

45.002.173-/45.002.994-

ENERGY CUT OFF (ECO) CONNECTOR APPLICATION

INSTRUCTION SHEET

INSTALLATION

Mounting (See fig. 2)

- 1 Screw the terminal bushing into the power unit and tighten.
- 2 Insert the terminal assembly into the terminal bushing.
- 3 Push the adapter assembly under the edge of the terminal bushing enclosing the terminal assembly.
- 4 Insert the thermocouple screw into the spud of the adapter assembly. Tighten attachment nut with a wrench only $\frac{1}{4}$... $\frac{1}{2}$
- 5 Wire the ECO connector into the circuit.

GENERAL CONSIDERATIONS

In the V4400/V8800 series gas controls there are some special O.S. numbers set up for ECO application. It has to be preferred to use these O.S. numbers on appliances with relative low pilot burner output to avoid on long term marginal functioning. Also with these O.S. numbers there are no restrictions for thermocouple length.

For all other O.S numbers there are limits to the length of the thermocouple and the length of the lead wire which can be used to link up the ECO connector to the limit device with a resistance smaller than 4 m Ω . See table 1.

The ECO connector can be used in combination with all Honeywell power units.

For other electro magnets the resistance may not be higher than 19 m Ω .

Table 1. Permissible lead wire length

Thermocouple Q309A, Q331A, Q335A. Length (cm)	Maximum permissible lead wire length (cm)	
	2.5 mm ² Cu	4 mm ² Cu
30	2 x 85	2 x 130
45	2 x 65	2 x 100
60	2 x 50	2 x 80
75	2 x 30	2 x 45
90	not possible	2 x 20
100	not possible	not possible



The energy cut off (ECO) connector 45.002.173- and 45.002.994- are designed to be fitted between the thermocouple and the power unit of the V4400/V8800 series gas controls to allow an additional device e.g. a high limit switch to be included in the electric system.

DESCRIPTION

The ECO connector consists of an adapter assy, a terminal assy and terminal bushing.

SPECIFICATIONS

Model

45.002.173-001 with 6.3 x 0.8 mm tab terminals.

45.002.994-001 with 85 cm conductor cable.

Cable (45.002.994-001 only)

Flat cable with 2 insulated lead wires with 2.5 mm² copper wire.

Maximum ambient temperature (45.002.994-001 only)

105°C

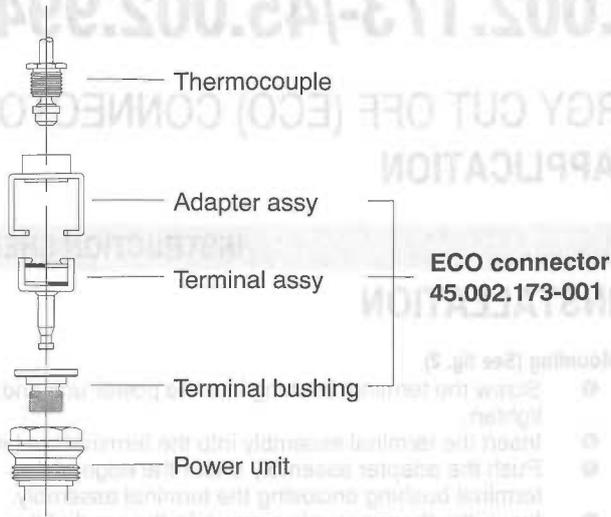


Fig. 1. Exploded view 45.002.173-001

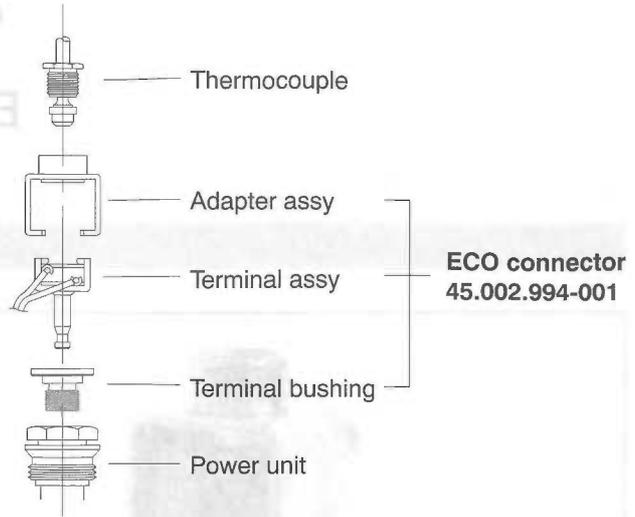


Fig. 2. Exploded view 45.002.994-001

GENERAL CONSIDERATIONS

For all other O₂ numbers there are limits to the length of the thermocouple and the length of the lead wire which can be used to link up the ECO connector to the field device with a resistance resistance smaller than 4 mΩ (See Table 1). The ECO connector can be used in combination with all Honeywell power units.

For other (plotted) magnets the resistance may not be higher than 10 mΩ.

The ECO connector can be used in combination with all functioning. Also with these O₂ numbers there are no relative low flow burner outputs to avoid an long term margining preferred to use these O₂ numbers on applications with special O₂ numbers set up for ECO application. It has to be in the V4400/V8500 series gas control their the same.

Table 1. Permissible lead wire lengths

Thermocouple (Type, length (cm))	Aluminum parasitic lead wire (Length (cm))
45.002.173-001 (Type, length (cm))	2.5 mΩ (Type, length (cm))
45.002.994-001 (Type, length (cm))	4 mΩ (Type, length (cm))

DESCRIPTION

The ECO connector consists of an adapter, assy, a terminal assy and terminal bushing.

SPECIFICATIONS

Model
 45.002.173-001 with 0.3 x 0.8 mm (5.5 mm) terminals
 45.002.994-001 with 0.5 mm (5.5 mm) terminals
 Cable (45.002.994-001 only)
 Flat cable with 2 insulated lead wires with 0.5 mm² copper wire.
 Maximum ambient temperature (45.002.994-001 only)
 100°C