B STATION WIRE AND ASSOCIATED APPARATUS

1. GENERAL

1.01 B Station Wire is for use in areas where it is impossible or impractical to use conventional station wire and standard fasteners.

1.02 This wire consists of two pairs of copper conductors covered with PVC insulation and an adhesive backing for fastening to most any type clean surface.

2. INSTALLATION

2.01 ***Installation Rules:***

Limitations placed on the physical installation of B Station Wire and associated apparatus require strict adherence to the following rules.

(1) Wire run should not exceed 100 feet for single line installations, and 60 feet for installations involving two talking circuits.

(2) Temperature of wire and mounting surface ***must*** be above 45 degrees fahrenheit before installation.

(3) The wire and associated apparatus must be accurately located initially, because the adhesive backing may damage the mounting surface when the wire is removed.

(4) Always match the wire pairs when making a tap, splice, or extending a wire run to ensure correct polarity of conductors.

2.02 ***Recommended Mounting Surfaces:***

- Painted plaster
- Plasterboard (dry wall; sheet rock, and gypsum board)
- Hardboard (masonite)
- Wood (without wax)
- Metal (without wax)
- Tile (asphalt, vinyl, rubber, and ceramic; without wax)
- Concrete (smooth, trowled, and sealed)

2.03 ***Mounting Surfaces Not Recommended:***

- Damp, dirty, or greasy surfaces
- Flaking paint or poorly adhering paint
- Raw plastered walls
- Coarse surfaces (raw cinder block or untreated, rough trowled concrete, etc)

2.04 ***Connecting to Standard Apparatus:***

(1) B Station Wire may be connected directly to subsets, wall sets, or external ringers. It may also be connected directly to standard screw type terminals, jacks, and connecting blocks.

(2) To prevent wire from sticking to apparatus or existing wires in apparatus, fold wire as shown in Fig. 1 after it enters apparatus box.

Fig. 1—B Station Wire, Folded

2.05 ***Straight Wire Run:***

Avoid contacting foreign objects with adhesive side of wire to prevent picking up dust, lint, etc. If possible, do not touch adhesive with hands.

(1) Allow sufficient amount of B Station Wire for connecting to transition or terminal at beginning of run.

(2) Apply adhesive side of wire to mounting surface and press firmly.

(3) Continue to dispense wire, applying hand roller (Fig. 2) to adhere wire to mounting surface. Finger pressure is insufficient.

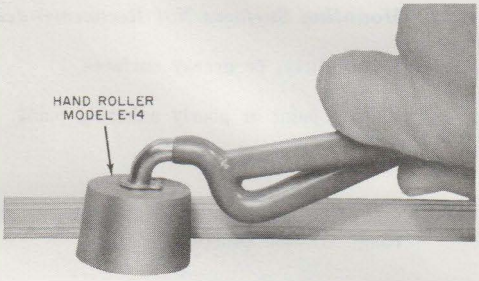


Fig. 2—Applying Roller to Wire Run

2.06 ***90-Degree Turn in Wire:***

(1) Fold wire back from mounting surface, with adhesive side up, in direction opposite to intended run (Fig. 3A).

(2) Fold wire back in direction of intended run (Fig. 3B).

(3) Remove paper liner from back of No. 720 corner. Place fold in corner and press corner firmly to mounting surface.

2.07 ***Installing No. 717 Terminal:***

(1) Remove snap-on cover and four screw terminal block.

(2) Select desired location, remove paper liner from back of terminal base and press base firmly against mounting surface.

(3) Place wire in channel on terminal base and press firmly (Fig. 4). Placement of wire in channel must be accurate to eliminate possible short and crosses.

(4) Place terminal block over wire channel. Align block with guide pins in base for proper seating. Exert sufficient pressure with screwdriver so mounting screw will pierce wire insulation covering screw hole. Secure block to base.

(5) Terminate D Station Wire or cord conductors on screw terminals (Fig. 5) and replace snap-on cover.

(6) When wire run ends in a No. 717 terminal, extend wire approximately two inches beyond terminal (Fig. 6A) and then fold back over terminal block (Fig. 6B).

(7) A wire run can be extended from an existing run in the terminal by either of two methods:

- Splice the folded wire to the new wire using a No. 718 tap.

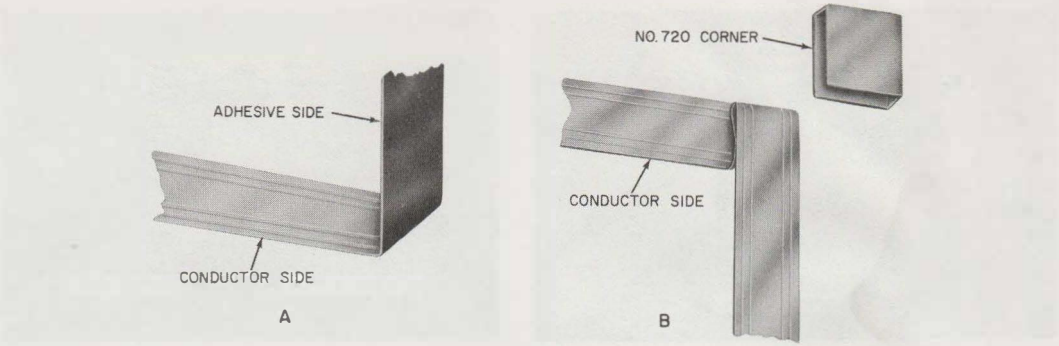


Fig. 3—90-Degree Turn in B Station Wire

- Cut off wire at screw hole of 717 terminal and start new wire run on opposite side of screw hole.

When using the latter method, place wire carefully in wire channel so that the prongs on the terminal block will seat over the four conductors on each side of screw hole when terminal block is placed.

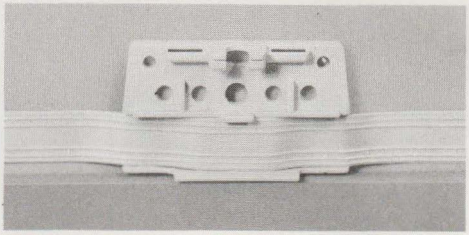


Fig. 4—Wire in Channel on Base of No. 717 Terminal

2.08 ***Splicing With No. 721 Transition:***

(1) Remove paper liner from back of transition.

(2) Select location and press adhesive side of transition to mounting surface.

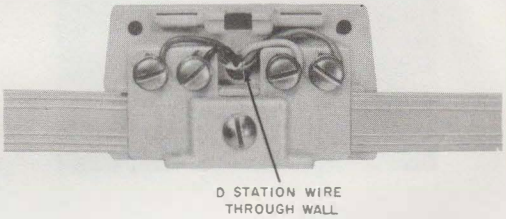


Fig. 5—Terminating Wire on No. 717 Terminal

(3) Remove cover.

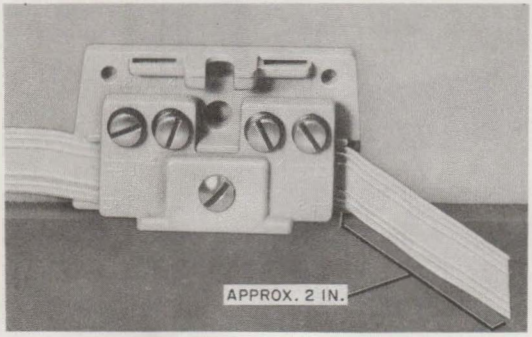
(4) Place B Station Wire in channel, butting end of wire against center stop (Fig. 7).

(5) Remove approximately 3/4 inch of outer jacket from the D Station Wire. Insulation from individual conductors need not be removed. Match each conductor with the B Station Wire for correct polarity and place in wire grooves in base of transition (Fig. 7).

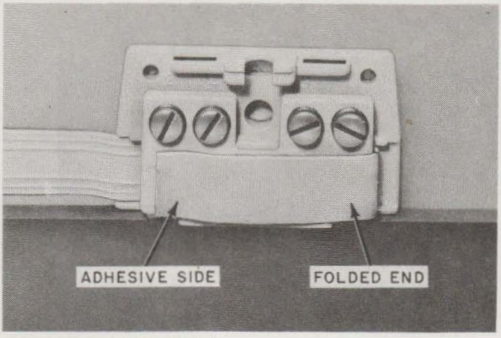
(6) Place cover and tighten screw until cover is seated to base of transition.

2.09 ***Splicing With No 718 Tap:***

(1) Install the tap in the same way as the No. 717 terminal.



A



B

Fig. 6—Wire Ending in No. 717 Terminal

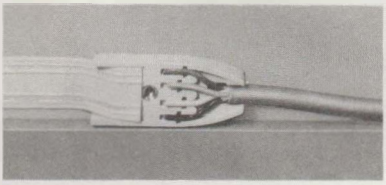


Fig. 7—Terminating Wire in No. 721 Transition

(2) When splicing a wire run, carefully place the ends of the wire over the prongs in the base of the tap. Do not cover the screw hole (Fig. 8).

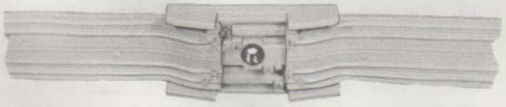


Fig. 8—Wire Splice Using No. 718 Tap

(3) When making a tap from a wire run, place end of tap wire over existing wire to the edge of the tap (Fig. 9). Cover-mounting screw must pierce wire insulation when securing cover to base.

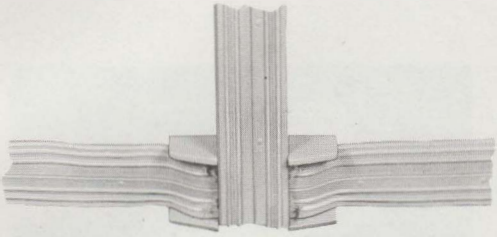


Fig. 9—Wire Tap Using No. 718 Tap

2.10 *Terminating in No. 719 Jack:*

(1) Install the jack (Fig. 10) in the same way as the No. 717 terminal.

(2) When wire run ends in jack, do not extend the wire and fold back. Cut off wire so it does not extend beyond cover of wire channel.

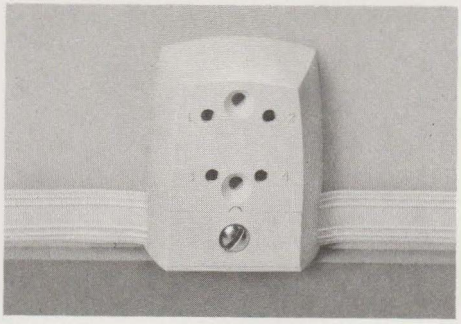


Fig. 10—No. 719 Jack

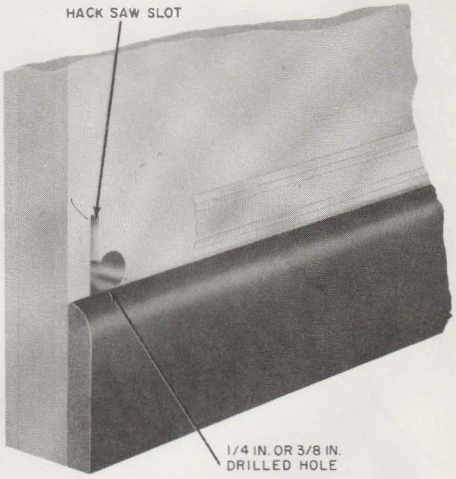


Fig. 11—Hole Through Wall for B Station Wire

2.11 ***Installing Wire Through Wall:***

(1) Drill 1/4- or 3/8-inch hole through wall at desired location.

(2) With a keyhole hack saw, cut a slot on side of hole opposite direction of intended wire run (Fig. 11).

(3) Carefully pass only a few inches of wire through wall, place a No. 718 tap, and splice wire at this point to extend wire run.

2.12 ***Protecting Wire Run:***

(1) Wire runs laid across floors should be protected at the baseboard by placing a 6-inch piece of B Station Wire over existing run.

(2) Use the same method of protection whenever there is a possibility of abrasion or steady pressure on the wire from coverplates, flush-mounted terminal covers, backboards, door frames, etc.