# COMMON SYSTEMS MAIN INTER-CONNECTING FRAME (COSMIC) WARNING MARKERS AND GUARDS

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## 1. GENERAL

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

**1.02** Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

## 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-type connectors, the molded handle of the protector unit is used for removal.

(e) ***Only*** protector units with ***gold plated*** terminals designed for the 302-type connectors should be used for COSMIC protection when a modular protector frame is employed. The protector units with solder plated terminals should not be used with the modular protector frame.

## 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 installing an E-warning marker in its place (Fig. 1). Removal of the protector unit leaves the associated outside plant pairs unprotected from high voltage.

**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** An E-warning sign (AT-8325) (Fig. 2) should be mounted from the two wiring horns at the rear of the protector frame so that the sign covers the back of the 302-type connector. The E-warning sign comes with cords for mounting which may be tied around the wiring horns, cross arm supports, cable stubs, ground bars, or through fanning strip holes, whichever is most accessible.

**3.05** Warning markers or warning tags 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 201-222-102 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. 2) 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 designated to be used with the 3A, 4A, or 5A protector units.

> ***Note:*** When a 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 302-type connector.

**4.04** ***D-Clip Terminal Insulator AT-8301:*** On COSMIC distributing frames, three sizes of 78-type quick-connect terminal blocks are used: 50-pair, 64-pair, and 100-pair. Connecting block terminals associated with special service lines are protected and identified by the use of D-clip terminal insulators (Fig. 5). These insulators are red plastic U-shaped channels which clip on the bifurcated terminals to protect both the tip and ring. One insulator is used to protect each pair.

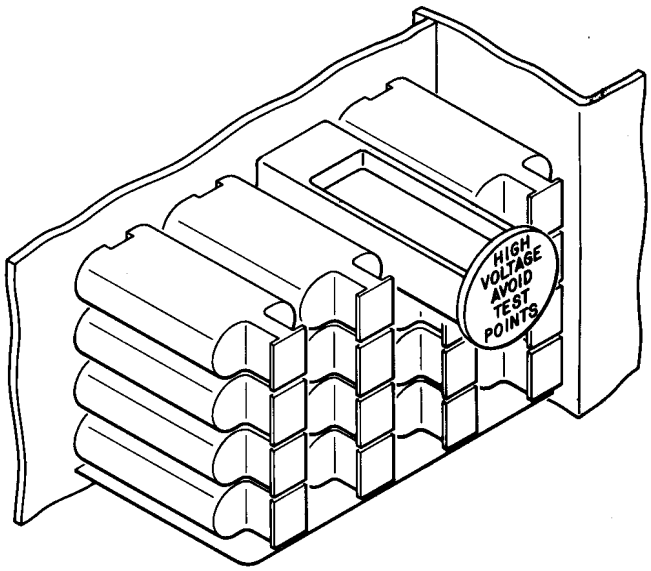


**Fig. 1—E Warning Marker Installed on 302-Type Connector**

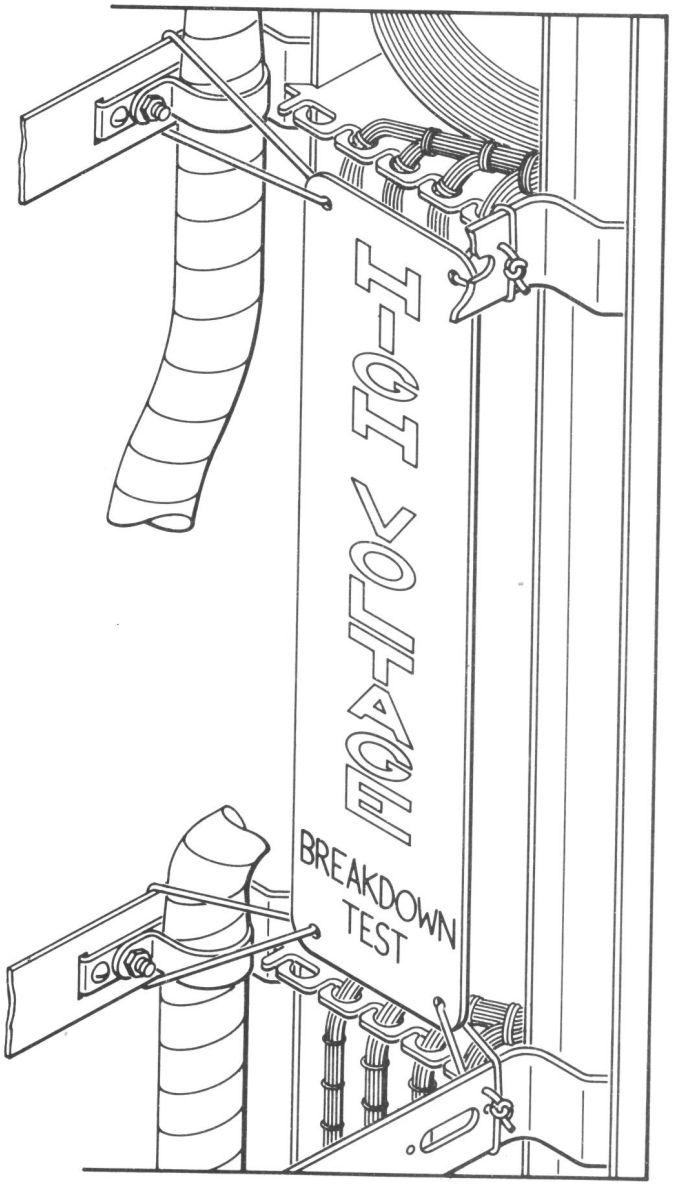


Fig. 2—E Warning Sign Installed on Backside of 302-Type Connector

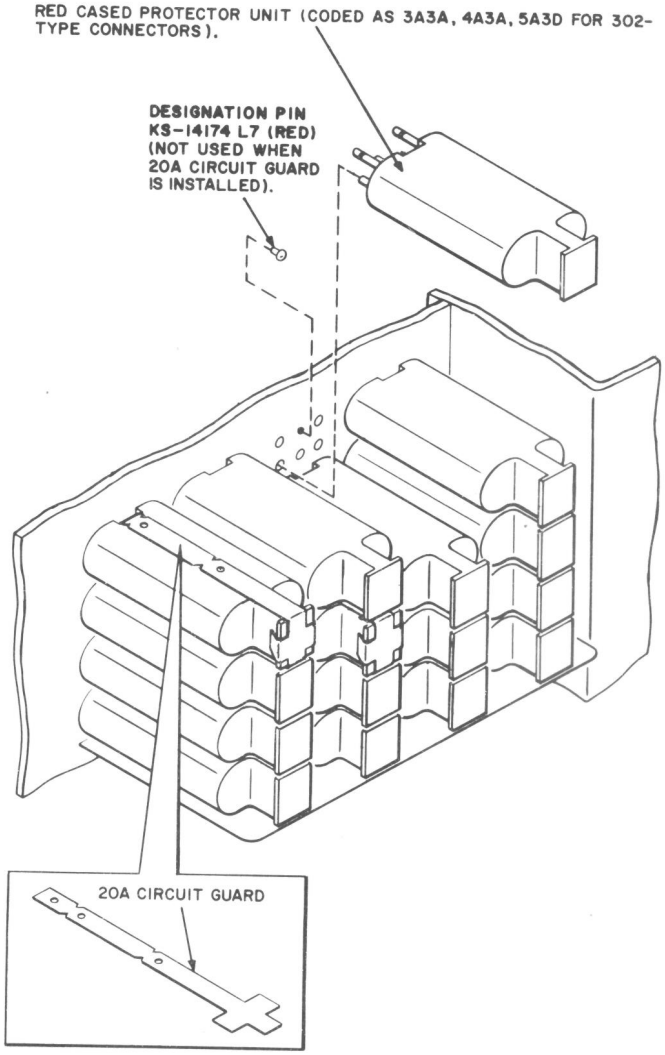


Fig. 3—Use of 20A Circuit Guard KS-14174 Designation Pin and Red Cased Protector Unit for 302-Type Connector

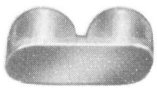

Fig. 4—KS-19478 L1 Guard

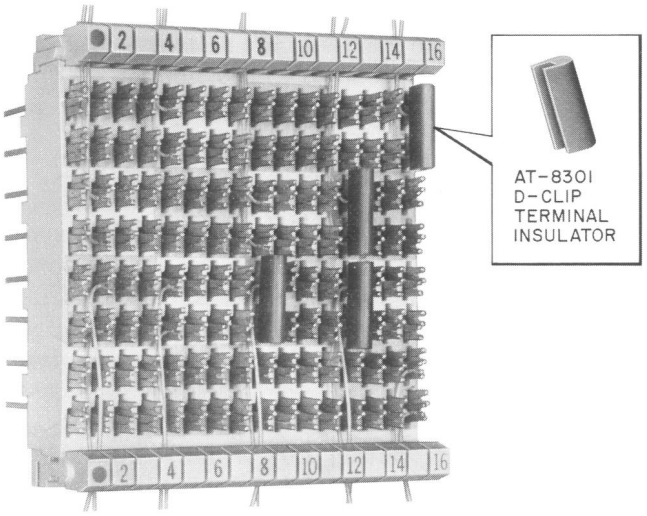


**Fig. 5—Protection of Terminal Punchings—Special Service Lines—D-Clip Terminal Insulator as Used on 78C2A-64 Connecting Block**