BELL SYSTEM PRACTICES
Station Operations Manual
Wiring

SECTION C23.100.1
Issue 1, September, 1958
AT&TCo Standard

SPECIAL SERVICE LINES

IDENTIFICATION AND INSTALLATION

OF SPECIAL SAFEGUARDING MEASURES (SSMs)

1.00   GENERAL

These are SSMs you can use or may find in use:

Plastic ring, 1/2-inch diameter

Fig. 1 — Indicator KS-6660

Neoprene cap to guard against accidental crosses

Fig. 2 — Binding Post Cap B

Neoprene cap with a slot in the side for wire entrance

Fig. 3 — Binding Post Cap C

Plastic hood to cover the heat coils and springs on protected-type PBX frames

Fig. 4 — Guard Protector KS-14539

Fig. 5 — Binding Post Insulators

These fiber insulators come in three sizes:
No. 1 (left) 7/16-inch diameter
No. 2 (center) 1/2-inch diameter
No. 3 (right) 5/16-inch diameter

Fig. 6 — Terminal Punching Insulators

Also in three sizes:
No. 4 (left) 1/4 by 1/2 inch
No. 5 (center) 1/4 by 5/8 inch
No. 7 (right) 1/4 by 3/4 inch

Fig. 7 — Guard 12A

Many PBX frames are equipped with 444A test jacks. The 12A guard safeguards special service lines (SSLs) appearing on such jacks.

Fig. 8 — Guard 12B

Same as 12A, but with a locking screw for maximum security

2.00 WHERE ARE SSMs USED?

On special circuits, including the following:

Burglar alarm	Fire alarm
Carrier	Fire and police reporting system
Civil Aeronautics Administration	Radio program supply
Civil Air Defense Warning	Special military and government
Concentrator and identifier trunk	Teletypewriter
Data transmission	Utility metering and control

Locally designated circuits

3.00 WHY ARE SSMs IMPORTANT?

To avoid starting special equipment or interrupting messages accidentally. (It is essential that special service lines be maintained in full operative condition at all times.) Remember—some SSLs operate on shunted circuits, while others operate on a grounded or an open circuit.
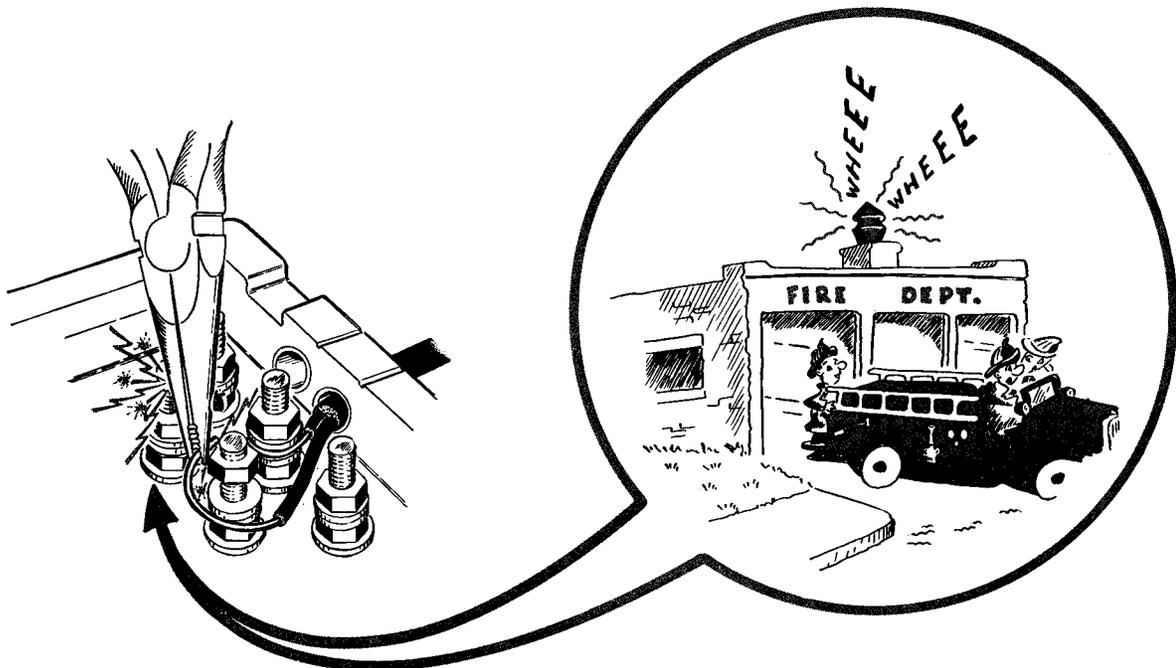

DON'T BE AN ALARMIST!

Fig. 9

4.00 HOW DO YOU AVOID DIFFICULTIES?

By:

- using SSMs on every appearance of an SSL.

- exercising care when working in any terminal box to avoid accidental contact with other lines.

- using hand test set with capacitor in line when first going across a pair.

- not running down a terminal with a shunt when trying to locate a pair.

- getting proper authorization before removing any SSM, and before working on an SSL.

5.00 HOW TO INSTALL SSMs

Now that you have proper authorization (service order, trouble ticket), this is how you go ahead:
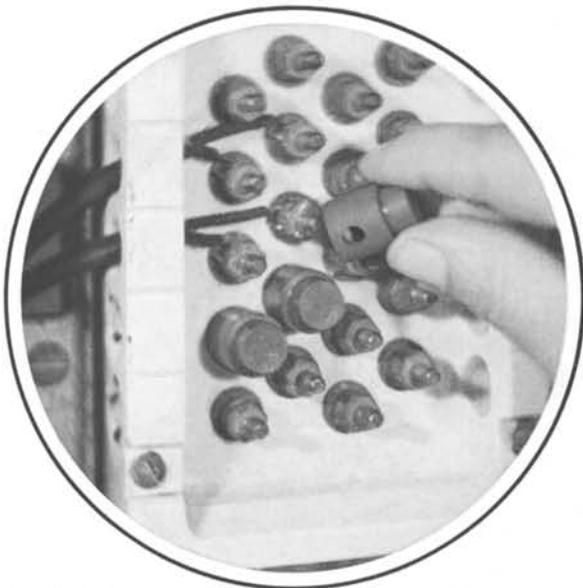
▲ Fig. 10

Install binding post caps as follows:
1. Clean faceplate.
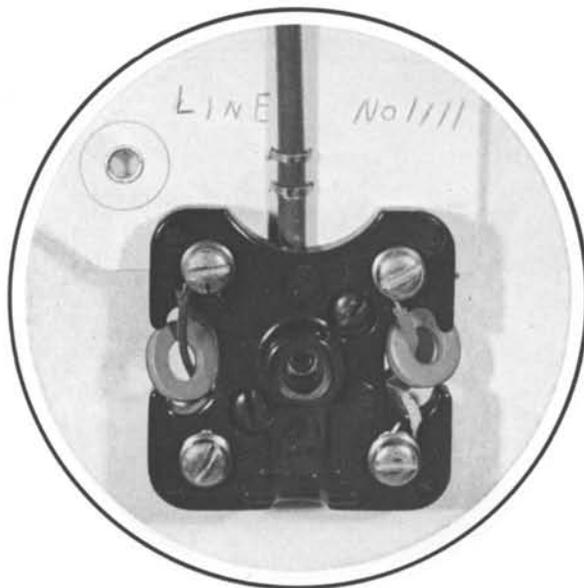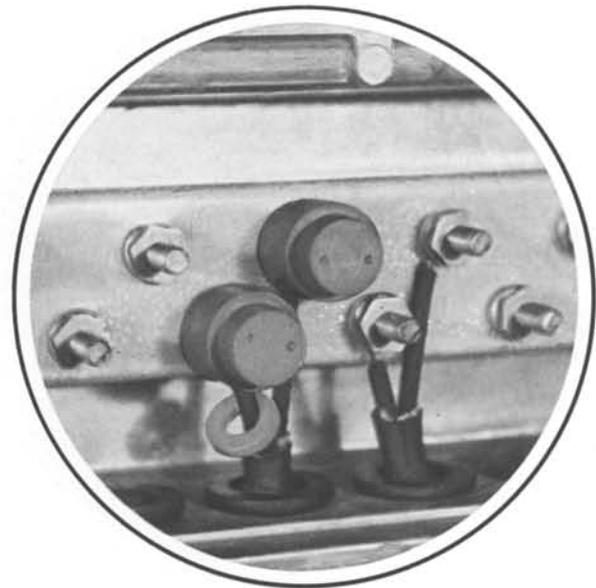2. Place cap over binding post and push until seated against faceplate.
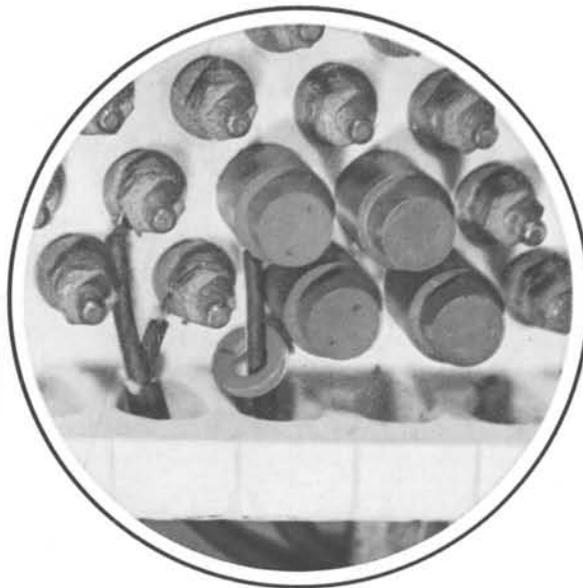
Fig. 11 ▲

Slip the KS-6660 indicator over end of wire. On existing lines cut indicator with diagonal pliers and snap over wire as shown here.

——————————————— Fig. 12 ▶

SSMs installed in N-type cable terminals, wiring
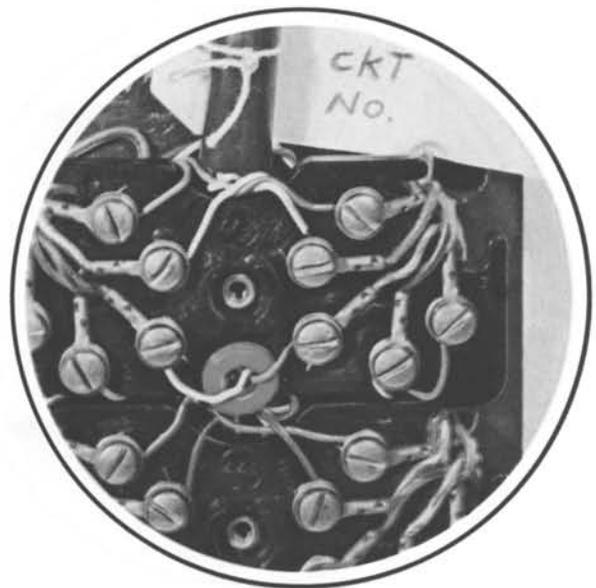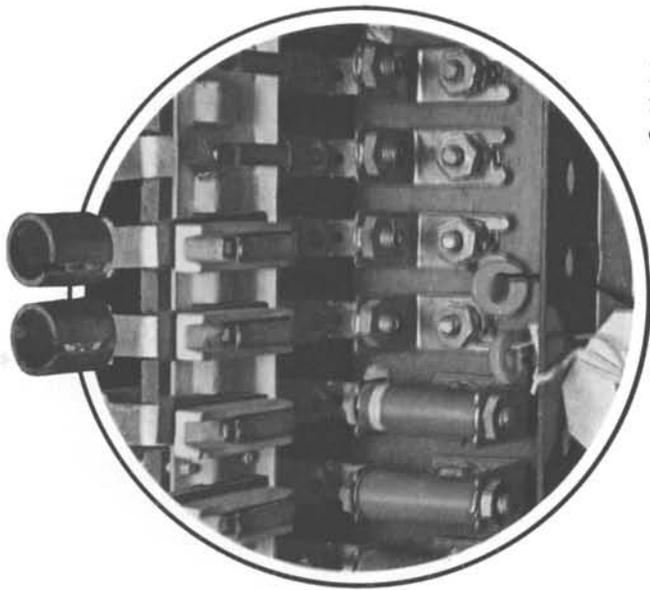terminals, or fuseless protected terminal blocks.

◀ Fig. 13 ———————————————

SSMs installed with 42A connecting block. Tag
shows circuit information.

——————————————— Fig. 14 ▶

SSM with a 44A connecting block.

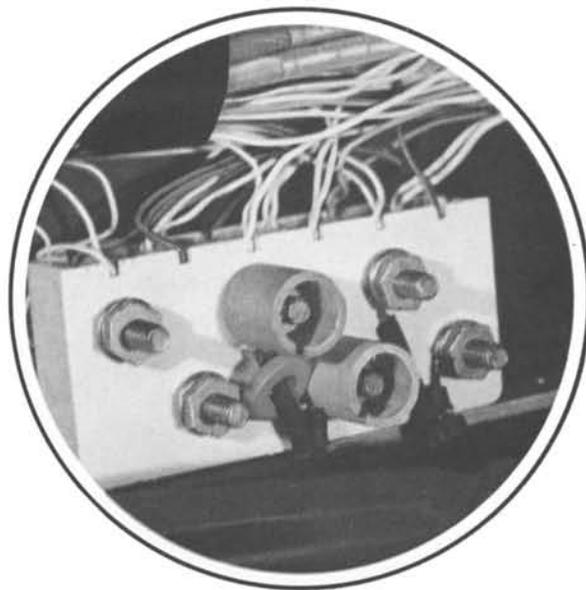No. 2 binding post insulators installed in L-type fuse chamber. Indicator KS-6660 cut and placed on working line.
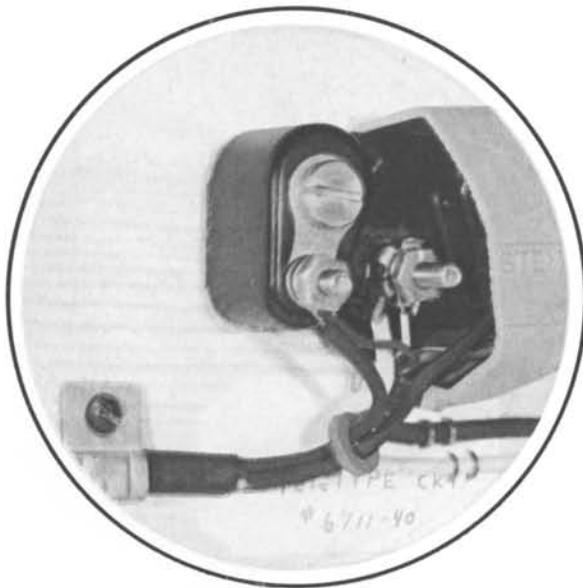

Fig. 16 ▶

No. 1 binding post insulators and indicator used with 49A cable terminal.
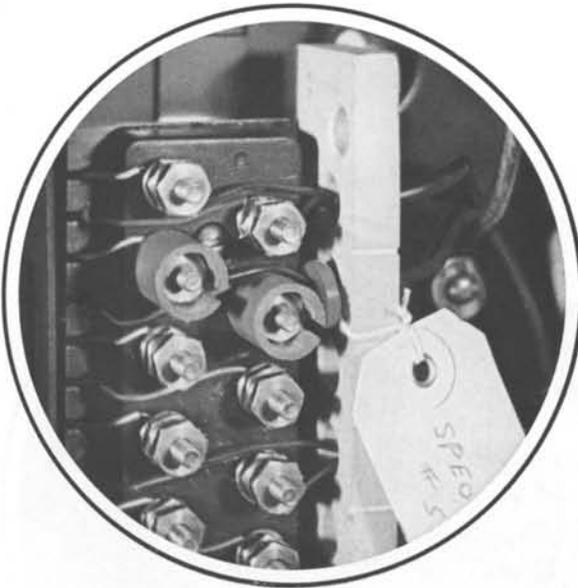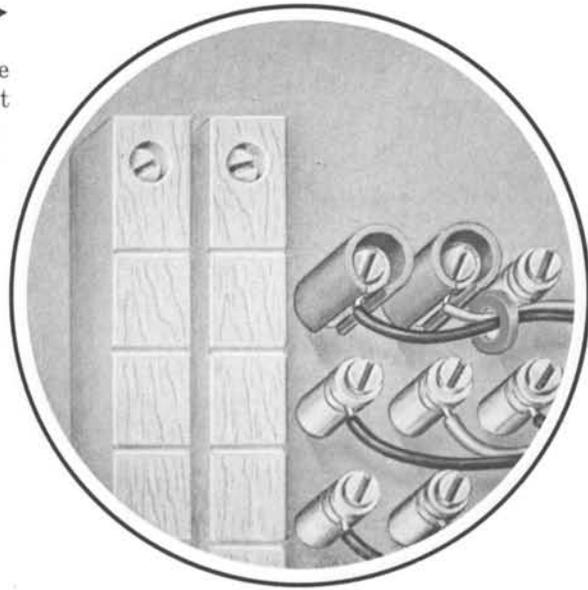

◀ Fig. 17

Indicator used with station protector 111A. The 150A cover (shown cut away) gives added security.

Fig. 18 ▶

No. 3 binding post insulators installed in BD-type cable terminal. Remember—SSMs are required at both ends of cross-connecting wires.
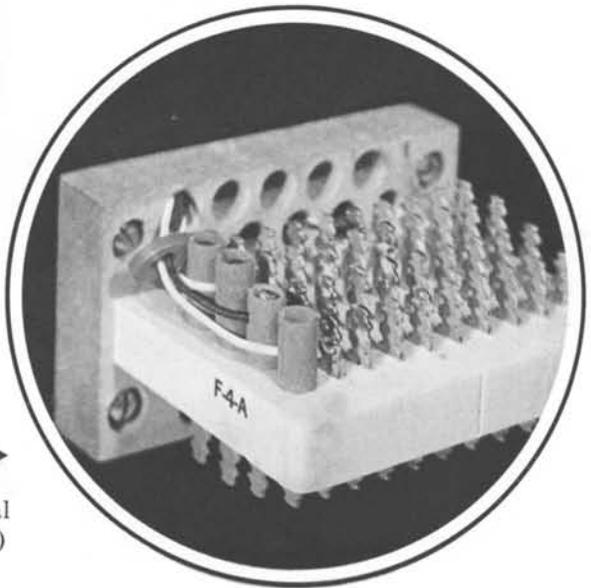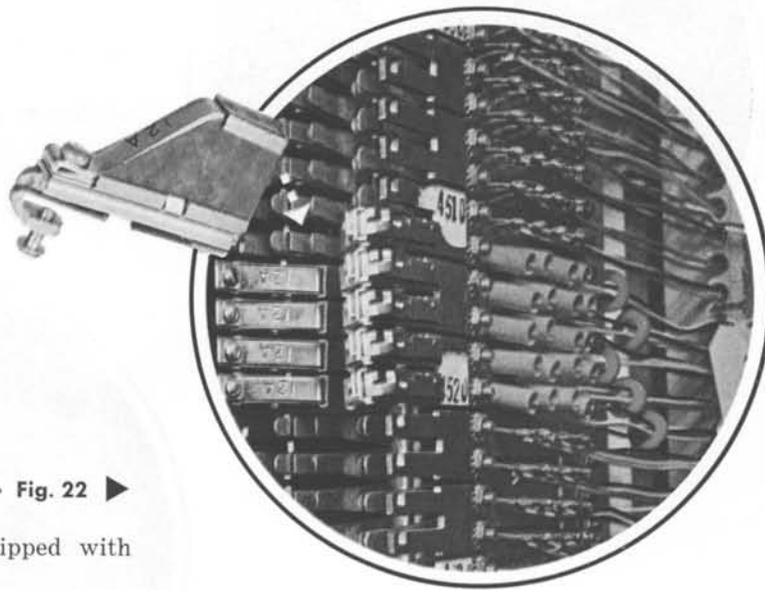
◀ Fig. 19

A 30-type connecting block with SSMs.

Fig. 20 ▶

Typical terminal strip with SSMs. Terminal punching insulators shown here are No. 4 (short) and No. 5.

Protected PBX frame with KS-14539 guard and terminal punching insulators. **Safeguard every SSL appearing on frame. An SSL terminated on frame requires SSMs on each end of jumper wire.**

Fig. 22 ▶

Installing SSM on PBX frame equipped with 444A test jacks.