

Coolant Heater

# **TSL 17**

Operating Instructions  
Installation Instructions  
~~Spare Parts Manual~~



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## 1. Introduction

### 1.1 General Description

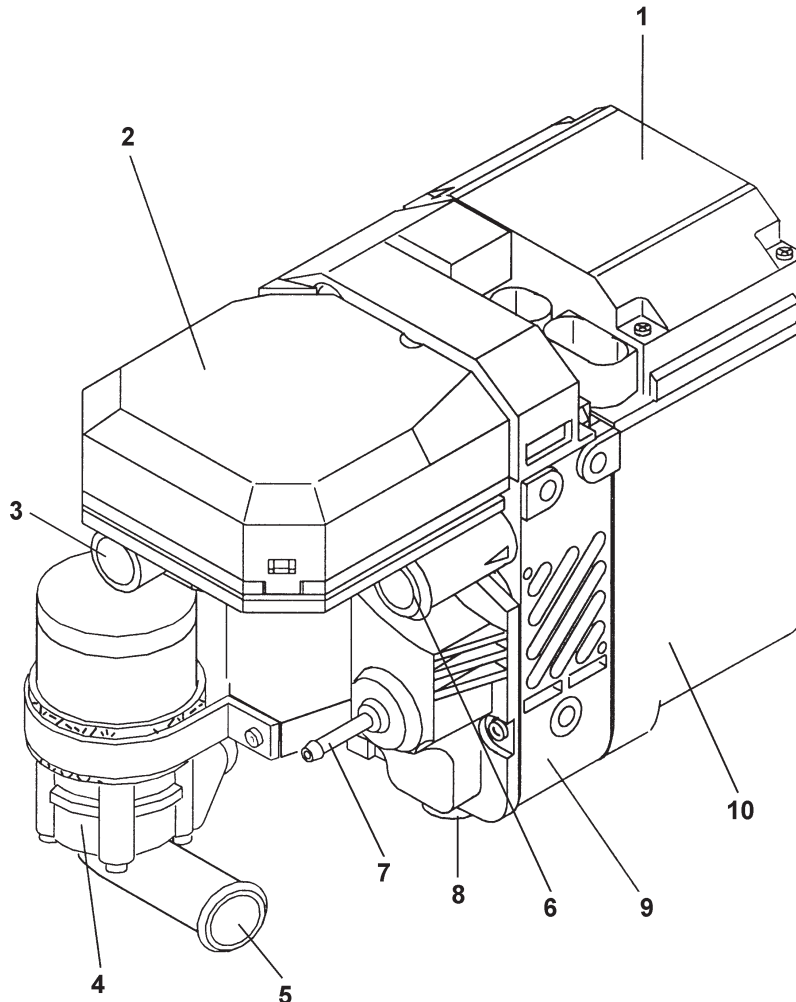


Fig. 101: Webasto TSL 17 Coolant Heater

- |   |                                   |
|---|-----------------------------------|
| 1. Control Unit.                        | 6. Coolant Outlet Connection Pipe |
| 2. Combustion Air Fan Assembly          | 7. Fuel Inlet Connection Pipe     |
| 3. Combustion Air Inlet Connection Pipe | 8. Exhaust Outlet Pipe            |
| 4. Coolant Circulating Pump             | 9. Combustion Chamber             |
| 5. Coolant Inlet Connection Pipe        | 10. Heat Exchanger                |

The Webasto TSL 17 is designed for Class 3-7 vehicles. This dynamic system allows you to preheat engines on or offsite. The TSL 17 offers high performance with low power and fuel consumption. Approximately 2-hours of operation eliminates overnight idling for heating and the need for expensive electrical plug-ins. The compact design allows the heater to be frame rail or engine compartment mounted. The TSL 17 is easy to install, maintain and operate. The universal package fits most of today's vehicles.

**1.2 Legal provisions**

Heater installation must be performed in accordance with the manufacturer`s installation instructions.

Any deviation from these instructions are only permitted with the written approval from Webasto Thermosystems Inc.

It is the dealer`s responsibility to approve installations not performed by Webasto trained personnel.

Installation not complying with the installation instructions release Webasto Thermosystems Inc. from any product liability.

OEM installations must be approved by Webasto Thermosystems Inc.

**1.3 Meaning of Warning, Caution and Note****WARNING!**

This heading is used to highlight that noncompliance with instructions or procedures may cause injuries or lethal accidents to personnel.

**CAUTION!**

This heading is used to highlight that noncompliance with instructions or procedures may cause damage to equipment.

**NOTE:**

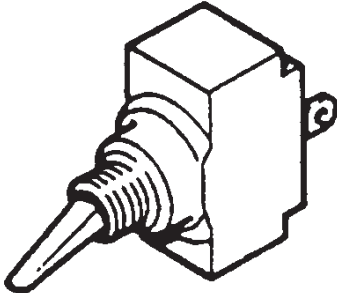
This heading is used to highlight and draw specific attention to information.

## 2. Operating the Webasto TSL 17

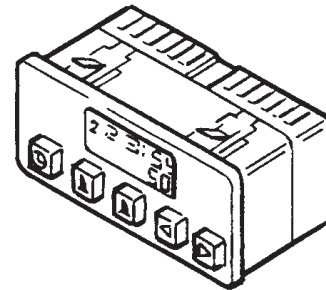
Before switching on the TSL 17, set vehicle heating system to the “heat” position and open any shut off valves. Depending on the type of control installed in the dashboard of the vehicle, the TSL 17 can be operated by the following methods.

### 2.1 Switching On

#### Using a Switch:



#### Using the Optional Digital Timer:



#### Using the Switch:

When the switch is used for turning “ON” the TSL 17, the operation indicator (toggle) lights up. Shortly thereafter, the heater begins operation and delivers heated coolant to the engine.

#### Using the Optional 7-Day Digital Timer:

1. Set the timer up to 2 hr. before you want to start the engine. The heater will start up at set time. (See timer operating instructions.)  
Or switch “instant on” switch on your timer in the vehicle dash to “ON”. The heater will start up.
2. When time is elapsed on your timer or engine preheat is no longer required, switch the TSL 17 heater “OFF”. The TSL 17 will go through the after-run cycle.

Pushing the “instant heat” button or when timer setting reaches desired start time, the “operation indicator” on the timer will light, signaling that the heater is in operation.

See section 2.3 “Operation with 7-Day Digital Timer” for complete instructions.

#### **NOTE:**

If heater is being switched on while the engine is warm only the circulating pump will run, coolant temperature must fall below 86 °F. (30 °C.) before heater starts.

#### Startup Sequence:

The coolant circulating pump, ceramic igniter and combustion air fan start operation and after approximately 60 seconds combustion starts (audible combustion sound).

After the coolant temperature has reached the set point of 170 °F (77 °C) the TSL 17 will automatically adjust its heat output to a lower operating range (part-load heat output).

If the temperature of the coolant continues to rise and climb over 174 °F (79 °C) at the heater outlet, the heater will cycle off.

When the temperature falls below 149 °F (65 °C) the heater will restart and repeat the heating cycle.











**CAUTION!**

Do not mount the heater directly to the engine! Heavy, constant vibration produced by the engine may interfere with the proper operation of the heater and lead to heater component damage.























































