The configuration of the DLU and DLX Series Digital Clocks is accessed by using the buttons located at the front of each clock. The buttons are depressed by inserting a non-conductive instrument (like a tooth pick) into the two small holes on the front of the clock case. The MODE button (left) is used to enter the various configuration modes while the SELECT button (right) is used to choose the desired setting.


## Setting Time

The time may be manually set at each Clock by using the mode/select buttons on the front of each unit. Setting the time on the unit is usually reserved for stand-alone installations which are not connected to a Master Clock or when an individual clock is added to the system and it is not desirable to wait for the reset from the Master Clock. Any transmission from the Master Clock will override the time set at the clock.

## To set the time:

1. Press and hold the Mode Button until the hours flash on the display. (3 sec.)

2. Press the SELECT button once for each hour increment.
3. Press the MODE Button. The minutes will flash on the display.
4. Press the SELECT button to increment the minutes.

5. Press the MODE Button to return to timekeeping with seconds at 0 .


TIP: Set the minutes value to one greater than the actual time, when the actual time reaches your setting, press the LEFT (mode) button. This will set the time to the exact seconds desired.

## Configuration Mode:

The Configuration mode is entered by holding the MODE button until the display changes from the time to the first configuration setting (approximately 10 seconds).

## Configuration Settings:

While in the configuration mode, each configuration value is displayed and may be changed by pressing the SELECT button. Pressing the MODE button will display the next configuration value.


Hi xx: High brightness setting (where xx may be 0 to 9). This represents the brightness of the display while the lights are on. Care must be taken when using a centralized power supply that the current capabilities are not exceeded since the current requirement is increased with brightness.


Lo xx: Low brightness setting (where xx may be 0 to 9 ). This represents the brightness of the display while the lights are off. If the Auto-Dim feature is not desired, make the Lo setting equal to the Hi setting. A setting of 0 will turn off the display when the lights are off.

tt xx: Timer Type selection (DLU Only). This menu chooses the type of timer desired. Typical use is for class change timers in a school setting or down time displays in manufacturing. For clock only installations, set to 00. Type 01: The count down timer will be triggered by the Reset input. Type 02: The timer will count up while the Reset input is active.


Ft xx: Time Format (where xx may be 12 or 24 ) The time display format may be selected as either 12 hour or 24 hour (military time).

National

CF xx: Clock correction format. (Where xx may be 0 to 6)
CF 00: (DLU Default) This format will operate as formats $01,02,03,04$ and 05 simultaneously. The clocks will automatically adapt to any of the resets conforming to the descriptions 01-05 below. Selection of any other format will disable all formats except the one selected. MC-100 Actual Time resets are always enabled. Internal timekeeping during outages is disabled, power interruption resets to 12:00 (see CF:06).
CF 01: (DLU Only) 25 second pulse every hour at xx:00:00 (hour reset);25 minute pulse every 6:00:00 (12 hour reset). 24hr mode only at 6:00am
CF 02: (DLU Only) 2 second pulse each 12:00 (12 hour reset). 24hr mode reset occurs only at 12:00am (0:00:00)
CF 03: (DLX Default; 2-Wire Setup, On-Demand Resets) Short interruption of the run power of at least 0.25 seconds each 12:00
CF 04: (DLU Only) 8 second pulse every hour at xx:57:54 (hour reset); 14 second pulse each 5:57:54 (12 hour reset)
CF 05: (DLU Only) 55 second pulse every hour at xx:58:05 (hour reset)
95 second pulses every 2 minutes, first beginning at 5:05:00 and last beginning at 5:23:00 (12 hour reset)
Other similar 12 hour reset formats combining multiple hour resets between 5:00 and 5:30 may be substituted.
New or custom formats are often added. See Bulletin C-427 for a list of the compatible clocks and descriptions of new formats. CF 06: (DLU Default) Typical for 3-wire synchronous systems or stand-alone operation. This format will operate as formats 01,02,04,05 simultaneously. The clock will keep time internally for up to 4 weeks during power outages. When power is reapplied, the clock will display the correct time. This format is not compatible with the NATSCO D/DX/RDS reset scheme since the clock will not synchronize to 12:00 upon a short power outage. Choose CF 00 (3-wire) or CF 03 (2-wire) if combined on a NATSCO D/DX/RDS circuit.


Ad xx: Auto-Dim sensitivity level (where xx may be 0 to 9). This determines how dim the lights need to be to switch to the low brightness setting. The higher the number, the less dim the lights need to be to switch to the low setting. The best way to determine this setting is to lower the lights to the desired darkness, then adjust the Ad setting until the display switches to the low setting. The default value of 5 works for most installations.

td $\mathbf{x x}$ : Timer display (where xx may be 04 or 06). This menu selects 4-digit or 6-digit timer display. Set according to the clock display, DLU225/400 set to 04, DLU225-6/400-6 set to 06.

Ctdn: Count down menu. This menu will set the default duration for the count-down timer function.
 Four digit clocks can be set to countdown from a maximum of 59 minutes, 59 seconds. Six-digit clocks can be set to count down from a maximum of 99 hours, 59 minutes, 59 seconds. (The countdown is activated by the reset input when timer type (tt) is set to 01.) When Ctdn is displayed, press the right (Mode) button to enter the count down setting menu.

## Four-digit Clocks: Set the count down duration in MM:SS format.

1.Press the SELECT button to set the MINUTES

2. Press the MODE Button. The SECONDS will flash on the display.
3. Press the SELECT button to increment the minutes.

4. Press the MODE Button to return to menu.

Six-digit Clocks: Set the count down duration in HH:MM:SS format.
1.Press the SELECT button to set the HOURS

2. Press the MODE Button. The MINUTES will flash on the display. Set using SELECT button.

3. Press the MODE button. The SECONDS will flash. Set using the SELECT button.


bP xx: (where xx may be 0 to 99) Beeper menu. This menu sets the duration of the beeper (if installed) for the count down timer. The duration is selected in $1 / 4$ second increments, i.e. a setting of 4 equals 1 second. To disable beeper output, set to 00 .

| Tel: (248) 380-6264 - (800) 326-8456 - Fax: (248) 380-6268 - 280450akland OaksCourt•Wixom,MI48393 | www.natsco.net | BULLETIN C-493Rev B |
| :---: | :---: | :---: |
|  |  | Copywrigh National Time \& Signal 2010 |

