

TW7000F HF “Flyaway” Transceiver

COMMERCIAL HF



The TW7000F is a transportable “Flyaway” version of Datron’s TW7000 professional HF transceiver. It is a completely “self-contained” HF station, designed to not only provide long distance voice and data communications over HF, but specifically configured to meet the demanding requirements of rapid deployment, emergency-use equipment. It contains a TW7000- series radio with an extended control head, an embedded universal ac/dc power supply, a long-wire antenna kit, a rugged MIL handset, and a remotely deployable automatic antenna tuner - all packaged in a rugged, transportable suitcase. Easily installable internal options like MIL-STD-188-141B ALE, and voice encryption add additional functionality to the basic transceiver.

A companion power pack, the TWPP, is also available to provide the capacity for 24 hours of normal radio operation and includes a built-in charger. The TWPP is also packaged in a matching aluminum suitcase. The TW7000F has a remotely deployable antenna tuner that automatically matches the complex impedance of various whip and long-wire antennas to the TW7000F. A complete long-wire antenna kit (with counterpoise) is included in the TW7000F package.

The TW7000F will meet the environmental specifications of MIL-STD-810 for shock, vibration, and temperature. RF output power is conservatively rated at 125W, PEP, and 100W, average, and there is complete protection against antenna mismatch. Automatic BITE capability, with fault detection down to the module level, allows even unskilled operators to easily repair the radio at the field level.

Datron’s Flyaway HF transceivers have been used for years in emergency applications, and the TW7000F is but the latest in a highly successful line of “Flyaway” radios deployed around the world by rapid deployment forces, providing reliable communications in disaster relief and national security situations.

- 1.6 to 30 MHz (100 kHz to 30 MHz, Rx)
- Continuous duty operation - voice/data
- Auto-ranging 115/230Vac power supply
- Deployable automatic antenna tuner
- Extended control unit
- Commercial and MIL audio connectors
- MIL-STD-188-141B ALE
- Voice encryption



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GENERAL

- **FREQUENCY RANGE** 1.6 to 30 MHz (Tx); 100 kHz to 30 MHz (Rx); 10 Hz channel spacing
- **PRESET CHANNELS** 256, standard; 1000, optional
- **SCANNING** Multiple scan groups, operator-selectable scan rates
- **CHANNEL PROGRAMMING** From front panel or remotely via computer or dedicated remote control console
- **FREQUENCY STABILITY** 0.5 ppm
- **MODES** USB, LSB, CW, AME; simplex or half-duplex
- **INPUT POWER REQUIREMENTS** 11 - 15 Vdc; 90 - 260 Vac, auto-ranging
- **INPUT POWER PROTECTION** Reverse polarity, transient and under/over-voltage
- **ANTENNA PORT** SO-239 for 50 ohm broadband antennas; BNC to connect to deployable antenna tuner.
- **ANTENNAS** Whips and long wires; fully automatic antenna tuning; 100 channel memory; tuner deployable up to 50 feet from main body of radio.
- **RADIO CONTROL** Full-function, extended control unit; deployable up to 15 feet from main body of radio.

MECHANICAL, ENVIRONMENTAL

- **SIZE** 8.5" x 21" x 17" (21.6 cm x 53.5 cm x 43 cm), (H x W x D); overall "closed" suitcase size
- **WEIGHT** 45 lbs., (20 kg)
- **PACKAGE** Rugged, aluminum-skinned, suitcase; meets ITA under-seat requirements.
- **TEMPERATURE** -30 to +60 degrees C.
- **SHOCK, VIBRATION** Per MIL-STD-810

TRANSMITTER

- **RF POWER OUTPUT** 125W, PEP; 100W, average (typical)
- **DUTY CYCLE** Continuous service, all modes
- **HARMONICS** -60 dB (2 to 30 MHz)

RECEIVER

- **SENSITIVITY** -113 dBm @ 10 dB SINAD (2-30 MHz)
- **ATTENUATOR** +20 dB, operator selectable
- **AUDIO** 5W into 4 ohms; 0 dBm into 600 ohms.

INTERNAL OPTIONS

- **7000ALE-141B** MIL-STD-188-141B
- **7000ALE** FED-STD-1045A ALE
- **7000ENCR** Voice encryption
- **7000VEM** DSP-based noise reduction
- **7000NB** Impulse-type Noise Blanker
- **7000WB1** Wideband data filter
- **7000CW** Narrowband CW filter
- **7000RS** RS422/423/485 protocol for 2nd COM port
- **7000HS** 0.1 ppm enhanced stability

* Subject to export regulations
Specifications subject to change without notice - rev 1009
Made in the USA