

The other three conductor shielded cable is used for CW operation. There are two main types of CW keying used in amateur transmitting equipment. These are grid-block keying and cathode keying (or negative and positive voltage keying). Determine which type is used on your equipment. Attach a connector which will mate with the CW key input on the transmitter to the free end of this cable according to the table below (see Fig. 2-2). Using this cable, connect the jack marked TO CW KEY on the Model 800C rear panel to the CW key input on the transmitter.

**CW KEY CABLE WIRING
Transmitter Connections**

Color	Grid Block Keying	Cathode Keying
White	Ground	Keying Input
Red	Keying Input	Ground
Black & Shield	Ground	Ground

2.4 CONNECTING TO A PRINTER

If a hard copy printer is to be used with the Model 800C you must first determine the signal requirements of the printer. The 800C provides a speed selectable RS-232 level output for serial driven printers and a Centronics parallel interface for parallel driven printers.

If an RS-232 compatible printer is to be used simply connect a cable terminated with an RCA phono plug to the "RS-232 OUT" jack on the rear of the Model 800C. The remaining end of the cable should be connected (via a suitable connector) to the RS-232 data input on the printer. The only remaining task is to select the correct data baud rate for this interface. This procedure will be described later.

If a printer requiring a Centronics parallel interface is to be used, a suitable interface cable must be fabricated. Refer to FIGURE 2-3 and to the manual provided with the printer for the information required to properly construct the cable. Once the cable is completed and installed the only task remaining is to select the parallel mode of operation in the Model 800C. This procedure will be described later.

2.5 CONNECTING TO AN EXTERNAL OSCILLOSCOPE

MARK and SPACE discriminator outputs are available on the rear panel to provide an additional tuning indicator. Both outputs are incorporated into a single 3 circuit phone jack marked "TO SCOPE". Refer to the figure 2-4 for information required to construct an interface cable. Connect the MARK output to the horizontal axis input of an oscilloscope and the SPACE output to the vertical input. Output impedance is 1000 ohms, approximate signal amplitude is 6 volts.

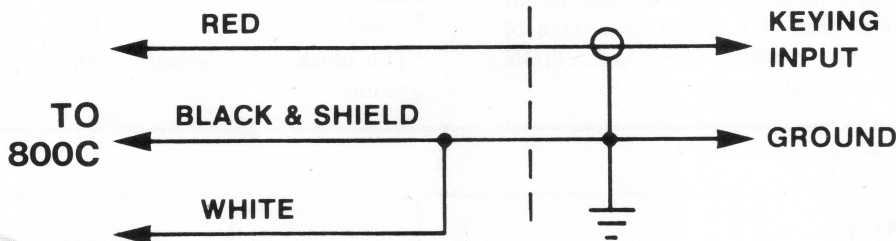


FIG. 2-2A. WIRING FOR GROUNDED GRID KEYING OR NEGATIVE VOLTAGE KEYING.

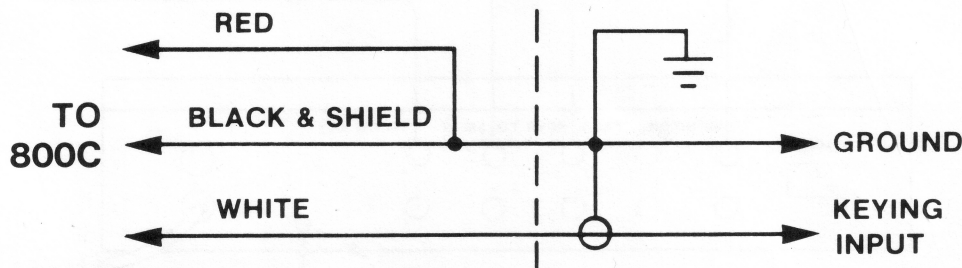


FIG. 2-2B. WIRING FOR CATHODE KEYING OR POSITIVE VOLTAGE KEYING.

2.6 CONNECTING TO AN EXTERNAL TTY LOOP

A TTY Loop Output is available on the rear panel of the Model 800C. A transistor is switched to ground for keying the loop. The TTY LOOP output is connected in series with a standard loop supply (60 ma, 150V typical) and loop sensing devices. Connect the (-) side of the loop supply to the grounded side of the TTY LOOP jack. The (+) side of the supply is connected through the printer to the Model 800C (see Fig. 2-5.)

2.7 INTERFACING WITH A ROBOT SSTV SCAN CONVERTER

If the Model 800C is to be used in conjunction with a ROBOT scan converter, connect an RCA terminated patch cord from the AUX OUT jack on the rear panel of the Model 800C to the FROM OTHER jack on the scan converter. Transmission through the scan converter may be accomplished by selecting OTHER at the OUTPUT SELECT (or TRANSMIT SELECT) switch. The TO XMTR jack on the Model 800C need not be used. If the Model 800C is to be connected to a ROBOT color scan converter, one additional cable is required to provide for color graphics operation. Connect an RCA terminated patch cord between the RS-232 OUT jack on the rear of the Model 800C and the GRAPHICS INPUT on the rear of the scan converter.

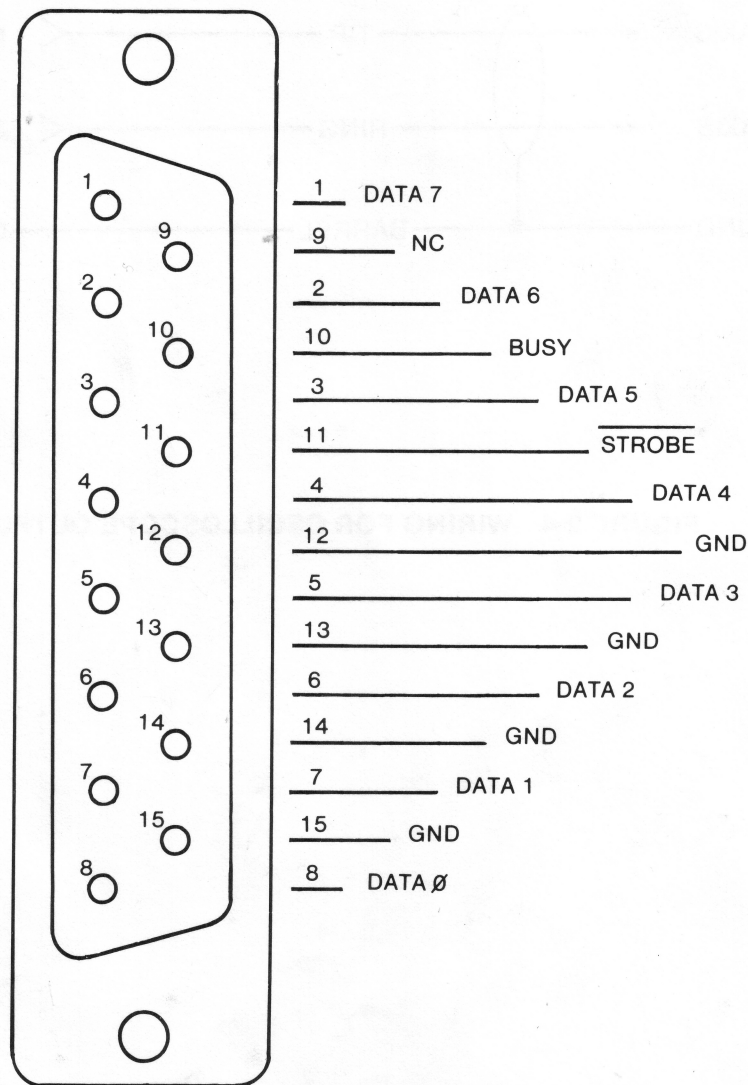


FIGURE 2-3 WIRING FOR PARALLEL PRINTER OUTPUT
(AS VIEWED FROM REAR OF CHASSIS)

RS-232 OUT—This is an RCA phono connector which provides standard RS-232 level signals for serial input printers. Correct printer operation depends on selection of the baud rate appropriate for the printer in use. To select the correct baud rate depress CTRL-P. The status line will display "PRINTER MODE=". Depressing CTRL-P repeatedly will increment the indicated baud rate in the sequence 150, 300, 600, 1200, 2400, 4800, 9600, and PARALLEL. When the correct rate is displayed type RETURN. The status line will return to normal operation.

The RS-232 printer output is operational at all times in the RTTY and Morse modes unless the "PARALLEL" printer mode has been selected as described below.

PARALLEL—This is a 15 conductor 'D' type connector which provides all signals required by Centronics compatible, parallel input printers. This interface is active only when the parallel printer mode is selected. To select this interface mode depress CTRL-P. The status line will display "PRINTER MODE=". Depressing CTRL-P repeatedly will increment the display in the sequence 150, 300, 600, 1200, 2400, 4800, 9600 and PARALLEL. Select the parallel mode and then type RETURN. The status line will return to normal and the parallel interface will be operational.

The parallel printer output is operational at all times in the RTTY and Morse modes unless a serial (RS-232) printer mode has been selected as described above.

ROBOT "PARALLEL" CONNECTOR (BERG #66167-015 OR EQUIV.)		CENTRONICS STANDARD CONNECTOR (AMPHENOL #57-30360-D8 OR EQUIV.)	
ROBOT SIGNAL DESIGNATION	PIN#	PIN#	CENTRONICS STANDARD SIGNAL DESIGNATION
DATA 7	1	←————→ 9	DATA 8
DATA 6	2	←————→ 8	DATA 7
DATA 5	3	←————→ 7	DATA 6
DATA 4	4	←————→ 6	DATA 5
DATA 3	5	←————→ 5	DATA 4
DATA 2	6	←————→ 4	DATA 3
DATA 1	7	←————→ 3	DATA 2
DATA Ø	8	←————→ 2	DATA 1
NC	9	←————→ —	—
BUSY	10	←————→ 11	BUSY
<u>STROBE</u>	11	←————→ 1	<u>STROBE</u>
GND	12	←————→ 19	GND
GND	13	←————→ 22	GND
GND	14	←————→ 26	GND
GND	15	←————→ 29	GND

MODEL 800C TO CENTRONICS STANDARD
PARALLEL PRINTER INTERFACE CABLE WIRING

NOTE: PRE-WIRED CABLE AVAILABLE FROM YOUR DEALER OR ROBOT RESEARCH, INC. ORDER #PC-1.