



# VH-1700HF HF TRANSCEIVER

The multi-purpose VH-1700HF HF SSB radio is designed to fulfill Long-haul Land Mobile communication requirements. Though many radios can be adapted for more than one application, the VH1700HF is well-suited as a mobile or base station. Since the System 600 was envisioned as a multi-purpose radio from the beginning, the technology, engineering and manufacturing is the foundation of solid, functional design. For military dispatches from remote outposts, staying in touch from an offshore drilling rig or lonely forestry lockout, and as a governmental emergency backup system, the multi-purpose VH-1700HF is indispensable.

- 1.6 MHz to 30 MHz
- 100 Watt Output SSB
- ALE (option)
- Heavy duty
- PIN Access
- MIL-STD 810 D/E
- Dual Watch
- PC programmable
- Encryption Option
- Alpha-numeric LCD
- Base station or
- Mobile operation
- 200 memory channels
- Dual watch

## SPECIFICATIONS

GENERAL		TRANSMITTER	
Number of Channels:	200 channels	Power Output:	100 Watts
Frequency Range:		J2B, J3E, A1A	25 Watt AM
Receive	50 kHz - 30 kHz	A3E, H3E	Carrier
Transmit	1.8 - 30 MHz		
Frequency Synthesiser		Modulation	Balanced
Step Resolution:	10 Hz, 100 Hz, 1 kHz	Type:	Modulator,
Emission Modes:	J3E (USB, LSB); A1A (CW); A3E (AM); H3E (2182 Mode only); J2B (USB, LSB)	SSB	Filtered
		AM	Carrier
			Low-Level

	(USB, LSB)		(Early Stage)
Current Consumption: Receive (No Signal)	1.2 A	Spurious Radiation:	- 40 dB
Transmit	20 A	SSB Carrier Suppression:	- 40 dB
Ambient Temperature Range:	- 10°C to +50°C	Undesired Sideband Suppression:	50 dB @ 1.5 kHz Modulation Input
Frequency Stability:	±10 ppm	Spurious Response:	- 40 dB
RF Input-Output Impedance:	50 ohms	SSB Audio Response:	<- 6 dB from 400 - 2600 Hz
Power Supply Voltage:	13.8 V DC	Occupied Bandwidth:	< 0.5 kHz A1A J2B, J3E, H3E A3E
Dimensions:	11.3" x 9.6" x 4.1" (286 x 244 x 104 mm)	3rd Order SSB IMD:	-25 dB @ 100 W PEP (14 MHz)
Weight:	9.9 lbs. (4.5 kg)	Microphone Impedance:	600 ohms
<b>RECEIVER</b>			
Circuit Type:	Double Conversion Superheterodyne		
Sensitivity (10 dB S/N):			
0.5 - 1.8 MHz:			
J2B/J3E/A1A	2 µV		
0.5 - 1.8 MHz: A3E	8 µV		
1.8 - 30 MHz:			
J2B/J3E/A1A	0.25 µV		
1.8 - 30 MHz: A3E	1 µV		
Adjacent Channel Selectivity (-6/-60 dB):			
J2B/J3E/A3E-Narrow	2.2 / 5 kHz		
H3E Narrow/A1A-Wide	2.2 / 5 kHz		
A1A Narrow, A3E	500 Hz / 1.2 kHz		
Clarifier Range:	± 300 Hz		
Image Rejection (1.8 - 30 MHz):	70 dB		
IF Rejection (1.8 - 30 MHz):	60 dB		
Conducted Radiation:	-55 dBm		

Spurious Response: *	<1mV
Audio Output:	1.5 Watt into 4 ohms w/ <5% THD

## **General Information:Features:**

### **HF Multi-Mode Transceiver**

The VH1700HF is an integrated HF Multi-Mode communications transceiver designed for Land Mobile, Industrial, Research, Scientific and Government applications. The VH1700HF provides continuous receiver coverage from 30 KHz to 30 MHz. Transmit from 1.6 to 30 MHz. Operating modes include USB and LSB, AM and CW making the VH1700HF ideal for a wide variety of communications needs.

### **Versatility...**

The multi-purpose VH1700HF HF SSB base/mobile transceiver 2-way radio is designed to fulfill Long-Haul Land Mobile HF (shortwave) communication requirements. Though many radios can be adapted for more than one application, the VH1700HF is well-suited as a mobile or base station. Since the VH1700HF was envisioned as a multi-purpose radio from the beginning, the technology, engineering, and manufacturing is the foundation of a solid, functional design. Communications needs as varied as those of a remote jungle research stations to military HF Comms, offshore drilling rigs to forestry management can be efficiently handled with the VH1700HF. Emergency Management disaster communications and governmental HF backup systems are also easy work for the versatile Vertex Standard VH1700HF HF Transceiver.

### **Flexibility...**

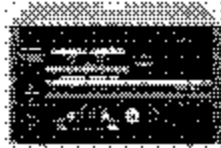
The VH1700HF HF transceiver has many useful options designed to enhance its already powerful performance. An ALE unit is available which will automatically establish contact with other stations using the best frequency and propagation path available, day or night. The 1 Kilowatt Quadra System power amplifier gives you rock crushing punch through power under the toughest conditions. A wide range of



## Accessories & Options



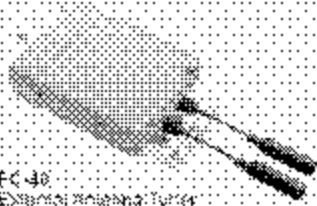
MP-1000: Linear Amplifier  
MP-1000: AC Power Supply for the JL-1000



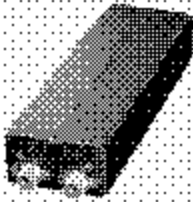
FP-1000A: AC Power Supply



MD-200a: Desktop Microphone



FC-40: External Antenna Tuner  
Wire Whip Antennas

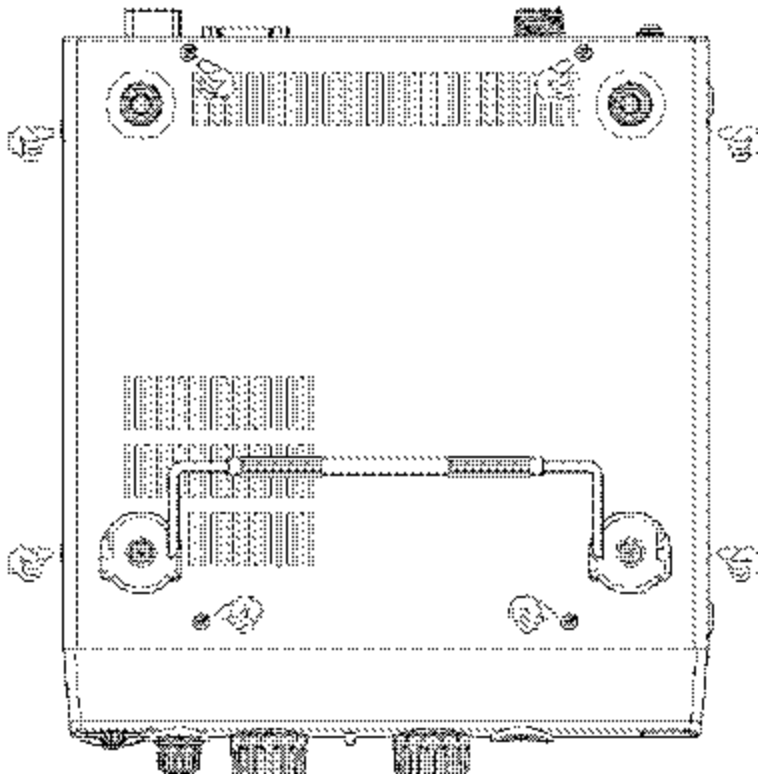


PC-30: External Antenna Tuner; External Units



SP-100: External Speaker

## ALE Option Installation



Make sure that the transceiver is off. Remove the DC Power Cable, Microphone, and Antenna from the transceiver.

Referring to Figure 1, remove the four screws from the side of the transceiver (two screws for each side), along with four screws affixing the bottom case; remove the bottom case.

Referring to Figure 2, disconnect the 13-pin connector from J4001 on the GPS-INTERFACE Unit, remove the two HEX bolts and four screws affixing the GPS-INTERFACE Unit.

Remove the GPS-INTERFACE Unit from the transceiver.

Install the ALE-1 Unit to the place where it has the GPS-INTERFACE Unit.

Fix the ALE-1 Unit with two HEX bolts and four screws.

Connect the 13-pin connector to J4001 on the ALE-1 Unit.

Replace the bottom case with its eight screws.

Connect the DC Power Cable, Microphone, and Antenna to the transceiver.

## Programming

Connect the CT-62 Programming Cable between computer's 9-pin COM port and the transceiver's

TUNER jack.

Press and hold in the [F] and [9(M/W)] keys while turning the power on to enter the clone mode.

Execute the CE77 Programming Soft, then upload the current programming data from the transceiver via the "Upload" menu in the "Radio" parameter.

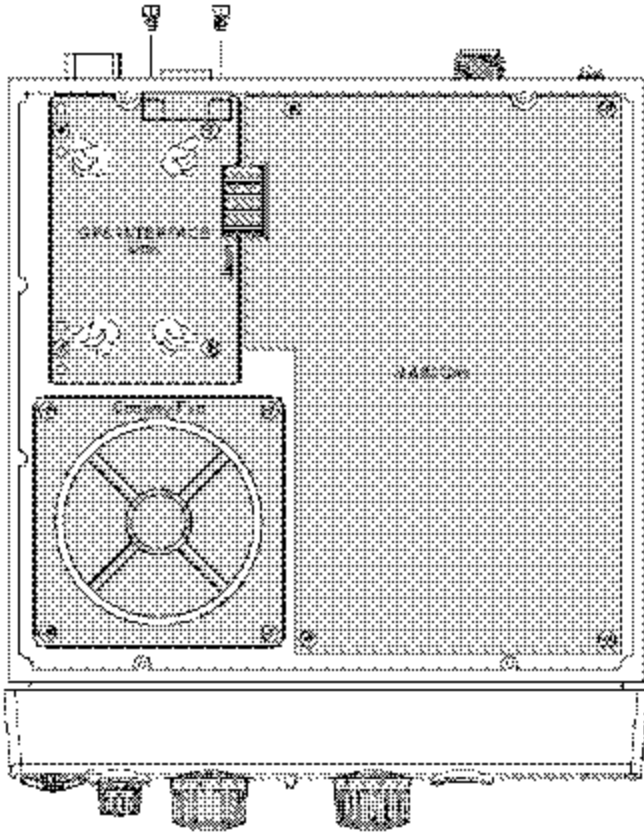
Click the left mouse button on the "Common" parameter, then click the left mouse button on the "Option" parameter to involve a pop-up window, select the "Option Board" item, and change its setting to "ALE Unit."

Click the left mouse button on the [OK] button to close the pop-up window.

Program the ALE features.

Download the revised programming data to the transceiver from the computer via the "Download" menu in the "Radio" parameter.

Installation and programming are now complete. Disconnect the CT-62 Programming Cable from the transceiver's TUNER jack.



**FIGURE 2**