Chapter 2 *Installing a Network*

This chapter describes how to set up several MIDI Time Pieces as a network. Because there are many possible setups, the first section explains the foundation of a MIDI network: connecting two MIDI Time Pieces together. You should read this section even if you have three or four MIDI Time Pieces because it explains in detail how you will connect them.

Installing two MIDI Time Pieces

MIDI Time Pieces are connected to one another via their network serial ports using one of the two mini-DIN 8 cables that ship with the MTP II.

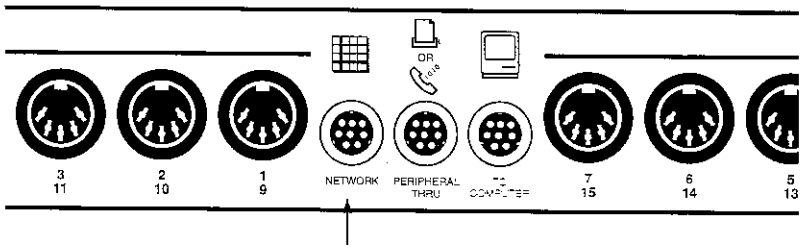


Figure 2-1: The network serial port on the rear panel

When two MIDI Time Pieces are networked together, they actually function as if they were one MIDI Time Piece with 16 MIDI INs and 16 MIDI OUTs, providing 256 separate MIDI channels!

One MIDI Time Piece becomes *Box 1–8* and is connected to the Macintosh in the same manner as described in the *Installation Guide*.

The second MIDI Time Piece, *Box 9-16*, is connected to Box 1-8 via the network serial port on each unit. When networked in this manner, each MTP can communicate with the other, and each can communicate with the Macintosh.

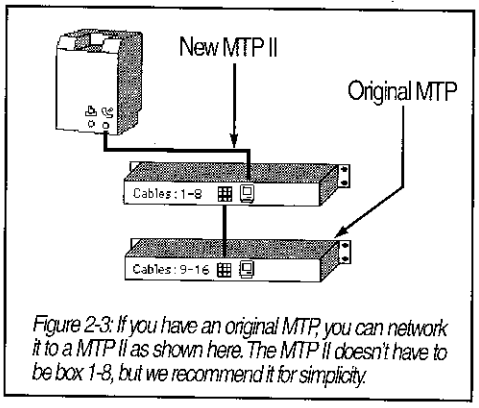


Figure 2-3: If you have an original MTP, you can network it to a MTP II as shown here. The MTP II doesn't have to be box 1-8, but we recommend it for simplicity.

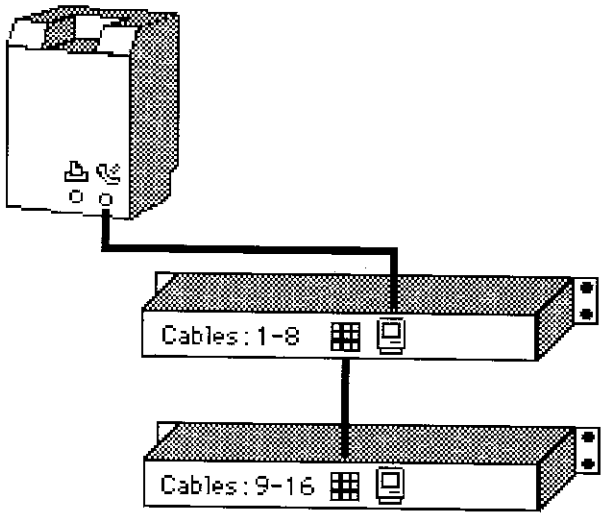


Figure 2-2: A network with two MTPs. The Mac serial port on Box 9-16 can be optionally connected to the printer port, a regular MIDI interface, or a second Macintosh.

To connect a network consisting of two MIDI Time Pieces:

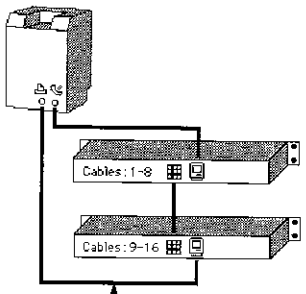
1. **Connect one MIDI Time Piece to the Macintosh as described in chapter 1, "Installation and Setup".**

   If you are networking a new MTP II and an original MTP, connect the MTP II in this step to make it box 1-8.

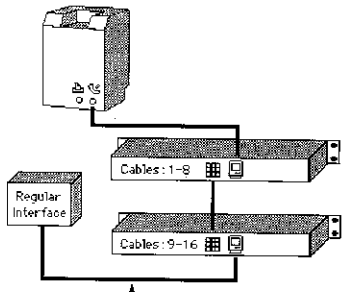
2. **Connect the second MTP to the first with a mini-DIN 8 cable via their network ports as shown in Figure 2-2 (or Figure 2-3).**

   This second box can be either a new MTP II or an original MTP. The MTPs are now "networked" together.

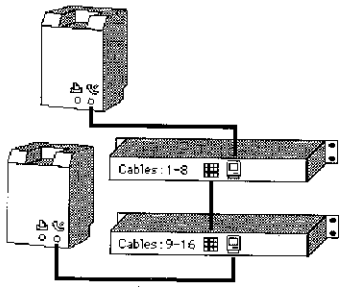
3. **(Optional) If you want, you can connect the computer port on the second box to one of the three options shown below in Figure 2-4.**



Option 1: connect the computer port to the printer port on the Macintosh. For cablizing software like Performer, you don't gain anything by making this connection, (except confusion, perhaps). We recommend only making this connection if you use MIDI software that requires the use of both serial ports.



Option 2: connect the computer port to a regular MIDI interface that you may have. This connection provides an additional 16 MIDI channels, as well as the additional MIDI INs and MIDI OUTs on the regular interface.



Option 3: connect the computer port to a second computer. Both computers have complete access to the entire MTP network.

Figure 2-4: You can make one of the three optional connections shown here with the computer port on box 9-16, regardless of whether it is an original MTP or a new MTP II.

☛ Please note: never try to connect three MTP II's directly to one another!

4. **Proceed to the next section, "Making the network settings on the MTP II", to make important network settings.**

Making the network settings on the MTP II

After you have networked two MTP's together, their network connections and box ID's must be set using the front panel controls.

Begin by following the procedure below on the MTP II that is connected to the computer (box 1-8). Then repeat the procedure with the second MTP II (box 9-16) if you have one connected:

1. **Switch on the MTP II that is connected directly to the computer (box 1-8).**

   When you switch on the MTP II for the first time, you'll see the following in it's liquid crystal display (LCD):

Figure 2-5

2. **Turn the WINDOW knob clockwise two clicks to the right, or if necessary, turn it back and forth until you see what is shown in Figure 2-6.**

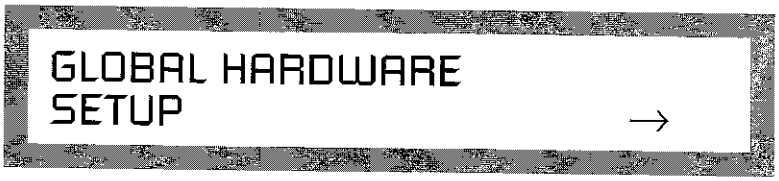


Figure 2-6

3. **Once you see Figure 2-6 in the display, turn the CURSOR knob clockwise two clicks.**

   Now you should see what is shown below in Figure 2-6, and the word "MAC" should be blinking to indicate that it can be changed with the VALUE knob.

Figure 2-7

4. **Turn the VALUE KNOB to the setting that describes what is connected to the network port on this MTP II.**

Choose this:	**If this is connected:**
MAC	A regular MIDI interface, or a Macintosh
MTP1	An original MTP
MTP2	A MIDI Time Piece II

5. **Once you have chosen the correct network connection above, turn the CURSOR knob clockwise one click.**

   Now the "1-8" will flash to indicate that it can be edited with the VALUE knob.

6. **Choose the appropriate setting (1-8 or 9-16) by turning the VALUE knob.**

   If you are currently setting up the first of two MTP II's in the network, choose 1-8. If you are setting up the second one, choose 9-16. You should end up with settings that match those shown in Figure 2-2 on page 24. Make sure that the box ID's on two networked MIDI Time Pieces are never the same. One MIDI Time Piece should always be set to Box *1-8* and the other to Box *9-16*.

You have completed the installation of a two-MTP network. If you have three or four MTP's, see "Connecting 3 and 4 MTPs" on page 28.

Connecting 3 and 4 MTPs

With three or four MIDI Time Pieces, the network is installed using the same basic procedures as for installing one or two MIDI Time Pieces. Two MIDI Time Pieces are connected to one Macintosh serial port, and then one or two more are connected to the other Macintosh serial port.

Please note: no more than two MIDI Time Pieces can be connected to each other. Therefore, the total number of MIDI Time Pieces allowed in a network is four. If you have three MIDI Time Pieces, two of them must be networked on one Macintosh serial port while a third is connected to the other port. Four MIDI Time Pieces are installed by connecting two networked MTPs, 1-8 and 9-16, to the modem port and two others to the printer port:

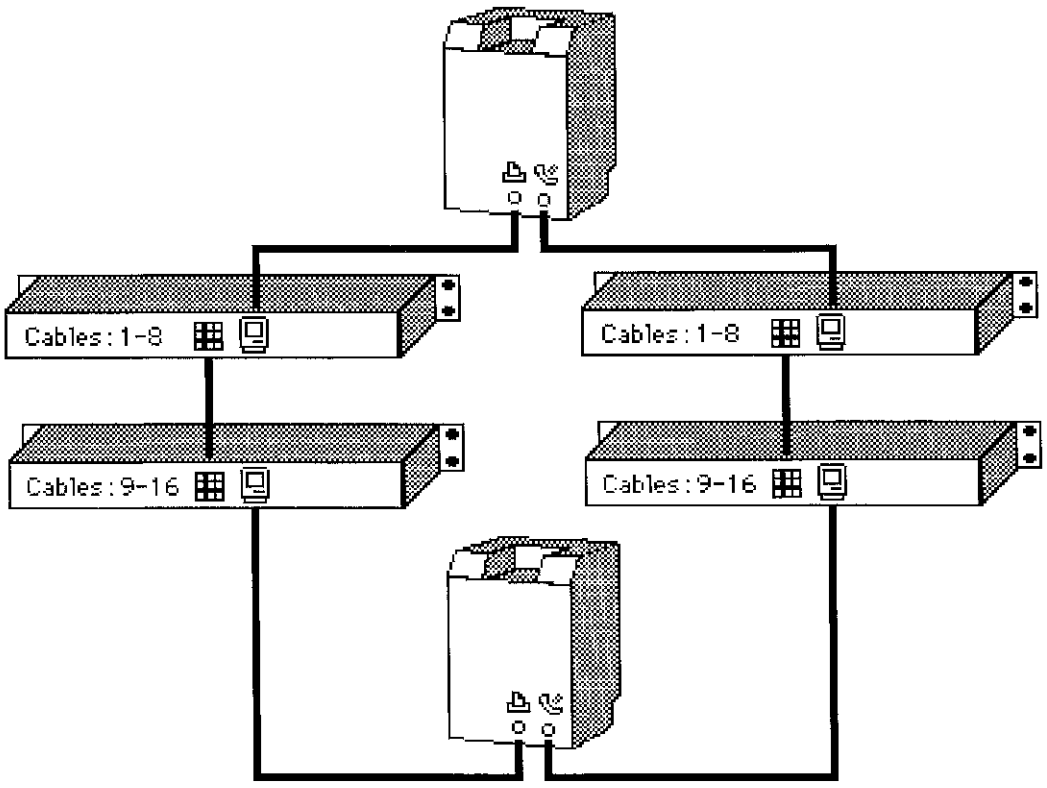


Figure 2-8: A full MIDI Time Piece network with four MTPs and two Macintosh computers. The second Macintosh is optional. This network provides 32 MIDI INs, 32 MIDI OUTs, 512 separate input channels, and 512 separate output channels. The cable between MIDI Time Pieces can be up to 1,000 feet long. The free Mac serial port on each Box 9-16 could alternatively be connected to a regular MIDI interface instead of a second Macintosh.

Connecting a second Macintosh

A two, three, or four-MTP network provides a free Mac port on each Box 9-16, which can be connected to a second Macintosh. Both computers have access to any cable in the network. MIDI software can run on both computers at the same time, and both programs can send and receive MIDI data on the network at the same time. The second Macintosh in a network is optional.

Connecting a regular MIDI interface

A MIDI Time Piece can transmit to and receive MIDI data from a regular MIDI interface that is connected as shown in Figure 2-10.

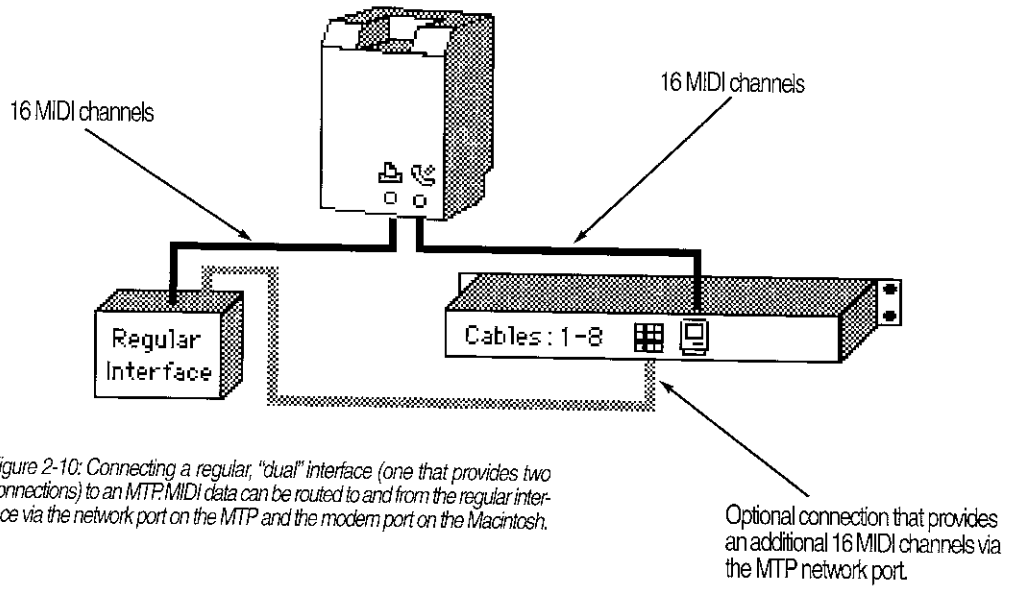
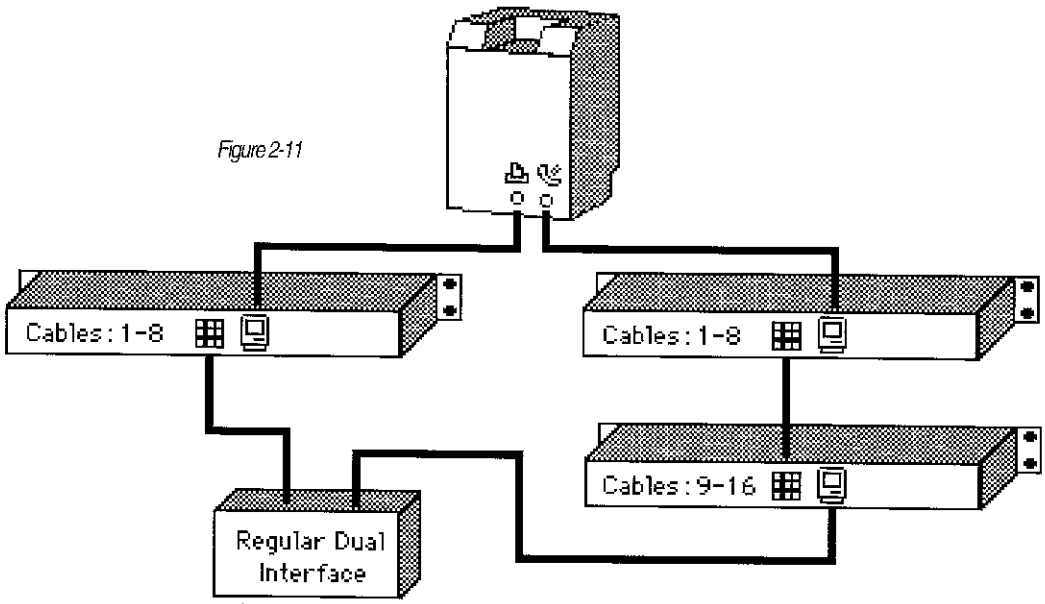


Figure 2-10: Connecting a regular, "dual" interface (one that provides two connections) to an MTP. MIDI data can be routed to and from the regular interface via the network port on the MTP and the modem port on the Macintosh.

Below is another example:

Figure 2-11



When a regular interface is connected to a MIDI Time Piece, it functions normally—just like when it is connected to a Macintosh. MIDI data from its MIDI INs is sent through the DIN-8 cable to the MIDI Time Piece. Conversely, MIDI data from the MIDI Time Piece network port can be sent to its MIDI OUTs. To learn how to route data to and from an interface connected in this manner, refer to "Making connections to a computer or other device connected to the network port" on page 45.

Checking the network

After you have read the next chapter and installed the MTP II Console software, you can us the *Network Configuration* window to check the status of your network. This window shows you how many MIDI Time Pieces are connected to the network, how they are connected together, and how they are connected to your Macintosh.