

Wattstopper®

Astronomical Time Switch (version 2)

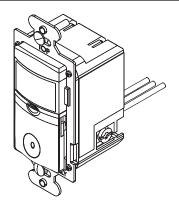
Wire Strippers

No: 24258 - 01/24 rev. 4

Installation Instructions • Instructions d'Installation • Instrucciones de Instalación

Catalog Number • Numéro de Catalogue • Número de Catálogo: RT-200

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China



SPECII ICATIONS				
Voltage	120/277VAC, 50/60Hz			
Load (Single Pole) 0-80	0W tungsten or ballast, 1/6HP			
Environment	Indoor Use Only			
Operating Temperature	32° to 122° F (0° to 50° C)			
Humidity	95% RH, non-condensing			
Countdown Optionsnone,	5 min, 10 min, 15 min, 30 min, (default), 3hr, 4 hr, 5 hr, or 6hr			
Tools Needed				
Insulated Screwdriver				

SDECIEIC ATIONS

DESCRIPTION AND OPERATION

The RT-200 is an astronomic time clock and timer switch that controls the connected light or fan either manually or through user programmed times.

Upon installation the user enters the correct longitude/latitude coordinates, date, and local time. This ensures that once the schedules are programmed, the load turns ON/OFF at the correct local times. The button switch is a customizable manual override feature with a default countdown of 2 hours.

Lighted Switch

To help locate the switch button in a dark room, an amber LED illuminates the ON/OFF button while the controlled load is OFF. When the load is ON, the LED is OFF.

A

WARNING

DISCONNECT POWER AT THE CIRCUIT BREAKER BEFORE INSTALLING THIS PRODUCT.

ONLY CONNECT THE RT-200 TO A SINGLE POLE CIRCUIT. THE RT-200 IS NOT SUITABLE FOR 3-WAY SWITCHING.

IF THE EXISTING WIRING DOES NOT MATCH THE DESCRIPTION FOR A SINGLE POLE

CIRCUIT, YOU SHOULD CONSULT WITH A QUALIFIED ELECTRICIAN.

INSTALLATION & WIRING

1. Prepare the switch box

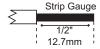
After the power is turned OFF at the circuit breaker box, remove the existing wall plate and mounting screws. Pull the old switch from the wall box.

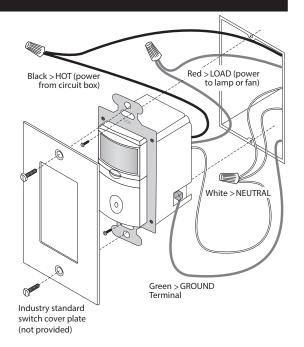
2. Identify the type of circuit

In a single pole circuit, two single wires connect to two screws on the existing switch. A ground wire may also be present and connected to a ground terminal on the old switch. A neutral wire should also be present in the wall box.

3. Prepare the wires

Tag the wires currently connected to the existing switch, so that they can be identified later. Disconnect the wires. Make sure the insulation is stripped off the wires to expose their copper cores to the length indicated by the "Strip Gauge" (approximately ½ inch).





4. Wire the time switch

Twist the existing wires together with the wire leads on the RT-200 as indicated in the table below. Cap them securely using the wire nuts provided.

Power wire from the circuit (hot)	to	Black wire on RT-200		
Power wire from the lamp or fan (load)		Red wire on RT-200		
Neutral wires from the circuit	to	White wire on RT-200		
Ground wire from the circuit	to	Ground terminal on RT-200		

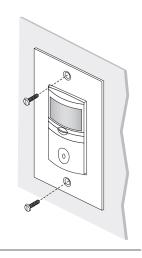
Put the RT-200 in the wall box with the display positioned above the ON/OFF button.
 Secure it to the wall box with the screws provided.

6. Install cover plates.

Install industry standard decorator wall switch cover plate (not included).

7. Restore power to the circuit.

Turn on the breaker or replace the fuse.



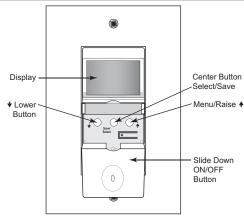
SETUP

To access the programming buttons, place the tip of a flat head screwdriver behind the lip at the top of the **ON/OFF** button and pull the button toward you. Slide the **ON/OFF** button down over the wallplate.



Buttons

The three programming buttons are used to set up the astronomic time switch according to the user's preferences and location.



RT-200 Menu Options

Once in the **SETUP** menu if there is no activity for 10 minutes, the unit automatically exits out to the **MAIN PAGE**.

From the standard display. known as the When the option "MAIN PAGE" Press the 1 that you want button to move press and to program is release the 1 to desired highlighted, button to enter **SETUP** menu press the center SETUP menu. option. button. Tue 03/31/2020

VIEWING SETTINGS

Once the RT-200 has been completely set up, it is possible to see the various programs without needing to enter the **SETUP** menu. From the **MAIN PAGE** press and hold the **ON/OFF** button. After 5 seconds the display changes to show the sunrise and sunset time. Continue to press and hold the **ON/OFF** button. The display will cycle through the 8 programs. Once the RT-200 has completed this cycle, it will continue to cycle through the programs as long as the button is being pressed.

MANUAL-ON

When the lights are turned **ON** manually, the word **MANUAL** appears on the bottom left corner of the display (replacing **PROG**). The default manual override time of the switch is 2 hours, and can be programmed to a countdown of NONE, 5, 10, 15 minutes or 1-6 hours. For example, if the countdown timer was scheduled to 2 hours, a load was scheduled to turn OFF at 10:00 PM, and a user turns the load ON at 10:15 PM, the lights will remain ON until 12:15 AM. If the load was scheduled to turn ON at 6:00 AM and the load is manually turned OFF at 9:30 AM, the load will remain OFF until 6:00 AM the following day or until manually turned ON.

When the load is ON the light bulb on the lower right corner of the display on the **MAIN PAGE** will have light beams surrounding it. When the connected load is OFF, the light beams will disappear.

POWER FAILURE

SET TIME AND DATE MENU

Within the **SET TIME AND DATE** menu you will enter the correct time, date and Daylight Savings Time (DST) start and end days. The unit is shipped with the correct DST start and end dates

already programmed.					
Setting	Steps				
TIME					
Hour	 From the SETUP menu highlight SET TIME AND DATE and press the center button. TIME should be highlighted. Press the center button to highlight hour. Press the ↓ button to decrease the hour or the ↑ button to increase the hour. Press the center button to save hour setting 				
	and move highlighted cursor to minute.				
Minute	 Press the ↓ button to decrease the minute or the ↑ button to increase the minute. Press the center button to save time setting. 				
DATE	Press the ↓ button to highlight DATE .				
Month	 Press the center button to highlight month. Press the ↓ button to decrease the month or the ↑ button to increase the month. Press the center button to save month setting and move highlighted cursor to day. 				
Day	 Press the ↓ button to decrease the day or the ↑ button to increase the day. Press the center button to save day setting and move highlighted cursor to year. 				
Year	 Press the ↓ button to decrease the year or the ↑ button to increase the year. Press the center button to save year setting. 				
DST (DAYLIGHT SAVINGS TIME)	Factory Default Setting: DST ENABLED (The unit will automatically adjust for Daylight Saving: Time). Press the ↓ button to highlight DST				
DST When enabled, DST appears in the upper right corner of the MAIN PAGE.	 Press the center button to highlight ENABLED. Press the ↑ button to switch between ENABLED and DISABLED. Press the center button to save DST setting. 				
Start - Week (Input week when DST starts)	 Press the ↓ button to highlight START. Press the center button to highlight 1st. Press the ↓ button to decrease the week of the month or the ↑ button to increase the week of the month. Press the center button to save the week and move highlighted cursor to the month. 				
Start – Month (Input month when DST starts)	 Press the ↓ button to decrease the start month or the ↑ button to increase the start month. Press the center button to save month. 				
End – Week	 Press the ↓ to highlight End. Follow same steps for Start – Week. 				
End – Month	Follow same steps for Start - Month.				

To exit **SET TIME AND DATE** menu, press the ↓ button to highlight PREVIOUS menu. Press the center button to select and return to the **SETUP** menu.

LOCATION MENU

Within the **LOCATION** menu you will be required to enter the local longitude/latitude coordinates and time zone. If you do not know this information, we have included a list of the major US cities on page 5. You can also find latitude and longitude lookup tools on the internet. One example is www.latlong.net.

Setting	Steps
TIME ZONE	From the SETUP menu highlight LOCATION and press the center button. TIME ZONE should be highlighted.
	Press the center button to select the time zone.
	3. Press the ↓ button to decrease the time zone or the ↑ button to increase the time zone.
	Press the center button to save time zone setting.
LONGITUDE	1. Press the ↓ button to highlight LONGITUDE .
	Press the center button to select the longitude
	 Press the ↓ button to decrease the longitude or the ↑ button to longitude the time zone.
	Press the center button to save longitude setting.
LATITUDE	Press the ↓ button to highlight LATITUDE .
	Press the center button to select the latitude.
	3. Press the ↓ button to decrease the latitude or the ↑ button to latitude the time zone.
	Press the center button to save latitude setting.

To exit the **LOCATION** menu, press the ↓ button to highlight PREVIOUS MENU. Press the center button to select and return to the **SETUP** menu. Once the location information is entered, return to the MAIN PAGE and press the left button. This will display the sunrise and sunset times. Use this as a check to validate that the location information has been entered in correctly.

COVER PLATES

Wattstopper RT wall switches fit behind industry standard decorator style switch cover plates.

TROUBLESHOOTING

Lighted switch is **OFF**, no load response to **ON/OFF** button press:

- · Make certain that the circuit breaker is on and functioning.
- Lighted switch is **ON**, no load response to **ON/OFF** button press:
 - Check the light bulb and/or motor switch on the fan mechanism.

NOTE: If load does not respond properly after following troubleshooting, turn OFF power to the circuit then check wire connections or call technical support.

PREFERENCES

The **PREFERENCES** menu allows the user to customize the unit's features including the time/date format, sound and flash.

- Time format choose between a 12-hour or 24-hour format
- Date format choose between MM/DD/YY or DD-MM-YY
- Sound When SOUND is enabled the RT-200 will beep every 5 seconds when the load is going to be turned OFF in less than a minute. It will also beep each time the user presses the ↑, the center, or the ↓ button. A small ear icon will appear on the MAIN PAGE when sound is enabled.
- Flash When FLASH is enabled the RT-200 turns OFF the load for 1 second and then turns it back ON to warn the user that the load is turning OFF in 1 minute. When flash is enabled, a lightening bolt icon will appear on the MAIN PAGE.
- Countdown When COUNTDOWN is enabled, the manual override to turn a load ON times out. Default countdown of manual override is 2 hours, but this can be adjusted or disabled. Available values: None, 5 min, 10 min, 15 min, 30 min, 1 hr, 2 hr, 3hr, 4 hr, 5 hr, or 6 hr.

Setting	Steps				
TIME FORMAT	From the SETUP menu highlight PREFERENCES and press the center button. TIME FMT should be highlighted.				
	Press the center button to select time format.				
	3. Press the ↑ button to change format.				
	 Press the center button to save time format setting and to move highlighted cursor back to TIME FMT. 				
DATE FORMAT	 Press the ↓ button to highlight DATE FMT. Press the center button to select date format. 				
	2. Press the ↑ button to change format.				
	Press the center button to save date format.				
SOUND	 Press the ↓ button to highlight SOUND. Press the center button to select the sound setting. 				
"	Press the ↑ button to enable or disable sound.				
	3. Press the center button to save setting.				
FLASH	 Press the ↓ button to highlight FLASH. Press the center button to select the flash setting. 				
	2. Press the ↑ button to enable or disable flash.				
	3. Press the center button to save setting.				
COUNTDOWN	 Press the ↓ button to highlight COUNTDOWN. Press the center button to select the countdown setting. 				
	Press the ↑ button or ↓ button to select the countdown time.				
	3. Press the center button to save setting.				

To exit the **PREFERENCES** menu, press the ↓ button to highlight **PREVIOUS MENU**. Press the **center** button to select and return to the **SETUP** menu.

SCHEDULING

The RT-200 has 8 programs allowing the user flexibility in setting schedules to turn the connected load ON/OFF.

Setting	Steps				
PROGRAM	From the SETUP menu highlight SCHEDULING and press the center button. PROGRAM should be highlighted. Press the center button to select program #.				
	Press the ↓ button to decrease the program and the ↑ button to increase the program #.				
	Press the center button to save the program #.				
Day(s) - Set the days of the week the lights	Press the ↓ button to highlight DAY(s) . Press the center button to select the days when the program will operate.				
will turn ON for that particular program	Press the ↑ to choose the day(s); choices include:				
program	None (program is not in use). All (program turns ON the connected load every day).				
	Mon – Fri (program turns ON the connected load Monday through Friday).				
	Weekends (program turns ON the connected load Saturday and Sunday.				
	Each individual day of the week (choose the day of the week that the connected load should turn ON).				
	Press the center button to save setting.				
ON – Program the time the connected load turns ON	Press the ↓ button to highlight ON. Press the center button to select what time the load will turn on.				
	Press the ↑ to set the ON time; choices include:				
	TIME (program a specific time to turn ON the load).				
	DUSK (program up to 99 minutes before or after dusk for the load to turn ON. Note: this is one of the reasons that it is important that the correct time zone, longitude/latitude coordinates are entered so that the time switch can determine when dawn and dusk will take place).				
	DAWN (program up to 99 minutes before or after dawn for the load to turn ON.				
OFF Brogram	Press the Leutton to highlight OFF Press				
OFF – Program the time the connected load	Press the ↓ button to highlight OFF. Press the center button to select what time the load will turn OFF.				
turns OFF	Press the ↑ to set the OFF time; choices are the same as for the ON time.				
	Press the center button to save setting.				

Follow the same steps to set Programs 1-8.

NOTE: For holidays, set a schedule for each individual day of week, and then change day to "None" for holiday shutoff.

To exit the **SCHEDULING** menu, press the ↓ button to highlight **PREVIOUS** menu. Then press the **center** button to select and return to the **SETUP** menu.

HOLIDAY OFF

The HOLIDAY OFF menu allows the user to set specific dates and duration that loads will be turned Off, There are 16 memory settings, allowing for programmming of up to 16 different holidays.

- Holiday- Valus of 1 through 16.
- · Status- choose between DISABLED or ENABLED
- Start Date- Set the date to beigin the HOLIDAY OFF function.
- Duration The number of days the Holiday Off function will be active. Values of 1 though 99, default setting is 1.

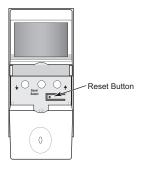
Setting	Steps
HOLIDAY	1. From the SETUP menu highlight HOLIDAY OFF and press the center button. HOLIDAY should be highlighted.
	2. Press the center button to select the program#.
	3. Press the ↑ or ↓ buttons to increase the program #.
	4. Press the center button to set the selected program # as the one being edited.
STATUS	1. Press the ↓ button to highlight STATUS . Press the center button to select date format.
	2. Press the ↑ button to enable or disable the status.
	3. Press the center button to save the status.
START DATE	1. Press the ↓ button to highlight START DATE . Press the center button to select the days, months, and years.
	2. Press the ↑ or ↓ buttons to increase or decrease the months, days, or years value.
	3. Press the center button to save the date.
DURATION	 Press the ↓ button to highlight DURATION. Press the center button to select number of days the load will turn OFF beginning when START DATE occurs (provided the STATUS is enabled).
	2. Press the ↑ or ↓ buttons to enable or increase or decrease the DURATION value.
	3. Press the center button to save setting.

To exit the **PREFERENCES** menu, press the ↓ button to highlight **PREVIOUS MENU**. Press the **center** button to select and return to the **SETUP** menu.

CITY STATE

PRODUCT RESET

The RT-200 has a reset button located under the ON/OFF button. If the unit has lost power for an extended period of time (more than 72 hours) and the unit appears to be functioning abnormally (the display is not on or lights are not turning ON/OFF according to the appropriate schedule), it may be necessary to reset the unit. Press and release the reset button. The display will reset so that the Legrand logo appears as it does upon initial power up. At this point, the user will be able to set the date, time and location and reset the programs.



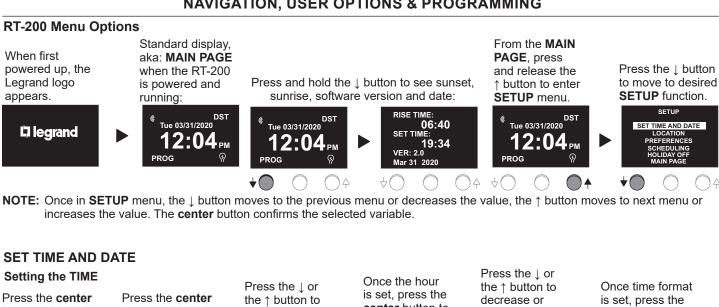
TOP MAJOR US CITY LOCATIONS

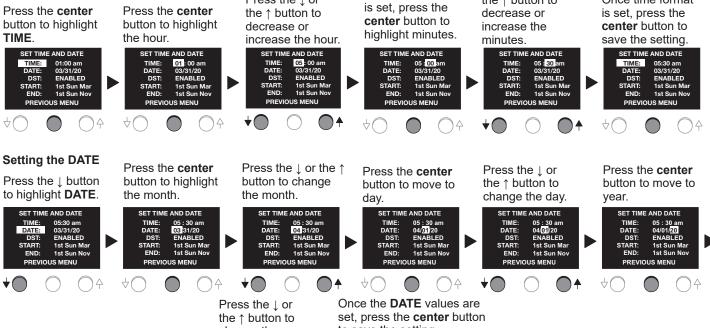
CMT LAT LONG

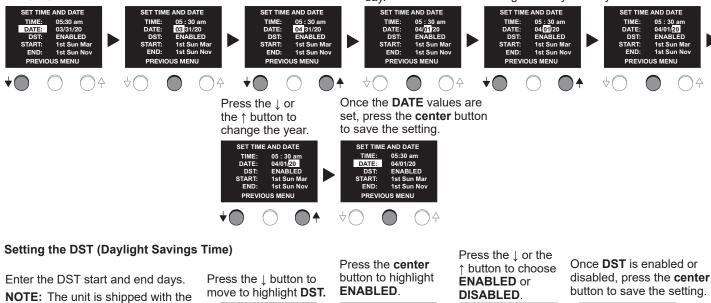
CMT LAT LONG CITY STATE

CITY, STATE	GMT	LAT	LONG	CITY, STATE	GMT	LAT	LONG
Albuquerque, NM	-7	35	-107	Memphis, TN	-6	35	-90
Arlington, TX	-6	32	-97	Mesa, AZ	-7	33	-111
Atlanta, GA	-5	34	-84	Miami, FL	-5	26	-80
Austin, TX	-6	30	-98	Milwaukee, WI	-6	43	-88
Baltimore, MD	-5	39	-77	Minneapolis, MN	-6	45	-94
Boston, MA	-5	42	-71	Nashville, TN	-6	36	-87
Charlotte, NC	-5	35	-81	New Orleans, LA	-6	30	-90
Chicago, IL	-6	42	-88	New York, NY	-5	41	-74
Cleveland, OH	-5	41	-82	Oakland, CA	-8	38	-122
Colorado Springs, CO	-7	38	-104	Oklahoma City, OK	-6	35	-98
Columbus, OH	-5	40	-83	Omaha, NE	-6	41	-96
Dallas, TX	-6	33	-97	Philadelphia, PA	-5	40	-75
Denver, CO	-7	40	-105	Phoenix, AZ	-7	33	-112
Detroit, MI	-5	42	-83	Portland, OR	-8	46	-123
El Paso, TX	-7	32	-106	Raleigh, NC	-5	36	-79
Fort Worth, TX	-6	33	-97	Sacramento, CA	-8	39	-121
Fresno, CA	-8	37	-120	Salt Lake City, UT	-7	41	-112
Honolulu, HI	-10	21	-158	San Antonio, TX	-6	30	-98
Houston, TX	-6	30	-95	San Diego, CA	-8	33	-117
Indianapolis, IN	-5	40	-86	San Francisco, CA	-8	38	-122
Jacksonville, FL	-5	30	-82	San Jose, CA	-8	37	-122
Kansas City, MO	-6	39	-95	Seattle, WA	-8	47	-122
Las Vegas, NV	-8	36	-115	Tucson, AZ	-7	32	-111
Long Beach, CA	-8	34	-118	Tulsa, OK	-6	36	-96
Louisville, KY	-5	38	-86	Virginia Beach, VA	-5	36	-75
Los Angeles, CA	-8	34	-118	Washington, DC	-5	39	-77

NAVIGATION, USER OPTIONS & PROGRAMMING

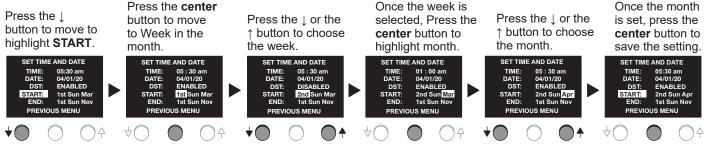






SET TIME AND DATE correct DST start and end SET TIME AND DATE dates already programmed. PREVIOUS MENU PREVIOUS MENU

Setting the DST START DATE

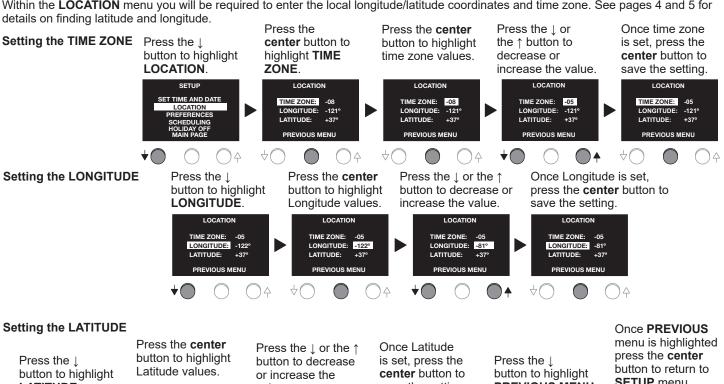


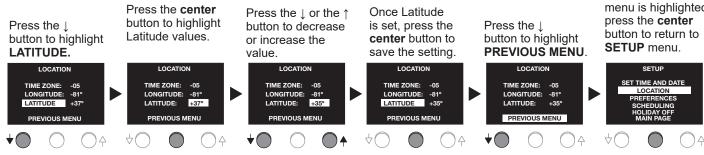
Setting the DST END DATE

Repeat the same process as setting the DST start date for setting the DST end date. Once the DST end date is set, press the ↓ button to highlight PREVIOUS menu. Press center button to return to the SETUP menu.

Location

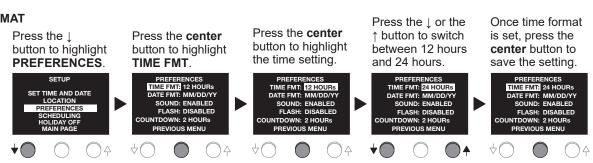
Within the LOCATION menu you will be required to enter the local longitude/latitude coordinates and time zone. See pages 4 and 5 for

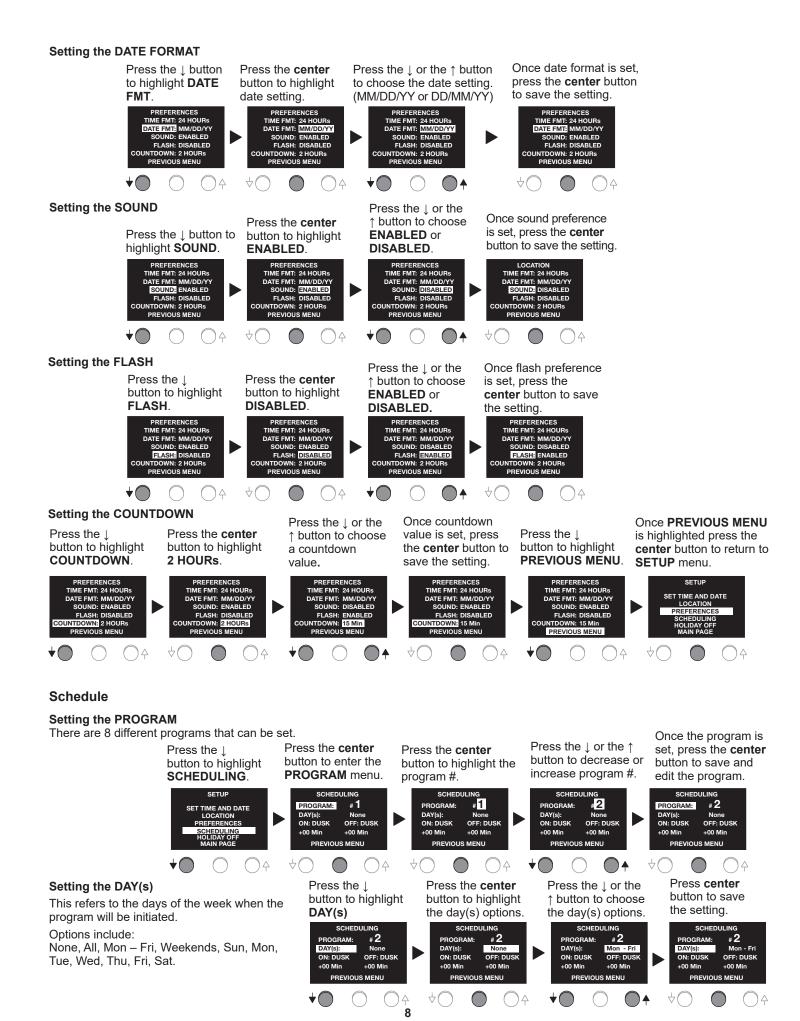




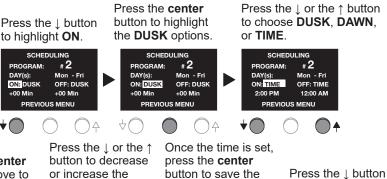
Preferences





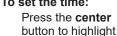


Setting ON/OFF This sets when the program will come on. The options for this setting are DUSK, DAWN, or TIME. The DAWN or **DUSK** option will program the number of minutes before or after dawn or dusk that program should take effect. Dusk and Dawn are based on the Longitude and Latitude settings. If you choose Time, then the time parameters are enabled. To set the time: Press the center Press the ↓ or the ↑

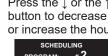


ON: TIME

17: 30



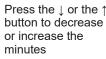














button to save the setting

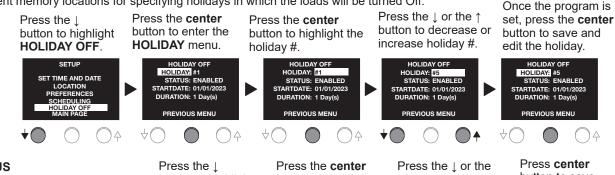


Follow the same steps for setting the OFF options as you did for setting the ON options. The same process is used for setting the **DAWN** and **DUSK** options that was used for setting the **TIME** option. Once the DST end date is set, press the ↓ button to highlight PREVIOUS menu. Press center button to return to the SETUP menu.

Holiday Off

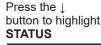
Setting the HOLIDAY

There are 16 different memory locations for specifying holidays in which the loads will be turned Off.



Setting the STATUS

Each Holiday location can be enabled or disabled. If disabled, the memory location will retain the Date and duration settings but will not turn off the loads.





button to highlight the status options.



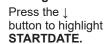
↑ button to choose the status options.



button to save the setting.



Setting the START DATE





Press the **center** button to highlight the month.



Press the ↓ or the ↑ button to change the month.



Press the center button to move to day.



Press the 1 or the ↑ button to change the day.



Press the center button to move to vear.



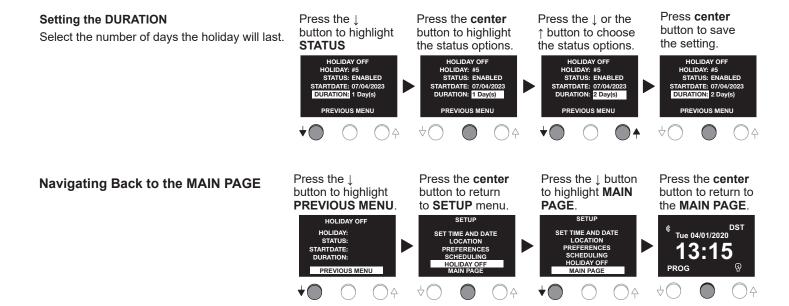
Press the ↓ or the ↑ button to change the year.



are set, press the center button to save the setting.



Once the **STARTDATE** values



WARRANTY INFORMATION

INFORMATIONS RELATIVES À LA GARANTIE

INFORMACIÓN DE LA GARANTÍA

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