AT&T 461-310-102
Issue 1, July 1984

LIBRARY
FILE COPY

PREWIRING
SINGLE FAMILY, CONDOMINIUM, TOWN HOUSE, OTHER RESIDENTIAL DWELLINGS, AND SIMPLE 1 AND 2 LINE BUSINESS SYSTEMS
IDENTIFICATION AND INSTALLATION

1. GENERAL

1.01 This practice describes the station wire boxes, telephone service boxes, station wire, etc. (hardware) available for use in prewiring buildings defined as single family, condominium, town house, and other residential dwellings. Simple one and two line business systems consisting of not more than three floors are also included.

1.02 Whenever this practice is reissued, the reason(s) for reissue will be listed in this paragraph.

2. IDENTIFICATION

2.01 Following the concealed prewire concept, station wiring and associated hardware shall be placed prior to the establishment of the service connections for the customer.

ORDERING GUIDE

- Box, Station Wire, 800C
- Cover, Station Wire Box (part of 800C assembly)
- Box, Telephone Service, 810A
- Hinged Cover, Station Wire Box, 812B (order separately for 810A box)
- Box, Telephone Service, 810B
- Block, Connecting, 725FS-50 (Ivory)
- Block, Connecting, 725FS-54 (Brown)
- Block, Connecting, 742A
- Block, Connecting, 742B
- Block, Connecting, 42A
- Block, Connecting, 830A4
- Assembly, Faceplate, 65B-50 (Ivory)
- Assembly, Faceplate, 65B-54 (Brown)
- Wire, Station, H.

2.02 The prewiring should be installed when the plumbing, electrical, or sheet metal work has advanced sufficiently so as to minimize hazardous working conditions and damage to the wiring and associated hardware.

A. 800C Station Wire Box and Cover (Fig. 1 and 2)

2.03 The 800C station wire box is made of a high-impact plastic (Underwriter Laboratory Fire Rated) with four 990A split-beam connectors inside the box and a mounting flange around the outer edge. This flange allows for varying mounting conditions using nails or sheet metal screws. A temporary protective cover is provided with the box to protect the interior wiring during construction. The box is intended to mount the 725FS connecting block (Fig. 3) for desk-type telephone set installations and 830A4 (Fig. 4) connecting block for wall-type telephone sets. The 65B faceplate assembly (Fig. 5) is intended for use at unused telephone outlets.

Copyright ©1984 AT&T Technologies
All Rights Reserved

Printed in U.S.A.

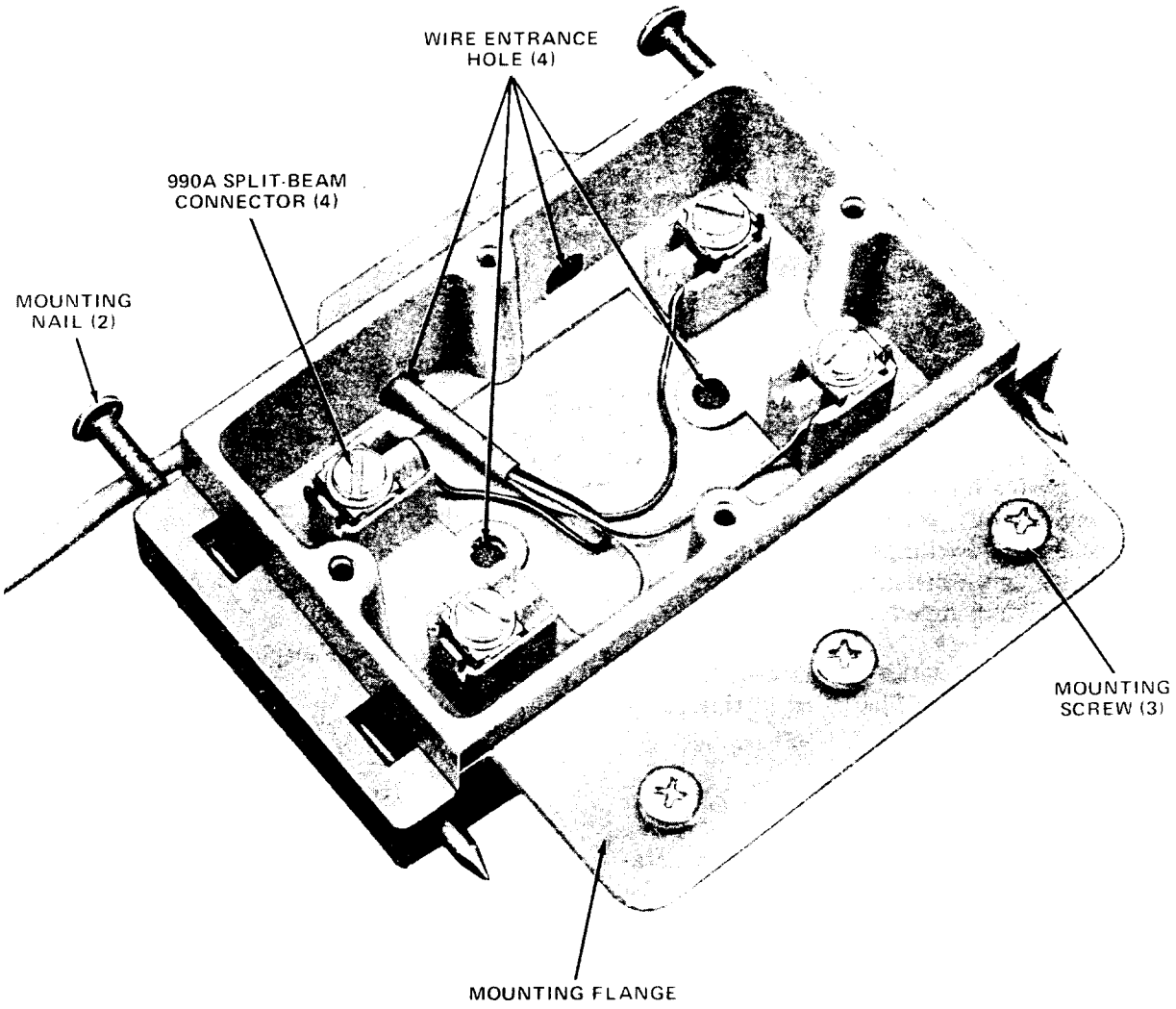


Fig. 1—800C Station Wire Box (Without Temporary Cover)

B. 810A Station Service Box (Fig. 6)

2.04 The 810A station service box is made of sheet metal and is equipped with four corner flaps to allow for a universal mounting arrangement. A cold rolled steel protective cover fastened by two sheet metal screws is provided with each box. The 812B hinged cover is compatible with the 810A station service box, and must be ordered separately. The backplate is predrilled to accommodate the 625TD connecting block network interface unit and 742-type or 42A connecting blocks.

C. 810B Station Service Box (Fig. 7)

2.05 The 810B station service box is made of sheet metal and is equipped with four corner flaps to allow for a universal mounting arrangement. A cold rolled steel protective cover with a hinged door provides access to the interior of the box. The backplate is predrilled the same as the 810A box.

D. 742A Connecting Block (Fig. 8)

2.06 The 742A connecting block is a bridging type block with color coded 990-type slotted beam terminals and a short 4-conductor cord equipped

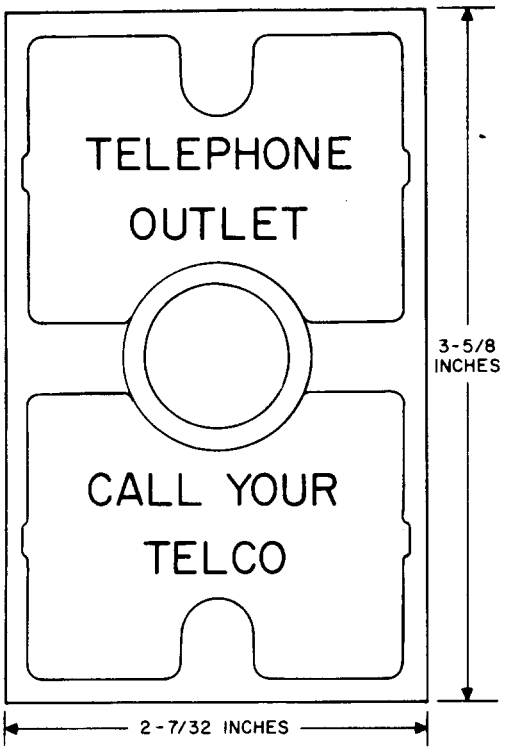


Fig. 2—Temporary Cover (800C Station Wire Box)

with a modular plug for connections to the 625TD or equivalent network interface.

E. 742B Connecting Block (Fig. 9)

2.07 The 742B connecting block is exactly the same as the 742A except it does not come equipped with the cord and plug. It is intended to be used where a bridging block is needed without a modular connection.

F. 42A Connecting Block (Fig. 10)

2.08 The 42A connecting block is a four terminal block which may be used in place of the 742-type where necessary or advantageous.

G. H Station Wire

2.09 Refer to Sections 461-200-100 and 461-200-203 for selection and handling of H station wire used for prewiring a dwelling or business location.

3. INSTALLATION

3.01 There are three basic wiring schemes for the normal prewire of single family homes, condominiums, town houses, and other residential dwellings. Usually one method is used throughout a particular building, but they may be mixed to suit various applications. The three wiring schemes are called bridged (Fig. 11), loop (Fig. 12), and home run (Fig. 13).

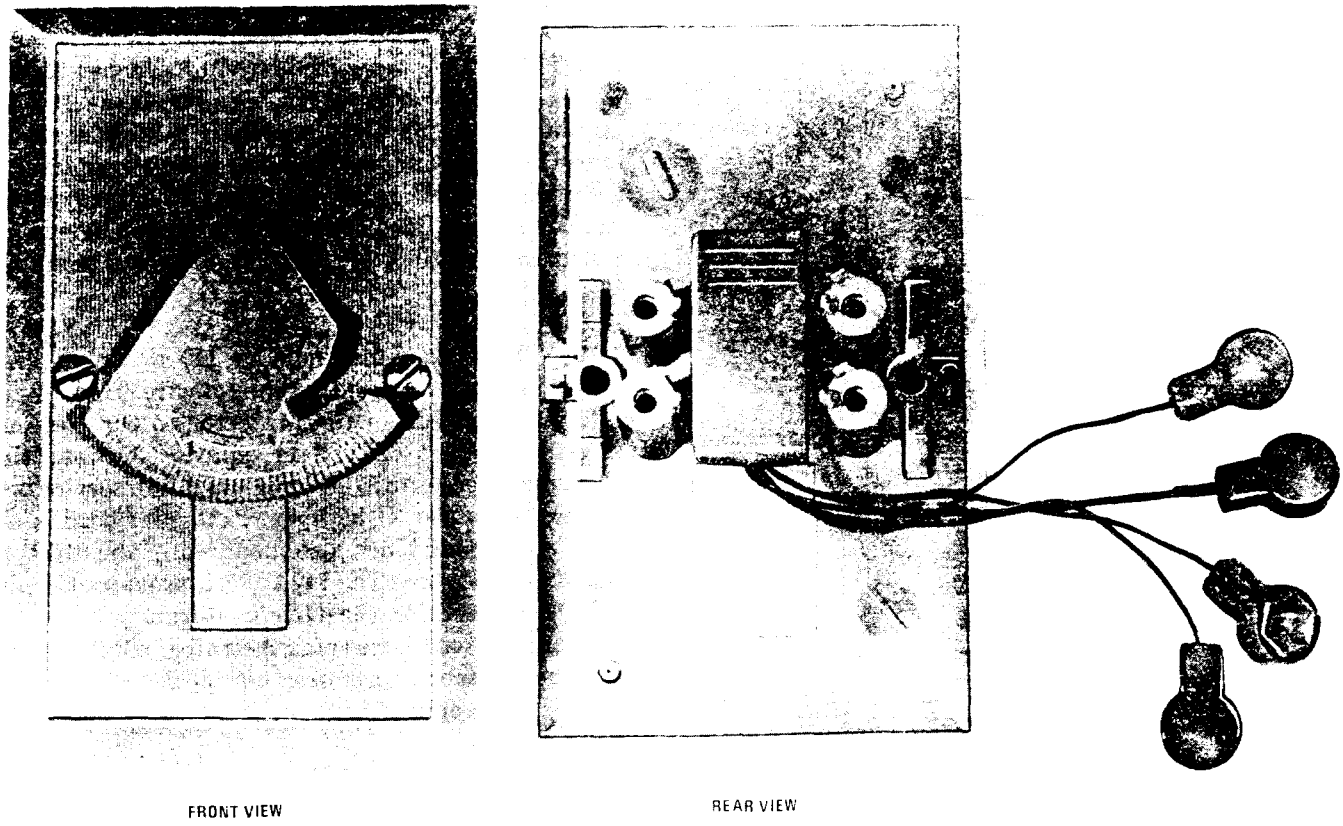
3.02 The bridged method (Fig. 11) is the simplest, and uses the least amount of wire. The line circuit is brought from the protector to the Network Interface (NI), a 625TD1 or equivalent connecting block mounted in an 810A or 810B station service box. Connected to the NI by a short modular cord is the 742A connecting block also mounted in the 810-type station service box. The 742A block provides the distribution point for the H-type station wire to the 800C station wire boxes placed strategically throughout the customer premises for desk, wall set, or counter top application.

3.03 The loop method (Fig. 12) uses the same layout and wiring, except it continues from the last station wire box back to the distribution point. The main advantage to this method is, if there is an accidental break in the wire, all station outlets will still maintain service.

3.04 The home run method (Fig. 13) obviously uses the most wire, but also provides the greatest flexibility in movement of station equipment or assignment of station equipment to different applications or services.

3.05 The 810-type station service box is drilled to accommodate two 625TD-type station Network Interfaces (NI) and either two 742A connecting blocks or two 42A connecting blocks, or a combination thereof. When the 42A connecting blocks are used an M4AR cord will be necessary to provide modular connection to the NI.

3.06 The 810-type station service boxes should be installed inside buildings where only the telephone company and customer will have access to it. It should be installed at the same height and general location as electrical circuit breaker panels. Knockouts on the top and bottom of the box allow wire entrance through grommeted holes. The shallowness of the 810 boxes permit its use in firred walls. When in-



FRONT VIEW

REAR VIEW

Fig. 3—725FS Connecting Block

stalled on shallow or firred walls double-sided urethane foam tape may be required to mount the interface unit and bridging blocks to the back of the telephone service box.

3.07 The 800C station wire box may be installed with either wood or metal studs. Two nails are provided for installing on wood studs or furring strips and three sheet metal screws are provided for installing on metal wall studs.

3.08 Station wire boxes should be mounted at the proper height from the floor for the application intended, desk set (electrical outlet height), counter top, or wall set.

3.09 The prewiring of the customer location should be done between the time the plumbers and electricians have completed their layout work and before the walls and ceilings have been closed. All 810-type and 800C service boxes must have protective covers in place when the prewire is complete to protect against damage from finish work such as paint and plastering.

3.10 When wiring to the 990-type split beam connectors, each of which will accommodate two conductors, ***NEVER*** place more than one conductor in a single terminal slot.

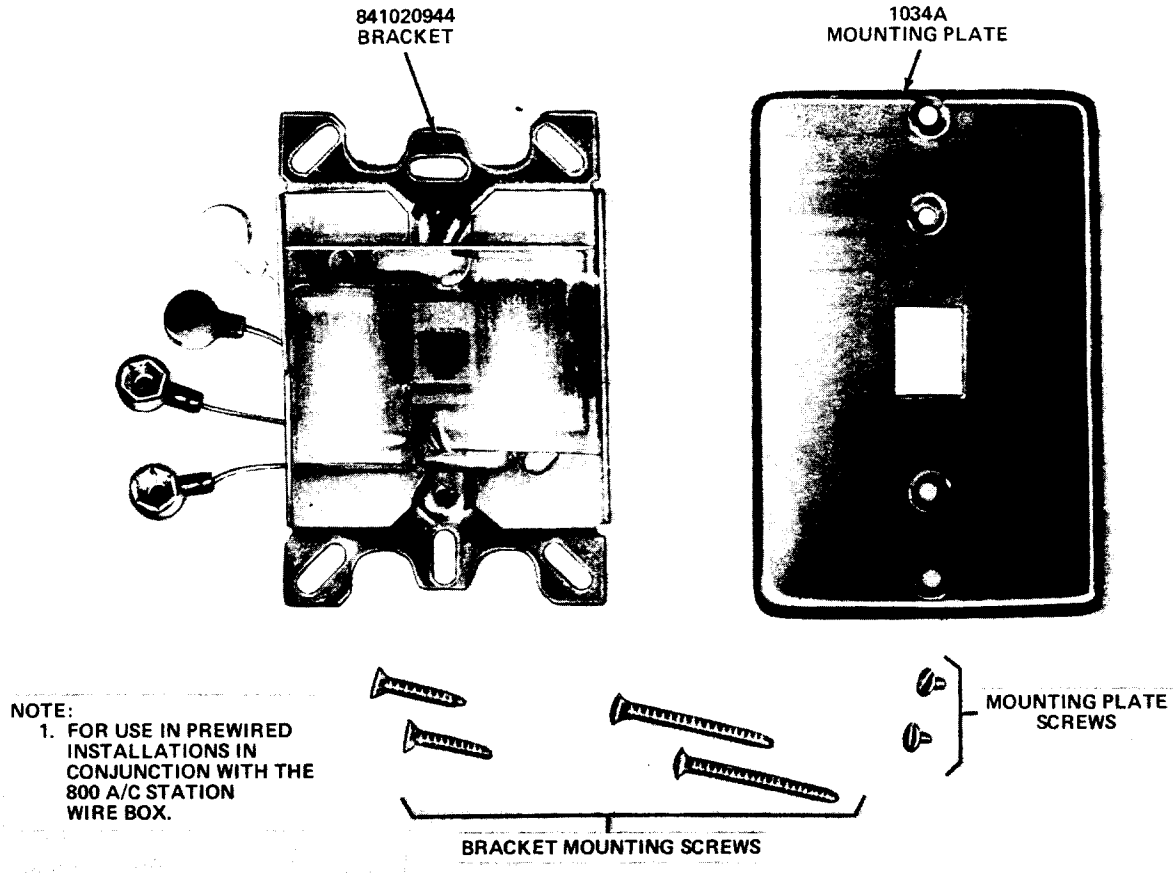


Fig. 4—830A4 Connecting Block

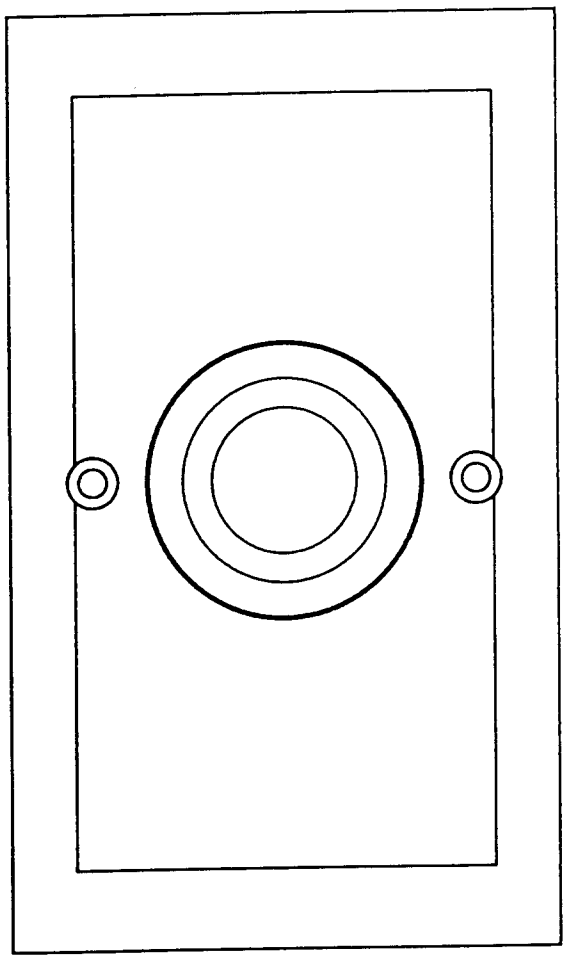


Fig. 5—65B Faceplate

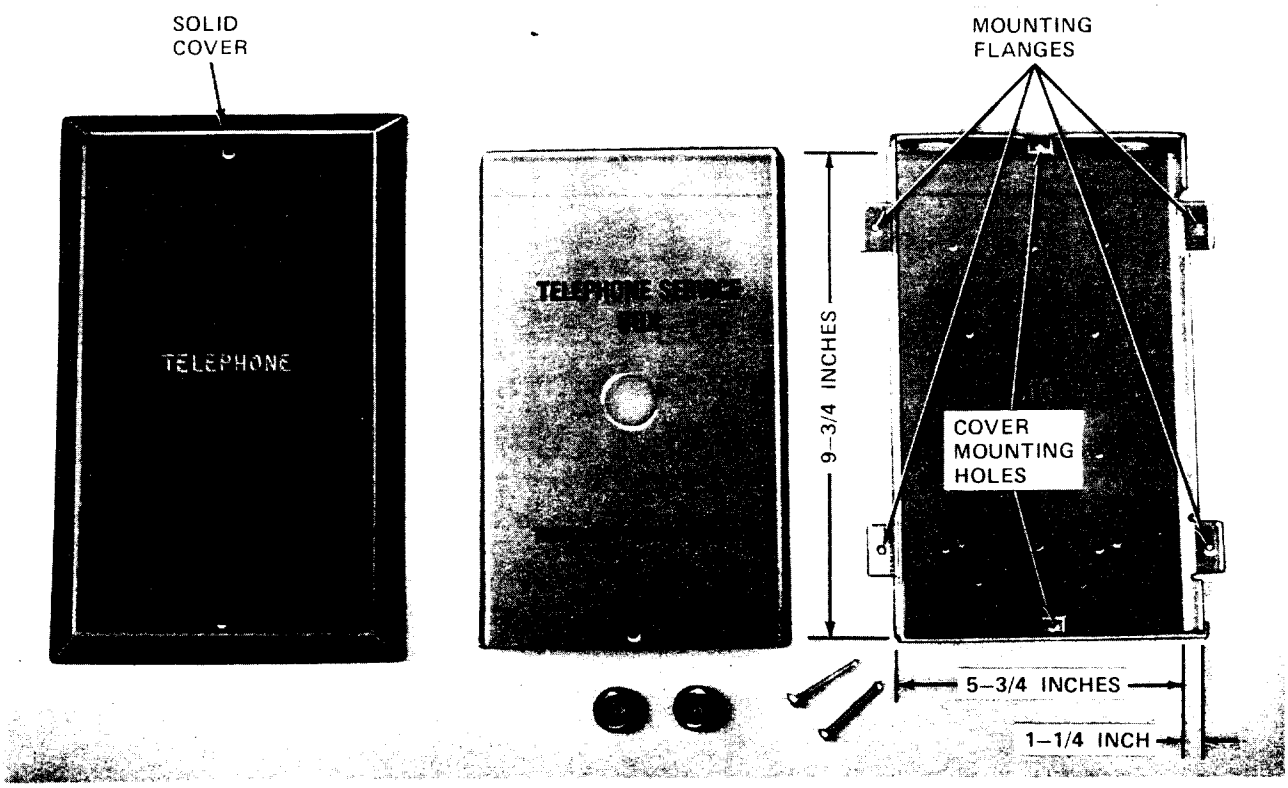


Fig. 6—810A Station Service Box

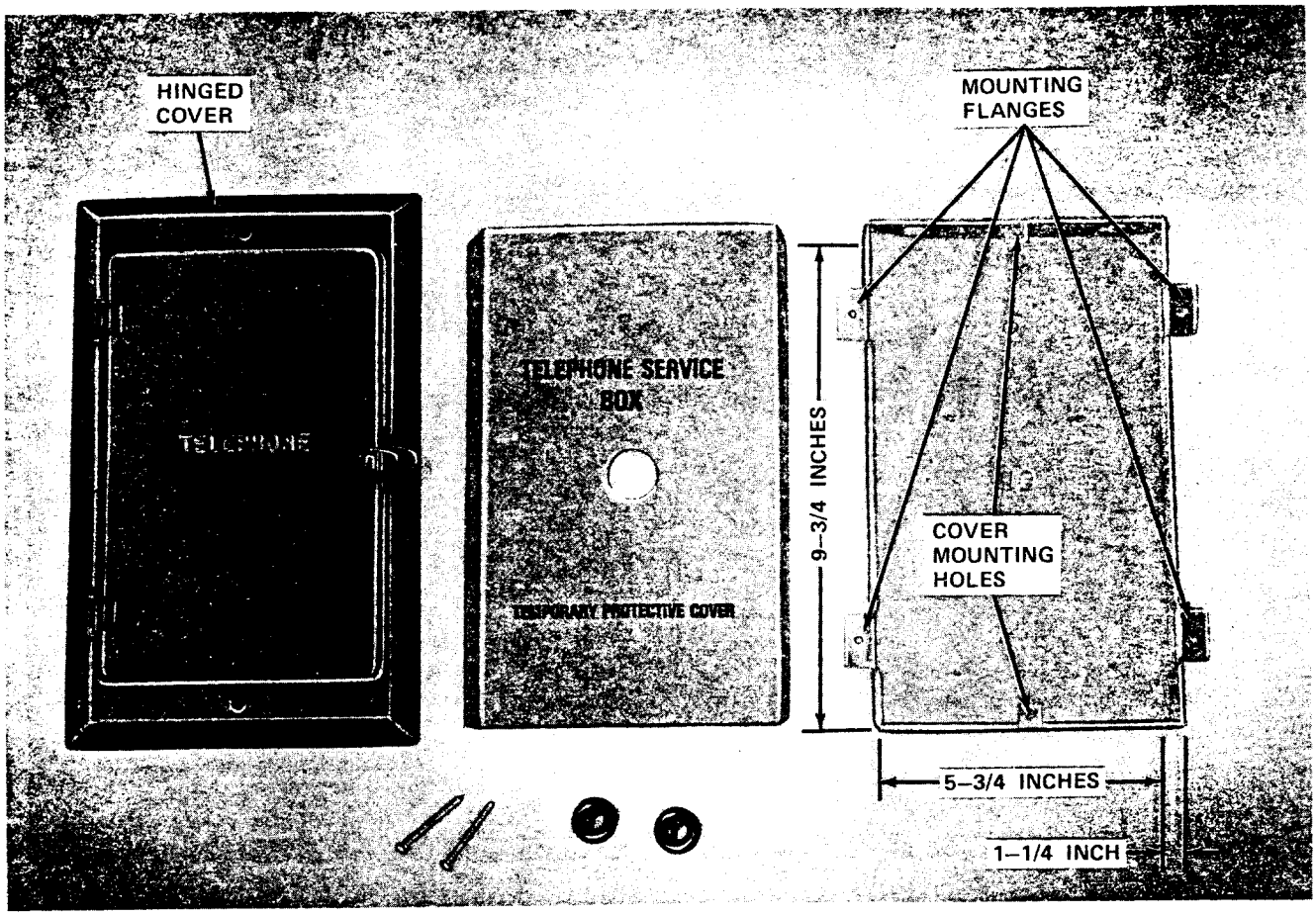


Fig. 7—810B Station Service Box

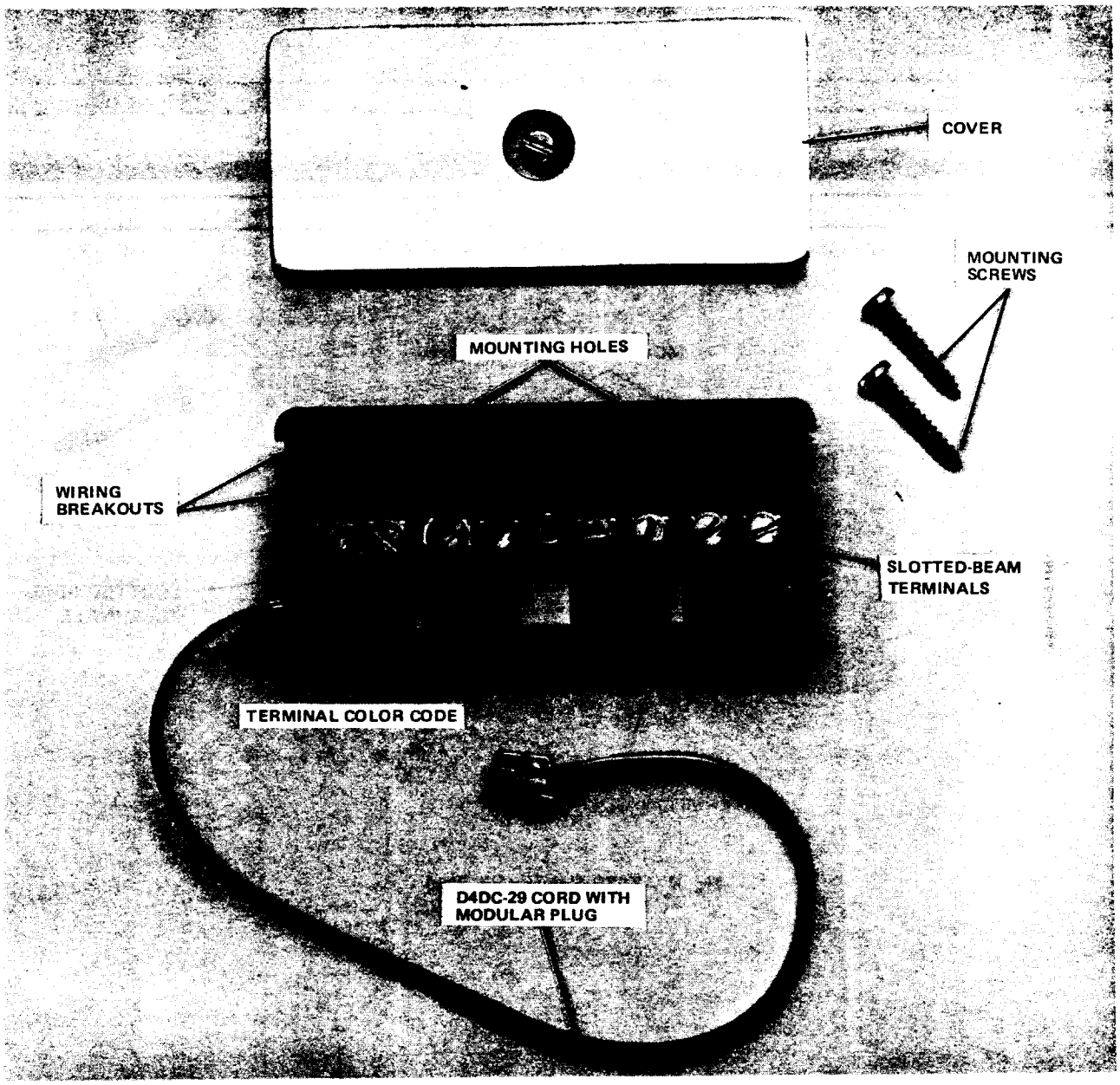


Fig. 8—742A Connecting Block

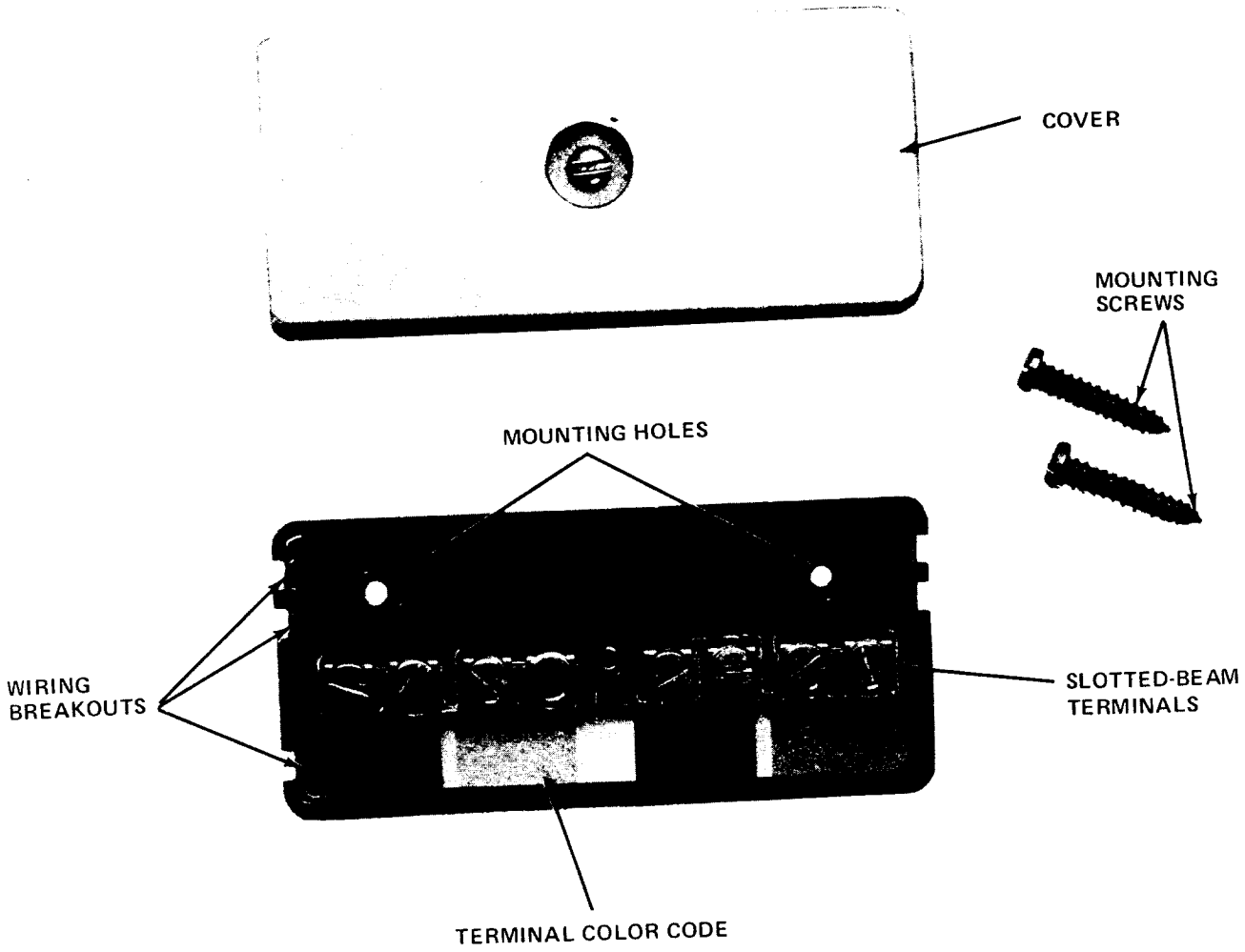


Fig. 9—742B Connecting Block

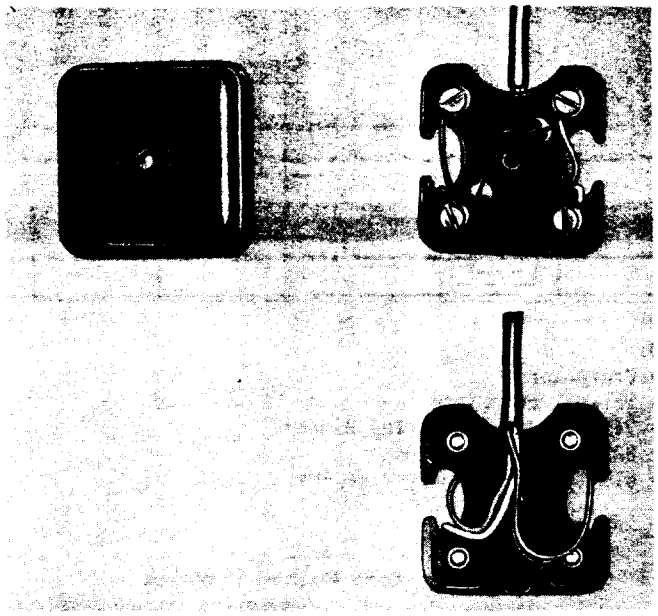
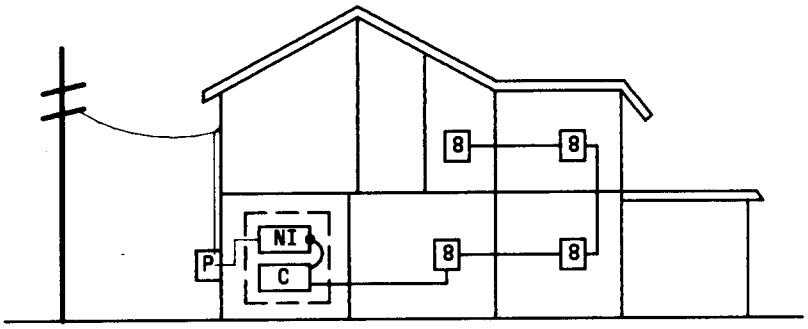
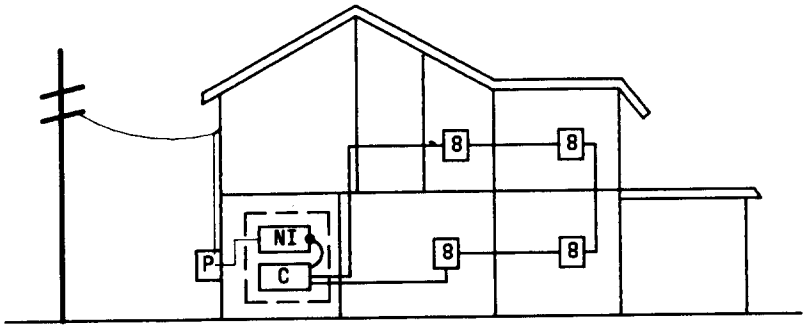


Fig. 10—42A Connecting Block



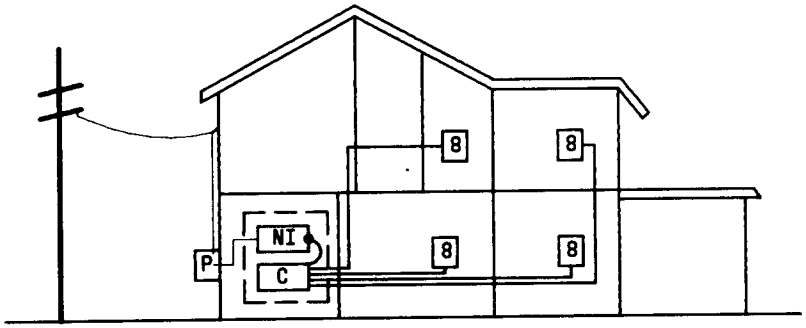
LEGEND:
- P = Protector
- NI = Network Interface
- C = 742A or 42A Connecting Block
- 8 = 800C Station Wire Box
- [ ] = 810-Type Station Service Box

Fig. 11—Bridged Method of Wiring



LEGEND:
P = Protector
NI = Network Interface
C = 742A or 42A Connecting Block
8 = 800C Station Wire Box
[ ] = 810-Type Station Service Box

Fig. 12—Loop Method of Wiring



LEGEND:
P = Protector
NI = Network Interface
C = 742A or 42A Connecting Block
8 = 800C Station Wire Box
[ ] = 810-Type Station Service Box

Fig. 13—Home Run Method of Wiring