tekmar® - **Data Brochure**

Timer 032

The tekmar Timer 032 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.
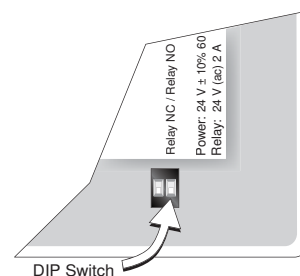
In the event of a power loss, the programmed schedule information is permanently retained in memory. The clock continues to operate for up to four hours using a batteryless backup.

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 tekmar 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.
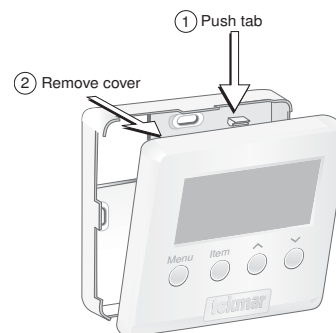

DIP Switch

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 tekmar sales representative for assistance.

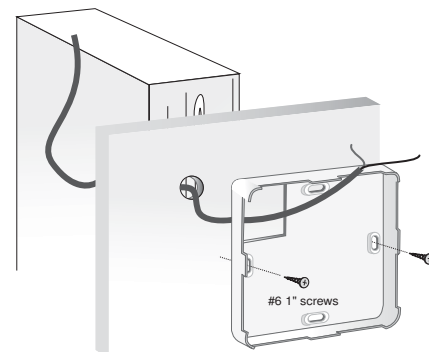   Type 032 Includes: One Timer 032, Data Brochure D 032

① Push tab
② Remove cover

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 a 2" x 4" electrical box, order an Adaptor Plate 007. This plate mounts to the electrical box and the timer mounts to the plate.

#6 1" screws

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.
- Run wires from the device to be controlled back to the timer.

STEP FIVE ━━━━━━━ WIRING THE TIMER ━━━━━

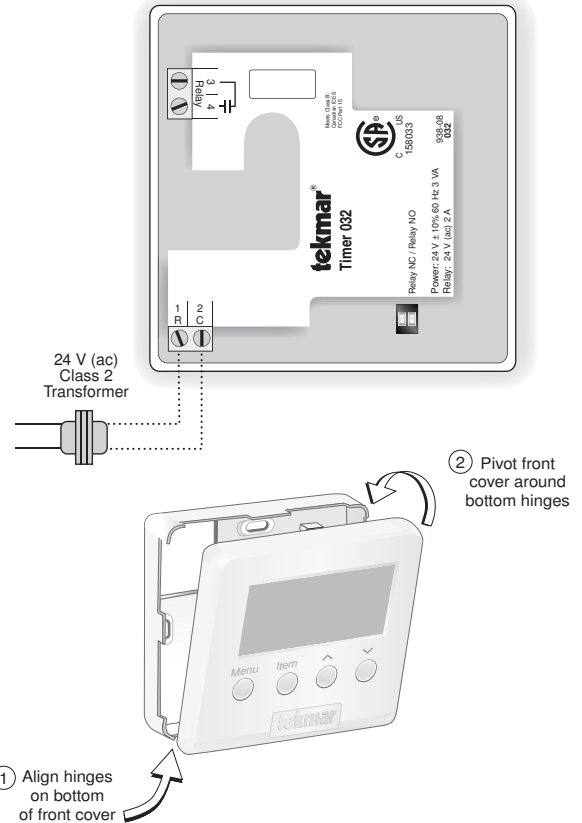### 24 V (ac) Power ━━━━━━━━━━━━━━━━━━━━

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.

24 V (ac)
Class 2
Transformer

② Pivot front
cover around
bottom hinges

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.

① Align hinges
on bottom
of front cover

Settings

SETTING THE TIME ━━━━━━━━━━━━━━━━━━━━━━

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

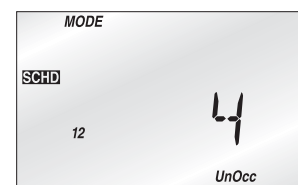**Step One:** Press and release the *Menu* button until the **Time** Menu is reached.

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.

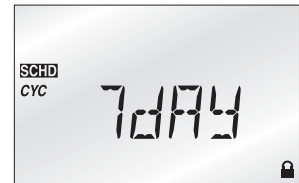**Step Five:** Press and release the *Item* button. Use the ∧ or ∨ button to select between 12 and 24 hour time.

TIME
Mo
11:05 AM

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 ∨ button to select the schedule, either 7 day or 24 hour.

MODE
SCHD
12
4
UnOcc

Step Four: Press and release the Item button. Use the ∧ or ∨ 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.

SCHD
CYC
7dAY

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 ∨ 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 ∨ 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.

TIME
ON LITE
Tmpy

Schedules

FOUR EVENT SCHEDULE

Event	24 Hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ 1								
UnOcc 1								
Occ 2								
UnOcc 2								

TWO EVENT SCHEDULE

Event	24 Hour Schedule	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Occ								
UnOcc								

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 032

Literature	— D 032
Control	— Microprocessor-based; This is **not a safety (limit) device.**
Packaged weight	— 0.25 lb. (110 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	— CSA C US, CSA 22.2 N°24 and UL 873, meets class B: ICES & FCC Part 15
Ambient Conditions	— Indoor use only, 32 to 122°F (0 to 50°C), < 90% RH non-condensing.
Power supply	— 24 V (ac) ±10%, 60 Hz, 3 VA, Class 2
Relay	— 24 V (ac) 2 A, Latching, Class 2

The installer must ensure that this control and its wiring are isolated and/or shielded from strong sources of electromagnetic noise. Conversely, this Class B digital apparatus complies with Part 15 of the FCC Rules and meets all requirements of the Canadian Interference-Causing Equipment Regulations. However, if this control does cause harmful interference to radio or television reception, which is determined by turning the control off and on, the user is encouraged to try to correct the interference by re-orientating or relocating the receiving antenna, relocating the receiver with respect to this control, and/or connecting the control to a different circuit from that to which the receiver is connected.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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

Attention Un boîtier nonmétallique n´assure pas la continuité électrique des conduits. Utiliser des manchons ou des fils de accord spécialement conçus pour la mise · la terre.

Limited Warranty and Product Return Procedure

Limited Warranty *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar 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 tekmar 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 tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar'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 tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar 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 tekmar, and, without limiting the foregoing in any way, tekmar 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 tekmar 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 tekmar Limited Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar 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 tekmar, 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 tekmar; or if the Product was not installed in compliance with tekmar'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 tekmar'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 the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.

tekmar® Control Systems

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