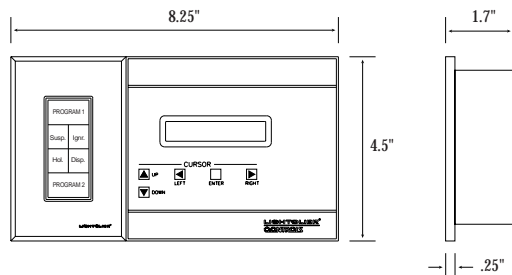


# COMPLI/BRILLIANCE II TIME CLOCK

Installation and  
Operation

## Dimensions



## Specifications

Input : 12VAC, Single Phase, 60Hz  
Output: 0.1 amps, 13 Watts  
Operating Temperature: 0 to 40° C

## 3 YEAR LIMITED WARRANTY

Lightolier Controls warrants that this product will be free from defects in workmanship or materials. This warranty is void on any electronic controls which have been overloaded, abused, improperly installed or altered in any manner. Lightolier Controls' sole obligation will be at its option to repair or replace any electronic controls product proven defective if it is returned postage-prepaid within three years of the date of shipment from Lightolier Controls to:

Lightolier Controls • 2413 S. Shiloh Road • Garland, Texas 75041

Lightolier Controls will not pay for any charge-back, or charge for labor on material that does not have its previous written approval. This warranty shall be in lieu of any other warranty — expressed or implied — including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts and do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Exchange of products covered by warranty should be handled through your original supply source.

This product may be covered by one or more of the following U.S. Patents: #4,413,211; 4,430,576; 4,465,956; 4,733,138; 4,792,731; 4,880,950; 4,988,840; 4,992,709; 5,128,654; 5,153,816; 5,189,259; 5,194,858; 5,371,439; 5,371,444; Des. 307,578; Des. 333,124; License 4,482,844 and corresponding foreign patents. Other Utility, Design and Foreign Patents Pending.

We reserve the right to change details of design, materials and finish, in any way that will not alter installed appearance or reduce function performance.

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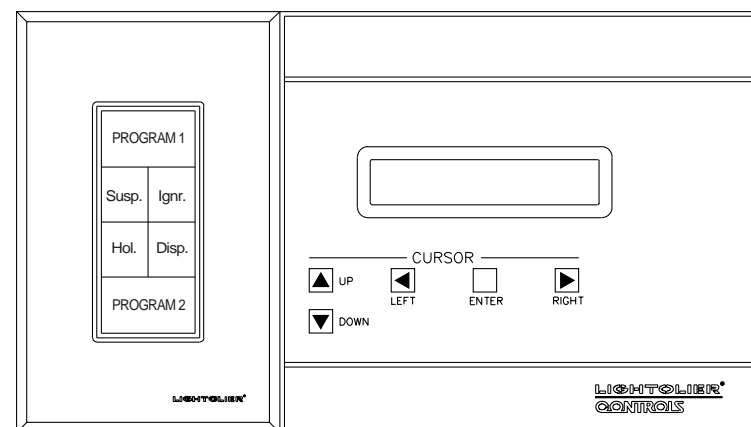
For technical/sales assistance call:  
1-800-526-2731

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# COMPLI TIME CLOCK - CL-TCCO BRILLIANCE II TIME CLOCK - BRTLCK

# LIGHTOLIER® CONTROLS

## INSTALLATION AND OPERATIONS MANUAL



## Time Clock - CL-TCCO Time Clock - BRTLCK

# COMPLI/BRILLIANCE II TIME CLOCK

## Description

The CL-TCCO and BRTLCK are programmable Time Clocks that automate scene changes for up to 26 Compli dimming systems or up to 26 rooms with the Brilliance II whole house system.

## Specification

The Lightolier® Controls Time Clock is a solid-state device to be used in conjunction with the Compli/MultiSet/MultiSet Pro dimming systems and Brilliance II whole house system in order to activate scene changes at the various Compli/MultiSet/MultiSet Pro/Brilliance II systems.

The Time Clock mounts in a four-gang rough-in box (supplied) and wires to:

MultiSet/MultiSet Pro	Single line voltage
Brilliance II	CAT 5 (2-twisted pair)
Compli	Belden #8777

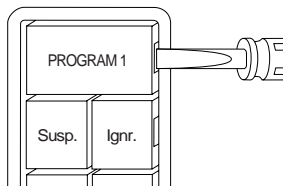
## Features

The Time Clock has the following basic features and capabilities:

- Accepts up to 512 different commands
- Performs two independent program sequences
- Each room/scene change can occur on any or all days of the week
- One-minute resolution between commands
- Programmable password prevents tampering by unauthorized users
- Commands can be programmed in two ways:
  - Astronomically (hours:minutes before/after sunrise/sunset)
  - By the time of day (hours:minutes, AM/PM)
- To facilitate viewing, the display illuminates during programming. However, if a button is not pressed for 60 seconds, the display automatically reverts back to its standard appearance.
- During power failure, programmed commands will remain in memory for approximately 10 years without the need for battery back-up. Time will continue to increment for 24 hours.

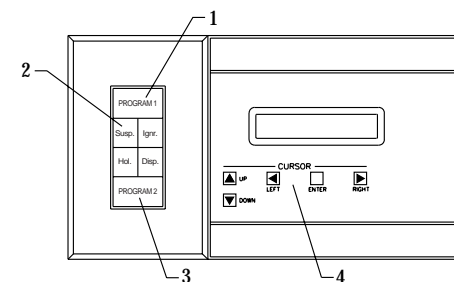
## Button labels

1. The buttons on the Time Clock are labeled at the factory. These labels can be changed easily to customize your system.
2. Insert a small screwdriver into the indentation on the outside of a button and carefully pry off the transparent plastic key cover. CAUTION: Pry from the outside edge, as shown. Do not attempt to insert screwdriver between the key covers.
3. A label sheet has been provided to you. Remove the factory label and insert a selected label into the plastic key cover.
4. Snap the cover back over the button housing by pressing firmly on the plastic key cover.
5. Repeat steps 1-4 for all of the buttons you wish to label.

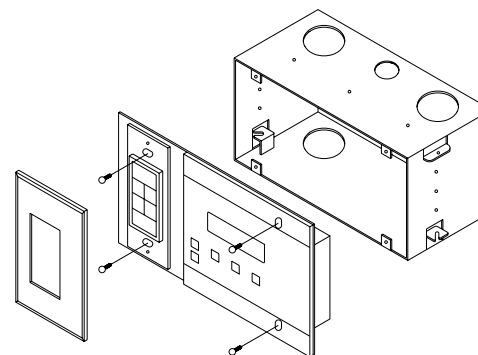


## Controls

- **PROGRAM 1 PUSH BUTTON [1]**  
Pressing PROGRAM 1 will activate the first preprogrammed sequence.
- **FUNCTION PUSH BUTTONS [2]**  
Selected functions may be activated by pressing any of the four FUNCTION buttons. (See page 5)
- **PROGRAM 2 PUSH BUTTON [3]**  
Pressing the PROGRAM 2 button activates the second preprogrammed sequence.
- **CURSOR CONTROL PUSH BUTTONS [4]**  
The UP, DOWN, LEFT, RIGHT and ENTER buttons may be used to select programming functions.



## Installation Procedure



### WARNING

To avoid fire, damage to the controls, shock or serious injury turn off power at fuses or circuit breakers and test the circuits to make sure that power is off before wiring. Use only recommended wire. It is recommended that qualified electrician perform this installation.

1. The Time Clock mounts in the 4-gang rough-in box supplied to you with this information.
2. Connect the Time Clock according to the wiring diagram on page 4. Be sure all terminals are tightened and that no bare copper is exposed. For BRTLCK see separate page (P/N 85-1055).
3. After all units have been installed and the system has been fully programmed and tested, carefully place all wires into the rough-in box and screw the Time Clock in place using the four mounting screws provided.
4. Snap on the faceplate.

## Wiring

### Compli

Signal	Scenist	Lytemode	Remote	CL-TCCO
Net #1	1	1	1	1
Shield	2	2	2	2
Net #2	3	3	3	3
Volts DC		5	5	5
Ground		4	4	4

Does not apply to Brilliance II Time Clock.

Diagram 1

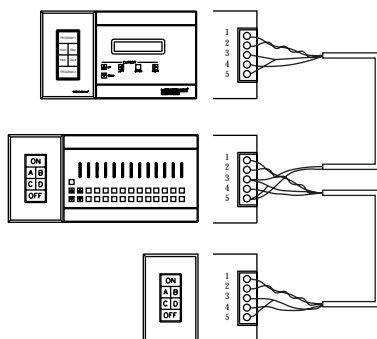
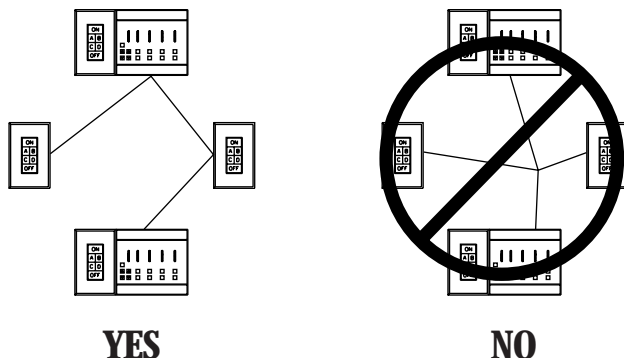


Diagram 2



### Wiring Notes:

All systems require appropriate feeds and load wiring in accordance with NEC and local electrical code requirements.

- Every network device should be corrected to IAN as illustrated using Belden #8777 cable. Compli Lytemode and Network remotes are connected with four wires and the shield as shown.
- Compli Scenists are connected with only two wires and the shield. Compli Scenists do not have connector 4 or 5. An additional pair of conductors is provided with this cable as a spare.
- Consult your installation "Instruction Booklet" for point to point interconnection wiring diagram.
- In Network installations that have only Compli Scenists and Network Remotes, a CL-AVPS is required to power the Network Remotes.
- All cable should be run in a "daisy-chain" style, from one unit to the next and to the next. Cables should not be run "home-run" style. (See diagram)
- BCC II wires to Time Clock via Cat 5 wire. See separate page included for the BRTLCK (P/N 85-1055).

## Basic Operation

Included with these instructions are flow charts to help guide you through step-by-step programming of the clock. Please refer to these charts as you progress through the following instructions.

### 1 BECOMING FAMILIAR WITH THE TIME CLOCK

In normal operations, the Time Clock will show a standard display reading which consists of the time, date and day of the week.

12:45 PM  
7/7/99 WED

### 2 FRONT PANEL PUSH BUTTONS

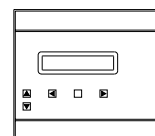
Front-panel push buttons permit selection of the following functions:



- PROGRAM 1** Allows you to recall a series of scene changes that you have programmed during "Set Room Change" on the clock menu. All scene changes with Prg. 1 will be performed.
- SUSPEND** When illuminated, the Time Clock will not send out any scene change commands.
- IGNORE** When illuminated, the Time Clock will not execute (skips over) the **next** scheduled command. When the command has been skipped, this function will turn off automatically.
- HOLIDAY** When illuminated, the Time Clock will, at midnight (12:00 AM), begin executing the Holiday schedule of the current schedule- Program 1 or Program 2. This function will turn off at this time also. (Note: This button does not need to be pressed if tomorrow is programmed as a holiday. Programmed holidays are handled automatically. The purpose of this button is to instruct the Time Clock to execute the holiday schedule for a day that is not currently programmed to be a holiday.)
- DISPLAY** When pressed, illuminated LCD window indicates time of day and date.
- PROGRAM 2** Allows you to recall a series of scene changes that you have programmed during "Set Room Change" on the clock menu. All scene changes with Prg. 2 will be performed.

### 3 TIME CLOCK MAIN MENU

To shift to the Time Clock's main menu, press either the LEFT or RIGHT arrow button. (NOTE: You may have to enter a password if the password feature has been enabled. See Programming, section 5.6 on page 10.) Five different functions can be accessed from the main menu:



Set room change  
Review room change  
Delete room change  
Configure clock  
Display clock

Press the LEFT or RIGHT button until the function you want is listed on the display. Then, press ENTER.

EXAMPLE: If you want to create a new room change command, press the LEFT or RIGHT button until "SET SCENE CHANGE" appears on the display. Follow by pressing ENTER.

## Programming

**1 SETTING ROOM CHANGES**

The Time Clock can accept up to 512 commands. Each command is defined as a “room change.” Each room change can be programmed to occur with one-minute precision and can occur once a week, several days each week, on holidays, or every day.

SET  
ROOM CHANGE

- A. Press ENTER.

8:45 PM

- B. Use the UP, DOWN, LEFT and RIGHT buttons to input the time at which you want the room change to occur. Use the UP and DOWN buttons to select AM, PM, B/RISE (before sunrise), A/RISE (after sunrise), B/SET (before sunset) or A/SET (after sunset). Press ENTER.  
EXAMPLE: If the display shows 1:30 B/SET, the room change will occur one hour and 30 minutes before sunset.

8:45 PM  
MTWTF SS H

- C. Use the UP and DOWN buttons to select Program 1 or 2. Use the LEFT and RIGHT buttons to select days. **Uppercase** letters indicate that the room change will occur on that day. **Lowercase** letters indicate that the room change will not occur. Use the UP and DOWN buttons to change from uppercase to lowercase or vice versa. (NOTE: “H” indicates holiday programming.) Once you’ve selected the days for a specific room change, press ENTER.

8:45 PM  
SCENE = ON

- D. Use the LEFT and RIGHT buttons to select the scene letter designation. NOTE: The letters “A” through “L” correspond to the MultiSet/MultiSet Pro systems.

ROOM = abcdefghi

- E. Use the UP, DOWN, LEFT and RIGHT buttons to select the rooms to be changed. Upper case rooms will be changed. Press ENTER.

CORRECT?  
YES

- F. If a mistake is made during programming, use the UP or DOWN buttons to select “NO.” Then, press ENTER. Otherwise, just press ENTER.

DONE?  
YES

- G. To continue entering commands, use the UP or DOWN button to select “NO,” and press ENTER.

**2 REVIEWING ROOM CHANGE**

To review and verify that room changes have been programmed, follow the steps below:

REVIEW  
ROOM CHANGE

- A. Press ENTER.
- B. Use the LEFT and RIGHT buttons to scroll through all of the programmed room changes. The display (to the left) indicates that the programmed room change being reviewed will occur every day except holidays at 8:45 PM and will go to the “ON” scene.
- C. To review the rooms that will be changed during a particular programmed change, press the UP button. To return to the previous screen, press the DOWN button. When you’ve finished reviewing the room change commands, press ENTER.

ON 8:45 PM  
MTWTF SS h

ROOM = ABC

**3 DELETING ROOM CHANGES**

To delete a room change that has been programmed, follow the steps below:

DELETE ROOM  
CHANGE

- A. Press ENTER.
- B. Use the LEFT and RIGHT buttons to scroll through the room changes. When the display lists the room change you want deleted, press ENTER.
- C. If you don’t want to delete this room change, use the UP or DOWN button to select “NO,” and press ENTER. Otherwise, just press ENTER.
- D. If you want to delete additional room changes, use the UP or DOWN button to select “NO.” Then, press ENTER. If finished, just press ENTER.

ON 8:45 PM  
MTWTF SS H

DELETE?  
YES

DONE?  
YES

**4 DISPLAY CLOCK**

To return to the time and date display, follow the steps below:

DISPLAY  
CLOCK

- A. Press ENTER. Pressing enter when this is displayed will put you back to the main display with the time, date and day.

**5 CONFIGURING THE CLOCK**


**CONFIGURE  
CLOCK**

Move the Time Clock into the configure clock menu by pressing the LEFT or RIGHT button until "CONFIGURE CLOCK" is listed on the display. Then, press ENTER. Again, to move anywhere within the Configure Clock menu, use the LEFT or RIGHT button.

There are 9 functions in the Configure Clock menu:

- |                    |                       |                     |               |
|--------------------|-----------------------|---------------------|---------------|
| 1. Set time/date   | 4. Delete holidays    | 7. Set date type    | 10. Main menu |
| 2. Set holidays    | 5. Variation with sun | 8. Clear all events |               |
| 3. Review holidays | 6. Set password       | 9. Test outputs     |               |

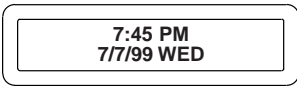
**5.1 SETTING THE TIME AND DATE**

To set the time or date, press ENTER after "SET TIME/DATE" becomes listed in the display. While in this mode, you'll set the day, date and time. **IMPORTANT NOTE:** Make sure the keypad button for Daylight Savings is set correctly before configuring the clock. When the button is illuminated it is in Daylight Savings mode.



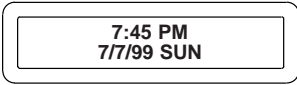
**SET  
TIME/DATE**

A. Press ENTER.



**7:45 PM  
7/7/99 WED**

B. Press the UP and DOWN buttons until the correct month is listed. Then, move the cursor using the RIGHT button, and select the date, year and the day in the same way you selected the month. When correct date is listed, press ENTER.



**7:45 PM  
7/7/99 SUN**

C. Use the UP and DOWN buttons to select the hour. Then, move cursor using the RIGHT button and select the correct minutes. Finally, select AM or PM using the UP and DOWN buttons. When correct time is listed, press ENTER.



**DAYLIGHT  
TIME**

D. Select either DAYLIGHT TIME or STANDARD TIME by pressing UP or DOWN. Press ENTER.

**5.2 SETTING HOLIDAYS**

The Time Clock allows a holiday schedule to be programmed. When a programmed holiday is reached the Time Clock will automatically switch over to the holiday schedule. Once a holiday has been set, it will remain indefinitely unless it is deleted. Floating holidays that change dates each year must be deleted and set as needed.



**SET  
HOLIDAYS**

A. Press ENTER.



**HOLIDAY  
0/00 m/d**

B. Use the UP and DOWN buttons to select the month and day of a specific holiday, using the LEFT and RIGHT buttons to move the cursor to the next digit. Once the month and day have been selected, press ENTER.



**DONE?  
YES**

C. Use the UP and DOWN buttons to select "YES" or "NO." "NO" allows you to enter additional holiday dates. "YES" transfers you back to the configure clock menu.

D. Press ENTER.

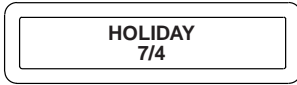
**5.3 REVIEWING HOLIDAYS**

To review dates that have been programmed as holidays, follow the steps below:



**REVIEW  
HOLIDAYS**

A. Press ENTER.



**HOLIDAY  
7/4**

B. Press the RIGHT or LEFT button to review the programmed holidays. When you've finished reviewing, press ENTER.

**5.4 DELETING HOLIDAYS**

To delete dates that have been programmed as holidays, follow the steps below:



**DELETE  
HOLIDAYS**

A. Press ENTER.



**HOLIDAY  
7/4**

B. Use the RIGHT and LEFT buttons to select the holiday you want to delete. Press ENTER.



**DELETE?  
YES**

C. If this is the correct holiday you wish to delete, press ENTER. If not, use the UP and DOWN buttons to select "NO," then press ENTER.

D. Select "YES" to go back to the main menu. Or, select "NO" to delete more holidays.



**DONE?  
YES**

E. Press ENTER.

**5.5 PROGRAMMING VARIATIONS WITH THE SUN**

To schedule events to occur relative to sunrise or sunset (i.e. 15 minutes before sunset) instead of at a fixed time (i.e. 6:00 PM) the Time Clock must be programmed with some information. First, determine today's sunrise and sunset times for your area. Your local newspaper should contain this information. Then look at the map on page 11 to determine which latitude listed is closest to your area.

VARIATION  
WITH SUN

A. Press ENTER.

45° NORTH  
LATITUDE

B. Use the UP and DOWN buttons to program your latitude (to within five degrees). Press ENTER.

TODAY'S  
SUNRISE - 5:30 AM

C. Use the UP and DOWN buttons and LEFT and RIGHT buttons to input the day's sunrise time. Press ENTER.

TODAY'S  
SUNSET - 8:30 PM

D. Use the same buttons again to input the day's sunset time. Press ENTER.

**5.6 DISABLING / ENABLING A PASSWORD**

If the Time Clock is in an open space where anyone can accidentally change the time or room commands, you may choose to enable a password. No one will be able to enter the main menu without the password. The password (213) is the same for all Time Clocks. If you forget the password, call Lightolier Controls for assistance at 1-800-526-2731. If you're not concerned about unwanted changes to the commands, we recommend that you disable the password. By doing so, you'll have one less step to complete when programming changes to the Time Clock.

SET  
PASSWORD

A. Press ENTER.

PASSWORD  
DISABLED

B. Use the UP and DOWN buttons to select disabled or enabled. Press ENTER.

**5.7 SET DATE TYPE**

It is possible to select the format for the date: AMERICAN (MM,DD,YY) or EUROPEAN (DD,MM,YY)

MM/DD/YY  
DATE TYPE

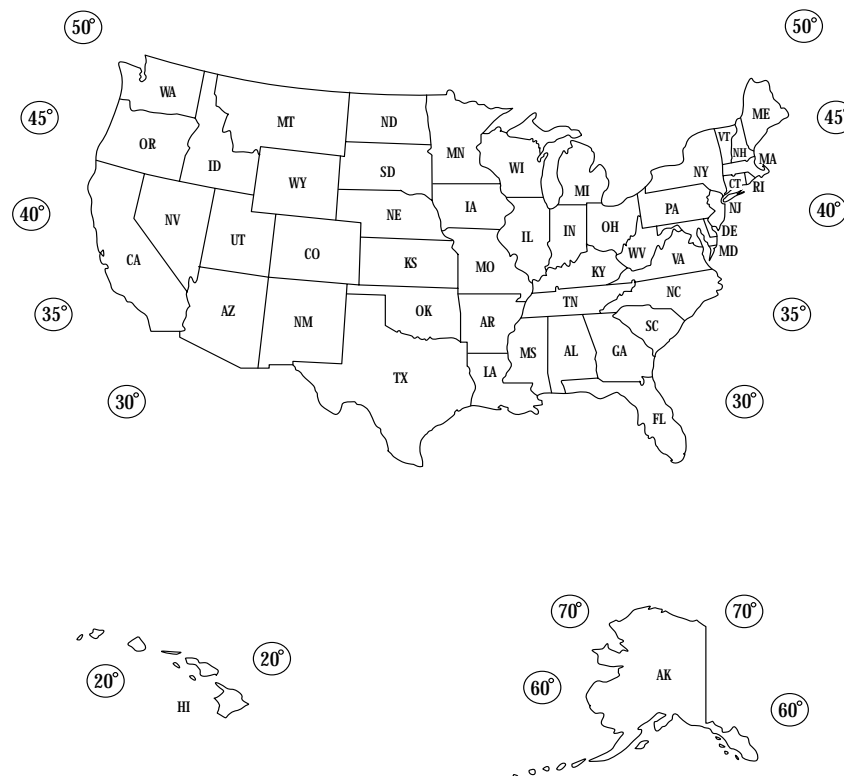
A. Press ENTER.

B. Use the up or down arrow to select the desired format.

C. Press ENTER to confirm and EXIT.

**LATITUDE ZONES**

All of the United States is in the Northern Hemisphere

**5.8 CLEARING ALL EVENTS**

**WARNING:** This function will ERASE all previous programming.

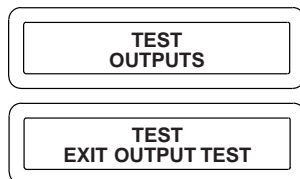
CLEAR ALL  
EVENTS

- A. Press ENTER.
- B. Use the UP or DOWN button to select "CLEAR ALL EVENTS."
- C. Press ENTER to confirm the clearing off all events and exit.

ARE YOU SURE?  
NO

**5.9 TESTING OUTPUTS**

Use this function to test room changes you have programmed into the Time Clock.



- A. Press ENTER.
- B. Press the UP or DOWN buttons to select the outputs you want to test.
- C. Press ENTER to confirm.
- D. At the end of the sequence, press ENTER to exit this function and return to the main menu.

**5.10 RETURNING TO THE MAIN MENU**

To exit the CONFIGURE CLOCK mode, complete the following sequence:



- A. Press ENTER.
- B. Use the RIGHT and LEFT arrow to select "MAIN MENU."
- C. Press ENTER to exit and return to the main menu.

**Master Unit Programming**

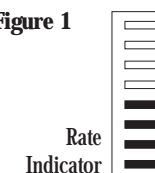
For the CL-TCCO to signal to the master unit(s) it is necessary to program it with the master Unit ID number. Multiple master units can respond to commands issued from one CL-TCCO. Please consult the COMPLI LYTEMODE MASTER Installation and Operation Manual for additional information. **NOTE: This section does not apply to the Brilliance II Time Clock.**

**ON THE COMPLI MASTER:****To Access**

- Hold down the Program button.
- Press OFF

**Indication on Rate Display**

Rate flashes the LAN Raise/Lower Remote assignment slot number. (See Figure A).

**Figure 1****Description**

Any COMPLI Lytemode master can be assigned Unit ID numbers one through thirty-one. **NOTE:** Only twenty-six codes are available for use with the CL-TCCO.

**Programming**

1. Press any Channel Up to increase the Master Unit ID code.
2. Press any Channel Down to decrease the Master Unit ID code.
3. The Unit ID code will be displayed in all the channel bar graphs in binary format (See Figure 2).

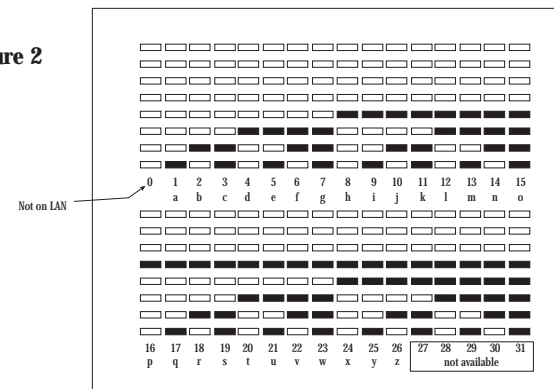
**Exit**

1. Press Set to return to normal operation.

**Example**

Set the COMPLI Master to Unit ID 8

1. Hold down Program button and press OK.
2. Press any Channel UP three times.
3. Press Set to exit.

**Figure 2**

Unit ID Displays on Bar Graph

**NOTE: This section does not apply to the Brilliance II Time Clock.**

**Installer's Notes:**

**Installer's Notes:**