



Dual Band FM Transceiver

FT-8800R

Technical Supplement

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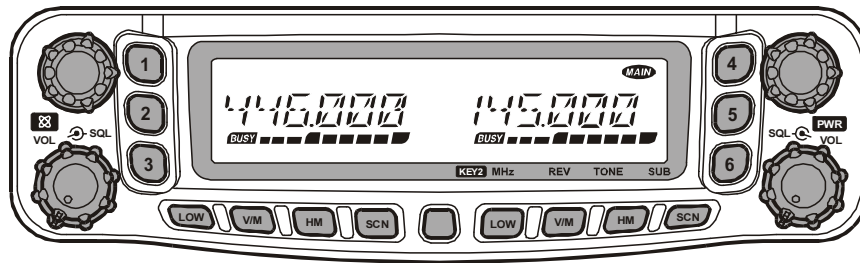
VERTEX STANDARD CO., LTD.
 4 8 8 Nakameguro, Meguro Ku, Tokyo 153 8644, Japan

VERTEX STANDARD
US Headquarters
 10900 Walker Street, Cypress, CA 90630, U.S.A.
International Division
 8350 N.W. 52nd Terrace, Suite 201, Miami, FL 33166,
YAESU EUROPE B.V.
 P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

YAESU UK LTD.
 Unit 12, Sun Valley Business Park, Winnall Close
 Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD.
 Unit 5, 20/F., Seaview Centre, 139 141 Hoi Bun Road,
 Kwun Tong, Kowloon, Hong Kong

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SERVICE & REPAIR



Introduction

This manual provides technical information necessary for servicing the FT-8800R Transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

Two PCB layout diagrams are provided for each double-sided circuit board in the transceiver. Each side of the board is referred to by the type of the majority of components installed on that side (“leaded” or “chip-only”). In most cases one side has only chip components, and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

While we believe the technical information in this manual to be correct, Vertex Standard assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

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SERVICE & REPAIR MANUALS

Specifications

GENERAL

Frequency Range:	RX: 108.000 - 520.000 MHz, 700.000 - 999.995 MHz (Cellular Blocked)
	TX: 144.000 - 146.000 MHz (or 144.000 - 148.000 MHz), 430.000 - 440.000 MHz (or 430.00 - 450.000 MHz)
Channel Steps:	5/10/12.5/15/20/25/50 kHz
Modes of Emission:	F3, F2
Antenna Impedance:	50-Ohms, unbalanced (Antenna Duplexer built-in)
Frequency Stability:	±5 ppm @ 14° F ~ +140° F (-10 °C ~ +60 °C)
Operating Temperature Range:	-4° F ~ +140° F (-20 °C ~ +60 °C)
Supply Voltage:	13.8 VDC (±15%), negative ground
Current Consumption (Approx.):	RX: 0.5 A (Squelched) TX: 8.5 A (144 MHz), 8.0 A (430 MHz)
Case Size (W x H x D):	5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (w/o knobs & connectors)
Weight (Approx.):	2.2 lb (1 kg)

TRANSMITTER

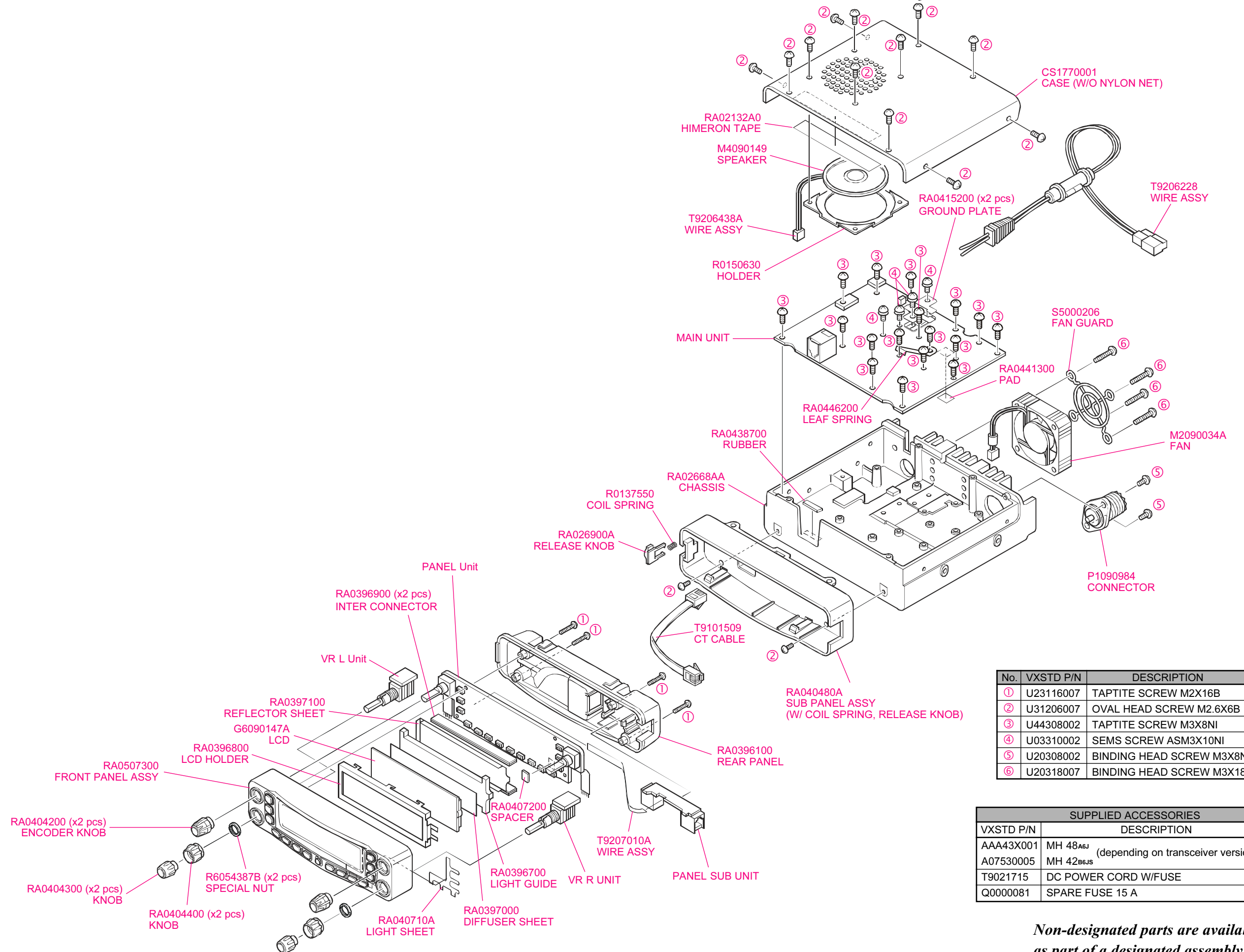
Output Power:	50/20/10/5 W (144 MHz), 35/20/10/5 W (430 MHz)
Modulation Type:	Variable Reactance
Frequency Deviation:	±5 kHz
Spurious Radiation:	Better than -60 dB
Microphone Impedance:	2 kΩ
TA Jack Impedance:	10 kΩ

RECEIVER

Circuit Type:	Double-conversion superheterodyne
Intermediate Frequencies:	45.05 MHz/450 kHz (Main band), 47.25 MHz/450 kHz (Sub band)
Sensitivity (for 12dB SINAD):	Better than 0.2 μV
Selectivity:	Better than 0.16 μV
Rejection (-6dB/-60dB):	8 kHz/30 kHz
Maximum AF Output:	2 W @ 8 Ω for 5% THD
Output Impedance:	4-16 Ω

Specifications are subject to change without notice, and are guaranteed within the 144 and 430 MHz amateur bands only. Frequencies will vary according to transceiver version; check with your dealer.

Exploded View & Miscellaneous Parts



No.	VXSTD P/N	DESCRIPTION	QTY.
①	U23116007	TAPTITE SCREW M2X16B	4
②	U31206007	OVAL HEAD SCREW M2.6X6B	14
③	U44308002	TAPTITE SCREW M3X8NI	17
④	U03310002	SEMS SCREW ASM3X10NI	4
⑤	U20308002	BINDING HEAD SCREW M3X8NI	2
⑥	U20318007	BINDING HEAD SCREW M3X18B	4

SUPPLIED ACCESSORIES		
VXSTD P/N	DESCRIPTION	QTY.
AAA43X001	MH 48A _{6J}	(depending on transceiver version)
A07530005	MH 42B _{6JS}	
T9021715	DC POWER CORD W/FUSE	1
Q0000081	SPARE FUSE 15 A	2

Non-designated parts are available only as part of a designated assembly.