DEFIANT®

Use and Care Guide
DAYLIGHT ADJUSTING INDOOR DIGITAL TIMER

Item #1002-229-532
Model #32648
UPC #030878326483

Before You Begin:

Product Features

- Multiple ON/OFF settings for each day of the week, daily cycles, or weekday - weekend cycles
- Stores up to seven individual programs
- A Random feature, which turns the lights off and on between 30 minutes before and after the programmed time, giving the appearance that somebody currently is home

Pre-Installation Requirements

- This timer requires that your switch box have a neutral wire in order for the timer to operate correctly. If you open up your switch box and see only two wires, this indicates that your switch box does not have a neutral wire, and this timer will not work.
- This timer will work in a single-pole or 3-way installation. It will not work in a 4-way installation.
- This timer will only work on loads up to 15A.

Safety Information

WARNING

RISK OF ELECTRIC SHOCK:
- ☐ Shut off the power at the fuse box or circuit breaker before installation.
- ☐ Do not use in wet locations.
- ☐ Use indoors only.

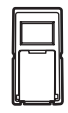
RISK OF ELECTRIC FIRE:
- ☐ Do not use to control appliances that contain heating elements such as cooking appliances, heaters, and irons.
- ☐ Do not exceed electrical ratings.
- ☐ Do not use to control receptacles.
- ☐ Use only copper wire with this device.
- ☐ Tighten all connections to 1-1.4 N-m (8.85 to 12.39 lbf-in.).
- ☐ For supply connections, use 14 AWG or larger wire rated at least 75°C.
- ☐ For grounding lead, use 12 AWG or larger wire rated at least 75°C.

Product Specifications

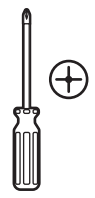
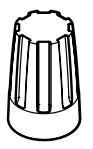
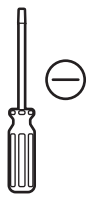
- Single-pole or 3-way installation

RATINGS				
125 VAC, 60 Hz	15A Resistive	10A Tungsten	10A Ballast	1/2 HP Motor

Hardware Included

		
AA - Face Plates x2 (White & Light Almond)	BB - Screw x2	CC - Jumper Wire x2

Suggested Tools

			
Phillips screwdriver	Wire strippers	Wire Nut (3-way installation only) (not included)	Flathead screwdriver

Pre-Installation

PREPARING THE TIMER FOR INSTALLATION

a. Remove the timer from the packaging and locate the LINE, LOAD, NEUTRAL, and GROUND terminals on the back of the timer.

b. Loosen the LINE, LOAD, NEUTRAL, and GROUND screws with either a flathead or Phillips screwdriver. When loosening screws, stop when you feel resistance.

CHANGING THE FACEPLATE

This device includes a light-almond faceplate. To switch faceplates, complete these steps:

a. Gently remove the white faceplate using a flathead screwdriver. Find the slots at the bottom left or right of the white faceplate and pry the faceplate loose. See Figure 1. Work around the faceplate until it pops off.

b. Find the light-almond faceplate in the package. Place the new faceplate into position and push the top of the faceplate into position. Then hold the top of the faceplate in place and push the bottom of the faceplate until it snaps into place.

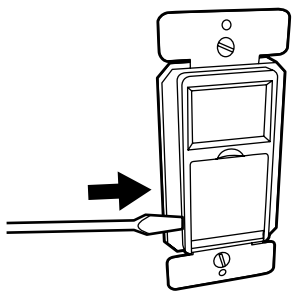


Figure 1 - Removing the Faceplate

Installation Terms and Options

⚠ **WARNING:** Shut off power at the fuse box or circuit breaker before performing any wiring or installation.

BASIC WIRING TERMINOLOGY

To better familiarize yourself with the wiring terminology and concepts referenced in this manual, please review the following information before you begin wiring this timer to your switch outlet. If at any time during the wiring process you become uncertain, please contact a certified electrician.

- ☐ **Line:** 120VAC (hot) wire that supplies voltage from the breaker box to the wall outlet
- ☐ **Load:** 120VAC (hot) wire that connects the wall outlet to the device (load) being controlled
- ☐ **Neutral:** 120V return connection completing the circuit to the breaker box
- ☐ **Ground:** 120V safety wire providing a path for electricity to be discharged
- ☐ **Traveler-1 and Traveler-2:** wires running between two 3-way switches for installations where an outlet is controlled by two switches

INSTALLATION OPTIONS

To begin the installation process, you must first know what type of installation is needed. Below are the three different installation options. Please refer to the following descriptions for the installation instructions that apply to you.

1 **Single-Pole Installation (Go to install section 1 on page 2):**
This installation option should be used when a switch only controls one outlet from a single location. Typically you would find a single-pole switch in your bedroom or bathroom.

2 **3-Way Installation, Load Side (Go to install section 2 on page 2):**
This installation option replaces a switch which controls an outlet that can be controlled from two separate switches and in most installations has the common (hot) terminal tied to the device/load. The switch turns OFF and ON. Typically these types of installations are in stairwells, hallways, and large rooms with multiple access points.

3 **3-Way Installation, Line Side (Go to install section 3 on page 2):**
This installation option replaces a switch which controls an outlet that can be controlled from two separate switches and in most installations has the common (hot) terminal tied to 120VAC. Typically these types of installations are in stairwells, hallways, and large rooms with multiple accesses points.

Please reference page 1 to identify the right installation method for your timer and basic wiring terms.

1 Single-Pole Installation

⚠ **WARNING:** If you are unsure or unclear about this installation, or if the wires in your box do not match the manual (not all switch boxes have neutral wires), contact a qualified, licensed electician.

Disconnect the power at the circuit breaker or fuse box.

a. Remove the existing switch.
b. Connect the timer to the wall box wires as shown. See Figure 2.
   - □ Connect the hot/live Line wire to the LINE terminal of the timer.
   - □ Connect the hot/live Load wire to the LOAD terminal of the timer.
   - □ Connect the Ground wire to the GROUND terminal of the timer.
   - □ Connect the white Neutral wire to the NEUTRAL terminal of the timer. Often the Neutral wire can be found in the back of the wire box connected with a wire nut. There may be several neutral wires bound together. Add the timer Neutral wire to the other neutral wires, bound together making sure the wire nut is tight.
c. Ensure that all terminals are tightened to between 8.85 and 12.39 lbf-in., and tuck the wires into the wall box, leaving room for the timer.
d. Use the screws (BB) to mount the timer to the wall box, being careful not to crush any wires.
e. Reinstall your wall plate.
f. Turn the main power on at the circuit breaker.
g. If the timer does not turn on, disconnect the power at the circuit breaker or fuse box. Swap the Line and Load wires on the timer. Remount the timer and wall plate, then restore power at the fuse box or circuit breaker.

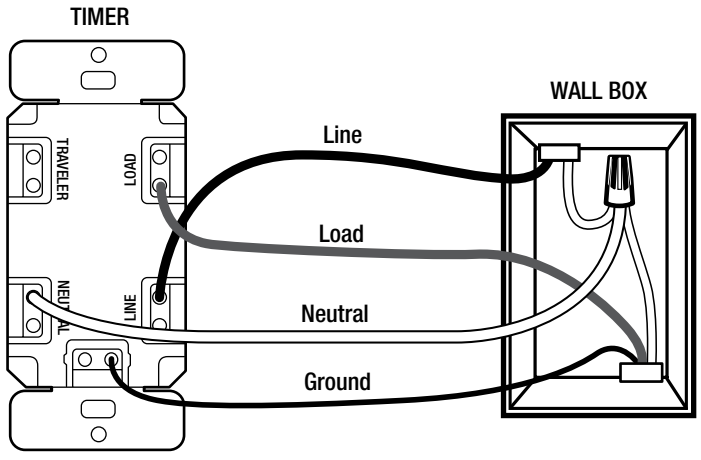


Figure 2 - Connecting the Timer Wires for Single-Pole Installation

2 Timer On Load Side 3-Way Installation Instruction

SEE FIGURES 3 & 4 BELOW

NOTE: The common is typically a dark colored screw on a single pole or 3-way toggle switch.

NOTE: If you are using your timer to control a fluorescent lamp, the timer must be installed on a load-side wiring box.

PREPARING THE SWITCH ON THE LINE SIDE

a. Disconnect the power from the circuit by turning off the circuit breaker or removing the fuse from the fuse box.
b. Using the Line Side of Figure 3 as a visual reference, label and remove the Line wire (1) from the common terminal (C) and the Traveler-2 wire (7) from the HOT terminal (H).
c. Using Figure 4 as a visual reference, connect the jumper wire (6) (supplied part CC), the Line wire (1) from the common terminal (C), and the Traveler-2 wire (7) together. You should have three wires connected with one wire nut.
d. Connect the other end of the jumper wire (6) back to the common terminal (C) on the switch. Consider recording the marking/color coding of the Traveler-1 (5) and Traveler-2 (7) wires so you can tell them apart for later use.
e. Carefully tuck the wires into the box, leaving room for the switch.
f. Install the switch back into the box.

INSTALLING THE TIMER ON THE LOAD SIDE

a. Using the Load Side of Figure 3 as a visual reference, remove the Load Side 3-way switch and the four wires, labeling the wire removed from the common terminal as Load (4) and the wires from the HOT terminals (H) as Traveler-1 (5) and Traveler-2 (7).
b. Using the Timer On Load Side of Figure 4 as a visual reference for the remaining steps, connect the Load wire (4) to the LOAD terminal of the timer.
c. Connect the Traveler-2 wire (7) to LINE terminal of the timer.
d. Connect the Traveler-1 wire (5) to the TRAVELER terminal of the timer.
e. Connect the white Neutral wire (2) from the switch box to the NEUTRAL terminal of the timer. More neutral wires may be bundled in the back of the switch box; there may be several neutral wires bound together with a wire nut. Add the Neutral wire to the other neutral wires bound together, ensuring the wire nut is tight.
f. Connect the green Ground wire (3) in the switch box to the GROUND terminal of the timer.
g. Carefully tuck the wires into the switch box, leaving room for the timer.
h. Use the supplied screws (BB) to install the timer, being careful not to crush or pinch the wires.
i. Restore power at the circuit breaker or fuse box.
j. Verify that the load turns on/off when you manually turn the timer ON and OFF. Perform this test with the remote switch in both positions. You should hear the timer relay click on/off. If you hear the relay click but the load does not turn on/off properly, check your wiring.
k. If the load does not operate properly, disconnect the power at the circuit breaker or fuse box. Then swap the Traveler-2 (Line) wire (7) and Traveler-1 wire (5) on the timer.

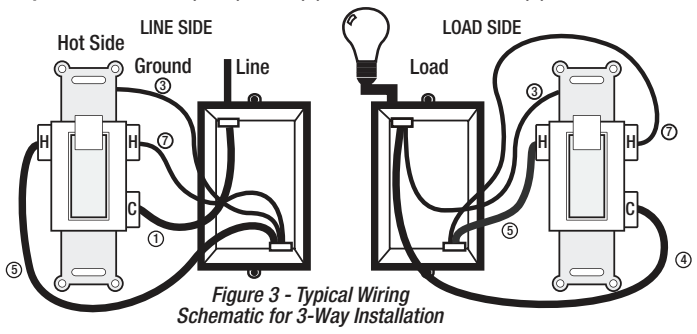
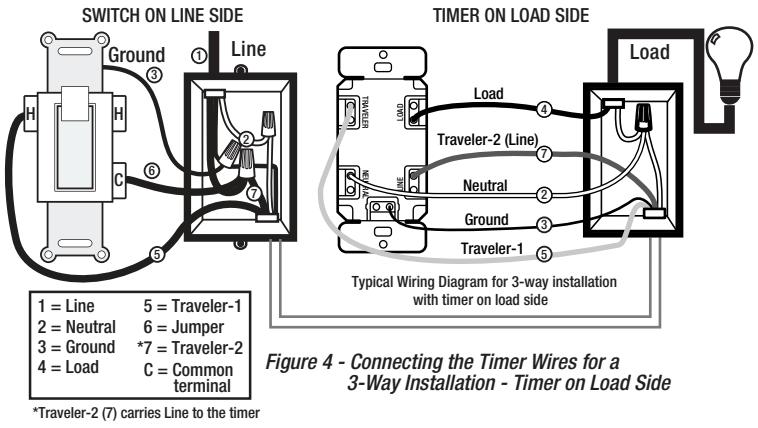


Figure 3 - Typical Wiring Schematic for 3-Way Installation

In a typical 3-way application there are two 3-way switches. The switch on the "HOT" side has the common terminal tied to 120VAC. The switch on the "LOAD" side has the common terminal tied to the load that the switches turn on and off.



Typical Wiring Diagram for 3-way installation with timer on load side

Figure 4 - Connecting the Timer Wires for a 3-Way Installation - Timer on Load Side

*Traveler-2 (7) carries Line to the timer

3 Timer On Line Side 3-Way Installation Instruction

SEE FIGURES 5 & 6 BELOW

NOTE: The common is typically a dark colored screw on a single pole or 3-way toggle switch.

NOTE: If you are using your timer to control a fluorescent lamp, the timer must be installed on a load-side wiring box.

PREPARING THE SWITCH ON THE LOAD SIDE

a. Disconnect the power from the circuit by turning off the circuit breaker or removing the fuse from the fuse box.
b. Using the Switch On Load Side of Figure 5 as a visual reference, label and remove the Load wire (4) from the common terminal (C) and the Traveler-2 wire (7) from the HOT terminal (H).
c. Using Figure 6 as a visual reference, connect the jumper wire (6) (supplied part CC), the Load wire (4) from the common terminal (C), and the Traveler-2 wire (7) together. You should have three wires connected with one wire nut.
d. Connect the other end of the jumper wire (6) back to the common terminal (C) on the switch. Consider recording the marking/color coding of the Traveler-1 (5) and Traveler-2 (7) wires so you can tell them apart for later use.
e. Carefully tuck the wires into the switch box leaving room for the timer.
f. Install the switch back into the box.

INSTALLING THE TIMER ON THE LINE SIDE

a. Using the Line Side of Figure 5 as a visual reference, remove the Line Side 3-way switch and the four wires, labeling the wire removed from the common terminal (C) as Line (1) and the wires from the HOT terminals (H) as Traveler-1 (5) and Traveler-2 (7).
b. Using the Timer on Line Side of Figure 6 as a visual reference for the remaining steps, connect the Line wire (1) to the LINE terminal of the timer.
c. Connect the white Neutral wire (2) to the NEUTRAL terminal of the timer. More neutral wires may be bundled together in the back of the switch box; there may be several neutral wires bound together with a wire nut. Add the Neutral wire to the other neutral wires bound together, ensuring the wire nut is tight.
d. Connect the Traveler-1 wire (5) to the TRAVELER terminal of the timer and the Traveler-2 wire (7) to the LOAD terminal of the timer.
e. Connect the green Ground wire (3) to the GROUND terminal of the timer.
f. Carefully tuck the wires into the switch box, leaving room for the timer.
g. Use the supplied screws (BB) to install the timer, being careful not to crush or pinch the wires.
h. Restore power at the circuit breaker or fuse box.
i. Verify that the load turns on/off when you manually turn the timer ON and OFF. Perform this test with the remote switch in both positions. You should hear the timer relay click on/off. If you hear the relay click but the load does not turn on/off properly, check your wiring.
j. If the load does not operate properly, disconnect the power at the circuit breaker or fuse box. Then swap the Traveler-2 (Load) wire (7) and Traveler-1 wire (5) at the timer or the toggle switch.

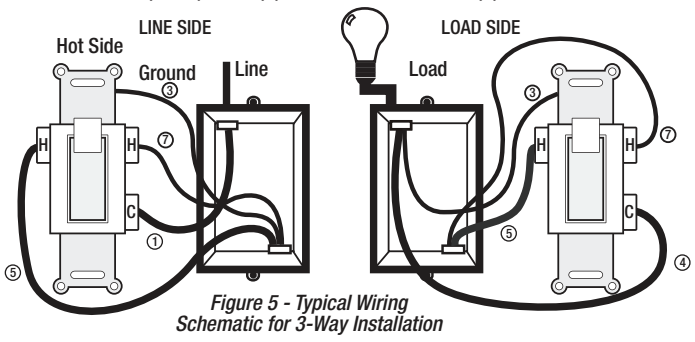
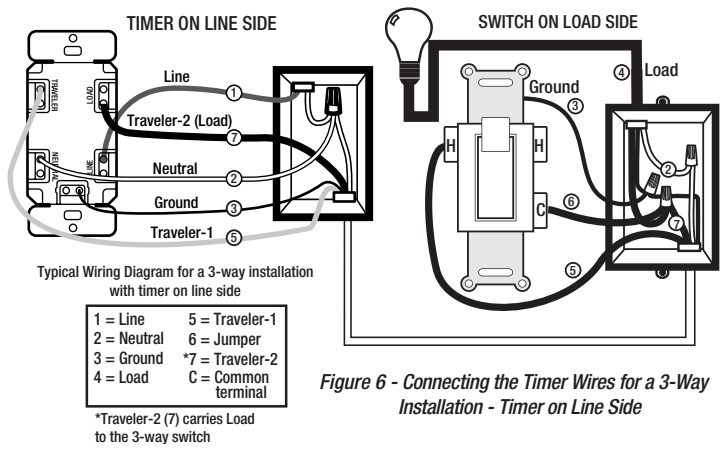


Figure 5 - Typical Wiring Schematic for 3-Way Installation

In a typical 3-way application there are two 3-way switches. The switch on the "HOT" side has the common terminal tied to 120VAC. The switch on the "LOAD" side has the common terminal tied to the load that the switches turn off and on.



Typical Wiring Diagram for a 3-way installation with timer on line side

Figure 6 - Connecting the Timer Wires for a 3-Way Installation - Timer on Line Side

*Traveler-2 (7) carries Load to the 3-way switch

Programming Instructional Video

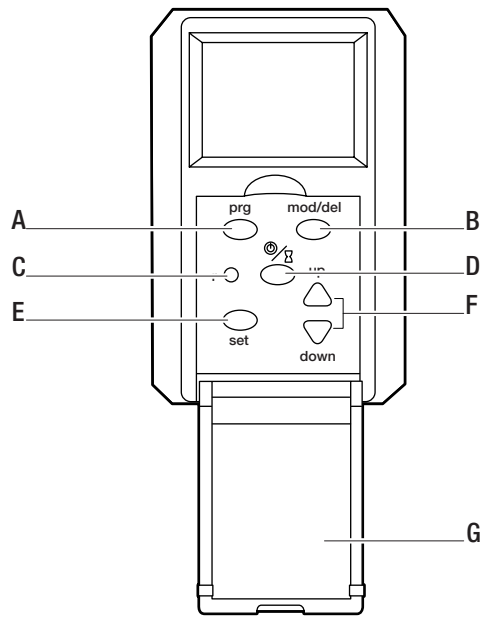
To view an instructional video on how to program this product:

1. **Go to www.homedepot.com and enter either the Item or Model number found in the top right corner of this instruction sheet in the search field.**
2. **Click on your product from the list of search results and click on the video link in the Product Overview section.**

Initial Setup

PRODUCT DESCRIPTION

Part	Description
A	**PROGRAM (prg)**: Press to set daily on/off times.
B	**MODE/DELETE (mod/del)**: Press to choose from auto, manual, or random modes. When the timer is in Program mode (prg), this button deletes program settings.
C	**RESET**: Push to reset the timer to default settings.
D	**ON/OFF and TIMER OVERRIDE**: Press to turn load on/off and press and hold to start the Countdown function.
E	**SET**: Press to set the calendar, clock, dusk, dawn, and daylight savings settings.
F	**UP/DOWN BUTTONS**: Press to scroll through timer setting options.
G	**TIMER DOOR**: Close after programming. Press to turn ON/OFF (timer override).



1 SETTING THE TIMER UP FOR THE FIRST TIME

NOTE: This timer will automatically return to the clock mode if a button is not pushed for 20 seconds. Push the Set button (E) once to return to program mode if this happens.

a. Using a toothpick or a pencil, gently press reset (C) to clear all programming and set the timer to default settings.
b. Press the SET (E) button to begin setting the time and calender. The time “12:00 am” will be flashing. See Figure 7.
c. Use the UP/DOWN buttons (F) to set the current time, taking note of the AM and PM on the display. Press SET (E) when the current time is displayed.
d. Use the UP/DOWN buttons (F) to select the year then press SET (E).
e. Use the UP/DOWN buttons (F) to set the month then press SET (E).
f. Use the UP/DOWN buttons (F) to set the day then press SET (E).



Figure 7



Figure 8

g. When DST appears on the display (see Figure 8), use the UP/DOWN buttons (F) to turn DST On/Off then press SET (E).

NOTE: Choose DST ON if your local area observes Daylight Saving Time. The timer will automatically adjust backwards and forwards an hour. Choose DST OFF if your local area does not observe Daylight Saving Time.

h. If you selected DST ON, the display flashes “ZONE”. Proceed to step 2 - SETTING THE DAWN/DUSK REGION (ZONE).

2 SETTING THE DAWN/DUSK REGION (ZONE)

IMPORTANT: This step does not set your time zone. In this step you are identifying your location based on this map to ensure an accurate dawn and dusk time for your area.

View Figure 9 and determine which zone best fits your location. The options are NOR: North, CENT: Central, SOUT: South, HAWA: Hawaii, and ALAS: Alaska.

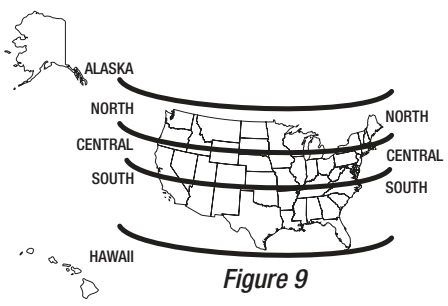


Figure 9

a. Use the UP/DOWN buttons (F) to select the zone where the timer is installed then press SET (E). See Figure 10.



Figure 10

b. Use the UP/DOWN buttons (F) to set the dusk time then press SET (E). The approximate dusk time will be flashing. The approximate time may be changed + or – 2 hours in order to find the desired dusk time. See Figure 11A.

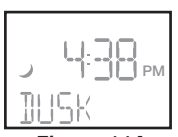


Figure 11A

c. Use the UP/DOWN buttons (F) to set the dawn time then press SET (E). The approximate dawn time will be flashing. The approximate time may be changed + or – 2 hours in order to find the desired dawn time. See Figure 11B.



Figure 11B

d. Press SET (E) to complete setup and the timer will return to clock mode.

CONTINUE TO PAGE 4 TO COMPLETE SET UP AND PROGRAMING

Programming

1 PROGRAMMING THE ON/OFF DAYS

a. Press the PROGRAM (prg) button (A) to begin programming times. The display will show program 1 on. See Figure 12. Press PROGRAM (prg) (A) to scroll through the remaining On/Off programs until you reach an available program (if you are programming multiple programs). There are 7 On/Off programs available. Once you are on the correct program press SET (E).

b. Use the UP/DOWN buttons (F) to scroll the days of the week the timer will activate:

- □ MO, TU, WE, TH, FR, SA, SU (Default)
- □ MO through SU: Individual days
- □ MO, TU, WE, TH, FR
- □ SA, SU
- □ SU, MO, TU, WE, TH
- □ FR, SA

c. Press SET (E) to select your desired days of the week setting. Proceed to step 2 - PROGRAMMING THE ON/OFF TIME.



Figure 12

NOTE: Programs will not work if they overlap.

NOTE: You can add up to 7 programs.

NOTE: The timer screen will return to the clock if no buttons are pushed for 20 seconds.

2 PROGRAMMING THE ON/OFF TIME

a. Press **UP/DOWN buttons (F)** to choose from one of these three options to begin configuring the timer's ON time. Press SET (E) to choose your setting option and PROGRAM (prg) (A) to proceed to step b.

- □ **TIME:** Press the UP/DOWN buttons (F) to set any customer time, taking note of the AM/PM on the display. See Figure 13.
- □ **DUSK:** Sets the timer to the DUSK time that is displayed. See Figure 14.
- □ **DAWN:** Sets the timer to the DAWN time that is displayed. See Fgure 15.

b. Repeat steps 1 and 2 to set additional programmed times (up to 7 total). To exit programming mode and return to clock mode, press and hold the PROGRAM (prg) (A) button for 3 seconds, or do not press any buttons for 20 seconds.



Figure 13



Figure 14



Figure 15

Additional Programming Options

1 REVIEWING PROGRAMS

- □ Press the PROGRAM (prg) button (A) to scroll through the existing On/Off programs (7 maximum).

2 DELETING PROGRAMS

- □ Press the PROGRAM (prg) button (A) to scroll through the existing On/Off programs. Stop on the program to be deleted and press MODE/DELETE (mod/del) (B) to delete. The screen will show the program has been deleted.

3 SETTING THE RANDOM (RND) SECURITY OPTION

The random (rnd) feature will turn lights on and off using the programmed times + or – 30 minutes, giving the house a more lived in appearance while the occupant is away.

To activate random, press MODE/DELETE (mod/del) (B) until RND flashes on the screen. To turn off, press MODE/DELETE (mod/del) (B) again to enter the manual or automatic setting. See Figure 16.



Figure 16

Additional Features

USING THE THREE AVAILABLE TIMER MODES (OPTIONAL)

Press MODE/DELETE (mod/del) (B) to scroll through the available modes:

- □ AUTO – (Automatic) Timer is set to Automatic and will follow the selected program (1-7).
- □ MANU – (Manual) Timer does not follow a program. Turn the lights On and Off by pressing the door (G).
- □ RND – (Random) Timer will turn lights on and off using one of the existing program times + or – 30 minutes.

COUNTDOWN MODE

Press and hold the ON/OFF button (D) for about 3 seconds.

1. Use UP/DOWN buttons (F) to select countdown time (default is 1 hour). See Figure 17.
2. Stop on the time desired and the timer will countdown. The time chosen will become the new default. If using default countdown time of 1 hour, press the door (G) for 3 seconds and countdown function will begin. Lights will turn off once countdown has completed. Hold the ON/OFF button (D) for 3 seconds to cancel the countdown.



Figure 17

Troubleshooting

Three way switch will not work:
- Make sure jumper wiring is correct.

Lights on all day controlled by timer:
- Check to make sure the clock time is set for correct am/pm
- Check to make sure Dusk time and dawn time are not reversed

Lights come on and off at times different than they programmed:
- Check to see if there are multiple programs on the timer that conflict with each other.
- 3-Way switch may have been used to turn lights off or on, the timer should function correctly during the next program cycle.

FCC NOTE

This device complies with part 15 of the FCC and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for aClass B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in aresidential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with theinstructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user isencouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit differentfrom that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help
CAN ICES-3(B)/NMB-3(B)