

# Set-Up Instructions

*for*

**EC-VM400**

**Motorized Valves**

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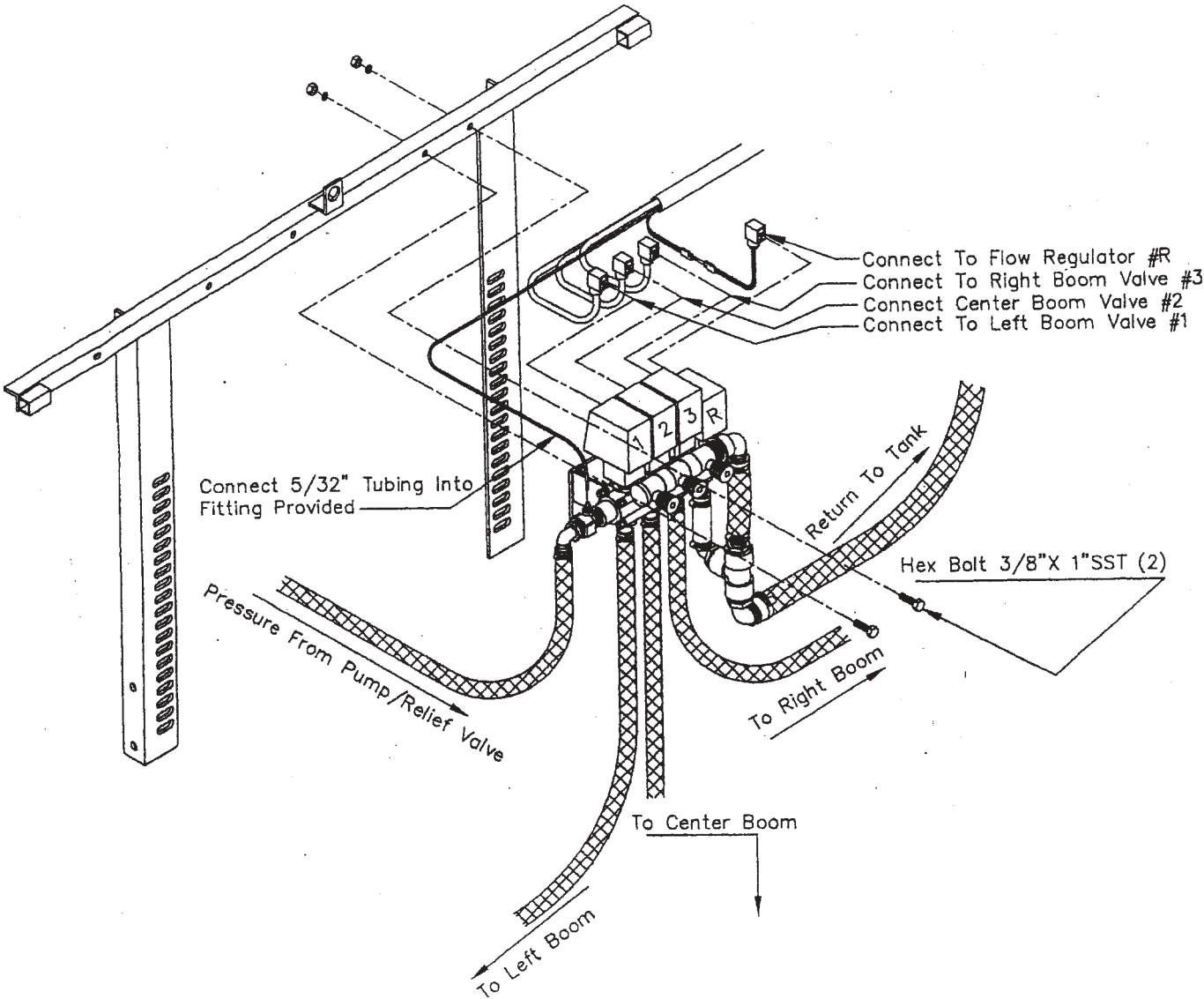
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# SDI Set-UP Diagram



**Step 1:**

Bolt Valve Assembly, Part #18-300, onto cross member of boom using 3/8 x 1" bolts, lock washers and nuts (supplied).

*Note: If boom has adjustable channel cross angle, use 3/8" adjustable channel nuts (supplied).*

**Step 2:**

Install D.I.N. connectors from wiring loom using water resistant D.I.N. connector gasket and screws included in the #18-200 Kit, to Motorized Valves and Pressure Regulator.

*Note: Using EC-VM400, use wiring harness included in the 18-300 Kit and route to desired control mounting location.*

**Step 3:**

Plug 5/32" tubing into tubing adapter located next to Valve #1.

**Step 4:**

Install ball valve and 3/4" hose barb adapter elbow (included in 18-300 Kit) to pump outlet. Run 3/4" hose (cut to desired length), from pump to inlet on the Motorized Valve.

**Step 5:**

Remove 1" plug from return fitting on tank.  
Install 1" hose barb elbow to return fitting.

**Step 6:**

Install bypass return hose from 1" hose barb elbow on Motorized Valves to 1" elbow on tank.

**Step 7:**

Cut 3/4" hose to length and install from valves to boom inlet adapters (allow extra length on outer wing sections to allow for breakaway capabilities).

**Step 8:**

Install Control Box to Control Mount.

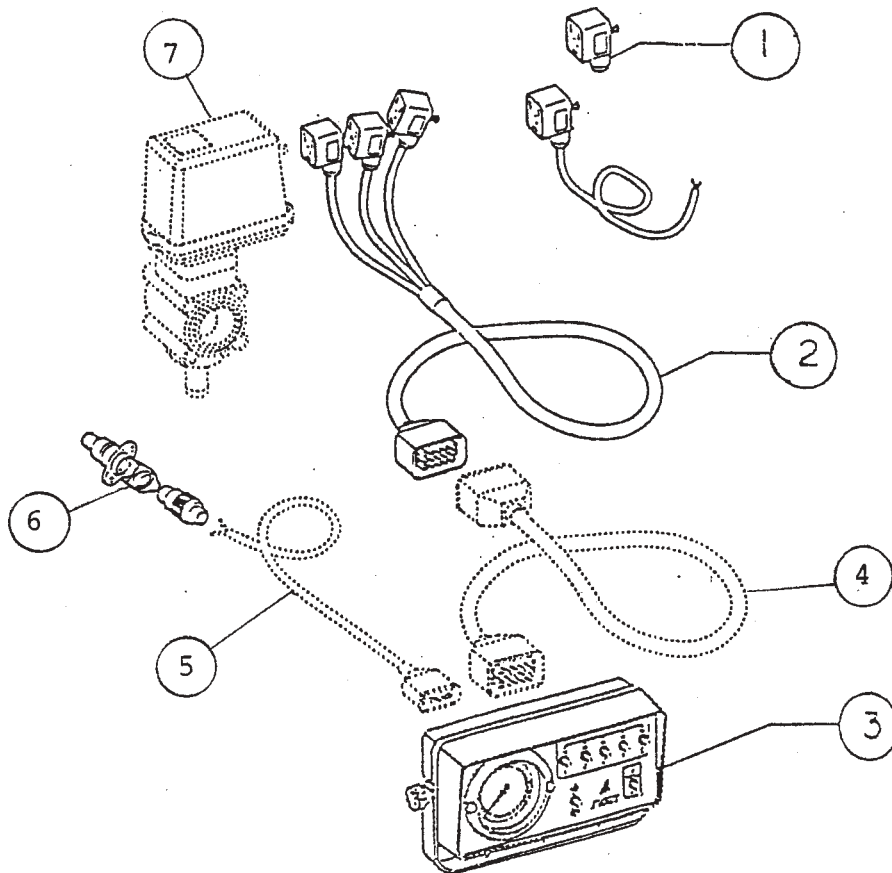
Using Control Box for 18-310, plug harness into back of Control Box, install power lead and connect to battery, brown wire (+) positive, blue wire (-) ground.

**Step 9:**

Install 5/32" tubing into adapter on Control Box.

# SDI Control Box Accessories

<u>Item No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>
1	56-536	D.I.N. Connector	1
2	56-504	Harness Assembly 16'	1
3	56-503	Motorized Valves Control Box	1
4	56-508	Control Box Extension	1
5	56-507	Power Cable	1
6	72-117	Cigarette Lighter Adapter	1
7	56-501	Motorized Valve One Two Wire	1



# Setting Pressure for Motorized Controls

The following instructions are designed to assist you with the proper setting and testing of your Motorized Control Unit.

## For models with a diaphragm pump:

1. Shut off ball valve to boom.
2. Set manual relief valve to 70-80 PSI (*this is used mainly as a safety valve and will not operate below that pressure*).
3. Open ball valve to booms.

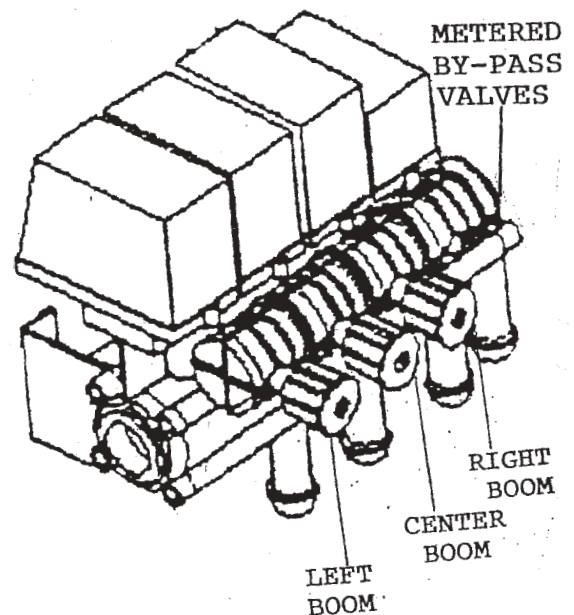
## For all models (*for centrifugal pump models, the first three steps are not required*):

4. Close all three (3) **Metered Bypass Valves** (red knobs), by turning knobs in a clockwise direction as far as they will go (Figure 1).
5. Open all three (3) sections of the boom from the **Control Panel**. Set desired operating pressure using electric **Control Switch** on the **Control Panel**. To set the **Metered Bypass Valve**, close one (1) boom section at a time. Then open the **Metered Bypass Valve** for that boom section until the desired operating pressure is achieved.

**Example:** Desired pressure is 40 PSI - to set **Metered Bypass Valve:**

- A. Shut left boom section off on the Control Panel.
  - B. Pressure will read more than 40 PSI.
  - C. Using left **Metered Bypass Valve**, open valve until operating pressure returns to 40 PSI.
6. **Repeat** the above procedure for the **center and right boom sections**, making sure the other two (2) boom sections are open.

## Motorized Control Valves:

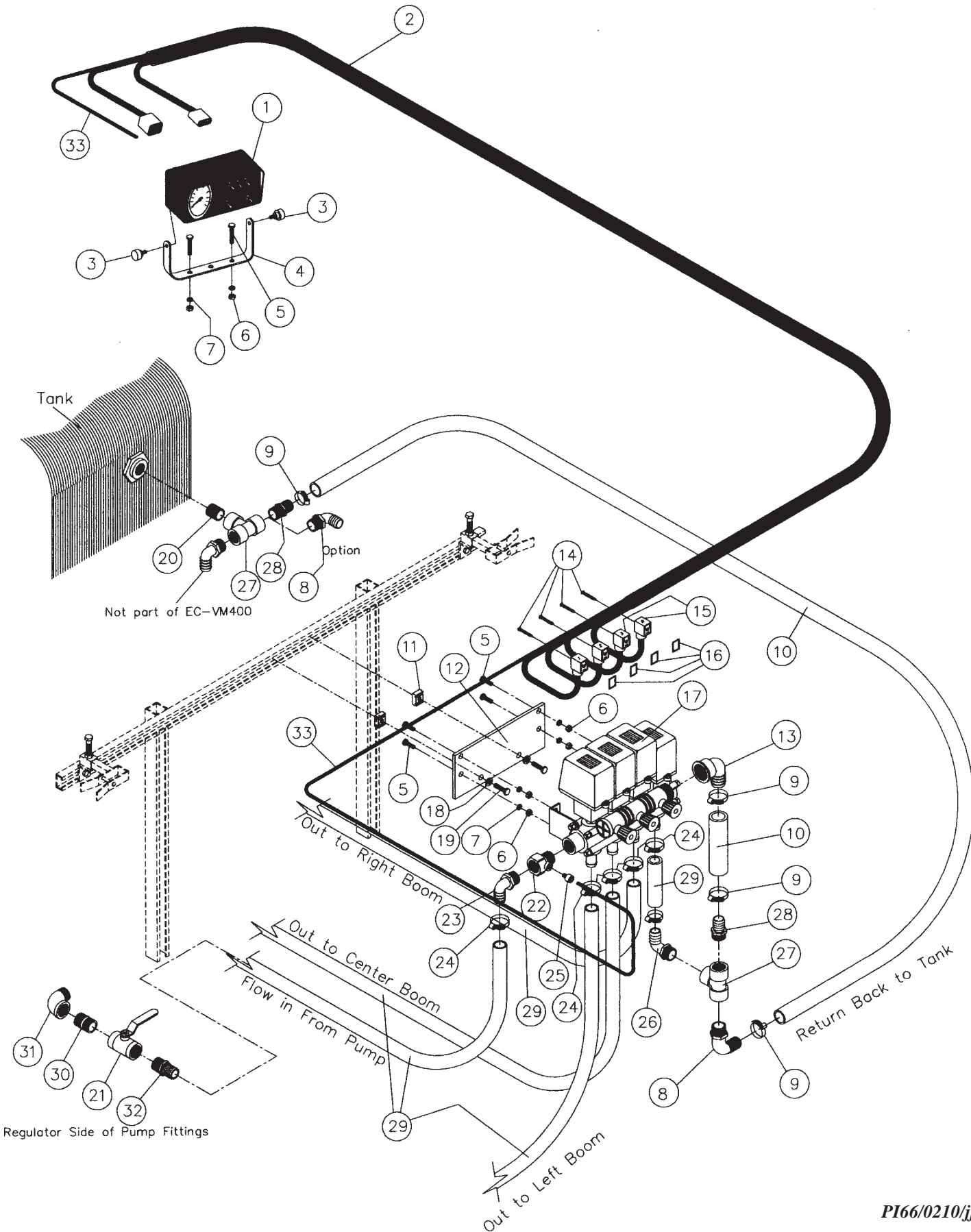


*Figure 1*

# SDI Motorized Boom Valve Controls

Item No.	Part No.	Description	Qty
1	56-503	Control Box	1
2	56-504	Harness 2 Wire Din Connectors, 18-1/2'	1
3	56-537	Knob for Control Box	2
4	56-505	Mounting Bracket	1
5	31-503	Hex Bolt 5/16 x 1" SST	6
6	41-502	Hex Nut 5/16" NC SST	6
7	43-502	Lock Washer 5/16" SST	6
8	52-120	Elbow Adapter 1 MPT x 1" HB Poly	2
9	24-116	Hose Clamp #16	4
10	21-938	Hose 1" ID, 200 PSI, Per Foot	Specify
11	41-106	Channel Nut 3/8"	2
12	11-639	Bracket	1
13	56-511	Elbow W/Fly Nut Assembly	1
14	56-491	Din Connector Screw	4
15	56-541	Din Connector, 3-wire	4
16	56-490	Din Connector Gasket	4
17	56-500	Boom Valves - includes 3 Boom Valves, 1 Regulator Valve and 1 Metered Bypass Valve	1
18	43-503	Lock Washer 3/8" SST	2
19	32-503	Hex Bolt 3/8 NC x 1" SST	2
20	53-912	Close Nipple 1" PVC	1
21	60-324	Ball Valve 3/4" HD Full Port	1
22	56-2152	Adapter 3/4 MPT x 3/4" FPT with 1/8" Port, Poly	1
23	52-112	Elbow Adapter 3/4 MPT x 3/4" HB, Poly	2
24	24-110	Hose Clamp #10	11
25	56-510	Tube Fitting 1/8 MPT x 5/32" Tube	1
26	52-119	Elbow Adapter 1 MPT x 3/4" HB, Poly	1
27	53-826	Tee 1", Poly	2
28	53-435	Adapter 1 MPT x 1" HB, Poly	3
29	21-930	Hose 3/4" ID, 200 PSI, Per Foot	Specify
30	51-501SS	Close Nipple 3/4" SST	1
31	50-510SS	Street Elbow 3/4" x 90°, SST	1
32	53-134	Adapter 3/4 MPT x 3/4" HB	1
33	49-532	Tubing 5/32" O.D., Per Foot	Specify

# SDI Motorized Boom Valve Controls



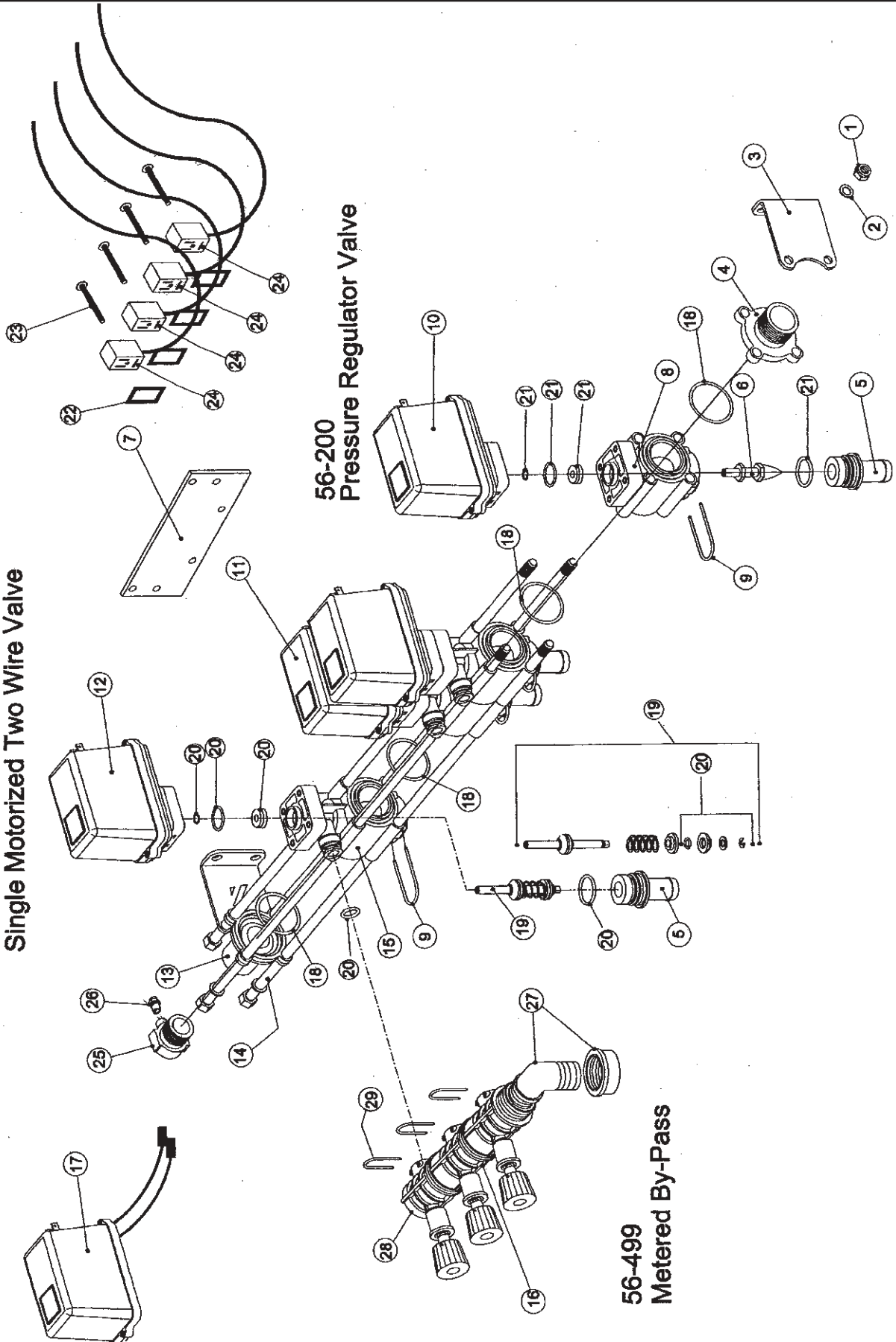
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# SDI Motorized Valve Bank-Two Wire #56-500

**56-501  
Single Motorized Two Wire Valve**

**56-200  
Pressure Regulator Valve**

**56-499  
Metered By-Pass**





# SDI Motorized Valve Bank-Two Wire #56-500

Item No.	Part No.	Description	Qty
1	56-530	Hex Nut	4
2	56-529	Washer	8
3	56-505	End Mounting Plate	2
4	56-514	Outlet Adapter 3/4" MPT	1
5	56-105	Slip Hose Barb Fitting 3/4"	4
6	56-203	Regulator Stem	1
7	11-639	SDI Mounting Plate	1
8		Regulator Valve Body/No Longer Available	
9	56-106	Locking Pin	4
10	56-201	Regulator Motor Assembly	1
11	56-501	Motorized Two Wire Valve	3
12	56-100A	Motor Assembly 56-501	3
13	56-513	Inlet Adapter 3/4" FPT	1
14	56-528	Hex Bolt 10" Lg.	4
15	56-101	Valve Body 56-501	3
16	56-499	Metered Bypass after 1/07	1
17	56-525	Valve Cover Only	4
18	56-107	O-ring between valves	5
22	56-490	Din Connector Gasket	4
23	56-491	Din Connector Screw	4
24	56-541	Din Connector Cable	4
25	56-2152	Adapter 3/4 MPT x 3/4 FPT x 1/8" Port	1
26	56-510	Adapter 1/8 MPT x 5/32" Tube Slip	1
27	56-511	Fly Nut Assembly	1
28	56-600	End Cap, Metered By Pass	1
29	56-517	Bypass Locking Pin	3
<b><u>REPAIR KITS:</u></b>			
19	56-538	Plunger Kit for 56-501 Two Wire Valve	3
20	56-539	Seal Kit for 56-501 Two Wire Valve	3
21	56-540	Seal Kit for 56-200 Regulator Valve	1

# SDI Complete Box Assembly #56-503

Item No.	Part No.	Description	Qty
1	56-507	Power Cable	1
2	56-516	Union Fitting	1
3	56-510	Fitting 1/8 MPT x 5/32"	1
4	49-532	Nylon Tubing 5/32" OD, Per Foot	Specify
5	56-204	Fitting 1/4 MPT x 5/32" Tube	1
6	50-250B	Brass Coupling 1/4" FPT	1
7	56-70079	Fuse AGC10	1
8	56-537	Knob	1
9	56-531	Cushion	1
10	56-532	O-ring	1
11	56-535	Locking Ring	1
12	56-509	Pressure Gauge 0-100 PSI	1
13	56-533	Rubber Cap	1
16	56-534	O-ring (2 per switch)	2
17	56-549	Electronic Circuit Board	1

