METTLER TOLEDO®

Installation Instructions

0977-0053

Model: 2450
Kit Number: 0977-0053
Description: Ethernet Interface Kit

Kit Description

This kit will convert the standard Model 2450 to allow connection to an Ethernet Network using 10 Base-T wiring. The kit contents are shown in Figure 1.

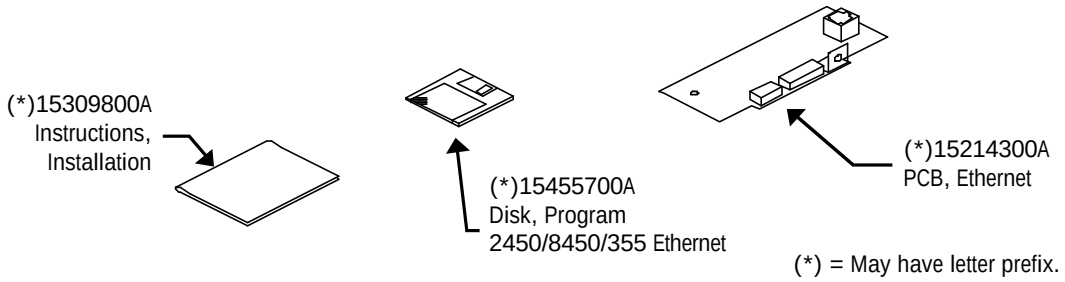
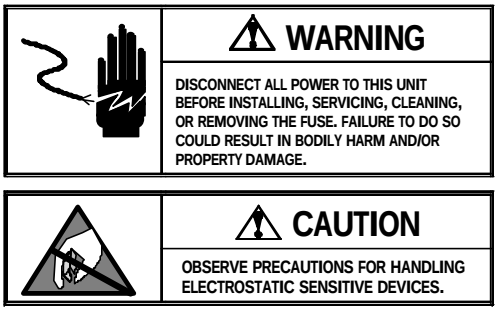


Figure 1: 0977-0053 Kit Contents

Kit Installation

Disconnect AC power to the Model 2450 before proceeding!



1

Remove the left side cover screw. To remove the cover, pivot the top of the cover out, then down. Set the cover and screw aside.

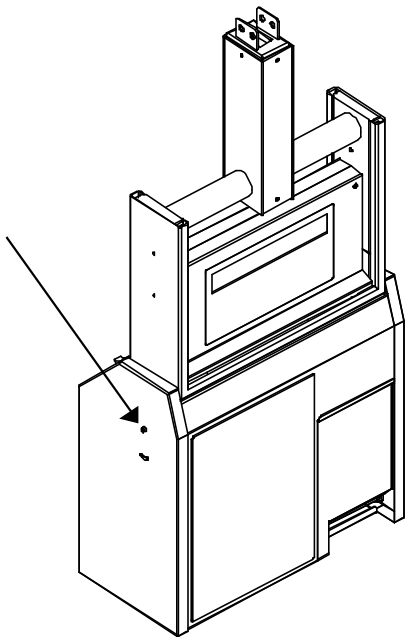


Figure 2: Removing Left Side Cover

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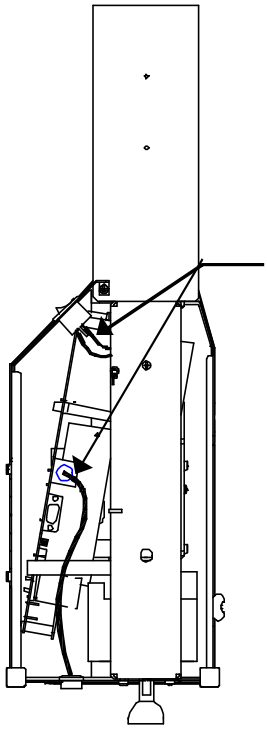

2

Disconnect the two wires to the Power Switch and the Keyboard Extension Harness on the Main PCB.

3

Remove the top two rear cover screws (one on each side) and the bottom two cover screws. Open the printer door and remove the rear cover assembly.

Figure 3: Disconnect Harnesses

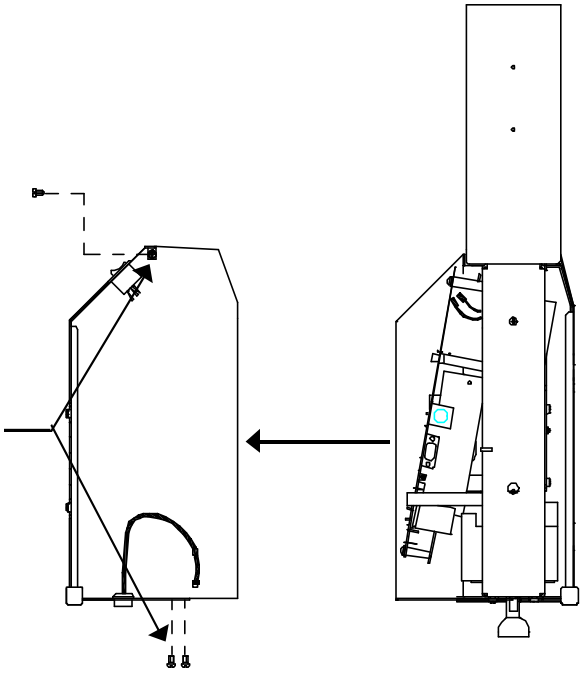

Figure 4: Remove Rear Cover Assembly

4

Remove the two screws securing the Main PCB. Disconnect the TNET Cable from the rear of the Main PCB. The TNET Cable is the 4-position phone plug next to the Display Harness Plug (8-position).

5

Lift the Main PCB slightly. Install the Ethernet PCB on the Main PCB at connectors J12/J20. Connect the Ethernet Cable (taped to the inside frame) to the Ethernet PCB at J1. Secure the Ethernet PCB to the Main PCB using the L-bracket on the Ethernet PCB and the screw on the Main PCB.

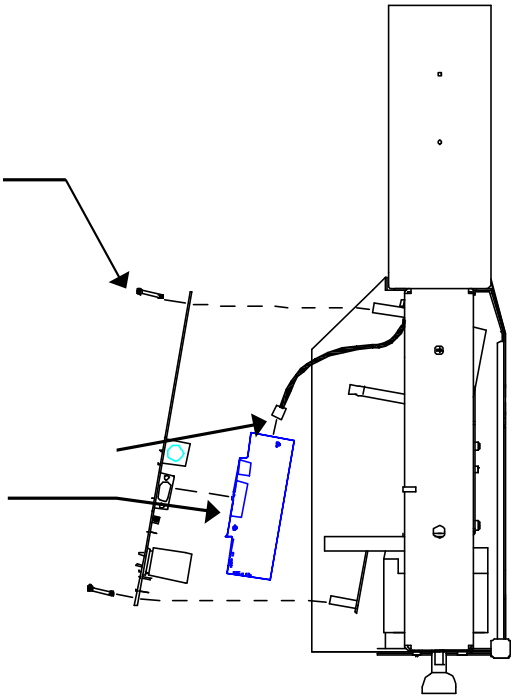

Figure 5: Install Ethernet PCB

6

When complete, re-install the Main PCB. Re-connect the TNET cable to the jack on the Main PCB. Make sure the keyboard harnesses are not pinched between the Main PCB and the mounting bracket and the harnesses are tucked into the clip on the frame (so they do not touch the load cell).

Re-install the Rear Cover Assembly. Re-connect the Keyboard Extension Harness and the Power Switch Harness (Figure 3). Do not install the left side cover yet.

Re-connect AC power the Model 2450 after re-assembly is complete. Proceed to the next section.

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The kit is shipped with a program diskette with the Ethernet software program for the Model 2450/8450/355. The new software must be flashed into the unit before it can be used on the Ethernet network. Copy the file on the diskette to a separate sub-directory on your hard disk drive of your PC. The program files are compressed and must be uncompressed before they can be downloaded to the scale. The files are self-extracting, requiring you to just type in the file name to uncompress them (example: 12345R). The new files created are the software program files (Example: 12345R.HEX) that are used with FLASHPRO (the downloader program
also on the diskette) to download the program into the unit.

Before downloading the software, turn the power switch on the Model 2450 to OFF. Connect the cable (shown in Figure 6) end marked PC to the PC's serial port and the other end to the Model 2450 AUX Port, located on the side of the unit (Figure 6). The FLASHPRO command line is as follows: FLASHPRO -Tfilename.hex (Replace filename.xxx with the actual file name on the distribution diskette. Example: FLASHPRO -t123456R.hex) If you get a DOS Bad command or file name error, check to make sure you have not mis-typed the file name (ex: FLASHPRO), and the file FLASHPRO.EXE is in your PC's path or current directory or on the distribution diskette.

Flashing The Model 2450

Press and hold the CAL Switch (see Figure 6), then turn the power switch to ON. Release the switch when the display shows Download Program on the Model 2450. Next, type in the command line on the PC and press ENTER. (If a UART Error is displayed, check that the cable is connected to COM1, and the correct cable is used.) FLASHPRO will display A's during the download process, (Acknowledgment). When the download is complete, FLASHPRO will display the message "File Transfer Successful".

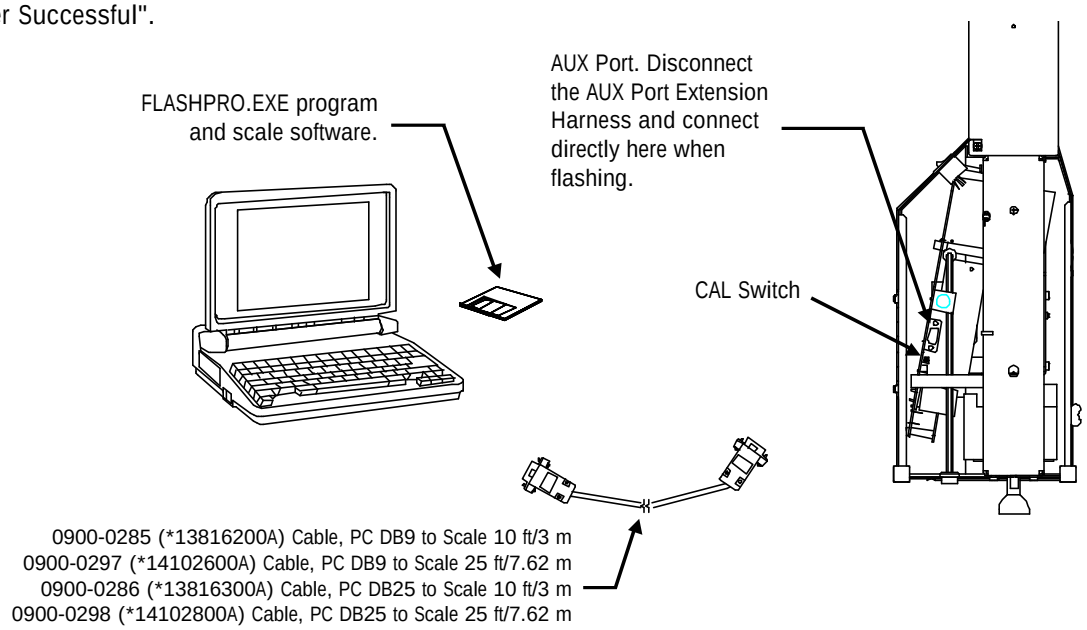

Figure 6: Flashpro Hardware

Configure the Model 2450

To find the Windows NT Server IP address, click START, PROGRAMS, then COMMAND PROMPT at the NT Server. Type IPCONFIG at the DOS prompt to display the IP address of the server. Write this number down. It will be used to enter the client configuration. Refer to the Model 2450 Service Manual for setup details. The Ethernet configuration is accessed by the UNIT ID key in setup mode.

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The following must be set up for the Ethernet network.

SCL? - The IP Address identifies the client on the network. The IP Address is a unique number consisting of four parts separated by periods. (Ex: 146.207.40.1)

GW? – Gateway IP address is used if the server is on a different network.

Use the following key sequence to set the client IP address and Gateway address. The example shows setting the IP address to 146.208.104.015.

Press:	SETUP
Press:	ENTER
Press:	UNIT ID
Display:	SCL 255.255.255.255
Press:	ENTER
Display:	SCL? 255.255.255.255 (SCL is this scale's IP.)
Key In:	146 208 104 015 (no spaces or .'s needed)
Press:	ENTER
Display:	Port 0
Press	ENTER
Display:	Port ? 0
Key In:	2305 (always set to this number)
Press:	ENTER
Display:	GW 255.255.255.255 (GW is the Gateway's IP.)
Press:	ENTER
Display:	GW? 255.255.255.255
Key In:	146 208 104 100 (no spaces or .'s needed)
Press:	ENTER
Display:	SCL 146.208.104.015 (where xxx shows the new number entered)
Press:	CLEAR to exit setup mode.

Turn power off and back on to reset the scale with the new data.

Ethernet Cable Connections

The 10 Base-T Ethernet Jack is located on the connector plate in the top support, as shown in Figure 7. 10 Base-T uses unshielded twisted pair (UTP) cabling of Category 3 (or higher) in a star topology. Each node on the network has its own cable that connects to a common hub (repeater). The cable from the node to the hub can be up to 100 meters (328 feet) in length. 10 Base-T requires the use of a hub. The hub serves as a central switching station that controls the incoming and outgoing signals. When using star topology if a station goes down it does not affect the rest of the network. Typically an RJ45 connector is connected to UTP cabling and is run straight from the hub to the device on the network. Pins 1 and 3 transmit data, and pins 3 and 6 receive data (the other pins are not used).

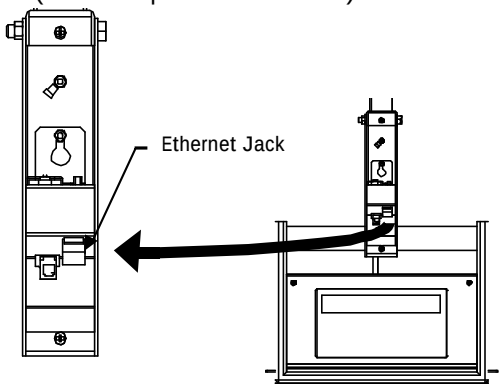

Figure 7: Model 2450 Ethernet Jack

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