



## **8000 SLURRY MANAGER**

### **OWNERS MANUAL**

**0995764\_D**

# EC DECLARATION OF CONFORMITY

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We: **Valmont Industries, Inc.**  
**28800 Ida Street**  
**Valley, NE 68064**  
**+1 402.359.6312**  
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Serial Number:

Purchase Order:

declare under our sole responsibility that the product,

## **Crop Irrigation System**

to which this documentation relates, is in conformity with the following documents:

**Machinery Directive 2006/42/EC**  
**Low Voltage Directive 2006/95/EC**  
**Electromagnetic Compatibility Directive 2004/108/EC**

The above-referenced equipment is in conformity with all safety-related clauses (Not all clauses reflecting commercial preference are met) of the following documents:

**EN 60204-1:2006 Safety of Machinery – Electrical Equipment of Machines**  
**EN 12100:2010 Safety of Machinery**  
**EN 909:1998+A1 Irrigation Machines**

Statement regarding **Pressure Equipment Directive 97/23/EC:**

The Crop Irrigation System is excluded from the scope of the Pressure Equipment Directive, by the language of Article 1, Sections 3.2, 3.6 & 3.10. This equipment is classified less than Category 1.

Statement regarding **RoHS Directive 2011/65/EC:**

The Crop Irrigation System is excluded from the scope of the RoHS Directive, by the language of Article 2, Section 4(e), being a "Large Scale Fixed Installation."

Person Authorized to Compile the Technical File in Europe:  
Relevant information will be transmitted via e-mail  
in response to a reasoned request by national authorities

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# ***MOUNTING OF THE P.L.C. BOX***

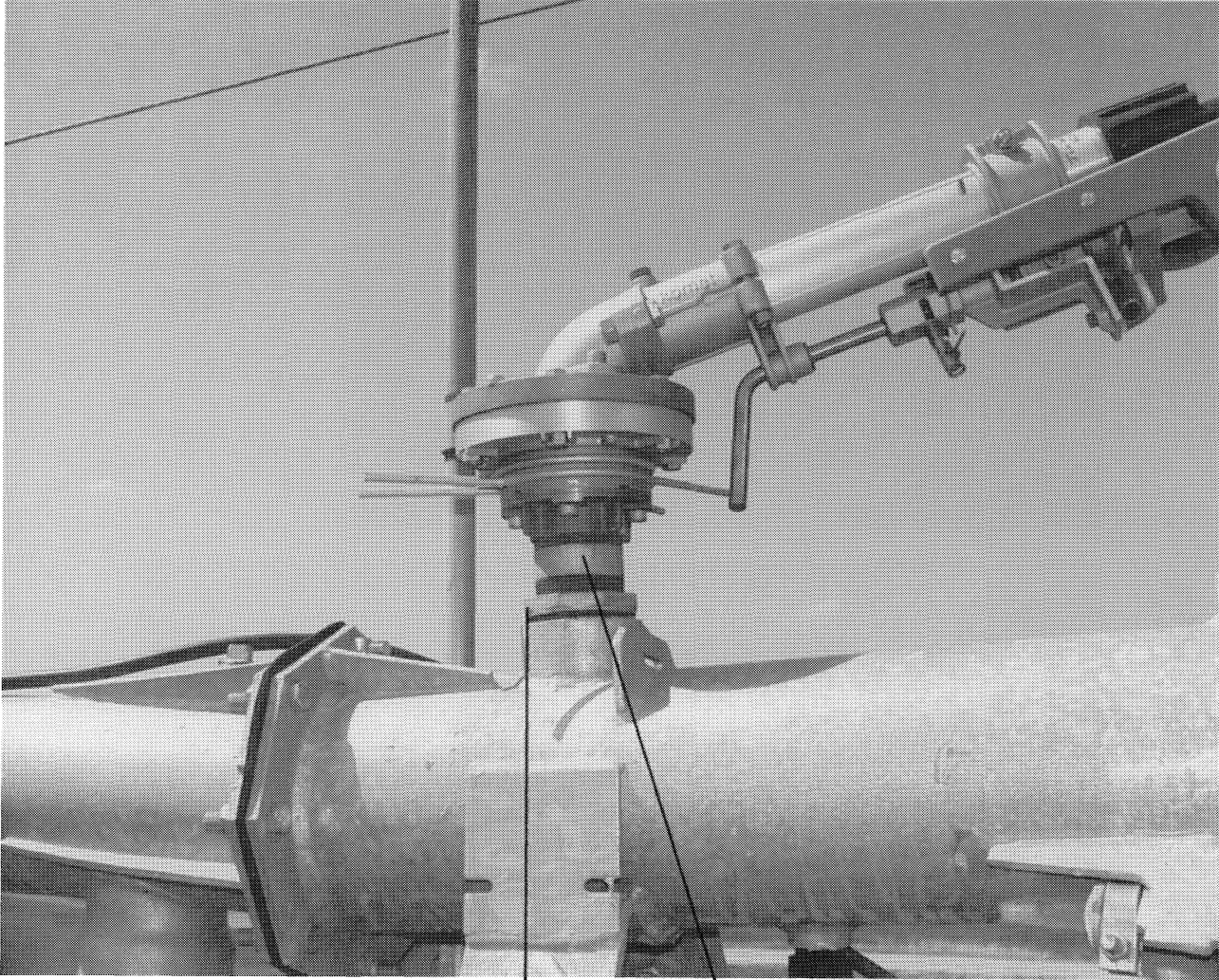


**7**      **5**      **2**      **1**      **3, 4**      **6**

- 1 ..... 1/2 Clamp 6 5/8" ..... P/N 1720290
- ..... 1/2 Clamp 8 5/8" ..... P/N 9330002
- 2 ..... PLC Box Mounting Standoff ..... P/N 9360616
- 3 ..... 1/2" x 2 1/2" Hex Cap Screw ..... P/N 0161023
- 4 ..... 1/2" Locknut ..... P/N 0133005
- 5 ..... Cord Strain Relief ..... P/N 0314466
- 6 ..... 4 Conductor Cable 180' ..... P/N 1813824
- 7 ..... 11 Conductor Cable 10' ..... P/N 1813831
- 8 ..... Cable Ties ..... P/N 03E0296

***DIRECT MOUNTING OF GUN ONTO A 2 1/2" COUPLER  
(STANDARD MOUNTING OF A NON-SEQUENCED GUN)***

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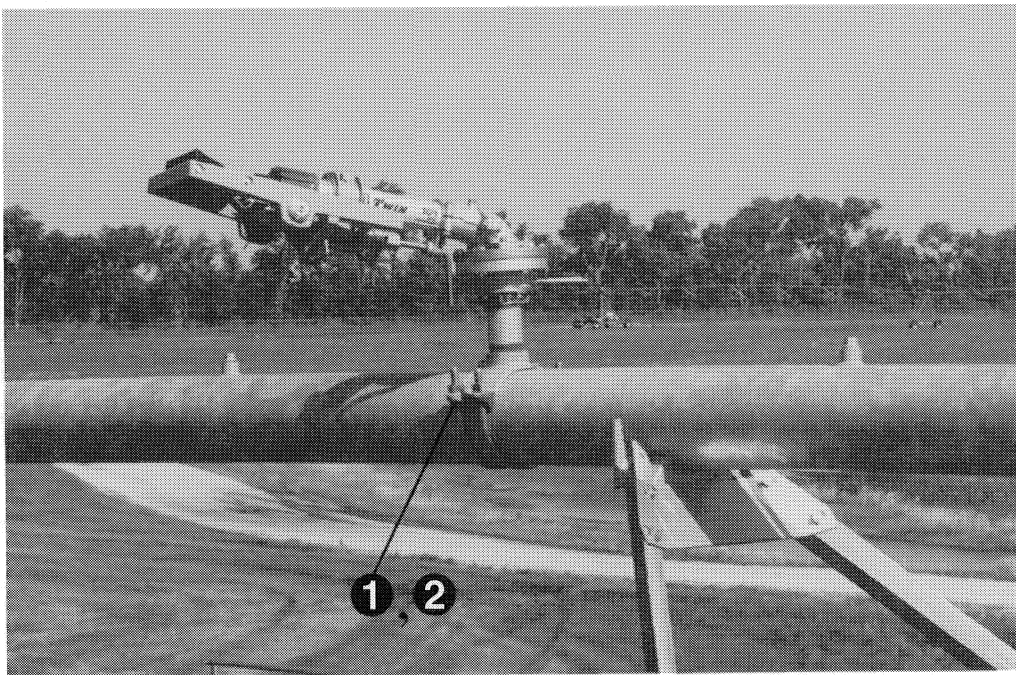
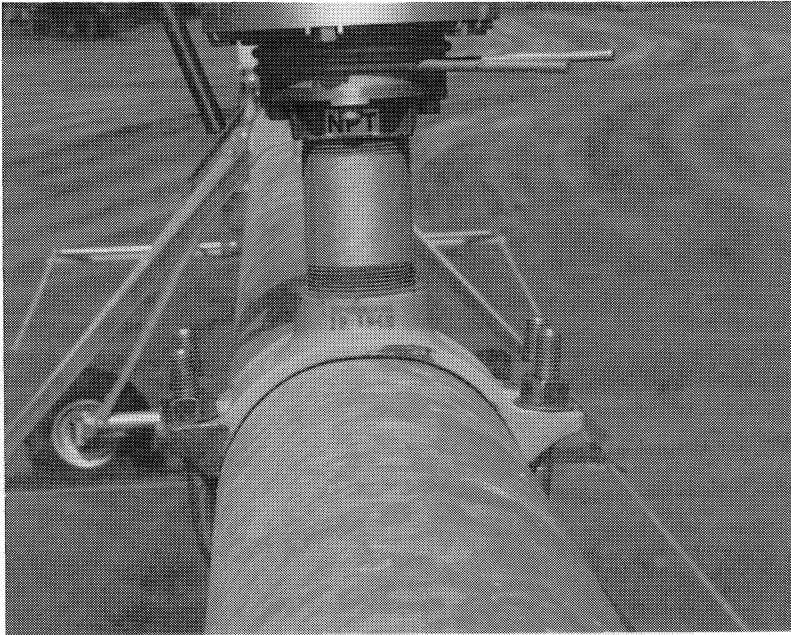
**1**

**2**

**1 ..... 2 1/2" x 2" Reducer Bushing ..... P/N 0244021**

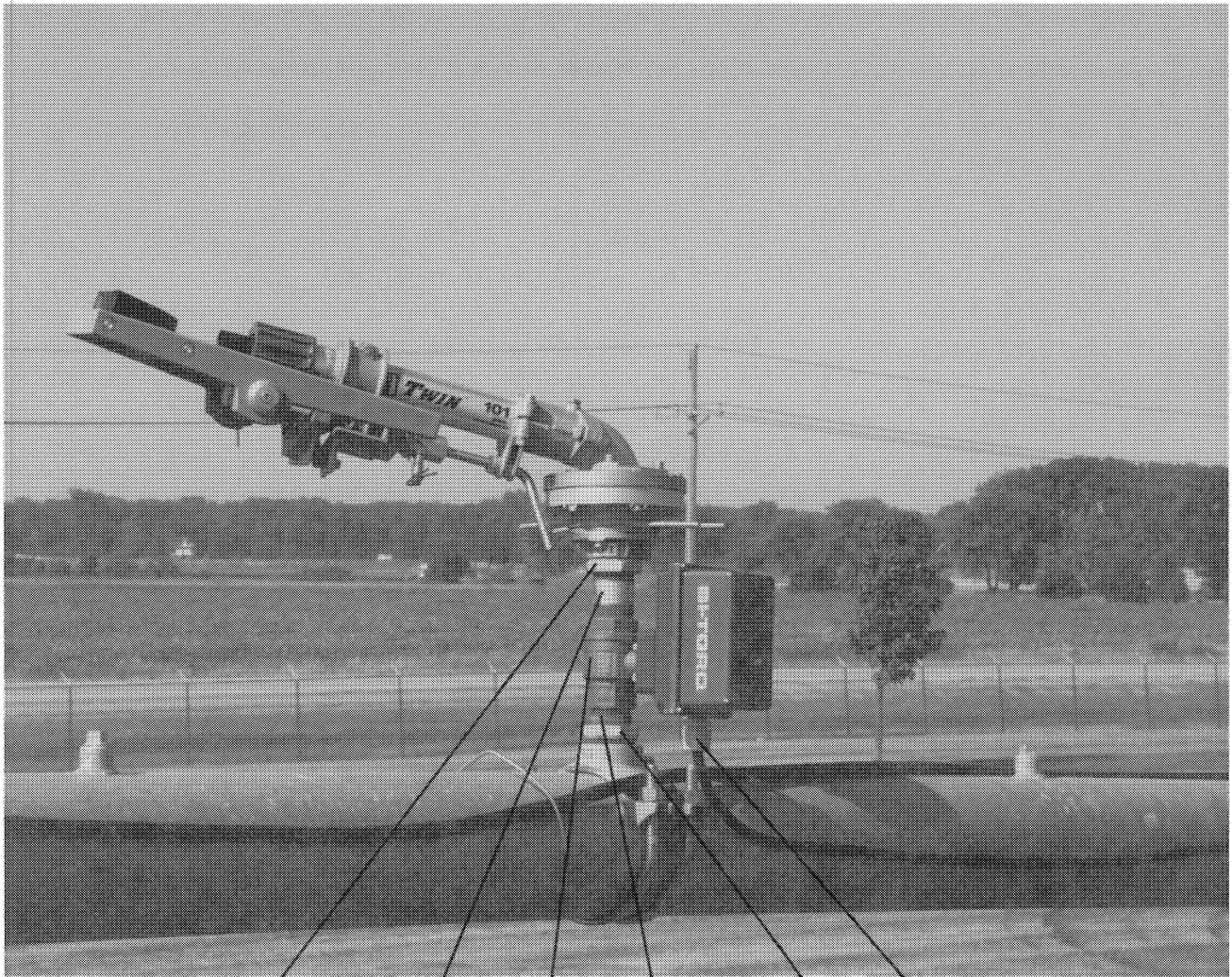
**2 ..... 2" x 4 1/2" Nipple ..... P/N 0211047**

# **MOUNTING ONTO A 3/4" COUPLER (SADDLE MOUNT)**



- 1 .....2" Saddle Mount 6 5/8" ..... P/N 0995861
- 2 .....2" Saddle Mount 8 5/8" ..... P/N 0995860

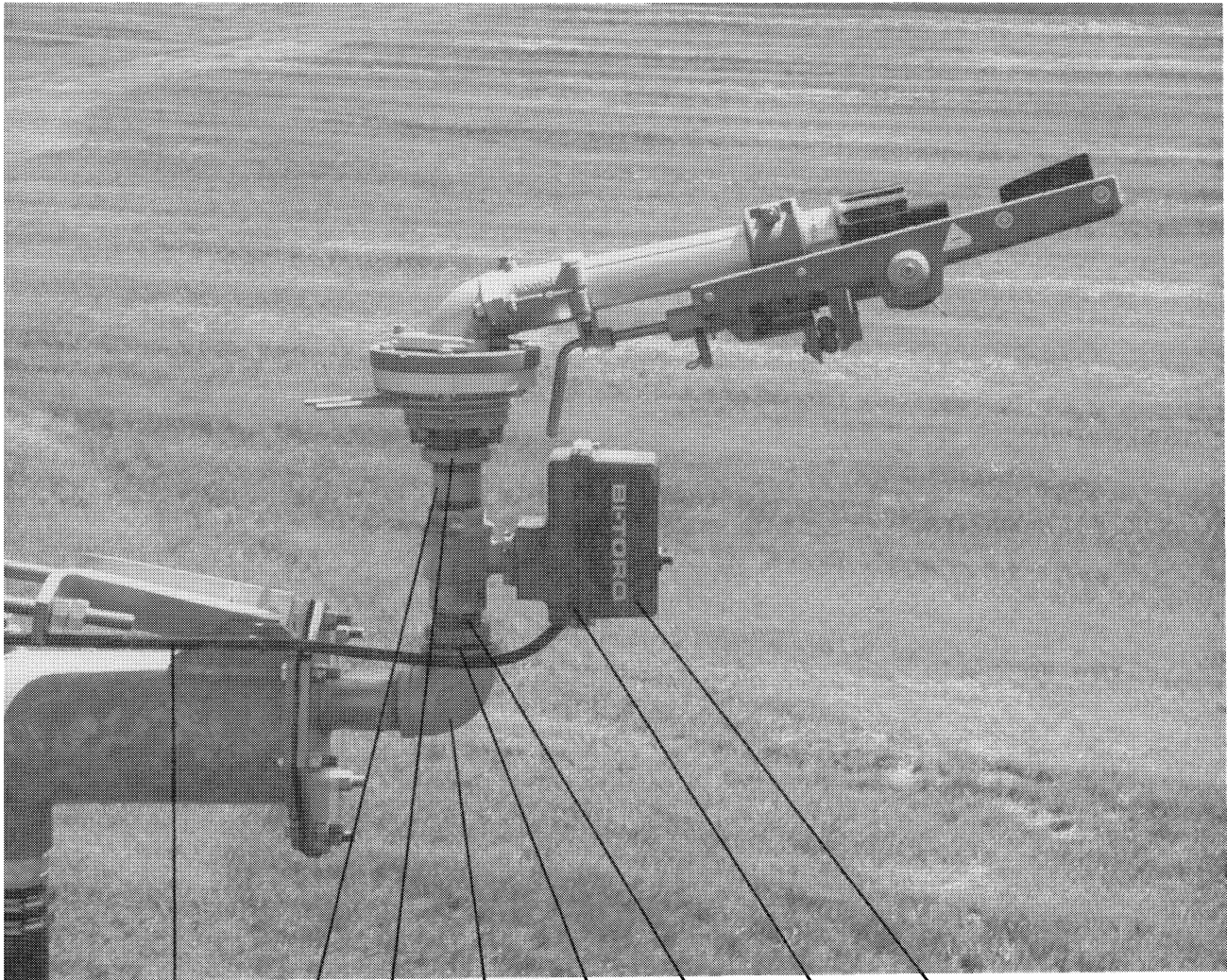
# ***MOUNTING OF A SEQUENCED SLURRY GUN***



6, 4      3      2      1      4      5

- 1 ..... 1 1/2" Close Nipple ..... P/N 0211078
  - 2 ..... 1 1/2" Ball Valve ..... P/N 0232493
  - 3 ..... 1 1/2" x 3" Nipple ..... P/N 0211167
  - 4 ..... 2" x 1 1/2" Reducer ..... P/N 0244030
  - 5 ..... Cord Strain Relief ..... P/N 0314119
  - 6 ..... 2 1/2" Reducer Bushing ..... P/N 0244021
- (# 6 is for a Direct Mount)

# ***MOUNTING OF THE END GUN***

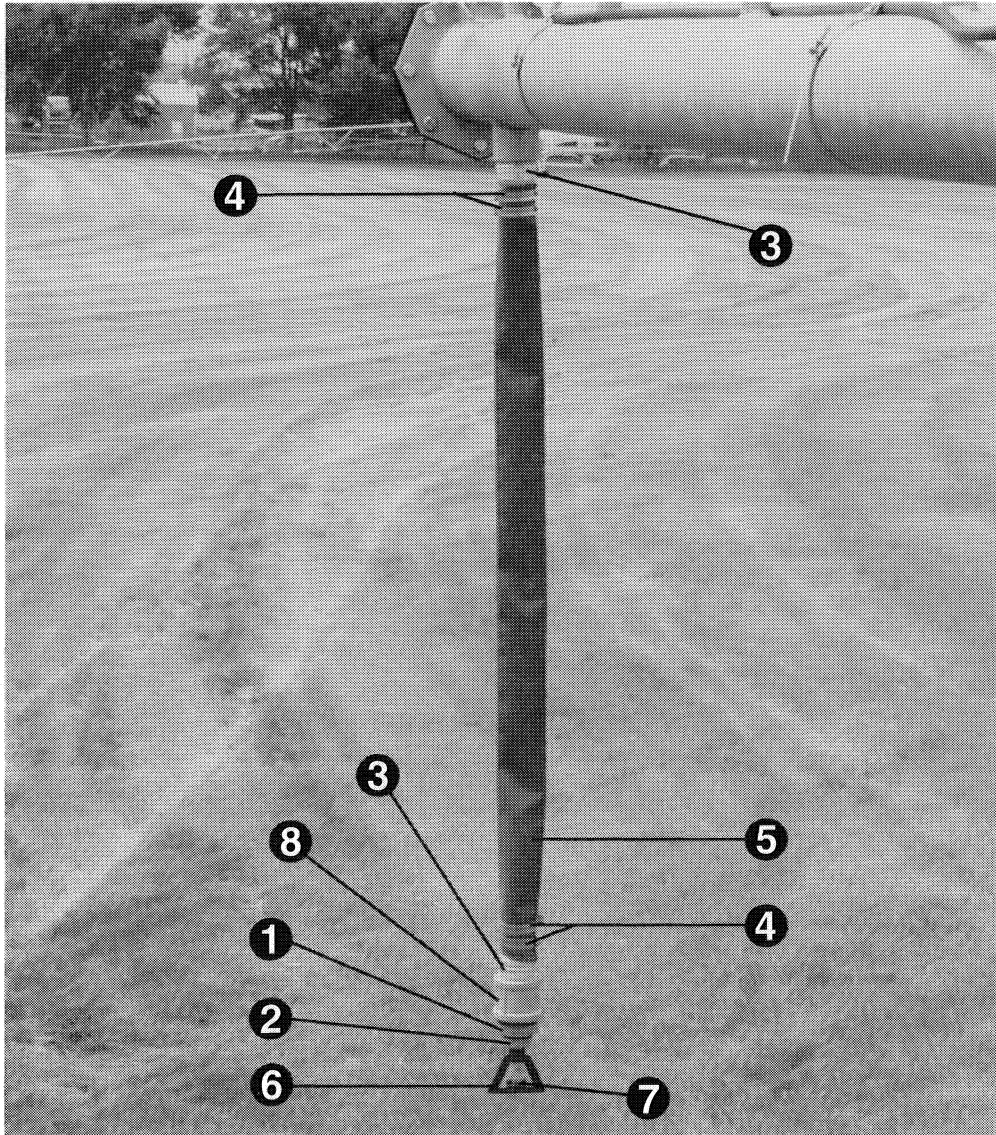


- 7
- 4
- 1
- 5
- 1
- 3
- 6
- 2

- 1 ..... 2" x 1 1/2" Reducer ..... P/N 0244030
- 2 ..... 1 1/2" Ball Valve ..... P/N 0232493
- 3 ..... 1 1/2" Close Nipple ..... P/N 0211078
- 4 ..... 1 1/2" x 3" Nipple ..... P/N 0211167
- 5 ..... 2" 90° Elbow with Drain Hole ..... P/N 1926125
- 6 ..... Cord Strain Relief Connector ..... P/N 0314119
- 7 ..... 4 Conductor Cable 90' ..... P/N 1813825
- 8 ..... Cable Ties 42" ..... P/N 03E0296

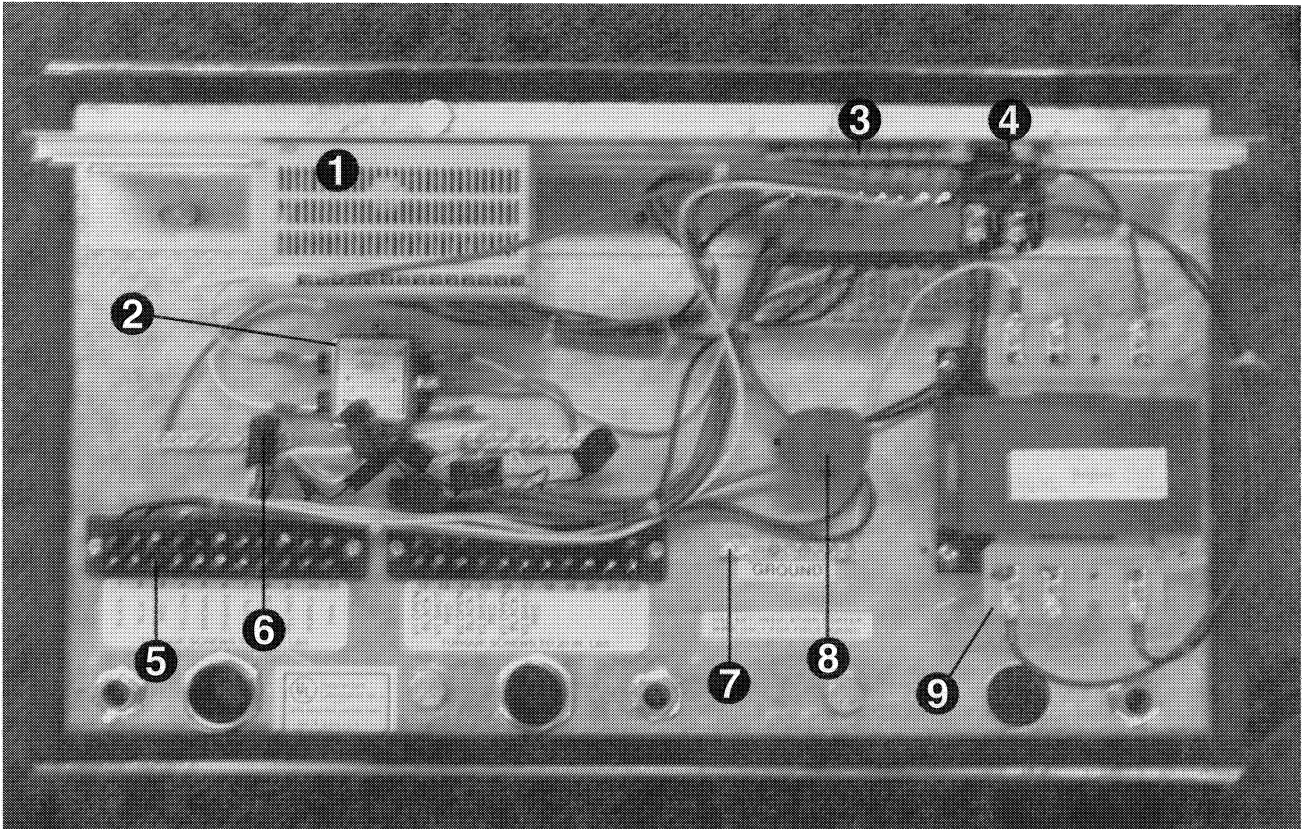


# ***CONTINUOUS DRAIN***



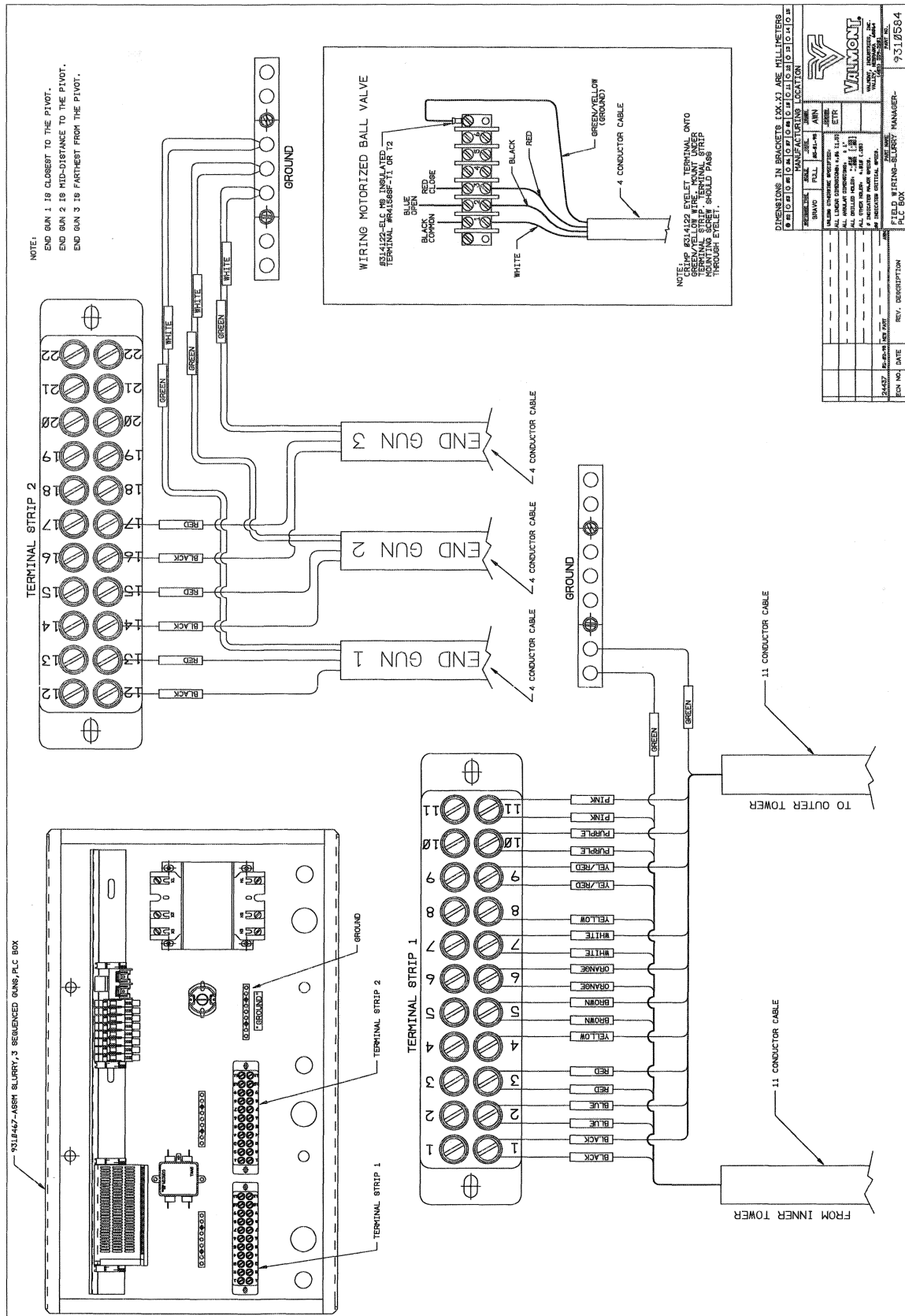
- 1 ..... 2" x 1 1/2" Reducer ..... P/N 0244030
- 2 ..... 1 1/2" x 3/4" Reducer ..... P/N 0244036
- 3 ..... 2" M x 2" Hose Barb ..... P/N 0211169
- 4 ..... Hose Clamp Screw Type ..... P/N 0271066
- 5 ..... 2" Collapsible Hose (6' Long) ..... P/N 0270033
- 6 ..... Valley Spray Nozzle (.47") ..... P/N 0503030
- 7 ..... Flat Spray Pad ..... P/N 1702569
- 8 ..... 2" Coupler 2 1/2" Long ..... P/N 0245001

# PLC BOX

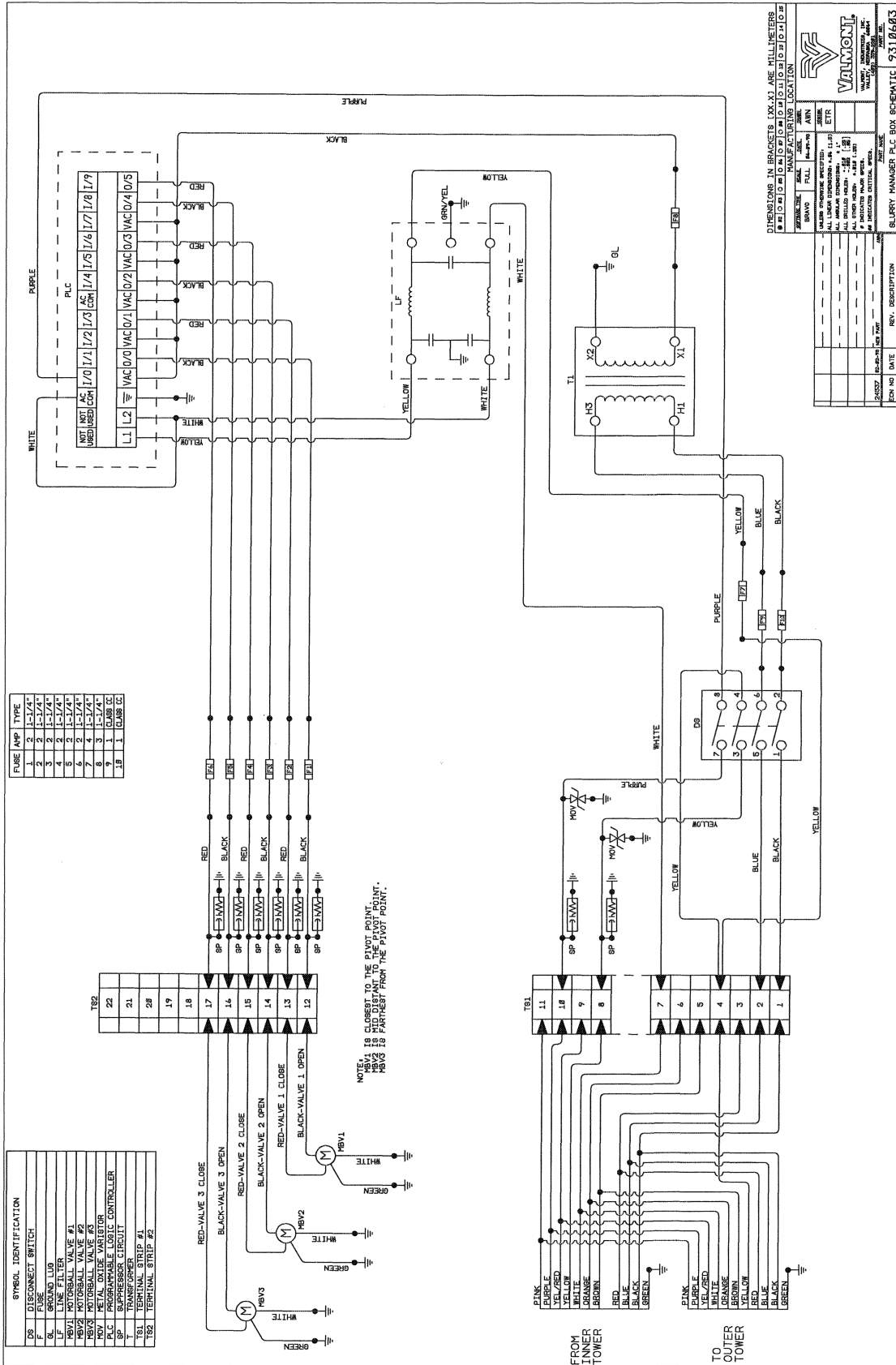


1	Programmable Logic Controller	P/N 03E1937
2	Line Filter	P/N 03E1973
3	Fuse Block (8 Required)	P/N 03E1964
	Fuse 2 Amp (6 Required)	P/N 03E1662
	Fuse 400 mA	P/N 03E1987
	Fuse 3 Amp	P/N 03E1971
4	Fuse Block, class CC	P/N 03E1617
	Fuse, Class CC 1 Amp (2 required)	P/N 03E1988
5	Terminal Strip	P/N 03E1899
6	Suppressor (8 Required)	P/N 0315663
	MOV Suppressor (2 Required)	P/N 03E1782
7	Ground Lug	P/N 0315120
8	Disconnect	P/N 0315746
9	Transformer	P/N 03E1540

# FIELD WIRING OF PLC BOX

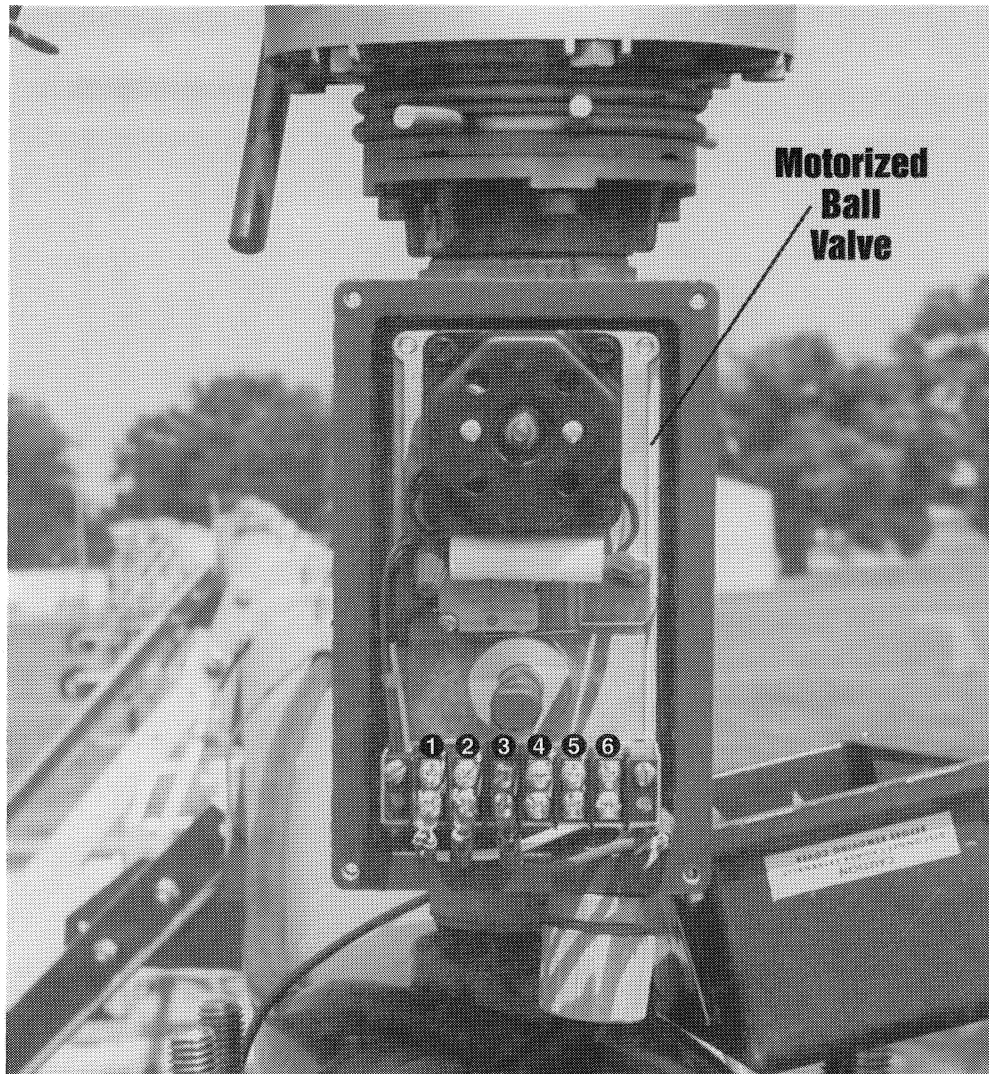


# SCHEMATIC OF PLC BOX



# ***FIELD WIRING OF THE 1 1/2" BALL VALVE***

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## ***BALL VALVE WIRING***

WHITE WIRE FROM CABLE TO #1  
BLACK WIRE FROM CABLE TO #2  
RED WIRE FROM CABLE TO #3  
GREEN WIRE FROM CABLE TO GROUND

## ***PLC BOX WIRING***

MOTORIZED BALL VALVES 1, 2 AND 3 ARE WIRED TO TERMINAL STRIP 2.

**GUN #1 (CLOSEST TO PIVOT)**  
BLACK WIRE TO TERMINAL 12  
RED WIRE TO TERMINAL 13

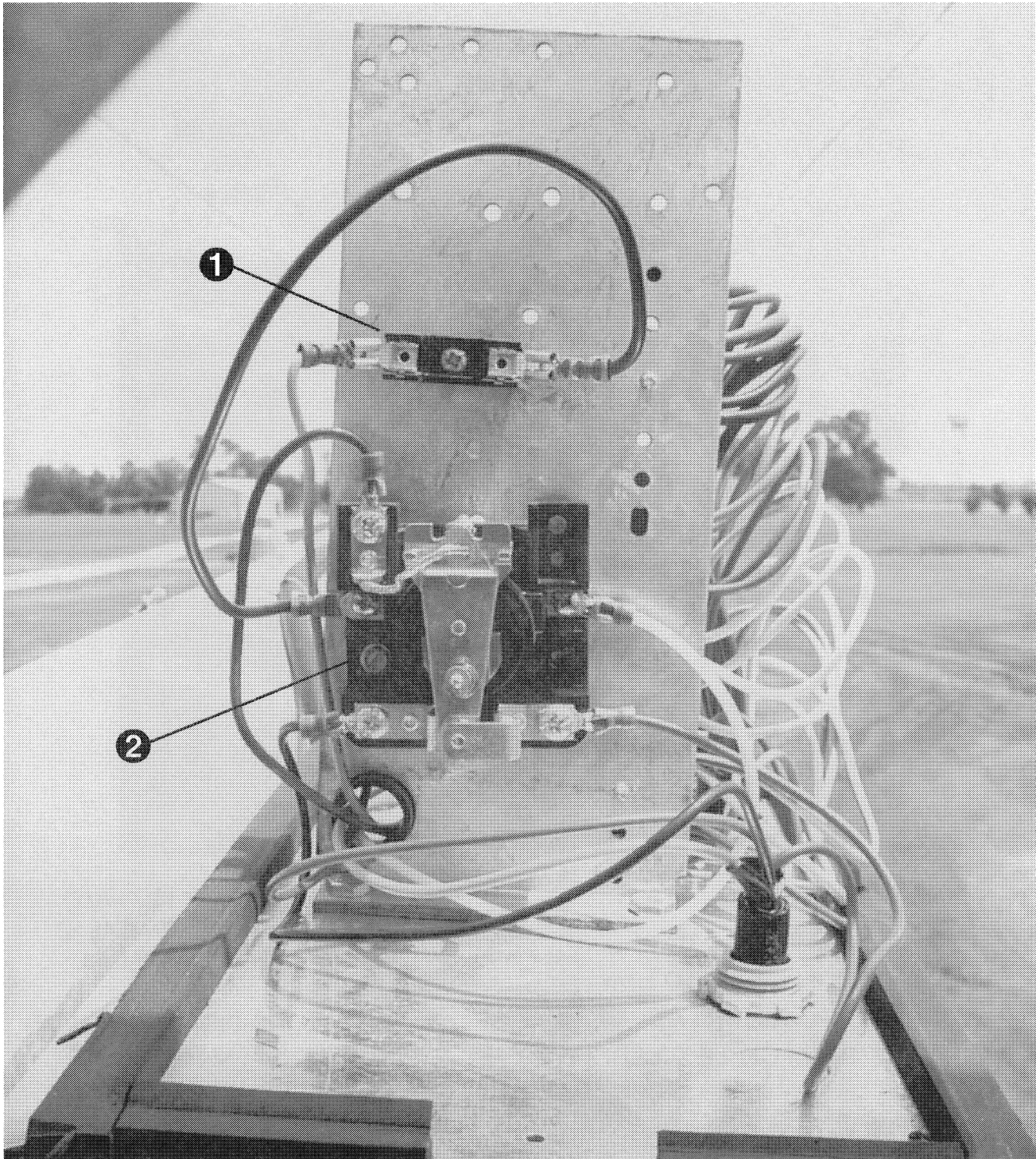
**GUN #2 (MID-DISTANT TO PIVOT)**  
BLACK WIRE TO TERMINAL 14  
RED WIRE TO TERMINAL 15

**GUN #3 (FARTHEST FROM PIVOT)**  
BLACK WIRE TO TERMINAL 16  
RED WIRE TO TERMINAL 17

BOTH THE WHITE AND GREEN WIRES FOR EACH GUN ARE WIRED TO THE GROUND LUG IN THE PLC BOX.

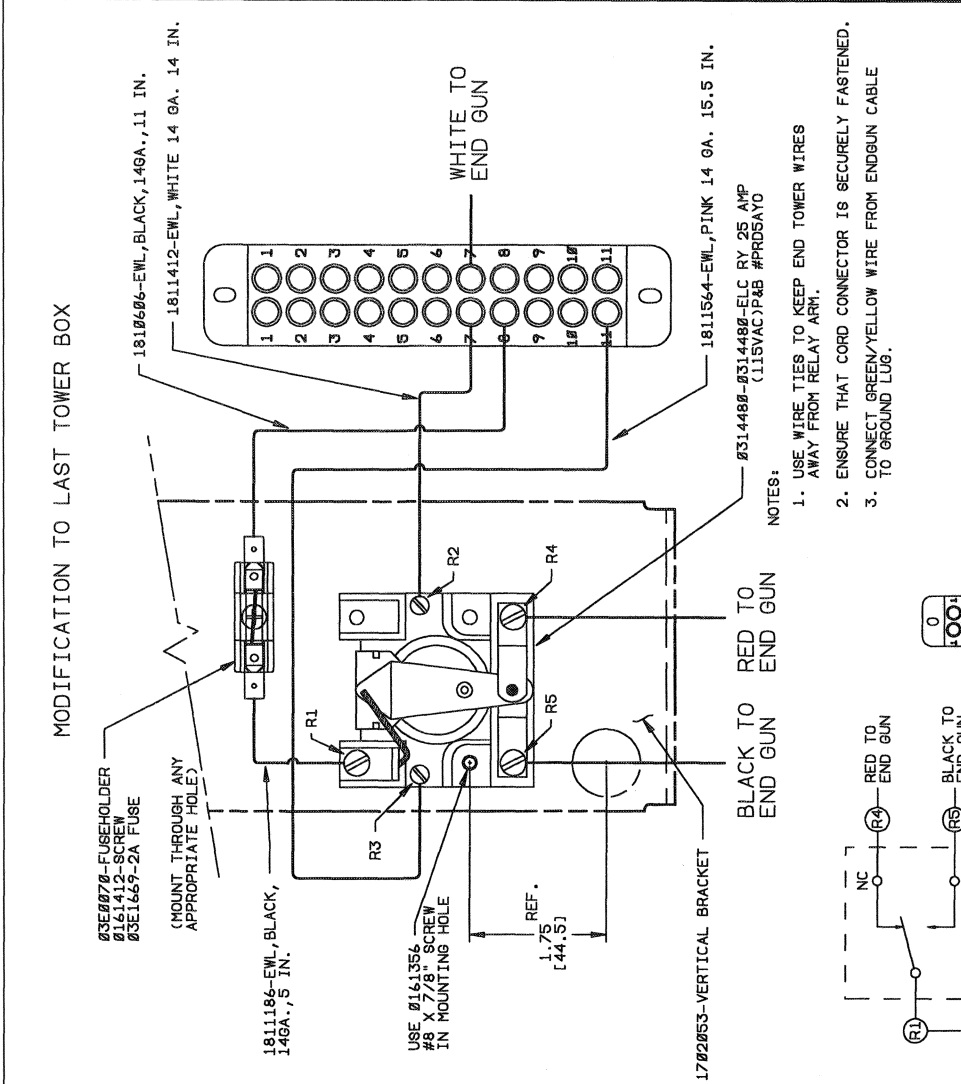
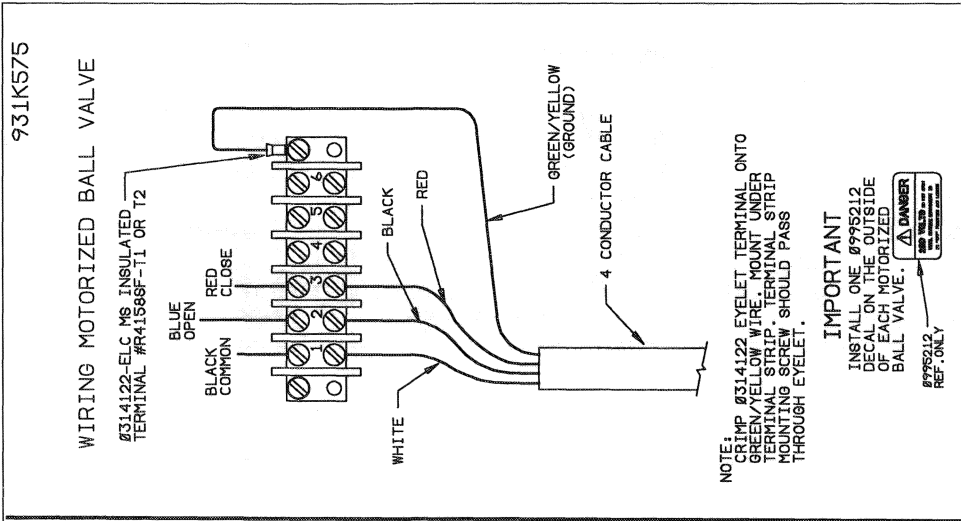
# **FIELD MOUNT FOR END GUN (LAST TOWER BOX)**

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- 1 ..... Fuse Block ..... P/N 03E0070
- ..... Fuse 2 Amp ..... P/N 03E1669
- 2 ..... Relay ..... P/N 0314480

# LAST TOWER BOX SCHEMATIC



DIMENSIONS IN BRACKETS [XX.X] ARE MILLIMETERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
BRAVO	FULL	AWN	ETR											

MANUFACTURING LOCATION

VALMONT  
VALMONT INDUSTRIES, INC.  
VALLEY, ARIZONA, USA  
(480) 397-2281

09795212 REF. ONLY

FIELD INSTALL., ENDGUN CONTROL BALL VALVE

931K575

REV.	DATE	DESCRIPTION
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# EXAMPLE

## SPRINKLER CHART

Slurry Handling Pivot

			<b>450 gpm</b>	1	160 ft. first
			<b>847 ft.</b>	3	160 ft. inter.
			<b>51.7 acres</b>	1	180 ft. last
			<b>64.6 acres</b>		
hi speed, recaps			14.37 fpm		27 overhang
overlap -	70	spacing	130		
gun radius	100	gun spacing	135	percent end gun on	100%

### Komet guns

	gun number	location (ft.)	nozzle (in.)	actual flow (gpm)	rqd flow (gpm)
	0	0			0
part circle	1	135	0.55	21	21
full circle	2	270	0.63	45	37
full circle	3	405	0.47	53	55
full circle	4	540	0.55	71	73
full circle	5	675	0.63	93	92
part circle	6	811	0.63	91	75
end gun	7	847	0.63	90	98
w/motorized ball valve				464	450

### Timer Settings

	Valve 1	Valve 2
initiate	1	4
duration	3	5
cycle	7	5

### Percentage Timer Chart

setting (%)	time (hrs.)	depth (in.)	speed (fpm)	total applied (gallons)
100%	5.97	0.09	14.37	161,261
90%	6.64	0.10	12.93	179,179
80%	7.47	0.11	11.50	201,576
70%	8.53	0.13	10.06	230,373
60%	9.95	0.15	8.62	268,768
50%	11.95	0.18	7.19	322,522
40%	14.93	0.23	5.75	403,152
30%	19.91	0.31	4.31	537,537
25%	23.89	0.37	3.59	645,044
20%	29.86	0.46	2.87	806,305
15%	39.82	0.61	2.16	1,075,073
10%	59.73	0.92	1.44	1,612,610
5%	119.45	1.84	0.72	3,225,219

Valmont Irrigation  
Applications Department

**NOTE:** Pump should be capable of handling gpm when all guns on.



# EXAMPLE

## SPRINKLER CHART

Slurry Handling Pivot

			<b>450 gpm</b>	1	140 ft. first
			<b>736 ft.</b>	3	140 ft. inter.
			<b>39.0 acres</b>	1	140 ft. last
			<b>47.5 acres</b>		
hi speed, recaps			14.37 fpm		36 overhang
overlap -	70	spacing	130		
gun radius	100	gun spacing	140	percent end gun on	75%

Komet guns					
	gun number	location (ft.)	nozzle (in.)	actual flow (gpm)	rqd flow (gpm)
	0	0			0
part circle	1	140	0.63	29	30
full circle	2	280	0.55	51	53
full circle	3	420	0.63	92	80
full circle	4	560	0.71	112	107
part circle	6	700	0.63	90	99
end gun	7	736	0.63	89	80
w/motorized ball valve				462	450

Timer Settings	Valve 1	Valve 2
initiate	1	4
duration	3	7
cycle	7	3

Percentage Timer Chart				
setting (%)	time (hrs.)	depth (in.)	speed (fpm)	total applied (gallons)
100%	5.10	0.11	14.37	137,662
90%	5.67	0.12	12.93	152,958
80%	6.37	0.13	11.50	172,077
70%	7.28	0.15	10.06	196,660
60%	8.50	0.18	8.62	229,436
50%	10.20	0.21	7.19	275,324
40%	12.75	0.27	5.75	344,154
30%	17.00	0.36	4.31	458,873
25%	20.39	0.43	3.59	550,647
20%	25.49	0.53	2.87	688,309
15%	33.99	0.71	2.16	917,745
10%	50.99	1.07	1.44	1,376,618
5%	101.97	2.13	0.72	2,753,236

Valmont Irrigation  
Applications Department

**NOTE:** Pump should be capable of handling gpm when all guns on.

# ***P.L.C. TROUBLESHOOTING***

<b><u>Fault Light</u></b>	<b><u>Problem Source</u></b>
Red Light Solid	Hardware
Red Light Flashing	Software

## **Output Lights**

Illuminated indicates power on terminal location

## **Definitions used in Examples:**

**Initiate** - time from power on to gun coming on

**Duration** - gun time on

**Cycle** - gun time off