

## ESS-TYPE MODULAR DISTRIBUTING FRAMES INSPECTIONS

### 1. GENERAL

**1.01** This section describes items to be covered when inspecting cross-connections, wiring terminations, and equipment on ESS modular distributing frames and protector frames.

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

**1.03** The approved methods for running cross-connections and performing other work operations pertaining to ESS distributing frame work are covered in the 221 division of Bell System Practices and should be thoroughly understood by maintenance personnel before making inspections described in this section.

**1.04** Defects found during the performance of regular duties, as well as those found during the course of inspections, should be remedied. In some instances, faults can be corrected during the course of the inspection by combining corrective measures with the inspection.

### 2. APPARATUS

**2.01** Although tools, with the exception of eye protection (as required), are not required for the actual inspection work, the regular frame maintenance tools will be necessary for corrective measures.

### 3. METHOD

**3.01** The following inspections shall be performed to determine that the condition of equipment is as stated under each of the following headings.

#### (a) *Cross-Connection Wires*

(1) Cross-connection wires are installed, terminated, and dressed in accordance with instructions in Section 201-221-301.

(2) Dead jumpers have been removed from the frames.

#### (b) *Connections to Terminals*

(1) **Quick Connect:** Connections to quick-connect terminals are properly made.

(2) **Wire-Wrapped:** Connections on wire-wrap terminals are properly made. Connections are tight with proper number of wraps and the proper size wire is used or the connection soldered.

(3) **Soldered Connections:** Connections on solder-type terminals are properly soldered. Care should be taken to see that excess solder was not used and that connections appear to have been properly heated.

#### (c) *Fanning Strips and Wire Retainers:*

Fanning strips and wire retainers are not cracked or broken in such a way as to cause injury to personnel or cause damage to wire insulation when running cross-connections.

#### (d) *Connecting Blocks and Terminals*

(1) Connecting blocks are securely fastened to the frame with the full number of mounting screws (four each block).

(2) Fanning strips are securely mounted to the connecting blocks with the full number of mounting screws (two each fanning strip). Damaged fanning strips should be replaced (78A1-64 connecting blocks—824733273; 78B1-64 connecting blocks—824733265).

(3) Quick-connect terminals are not bent or broken.

(4) Spare terminals are clean.

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- (5) Terminal fields are free from wire clippings or any other foreign matter even though it appears that a cross will not result.
- (e) **Upper Express Wiring Trough:** In cases where the dual level upper trough MDF has been installed, inspect the trough to insure that the KS-20096 L1 needle is being used to route the appropriate long jumpers to the upper level using the proper wiring channel.
- (f) **Lower Express Wiring Trough:**
  - (1) Lower express wiring trough is free from wire clippings and other debris.
  - (2) Jumpers lie within the wiring trough properly and not on top of the wire retainers.
- (g) **Cabling**
  - (1) Cabling does not sag to such an extent that it may be subject to damage.
  - (2) Tie cables from connectors or other apparatus should be neatly dressed and properly laced to the proper frame members or framework.
  - (3) Tie cords and cable lacing are in their proper place and are not broken.
- (h) **Jack Panels:** Jack panels are securely fastened to the frame with the proper number of screws.
- (i) **Jacks**
  - (1) Jacks are securely mounted in the jack panels.
  - (2) Jack springs are not bent or broken.
- (j) **Connections and Protectors**
  - (1) Connectors are securely mounted to the protector frame with the proper number of screws.
  - (2) On trunks with special circuits, the proper types of protectors and warning markers are used.
- (k) **Battery and Ground Terminals:** Battery and ground terminals are securely fastened.
- (l) **Ground Connections:** Ground strapping is properly installed and ground connections are tight.
- (m) **Marking and Designation Strips**
  - (1) Equipment, cable, and connecting blocks are clearly marked in the approved manner so that any particular set of terminals can be readily located.
  - (2) Designation strips are of the proper type and information thereon is complete, accurate and legible.
  - (3) Stainless steel extension springs on the vertical designation strips are not broken and function properly.
- (n) **Service Observing Test Cords:** Service observing test cords are not frayed and are securely fastened in proper alignment.
- (o) **Miscellaneous Cords**
  - (1) Miscellaneous test cords are neatly placed on the frame.
  - (2) Cords are in good working order (not frayed), plugs are not bent or broken, and contacts are clean.
- (p) **Missing and Defective Parts:** Frame assembly parts are securely fastened. All parts such as frame details, screws, nuts, bolts, wire retainers, etc, are in proper place and are not missing, bent, or broken.
- (q) **Storage Cabinets and End Guard Storage**
  - (1) Protector units, warning devices, spare parts, and cord storage cabinets or spaces where used are in good condition and securely fastened to frame or wall.
  - (2) Contents of cabinets are arranged in an orderly manner.
  - (3) New and good materials are separated from defective material.

**Note:** Defective material should be scrapped or returned to the Western Electric Service Center for repair.

(r) **Special Service Protective Devices:** Special service protective devices are installed where required to provide special service protection (SSP) or special safeguarding measures (SSM) in accordance with Section 201-221-103.

(s) **Reverse Devices**

(1) A list should be prepared of all reverse devices found on the protector frame. This list should be referred to the supervisor.

(2) A follow-up for clearance of all reversed pairs listed should be made each 60 days.

(t) **Talk Circuits**

(1) Transmission and reception are satisfactory.

(2) Signal lamps and pushbuttons are in working order.

(u) **Electric Outlets:** Frame mounted outlets are in working order.

(v) **Testing Devices:** Test cabinets, test boxes, marker line verification test sets, automatic number identification, etc, are in working order.

**4. REPORTS**

**4.01** Any required record of this inspection and any repair work should be entered on the proper form.

BSP 201-221-501

is Routine 734.1R see routine  
book