

ESS-TYPE MODULAR DISTRIBUTING FRAMES WARNING MARKERS AND GUARDS

CONTENTS	PAGE
1. GENERAL	1
2. PRECAUTIONS	1
3. WARNING MARKERS	1
4. SPECIAL SERVICE LINES	2

Figures

1. E-Warning Marker Installed on 302 Connector (Installed Similarly on 308 Connector)	3
2. E-Warning Sign Installed on Back Side of 302-Connector (Installed Similarly on 308 Connector)	3
3. Use of 20A Circuit Guard, KS-14174 Designation Pin and Red-Cased Protector Unit for 302 Connector (Installed Similarly on 308 Connector)	4
4. KS19478 L1 Guard	4
5. Protection of Terminal Punchings—Special Service Lines—C Clip-Terminal Insulator as Used on 66G or 78A1 Connecting Block	4
6. Protection of Terminal Punchings—Special Service Lines—D Clip-Terminal Insulator as Used on 66H or 78B1 Connecting Block	5

1. GENERAL

1.01 This section describes warning markers and guards and their use on ESS protector and distributing frames.

1.02 This section is reissued to include references to the 308 connector and the E-warning sign, and to add a new figure. Change arrows have been used to denote the more significant changes.

2. PRECAUTIONS

2.01 If evidence is found or there is suspicion of abnormally high voltage conditions or contact between foreign potentials and central office terminations, the following precautions shall be observed.

- (a) The supervisor and test center are immediately notified of the suspected condition.
- (b) Other employees who may have occasion to work on the frames are notified.
- (c) All contact with associated frame terminations is avoided until authorized by the test center.
- (d) On the 302 and 308 connectors, the molded handle of the protector unit is used for removal.
- (e) *Only* protector units with *gold plated* terminals designed for the 302 and 308 connectors should be used for ESS protection. The protector units with solder plated terminals should not be used.

3. WARNING MARKERS

3.01 Where abnormally high voltages are employed (such as breakdown tests), pairs subjected to high voltages shall be isolated from central office equipment and warning markers installed.

3.02 This is accomplished by removing the protector unit associated with the high voltage pair and reinstalling an E-8590 warning marker (Fig. 1) in its place. Removal of the protector unit removes

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

all protection from the associated outside plant pair.

3.03 The E-warning marker is made of red plastic with white lettering indicating the presence of high voltage on the line. The marker provides neither protection nor circuit continuity but is equipped with three prongs for socket mounting.

3.04 ♦The *E-warning sign (AT-8325)* is furnished with cords for securing it to the back of the 302 or 308 connector as shown in Fig. 2. The cords may be tied around the wiring horns, cross arm supports, cable stubs, ground bars, or through fanning strip holes, whichever is most readily accessible. The combined use of the E-warning sign and the E-warning marker reduces the danger of exposure to high voltage by identifying both sides of the connector.

Caution: *An observer is required when performing a breakdown test on the 302 or the 308 connector. A talking path must be set up prior to testing between the observer stationed at the distributing frame and the employee with the breakdown set. If arcing or smoke is seen, the observer should immediately inform the employee applying the voltage that the fault has broken down and no further voltage should be applied.*♦

3.05 Warning markers or warning signs should not be removed or jumpers restored until notification is received from the test desk or cable locating bureau according to local instructions.

4. SPECIAL SERVICE LINES

4.01 *Designation Pin KS-14174, L7:* Each jack on the protector frame associated with

a special service line is designated by inserting a KS-14174, L7 designation pin (red) into the hole provided for this purpose and using a protector unit with a red case (Fig. 3). Section 201-221-102 provides information for the designation pin colors and protector unit colors to be used with different classes of special service.

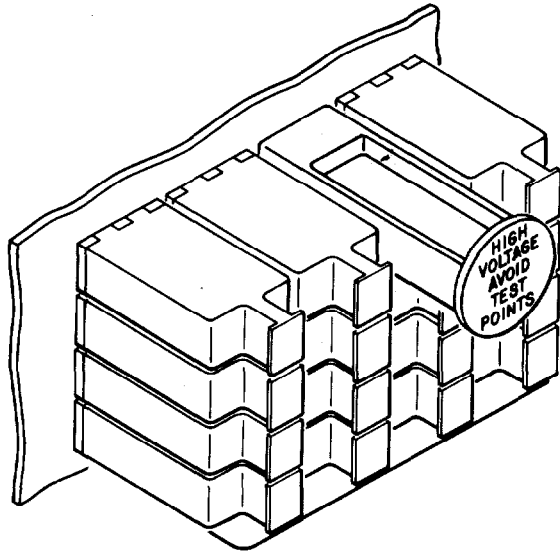
4.02 *20A Circuit Guard:* The 20A circuit guard (shown installed in Fig. 3) prevents accidental removal of protector units from the protector frame connectors. It is intended to be used on circuits requiring special service protection (SSP) or special safeguarding measures (SSM) protection. The guard is designed to be used with the 3A, 4A, or 5A protector units.

Note: When the 20A circuit guard is used, the KS-14174 L7 designation pin cannot be used.

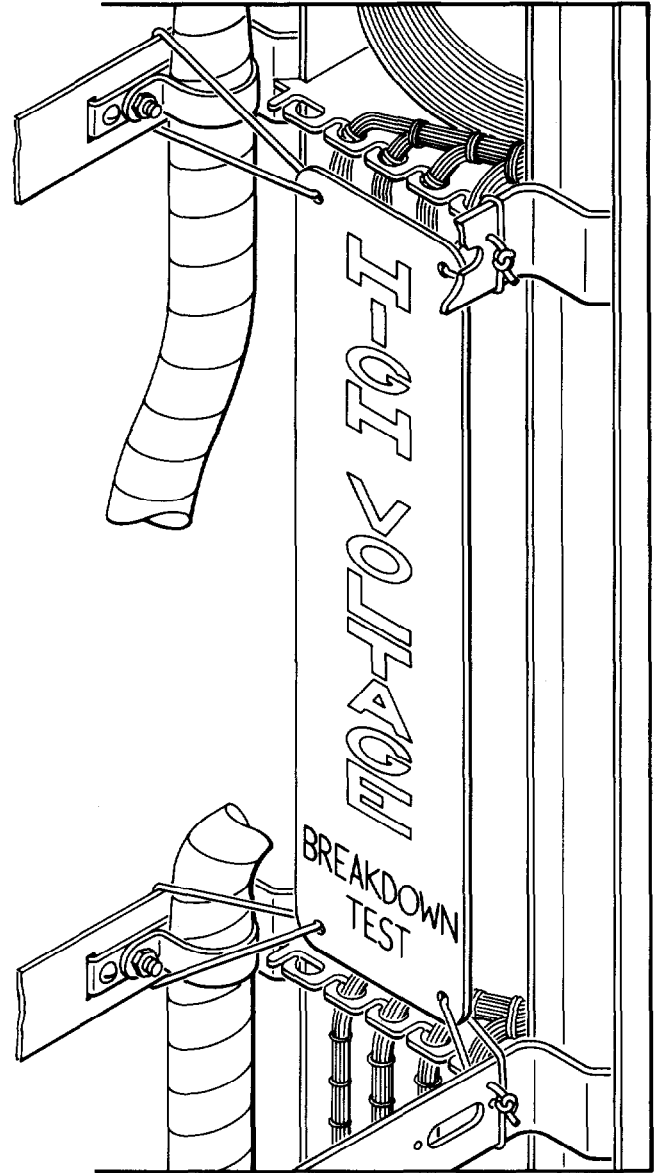
4.03 *KS-19478 L1 Guard:* In order to prevent interference with special circuits, the KS-19478, L1 guard (Fig. 4) is used to cover two test terminals (tip and ring) on the test terminal field of the connector.

4.04 On ESS distributing frames equipped with 66G, 66H, or the 78-type (quick connect) connecting blocks, terminals associated with special service lines are protected and identified by the use of C or D clip-terminal insulators (Fig. 5 and 6). These insulators are red plastic clip-on type to protect both tip and ring terminals. One insulator is used to protect each pair. The C or D clip-terminal insulators are used as follows:

- (1) C clip-terminal insulator for use on 66G or 78A1 connecting blocks (Fig. 5)
- (2) D clip-terminal insulator for use on 66H or 78B1 connecting blocks (Fig. 6).



**Fig. 1—E-Warning Marker Installed on 302 Connector
(Installed Similarly on 308-Connector)**



**Fig. 2—E-Warning Sign Installed on Back Side of
302 Connector (Installed Similarly on 308
Connector)†**

RED CASED PROTECTOR UNIT (CODED AS 3A3A, 4A3A, 5A3D FOR 302-TYPE CONNECTORS).

DESIGNATION PIN
KS-14174 L7 (RED)
(NOT USED WHEN
20A CIRCUIT GUARD
IS INSTALLED).

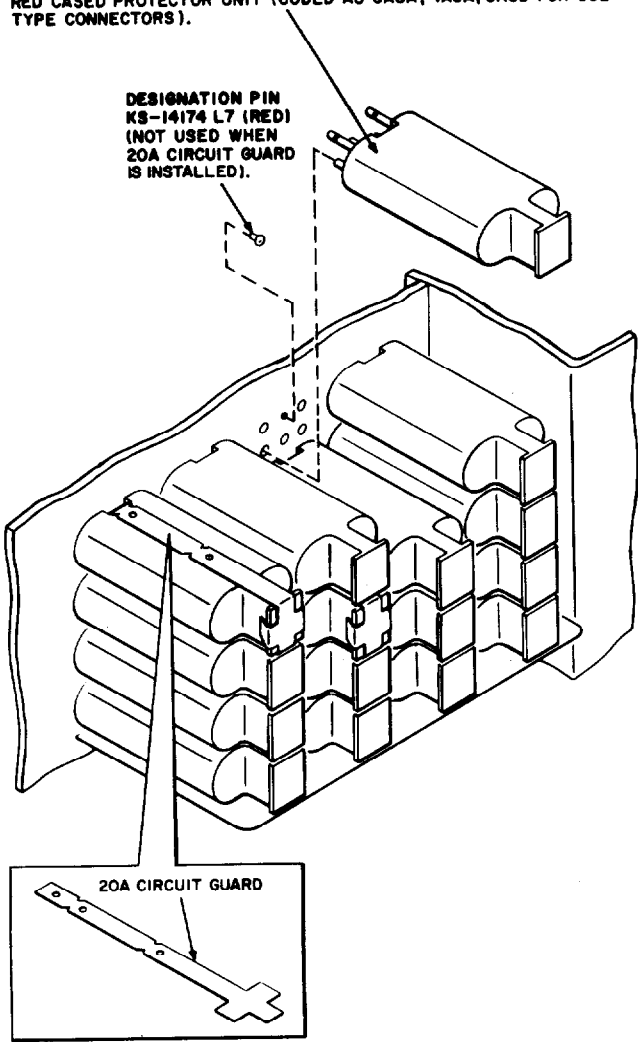


Fig. 3—Use of 20A Circuit Guard, KS-14174 Designation Pin and Red-Cased Protector Unit for 302 Connector (Installed Similarly on 308-Connector)



Fig. 4—KS-19478 L1 Guard

C CLIP TERMINAL
INSULATOR

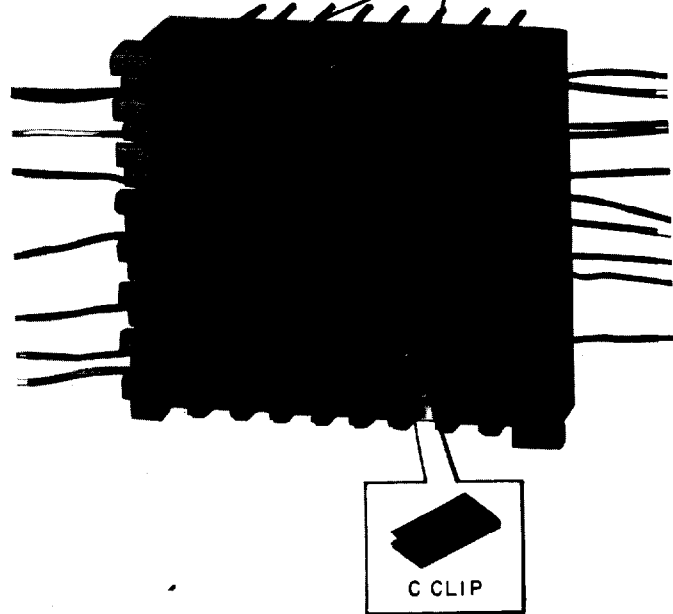


Fig. 5—Protection of Terminal Punchings—Special Service Lines—C Clip-Terminal Insulator as Used on 66G or 78A1 Connecting Block

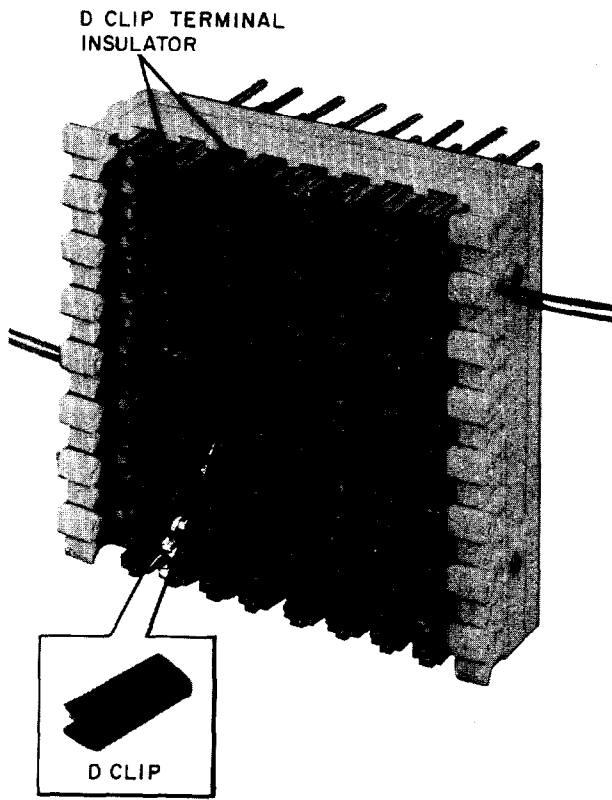


Fig. 6—Protection of Terminal Punchings—Special Service Lines—D Clip-Terminal Insulator as Used on 66H or 78B1 Connecting Block