



Total Lighting Control

Softwired Clock



DESCRIPTION

The Softwired Switching (SWS) 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 (RCLK8SWS) 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 RCLK8SWS can also be used as a hand-held programmer for the softwired switches. For details on this functionality, refer to document IMRCLKPROG, **Softwired Clock – Switch Programming Mode**.

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 proceeding, refer to the other sections of this **Softwired Switching System Installation and Operation Manual** for an overview of the total system and the documentation forms.

For GE TLC Service call: 1-877-584-2685 (USA) or 1-800-661-6619 (Canada).

SOFTWIRED CLOCK OPERATION

In a Softwired Switching System, relays and their associated lighting loads may be “softwired” — or grouped for common control — to one of eight channels in the relay panel, or to the 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,* 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 data-line 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. Override time (in 10-minute increments, up to 4 hours)
- C. Blink warn? Yes/No

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)

* Only one Softwired Clock can be used per SWS system.

TYPICAL SWS 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.

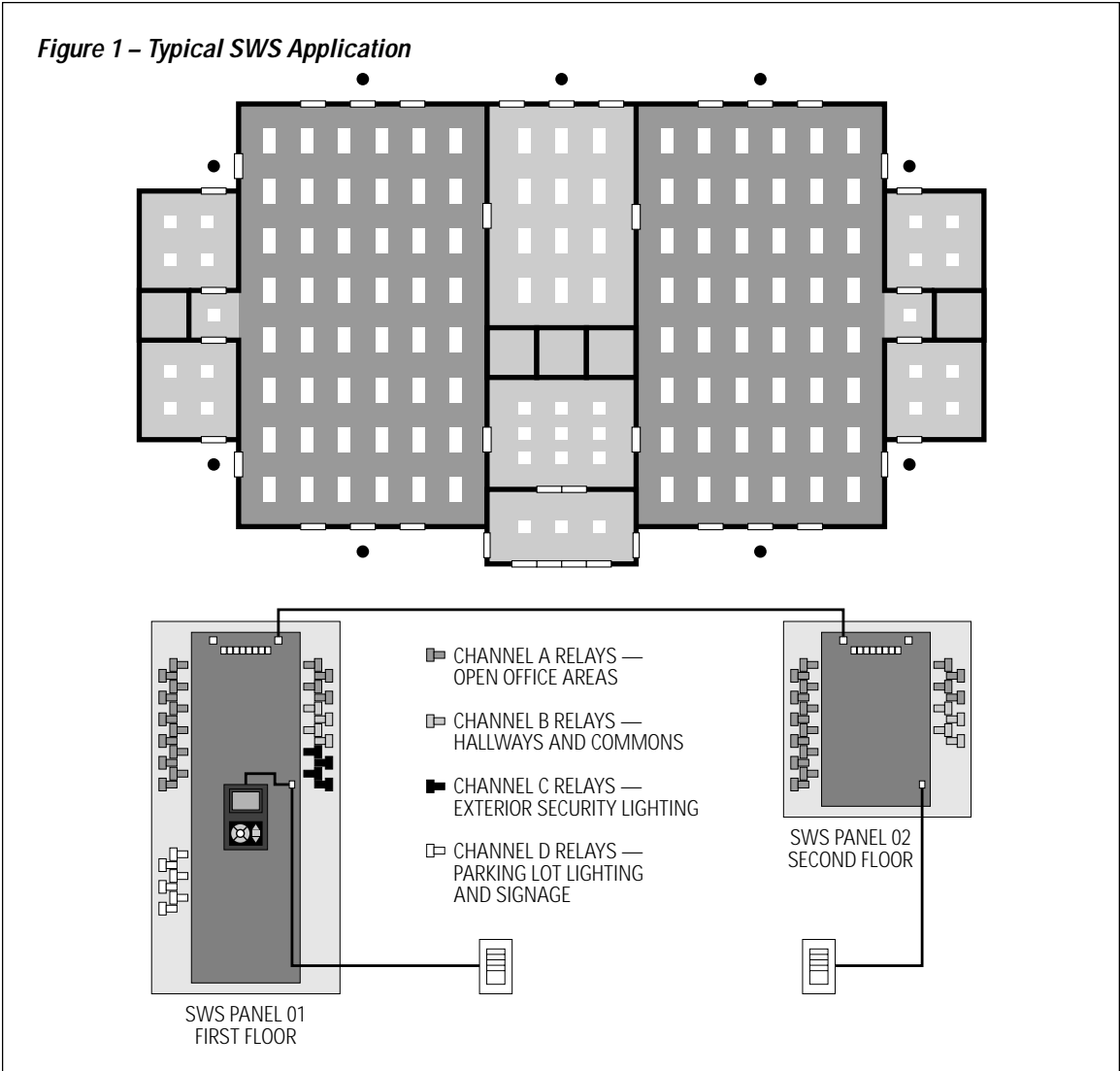
There is one SWS panel per floor, and each panel contains 16 relays controlling open office space and 4 relays controlling hallways and common areas. There are also 4 relays for exterior security lighting and 6 for parking lot lighting and signage in Panel 01. The documentation forms on page 4 summarize 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.



DOCUMENTING AUTOMATION SCENARIOS AND RELAYS

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

First, complete the **SWS 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 **SWS RELAY SCHEDULE** form (see **Figure 3**). A relay should only be associated with one automation channel.

Both forms are in the **Documentation** section of this manual.

Figure 2

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

Figure 3

| SWS RELAY SCHEDULE | | | | | | | |
|--|---------------|-------------------------------|-----------------------|----------|----------|----------|----------|
| PANEL # 02 | | | | | | | |
| RELAY # | SUPPLY | LOAD DESCRIPTION | AUTOMATION CHA | | | | |
| | | | A | B | C | D | E |
| -01 | LP1-1 | OPEN OFFICE - SECOND FLOOR NW | X | | | | |
| -02 | LP1-2 | " | X | | | | |
| -17 | LP1-1 | COMMONS - SECOND FLOOR NE | | X | | | |
| -18 | LP1-1 | " | | X | | | |
| -21 | LP1-1 | SECURITY - NORTH | | | X | | |
| -25 | LP1-1 | PARKING - AREA 1 | | | | X | |
| -26 | LP1-1 | PARKING - AREA 2 | | | | X | |

INSTALLATION AND SOFTWIRING

When both the **SWS CLOCK AUTOMATION SCENARIOS** form and the **SWS 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 on the bottom of the Clock.)

Step 2: Softwire Each Relay to its Associated Channel

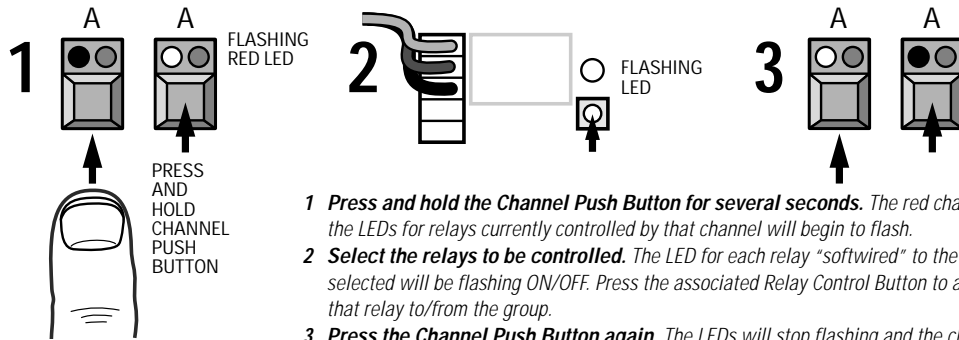
With the **SWS RELAY SCHEDULE** form in hand, softwiring the relays to channels can be done in minutes as shown in **Figure 4** below.

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

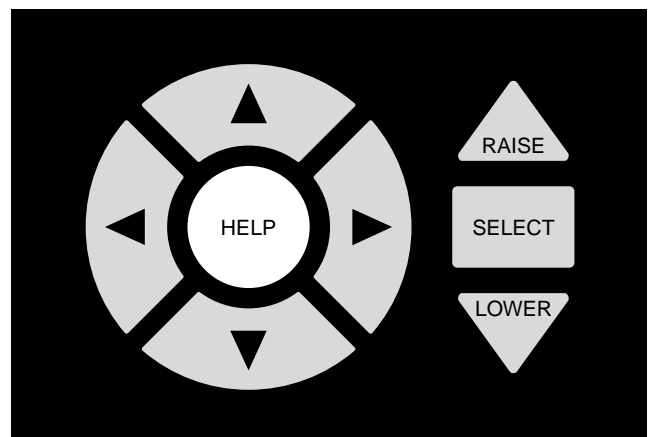
The Softwired Clock's keypad is composed of eight keys as follows:

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 shown when you plug in the Softwired Clock (Figure 5). All channels will initially show **off** as the clock polls the relay panels in the system for status data. Within several minutes, all of the panels will be polled and the correct status of each channel will be shown.

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

From the **Channel Status** screen, the user may choose either to set up the base data for the system (**Setup**) or to schedule the clock (**Program**).

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 and the day of the week). 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. (Hint: To get to 99, it's easier to go down from 00.)

Daylight Savings Time

If you use Daylight Savings Time, you will need to enter the beginning and ending dates. 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, has three areas needing data: the date for **Spring**, the date for **Fall** and whether you want to **Follow DST**. See the table below for dates. Enter the dates by cursoring to each field and pressing the **RAISE** or **LOWER** keys. Next, move the cursor to the field to the right of **Follow DST?** and use the **RAISE** or **LOWER** key, if necessary, to change to **No** or **Yes**.

You will also notice the Clock is trying to report Sunrise and Sunset on the **DST Setup** screen. When you enter your location (next page), these times will be entered.

Figure 5 – Channel Status Screen

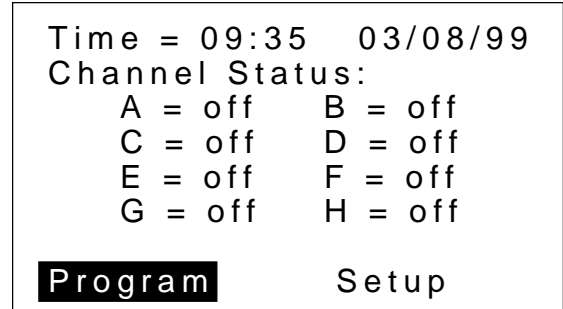


Figure 6 – Setup Screen

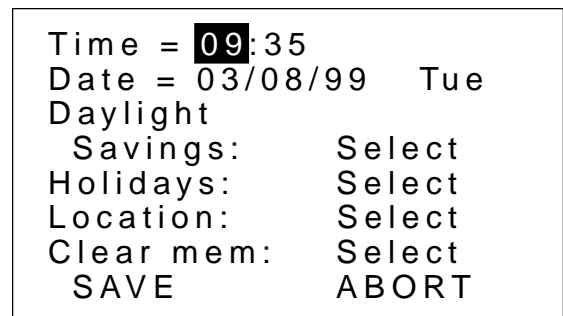


Figure 7 – Selecting Daylight Savings Time

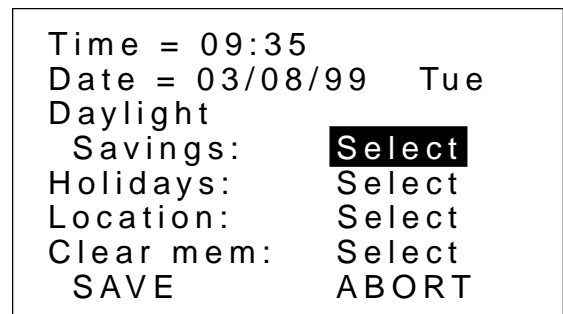
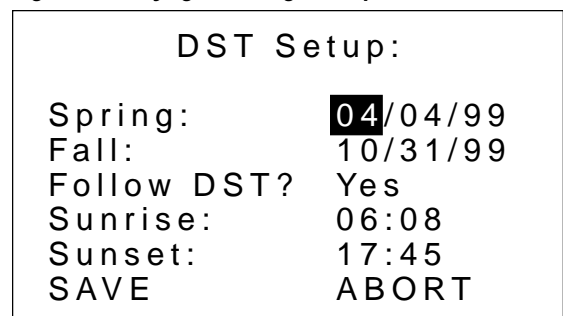


Figure 8 – Daylight Savings Setup Screen



Daylight Savings begins the first Sunday in April and ends the last Sunday in October

| | | | |
|----------------------------|----------------------------|----------------------------|----------------------------|
| 1999: April 4 – October 31 | 2001: April 1 – October 28 | 2003: April 6 – October 26 | 2005: April 3 – October 30 |
| 2000: April 2 – October 29 | 2002: April 7 – October 27 | 2004: April 4 – October 31 | 2006: April 2 – October 29 |

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 **Holidays 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 6) is **Location**. Selecting this field advances to the screen shown in Figure 11. This determines the geographic location of your site. Cursor to **State** and 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. In our example, Boise, Idaho was chosen.

When the location has been entered, again cursor to **SAVE** and press **SELECT** to return to the **Setup** screen.

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 screen shown in Figure 12 will appear. Use the **RAISE** or **LOWER** key to change **No** to **Yes** and press **SELECT**. The cursor will move to **Done**.

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

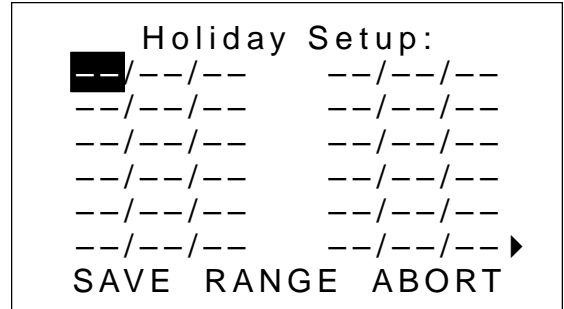


Figure 10 – Holiday Range Screen

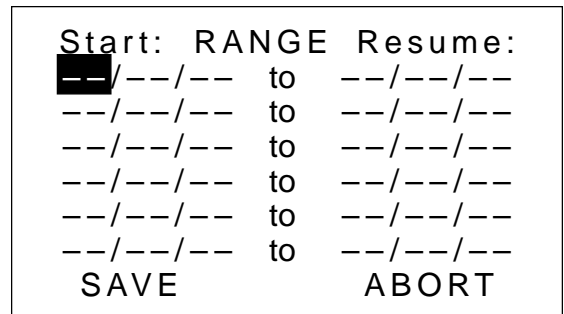


Figure 11 – Location Setup Screen

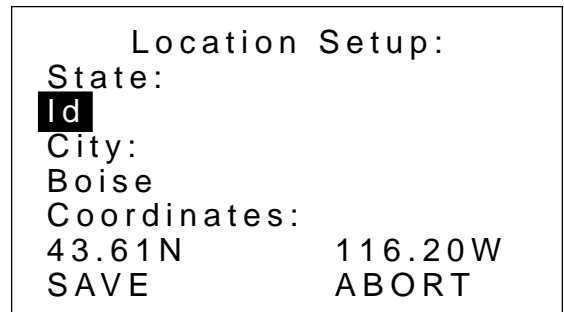
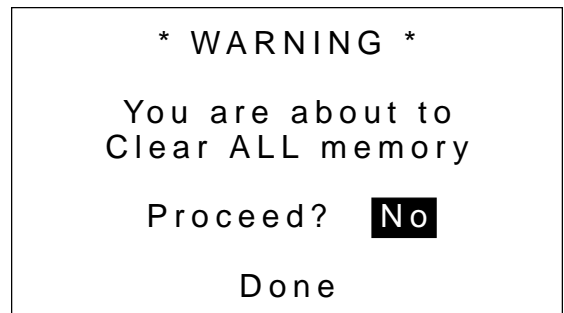


Figure 12 – Clear Memory Screen



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 **SWS 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 SWS 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 **SWS 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 the second field and, using the **RAISE** or **LOWER** keys if necessary, select **Man ON/ Sched OFF**. Then press the **SELECT** key (**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 "blink 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** at 120 minutes and set the **Blink before off?** to **YES**.

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
Channel Status:
  A = off     B = off
  C = off     D = off
  E = off     F = off
  G = off     H = off

Program       Setup
    
```

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.
Blink before off? YES
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.
Blink before off? YES
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.
Blink before off? YES
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 blink 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 **SWS 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 **Blink before off?** to **YES**. **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

```

Copy from:
Monday
Copy to:
-Mon   -Tues   -Wed
-Thur  -Fri    -Sat
-Sun   -Hol

SAVE          ABORT
    
```

Figure 18 – Copying A Schedule

```

Copy from:
Monday
Copy to:
-Mon   -Tues   -Wed
-Thur  -Fri    -Sat
-Sun   -Hol

SAVE          ABORT
    
```

Figure 19 – Selecting Scheduled ON/OFF

```

Channel B
Scheduled ON / OFF
Day: Monday
ON: 00:00   OFF: 00:00
ON: 00:00   OFF: 00:00
Time Delay: 000 MIN.
Blink before off? YES
SAVE COPY ABORT
    
```

Figure 20 – Scheduled ON/OFF Data Entry

```

Channel B
Scheduled ON / OFF
Day: Monday
ON: 06:00   OFF: 22:00
ON: 00:00   OFF: 00:00
Time Delay: 120 MIN.
Blink before off? YES
SAVE COPY ABORT
    
```

DATA ENTRY – SCHEDULING

Channel C: Astro ON/OFF – Sample

The security lighting associated with Channel C on the sample **SWS 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 and press the **SELECT** key to advance to the screen shown in **Figure 22**.

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 23**, **Channel D** and **Astro ON/Sched OFF** are chosen with the **RAISE** or **LOWER** keys and then the **SELECT** key is pressed.

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 – Selecting Astro ON/OFF

```

Channel C
Astro ON / OFF
Day: Monday
ON: 00:00 OFF: 00:00
ON: 00:00 OFF: 00:00
Time Delay: 000 MIN.
Blink before off? YES
SAVE COPY ABORT
    
```

Figure 22 – Astro ON/OFF Data Entry

```

Channel C
Astro ON/OFF

Dark =
000 min before sunset

SAVE ABORT
    
```

Figure 23 – Selecting Astro ON/Scheduled OFF

```

Channel D
ASTRO ON / Sched OFF
Day: Monday
ON: 00:00 OFF: 00:00
ON: 00:00 OFF: 00:00
Time Delay: 000 MIN.
Blink before off? YES
SAVE COPY ABORT
    
```

Figure 24

```

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

SAVE COPY ABORT
    
```

TESTING

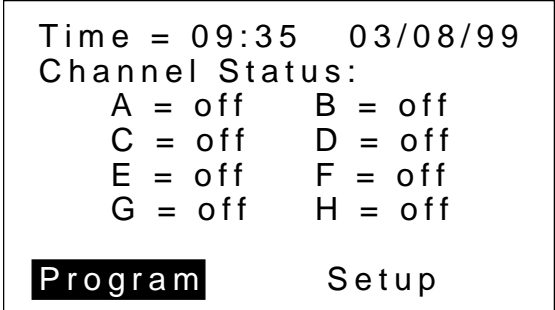
When scheduling is completed, make sure to return to the **Channel Status** screen. The Clock must be displaying this screen for the schedules to operate. Check the time and date.

Go to each panel with the **SWS 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 13 – Channel Status Screen



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.

