



## 18SP659 – Install DDEC® VI Ambient Air Temperature Sensor and Harness on EPA07 Engines (P/N: 23538495)

### KIT DESCRIPTION AND CONTENTS

The Ambient Air Temperature Sensor (AAT Sensor) is used to measure outside air temperature for DDEC VI. It uses a temperature sensor with an integral bracket for mounting purposes and a dedicated harness. Ambient Air Temperature Sensor kit P/N: 23538495, listed in Table 1, includes the following items:

| Part No.   | Qty. | Description   |
|------------|------|---|
| 23538494   | 1    | Harness, Ambient Air Temperature Sensor               |
| 23518328   | 1    | Sensor, Ambient Air Temperature (w/ Mounting Bracket) |
| 0135457626 | 2    | Terminals*  |
| 18SP659    | 1    | Installation Instructions                             |

\*Terminals attached to the Harness in bag

**Table 1      Ambient Air Temperature Sensor Kit (P/N: 23538495)**

### INSTALLATION PROCEDURE

Use the following procedure to install the Ambient Air Temperature Sensor and harness:

**NOTE:**

For crimping instructions, refer to the Wire and Wiring Chapter in the *DDEC VI Application and Installation* manual (DDC-SVC-MAN-0054). This manual is available through authorized Detroit Diesel service outlets.

1. Secure sensor to the desired location and plug in the AAT Sensor connector.

**NOTE:**

Preferred mounting location for the sensor is on the front bumper away from any heat sources.

2. Secure the harness to adjacent components with wire ties. Wire tie straps (supplied by distributor/dealer) are recommended at a minimum of every 305 mm (12 in.), depending on routing and application.

**NOTE:**

Secure harness away from any heat source or moving components.

- 3. Route harness past engine compartment at desired location and secure.

**NOTE:**

Harness grommet may be required at sheet metal point of contact depending on application.

- 4. Route the body of the harness to the location of the Common Powertrain Controller (CPC). Remove any excess harness material and discard.

**NOTE:**

Signal Return Pin 3/2 may be populated. If so, a splice into Signal Return circuit is required. Refer to the *DDEC VI Application and Installation* manual (DDC-SVC-MAN-0054) for proper splicing techniques.

- 5. Crimp the 0135457626 terminals on each lead. Insert the terminals into the correct connector cavity; yellow lead to AAT circuit pin 3/15. Connect white lead to Signal Return circuit 3/2 or splice if already populated. Secure as required.
- 6. Sensor must be enabled with a Distributor Reprogramming Station (DRS). Refer to Table 1 for setting.

| Parameter Group | Parameter                       | Setting       |
|-----------------|---------------------------------|---------------|
| 31              | Ambient Air Temp. Sensor Enable | 1 - Hardwired |

**Table 1      Distributor Reprogramming Station Sensor Parameter**



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