

HF PORTABLE TRANSCEIVERS

FT-70F/G

YAESU





FT-70G

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FT-70F/G

PROFESSIONAL GRADE,

SY

DESCRIPTION

The FT-70 series HF field portable manpack transceivers are designed to provide reliable, convenient medium-range communications under rugged field conditions. The frequency-synthesized, all solid-state circuitry and die-cast anodized aluminum front panel and battery pack make a highly portable, semi-weatherproof station weighing less than six kilograms, providing up to ten watts of multi-mode transmitter output power (5W on AM) between 2 and 30 MHz, and reception down to 500 kHz.

Channel selection from the front panel is by either an 11-channel rotary



FT-70F

switch (FT-70F, diode-matrix pre-settable), or thumbwheel switches (FT-70G) with 100 Hz resolution.

Synthesized, broad-band circuitry minimizes moving parts and tuning requirements, while automatically selected bandpass filters ensure high performance, sensitivity and pure spectral output. The FT-70F version can be

OPTIONS

CSC-70 Carrying Bag

NC-70 Ni-Cd Battery Charger

Quick: 2 hours,
Normal: 8 hours, and
Trickle, DC Power Supply
External Speaker

FNB-70 Ni-Cd Battery Pack

Output: 12 V, 4 Ah
Weight : 2.3 kg

YA-70 Whip Antenna

Length: 4.8 meters
Supplied w/Mounting Base,
Carrying Bag, Connection
Cables, and Counterpoise

RSL-70 Whip Anten

Length: 2.4 meters
Designed for use w/FC-70P
Supplied w/Counterpoise

FC-70M Antenna Tuner

Wideband Manual Tuning
1.6 ~ 3.0 MHz (use w/YA-70)

FC-70P Antenna Tuner

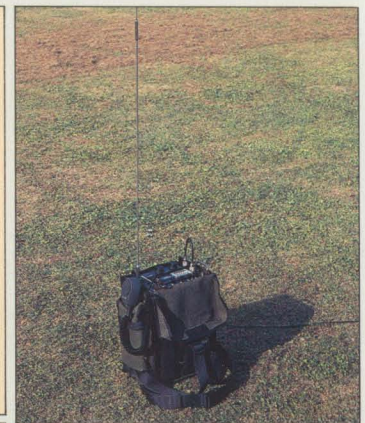
11-Presettable Channels
1.6 ~ 30 MHz (use w/YA-70)
3.0 ~ 30 MHz (use w/RSL-70)

YH-70 Handset

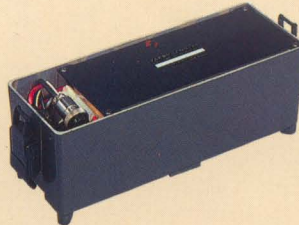
10F-2.4DL LSB Filter



CSC-70 Carrying Bag



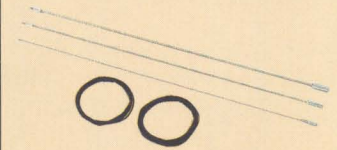
NC-70 Ni-Cd Battery Charger



FNB-70 Ni-Cd Battery Pack



YA-70 Whip Antenna



RSL-70 Whip Antenna



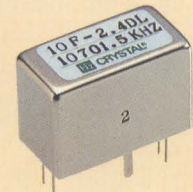
FC-70M Antenna Tuner



FC-70P Antenna Tuner



YH-70 Handset



10F-2.4DL LSB Filter

ANTHESIZED FULL COVERAGE, SOLID STATE, SELF CONTAINED FIELD PORTABLE

programmed for semi-duplex operation.

Flexible operation for optimum communications under a wide range of propagation conditions are assured by SSB (USB, or optional LSB), semi break-in CW and AM modes, selectable from the front panel, along with high/low power selection and all-mode receiver squelch. Convenient operation is further facilitated by an operator-switchable noise blanker, multi-function meter (showing receive signal strength, relative transmit power or battery/supply voltage), and receiver offset (clarifier) control. A trans-

mitter tune switch is provided to simplify zero-beating by other stations, and tuning of the optional FC-70M wideband manual antenna tuner. To maximize charge life of the (optional) FNB-70 high-capacity rechargeable Ni-Cd battery pack, in addition to the high/low power switch, the meter lamp may be switched off when not needed during portable operation. A caution lamp indicates antenna mismatch or out-of-range frequency selection.

Aside from the FNB-70 battery pack, the FT-70 transceivers can also be powered from any external source of

12V DC capable of up to 4A. The NC-70 quick-charger is available for recharging the FNB-70 from the AC mains. Optional antennas are the RSL-70 Whip Antenna, which attaches directly to the control panel of the FC-70P; or the YA-70 Portable Tripod Whip with carrying case. The optional FC-70P 11-channel presettable antenna tuner and the FC-70M full-range manual antenna tuner are available for piggy-back mounting on either version of the transceiver. The YH-70 telephone-type handset and CSC-70 Backpack-style Carrying Case are also available as options.

SPECIFICATIONS

GENERAL

Frequency Range

Transmitter: 2.0000 MHz ~ 29.9999 MHz

Receiver: 0.5000 MHz ~ 29.9999 MHz

Frequency Tuning

FT-70G: 6-digit thumbwheel switch; 100 Hz steps

FT-70F: Diode matrix; 100 Hz steps

Number of Channels

FT-70G: Continuous coverage; 100 Hz steps

FT-70F: 11 simplex or 11 semi-duplex

Emission Type

USB, LSB (A3J/J3E), A3H (H3E), CW (A2/A2A)

Antenna Impedance

50 ohms unbalanced

Power Requirement

12 ~ 15 V DC Negative ground

Power Consumption @ 13.8 V DC

Receive: 0.5A

Transmit (LOW) USB, LSB, CW: 2.4A

Transmit (HIGH) USB, LSB, CW: 3.3A

Transmit (LOW) A3H: 1.8A

Transmit (HIGH) A3H: 2.6A

Operating Temperature

-10°C ~ +50°C

Dimensions

242 (W) x 87 (H) x 277 (D) mm (w/o FNB-70)

242 (W) x 87 (H) x 319 (D) mm (with FNB-70)

Weight

3.5 kg (w/o FNB-70)

5.8 kg (with FNB-70)

TRANSMITTER

Power Output

USB, LSB, CW: 10W/4W selectable

A3H: 5W/2W selectable

Modulation Type

USB, LSB: Balanced modulation

A3H: Low level modulation

Harmonics Radiation

Better than 50 dB below peak output

Carrier Suppression

Better than 50 dB below peak output

Unwanted Sideband Suppression

Better than 50 dB below peak output (1.5 kHz tone)

Audio Response

Better than -6 dB From 350 to 2,650 Hz

3rd Order IMD Product

Better than -31 dB below peak output

Frequency Stability

Within ± 150 Hz

Microphone Impedance

600 ohms

Tone Oscillator Frequency

1,500 Hz

RECEIVER

Type of Receiver

Double conversion superheterodyne

Intermediate Frequency

1st IF: 47.055 MHz

2nd IF: 10.700 MHz

Sensitivity (10 dB (S + N)/N)

2.0 ~ 30 MHz

USB, LSB, CW: Better than 0.4 μ V

A3H: Better than 1.5 μ V

0.5 ~ 2.0 MHz

USB, LSB, CW: Better than 4.0 μ V

A3H: Better than 15 μ V

Selectivity (10 dB (S + N)/N)

2.4 kHz at -6 dB

5.0 kHz at -60 dB

Image Rejection

1st: Better than 80 dB

2nd: Better than 70 dB

Clarifier Range

More than ± 300 Hz

Audio Output Power

More than 1.5W

(Into 8 ohms load, with less than 10% THD)

Note:

An optional filter is required for LSB mode.

Specifications subject to change without notice or obligation



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