J99400A HOUSING ASSEMBLY

DESCRIPTION

PACKAGED METALLIC FACILITY TERMINAL ASSEMBLIES

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1. GENERAL

1.01 This section provides a physical description and discusses the basic functions of the J99400A Package Metallic Facility Terminal Assembly (PMFTA). The associated J99400AA Power Supply and Installation Data Sheets (ED-7C223, Group 1) are also discussed.

1.02 When this section is reissued, the reason(s) will be given in this paragraph.

1.03 The PMFTA is a new line of circuit pack mounting assemblies designed for small groups of Metallic Facility Terminal (MFT) plug-ins. Typically, PMFTA will be located at the network interface on a customer's premises or in a central office. These assemblies are self-contained arrangements which include a power supply and interface terminal connectors. Installation data sheets are also supplied.

1.04 This equipment generates and uses radio frequency energy. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against radio frequency interference in commercial and residential installations. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, the user may find the following booklet, prepared by the Federal Communications Commission, helpful:

"How to Identify and Resolve Radio-TV Interference Problems."

This booklet is available from the U. S. Government Printing Office, Washington, D. C. 20402, Stock No. 004-000-00345-4.

1.05 The following paragraphs provide descriptive information on the J99400A PMFTA assembly and associated equipment. Section 332-610-201 provides installation information on the J99400A assembly.

2. FUNCTIONAL DESCRIPTION

2.01 This circuit pack mounting arrangement consists of three basic components which are the J99400A Housing Assembly, the J99400AA Power Supply/Frequency Generator plug-in, and the ED-7C223 Group 1 Installation Data Sheet plug-in. Figure 1 illustrates this complete arrangement.

A. J99400A Housing Assembly

2.02 As illustrated in Fig. 1, the J99400A assembly will accommodate up to two MFT plug-in units in a single-module arrangement. This assembly also

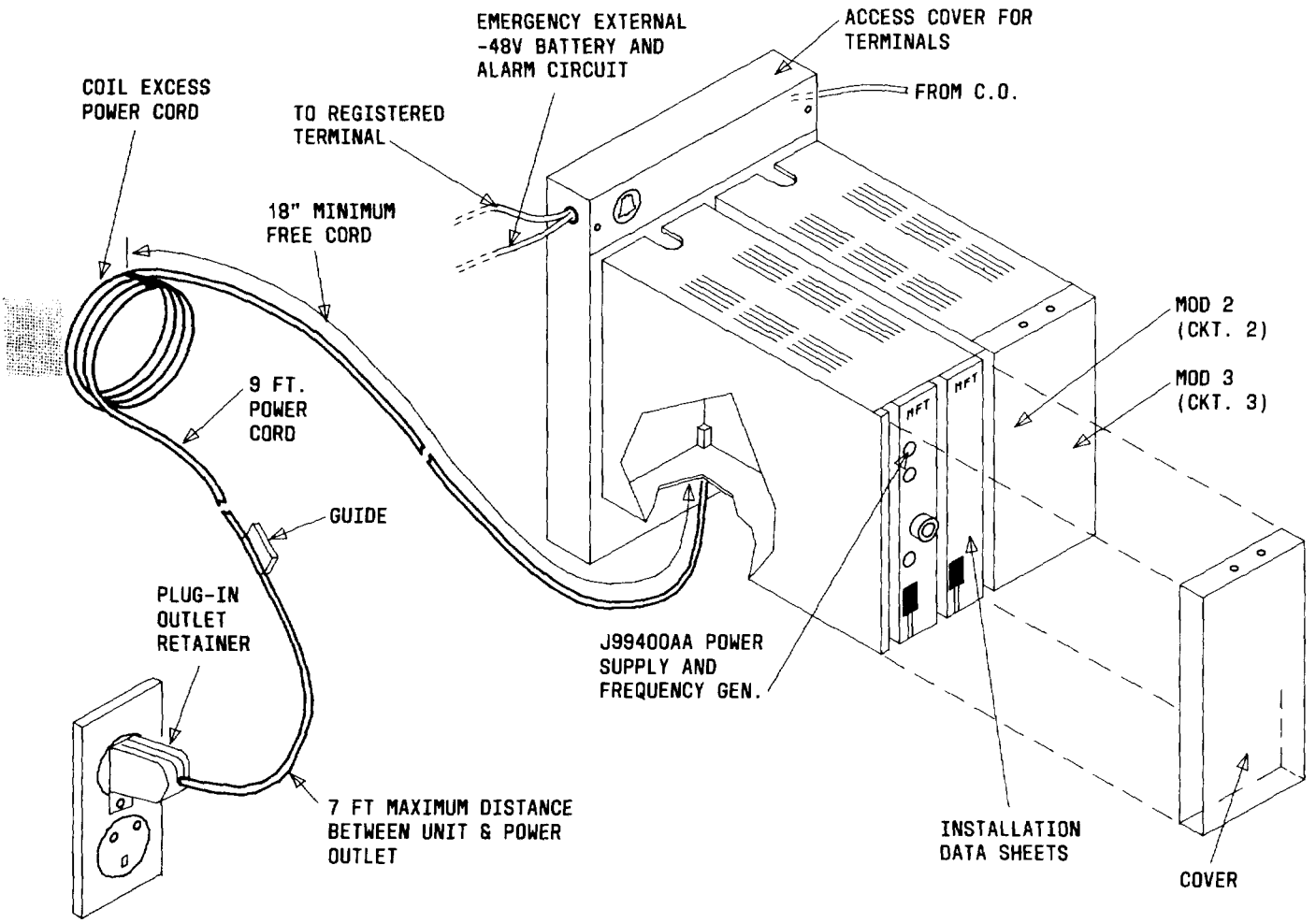

Fig. 1—Typical Layout of J99400A Housing Assembly

provides a plug-in slot for the J99400AA Power Supply/Frequency Generator and the ED-7C223 Group 1 Installation Data Sheet plug-in.

2.03 This housing consists of three subassemblies which are shown in Fig. 1. These subassemblies are the aluminum mounting backplate and two modified J99380N plug-in housings.

2.04 The mounting backplate provides the mounting surface for the two J99380N plastic housing assemblies. It also contains the 94-type interface connector (TS1) and all internal wiring. External connections to the J99400A housing are made to the TS1 interface connector. Access to the connector is achieved by removing the cover at the top of the mounting backplate. Figure 2 gives the lead plan for this interface connector.

> ***Note:*** The functional designation for each terminal on the 94-type connector is printed beside each terminal. All the functional designations for each plug-in slot are printed on the same color background.

2.05 There are two J99380N housing assemblies mounted on each mounting backplate. As shown in Fig. 1, the left-hand housing contains the J99400AA Power Supply/Frequency Generator and ED-7C223 Group 1 Installation Data Sheets. The right-hand J99380N housing provides mounting slots

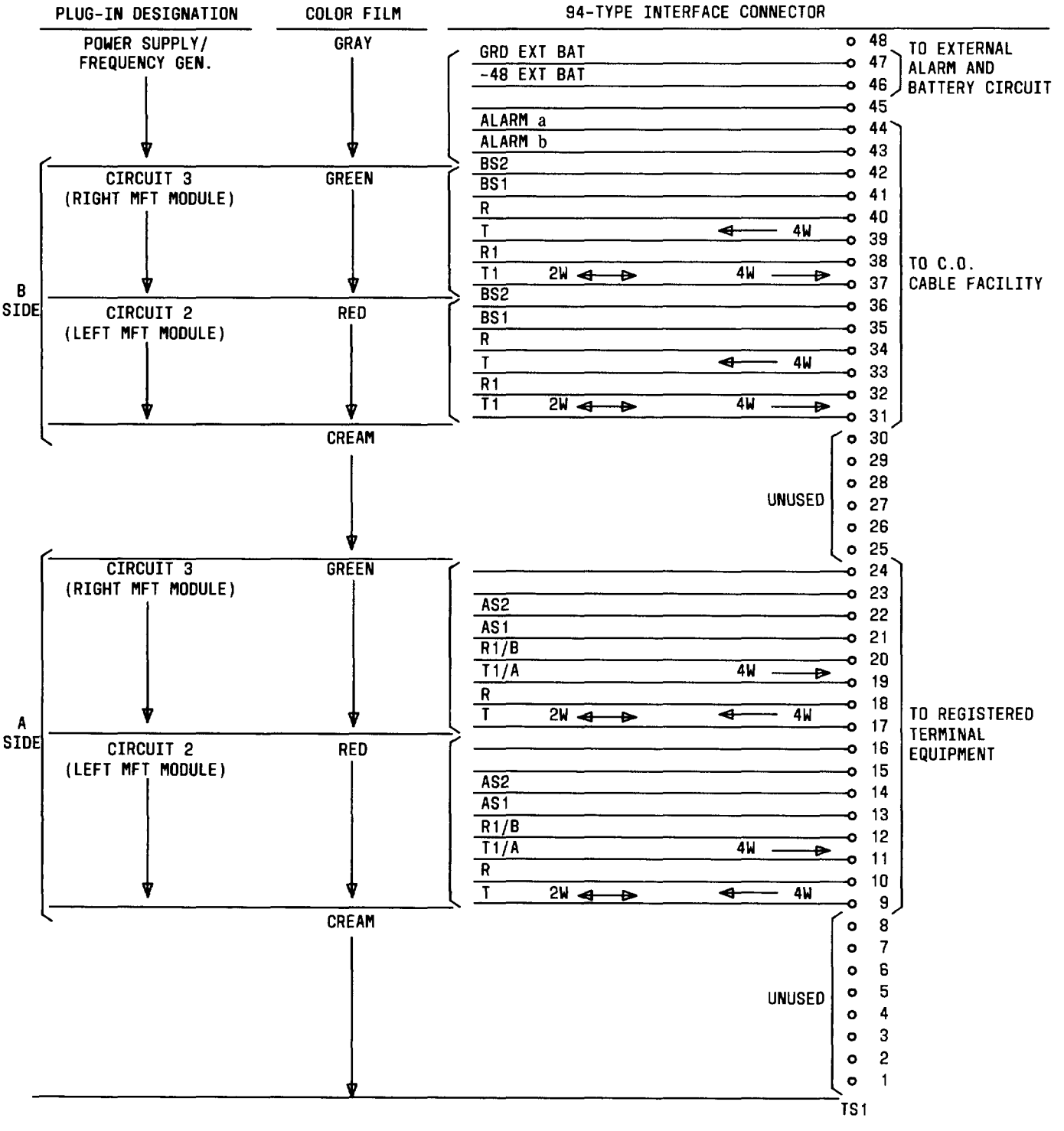

Fig. 2—Interface Lead Designation for TS1 Connector

for two MFT plug-in units in the single-module wiring arrangement. The type units that can be used in this arrangement are:

- Repeaters and passive transmission units—all types
- Combined function units—all types
- Signaling units—loop signaling extenders (J99343CA, CB, CC, and CD).

Interface connections to each mounting slot are made at the TS1 connector on the mounting backplate. Figure 2 shows the lead plan for the J99400A housing.

B. J99400AA Power Supply/Frequency Generator

2.06 The J99400AA unit provides the −48 Vdc and 20-Hz ringing power for the J99400A assembly. This unit, shown in Fig. 3, inputs 117 Vac utility power and supplies two −48 Vdc outputs and 20-Hz ringing. All three power outputs are wired to each of the MFT plug-in connectors. The input voltage can range from 100 to 130 Vac at 60 Hz. Each −48 Vdc output is current-protected and overvoltage-limited and designed to provide up to 350 mA of current (total combined from both outputs). One −48 Vdc supply is used for signal battery, and the other for talk battery. Both outputs are fused at 0.5 amps.

2.07 The 20-Hz frequency generator is regulated to provide nominally 86V RMS. The 20 Hz is superimposed on −48 Vdc and is capable of ringing six phones in the weak notch position. This specification assumes that two loops of up to 1500 ohms with three phones on each loop are used.

2.08 A combined fuse and alarm circuit in the J99400AA unit monitors both −48 volt outputs and the 20 Hz output. Failure of any output or loss of ac input generates an alarm signal and automatically transfers both dc outputs and the input of the 20-Hz generator to an external, fused battery, if provided. See Fig. 2 for connections.

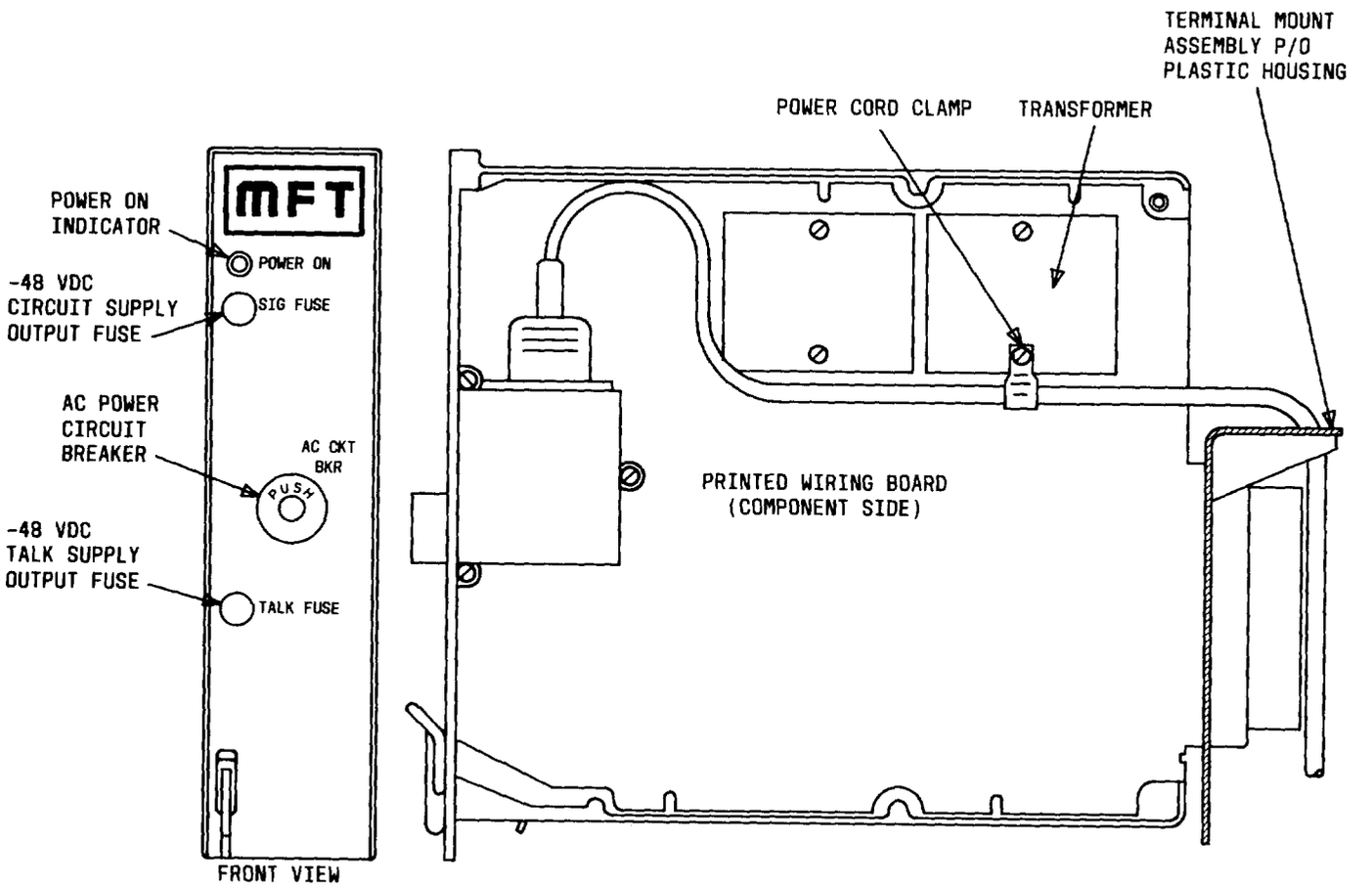

Fig. 3—J99400AA Power Supply/Frequency Generator

C. ED-7C223G1 Installation Data Sheets

2.09 This assembly contains installation instructions for the J99400A assembly and J99400AA power unit. The data sheets are packaged on an MFT circuit pack frame that slides into the appropriate mounting slot as shown in Fig. 1. This assembly consists of an MFT card holder frame and shield with an attached 2-ring loose-leaf binder. The installation information contained on these sheets is also given in Section 332-610-201.

3. APPLICATION AND CONNECTION

3.01 The J99400A Housing Assembly is used in applications where one or two circuits require transmission and/or signaling enhancement. Typically, this equipment will be located at the network interface with the customer or in the central office.

3.02 The two available plug-in slots in this PMFTA housing are wired in a single-module arrangement. This allows one MFT unit to be inserted into each circuit that is connected to the interface connector (TS1). All of the various MFT passive transmission units, repeaters, and combined function units can be used in these plug-in slots. The type unit to be used is determined by the circuit requirements. The only type signaling unit that can be used in this arrangement is the loop signaling extender (J99343CA, CB, CC, and CD), which provides dc boost to the circuit battery.

3.03 Combined function units which provide an E&M interface will use the AS1, AS2 and BS1, BS2 leads. The equivalent E&M lead designation for the leads are as follows:

AS1 = E

AS2 = M

BS1 = SG

BS2 = SB.

3.04 Connections to the J99400A housing are made to the 94-type TS1 connector through the holes on each side of the mounting backplate. Typically, the central office cable enters the assembly through the right-side hole and the station or customer cable enters on the left side. The 94-type interface connector can accommodate wire sizes of 22, 24, and 26 gauge. Additional installation information is given in Section 332-610-201.

4. J99400TA TEST EXTENDER ASSEMBLY (SD-7C094)

4.01 This test extender has been designed for use with the J99400 family of housings but can be used on any MFT shelf. This test extender provides for full extension of a powered MFT module outside the housing. This permits total access to adjustments on the MFT module under test as well as the adjustments on the test extender itself. The J99400TA Test Extender Assembly is illustrated in Fig. 4. A functional schematic decal for the test extender jack field and switches is mounted on the wiring side of the printed wiring board as an aid to the user.

4.02 The procedure for using the test extender is to insert the MFT module under test into the mounting rails and slide it forward until the MFT module connector mates with connector J1 on the test extender. The test extender is then inserted into the appropriate housing mounting slot and pushed forward until it mates with the MFT mounting shelf connector.

5. REFERENCES

5.01 The following references provide additional information on the J99400A Housing:

Reference	Title/Subject
332-610-201	Installation and Maintenance of the J99400A Housing Assembly
SD-7C093	PMFTA—J99400A
SD-7C092	J99400AA Power Supply/ Frequency Generator
SD-7C094	J99400TA Test Extender

5.02 The following general MFT documents provide information on equipment compatible with the J99400A Housing:

Reference	Title
332-910-100	(J99343)—General
332-910-180	MFT—General Applications

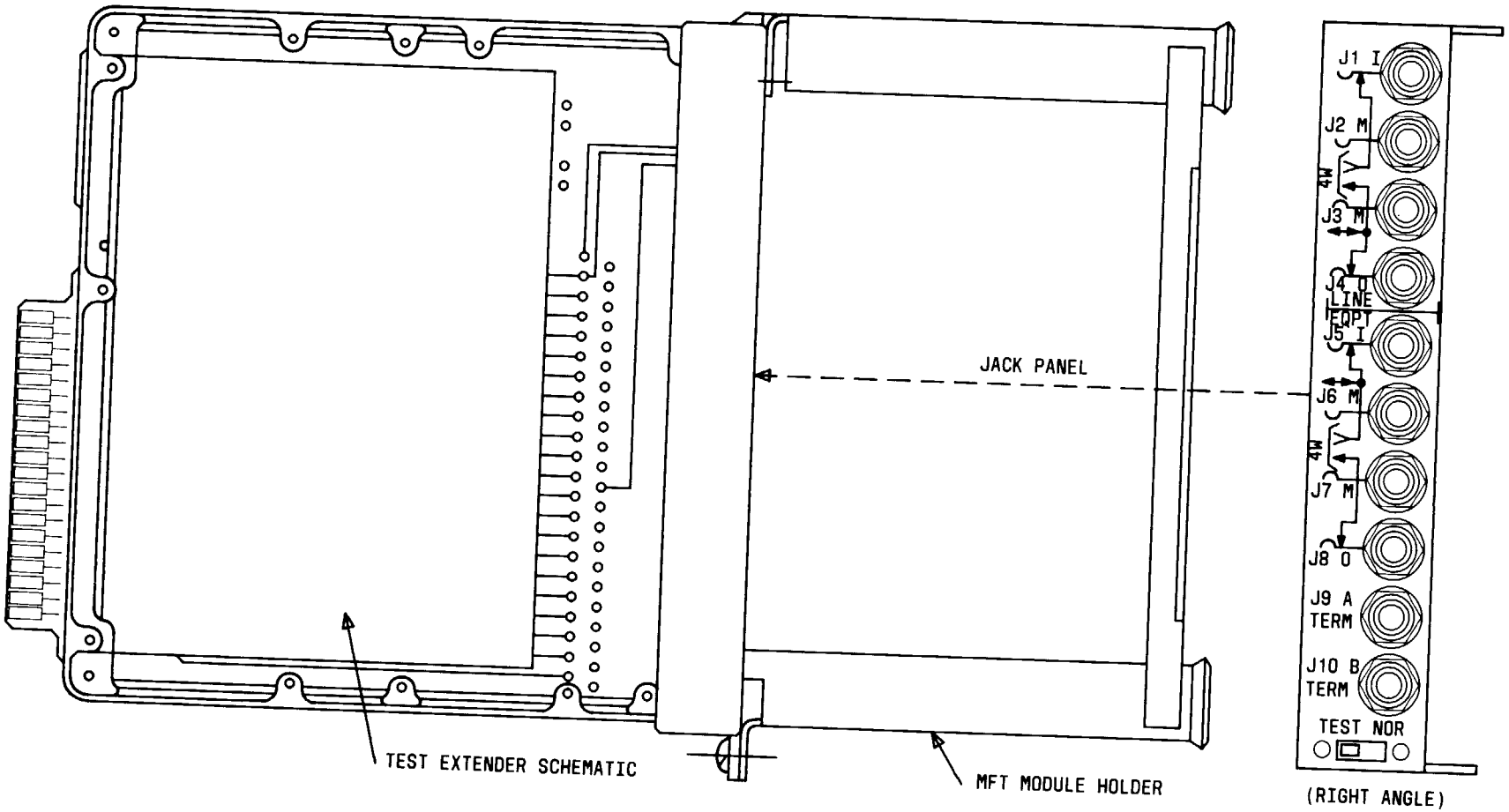

Fig. 4—J99400TA Test Extender