METTLER TOLEDO®

Installation Instructions

0977-0051

Model: 8450/8461
Kit Number: 0977-0051
Description: Ethernet Interface Kit

Kit Description

This kit will convert the Model 8450/8461 (see Note 1) or Dead Deck versions with no remote scale interface requirements, to connect to an Ethernet Network using 10 Base-T wiring in a star or tree topology. The kit contents are shown in Figure 1.

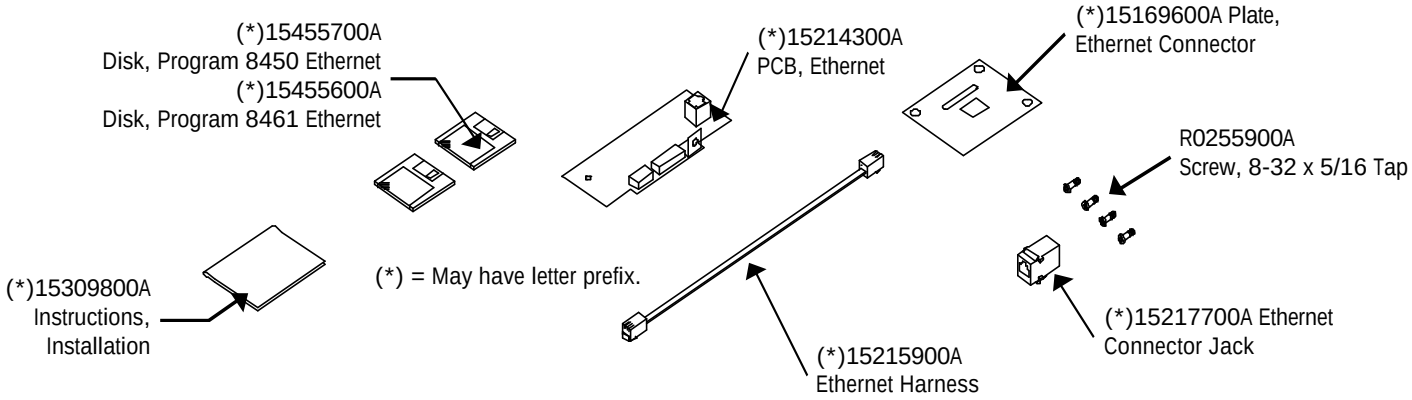


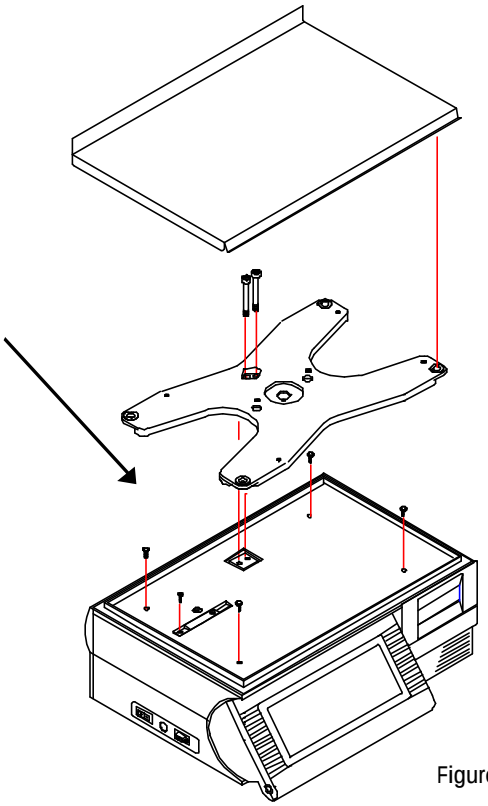
Figure 1: 0977-0051 Kit Contents

Kit Installation

Disconnect the AC power cord from the outlet before proceeding.

Note 1: The Model 8450 Main PCB must be P/N (*)15138700A or later. If the Main PCB P/N is (*)14475900A, order Upgrade Kit 0977-0054.

Remove the printer cover. Remove the platter and spider (on units with load cell) or the dead deck cover (on dead deck units). Next remove the top cover screws. Slightly lift the top cover and disconnect the customer and vendor display harnesses, then remove the top cover assembly.



⚠ WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

⚠ CAUTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.

Figure 2: Removing Covers

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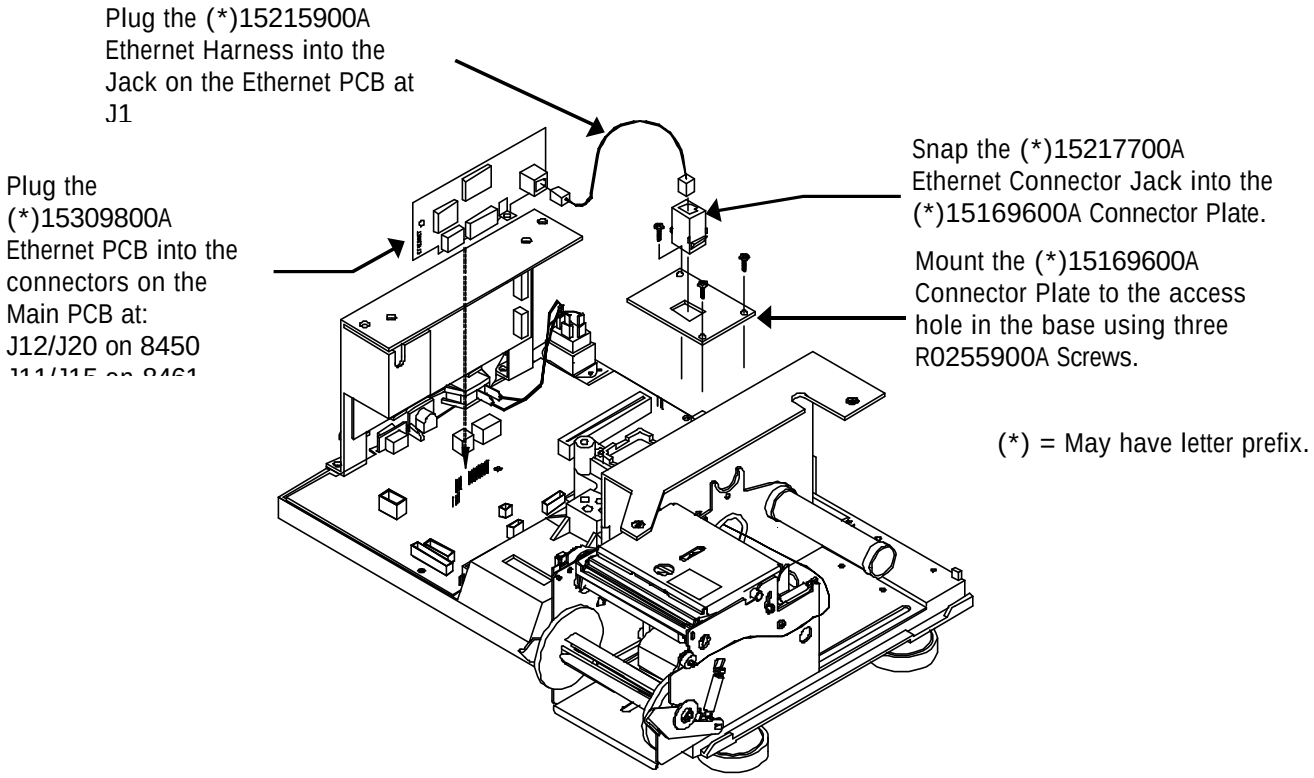

Figure 3: Installing Ethernet Kit

Reinstall the cover, spider and platter when the kit installation is completed. The kit is shipped with two program diskettes; one for the Model 8461 Ethernet Satellite, and one for the Model 8450 Ethernet Satellite. The new software must be flashed into the unit before it can be used on the Ethernet network. Copy the contents of the appropriate diskette, (*)15455600A for 8461 or (*)15455700A for 8450, 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 OFF. Connect the cable (shown in Figure 4) end marked PC to the PC's serial port and the other end to the Model 8450/8461 AUX Port, located on the side of the unit (Figure 4). 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 Client Software

Type in the command line on the PC, but don't press ENTER, yet. With power off, press and hold the CAL Switch (see Figure 4), then turn the power switch to ON. Press ENTER on the PC keyboard. Release the switch when the PC display shows ACKNOWLEGEMENT. (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".

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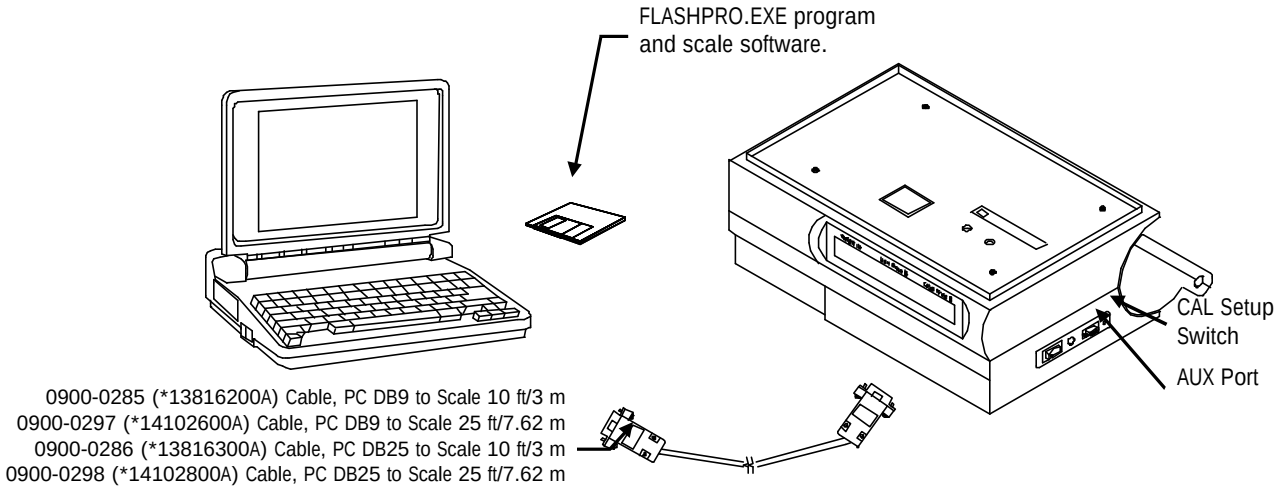

Figure 4: Flashpro Hardware

Configure the Model 8450

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 into the client configuration.

Refer to the Service Manual for setup details. The Ethernet configuration is accessed by pressing the SETUPMODE key, then the UNIT ID key. 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.

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Configure the Model 8461

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 into the client configuration.

Refer the Service Manual for setup details. The Ethernet configuration is accessed in the System Configuration Menu. Touch SETUP, UNIT, CALIBRATE/INSTALL to set the Ethernet addresses. The first selection on the System Configuration Menu is Unit ID The Unit ID is the IP number that identifies the client on the network. After entering the Unit ID IP address, you will also be asked to enter the IP address of the server. This is the number from the NT Server, as described in the previous paragraph.

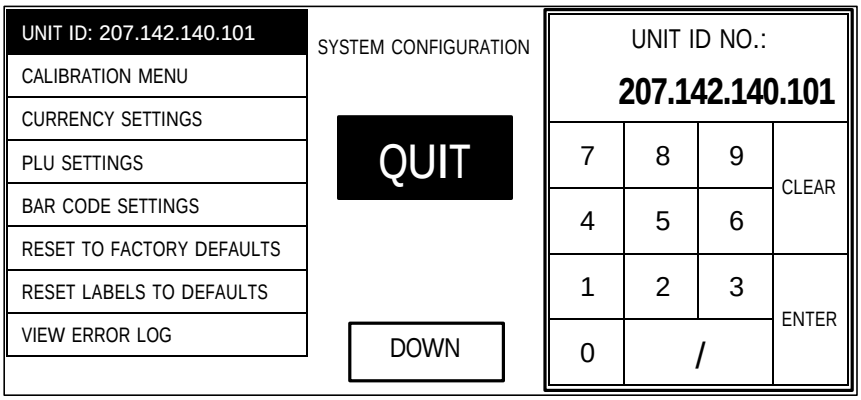
If the client/server network is local, arbitrary numbers can be selected for the IP Address. An IP Address consists of a group of four numbers from 0 to 255, separated by periods, for example: 207.142.140.101.
Do not duplicate numbers on the network. To enter the numbers in the Model 8361/8461, key in the numbers starting at the MSD (left Most Significant Digit) number. The periods are not entered in this procedure. Enter numbers lower than 100 with preceding zeros (Example: 10 is entered as 010). To exit without saving, touch CLEAR.

Power the unit down after changing the IP address for the new changes to take effect.

To find the Windows NT Server IP address, type IPCONFIG at the DOS prompt. The IP address of the server will be displayed.

Refer to Chapter 4, "Networking the Model 8461 Client" for additional information on IP address numbers and Ethernet.

The Client Unit ID Number is a unique IP number (Internet Protocol) that identifies the Client on the Ethernet network. After entering the Client Unit ID number, you must enter the Server IP number, Router (Gateway), and Subnet Mask (below). The figure below shows an example of how the IP address works.



Cable Connections

The 10Base-T Ethernet Jack is located on the bottom of the Model 8461/8450, as shown in Figure 5. 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).

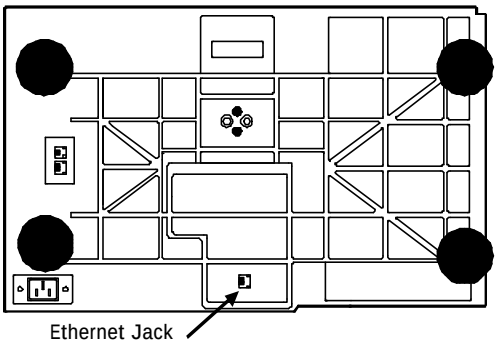


Figure 5: Ethernet Jack

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