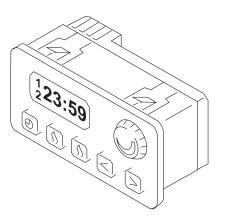


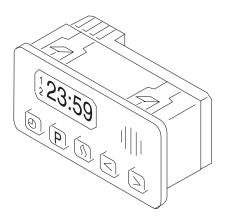
Document Number: LIT907610A

Date Posted: 04/21/2008

Description: 1531 Combination and Comfort Timer – Features and Installation



Combination Timer with Temperature Control Feature for Air Top Heaters



Comfort Timer with Alarm Feature for Thermo Series Coolant Heaters



CAUTION: The 1531 Comfort timer is not designed for use with DBW 2010 / 2020 / 300 series heaters. Please refer to '7-Day Digital Timer Model 1529 - Installation' for further information).

#### Features

The Comfort / Combination digital timers enable you to preset the heater start of operation time up to 7 days in advance.

It is possible to program 3 different starting times, of which only one can be activated at any given time.

The Comfort digital timer features a wake up alarm function while the Combination digital timer has a built in temperature controller.

The Combination timer with temperature control, is designed for use on all Air Top series air heaters. The Comfort Timer is designed for use on all Thermo 50 / 90 / 90 S / 90 ST, TSL 17, TTC and Scholastic Heater™ coolant heaters.

Both timers can be electrically connected so that whenever the ignition is switched off while the heater is operating in "constant on" continuous mode, it will automatically shut off after 15 minutes.

On heaters equipped with a fault diagnostics system, the error code will be displayed on the timer in the event of any operational failure.

### **Technical Information**

- Rated Voltage: 12 / 24V
- Voltage Range 12V: 9 15V
- Voltage Range 24V: 20 30V
- Switched Output: 600 mA (some heaters require additional relay)
- Operating Temp: 40° ... +167 °F (– 40° ... +75 °C)
- Installation Dimensions: (L x W x H) 3.5" x 1.5" x 2.0" (89mm x 40mm x 51mm)



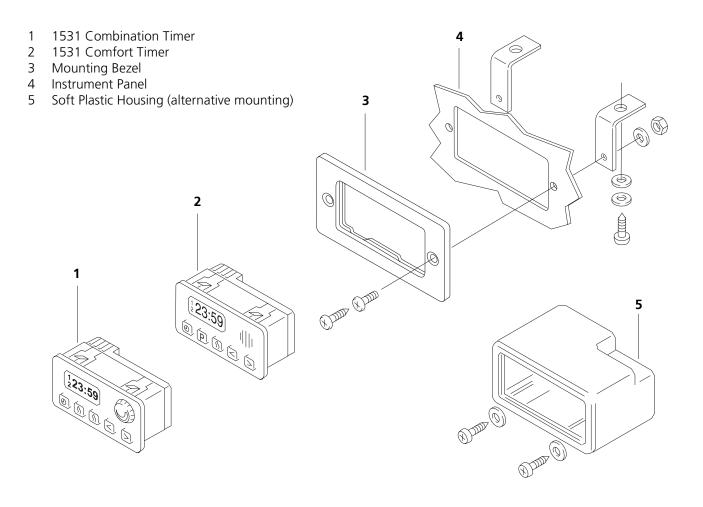
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#### Installation

- 1. Find a suitable location on the instrument panel. Ensure at least a 2.0" (51.0 mm) depth clearance before cutting into the instrument panel.
- 2. Place the mounting bezel template on the instrument panel. A cut-out template is provided on the last page.
- 3. Drill four 6 mm (0.25") corner holes.
- 4. Drill two 5 mm (0.1875") mounting holes for mounting the frame to the instrument panel.
- 5. Connect the four 6 mm corner holes with straight cuts to form the required cut-out.
- 6. Install the timer mounting bezel on the instrument panel with the hardware provided.
- 7. Make all electrical connections as shown in the appropriate schematic diagram (following pages).
- 8. Insert the timer into the mounting bezel.
- 9. Observe the operating instructions that came with the timer for setting times and activating.



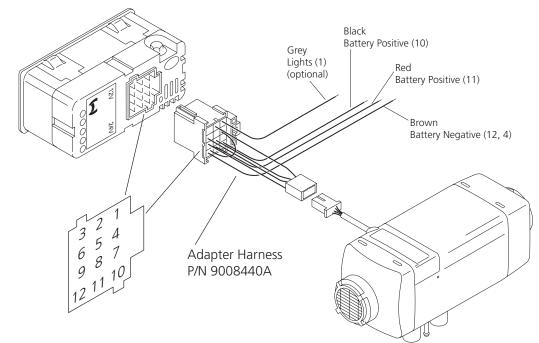


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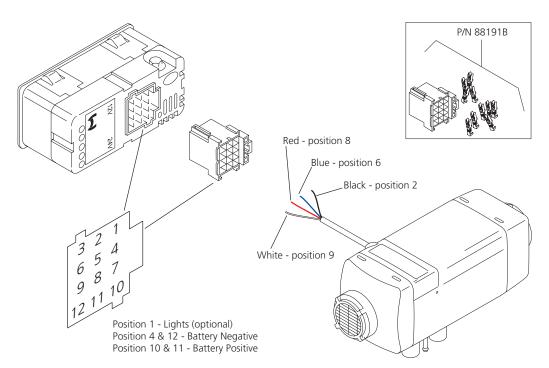
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Description: 1531 Combination and Comfort Timer – Features and Installation

### Wiring and Connections – All Air Top Heaters



Combination timer wiring using available adapter harness P/N 9008440A for a "Plug-N-Play" installation.



Combination timer wiring using available plug and terminal kit P/N 88191B for direct wiring of timer.

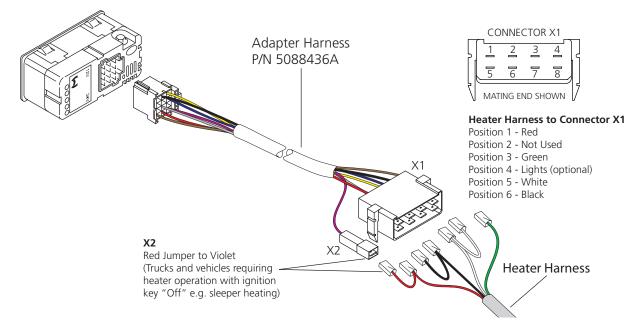


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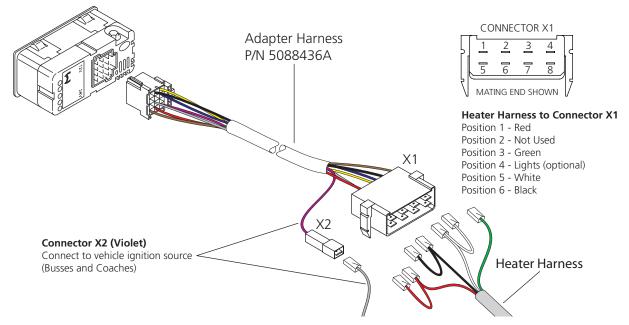
Date Posted: 04/21/2008

Description: 1531 Combination and Comfort Timer – Features and Installation

### Wiring and Connections – Thermo Series Coolant Heaters



Comfort timer wiring using available adapter harness P/N 5088436A for a "Plug-N-Play" installation on Thermo 90 / 90 S / 90 ST coolant heaters installed in trucks.



Comfort timer wiring using available adapter harness P/N 5088436A for a "Plug-N-Play" installation on Thermo 90 / 90 S / 90 ST and Scholastic Heater™ coolant heaters installed in busses and coaches.

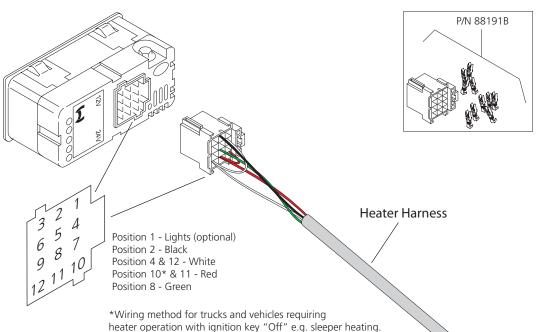


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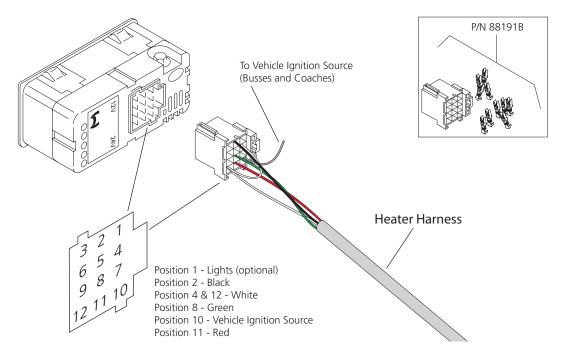
Date Posted: 04/21/2008

Description: 1531 Combination and Comfort Timer – Features and Installation

### Wiring and Connections – Thermo Series Coolant Heaters



Comfort timer wiring using available plug and terminal kit P/N 88191B for direct wiring of timer on Thermo 90 / 90 S / 90 ST coolant heaters installed in trucks.



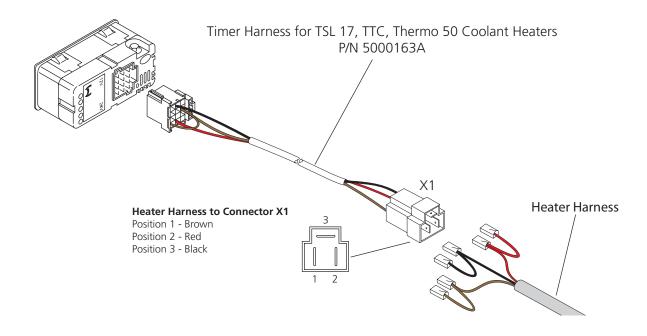
Comfort timer wiring using available plug and terminal kit P/N 88191B for direct wiring of timer on Thermo 90 / 90 S / 90 ST and Scholastic Heater™ coolant heaters installed in busses and coaches.



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#### Cut-out Template for the 1531 Timer



NOTE: You must print this page at full size. Do not scale page, otherwise, template will not be accurate.

