



# Carlisle Machine Works, Inc.

## EL Series Foot Controller Instruction Sheet

The EL Series Foot Controllers are designed to allow the operator to turn on and off flow from one or more gases by use of a foot pedal for hands free operation. This operation is performed by electronically controlled solenoid valves. The EL Series Foot Controller is offered in several configurations. See the descriptions below to familiarize yourself with the differences between the available EL units. The EL Gas Saver Series can be used with natural gas, propane, methane, butane, mixed gases, hydrogen, air, nitrogen or oxygen.



### Number of EL Valves

The EL series is available with 1, 2, 3, or 4 solenoid valves. The different units are designated by the number of solenoids as EL-1, EL-2, EL-3, and EL-4. Each solenoid valve can control a different gas, or be split to control multiple zones of the same gas.

### Options and Accessories:

The EL Series has several options and accessories that are available. This section is intended to provide any pertinent information for the options that may be applicable.

- **Timed Delay Shutdown: (28A002-1101)** Using an electronic timer, the EL foot controller is modified to have one or more of the solenoids shutdown after a set time. This option is most often used when the EL Series foot controller is working with a pre-mix burner. In this case, the timer is set on the gas to allow the oxygen to be shutoff first and the gas to go off after a preset time.
- **Air Purge Sequence: (28A002-1011)** Similar to the "Timed Shutdown" above, this option is most often used with a pre-mix burner. This option dedicates one of the solenoid valves for purge only, and is usually setup for compressed air or nitrogen. When the unit is turned off, this purge valve comes on for a set time to purge the system. The purge valve is always off when the foot controller is in the "on" position.
- **Center Fire Bi- Pass: (28A000-0000)** Allows center fire to work independently from foot pedal. Includes hoses, "Y" splitters and adapters. Torch must be in a 4 inlet configuration to use with foot pedal and bi-pass.
- **Hose Connections:** There are many connection options available. The standard options are 1/2" Npt, 1/4" Npt, Hose Barb Adapters, Welding Hose adapters ("B" size male fittings), or JIC fittings (must specify size). Custom hose assemblies can be purchased directly from Carlisle. Carlisle offers Welding hose, Tygon hose, and Teflon lined Stainless Steel Braided Hose. Refer to Bulletin 24D on the Carlisle website for ordering.
- **In-Line Disposable Filters: (25D001-0000)** This is a highly recommended option to filter the fuel gas (except hydrogen) and oxygen gases prior to the burner to reduce the possibility of contaminants from the feed piping and supply sources. Please note that using the EL Series Foot Controller without filtration may cause the solenoids to fail and/or develop audible chatter prematurely.

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