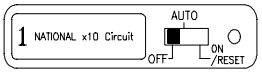
National Time x10 Clock Installation

The MC-100 is capable of controlling National Time and Signal x10 (10 times speed correction) clocks. It requires at least one clock circuit be used, and additional clock movements may utilize the auxiliary circuits. Therefore, one EXP-4 board may individually control four x10 clocks. The MC-100 will correct the x10 clocks in the event of power outages, daylight savings, and if necessary, for fluctuations in the AC power line frequency. The clocks are all individually correctable via each circuit control switch. For manual adjustments, the MC-100 will automatically calculate the amount of fast speed required to correct the clocks the desired amount. The desired amount of correction is entered by typing in the number of hours, minutes, and seconds using the numeric keypad.

1 **Mount the clock movement(s):**
Install the clock movement(s) and hands per instructions supplied with your particular model.
NOTE: Do not apply power to the MC-100 or clock movements until you are ready to set the clocks.

2 **Wire the MC-100 and clocks:**
Connect the MC-100 and the clock movements per wiring diagram supplied.

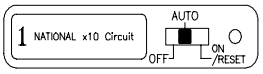
3 **Turn Control Switches OFF:**
Make sure all of the Circuit Control Switches are in the OFF position before applying power.



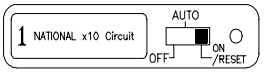
4 **Apply Power:**
Turn on main power (120VAC) to MC-100 and clock movement(s).
The time and date on the LCD display should be correct, if not, see SETTING TIME/DATE below.

5 **Determine correction needed:**
Observe position of the clock hands in relation to the real time. i.e. If the clock hands are at the 12:00 position and the real time is 4:36, the correction needed will be 4 hours, 36 minutes.

6 **Turn on clock movements:**
Beginning at the last circuit (circuit 4), slide all of the circuit control switches to the AUTO position. This will put the clock movements in normal speed.



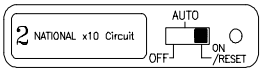
7 **Initiate a reset:**
Slide Circuit Control Switch 1 to the ON/RESET position until the Reset Menu appears. This is a momentary switch and it will return to the AUTO position automatically.



8 **Enter correction amount:**
Use the numeric keypad to type in the amount of correction needed for clock 1 in HHMMSS format. In this example, to advance 4 hours 36 minutes, enter 043600.

Press [ENTER] and clock movement 1 will begin to advance at 10 times speed.

9 **Repeat for each additional clock:**
Slide Circuit Control Switch 2 to the ON/RESET position until the Reset Menu appears.
The previous correction amount you entered will be displayed. If all the movements were at the same time initially, this is still the correct value. If they were not, type in a new value.



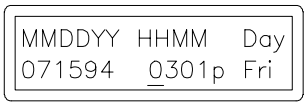
Press [ENTER] and clock movement 2 will begin to advance at 10 times speed.

Repeat for movements 3 and 4 (if they exist) by sliding their respective switches.

If additional circuits are to be utilized as auxiliary circuits rather than clock circuits, see the MC-100 User's Manual 'Programming Menu' section for event programming.

Setting Time/Date

If the time and/or date displayed on the LCD display is not correct, press [↓ SET DATE/TIME] to enter the set time menu.



Use the arrow buttons to move the cursor to the desired position. Use the number keys to enter the correct time and date. The down arrow button will toggle between **am** and **pm** when the cursor is at that position. Use the corresponding day of the week button to select the correct day.

Press [ENTER] when finished. If the clock movements need to be adjusted, see steps 7, 8, and 9 above.

NATIONAL TIME & SIGNAL CORPORATION 21800 Wyoming Ave. Oak Park, MI 48237 (248)380-6264