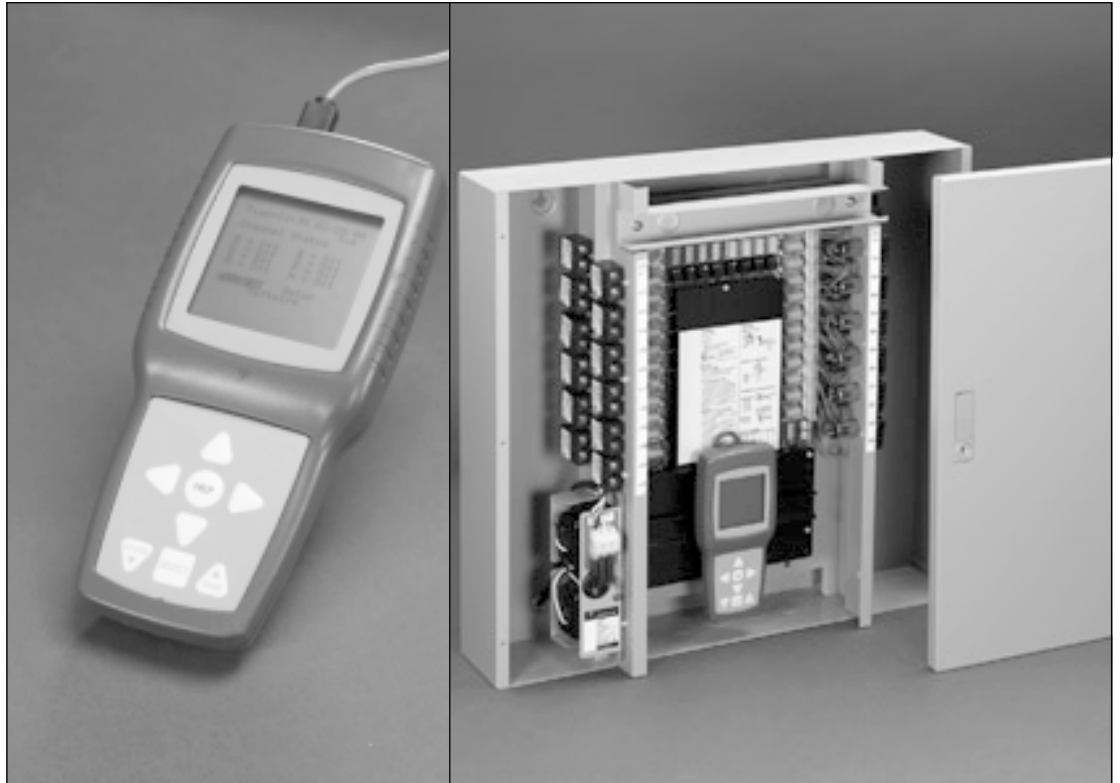




## GE Total Lighting Control

ProSys Lighting Control System  
Catalog Number RCLK8PS

### ProSys™ Softwired Clock



#### DESCRIPTION

The ProSys Lighting Control System is a small network of relay panels and occupant control switches linked by a 4-wire dataline. Together these devices form a reconfigurable switching platform — one that uses “softwiring” instead of hardwiring to link occupant switches to relays.

The Softwired Clock (RCLK8PS) adds scheduling capability to this switching platform. It simply mounts to the DIN rail in any relay panel and then plugs into the dataline. The Clock provides global scheduling of up to 8 different lighting groups using proven lighting automation scenarios typically available only in PC-based systems.

The RCLK8PS can also be used as a hand-held programmer for the softwired switches.

#### FEATURES

- Eight automation channels
- Four user-selectable automation scenarios
- Astronomical and standard time functions
- 8-line graphical display
- Menu-driven data entry
- EEPROM data storage
- 10-year battery backup on clock
- 7-day repeating schedules with holidays
- Blink warnings and protected timed overrides

**Before starting, read the following installation instructions. If you have questions, call GE Total Lighting Control Service at:**

**1-877-584-2685 (LTG-CNTL) in the USA and Canada.**

**SOFTWIRED CLOCK OPERATION**

In a ProSys Lighting Control System, relays and their associated lighting loads may be “softwired” — or grouped for common control — to any combination of eight channels in the relay panel, or to a button of a dataline switch. When there is no Softwired Clock in a system, relay groups may be controlled manually by a wall switch, or automatically by a sensor, building automation system interface or other interface.

When a Softwired Clock is added to the system, (only one Softwired Clock can be used per ProSys system) the eight channels A-H have the capability to become “global” — or system-wide — automation groups. Relays grouped to Channel A in Panel 01 and relays grouped to Channel A in Panel 02 can be automated as a single global group.

With the Clock, the user may assign an automation “scenario”

to any channel. The type of scenario chosen depends on how the space in the building is to be used. Questions the user should ask include: Is it an interior or exterior space? Should occupants turn lights on when they arrive, or should lights turn on automatically? Do occupants need to be warned when lights are about to turn off? Should exterior lighting stay on all night, or turn off after the building is closed?

Scheduling the groups is simplified through an occupied/unoccupied approach. Lighting events happen based on whether the area is scheduled to be occupied or unoccupied at any given time. For exterior lighting, ON/OFF events may also depend on whether or not it is “dark” outside.

Since there are a total of eight global channels, careful thought must be given to which groups of relays share common scheduling and automation scenarios.

**AUTOMATION SCENARIOS**

Each channel may be assigned any one of four different automation scenarios as follows:

**Scenario 1: Scheduled ON/OFF**

(Interior Lighting)

A relay softwired to a channel assigned this scenario will turn ON whenever the building is scheduled to be occupied and turn OFF when the building is scheduled to be unoccupied. As an option, the lights will blink to alert occupants five minutes before the scheduled OFF. Any dataline switch button controlling that relay will also begin to flash. Pressing the switch button will stop the flashing and a timed delay will be applied to the relay, overriding the scheduled OFF.

Data required by the Softwired Clock:

- A. Occupancy time by day of week
- B. Time Delay (in 10-minute increments, up to 4 hours)
- C. Flick Warn (in 1-minute intervals, up to 30 minutes)

**Scenario 2: Manual ON/Scheduled OFF**

(Interior Lighting – Alternate)

A relay softwired to a channel assigned this scenario will not turn ON until turned ON by an occupant. During unoccupied periods, this scenario acts the same as Scenario 1 and the same data is required by the Clock.

**Scenario 3: Astro ON/OFF**

(Exterior Lighting – Security)

A relay softwired to a channel assigned this scenario will turn ON when it is dark outside and turn OFF when it is light.

“Dark” is defined by the user as a number of minutes before or after sunset. The Clock uses an astronomical function to determine when sunset and sunrise occur. It does not compensate for rainy or overcast days.

Data required by the Softwired Clock:

- A. Building location (nearest city/state or province)
- B. Time in minutes before or after sunset that the lights should turn on (They will turn off symmetrically relative to sunrise – example: 30 minutes **after** sunset / 30 minutes **before** sunrise)

**Scenario 4: Astro ON/Scheduled OFF**

(Exterior Lighting – Parking Lots/Signage)

A relay softwired to a channel assigned this scenario will turn ON whenever it is dark outside **and** the building is occupied. It will turn OFF when the building is scheduled to be unoccupied.

Data required by the Softwired Clock:

- A. Building location (nearest city/state or province)
- B. Occupancy time by day of week
- C. Time in minutes before or after sunset that the lights should turn on (They will turn off symmetrically relative to sunrise as above)

**SELF-INSTALL AND SOFTWARE-INSTALL MODES**


If you have purchased the ProSys Lighting Control System (the stand-alone system), the devices (panels, switches and clock) will be in self-install mode, which means that as soon as they are connected to the network, they are operational and can communicate with each other.


If you have purchased the ProSys LM Lighting Control System along with the ProSys LM software, the devices will be in software-install mode. This means that in order for them to function on the network you must assign network addresses to the devices and bind network variables and message tags using your network management tool. ProSys LM users please refer to the ProSys LM Software User Guide for instructions on installing devices.


**TYPICAL PROSYS APPLICATION**


For the sample application used in the Clock Setup and Scheduling which follows, a two story office building, shown below in **Figure 1**, is used.

There is one ProSys panel per floor, and each panel contains 16 relays controlling open office space and 4 relays controlling hallways and common areas. There are also 4 relays for exterior security lighting and 6 for parking lot lighting and signage in Panel 01. The documentation forms on page 4 summarize the data required by the clock and indicate how relays are associated with channels.

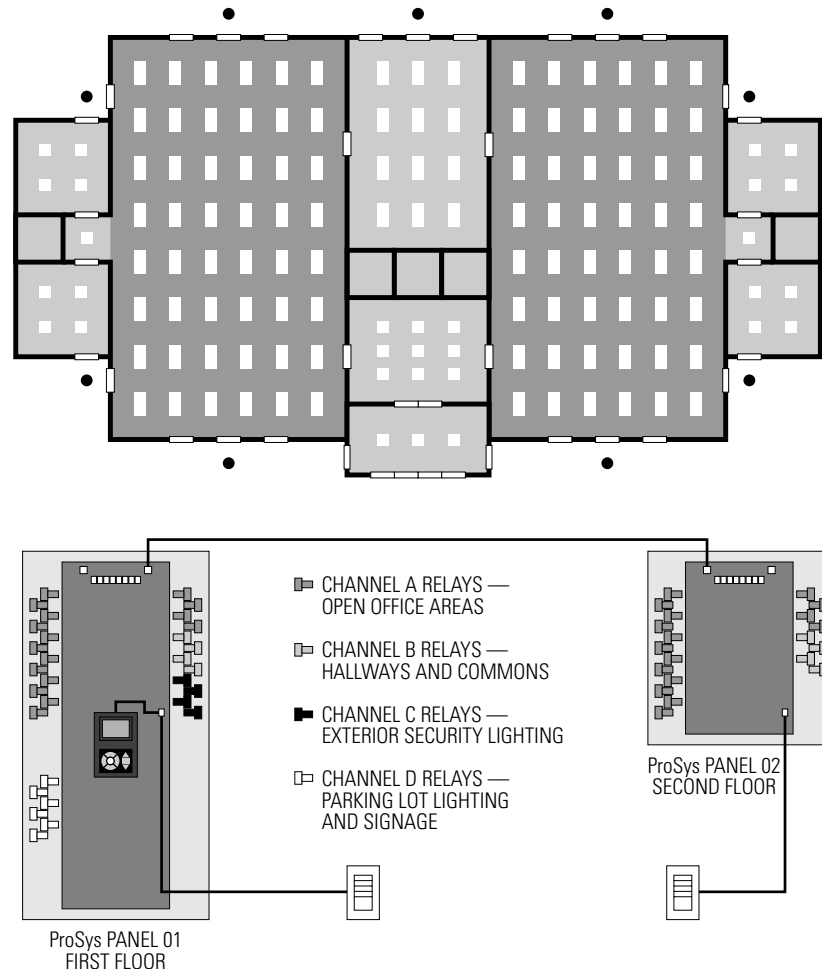
 **Channel A** is assigned a Manual ON/Scheduled OFF scenario for relays controlling the open office areas. In this area, the lights will be turned on by occupants upon arrival and off per the time scheduled. Overrides will be in effect during unoccupied times.

 **Channel B** is assigned a Scheduled ON/Scheduled OFF scenario for relays controlling hallways and common areas. The lighting in these areas will turn on and off per the times scheduled with no occupant action required. Overrides will be in effect during unoccupied times.

 **Channel C** is assigned an Astro ON/OFF scenario for relays controlling exterior security lighting. The on and off times scheduled for this lighting are based on the Clock's astronomical function which determines sunrise and sunset according to geographical location.

 Finally, **Channel D** is assigned an Astro ON/Scheduled OFF scenario for relays controlling parking lot lighting and outdoor signage. The time this lighting turns on is based on the Clock's astronomical function as above, but the lights will turn off per a scheduled time.

**Figure 1 – Typical ProSys Application**



**DOCUMENTING AUTOMATION SCENARIOS AND RELAYS**

Before proceeding with any softwiring or scheduling, it is necessary to complete system documentation.

First, complete the **CLOCK AUTOMATION SCENARIOS** form, recording which automation scenario will be assigned to each channel (see **Figure 2** below).

Then, record the relays in each panel to be associated with those channels on the **RELAY SCHEDULE** form (see **Figure 3**). A relay should only be associated with one automation channel.

**Figure 2**

<b>CLOCK AUTOMATION SCENARIOS</b>			
<b>CHANNEL</b>	<b>DESCRIPTION OF GROUP</b>	<b>AUTOMATION SCENARIO</b>	<b>DATA</b>
<b>A</b>	GENERAL OFFICE LIGHTING	<input type="radio"/> SCHEDULE ON/OFF <input checked="" type="radio"/> MANUAL ON/SCHEDULE OFF <input type="radio"/> ASTRO ON/OFF <input type="radio"/> ASTRO ON/SCHEDULE OFF	OCCUPIED MON-FRI 7AM-6PM SATURDAY 7AM-NOON 120 MIN OVERRIDE FLICK WARN 5 MIN
<b>B</b>	HALLWAYS AND COMMON AREAS	<input checked="" type="radio"/> SCHEDULE ON/OFF <input type="radio"/> MANUAL ON/SCHEDULE OFF <input type="radio"/> ASTRO ON/OFF <input type="radio"/> ASTRO ON/SCHEDULE OFF	OCCUPIED MON-FRI 6AM-10PM SATURDAY 6AM-NOON 120 MIN OVERRIDE FLICK WARN 5 MIN
<b>C</b>	SECURITY LIGHTING	<input type="radio"/> SCHEDULE ON/OFF <input type="radio"/> MANUAL ON/SCHEDULE OFF <input checked="" type="radio"/> ASTRO ON/OFF <input type="radio"/> ASTRO ON/SCHEDULE OFF	LOCATION - BOISE IDAHO DARK 30 MIN AFTER SUNSET
<b>D</b>	PARKING LOT LIGHTING	<input type="radio"/> SCHEDULE ON/OFF <input type="radio"/> MANUAL ON/SCHEDULE OFF <input type="radio"/> ASTRO ON/OFF <input checked="" type="radio"/> ASTRO ON/SCHEDULE OFF	LOCATION - BOISE IDAHO DARK 30 MIN AFTER SUNSET OPEN MON-FRI 6AM-11PM SATURDAY 6AM-NOON

**Figure 3**

<b>RELAY SCHEDULE</b>							
<b>PANEL #</b> <span style="border: 1px solid black; padding: 2px 10px;">02</span>							
<b>RELAY #</b>	<b>SUPPLY</b>	<b>LOAD DESCRIPTION</b>	<b>AUTOMATION CHA</b>				
			<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>-01</b>	LP1-1	OPEN OFFICE - SECOND FLOOR NW	X				
<b>-02</b>	LP1-2	"	X				
<b>-17</b>	LP1-1	COMMONS - SECOND FLOOR NE		X			
<b>-18</b>	LP1-1	"		X			
<b>-21</b>	LP1-1	SECURITY - NORTH			X		
<b>-25</b>	LP1-1	PARKING - AREA 1				X	
<b>-26</b>	LP1-1	PARKING - AREA 2				X	

**INSTALLATION AND SOFTWARE**

When both the **ProSys CLOCK AUTOMATION SCENARIOS** form and the **ProSys RELAY SCHEDULE** form are complete, begin with Clock installation as follows:

**Step 1: Install the Clock**

Plug the attached cable into the "Local Dataline" connector in a relay panel as shown to the right. The Softwired Clock snaps onto the DIN rail in any relay panel. (There is a release clip at the top of the Clock.)

**Step 2: Softwire Each Relay to its Associated Channel**

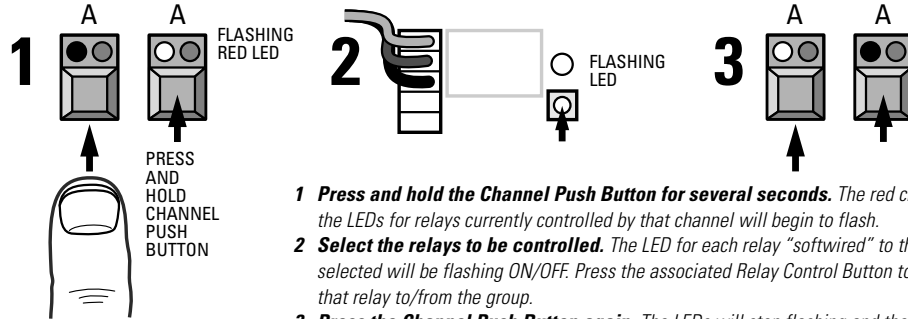
With the **ProSys RELAY SCHEDULE** form in hand, softwiring the relays to channels can be done in minutes as shown in **Figure 4** below.

**Step 3: Enter Data into the Clock**

You are now ready to enter data into the Clock. The sample application in **Figure 1** on page 3 is used in the detailed instructions that follow.



**Figure 4 – Softwiring Relays to Channels**



- 1 Press and hold the Channel Push Button for several seconds.** The red channel LED and the LEDs for relays currently controlled by that channel will begin to flash.
- 2 Select the relays to be controlled.** The LED for each relay "softwired" to the channel input selected will be flashing ON/OFF. Press the associated Relay Control Button to add/delete that relay to/from the group.
- 3 Press the Channel Push Button again.** The LEDs will stop flashing and the channel will now control the relays selected.

**Figure 5 – Softwired Clock Keypad**

The ProSys Clock's keypad is composed of eight keys as follows:

Four cursor keys (▲) for navigating among the data fields on the screens.

**RAISE** and **LOWER** keys for modifying data fields.

A **SELECT** key which confirms data entries and advances to the next appropriate screen or data field.

A **HELP** key for technical assistance.



**DATA ENTRY – SETUP**

Entering data into the Clock involves two steps:  
Setup and Scheduling.

**Channel Status Screen**

This is the first screen displayed when you plug in the ProSys Clock (**Figure 5**). All channels will initially display **off** as the clock polls the relay panels in the system for status data. Within several seconds, all of the panels will be polled and the correct status of each channel will be displayed.

If a channel is shown as **off**, it means that the relays in the channel are OFF in every panel in the system. If a channel is mixed it means that some relays in the channel are ON and some are OFF. A channel can only be shown as **mixed** when there is more than one relay in the channel.

From the Channel Status screen, you may choose to set up the base data for the system (Setup) to schedule the clock (Program), or to software switches.

**Setting Up Base System Data**

Using the left or right cursor keys, highlight Setup and press the SELECT key. The next screen (Figure 6) shows the Time (in 24-hour military units) and the Date (MM/DD/YY). Any of these can be changed by using the cursor keys to highlight the desired field and then using the RAISE or LOWER keys to change the information.

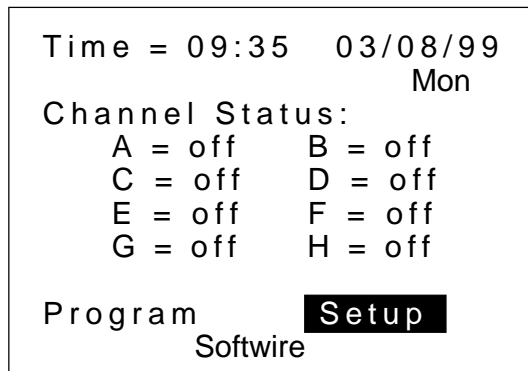
**Daylight Savings Time**

Using the cursor keys, highlight Select to the right of Daylight Savings and then press the SELECT key (Figure 7).

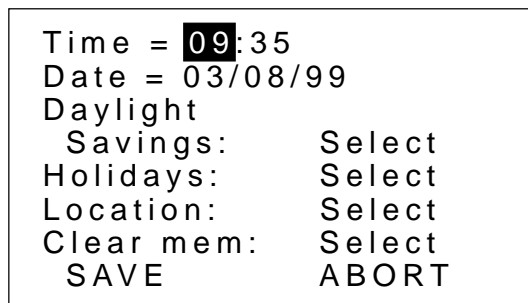
The DST Setup screen, shown in Figure 8, allows you to select Relative or Absolute type. Relative enables you to select, for example, the first Sunday in April; Absolute enables you to select a specific date. Then you select whether to follow DST or not.

You cannot change Sunrise and Sunset. These will be set when you select the location (Figure 11).

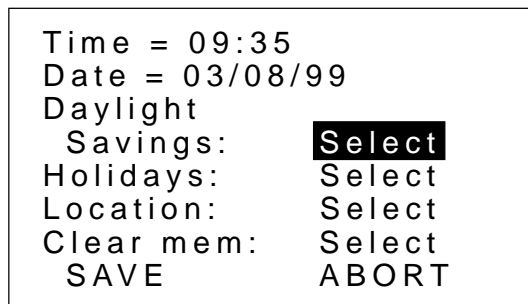
**Figure 5 – Channel Status Screen**



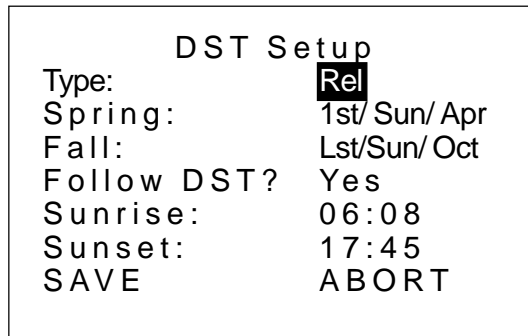
**Figure 6 – Setup Screen**



**Figure 7 – Selecting Daylight Savings Time**



**Figure 8 – Daylight Savings Setup Screen**



**DATA ENTRY – SETUP (CONTINUED)**

To save the data, cursor to **SAVE** and press the **SELECT** key. To exit without saving the data, cursor to **ABORT** and press the **SELECT** key.

When you **SAVE**, the Clock moves back to the **Setup** screen (Figure 6).

**Scheduling Holidays**

When you select the **Holidays** option, you will see a listing of twelve individual holiday date entries (Figure 9). If more are needed, cursor to the arrow (↕) in the lower right and press **SELECT**. There are three screens of twelve date entries each for a total of 36 holiday date entries. The Clock will execute a holiday schedule on the dates entered.

When a holiday (or vacation period) extends for several consecutive days, rather than entering numerous individual dates, you may choose to enter a holiday/vacation date range. Cursor to **RANGE** and press **SELECT**. A screen of six range entries appears (Figure 10). Enter the first date of the holiday range and then the date the normal schedule resumes. When completed, cursor to **SAVE** and press **SELECT**. This will return you to the **Holiday Setup** screen. When all holiday dates are entered, again cursor to **SAVE** and press **SELECT** to return to the **Setup** screen.

**Location Entry**

The next data entry on the **Setup** screen (Figure 11) is **Location**. With **Choose City** highlighted, press **SELECT**. (The GMT offset and the coordinates will be automatically set when you select state and city.) The **Choose City** screen will appear (figure 12). Use the **RAISE** or **LOWER** keys to select your state (or province). Use the same technique to select the **City** closest to you. (Depending on your location, you may want to choose a city in another state that is even closer to you).

Entering the State/City provides the data that the Clock uses for determining sunrise and sunset for your location. When the location has been entered, again cursor to **SAVE** and press **SELECT** to return to the **Setup** screen.

GMT and coordinates can be manually entered for a city that is not on the list.

**Clearing The Memory**

The final selection on the **Setup** screen is **Clear mem**. If you want to clear the Clock's memory to enter fresh data, cursor to **Clear mem** and press **SELECT**. The **Clear Memory** screen will appear. Use the **RAISE** or **LOWER** key to select **No** or **Yes**. Press the **down** button to select **Done** and press **SELECT**.

**Caution! Pressing SELECT again will completely clear ALL of the data in the Clock's memory.**

Press **SELECT** to clear memory and return to the **Setup** screen.

Figure 9 – Holiday Setup Screen

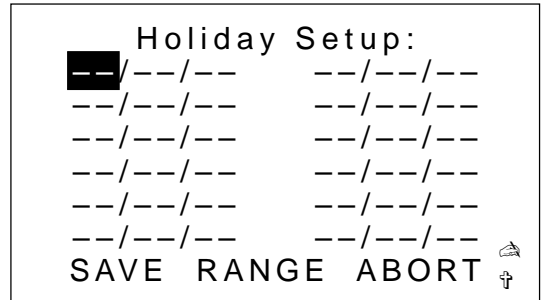


Figure 10 – Holiday Range Screen

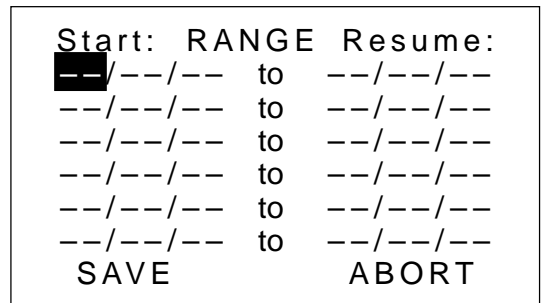


Figure 11 – Location Setup Screen

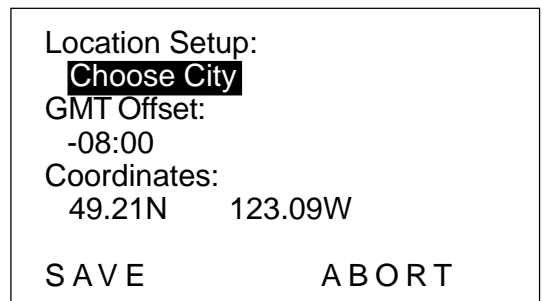
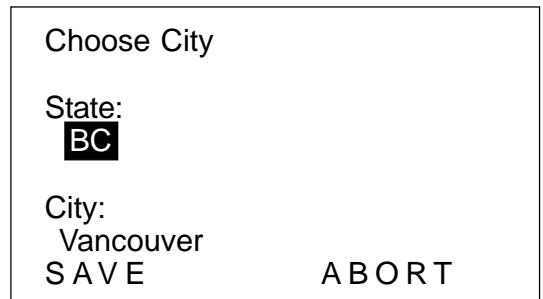


Figure 12 – Choose City Screen



**System Data Setup is now complete. Proceed to the next page to begin Scheduling the Clock.**

**DATA ENTRY – SCHEDULING**

Scheduling is simply taking the data from the **ProSys CLOCK AUTOMATION SCENARIOS** form and entering it into the Clock. Once that's been done — and all Setup steps are completed — the Clock has all of the data necessary to control the ProSys system.

To illustrate the data entry process, let's use the actual data from our example as illustrated in **Figure 1** on page 3 and the sample forms shown in **Figures 2 and 3** on page 4.

Return to the **Channel Status** screen (**Figure 13**). (Hint: You can return to this screen any time by selecting **ABORT** on any data screen and pressing **SELECT**.) The cursor will default to **Program**. Press **SELECT** to advance to the **Channel** scheduling screen (**Figure 14**).

**Channel A: Manual ON/Scheduled OFF – Sample**

Referring to the **ProSys CLOCK AUTOMATION SCENARIOS** sample form on page 4, we see that Channel A is to be assigned a Manual ON/Scheduled OFF scenario.

To change the scenario for Channel A, move the cursor to **Schedule** and, using the **RAISE** or **LOWER** keys if necessary, select **Man ON/ Sched OFF** and press **SELECT** (**Figure 15**).

The form shows that the general office area is occupied on weekdays from 7:00 a.m. through 6:00 p.m., and on Saturday from 7:00 a.m. til noon.

A time limit of 120 minutes on overrides during unoccupied periods and a 5-minute "Flick warn" before the scheduled OFF is also documented on the form.

**Figure 16** shows the entry of the required data. Start by entering the occupied time. Move the cursor to each time field and enter the time the floor is "open" or "occupied." Remember to use 24-hour military time units (Example: **07:00 thru 18:00**). After entering data in each field, cursor to the next field, or simply press **SELECT** to automatically go to the next field. Then enter the **Time Delay** to 120 minutes, set the **Flick warn** to 5 minutes, and select the panel that the time delay and filck warn are to apply to.

At this point there are three choices:

1. **SAVE** this information to memory, in which case the schedule data for only Monday would be saved.
2. **COPY** this data to other days of the week and then save the schedules for all of these days.
3. **ABORT** to exit without saving any data.

Because the same schedule occurs each weekday, choice 2 will save a lot of time in this case.

To copy the Monday schedule to other weekdays, cursor to **COPY** and press **SELECT**. The screen shown in **Figure 17**, on the next page, will appear.

**Figure 13 – Channel Status Screen**

```

Time = 09:35   03/08/99
                        Wed
Channel Status:
  A = off     B = off
  C = off     D = off
  E = off     F = off
  G = off     H = off

Program      Setup
             Software
    
```

**Figure 14 – Channel Scheduling Screen**

```

Channel A
Scheduled ON / OFF
Day: Monday
ON: 00:00 OFF: 00:00
ON: 00:00 OFF: 00:00
Time Delay: 000 MIN
      Flick warn: 000 MIN
Panels: -- -- -- -- --
      SAVE COPY ABORT
    
```

**Figure 15 – Selecting Manual ON/Scheduled OFF**

```

Channel A
Man ON / Sched OFF
Day: Monday
Open: 00:00 thru: 00:00
      00:00 thru: 00:00
Time Delay: 000 MIN.
      Flick warn: 000 MIN
      SAVE COPY ABORT
    
```

**Figure 16 – Manual ON/Scheduled OFF Data Entry**

```

Channel A
Man ON / Sched OFF
Day: Monday
Open: 07:00 thru: 18:00
      00:00 thru: 00:00
Time Delay: 120 MIN
      Flick warn: 005 MIN
      SAVE COPY ABORT
    
```



**DATA ENTRY – SCHEDULING**

**Copying A Schedule**

To copy the Monday schedule to Tuesday through Friday, move the cursor to the **Tues** field and press the **RAISE** or **LOWER** buttons to "X" that selection. Repeat for **Wed, Thur** and **Fri** as shown in **Figure 18**.

To save the operating schedule for Monday through Friday, cursor to **SAVE** and press **SELECT**. The screen will return to the **Channel** scheduling screen.

To schedule Saturday, simply follow the same process as used to schedule weekdays. Cursor to **Monday**, use **RAISE** or **LOWER** to change to **Saturday**, press **SELECT** or cursor to the next field to enter the occupied times, time delay and blink warn. Cursor to **SAVE** and press **SELECT**.

Since Sundays and holidays most likely do not have an "occupied" or open schedule, there is no need to make any time entries. The Clock will automatically assume the area is unoccupied. Remember to enter a time delay and flick warn, however, for those occupants who may come in to work on these days. (Note: You may use different time delays for different days of the week. Some owners, for example, prefer a longer override on weekends.)

**Channel B: Scheduled ON/OFF – Sample**

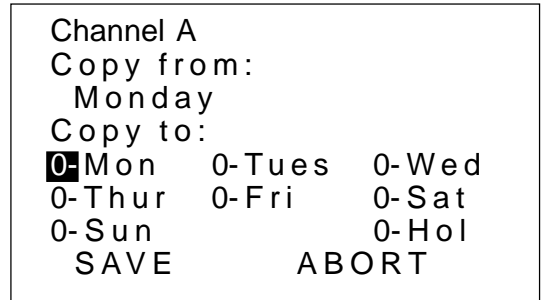
Channel B on our **ProSys CLOCK AUTOMATION SCENARIOS** form is assigned a Scheduled ON/OFF scenario for hallways and common areas. Lights in these areas turn on at 6:00 a.m. in anticipation of early arrivers and turn off at 10:00 p.m., well after the last occupants have most likely gone home. (For scheduling tips, see page 11.)

To select this scenario for Channel B, return to the **Channel** scheduling screen. Move the cursor to the **Channel** field and use the **RAISE** or **LOWER** keys to change to **B**. The scenario field will default to **Scheduled ON/OFF** (**Figure 19**).

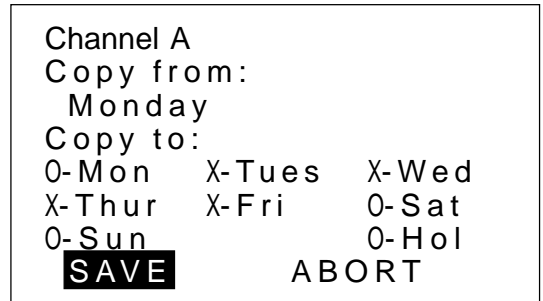
When this scenario is selected, the time fields change from **Open...thru** to **ON...OFF**. For our example, we would cursor to the first **ON** field and enter **06:00**; then to the **OFF** field and enter **22:00**. (You may enter two sets of times, but this is not typically required. For example, in some applications, selected lighting is turned off at lunchtime, requiring two ON/OFF schedules.) The **Time Delay** would be set at **120** minutes and the **Flick Warn** to **5** minutes. **Figure 20** shows the complete data entry for this scenario.

As with the general office area, use the **COPY** function to enter the times for Tuesday through Friday, then Saturday, Sunday and Holidays are scheduled separately.

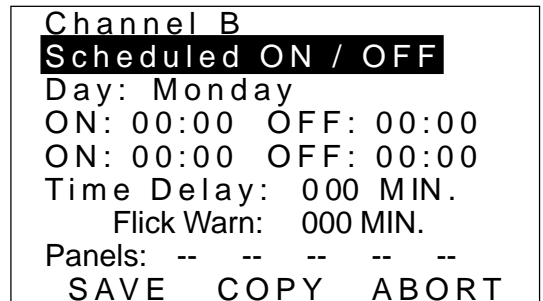
**Figure 17 – Copy Screen**



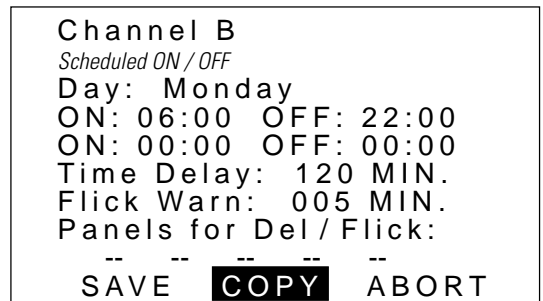
**Figure 18 – Copying A Schedule**



**Figure 19 – Selecting Scheduled ON/OFF**



**Figure 20 – Scheduled ON/OFF Data Entry**



**DATA ENTRY – SCHEDULING**

**Channel C: Astro ON/OFF – Sample**

The security lighting associated with Channel C on the sample ProSys **CLOCK AUTOMATION SCENARIOS** form is to turn on every night and turn off every morning. In this example, the lighting will be set to turn on 30 minutes after sunset.

In the Channel scheduling screen shown in Figure 21, RAISE or LOWER the Channel field to C, choose Astro ON/OFF in the scenario field.

Use the RAISE or LOWER keys to enter 030 in the minutes field and then cursor to the before field. Again, use the RAISE or LOWER keys to toggle from before to after. Cursor to SAVE and press SELECT.

**Channel D: Astro ON/Scheduled OFF – Sample**

Parking lot lighting should turn on when it is dark and turn off after the building (and parking lot) is unoccupied. On the sample documentation form, the parking lot lights are associated with Channel D, which is assigned the Astro ON/Scheduled OFF scenario. With this scenario, the parking lot lighting will only be turned on if the parking lot is scheduled to be “occupied” and it is “dark.”

In the Channel scheduling screen shown again in Figure 22, Channel D and Astro ON/Sched OFF are chosen with the RAISE or LOWER keys.

In our example, we define parking lot occupancy as Monday through Friday, 6:00 a.m. until 11:00 p.m. and Saturday, 6:00 a.m. until noon. Darkness was defined as 30 minutes after sunset.

Use the COPY function to enter this daily schedule for Tuesday through Friday, SAVE and then enter the data for Saturday, Sunday and Holidays.

Figure 21 – Astro ON/OFF Data Entry

```

Channel C
  Astro ON/OFF

Dark =
000 min before sunset

SAVE          ABORT
    
```

Figure 22

```

Channel D
Astro ON / Sched OFF
Day: Monday
Open: 06:00 thru: 23:00
Dark =
030 min after sunset

SAVE  COPY  ABORT
    
```

**TESTING**

When scheduling is completed, make sure to return to the **Channel Status** screen. The Clock must be displaying this screen for the schedules to operate. Check the time and date.

Go to each panel with the **ProSys RELAY SCHEDULE** forms and confirm that the Channels are properly softwired.

Confirm that each Channel in the Clock has the proper scenario and time entries. Select **Program** and then sequence through the days of the week for each Channel. Make certain the data is complete for each day of the week and holidays. When finished reviewing Channel A, go to B and so on.

When you have confirmed the data for each Channel, you can run a real-time test. Simply set the Clock for 2 minutes before a scheduled action, return to the **Channel Status** screen and confirm the actual operation. (There may be a 20-30 second delay between the minute change on the screen and the transmission of the data to the field panels.)

**Figure 23 – Channel Status Screen**

Time = 09:35		03/08/99	
		Wed	
Channel Status:			
A = off	B = off		
C = off	D = off		
E = off	F = off		
G = off	H = off		
<b>Program</b>		Setup	
		Softwire	

**SCHEDULING TIPS****Time Spanning**

In some cases, a building's occupied hours may need to span from one day into the next. For example, a restaurant may open for dinner and stay open until 2 a.m. To set the occupancy time from 5 p.m. through 2 a.m., Tuesday through Saturday, the actual data entry must be:

Tuesday 17:00 - 0:00

Wednesday 0:00 - 2:00 and 17:00 - 0:00

etc. through the final entry

Sunday 0:00 - 2:00

If you were to use 23:59 ending time on Tuesday, and 0:00 beginning time on Wednesday, the lights would turn off for 1 minute just before midnight. To avoid this, you must use "0:00" to indicate midnight.

## ProSys Softwired Clock – Switch Programming Mode



### DESCRIPTION

**The RCLK8PS Softwired Clock can be converted to a hand-held dataline switch Programmer with the flip of a switch, allowing the ProSys system installer to "softwire" the switches at their remote locations without having to return to the relay panels to complete softwiring to relay groups.**

*The Programmer plugs into the front of the dataline switch, with no need to remove the switch from the wallbox or turn off power.*

*The Programmer can perform all of the softwiring functions associated with a dataline switch. It can softwire a switch button to control:*

- 1. Any relay or group of relays ON/OFF*
- 2. Any group of relays to a Pattern*
- 3. An Automation Channel (A-H) in multiple panels*

**PROGRAMMER SETUP AND OPERATION**

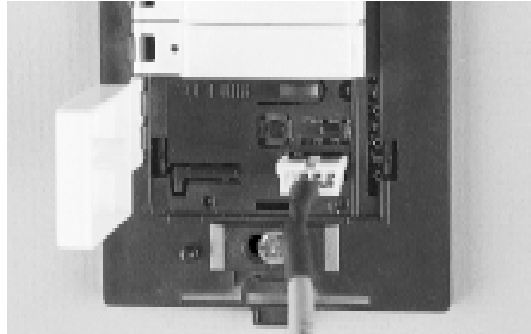


Figure 1

**Softwiring Mode**

Press Softwire Tab on wall switch then press switch button to be programmed.

With the dataline switch's wallplate removed and the master button flipped open, plug the ProSys Softwired Clock into the 4-pin connector on the front face of the switch as shown above.

Press **Select** when the word *Softwire* is highlighted in the channel status screen. The Softwiring Mode screen shown in Figure 1 will appear.

Press the **SOFTWARE** tab on the front of the dataline switch (Figure 2A). All of the switch button LEDs will begin flashing. Then press the switch button to be programmed (Figure 2B). The LED for the selected button will remain flashing, but all others will stop.

The screen will change to the Program button screen shown in Figure 3, and the Relay/Channel field will be highlighted.

From this point, the selected switch button can be softwired to control a relay or group of relays ON/OFF or to a Pattern, or to control an Automation Channel in multiple panels.

*Hint:* At any time during the programming sequence, advancing to **ABORT** and pressing the **SELECT** key will clear the data entered for that sequence and return to the Softwiring Mode screen.

1. To program the switch button to control a relay or relay group ON/OFF, proceed to the next page.
2. To program the switch button to control a relay group to a Pattern, go to page 4.
3. To program the switch button to an Automation Channel, go to page 5.

Figure 2A

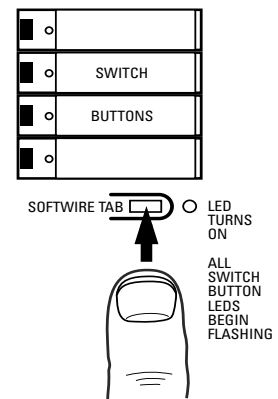


Figure 2B

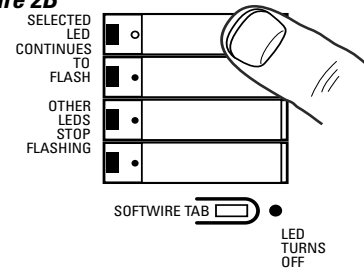


Figure 3

Program button to

**Relay**

COMPLETE    ABORT

# 1

## SOFTWIRING A SWITCH BUTTON TO CONTROL A RELAY OR GROUP OF RELAYS ON/OFF

Starting from the screen in Figure 3, use the **RAISE** or **LOWER** key (if Channel is displayed) to select **Relay**. Using the down cursor key, advance to **COMPLETE** at the bottom of the screen and press **SELECT**.

The **Relay configuration** screen (as shown in Figure 4) will appear. Use the **RAISE** or **LOWER** key, if necessary, to select **On/Off**. Press the down cursor key to advance to **COMPLETE** and press the **SELECT** key.

The next screen is the **Softwire button** screen shown in Figure 5. First, use the **RAISE** or **LOWER** keys, if necessary, to enter the **panel #** in the first field, and then cursor down to the next field.

Select the relay(s) to be controlled by cursoring to each relay position on the screen, and when highlighted, use either the **RAISE** or **LOWER** key to add/remove that relay to/from the group. An **X** symbol below the relay number indicates that relay is in the group; a blank indicates the relay is not (see Figure 6). The **RAISE** and **LOWER** keys toggle between the two.

To view relays 13 through 48, advance to the arrow at the lower right of the screen and press **SELECT**.

After selecting the relay(s) to be included in the group, advance to **SAVE** and press the **SELECT** key to save all data (Figure 7).

The selected switch button is now softwired to the relay group and the screen returns to the **Softwiring Mode** screen in Figure 1 on the facing page to enable softwiring of the remaining switch buttons if necessary.

If no further switch programming is to be done at this time, flip the master button closed and replace the wallplate on the dataline switch. Press **SELECT** to bring the Clock out of Program mode and return the Clock to the relay panel.

Figure 4



Figure 5

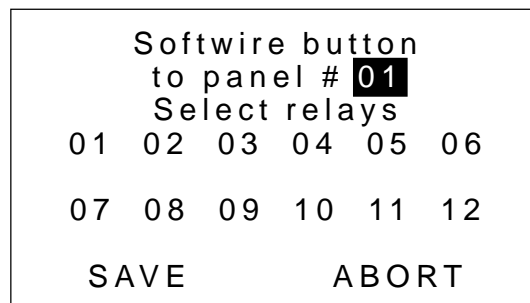


Figure 6

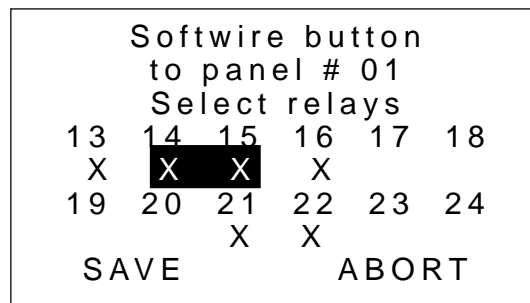
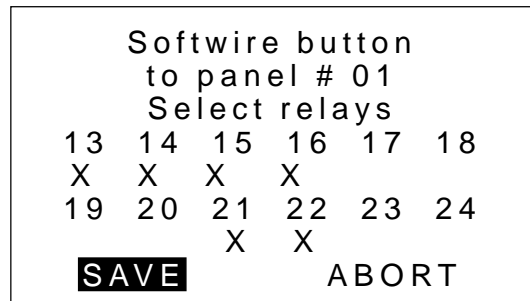


Figure 7



# 2

## SOFTWIRING A SWITCH BUTTON TO CONTROL A GROUP OF RELAYS TO A PATTERN

Starting from the screen in Figure 3, use the **RAISE** or **LOWER** key (if Channel is displayed) to select **Relay**. Using the down cursor key, advance to **COMPLETE** at the bottom of the screen and press the **SELECT** key.

The **Relay configuration** screen (as shown in Figure 4) will appear. Use the **RAISE** or **LOWER** key (if On/Off is displayed) to select **Pattern**. Press the down cursor key to advance to **COMPLETE** and press **SELECT**.

The **Softwire button** screen (Figure 9) will appear, displaying the switch button you selected. With the panel # selected, use the **RAISE** or **LOWER** keys, to select the **panel #**, then cursor down to the relays.

Select the relay(s) to be controlled by cursoring to each relay position on the screen, and when highlighted, use either the **RAISE** or **LOWER** key to add/remove that relay to/from the group. An **X** symbol below the relay number indicates that relay is in the group and ON; a - symbol indicates the relay is in the group but OFF; and a blank indicates the relay is not included in the group. (Figure 10).

To view relays 13 through 48, advance to the arrow at the lower right of the screen and press **SELECT**.

After selecting the relay(s) to be included in the group, advance to **SAVE** and press **SELECT** to save all data (Figure 11).

The selected switch button is now softwired to the relay group and the screen returns to the **Softwiring Mode** screen in Figure 1 on page 2 to enable softwiring of the remaining switch buttons if necessary.

If no further switch programming is to be done at this time, flip the master button closed and replace the wallplate on the dataline switch. Press **SELECT** to bring the Clock out of Program mode and return the Clock to the relay panel.

Figure 8

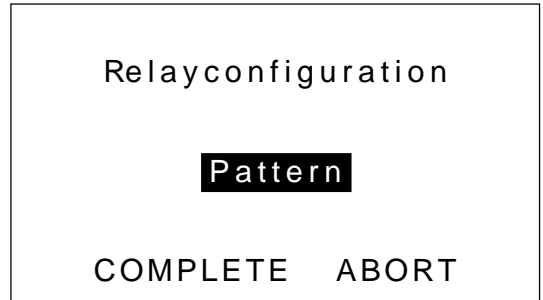


Figure 9

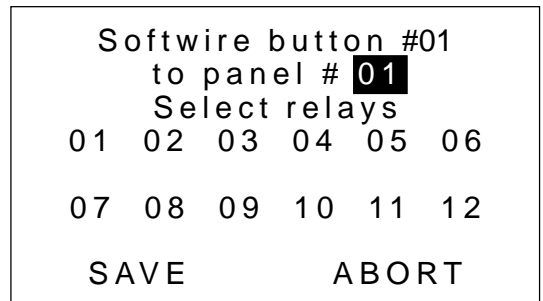


Figure 10

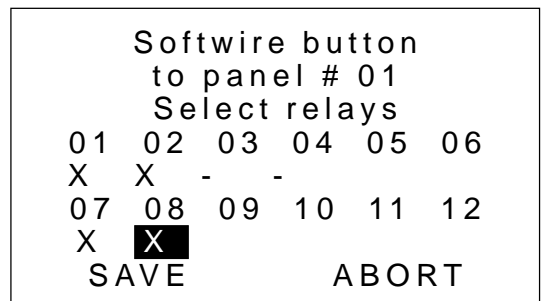
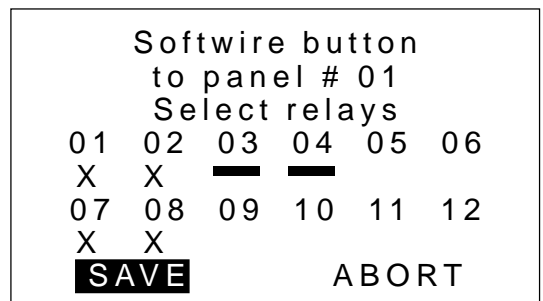


Figure 11



# 3

## SOFTWIRING A SWITCH BUTTON TO CONTROL AN AUTOMATION CHANNEL

Starting from the screen in Figure 3, use the **RAISE** or **LOWER** key (if Relay is displayed) to select **Channel**. Using the down cursor key, advance to **COMPLETE** at the bottom of the screen and press **SELECT**.

The **Softwire button** screen (Figure 12) will appear. Use the **RAISE** or **LOWER** key to select a channel (**A** through **H**). Press the down cursor key to advance to **COMPLETE** and press **SELECT**.

As shown in Figure 13, use the **RAISE** or **LOWER** key to select **Listing** or **All**.

Selecting **All** will select all relay panels in the system (Figure 15); **Listing** will allow entry of up to 48 relay panel numbers (Figure 14).

Upon completion of the panel entries, advance to **SAVE**, and press **SELECT** to save data.

The selected switch button is now softwired to the Automation Channel in the selected panels and the screen returns to the **Softwiring Mode** screen in Figure 1 on page 2 to enable softwiring of the remaining switch buttons if necessary.

If no further switch programming is to be done at this time, flip the master button closed and replace the wallplate on the dataline switch. Press **SELECT** to bring the Clock out of Program mode and return the Clock to the relay panel.

Figure 12

```

Softwire button #01
to chan A
in panels: Listing
01 02 03 04 05 06
07 08 09 10 11 12
SAVE          ABORT
    
```

Figure 13

```

Softwire button
to chan A
in panels: Listing
01 02 03 04 05 06
   X  X  X
07 08 09 10 11 12
SAVE          ABORT
    
```

Figure 14

```

Softwire button
to chan A
in panels: Listing
01 02 03 04 05 06
   X  X
07 08 09 10 11 12
SAVE          ABORT
    
```

Figure 15

```

Softwire button
to chan A
in panels: All
01 02 03 04 05 06
X  X  X  X  X  X
07 08 09 10 11 12
X  X  X  X  X  X
SAVE          ABORT
    
```





