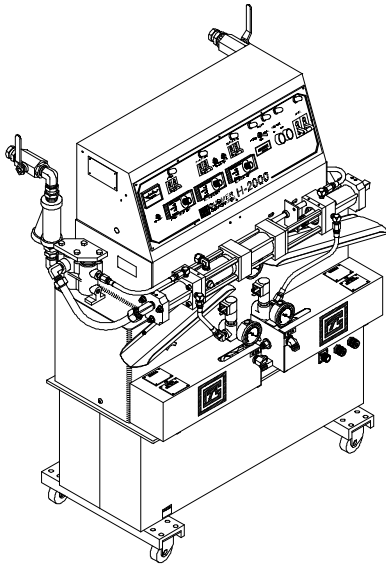


# **GUSMER**<sup>®</sup> CORPORATION

*"Teamwork & Communication"*



## ***Model H-2000 Proportioning Unit Parts Identification Manual 15942-ID***

***June 6, 1997***

***Issue 2***

**GUSMER CORPORATION**<sup>®</sup>

A Subsidiary of Gusmer Machinery Group, Inc.

One Gusmer Drive

Lakewood, New Jersey, USA 08701-8055

Toll Free 1-800-367-4767 (USA & Canada)

Phone: (732) 370-9000

Fax: (732) 905-8968

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***NOTICE: This manual contains important information for your GUSMER equipment. Read and retain for future reference.***

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**NOTICE:**

The equipment described in this technical manual must only be operated or serviced by properly trained individuals, thoroughly familiar with the operating instructions and limitations of the equipment. For technical service, call your local distributor. Call: 1-800-FOR-GSMR (1-800-367-4767) for the name and telephone number of your local distributor.

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## **WARRANTY**

GUSMER provides a limited warranty to the original purchaser (Customer) of GUSMER manufactured parts and equipment (Product) against any defects in material or workmanship for a period of one year from the date of shipment from GUSMER facilities.

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# H-2000 ASSEMBLY

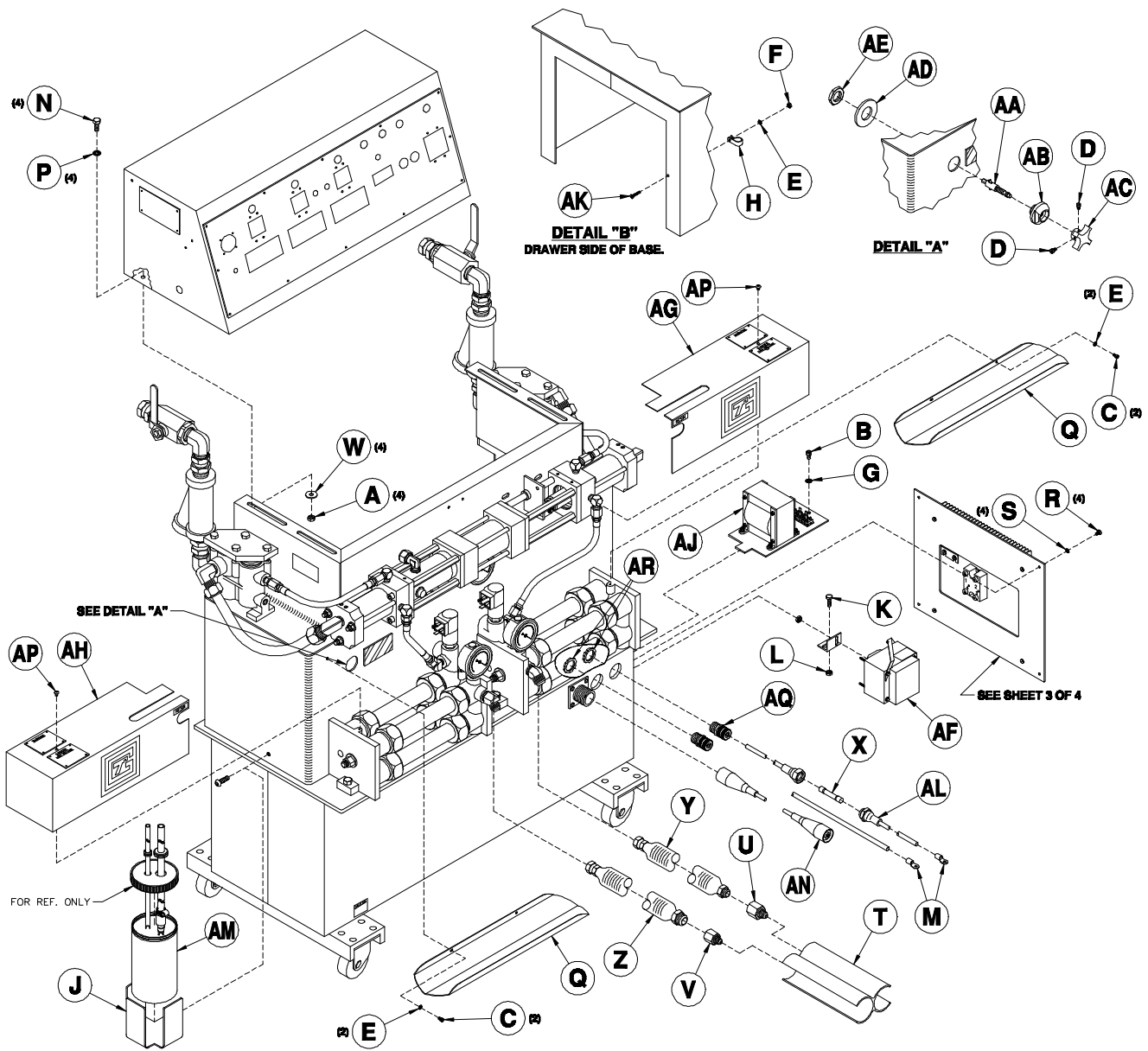


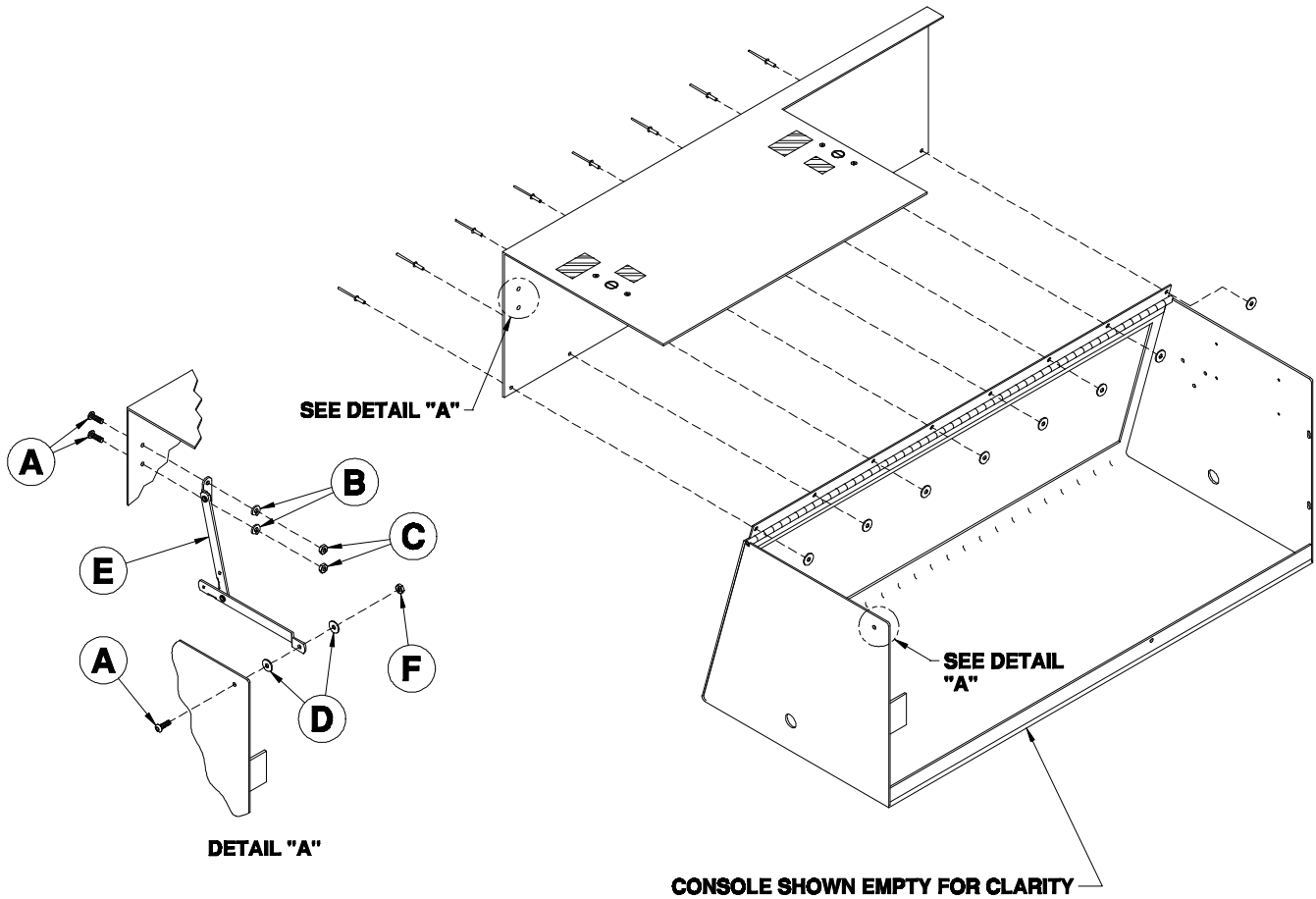
Figure 1. H-2000 Assembly (Part No. 15000-SIZE) Exploded View Sheet 1 of 4



**Parts Identification**

**TABLE 1. H-2000 ASSEMBLY, (PART No.15000-SIZE), PARTS LIST SHEET 1 OF 4**

Reference Letter	Part No.	Description	Qty
A	370-1	Hex Nut	4
B	371	Socket Head Cap Screw	1
C	379-2	Socket Head Cap Screw	4
D	555-3	Socket Head Set Screw	2
E	651A-10	Lockwasher	5
F	651A-9	Hex Nut	1
G	665-4	Lockwasher	1
H	681A	Cable Clamp	1
J	1486A	Lube Reservoir Bracket	1
K	1645-2	Hex Head Cap Screw	1
L	1645-3	Hex Locknut	1
M	1650-19	Stud Ring	2
N	1701-4	Hex Head Cap Screw	4
P	1701-5	Internal Lockwasher	4
Q	1702-8	Service Pan	2
R	4605-3	Pan Head Machine Screw	4
S	4702-7-4	Internal Lockwasher	4
T	5204	Electrical Isolator	1
U	5253A	R-Hose Adaptor	1
V	5254A	A-Hose Adaptor	1
W	5829-7	Flat Washer	4
X	6690-24-14	50 Amp Fuse	1
Y	14270-1/2-1	1/2 X 2 R-Isolation Hose	1
Z	14270-1/2-2	1/2 X 2 A-Isolation Hose	1
AA	14556	Compensator Shaft Asy	1
AB	14557	Retainer	1
AC	14558	Knob (Includes D)	1
AD	14559	Washer	1
AE	14560	Hex Nut	1
AF	15276	Transformer Asy (See Sheet 4)	1
AG	15311	R-Preheater Cover	1
AH	15361	A-Preheater Cover	1
AJ	15501-23	Transformer Plate Asy	1
AK	15501-23-3	Flat Head Cap Screws	1
AL	15501-28	Hose Conn Lead W/Fuse Hdr	1
AM	15586	Lube Bottle	1
AN	20207-3	TSU Extension Adaptor	1
AP	OP482-1-5	Button Head Cap Screw	2
AQ	OP482-17-1	Bushing	2
AR	OP482-17-2	Locknut	2



**Figure 2. H-2000 Assembly (Part No. 15000-SIZE) Exploded View Sheet 2 of 4**

**TABLE 2. H-2000 ASSEMBLY, (PART NO. 15000-SIZE), PARTS LIST SHEET 2 OF 4**

Reference Letter	Part No.	Description	Qty
A	1404A	Button Head Cap Screw	3
B	1701-15-8	Lockwasher	2
C	1701-15-9	Hex Nut	2
D	4805-5	Flat Washer	2
E	11650-2	10" Lid Support	1
F	11650-3	Lock Nut	1

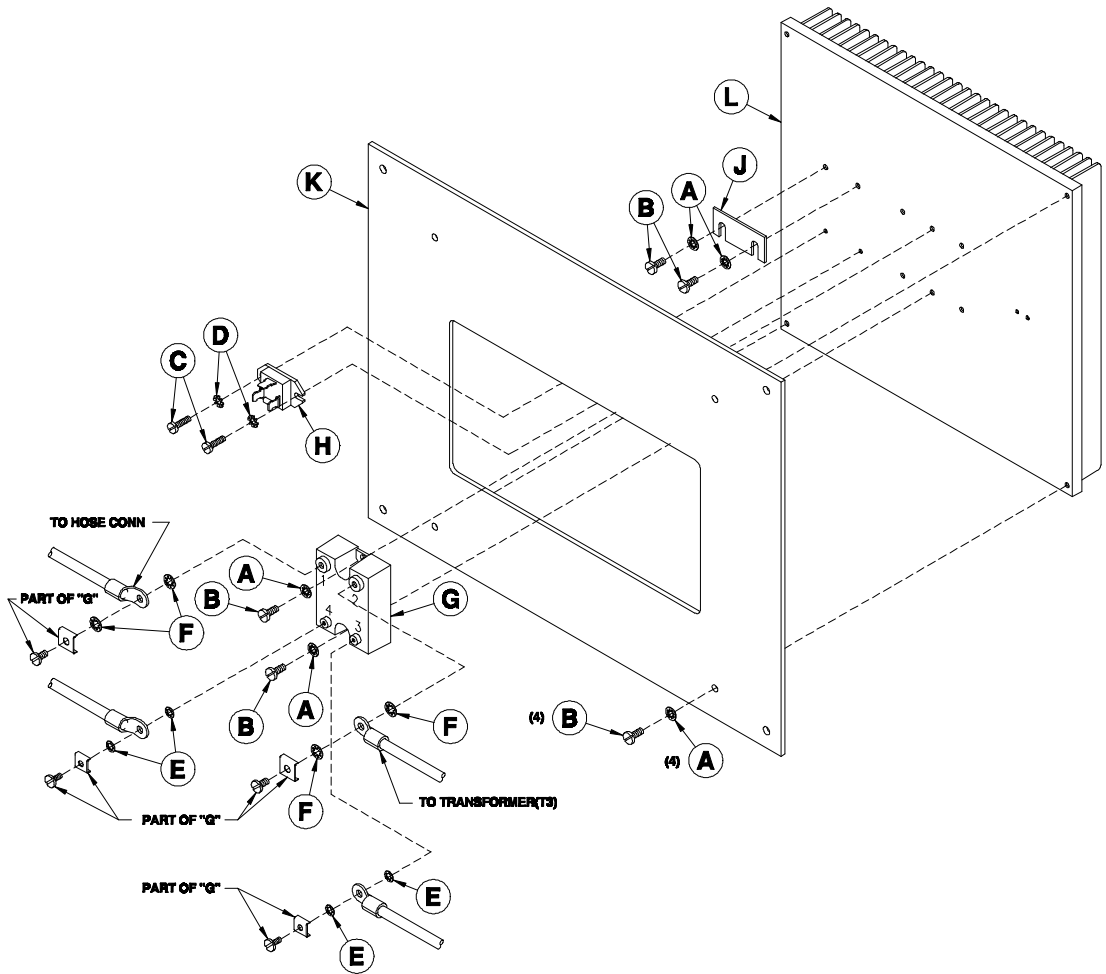
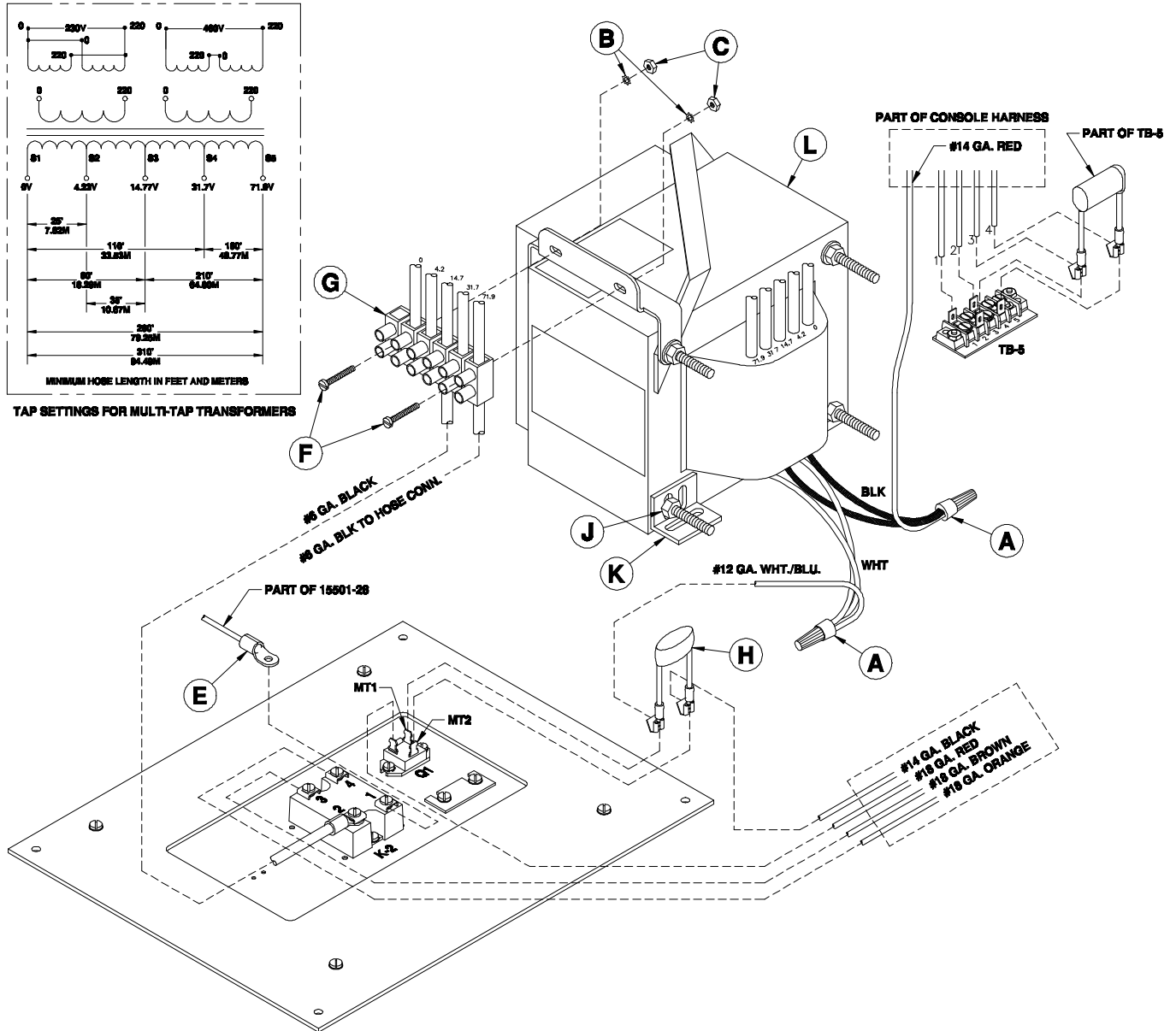


Figure 3. H-2000 Assembly (Part No. 15000-SIZE) Exploded View Sheet 3 of 4

TABLE 3. H-2000 ASSEMBLY, (PART NO. 15000-SIZE), PARTS LIST SHEET 3 OF 4

Reference Letter	Part No.	Description	Qty
A	651A-10	Lockwasher	8
B	651A-8	Pan Head Machine Screw	8
C	655-2	Pan Head Machine Screw	2
D	655-4	Lockwasher	2
E	1601-3	Internal Lockwasher	4
F	4702-7-4	Internal Lockwasher	4
G	6690-1-7	Power Cube 80 AMP	1
H	6690-8-7	Triac	1
J	14667	Terminal Jumper	1
K	15501-21-1	Door Frame	1
L	15501-21-2	Heat Sink	1
Not Shown	15300-34	Heat Sink Compound	as required



**Figure 4. H-2000 Assembly (Part No. 15000-SIZE) Exploded View Sheet 4 of 4**

**Parts Identification**

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**TABLE 4. H-2000 ASSEMBLY, (PART NO. 15000-SIZE), PARTS LIST SHEET 4 OF 4**

<b>Reference Letter</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
<b>A</b>	363A	Insulating Wire Nut	A/R
<b>B</b>	651A-10	Lockwasher	2
<b>C</b>	651A-9	Hex Nut	2
<b>E</b>	1650-19	Stud Ring	1
<b>F</b>	2014	Round Head Machine Screws	2
<b>G</b>	6690-20-5-6	Terminal Block	1
<b>H</b>	6690-21-2	Quencharc	1
<b>J</b>	1645-3	Hex Locknut	1
<b>K</b>	5615A-2	Transformer Bracket	1
<b>L</b>	15276	Transformer Asy (Includes B, C, F, G, J, K)	1

# ELECTRIC CONSOLE (STANDARD)

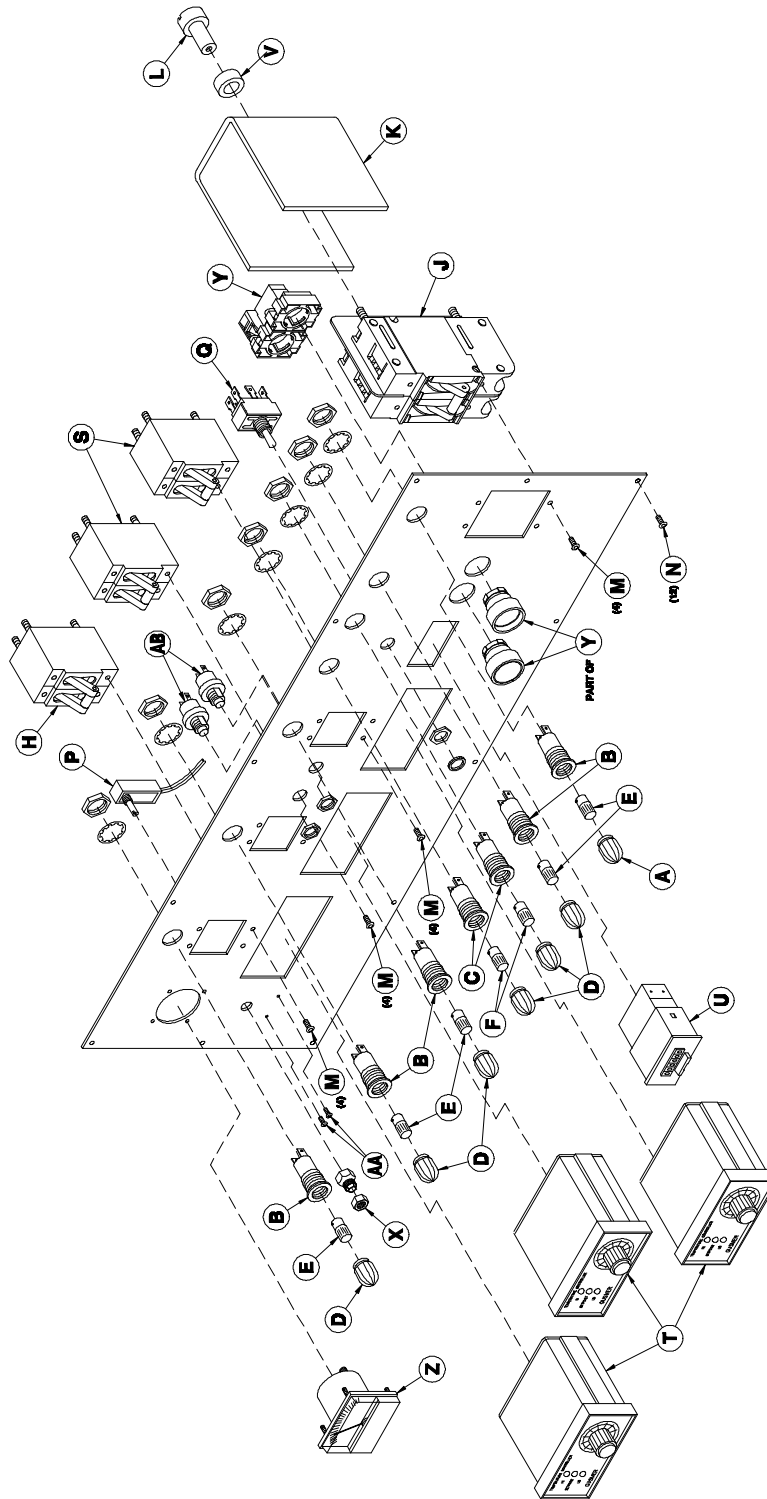


Figure 5. Electric Console (STANDARD) Exploded View sheet 1 of 2

TABLE 5. ELECTRIC CONSOLE (STANDARD), PARTS LIST SHEET 1 OF 2

Reference Letter	Part No.	Description	Qty
A	656	White Lens	1
B	657A	Neon Light Base	5
C	658A	Incandescent Light Base	2
D	660	Amber Lens	6
E	661	Neon Bulb	5
F	662A	Incandescent Bulb	2
H	692-1-20	20 AMP Circuit Breaker	1
J	6690-25-3	110 Amp Circuit Breaker (1 Phase only)	1
	5601A-1	70 Amp Circuit Breaker (3 Phase only)	1
K	15662	Shield (1 Phase only)	1
	5656B	Shield (3 Phase only)	1
L	5657B	CB Shield Fastener	1
M	6113-10	Button Head Cap Screw (1 Phase Only)	16
	6113-10	Button Head Cap Screw (3 Phase Only)	18
N	6113-8	Button Head Cap Screw	12
P	6690-26-1-1	Phase Control	1
Q	6690-16-6	Toggle Switch	1
S	6690-25-4	50 AMP Circuit Breaker	2
T	6690-26-9	Temperature Controller	3
U	9651-6-2	Counter	1
V	15663	Spacer (1 Phase only)	1
X	9651-6-5	Shaft Lock	1
Y	50602-1	Pushbutton Switch 10A	1
Z	9651-6-8	Ammeter	1
AA	9651-4	Button Head Cap Screw	2
AB	6651-9	Pushbutton Switch	2

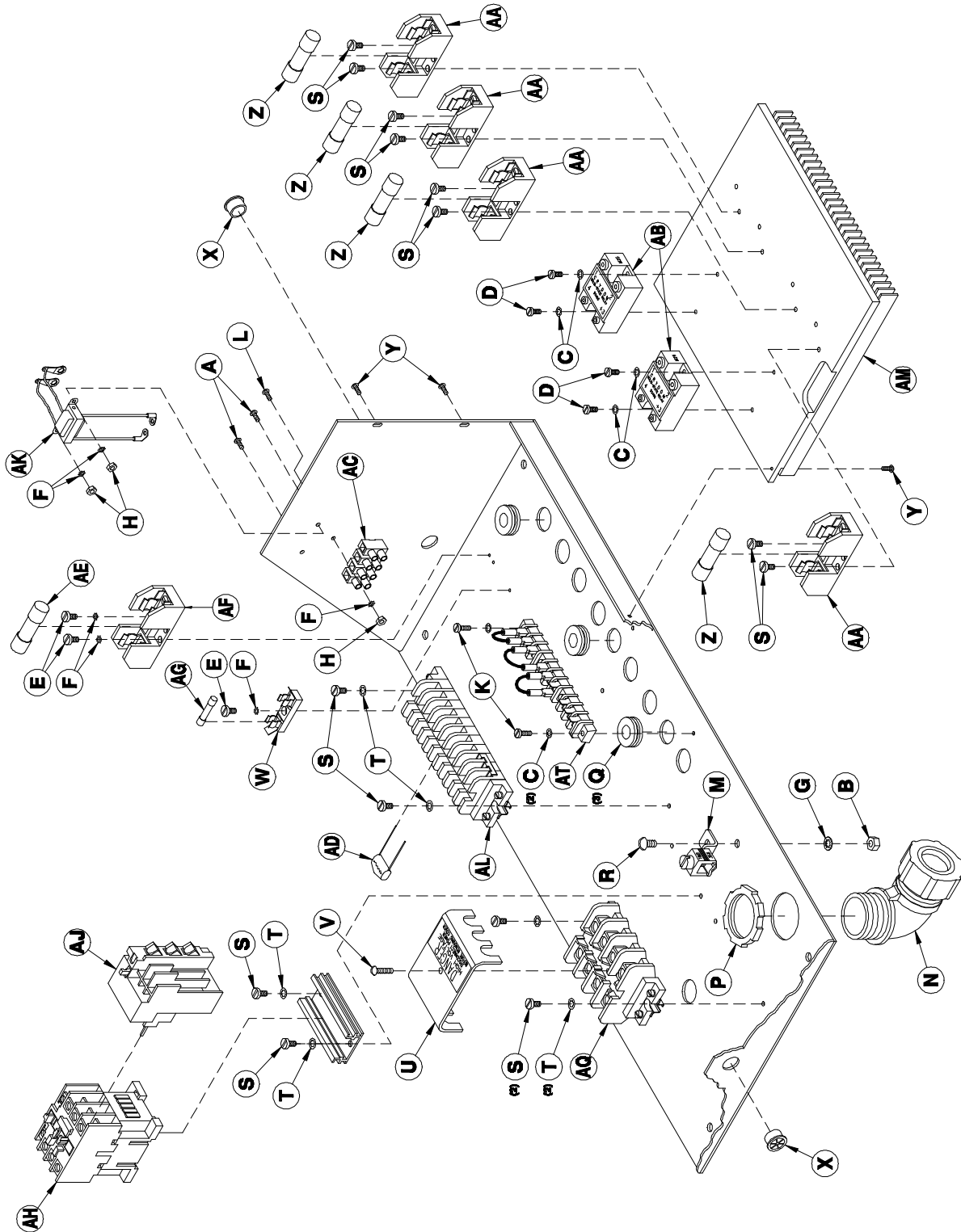


Figure 6. Electric Console (STANDARD) Exploded View Sheet 2 of 2



TABLE 6. ELECTRIC CONSOLE (STANDARD), PARTS LIST SHEET 2 OF 2

Reference Letter	Part No.	Description	Qty
A	368	Binder Head Mach Screw	2
B	385-4	Hex Nut	1
C	651A-10	Lockwasher	6
D	651A-8	Pan Head Machine Screw	4
E	655-2	Pan Head Machine Screw	3
F	655-4	Lockwasher	6
G	665-4	Lockwasher	1
H	668-3	Hex Nut	3
K	689-2	Pan Head Machine Screw	2
L	698-3	Pan Head Machine Screw	1
M	1645-1	Terminal Lug	1
N	1646-1	Conduit Elbow	1
P	1646-2	Locknut	1
Q	1701-16	Grommet	3
R	4605-10	Round Head Machine Screw	1
S	4605-3	Pan Head Machine Screw	14
T	4702-7-4	Internal Lockwasher	6
U	5612B-2	Terminal Guard	1
V	5612B-3	Nylon Screw	1
W	5653B	Fuse Holder	1
X	5703D-10	Bushing	2
Y	6113-10	Button Head Cap Screw	3
Z	6651-5	30 AMP Fuse	4
AA	6651-6	30 AMP Fuse Blk	4
AB	6690-1-5	Power Cube 50 AMP	2
AC	6690-20-1-4	Terminal Block	1
AD	6690-21-1	Quencharc	1
AE	6690-24-1	25 AMP Fuse	1
AF	6690-24-2	30 AMP Fuse Blk.	1
AG	6690-24-3	8 AMP Fuse	1
AH	6690-27-7	Pwr Contactor 50/60 HZ	1
AJ	6690-27-10	Overload Relay (1x220 V, 5HP)	1
	6690-27-8	Overload Relay (3x220 V, 5HP)	1
	6690-27-11	Overload Relay (3x380 V, 5HP)	1
AK	9651-6-9	Transformer	1
AL	15651	Main Terminal Block Asy	1
AM	15652	Heat Sink	1
AQ	15655	Main Power Term Block Asy	1
AT	15661	Auxiliary Terminal Block	1

# H-2000 INDIVIDUAL HOSE TEMPERATURE CONTROL (IHTC) ASSY

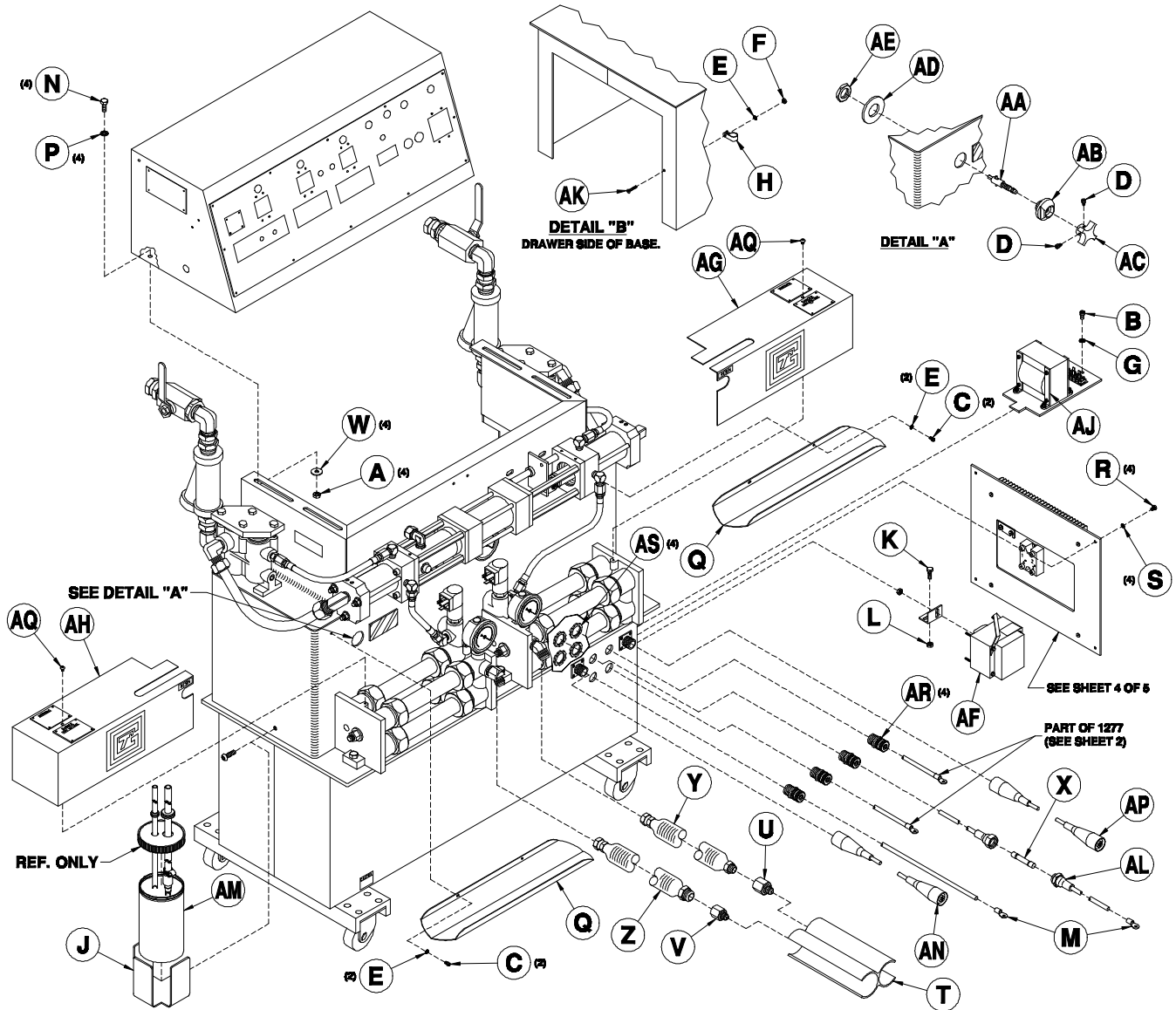
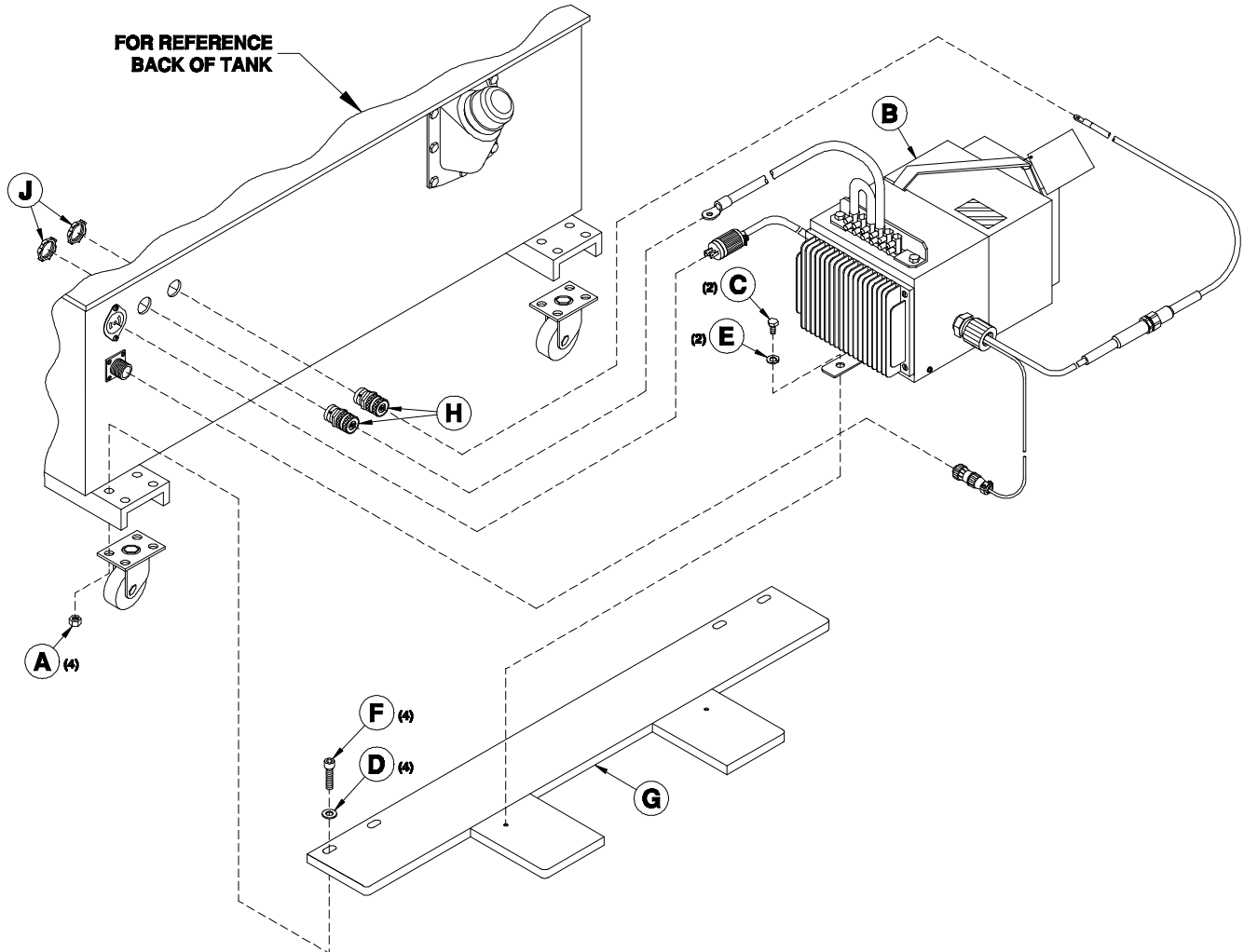


Figure 7. H-2000 (IHTC) Assembly (Part No15000-Size-IHTC) Exploded View Sheet 1 of 5

**Parts Identification**

**TABLE 7. H-2000 (IHTC) ASSEMBLY, (PART NO. 15000-SIZE-IHTC), PARTS LIST SHEET 1 OF 5**

Reference Letter	Part No.	Description	Qty
A	370-1	Hex Nut	4
B	371	Socket Head Cap Screw	1
C	379-2	Socket Head Cap Screw	4
D	555-3	Socket Head Set Screw	2
E	651A-10	Lockwasher	5
F	651A-9	Hex Nut	1
G	665-4	Lockwasher	1
H	681A	Cable Clamp	1
J	1486A	Lube Reservoir Bracket	1
K	1645-2	Hex Head Cap Screw	1
L	1645-3	Hex Locknut	1
M	1650-19	Stud Ring	2
N	1701-4	Hex Head Cap Screw	4
P	1701-5	Internal Lockwasher	4
Q	1702-8	Service Pan	2
R	4605-3	Pan Head Machine Screw	4
S	4702-7-4	Internal Lockwasher	4
T	5204	Electrical Isolator	1
U	5253A	R-Hose Adaptor	1
V	5254A	A-Hose Adaptor	1
W	5829-7	Flat Washer	4
X	6690-24-14	50 Amp Fuse	1
Y	14270C-1/2-1	1/2 X 2 R-Isolation Hose	1
Z	14270C-1/2-2	1/2 X 2 A-Isolation Hose	1
AA	14556	Compensator Shaft Asy	1
AB	14557	Retainer	1
AC	14558	Knob (Includes D)	1
AD	14559	Washer	1
AE	14560	Hex Nut	1
AF	15276	Transformer Asy (See Sheet 4)	1
AG	15311	R-Preheater Cover	1
AH	15361	A-Preheater Cover	1
AJ	15501-23	Transformer Plate Asy	1
AK	15501-23-3	Flat Head Cap Screws	1
AL	15501-28	Hose Conn Lead W/Fuse Hdr	1
AM	15586	Lube Reservoir	1
AN	20207-3	TSU Extension Adaptor	1
AP	20207-3-IHTC	TSU Extension Adaptor	1
AQ	OP482-1-5	Button Head Cap Screw	2
AR	OP482-17-1	Bushing	4
AS	OP482-17-2	Locknut	



**Figure 8. H-2000 (IHTC) Assembly (Part No. 15000-SIZE-IHTC) Exploded View Sheet 2 of 5**

**TABLE 8. H-2000 (IHTC) ASSEMBLY, (PART NO. 15000-SIZE-IHTC), PARTS LIST SHEET 2 OF 5**

Reference Letter	Part No.	Description	Qty
A	370-1	Hex Nut	4
B	1277	Power Pack	1
C	1654-2	Hex Head Cap Screw	2
D	5829-7	Flat Washer	4
E	9758	Lockwasher	2
F	14409	Socket Head Cap Screw	4
G	15501-23-DT	Transformer Plate Asy	1
H	OP482-17-1	Bushing	2
J	OP482-17-2	Locknut	2

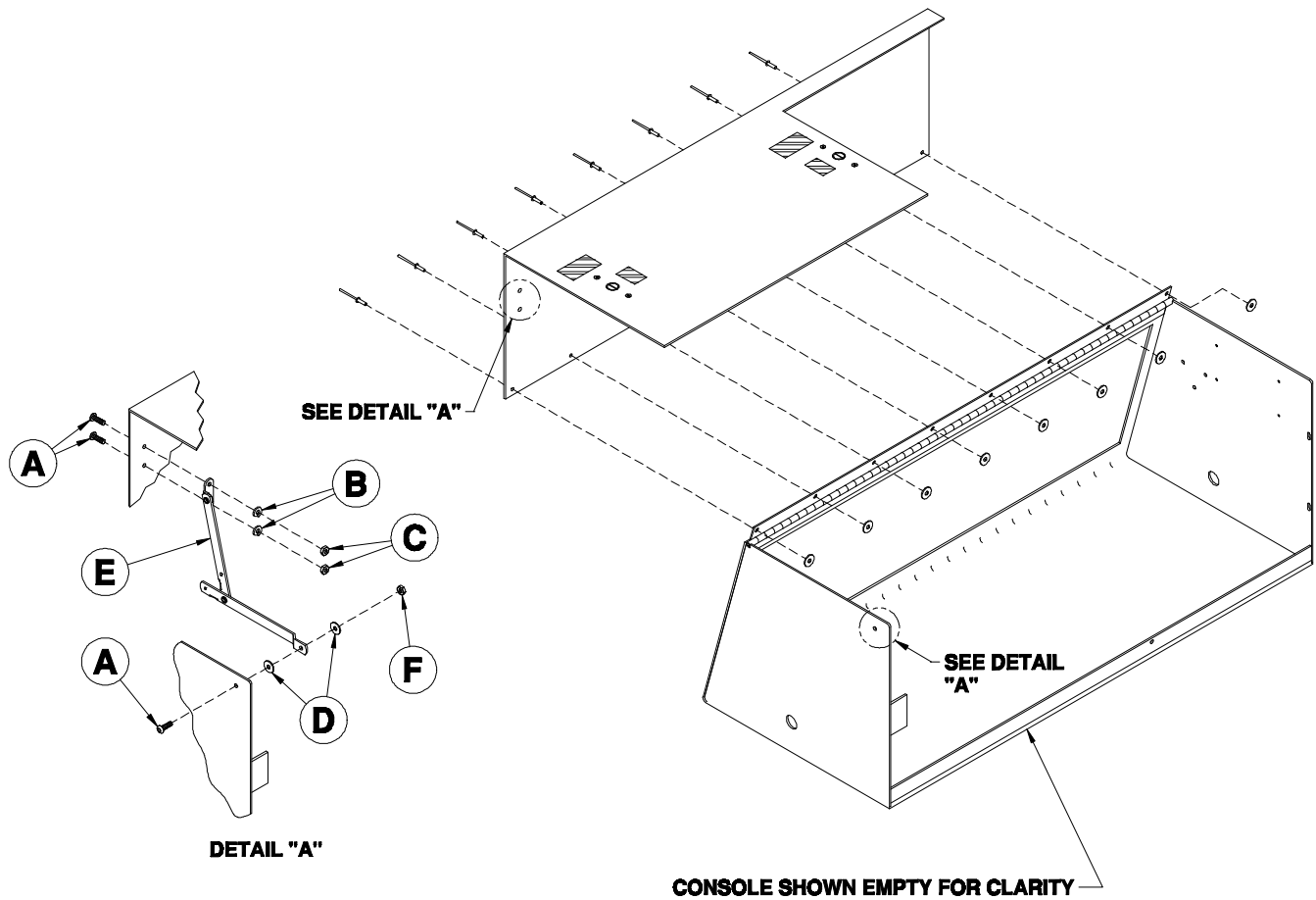
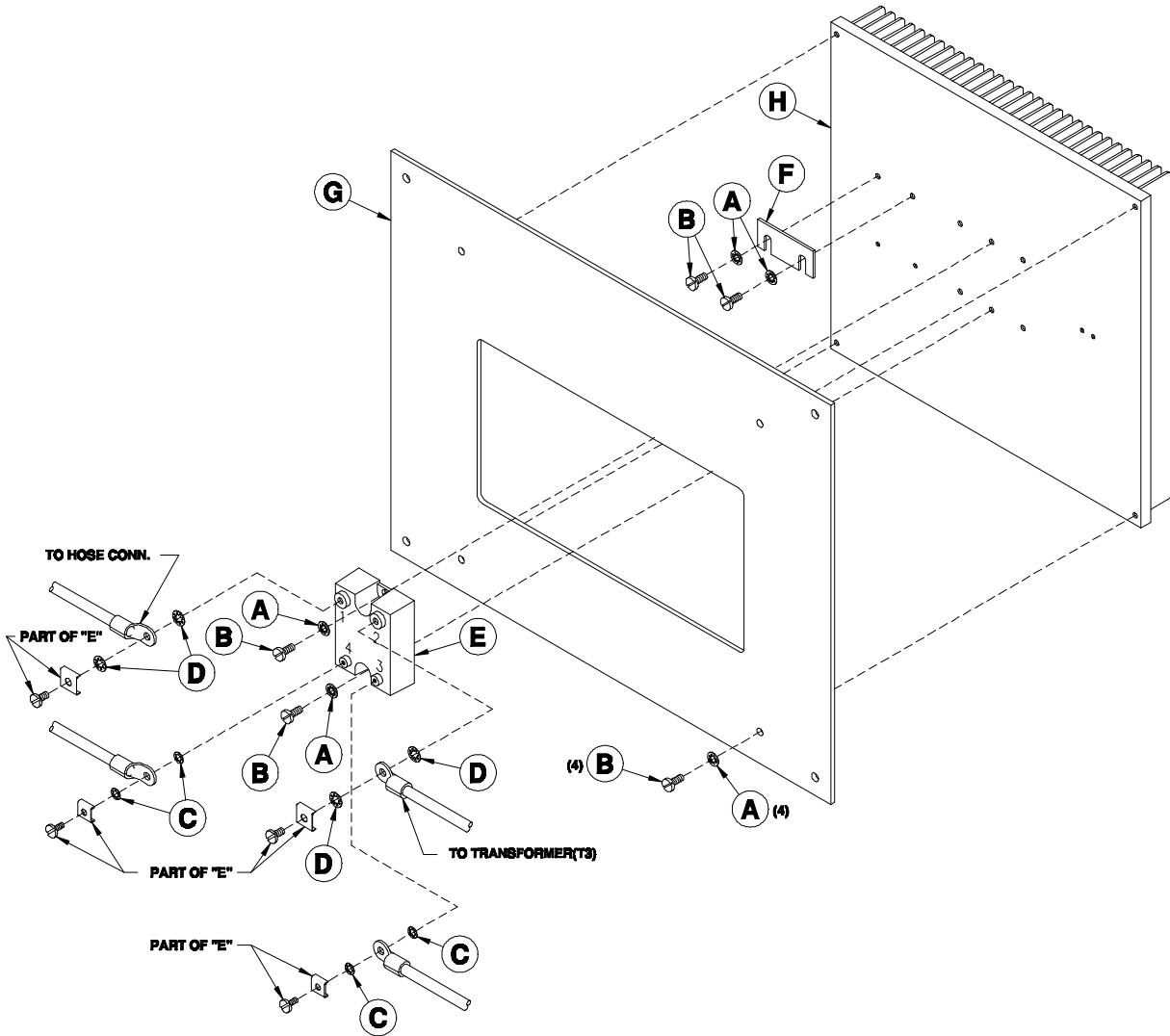


Figure 9. H-2000 (IHTC) Assembly (Part No. 15000-SIZE-IHTC) Exploded View Sheet 3 of 5

TABLE 9. H-2000 (IHTC) ASSEMBLY, (PART NO. 15000-SIZE-IHTC), PARTS LIST SHEET 3 OF 5

Reference Letter	Part No.	Description	Qty
A	1404A	Button Head Cap Screw	3
B	1701-15-8	Lockwasher	2
C	1701-15-9	Hex Nut	2
D	4805-5	Flat Washer	2
E	11650-2	10" Lid Support	1
F	11650-3	Lock Nut	1



**Figure 10. H-2000 (IHTC) Assembly (Part No. 15000-SIZE-IHTC) Exploded View Sheet 4 of 5**

**TABLE 10. H-2000 (IHTC) ASSEMBLY, (PART No. 15000-SIZE-IHTC), PARTS LIST SHEET 4 OF 5**

Reference Letter	Part No.	Description	Qty
A	651A-10	Lockwasher	8
B	651A-8	Pan Head Machine Screw	8
C	1601-3	Internal Lockwasher	4
D	4702-7-4	Internal Lockwasher	4
E	6690-1-7	Power Cube 80 AMP	1
F	14667	Terminal Jumper	1
G	15501-21-1	Door Frame	1
H	15501-21-2	Heat Sink	1
Not Shown	15300-34	Heat Sink Compound	as required

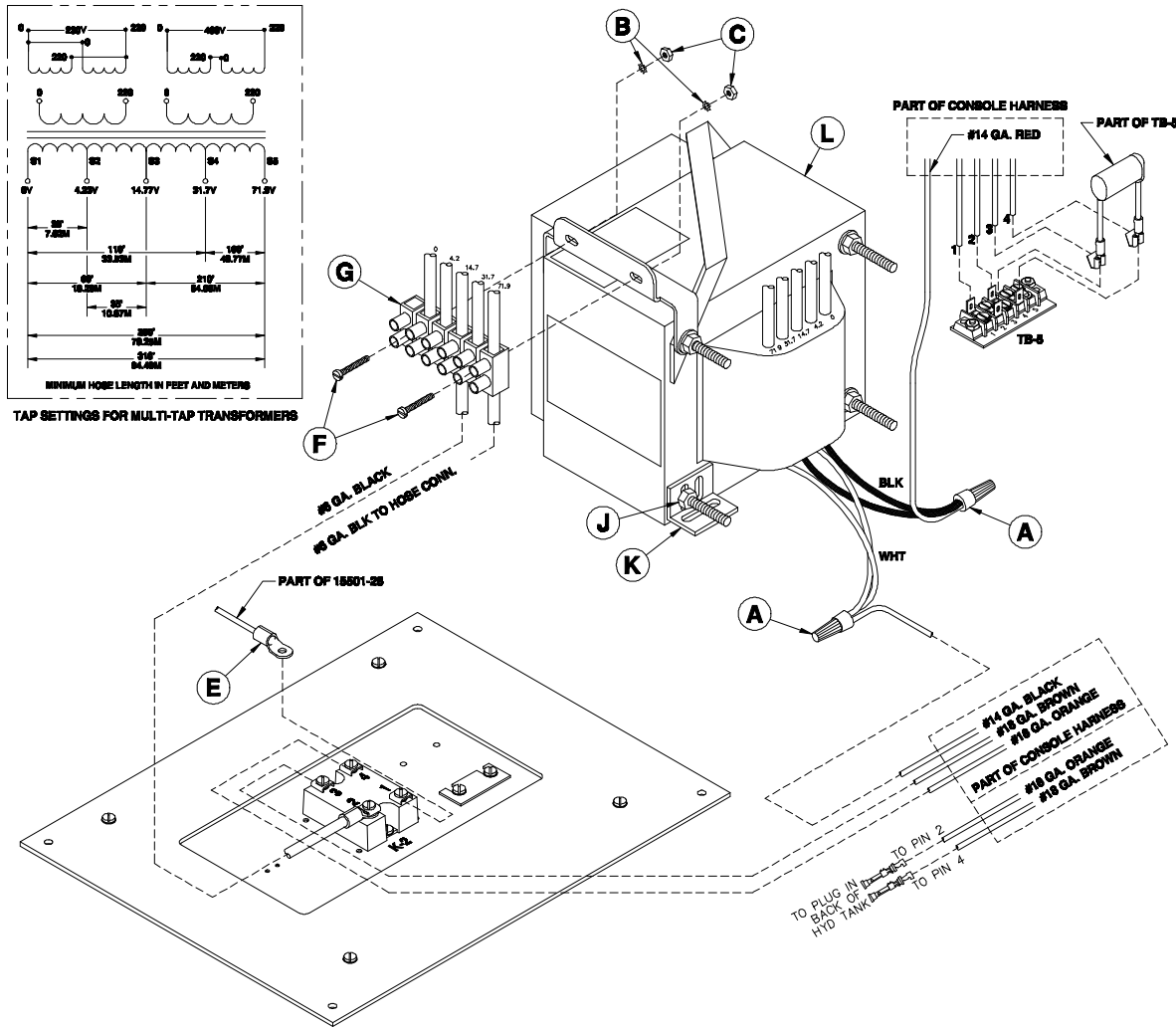


Figure 11. H-2000 (IHTC) Assembly (Part No. 15000-SIZE-IHTC) Exploded View Sheet 5 of 5

TABLE 11. H-2000 (IHTC) ASSEMBLY, (PART NO. 15000-SIZE-IHTC), PARTS LIST SHEET 5 OF 5

Reference Letter	Part No.	Description	Qty
A	363A	Insulating Wire Nut	A/R
B	651A-10	Lockwasher	2
C	651A-9	Hex Nut	2
E	1650-19	Stud Ring	1
F	2014	Round Head Machine Screws	2
G	6690-20-5-6	Terminal Block	1
J	1645-3	Hex Locknut	1
K	5615A-2	Transformer Bracket	1
L	15276	Transformer Asy (Includes B, C, F, G, J, K)	1

# ELECTRIC CONSOLE (IHTC)

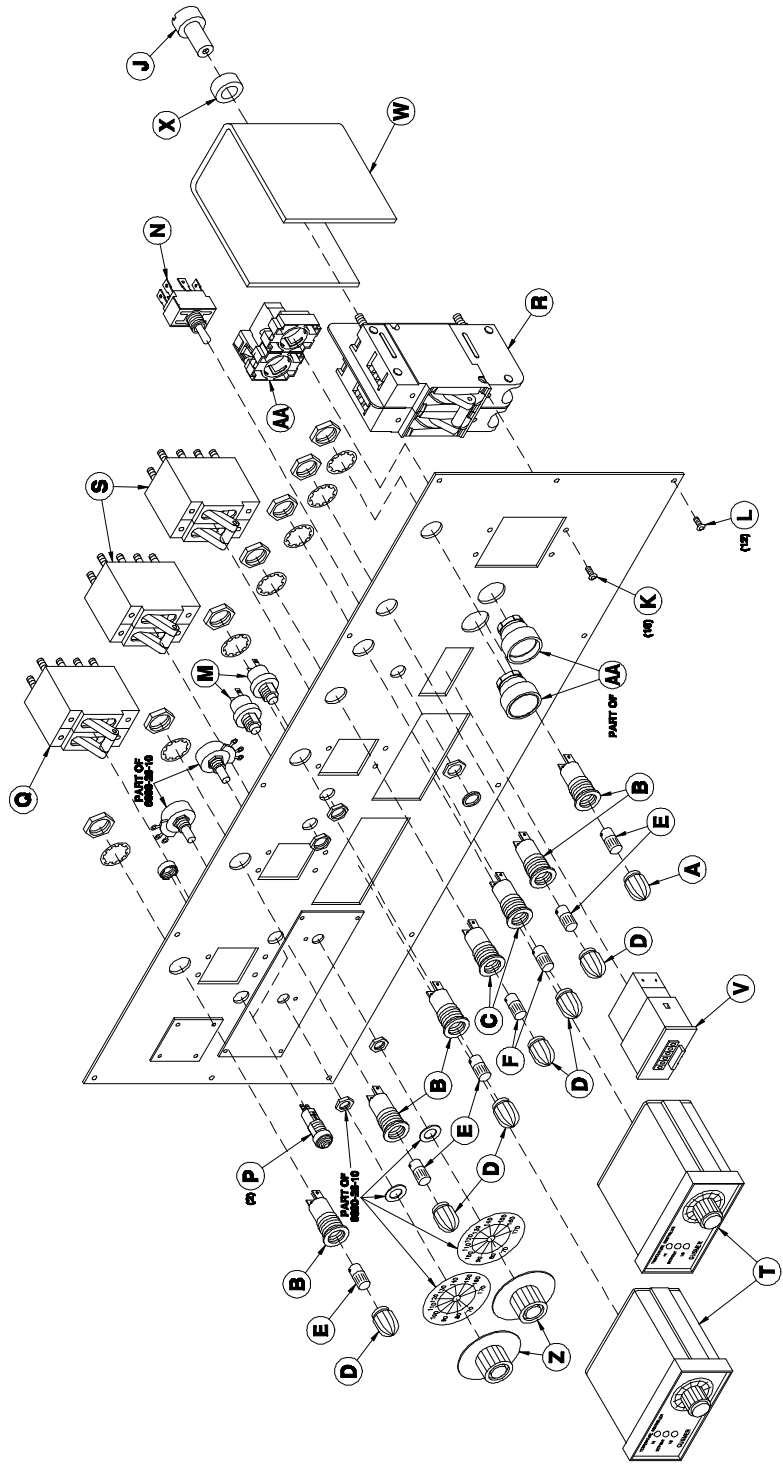


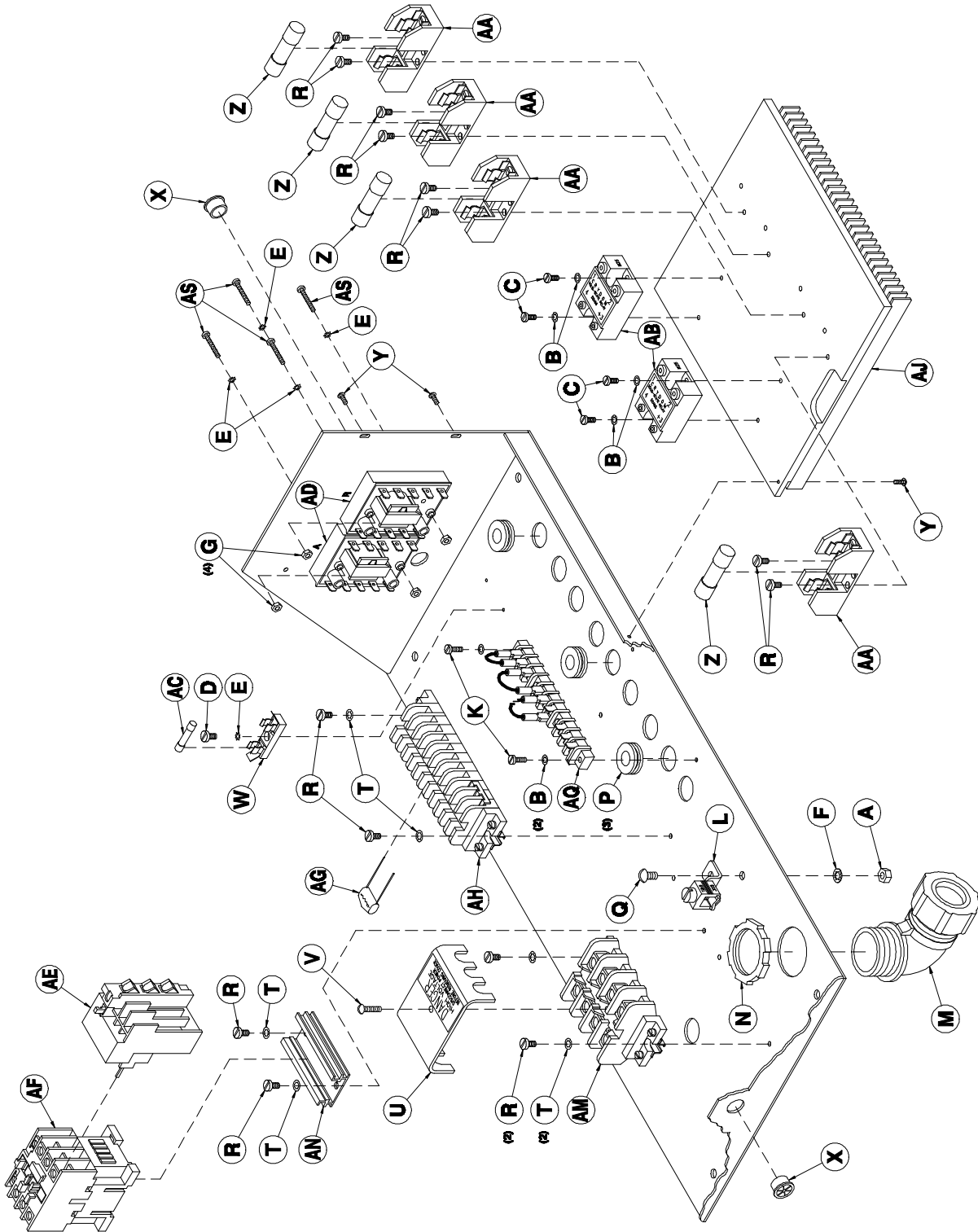
Figure 12. Electric Console (IHTC) (Part No. IP15650-SIZE-DT) Exploded View Sheet 1 of 2



**Parts Identification**

**TABLE 12. ELECTRIC CONSOLE (IHTC), (PART No. IP15650-SIZE-DT), PARTS LIST SHEET 1 OF 2**

Reference Letter	Part No.	Description	Qty
A	656	White Lens	1
B	657A	Neon Light Base	5
C	658A	Incandescent Light Base	2
D	660	Amber Lens	6
E	661	Neon Bulb	5
F	662A	Incandescent Bulb	2
J	5657B	CB Shield Fastener	1
K	6113-10	Button Head Cap Screw (1 Phase ONLY)	16
	6113-10	Button Head Cap Screw (3 Phase ONLY)	18
L	6113-8	Button Head Cap Screw	12
M	6651-9	Pushbutton Switch	2
N	6690-16-6	Toggle Switch	1
P	6690-19-10-2	Green Lamp	2
Q	6690-25-1	50 AMP Circuit Breaker	1
R	6690-25-3	110 AMP Circuit Bracker (1 Phase ONLY)	1
	5601A-1	70 Amp Circuit Breaker (3 Phase ONLY)	1
S	6690-25-4	Circuit Breaker	2
T	6690-26-9	Temperature Controller	2
V	9651-6-2	Counter	1
W	15662	Shield (1 Phase ONLY)	1
	5656B	Shield (3 Phase ONLY)	1
X	15663	Spacer (1 Phase ONLY)	1
Z	17650-4	Knob	2
AA	50602-1	Pushbutton Switch 10A	1



**Figure 13. Electric Console (IHTC) (Part No. IP15650-SIZE-DT) Exploded View Sheet 2 of 2**

Parts Identification

TABLE 13. ELECTRIC CONSOLE (IHTC), (PART No. IP15650-SIZE-DT), PARTS LIST SHEET 2 OF 2

Reference Letter	Part No.	Description	Qty
A	385-4	Hex Nut	1
B	651A-10	Lockwasher	6
C	651A-8	Pan Head Machine Screw	4
D	655-2	Pan Head Machine Screw	1
E	655-4	Lockwasher	5
F	665-4	Lockwasher	1
G	668-3	Hex Nut	4
K	689-2	Pan Head Machine Screw	2
L	1645-1	Terminal Lug	1
M	1646-1	Conduit Elbow	1
N	1646-2	Locknut	1
P	1701-16	Grommet	3
Q	4605-10	Round Head Machine Screw	1
R	4605-3	Pan Head Machine Screw	14
T	4702-7-4	Internal Lockwasher	6
U	5612B-2	Terminal Guard	1
V	5612B-3	Nylon Screw	1
W	5653B	Fuse Holder	1
X	5703D-10	Bushing	2
Y	6113-10	Button Head Cap Screw	3
Z	6651-5	30 AMP Fuse	4
AA	6651-6	30 AMP Fuse Blk	4
AB	6690-1-5	Power Cube 50 AMP	2
AC	6690-24-3	8 AMP Fuse	1
AD	6690-26-10	Controller	2
AE	6690-27-10	Overload Relay 32A (1 X 220V)	1
	6690-27-8	Overload Relay (3X220 V)	1
	6690-27-11	Overload Relay (3x380 V)	1
AF	6690-27-7	Pwr Contactor 50/60 HZ	1
AG	6690-21-1	Quencharc	1
AH	15651	Main Terminal Block Asy	1
AJ	15652	Heat Sink	1
AM	15655	Main Power Term Block Asy	1
AN	15656	Mounting Track	1
AQ	15661	Auxiliary Terminal Block	1
AS	OP482-6-2	Pan Head Machine Screw	

# CENTER AND BASE ASSEMBLY

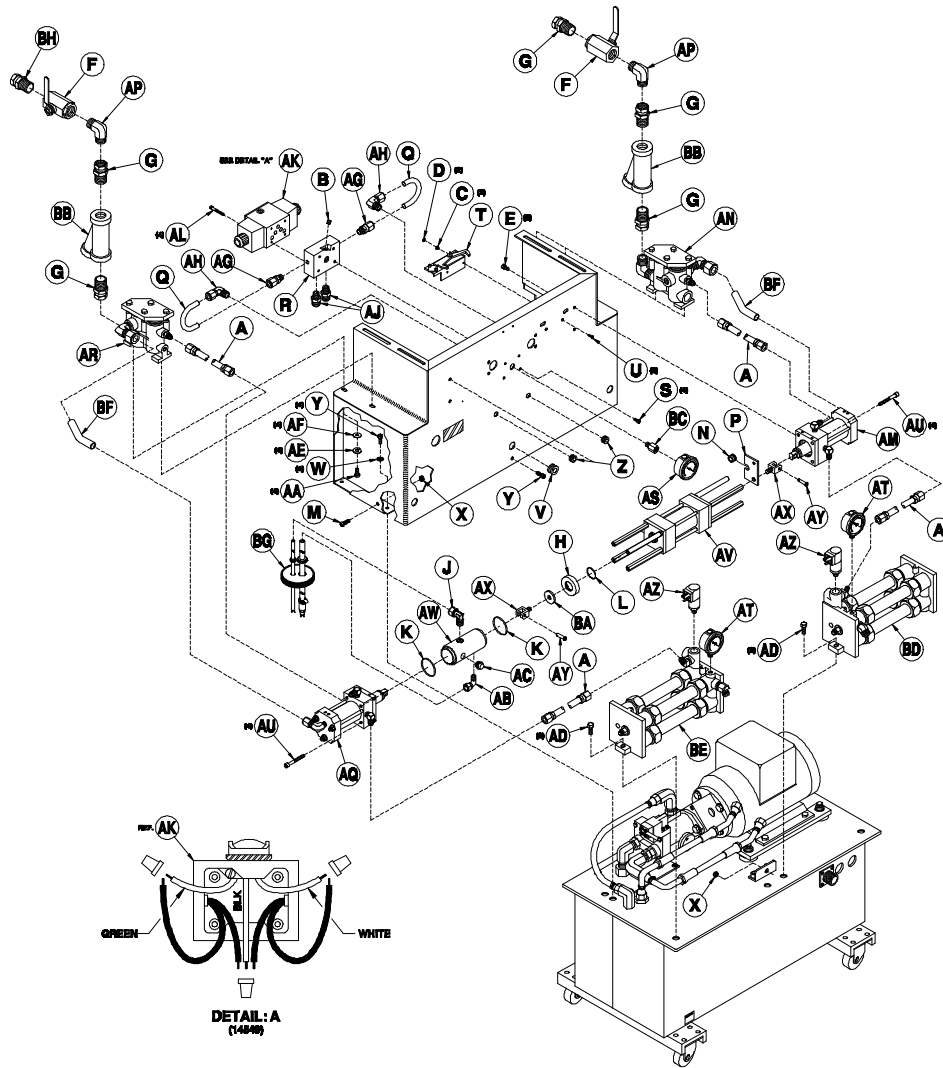


Figure 14. Center and Base Assembly (Part No. 15500-SIZE) Exploded View

TABLE 14. CENTER AND BASE ASSEMBLY, (PART No. 15500-SIZE), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	372	Interconnecting Hose	4
B	576	Pipe Plug	1
C	651A-10	Lockwasher	2
D	651A-9	Hex Nut	2
E	1315A	Socket Head Cap Screw	8
F	1433A-1	Ball Valve	2
G	1433A-3	Swivel Union	5
H	1484-2	Lube Cyl Adapter Plate	1
J	1484-3	Male Elbow	1
K	1484-5	O-Ring	2
L	1484-6	O-Ring	1

**Parts Identification**

Reference Letter	Part No.	Description	Qty
<b>M</b>	1486A-3	Button Head Cap Screw	1
<b>N</b>	1501-7-2	Bronze Bushing	1
<b>P</b>	1501A-7-1	Activator Plate	1
<b>Q</b>	1503	Connection Tube (Includes AJ & AK)	2
<b>R</b>	1504-1	Direct Valve Manifold	1
<b>S</b>	1504A-4	Socket Head Cap Screw (NYLOC)	4
<b>T</b>	1521	Reversing Switch Assy	1
<b>U</b>	1521-1-2	Flat Head Cap Screw	2
<b>V</b>	1701-16	Grommet	1
<b>W</b>	1701-5	Internal Lockwasher	4
<b>X</b>	1701-6A	Locknut	2
<b>Y</b>	1701-9	Socket Head Cap Screw	5
<b>Z</b>	1702-11	Grommet	2
<b>AA</b>	5428-8-2	Hex Head Cap Screw	4
<b>AB</b>	5484-3	Lube Hose Fitting	1
<b>AC</b>	5484A-4	Polyethylene Pipe Plug	1
<b>AD</b>	5494	Hex Head Cap Screw	4
<b>AE</b>	5504-3	Helical Lockwasher	4
<b>AF</b>	5829-7	Flat Washer	4
<b>AG</b>	6306-26	Tube Nipple	2
<b>AH</b>	6306-27	Tube Elbow	2
<b>AJ</b>	14534	Hose Nipple	2
<b>AK</b>	14549	Directional Valve	1
<b>Not Shown</b>	14549-1	Directional Valve Coil	1
<b>AL</b>	14553	Socket Cap Screw-NYLOC	4
<b>AM</b>	15400-SIZE	Resin Prop Pump Assembly	1
<b>AN</b>	15428	Resin Pump Base Asy	1
<b>AP</b>	15428-5	Male Elbow	2
<b>AQ</b>	15450-SIZE	Iso Prop Pump Assembly	1
<b>AR</b>	15478	Iso Pump Base Asy	1
<b>AS</b>	15502	0-2000 Gauge	1
<b>AT</b>	15503	0-3000 Gauge	2
<b>AU</b>	15504	Socket Head Cap Screw	8
<b>AV</b>	15511	Hyd Cylinder W/Spacers	1
<b>AW</b>	15513	Iso Lube Cylinder	1
<b>AX</b>	15514	Hyd Cylinder Clevis	2
<b>AY</b>	15515	Clevis Pin Assembly	2
<b>AZ</b>	15516-2200	Pressure Switch	2
<b>BA</b>	15517	Baffle	1
<b>BB</b>	15520	Strainer	2
<b>BC</b>	15521	Bushing	1
<b>BD</b>	15310A	R-Basic Preheater	1
<b>BE</b>	15360A	A-Basic Preheater	1
<b>BF</b>	15518	Inlet Tube	2
<b>BG</b>	15585	Lube Reservoir Hose Asy	1
<b>BH</b>	OP156-33	Swivel Union	1

# BASE ASSEMBLY

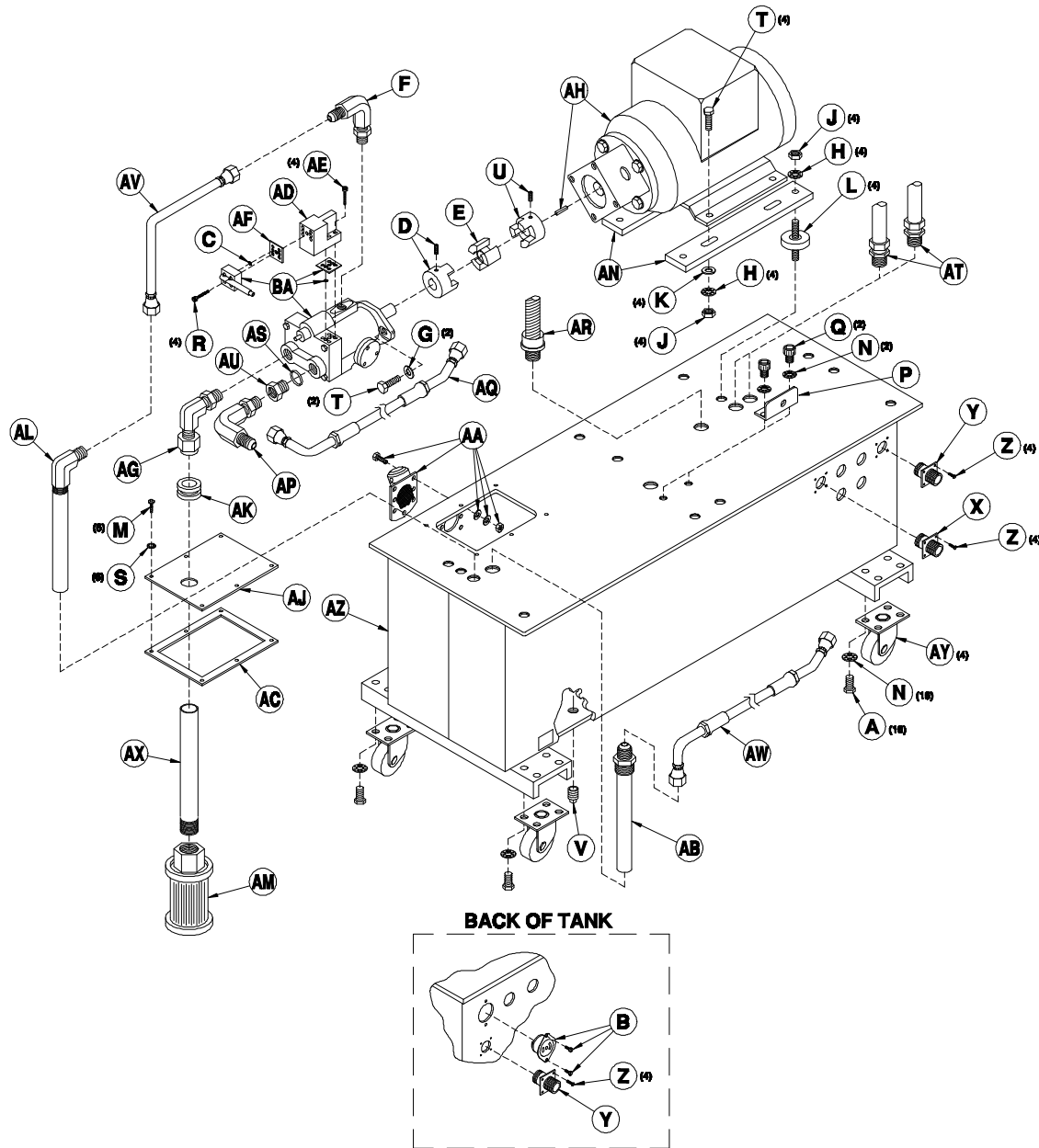


Figure 15. Base Assembly (Part No. 15501-SIZE) (IHTC ASSY SHOWN) Exploded View

TABLE 15. BASE ASSEMBLY, (PART NO. 15501-SIZE), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	370	Hex Head Cap Screw	16
B	670A-1	Socket (IHTC ONLY)	1
C	1413-40/24	O-Ring	1
D	1513-1	Shaft Coupling	1
E	1513-3	Alignment Spider	1

**Parts Identification**

Reference Letter	Part No.	Description	Qty
F	1514-10	Hose Elbow	1
G	1514-3	Lockwasher	2
H	1514-7	Internal Lockwasher	8
J	1514-8	Hex Nut	8
K	1516A-3	Washer	4
L	1518	Motor Mount	4
M	1701-15-7	Binder Head Machine Screw	6
N	1701-5	Lockwasher	18
P	1701-8	Mounting Bracket	1
Q	1701-9	Socket Head Cap Screw	2
R	1808	Socket Head Cap Screw	4
S	4702-7-4	Internal Lockwasher	6
T	5494	Hex Head Cap Screw	6
U	5513-2	Shaft Coupling	1
V	5701-6	Reservoir Drain Plug	1
X	6690-13-2-11-4	CKT MA Pin Housing	1
Y	6690-13-2-11-41	CKT MA Pin Housing (IHTC ONLY)	1
Z	9651-4	Button Head Cap Screw (Std Machine ONLY)	4
	9651-4	Button Head Cap Screw (IHTC Machine ONLY)	8
AA	14501-1	HYD-Oil Filler	1
AB	14501-13	HYD Reservoir Return Tube	1
AC	14501-3	Reservoir Cover Plate Gasket	1
AD	14501-31-	Compensator Manifold	1
AE	14501-31-2	Socket Head Cap Screw	4
AF	14501-31-3	Gasket	1
AG	14502	O-Ring Elbow	1
AH	15501-10	Electric Motor (3 Phase Only)	1
	15501-18	Electric Motor (1 Phase Only)	1
AJ	15501-12	Reservoir Cover Plate	1
AK	15501-13	Rubber Grommet	1
AL	15501-14	1/2 TBE 90 HYD Res Return	1
AM	15501-15	Cartridge Strainer	1
AN	15501-16	Motor Bar	2
AP	15501-17	O-Ring Elbow	1
AQ	15501-19	P-Port Hose	1
AR	15501-20	TSU Harness	1
AS	15501-22	O-Ring	1
AT	15501-27	Transformer Conduit Asy (Std Machine ONLY)	1
	15501-27	Transformer Conduit Asy (IHTC Machine ONLY)	2
AU	15501-3	O-Ring Adaptor	1
AV	15501-5	Bleed Hose	1
AW	15501-6	T Port Hose	1
AX	15501-8	Suction Tube	1
AY	15701-2	Swivel Castor	4
BA	15501-1	HYD Pump Asy (Includes C, R, AD, AE, & AF)	1

# TRANSFORMER PLATE ASSEMBLY

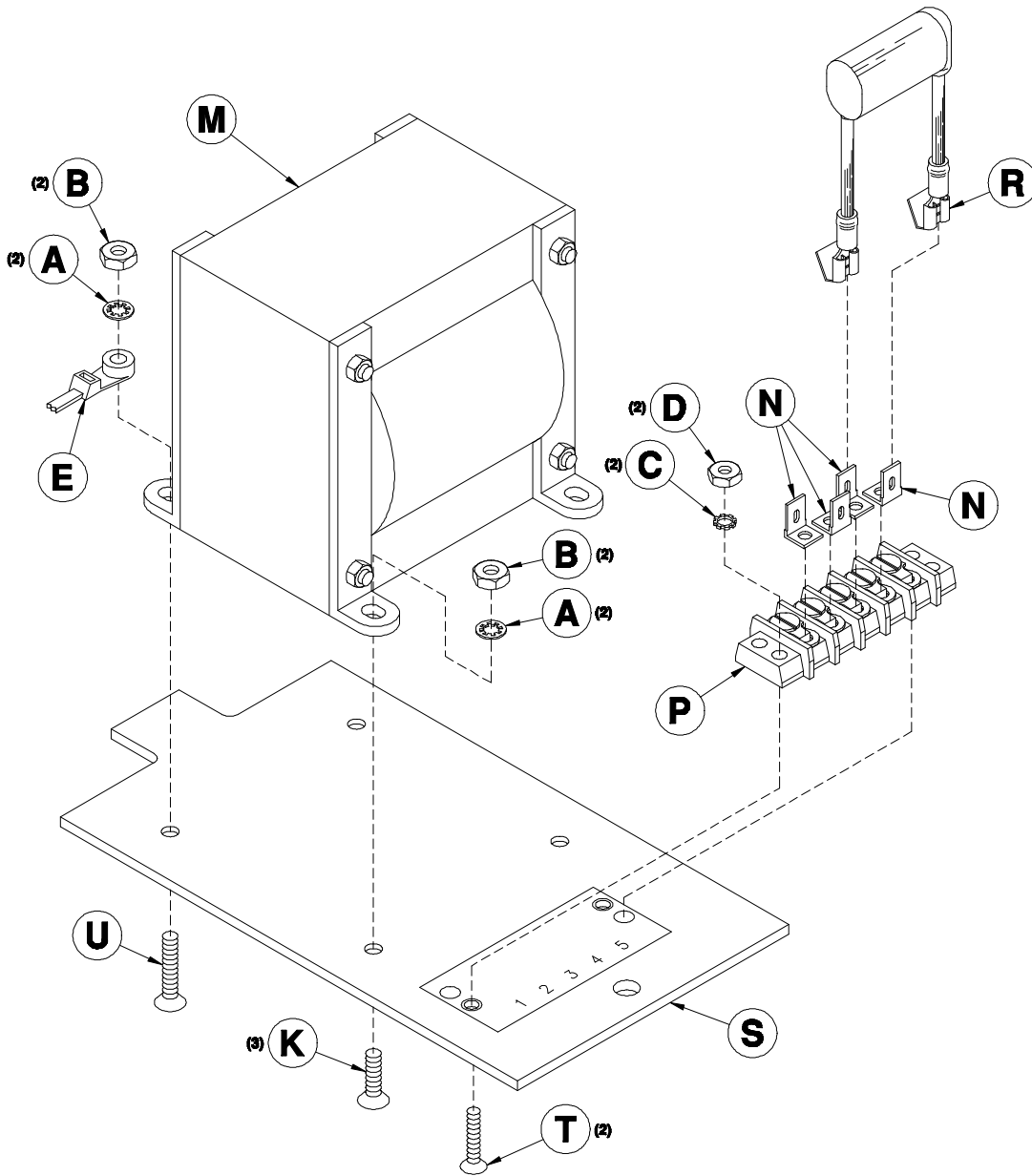


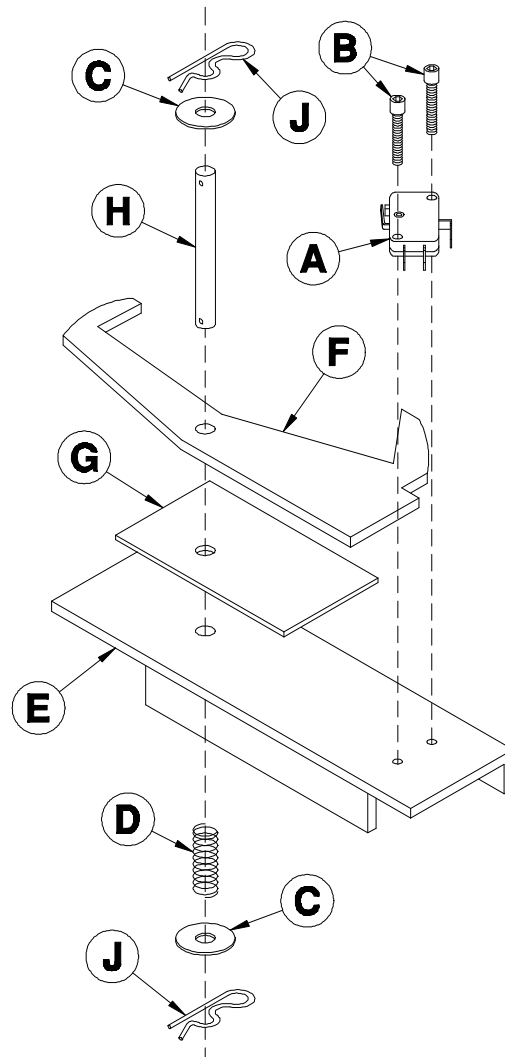
Figure 16. Transformer Plate Assembly (Part No. 15501-23) Exploded View



**TABLE 16. TRANSFORMER PLATE ASSEMBLY, (PART No. 15501-23), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	651A-10	Lockwasher	4
B	651A-9	Hex Nut	4
C	655-4	Lockwasher	2
D	668-3	Hex Nut	2
E	683-1	Cable Tie	1
K	1521-1-2	Flat Head Cap Screw	3
M	5611-1	Transformer	1
N	6690-20-2-9	Male Tab	4
P	6690-20-4-5	Terminal Block	1
R	6690-21-2	Quencharc W/Lugs	1
S	15501-23-1	Transformer Plate	1
T	15501-23-2	Flat Head Cap Screw	2
U	15501-23-3	Flat Head Cap Screw	1

## REVERSING SWITCH ASSEMBLY

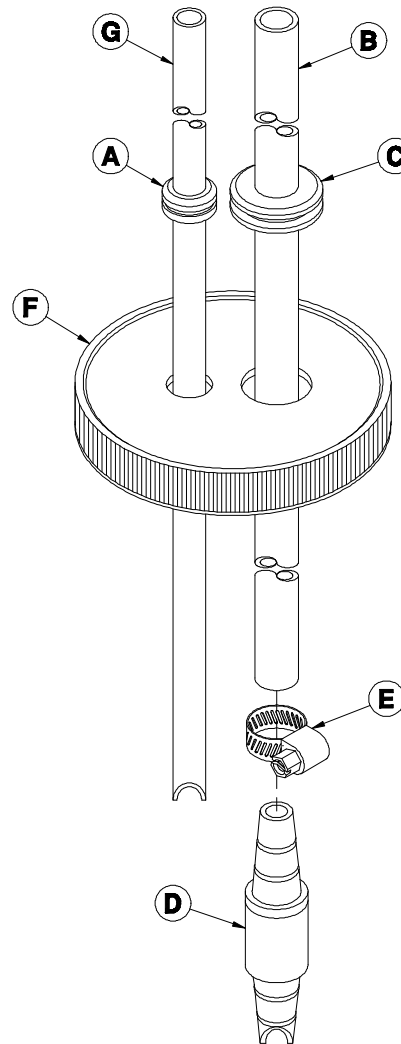


**Figure 17. Reversing Switch Assembly (Part No. 1521) Exploded View**

**TABLE 17. REVERSING SWITCH ASSEMBLY, (PART NO. 1521), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	578A	Reversing Switch	1
B	578A-1	Socket Head Cap Screw	2
C	579-4	Flat Washer	2
D	579-5	Spring	1
E	1521-1-1	Reversing Switch Bracket	1
F	1521-2-1	Rocker Arm	1
G	1521-2-2	Rocker Arm Slide Pad	1
H	1521-2-3	Rocker Arm Pin	1
J	1521-2-6	Hitch Pin	2

## LUBE RESERVOIR HOSE ASSEMBLY



**Figure 18. Lube Reservoir Hose Assembly (Part No. 15585) Exploded View**

**TABLE 18. LUBE RESERVOIR HOSE ASSEMBLY, (PART NO. 15585), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	1275-1-2	Rubber Grommet	1
B	1485A-7	Supply Line	1
C	1701-16	13/16 OD Grommet	1
D	5485-6	Lube Reservoir Check Valve	1
E	5485-7-2	Hose Clamp	1
F	15585-1	Lube Bottle-Modified	1
G	15585-2	Return Line	1

# HYDRAULIC CYLINDER WITH SPACER

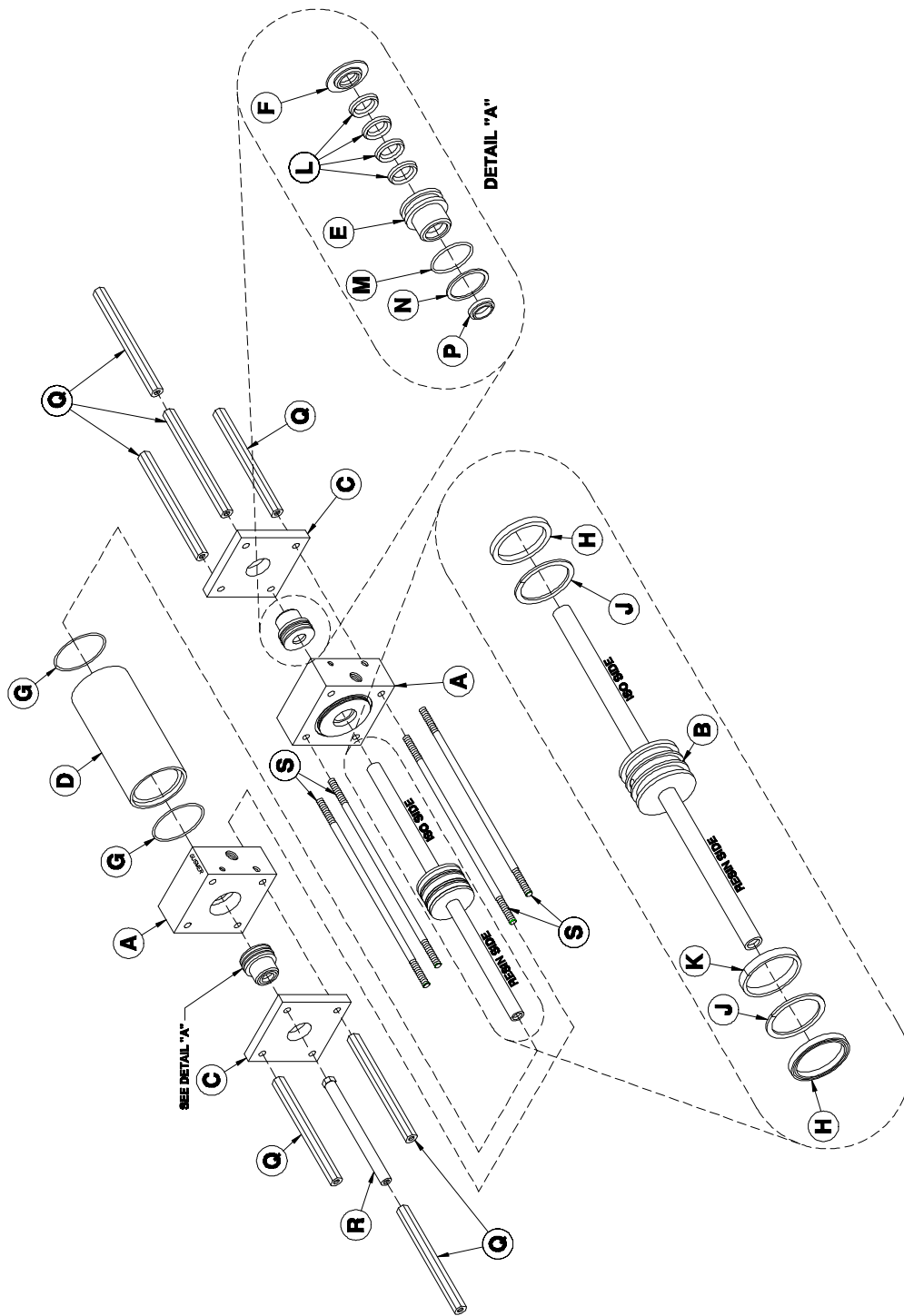


Figure 19. Hydraulic Cylinder with Spacer (Part No. 15511) Exploded View

**TABLE 19. HYDRAULIC CYLINDER WITH SPACER, (PART NO. 15511), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	1501B-10-1	Port Block	2
B	1501B-10-10	Piston Assembly	1
C	1501B-10-2	Retainer Plate	2
D	1501B-10-4	Cylinder Body	1
E	1501B-10-5	Rod Bushing	2
F	1501B-10-6	Shaft Seal Expander	2
G	1501B-11-1	O-Ring	2
H	1501B-11-2	U-Cup	2
J	1501B-11-3	Back-Up Ring	2
K	1501B-11-4	Teflon Glass Wear Ring	1
L	1501B-11-5	V-Ring	8
M	1501B-11-6	O-Ring	2
N	1501B-11-7	Back-Up Ring	2
P	1501B-11-8	Rod Wiper	2
Q	15511-1	Prop. Pump Spacer	7
R	15511-2	Reversing Switch Pump Spacer	1
S	15511-3	Hyd. Cylinder Tie Rod	4

# PROPORTIONING PUMP ASSEMBLY

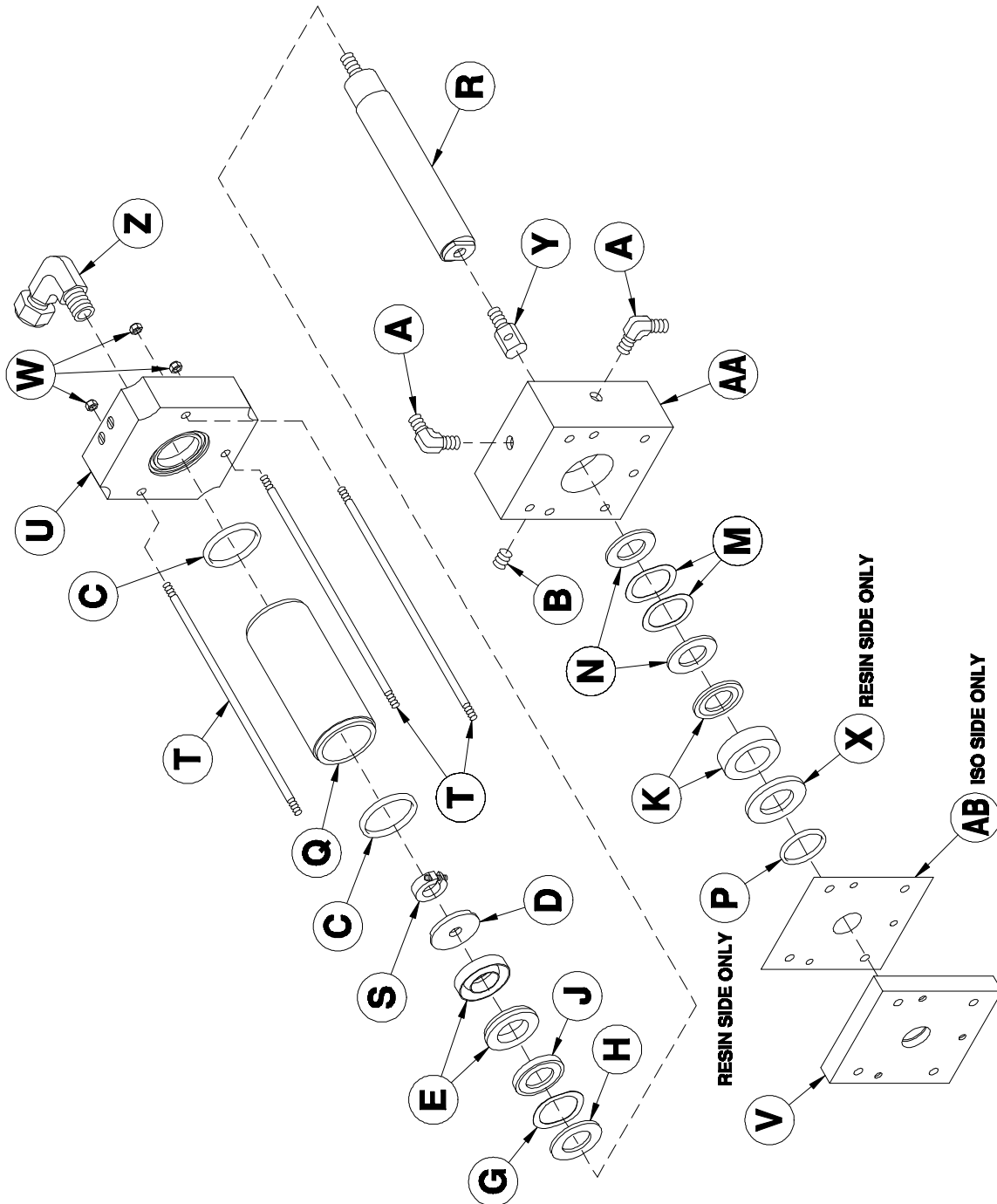


Figure 20. Proportioning Pump Assembly (Part No. 15400-SIZE, 15450-SIZE) Exploded View

TABLE 20. PROPORTIONING PUMP ASSEMBLY, (PART NO. 15400-SIZE, 15450-SIZE), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	373	Male Elbow	2
B	576	Pipe Plug	1
C	1402	O-Ring	2
* D	See Schedule	Packing Retainer Washer	1
* E	See Schedule	Packing Set	1
G	See Schedule	Wave Spring	**
* H	See Schedule	Spring Retainer Washer	1
* J	See Schedule	Packing Support Washer	1
* K	See Schedule	Packing Set	1
* M	See Schedule	Wave Spring	**
* N	See Schedule	Packing Support Washer	2
* P	See Schedule	O-Ring 1 (Resin only)	1
* Q	See Schedule	Pump Cylinder	1
* R	See Schedule	Piston Rod	1
* S	See Schedule	Shaft Collar	1
T	15427	Pump Tie Rod	3
U	15435-120	Inlet Flange	1
* V	See Schedule See Schedule	R-Packing Retainer Flange A-Packing Retainer Flange	1 1
W	15438	Flange Nut	3
* X	See Schedule	Piston RD Wiper CVR PLT (Resin only)	1
* Y	See Schedule	Clevis Link	1
Z	15441	Tube Elbow	1
* AA	See Schedule See Schedule	R-Outlet Flange (Includes B) A-Outlet Flange (Includes B)	1 1
AB	15444-3	Gasket (ISO only)	1

\* *Scheduling of parts are on succeeding pages.*

\*\* *Specified quantities are on succeeding pages.*

TABLE 21. SCHEDULE OF PARTS (PART NO. 15400-SIZE, 15450-SIZE) (PART 1)

REFERENCE LETTER	PUMP SIZE				
	24 (Iso only)	30	44	48	60
D	15412-24	15412-30	15412-44	15412-48	15412-60
E	1415/1416-24	1415/1416-30	1415/1416-44	1415/1416-48	1415/1416-60
G	1417-24	1417-30	1417-40/44	1417-48	1417-60
H	1418-24	1418-30	1418-44	1418-48	1418-60
J	1419-24	1419-30	1419-44	1419-48	1419-60
K	1423/1424-24	1423/1424-30	1423/1424-44	1423/1424-48	1423/1424-60
M	1417-60	1417-60	1425-48/44	1425-48/44	1425-104/80
N	1426-24	1426-30	1426-44	1426-48	1426-60
P (Resin only)	NOT USED	15402	15406	15406	15405
Q	15401-24	15401-30	15401-44	15401-48	15401-60
R	15411-24	15411-30	15411-44	15411-48	15411-60
S	15411-5/16	15411-5/16	15411-3/8	15411-3/8	15411-1/2-60
V	NOT USED	15437-30	15437-44	15437-48	15437-60
	15487-24	15487-30	15487-44	NOT USED	15487-60
X (Resin only)	NOT USED	15439-30	15439-44	15439-48	15439-60
Y	15440-40	15440-40	15440-40	15440-40	15829-10
AA	NOT USED	15436-30	15436-44	15436-48	15436-60
	15486-24	15486-30	15486-44	15486-48	15486-60



TABLE 22. SCHEDULE OF PARTS (PART NO. 15400-SIZE, 15450-SIZE) (PART 2)

REFERENCE LETTER	PUMP SIZE				
	80	88	96*	104	112
D	15412-80	15412-88	15412-96	15412-104	15412-112
E	1415/1416-80	1415/1416-60	1415/1416-96	1415/1416-104	1415/1416-112
G	1417-104/80	1417-104/80	1417-104/80	1417-104/80	1417-104/112
H	1418-80	1418-88	1418-96	1418-104	1418-112
J	1419-80	1419-88	1419-96	1419-104	1419-112
K	1423/1424-80	1415/1416-112	1415/1416-120	1423/1424-104	1423/1416-112
M	1425-104	1425-104	1417-120/112	1425-104	1425-112
N	1426-80	1426-88	1426-96	1426-104	1426-112
P (Resin only)	4401-2-18-2	4401-2-18-2	5436-100	5436-110	5436-112
Q	15401-80	15401-88	15401-96	15401-104	15401-112
R	15411-80	15411-88	15411-96	15411-104	15411-112
S	15411-1/2	15411-1/2	15411-1/2	15411-1/2	15411-1/2
V	15437-80	15437-88	15437-96	15437-104	15437-112
	15487-24	15487-88	NOT USED	15487-104	15487-112
X (Resin only)	15439-80	15439-88	15439-96	15439-104	15439-112
Y	15829-10	15829-10	15829-10	15829-10	15829-10
AA	15436-80	15436-88	15436-96	15436-104	15436-112
	15486-80	15486-88	NOT USED	15486-104	15486-112

**TABLE 23. SCHEDULE OF QUANTITIES**

<u>REF</u> <u>LETTER</u>	<u>PUMP SIZE</u>						
	<u>24</u> <u>(Iso only)</u>	<u>30</u>	<u>44</u>	<u>48</u>	<u>80</u>	<u>88</u>	<u>104</u>
<b>G</b>	2	2	2	1	1	1	2
<b>M</b>	2	2	1	1	1	1	1

**TABLE 24. RESISTANCE FROM OPERATIONAL HEATING ELEMENTS**

<u>NUMBER OF</u> <u>OPERATIONAL</u> <u>ELEMENTS</u>	<u>RESISTANCE IN OHMS ( )</u>		
	<u>4000 WATT</u> <u>HEATER</u>	<u>5000 WATT</u> <u>HEATER</u>	<u>6000 WATT</u> <u>HEATER</u>
<b>4</b>	14.4	12	8
<b>3</b>	19.2	16	11
<b>2</b>	28.8	24	16
<b>1</b>	57.6	48	32

TABLE 25. SCHEDULE OF PARTS (PART NO. 15400-SIZE, 15450-SIZE) (PART 2)

<u>PUMP RATIO*</u>	<u>NUMBER OF CYCLES REQUIRED TO DISPENSE APPROXIMATELY</u>	
	<u>1 lb. (.5 kg) of Mixed Material **</u>	<u>1 Gal. (3.8 l) of Mixed Material **</u>
50 - 50	1.6 cycles	16 cycles
52 - 48	1.7 cycles	16 1/2 cycles
53.5 - 46.5	1.7 cycles	17 cycles
55.5 - 44.5	1.8 cycles	18 cycles
57.5 - 42.5	1.9 cycles	18 1/2 cycles
60 - 40	1.9 cycles	19 1/2 cycles
66.7 - 33.3	2.2 cycles	21 1/2 cycles
71 - 29	2.3 cycles	23 cycles
73.2 - 26.8	2.4 cycles	23 1/2 cycles
75 - 25	2.4 cycles	24 cycles
80 - 20	2.6 cycles	26 cycles
83.3 - 16.7	2.7 cycles	27 cycles

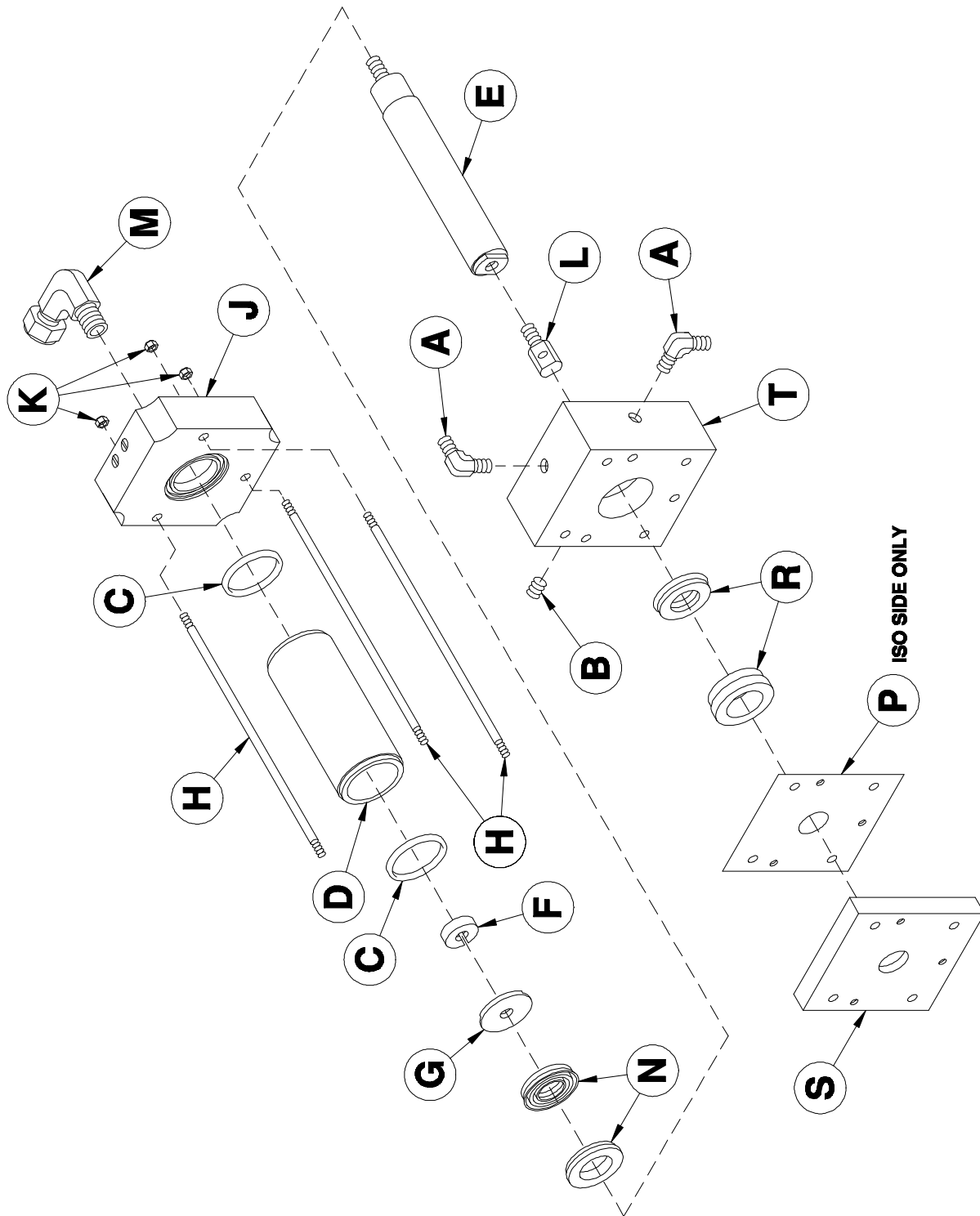
\* Based on use of size #120 Pump in calculating ratio for all combinations

\*\* Provided that hose and gun are filled with chemical components

TABLE 26. VARIOUS PROPORTIONING PUMP SPECIFICATIONS

<u>Pump Size</u>	<u>Cross-Sectional Area</u>		<u>Ratio with #120 Pump</u>
	<u>sq. inches</u>	<u>sq. millimeters</u>	
120	1.20	774.2	50 - 50
112	1.12	722.6	52 - 48
104	1.04	671.0	53.5 - 46.5
96	.96	619.3	55.5 - 44.5
88	.88	567.7	57.5 - 42.5
80	.80	516.1	60 - 40
60	.60	387.1	66.7 - 33.3
48	.48	309.7	71 - 29
44	.44	283.9	73.2 - 26.8
40	.40	258.1	75 - 25
30	.30	193.6	80 - 20
24	.24	154.9	83.3 - 16.7

**120 SIZE PUMPS**



**Figure 21. 120 Size Pumps (Part No. 15400-120, 15450-120) Exploded View**

TABLE 27. 120 SIZE PUMPS, (PART NO. 15400-120, 15450-120), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	373	Male Elbow	2
B	576	Pipe Plug	1
C	1402	O-Ring	2
D	15401-120	Pump Cylinder	1
E	15411-120	Piston Rod	1
F	15411-1/2	Shaft Collar	1
G	15412-120	Packing Retainer Washer	1
H	15427	Pump Tie Rod	3
J	15435-120	Inlet Flange	1
K	15438	Flange Nut	31
L	15829-10	Pump Clevis	1
M	15441	Tube Elbow	1
N	15443-120	Piston Seal Set	1
P	15444-3	Gasket (ISO only)	1
R	15445-120	R-Cylinder Seal Set	1
	15446-120	A-Cylinder Seal Set (includes P)	1
S	15447-120	R-Packing Retainer Flange	1
	15497-120	A-Packing Retainer Flange	1
T	15436-120	R-Outlet Pump Flange (includes B)	1
	15486-120	A-Outlet Pump Flange (includes B)	1

**REPLACEMENT CYLINDER SEAL SETS:**

For serial numbers 1 through 236:

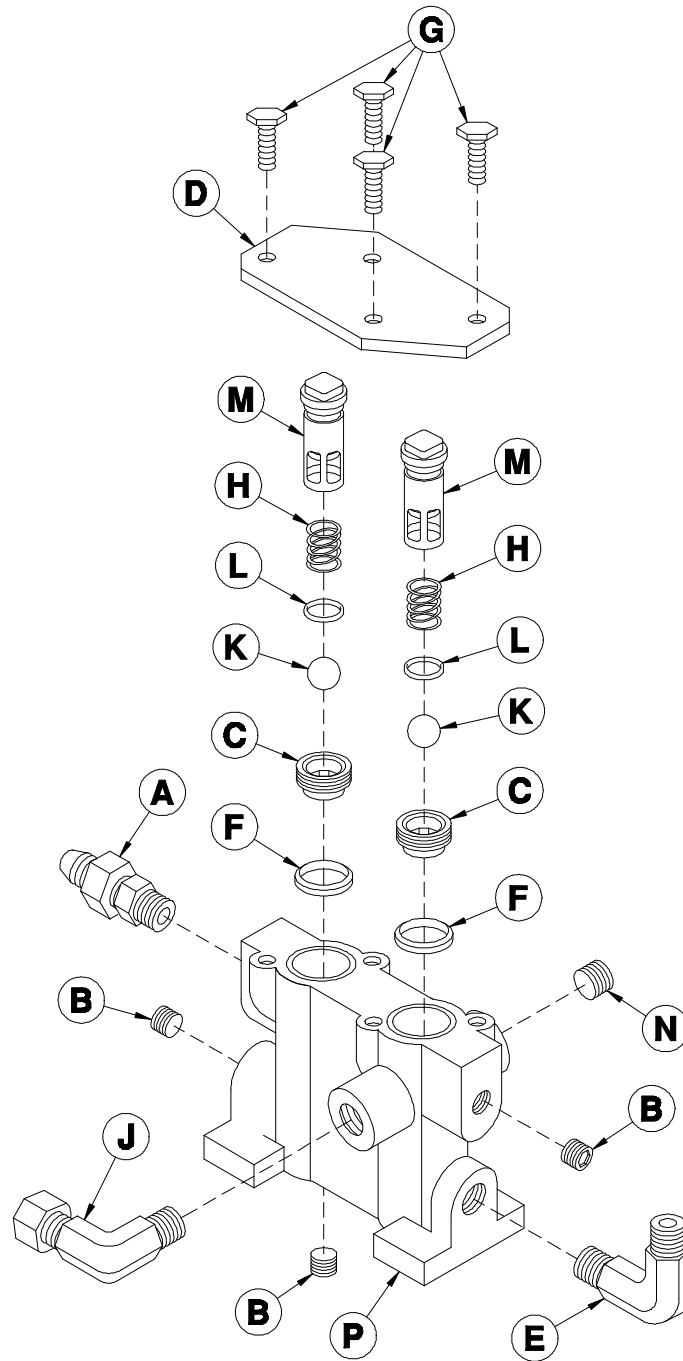
**A & R Cylinder Seal Set** (Part no. 15444-120) - Order as required from your local distributor.

For serial numbers 237 and up:

**R-Cylinder Seal Set** (Part no. 15445-120) - Order as required from your local distributor.

**A-Cylinder Seal Set** (Part no. 15446-120)- Order as required from your local distributor.

## PUMP BASE ASSEMBLY



**Figure 22. Pump Base Assembly (Part No. 15428, 15478) Exploded View**

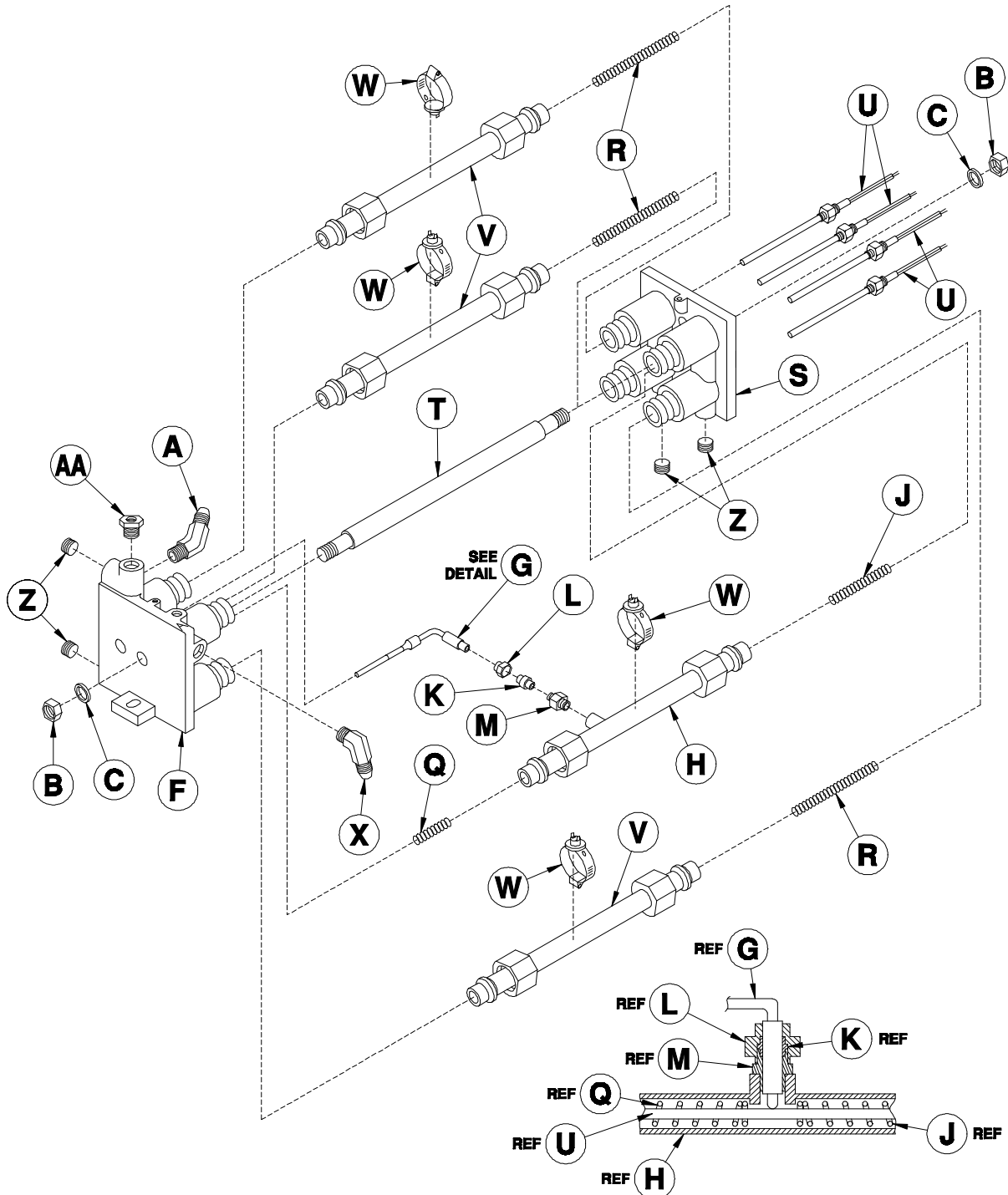
**Parts Identification**

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**TABLE 28. PUMP BASE ASSEMBLY, (PART NO. 15428, 15478), PARTS LIST**

<b>Reference Letter</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
<b>A</b>	381-2	Nipple	1
<b>B</b>	576	Pipe Plug	3
<b>C</b>	15428-3	Valve Ball Seat	2
<b>D</b>	15428-4	Valve Cover Bracket	1
<b>E</b>	15428-5	Male Elbow	1
<b>F</b>	15428-7	Seat Seal	2
<b>G</b>	15428-8	Hex Head Cap Screw	4
<b>H</b>	15428-9	Spring	2
<b>J</b>	15441	Tube Elbow	1
<b>K</b>	5428-5	Valve Ball	2
<b>L</b>	5428-6-3	O-Ring	2
<b>M</b>	5428A-7-1	Ball Guide	2
<b>N</b>	6404-1	Pipe Plug	1
<b>P</b>	15428-1	R-Valve Block (includes B & N)	1
	15478-1	A-Valve Block (includes B & N)	1

# PRIMARY HEATER ASSEMBLY



**Figure 23. Primary Heater Assembly (Part No. 15310A, 15360A) Exploded View  
(for Serial Number B00329 & up)**



TABLE 29. PRIMARY HEATER ASSEMBLY, (PART NO. 15310A, 15360A), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	465	Hose Elbow	1
B	14300-11	Hex Nut	2
C	14300-12	Flat Washer	2
F	15310-2	R-Preheater Flange	1
	15360-2	A-Preheater Flange	1
G	15300-25	Thermocouple Kit (includes K & L)	1
H	26304	Heat Exchanger	1
J	15300-29	Spring	1
K	15300-30-1	Ferrule	1
L	15300-30-2	Nut	1
M	15300-30-3	1/4 Tube Body	1
Q	26305	Spring	1
R	15300-37	Spring	3
S	15310-4	Preheater Flange	1
T	15300-5	Tie Rod	1
U	15300-8	Heating Element 1500W	4
V	15310-1	Heat Exchanger	3
W	15310-3	Thermostat	4
X	5330-4	Hose Elbow (Resin ONLY)	1
	5380-4	Hose Elbow (Iso ONLY)	1
Z	6404-1	Pipe Plug	4
AA	OP202-6	Bushing	1
Not Shown	15311	R-Preheater Cover	1
Not Shown	15361	A-Preheater Cover	1
Not Shown	OP482-1-5	Button Head Cap Screw (To Secure Cover)	1

# AUTO POWER PACK

## AUTOMATIC HOSE HEAT

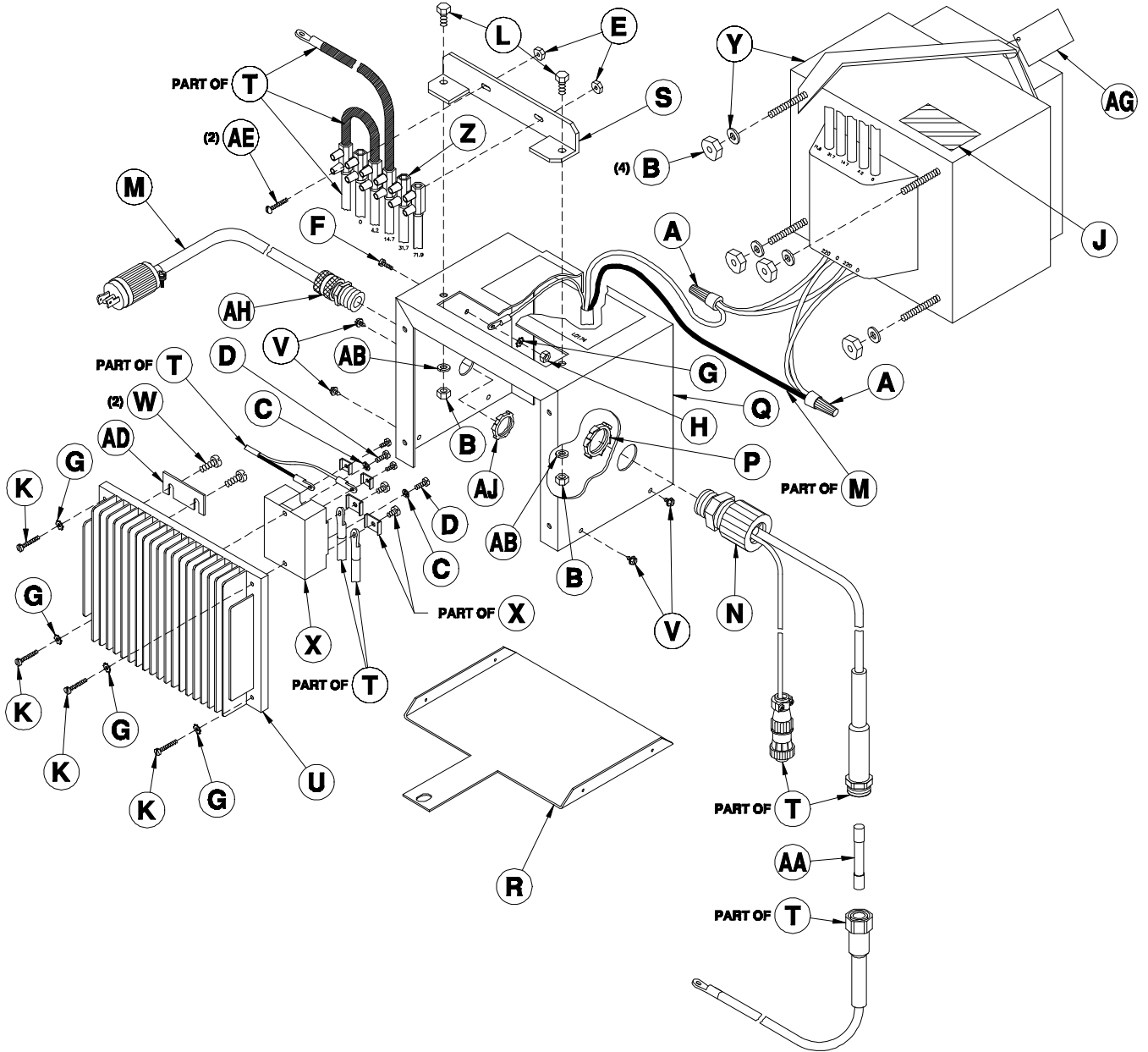


Figure 24. Automatic Hose Heat (Part No. 1277) Exploded View

TABLE 30. AUTOMATIC HOSE HEAT, (PART NO. 1277), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	363A	Insulating Wire Nut	2
B	385-4	Hex Nut	6
C	651A-10	Lockwasher	2
D	651A-8	Pan Head Machine Screw	2
E	651A-9	Hex Nut	2
F	655-2	Pan Head Machine Screw	1
G	655-4	Lockwasher	5
H	668-3	Hex Nut	1
K	698-3	Pan Head Machine Screw	4
L	760-3	Hex Head Cap Screw	2
M	1275B-2	Input (Power) Wire Harness	1
N	1275C-1-2-1	Strain Relief	1
P	1275C-1-2-2	Locknut	1
Q	1277-1	Transformer Cover Box	1
R	1277-2	Bottom Cover	1
S	1277-4	Terminal Block Mtg. Bkt.	1
T	15501-28	Hose Conn. Lead w/Fuse Htr.	1
U	1278-2	Heat Sink	1
V	1615C-4	Sheet Metal Screw	4
W	4605-3	Pan Head Machine Screw	2
X	6690-1-7	Power Cube 80 AMP	1
Y	6690-15-5	Transformer	1
Z	6690-20-5-6	Terminal Block	1
AA	6690-24-14	50 AMP Fuse	2
AB	9758	Lockwasher	2
AC	6690-13-3-11-41	4 CKT Ma Pin Plug	1
AD	14667	Terminal Jumper	1
AE	60302	Round Head Machine Screw	2
AF	6690-13-4-11	Cable Housing	1
AG	14501-5	Hose Conn Lead Hrn	1
AH	OP482-17-1	Bushing	1
AJ	OP482-17-2	Locknut 1	1
AK	1277-8-1	Machine To Transformer Harness (includes AC, AF)	1

## **OPTIONAL EQUIPMENT**

### **HOSE EQUIPMENT**

**TABLE 31. DUAL HEATED HOSE ASSEMBLY (GENERALLY USED WITH AN H-2000)**

<b><u>Part #</u></b>	<b><u>Description</u></b>
1250-D	1/4" x 10' Gun Hose w/ scuff jacket
1200-TC	3/8" x 50' L.V. Hose Assembly
5225-50-TC	1/2" x 50' L.V. Hose Assembly

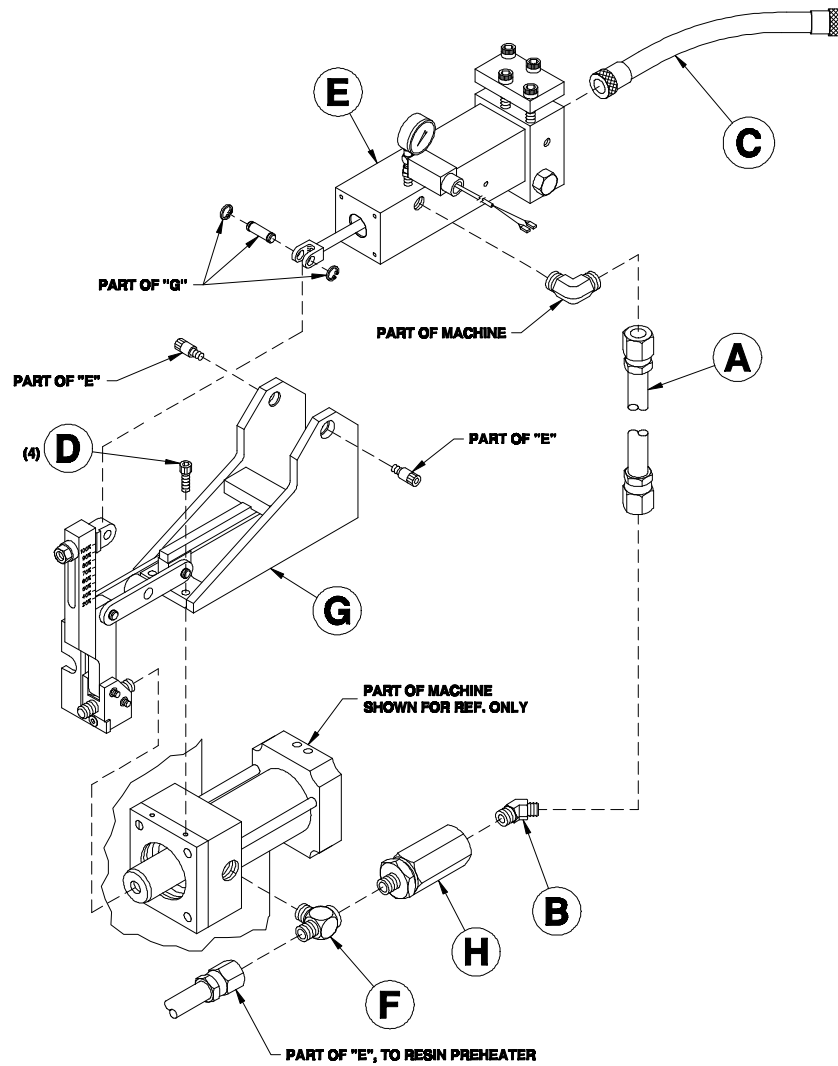
**TABLE 32. ACCESSORIES**

<b><u>Part #</u></b>	<b><u>Description</u></b>
20206-12/12	Temperature Sensing Unit

**TABLE 33. FITTINGS TO ADAPT 3/8" HOSE TO 1/2" HOSE**

<b><u>Part #</u></b>	<b><u>Description</u></b>
5253A	Resin Hose Adaptor
5254A	Iso Hose Adaptor

## AUXILIARY PUMP RETRO-FIT KIT

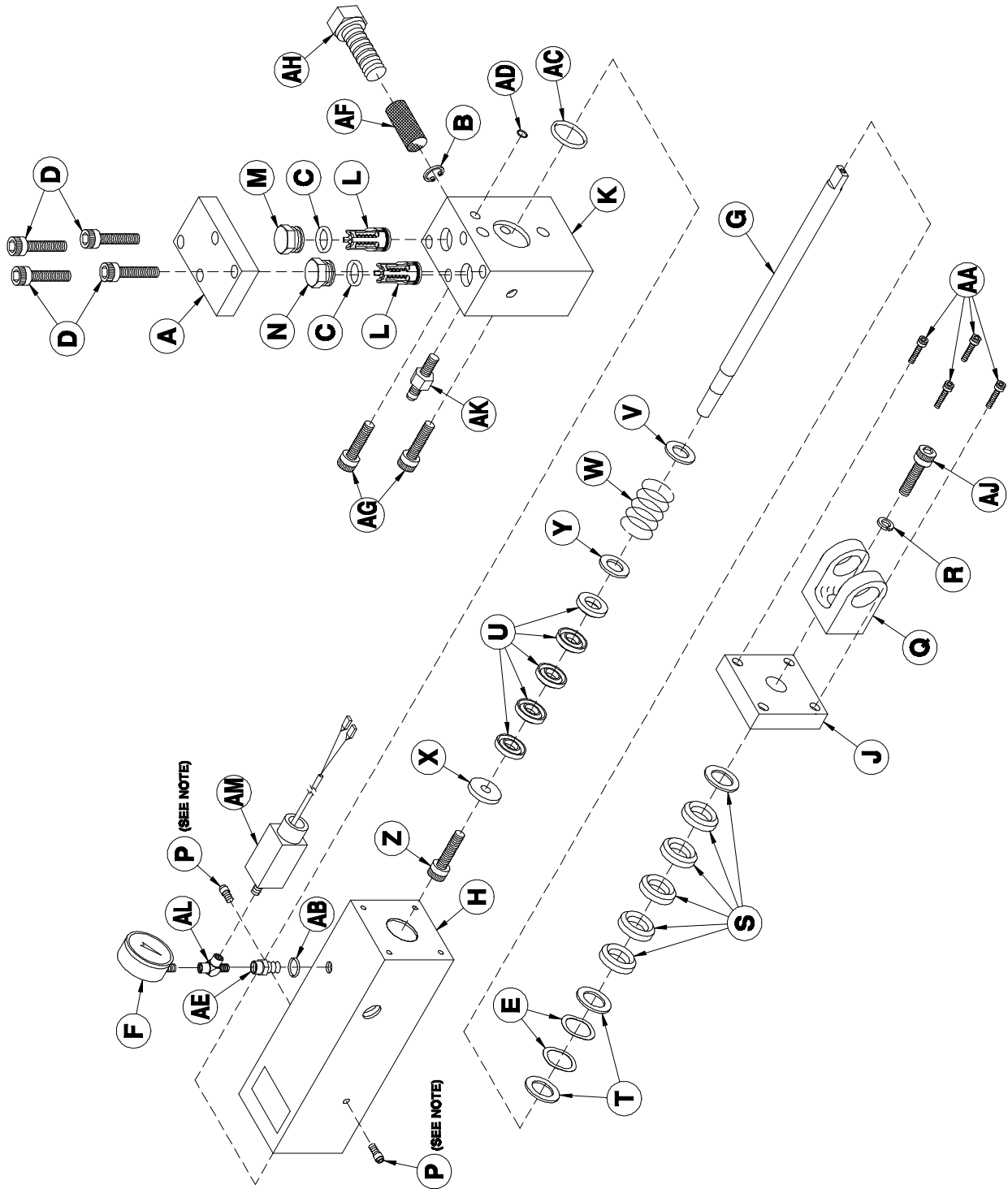


**Figure 25. Auxiliary Pump Retro-Fit Kit (Part No. 15840-SIZE) Exploded View**

**TABLE 34. AUXILIARY PUMP RETRO-FIT KIT, (PART NO. 15840-SIZE), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	1327	Interconnect Hose	1
B	465	Hose Elbow	1
C	828	Material Supply Hose	1
D	5512-8	Socket Head Cap Screw	4
E	15800A-SIZE	Aux. Prop. Pump Asy	1
F	15821	Pipe & Hose Tee	1
G	15828	Pump Mounting Asy	1
H	15851	Check Valve	1
Not Shown	15841	Loctite (sample Tube)	1

**AUXILIARY PROPORTIONING PUMP ASSEMBLY**



**Figure 26. Auxiliary Proportioning Pump Assembly (Part No. 15800A-SIZE) Exploded View**

**Parts Identification**

**TABLE 35. AUXILIARY PROPORTIONING PUMP ASSEMBLY, (PART NO. 15800A-SIZE), PARTS LIST**

Reference Letter	Part No.	Description	Qty
A	15813	Valve Cover Bracket	1
B	461	Snap Ring	1
C	15805-2	O-Ring	2
D	352A-1	Socket Head Cap Screw	4
E	See Schedule	Wave Spring	2
F	15503	0-3000 PSI Liquid Fill Ga	1
G	See Schedule	Piston Rod	1
H	See Schedule	Pump Cylinder Block	1
J	See Schedule	Pump Flange	1
K	15804A	Pump Base	1
L	15805-S	Check Valve	2
M	15806	Inlet Valve Cover	1
N	15807	Outlet Valve Cover	1
P	15808	Pivot	2
Q	See Schedule	Yoke	1
R	See Schedule	Lockwasher	1
S	See Schedule	Packing Set	1
T	See Schedule	Packing Support Washer	2
U	See Schedule	Packing Set	1
V	See Schedule	Spring Retainer Washer	1
W	See Schedule	Conical Spring	1
X	See Schedule	Packing Retainer Washer	1
Y	See Schedule	Packing Support Washer	1
Z	See Schedule	Socket Head Cap Screw	1
AA	4406-16	Socket Head Cap Screw	4
AB	807	O-Ring	1
AC	9403-N	O-Ring	1
AD	9405-N	O-Ring	1
AE	9412	Pressure Gauge Adapter	1
AF	9462	Pump Screen	1
AG	9463	Socket Head Cap Screw	2
AH	9464	Screen Screw	1
AJ	See Schedule	Socket Head Cap Screw	1
AK	15810	Hose Nipple	1
AL	6465	Pipe Tee	1
AM	15516-2200	Pressure Switch	1

**TABLE 36. SCHEDULE OF PARTS (PART NO. 15800A-SIZE)**

<u>REFERENCE</u> <u>LETTER</u>	<u>PUMP SIZE</u>		
	<u>10</u>	<u>24</u>	<u>30</u>
<b>E</b>	1417-24	9404-24	1417-48
<b>G</b>	15801-10	9451-24	9451-30
<b>H</b>	15802-10	15802-24	15802-30
<b>J</b>	15803-10	9410-24	9410-30
<b>Q</b>	15809-10	15809-1/4	15809-1/4
<b>R</b>	1701-15-8	9758	9758
<b>S</b>	15811	476-24	476-30
<b>T</b>	1812	9477-24	9477-30
<b>U</b>	1813	478-24	476-19
<b>V</b>	1814	482-24	482-30
<b>W</b>	1815	481-24	481-30
<b>X</b>	1816	9488-24	9488-30
<b>Y</b>	1817	479-24	479-30
<b>Z</b>	1818	9480	9480
<b>AJ</b>	OP219-4	5512-8	5512-8



### PUMP MOUNTING ASSEMBLY

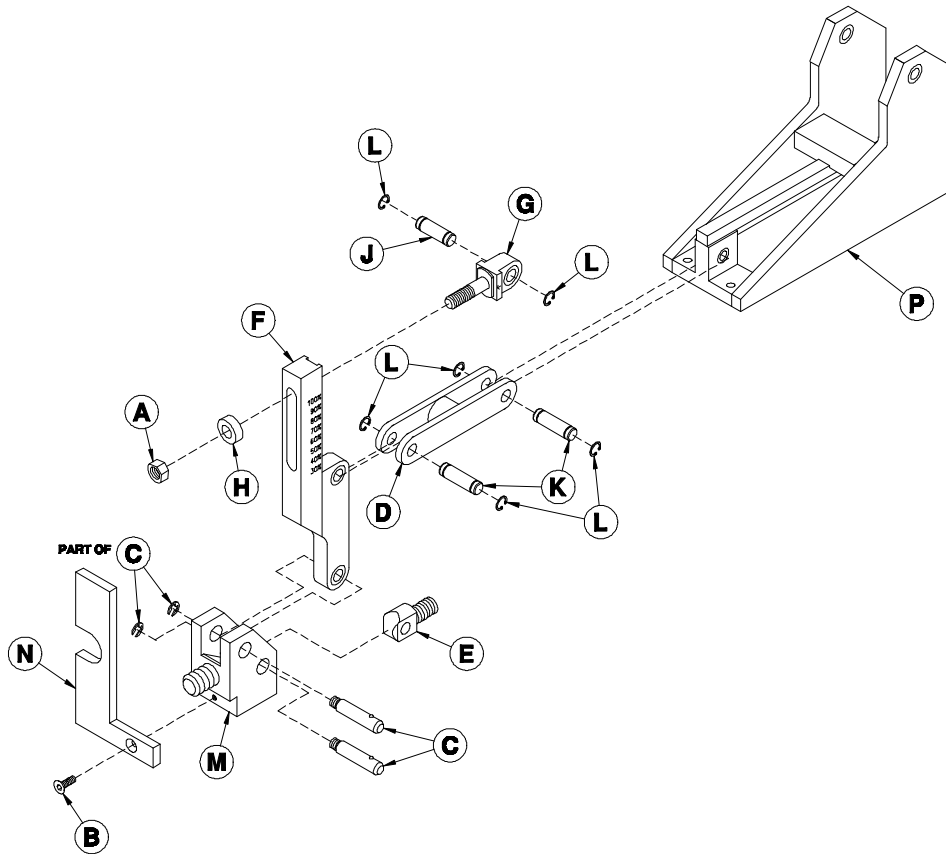
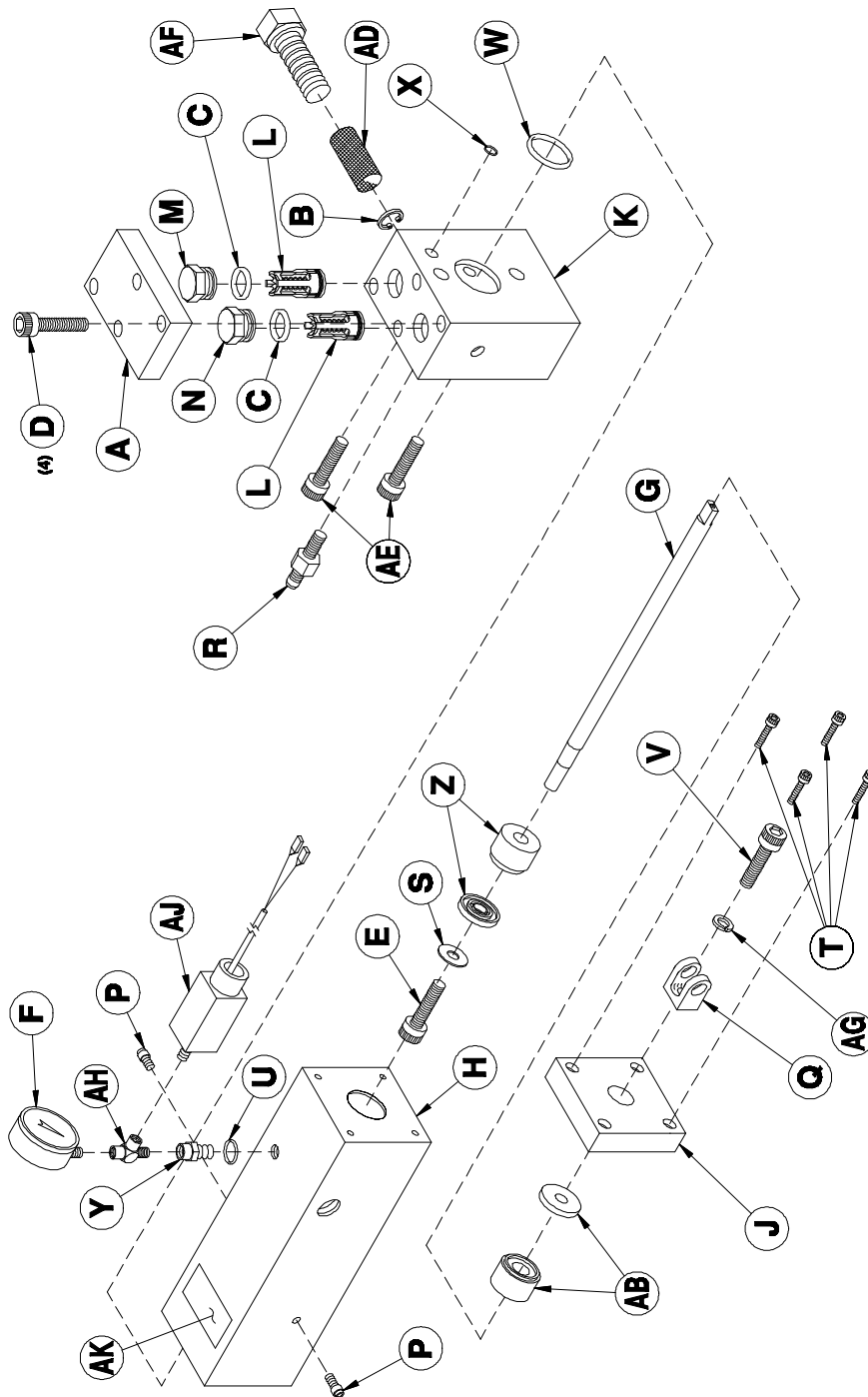


Figure 27. Pump Mounting Assembly (Part No. 15828) Exploded View

TABLE 37. PUMP MOUNTING ASSEMBLY, (PART NO. 15828), PARTS LIST

Reference Letter	Part No.	Description	Qty
A	370	Hex Nut	1
B	1521-1-2	Flat Head Cap Screw	1
C	15515	Clevis Pin	2
D	15829-1	Idler Link	1
E	15829-10	Pump Clevis	1
F	15829-2	Drive Arm	1
G	15829-3	Adjustable Pivot	1
H	15829-4	Washer	1
J	15829-5	Yoke Pin	1
K	15829-6	Pivot Pin	2
L	15829-7	Tru Arc	5
M	15829-8	Hyd Cylinder Clevis	1
N	15829-9	Reversing Plate	1
P	15830	Main Bracket Assembly	1

**AUXILIARY PROPORTIONING PUMP ASY  
FOR 15 SIZE PUMPS**



**Figure 28. Auxiliary Proportioning Pump Assembly for 15 Size Pumps  
(Part No. 15800A-15) Exploded View**

**Table 38. Auxiliary Proportioning Pump Assy For 15 Size Pumps, (Part No. 15800A-15), Parts List**

Reference Letter	Part No.	Description	Qty
A	15813	Valve Cover Bracket	1
B	461	Snap Ring	1
C	15805-2	O-Ring	2
D	352A-1	Socket Head Cap Screw	4
E	12124	Socket Head Cap Screw-NYLOC	1
F	15503	0-3000 PSI Liquid Fill Ga	1
G	15801-15	Piston Rod	1
H	15802-15	Pump Cylinder Block	1
J	15803-15	Pump Flange	1
K	15804A	Pump Base	1
L	15805-S	Check Valve	2
M	15806	Inlet Valve Cover	1
N	15807	Outlet Valve Cover	1
P	15808	Pivot	2
Q	15809-1/4	Yoke	1
R	15810	Hose Nipple	1
S	15812-15	Packing Retainer Washer	1
T	4406-16	Socket Head Cap Screw	4
U	807	O-Ring	1
V	5512-8	Socket Head Cap Screw	1
W	9403-N	O-Ring-Neoprene	1
X	9405-N	O-Ring-Neoprene	1
Y	9412	Tube Adaptor	1
Z	9443-15	Piston Seal Set	1
AB	9444-15	Cylinder Seal Set	1
AD	9462	Pump Screen	1
AE	9463	Socket Head Cap Screw	2
AF	9464	Screen Screw	1
AG	9758	Lockwasher	1
AH	6465	Pipe Tee	1
AJ	15516-2200	Pressure Switch	1

# ELECTRICAL SCHEMATIC DIAGRAMS

## STANDARD HOSE TEMPERATURE CONTROL

### Single Transformer 220V Single Phase

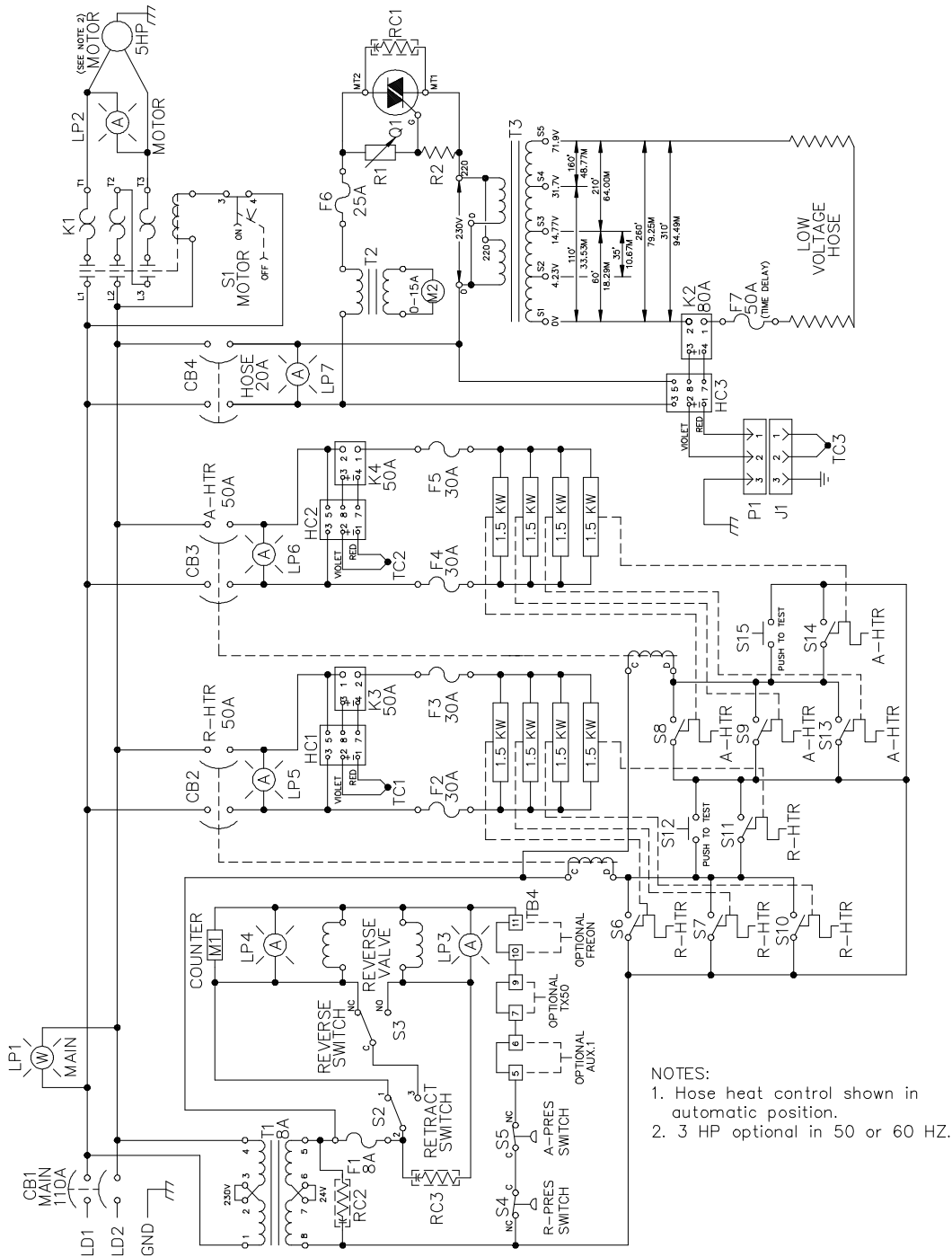
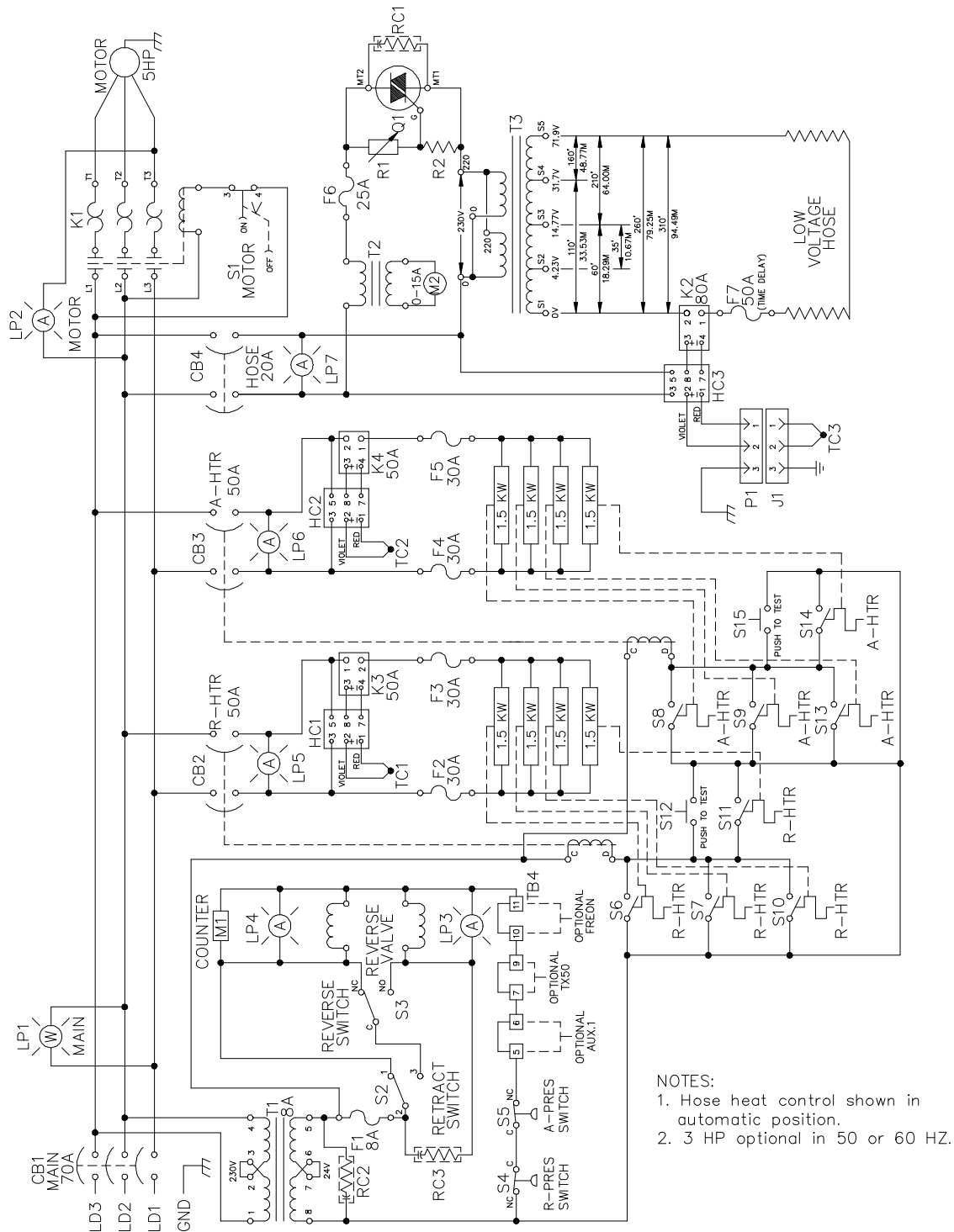


Figure 29. H-2000 Single Transformer 220V Single Phase

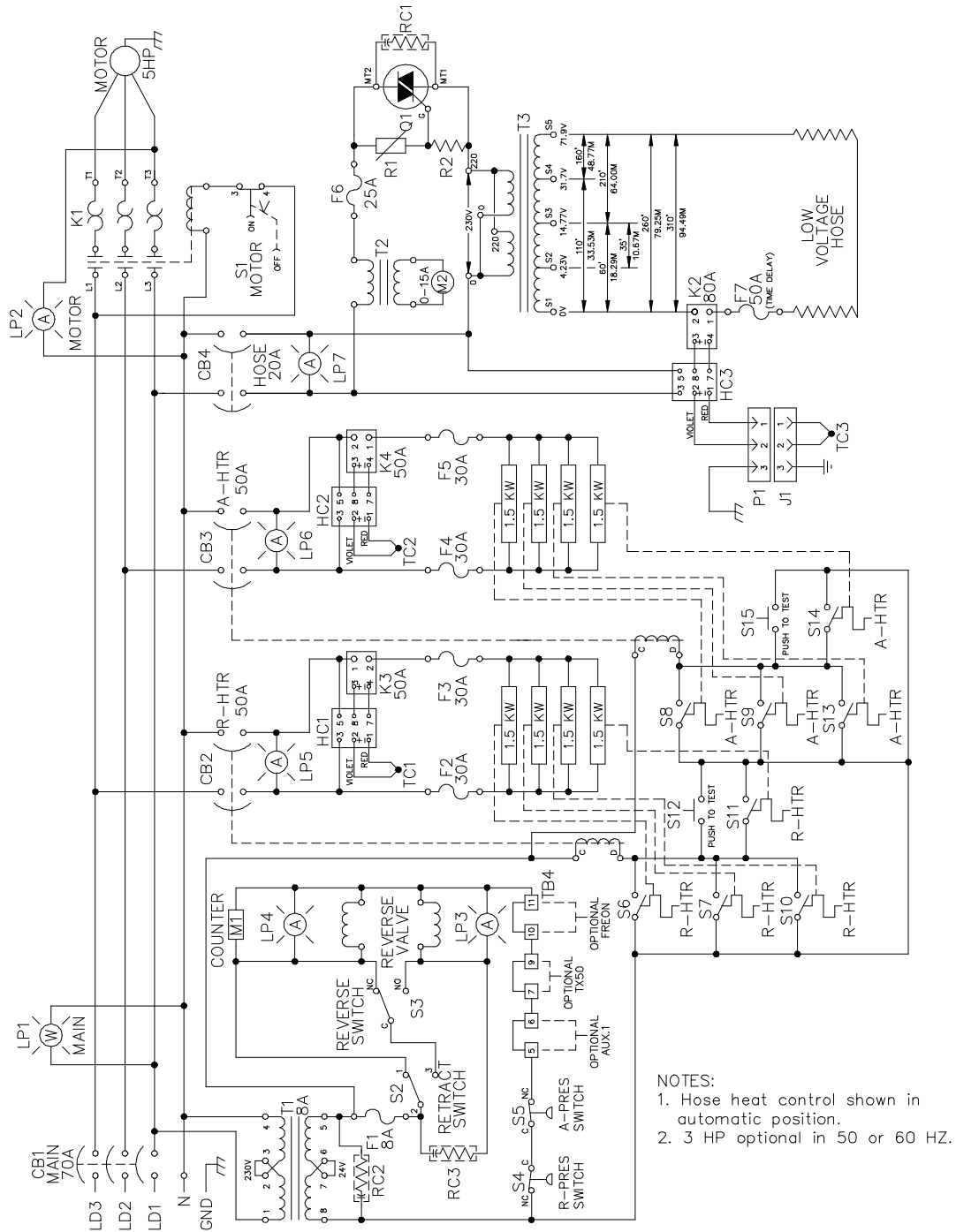
### Single Transformer 220V Three Phase



- NOTES:
1. Hose heat control shown in automatic position.
  2. 3 HP optional in 50 or 60 HZ.

Figure 30. H-2000 Single Transformer 220V Three Phase

Single Transformer 380V Three Phase



NOTES:  
 1. Hose heat control shown in automatic position.  
 2. 3 HP optional in 50 or 60 HZ.

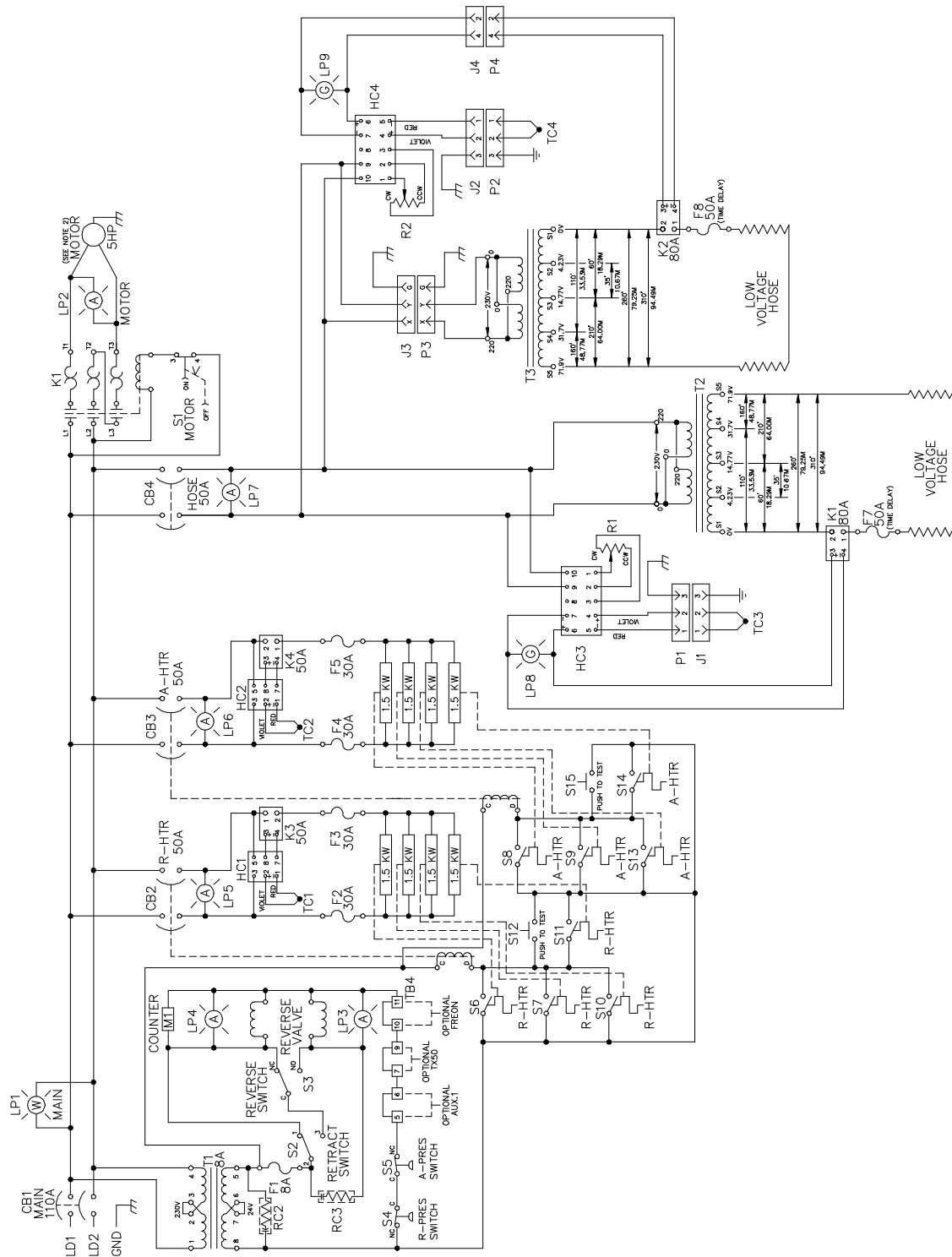
Figure 31. H-2000 Single Transformer 380V Three Phase

**TABLE 39. ELECTRICAL SCHEMATIC, (PARTS LIST**

Reference Number	Part No.	Description
CB1	6690-25-3	110 AMP Circuit Breaker (1 Phase)
	5601A-1	70 AMP Circuit Breaker (3 Phase)
CB2, CB3	6690-25-4	50 AMP Circuit Breaker
CB4	692-1-20	20 AMP Circuit Breaker
F1	6690-24-3	8 AMP Fuse
F2, F3, F4, F5	6651-5	30 AMP Fuse
F6	6690-24-1	25 AMP Fuse
F7	6690-24-14	50 AMP Fuse
HC1, HC2, HC3	6690-26-9	Temperature Controller
K	6690-27-7	Pwr Contactor 50/60 HZ
	6690-27-10	Overload Relay 30A (5HP, 1PH)
	6690-27-8	Overload Relay 17.5A (5HP, 3PH)
	6690-27-11	Overload Relay 9.5A (5HP 3 x 380V)
K2	6690-1-7	Power Cube 80 AMP
K3, K4	6690-1-5	Power Cube 50 AMP
M1	9651-6-2	Counter
M2	9651-6-8	Ammeter
Q1	6690-8-7	Triac
R1, R2	6690-26-1	Phase Control
RC1, RC2	6690-21-2	Quencharc w/Lugs
RC3	6690-21-1	Quencharc
S1	50602-1	Pushbutton Switch 10A
S2	6690-16-6	Toggle Switch
S3	1521-3	Reversing Switch
S4, S5	15516-2200	Pressure Switch
S6, S7, S8, S9, S10, S11 S13, S14	15310-3-1	Thermostat
S12, S15	6651-9	Pushbutton Switch
T1	5611-1	Transformer
T2	9651-6-9	Transformer
T3	15276	Transformer
TC1, TC 2	15300-25	Thermocouple
TC3	20206-12/12	Temperature Sensor

**INDIVIDUAL HOSE TEMPERATURE CONTROL (IHTC)**

**Dual Transformer 220V Single Phase**



**Figure 32. H-2000 Dual Transformer 220V Single Phase**



Dual Transformer 220V Three Phase

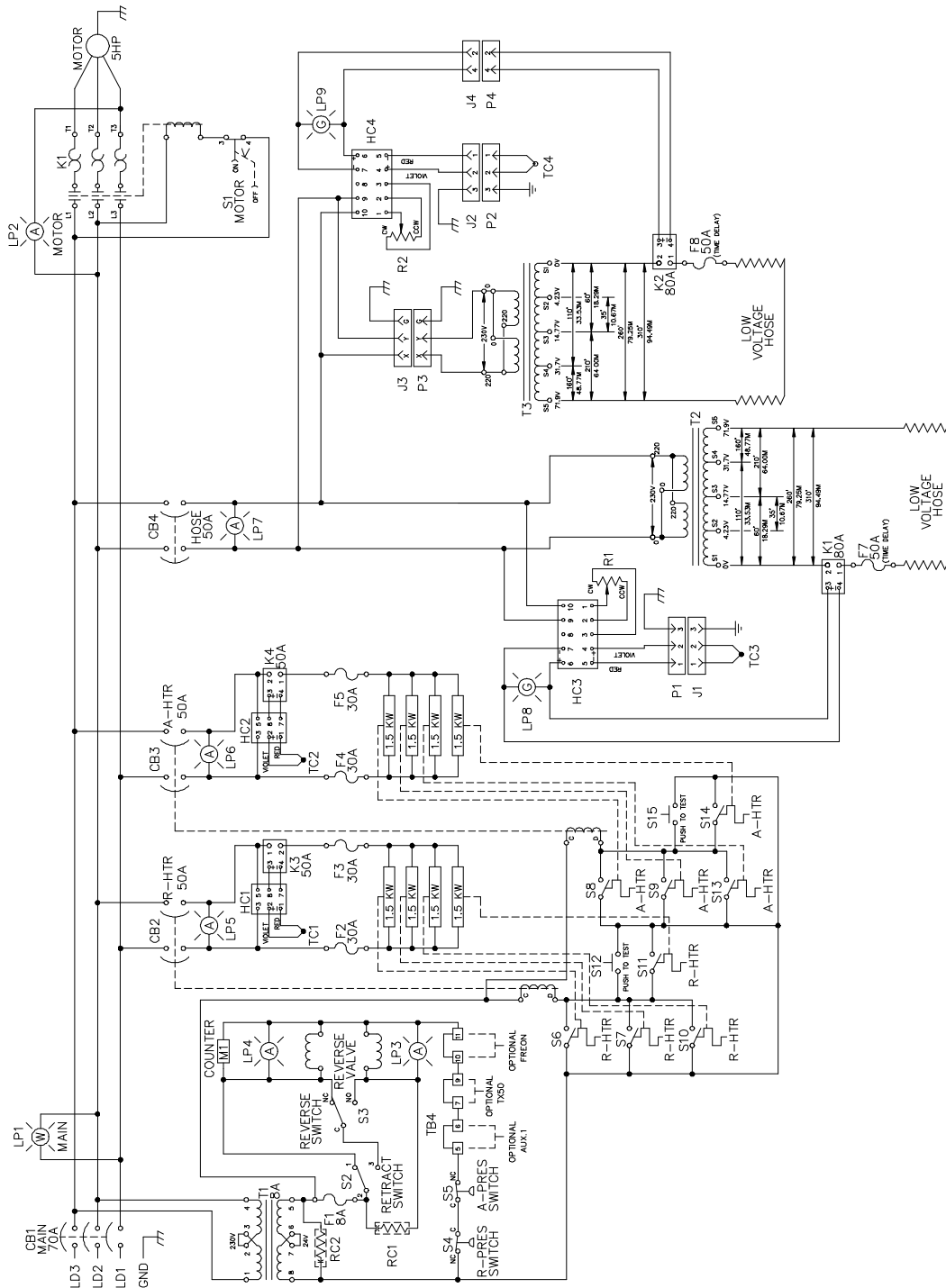


Figure 33. H-2000 Dual Transformer 220V Three Phase

Dual Transformer 380V Three Phase

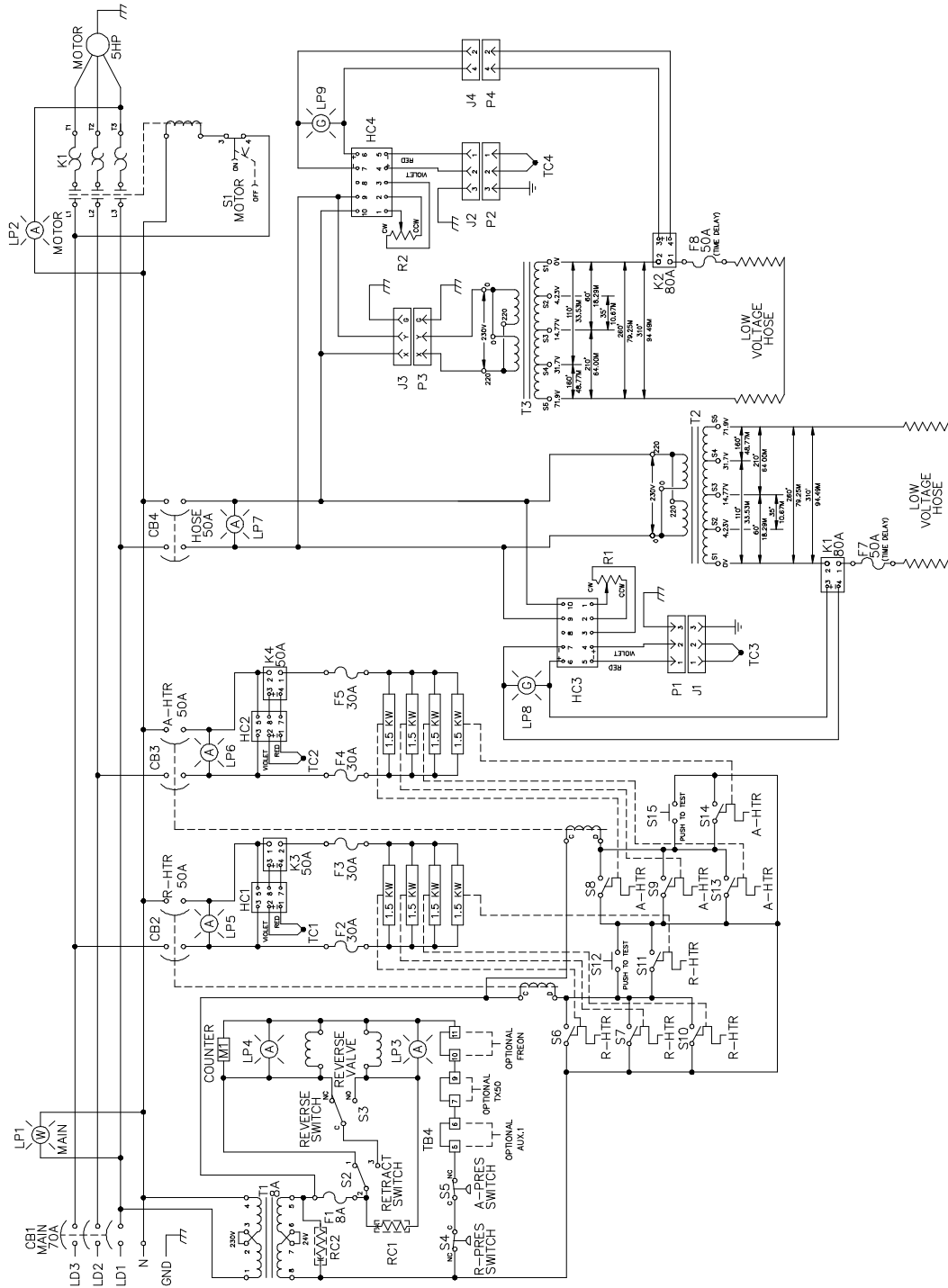


Figure 34. H-2000 Dual Transformer 380V Three Phase

**TABLE 40. ELECTRICAL SCHEMATIC, PARTS LIST**

Reference Number	Part No.	Description
CBI	6690-25-3	110 AMP Circuit Breaker (1 Phase)
	5601A-1	70 AMP Circuit Breaker (3 Phase)
CB2, CB3	6690-25-4	50 AMP Circuit Breaker
CB4	6690-25-1	50 AMP Circuit Breaker
F1	6690-24-3	8 AMP Fuse
F2, F3, F4, F5	6651-5	30 AMP Fuse
F7, F8	6690-24-14	50 AMP Fuse
HC1, HC2	6690-26-9	Temperature Controller
HC3, HC4	6690-26-10	Controller
K	6690-27-7	Pwr Contactor 50/60 HZ
	6690-27-10	Overload Relay 30A (5HP, 1PH)
	6690-27-8	Overload Relay 17.5A (5HP, 3PH)
	6690-27-11	Overload Relay 9.5A (5HP 3 x 380V)
K1, K2	6690-1-7	Power Cube 80 AMP
K3, K4	6690-1-5	Power Cube 50 AMP
LP8, LP9	6690-19-10-2	Green Lamp
M1	9651-6-2	Counter
R1, R2	6690-5-14	Potentiometer
RC2	6690-21-2	Quencharc W/Lugs
RC3	6690-21-1	Quencharc
S1	50602-1	Pushbutton Switch 10A
S2	6690-16-6	Toggle Switch
S3	1521-3	Reversing Switch
S4, S5	15516-2200	Pressure Switch
S6, S7, S8, S9, S10, S11 S13, S14	15310-3-1	Thermostat
S12, S15	6651-9	Pushbutton Switch
T1	5611-1	Transformer
T2	9651-6-9	Transformer
T3	15276	Transformer
TC1, TC2	15300-25	Thermocouple
TC3, TC4	20206-12/12	Temperature Sensor