

INSTRUCTIONS FOR MODIFICATION OF WIRING OF
PRINTER TG-7-A (TELETYPE MODEL 15) FOR OPERATION
WITH A LINE RELAY AND A MOTOR CONTROL RELAY

The Signal Corps TG-7-A printer set (wired in accordance with Teletype wiring diagram W.D. 2076) is wired for operation without the use of a line relay in the printer set. The set will normally be used in conjunction with a BE-77 line unit which contains a line relay. If, however, it is desired to operate the TG-7-A printer set without the BE-77 line unit and with a line relay in the printer set, this can be done by making changes as outlined below.

The TG-7-A set is equipped with an upper case "H" motor control mechanism which is wired for operation. The set is also equipped with a separate line motor control relay which is not wired for operation. The motor control relay may be wired for operation as outlined below.

Line Relay

If it is desired to operate a TG-7-A printer set using a line relay in the printer set, the following procedure is necessary:

1. On the line relay mounting terminal block (see W.D. 2076), move the yellow wire from terminal 61 to 62, move the white wire from terminal 66 to 65, remove the tape from the green wire coming from the line relay mounting terminal 3, and connect to terminal 61.
2. Apply a source of 115 volts D.C. power to terminals 24 and 25, positive to 24, negative to 25.

NOTE: If the TG-7-A printer is to be used in conjunction with a U.S. Government standard Teletype metal table, it will be necessary to use a three-wire, 115 volt D.C. cord (Teletype part No. 95050 or equivalent) for this purpose, since the table is provided with a three-way, 115 volt D.C. receptacle. With the metal table it will also be necessary to use a four-wire motor power cord (Teletype part No. 95052 or equivalent). See Figure 1 for a diagram of these connections.

3. For .060 ampere operation, insert a Teletype RY-28 (W.E. 215-H), or a Teletype RY-30 (W.E. 255-A) relay in the line relay mounting block on the printer. The resistance of the RY-28 relay is 85 ohms per winding, and the resistance of the RY-30 is 136 ohms per winding.
4. If the printer is to be used on a .020 ampere circuit, it will be necessary to shift one end of the jumper on the 8000 ohm resistor from position "A" to position "B." (See Figure 2.) The Teletype RY-30 relay should be used for .020 ampere operation. The RY-28 relay is not satisfactory for this application.

If it is desired to change the wiring of a TG-7-A printer set, from operation with a line relay to operation without a line relay in the printer, for use in conjunction with a BE-77 line unit, the following procedure is necessary:

1. On the line relay mounting terminal block (see W.D. 2076) move the yellow wire from terminal 62 to 61, move the white wire from terminal 65 to 66, remove and tape the terminal 61 end of the green wire coming from terminal 3 on the line relay mounting to terminal 61.
2. Remove the source of 115 volts D.C. power from terminals 24 and 25.

NOTE: If the printer set is equipped with a four-wire motor power cord, such as a Teletype 95052 cord, this cord should be replaced with a two-wire cord connected to terminals 21 and 33, as shown on W.D. 2076.

3. If the printer set has been operating on a .020 ampere circuit, it will be necessary to shift one end of the jumper on the 8000 ohm resistor from position "B" to position "A." (See Figure 2.)

Motor Control

1. In order to render the motor control relay operative, wiring changes at the switch and the control relay are necessary, as shown in Figure 3. For "break" operation, invert the power switch to make "on" and "off" designations on cover agree with the operation of the switch. Wiring shown is for "break" operation.
2. If at any time it is desired to disable the upper case "H" motor control, this can be done by strapping terminals 9 and 10 on the printer base.
3. In order to render the motor control relay inoperative, wiring changes at the control relay and switch are necessary, as shown in Figure 4.

