B STATION WIRE AND ASSOCIATED APPARATUS
IDENTIFICATION AND INSTALLATION
STATION WIRING

1. GENERAL

1.01 The 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 section is reissued to add information on:

- No. 723 terminal base
- No. 724 station wire cover
- No. 725 primer

Since this reissue is a general revision, arrows ordinarily used to indicate changes have been omitted.

2. DESCRIPTION

2.01 The B station wire consists of two pairs of parallel 26 AWG copper conductors covered with ivory colored PVC insulation and a pressure sensitive adhesive backing for fastening to most types of clean surfaces. The B station wire is not recommended for under carpet use.

2.02 The B station wire is supplied in 75-foot rolls contained in zip-lock type dated plastic bags.

Note: DO NOT USE WIRE DATED OLDER THAN 6 MONTHS.

2.03 Adhesive backed connecting accessories may be used for splices, taps, and terminations. Self-stripping, push-on-type contacts in each connector eliminate wire preparation and expedite installation.

2.04 ***No. 724 Station Wire Cover:*** The No. 724 station wire cover (Fig. 13) is a heavy plastic strip with a channel down the center and pressure sensitive adhesive on the edges. It is made in 48-inch lengths and may be cut to any desired length. The No. 724 station wire cover is recommended for use whenever there is a possibility of abrasion or excessive wear on a wire run.

2.05 ***Connecting Accessories Usage Guide:***

- No. 717 Terminal—binding post block for terminating conventional round station wire or cord conductors
- No. 718 Tap—for making a tap and/or splicing flat station wire
- No. 719 Jack—a receptacle which accepts a standard 4-prong telephone plug
- No. 721 Transition—Splices conventional round station wire to flat station wire
- No. 723 Terminal Base—provides modular telephone set termination when used with 625C connecting block.

2.06 ***Ordering Guide:***

- Wire, Station B, AT-8115 (75-foot roll)
- Terminal, No. 717†
- Tap Splice Connector, No. 718†
- Jack, No. 719†
- Corner Cover, No. 720†
- Transition Connector, No. 721†
- Terminal Base, No. 723†

† Obtain from 3M Company

- Station Wire Cover, No. 724†
- Primer, No. 725†
- Roller, Hand, Model E-14†

3. INSTALLATION

3.01 *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 50°F 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) When applying B station wire to "easy clean" surfaces, such as vinyl wallpaper, acrylic, or epoxy paints, the area where wire is to be mounted must be primed with SCOTCHFLEX* PRIMER No. 725.

Danger: Keep primer and its vapors away from heat, sparks, and open frame—it is extremely flammable. Use in well ventilated areas with enough air movement to remove vapors and prevent vapor buildup. Avoid prolonged breathing of vapor. Avoid eye contact and prolonged or repeated contact with skin. For eye contact, flush immediately with plenty of water and seek medical aid. For cleaning purposes, use only B Cleaning Fluid (1.1.1-trichloroethane).

(5) Avoid contacting foreign objects with adhesive side of B station wire to prevent picking up dust or dirt. If possible, do not touch adhesive side with hands.

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

(7) Identification of individual conductors may be determined by locating the raised tracer dot on the surface of the B station wire and counting the conductors as shown in Fig. 1.

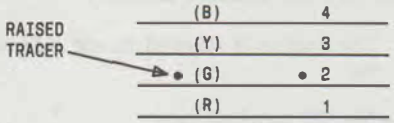

Fig. 1—Conductor Identification of B Station Wire

(8) Conventional station wiring colors [(BK), (Y), (G), (R)] assigned to the conductors in relation to the tracer are shown in Fig. 1. The associated numbers relate to the designations in the terminals, terminal base, etc.

It will be necessary to orient No. 717 and No. 723 bases to maintain color and terminal designations.

3.02 *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)
- Marble

* Registered Trademark of 3M Company

† Obtain from 3M Company

3.03 ***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)
- Easy clean surfaces (vinyl wallpaper, epox paints) unless used with primer No. 72 (obtain from 3M Company)

3.04 ***Connecting to Standard Apparatus:***

(1) The 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) Strip insulation carefully, the 26 AWG conductors may be easily notched and broken.

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

Fig. 2—B Station Wire, Folded

3.05 ***Straight Wire Run:***

(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. 3) to adhere wire to mounting surface. ***Finger pressure alone is insufficient.***

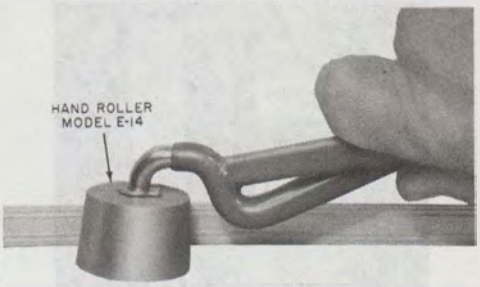

Fig. 3—Applying Roller to Wire Run

3.06 ***90° Turn in Wire:***

(1) Fold wire under with adhesive side up in direction opposite to intended run (Fig. 4A).

(2) Fold wire back over in direction of intended run (Fig. 4B).

(3) Remove paper liner from back of No. 720 corner. Place fold in corner and press corner firmly to mounting surface (Fig. 4C).

3.07 ***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. 5). Placement of wire in channel must be accurate to eliminate possible short circuit or crossed wires.

(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 connectors on screw terminals (Fig. 6) and replace snap-on cover.

(6) When wire run ends in a No. 717 terminal, extend wire approximately 2 inches beyond

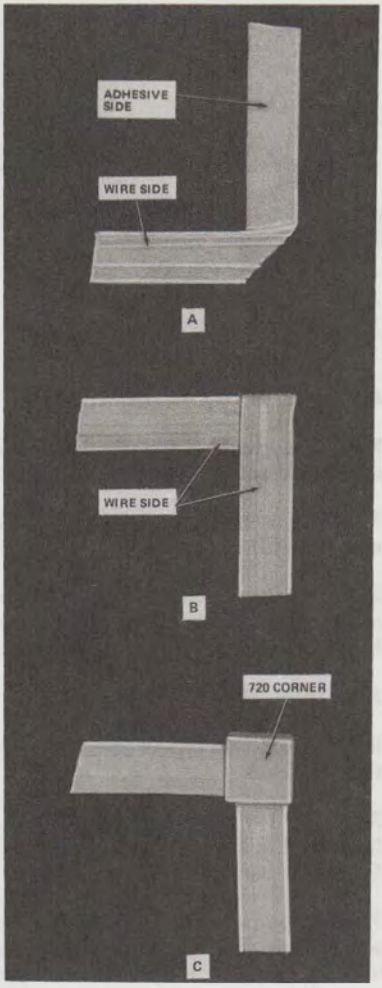

Fig. 4—90° Turn in B Station Wire

terminal (Fig. 7A) and then fold back over terminal block (Fig. 7B).

(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. 8)

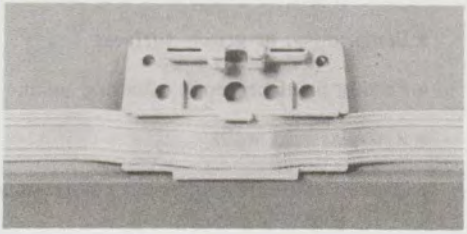

Fig. 5—Wire in Channel on Base of No. 717 Terminal

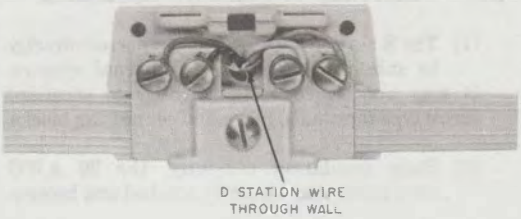

Fig. 6—Terminating Wire on No. 717 Terminal

- Cut off wire at screw hole of No. 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.

3.08 ***Splicing With No. 718 Tap:***

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

(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).

(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

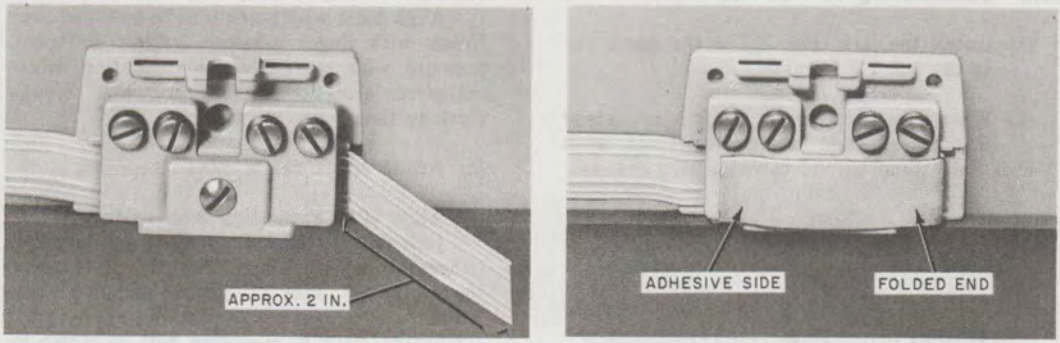

Fig. 7—Wire Ending in No. 717 Terminal

Fig. 8—Wire Splice Using No. 718 Tap

must pierce wire insulation when securing cover to base.

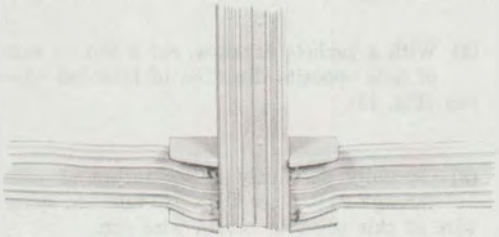

Fig. 9—Wire Tap Using No. 718 Tap

3.09 ***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.

(3) Remove cover.

(4) Place B station wire in channel, butting end of wire against center stop (Fig. 10).

(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 3 station wire for correct polarity (Fig. 1) and place in wire grooves in base of transition (Fig. 10).

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

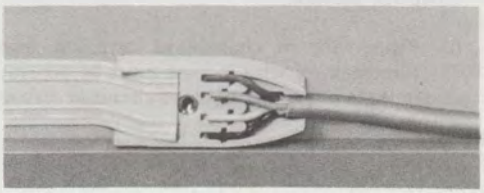

Fig. 10—Terminating Wire in No. 721 Transition

3.10 ***Terminating in No. 719 Jack:***

(1) Install the jack (Fig. 11) 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. 11—No. 719 Jack

3.11 ***Installing No. 723 Terminal Base (Fig. 12):*** For use with 625C connecting block (Fig. 12) (modular telephone set termination).

(1) Remove four screw connector body.

(2) Select desired location, determine base orientation to maintain color and terminal designations, remove paper liner from back of terminal base, and press base firmly against mounting surface.

(3) Place wire in channel of terminal base. Placement of wire in base must be accurate to eliminate possibility of short circuit or crossed wires.

(4) Place connector body over wire in channel. Align block with guide pins in base and seat firmly with finger pressure. Exert sufficient pressure with screwdriver so mounting screw will pierce insulation covering screw hole. Secure block to base.

(5) Attach spade tips of 625C connecting block.

(6) Align 625C connecting block with modular jack opening at bottom whenever possible. Otherwise, opening must face to side, never toward the top. This is to protect against residue buildup and contact contamination. Secure 625C connecting block to mounting post in center of base.

3.12 ***Installing No. 724 Station Wire Cover:***

(1) Cut cover to desired length with knife or cutters.

(2) Remove paper liner from adhesive, center No. 724 station wire cover over wire, and press firmly in place.

(3) Roll both edges of cover with E-14 roller (Fig. 14).

3.13 ***Installing Wire Through Wall:***

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

(2) With a keyhole hacksaw, cut a slot on side of hole opposite direction of intended wire run (Fig. 15).

(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.

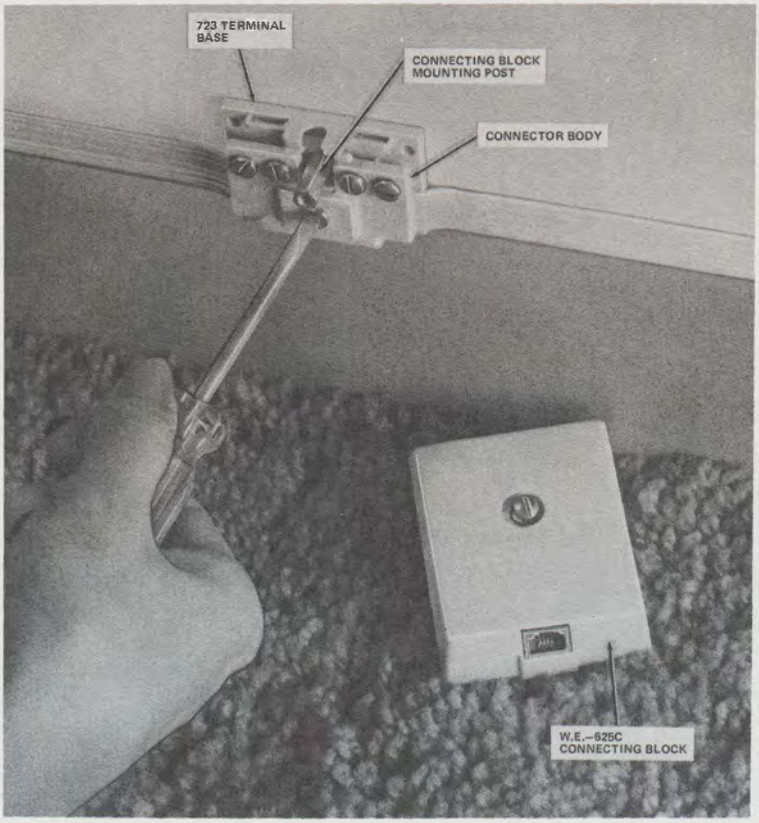

Fig. 12—No. 723 Terminal Base With W.E. 625C Connecting Block

Fig. 13—No. 724 Station Wire Cover

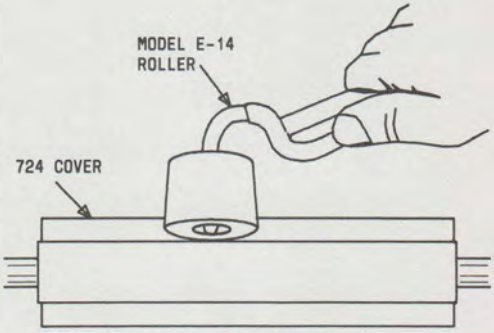

Fig. 14—Installing No. 724 Station Wire Cover

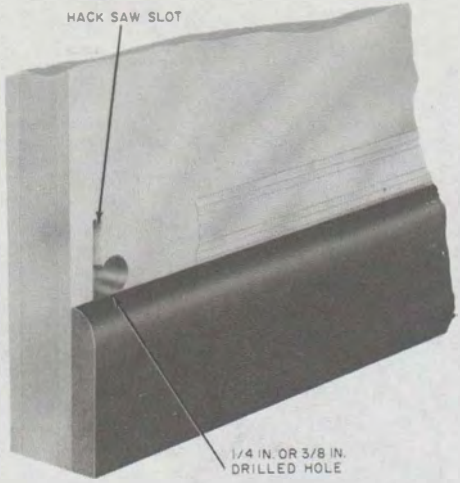

Fig. 15—Hole Through Wall for B Station Wire