



The kanmor Timer 032e is a microprocessor-based timer which can be programmed to provide up to two occupied and two unoccupied events each day. The timer can be programmed for either a 24 hour schedule or a 7 day schedule. The internal SPST relay operates based on the schedule programmed by the user. The user can override any programmed schedule either temporarily or permanently.

In the event of a power loss, the programmed schedule information is permanently retained in memory. The clock continues to operate for up to four hours using a batteryless backup.

Definitions

The following defined terms and symbols are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important information concerning the life of the product.



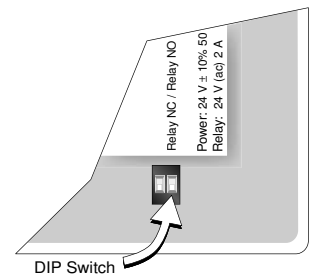
-Warning symbol: Indicates presence of hazards which can cause severe personal injury, death or substantial property damage if ignored.

Sequence of Operation

The timer has an internal relay that switches on and off according to the schedule programmed by the user and the DIP switch located in the back of the timer.

If the DIP switch is set to **Relay NO** (*normally open*), the contact is open during an occupied event and is closed during an unoccupied event. If the timer is to be used in conjunction with a kanmor reset control, the DIP switch must be set to the **Relay NO** setting.

If the DIP switch is set to **Relay NC** (*normally closed*), the contact is closed during an occupied event and is open during an unoccupied event.

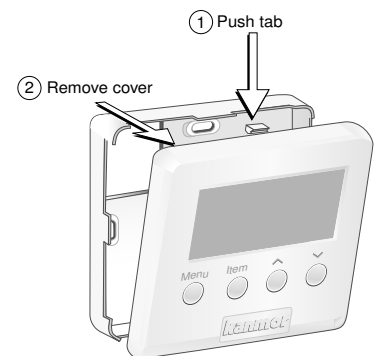


Installation

STEP ONE — GETTING READY

Check the contents of this package. If any of the contents are missing or damaged, please contact your wholesaler or kanmor sales representative for assistance.

Type 032e Includes: One Timer 032e, One Wall Plate 008e, Data Brochures D 032e, D 070e.

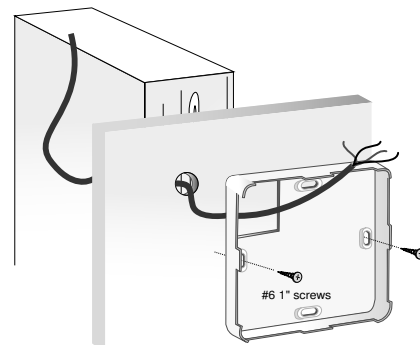


STEP TWO — REMOVING THE FRONT COVER

Place a screwdriver or similar object into the small slot located in the top of the timer. Push the screwdriver against the plastic tab and pull the top of the front cover so that it pivots around the bottom edge of the base.

STEP THREE — MOUNTING THE BASE

Mount the base directly to the wall using two #6 1" screws. The screws are inserted through the mounting holes and must be securely fastened to the wall. If possible, at least one of the screws should enter a wall stud or similar surface. If the timer is to be mounted to an electrical box, use the Wall Plate 008e. This plate mounts to the electrical box and the timer mounts to the plate.



STEP FOUR ——— ROUGH IN WIRING

- 18 AWG or similar wire is recommended for all 24 V (ac) wiring.
- All wires are to be stripped to ¼" (6mm) to ensure proper connection to the timer.
- Run wires from the 24 V (ac) power to the timer. Use a clean power source to ensure proper operation with a minimum 3 VA capacity.
- Run wires from the device to be controlled back to the timer.

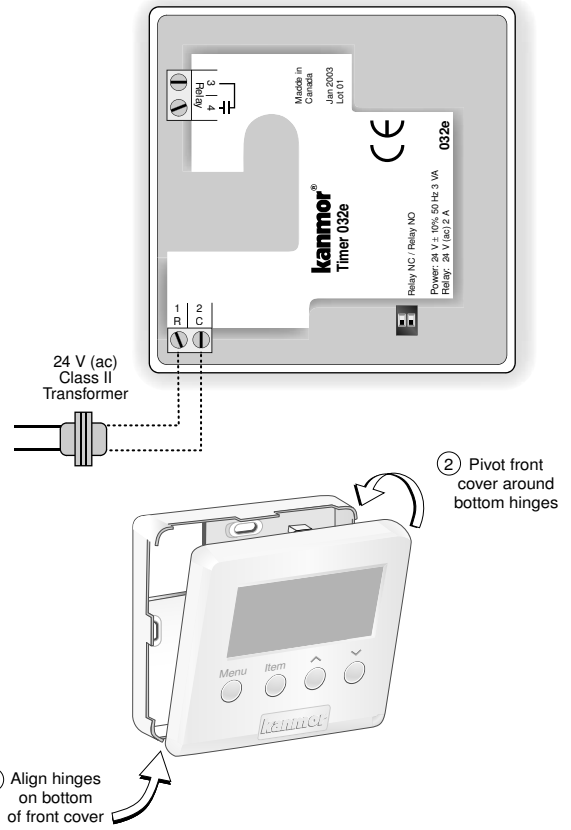
STEP FIVE ——— WIRING THE TIMER

⚠ 24 V (ac) Power

Connect the 24 V (ac) power to the *R* and *C* terminals (1 and 2) of the timer. This connection provides power to the microprocessor and display of the timer.

⚠ Relay

The *Relay* terminals (3 and 4) are an isolated output. There is no power available on these terminals from the timer. This circuit can operate a low current 24 V (ac) device directly or an external relay to enable a line voltage or high current device.



STEP SIX ——— INSTALLING THE FRONT COVER

Align the hinges on the bottom of the front cover with the bottom of the timer mounting base. Pivot the front cover around the bottom hinges and push the top against the mounting base until it snaps firmly in place.

Cleaning

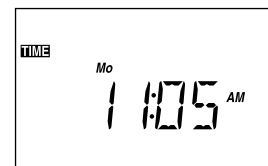
The control's exterior can be cleaned using a damp cloth. Moisten the cloth with water and wring out prior to wiping control. Do not use solvents or cleaning solutions.

Settings

SETTING THE TIME

To set the time of day and the day of week, use the following procedure.

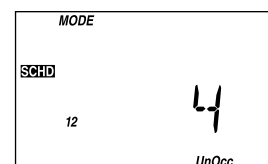
- Step One:** Press and release the **Menu** button until the **Time** Menu is reached.
- Step Two:** Press the **Item** button. While the minutes are flashing, use the **▲** or **▼** button to set the proper minutes.
- Step Three:** Press and release the **Item** button. While the hours are flashing, use the **▲** or **▼** button to set the proper hour.
- Step Four:** Press and release the **Item** button. While the day is flashing, use the **▲** or **▼** button to set the proper day.
- Step Five:** Press and release the **Item** button. Use the **▲** or **▼** button to select between 12 and 24 hour time.



SETTING THE SCHEDULES

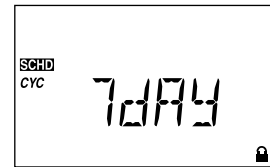
A schedule allows the timer to automatically change between several preset events based on the time of day. The schedule divides the day into either two or four events. For each event, a different time can be set. *To set the time of day at which each event is to begin, use the following procedure.*

- Step One:** Press and release the **Menu** button until the **Schedule (SCHD)** Menu is displayed.
- Step Two:** Press and release the **Item** button. Use the **▲** or **▼** button to select the desired schedule mode. 2 = two events per day (**Occ, UnOcc**). 4 = four events per day (**Occ 1, UnOcc 1, Occ 2, UnOcc 2**).



Step Three: Press and release the **Item** button. Use the **^** or **v** button to select the schedule, either 7 day or 24 hour.

Step Four: Press and release the **Item** button. Use the **^** or **v** button to set the event's beginning time. If the event is not required, select the "--:--" time. This time is found between 11:50PM and 12:00AM. Record the event time in the schedule table found at the bottom of this page for future reference.



Repeat step four until all events have been programmed.

OVERRIDING A SCHEDULE

Either a temporary or permanent override can be selected at anytime. A temporary override is in effect for either 3 hours or until a different override is selected. A permanent override is in effect until a different override is selected. **To select an override, use the following procedure.**

Step One: Press and release the **Menu** button until the **Schedule (SCHD)** Menu is displayed.

Step Two: Use the **^** or **v** button to select the desired override.

The timer displays the **OVR** and **Tmpy** segments in the display when operating with a temporary override. The **OVR** and **Perm** segments are displayed during a permanent override.

Note: If the **None** override is selected, the timer uses the programmed schedule.

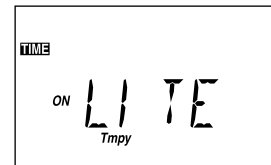
DISPLAY LIGHTING

The display of the timer has a back light setting. The back lighting can be turned off, turned on or set to operate temporarily for 60 seconds after any button is pressed. **To set the operation of the back lighting of the display, use the following procedure.**

Step One: Press and release the **Menu** button until the **Time** Menu is reached.

Step Two: Press and release the **Item** button until the word **LITE** is displayed.

Step Three: Use the **^** or **v** button to select the desired back light operation.



Note: If the back light setting is temporary, the first press of a button turns on the back light.

Schedules

FOUR EVENT SCHEDULE

Event	24 Hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ 1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
UnOcc 1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Occ 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
UnOcc 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

TWO EVENT SCHEDULE

Event	24 Hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
UnOcc	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Error Message

E01 The timer was unable to read a piece of information stored in its memory. The timer was required to load the factory settings. The timer will stop operation until all settings are checked. To clear this error, check all of the settings in the timer.

Technical Data

Timer 032e

Literature	— D 032e, D 070e.
Control	— Microprocessor-based; This is not a safety (limit) device .
Packaged weight	— 0.50 lb. (225 g), Enclosure J, white PVC plastic
Dimensions	— 2-7/8" H x 2-7/8" W x 13/16" D (73 x 73 x 21 mm)
Approvals	— CE approved, meets ICES & FCC regulations for EMI/RFI.
Ambient Conditions	— Indoor use only, 32 to 122°F (0 to 50°C), < 90% RH non-condensing. Altitude <2000 m, Installation Category II, Pollution Category II.
Power supply	— 24 V ±10% 50 Hz 3 VA
Relay	— 24 V (ac) 2 A, Latching
Optional devices	— 008e (included)



Caution The nonmetallic enclosure does not provide grounding between conduit connections. Use grounding type bushings and jumper wires.

Limited Warranty and Product Return Procedure

Limited Warranty *The liability of kanmor Control Systems Ltd. ("kanmor") under this warranty is limited. The Purchaser, by taking receipt of any kanmor product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The kanmor Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each kanmor Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with kanmor's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of kanmor under the Limited Warranty shall be limited to, at kanmor's sole discretion: the cost of parts and labor provided by kanmor to repair defects in materials and/or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from kanmor, and, without limiting the foregoing in any way, kanmor is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to kanmor during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the kanmor Limited

Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold kanmor harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than kanmor, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by kanmor; or if the Product was not installed in compliance with kanmor's instructions and/or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with kanmor's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

Product Warranty Return Procedure All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to kanmor through its Representative. If kanmor receives an inquiry from someone other than a kanmor Representative, including an inquiry from Purchaser (if not a kanmor Representative) or Purchaser's customers, regarding a potential warranty claim, kanmor's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.

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