

# Specifications and Accessories



## GENERAL

**Frequency Coverage:** 1.8-2.3, 3.5-4.0, 7.0-7.5, 10.0-10.5, 14.0-14.5, 18.0-18.5, 21.0-21.5, 24.5-25.0, 28.0-30.0 MHz transceiver. (VFO provides approximately 40 kHz overrun on each band edge.)

**VFO Stability:** Less than 15 Hz change per  $F^\circ$  averaged over a  $40^\circ$  change from  $70^\circ$  to  $110^\circ$  F after 30 minutes warmup. Less than 10 Hz change from 105 to 125 V ac line voltage when using a TEN-TEC power supply.

**Tuning Rate:** Vernier, 18 kHz per revolution, typical.

**Readout:** 6 digit, 0.3" LED numerals.

**Accuracy:**  $\pm 100$  Hz.

**Semi-Conductors:** 1 LSI, 20 IC's, 94 transistors, 107 diodes, 6 LED readouts.

**PC Boards:** 22 PC assemblies with plug-in cables.

**Construction:** Rigid steel chassis. Black/Bronze finished aluminum front and rear panels, textured top and bottom. Snap-up stainless steel bail.

**Power Required:** 12-14 V dc., 850 mA receive, 18.5 A max transmit.

**Dimensions:** HWD  $5\frac{1}{4}'' \times 15'' \times 14''$  (13 x 38 x 36 cm), bail retracted.

**Net Weight:** 14 lbs (6.4 kg).

## RECEIVER

**Sensitivity:** 0.25  $\mu$ V for 10 dB S+N/N, all bands. 0.8  $\mu$ V typical with RF amplifier off.

**Selectivity:** 12-pole crystal ladder filtering, 2.4 kHz bandwidth, 1.7 to 1 shape factor at 6/60 dB. Three position switch selects standard ssb filter, optional 1.8 kHz ssb filter, 500 Hz cw filter, or 250 Hz cw filter.

**Notch Filter:** Greater than 50 dB notch tunable between 200 Hz and 3.5 kHz.

**CW Spot:** With 750 Hz reference tone.

**I-F Frequencies:** 9 MHz and 6.3 MHz.

**Antenna Input:** Low impedance, unbalanced.

**Audio Output:** 1 watt @ 8 ohms with less than 2% distortion. Built-in speaker.

**Spurious Responses:** All below equivalent 10 dB S+N/N signal except 1.838 MHz (less than 15 dB S+N/N), 21.300 MHz (less than 20 dB S+N/N), and 28.980 MHz (which can be eliminated by using low end of 29.0-29.5 MHz band segment).

**Noise Blanker:** Built-in, adjustable blanking threshold.

**I-F Rejection:** Greater than 60 dB.

**S-Meter:** Automatically switched on when receiving. Calibrated to 50  $\mu$ V at S9,  $\pm 3$  dB.

**Dynamic Range:** 90 dB, typical.

**Offset Tuning:** Dual range, MAX  $\pm 4$  kHz; MIN  $\pm 500$  Hz, typical.

## TRANSMITTER

**DC Power Input:** Maximum 200 watts @ 14 V dc cw and ssb. 100% duty cycle for up to 20 minutes.

**RF Power Output:** 85-100 watts, typical.

**Output Impedance:** 50 ohms, unbalanced.

**Microphone Input:** High impedance. Accepts high or low impedance microphones with 5 mV output. Polarizing voltage available for electrets.

**T/R Switching:** VOX or PTT on ssb. Instant break-in or semi-break-in on cw.

**CW Sidetone:** Internally generated. Adjustable tone and volume independent of af gain control. Operates only in cw mode.

**SSB Generation:** 9 MHz, 4-pole crystal ladder filter. Balanced modulator.

**Carrier Suppression:** 60 dB typical.

**Unwanted Sideband Suppression:** 45 dB typical at 1.5 kHz tone.

**Spurious Output:** Better than -45 dB relative to full output.

**Meter:** Forward power, collector current, SWR, processing level. Selectable 4 position switch.

**CW Offset:** 750 Hz, automatic.

**ALC Control:** Front panel adjustable. 30 to 100 Watts output, LED indicator.

## FRONT PANEL CONNECTIONS AND CONTROLS

PBT: OFFSET; AF-RF AMP; RF-POWER; NOTCH; DRIVE; Bandswitch; Main Tuning Knob; MODE; METER switch; VOX GAIN; VOX DELAY; PROCESS level; N.B. LEVEL; ALC threshold; QSK/VOX switch; AGC switch; XTAL switch; OFFSET SELECT switches (2); SPOT push-button; PHONES; MIC.

## REAR PANEL CONNECTIONS AND CONTROLS

EXT. T/R jack; AUDIO IN jack, AUDIO out jack; AUX. 12 VDC jacks (2); KEY jack; PTT jack; VFO IN jack; VFO OUT jack; ACCESSORIES socket; LINEAR socket; GND terminal; EXT. SPKR. jack; POWER socket; 50 OHM ANTENNA connector (SO-239); RX ANTENNA jack; RX-TRX switch.

**MODEL 263 Remote VFO.** Duplicate of CORSAIR VFO, Model 263 VFO is housed in a matching enclosure and provides 6 modes of dual frequency operation. LEDs indicate selection of any of six modes of operation: CORSAIR transmit and receive, REMOTE transmit and receive, CORSAIR transmit-REMOTE receive, REMOTE transmit-CORSAIR receive, CORSAIR transmit-both receive, or REMOTE transmit-both receive. When in dual receive mode, front panel control A-B adjusts balance of the two received signals for most comfortable listening. Full break-in is retained in all modes. Frequency range and accuracy is the same as CORSAIR.

In addition to the remote VFO capability, Model 263 also has a 4-position crystal oscillator for fixed frequency operation. Out-of-band crystal frequencies (with some limitations) may be used as well as any in-band amateur frequencies.

Model 263 comes with connecting cable, less crystals. Power is obtained from the CORSAIR system. SIZE: HWD  $5\frac{1}{4}'' \times 7\frac{3}{4}'' \times 14''$ . Wt.: 4 lbs.

**MODEL 280 Dual Primary Power Supply** Ideal for powering the CORSAIR transceiver on either 115 or 230 VAC, 50-60 Hz. Easy to change for either primary voltage. Regulated output, over-voltage and over-current protected, and can be switched from transceiver or power supply.

**Specifications:** INPUT: 105-125 VAC, 50-60 Hz or 210-250 VAC, 50-60 Hz. OUTPUT: 13.5 VDC  $\pm 0.5$  VDC. REGULATION: Better than 1% no load to full load at 117 VAC. OUTPUT CURRENT: 20 ampere, full load. RIPPLE: Less than 60 mV peak-to-peak at 18A at 117 VAC. CIRCUIT BREAKER: Electronic latching. Factory set at 20A. OVER-VOLTAGE PROTECTION: Trips above 16V output. CONNECTORS: One 4-pin AMP MATE-N-LOC, two phono jacks for low current. SIZE: HWD,  $5\frac{1}{2}'' \times 7'' \times 12''$ . WT. 15 lbs.

**MODEL 260 Deluxe Power Supply/Speaker** Includes the electronics of Model 280 power supply plus a built-in  $2\frac{1}{2}'' \times 4''$  front facing speaker. Styled to match CORSAIR.

**MODEL 215PC Microphone.** Ceramic type for hand held or desk top operation. Includes cable, 3-circuit plug, PTT switch, and separate desk stand. Offers optimum articulation, free of power peaks, impervious to temperature and humidity changes. High impedance; 200-4000 Hz response; -50 dB level; die cast zinc and Cyclocac<sup>®</sup>;  $8\frac{1}{2}''$ ; 4' coiled cable, single conductor shielded, two conductors unshielded. 3-circuit phone plug included.

**MODEL 214** Low impedance type, electret microphone in same case style as Model 215PC. Includes coiled cable and 4 terminal connector to match CORSAIR and Model 234 Processor.

**MODEL 700C Hand-held IC Electret Microphone.** High quality electret condenser microphone cartridge with built-in IC preamplifier powered by self-contained 9V battery or by transceiver (steering diodes select the higher voltage if both are present). Comes with coiled 7' cord, Velcro<sup>®</sup> plus hook and eye mounting, and standard 4-terminal locking type connector. Low distortion with slightly rising frequency response. Sensitivity -65 dBV (0 dBV = 1V/uBar @ 1 kHz). Low impedance (typically 400 ohms @ 1 kHz). Low 300 uamp. current drain for long battery life approaching shelf life. Operating temp. range -10 to +60 C. Max. sound pressure level of 130 dB.

**MODEL 234 Speech Processor.** Extends operating range of ssb transmitters under adverse and low propagation conditions. Converts audio signal into ssb signal, clips and processes it through 4-pole monolithic filter for greater average envelope power and converts signal back into audio. Adjustable levels of processing and output plus disable switch and passband adjustment. Powered through the CORSAIR system or by calculator type plug-in AC adapter which supplies 12 VDC @ 75 mA.

**MODEL 645 Dual Paddle Electronic Keyer.** The 645 keyer uses transistor switching and is powered by the transceiver. Adjustable magnetic paddle return. Paddle force 5-50 gms. Speed 6-50 wpm. Weighting ratio 50-150% of classical dit length. Self-completing characters. Dit/dah memories with defeat switches. Torque drive paddles with 4 ball bearing pivots. Powered through the CORSAIR system.

**MODEL 670 Single Paddle Electronic Keyer.** Uses transistor switching and is powered through the CORSAIR system. Speed 6-50 wpm. Self-completing characters. Preset weighting for optimum articulation in the most used speed range (dit length increased approx. 10% at 20 wpm).

**MODEL 227 Antenna Tuner.** Matches 50 ohm unbalanced output of CORSAIR to variety of balanced or unbalanced antenna impedances. 46-tap inductor allows vernier adjustment. 200 watts intermittent, 100 watts continuous.

**MODEL 220 2.4 kHz 8-Pole Crystal Ladder SSB Filter.** To be installed in place of internal 4-Pole Filter.

**MODEL 288 1.8 kHz 8-Pole Crystal Ladder SSB Filter**

**MODEL 285 500 Hz 6-Pole Crystal Ladder CW Filter**

**MODEL 282 250 Hz 6-Pole Crystal Ladder CW Filter**

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