

Installation Engineering Handbook 269
Western Electric
Northern Illinois Works

TM 5.084
Dated: 4/01/81
Expiration Date 1/01/82

TEMPORARY MEMORANDUM
FOR NO. 3 ESS
REPAIR OF DEFECTIVE SOLDER
CONNECTIONS ON FB372
JUNCTOR CIRCUIT PACKS

1. GENERAL

1.1 Trouble reports from the operating companies indicate that excessive numbers of FB372 Junctor Circuit Packs are failing during operation. This is causing problems with supervision and/or transmission due to defective solder connections on the printed wire boards of the circuit packs. The defect is caused by cracking of the solder in the printed wiring boards.

1.2 This TM applies to all FB372 junctor circuit packs which do not have plated-through holes.

1.3 Specific instructions as to which components are to be resoldered are given in the template attached to this TM as Appendix A.

2. TOOLS AND SUPPLIES

2.1 Soldering Iron (see Handbook 250, Section 1.35). R4121 Temperature Controlled Soldering Station equipped with List 1 Soldering Iron. Use of higher voltage irons or heavier gauge solder than that recommended will result in excessive heat to be applied to the printed wire board which will damage the board and the components being soldered.

2.2 Solder (see Handbook 250, Section 1.35). RM 728226 Solder, Resin Core. 0.040-inch diameter, 60 percent lead, 40 percent tin.

2.3 Rubber Stamp - A 3/16-inch plus sign stamp (+) is required to identify the repaired junctor units. The 3/16-inch rubber stamp is included in the R-1803 stamp set in kits 32, 32A and 2315.

NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE
BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT

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3. CORRECTIVE ACTION

3.1 Refer to the template. All connections below the dotted line are to be resoldered.

3.2 Carefully heat the terminals and add enough solder to the connection to obtain a satisfactory fillet of solder surrounding the entire terminal. It should not be necessary to heat the terminal more than 3-4 seconds. Remember that applying too much heat to the terminal will overheat the printed wire land area and destroy its adhesive bond to the board or cause internal damage to the component.

3.3 Inspect the resoldered connections to insure that they meet criteria.

3.31 Verify that the solder has wetted the terminal and land area, that it has flowed smoothly, and that it has a shiny appearance. A lumpy, uneven connection indicates that too little heat was applied. A dull gray crystalline appearance indicates that too much heat was applied.

3.32 Verify that the solder connection does not extend more than 1/16-inch above the surface of the board.

3.33 Verify that there are no solder bridges between the resoldered land areas.

3.34 Verify that all terminals of all components specified on the template for the junctor being repaired have been soldered.

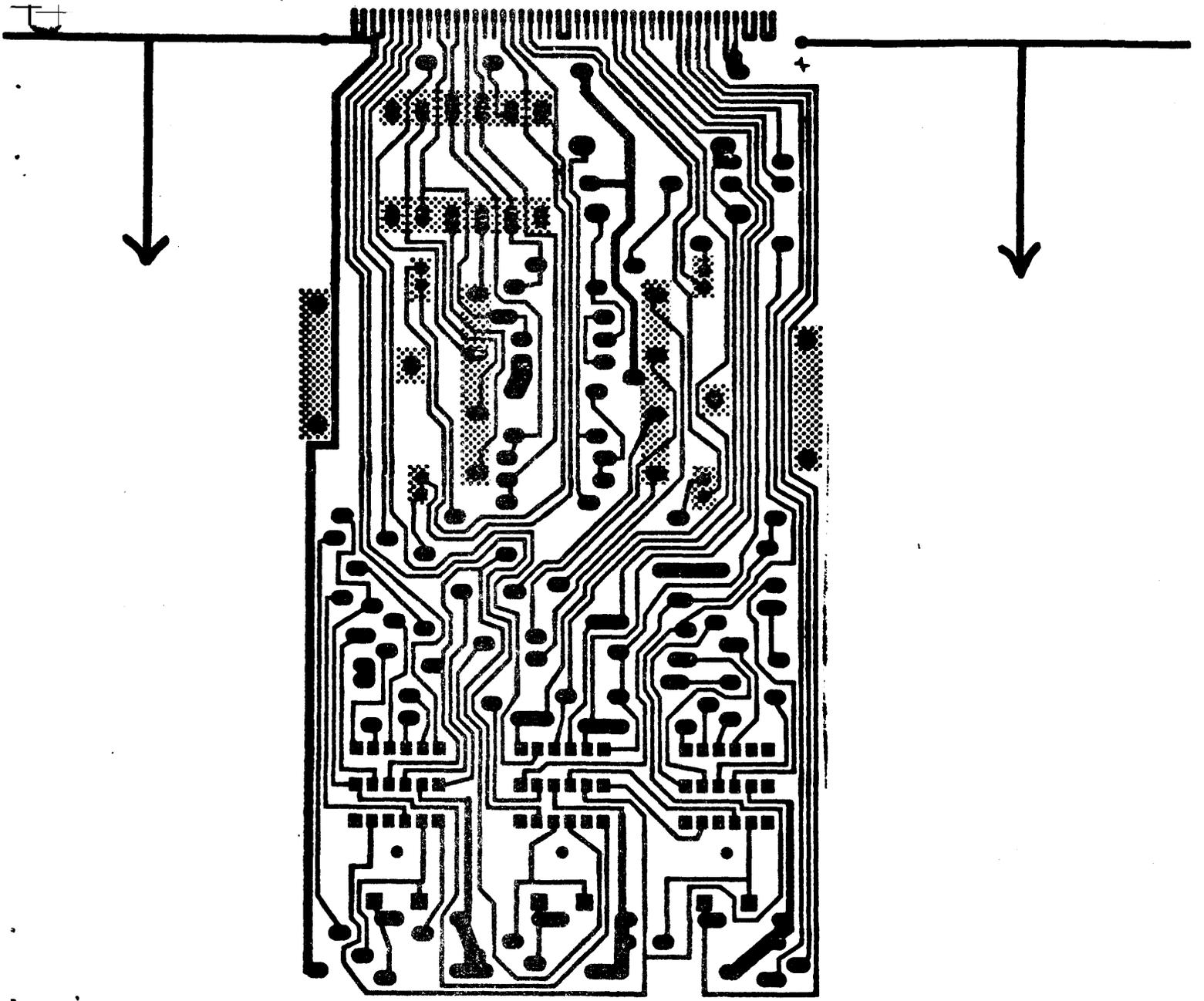
3.4 To show that the junctor has been repaired according to procedures outlined in this TM, stamp 3/16-inch black plus sign (+) on the middle BF59 relay (K-2) coil so the plus sign is viewable when the pack is in service.

4. DISPOSITION OF EXPENSE

If the amount of work involved in performing the above procedure is sufficient to meet the requirements of (CI 47.242) it shall be reported on JIM form (SD-4-1-007) to be applied against the appropriate Engineering Complaint Number.



Manager, Development Engineering -
2/2B, 3, 4 and 5 ESS



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