

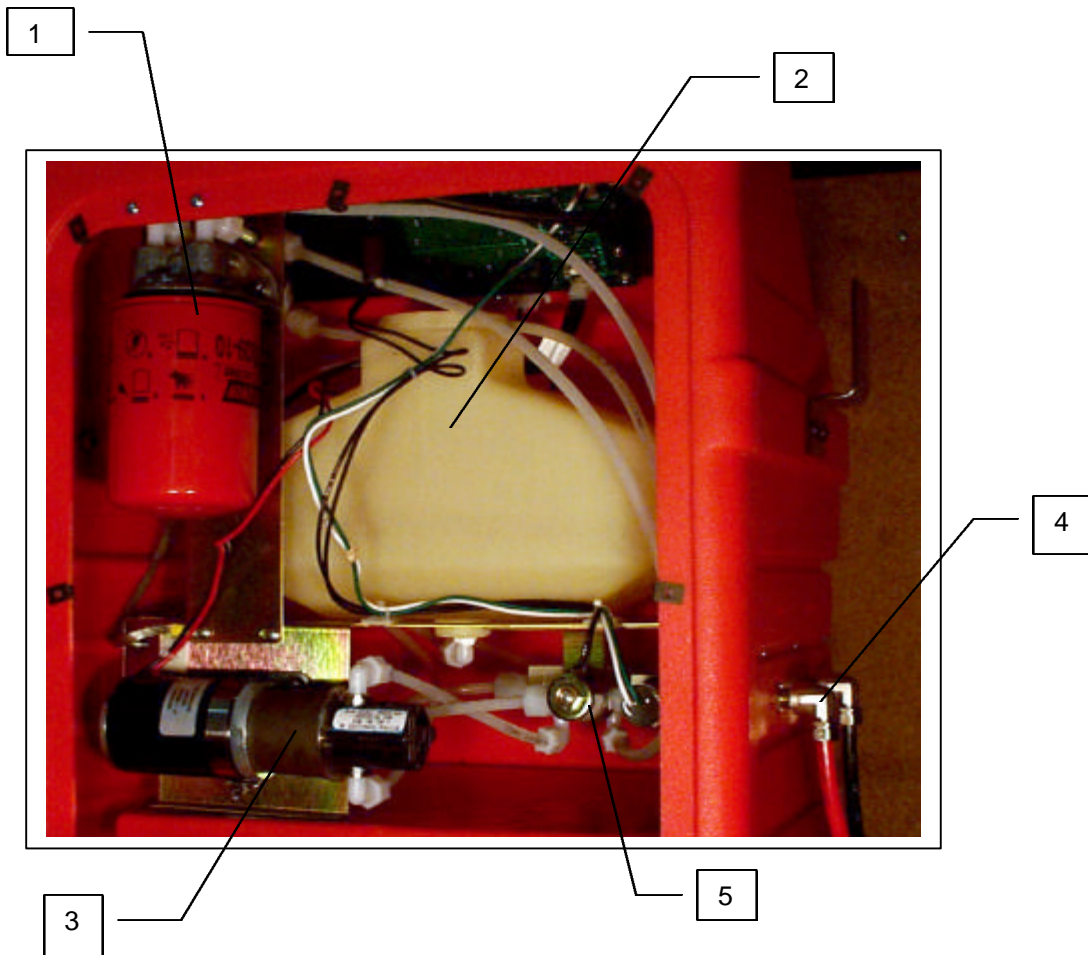
CHAPTER 4 PARTS AND DIAGRAMS

FRONT VIEW



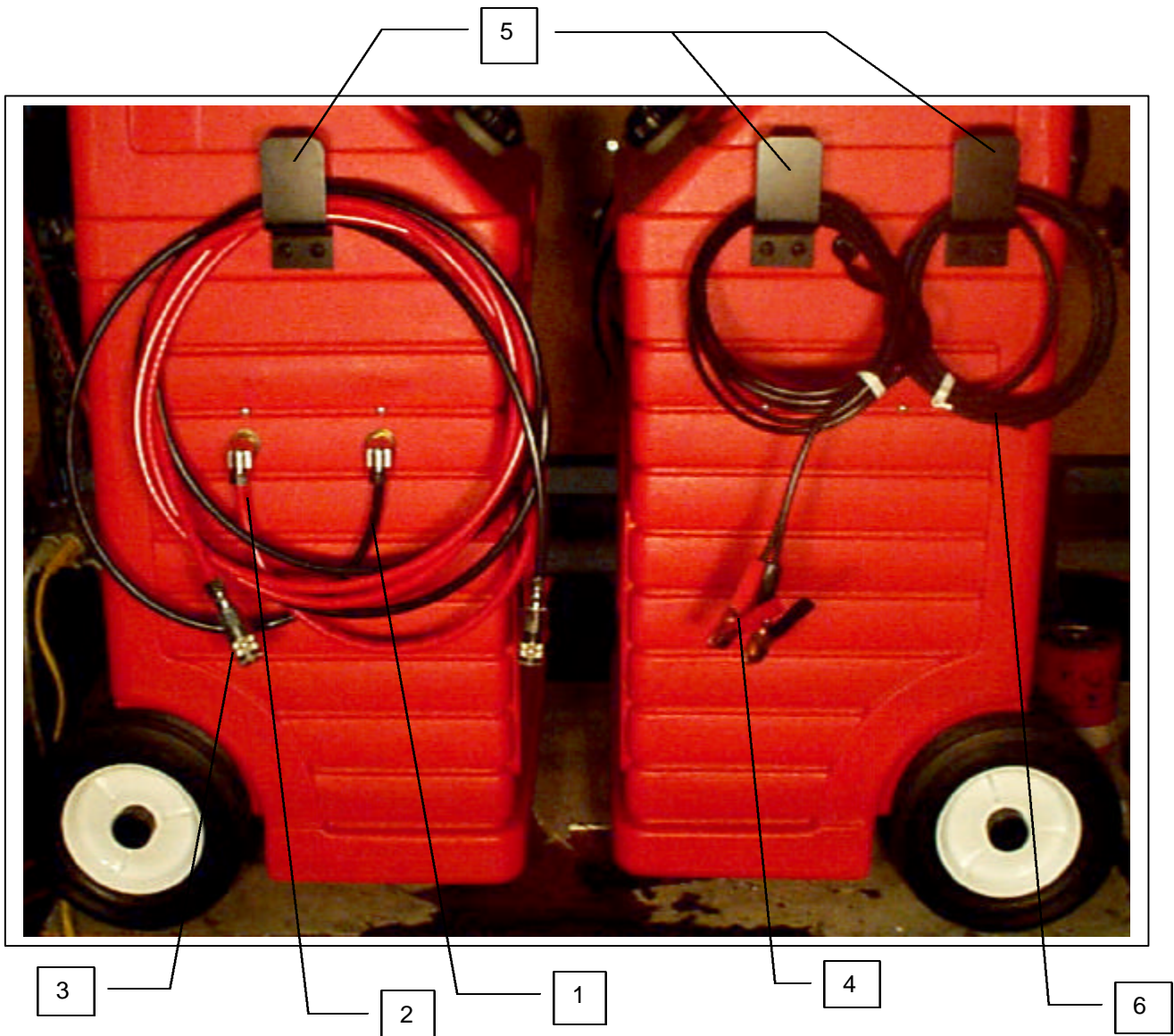
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Gauge, Vacuum Asmb.	MV2008010	5	Drawer, Plastic	MV0105002
1a	Lens, Vacuum Gauge	MV0501910	5a	Thumb Screw, 1.5", Pls	MV0406049
2	Gauge, Fuel Press.	MV2008012	6	Cap, Reservoir	MV0106060
2a	Lens, Fuel Press. Gauge	MV0500007	6a	Cap gasket	MV0501914
3	Regulator Assembly	MV2007006	NS	Intake Cleaning Sys.(ICS)	MV2006000
3a	Regulator Knob	MV0500056	NS	Hose, 30" (used in ICS)	MV1005001
4	Wheel	MV0100027			

REAR VIEW



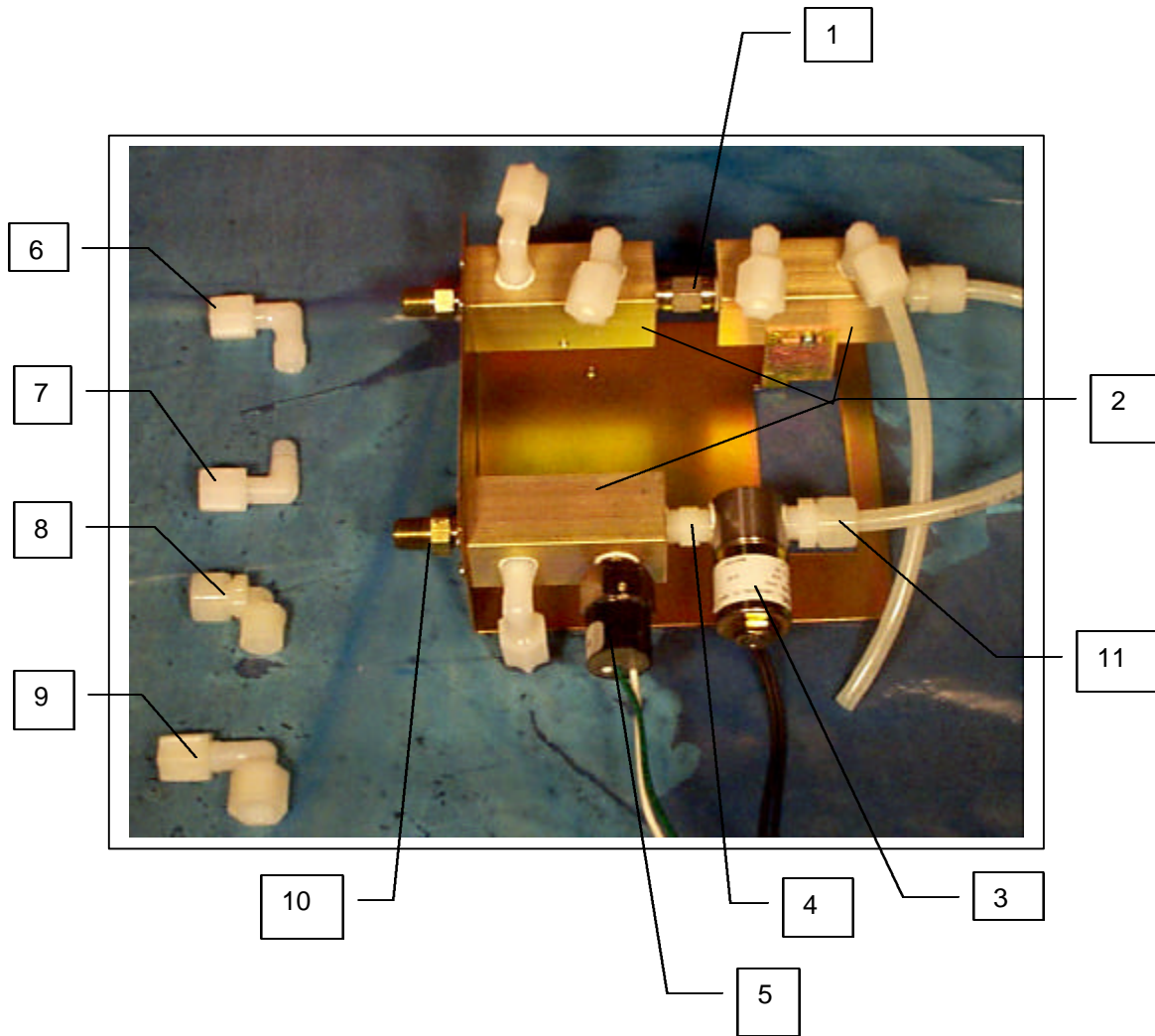
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Filter, Orange (BT839-10)	MV0500095	3	Pump, Assembly	MV2008031
1a	Filter Nipple	MV0303095	4a	Adapter, 90° Bulkhead	MV0300131
			4b	Adapter, Hex Nipple	MV0303092
2	Tank Asmb., Reservoir	MV2008602	5	Manifold Assemblies	See Page 4-4

SIDE VIEWS



ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Hose, Black Return	MV2000300	4	Cables, Battery	MV0208043
2	Hose, Red Out	MV2000400	5	Hanger, Black Metal	MV0105004
3a	Connector, Quick Disconnect	MV0800230	6	Hose, Vacuum (requires 12 feet)	MV0700100 (per foot)
3b	Fitting, 3/8" Cmp x 1/4" MPT	MV0300020			

MANIFOLD BLOCK ASSEMBLIES and FITTINGS



ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Valve, Relief	MV0500088	7	Elbow, 5/16"Nt x 1/8"MPT (pump)	MV0300015
2	Block, Manifold	MV0300110	8	Elbow, 5/16"Tb x 1/8"FPT (pressure gauge)	
3	Valve, Solenoid (NC)	MV0500018	9	Elbow, 5/16"Nt x 1/4"FPT (regulator)	MV0300011
4	Nipple, 1/4"MPT x 1/4"MPT	MV0300014	10	Union, 1/4"MPT x 1/4"MPT, Zp	MV0303092
5	Switch, Pressure	MV0500016	11	Union, 5/16"Nt x 1/4"MPT	MV0300017
6	Elbow, 5/16"Nt x 1/4"MPT (block)	MV0300018			

COMPLETE REPLACEMENT PARTS LISTING:

ITEM	LEVELS		MotorVac Part Number	Descriptions	Qty
	ASMB	SUB ASMB			
1	1		N/A	CABINET ASSEMBLY	1
2		2	MV010-0026	Hub Cap	2
3		2	MV010-0027	Wheel, 8" x 1.75", rubber	2
4		2	MV011-0014	Hanger Bracket, Stl, painted black	3
5		2	MV010-6008	Axle, 0.5" Dia., Zinc Plate	1
6		2	MV010-5600	Cabinet, Red Plastic	1
7		2	MV010-5403	Drawer Magnet Contact Plate, Stl (2 studs)	1
8		2	MV040-0603	Snap Bushing, for Vacuum Hose	1
9		2	MV040-0604	Cap Nut, 1/2"	2
10		2	MV040-0607	Nut, Nylock 1/4"-20, Zp, for hanger	6
11		2	MV040-0610	Screw, PHP 1/4"-20 x 5/8", Zp, for hanger	6
12		2	MV040-6014	Spacer 1/16", Zp	4
13		2	MV040-6015	Tinnerman Nut, #8, to secure back panel	9
14		2	MV040-6016	Kep Nut, 6-32, Zp, for drawer magnet contact plate	2
15		2	MV040-6049	Thumbscrew, 10-32 x 1-1/2", Ny, for drawer retention	8 A
16		2	MV200-8036	Drawer Assemblies (4)	1
17		3	MV010-5002	Drawer, Black plastic	4 A
18		3	MV040-6024	Magnet, 30lbf pull, 3/16" mount	4 A
19		3	MV040-6025	Pop Rivet, Blind Head, 3/16", Al, for magnet	4 A
20		3	MV040-6051	Tinnerman Nut, 10-32, for drawers	8 A
21					
22	1		MV200-0300	Return Hose Assembly, Black	1
23		2	MV030-0020	Un, 3/8"Cmp x 1/4"MPT, Ni	1
24		2	MV070-0020	NAB Hose, 3/8"OD, Blk, Ny	10ft
25		2	MV080-0230	Female Quick Disconnect, 1/4" x 1/4"FPT, Ni	1
26					
27	1		MV200-0400	Output Hose Assembly, Red	1
28		2	MV030-0020	Un, 3/8"Cmp x 1/4"MPT, Ni	1
29		2	MV070-0010	NAB Hose, 3/8"OD, Red, Ny	10ft
30		2	MV080-0230	Female Quick Disconnect, 1/4" x 1/4"FPT, Ni	1
31					
32	1		MV200-8601	Pump, Tank, Manifold Block,& Filter Assembly	1
33		2	MV010-5400	Mounting Bracket for pump, tank, manifold block	1
34		2	MV010-5401	Mounting Bracket for filter asmb.	1
35		2	MV010-5402	Mounting Bracket Support, leftside	1
36		2	MV010-5404	Mounting Bracket Support, rightside	1
37		2	MV020-5320	Ferrite Bead, for solenoid wires	1
38		2	MV040-0019	Screw, PHP 10-32 x 3/8",Zp, for filter bracket	2
39		2	MV040-0200	Starwasher, Internal, #6, Zp, for manifold block mounting	15
40		2	MV040-0400	Starwasher, Internal, #10, Zp, for filter bracket	2
41		2	MV040-0603	Snap Bushing, for filter tubing into bracket	2
42		2	MV040-0605	Nut, Nylock 8-32, Zp, for pump mounting	4
43		2	MV040-0612	Allen Head Screw, 1/4"-20 x 5/8", Ss, for filter mount	3
44		2	MV040-0618	Screw, PHP 1/4"-20 x 1/2", Zp, for tank mounting	2
45		2	MV040-0619	Starwasher, Internal 1/4", Zp, for tank mounting	2
46		2	MV040-0622	Nylon Cable ties 4", for securing wire	3

47	2	MV040-1203	Screw, PHP 6-32 x 3/8", Zp, for manifold block mounting	15	
48	2	MV040-6032	NYLON CABLE TIES 8", FOR SECURING TUBING	1	
49	2	MV040-6037	Cable Tie Mount, 0.75", 4-way, Ny	3	
50	2	MV070-0085	Tubing, 5/16"OD, Nylon	9	
51	1	MV200-7002	Manifold Sub-Assembly #2, towards rear of cabinet	1	
52	2	MV020-0061	Molex Connector Housing, Male, 3 pin, for solnd & prs sw	2	
53	2	MV030-0014	Un, 1/4"MPT x 1/4"MPT, Ny, between solnd and block	1	
54	2	MV030-0017	Un, 5/16"Nt x 1/4"MPT, Ny, at solenoid	1	
55	2	MV030-0018	90°, 5/16"Nt x 1/4"MPT, Ny, at block to prs. gauge	1	
56	2	MV030-0110	Manifold Block, 1/4"FPT ports, Al	1	
57	2	MV050-0016	Pressure Switch, 1/4"MPT mount, Stl, N.O. till 4 PSI	1	
58	2	MV050-0018	Solenoid, 2-way, 12 VDC, Ss, normally closed	1	
59	1	MV200-7009	Filter Mount Assembly	1	
60	2	MV030-0018	90°, 5/16"Nt x 1/4"MPT, Ny, at top of filter mount	2	
61	2	MV050-1918	Filter Mount, 1/4"FPT ports, Al	1	
62	1	MV200-8029	Manifold Sub-Assembly #1, towards front of cabinet	1	
63	2	MV030-0017	Un, 5/16"Nt x 1/4"MPT, Ny, at block	1	
64	2	MV030-0018	90°, 5/16"Nt x 1/4"MPT, Ny, at block	4	
65	2	MV030-0110	Manifold Block, 1/4"FPT ports, Al	2	
66	2	MV050-0088	Pressure Relief Valve, 1/4"MPT, 115 PSI (Nominal), Ss	1	
67	1	MV200-8031	Fuel Pump Assembly	1	
68	2	MV020-5320	Ferrite Bead, for pump wires	1	
69	2	MV030-0015	90°, 5/16"Nt x 1/8"MPT, Ny, at pump	2	
70	2	MV050-0043	Fuel Pump and Mounting bracket, 1/8"FPT ports, 12 VDC	1	
71	1	MV200-8034	Fuel Tank Assembly, w/ fuel level sensor	1	
72	2	MV010-6002N	Fuel Tank, Natural plastic	1	
73	2	MV030-0018	90°, 5/16"Nt x 1/4"MPT, Ny, top and bttm fittings	2	
74					
75	1	MV200-8602	Control Panel Assembly complete, with PCB	1	
76	2	MV010-5005	Control Panel steel backing plate, for ICC PCB	1	B
77	2	MV010-5100	Control Panel Overlay with integrated Keypad	1	B
78	2	MV020-5330	Control Circuit Board (PCB) assembly	1	
79	2	MV040-0433	Round Spacer, #6 x 0.5", Al, for PCB	5	
80	2	MV040-6035	Kep Nut, 4-40, Zp, for PCB	5	
81	1	MV200-7006	Pressure Regulator Valve Assembly, needle valve	1	
82	2	MV030-0011	90°, 5/16"Nt x 1/4"FPT, Ny, regulator fittings	2	
83	2	MV050-0052	Regulator Valve, needle valve, 1/4"MPT ports, Ss	1	
84	1	MV200-8010	Vacuum Gauge Assembly, 2.5" dial	1	
85	2	MV030-0026	Un, 0.170"Barb x 1/4"FPT, Br, for vacuum gauge	1	
86	2	MV050-0006	Vacuum Gauge, 0-30 in. hg., 2.5" dial, "MOTORVAC"	1	
87	1	MV200-8012	Pressure Gauge Assembly, 0-160 PSI, 3.5" dial	1	
88	2	MV030-0033	90°, 5/16"Nt x 1/8"FPT, Ny, pressure gauge fitting	1	
89	2	MV050-0005	Pressure Gauge, 0-160 PSI, 3.5" dial, MotorVac	1	
90					
91	1	N/A	Final Pull Assembly, for machine assembly	N/A	
92	2	MV010-5601	Rear Panel, Black plastic, for cabinet	1	

93	2	MV010-6060	Fuel Tank Cap, black plastic	1	
94	2	MV020-0375	Strain Relief, for external power harness mount into cabinet	1	
95	2	MV020-5316	Internal Grounding Cable, between cntrl pnl and tank brkt	1	C
96	3	MV020-5315	Internal Grounding Plate, connects to pressure regulator	1	C
97	2	MV020-8043	External Power Harness, 11Ft, with battery clips	1	
98	2	MV030-0131	<u>90°, 3/8"COMP X 1/4"FPT, NI, FITTING CONNECTS TO HOSE ASMB</u>	2	
99	2	MV030-3092	Un, 1/4"MPT x 1/4"MPT, Stl, fitting connects to mnfld block	2	
100	2	MV040-6016	Kep Nut, 6-32, Zp, for control panel mounting to cabinet	10	
101	2	MV040-6023	Screw, PHP #8 x 3/4", SMS, Zp, for rear panel mounting	8	
102	2	MV040-6039	Screw, Truss Head 6-32 x 1/2", Zp, for filter mount. plate	6	
103	2	MV050-0095	Fuel Filter, spin-on, 10 micron rating, Baldwin BT839-10	1	
104	2	MV070-0085	Tubing, 5/16"OD, Nylon	7.42ft	
105	2	MV070-0100	Vacuum Hose 5/32"ID, rubber	12ft	
106	2	MV100-8403	Caution Label, for top of cabinet application	1	

Notes: A > for only one drawer order 1 of each and 2 nuts and screws

B ,C> these parts only sold together, not separate

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Additional Parts

114	1	MV200-3025	Standard Adaptor Kit, fuel system connecting adaptors	1	
115	1	MV200-8400	Packet including Operator manual & Quick Reference Cards	1	
116	2	MV200-8200	Operator's Manual	1	
117	2	MV200-8300	Quick Reference Cards: Carb, TBI, PFI, & CIS fuel systems	1set	
118	1	MV200-6000	Intake Cleaning System (ICS) kit, w/ nozzles & spray tubes	1	

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Replacement Parts

121	1	MV020-5329	Fuse, 8 Amperes, 5mm x 20mm, fast-acting, for cntrl PCB	1ea	
122	1	MV050-0056	Pressure Adjust Regulator Knob, Black plastic	1ea	
123	1	MV050-0007	Pressure Gauge Replacement Lens, for 3.5" gauge	1ea	
124	1	MV050-1910	Vacuum Gauge Replacement Lens, for 2.5" gauge	1ea	
125	1	MV100-5001	ICS, 30" Spray Tube, with multidirectional spray pattern	1ea	
126	1	MV100-5008	ICS, Bottle Neck, Black plastic, w/o air filler asmb	1ea	
127	1	MV100-5009	ICS, Air Filler Assembly, includes viton valve core & gasket	1ea	
128	1	MV100-5010	ICS, Viton Valve Core, for air filler assembly	1ea	
129	1	MV100-8138	Solenoid Replacement Plunger, viton, Blue	1ea	
130	1	MV200-3026	Deluxe Adaptor Kit, Sun/Snap-On P/N EEFS-102A	1ea	
131	1	MV200-8061	ICS Service Kit, includes pickup tube w/valve,nozzle,6" tube	1ea	

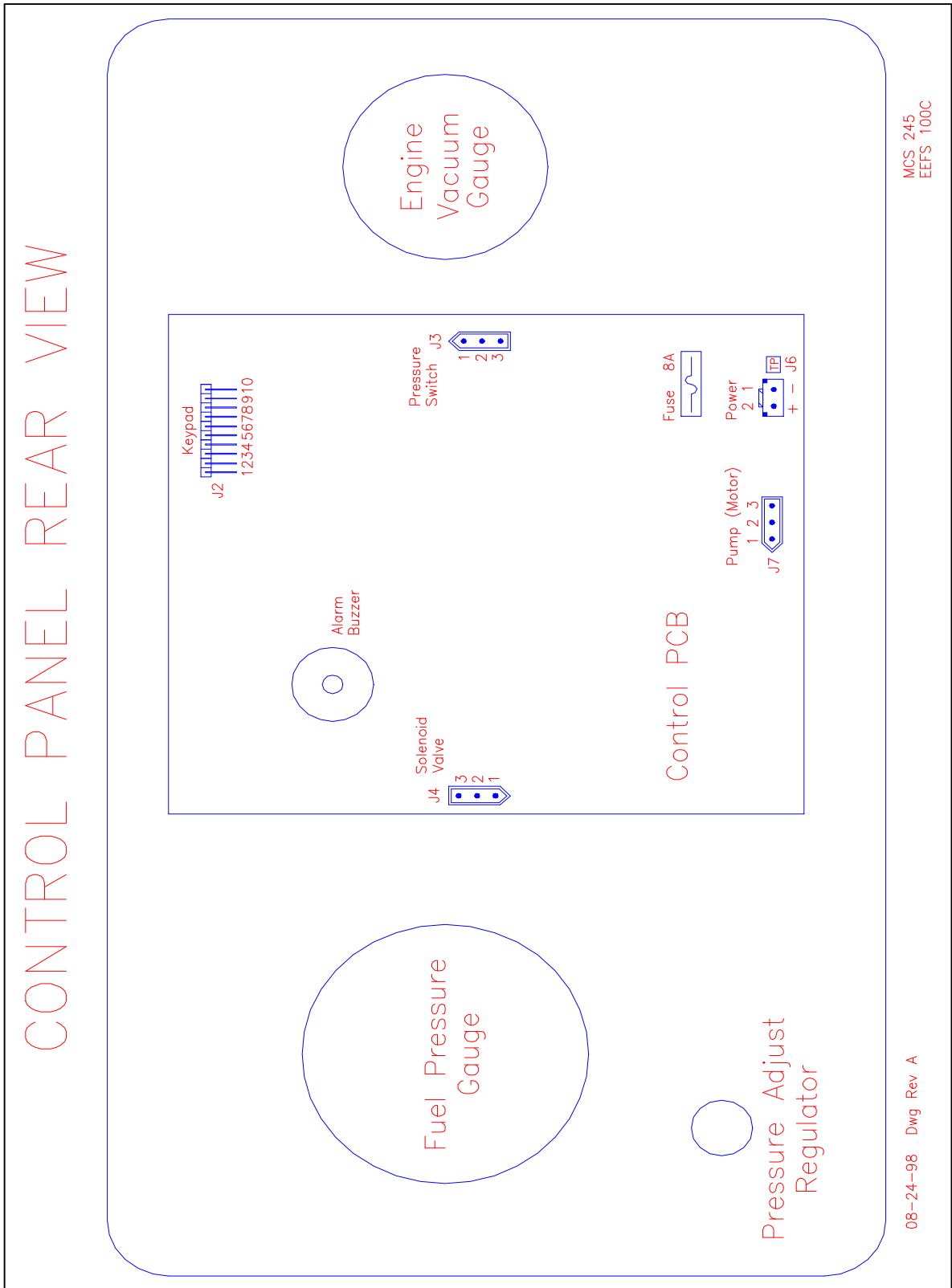
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Abbreviations

135		AL	Aluminum
136		ASMB	Assembly
137		BLK	Black
138		BRKT	Bracket
139		BTTM	Bottom
140		CNTRL	Control
141		DIA	Diameter
142		FPT	Female National Pipe Thread
143		ID	Inside Diameter
144		LBF	Pound of Force
145		MNFLD	Manifold
146		MPT	Male National Pipe Thread

147	N/A	Not Applicable or Not Available
148	NAB	Nylon Air Brake
149	Ni	Nickel
150	N.O.	Normally Open
151	NY	Nylon
152	OD	Outside Diameter
153	PCB	Printed Circuit Board
154	PHP	Pan Head Phillips
155	PNL	Panel
156	PRS	Pressure
157	PSI	Pound per Square Inch
158	SMS	Sheet Metal Screw
159	SOLND	Solenoid
160	Ss	Stainless Steel
161	STL	Steel
162	SW	Switch
163	UN	Union fitting
164	VDC	Voltage, Direct Current
165	W/	With
166	W/O	With Out
167	ZP	Zinc Plate
168	90°	ninety degree angled fitting

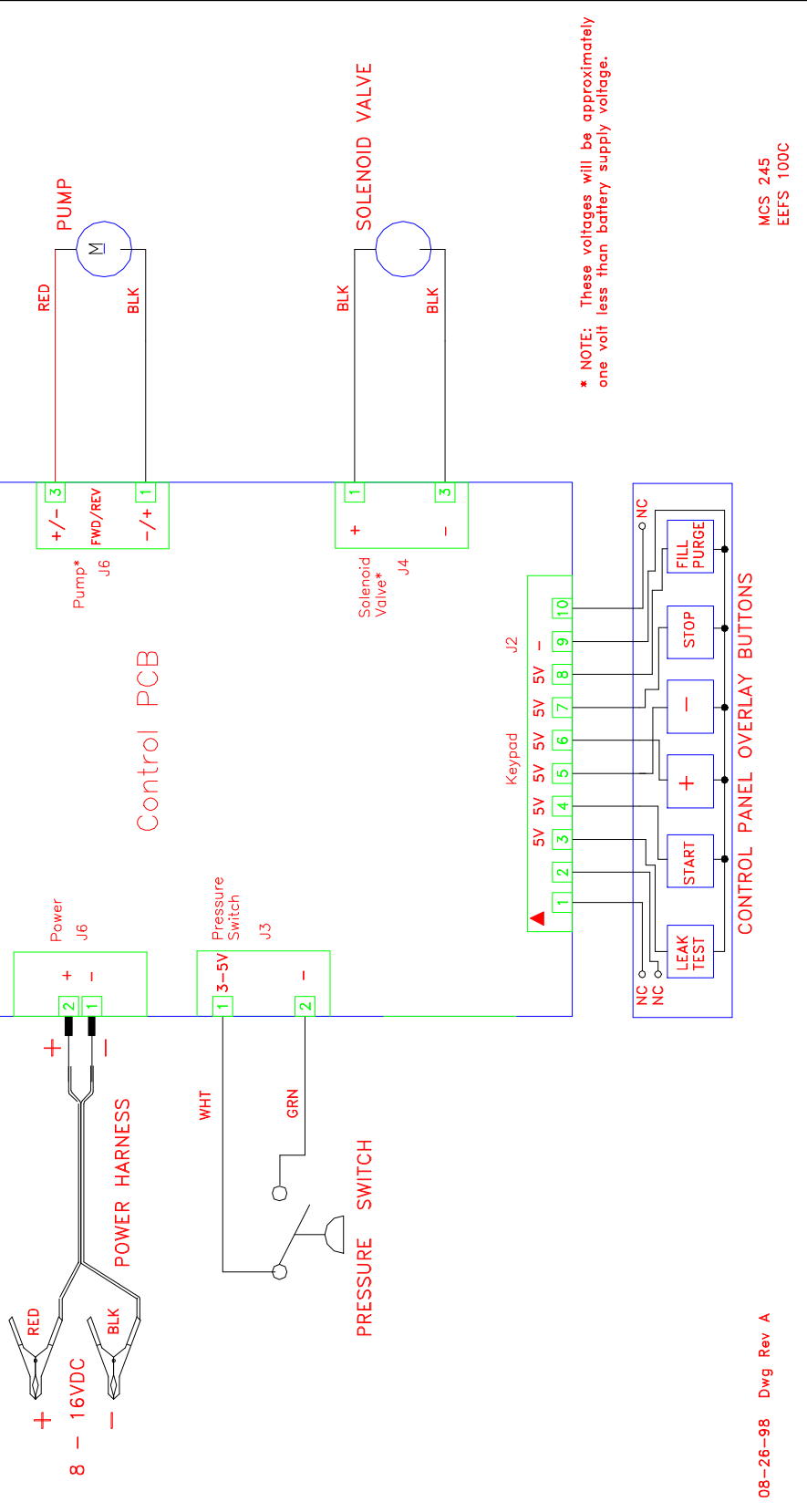
DIAGRAMS and SCHEMATICS:



MCS 245
EEFS 100C

08-24-98 Dwg Rev A

MotorVac CarbonClean System Electrical Schematic



08-26-98 Dwg Rev A

