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REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	Original Version	August 99

1. OVERVIEW

In some cases it may be necessary for the user to perform module tests or calibrations. It is difficult to get access to calibrations points and attach scope probes while the modules are installed in the 7700FR frame. In place if a conventional extender board for the 7700 frame, the 7700DK Debug kit allows users to operate individual 7700 series modules on the work bench, outside of the 7700FR frame.

The debug kit consists of the following parts:

PART #	DESCRIPTION	QTY
WA-7700DK-PS	7700 Series Bench Power Adapter	1
WA-S76	7700PB Rev A and later Upgrade Cable	1
R75	Screws for rear panel	10
Q65	4 amp. Fuses	4
S38	RS232 Extension Cable	1
S82	2 amp. Chip Fuses	10

Each 7700 series module is designed to operate as a stand-alone module with its companion I/O module. The power adapter allows you to provide the necessary power to the module to operate it when it is removed from the frame. If the module you wish to use with the 7700DK has connectors other than standard BNC connectors, you will have to remove the I/O module from the rear of the frame and fit it to the module under test. See the following sections for complete information about using the debug kit.

2. USING THE DEBUG KIT

2.1. REMOVING THE MODULE FROM THE FRAME

Press the card ejector down to release the module. Grasp then the card using the card ejector and pull the module out from the frame. As the card ejector goes past the front extrusion you will have to pull it with slightly more force. Carefully place the module on an anti-static surface.

If the module has connectors other than standard BNC connectors, you will have to remove the I/O connector plate from the rear of the frame and fit it to the module under test. To remove the I/O plate, remove the two screws that hold it in place, and store them in a safe place. Carefully press the connectors on the I/O plate that you have removed into the mating connectors of the module, making sure that they are properly aligned. Press the module firmly into the I/O connectors to make sure that they are fully seated.

Make sure that the rear connectors on the module are properly aligned with the I/O connectors before inserting them. DO NOT force the connectors to mate, as this may bend connector pins.

2.2. APPLYING POWER TO THE MODULE

The WA-7700DK-PS 7700 Bench power supply provides 12 Volts DC to the module on a standard 4 pin Molex connector. Press the Molex connector onto the power connector on the side of the module. The power connector will either be labeled *SFF POWER*, or it will have the power designators *GND* and *12 VDC* beside it. The connector is designed so that it can be only installed in one direction, thus preventing the DC polarity from being reversed. The diagram below shows the proper way to connect the power supply to the module.

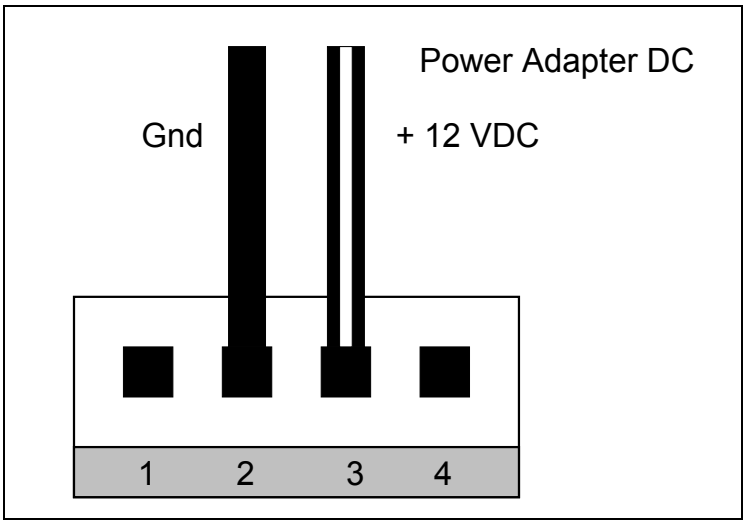

Figure 1: Power Supply DC Connector

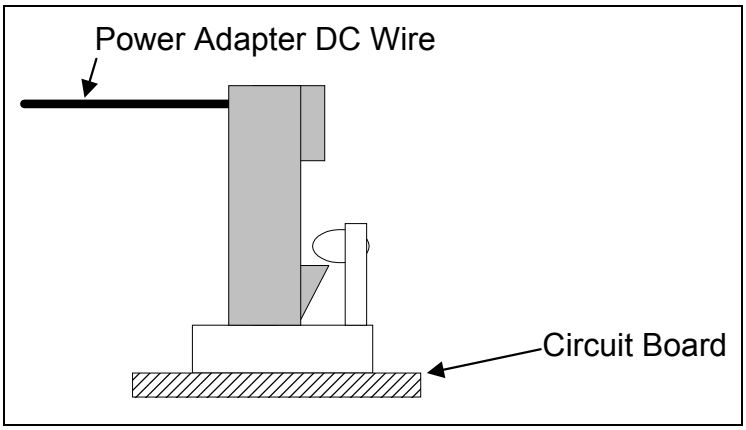

Figure 2: Connecting the Power Supply to the Module

The 7700DK power supply automatically senses the input voltage in the range of 100-240 VAC 50/60 Hz. After the DC connection is properly made to the module, apply power to the power supply by connecting a 3-wire grounding type cord to the IEC power inlet connector on the power supply.

2.3. UPGRADING THE MODULE FIRMWARE

The WA-S76 Serial Upgrade cable is provided to upgrade the firmware on modules that have the 7700 PB circuit board as the base module. See the instructions in the manual chapter *Upgrading Firmware in 7700 Modules* for complete information on upgrading the module firmware.

2.4. RE-INSTALLING THE MODULE

If you removed the rear I/O plate from the frame you will have to reinstall it before you can use the module in the frame. When installing a rear plate, locate the desired slot position where you wish to install the rear plate. Make a note of the slot number where you are installing the rear plate. Orient the plate so that the labeling is visible when the plate is installed. Loosely fasten the plate to the extrusions using the mounting screws provided, beginning with the top screw. You will tighten the screws after the main module is installed.

To reinstall the front module, orient it vertically such that the white card ejector is on the bottom. Align the card with the card guide corresponding to the slot number where you installed the rear panel plate. Carefully slide the module into the frame and press it completely into the rear panel connectors. Make sure that the connectors are fully seated in the rear panel. When this is done, close the front panel and then tighten the screws that hold the rear panel in place.

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