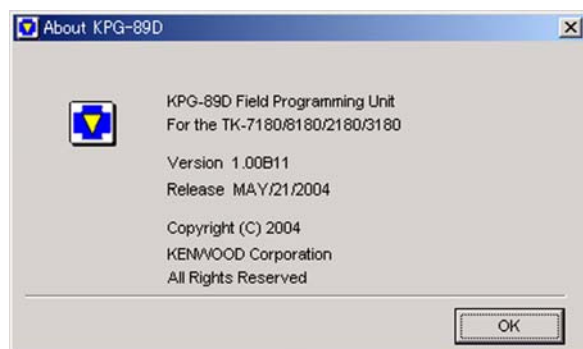


Figure 12-4 About KPG-89D Window

Click "OK" to close the **About KPG-89D** window.

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