

C168 C468 SERIES

VHF/UHF FM HANDHELD TRANSCEIVER

- World's smallest full-keyboard handheld
- 5W RF power
- Intelligent scan
- Cloning feature
- DTMF paging and code squelch
- 40 memory channels/200-channel memory unit available
- Unsurpassed "0.158 μ V" sensitivity (12 dB SINAD)



 **STANDARD**

Model C168/C468 Series



UNSURPASSED MEMORY CAPACITY

Most transceivers have limited memory storage and require an internal lithium battery for memory backup. Eventually, you need to replace the battery—often a major task. But the new C168/C468 Transceivers use a tiny 4K EE-PROM memory cartridge and require no battery for backup! The supplied cartridge has 40-channel memory capability. You can purchase another 4K EE-PROM cartridge to store 40 more memory channels, and swap cartridges when you travel out of town.

Purchase the optional 16K EE-PROM memory cartridge for 200 channel storage!

DTMF PAGING & DTMF CODED SQUELCH MODES

STANDARD innovates again. DTMF Paging and DTMF Coded Squelch modes, now becoming industry standard, were first introduced by STANDARD. These modes allow you to communicate with friends without interference from other signals. Only transmissions intended for you will open your squelch. Call a single friend or use the group call function to call a prearranged group.

This feature is especially useful for congested frequencies and also allows convenient coordination with a friend or group at hamfests and similar conventions.

CODE SQUELCH/TONE SQUELCH

The versatile C168 and C468 Transceivers permit you to combine Tone Squelch and Code Squelch functions. The combination virtually assures your receiver remains quiet until a call is made from a transceiver specifically set to the same code and CTCSS frequency. This feature is especially useful when you cannot risk being interrupted by an unwanted signal.

ADVANCED MEMORY PROTECTION FUNCTION

The C168/468 offers a function which disables the normal change and delete functions and assures the security of the memory data you have already programmed.

BUILT-IN TONE BURST

Tone burst capability is built-in to the C168/C468 so you can access tone burst repeaters easily. Tone burst is enabled by simply pressing the PTT and CALL keys—it couldn't be simpler!

INTELLIGENT SCAN & MORE SCAN MODES

The built-in microprocessor automatically selects the best scan speed according to the transceiver's frequency step and tone squelch status. Never miss out on the action!

7 Types of scan and 3 modes of scan (Pause Scan, Busy Scan, and a new mode: Hold Scan) assure maximum flexibility in scanning modes. Scan speed can be accelerated to 2.5 times normal speed. Scan the entire band, a 1 MHz segment of the band, within a specified range, scan memory channels, scan group memory channels, specified memory channels or scan CTCSS frequencies for proper tone access on a specific frequency.

UNIQUE ACCESSORY PERMITS OPERATION OF THE RADIO FREE FROM THE BATTERY

With the optional CAX160 remote battery adapter, the C168/C468 can be operated free of the battery for maximum convenience and minimum weight. Operate the radio from your hand with the battery on your belt, a chest pocket or in your bag.



VHF or UHF FM Subminiatur



CHOICE OF BATTERY PACKS

Four Ni-Cd battery packs are available for use with the C168/C468 to satisfy the needs of each individual user. Select the 300mAh/6 volt pack for its small size, the 700mAh/7.2 volt or 1000mAh/7.2 volt packs where extended operation is important and the 600mAh/12 volt pack to boost power to more than 5 watts, ensuring you get the RF power you need in the field.

FOUR TYPES AND TWO SPEEDS OF DUAL WATCH

In Dual Watch mode, the receiver monitors on frequency yet repeatedly interrupts its monitoring to check another frequency for activity. This effectively allows you to monitor two frequencies at one time. In addition to two speeds of dual watch, the C168 and C468 permit versatility in selection of the frequency watched. With the first frequency being the VFO, the second frequency can be:

1. The CALL Channel
2. Memory Channel number "00"
3. A specific memory channel
4. All memory channels in turn

3-WAY FREQUENCY SELECTION

Operating frequencies may be entered or changed three ways with the C168/C468: By direct entry from the keyboard, by rotation of the rotary channel selector or by frequency step with the up/down keys. Direct entry is especially versatile and easy to use because even the 100 MHz digit is entered. Each tick of the rotary channel selector can step either 100 kHz or 1 MHz (with function key pressed) to get you where you want fast! The rotary channel selector also doubles as a memory channel selector in the memory mode.

INCREDIBLE ULTRA-COMPACT SIZE

When used with the dry battery case (takes 5 pcs of UM-3 or type AA battery), the C168/C468 measures only 120 mm (H) × 47 mm (W) × 31 mm (D). Weight is a mere 290 g even with the antenna! The C168/C468 is the world's smallest radio! It can go with you anywhere!

OTHER FEATURES

An external DC jack accepts a wide voltage range, 5.5 to 16 volts, and is suitable for direct connection to the automobile's 12 volt system. Twelve volt DC input also provides 5 watt RF output.

Unsurpassed 0.158 μ V sensitivity supports best possible communication even under poor signal conditions.

Ten step adjustable battery save feature allows you to select a listen interval from 0.25 to 10 seconds.

Activate the Automatic Power Off (APO) function to reduce power drain to near zero if you leave the transceiver on, and a buzzer alerts you before APO occurs.

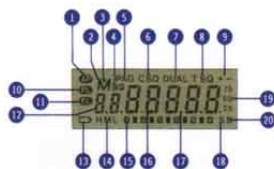
8 Values for frequency step: 5, 10, 12.5, 25, 50, 75 or 100 kHz are selectable so you quickly find the frequency you need.

Convenient Cloning feature using DTMF enables you to duplicate the programmed data of the C168/C468 to another.

STANDARD ACCESSORIES

ITEM/VERSION	C168	C168S	C168A	C468	C468S	C468A
BELT CLIP	•	•	•	•	•	•
HAND STRAP	•	•	•	•	•	•
CBT160 (Battery tray)	•	•	•	•	•	•
CNB161 (Ni-Cd battery pack)			•			•
CWC150A (Wall charger)			•			•
CTN160 (CTCSS unit)			•			•
CMU160 (40 CH memory unit)	•	•	•	•	•	•
OWNER'S MANUAL	•	•	•	•	•	•

Handheld Transceivers



- 1 Antenna Jack
- 2 External Microphone Jack
- 3 External Speaker Jack
- 4 Rotary Channel Selector
- 5 Squelch Control
- 6 TX/Busy/Battery Indicator
- 7 Power Switch/Volume Control
- 8 Call/Tone Burst/PTT Lock Button

- 1 Function Key
- 2 PTT Switch
- 3 Battery Pack Release
- 4 External DC Jack
- 5 Internal Microphone and Speaker
- 6 Battery Pack

- 1 A.P.O. (Automatic Power Off)
- 2 Memory
- 3 Memory Scan Memory/Paging Decode
- 4 Memory Bank #1
- 5 Paging Mode
- 6 DTMF Code Squelch
- 7 Dual Watch
- 8 Tone Squelch
- 9 +/- Shift
- 10 PTT Lock
- 11 Frequency Lock
- 12 Memory Address/Call Channel
- 13 Battery Checker
- 14 TX Power
- 15 S-Meter/TX Power Meter
- 16 Frequency
- 17 MHz/Scan
- 18 Battery Save
- 19 kHz Digit
- 20 Busy Scan

- Functions accessed by pressing keys directly.
- Functions accessed by holding down the FUNC key and pressing another key.
- Functions accessed by pressing numeric keys in the SET mode.
- Functions accessed in the SET mode by holding down the FUNC key and pressing another key.
- Functions accessed by pressing keys in the EXTRA mode.

Key	Function
0	Switch to SET mode Beep ON/OFF Switch to EXTRA mode
1	TX power control Times of paging beep (once or 5 times) All reset High speed scan ON/OFF
2	Dual watch ON/OFF 1 kHz digit input High speed dual watch ON/OFF
3	Memory shift mode ON/OFF TX paging code delay time All reset enable/disable Change LAMP key to REV key
4	Frequency step setting Pop noise reduction Switch to protect mode Select interval at battery save mode
5	Battery save ON/OFF A.P.O. ON/OFF Audio mute at paging mode DTMF transmission interval setting
6	Frequency lock ON/OFF Activate rotary channel selector at frequency lock mode Select frequency step (100 kHz or 1 MHz) by rotary channel selector
7	Tone squelch/tone encoder Tone frequency setting Cloning mode
8	Repeater mode ON/OFF Offset frequency setting 100 MHz digit input
9	Invert TX and RX frequencies Switch memory bank (when CMU161 installed)
LAMP (A)	Lamp ON/OFF Lamp lock ON/OFF
SQL OFF	Squelch OFF DTMF memory mode
V/M ENT(B)	VFO and memory mode Memory store mode
▼PAG (C)	Frequency or address number down Paging and code squelch ON/OFF
▲CODE (D)	Frequency or address number up Paging code setting mode
# CL PS	Cancel mode Scan ON/OFF
* MS MS.M	Memory scan ON/OFF Ms.M setting and Ms.M ON/OFF
CALL	Recall call frequency Tone burst transmission (with holding PTT) PTT lock ON/OFF

Werbeprospekt Standard C-160, C-168, C-460, C-468



OPTIONAL ACCESSORIES



Model C168/C468 Series VHF or UHF FM Subminiature Handheld Transceivers

OPTIONAL ACCESSORIES

BATTERIES

CNB160	Small size Ni-Cd battery pack (6 V, 300 mAh)
CNB161	Standard size Ni-Cd battery pack (7.2 V, 700 mAh)
CNB162	High-power Ni-Cd battery pack (12 V, 600 mAh)
CNB163	Long-life Ni-Cd battery pack (7.2 V, 1,000 mAh)
CBT160	Battery case (hold 5 pcs of AA type battery)

CHARGERS

CSA160E	Desk top rapid charger
CWC150K	Wall charger for CNB160/161/163
CWC151K	Wall charger for CNB162
CMC150	Mobile charger for CNB160/161/163

MIC-SPEAKERS

CMP111	Standard size mic-speaker
CMP113	Tie-pin type mic-speaker
CMP115	Small size mic-speaker
CHP111	Headset with PTT switch & boom microphone
CHP150	Headset with PTT/VOX switch & boom microphone (powered type)

CARRYING AIDS

CLC160	Soft case (when use with CNB160)
CLC161	Soft case (when use with CNB161/CBT160)
CLC162	Soft case (when use with CNB162/163)
CMB111	Mobile bracket
CBH160	Molded clip

OTHERS

CTN160	CTCSS unit
CMU160	Memory unit (40-channel)
CMU161	Memory unit (200-channel)
CAX160	Remote battery adapter
CCA160	Charging adapter (when charge CBT160 by CWC150K/151K or CMC150)
CAW150	Mobile power supply cable
CAW151	Base station power supply cable
CAX03	Bottom cover

SPECIFICATIONS

GENERAL:

		C168 Series	C468 Series
Frequency Range	C168/C468	144 to 147.995 MHz	430 to 439.995 MHz
(Specifications guarantee range)	C168A/C468A	144 to 147.995 MHz	438 to 449.995 MHz
	C168S/C468S	144 to 147.995 MHz	430 to 439.995 MHz
Circuitry		Synthesized	
Type of Emission		16F3	
Operating Voltage Range		5.5 to 16 V DC	
Operating Temperature Range		-20°C to +60°C	
Current Drain	TX Hi (13.8 V)	1000 mA	1300 mA
	TX Mid (13.8 V)	800 mA	950 mA
	TX Hi/Mid (7.2 V)	900 mA	900 mA
	TX Lo	400 mA	450 mA
	Standby	32 mA	38 mA
	Battery Save	12 mA	13 mA
	A.P.O.	0.5 mA	0.5 mA
Channel Spacing		20 kHz	
Frequency Step		5, 10, 12.5, 15, 20, 25, 50, 100 kHz	
Frequency Stability (-20°C to +60°C)		±0.001%	
Tone Burst Frequency		1,750 Hz	
Speaker Impedance		8 ohms	
Microphone Input Impedance		600 ohms	
Dimensions (H×W×D) and weight	with CBT160	120 mm × 47 mm × 31 mm, 290 g	
	with CNB160	100 mm × 47 mm × 31 mm, 224 g	
* Height excludes projections.	with CNB161	124 mm × 47 mm × 31 mm, 315 g	
* Weight includes antenna.	with CNB162	141 mm × 47 mm × 31 mm, 409 g	
	with CNB163	141 mm × 47 mm × 31 mm, 375 g	
Battery life	with CBT160	4 hours	3.5 hours
* TX:RX:Standby=1:1:8	with CNB160	4 hours	2.5 hours
* TX high power mode	with CNB161	6.5 hours	6 hours
* Battery saver off	with CNB162	4 hours	3.5 hours
Battery life changes according to usages or environmental conditions.	with CNB163	9 hours	8.5 hours

RECEIVER:

		C168 Series	C468 Series
Intermediate Frequency	1st IF	30.85 MHz	23.05 MHz
	2nd IF	455 kHz	455 kHz
Sensitivity (12 dB SINAD)		0.158 μV	
Threshold Squelch Sensitivity		0.112 μV	
Selectivity (2-signal method)		60 dB	55 dB
S/N Ratio at 0.5 μV Input		30 dB	
Audio Power Output (10% Distortions)		200 mW	

TRANSMITTER:

RF Power Output		C168 Series			C468 Series		
		Hi	Mid	Lo	Hi	Mid	Lo
with CBT160	with CBT160	1.5W	1.5W	0.35W	1.5W	1.5W	0.35W
	with CNB160	1.5W	1.5W	0.35W	1.5W	1.5W	0.35W
	with CNB161	2W	2W	0.35W	2W	2W	0.35W
	with CNB162	5W	2.5W	0.35W	5W	2.5W	0.35W
	with CNB163	2W	2W	0.35W	2W	2W	0.35W
Modulation Method		Reactance Modulation					
Spurious Emission		60 dB					
Harmonic Distortion (at 1 kHz)		±3%					
Hum and Noise Level		40 dB					
Maximum Deviation		±5.0 kHz					
Frequency Setting Accuracy		±1.0 kHz					

Performance specifications are nominal, unless otherwise indicated, and are subject to change without notice.

• For further information, see your dealer or contact.



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