TELETYPEWRITER SIGNAL CONDITION INDICATOR

INSTALLATION

1. GENERAL

1.01 This section covers the installation of the SCI-1 signal condition indicator at customer stations.

2. INSTALLATION

A. Mounting

2.01 Generally the best location for mounting the SCI-1 unit is on the teletypewriter table or console if Operating Company owned. The lamp shall face upward with the power cord extending from the bottom. Where the overhang of the table top is too great, it may be necessary to mount the unit on its side with the lamp facing forward as shown in Figures 2 and 3. When it is undesirable to mount the unit on the table or console, any location where the indicator lamp, switch, and reset button are readily accessible to the attendant, will be satisfactory.

2.02 Do not mount the indicator on customer owned equipment. Mount the equipment on a wall in a location agreeable to the customer and easily accessible to the attendant.

2.03 Where a backboard is required a 171A type may be used for mounting the unit. Center the unit on the backboard with the front panel flush with the long side of the backboard.

2.04 Four wood and four machine screws with nuts are packaged with the unit for fastening to wood or metal, respectively. Holes should be drilled to mount the unit and provide access for wiring as shown in Figures 2 and 3.

2.05 Where 63B- or 63C-type loop switchboards are involved the unit may be mounted on the wall adjacent to the switchboard and wired to a set jack in the switchboard. By means of a patching cord the indicator can be placed in series in any other loop.

B. Wiring

2.06 The SCI-1 is connected in series in the loop immediately ahead of the teletypewriter. Where a teletypewriter subscriber set is used, the unit is wired between the teletypewriter and the subscriber set. The negative side of the loop, usually the tip, shall be connected to the negative input terminal of the unit and the positive side of the loop to the positive terminal.

2.07 A ground terminal is provided on the unit, where grounding of station equipment is required.

2.08 The power cord is connected to a 115-volt, 50/60-cycle, ac supply. If the unit is mounted on the table or console one of the teletypewriter convenience outlets may be utilized. However, if the unit is to be mounted at a location other than the teletypewriter table or console the availability of a source of power should be resolved before the unit is installed. Remove the plug to insert the cord through the grommet and cut off excess cordage where storage space cannot be found. Where the cord is inserted in a customer-provided outlet a cord clamp shall be used.

C. Testing

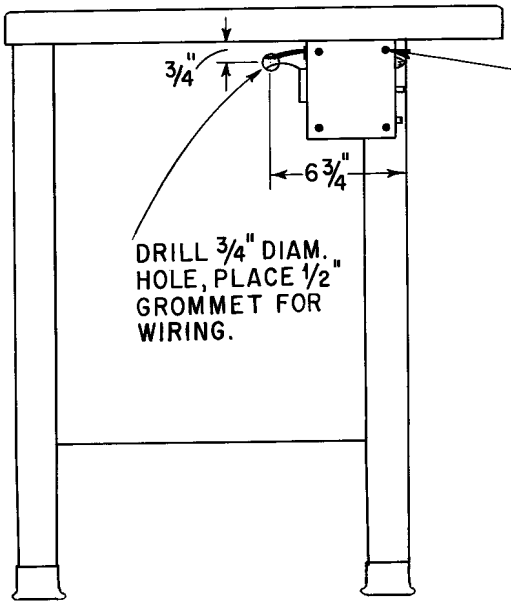
2.09 The factory calibration of 25 per cent marking or spacing distortion shall be checked as follows:

(1) Insert a portable transmission measuring set in series with the SCI-1 in the teletypewriter loop.

(2) Operate the Mark-Space switch to space and light the indicating lamp by pressing and releasing the reset button.

(3) Request the serving test center to send miscellaneous (Fox) unbiased signals.

(4) Read the amount of received distortion and report same to the test center.



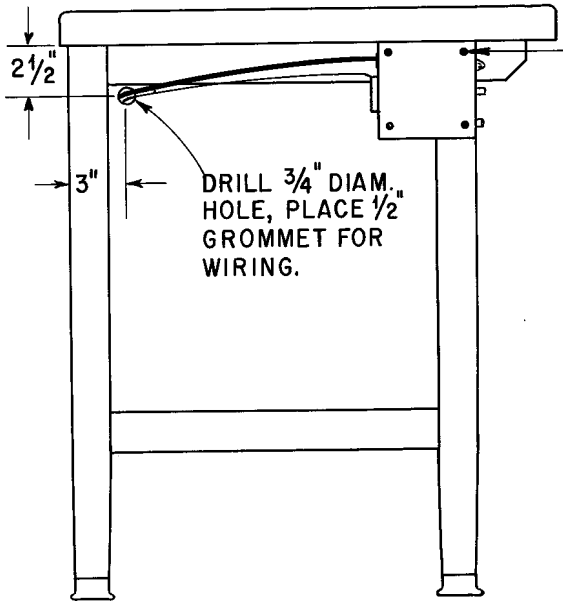
15N TABLE
LEFT SIDE VIEW

FASTEN INDICATOR WITH THE 4 MACHINE SCREWS AND NUTS PROVIDED.

NOTE:

(1) WHEN SCI-1 IS MOUNTED ON RIGHT SIDE OF TABLE, USE EXISTING KNOCKOUT FOR WIRING.

(2) PLUG POWER CORD INTO MAINTENANCE RECEPTACLE ON RIGHT SIDE OF TELETYPEWRITER.



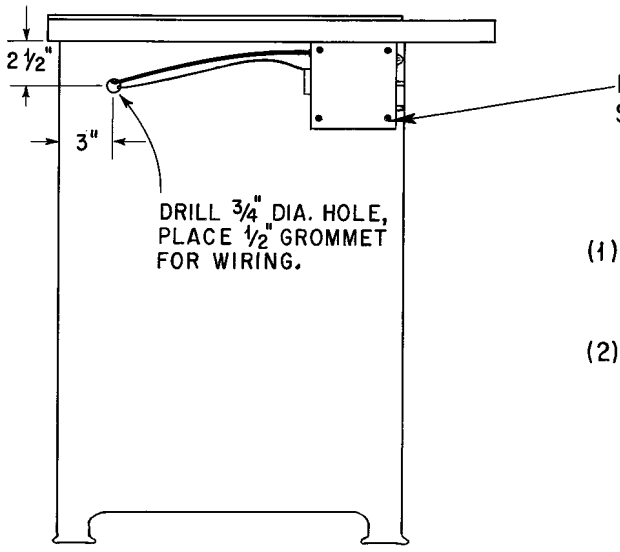
19A TABLE
LEFT END VIEW

FASTEN INDICATOR WITH 3 WOOD SCREWS PROVIDED.

NOTE:

(1) WHEN SCI-1 IS MOUNTED ON RIGHT END OF TABLE, PLACE SIMILAR TO THAT SHOWN FOR LEFT END.

Figure 1 Shows Location of SCI-1 on 15N and 19A Tables

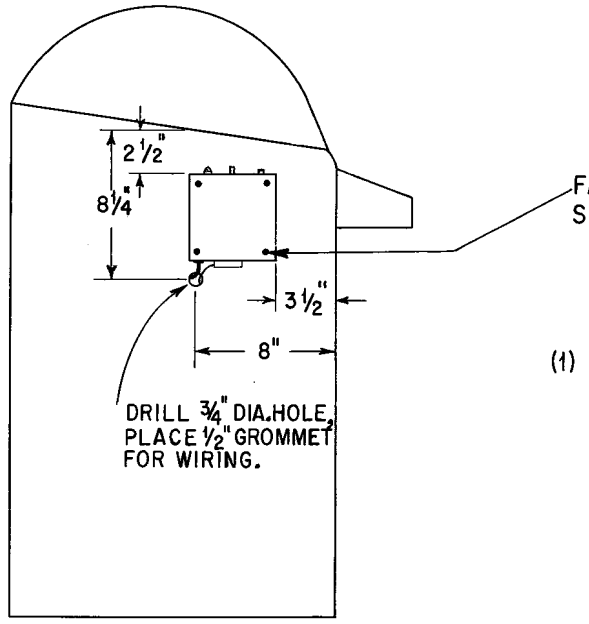


XRT 200 TYPE TABLES
LEFT END VIEW

NOTES:

(1) WHEN SCI-1 IS MOUNTED ON RIGHT END OF TABLE, USE EXISTING KNOCKOUT FOR WIRING.

(2) PLUG POWER CORD INTO MAINTENANCE RECEPTACLE.



28A, B, D CABINET
LEFT SIDE VIEW

NOTES:

(1) WHEN SCI-1 IS MOUNTED ON RIGHT SIDE OF CONSOLE PLACE UNIT IN SAME LOCATION AS SHOWN FOR LEFT SIDE.

Figure 2 Shows Location of SCI-1 on XRT 200 Type Tables and 28 Type Cabinets

(5) Request test center to send distorted signals which will give 25 per cent spacing at the receiving end of the loop. For example:

Desired threshold setting for SCI-1: 25 per cent spacing

Distortion in loop as observed in (4) above 10 per cent marking

Output setting of bias producing set at test center: 35 per cent spacing

(6) Check to see that 25 per cent spacing distortion is being received.

(7) If the SCI-1 requires adjustment to meet the 25 per cent spacing distortion setting, the space potentiometer may be adjusted through the rear panel slot marked Adj Space with a thin screw driver.

(a) If the indicator lamp is out, intermittently press and release the reset button while turning the space potentiometer in a counterclockwise direction. Observe at what point the indicator lamp lights and stays lighted.

(b) At the point where the indicator lamp lights turn the space potentiometer in a clockwise direction until lamp is extinguished. In this manner the indicator is set to have its lamp extinguished when signals having 25 per cent or greater spacing distortion are received.

(8) Operate the Mark-Space switch to the mark position. If the indicator lamp is extinguished, light it by pressing and releasing the reset button.

(9) Repeat the operation performed under (5) above by requesting the serving test center to send distorted signals which will give 25 per cent marking distortion at the receiving end of the loop. For example:

Desired threshold setting for SCI-1: 25 per cent marking

Distortion in loop as observed in (4) above: 10 per cent marking

Output setting of bias producing set at test center: 15 per cent marking

Note: Whenever the Mark-Space switch is changed from one position to the other, the indicator lamp may be extinguished. If this happens, the reset button should be pressed and released to light the lamp. If the lamp does not light, it means the distortion of the received signals is greater than the preset value of the unit.