800 SERIES CONTROL VALVES

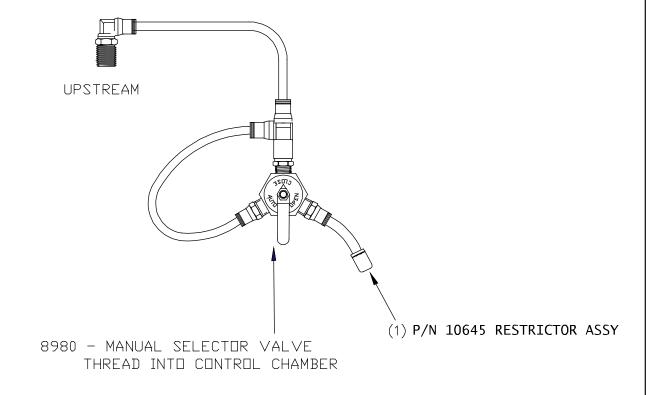
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#### **MANUAL ON/OFF**

MODEL D1E1H1

FLOW DIRECTION







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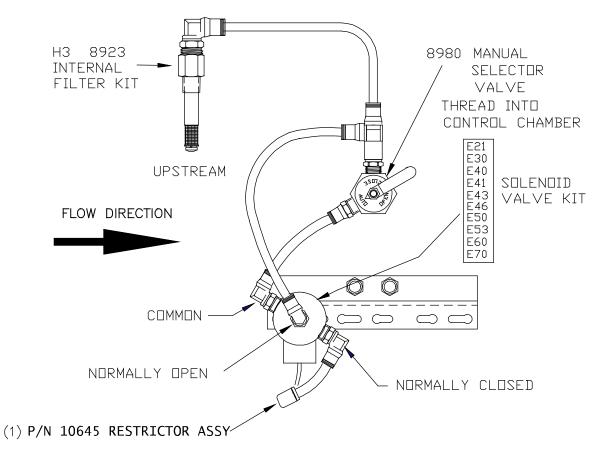
#### **SOLENOID WITH INTERNAL FILTER**

<u>CLOSED</u>: WHEN THE SOLENOID IS <u>DE-ENERGIZED</u>, UPSTREAM PRESSURE IS APPLIED TO THE CONTROL CHAMBER CLOSING THE MAIN VALVE.

<u>OPEN</u>; WHEN THE SOLENDID IS <u>ENERGIZED</u>, THE MAIN VALVE IS <u>OPENED</u> BY VENTING THE CONTROL CHAMBER TO ATMOSPHERE. MODEL # D1

E30 E40 E41 E43 E46 E50 E53 E60 E70

НЗ

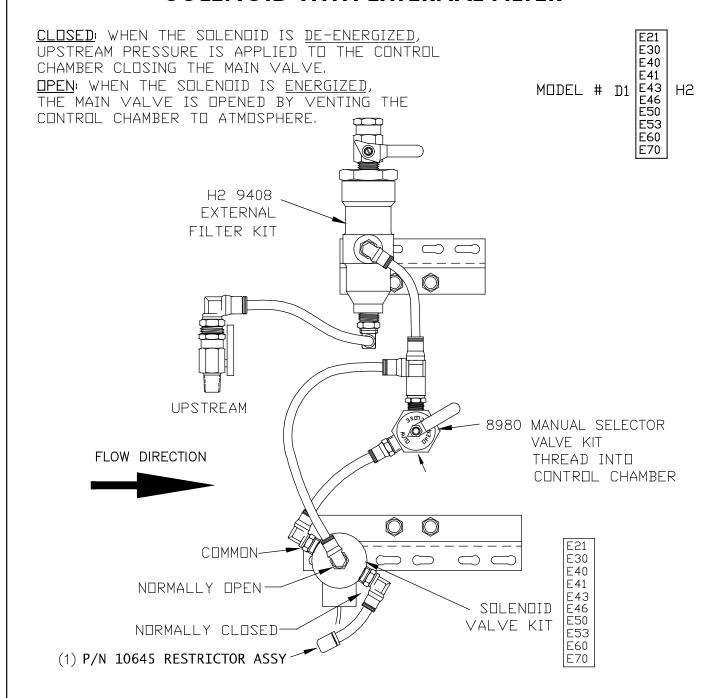




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#### **SOLENOID WITH EXTERNAL FILTER**



Nelson Irrigation Corp. 848 Airport Rd. Walla Walla, WA 99362-2271 USA Tel: 509.525.7660 Fax: 509.525.7907 E-mail: info@nelsonirrigation.com Web site: www.nelsonirrigation.com



**800 SERIES CONTROL VALVES** 

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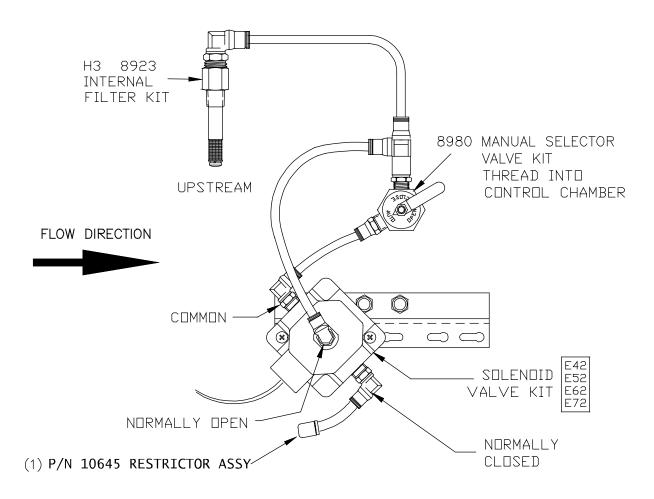
#### LARGE SOLENOID WITH INTERNAL FILTER

<u>CLOSED</u>: WHEN THE SOLENDID IS <u>DE-ENERGIZED</u>, UPSTREAM PRESSURE IS APPLIED TO THE CONTROL CHAMBER CLOSING THE MAIN VALVE.

MODEL # D1



<u>OPEN</u>: WHEN THE SOLENDID IS <u>ENERGIZED</u>, THE MAIN VALVE IS <u>OPENED</u> BY VENTING THE CONTROL CHAMBER TO ATMOSPHERE.



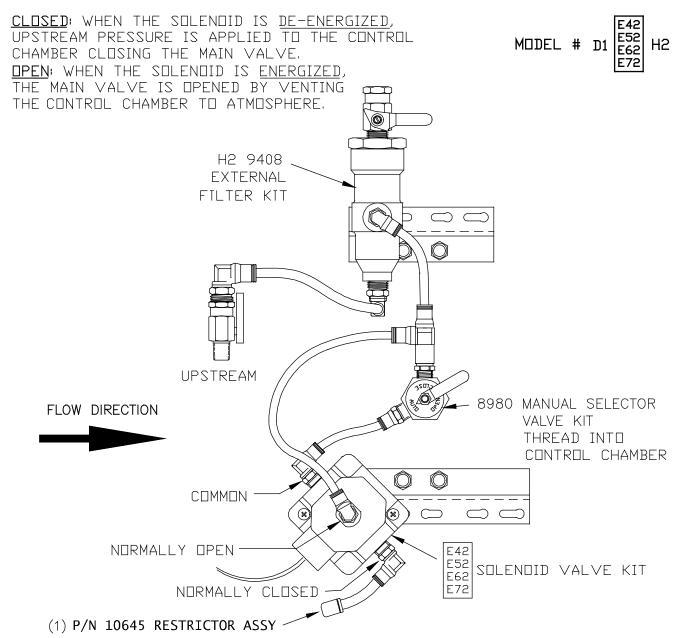
THE LARGE SOLENDID IN THIS CONFIGURATION ALLOWS THE SIX AND EIGHT-INCH VALVES TO OPEN AND CLOSE EXTREMELY FAST AND WILL SELDOM BE DESIRABLE.

THE TWO-, THREE-, & FOUR-INCH VALVES CAN OPEN AND CLOSE PLENTY FAST USING THE SMALLER SOLENDID.

**800 SERIES CONTROL VALVES** 

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#### LARGE SOLENOID WITH EXTERNAL FILTER



THE LARGE SOLENOID IN THIS CONFIGURATION ALLOWS THE SIX AND EIGHT-INCH VALVES TO OPEN AND CLOSE EXTREMELY FAST AND WILL SELDOM BE DESIRABLE.

THE TWO-, THREE-, & FOUR-INCH VALVES CAN OPEN AND CLOSE QUICKLY USING THE SMALLER SOLENOID.



**800 SERIES CONTROL VALVES** 

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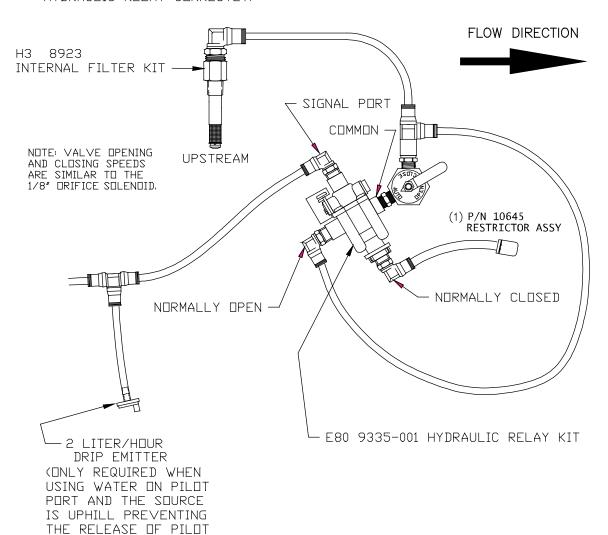
#### HYDRAULIC RELAY WITH INTERNAL FILTER

<u>CLOSED:</u> WHEN THE HYDRAULIC RELAY DOES NOT HAVE PRESSURE AT THE SIGNAL PORT, UPSTREAM PRESSURE IS APPLIED TO THE CONTROL CHAMBER CLOSING THE MAIN VALVE.

MODEL # D1 E80 H3

<u>OPEN:</u> WHEN THE RELAY HAS PRESSURE APPLIED TO THE SIGNAL PORT, THE MAIN VALVE IS OPENED BY VENTING THE CONTROL CHAMBER TO ATMOSPHERE.

NOTE: SIGNAL PORT PRESSURE MUST BE EQUAL TO OR GREATER THAN UPSTREAM PRESSURE IN ORDER TO ACTIVATE HYDRAULIC RELAY CORRECTLY.



VALVE SIZE	TUBING SIZE
2 INCH	1/4 INCH
3 INCH	1/4 INCH
4 INCH	1/4 INCH
6 INCH	1/4 INCH
8 INCH	1/4 INCH

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PRESSURE.)

E24

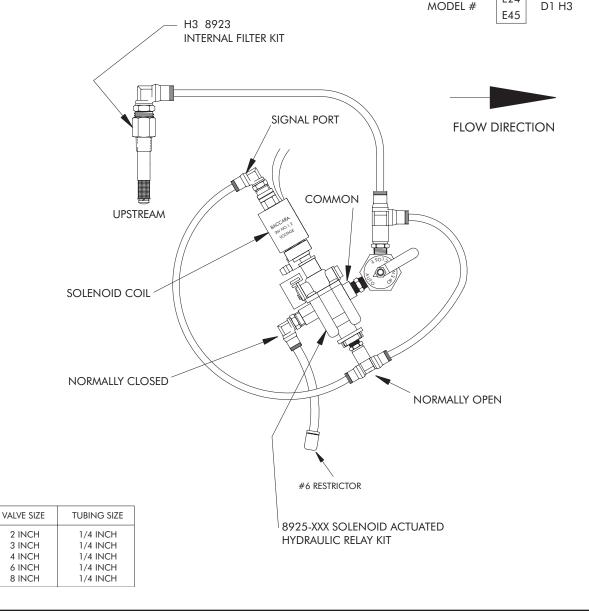
### ON-OFF SOLENOID & HYDRAULIC RELAY 800 SERIES CONTROL VALVES

## NORMALLY CLOSED SOLENOID ACTUATED HYD. RELAY & INT. FILTER

THE VALVE WILL REMAIN CLOSED AS LONG AS THE SOLENOID ATTACHED TO THE HYDRAULIC RELAY IS DE-ENERGIZED. ONCE THE SOLENOID IS ENERGIZED THE VALVE BEGINS TO OPEN.

**SOLENOID ENERGIZED:** VALVE WILL OPEN BY VENTING CONTROL CHAMBER TO ATMOSPHERE.

**SOLENOID DE-ENERGIZED:** VALVE WILL CLOSE BY APPLYING UPSTREAM PRESSURE TO CONTROL CHAMBER.





**800 SERIES CONTROL VALVES** 

### PRESSURE REDUCING WITH HYDRAULIC RELAY & INTERNAL FILTER

**HYDRAULIC RELAY PRESSURIZED AT SIGNAL PORT:** PRESSURE-REDUCING VALVE AUTOMATICALLY REDUCES A HIGHER INLET PRESSURE TO A CONSTANT OUTLET PRESSURE REGARDLESS OF VARYING INLET PRESSURE AND/OR CHANGING FLOW RATE.

HYDRAULIC RELAY NOT PRESSURIZED AT SIGNAL PORT: VALVE WILL CLOSE.

**NOTE:** SIGNAL PORT PRESSURE MUST BE EQUAL TO OR GREATER THAN UPSTREAM PRESSURE IN ORDER TO ACTIVATE HYDRAULIC RELAY CORRECTLY.

