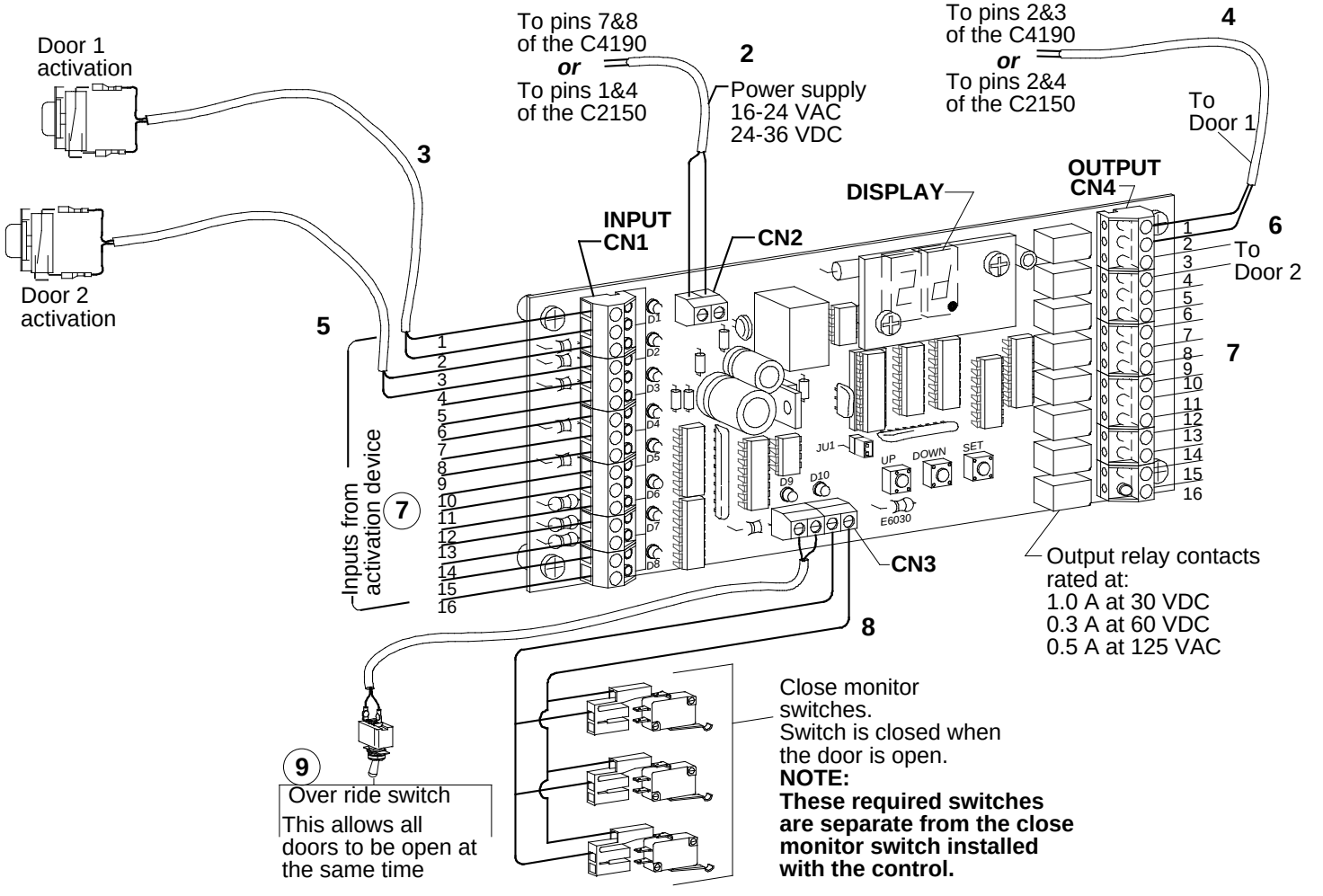
# C2270-1
# Universal Interlock Controller
## for Slide & Swing Door Operators
## SETUP INSTRUCTIONS

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### 1. BASIC SET UP PROCEDURES FOR ALL MODES OF OPERATION

***REFER TO WIRING LAYOUT ABOVE***

1. Mount the C2270-1 in one of the headers or in a remote location.
2. Provide power (16-24 VAC or 24-36 VDC) to CN2 on the C2270-1
3. Door 1, wire incoming activation device (push button, motion detector etc.) to CN 1 terminals 1 & 2.
4. Door 1, wire CN 4 terminals 1 & 2 to the activating input of the control. They are pins 2&3 of the C4190 or pins 2&4 of the C2150.
5. Door 2, wire incoming activation device to CN1 terminals 3&4.
6. Door 2, wire CN 4 terminals 3 & 4 to the activating input of the control. They are pins 2&3 of the C4190 or pins 2&4 of the C2150.
7. For 3 or more interlocking doors (modes 0,1,2 & 3 only) continue sequence in steps 5& 6for as many doors as are being interlocked.
8. Wire all close monitor switches to CN3 terminals 3 &4. The switches should close when the door opens and D10 should illuminate.
9. If an override is required, wire a controlling switch to CN3 terminals 1& 2.

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## 2. MODE SELECTION

The C2270-1 may be operated in any one of 5 modes.
A brief outline of the modes is provided below - followed by detailed setup instructions.

- All 5 modes utilize a series of, parallel wired, close monitor switches.
- Close monitor switches will provide the module with a closed circuit condition when any of the doors are open.
- Close monitor switches must be added to the door - and cannot be shared with any of the door control switches.
  - A 4000 swing door can use a C4285 close monitor switch.
  - A 7000 swing door can use a C7255-1 manual open check switch.
  - Slide doors can be ordered with an additional close monitor switch.

**MODE OUTLINE**

**Mode 0 (A 2 thru 8 door interlock with memory)**
- Time delay operation • Adjustable delay between activation and release to close
- Time delay features that replace the C2280-1 module. No storage of requests when in use
- Requests are memorized in the order received - no request can be in memory more than once at any time.

**Mode 1 (A 2 thru 8 door interlock <u>without</u> memory)**
- Time delay features that replace the C2280-1 module. No storage of requests when in use

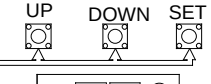
**Mode 2 (A 2 thru 8 door interlock <u>without</u> memory)**
- Latches the door in the open position
- This mode replaces the C2280-1 with C131-4 latch relays.

**Mode 3 (A 2 door <u>sequencing</u> interlock with memory)**
- Time delay operation
- Vestibule operation
  - -Door 1 opens on request and a request for door 2 is memorized. After door 1 closes door 2 opens without additional activation.
  - -If door 1 is requested after door 2 opens - door 1 will open after door 2 completes its cycle.
- This mode is an upgrade ofC2270

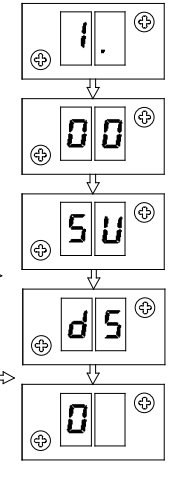
**Mode 4 (A 2 thru 8 door interlock with latch / latch override operation)**
- Allows door1 to be left in the open position until door 2 is requested - door 1 will then close and door 2 will open.
- This mode eliminates the need for transfer buttons on the security window.

## 3. INITALIZATION *The following procedure provides access to Mode set up*

**HOLD** all 3 buttons down during power up of the C2270-1. (Power up may be acomplished by interrupting power to the unit)




The display will show Version of software




**Setup** will display briefly

**Data Save** will display as long as the buttons are held down

**RELEASE** the buttons and zero will appear
This restores all factory defaults to Mode 0
- 2 thru 8 door memory interlock
- Open & close follow delays will be set to 1sec
- Latch timeout set to 1 minute
- Latch cancel is disabled

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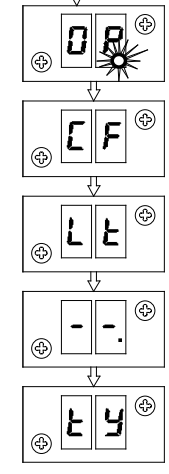
## 3. INITIALIZATION (cont)

To enter program mode - double click the set button while the control is in the idle. The program mode is indicated by


**Use the UP button to scroll through the following menu**




**O**pen duration time (will be discussed later)

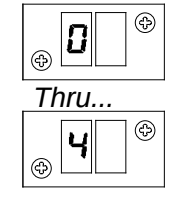
**C**lose **F**ollow (will be discussed later)

**L**atch **T**ime (will be discussed later)

6 spaces (push the UP button 6 times)

Mode Selection (**TY**pe)

**HOLD** the **SET** botton and push **UP** or **DOWN** to scroll through the mode numbers.




**Note:** the display stops at zero.
If the display does not change using the **UP** button, use the **DOWN** button.

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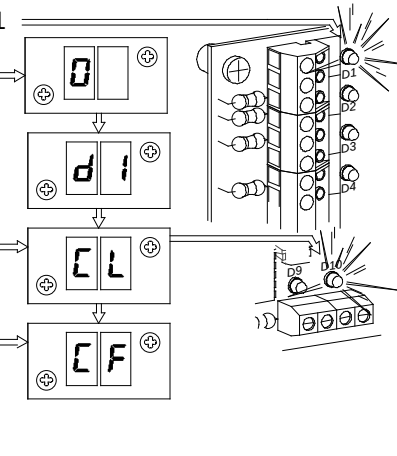
## 4. MODE SET UP INSTRUCTIONS

**MODE 0**

- Factory default is "0". This is what the display shows at the completion of the initialization. 0 is the idle condition for this mode.
- Press the activation button for door 1.LED D1 will illuminate
- The display will change from 0 to d1 indicating a time delay for door 1 the door will start to open.
- At the expiration of the time delay (see OP parameter sect. 6) the display will Change to CL which indicates door 1 has not completed its closing cycle. The close monitor switch is keeping D10 illuminated.
- When the close monitor switch releases, the display will change to CF indicating close follow time delay has started. (see CF parameter sect. 6)

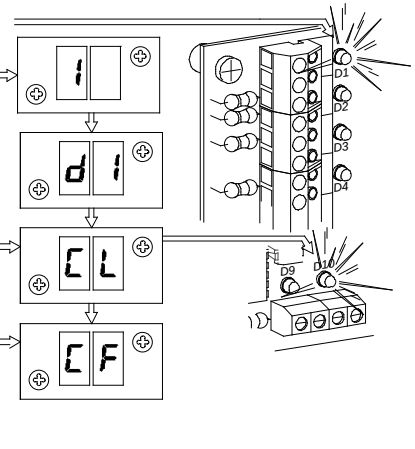



- If a request for any door is made while one door is open, the request is stored and then serviced when the door closes.

# MODE SET UP INSTRUCTIONS (cont)

## MODE 1

•Go to tY parameter and set to mode 1 (see section 3).
1 is the idle condition for this mode.
•Press the activation button for door 1.LED D1 will illuminate
•The display will change from 0 to d1 indicating a time delay for door 1 the door will start to open.



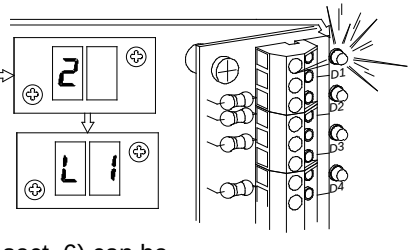

•At the experation of the time delay (see OP parameter sect. 6) the display will Change to CL which indicates door 1 has not completed its closing cycle.
The close monitor switch is keeping D10 illuminated.

•When the close monitor switch releases, the display will change to CF indicating close follow time delay has started.
(see CF parameter sect. 6)

•If a request for any door is made while one door is open, the request is ignored.

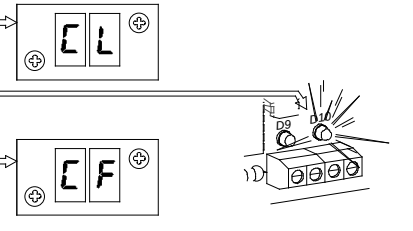
## MODE 2

•Go to tY parameter and set to mode 2 (see sect. 3).
2 is the idle condition for this mode.
•Press the activation button for door 1.LED D1 will illuminate
•The display will change from 2 to L1 indicating a latch condition for door 1.
•Door will be latched open until button for door 1 is pressed again.




•If required, a parameter (LC latch cancel, see sect. 6) can be set to release latch after an adjustable time delay. ( see sect. 6 to set Lt parameter)

•The display will change to CL indicating door 1 has not compleated its closing cycle.




• The close monitor switch is holding and D10 is illuminated.

• When the close monitor switch releases, the display will change to CF indicating that close follow time delay has started.
(See sect. 6 to set CF parameter)

•If a request for any other door is made while one door is latched, that request will be ignored and the request will have to be repeated at the end of the closing cycle

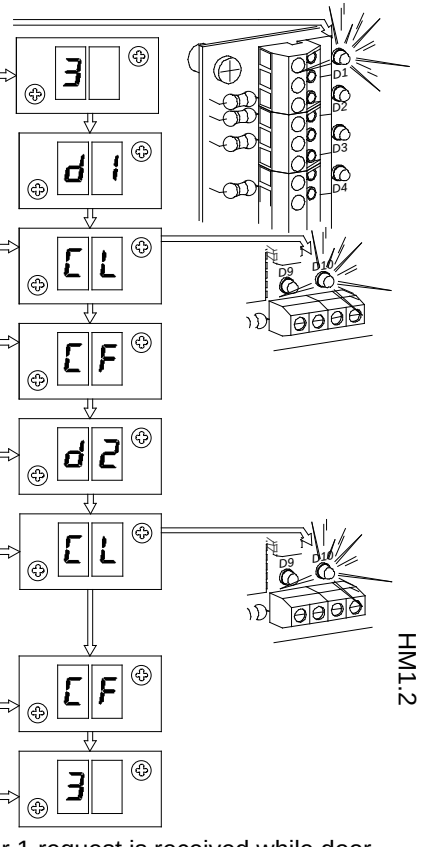
## MODE 3

•Go to tY parameter and set to mode 3 (see section 3).
3 is the idle condition for this mode.



## MODE 3 cont.

•Press the activation button for door 1.LED D1 will illuminate
•The display will change from 3 to d1 indicating a time delay for door 1 the door will start to open.




•At the expiration of the time delay (see OP parameter sect. 6) the display will Change to CL which indicates door 1 has not completed its closing cycle.
The close monitor switch is keeping D10 illuminated.

•When the close monitor switch releases, the display will change to CF indicating close follow time delay has started.
(see CF parameter sect. 6)

•When door 1 has closed d2 will be dislayed indicating a time delay for door 2, and door 2 will start to open.

•At the expiration of the time delay the display will change to CL which indicates that door 1 has not compleated its closing cycle.
The close monitor switch is keeping D10 illuminated.

•When the close monitor switch releases, the display will change to CF indicating close follow time delay has started.

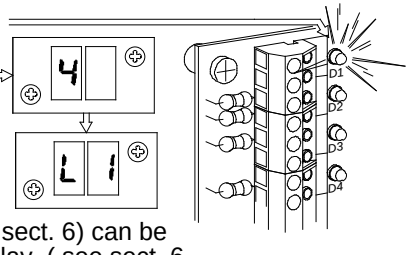
•When CF expires the display returns to 3

•Memory is implemented so that if another door 1 request is received while door 2 is buisy, the software will preform another door 1 cycle after door 2 concludes its current cycle.

•**NOTE:** In order to prevent entrapment, it is strongly recommended that at least one button (preferable both) be located in the vestibule when using mode 3 even though they are not needed in the sequenced mode.

## MODE 4

•Go to tY parameter and set to mode 4 (see section 3).
4 is the idle condition for this mode.
•Press the activation button for door 1.LED D1 will illuminate
•The display will change from 4 to L1 indicating a latch condition for door 1.
•Door will be latched open until button for door 1 is pressed again.




•If required, a parameter (LC latch cancel, see sect. 6) can be set to release latch after an adjustable time delay. ( see sect. 6 to set Lt parameter)

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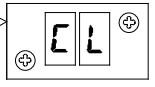
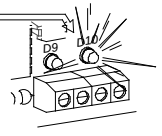
## MODE SET UP INSTRUCTIONS (cont)

**MODE 4 cont.**

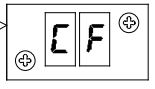
•The display will change to CL indicating door 1 has not compleated its closing cycle.




• The close monitor switch is holding and D10 is illuminated.




• When the close monitor switch releases, the display will change to CF indicating that close follow time delay has started. (See sect. 6 to set CF parameter)




•If a request for any other door is made while one door is latched, the open door will be unlatched. As soon as it is fully closed the requested door will opend and latched.

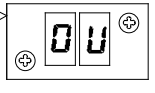
•Mode 4 will be used on C8300 security windows and will replace the C2280-1 and C131-4 moduals.

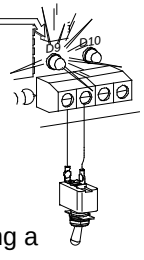
## 5. OVERIDE FUNCTION

•In time delay modes 0,1 and 3 interlock operation can be overridden by placing a contact on CN3 terminal 1 & 2, while the controller is on the **idle** mode.

• This will illuminate D9

• The display will change to OU



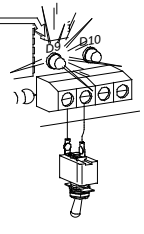




• At this time any request for any door will be passed straight through the control without regard for the close monitor switch and without any time delay for release.

•In latch modes 2 and 4 interlock operation can be overridden by placing a contact on CN3 terminal 1 & 2, while the controller is on the idle mode.

• This will illuminate D9

• The display will change to OU


• At this time any request for any door will be passed straight through the control and that door will be latched open without regard for the close monitor switch.

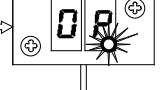
## 6. PARAMETER SETUP

To enter program mode - double click the set button while the control is in the idle. The program mode is indicated by


**To save parameters, hold the set button for 5 seconds from the idle mode**

**Use the UP button to scroll through the following menu**

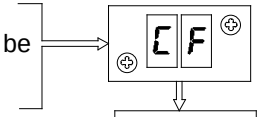
**OP**en duration time - determines the time in seconds that the output will be held (holding the door control activated) after the release of the input buttons. This may be left at factory default of 1 second and the time delay adjusted at the control.



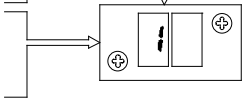

• To change parameter hold the set button, which will display the current setting.

• Push UP or DOWN to adjust the time


**C**lose **F**ollow extends the time when the control rejects open requests to allow the door to fully close. This may be left at the factory default of 1 second unless the close monitor switch cuts out before the door is fully closed.

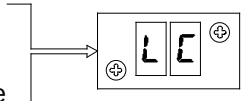



• To change parameter hold the set button, which will display the current setting.

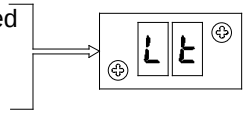



• Push UP or DOWN to adjust the time

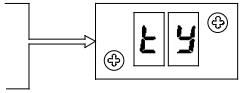
**L**atch **C**ancel determines whether a door can be latched open indefinitely or not. if latch cancel is turned on (factory default is off), a door that is latched open will be automatically unlatched after a period determined by the **LT** parameter. This parameter is only used in mode 2&4.




**L**atch **T**imeout determines how long a door will be latched open **IF LC IS TURNED ON**. Time is in minutes, not seconds.
**LT** is only used in mode 2 or 4 and LC is turned on.

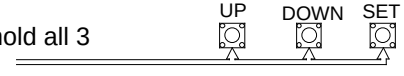



**TY**pe mode selection determines operating mode of control - see sect. 3




• The jumper block is not used at this time

• To restore factory defaults, press and hold all 3 bottons while powering up the C2270-1

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