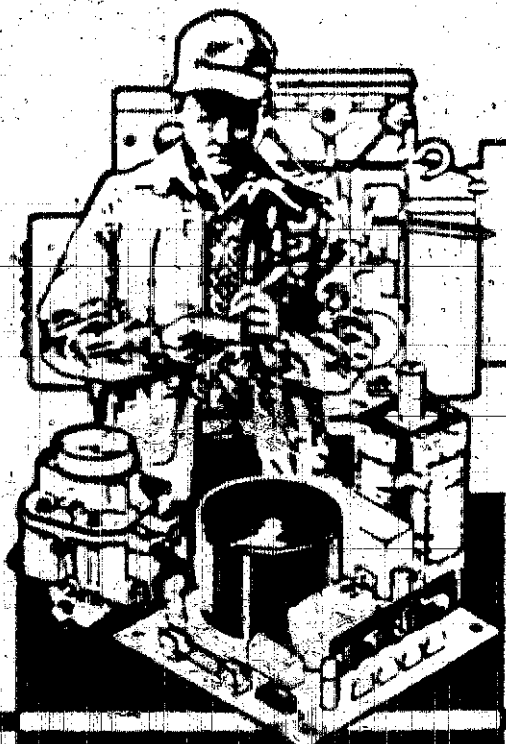


Onan

Parts Manual

DEF GenSet



Onan Service Parts

977-0220
10-85 (SPEC D-L)
Replaces
2-82 (SPEC D-L)

Power
Generation

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Introduction

This Parts Manual applies to the Standard Generator Sets listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column of the parts lists, the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left side of the Set are determined by FACING the engine end (Front) of the Set.

Set Data Table

MODEL IDENTIFICATION	KW RATING	RPM RATING	BATTERY VOLTAGE
37.5 GFI - 7#E	37,500 WATTS	1500 RPM	12 VDC
45.0 GFI - 7#E	45,000 WATTS	1800 RPM	12 VDC

Electrical Data Table

VOLTAGE CODES	VOLTS	HERTZ	WIRE	PHASE	NOTES
	120/240	60			
	240/480	60			
	240/380	60			
	347/600	60			
	120/240	60			
	120/208	60			
	110/240				
	127/220				
	139/240				
	240/415				
	254/440				
	297/480				
53	120/240	50	3	1	
515	110/220	50	12	1	
	115/230				
515	110/190	50	12	3	
	110/220				
	115/200				
	115/230				
	120/208				
	127/220				
	220/380				
	230/400				
	240/415				
	254/440				

Voltage codes follow model letter designations.

* Specification number: number 1 is standard; all others indicate variations.

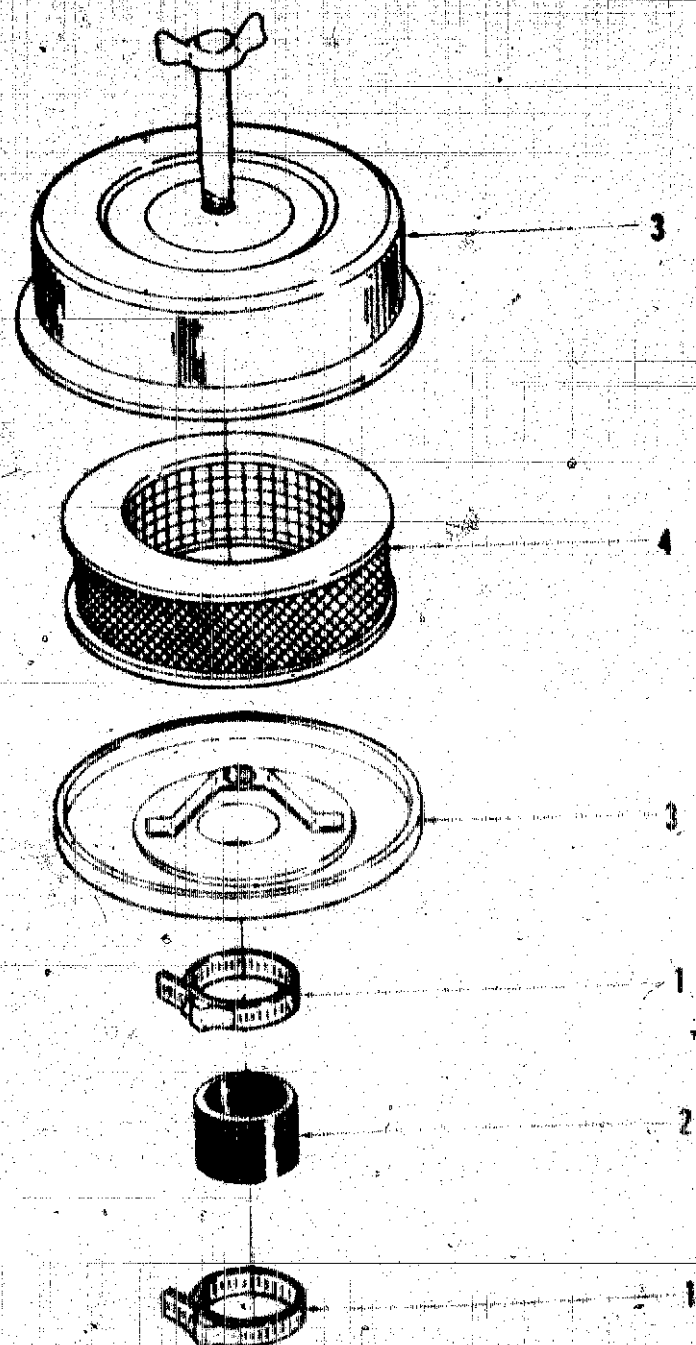
E - Specification letter: letter advances (A to B, B to C, etc.) with major manufacturing changes.

* These generators are reconnectable; refer to Operator's manual for wiring data.

Engine Replacement Parts

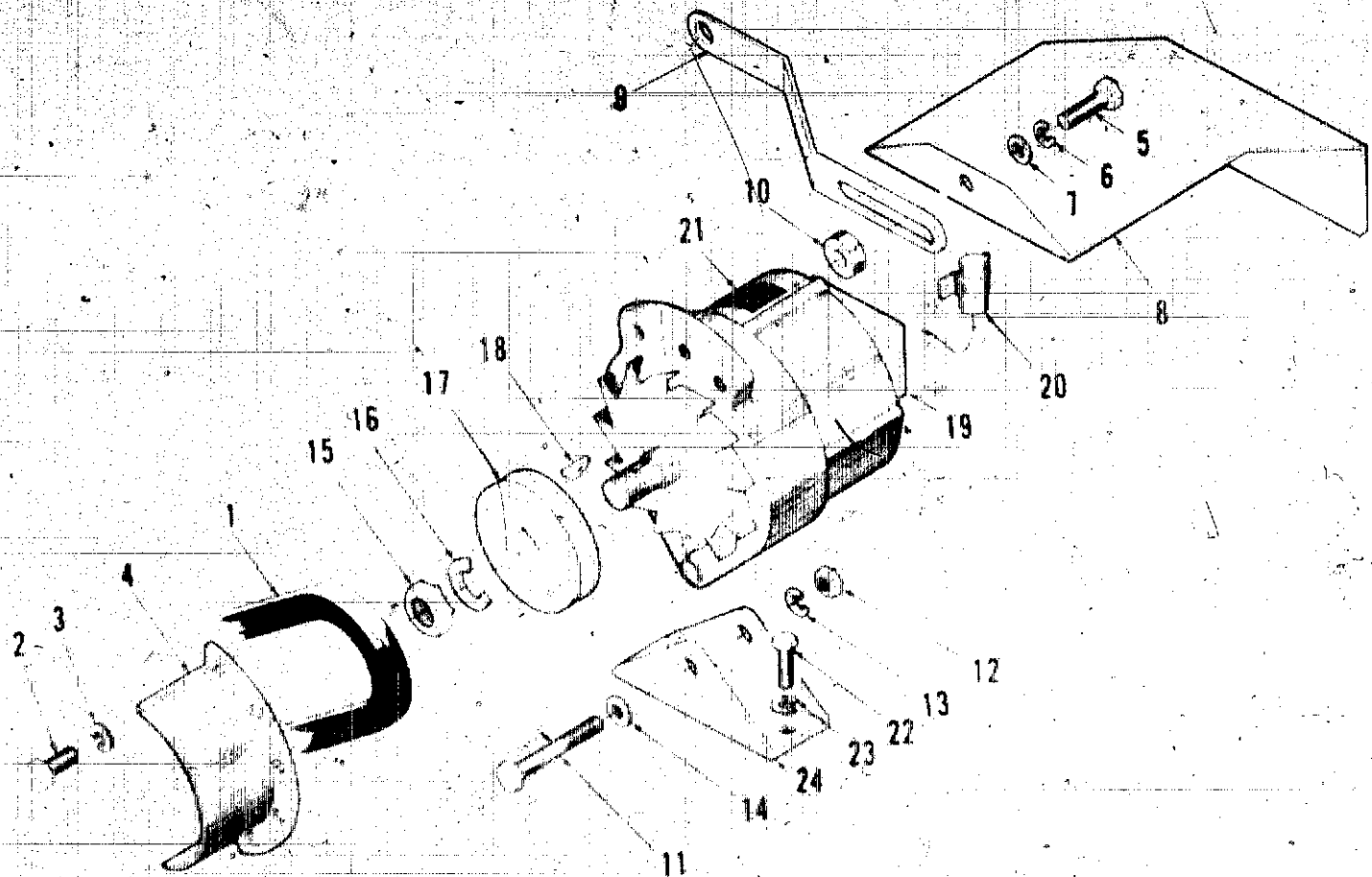
All engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the manufacturer's nameplate and supply the Model, Spec, Serial numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized distributor or parts center, or contact the Onan distributor from whom you purchased this set for assistance in ordering replacement parts.

Air Cleaner



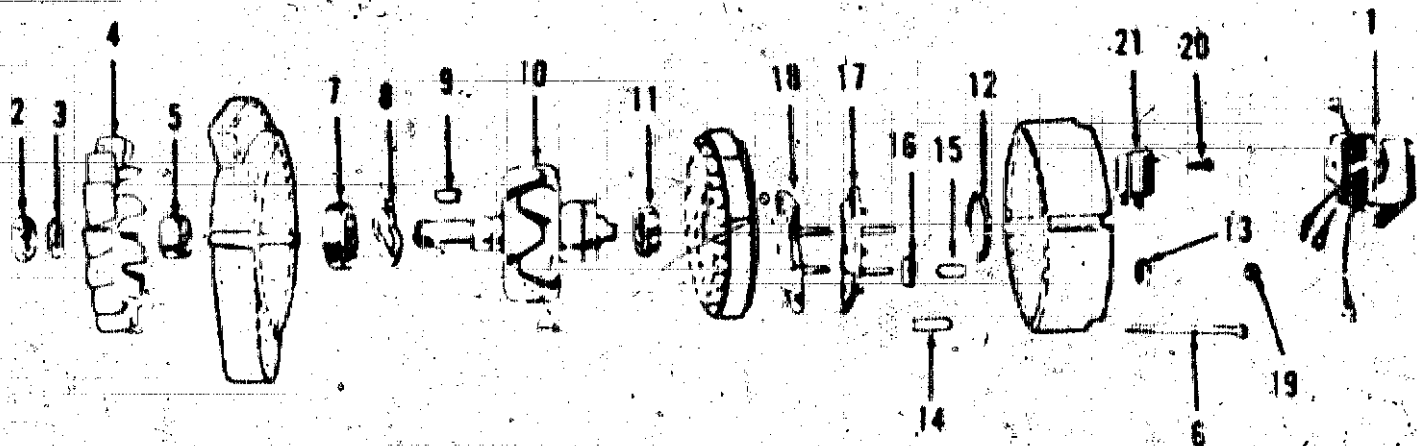
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0354	2	Clamp, Hose
2	501-0597	1	Hose, Rubber
3	140-1091	1	Air Cleaner (includes Element)
4	140-1089	1	Element

Alternator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0084	1	Belt, Drive	13	850-0060	1	Washer, Lock - Spring (1/2")
2	800-0024	1	Screw, Cap - Hex Head (5/16-18 x 1/2")	14	526-0100	1	Washer, Flat (9/16" ID x 1-3/8" OD x 7/64" THK.)
3	850-0045	1	Washer, Lock - Spring (5/16")	15	191-0941	1	Nut, Hex (5/8-18)
4	191-0725	1	Guard, Belt	16	850-0070	1	Washer, Lock - Spring (5/8")
5	800-0030	1	Screw, Cap - Hex Head (5/16-18 x 1-1/4")	17	191-0781	1	Pulley
6	850-0045	1	Washer, lock - Spring (5/16")	18	515-0093	1	Key, Woodruff (#5)
7	526-0030	1	Washer, Flat (5/16")	19	191-1390	1	Regulator, Voltage
8	191-0619	1	Shield, Heat	20	312-0201	1	Capacitor
9	191-0101	1	Strap, Adjusting	21	191-1388	1	Alternator - 12 VDC (See Separate Page for Components)
10	191-0791	1	Spacer	22	800-0050	1	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
11	800-0095	1	Screw, Cap - Hex Head (1/2-13 x 2-1/4")	23	850-0050	1	Washer, Lock - Spring (5/16")
12	862-0016	1	Nut, Hex (1/2-13)	24	191-0786	1	Bracket, Mounting

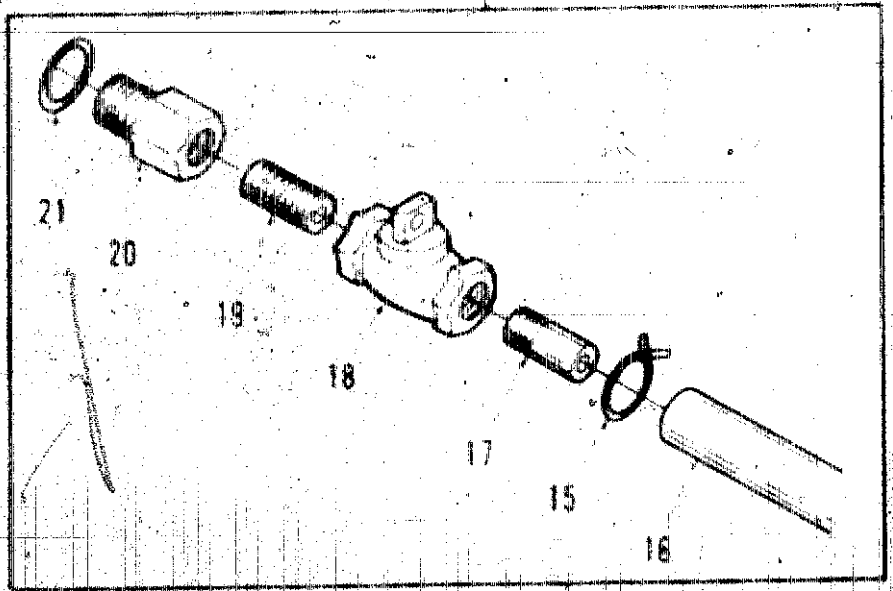
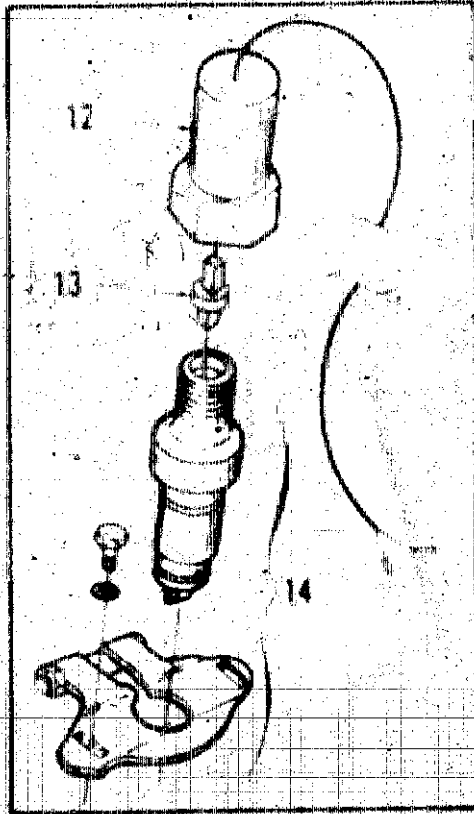
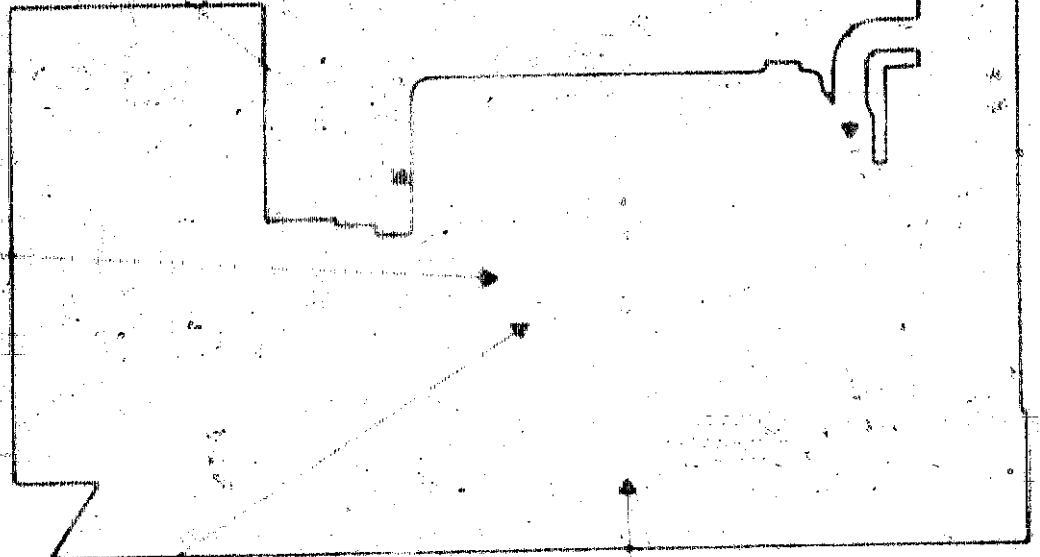
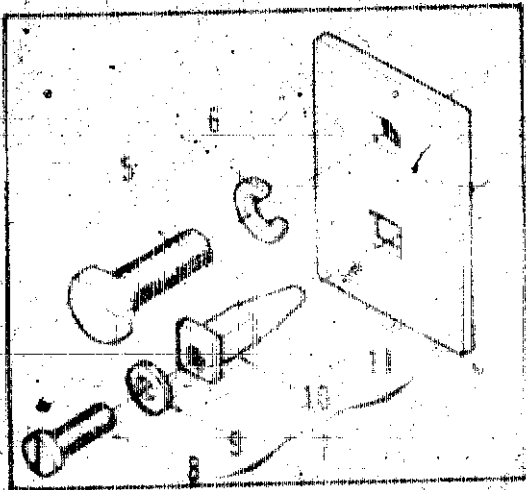
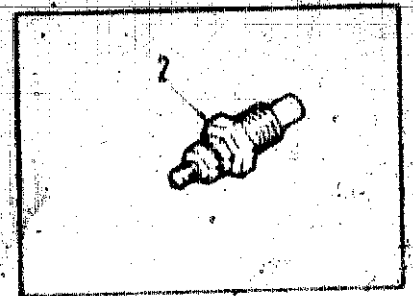
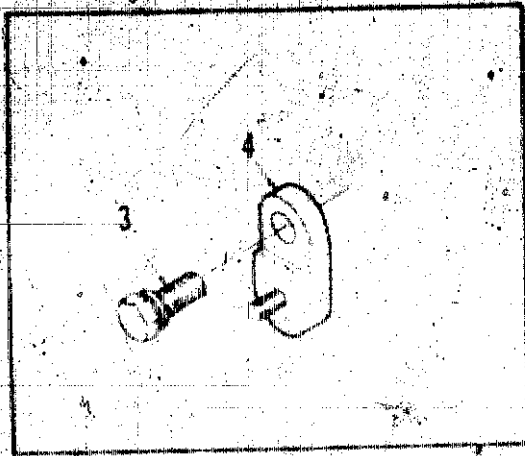
Alternator Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1388	1	Alternator - 12 VDC
1	191-1390	1	Regulator, Voltage - 12 VDC
2	191-0941	1	Nut, Hex (5/8-18)
3	850-0070	1	Washer, Lock - Spring (5/8")
4	191-0943	1	Fan, Cooling
5	191-1693	1	Spacer - Fan
6	191-0963	4	Bolt - Hex Washer Head (#10-32 x 2-55/64")
7	191-1722	1	Bearing, Ball - Front
8	191-0948	1	Retainer, Bearing - Front
9	191-0093	1	Key, Woodruff (#5)
10	191-0950	1	Rotor, Alternator
11	191-1710	1	Bearing, Ball - Rear
12	191-1711	1	Retainer, Bearing - Rear

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
13	191-1703	4	Insulator, Washer (1/4" ID x 3/4" OD x 1/8" THK)
14	191-1702	2	Insulator, Sleeve (#10 ID x 1/3" LG)
15	191-0954	4	Insulator, Sleeve (#10 ID x 19/32" LG)
16	191-0953	4	Insulator, Washer (#10 ID x 3/4" OD x 1/16" THK)
17	191-0661	1	Diode Assembly - Positive
18	191-0662	1	Diode Assembly - Negative
19	852-0001	2	Nut, Hex (1/4-20)
20	191-0957	2	Screw, Tapping - Hex Washer Head (#8 x 1/2")
21	191-1522	1	Brush Assembly

Miscellaneous Engine Parts Left Side



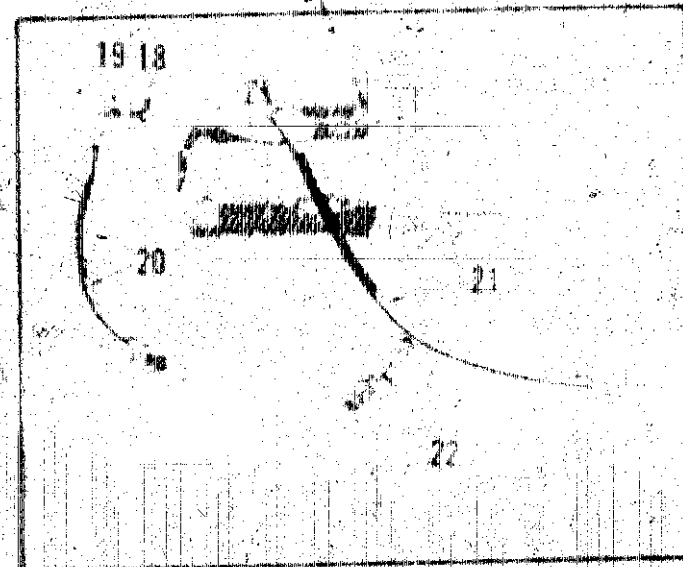
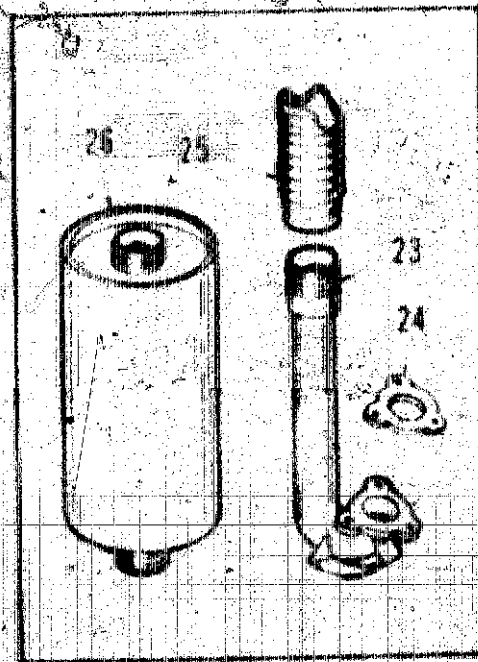
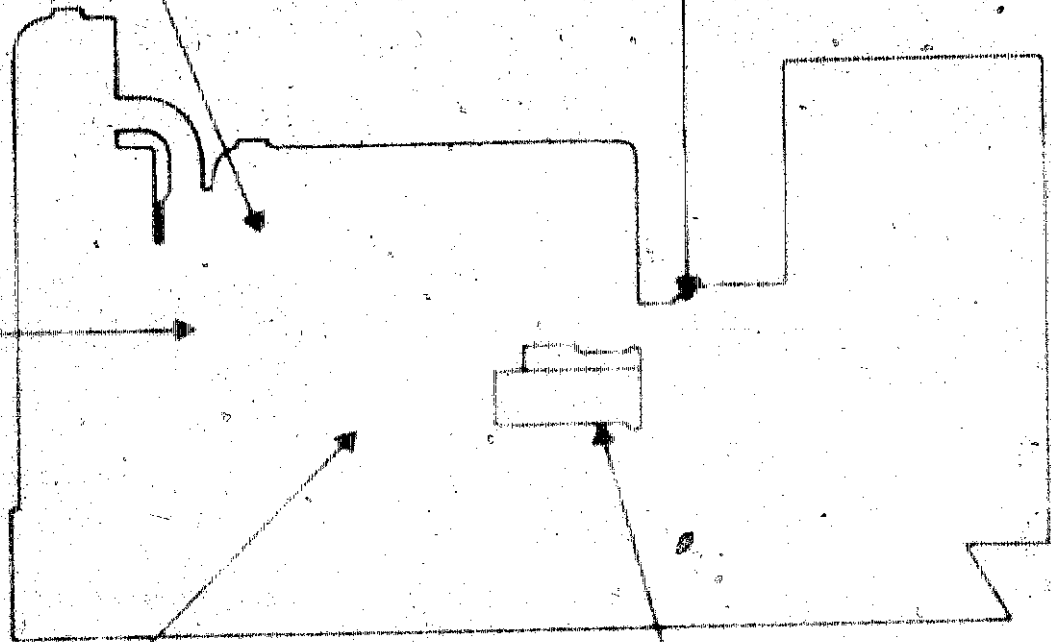
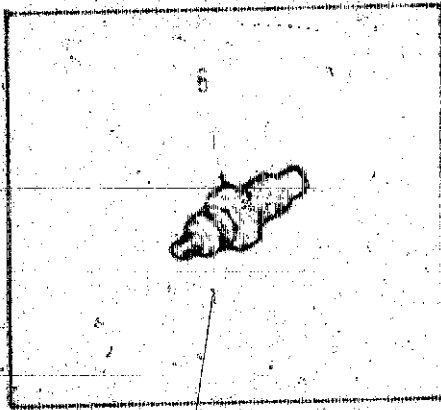
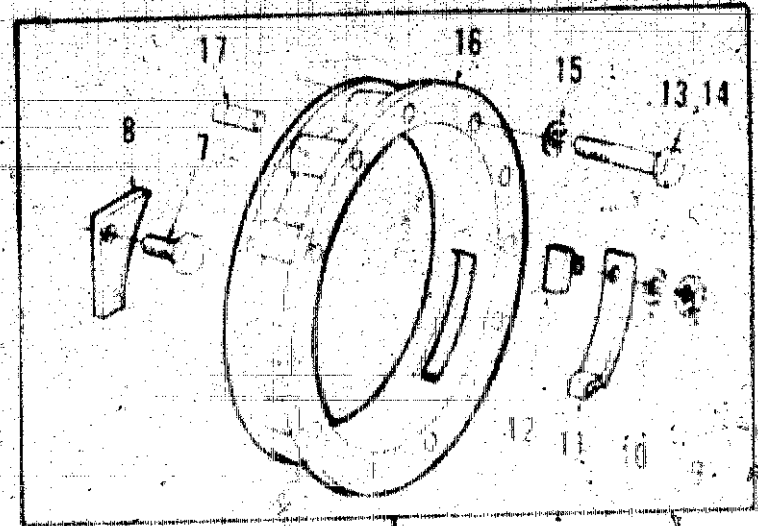
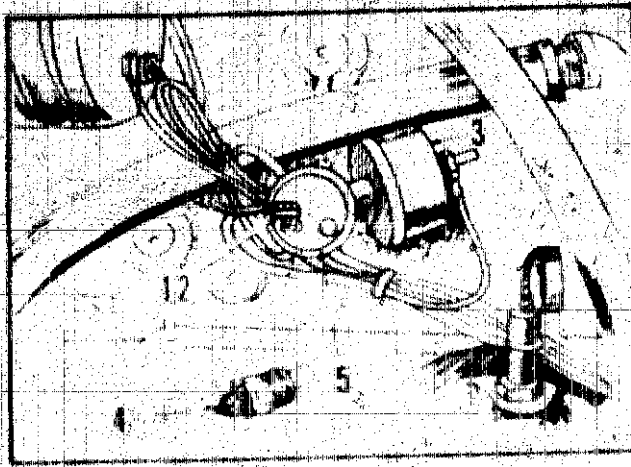
Miscellaneous Engine Parts

Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-0538	1	Harness, Wiring - Engine	10	870-0196	1	*Nut, Insulating (#8)
2	193-0746	1	Sender, Temperature - Water (E2)	11	332-1281	1	*Plate, Mounting - Terminal
	193-0104	1	Begin, Spec K	12	302-0750	1	Sender, Tachometer (G2)
	193-0104	1	Spec Di Thru J	13	302-0751	1	Tang, Drive - Tach Sender
3	R21-0029	1	Screw, Self-locking - Hex	14	302-0757	1	Drive - Tach
			Washer Head (3/8-16 x 3/4")	15	503-0131	1	Clamp, Hose
4	309-0269	1	Switch, Temperature - Engine (S5)	16	503-0891	1	Hose, Rubber
5	R00-0047	1	Screw, Cap - Hex Head	17	505-0135	1	Nipple, Pipe - Half
			(3/8-16 x 5/8")				(3/8 NPT x 1-1/2" LG)
6	R56-0010	1	Washer, lock - FIT (3/8")	18	504-0030	1	Valve (3/8 NPT)
7	332-1292	1	Terminal Board (Includes Parts	19	505-0101	1	Nipple, Pipe - Close
			Marked *)				(3/8 NPT x 1" LG)
8	R09-0035	1	*Screw, Thread Cutting - Round	20	102-0619	1	Adapter, Pipe - Hex
			Head (#8 x 3/4")	21	102-0532	1	Gasket
9	508-0015	1	*Washer, Insulating (#8)				

* Parts Included In Terminal Board.

Miscellaneous Engine Parts Right Side

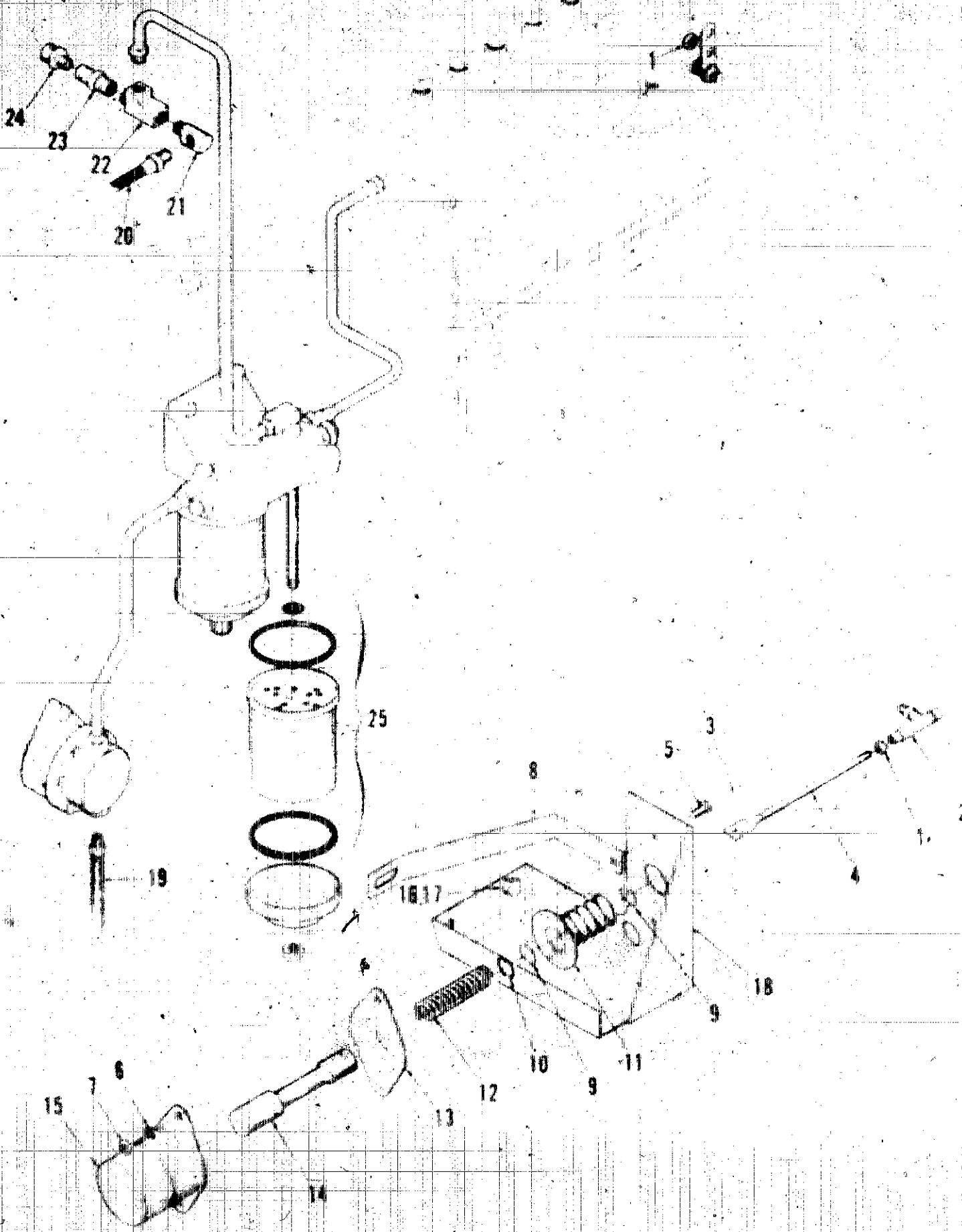


Miscellaneous Engine Parts **Right Side**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	309-0064	1	Switch, Pressure - Oil (S1) (Shutdown))	8	191-0802	1	Cover, Access - Starter
2	309-0169	1	Switch, Pressure - Oil (S6) (Pre-Alarm)	9	862-0001	2	Nut, Hex (1/4-20)
3			Sender, Pressure - Oil (E1)	10	850-0040	2	Washer, Lock - Spring (1/4")
	193-0244	1	Begin Spec K	11	232-2210	2	Cover, Access - Generator Adapter
	193-0108	1	Spec D Thru J	12	232-2211	2	Catch, Access Cover
4			Sender, Temperature - Oil (E4)	13	800-0072	8	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
	193-0249	1	Begin Spec K	14	800-0076	1	Screw, Cap - Hex Head (7/16-14 x 2-1/4")
	193-0188	1	Spec D Thru J	15	850-0055	9	Washer, Lock - Spring (7/16")
5			Mounting Items For Senders	16	231-0149	1	Adapter, Generator
	505-0059	1	Tee, Pipe (1/8 NPT)	17	516-0152	2	Pin, Dowel - Alignment
	505-0763	1	Cross, Pipe (1/8 NPT)	18	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4"LG)	19	856-0012	1	Washer, Lock EIT (7/16")
	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	20	416-0530	1	Cable, Battery - Negative
6			Switch, Thermostatic - Water	21	416-0531	1	Cable, Battery - Positive
	309-0312	1	Begin Spec K (Shutdown) (S2)	22	416-0446	1	Cable, Battery - Jumper
	309-0179	1	Spec D Thru J (Shutdown) (S2)	23	155-1116	1	Elbow, Exhaust
	309-0178	1	Pre-Alarm (S7)	24	155-1975	1	Gasket
7	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")	25	155-0633	1	Tube, Exhaust
				26	155-0917	1	Muffler, Exhaust

Fuel System

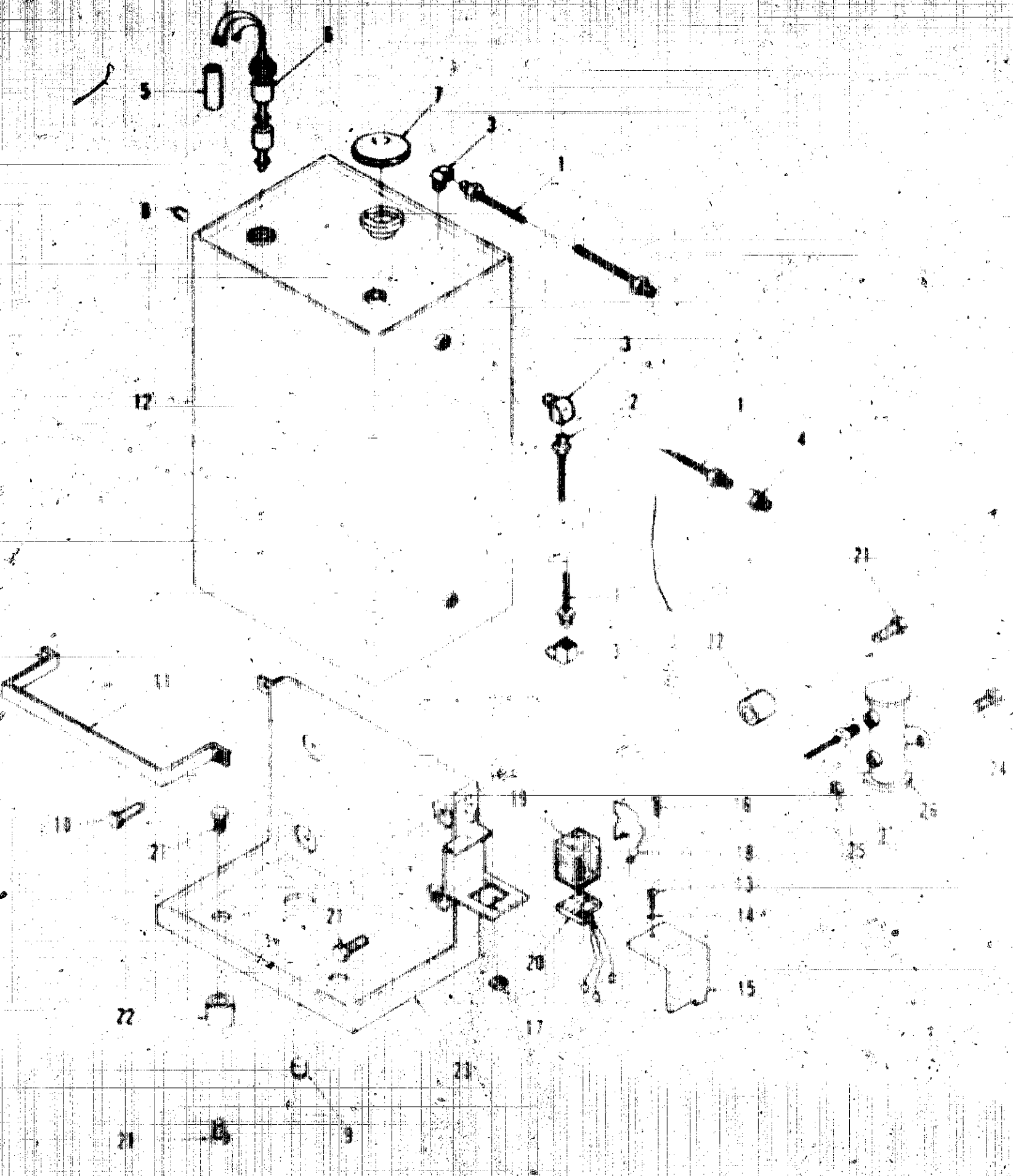
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Fuel System

REF. NO.	PART NO.	QTY USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY USED	PART DESCRIPTION
1	115-0025	2	Nut, Hex (1/4-20)	15	307-0628	1	Solenoid - 12 VDC K1
2	150-0638	1	Ball Joint	16	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
3	516-0103	1	Pin, Roll	17	850-0055	2	Washer, Lock - Spring (7/16")
4	306-0218	1	Rod	18	306-0214	1	Bracket, Mounting - Solenoid
5	812-0150	2	Screw, Machine - Round Head (1/4-20 x 5/8")	19	501-0227	1	Pipe, Fuel - Flexible (24" LG)
6	850-0040	2	Washer, Lock - Spring (1/4")	20	501-0225	1	Pipe, Fuel - Flexible (45" LG)
7	862-0001	1	Nut, Hex (1/4-20)	21	502-0020	1	Elbow, Pipe - Street, 90 DEG (1/8 NPT)
8	306-0226	1	Brace	22	502-0361	1	Teel (1/8 NPT)
9	518-0218	2	Ring, Retaining	23	502-0051	1	Coupling, Pipe (1/8 NPT)
10	518-0203	1	Ring, Retaining	24	502-0193	1	Adapter, Pipe (1/8 NPT x 1/2-20)
11	306-0193	1	Cover	25	149-1697	2	Element, Fuel Filter (Includes Gaskets)
12	306-0161	1	Spring				
13	306-0162	1	Spacer				
14	306-0227	1	Plunger				

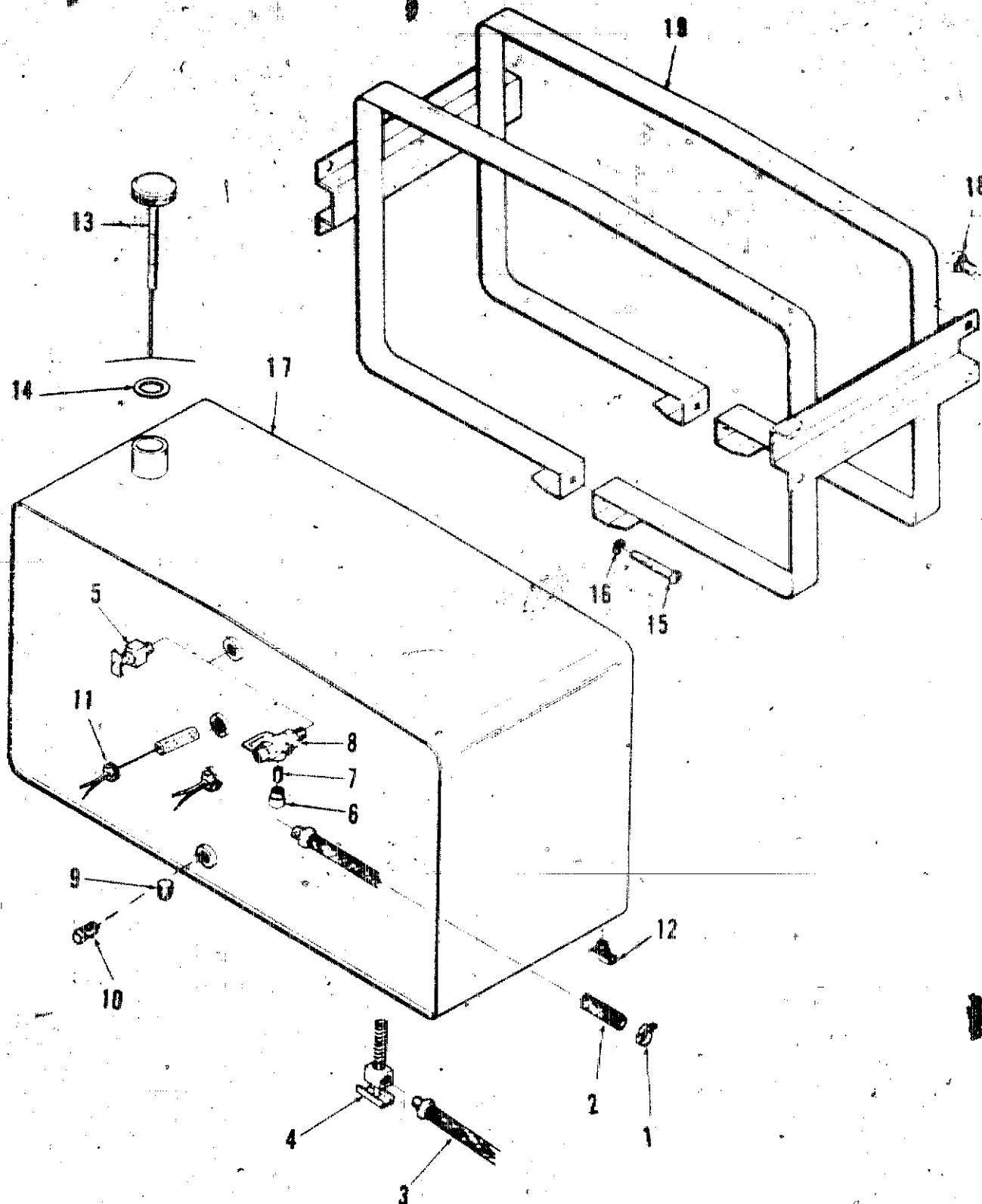
Day Tank



Day Tank

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0008	2	Line, Fuel - Flexible (32"LG)	17	870-1183	2	Nut, Hex W/ET Lockwasher (#6-32)
2	501-0015	1	Line, Fuel - Flexible (16"LG)	18	307-1157	1	Spring, Holddown - Relay
3	502-0041	3	Elbow, Pipe - Street, 90 DEG, Brass (1/4 NPT)	19	307-1058	1	Relay
4	502-0051	1	Coupling, Pipe - Brass (1/4 NPT)		307-1056	1	12 VDC
5	332-0556	4	Splice, Electrical	20	323-0765	1	24 VDC
6	4150321	1	Switch, Float		323-1280	1	Socket, Relay - Less Terminals
7	159-0007	1	Cap, Fuel Tank	21	821-0014	11	Terminal
8	505-0054	1	Plug, Pipe - Square Head (1/4 NPT)			8	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
9	505-01001	1	Plug, Pipe - Square Head (3/8 NPT)	22	402-0070	4	Mount, Vibration
10	821-0013	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1")	23	415-0324	1	Bracket, Mounting
11	415-0323	1	Strap, Retaining	24	821-0018	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 5/8")
12	415-0325	1	Tank, Fuel	25	870-0212	2	Nut, Self-Locking - Hex Washer Head (1/4-20)
13	813-0098	1	Screw, Machine - Round Head (#10-32 x 3/8")	26			Pump, Fuel - Electric
14	850-0030	1	Washer, Lock - Spring (#10)		149-1830	1	12 VDC
15	415-0326	1	Cover, Relay		149-1831	1	24 VDC
16	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")				

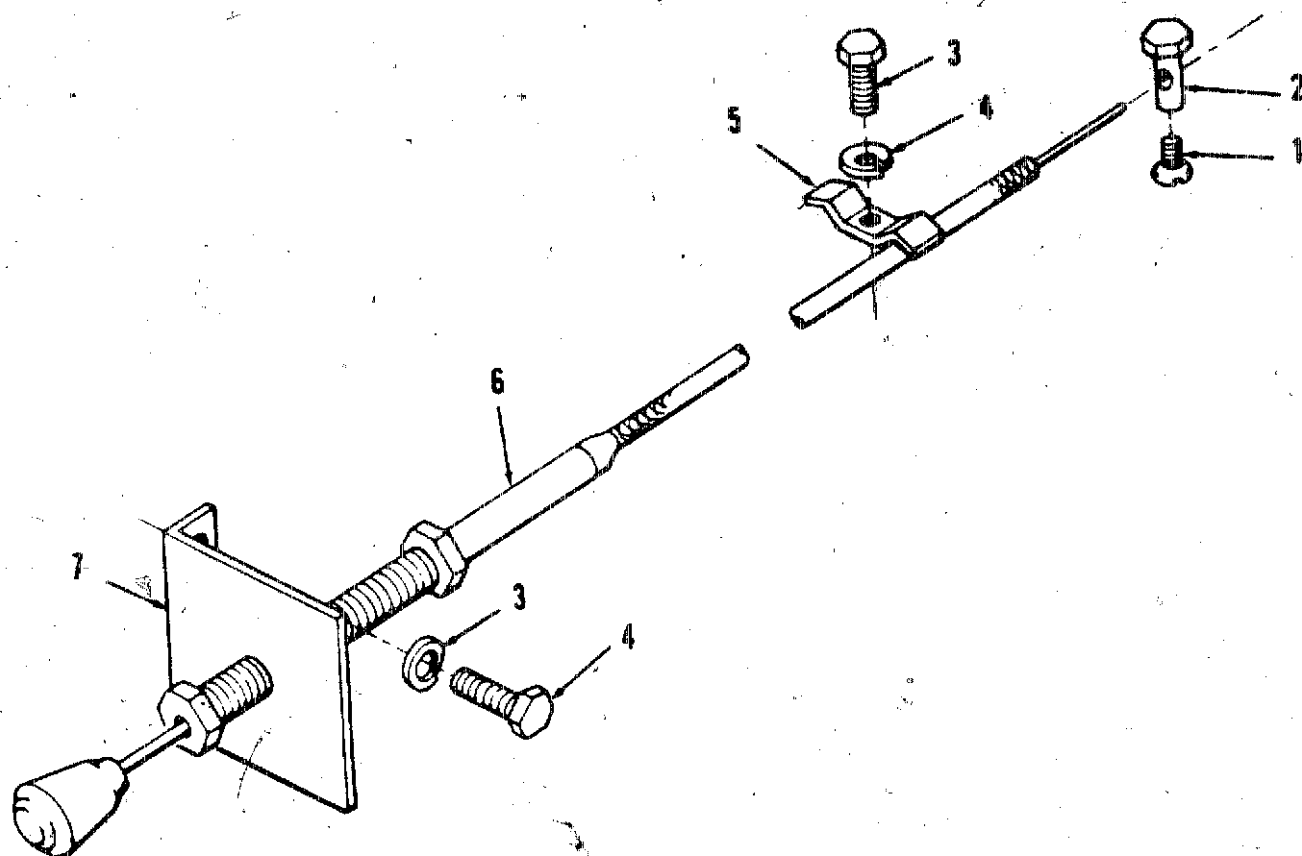
Fuel Tank



Fuel Tank

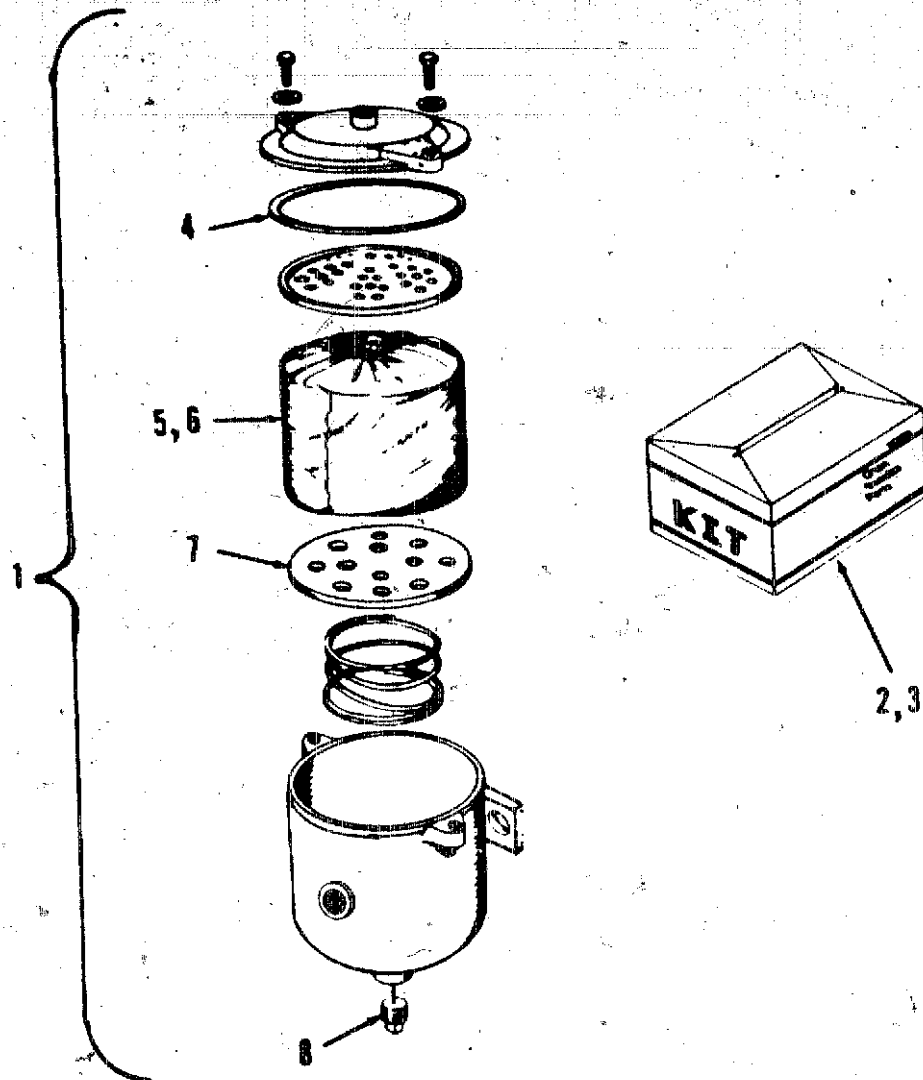
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0685	1	Clamp, Hose	9	505-0057	1	Plug, Pipe - Square Head (1/8 NPT)
2	501-0104	1	Line, Fuel - Flexible 48"LG	10	505-0130	2	Plug, Pipe - Square Head (3/4 NPT)
	501-0205	1	72"LG	11	309-0326	2	Switch, Fuel Level
3	501-0004	1	Line, Fuel - Flexible 12"LG	12	504-0005	1	Cock, Drain (1/8 NPT)
	501-0007	1	24"LG	13	159-0512	1	Cap and Indicator, Fuel (Includes Gasket)
	501-0009	1	36"LG	14	159-0751	1	Gasket, Fuel Tank Neck
	501-0027	1	48"LG	15	812-0158	2	Screw, Machine - Round Head (1/4-20 x 2")
	501-0016	1	52"LG	16	850-0040	2	Washer, Lock - Spring (1/4")
	501-0094	1	60"LG	17	159-0490	1	Tank, Fuel - 20 GAL (Excludes Cap)
	501-0017	1	64"LG		159-1025	1	Two Fuel Ports
	501-0247	1	69"LG		159-1103	1	Three Fuel Ports
4	504-0012	1	Valve, Shutoff - W/Screen (1/8 NPT)			1	Three Fuel Ports & Two Switch Ports
5	504-0007	1	Valve, Shutoff (1/8 NPT)	18	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
6	502-0017	1	Connector, Line	19	159-0489	1	Strap Assembly
7	502-0046	1	Nipple, Pipe - Close, Brass (1/8 NPT x 3/4"LG)				
8	504-0004	2	Valve, Shutoff - 3 Way (1/8 NPT)				

Vernier Throttle



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0075	1	Screw, Machine - Round Head (#8-32 x 1/2")
2	152-0158	1	Swivel
3	800-0005	3	Screw, Cap - Hex Head (1/4-20 x 3/4")
4	850-0040	3	Washer, Lock - Spring (1/4")
5	152-0036	1	Clamp, Holddown - Cable
6	152-0120	1	Throttle, Control - Vernier
7	151-0230	1	Bracket, Mounting

Filter - Coolant



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-0497	1	Filter, Coolant (Includes Parts marked @)
2	130-0771	1	Kit, Element - Water (Includes Parts Marked *)
3	130-0772	1	Kit, Element - Anti-freeze (Includes Parts Marked #)
4	130-0778	1	*@Gasket, Cover
5	130-0775	1	*@Element, Filter (Water)
6	130-0776	1	#Element, Filter (Anti-Freeze)
7	130-0780	1	*#@Plate, Sacrificial
8	502-0155	1	@Plug, Pipe - Brass (3/8 NPT)

@ - Parts included in Coolant Filter
 * - Parts included in Element (Water) Kit.
 # - Parts included in Element (Anti-freeze) Kit.

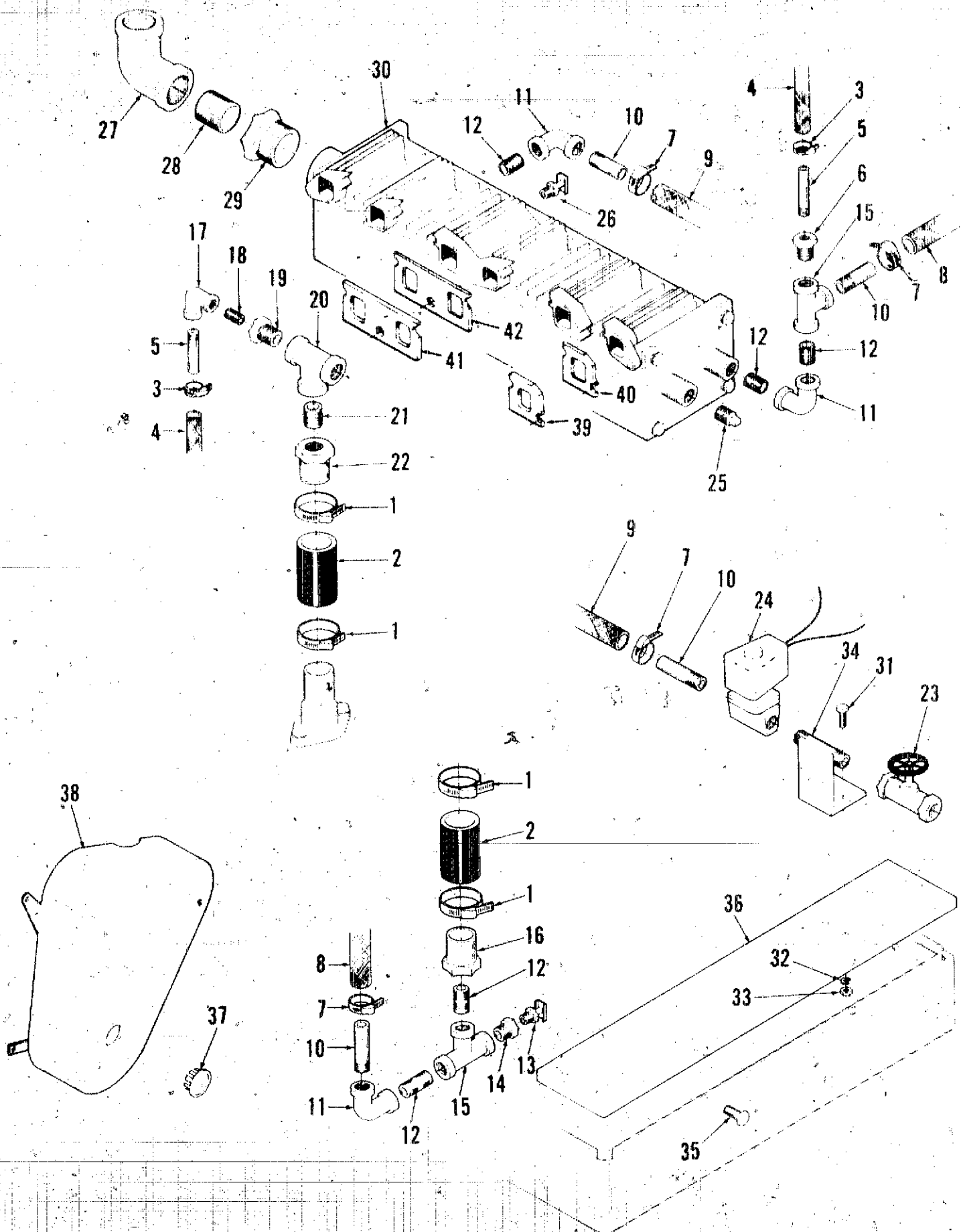
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Cooling System Radiator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0181	8	Screw, Cap - Hex Head, Thread Cutting, with ET Lockwasher (#10-32 x 1/2")	11	821-0014	12	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
2	130-0352	1	Guard, Fan - Right Side	12	870-0114	12	Nut, Retainer (5/16-18)
3	130-0351	1	Guard, Fan - Left Side	13	130-0713	1	Radiator (Includes Cap)
4	801-0024	4	Screw, Cap - Hex Head (5/16-24 x 1/2")	14	130-0449	1	Cap, Radiator
5	850-0045	4	Washer, Lock - Spring (5/16")	15	815-0181	10	Screw, Cap - Hex Head, Thread Cutting, with ET Lockwasher (#10-32 x 1/2")
6	130-0605	1	Fan	16	405-1054	1	Flange, Air Duct
7	503-0311	3	Clamp, Hose	17	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
8	503-0365	1	Clamp, Hose	18	504-1811	1	Panel, Housing - Front
9			Hose, Rubber - Preformed	19	130-2217	2	Bracket, Mounting - Radiator
	503-0441	1	Lower	20	514-0075	1	Belt, Drive
	503-0441	1	Upper				
10	504-0028	1	Cock, Drain (3/8 NPT)				

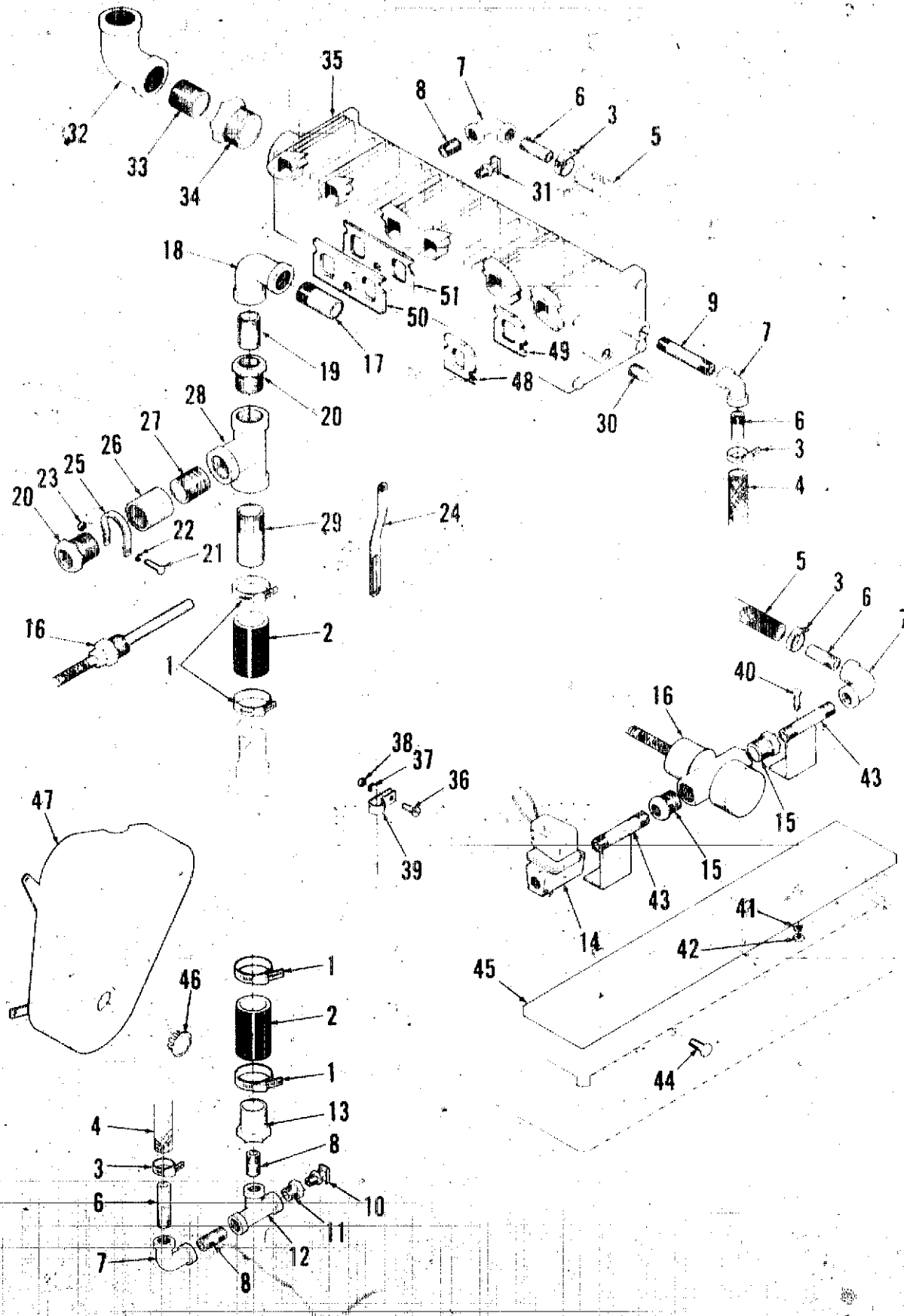
Cooling System City Water & Wet Manifold (Non - Regulated)



Cooling System **City Water & Wet Manifold** **(Non-Regulated)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0311	4	Clamp, Hose	22	110-1543	1	Adapter
2	503-0884	1	Hose, Rubber	23	504-0019	1	Valve, Globe (1/2 NPT)
3	503-0183	2	Clamp, Hose	24	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)
4	503-0285	1	Hose, Rubber	25	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
5	505-0302	2	Nipple, Pipe - Half (1/4 NPT x 1-1/2"LG)	26	504-0005	1	Cock, Drain (1/8 NPT)
6	505-0018	2	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)	27	505-0175	1	Elbow, Pipe - 90 DEG (2 NPT)
7	503-0189	4	Clamp, Hose	28	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)
8	503-0568	1	Hose, Rubber	29	505-0207	1	Bushing, Reducer (2-1/2 NPT x 2 NPT)
9	503-0200	1	Hose, Rubber	30	154-0889	1	Manifold, Liquid Cooled (Includes End Plates & Gaskets)
10	505-0185	4	Nipple, Pipe - Half (1/2 NPT x 1-1/2"LG)	31	800-0007	2	Screw, Cap - Hex Head (1/4-20 x 1")
11	505-0040	3	Elbow, Pipe - 90 DEG (1/2 NPT)	32	850-0040	2	Washer, Lock - Spring (1/4")
12	505-0100	4	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	33	862-0001	2	Nut, Hex (1/4-20)
13	504-0028	1	Cock, Drain (3/8 NPT)	34	110-0526	1	Bracket, and Nipple Assembly
14	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	35	821-0014	6	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
15	505-0108	1	Tee, Pipe (1/2 NPT)	36	130-0499	1	Plate, Mounting
16	110-0576	1	Adapter	37	517-0009	1	Plug, Button
17	505-0038	1	Elbow, Pipe - 90 DEG (1/4 NPT)	38	130-0785	1	Guard, Belt
18	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)	39	154-2421	4	Shim
19	505-0020	1	Bushing, Reducer - Hex (3/4 NPT x 1/4 NPT)	40	154-2423	4	Gasket
20	505-0166	1	Tee, Pipe (3/4 NPT)	41	154-2422	1	Shim
21	505-0102	2	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	42	154-2424	1	Gasket

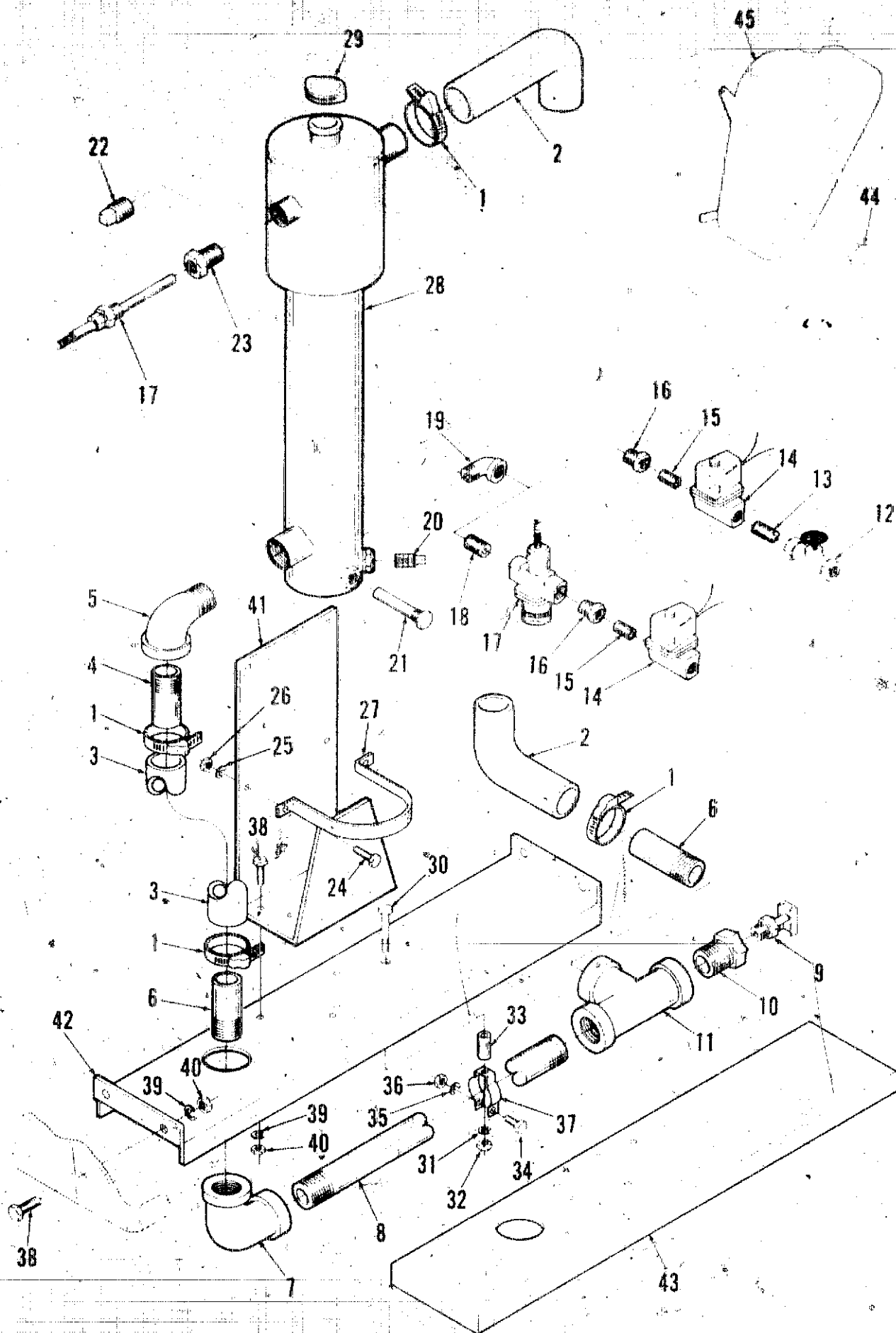
Cooling System City Water & Wet Manifold (Regulated)



Cooling System **City Water & Wet Manifold** **(Regulated)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0311	4	Clamp, Hose	25	130-0522	1	Clamp, Loop
2	503-0826	1	Hose, Rubber	26	505-0032	1	Coupling, Pipe (1-1/2 NPT)
3	503-0189	2	Clamp, Hose	27	505-0642	1	Nipple, Pipe (1-1/2 NPT x 4"LG)
4	503-0568	1	Hose, Rubber	28	505-0317	1	Tee, Pipe (1-1/2 NPT)
5	503-0200	1	Hose, Rubber	29	505-0385	1	Nipple, Pipe - Half (1-1/2 NPT x 2"LG)
6	505-0185	4	Nipple, Pipe - Half (1/2 NPT x 1-1/2"LG)	30	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
7	505-0040	4	Elbow, Pipe - 90 DEG (1/2 NPT)	31	504-0005	1	Cock, Drain (1/8 NPT)
8	505-0100	3	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	32	505-0175	1	Elbow, Pipe - 90 DEG (2 NPT)
9	505-0176	1	Nipple, Pipe (1/2 NPT x 3-1/2"LG)	33	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)
10	504-0028	1	Cock, Drain (3/8 NPT)	34	505-0207	1	Bushing, Reducer (2-1/2 NPT x 2 NPT)
11	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	35	154-0889	1	Manifold, Liquid Cooled (Includes End Plates & Gaskets)
12	505-0108	1	Tee, Pipe (1/2 NPT)	36	812-0079	1	Screw, Machine - Round Head (#8-32 x 1/2")
13	110-0576	1	Adapter	37	850-0025	1	Washer, Lock - Spring (#8)
14	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	38	860-0008	1	Nut, Hex (#8-32)
15	505-0021	2	Bushing, Reducer - Hex (3/4 NPT x 1/1 NPT)	39	322-0050	1	Clamp, Loop
16	309-0241	1	Valve, Control - Temperature Regulating	40	800-0027	4	Screw, Cap - Hex Head (5/16-18 x 7/8")
17	505-0324	1	Nipple, Pipe - Half (3/4 NPT x 2"LG)	41	850-0045	4	Washer, Lock - Spring (5/16")
18	505-0132	1	Elbow, Pipe - 90 DEG (3/4 NPT)	42	862-0015	4	Nut, Hex (5/16-18)
19	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	43	110-0526	1	Bracket and Nipple Assembly
20	505-0289	2	Bushing, Reducer - Hex (1-1/2 NPT x 3/4 NPT)	44	821-0014	6	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
21	800-0005	1	Screw, Cap - Hex Head (1/4-20 x 3/4")	45	130-0499	1	Plate, Mounting
22	850-0040	1	Washer, Lock - Spring (1/4")	46	517-0009	1	Plug, Button
23	862-0001	1	Nut, Hex (1/4-20)	47	130-0785	1	Guard, Belt
24	191-0101	1	Strap, Adjusting - Alternator	48	154-2421	4	Shim
				49	154-2423	4	Gasket
				50	154-2422	1	Shim
				51	154-2424	1	Gasket

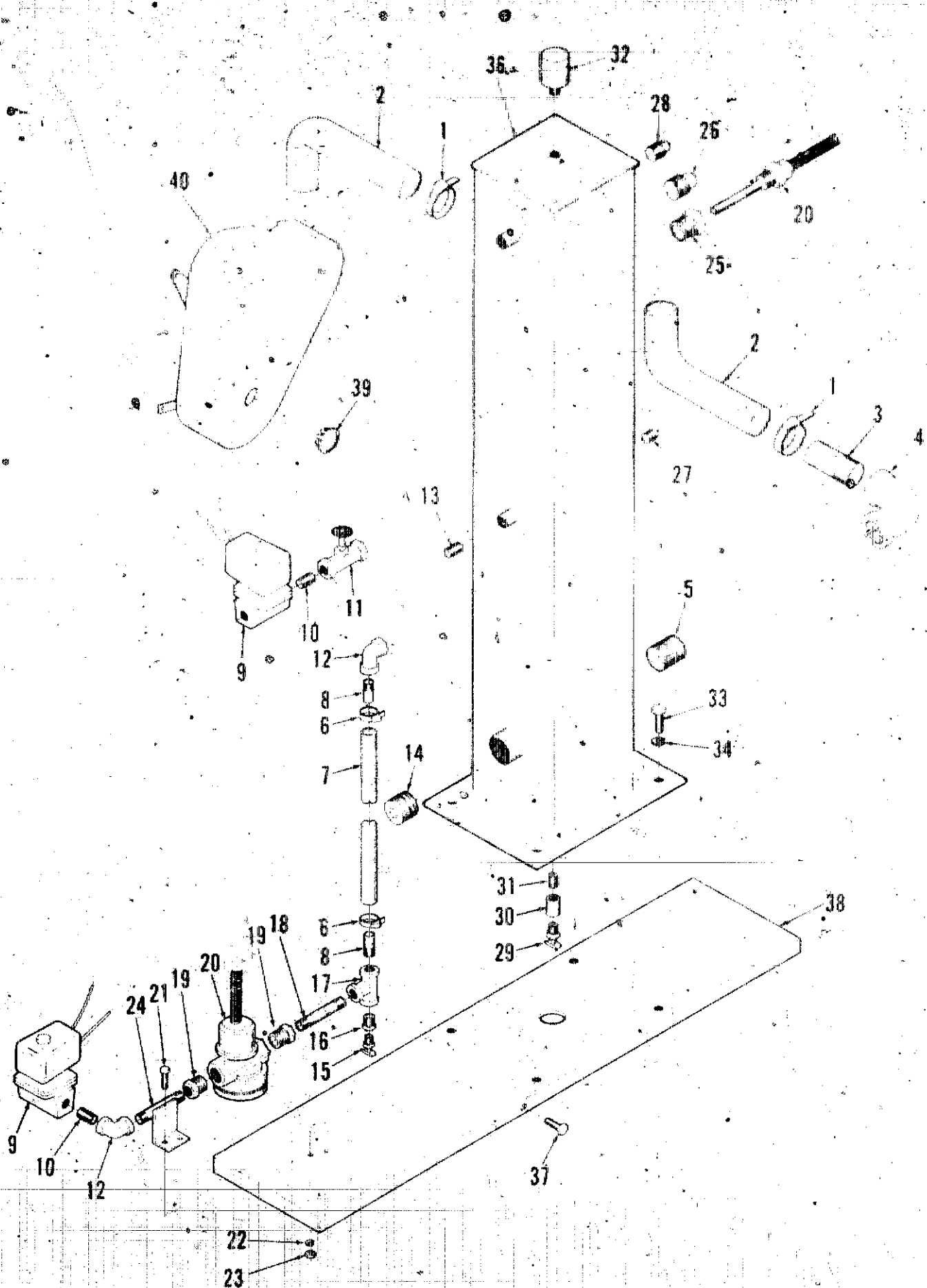
Cooling System City Water & Heat Exchanger



Cooling System City Water & Heat Exchanger

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0311	6	Clamp, Hose	20	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)
2	503-0441	2	Hose, Rubber - Preformed	21	130-1340	1	Pencil, Zinc
3	503-0827	1	Hose, Rubber	22	505-0140	1	Plug, Pipe - Square Head (1 NPT)
4	505-0444	1	Nipple, Pipe - Half (1-1/2 NPT x 2-1/4"LG)	23	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)
5	505-0462	1	Elbow, Pipe - Street, 90 DEG (1-1/2 NPT)	24	800-0004	4	Screw, Cap - Hex Head (1/4-20 x 5/8")
6	505-0628	1	Nipple, Pipe - Half (1-1/2 NPT x 3"LG)	25	850-0040	4	Washer, Lock - Spring (1/4")
7	505-0043	1	Elbow, Pipe - 90 DEG (1-1/2 NPT)	26	862-0001	1	Nut, Hex (1/4-20)
8	505-0424	1	Nipple, Pipe (1-1/2 NPT x 16-1/2"LG)	27	130-0802	2	Strap, Retaining
9	504-0003	1	Cock, Drain (1/4 NPT)	28	130-0796	1	Exchanger, Heat (Includes Cap)
10	505-0426	1	Bushing, Reducer - Hex (1-1/2 NPT x 1/4 NPT)	29	130-0661	1	Cap, Radiator
11	505-0317	1	Tee, Pipe (1-1/2 NPT)	30	800-0012	1	Screw, Cap - Hex Head (1/4-20 x 2-1/4")
12	504-0019	1	Valve, Globe (1/2 NPT)	31	850-0040	1	Washer, Lock - Spring (1/4")
13	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	32	862-0001	1	Nut, Hex (1/4-20)
14	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	33	232-1197	1	Spacer, Sleeve
15	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	34	800-0004	1	Screw, Cap - Hex Head (1/4-20 x 5/8")
16	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	35	850-0040	1	Washer, Lock - Spring (1/4")
17	309-0241	1	Valve, Control - Temperature Regulating	36	862-0001	1	Nut, Hex (1/4-20)
18	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	37	331-0142	1	Hanger, Pipe
19	505-0691	1	Elbow, Pipe - Street, 45 DEG (3/4 NPT)	38	800-0026	9	Screw, Cap - Hex Head (5/16-18 x 3/4")
				39	850-0045	9	Washer, Lock - Spring (5/16")
				40	862-0015	9	Nut, Hex (5/16-18)
				41	130-0819	1	Bracket, Mounting
				42	130-0828	1	Plate, Mounting (Housed Set)
				43	130-0805	1	Plate, Mounting (Unhoused Set)
				44	517-0009	1	Plug, Button
				45	130-0785	1	Guard, Belt

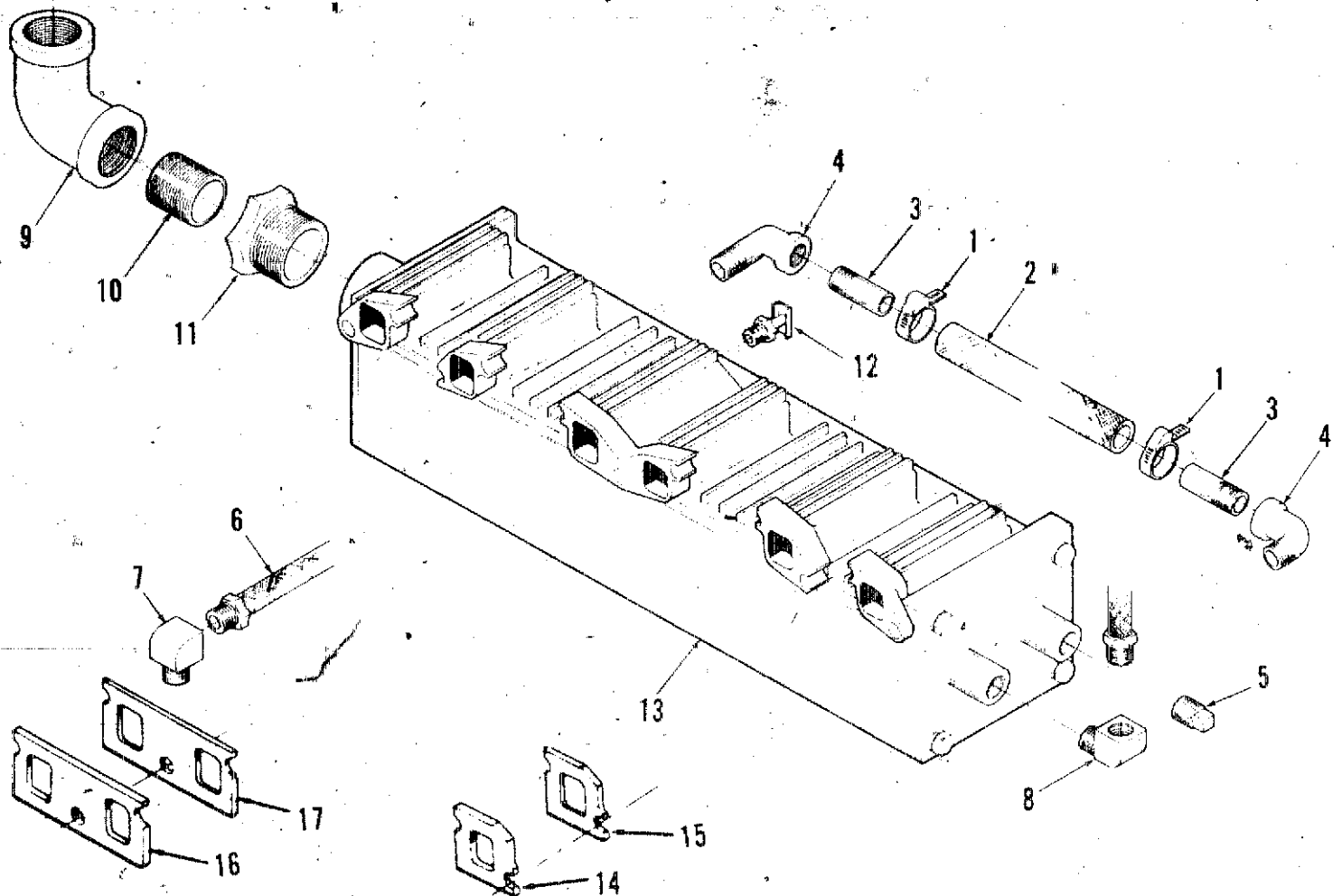
Cooling System City Water & Standpipe



Cooling System **City Water & Standpipe**

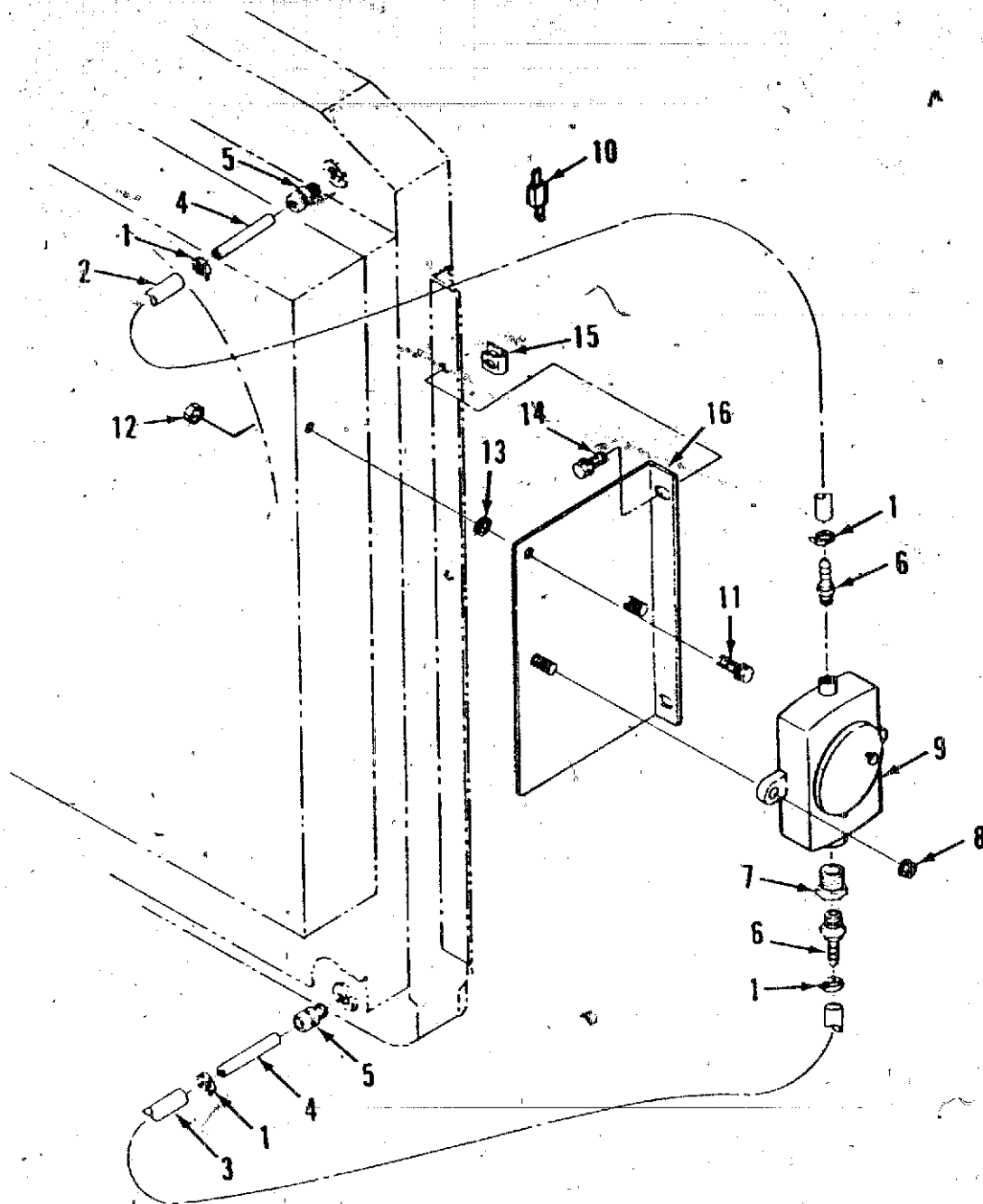
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	4	Clamp, Hose	20	309-0241	1	Valve, Control - Temperature Regulating
2	503-0441	2	Hose, Rubber - Preformed	21	800-0027	2	Screw, Cap - Hex Head (5/16-18 x 7/8")
3	505-0474	1	Nipple, Pipe - Half (1-1/2 NPT x 5"LG)	22	850-0045	2	Washer, Lock - Spring (5/16")
4	505-0183	1	Elbow, Pipe - 90 DEG, Reducing (1-1/2 NPT x 1/1/4 NPT)	23	862-0015	2	Nut, Hex (5/16-18)
5	505-0258	1	Nipple, Pipe (1-1/4 NPT x 3"LG)	24	110-0526	1	Bracket and Nipple Assembly
6	503-0189	2	Clamp, Hose	25	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)
7	503-0437	1	Hose, Rubber	26	505-0140	1	Plug, Pipe - Square Head (1 NPT)
8	505-0185	2	Nipple, Pipe - Half (1/2 NPT x 1-1/2"LG)	27	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
9	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	28	505-0130	2	Plug, Pipe - Square Head (3/4 NPT)
10	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	29	504-0028	1	Cock, Drain (3/8 NPT)
11	504-0019	1	Valve, Globe (1/2 NPT)	30	505-0028	1	Coupling, Pipe (3/8 NPT)
12	505-0040	2	Elbow, Pipe - 90 DEG (1/2 NPT)	31	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1"LG)
13	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	32	504-0062	1	Valve, Relief - Vacuum
14	505-0949	1	Plug, Pipe - Socket Head (1-1/4 NPT)	33	800-0048	4	Screw, Cap - Hex Head (3/8-16 x 3/4")
15	504-0028	1	Cock, Drain (3/8 NPT)	34	850-0050	4	Washer, Lock - Spring (3/8")
16	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	36	130-0659	1	Standpipe
17	505-0108	1	Tee, Pipe (1/2 NPT)	37	821-0018	6	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")
18	505-0002	1	Nipple, Pipe (1/2 NPT x 3"LG)	38	130-0860	1	Plate, Mounting
19	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	39	517-0009	1	Plug, Button
				40	130-0785	1	Guard, Belt

Liquid Cooled



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0183	2	Clamp, Hose	10	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)
2	503-1168	1	Hose, Rubber	11	505-0207	1	Bushing, Reducer - Hex (2-1/2 NPT x 2 NPT)
3	505-0135	2	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)	12	504-0005	1	Cock, Drain (1/8 NPT)
4	505-0120	2	Elbow, Pipe - Street, 90 DEG (3/8 NPT)	13	154-0889	1	Manifold, Liquid Cooled (Includes End Plates & Gaskets)
5	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)	14	154-2421	4	Shim
6	130-0674	1	Line, Flexible	15	154-2423	4	Gasket
7	502-0073	1	Elbow, Pipe to Tube - 90 DEG	16	154-2422	1	Shim
8	502-0074	1	Elbow, Pipe to Tube - 90 DEG	17	154-2424	1	Gasket
9	505-0175	1	Elbow, Pipe - 90 DEG (2 NPT)				

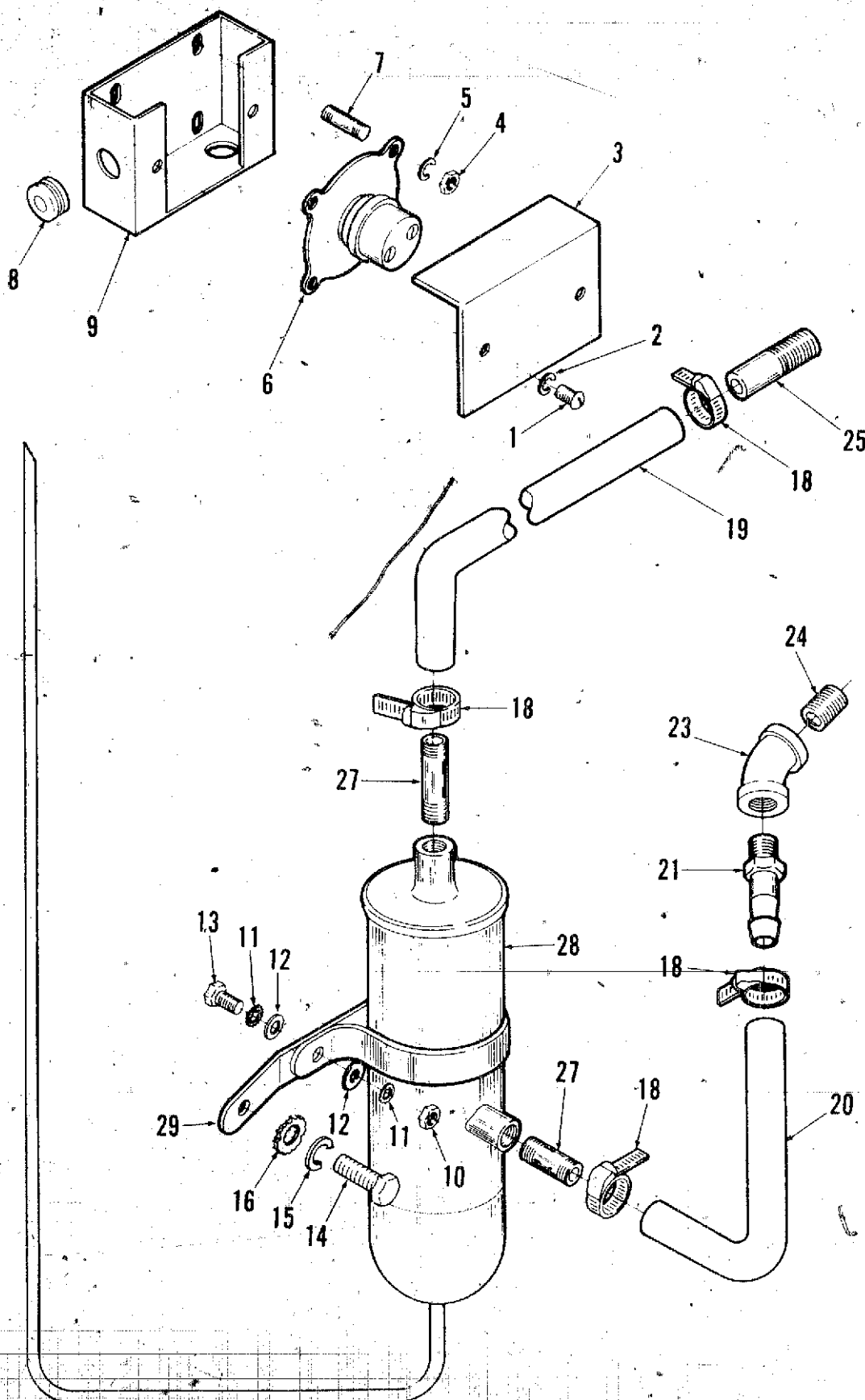
Switch - Low Coolant Level



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0635	4	Clamp, Hose
2	503-0707	1	Hose
3	503-0743	1	Hose
4	130-2053	2	Tube (1/4"OD x 2"LG)
5	502-0809	2	Adapter, Tube (Blind Hole Fitting)
6	502-0801	2	Adapter, Pipe to Hose
7	505-0802	1	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)
8	870-0212	2	Nut, Self-locking - Hex Washer Head (1/4-20)
9	193-0329	1	Switch, Coolant Level

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	357-0030	2	Diode
11	821-0015	1	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/4")
12	870-0212	1	Nut, Self-locking - Hex Washer Head (1/4-20)
13	526-0018	2	Washer, Flat (17/64"ID x 5/8"OD x 1/16"THK)
14	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
15	870-0113	2	Nut, Retainer (5/16-18)
16	405-2969	1	Plate, Mounting

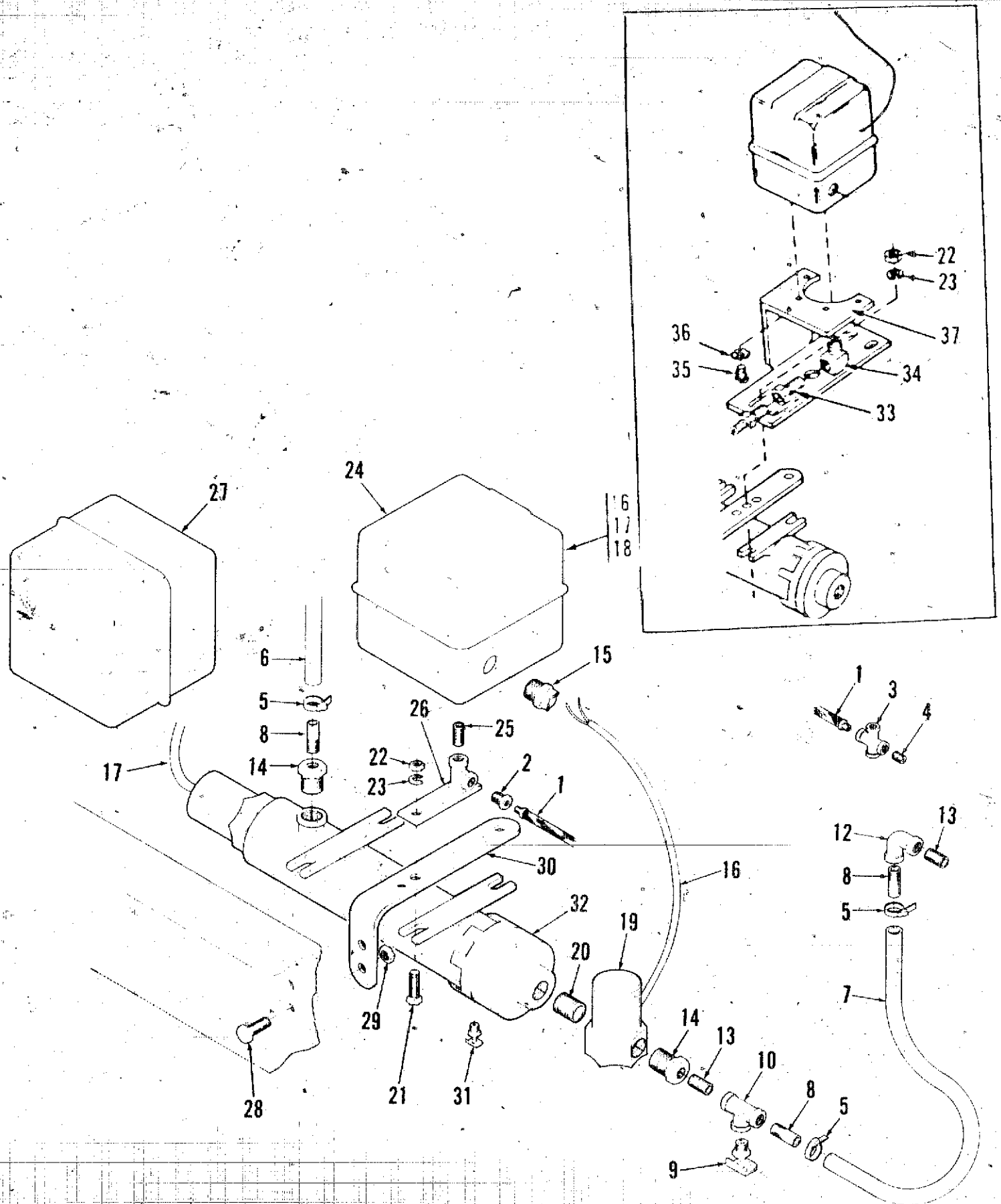
Heater - Engine Coolant



Heater - Engine Coolant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0076	2	Screw, Machine - Round Head (#8-32 x 5/16")	13	800-0031	1	Screw, Cap - Hex Head (5/16-18 x 1-1/2")
2	850-0025	2	Washer, Lock - Spring (#8)	14	800-0095	1	Screw, Cap - Hex Head (1/2-13 x 2-1/4")
3	333-0013	1	120 Volt Application	15	850-0060	1	Washer, Lock - Spring (1/2")
	333-0056	1	240 Volt Application	16	856-0013	1	Washer, lock - EIT (1/2")
4	870-0053	2	Nut, Hex (#10-32)	18	503-0183	4	Clamp, Hose
5	850-0030	2	Washer, Lock - Spring (#10)	19	503-0833	1	Hose, Rubber
6			Switch, Thermostatic	20	503-0832	1	Hose, Rubber
	309-0106	1	120 Volt, 25 AMP, SPST	21	502-0613	1	Adapter, Pipe to Hose
	309-0256	1	120/240 Volt, 25-40AMP, DPST	23	505-0112	1	Elbow, Pipe - 45 DEG (1/4 NPT)
7			Stud (#10-32)	24	505-0071	1	Nipple, Pipe (1/4 NPT x 2"LG)
	520-0446	2	3/4"LG	25	505-0135	1	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)
	520-0672	2	1"LG				
8	508-0008	2	Grommet	27	505-0135	2	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)
9			Box	28			Heater, Coolant
	333-0012	1	120 Volt Application		333-0052	1	1500 Watt, 120 VAC
	333-0057	1	240 Volt Application		333-0053	1	2000 Watt, 120 VAC
10	862-0015	1	Nut, Hex (5/16-18)		333-0073	1	2000 Watt, 208/240 VAC
11	856-0008	2	Washer, lock - Spring (5/16")	29		1	Strap (Included with Heater)
12	526-0115	2	Washer, Flat (5/16")				

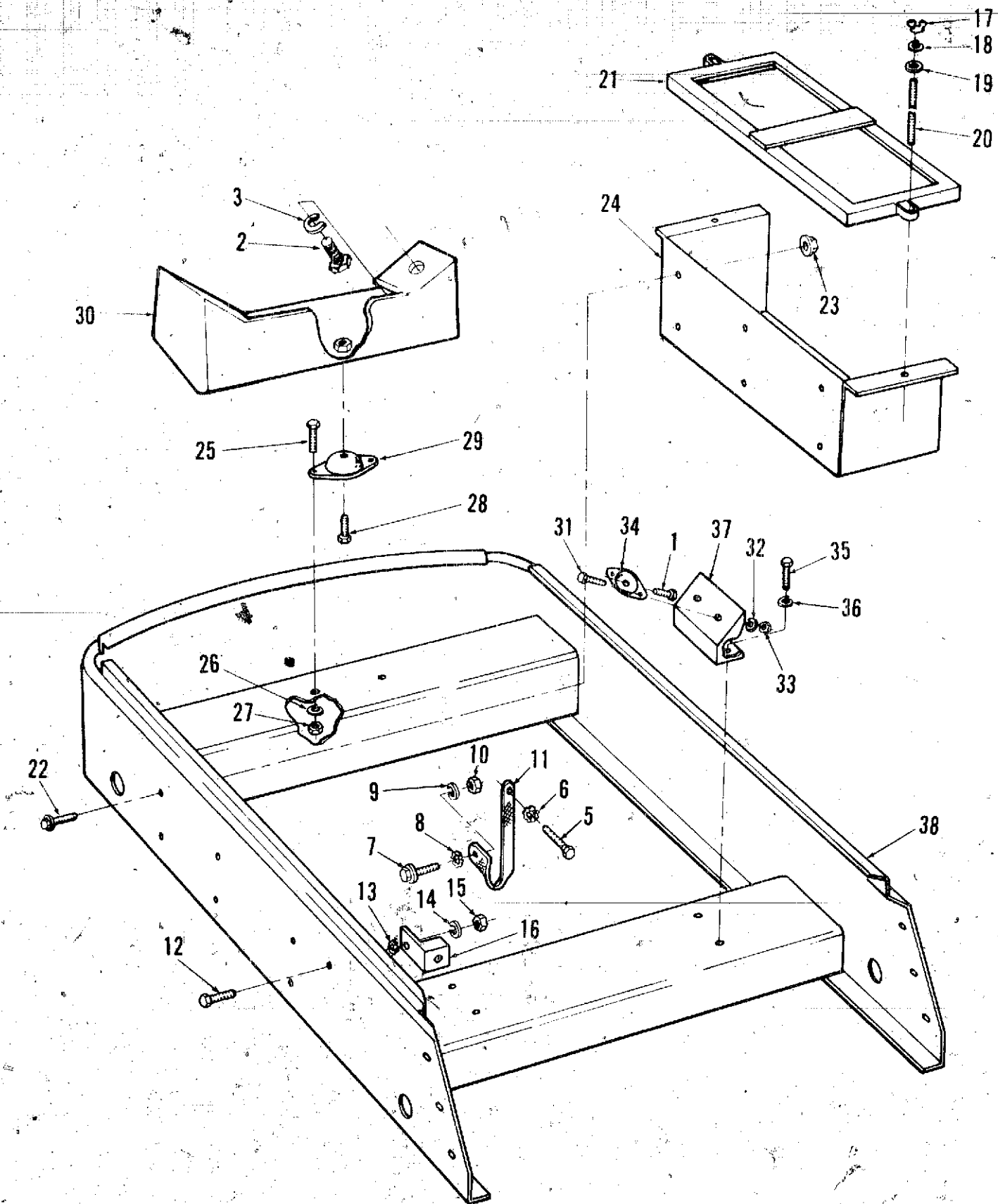
Heater - Engine Coolant



Heater - Engine Coolant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0225	1	Line, Fuel - Flexible	26	333-0142	1	Support with Tee
2	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)				1970 thru 1982
3	505-0763	1	Cross, Pipe (1/8 NPT)	27			Contactor, Electrical
4	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4"LG)		307-1460	1	230 VAC, 3 Pole
5	505-0183	4	Clamp, Hose		307-1164	1	460 VAC, 3 Pole
6	503-0146	1	Hose, Rubber	28	821-0018	4	Screw, Self-locking - Hex
7	503-0712	1	Hose, Rubber				Washer Head (5/16-18 x 3/4")
8	505-0135	4	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)	29	870-0257	4	Nut, Self-locking - Hex
9	504-0028	1	Cock, Drain (3/8 NPT)				Washer Head (5/16-18)
10	505-0060	1	Tee, Pipe (3/8 NPT)	30	130-1192	2	Bracket, Mounting - Heater
12	505-0038	1	Elbow, Pipe - 90 DEG (3/8 NPT)	31	504-0003	1	Cock, Drain (1/4 NPT)
13	505-0101	2	Nipple, Pipe - Close (3/8 NPT x 1"LG)	32			Heater, Electrical
14	505-0455	2	Bushing, Reducer - Hex (1 NPT x 3/8 NPT)		333-0158	1	2000 Watt, 115 VAC, 1 Phase
15	331-0027	6	Clamp, Cable		333-0167	1	2000 Watt, 208 VAC, 1 Phase
16	332-0014	2	Terminal, Ring (#10)		333-0148	1	2000 Watt, 208 VAC, 3 Phase
17	332-0149	4	Terminal, Ring (#8)		333-0141	1	2000 Watt, 240 VAC, 1 Phase
18	323-0957	5	Wire Nut		333-0176	1	2000 Watt, 380 VAC, 1 Phase
19	309-0304	1	Switch, Thermostatic		333-0170	1	2000 Watt, 380 VAC, 3 Phase
20	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/4"LG)		333-0147	1	2000 Watt, 480 VAC, 1 Phase
21	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")		333-0146	1	2000 Watt, 480 VAC, 3 Phase
22	862-0001	4	Nut, Hex (1/4-20)	33	505-0007	1	Bushing Reducer - Hex
23	850-0040	4	Washer, Lock - Spring (1/4")				(1/4 NPT x 1/8 NPT)
24	309-0307	1	Switch, Pressure	34	502-0054	1	Begin 1983
25	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)				Elbow, Pipe - Street, 90 DEG
			1970 thru 1982				Brass (1/4 NPT)
				35	812-0079	4	Begin 1983
							Screw, Machine - Round Head
							(#8-32 x 1/2")
							Begin 1983
				36	854-0007	4	Washer, Lock - ET (#8)
							Begin 1983
				37	333-0224	1	Bracket, Support
							Begin 1983

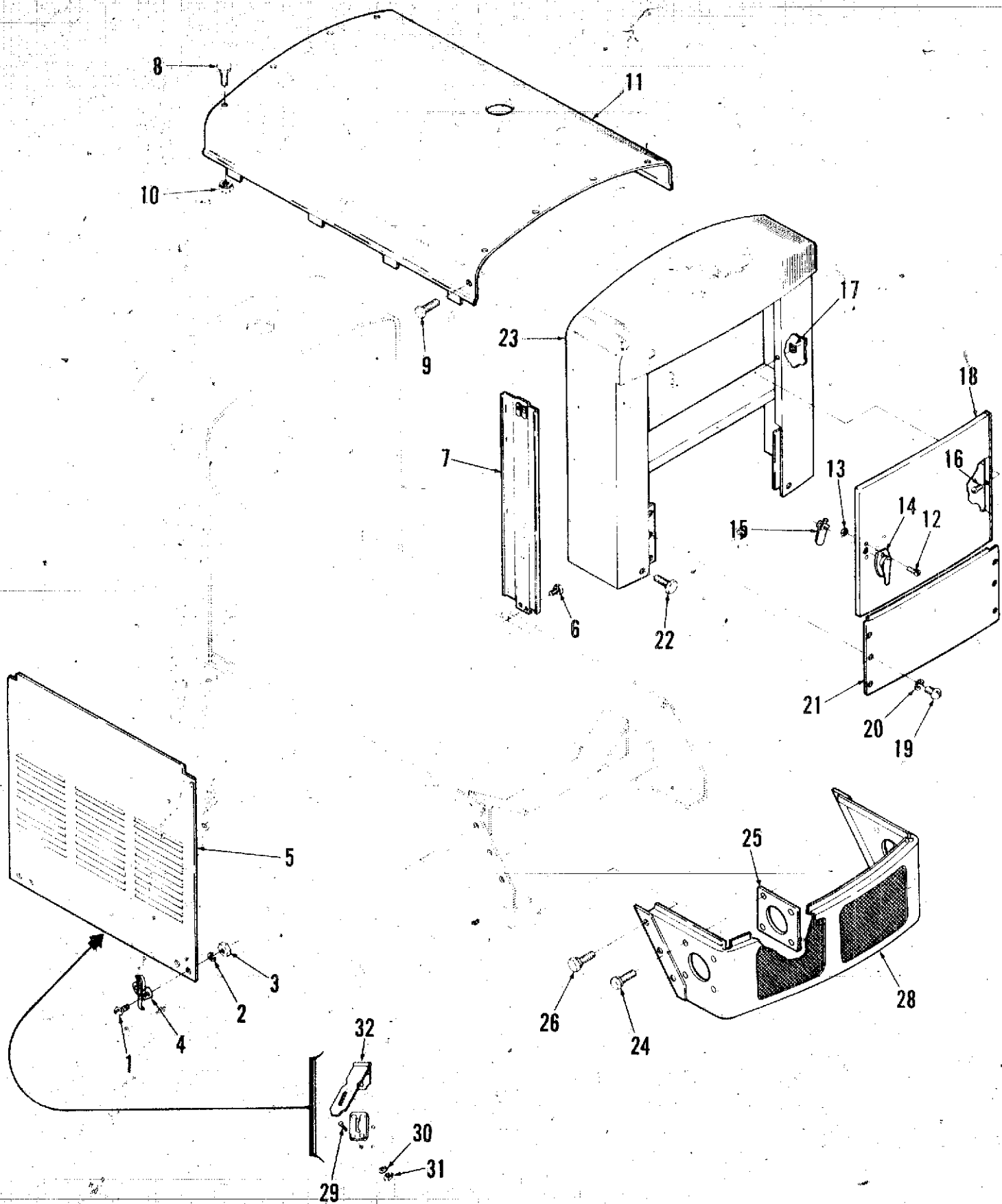
Chassis



Chassis

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0520	2	Screw, Cap - Hex Head (3/4-10 x 1")	22	821-0029	6	Screw, Self-locking - Hex Washer Head (3/8-16 x 3/4")
2	800-0050	2	Screw, Cap - Hex Head (3/8-16 x 1")	23	870-0281	6	Nut, Self-locking - Hex Washer Head (3/8-16)
3	850-0050	1	Washer, Lock - Spring (3/8")	24	416-0666	1	Tray, Battery
5	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")	25	800-0090	2	Screw, Cap - Hex Head (1/2-13 x 1"LG)
6	856-0012	1	Washer, Lock - EIT (7/16")	26	850-0060	2	Washer, Lock - Spring (1/2")
7	800-0091	1	Screw, Cap - Hex Head (1/2-13 x 1-1/4"LG)	27	856-0013	1	Washer, Lock - EIT (1/2")
8	856-0013	1	Washer, Lock - EIT (1/2")	28	800-0520	1	Screw, Cap - Hex Head (3/4-10 x 1")
9	850-0060	1	Washer, Lock - Spring (1/2")	29	402-0371	2	Mount, Vibration - Engine
10	862-0016	1	Nut, Hex (1/2-13)	30	403-0910	1	Support, Mounting - Engine
11	337-0090	1	Strap, Electrical - Ground	31	800-0071	4	Screw, Cap - Hex Head (7/16-14 x 1")
12	800-0028	1	Screw, Cap - Hex Head (5/16-18 x 1")	32	850-0055	4	Washer, Lock - Spring (7/16")
13	856-0008	1	Washer, Lock - EIT (5/16")	33	862-0004	4	Nut, Hex (7/16-14)
14	850-0045	1	Washer, Lock - Spring (5/16")	34	402-0371	2	Mount, Vibration - Generator
15	862-0015	1	Nut, Hex (5/16-18)	35	800-0091	4	Screw, Cap - Hex Head (1/2-13 x 1-1/4"LG)
16	332-1473	1	Lug, Solderless	36	450-0060	4	Washer, Lock - Spring (1/2")
17	865-0007	2	Nut, Wing (5/16-18)	37	232-2106	2	Bracket, Mounting - Generator
18	850-0045	2	Washer, Lock - Spring (5/16")	38	403-0909	1	Chassis
19	526-0115	2	Washer, Flat (11/32"ID x 11/16"OD x 1/16"THK)				
20	520-0663	2	Stud				
21	416-0480	1	Frame, Holddown - Battery				

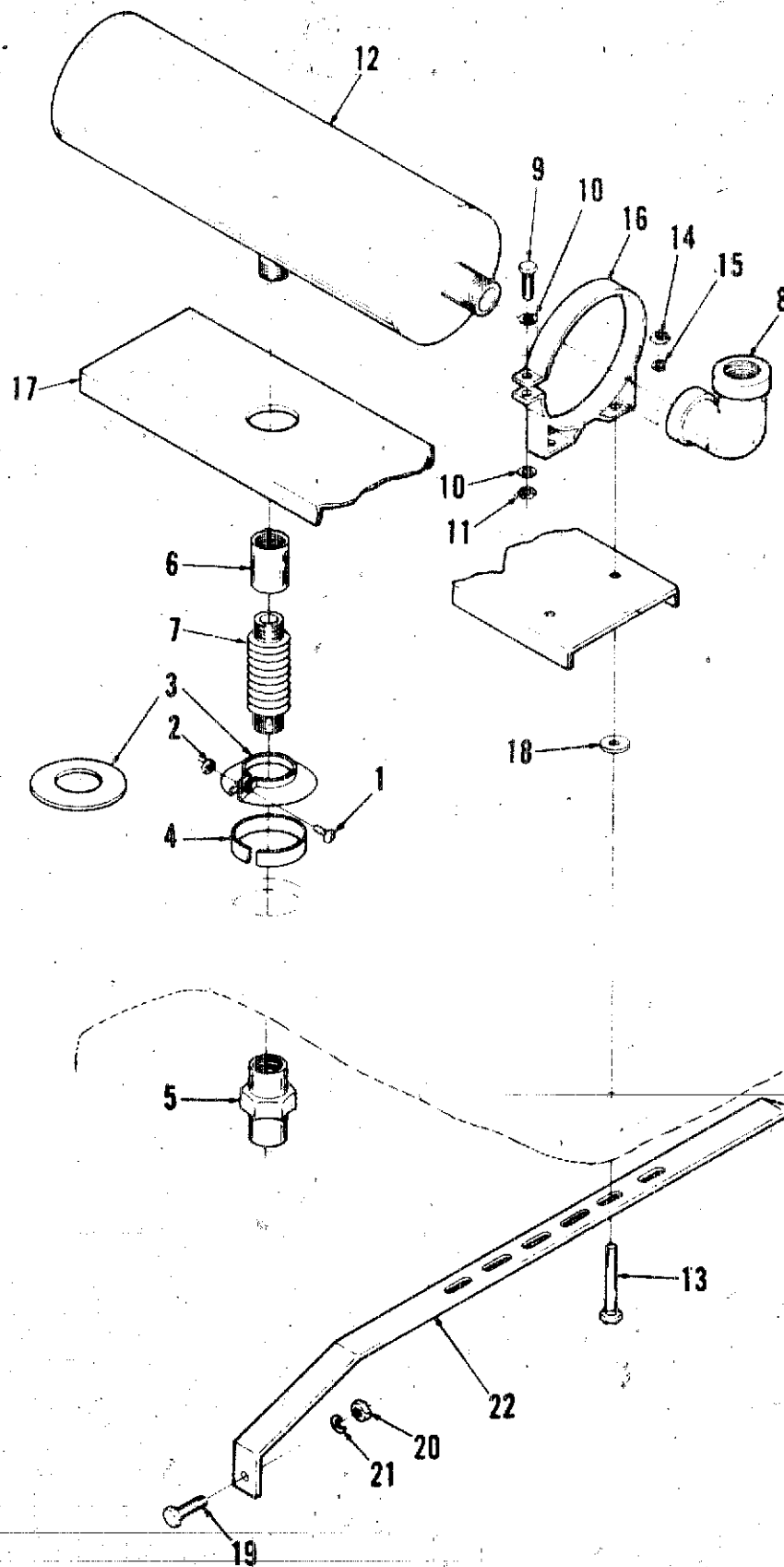
Set Housing



Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0098	16	Screw, Machine - Round Head (#10-32 x 3/8")	16	809-0059	3	Screw, Tapping - Round Head (1/4 x 1/2")
2	850-0030	16	Washer, Lock - Spring (#10)	17	870-0106	3	Nut, Sheet Spring (1/4")
3	870-0053	16	Nut, Hex (#10-32)	18	405-1777	1	Door, Access - Rear
4	406-0105	8	Clamp, Door	19	813-0098	6	Screw, Machine - Round Head (#10-32 x 3/8")
5	405-1808	4	Door, Access (Less Latches)	20	850-0030	6	Washer, lock - Spring (#10)
6	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	21	405-1780	1	Panel, Access - Rear
7	405-1828	2	Support, Housing - Center	22	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
8	821-0014	12	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	23	405-1812	1	Panel, Housing - Rear
9	821-0016	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")	24	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
10	870-0113	12	Nut, Clinch (5/16-18)	25	403-0895	2	Plate, Cover
11	404-1827	1	Panel, Housing - Top	26	821-0029	6	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")
12	812-0149	2	Screw, Machine - Round Head (1/4-20 x 9/16")	28	403-0894	1	Chassis - Rear
13	870-0232	2	Nut, Self-locking - Hex with ET Lockwasher (1/4-20)	29	814-0079	28	Screw, Machine - Flat Head (#8-32 x 1/2")
14	406-0157	1	Handle, Latch (Includes Keys)	30	850-0025	28	Washer, Lock - Spring (#8)
15	406-0089	1	Catch, Latch	31	860-0008	28	Nut, Hex (#8-32)
				32	406-0249	4	Hasp Set

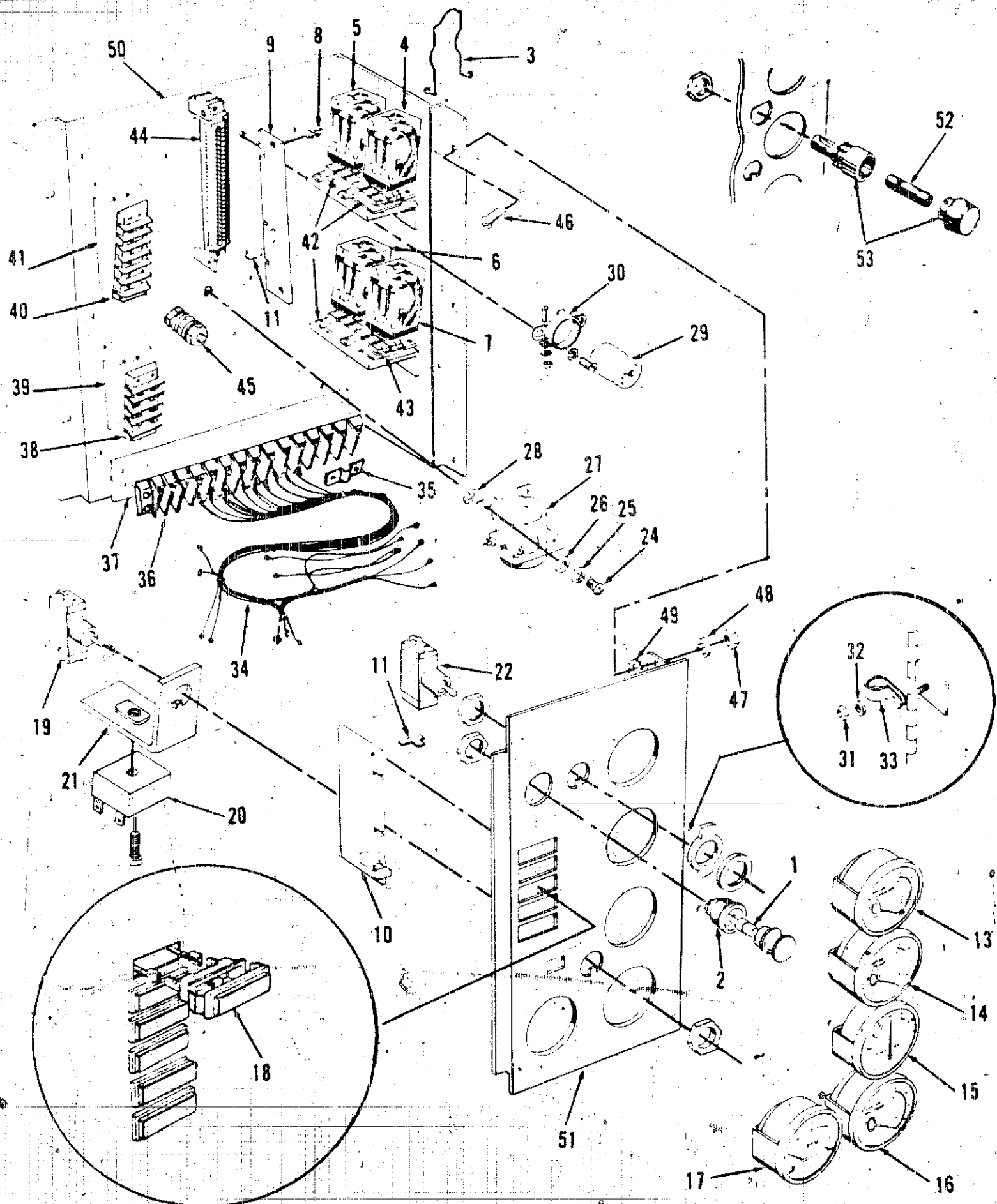
Exhaust Muffler



Exhaust Muffler

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	12	155-0988	1	Muffler, Exhaust - Industrial
2	870-0188	2	Nut, Self-locking - Hex Washer Head (#10-32)	13	800-0028	4	Screw, Cap - Hex Head (5/16-18 x 1")
3	155-1385	1	Shield, Rain	14	870-0048	4	Nut, Self-locking - Hex (5/16-18)
4	895-0157	1	Strip, Asbestos	15	850-0045	4	Washer, Lock - Spring (5/16")
5	505-0203	1	Coupling, Pipe (2 NPT)	16	140-0649	2	Band, Mounting
6	505-0454	1	Union, Pipe (2 NPT)	17	155-0978	1	Shield, Heat
7		1	Tube, Exhaust - Flexible Spec D Thru H	18	155-1430	4	Spacer
	155-1115	1	Begin Spec J	19	800-0028	4	Screw, Cap - Hex Head (5/16-18 x 1")
	155-1591	1	Elbow, Pipe - 90 DEG (3 NPT)	20	870-0048	4	Nut, Self-locking - Hex (5/16-18)
8	505-0453	1	Screw, Cap - Hex Head (5/16-18 x 2-1/2")	21	850-0045	4	Washer, Lock - Spring (5/16")
9	800-0035	3	Washer, Flat (11/32" ID x 1" OD x 3/2" THK)	22	155-0789	2	Bracket, Support - Muffler Mounting
10	526-0113	6	Nut, Self-locking - Hex Washer Head (5/16-18)				
11	870-0257	3					

Control - Engine

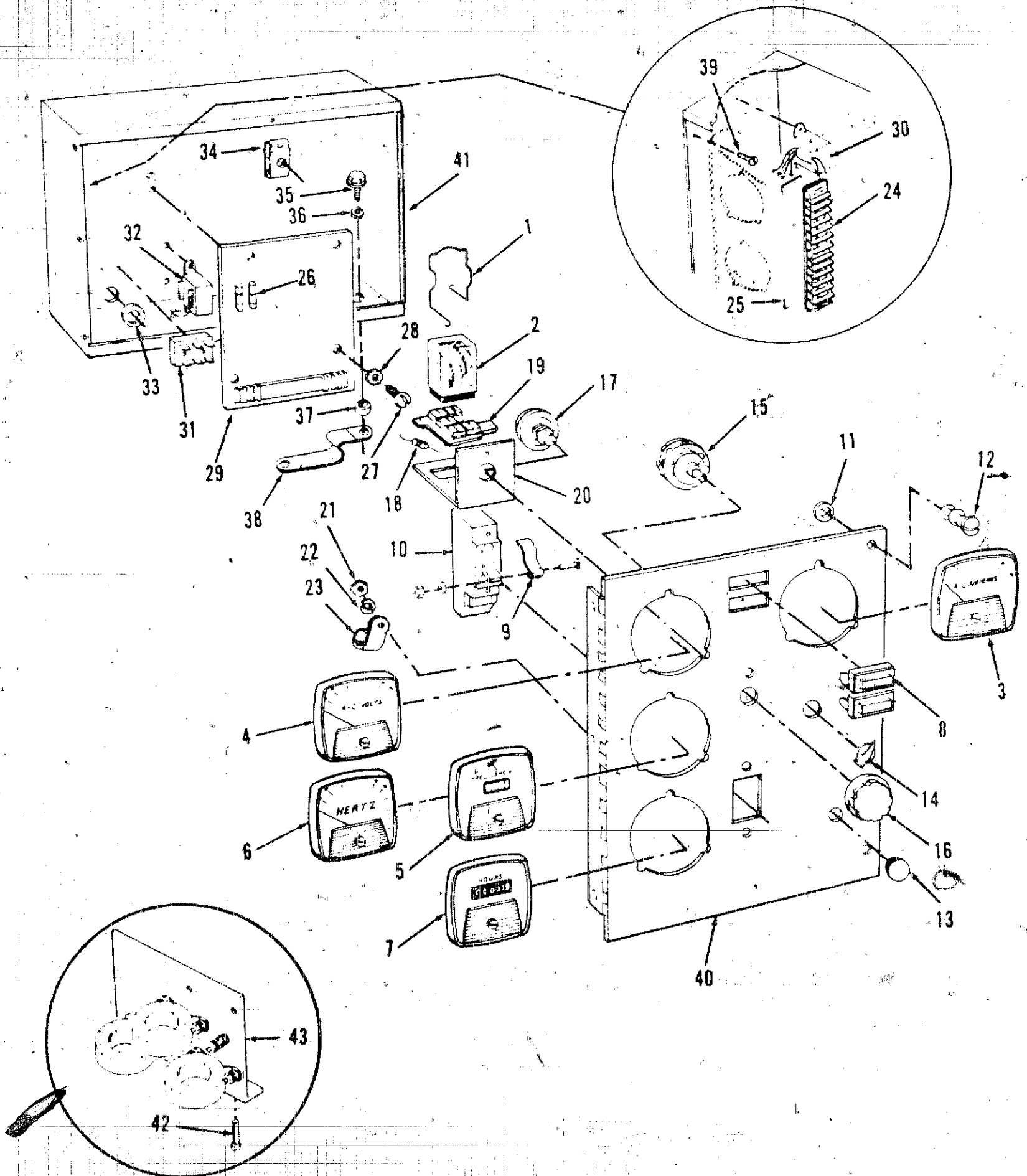


Control - Engine

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	322-0004	1	Lamp - 12 VDC(DS11)	29	356-0072	1	Capacitor, Electrolytic - 4000MFD, 30VDC (C2)
2	322-0149	1	Light, Panel		812-0061	1	Screw, Machine - Round Head (#6-32 x 3/8")
3	307-1157	4	Spring, Holddown - Relay		853-0003	1	Washer, Lock - ET (#6)
4	307-1058	1	Relay - Ignition(K12)		860-0006	1	Nut, Hex (#6-32)
5	307-1058	1	Relay - Start Disconnect(K11)	30	356-0070	1	Clamp, Mounting - Capacitor
6	307-1058	1	Relay - Run Alarm(K15)		812-0063	2	Screw, Machine - Round Head (#6-32 x 1/2")
7	307-1061	1	Relay - Start Protection(K14)		853-0003	2	Washer, Lock - ET (#6)
8	518-0374	1	Fastener, Snap-In	31	870-0053	1	Nut, Hex (#10-32)
9			Control, Cranker - 12VDC(A12)	32	850-0030	1	Washer, Lock - Spring (#10)
	300-0733	1	Standard	33	332-0051	1	Clamp, Loop
	300-0714	1	Cycle	34			Harness, Wiring - Eng Control (Selection Req'd, Contact Onan Distributor)
10			Monitor, Engine - 12VDC(A11)	35	332-1043	1	Jumper, Terminal
	300-0679	1	Standard (1 Fault Light)	36			Block, Terminal(TB11)
	300-0730	1	Penn State (1 Fault Light)		332-1005	1	20 Place
	300-0681	1	Standard (5 Fault Light)		332-0795	1	16 Place
11	332-1276	2	Plug, Keying	37			Strip, Marker
13			Gauge, Oil Press - 12VDC(M11)		332-1559	1	20 Place
	193-0243	1	Begin 1977		332-1271	1	16 Place
	193-0107	1	Thru 1976	38	332-0537	1	Block, Terminal - 4 Place(TB12)
14			Gauge, Water Temp - 12VDC(M12)	39	332-1239	1	Strip, Marker - 4 Place
	193-0245	1	Begin 1977	40	332-0699	1	Block, Terminal - 6 Place
	193-0106	1	Thru 1976	41	332-1240	1	Strip, Marker - 6 Place
15	302-1362	1	Ammeter (M13)	42	323-0765	3	Socket, Relay (Less Terminals)
16			Gauge, Oil Temp - 12VDC(M14)		332-1280	11	Terminal
	193-0248	1	Begin 1977	43	323-0764	1	Socket, Relay (Less Terminals)
	193-0187	1	Thru 1976		332-1280	8	Terminal
17	302-0749	1	Tachometer(M14)		815-0392	1	Plug, Keying
18			Light, Indicator - 14VDC	44	332-1271	1	Housing, Terminal
	322-0107	1	Red - OVERCRANK (DS12)		332-1269	22	Terminal
	322-0108	1	Red - LO OIL PRESS (DS14)	45			Terminal, Ground (Includes Parts Marked *)
	322-0109	1	Red - HI ENG TEMP (DS15)		871-0010	2	*Nut, Hex - Brass (#10-32)
	322-0110	1	Red - LO ENG TEMP (DS16)		850-0030	1	*Washer, Lock - Spring (#10)
	322-0111	1	Red - OVERSPEED (DS13)		526-0062	2	*Washer, Flat (#10)
	322-0128	1	Red - FAULT (DS12)		853-0008	1	*Washer, Lock - ET (#10)
	322-0283	1	Red - SWITCH OFF (DS17)		856-0003	1	*Washer, Lock - EIT (#10)
	322-0136	1	Red - (Blank, No Legend)		815-0203	1	*Screw, Machine - Round Head, Brass (#10-32 x 7/8")
19			Switch, Toggle - Selector(S12)	46	815-0026	5	Screw, Machine - Truss Head (#10-32 x 3/8")
	308-0138	1	Standard		870-0053	1	Nut, Hex (#10-32)
	308-0327	1	Penn State	47	850-0030	1	Washer, Lock - Spring (#10)
20	333-0194-01	1	Flasher - 12VDC(S13)	48	856-0003	1	Washer, Lock - ET (#10)
	813-0105	1	Screw, Machine - Round Head (#10-32 x 1")	49	301-3253	1	Bracket, Mounting - Eng Control
21	301-6053	1	Bracket, Mounting - Flasher	50			Panel, Control - Engine (Selection Req'd, Contact Onan Distributor)
22	308-0002	1	Switch, Toggle - SPST(S11)	51			Fuse, Cartridge - 5AMP(F11)
24	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")	52	321-0181	1	Fuseholder
				53	321-0217	1	
25	850-0030	2	Washer, Lock - Spring (#10)				
26	526-0009	2	Washer, Flat (#10)				
27	307-1031	1	Relay, Solenoid - Starting, 12VDC(K13)				
28	856-0003	2	Washer, Lock - EIT (#10)				

* - Parts Included in Ground Terminal.

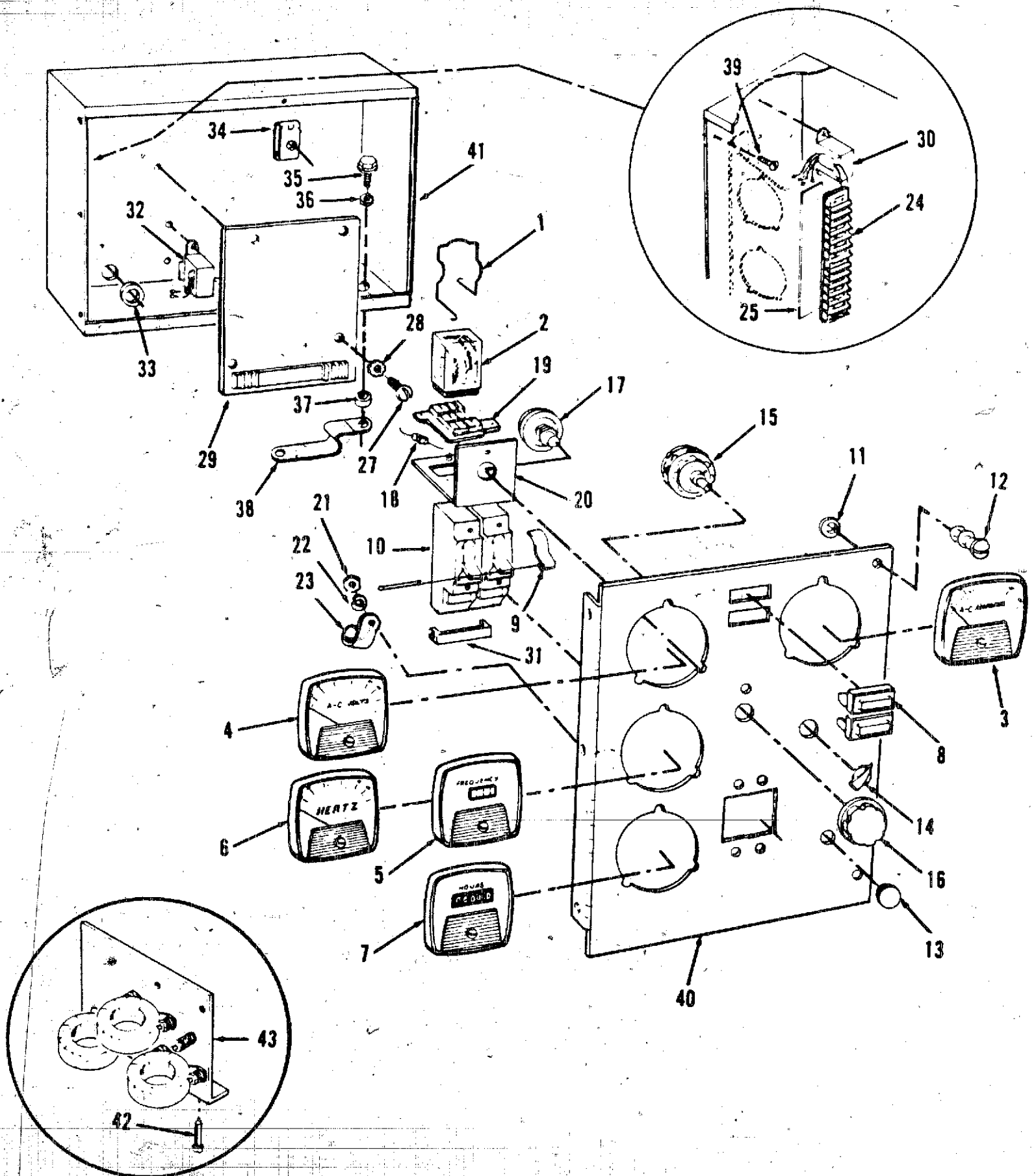
Control - Generator



Control - Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-1157	1	Spring, Holddown - Relay	19	323-0765	1	Socket, Relay (Less Terminals)
2	307-1061	1	Relay (K21)		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
3			Ammeter (M21)		853-0003	2	Washer, Lock - ET (#6)
	302-0405	1	0-50 AMP		860-0005	2	Nut, Hex (#6-32)
	302-0406	1	0-75 AMP		332-1280	11	Terminal
	302-0408	1	0-100 AMP	20	301-3244	1	Bracket, Mounting - Relay
	302-0410	1	0-150 AMP	21	870-0053	1	Nut, Hex (#10-32)
	302-0411	1	0-200 AMP	22	850-0030	1	Washer, Lock - Spring (#10)
	302-0412	1	0-250 AMP	23	332-0051	1	Clamp, Loop
	302-0719	1	0-75, 0-150 AMP	24			Block, Terminal (TB21)
	302-0720	1	0-100, 0-200 AMP		332-0607	1	12 Place
	302-0721	1	0-150, 0-300 AMP		332-0795	1	16 Place
	302-0722	1	0-200, 0-400 AMP		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
	302-0723	1	0-250, 0-500 AMP		853-0003	2	Washer, Lock - ET (#6)
4			Voltmeter (M22)		850-0020	2	Washer, Lock - Spring (#6)
	302-0421	1	0-300 VAC	25	332-1242	1	Strip, Marker
	302-0422	1	0-600 VAC		332-1248	1	12 Place
	302-0612	1	0-500 VAC	26	321-0204	2	Fuse, Cartridge - 1/4 AMP
	302-0779	1	0-750 VAC	27	812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
	302-0718	1	0-300, 0-6000 VAC	28	853-0003	4	Washer, Lock - ET (#6)
5			Meter, Freq - Reed Type (M23)	29			Regulator, Voltage (VR21)
	302-0213	1	115 VAC, 60 Hertz		332-1264	1	Spec D & E, Brush Type Gen
	302-0221	1	230 VAC, 60 Hertz		332-1268	1	Spec F Thru J, 120VAC Signal Req'd
	302-0234	1	115 VAC, 50 Hertz		332-1956	1	Begin Spec K, 240VAC Signal Req'd
	302-0256	1	230 VAC, 50 Hertz	30			Transformer, Voltage (T21)
6			Meter, Freq - Pointer (M23)		315-0342	1	120 VAC
	302-0809	1	120 VAC, 60 Hertz		315-0431	1	240 VAC
	302-0810	1	208 VAC, 60 Hertz		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
	302-0811	1	240 VAC, 60 Hertz		853-0003	2	Washer, lock - ET (#6)
7			Meter, Time Totalizing (M24)	31	305-0675	1	Rectifier, Bridge (CR21)
	302-0466	1	60 Hertz		812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")
	302-0469	1	50 Hertz		850-0020	2	Washer, Lock - Spring (#6)
8			Light, Indicator - 125 VAC	32	315-0384	1	Reactor (L21)
	322-0130	1	Red - UPPER SCALE (DS21)		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
	322-0131	1	Red - LOWER SCALE (DS22)		853-0003	2	Washer, Lock - ET (#6)
	322-0178	1	Red - Blank (No Legend)	33	508-0001	1	Grommet
9	320-0307	1	Lock, Handle - Circuit Breaker	34	406-0332	2	Receptacle; Turnbutton Fastener
	815-0203	1	Screw, Machine - Round Head (#10-32 x 7/8")	35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
	854-0010	1	Washer, Lock - ET (#10)	36	850-0045	4	Washer, Lock - Spring (5/16")
	871-0010	1	Nut, Hex (#10-32)	37	402-0078	4	Dampener, Vibration
10	320-0431	1	Breaker, Circuit (CB21)	38	337-0049	1	Strap, Electrical - Ground
	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	39	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
	850-0020	2	Washer, Lock - Spring (#6)	40			Panel, Control - Generator (Selection Req'd, Contact Onan Distributor)
11	406-0334	2	Clip, Retaining - Turnbutton Fastener	41	301-3158	1	Box, Control
12	406-0333	2	Stud, Turnbutton Fastener	42	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
13	517-0131	1	Plug, Plastic	43			Current Transformer Assembly (See Separate Page for
14	303-0076	1	Knob, Pointer				
15	308-0284	1	Switch, Selector (S21)				
16	303-0032	1	Knob				
17	303-0170	1	Rheostat (R21)				
18	350-0556	1	Resistor, Fixed, Composition (R22)				

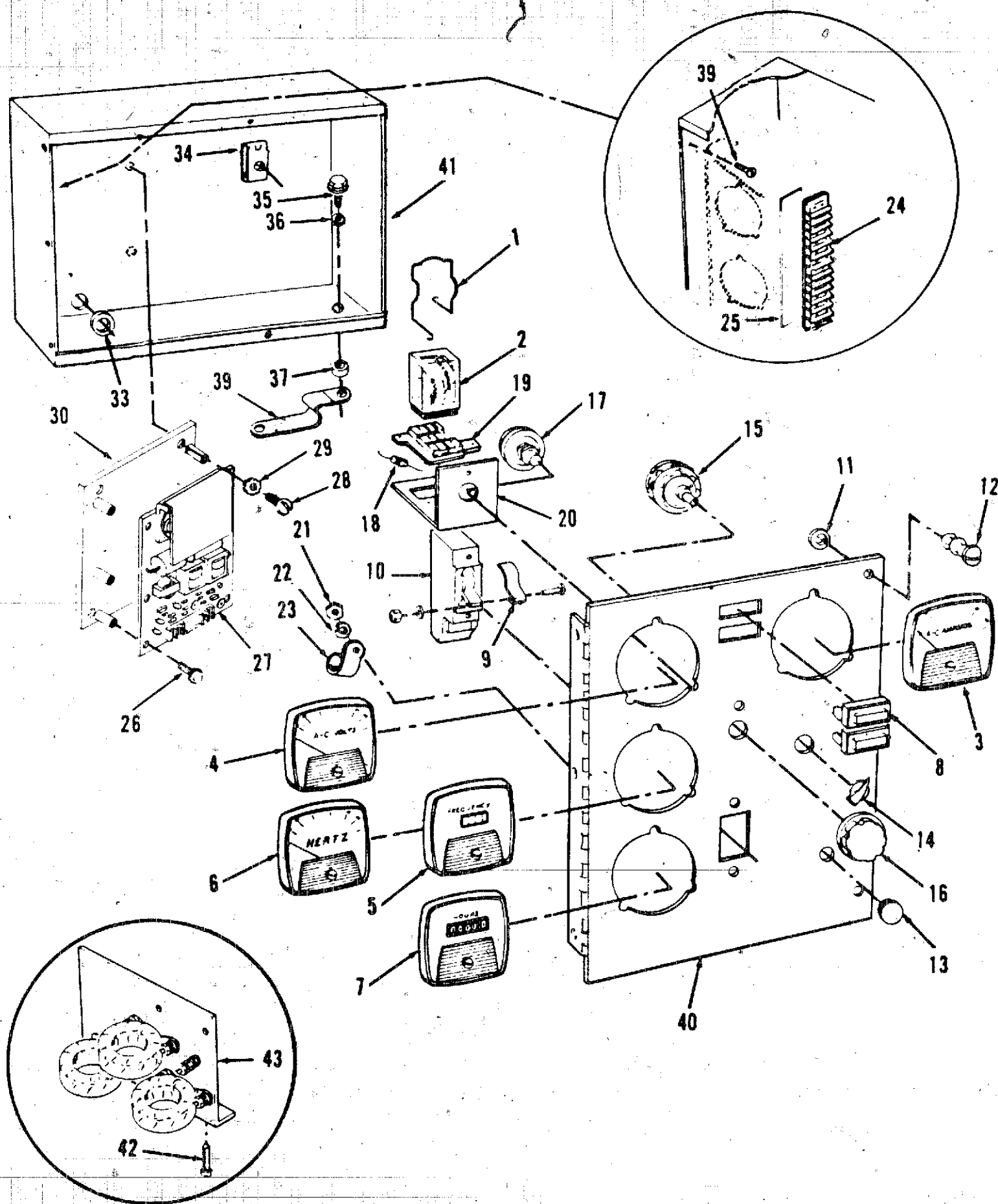
Control - Generator Switching Regulator



Control - Generator Switching Regulator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-1157	1	Spring, Holddown - Relay	19	323-0765	1	Socket, Relay (Less Terminals)
2	307-1061	1	Relay (K21)		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
3			Ammeter (M21)		853-0003	2	Washer, Lock - ET (#6)
	302-0405	1	0-50 AMP		860-0005	2	Nut, Hex (#6-32)
	302-0406	1	0-75 AMP		332-1280	11	Terminal
	302-0408	1	0-100 AMP	20	301-3244	1	Bracket, Mounting - Relay
	302-0410	1	0-150 AMP	21	870-0053	1	Nut, Hex (#10-32)
	302-0411	1	0-200 AMP	22	850-0030	1	Washer, Lock - Spring (#10)
	302-0412	1	0-250 AMP	23	332-0051	1	Clamp, Loop
	302-0719	1	0-75, 0-150 AMP	24			Block, Terminal (TB21)
	302-0720	1	0-100, 0-200 AMP		332-0607	1	12 Place
	302-0721	1	0-150, 0-300 AMP		332-0795	1	16 Place
	302-0722	1	0-200, 0-400 AMP		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
	302-0723	1	0-250, 0-500 AMP				Washer, Lock - ET (#6)
4			Voltmeter (M22)		853-0003	2	Washer, Lock - ET (#6)
	302-0421	1	0-300 VAC		850-0020	2	Strip, Marker
	302-0422	1	0-600 VAC	25			16 Place
	302-0612	1	0-500 VAC		332-1242	1	12 Place
	302-0779	1	0-750 VAC		332-1248	1	12 Place
	302-0718	1	0-300, 0-6000 VAC	27	812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
5			Meter, Freq - Reed Type (M23)	28	853-0003	4	Washer, Lock - ET (#6)
	302-0213	1	115 VAC, 60 Hertz	29			Regulator, Voltage - Switching (VR21)
	302-0221	1	230 VAC, 60 Hertz		300-1928	1	Semi-Frequency Sensitive
	302-0234	1	115 VAC, 50 Hertz		300-1929	1	Voltage Sensitive Type
	302-0256	1	230 VAC, 50 Hertz		300-1930	1	Frequency Sensitive Type
6			Meter, Freq - Pointer (M23)	30	315-0431	1	Transformer, Voltage - 240VAC (T21)
	302-0809	1	120 VAC, 60 Hertz		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
	302-0810	1	208 VAC, 60 Hertz		853-0003	2	Washer, Lock - ET (#6)
	302-0811	1	240 VAC, 60 Hertz	31	320-0202	1	Tie Bar - Circuit Breaker
7			Meter, Time Totalizing (M24)	32	315-0384	2	Reactor (L21, L22)
	302-0466	1	60 Hertz		812-0061	4	Screw, Machine - Round Head (#6-32 x 3/8")
	302-0469	1	50 Hertz		853-0003	4	Washer, Lock - ET (#6)
8			Light, Indicator - 125 VAC	33	508-0001	1	Grommet
	322-0130	1	Red - UPPER SCALE (DS21)	34	406-0332	2	Receptacle, Turnbutton Fastener
	322-0131	1	Red - LOWER SCALE (DS22)	35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
	322-0178	1	Red - Blank (No Legend)	36	850-0045	4	Washer, Lock - Spring (5/16")
9	320-0307	1	Lock, Handle - Circuit Bkr	37	402-0078	4	Dampener, Vibration
	815-0203	1	Screw, Machine - Round Hd (#10-32 x 7/8")	38	337-0049	1	Strap, Electrical - Ground
	854-0010	1	Washer, Lock - ET (#10)	39	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
	871-0010	1	Nut, Hex (#10-32)	40			Panel, Control - Generator (Selection Req'd, Contact Onan Distributor)
10	320-0455	2	Breaker, Circuit (CB21)	41	301-3158	1	Box, Control
	812-0061	4	Screw, Machine - Round Hd (#6-32 x 3/8")	42	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
	850-0020	4	Washer, Lock - Spring (#6)	43			Current Transformer Assembly (See Separate Page for Components)
11	406-0334	2	Clip, Retaining - Turnbutton Fastener				
12	406-0333	2	Stud, Turnbutton Fastener				
13	517-0131	1	Plug, Plastic				
14	303-0076	1	Knob, Pointer				
15	308-0284	1	Switch, Selector (S21)				
16	303-0032	1	Knob				
17	303-0170	1	Rheostat (R21)				
18	350-0556	1	Resistor, Fixed, Composition (R22)				

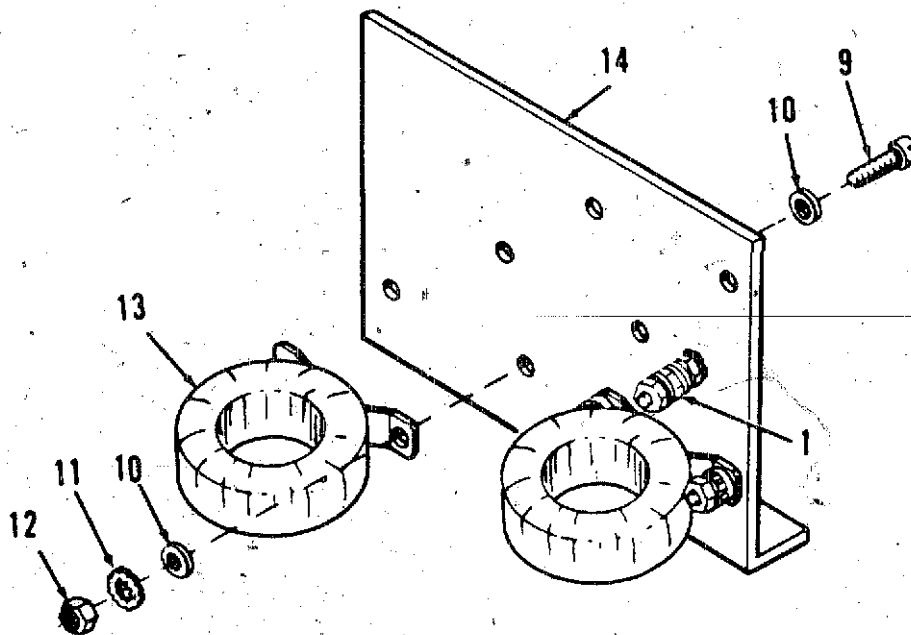
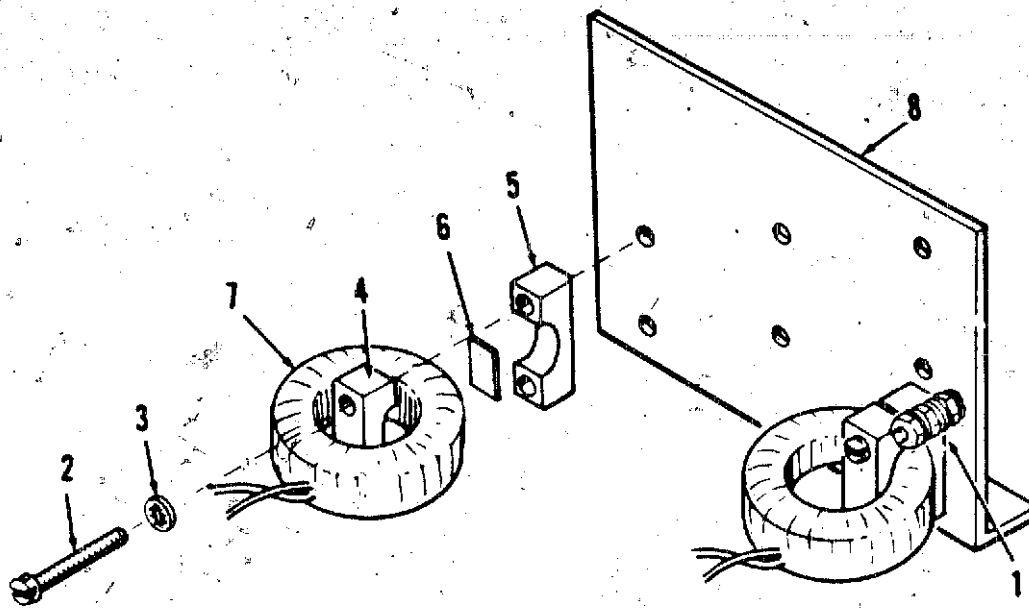
Control - Generator Torque Matched Regulator



Control - Generator Torque Matched Regulator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-1157	1	Spring, Holddown - Relay	13	517-0131	1	Plug, Plastic
2	307-1061	1	Relay (K21)	14	303-0076	1	Knob, Pointer
3			Ammeter (M21)	15	308-0284	1	Switch, Selector (S21)
	302-0405	1	0-50 AMP	16	303-0032	1	Knob
	302-0406	1	0-75 AMP	17	303-0261	1	Rheostat (R21)
	302-0408	1	0-100 AMP	18	350-0556	1	Resistor, Fixed, Composition (R22)
	302-0410	1	0-150 AMP				
	302-0411	1	0-200 AMP	19	323-0765	1	Socket, Relay (Less Terminals)
	302-0412	1	0-250 AMP		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
	302-0719	1	0-75, 0-150 AMP		853-0003	2	Washer, Lock - ET (#6)
	302-0720	1	0-100, 0-200 AMP		860-0005	2	Nut, Hex (#6-32)
	302-0721	1	0-150, 0-300 AMP		332-1280	11	Terminal
	302-0722	1	0-200, 0-400 AMP	20	301-3244	1	Bracket, Mounting - Relay
	302-0723	1	0-250, 0-500 AMP	21	870-0053	1	Nut, Hex (#10-32)
4			Voltmeter (M22)	22	850-0030	1	Washer, Lock - Spring (#10)
	302-0421	1	0-300 VAC	23	332-0051	1	Clamp, Loop
	302-0422	1	0-600 VAC	24			Block, Terminal (TB21)
	302-0612	1	0-500 VAC		332-0607	1	12 Place
	302-0779	1	0-750 VAC		332-0795	1	16 Place
	302-0718	1	0-300, 0-6000 VAC		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
5			Meter, Freq - Reed Type (M23)		853-0003	2	Washer, Lock - ET (#6)
	302-0213	1	115 VAC, 60 Hertz		850-0020	2	Washer, Lock - Spring (#6)
	302-0221	1	230 VAC, 60 Hertz	25			Strip, Marker
	302-0234	1	115 VAC, 50 Hertz		332-1242	1	16 Place
	302-0256	1	230 VAC, 50 Hertz		332-1248	1	12 Place
6			Meter, Freq - Pointer (M23)	26	815-0544	6	Screw, Machine - Round Head & IT Lkwsr (#6-32 x 1/2")
	302-0809	1	120 VAC, 60 Hertz				
	302-0810	1	208 VAC, 60 Hertz	27	300-2880	1	Regulator, Voltage - Torque Matched (VR21)
	302-0811	1	240 VAC, 60 Hertz	28	812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
7			Meter, Time Totalizing (M24)	29	853-0003	4	Washer, Lock - ET (#6)
	302-0466	1	60 Hertz	30	301-9315	1	Bracket, Mounting - Voltage Regulator
	302-0469	1	50 Hertz	33	508-0001	1	Grommet
8			Light, Indicator - 125 VAC	34	406-0332	2	Receptacle, Turnbutton Fastener
	322-0130	1	Red - UPPER SCALE (DS21)	35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
	322-0131	1	Red - LOWER SCALE (DS22)	36	850-0045	4	Washer, Lock - Spring (5/16")
	322-0178	1	Red - Blank (No Legend)	37	402-0078	4	Dampener, Vibration
9	320-0307	1	Lock, Handle - Circuit Bkr	38	337-0049	1	Strap, Electrical - Ground
	815-0203	1	Screw, Machine - Round Hd (#10-32 x 7/8")	39	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
	854-0010	1	Washer, Lock - ET (#10)	40			Panel, Control - Generator (Selection Req'd, Contact Onan Distributor)
	871-0010	1	Nut, Hex (#10-32)	41	301-3158	1	Box, Control
10	320-0431	1	Breaker, Circuit (CB21)	42	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
	812-0061	2	Screw, Machine - Round Hd (#6-32 x 3/8")	43			Current Transformer Assembly (See Separate Page for Components)
	850-0020	2	Washer, Lock - Spring (#6)				
11	406-0334	2	Clip, Retaining - Turnbutton Fastener				
12	406-0333	2	Stud, Turnbutton Fastener				

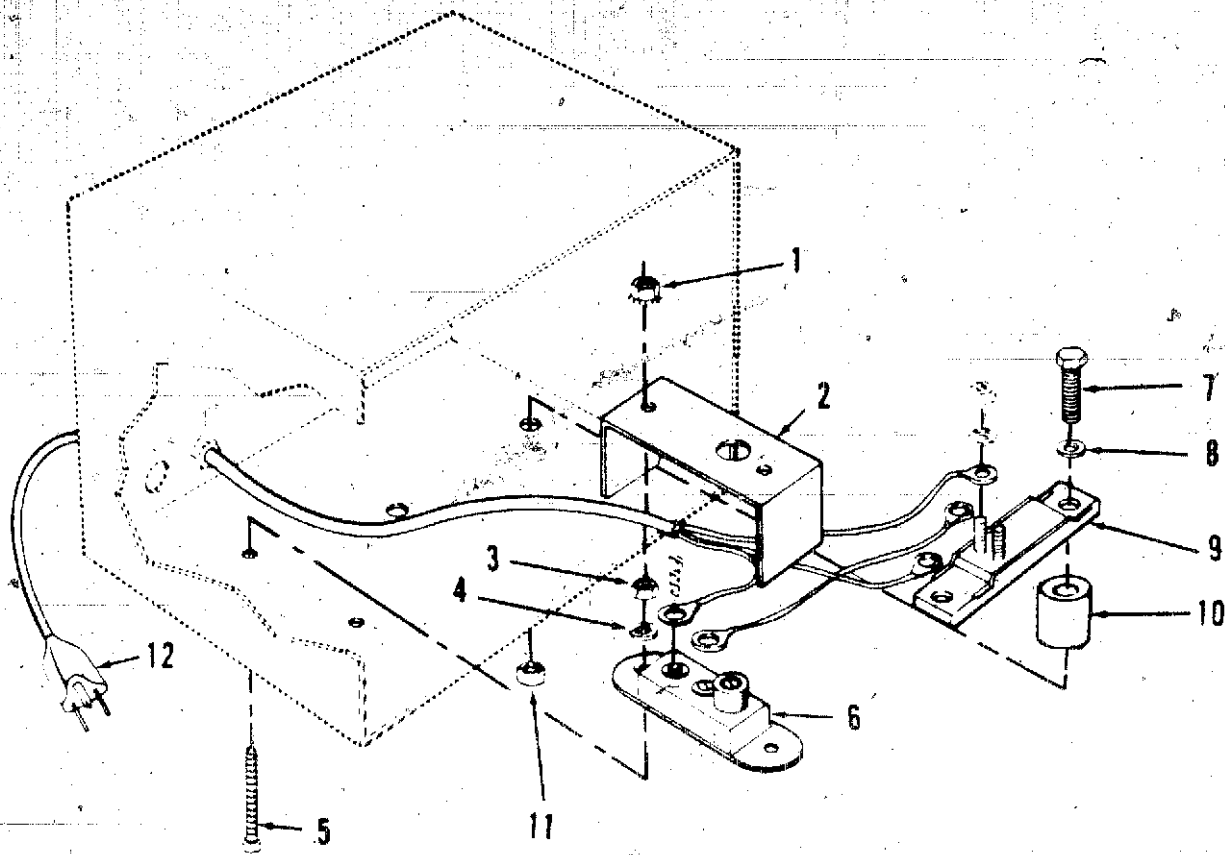
Current Transformer



Current Transformer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0203	1	Ground Terminal	8	302-0729	1	Bracket, Mounting - Transformer
	871-0010	3	Screw, Machine - Round Head, Brass (#10-32 x 7/8")	9	813-0100	6	Screw, Machine - Round Head (#10-32 x 1/2")
	856-0003	1	Nut, Hex - Brass (#10-32)	10	526-0008	6	Washer, Flat (13/64"ID x 7/16"OD x 1/32"THK)
	854-0010	2	Washer, Lock - EIT (#10)	11	856-0003	6	Washer, Lock - EIT (#10)
	526-0049	2	Washer, Lock - IT (#10)	12	870-0053	6	Nut, Hex (#10-32)
			Washer, Flat - Brass (13/64"ID x 7/32 "OD x 1/32"THK)	13	302-0764	1	Bracket, Mounting - Transformer
2	813-0110	6	Screw, Machine - Round Head (#10-32 x 2")	14			Transformer, Current with Mounting Feet
3	854-0010	6	Washer, Lock - IT (#10)		302-0864	3	Ratio (Ammeter Scale)
4	302-0235	3	Clamp - Upper		302-0865	3	150/5 (0-75/0-150A)
5	302-0236	3	Clamp - Lower		302-0866	3	200/5 (0-100/0-200A)
6	302-0253	6	Shim		302-0608	3	250/5 (0-150/0-300A)
7			Transformer, Current Ratio (Ammeter Scale)		302-0547	3	400/5 (0-200/0-400A)
	302-0117	3	50/5 (0-50A)				500/5 (0-250/0-500A)
	302-0076	3	75/5 (0-75A)				
	302-0078	3	100/5 (0-100A)				
	302-0079	3	150/5 (0-150A)				
	302-0106	3	200/5 (0-200A)				
	302-0209	3	250/5 (0-250A)				

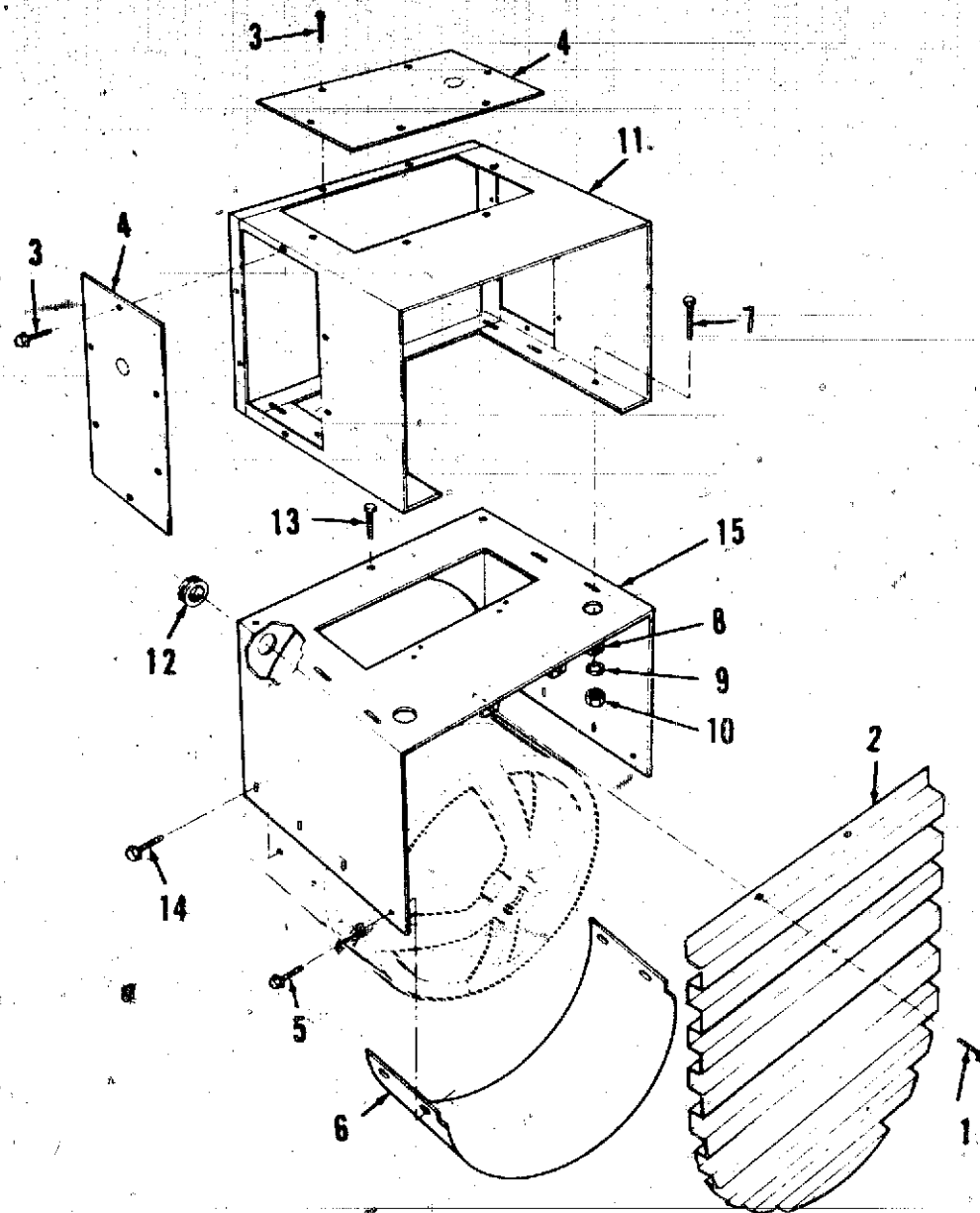
Heater - Control



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-locking - Hex Washer Head (#6-32)
2	301-1886	1	Cover, Thermostat
3	860-0006	1	Nut, Hex (#6-32)
4	854-0006	2	Washer, Lock - IT (#6)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")
6	309-0128	1	Thermostat - Adjustable

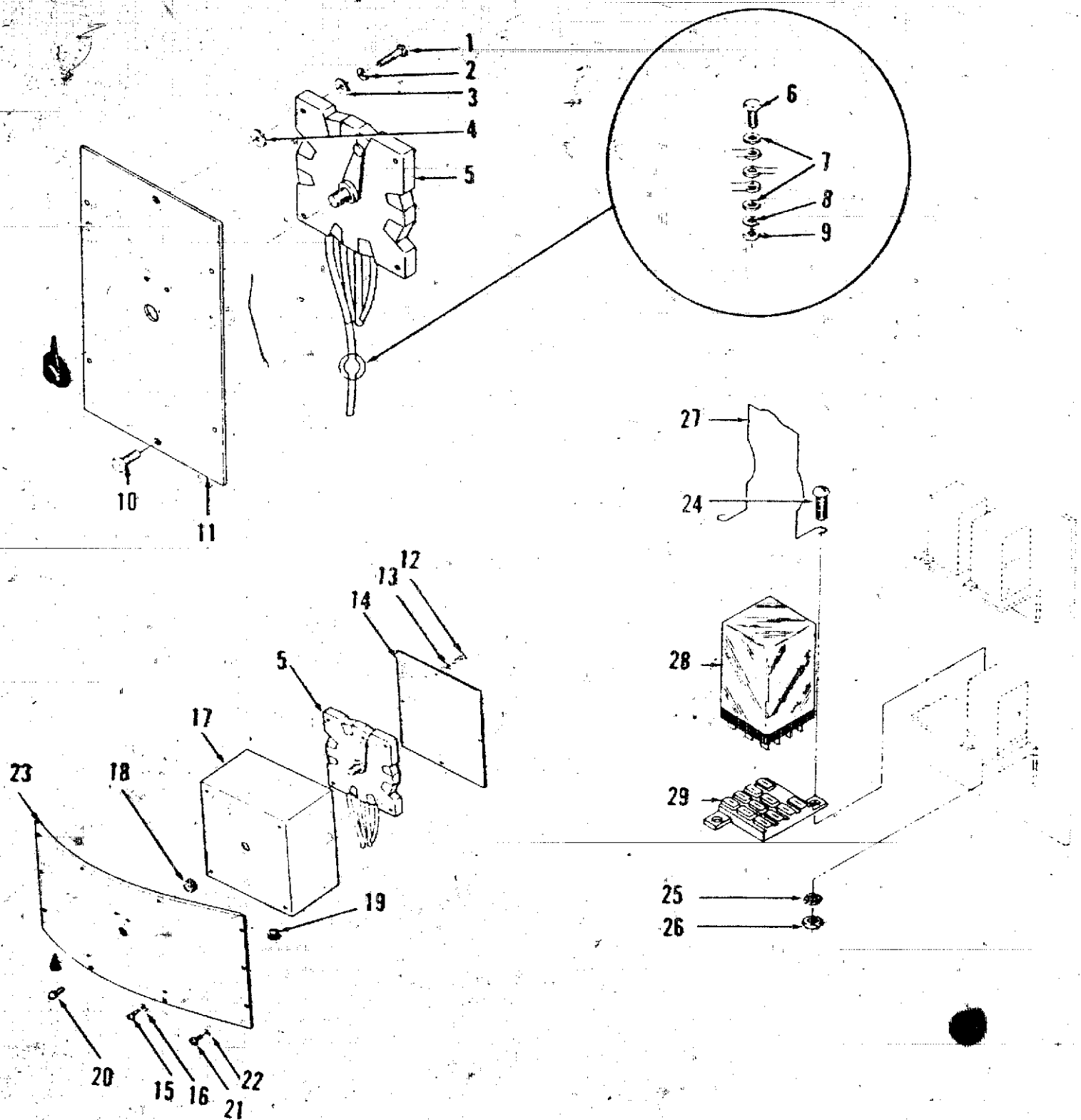
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")
8	526-0113	2	Washer, Flat (5/16")
9	333-0151	1	Heater, Elec - 75 W, 120 VAC, 300 W, 240 VAC
10	130-1107	2	Spacer, Sleeve
11	870-0257	2	Nut, Self-locking - Hex (5/16-18)
12	335-0161	1	Cable, Electrical

Control Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	8	856-0006	1	Washer, Lock - EIT (1/4")
2	234-0370	1	Grill, Air	9	526-0018	5	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)
3	815-0350	18	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	10	870-0212	6	Nut, Hex (1/4-20)
4	301-3156	3	Panel, Access	11	301-3155	1	Housing, Control Box
5	821-0010	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	12	508-0203	1	Bushing, Cable
6	234-0361	1	Wrapper, End Bell	13	821-0010	1	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
7	821-0018	6	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")	14	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
				15	301-3154	1	Saddle, Control Box

Dual Phase Switch

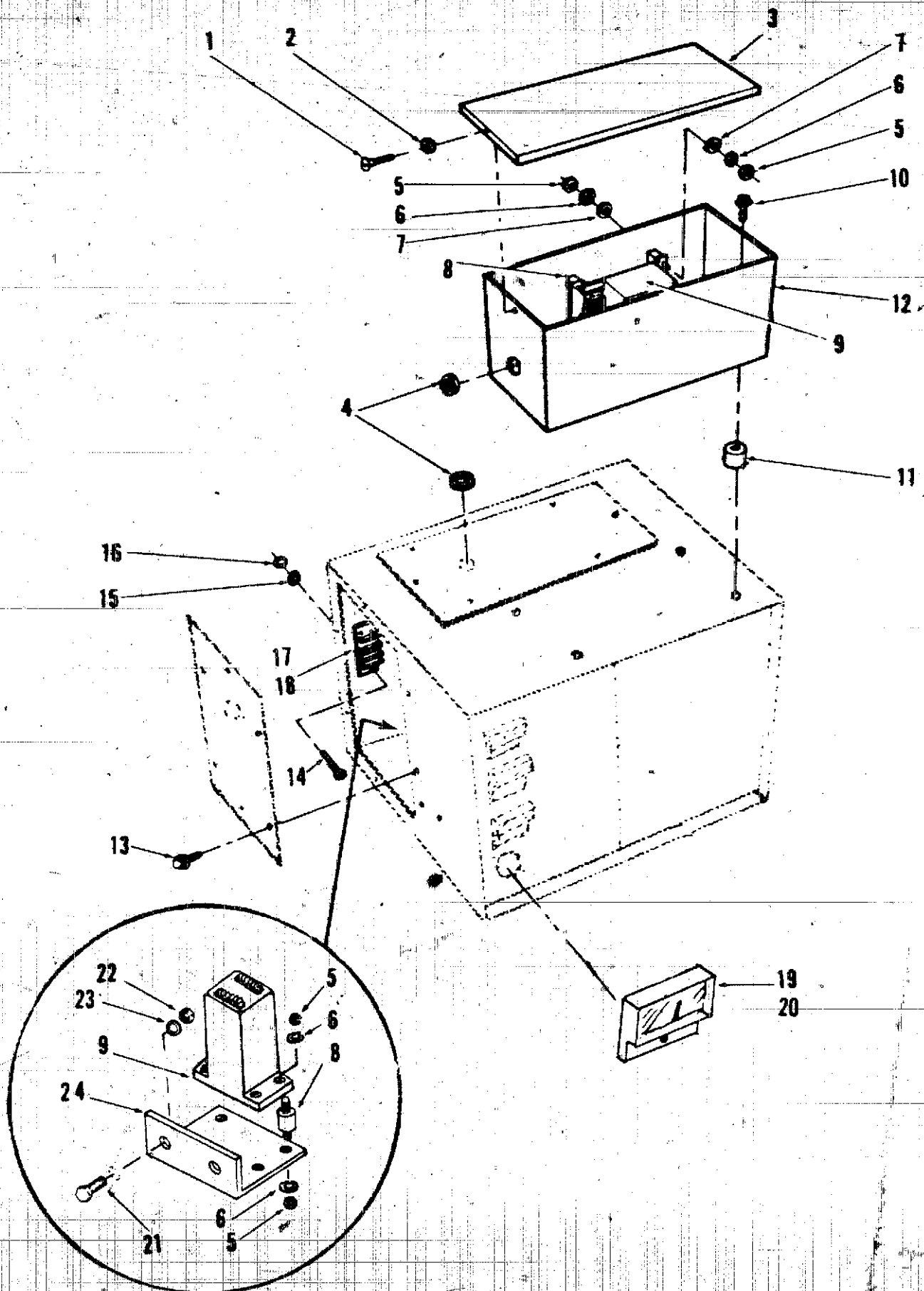


Dual Phase Switch

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0153	4	Screw, Machine - Round Head, (1/4-20 x 1")	15	813-0097	4	Screw, Machine - Round Head (#10-32 x 5/16")
2	850-0040	4	Washer, Lock - Spring (1/4")	16	850-0030	4	Washer, Lock - Spring (#10)
3	526-0052	4	Washer, Flat (17/64" ID x 9/16" OD x 1/32" THK)	17	301-3283	1	Box, Switch (Housed Sets)
4	526-0054	4	Washer, Flat (21/64" ID x 3/4" OD x 1/16" THK)	18	508-0009	1	Grommet (Housed Sets)
5	308-0152	1	Switch, Rotary (Includes Knob)	19	508-0115	2	Grommet (Housed Sets)
6	800-0028	5	Screw, Cap - Hex Head (5/16-18 x 1")	20	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
7	526-0002	10	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)	21	813-0098	6	Screw, Machine - Round Head (#10-32 x 3/8")
8	850-0045	5	Washer, Lock - Spring (5/16")	22	850-0030	6	Washer, Lock - Spring (#10)
9	862-0015	5	Nut, Hex (5/16-18)	23			Panel, Access - Rear (Housed Sets)
10	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")		405-1840	1	10-1/4"H x 22"W
11	301-3292	1	Panel, Mounting - Switch (Unhoused Sets)		405-2160	1	14-1/2"H x 22"W
12	813-0097	4	Screw, Machine - Round Head (#10-32 x 5/16")	24	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")
13	850-0030	4	Washer, Lock - Spring (#10)	25	853-0003	2	Washer, Lock - ET (#6)
14	301-3284	1	Cover, Box (Housed Sets)	26	860-0006	2	Nut, Hex (#6-32)
				27	307-1157	1	Spring, Holddown - Relay
				28	307-1143	1	*Relay (12 VDC)
				29	323-0764	1	Socket, Relay (Less Terminals)
					323-1280	8	Terminal
					815-0392	1	Plug, Keying

* - Relay Located Within Engine Control.

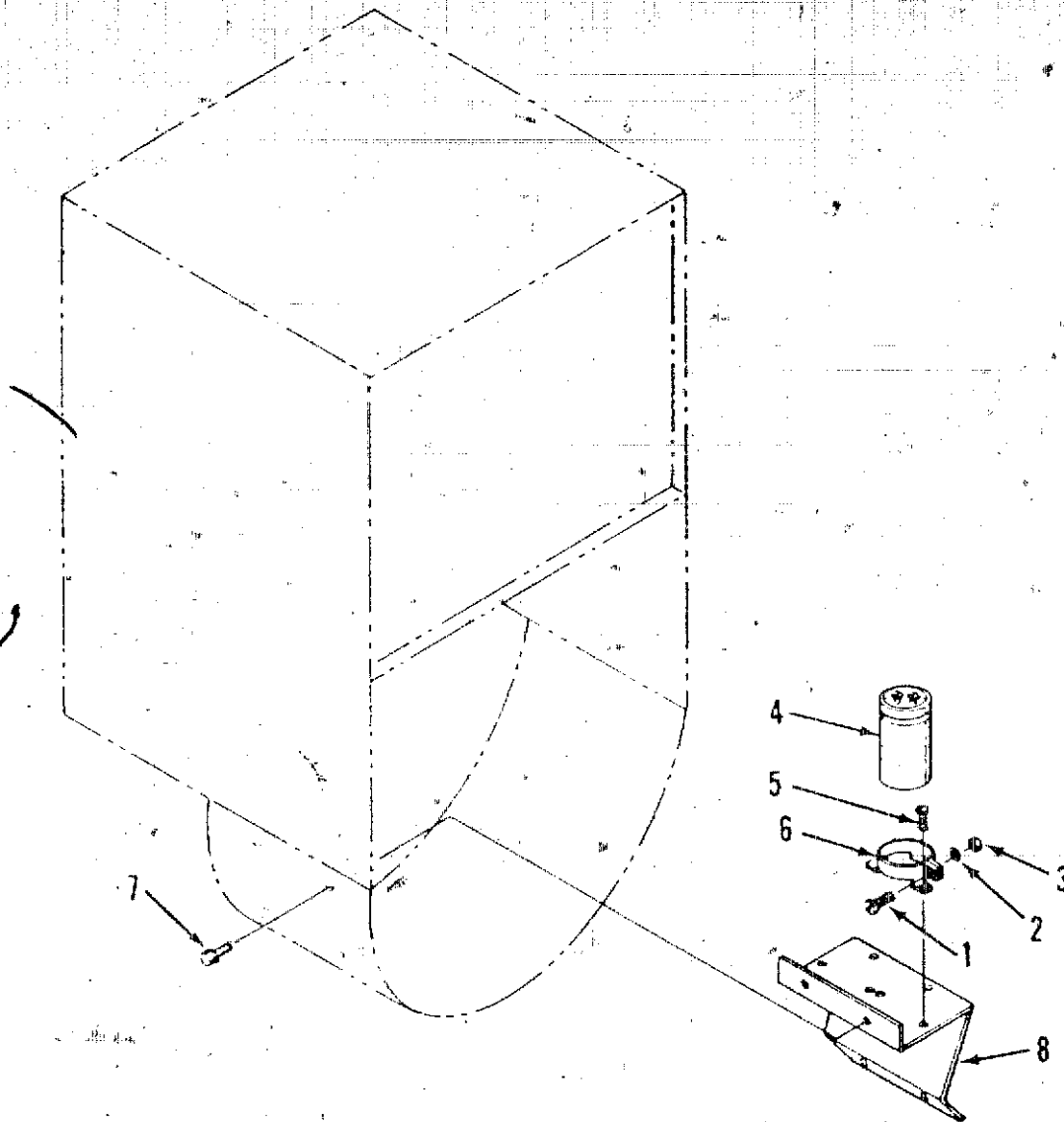
Wattmeter



Wattmeter

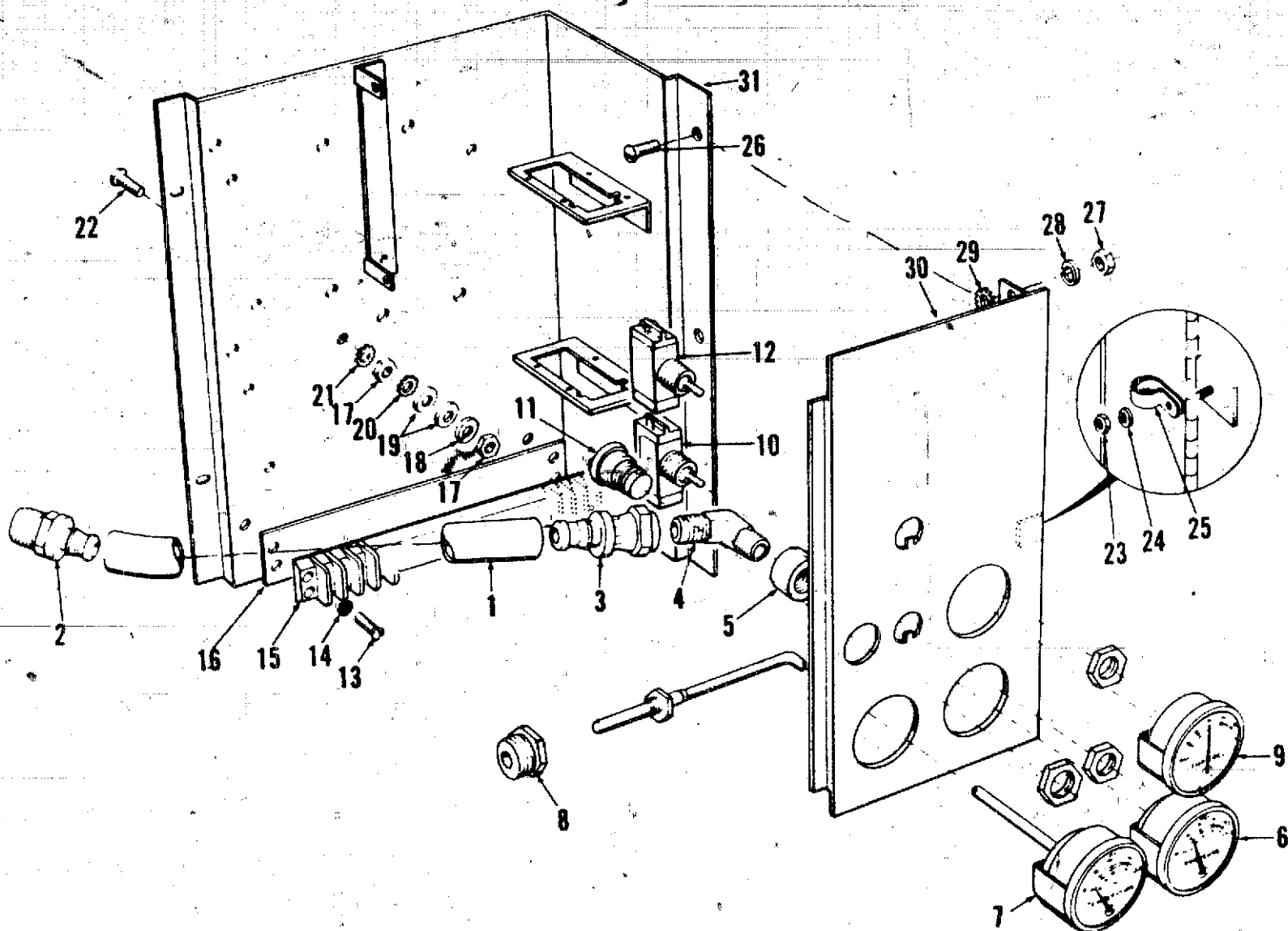
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0026	2	Screw, Machine - Truss Head (#10-32 x 3/8")	12	301-3477	1	Box, Transducer (External Installation)
2	853-0008	2	Washer, Lock - ET (#10)	13	815-0350	6	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")
3	301-3476	1	Cover, Transducer Box (External Installation)	14	812-0063	4	Screw, Machine - Round Head (#6-32 x 1/2")
4	508-0001	2	Grommet	15	853-0003	4	Washer, Lock - ET (#6)
5	860-0008	8	Nut, Hex (#8-32)	16	860-0006	4	Nut, Hex (#6-32)
6	853-0005	8	Washer, Lock - ET (#8)	17	332-0609	1	Block, Terminal
7	526-0003	8	Washer, Flat (11/64" ID x 3/8" OD x 1/32" THK)	18	332-0610	1	Strip, Marker
8	402-0354	4	Mount, Vibration Transducer, Watt	19	302-1722	1	Wattmeter (Less Dial)
9	302-1082	1	3 Phase, 60 Hertz	20	302-1721-01	1	Dial, Wattmeter Scale 0-35 KW
	302-1083	1	3 Phase, 50 Hertz		302-1721-02	1	Scale 0-50 KW
	302-1113	1	1 Phase, 60 Hertz	21	821-0017	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
10	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	22	862-0014	2	Nut, Hex (5/16-18)
11	402-0078	4	Mount, Vibration	23	850-0045	2	Washer, Lock - Spring (5/16")
				24	301-6987	1	Bracket, Mounting (Internal Installation)

Capacitor Assembly



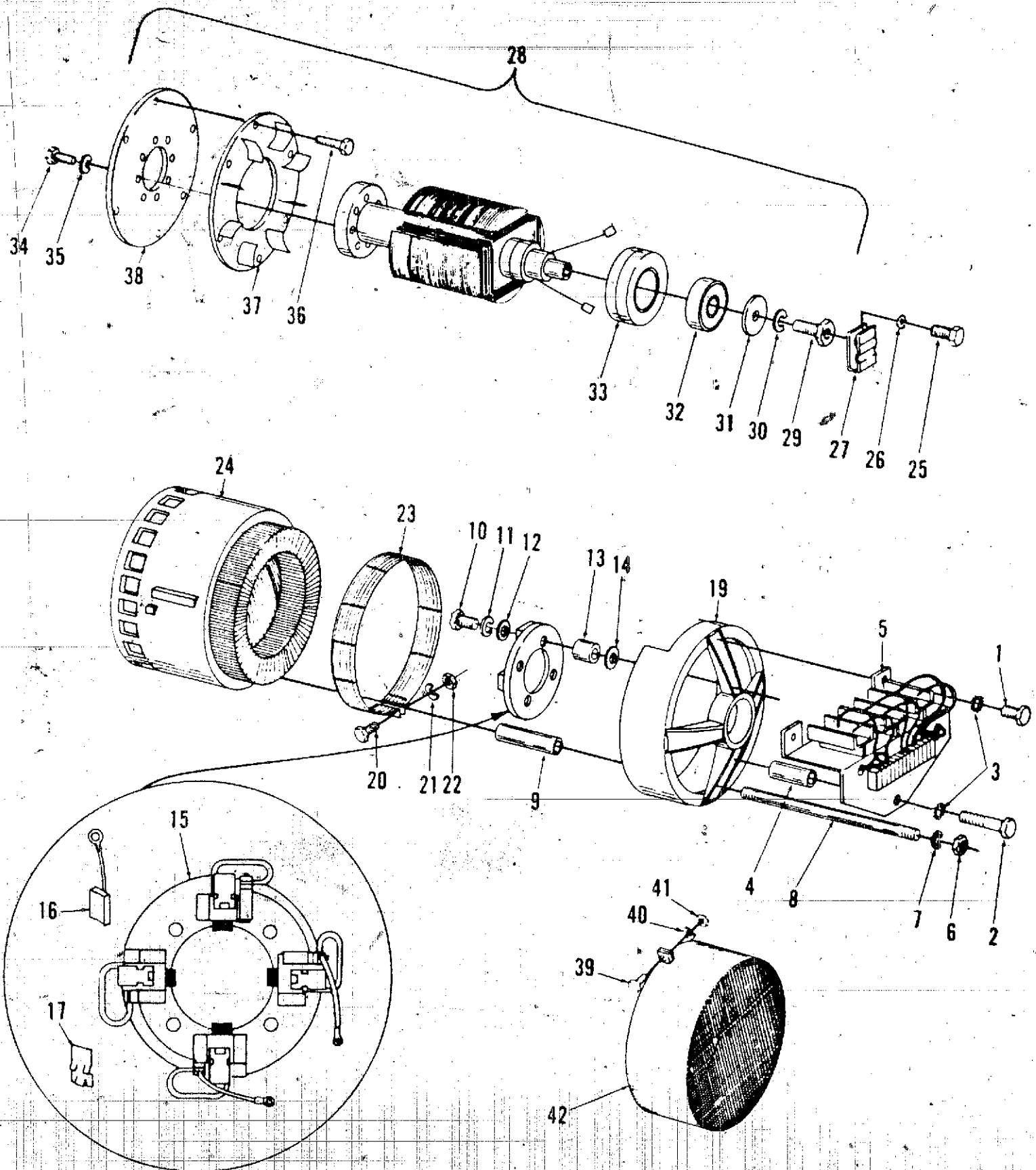
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0078	2	Screw, Machine - Round Head (#8-32 x 7/16")
2	850-0025	2	Washer, Lock - Spring (#8)
3	861-0007	2	Nut, Square (#8-32)
4	356-0090	2	Capacitor, Fixed, Electrolytic
5	812-0078	6	Screw, Machine - Round Head (#8-32 x 3/8")
6	356-0102	2	Clamp, Mounting - Capacitor
7	821-0009	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/8")
8	356-0104	1	Bracket, Mounting - Capacitor

Control - Engine Mechanical Gauges



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-1077	1	Hose, Rubber - Hi Pressure	14	853-0003	2	Washer, Lock - ET (#6)
2	502-0444	1	Adapter, Pipe to Hose - Male	15	332-0795	1	Block, Terminal - 20 Place
3	502-0445	1	Adapter, Pipe to Hose - Female	16	332-1241	1	Strip, Marker
4	502-0583	1	Elbow, Pipe - 45 DEG (1/8 NPT x 7/16-20)	17	871-0010	2	Nut, Hex - Brass (#10-32)
5	502-0051	1	Coupling, Pipe (1/8 NPT)	18	850-0030	2	Washer, Lock - Spring (#10)
6			Gauge, Pressure - Oil	19	526-0062	2	Washer, Flat - Brass (13/64" ID x 1/2" OD x 1/16" THK)
	193-0232	1	0 - 75 PSI	20	853-0008	1	Washer, Lock - ET (#10)
	193-0233	1	0 - 150 PSI	21	856-0003	1	Washer, Lock - EIT (#10)
7			Gauge, Temperature - Water	22	815-0203	1	Screw, Machine - Round Head, Brass (#10-32 x 7/8")
	193-0234	1	72" Capillary Tube	23	870-0053	1	Nut, Hex (#10-32)
	193-0235	1	84" Capillary Tube	24	850-0030	1	Washer, Lock - Spring (#10)
	193-0236	1	96" Capillary Tube	25	332-0051	2	Clamp, Loop
	193-0305	1	144" Capillary Tube	26	815-0026	5	Screw, Machine - Truss Head (#10-32 x 3/8")
8		1	Reducer, Hex (P/O Gauge) (5/8-18 UNF x 1/2 NPT)	27	870-0053	1	Nut, Hex (#10-32)
9	302-0061	1	Ammeter	28	850-0030	1	Washer, Lock - Spring (#10)
10	308-0088	1	Switch, Toggle (DPST)	29	856-0003	1	Washer, Lock - EIT (#10)
11	308-0297	1	Switch, Push	30	301-4009	1	Panel, Control - Engine
12	308-0155	1	Switch, Toggle (SPST)	31	301-3253	1	Bracket, Mtg - Engine Control
13	812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")				

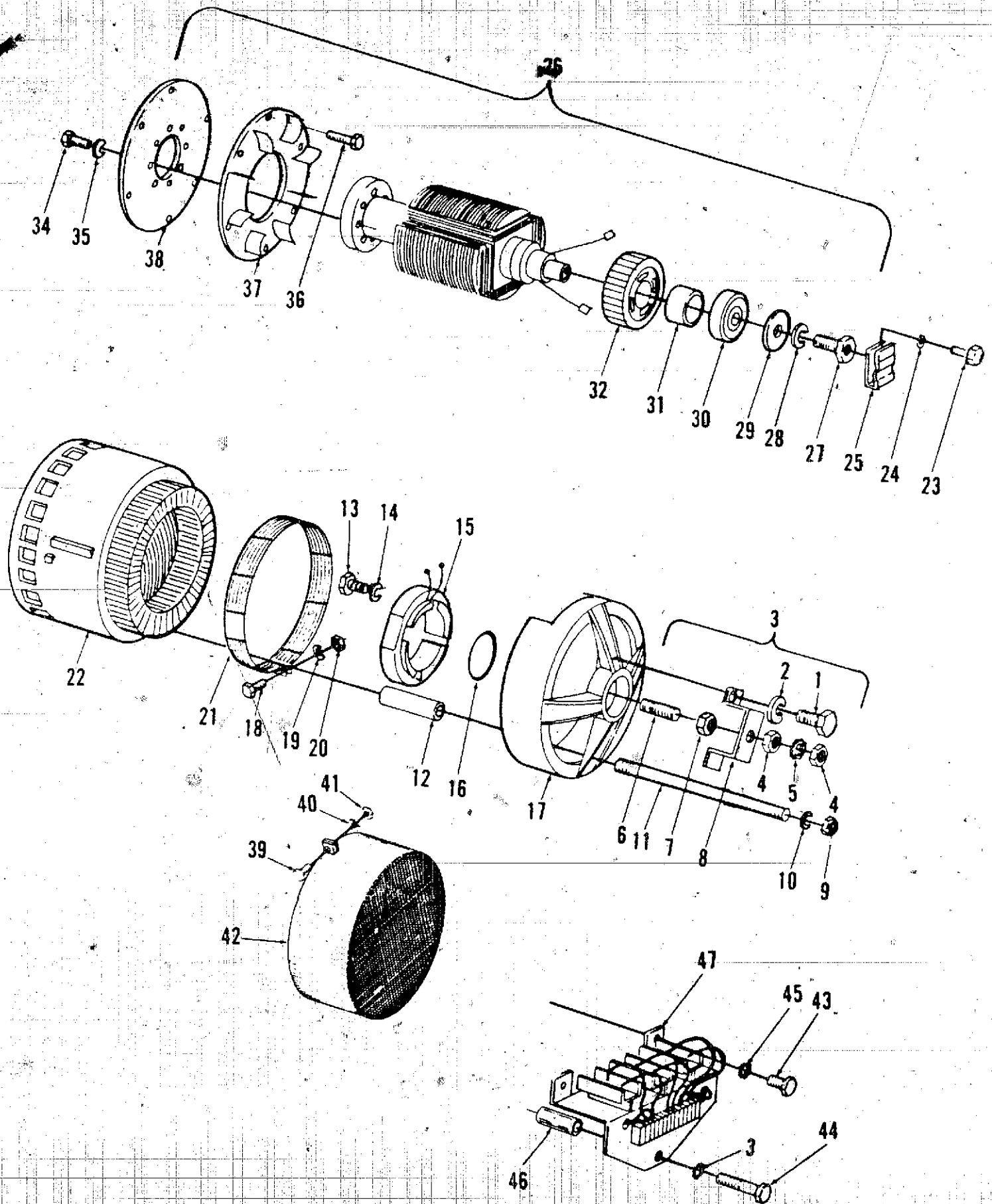
Generator Spec D & E



Generator Spec D & E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")		220-1456	1	Code 15 Extended Stack
2	800-0009	1	Screw, Cap - Hex Head (1/4-20 x 1-1/2")		220-1554	1	Code 53
3	853-0013	3	Washer, Lock - ET (1/4")		220-1454	1	Code 515
4	305-0481	2	Spacer, Sleeve		220-1456	1	Code 515 Extended Stack
5	305-0489	1	Regulator, Voltage (See Separate Page for Components)	25	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")
6	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	26	856-0010	1	Washer, Lock - EIT (3/8")
7	850-0050	4	Washer, Lock - Spring (3/8")	27	150-0717	1	Switch, Overspeed
8			Stud	28			Rotor Assembly, Generator (Includes Fan, Drive Disk, Bearing, Collector Ring)
	520-0721	4	3/8-16 UNC x 16-11/32"LG		201-1645	1	Code 3
	520-0723	4	3/8-16 UNC x 17-15/16"LG		201-1643	1	Code 15
			(Used on Extended Stack Sets)		201-1645	1	Code 15 Extended Stack
9	503-0611	4	Hose, Rubber		201-1645	1	Code 53
10	114-0023	4	Screw, Cap - Hex Head, Heat Treated (1/4-20 x 1-1/4")		201-1643	1	Code 515
11	850-0040	4	Washer, Lock - Spring (1/4")	29	800-0513	1	Code 515 Extended Stack
12	526-0108	4	Washer, Flat (17/64"ID x 7/16"OD x 1/32"THK)				Screw, Cap - Hex Head, Modified W/Tapped Hole
13	212-1225	4	Spacer, Sleeve	30	850-0079	1	Washer, Lock - Spring (3/4")
14	526-0018	8	Washer, Flat (17/64"ID x 5/8"OD x 1/16"THK)	31	526-0238	1	Washer, Flat - Steel Alloy (13/16"ID x 2"OD x 3/16"THK)
15	212-0413	1	Brush Rig (Includes Brushes and Springs)	32	510-0101	1	Bearing, Ball
16	214-0046	4	Brush, Generator	33	204-0083	1	Ring, Collector
	815-0203	4	Screw, Machine - Round Head with ET Lockwasher, Brass (#10-32 x 7/8")	34	805-0035	8	Bolt, Place - Hex Head, Grade 8 (5/8-11 x 1-1/2")
	853-0008	12	Washer, Lock - ET (#10)	35	526-0259	8	Washer, Flat - Hardened Steel (11/16"ID x 1-3/8"OD x 7/64"THK)
	526-0049	4	Washer, Flat (13/64"ID x 7/16"OD x 1/32"THK)	36	805-0019	8	Bolt, Place - Hex Head, Grade 8 (3/8-16-1-1/4")
	871-0010	8	Nut, Hex - Brass (#10-32)	37	205-0089	1	Fan, Cooling - Generator
17	212-1105	4	Spring, Brush	38	232-2078	1	Disk, Drive - Generator
18	509-0125	1	Seal, Oil - "O" Ring	39	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
19	211-0185	1	End Bell, Generator	40	850-0040	1	Washer, Lock - Spring (1/4")
20	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	41	862-0001	1	Nut, Hex (1/4-20)
21	850-0040	2	Washer, Lock - Spring (1/4")	42	234-0369	1	Cover, End Bell (Housed Sets Only)
22	862-0001	2	Nut, Hex (1/4-20)				
23	234-0368	1	Screen, Air				
24			Stator Assembly, Generator				
	220-1554	1	Code 3				
	220-1454	1	Code 15				

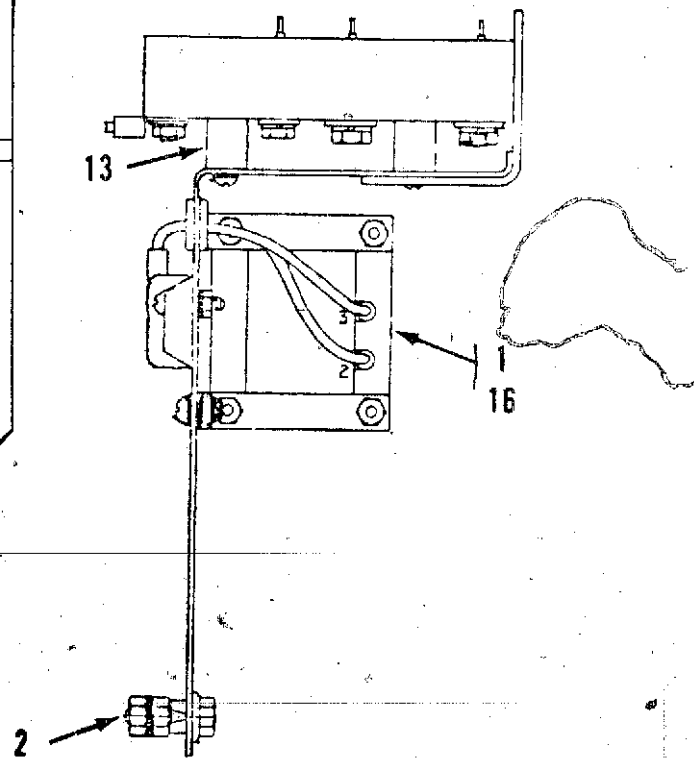
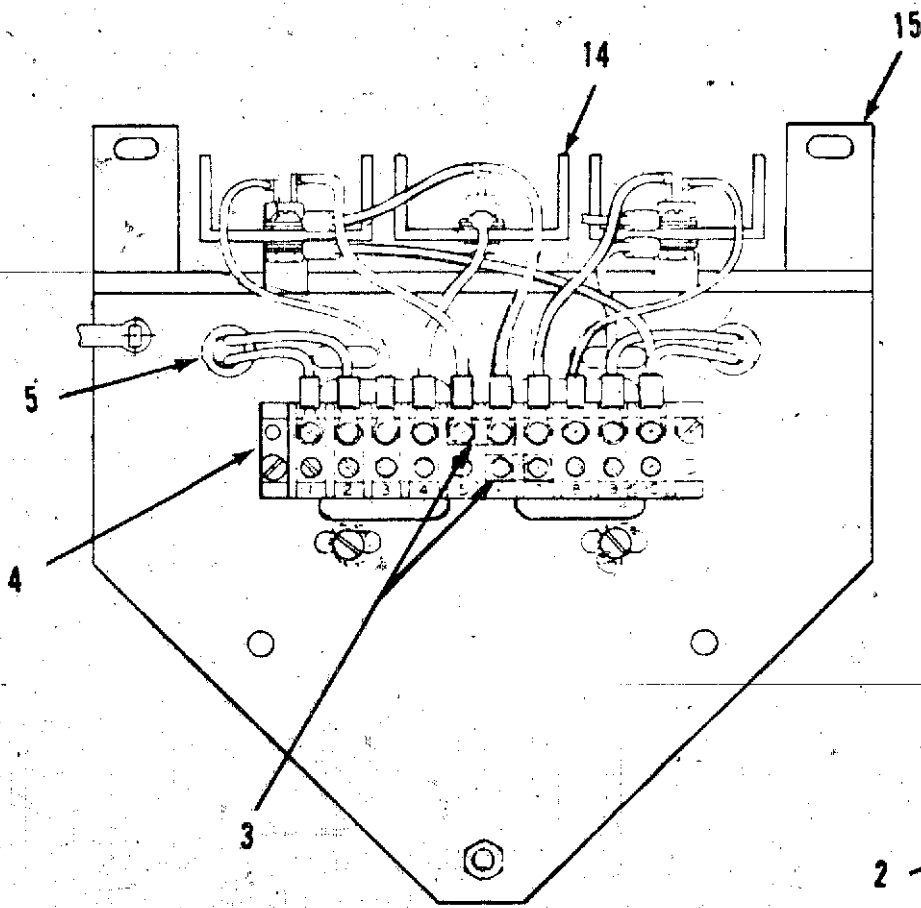
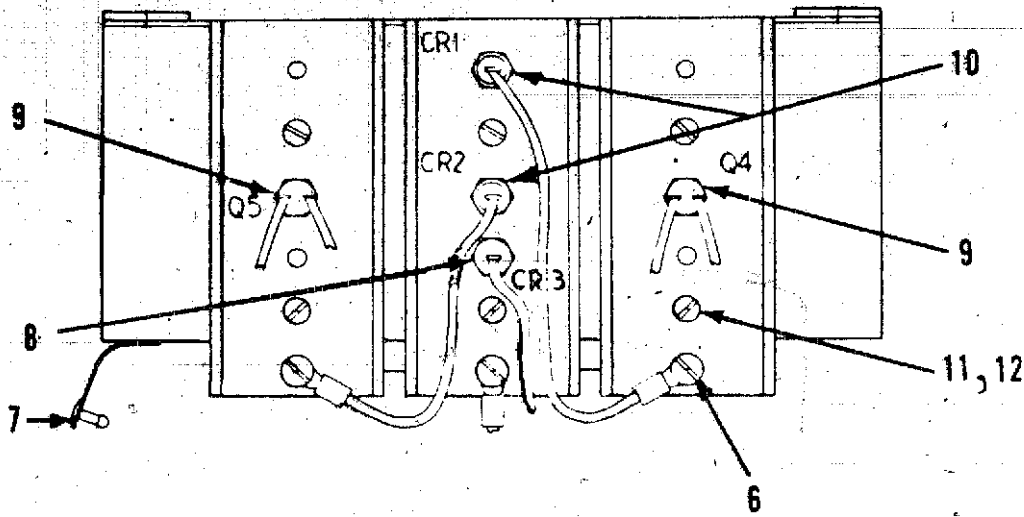
Generator Begin Spec F



Generator Begin Spec F

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	26			Rotor Assembly, Generator (Includes Fan, Drive Disk, Bearing, Exciter Rotor)
2	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	201-2671	1	1	Code 3
3	150-1456	1	Contact Assembly - Overspeed Switch (Includes Contact and Mounting Bracket) - Begin 1976, Spec J	201-2689	1	1	Code 3 Enviromental Protected
4	862-0001	2	Nut, Hex (1/4-20)	201-2669	1	1	Code 60, 7, 9X, 15
5	853-0013	1	Washer, Lock - ET (1/4")	201-2671	1	1	Code 15 Extended Stack
6	150-0723	1	Contact, Electrical	201-2687	1	1	Code 15 Enviromental Protected
7	870-0250	1	Nut, Insulated	201-2689	1	1	Code 15 Extended Stack And Enviromental Protected
8	150-1356	1	Bracket, Mounting - Contact	201-2671	1	1	Code 53
9	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	201-2689	1	1	Code 53 Enviromental Protected
10	850-0050	4	Washer, Lock - Spring (3/8")	201-2669	1	1	Code 515
11			Stud	201-2671	1	1	Code 515 Extended Stack
	520-0721	4	3/8-16 UNC x 16-11/32" LG	27	800-0513	1	Screw, Cap - Hex Head, Modified W/Tapped Hole
	520-0723	4	3/8-16 UNC x 17-15/16" LG (Used on Extended Stack Sets)	28	850-0079	1	Washer, Lock - Spring (3/4")
12	503-0611	4	Hose, Rubber	29	526-0238	1	Washer, Flat - Steel Alloy (13/16" ID x 2" OD x 3/16" THK)
13	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	30	510-0101	1	Bearing, Ball
14	850-0040	4	Washer, Lock - Spring (1/4")	31	232-2102	1	Spacer, Sleeve
15			Stator, Exciter	32			Rotor, Assembly & Exciter (See Separate Page for Component)
	220-2353	1	Standard				Standard
	220-1774	1	Enviromental Protected	201-1739	1	1	Enviromental Protected
16	509-0125	1	Seal, Oil - "O" Ring	201-1845	1	1	Enviromental Protected
17	211-0185	1	End Bell, Generator	33	515-0145	1	Key, Machine (1/4" x 1/4" x 7/8")
18	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	34	805-0035	8	Bolt, Place - Hex Head, Grade 8 (5/8-11 x 1-1/2")
19	850-0040	2	Washer, Lock - Spring (1/4")	35	526-0259	8	Washer, Flat - Hardened Steel (11/16" ID x 1-3/8" OD x 7/64" THK)
20	862-0001	2	Nut, Hex (1/4-20)	36	805-0019	8	Bolt, Place - Hex Head, Grade 8 (3/8-16 x 1-1/4")
21	234-0368	1	Screen, Air	37	205-0089	1	Fan, Cooling - Generator
22			Stator Assembly, Generator	38	232-2078	1	Disk, Drive - Generator
	220-1554	1	Code 3	39	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
	220-1847	1	Code 3 Enviromental Protected	40	850-0040	1	Washer, Lock - Spring (1/4")
	220-2624	1	Code 60	41	862-0001	1	Nut, Hex (1/4-20)
	220-2462	1	Code 7	42	234-0369	1	Cover, End Bell
	220-1602	1	Code 9X	43	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
	220-1454	1	Code 15	44	800-0009	1	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
	220-1456	1	Code 15 Extended Stack	45	853-0013	3	Washer, Lock - ET (1/4")
	220-1786	1	Code 15 Enviromental Protected	46	305-0481	2	Spacer, Sleeve
	220-1788	1	Code 15 Extended Stack And Enviromental Protected	47	305-0491	1	Regulator, Voltage (See Separate Page for Component) 1971 Thru 1975, Spec F, G, & H
	220-1554	1	Code 53				
	220-1847	1	Code 53 Enviromental Protected				
	220-1997	1	Code 515				
	220-1999	1	Code 515 Extended Stack				
23	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")				
24	856-0010	1	Washer, Lock - EIT (3/8")				
25	150-0717	1	Switch, Overspeed				

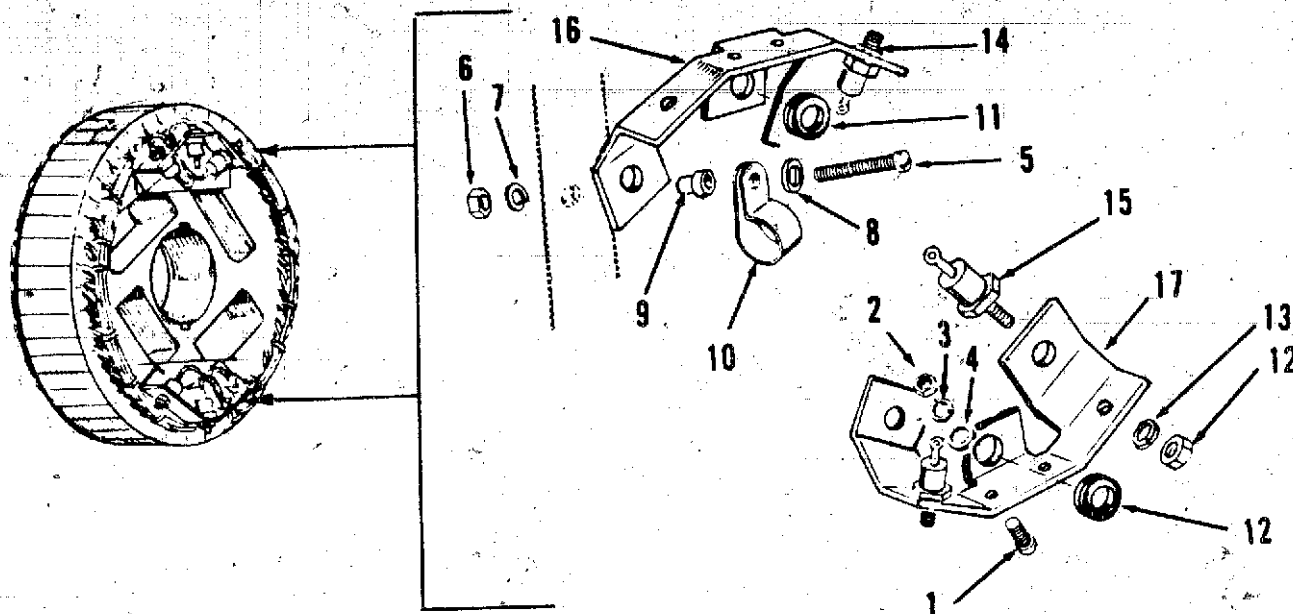
Voltage Regulator



Voltage Regulator

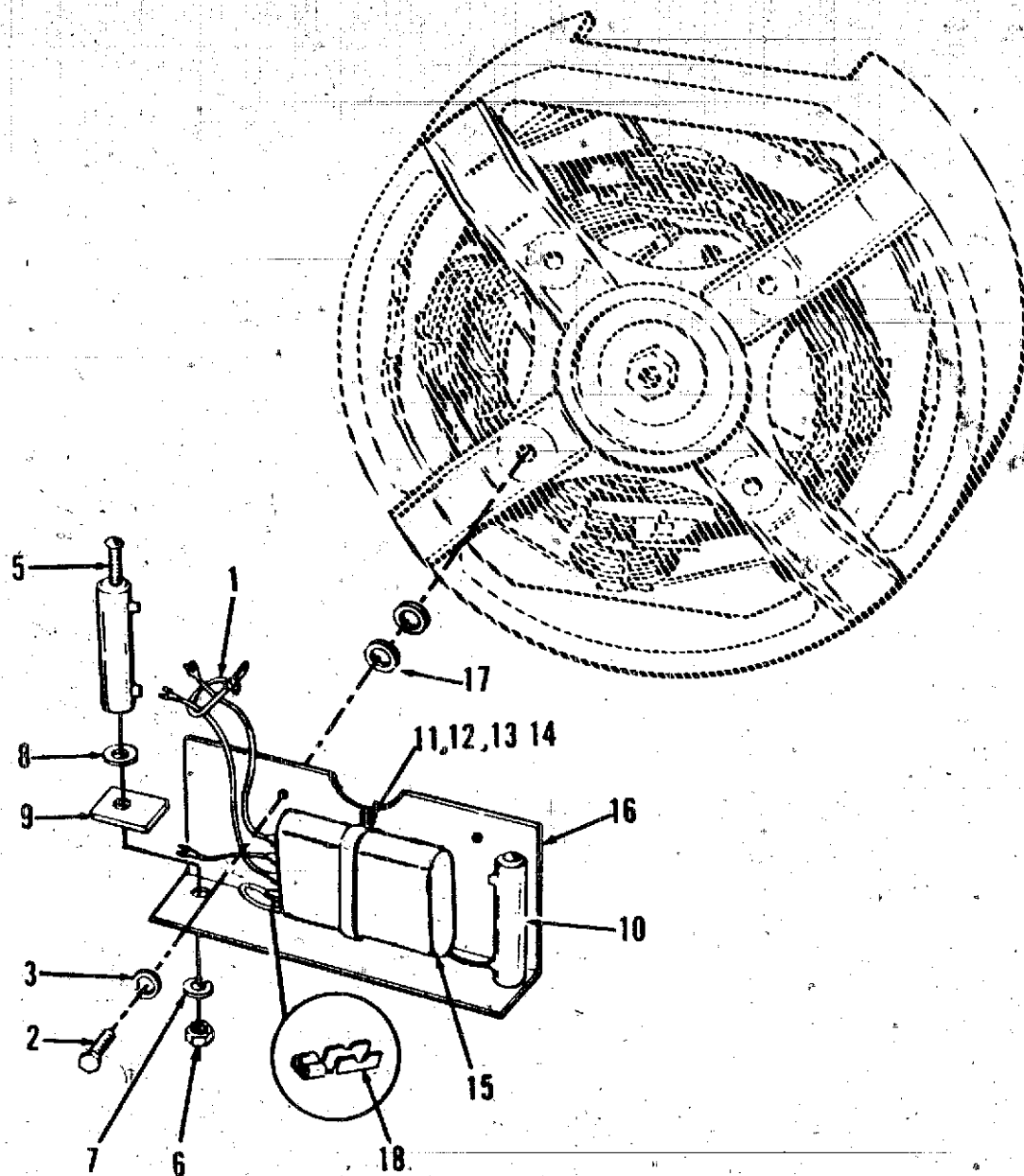
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	305-0489	1	Regulator, Voltage - Brush Type Generators Spec D Thru E	7	332-1415	1	Clamp, Cable
	305-0491	1	Regulator, Voltage - Brushless Generators, Spec F Thru H	8	358-0029	1	Rectifier (CR3)
1	315-0341	1	Reactor (L1) (Part of 305-0489)		871-0010	1	Nut, Hex - Brass (#10-32)
	813-0100	4	Screw, Machine - Round Head (#10-32 x 1/2")		850-0030	1	Washer, Lock - Spring (#10)
	853-0008	4	Washer, Lock - ET (#10)		526-0009	1	Washer, Flat (7/32"ID x 1/2"OD x 1/16"THK)
2	NFS		Switch Assembly, Overspeed	9			Rectifier (Q4, Q5)
	862-0001	2	Nut, Hex (1/4-20)		364-0012	2	Part of 305-0489
	853-0013	1	Washer, Lock - ET (1/4")		364-0014	2	Part of 305-0491
	870-0250	1	Nut, Insulating (1/4")		871-0018	2	Nut, Hex - Brass (1/4-20)
	150-0723	1	Contact, Electrical		850-0040	2	Washer, Lock - Spring (1/4")
3	332-1043	2	Jumper, Terminal		526-0018	2	Washer, Flat (17/64"ID x 5/8"OD x 1/16"THK)
4	332-1266	1	Block, Terminal	10			Rectifier (CR1, CR2)
	812-0081	2	Screw, Machine - Round Head (#8-32 x 5/8")		358-0031	2	Part of 305-0489
	853-0005	2	Washer, Lock - ET (#8)		358-0035	2	Part of 305-0491
	860-0008	2	Nut, Hex (#8-32)		871-0018	2	Nut, Hex - Brass (1/4-20)
5	508-0002	2	Grommet		850-0040	2	Washer, Lock - Spring (1/4")
6	NFS		Leads, Electrical		526-0018	2	Washer, Flat (17/64"ID x 5/8"OD x 1/16"THK)
	812-0079	3	Screw, Machine - Round Head (#8-32 x 1/2")	11	812-0077	12	Screw, Machine - Round Head (#8-32 x 3/8")
	853-0005	3	Washer, Lock - ET (#8)	12	853-0005	12	Washer, Lock - ET (#8)
	526-0048	2	Washer, Flat - Brass (11/64"ID x 3/8"OD x 1/32"THK)	13	332-1265	6	Insulator, Standoff
	871-0007	3	Nut, Hex - Brass (#8-32)	14	363-0048	3	Sink, Heat
				15	305-0482	1	Chassis
				16	315-0343	1	Reactor (L1) Part of 305-0491
					812-0077	2	Screw, Machine - Round Head (#8-32 x 3/8")
					853-0005	2	Washer, Lock - ET (#8)
					860-0008	2	Nut, Hex (#8-32)

Exciter Rotor



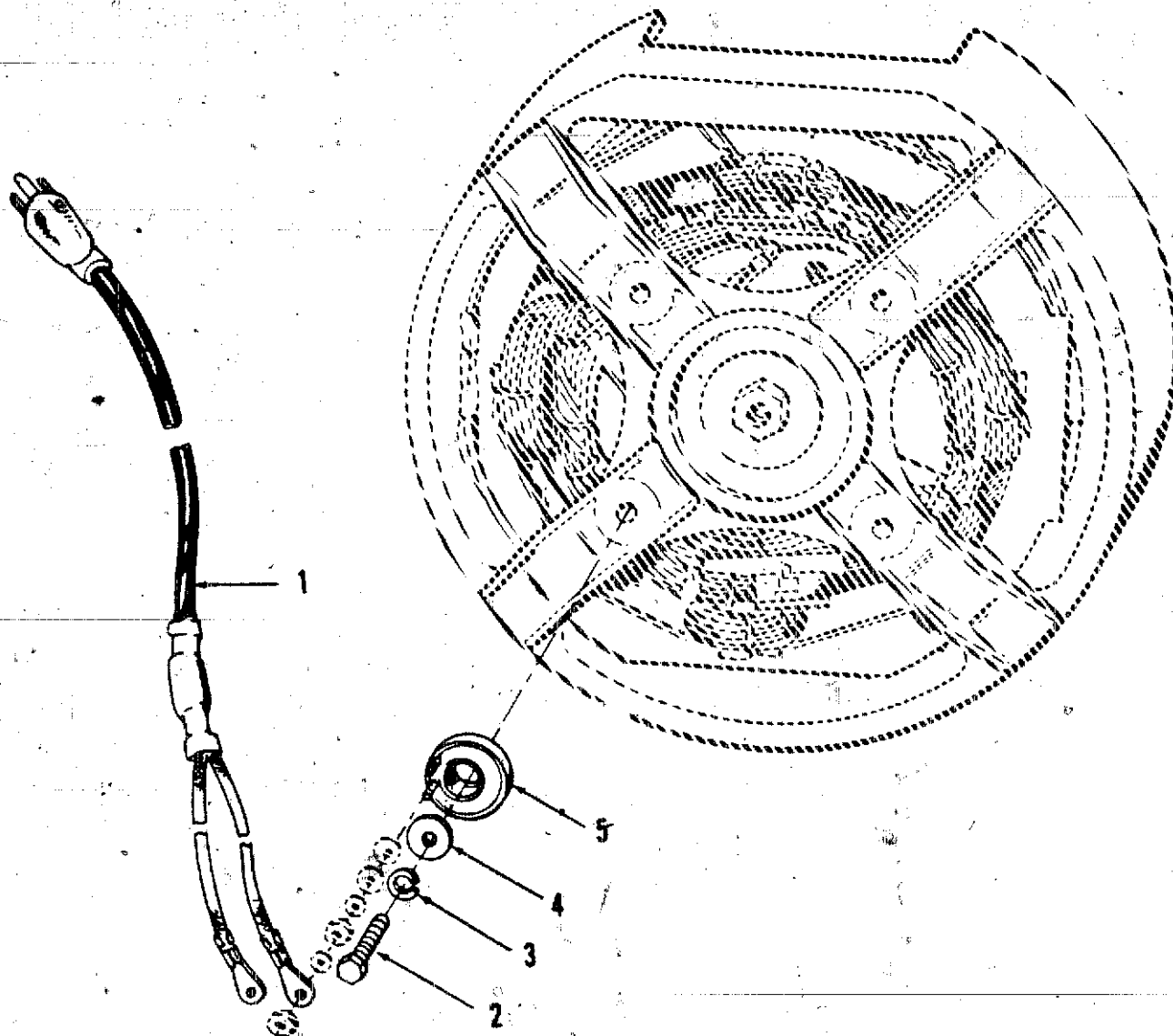
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
2	870-0053	2	Nut, Hex (#10-32)
3	850-0030	2	Washer, Lock - Spring (#10)
4	526-0008	2	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
5	813-0110	4	Screw, Machine - Round Head (#10-32 x 2")
6	870-0053	4	Nut, Hex (#10-32)
7	850-0030	4	Washer, Lock - Spring (#10)
8	526-0009	4	Washer, Flat (7/32" ID x 1/2" OD x 1/16" THK)
9	508-0187	4	Spacer, Stepped
10	332-0050	2	Clamp, Loop
11	508-0093	2	Grommet
12	870-0053	6	Nut, Hex (#10-32)
13	850-0030	6	Washer, Lock - Spring (#10)
14			Diode - Positive (CR1, CR2, CR3)
	358-0097	3	Standard
	358-0044	3	Environmental Protected
15			Diode - Negative (CR4, CR5, CR6)
	358-0096	3	Standard
	358-0043	3	Environmental Protected
16	363-0054	1	Sink, Heat - Positive Diodes
17	363-0055	1	Sink, Heat - Negative Diodes

Filter - Voltage Regulator



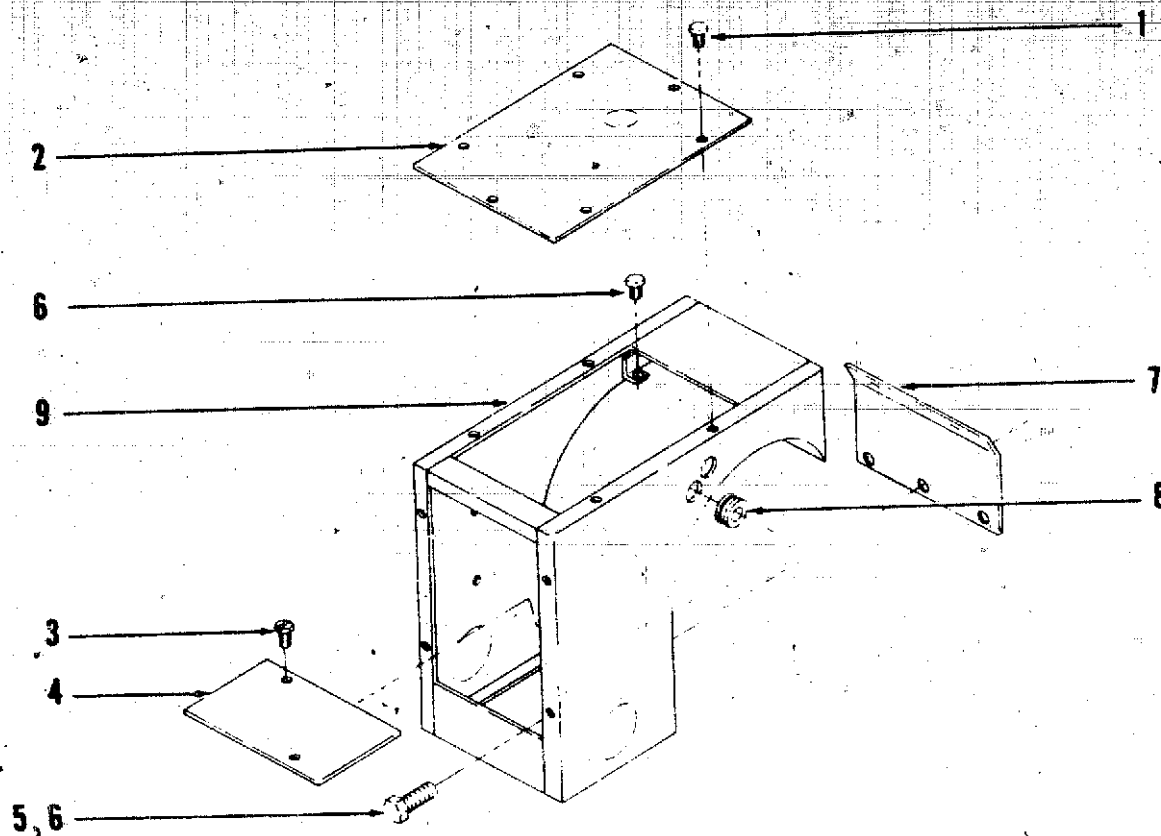
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-0941	5	Tie, Cable	11	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")
2	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	12	870-0053	2	Nut, Hex (#10-32)
3	850-0040	2	Washer, Lock - Spring (1/4")	13	850-0030	2	Washer, Lock - Spring (#10)
5	812-0165	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")	14	312-0189	1	Bracket, Mtg - Capacitor
6	862-0001	2	Nut, Hex (1/4-20)	15	312-0188	1	Capacitor, Fixed (15 MFD, 400 VAC)
7	850-0040	2	Washer, Lock - Spring (1/4")	16	232-2218	1	Bracket, Mtg - Filter
8	304-0427	4	Washer, Centering	17	526-0018	15	Washer, Flat (1/4")
9	304-0292	2	Insulator	18	332-0529	4	Terminal, Lug Bare (14-18 AWG)
10	354-0025	2	Resistor, Fixed, Wirewound (10 Ohm, 100 Watt)		332-1279	8	Insulated (14-18 AWG)

Heater - Generator



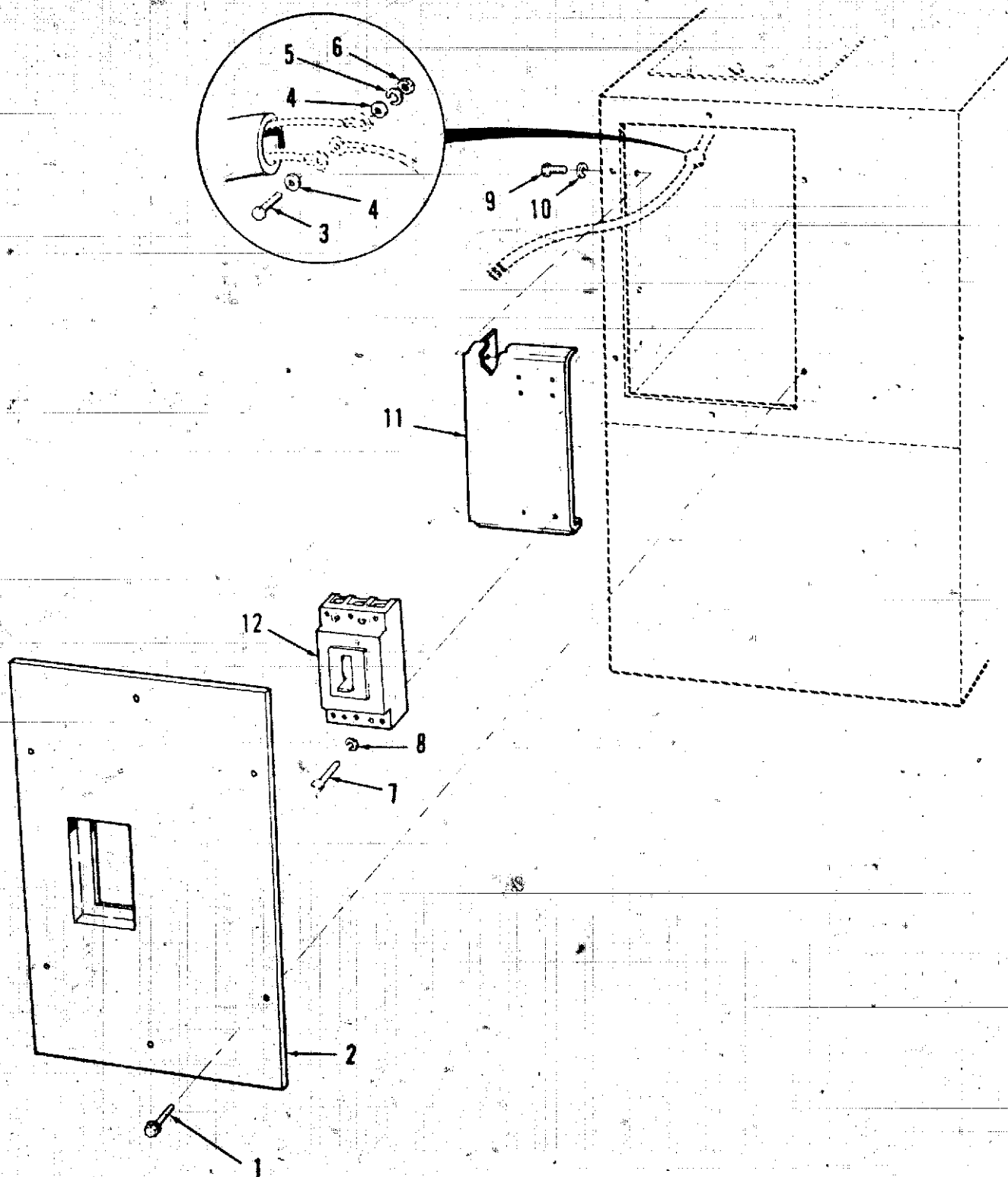
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable, Electrical (Includes Thermostat)
	335-0146	1	120 VAC
	335-0147	1	240 VAC
2	800-0004	1	Screw, Cap - Hex Head (1/4-20 x 5/8")
3	850-0038	1	Washer, Lock - Spring (1/4")
4	526-0158	1	Washer, Flat (17/64" ID x 1" OD x 1/8" THK)
5			Heater, Electrical
	333-0059	1	125 W, 120 VAC
	333-0192	1	200 W, 240 VAC

Output Box



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0005	12	Screw, Self-locking - Hex Washer Head (#10-32 x 1/2")
2	301-3156	2	Panel, Access
3	815-0030	2	Screw, Tapping - Hex Head, Slotted (#10-32 x 3/8")
4	301-3195	1	Plate, Access - Bottom
5	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
6	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
7	301-3196	1	Bracket, Support - Current Transformer Assembly
8	508-0203	1	Bushing
9	301-3191	1	Box, Output

Circuit Breaker



Circuit Breaker

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0350	6	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")
2	301-3192	1	Panel, Cover - Circuit Breaker
3	800-0028	5	Screw, Cap - Hex Head (5/16-18 x 1")
4	526-0022	10	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)
5	850-0045	5	Washer, Lock - Spring (5/16")
6	862-0015	5	Nut, Hex (5/16-18)
7	812-0094	4	Screw, Machine - Round Head (#8-32 x 3-5/8")
8	850-0025	4	Washer, Lock - Spring (#8)
9	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
10	850-0040	2	Washer, Lock - Spring (1/4")
11	301-3197	1	Bracket, Mounting - Circuit Breaker

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12			*Circuit Breaker Rating Frame (Application Voltage)
	320-0416	1	60AMP FB (347/600V 3 Phase)
	320-0414	1	70AMP EHB (277/480V 3 Phase)
	320-0379	1	90AMP EHB (220/380V 3 Phase)
	320-0379	1	90AMP EHB (200/346V 3 Phase)
	320-0346	1	150AMP CA (120/240V 3 Phase)
	320-0346	1	150AMP CA (120/208V 3 Phase)
	320-0359	1	225AMP CA (120/240V 1 Phase)

* - NOTE: For Circuit Breakers not listed above - Contact your nearest ONAN DISTRIBUTOR and provide the complete Model, Specification and Serial numbers from the Generator Set. Also any identifying numbers or ratings from the Circuit Breaker to be replaced.

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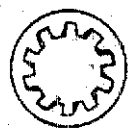
HARDWARE IDENTIFICATION

Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

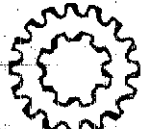
WASHER TYPES



EXTERNAL TOOTH LOCK (ET)



INTERNAL TOOTH LOCK (IT)



EXTERNAL-INTERNAL TOOTH LOCK (EIT)



COUNTERSUNK EXTERNAL TOOTH LOCK



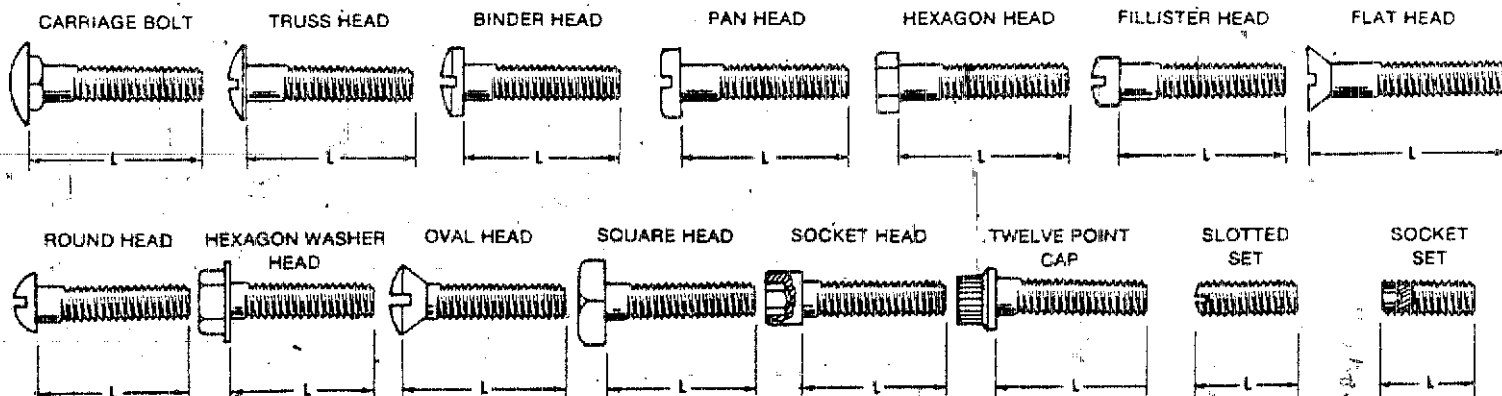
SPRING LOCK



*FLAT

- Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

BOLT AND SCREW TYPES



L - Measure length between these points.

INTERNAL DRIVE TYPES



SLOTTED



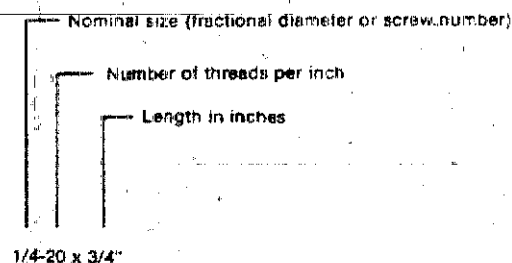
CROSS RECESSED (PHILLIPS)



SIX POINT SOCKET



TWELVE POINT SOCKET



NUT TYPES



FULL HEXAGON



JAM HEXAGON



HEXAGON WASHER



SQUARE



WING



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