Digital Time Switch

GE 15136 Timer

APPLICATION

This digital GE Time Switch (15132) is a universal, electromechanical time switch which can be field configured for various power supply voltages. The voltage options include 120VAC, 208/240VAC and 277VAC – all within the same unit! Selection of the desired supply voltage is easily achieved by positioning dipswitches on the printed circuit board assembly (consult Dipswitches Configuration on back). The mechanism is mounted in a NEMA indoor or outdoor enclosure and is intended for the control of lighting, heating, air conditioning, pumps, motors, or general electrical circuits in residential, commercial, industrial and agricultural facilities.

SPECIFICATIONS

Input Voltage: 120 VAC, 208/240 VAC, or 277 VAC in all units based upon dipswitch configuration.

15087	**NEMA 3R**	**Indoor & Outdoor**	**BM-A301US5-O2**
15207	**NEMA 1**	**Indoor**	**BM-A301US5-I2**
56922	**NEMA 1**	**Indoor**	**BM-A301US5-I2**
15132	**NEMA 3R**	**Indoor & Outdoor**	**EM-A301US9-O2**
15136	**NEMA 3R**	**Indoor & Outdoor**	

Switch Rating: DPDT Models

Normally Open Contacts

40A Resistive, 120-277Vac.
30A General Purpose, 120-277Vac.
20A Resistive, 30Vdc
1 HP, 120Vac ; 2HP, 240Vac ;
20A Ballast, 120-277Vac.
15A Tungsten, 120Vac
5.4A Tungsten, 208-277Vac.
800VA, Pilot Duty, 120Vac.
720VA, Pilot Duty, 240-277Vac.
TV-5, 120Vac

Normally Closed Contacts

30A Resistive, 120-277Vac
15A General Purpose, 120-277Vac
15A Resistive, 30Vdc
20A Ballast, 120-277Vac
1/4HP, 120Vac; 1/2HP, 208-240Vac.
290VA, Pilot, 120Vac.
360VA, Pilot, 208-240Vac.

NOTE: If loads are connected to both NC and NO contacts, both contacts are decorated to 67% of the above values.

ENVIRONMENTAL RATINGS

Ambient Temperature: –40F to 130F
Humidity: 0-95% RH, Non-condensing

WIRING CONNECTIONS

Screw clamp terminals for up to 2 AWG #8 wires per position. For supply connections, use 8AWG or larger wires suitable for at least 105° C. Use copper conductors only.

Lights

Power LED (Orange) – Light illuminates when power is applied to the timer

Status LED (Green) – Light illuminates when power is applied to load.

Included Hardware

QTY	Hardware
3	M4 Anchors 1" Long
3	M4 Screws 1" Long
2	8 AWG Jumpers for 240V AC
2	10 AWG Jumpers for 120V AC
1	Wire Nut (For Ground Wires)

INSTALLATION

CAUTION: Before wiring or servicing, power to this time switch and the equipment it controls must be turned off. Turning off the time switch only will not prevent a shock hazard. Replace cover plate within housing before supplying power to time switch. If you are not comfortable installing this device please contact a licensed electrician. Before installing this product read all instructions carefully.

Removing Knockout

1. Select knockouts to be used. Remove the inner 1/2" knockout by inserting a flathead screwdriver on the inner most ring and carefully punching the knockout loose. Remove slug. If the 3/4" knockout is required, remove the outer ring with pliers after removing the 1/2" knockout. Smooth edges with a knife if necessary.

Please refer to Quick Start Guide for Examples and More Details.

Mounting of the Time Switch Box

NOTE - Before mounting be sure to remove knockouts for the wires, (see Quick Start Guide)

1. In order to mount the box you will need the 3 supplied anchors and 3 supplied screws from the hardware list above. (Anchors included are designed for mounting on sheetrock.)
2. Using the box as a template, mark with a pencil where the three pilot holes will be drilled.
3. Using the appropriate drill bit size, drill the pilot holes (Note that if drilling into wood or metal a specialized drill bit may be needed.)
   See Drill Diagram.

Drill Diagram

Material	Drill Bit Size	Anchors Needed?
Soft Wood	5/64"	No
Hard Wood	3/32"	No
Metal	5/64"	No
Sheetrock	3/16"	Yes

4. For sheetrock; use a hammer to gently tap the anchors into the pilot holes.
5. Place the box up to the pilot holes or anchors and insert the screws accordingly.

Wiring the Device to the Timer

NOTE - For outdoor installation use rain tight or wet location conduit hubs that comply with requirements of UL 514B (standard for fittings for conduit and outlet boxes).

1. Remove 2 screws retaining the interior cover panel and remove the panel.
2. Refer to Figure 1 and wiring diagrams to determine appropriate placement of wires. It is the responsibility of the installer to ensure that all applicable National and Local code requirements are met. If you are unsure of these requirements, contact a licensed electrician immediately.
3. GROUNDING: This enclosure is of plastic construction and does not require a ground connection. This enclosure does not provide grounding between

conduits. When using non-metallic conduit or cable, connect the ground wires of all cables together with the provided wire nut. When metallic conduit is used; as the grounding connection, use grounding type bushing and a jumper wire between each conduit.

Dipswitch Configuration

WARNING: Failure to properly configure the dipswitch will result in damage to the unit and void any warranty! Before installing and wiring the GE Time Switch, proper configuration must be selected. Unit is shipped with DIP Switches set for 277VAC Input Voltage. Also, do not check circuits by "sparking" wires to terminals. Damage to timer may result.

4. Determine the input voltage which will be applied to the timer. (120V AC, 208-240V AC, or 277V AC)
5. Set the DIP Switch according to the diagram below.
6. Reinstall interior cover panel. Opposite of step 1.

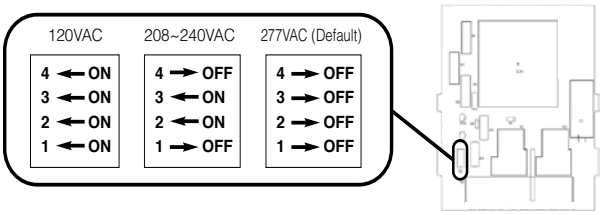
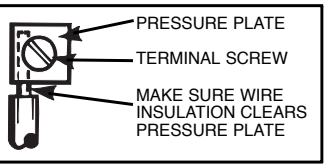


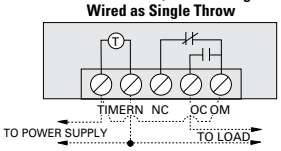
Figure 1

MINIMUM COPPER WIRE SIZE (AWG)	MAX. LOAD (AMP)	MIN. INSULATION TEMP(°C)
14	15	60
12	20	60
10	30	60
8	40	105

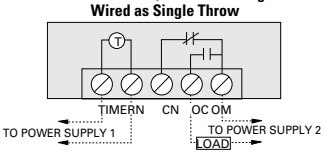


Typical Wiring Diagrams—SPDT

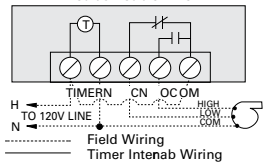
Timer and Load, Same Voltage Wired as Single Throw



Timer and Load, Different Voltage Wired as Single Throw

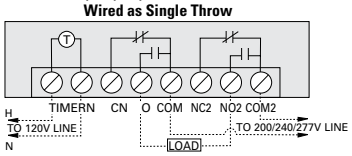


120V Two Speed Fan Wired as Double Throw

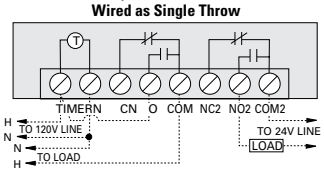


Typical Wiring Diagrams—DPDT

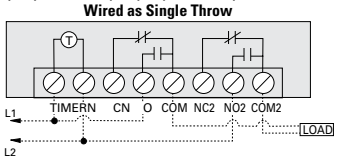
120V Timer, 200/240/277V Load Double Break Wired as Single Throw



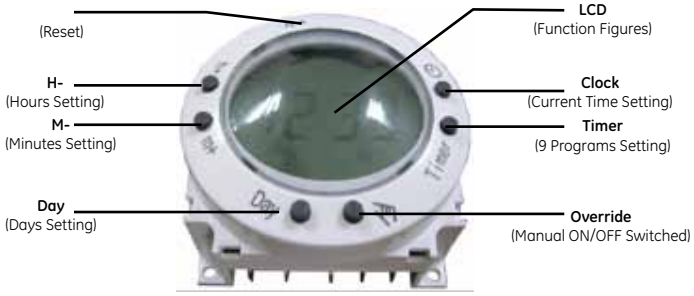
120V Timer, 120V Load and 24V Load Wired as Single Throw



200/240/277V Timer, 200/240/277V Load, Double Break Wired as Single Throw



Operating Instructions



Basic Settings

Initial Set Up:

1. Push the **"R"** button before programming to clear out any settings. Once the **"R"** button is pressed the screen will begin to flash. A paperclip may be needed for this step.
   (*If the "R" button appears to stick down, use a paperclip to maneuver it until it pops back up. The screen will flash if the button is popped up successfully.*)
2. Press the **"Clock"** button and the screen will stop flashing and be ready for programming.

Setting the Current Time:

1. Press and Hold the **"Clock"** button during the entire setting.
2. Press the **"H+"** button to set the hours.
3. Press the **"M+"** button to set the minutes.
4. Press the **"Day"** button to set the day of the week.
5. Release the **"Clock"** button.

Programming ON/OFF Settings:

1. Press the **"Timer"** button once and the **TIMER 1 ON - - : - -** appears.
2. Press the **"H+"** and **"M+"** button to set the hours and minutes to the desired time.
3. Press the **"Day"** button to select the day(s) the setting will be active. ***Refer to the Multiple Weekday Group below to see the available settings.***
4. Press the **"Timer"** button to store the setting and proceed to the next setting **TIMER 1 OFF - - : - -**.
5. Repeat for all remaining setting options (9 Total ON/OFF settings). Once completed press the **"Clock"** button to return to the main display.

Multiple Weekday Groups:

Apart from individual week days, pressing the "Day" button also selects multiple day combinations such as:

Monday thru Friday	Tuesday & Thursday & Saturday
Saturday & Sunday	Monday thru Wednesday
Monday thru Saturday	Thursday thru Saturday
Monday & Wednesday & Friday	Monday thru Sunday

After setting a single day or a multi-day-combination the programmed timer settings will be carried out on each of the week-days at the same time.

Advanced Settings

Programming Countdown Operation:

1. Press the **"Timer"** button to scroll through the 9 events settings to get to the ON C setting.
2. Press the **"Override"** button to select whether the timer will turn ON or OFF during teh countdown period.
3. Press the **"H+"** and **"M+"** buttons to set the hours and minutes of the countdown.
4. Press the **"Clock"** button to store the setting and return to the current time display. See the diagram below for more information.

Activate the Countdown Feature:

1. Press the **"Clock"** and **"Override"** button at the same time to start the countdown function.
2. Press the **"Override"** button to pause and continue the countdown function.
3. Press the **"Clock"** button to go view the current time display.

Manual Override:

The timer comes with the ability to control the ON and OFF function while the timer is deactivated. Press and Hold the **"Override"** button to switch between timer mode and manual mode. *Timer mode will be indicated by an A next to the ON or OFF. When the timer is in manual mode (not controlled by timer) the A will not appear on the display.* Any time the "A" is on the display the timer is in control and will always follow the programmed settings (even if it is temporarily deactivated by moving from ON to OFF or OFF to ON).

Random, ON/OFF Setting:

This feature allows the timer to switch ON and OFF at random times. It is particularly useful in helping to prevent house burglary as the timer is not switching ON and OFF at regular times. The programmed settings set will be executed in a random delay varying within 30 minutes. This function will only operate if one or more programmed switching commands are set.

1. Press both **"Day"** and **"H+"** buttons at the same time. The display will show the "TIMER" symbol blinking. The random feature is now activated.
2. To turn the random feature off repeat step 1.

Summer Time Feature (DST):

Press the **"H+"** and **"M+"** buttons for 3 seconds to advance the current time 1 hour, SUMMER should appear on the display. Repeating this process will decrease the time by 1 hour and the SUMMER will disappear.

Power Back Up Feature:

In the event of a power failure, the timer will retain its settings for an estimated 3 months assuming the power back up is fully charged.

Button Lock:

This function allows the user to lock the buttons so that they are not accidentally pressed.

1. Press and HOLD the **"Clock"** button for more than 5 seconds. An " " icon will appear on the display. The buttons are now locked. To unlock the buttons repeat this step.

Note:

" " Flashing: the timer is in the manual mode with key lock.

" " Not flashing: the timer is in the timer mode with key lock.

Lockout a Programmed Setting (Skip a Setting):

1. Press the **"Timer"** button to scroll to the setting that needs to be skipped.
2. Press the **"Override"** button to lockout the time setting. The display will display "H I : d E" and lock the hours and minutes setting.
3. Press the **"Override"** button again to recall the setting time. (Will not work for Lockout Countdown feature)