

Table 2-2. Table of Connectors

Connector	Function
J1	Line Cord Receptacle
J2	10 MHz REF
J3	COR
J4	FM MONITOR
J5	SELECTED VIDEO
J6	AUDIO
J7	AUDIO
J8	SW IF OUT
J9	SM/IF OUT
J9	WB IF OUT (optional)
J10	ANTENNA
J11	REMOTE CONTROL IEEE-488
J12	PHONES
J13	AUX

Power Input
 (BNC) 10 MHz Reference In (10 k ohms)
 (BNC) Carrier Operated Relay
 (BNC) FM Monitor Output (91 ohms)
 (BNC) Selected Video Output (91 ohms)
 (BNC) Audio Output (600 ohms)(USB/Line Audio)*
 (BNC) Audio Output (600 ohms)(LSB/Line Audio)*
 (BNC) Selected Bandwidth IF Output (50 ohms)
 (BNC) IF Output (50 ohms)
 (BNC) Wideband IF Output (50 ohms) (optional)
 (N-Type) RF Input from Antenna (50 ohms)
 (Multipin) Remote Control Input/Output
 Phone Output (Front Panel)
 (Multipin) Auxiliary Input/Output

* These connectors provide the same signals in all detection modes except ISB.

NOTE

Before applying power to the unit, verify the selected line voltage for the receiver matches the utilized line voltage. Refer to **paragraph 2.2.2.1**.

A two receiver rack mounting configuration is shown in **Figure 2-2**. The illustrated accessory items except for the 8615/BP are furnished with each receiver. Requirements of receiver installation determines which accessory item is utilized.

2.2.2 CONNECTOR SIGNALS

2.2.2.1 Line Cord Receptacle (J1) - Before making the power connection, check the rear panel line voltage selector switch (S2) corresponds to the line voltage utilized. Plug the power cord into a 3-pin power source receptacle providing 115 V or 220 V at 48 to 62 Hz. The third pin of the receptacle must be a ground connection.

2.2.2.2 **10 MHz REF (J2)** - An external 10 MHz reference signal at a level of from 0 to +20 dB provides the time base for the receiver at this BNC connector. Switching from internal reference to external reference is automatically transferred when the external signal level reaches 0 dB. Connector impedance is 10 kohms, nominal.

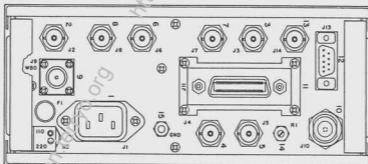


Figure 2-3. WJ-8615D Compact Receiver, Rear Panel Connectors

2.2.2.3 **COR (J3)** - The Carrier-Operated-Relay BNC connector provides a 100 mA current-sink to ground when COR level is exceeded for controlling external equipment. This output has a 5 sec. delay on release after signal drops below COR threshold. Maximum applied voltage is +24 Vdc.

2.2.2.4 **FM MON (J4)** - The FM Monitor BNC connector provides a DC coupled FM output. The level is 1 Volt peak-to-peak, minimum, into 91 ohms, for input signals with a peak deviation equal to 30% of the selected IF Bandwidth.

2.2.2.5 **SELECTED VIDEO (J5)** - This selected Video Output BNC connector provides a 1 Volt peak-to-peak, nominal, video signal into a 91 ohm load. The output is a DC coupled AM or FM video signal, determined by the chosen detection mode at sensitivity with 30% modulation.

2.2.2.6 **AUDIO (J6)(J7)** - The BNC connectors provide a 600 ohm audio output at a level adjustable to 10 mW, minimum via the Line Audio Control R1. Under normal operating conditions, the signal at these connectors is identical. During optional Single Sideband (SSB) operation, the USB signal appears at J6 and the LSB signal appears at J7.

2.2.2.7 **SW IF OUT (J8)** - The Switched IF Output BNC connector supplies a -40 dBm IF signal into 50 ohms during AGC operation. The center frequency is 21.4 MHz with a bandwidth equal to the selected IF Bandwidth.

2.2.2.8 **IF OUT (J9)** - The IF Output BNC connector provides a signal 15 dB greater than the relative signal strength, into 50 ohms up to the Preamplifier/Converter subassembly (A1A13). The center frequency is 21.4 MHz.

WB IF OUT (J9) - This optional BNC connector provides a -30 dBm IF signal into 50 ohms. The center frequency is 21.4 MHz.

2.2.2.9 ANTENNA (J10) - This N-Type connector accepts the RF input signal from the antenna. Nominal input impedance is 50 ohms.

2.2.2.10 REMOTE CONTROL IEEE-488 (J11) - This Remote Control multipin connector allows the receiver to interface with other equipment via the IEEE-488 interface bus. This permits the receiver to be controlled or monitored from an external source. Refer to paragraph 2.5.

2.2.2.11 PHONES (J12) - The Phones Jack, mounted on the front panel is a Tip-Ring-Sleeve type connector. A proper Tip-Ring-Sleeve type mating plug is recommended for headset monitoring. Under normal operation, audio levels adjustable to 10 mW minimum, with a 600 ohm impedance are available at both the "Tip" and "Ring". During optional ISB operation, USB signals are present at the "Tip" and LSB signals are present at the "Ring". The "Sleeve" portion of this connector is a common ground.

2.2.2.12 AUX (J13) - This Auxiliary Output multipin connector provides output signals from the receiver circuitry as follows:

Pin	Signal	Characteristics	Description
1	SPR IN	TTL level	Spare Interrupt
2	GND		Chassis Ground
3	+5 V		Regulated +5 Vdc out
4	DAC OUT	Analog, 0 to +12 V	Digital-to-Analog Converter Output
5	A/D IN	Analog, 0 to +15 V	Analog-to-Digital Converter Input
6	DFC	Logic "0" 500 MHz, Logic "1" 500 MHz	Direction Finder Control
7	PRINTER	RS-232, 300 baud rate	Printer Output
8	SPR DRV	TTL level	Spare Driver, Similar to COR
9	LOG VID	0-5 Vdc representing 55 dB log range	DC representation of 55 dB log range
11	+15 V		Regulated +15 Vdc out
12	-15 V		Regulated -15 Vdc out

