

FLEXPAK PLUS/ MINPAK PLUS

ACCESSORY

INSTRUCTION MANUAL D-3970-1

TEST METER ADAPTER KIT MODEL NUMBER 14C225

The equipment described below should be installed only by qualified electrical maintenance personnel familiar with the construction and operation of the equipment and the hazards involved.

CAUTION: Under no circumstances should the probes of a meter be connected directly to the pins on the regulator module. Permanent damage to the solid state components can occur.

DESCRIPTION

Measuring and Monitoring of the MinPak Plus and Flex-Pak Plus regulator voltages can be safely and conveniently carried out with the optional test meter adapter kit. (Refer to Figure 1) it acts as an interface between the regulator module and a user's voltmeter.

The Kit contains a Module and a mounting screw. Except for the voltmeter, no other equipment is necessary. The meter should be a multimeter having a sensitivity of 20,000 ohms per volt, minimum. (Simpson Model 260, Triplett Model 630, or equivalents are acceptable.)

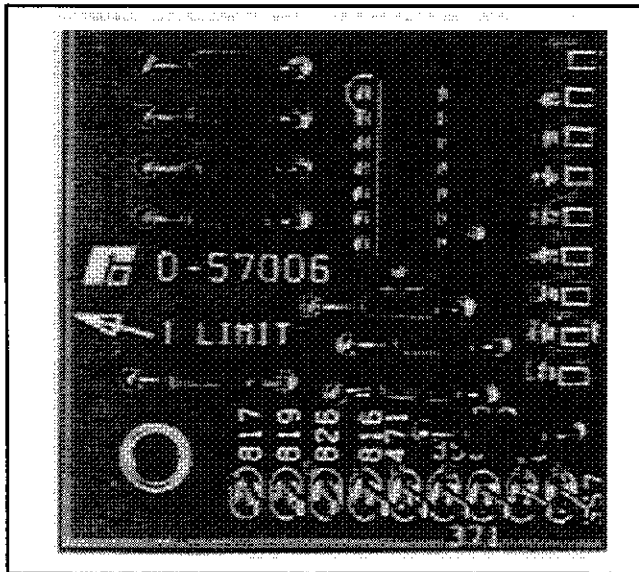


Figure 1 – Test Meter Adapter

Table 1 – Test Adapter Terminals, Readings

For Function:	Use Terminals:		Normal Indication (VDC)
	1-Phase Drives	3-Phase Drives	
Unregulated +20 VDC Power Supply	+456 -357	+456 -357	16-28
Unregulated -20 VDC Power Supply	-471 +357	-471 +357	16-28
Regulated +11.2 VDC Power Supply	+356 -357	+356 -357	10.8-11.5
Regulated -11.2 VDC Power Supply	-371 +357	-371 +357	10.8-11.5
Major Loop Feedback	-819 +357	-819 +357	0-4.0
LVTU (linear voltage time unit) Input	+826 -357	N/A	0-8.0
Forward/Reverse Driver Outputs	-816, -817 +356	N/A	On 10 VDC scale, increase of approx. 1 VDC occurs when drive is started.
Drive Reference Signal	N/A	+826 -357	0-9.6
Armature Voltage Feedback	N/A	-816* +357	0-4.0
Current Feedback	N/A	-817* +357	0-1.0

*Early production boards, this signal is PREF, Analog Signal to Digital Driver Board 5V = 100%

INSTALLATION INSTRUCTIONS

WARNING

BEFORE ATTEMPTING TO INSTALL THIS MINPAK PLUS/FLEXPAK PLUS MODIFICATION KIT DISCONNECT AND LOCK OUT ALL SOURCES OF INCOMING POWER TO THE CONTROLLER UNIT AND CABINET.

1. Orient the Test Meter Adapter Module over the area on the Regulator Module marked TEST, just over the nine pins. (Refer to Figure 2) . Lower it so that the pins pass through the guides on the Module. Use the screw to secure it.
2. For use, refer to Table 1 where the function is shown in relation to the test terminals to be used. The normal operating voltages are also shown.

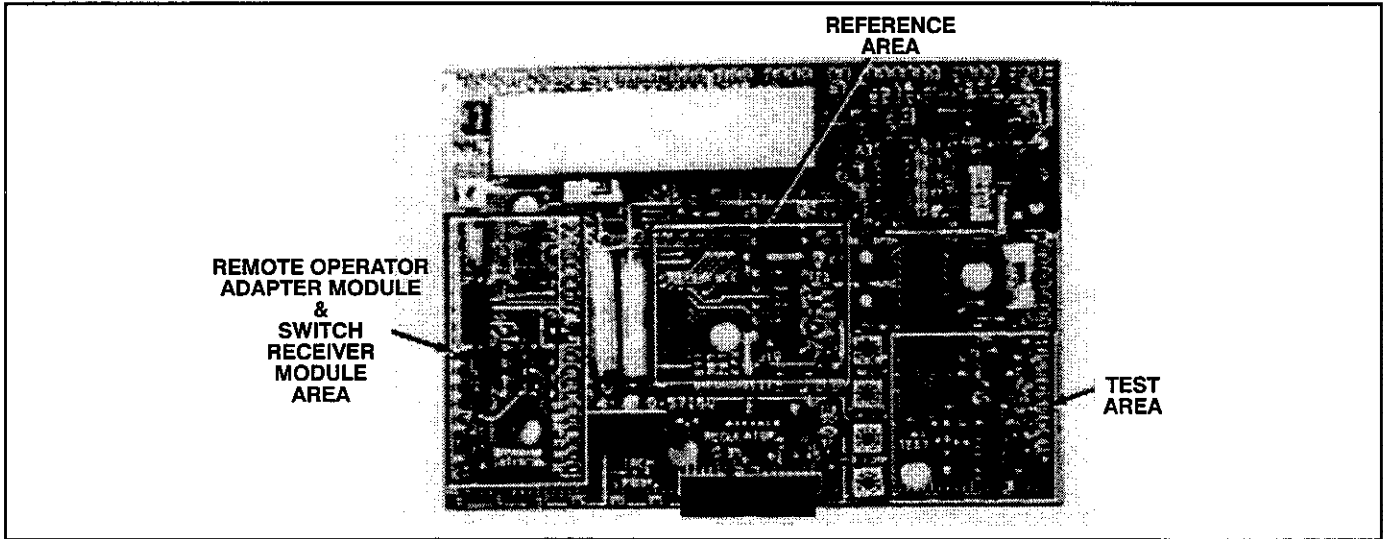


Figure 2 – Regulator Module Kit Locations

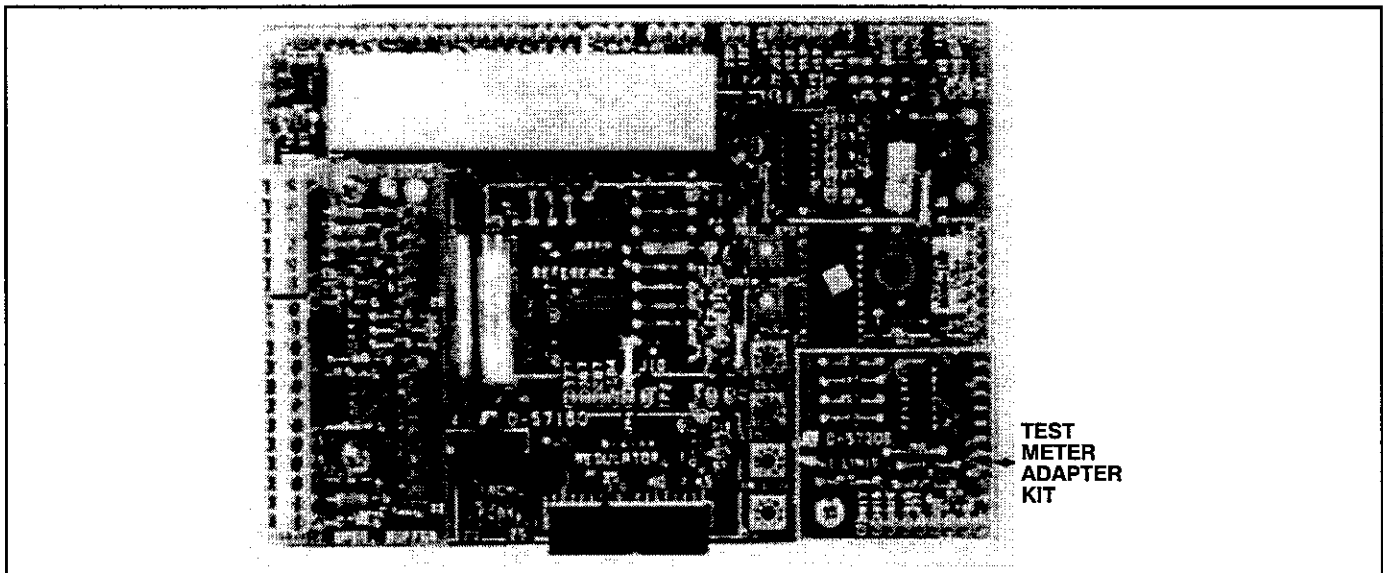


Figure 3 – Test Meter Adapter Kit Mounted To Regulator Module

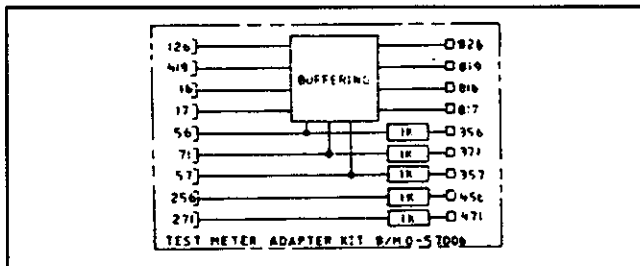


Figure 4 – Test Meter Adapter Kit Schematic

Reliance Electric Company / 24703 Euclid Avenue / Cleveland, Ohio 44117

RELIANCE ELECTRIC