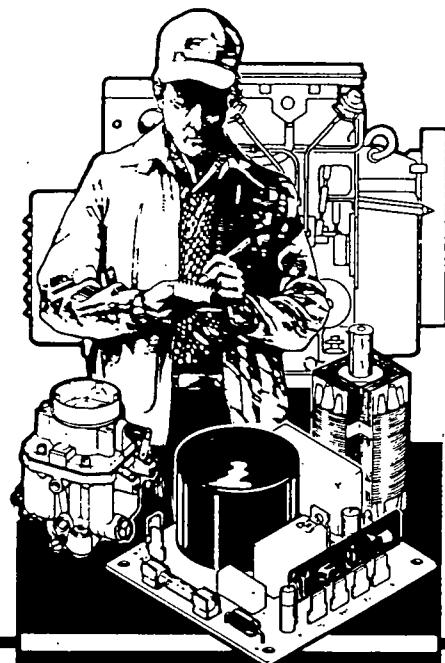

Onan

Parts Manual

D G C A

D G C B

GenSet



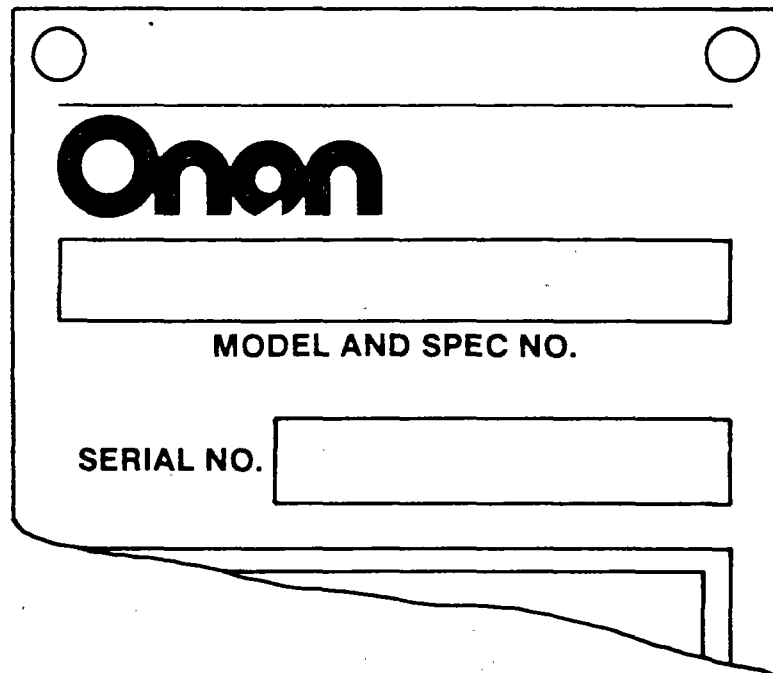
Onan Service Parts

960-0242
5-88 (Spec A)
Replaces
3-87 (Spec A)
Printed in U.S.A.

General Information

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

A rectangular template for an Onan nameplate. It features the Onan logo at the top left. Below the logo is a large rectangular box for the model and specification number. Below that is a smaller rectangular box for the serial number, preceded by the text "SERIAL NO.". The template has two circular holes at the top corners and a tab at the bottom right corner.

Onan

MODEL AND SPEC NO.

SERIAL NO.

M-1149

For handy reference, insert "YOUR"
nameplate information in the spaces above.

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Introduction

This Parts Manual applies to the Standard 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 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 sides of the Set are determined by FACING the FRONT (Engine end) of the Set.

Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
40.0 DGCA - */ # @	40,000 WATTS	1500 RPM	24 VDC
50.0 DGCA - */ # @	50,000 WATTS	1800 RPM	24 VDC
50.0 DGCB - */ # @	50,000 WATTS	1500 RPM	24 VDC
60.0 DGCB - */ # @	60,000 WATTS	1800 RPM	24 VDC

Electrical Data Table

*VOLTAGE CODE	VOLTAGE	HERTZ	WIRE	PHASE	NOTES
E (6D)	240/480	60	4	3	
H (9X)	347/600	60	4	3	
L (15R)	208/240/480	60	12	3	+
Z (515R)	208/240/480	50	12	3	+

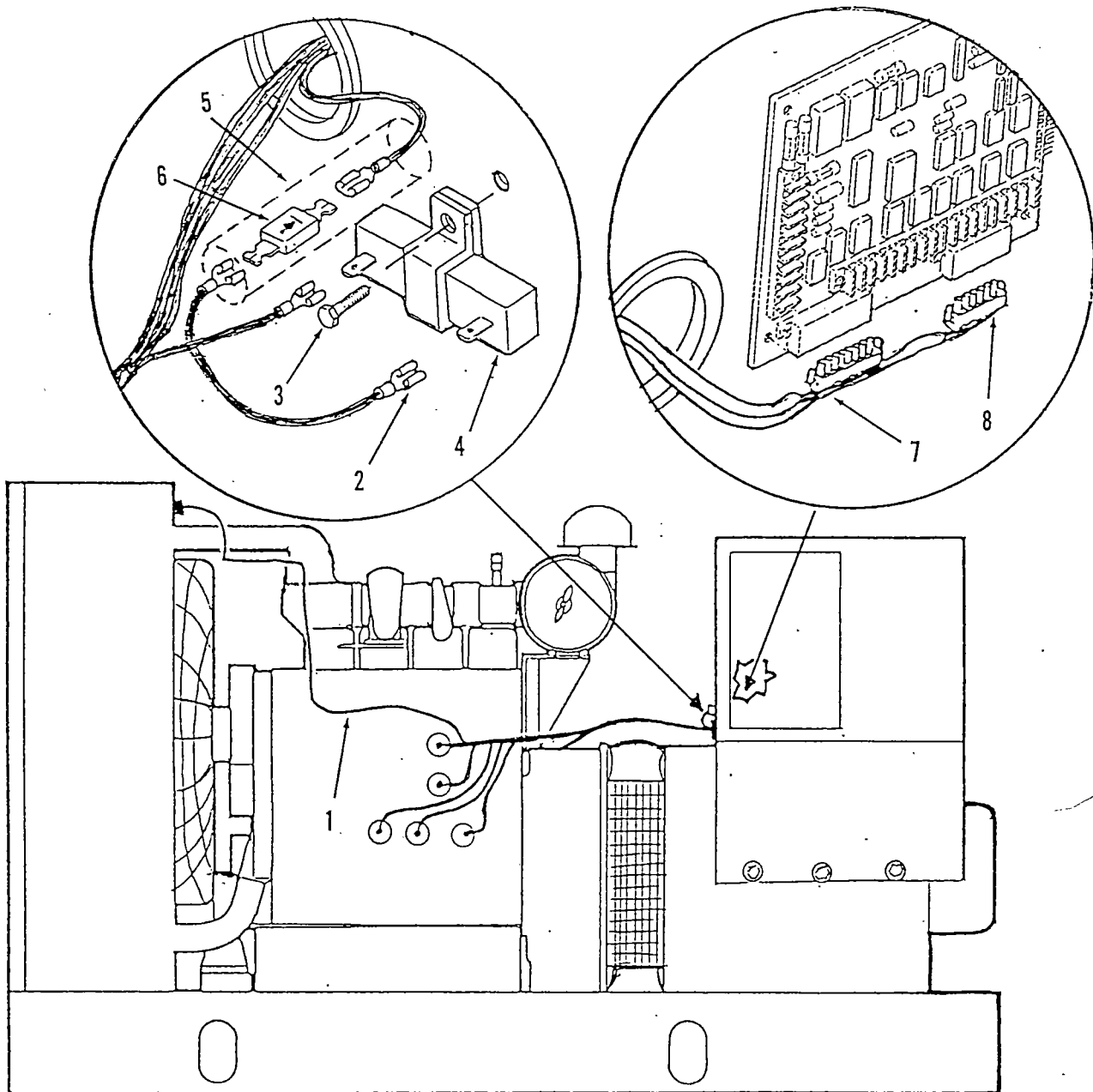
- * - Voltage Codes follow Model Letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.
- + - These Generators are Reconnectible, Refer To Installation Manual for wiring data.

Maintenance Engine Parts

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	187-0015	1	Filter, Oil	9			Pump, Injection
2	187-0011	1	Filter, Fuel		187-0017	1	DGCA
3	187-0012	1	Filter, Fuel		187-0018	1	DGCB
4	187-0008	4	Gasket, Cover - Valve	10	187-0001	1	Pump, Water
5	187-0009	1	Belt, Drive	11	187-0002	1	Gasket Kit, End - Top
6	187-0020	1	Thermostat	12	187-0013	1	Pump, Transfer - Fuel
7	187-0010	1	Gasket, Thermostat				
8			Injector				
	187-0007	4	DGCA				
	187-0004	4	DGCB				

WIRING HARNESS ENGINE TO CONTROL

DG CA, CB



PER 36,587

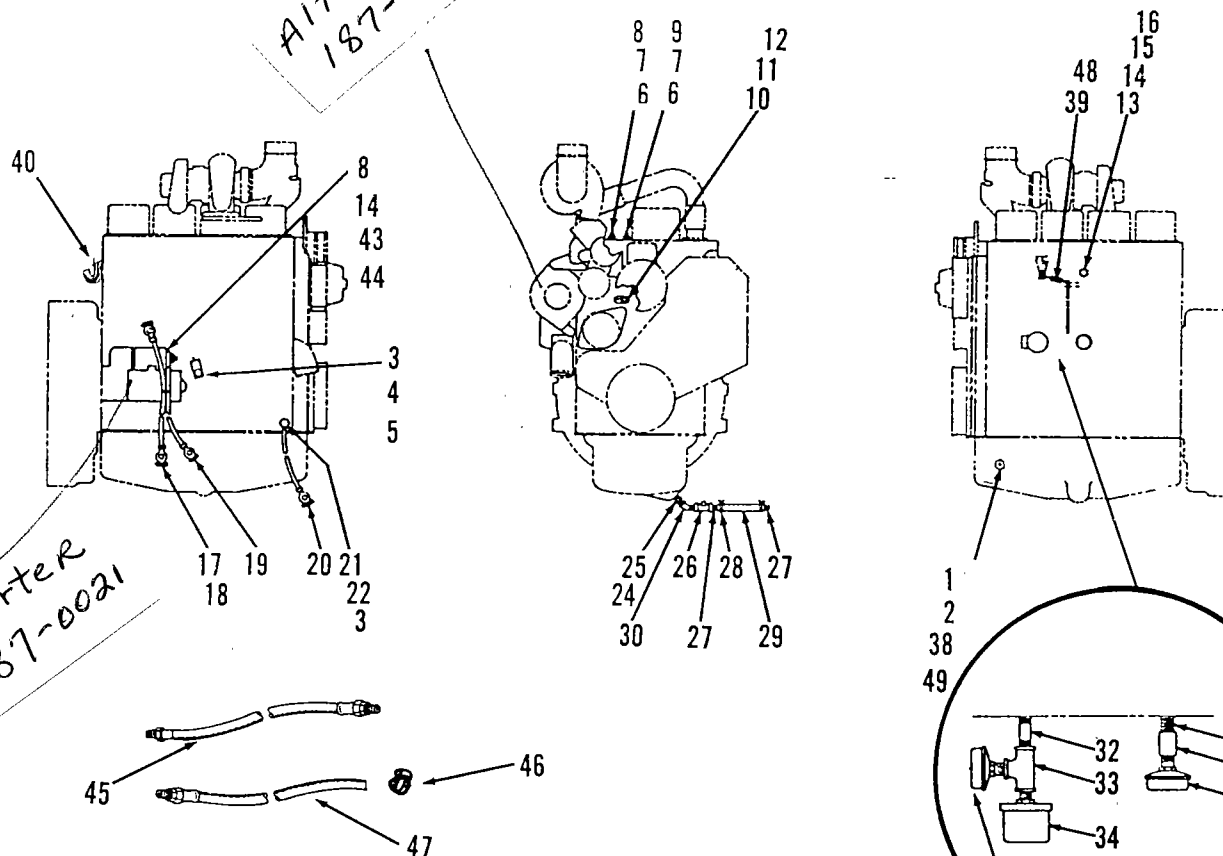
REF NO.	CPDC PART NO.	SOURCE PART NO.	C O D	QTY USED	PART DESCRIPTION
1	338-2627	For Bosch			ALTERNATOR
1	338-2090	For Motorola			ALTERNATOR
2	332-1993		1	4	Harness, Wiring - Engine to Control (Includes Replaceable Items)
3	800-1003		1	1	Terminal, Receptacle
4	353-0094-01		1	1	Screw, Cap - Hex Head (1/4-20 x 1/2")
5	NOTE 1		1	1	Resistor, Fixed, Wirewound
6	357-0030		AR	1	Sleeving, Insulation - Shrinkable, 1/2" ID
7			1	1	Rectifier, Diode
			REF		Connector Housing and Contact Pins
	323-1306		1	1	Housing, Connector - 8 Pin (Less Pins)
	323-1200		8	8	Pin, Contact
8			REF		Connector Housing and Contact Pins
	323-1304		1	1	Housing, Connector - 6 Pin (Less Pins)
	323-1200		6	6	Pin, Contact

NOTE 1. NOT STOCKED FOR SALE. Consult your Generator Set Distributor or a Electrical Supply vendor.

Engine Components (External)

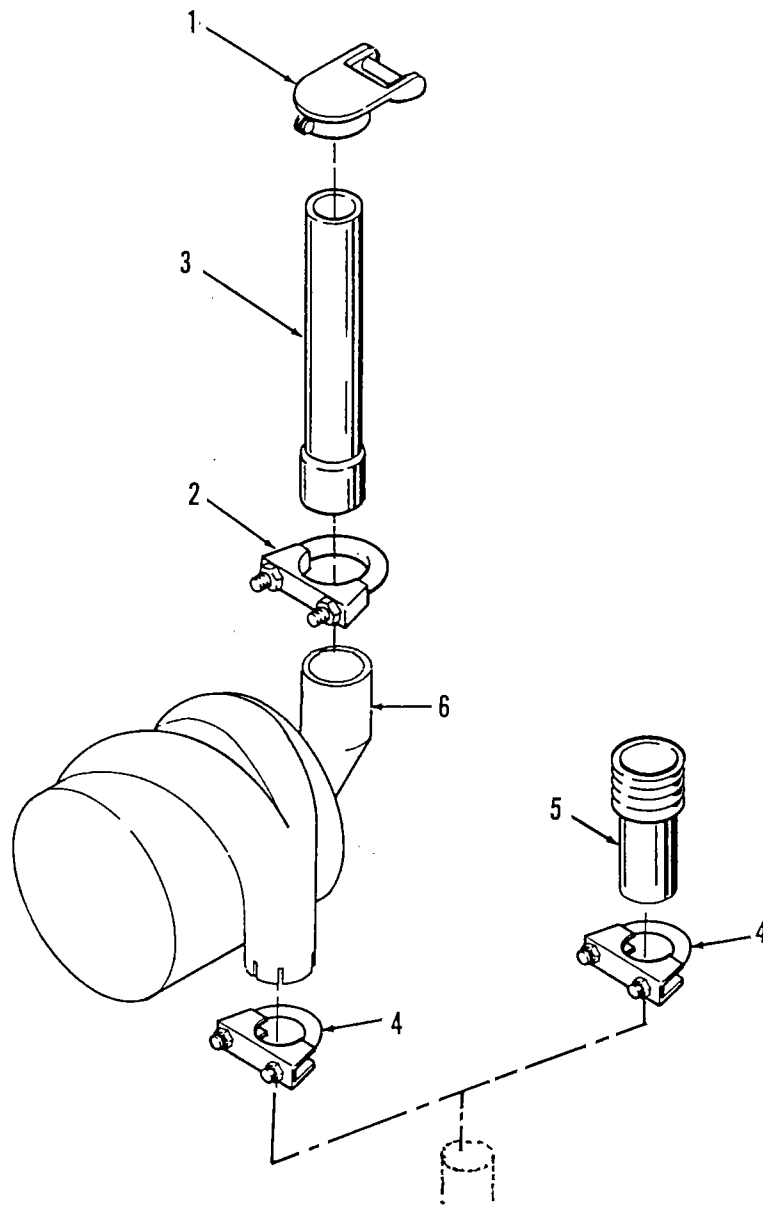
Alternator
187-0346

Starter
187-0021



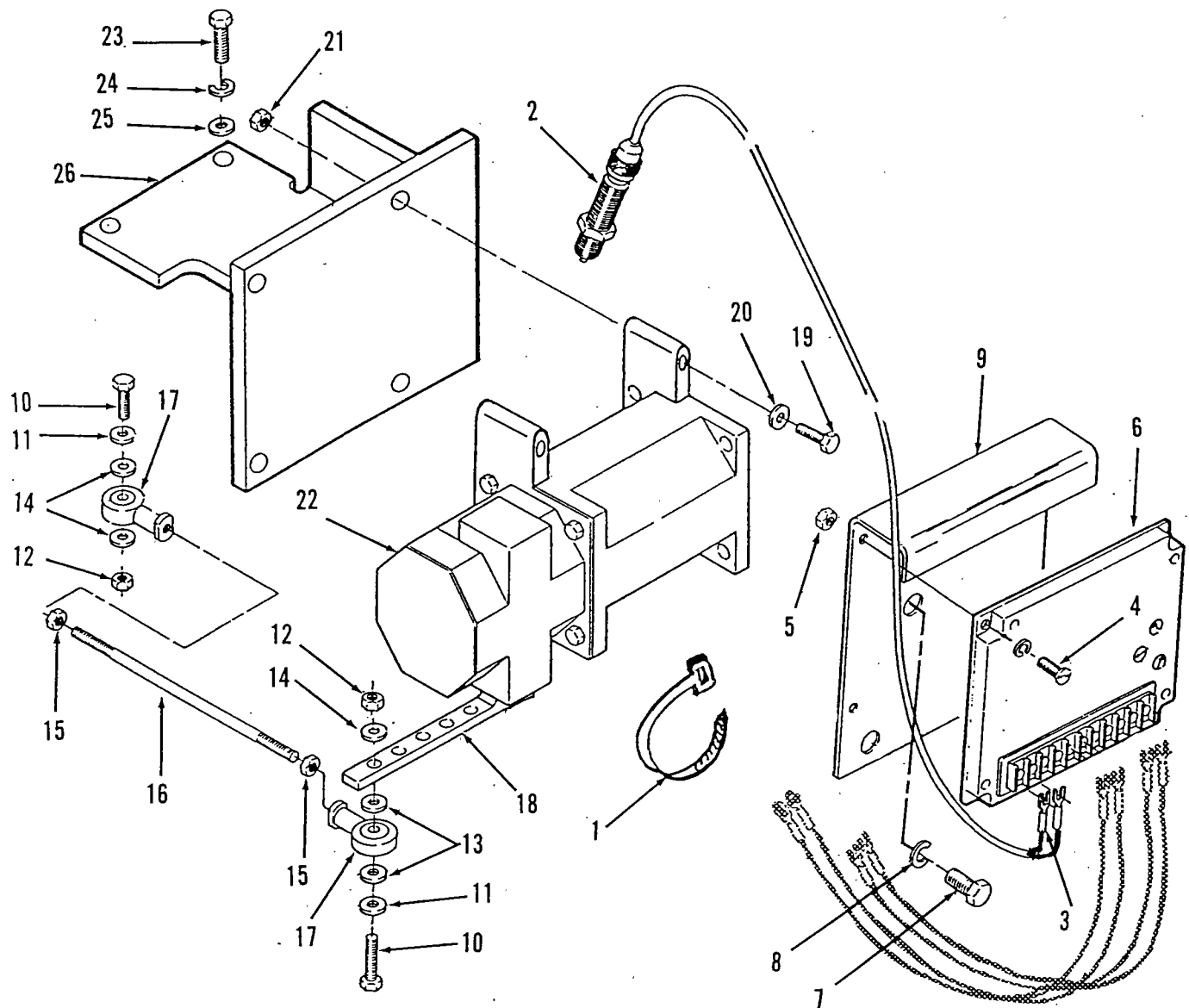
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0353	1	Sender, Temperature - Oil	23	505-0098	1	Nipple, Clo
2	187-0146	1	Washer, Sealing	24	102-1147	1	Gasket, Drain - Oil Pan
3	856-0013	3	Washer, Lock - W/EIT (1/2)	25	102-1237	1	Adapter, Drain - Oil
4	332-2739	1	Bracket Assembly, Terminal	26	504-0011	1	Valve, Shutoff
5	800-2112	1	Screw, Cap - Hex Head (M12-1.75 x 30mm)	27	505-0185	2	Nipple, Half
6	309-0554	1	Switch, Temperature	28	503-0197	2	Clip, Hose - Corbin
7	812-0075	1	Screw, Machine - Round Head (#8 - 32 x 1/4")	29	503-0098	1	Hose, Drain (6")
8	850-0025	2	Washer, Lock (#8)	30	505-0050	1	Elbow, Street
9	309-0553	1	Switch, Temperature	31	309-0561	1	Switch, Safety - Oil
10	800-2060	1	Screw, Cap - Hex Head (M8 x 1.25 x 35mm)	32	505-0104	1	Nipple, Short
11	850-2008	1	Washer, Lock (M8)	33	505-0059	1	Tee, Black
12	309-0269	1	Switch, Temperature	34	193-0244	1	Sender, Pressure - Oil
13	193-0375	1	Sender, Temperature	35	505-0026	1	Coupling
14	526-0008	1	Washer, Flat (#10)	36	309-0272	1	Switch, Pressure - Lo Oil
15	850-0030	1	Washer, Lock (#10)	38	505-1373	1	Bushing, Reducer
16	871-0010	1	Nut, Cap - Hex Head (#10 - 32)	39	145-0596	1	Spring, Extension - Throttle
17	416-0446	1	Cable, Battery (9")	40	332-2921	2	Clamp, J
18	332-0941	2	Tie, Cable	41	850-2006	1	Washer, Lock - Spring (M6)
19	416-0921	1	Cable, Battery (18")	42	860-2007	1	Nut, Hex (M6)
20	416-0893	1	Cable, Battery (10")	43	871-0028	1	Nut, Hex (3/8-16)
21	800-2110	1	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)	44	850-0050	1	Washer, Lock - Spring (3/8")
22	850-2012	1	Washer, Lock (M12)	45	501-0441	1	Line, Fuel - Flex (Fuel In)
				46	503-0685	1	Clamp, Hose
				47	501-0502	1	Line, Fuel - Flex (Fuel Out)
				48	332-0051	1	Clip, Wire
				49	187-0198	1	Plug

Exhaust System



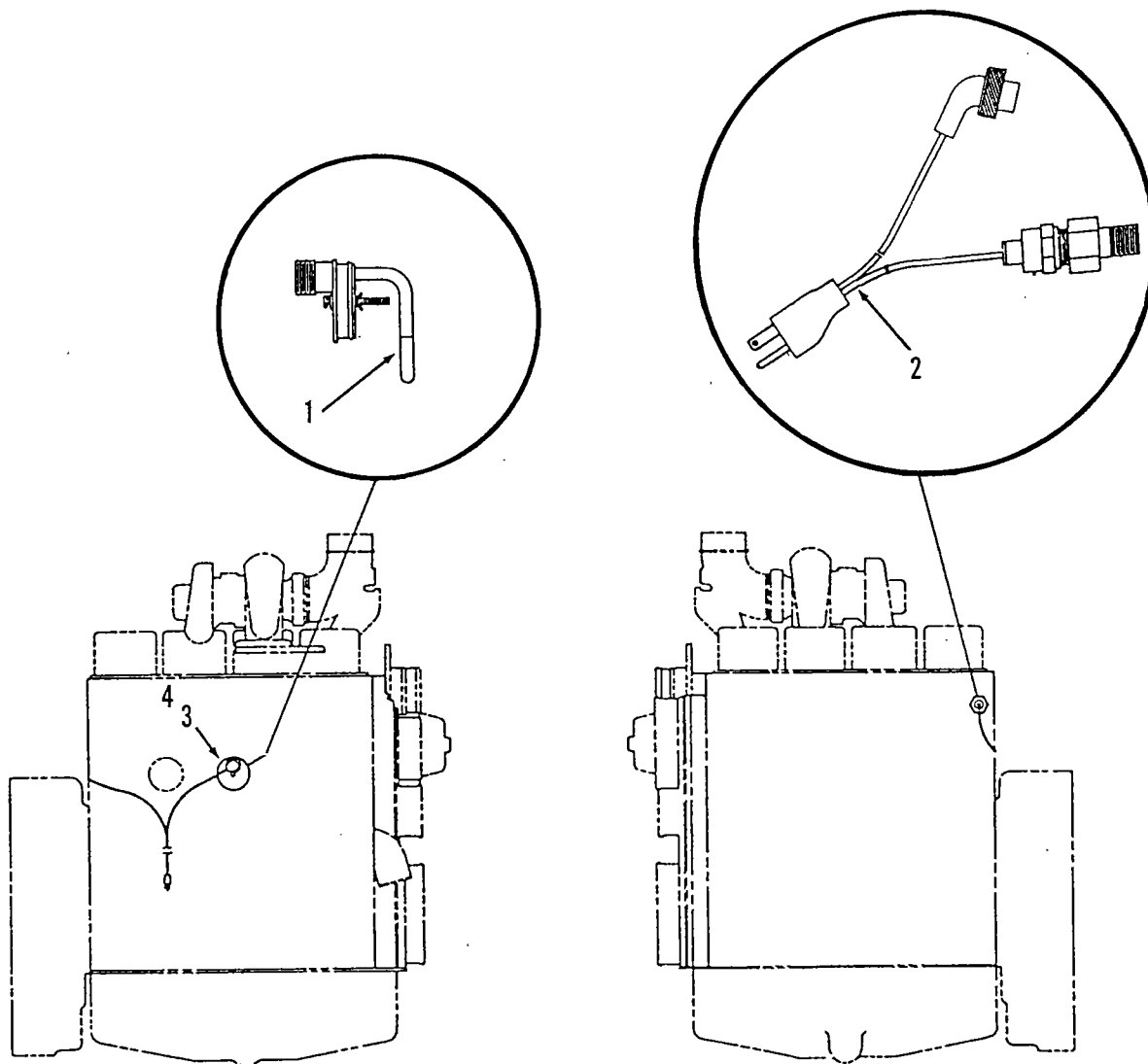
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2062-01	1	Cap, Rain	4	155-2175	1	Clamp, Muffler
2	155-2080	1	Clamp, Muffler	5	155-2253	1	Adapter, Exhaust
3	154-2581	1	Tube, Exhaust	6	155-2256	1	Silencer

Electronic Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	5	Tie, Cable	11	526-0327	2	Washer, Flat (13/64)
2	150-2201	1	Sensor, Speed - Includes Leads, Less Terminals	12	870-0131	2	Nut, Hex - W/ET (#10-32)
3			Terminal, Electrical (For all Electrical Leads)	13	526-0008	2	Washer, Flat (#10)
	332-1279	8	Spade, #6	14	526-0196	3	Washer, Flat - Aluminum
	332-0325	1	Ring, #10	15	870-0053	2	Nut, Hex (#10-32)
	332-1087	1	Ring, 1/2"	16	150-2218-01	1	Rod - Governor
4	813-0103	4	Screw, Machine - Round Head (#10-32 x 3/4")	17	150-2251	2	Joint, Ball
5	870-0131	4	Nut, Hex - W/ET (#10-32) (Not used all installations)	18	150-2203	1	Lever, Actuator - Governor
6	151-0611	1	Control, Governor	19	800-0012	4	Screw, Cap - Hex Head (1/4-20 x 2 1/4")
7	800-2110	2	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)	20	526-0018	4	Washer, Flat (1/4)
8	850-2012	2	Washer, Flat (M12)	21	870-0212	4	Nut, Self-locking - Hex (1/4-20)
9	150-2007	1	Bracket, Mounting	22	151-0632	1	Actuator, Governor (24VDC)
10	815-0172	2	Screw, Machine - Hex Head (#10-32 x 1")	23	800-2060	3	Screw, Cap - Hex Head (M8 x 1.25 x 35mm)
				24	850-2008	3	Washer, Lock (M8)
				25	526-0115	3	Washer, Flat (M8)
				26	150-2187	1	Bracket, Governor
					150-2381		Gov, Cover Kit

Engine Coolant Heater



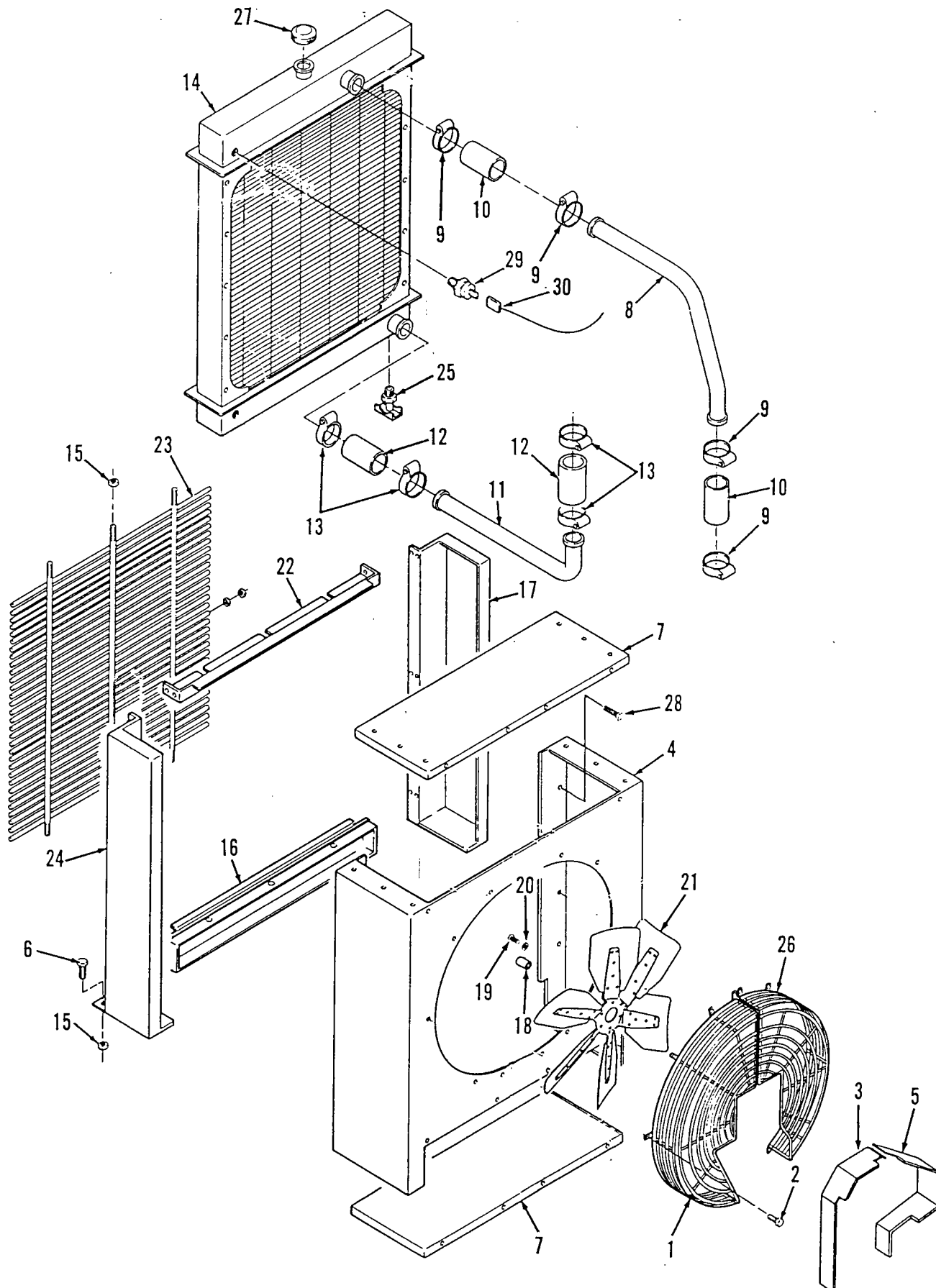
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0291-01	1	Heater, Engine - 750 Watt
	333-0291-02	1	120 Volt
	333-0291-02	1	240 Volt
2	333-0292-01	1	Thermostat (Includes Plug)
	333-0292-01	1	120 Volt
	333-0292-02	1	240 Volt

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	155-2353	1	Shield, Heat
4	503-0183	1	Clamp, Hose

Miscellaneous Parts

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	98-0961	2	Decal, Level - Water	5	98-3171	1	Tag, Out - Fuel
2	98-1003	2	Decal, Drain - Water	6	98-3172	1	Tag, In - Fuel
3	98-5390	2	Label, Warning	7	332-0941	1	Tie, Cable
4	98-2235	1	Decal, Ground				

Cooling System (Standard)



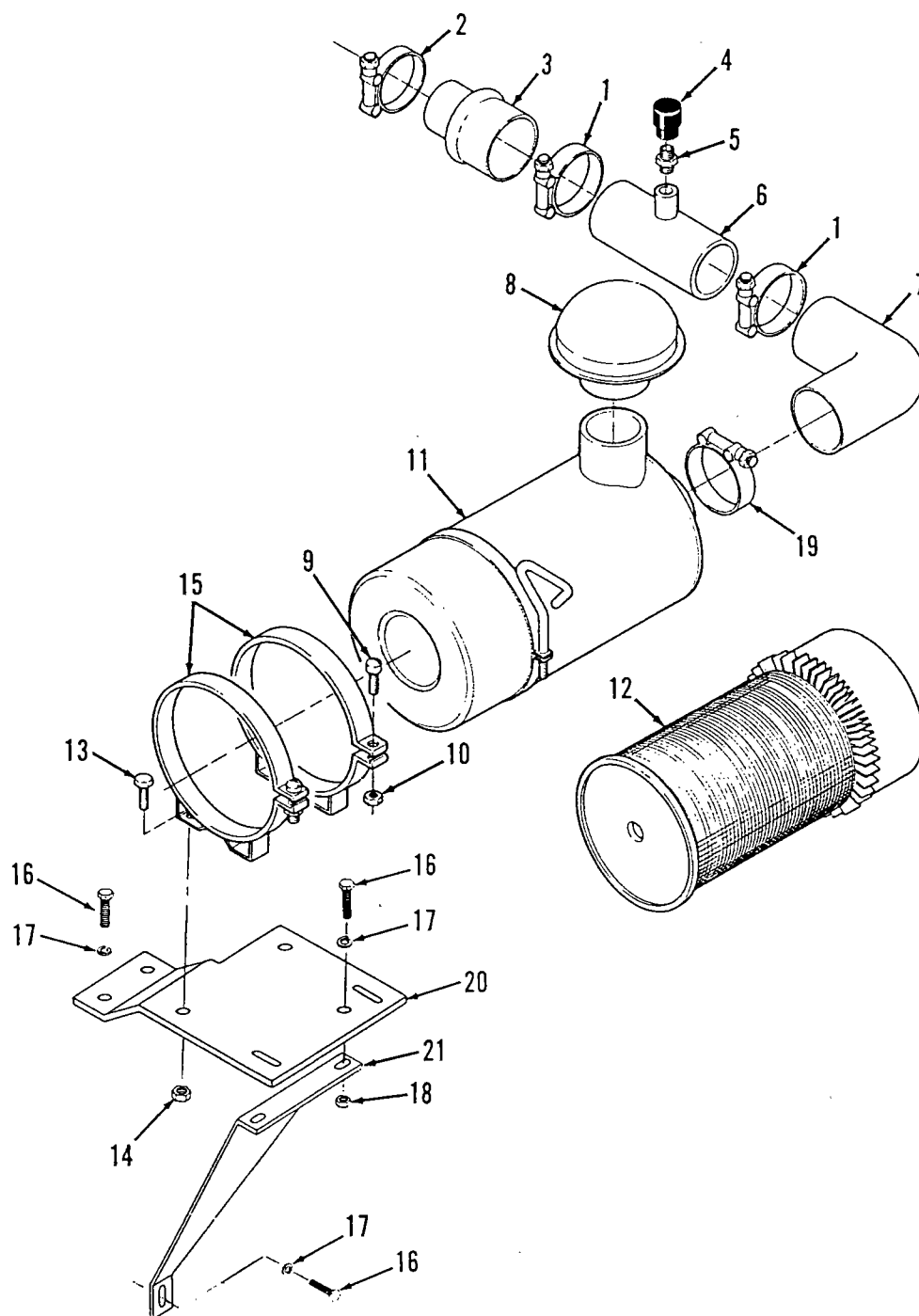
Cooling System (Standard)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-3069-01	1	Guard, Fan - Right Hand	16	130-3090	1	Support, Grille
2	821-0018	42	Screw, Cap - Hex Head (1/4 - 20 x .62")	17	130-3087-02	1	Guard, Radiator - Left Hand
3	130-3085	1	Guard, Belt - Right Hand	18	130-3082	1	Spacer, Fan
4	130-3091	1	Wrapper, Shroud - Fan	19	800-2068	4	Screw, Cap - Hex Head (M8 x 1.25 x .75mm)
5	130-3086	1	Guard, Belt - Left Hand	20	850-2008	4	Washer, Lock (M8)
6	821-0029	12	Screw, Cap - Hex Head (3/8 - 16 x .75")	21	130-3080	1	Fan, Radiator
7	130-3092	2	Shroud, Fan	22	130-3089	1	Support, Grille
8	130-3083	1	Tube, Inlet - Radiator	23	130-3088	1	Grille Assembly
9	503-0365	4	Clamp, Hose	24	130-3087-01	1	Guard, Radiator - Right Hand
10	503-1391-01	2	Hose, Radiator	25	504-0028	1	Cock, Drain
11	130-3084	1	Tube, Outlet - Radiator	26	130-3069-02	1	Guard, Fan - Left Hand
12	503-1379-01	2	Hose, Radiator	27	130-1788	1	Cap, Radiator
13	503-0354	4	Clamp, Hose	28	821-0028	12	Screw, Cap - Hex Head (3/8 - 16 x 1/2")
14	130-3064	1	Radiator	29	193-0322	1	Sender, Coolant - Low
15	870-0281	15	Nut, Lock (3/8 - 16)	30	338-1919	1	Harness, Wiring - Low Coolant
				31	98-0961	2	Decal, water Level
				32	98-1003	2	Decal, water drain

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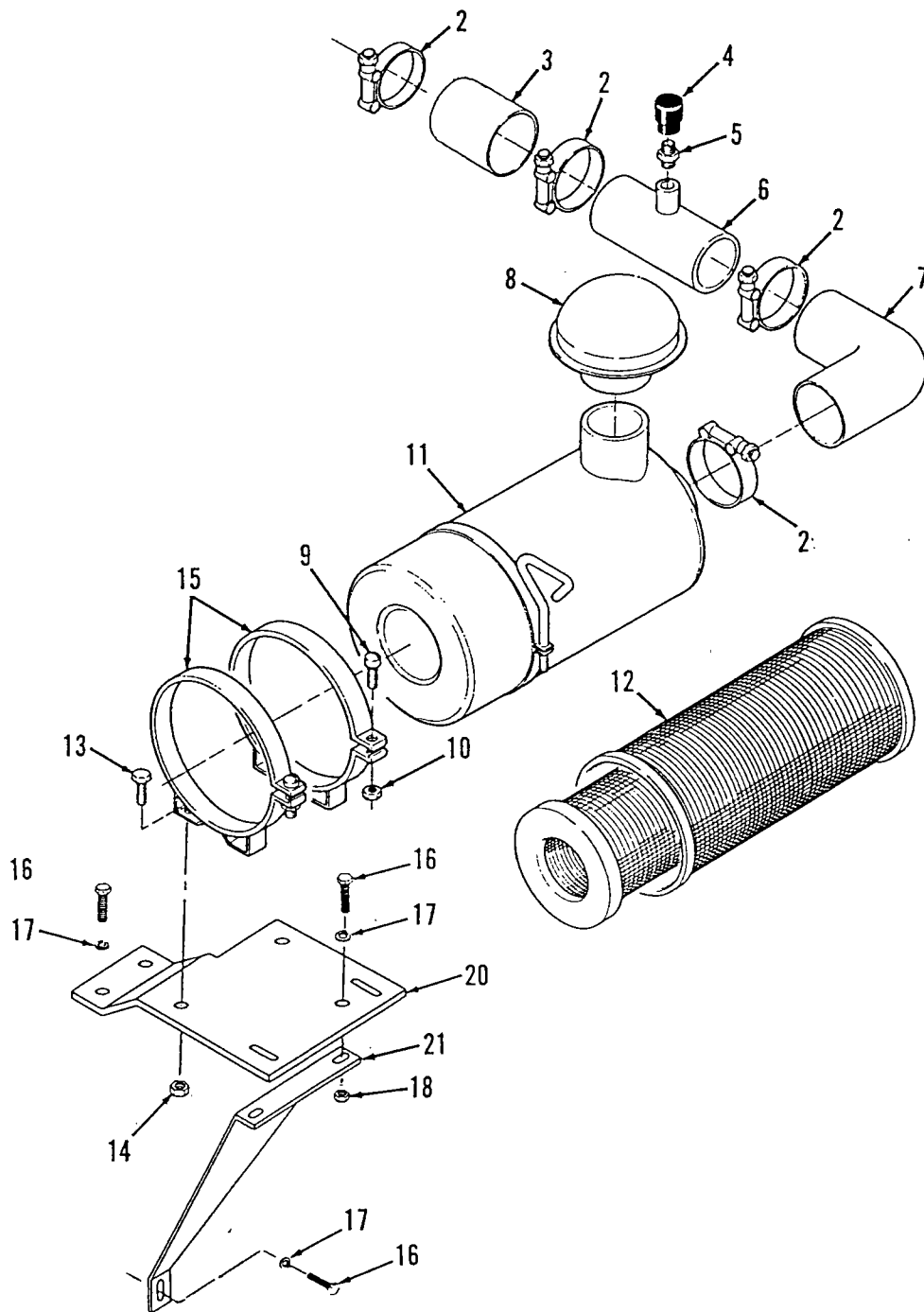
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Air Cleaner (Standard)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0998	2	Clamp, Hose	12	140-2159	1	Element, Cleaner - Air
2	503-0868	1	Clamp, Hose	13	821-0016	4	Screw, Lock (3/8 - 16 x 3/4")
3	503-1543	1	Hose, Reducer	14	870-0257	4	Nut, Lock (3/8 - 16)
4	140-1548	1	Indicator, Service	15	140-2227	2	Band, Mounting
5	140-1260	1	Fitting, Filter - Safety	16	800-2110	4	Screw, Cap - Hex Head (M12 x .8 x 20mm)
6	140-2166	1	Tube, Inlet - Air	17	850-2012	4	Washer, Lock
7	503-1542	1	Elbow, Reducing	18	750-1010	1	Nut, Hex
8	140-2157	1	Cap, Cleaner - Air	19	503-0999	1	Clamp, Hose
9	815-0115	2	Screw, Machine - Fillister Head (1/4 - 20 x 1")	20	140-2164	1	Bracket, Mounting - Air Cleaner
10	863-0002	2	Nut, Square (1/4 - 20)	21	140-2163	1	Bracket, Mounting - Air Cleaner
11	140-2158	1	Cleaner, Air (Includes Element)				

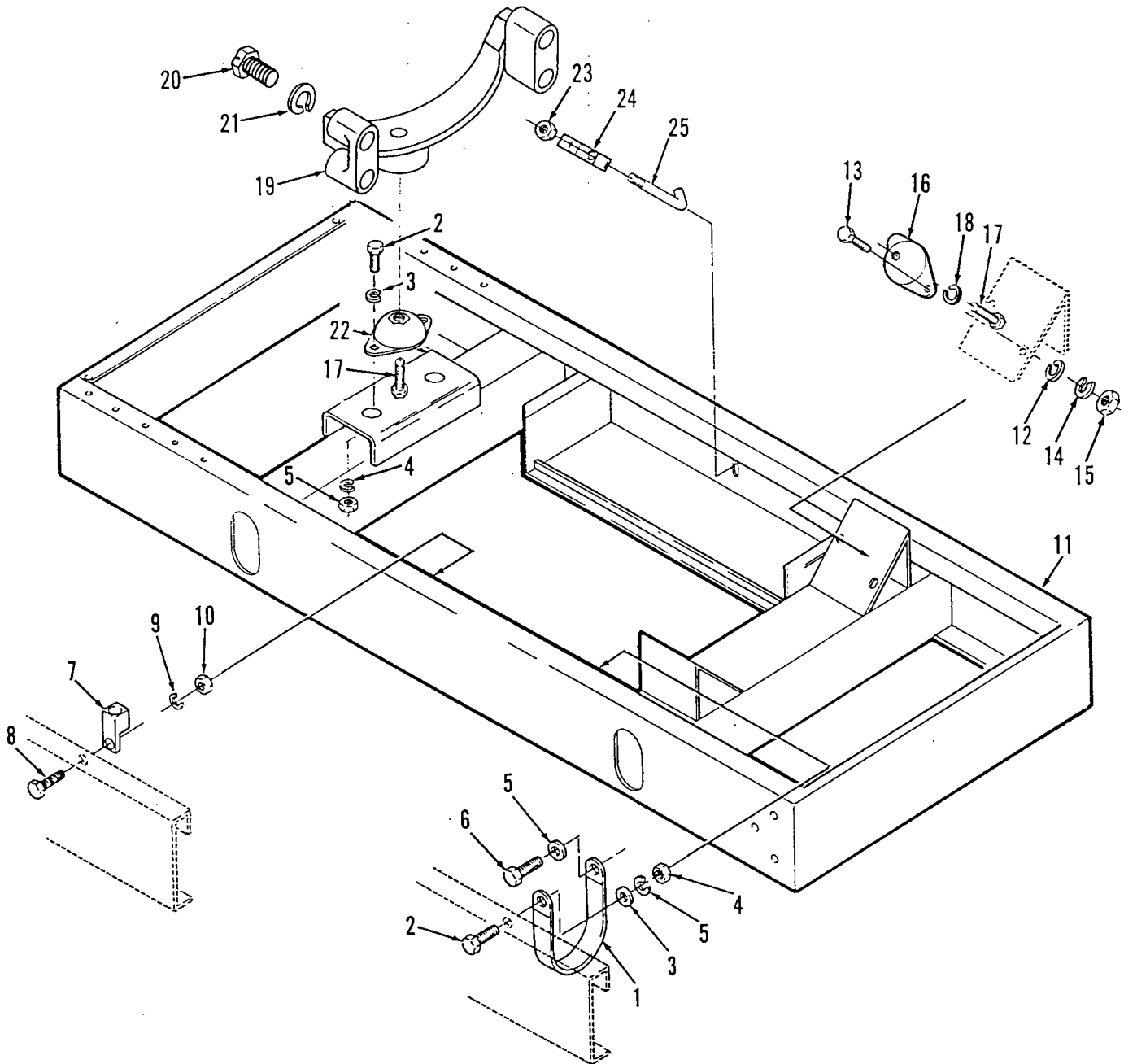
Air Cleaner (Heavy Duty)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	503-0868	4	Clamp, Hose
3	503-1460	1	Hose, Reducing
4	140-1548	1	Indicator, Service
5	140-1260	1	Adapter, Indicator
6	140-2168	1	Tube, Inlet - Air
7	503-1467	1	Elbow, Reducing
8	140-1435	1	Cap, Air Cleaner
9	815-0115	2	Screw, Machine - Fillister Head (1/4-20 x 1")
10	863-0002	2	Nut, Square, (1/4-20)
11	140-2160	1	Cleaner, Air (Includes Element)

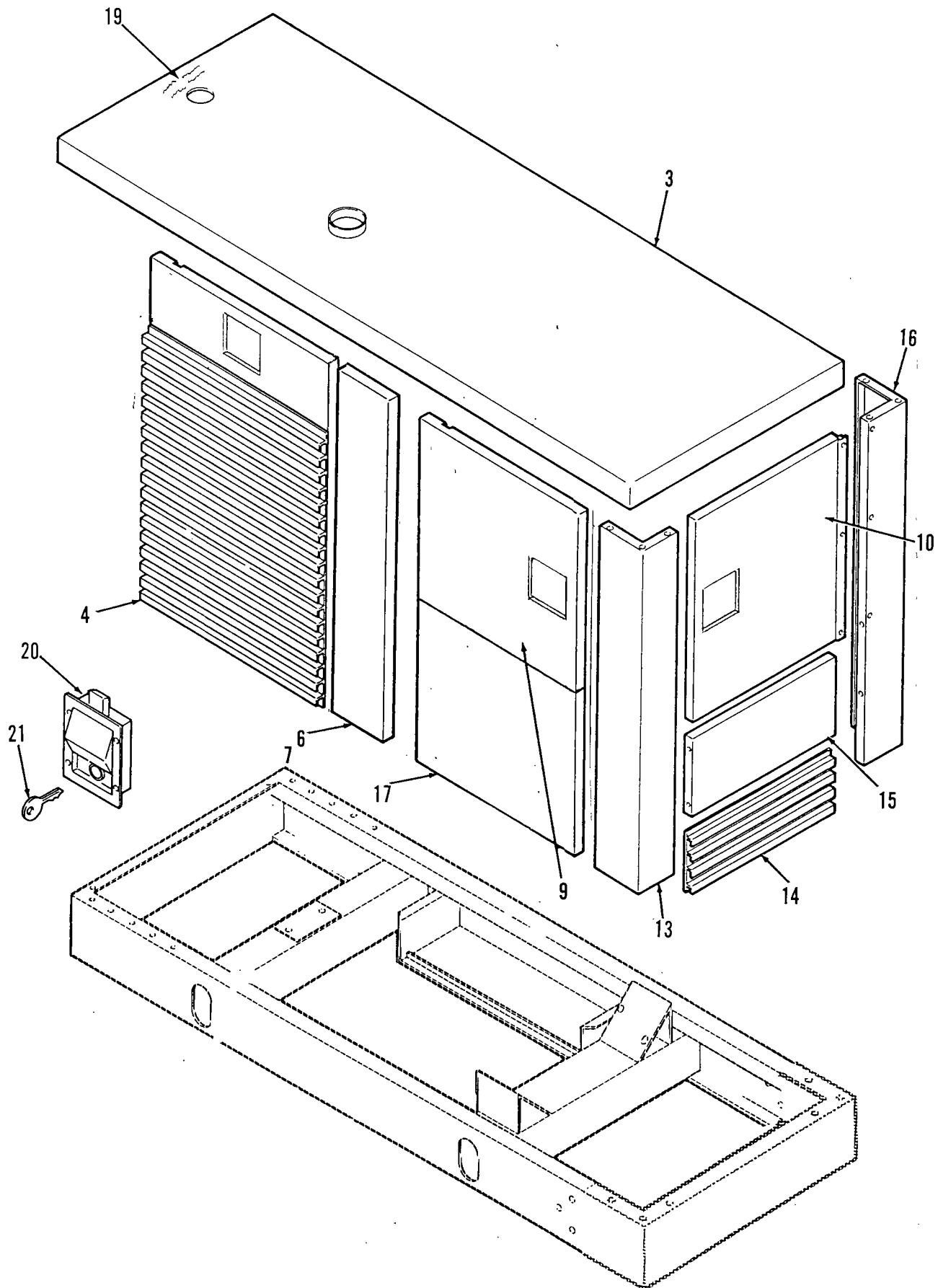
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12			Element, Air Cleaner
	140-2161	1	Primary
	140-2162	1	Secondary
13	821-0016	4	Screw, Self-locking - Hex Head (5/16-18 x 3/4")
14	870-0257	4	Nut, Lock (5/16-18)
15	140-0317	2	Band, Mounting
16	800-2110	4	Screw, Cap - Hex Head (M12 x .8 x 20mm)
17	850-2012	4	Washer, Lock - Spring (M12)
18	750-1010	1	Nut, Hex (M12)
20	140-2164	1	Bracket, Mounting
21	140-2163	1	Brace, Mounting

Chassis



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	337-0090	1	Strap, Electrical	14	850-0055	4	Washer, Lock (7/16)
2	800-0090	3	Screw, Cap - Hex Head (1/2 - 13 x 1")	15	862-0004	4	Nut, Hex (7/16 - 14)
3	850-0060	3	Washer, Lock (1/2)	16	402-0568	2	Cushion, Mounting - Vibration
4	862-0016	3	Nut, HEx (1/2 - 13)	17	800-0520	3	Screw, Cap - Hex Head (3/4 - 10 x 1")
5	856-0013	2	Washer, Lock - W/EIT (1/2)	18	850-0079	3	Washer, Lock (3/4)
6	800-2111	1	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)	19	403-2567	1	Support, Engine
7	332-1473	1	Lug, Solderless	20	800-2119	4	Screw, Cap - Hex Head (M12 x 1.75 x 65mm)
8	800-0026	1	Screw, Cap - Hex Head (5/16 - 18 x .75")	21	850-2012	4	Washer, Lock (M12)
9	856-0008	1	Washer, Lock - W/EIT (5/16)	22	402-0030	1	Cushion, Mounting - Vibration
10	870-0257	1	Nut, Lock - Hex (5/16 - 18)	23	870-0212	1	Nut, Lock (1/4 - 20)
11	403-2575	1	Skid	24	416-0854	1	Bracket, Mounting - Battery
12	526-0219	2	Washer, Flat (1/2)	25	416-0853	1	Holddown, Battery
13	800-0071	4	Screw, Cap - Hex Head (7/16 - 14 x 1")	26	526-0141	4	Washer, Flat 7/16

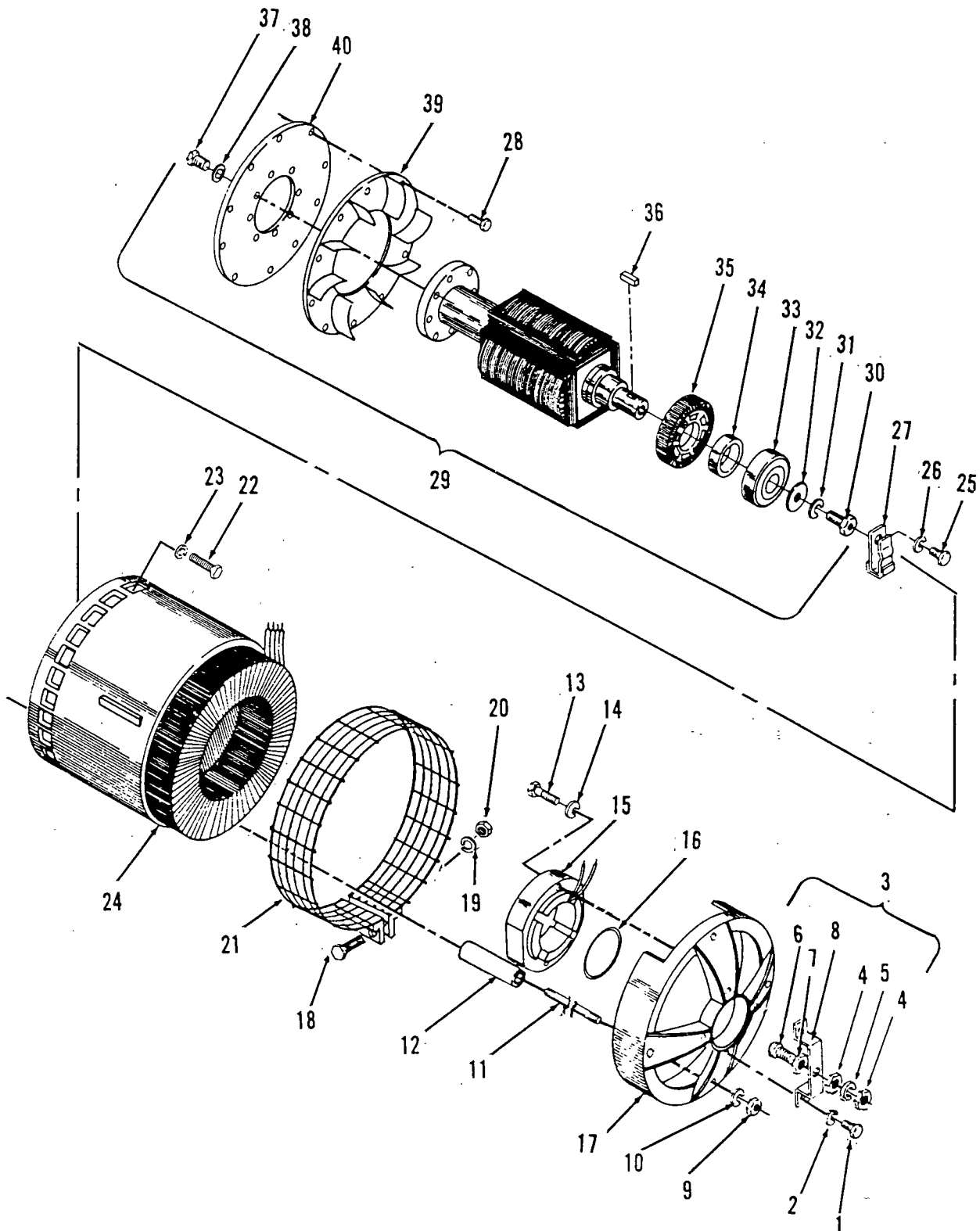
Set Housing



Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	405-3851	1	Top, Housing	21	406-0639	5	Key, Handle
4	405-3841	2	Door, Grille		821-0029	22	Screw, Lock (3/8 - 16 x .75")
6	405-3827-02	1	Post, Center - Right Hand		870-0281	18	Nut, Lock - Hex (3/8 - 16)
7	405-3827-01	1	Post, Center - Left Hand		815-0236	4	Screw, Thread Forming - Hex Head (5/16 - 18 x .62")
9	405-3835	2	Door, Side		819-1083	9	Screw, Pan Head - Recessed (1/4 - 20 x .44")
10	405-3836	1	Door, Control		821-0014	10	Screw, Lock (5/16 - 18 x .5")
13	405-3826-01	1	Post, Rear - Right Hand		870-0257	14	Nut, Lock - Hex (5/16 - 18)
14	405-3833	1	Grille		406-0574	4	Hinge, Door
15	405-3828	1	Panel, Rear		870-0235	20	Nut, Lock (#8 - 32)
16	405-3826-02	1	Post, Rear - Left Hand		815-0607	20	Screw, Oval Head (#8 - 32 x 3/8")
17	405-3825	2	Door, Access - Side				
19	98-5429	2	Decal, Fill - Coolant				
20	406-0626	5	Handle, Housing (Includes Key)				

Generator



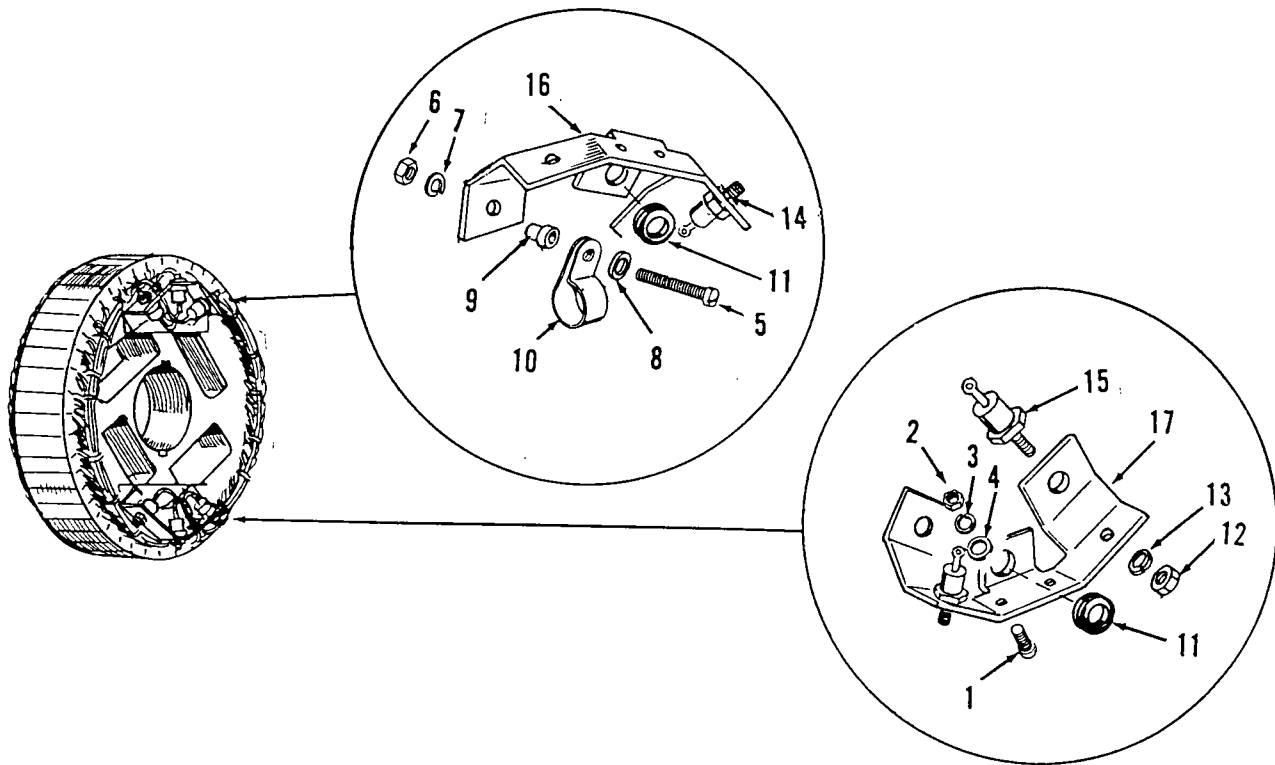
Generator

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")	25	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
2	850-0040	2	Washer, Lock - Spring (1/4)	26	856-0010	1	Washer, Lock - EIT (3/8)
3	150-1456	1	Contact Assembly - Overspeed (Includes Parts Marked *)	27	150-0717	1	Switch, Overspeed
4	862-0001	2	*Nut, Hex (1/4 - 20)	28	805-0018	8	Screw, Cap - Hex Head (3/8 - 16 x 1")
5	853-0013	1	*Washer, Lock - ET (1/4)	29			Rotor Assembly, Generator
6	150-0723	1	*Contact, Electrical				DGCA
7	870-0250	1	*Nut, Insulated				Voltage Code L
8	150-1356	1	*Bracket, Mounting - Contact	201-2669	1		Standard
9	750-1008	4	Nut, Hex (M10 x 1.5)	201-2672	1		Extended Stack
10	850-2010	4	Washer, Lock - Spring (M10)	201-2669	1		Voltage Code Z
11			Stud				DGCB
			DGCA				Voltage Code L
	520-2413	4	419.1mm	201-2670	1		Standard
	520-2416	4	485.8mm	201-2688	1		Environmentally Protected
			DGCB				Extended Stack
	520-2414	4	438.2mm	201-2673	1		Voltage Code Z
	520-2417	4	514.4mm				Standard
12	503-1274	4	Hose, Rubber	201-2670	1		Environmentally Protected
13	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")	201-2687	1		Standard
14	850-0040	4	Washer, Lock - Spring (1/4)	30	800-0513	1	Screw, Cap - Hex Head (Mod)
15			Stator, Exciter	31	850-0079	1	Washer, Lock (3/4)
	220-2353	1	Standard	32	526-0238	1	Washer, Flat (3/4)
	220-1774	1	Environmentally Protected	33	510-0101	1	Bearing, Ball
16	509-0125	1	Seal, Oil - "O" Ring	34	232-2102	1	Spacer, Sleeve
17	211-0185	1	End Bell, Generator	35			Rotor, Assembly - Exciter (See Separate Page for Components)
18	114-0023	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")				Standard
19	850-0040	2	Washer, Lock - Spring (1/4)	201-1739	1		Environmentally Protected
20	862-0001	2	Nut, Hex (1/4 - 20)	201-1845	1		Key, Machine
21	234-0368	1	Screen, Air	36	515-0145	1	Bolt, Hex Head - Special (5/8 - 11 x 1-1/2")
22	718-1056	8	Screw, Cap - Hex Head (M10 x 1.5 x 35mm)	37	805-0035	8	Washer, Flat (5/8)
23	850-2010	8	Washer, Lock - Spring (M10)	38	526-0259	8	Fan, Cooling - Generator
24			Stator Assembly, Generator	39	205-0089	1	Disk, Drive - Generator
			DGCA	40	232-2078	1	
			Voltage Code L				
	220-1454	1	Standard				
	220-1457	1	Extended Stack				
	220-1997	1	Voltage Code Z				
			DGCB				
			Voltage Code L				
	220-1455	1	Standard				
	220-1787	1	Environmentally Protected				
			Extended Stack				
	220-1458	1	Voltage Code Z				
			Standard				
	220-1998	1	Environmentally Protected				
	220-2248	1					

* Parts included in Overspeed Contact Assembly.
+ Parts included in Generator Rotor Assembly.

220-2000 1 Extended Stack

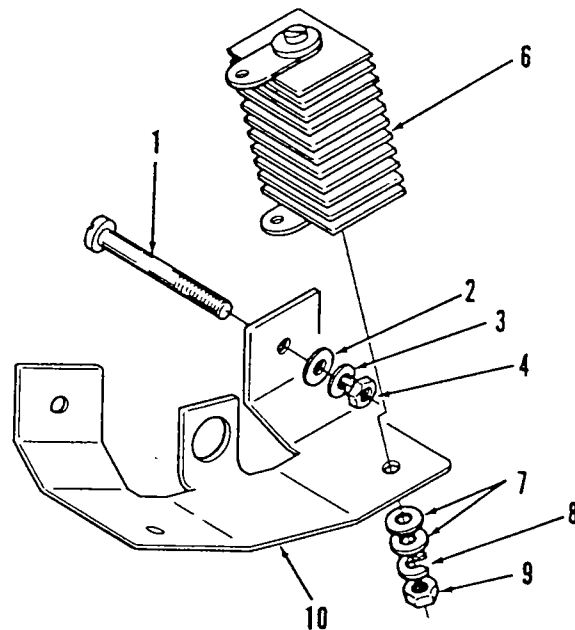
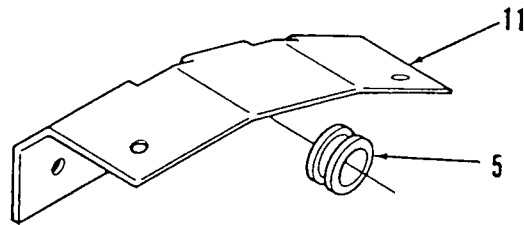
Exciter Rotor Components



G1030-1

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	201-1739	1	Rotor Assembly, Exciter	9	508-0187	4	Spacer, Stepped
1	813-0100	2	Screw, Machine - Round Head (#10 - 32 x 1/2")	10	332-0050	2	Clamp, Loop
2	870-0053	2	Nut, Hex (#10 - 32)	11	508-0093	2	Grommet, Rubber
3	850-0030	2	Washer, Lock - Spring (#10)	12	870-0053	6	Nut, Hex (#10 - 32)
4	526-0008	2	Washer, Flat (#10)	13	850-0030	6	Washer, Lock - Spring (#10)
5	813-0110	4	Screw, Machine - Round Head (#10 - 32 x 2")	14	358-0097	3	Diode, Rectifier - Positive (CR1, CR2, CR3)
6	870-0053	4	Nut, Hex (#10 - 32)	15	358-0096	3	Diode, Rectifier - Negative (CR4, CR5, CR6)
7	850-0030	4	Washer, Lock - Spring (#10)	16	363-0054	1	Sink, Heat - Positive Diodes
8	526-0009	4	Washer, Flat (#10)	17	363-0055	1	Sink, Heat - Negative Diodes

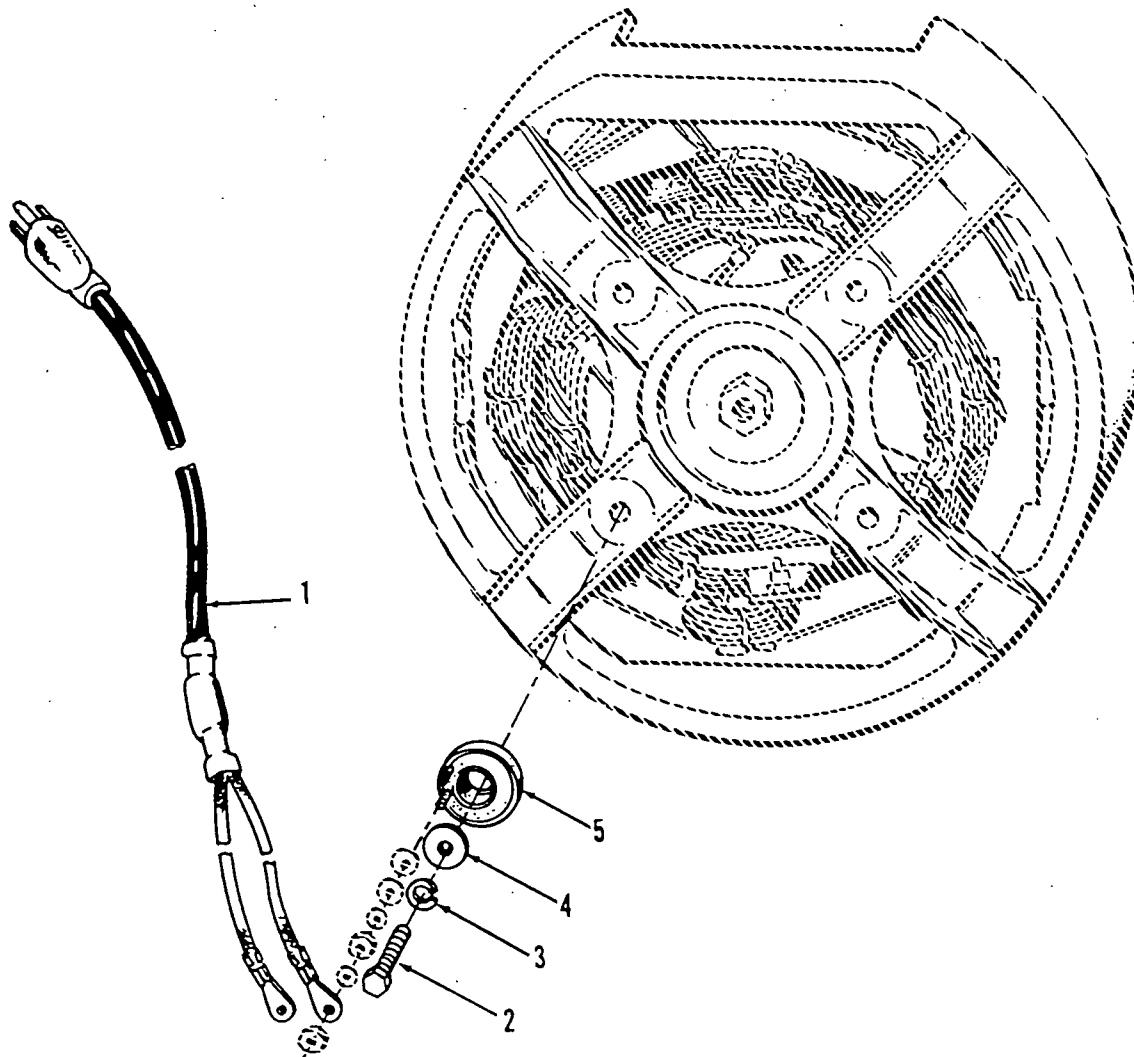
Voltage Suppressor Components



XES1229

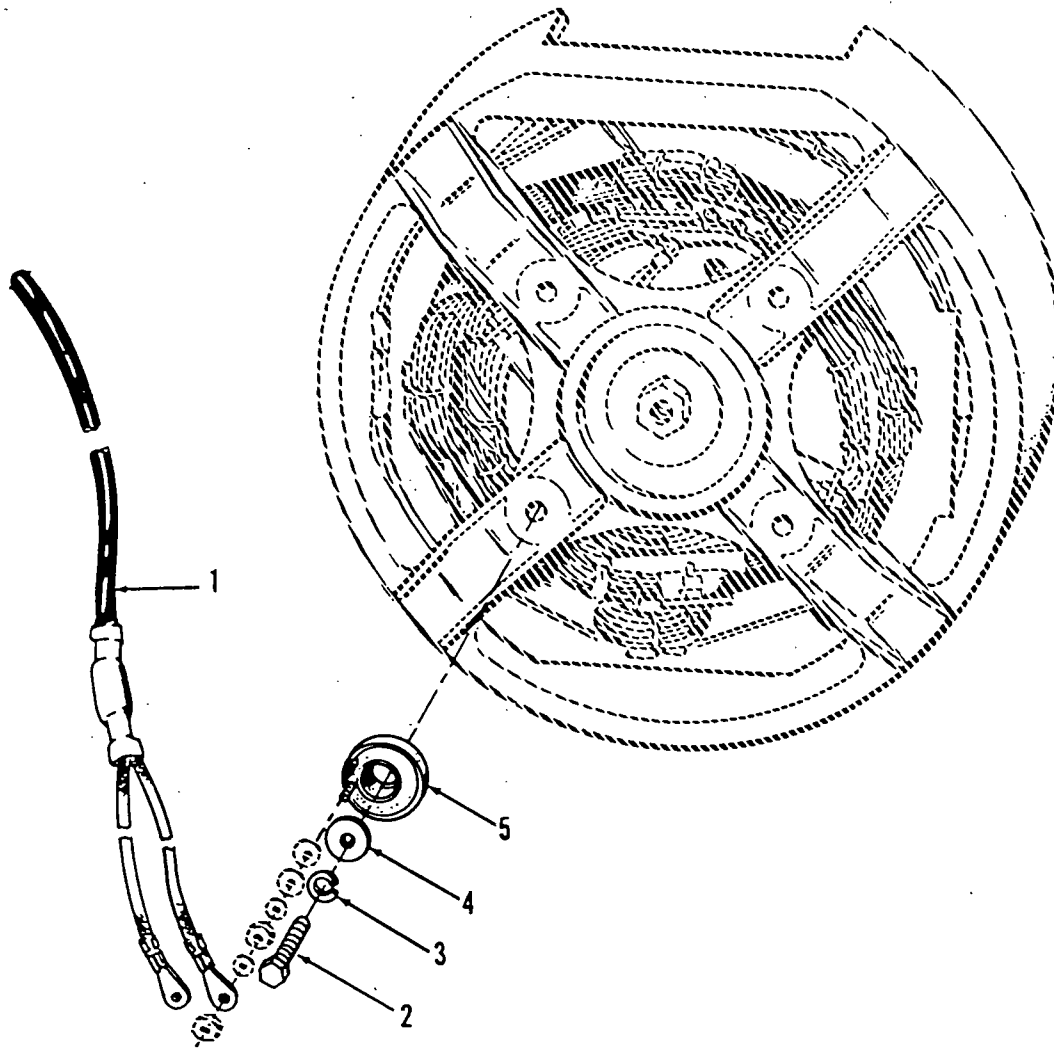
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	232-2445	1	Suppressor, Voltage	6	305-0526	1	Suppressor Set, Voltage
1	813-0112	4	Screw, Machine - Round Head (#10 - 32 x 2-1/2")	7	526-0140	4	Washer, Flat (#10)
2	526-0140	4	Washer, Flat (#10)	8	850-0030	4	Washer, Lock - Spring (#10)
3	850-0030	4	Washer, Lock - Spring (#10)	9	870-0053	4	Nut, Hex (#10 - 32)
4	870-0053	4	Nut, Hex (#10)	10	363-0054	1	Sink, Heat - Positive
5	508-0093	2	Grommet, Rubber	11	363-0055	1	Sink, Heat - Negative

Generator Heater (120 Volt)



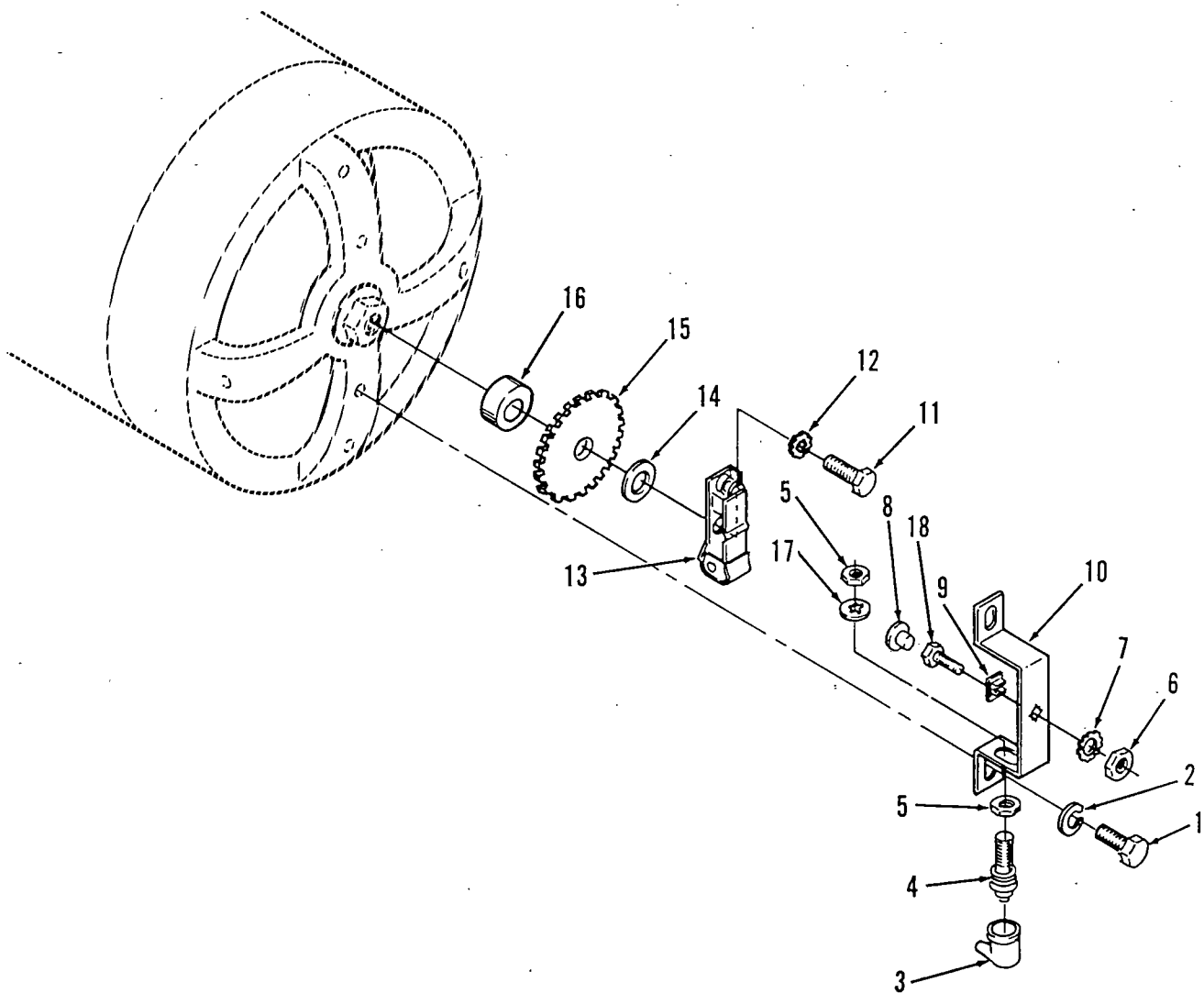
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	335-0146	1	Cable Assembly, Electric - 120V (Includes Thermostat)	3	850-0038	1	Washer, Lock - Spring (1/4)
2	800-0004	1	Screw, Cap - Hex Head (1/4 - 20 x 5/8")	4	526-0158	1	Washer, Flat (1/4)
				5	333-0059	1	Heater, Electrical - 120 VAC 125 Watt

Generator Heater (240 Volt)



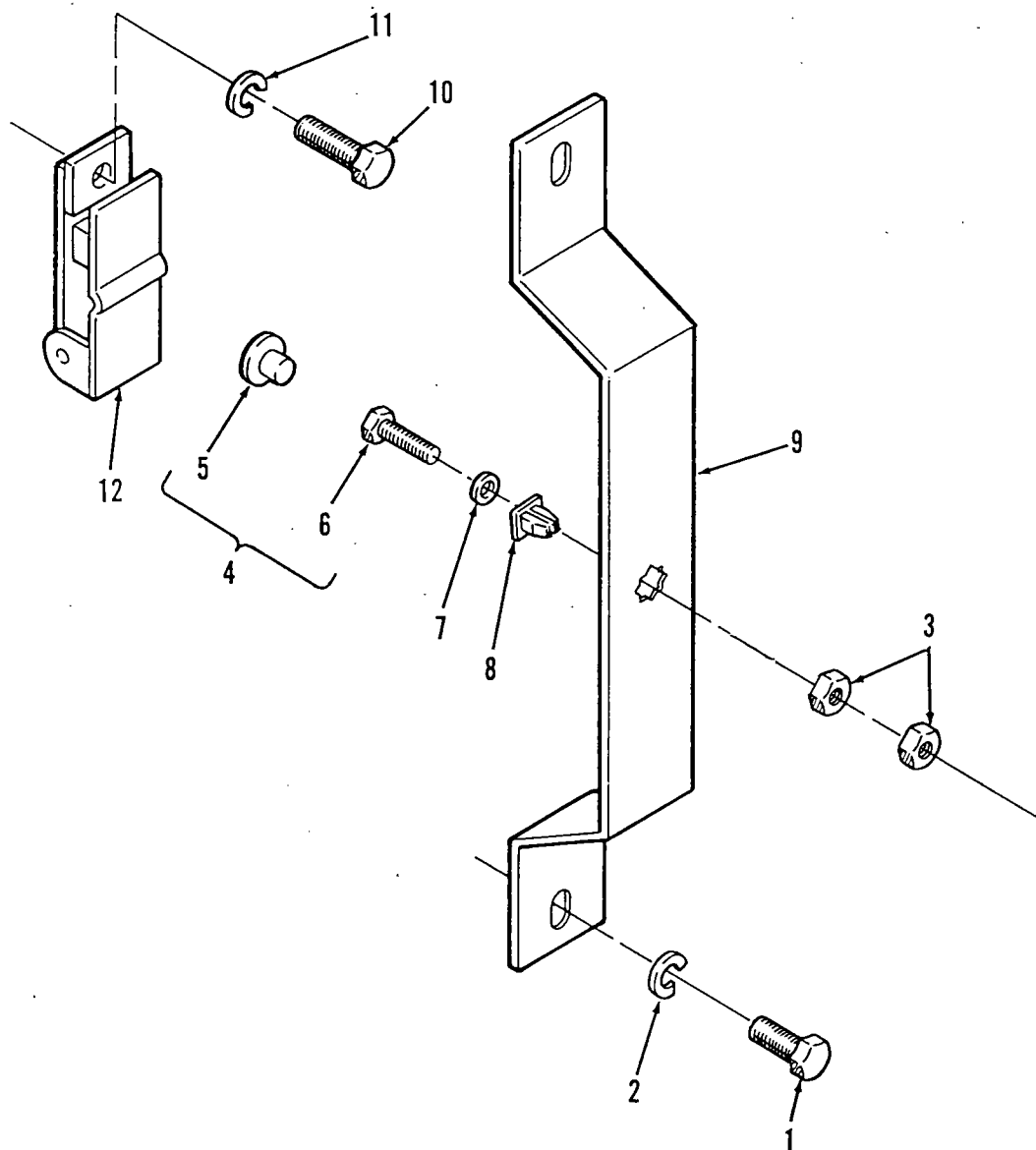
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable Assembly	2	800-0004	1	Screw, Cap - Hex Head (1/4 - 20 x 5/8")
	226-0090	1	Lead	3	850-0038	1	Washer, Lock (1/4)
	226-3615	1	Lead Assembly (Includes Diode Rectifier)	4	526-0158	1	Washer, Flat (1/4)
	357-0013	1	Rectifier, Diode	5	333-0379	1	Heater, Ring - 240 V, 300 W
	898-0020	1	Sleeving, Insulation (15")				
	508-0114	2	Grommet				
	309-0258	1	Thermostat				
	898-0863	1	Sleeving, Insulation (4")				
	332-1506	1	Connector, Parallel				
	334-0759	1	Wire, CCXL - 14 Ga				
	332-1445	5	Tie, Cable				

Magnetic Pickup



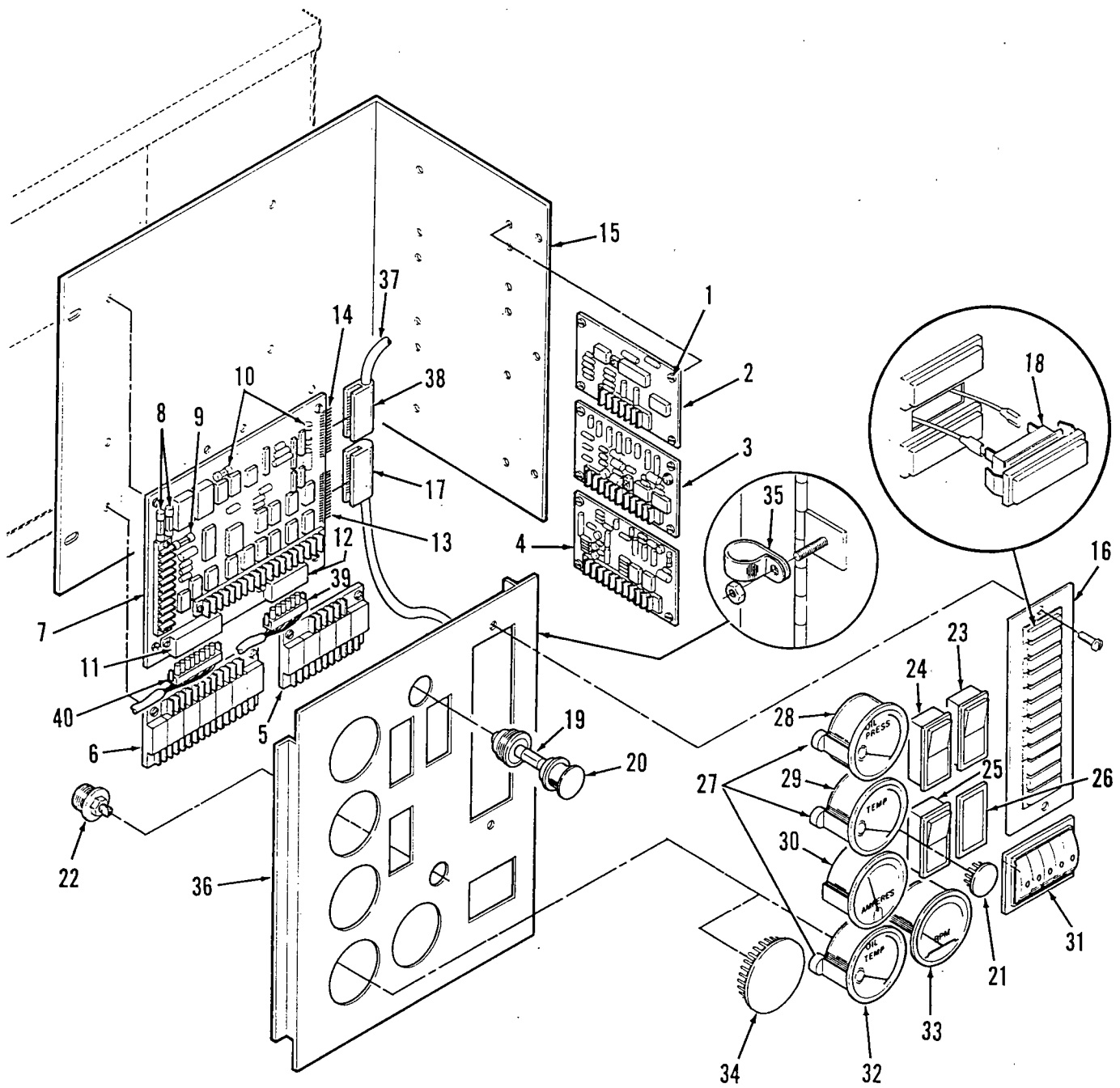
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1 3/8")	10	301-9402	1	Bracket, Mounting
2	850-0040	2	Washer, Lock - Spring (1/4)	11	800-0053	1	Screw, Cap - Hex Head (3/8 - 16 x 1-3/4")
3	150-1410	1	Cap, Insulator	12	856-0010	1	Washer, Lock - W/EIT (3/8)
4	150-1406	1	Sensor, Speed - Magnetic	13	150-0717	1	Switch, Overspeed
5	868-0011	2	Nut, Hex - Jam (3/4 - 16)	14	526-0077	1	Washer, Flat (3/8)
6	862-0001	2	Nut, Hex (1/4 - 20)	15	150-1557	1	Wheel, Sensor - Speed
7	853-0013	1	Washer, Lock - W/ET (1/4)	16	370-4011	1	Spacer, Sleeve
8	150-0723	1	Contact, Electrical	17	854-0031	1	Washer, Lock - W/IT (3/4)
9	870-0250	1	Nut, Insulator				

Overspeed Switch



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")	7	853-0013	1	Washer, Lock - W/ET (1/4)
2	850-0040	2	Washer, Lock - Spring (1/4)	8	870-0250	1	Nut, Insulating (1/4)
3	862-0001	2	Nut, Hex (1/4 - 20)	9	150-1356	1	Bracket, Mounting
4	150-0723	1	Point Assembly, Overspeed (Includes Contact And Screw)	10	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
5	306-0036	1	Contact, Electrical	11	856-0010	1	Washer, Lock - W/EIT (3/8)
6	150-0724	1	Screw, Cap - Hex Head (Mod)	12	150-0717	1	Switch, Overspeed

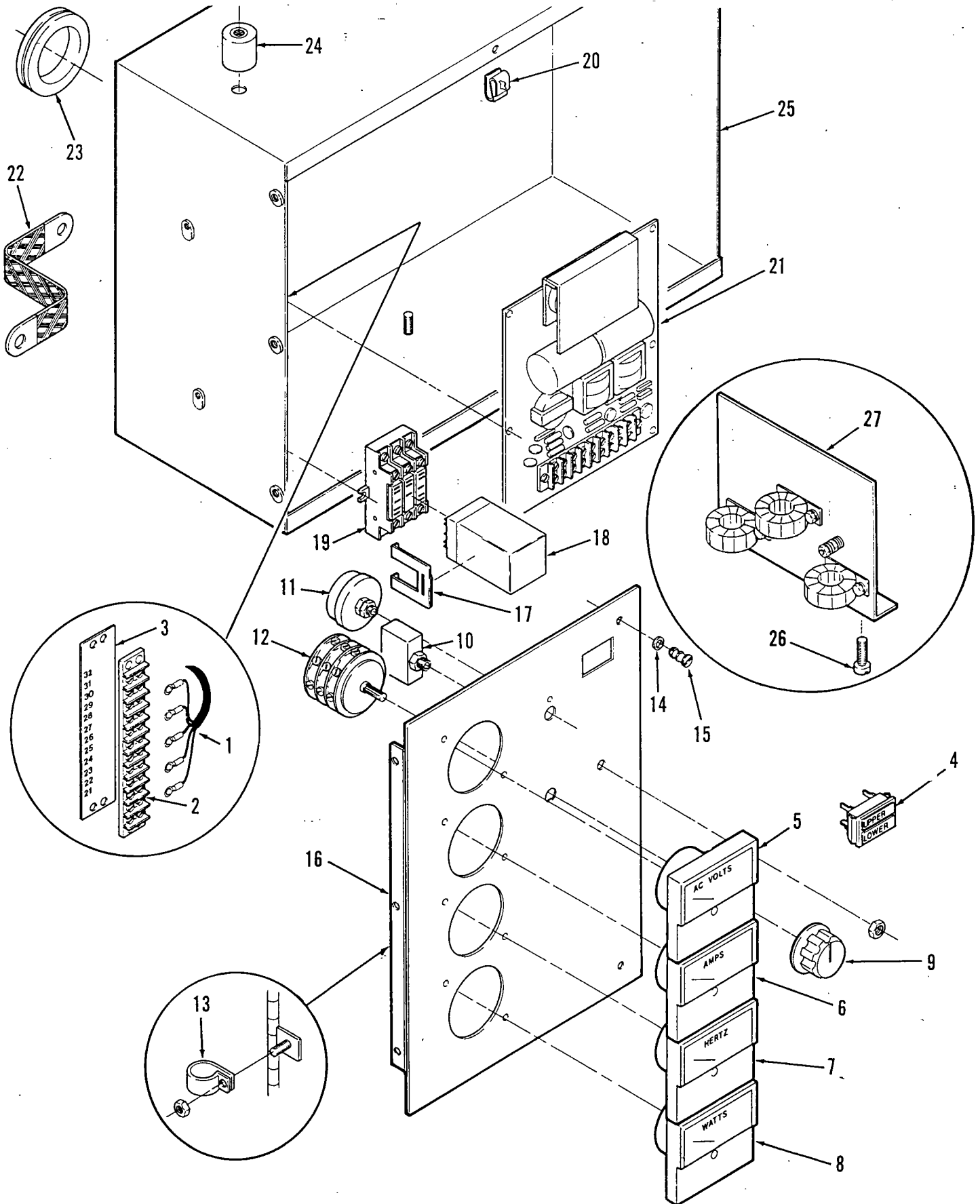
Engine Control



Engine Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head IT Washer (#6 - 32 x 1/2")	17	323-1310	1	Housing, Conn - 13 pin (J3)
2	300-2899	1	Board Assy, Printed Circuit - Time Delay, Start/Stop (A15)	323-1302	13	Contact, Pin	
3			Board Assy, Printed Circuit - Magnetic Pickup (A16)	18	322-0369-02	1	Lamp, Incandescent - 1/3 Watt 28 Volts DC
	300-2903	1	Standard (Fixed Sensitivity)	19	322-0017	1	Lamp, Incandescent - 28 Volts DC (DS11)
	300-2904	1	Precision (Adj Sensitivity)	20	322-0361	1	Holder, Lamp
4	300-2906	1	Board Assy, Printed Circuit - Over/Under Volt Sensor (A17)	21	517-0131	1	Plug, Button
5	300-2856	1	Board Assy, Printed Circuit - Relay Assembly - (A13)	22	151-0402	1	Potentiometer - Speed Control (R11)
6	300-2863	1	Board Assy, Printed Circuit - Relay Assembly - (A14)	23	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
7			Board Assy, Printed Circuit - Engine Monitor - (A11) (Includes Fuses & Connectors)	24	308-0784	1	Switch, Push - Run/Stop/ Remote (S12)
	300-2808	1	2 Light Control	26	301-6257	1	Cover, Hole - Switch
	300-2812	1	12 Light Control	27	193-0250	3	Resistor, Gauge (R12)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	28	193-0352	1	Gauge, Pressure - Oil (M11)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	29	193-0351	1	Gauge, Temp - Water (M12)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	30	302-1790	1	Meter, Ampere - DC (M13)
11	323-1305	1	Connector - 8 Pin (P1)	31	302-0885	1	Meter, Running Time (M14)
12	323-1303	1	Connector - 6 Pin (P2)	32	193-0330	1	Gauge, Temp - Oil (M15)
13	323-1309	1	Connector - 13 Pin (P3)	33	302-1873-01	1	Meter, Tach (M16)
14	323-1307	1	Connector - 12 Pin (P4)	34	517-0221	1	Plug, Button
15	301-8851	1	Bracket, Mounting - Printed Circuit Board Assembly	35	332-0052	1	Clamp, Loop
	821-0004	4	Screw, Self-Locking - Hex Washer Head (#10 - 32 x 5/16")	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)	
16			Module, Indicator - Fault (A12) (Includes Connector Housing)	36		Door, Control	
	322-0358-02	1	2 Light Control		301-9055-01	1	5 Gauge Holes
	322-0360-02	1	12 Light Control		301-9055-02	1	3 Gauge Holes
	815-0385	2	Screw, Machine - Round Head (#6 - 32 x 1/2")	37	338-1817	1	Harness, Wiring - DC (Includes Connector Housing)
	870-0183	2	Nut, Self-Locking - ET Hex Washer Head (#6 - 32)	38	323-1308	1	Housing, Conn - 12 Pin (J4)
					323-1302	12	Contact, Pin

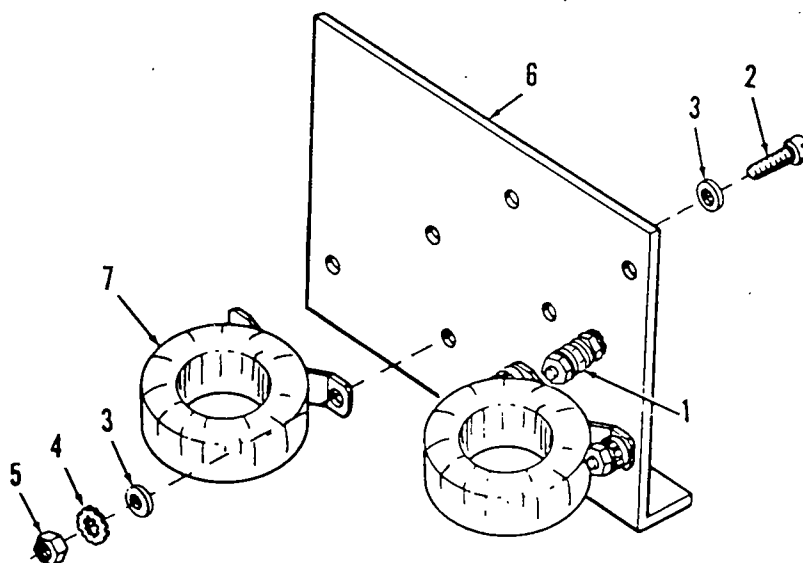
Generator Control



Generator Control

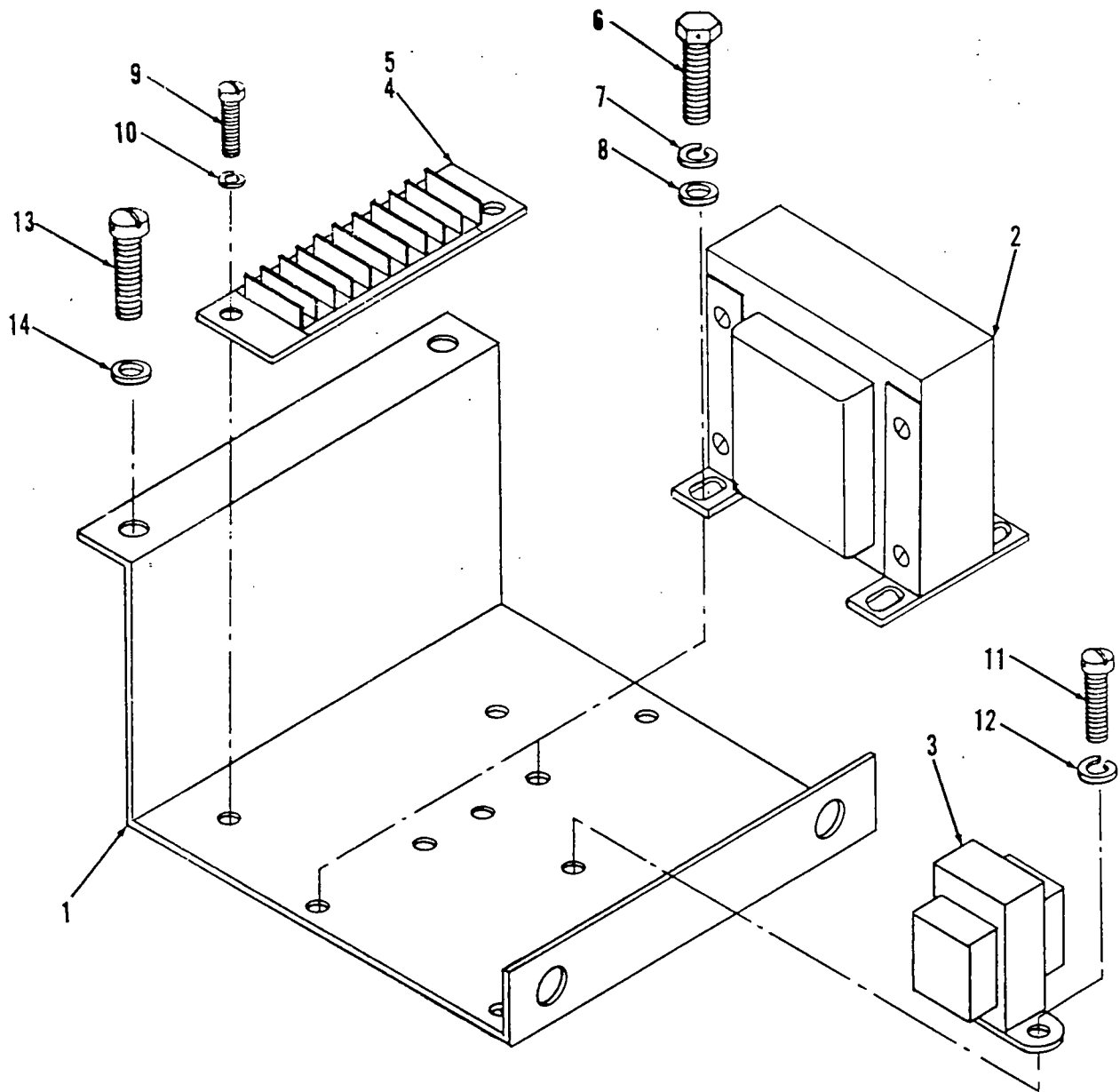
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - AC (Includes Terminal Block)	17	307-1987	2	Clip, Retaining - Relay
	338-1818	1	Controls With Meters	18	307-1056	1	Relay, 24 VDC
	338-1853	1	Controls Without Meters	19	323-0804	1	Socket, Relay
	812-0065	2	Screw, Machine - Round Head (#6 - 32 x 5/8")		815-0544	2	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
2	332-0607	1	Block, Terminal (TB1)	20	406-0332	2	Receptacle, Turnbutton Fastener
3	332-2723	1	Strip, Marker	21	300-2880	1	Regulator, Voltage (VR21)
4	322-0363	1	Light, Indicator - Dual (DS21, DS22)		815-0544	6	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
5	302-1148	1	Meter, Volt - AC (M21)	22	337-0049	1	Strap, Electrical (Ground)
6	302-1684	1	Meter, Ampere (M22) 0-150/300 Amp		800-0024	1	Screw, Cap - Hex Head (5/16 - 18 x 1/2")
7	302-1720	1	Meter, Frequency (M23)		856-0008	1	Washer, Lock - EIT (5/16)
8		1	Meter, Watt (M24) (See Separate Page For Components)	23	508-0051	1	Grommet
9	303-0032	1	Knob	24	402-0527	4	Mount, Vibration
10		1	Breaker, Circuit (CB21)		800-0045	4	Screw, Cap - Hex Head (5/16 - 18 x 3/8")
	320-1121	1	Without Auxiliary Contacts		850-0045	4	Washer, Lock - Spring (5/16)
	320-1438	1	With Auxiliary Contacts	25	301-8065	1	Box, Control
11	303-0261	1	Rheostat (R21)	26	821-0010	2	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
12	308-0284	1	Switch, Rotary (S21)			1	Transformer Assembly - Current (See Separate Page For Components)
13	332-0052	1	Clamp, Loop	27			
	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)				
14	406-0334	2	Clip, Retaining - Turnbutton Fastener				
15	406-0333	2	Stud, Fastener - Turnbutton				
16			Door, Control				
	301-9054-01	1	4 Meter Holes				
	301-9054-02	1	3 Meter Holes				
	301-9054-03	1	No Meter Holes				
	821-0004	3	Screw, Self-Locking-Hex Washer Head (#10 - 32 x 5/16")				

**Current Transformer
(All Voltage Codes Except "E")**



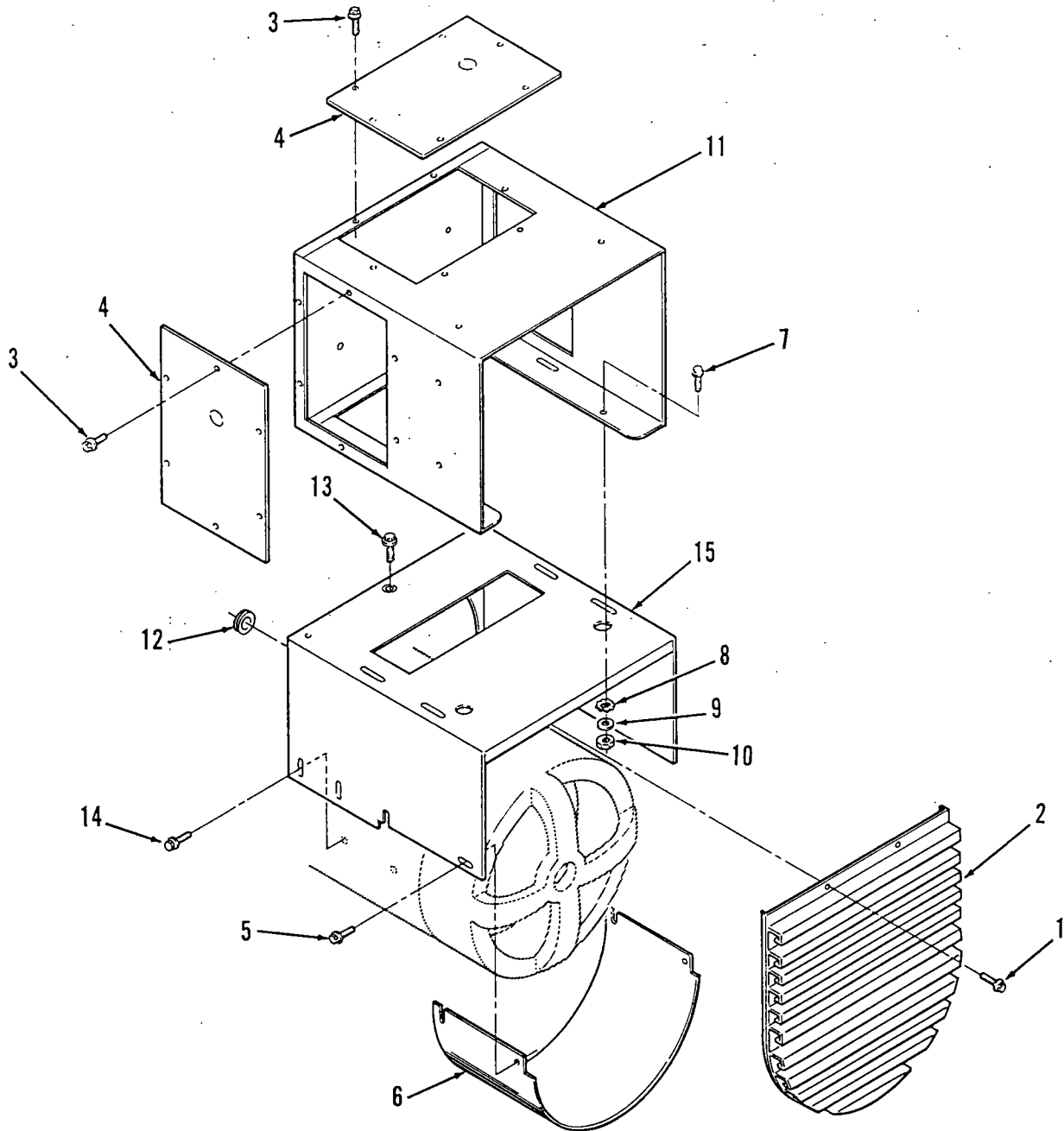
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Terminal Assembly, Ground (Includes Parts Marked *)	2	821-0005	6	Screw, Cap - Hex Washer Head (#10 - 32 x 1/2")
	815-0203	1	Screw, Machine - Round Head Brass (#10 - 32 x 7/8")	3	526-0008	6	Washer, Flat (#10)
	871-0010	3	Nut, Hex - Brass (#10 - 32)	4	856-0003	1	Washer, Lock - W/EIT (#10)
	856-0003	1	Washer, Lock - W/EIT (#10)	5	870-0053	6	Nut, Hex (#10 - 32)
	854-0010	2	Washer, Lock - W/IT (#10)	6	302-0764	1	Bracket, Mounting - Transformer
	526-0049	2	Washer, Flat - Brass (#10)	7	302-0865	3	Transformer, Current - Ratio 200/5

Current Transformer (Voltage Code E)



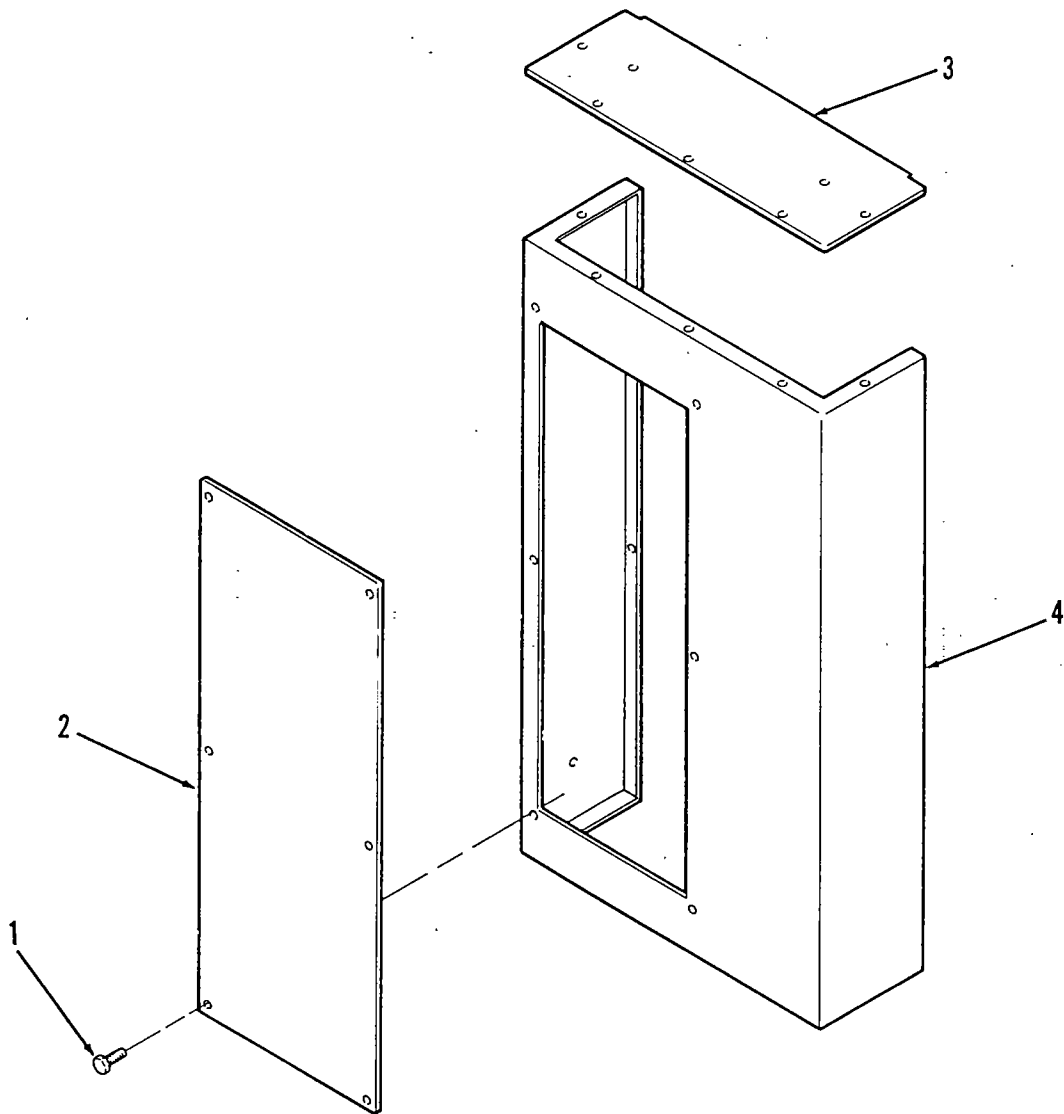
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-9540	1	Bracket, Mounting - Transformer	9	812-0077	2	Screw, Machine - Round Head (#8 - 32 x 3/8")
2	315-0636	2	Transformer, Current	10	850-0025	2	Washer, Lock (#8)
3	315-0635	1	Transformer, Current	11	812-0079	2	Screw, Machine - Round Head (#8 - 32 x 1/2")
4	332-2562	1	Block, Terminal	12	850-0025	2	Washer, Lock (#8)
5	332-2563	1	Strip, Marker	13	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")
6	800-0007	8	Screw, Cap - Hex Head (1/4 - 20 x 1")	14	850-0040	4	Washer, Lock (1/4)
7	850-0040	8	Washer, Lock (1/4)				
8	526-0018	8	Washer, Flat (1/4)				

Control Housing



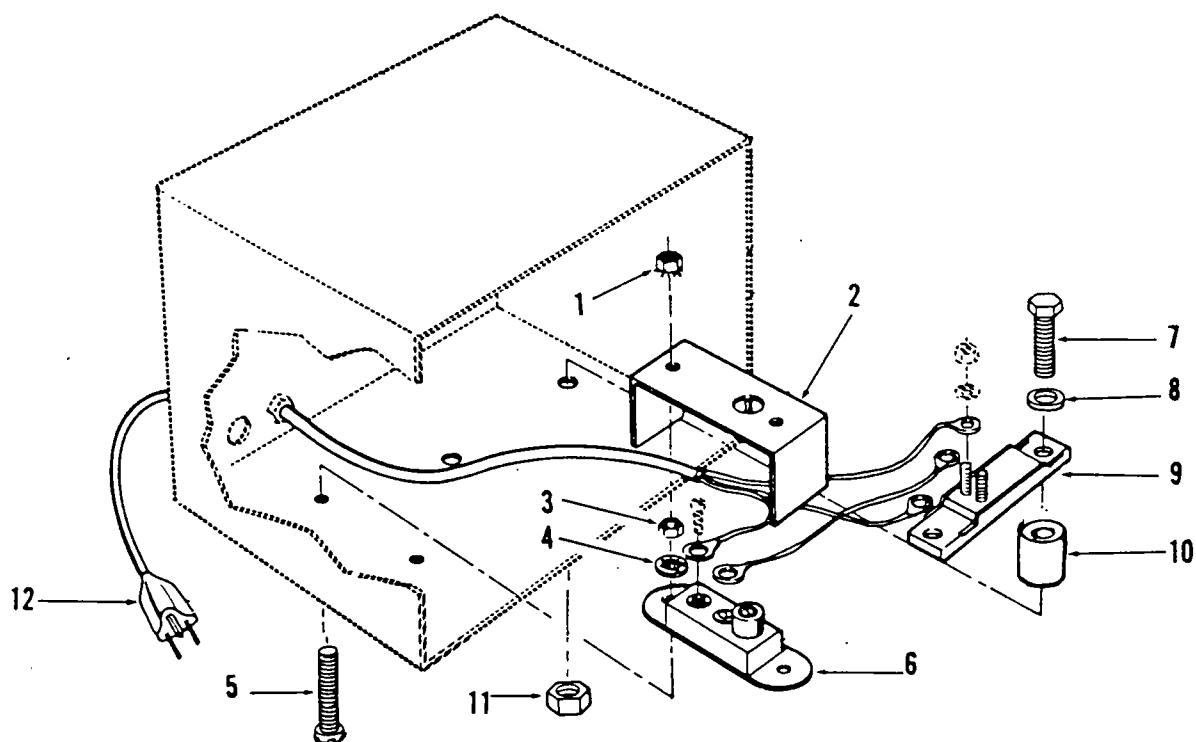
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	9	526-0018	5	Washer, Flat (1/4)
2	234-0370	1	Grille, Inlet - Air	10	870-0212	6	Nut, Hex (1/4 - 20)
3	815-0350	18	Screw, Tap - Hex Washer Head (#10 - 32 x 3/8")	11	301-3155	1	Housing, Box, Control
4	301-3156	3	Panel, Access	12	508-0203	1	Grommet
5	821-0010	4	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")		508-0051	1	Used Thru October 1984
6	234-0361	1	Wrapper, Bell - End	13	821-0010	1	Used Beginning November 1984
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 (1/4 - 20 x 1/2")
8	856-0006	1	Washer, Lock - W/EIT (1/4)	15	301-3154	1	Saddle, Box - Control

Entrance Box



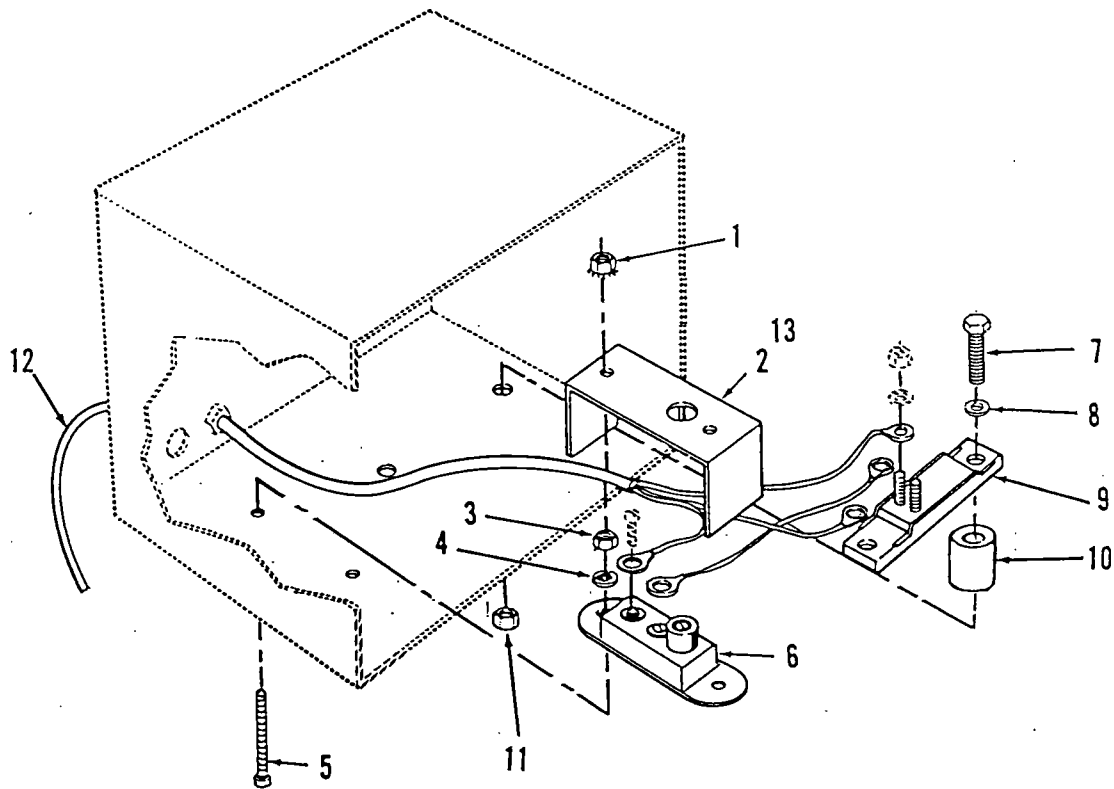
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	16	Screw, Lock (1/4 - 20 x 1/2")	3	301-9669	2	Panel, Breaker - Circuit
2	301-9975	1	Cover, Breaker - Circuit	4	301-9668	1	Box, Breaker - Circuit

Control Heater (120 Volt)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-Locking - Hex ET (#6 - 32)	7	800-0034	2	Screw, Cap - Hex Head (5/16 - 18 x 2-1/4")
2	301-1886	1	Cover, Thermostat	8	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" THK)
3	860-0006	2	Nut, Hex (#6 - 32)	9	333-0151	1	Heater, Electrical
4	854-0006	2	Washer, Lock - IT (#6)	10	130-1107	2	Spacer, Sleeve
5	812-0070	2	Screw, Machine - Round Head (#6 - 32 x 1-1/4)	11	870-0257	2	Nut, Self-Locking (5/16 - 18)
6	309-0128	1	Thermostat, Adjustable	12	335-0161	1	Cable, Electrical

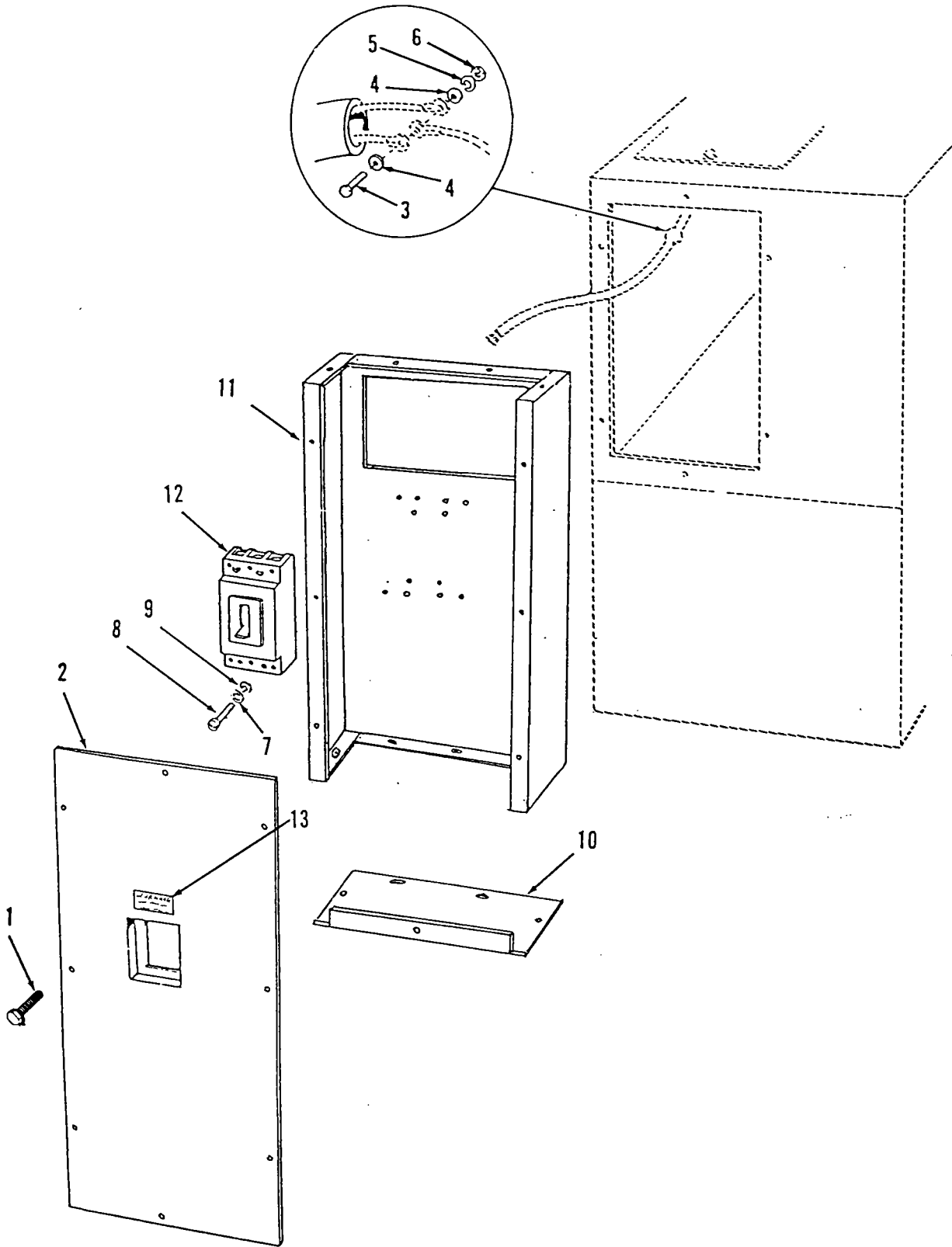
Control Heater (240 Volt)



SC1156

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Lock - W/ET (#6 - 32)	8	526-0113	2	Washer, Flat (5/16)
2	301-1886	1	Cover, Thermostat	9	333-0378	1	Heater, 240 Volt - 150 Watt
3	860-0006	2	Nut, Hex (#6 - 32)	10	130-1107	2	Spacer
4	854-0006	4	Washer, Lock - W/IT (#6)	11	870-0257	2	Nut, Self-Locking - Hex Head (5/16 - 18)
5	812-0070	2	Screw, Machine - Round Head (#6 - 32 x 1 1/4")	12	338-2181	1	Harness, Heater (Includes Rectifier Diode)
6	309-0128	1	Thermostat, Adjustable	13	98-3232	1	Decal, Warning
7	800-0034	2	Screw, Cap - Hex Head (5/16 - 18 x 2 1/4")				

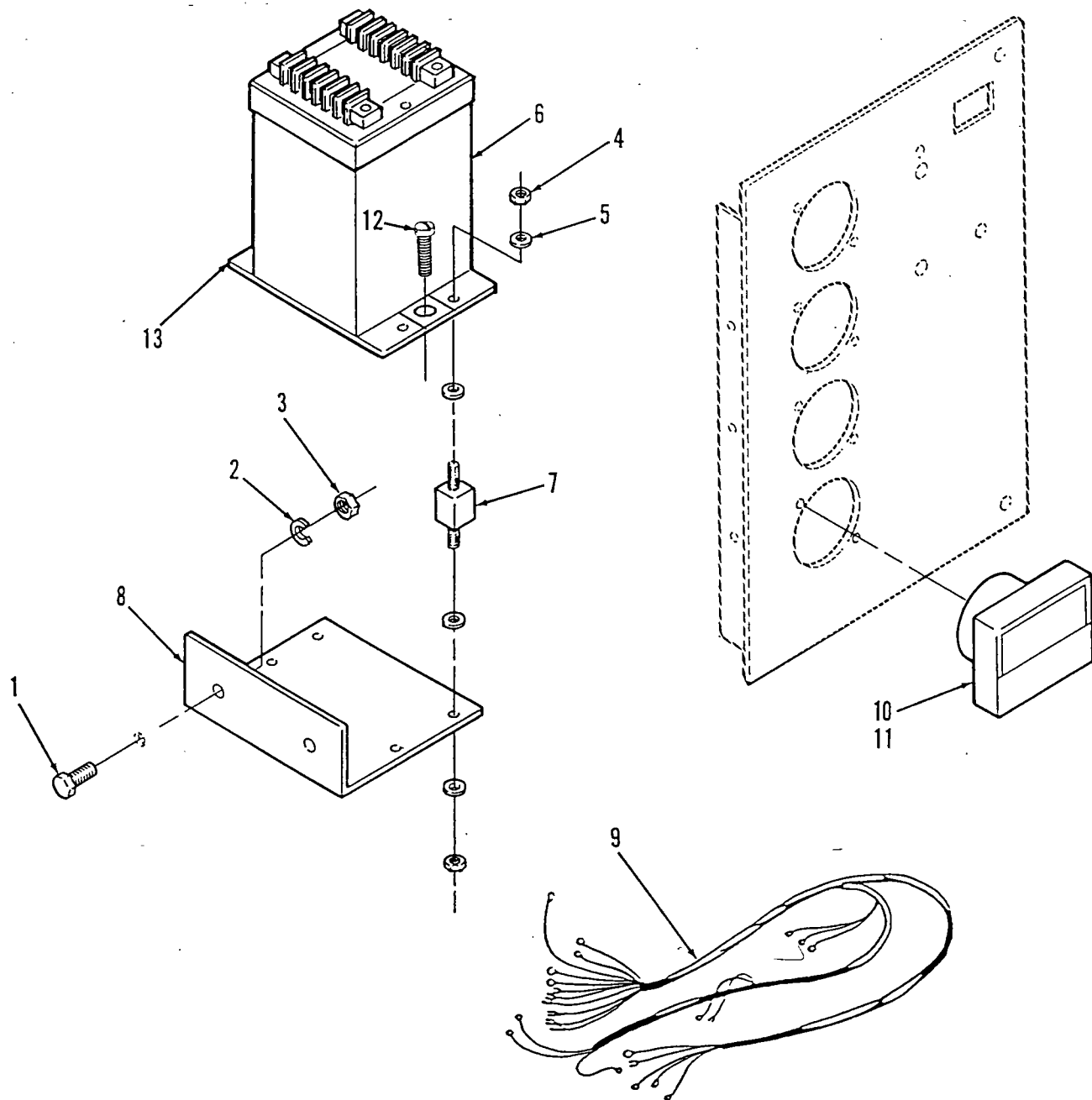
Circuit Breaker



Circuit Breaker (Without Shunt Trip)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	21	Screw, Self-locking - Hex (1/4-20 x 1/2)				480 Volt
2			Cover, Breaker, Circuit	320-1458-19	1		30 Amp
	301-9682	1	2-Pole 100 Amp & Below	320-1458-20	1		35 Amp
			3-Pole 150 Amp & Below	320-1458-21	1		40 Amp
	301-9892	1	2-Pole 110 Amp & Above	320-1458-22	1		45 Amp
			3-Pole 175 Amp & Above	320-1458-23	1		50 Amp
3	800-0028	5	Screw, Cap - Hex Head (3/16-18 x 1")	320-1458-24	1		60 Amp
4	526-0022	5	Washer, Flat (5/16)	320-1458-25	1		70 Amp
5	850-0045	5	Washer, Lock (5/16)	320-1458-26	1		80 Amp
6	862-0015	5	Nut, Hex (5/16-18)	320-1458-27	1		90 Amp
7			Washer, Lock	320-1458-28	1		100 Amp
	850-0025	4	(#8)	320-1458-29	1		110 Amp
	850-0040	4	(1/4)	320-1458-30	1		125 Amp
8			Screw,	320-1458-31	1		150 Amp
	812-0094	4	(#8-32 x 3 1/2")	320-1459-08	1		175 Amp
	812-0165	4	(1/4-20 x 1 1/2")	320-1459-09	1		200 Amp
	812-0157	4	(1/4-20 x 1 3/4")	320-1459-10	1		225 Amp
9			Washer, Flat	320-1460-06	1		250 Amp
	526-0048	4	(#8)	320-1460-07	1		300 Amp
	526-0108	4	(1/4)	320-1460-08	1		350 Amp
10	301-9669	2	Panel, Breaker - Circuit	320-1460-09	1		400 Amp
11	301-9668	1	Box, Breaker - Circuit				600 Volt
12			Breaker, Circuit	320-1458-34	1		20 Amp
			2-Pole	320-1458-35	1		25 Amp
			240 Volt	320-1458-36	1		30 Amp
	320-1511-11	1	70 Amp	320-1458-37	1		35 Amp
	320-1511-12	1	80 Amp	320-1458-38	1		40 Amp
	320-1511-13	1	90 Amp	320-1458-39	1		45 Amp
	320-1511-14	1	100 Amp	320-1458-40	1		50 Amp
	320-1512-05	1	110 Amp	320-1458-41	1		60 Amp
	320-1512-06	1	125 Amp	320-1458-42	1		70 Amp
	320-1512-07	1	150 Amp	320-1458-43	1		80 Amp
	320-1512-08	1	175 Amp	320-1458-44	1		90 Amp
	320-1512-09	1	200 Amp	320-1458-45	1		100 Amp
	320-1512-10	1	225 Amp	320-1458-46	1		110 Amp
	320-1513-06	1	250 Amp	320-1458-47	1		125 Amp
	320-1513-07	1	300 Amp	320-1458-48	1		150 Amp
	320-1513-08	1	350 Amp	320-1459-08	1		175 Amp
	320-1513-09	1	400 Amp	320-1459-09	1		200 Amp
			3-Pole	320-1459-10	1		225 Amp
			240 Volt	320-1460-06	1		250 Amp
	320-1458-09	1	50 Amp	320-1460-07	1		300 Amp
	320-1458-10	1	60 Amp	320-1460-08	1		350 Amp
	320-1458-11	1	70 Amp	320-1460-09	1		400 Amp
	320-1458-12	1	80 Amp	13	98-2304	1	Silkscreen, Breaker - Circuit (Warning)
	320-1458-13	1	90 Amp				Sleeving, Insulation (4")
	320-1458-14	1	100 Amp	898-0867	1		Sleeving, Insulation (4")
	320-1458-29	1	110 Amp	898-0865	1		Sleeving, Insulation (4")
	320-1458-30	1	125 Amp	898-0863	1		Sleeving, Insulation (4")
	320-1458-31	1	150 Amp				
	320-1459-08	1	175 Amp				
	320-1459-09	1	200 Amp				
	320-1459-10	1	225 Amp				
	320-1460-06	1	250 Amp				
	320-1460-07	1	300 Amp				
	320-1460-08	1	350 Amp				
	320-1460-09	1	400 Amp				

Wattmeter



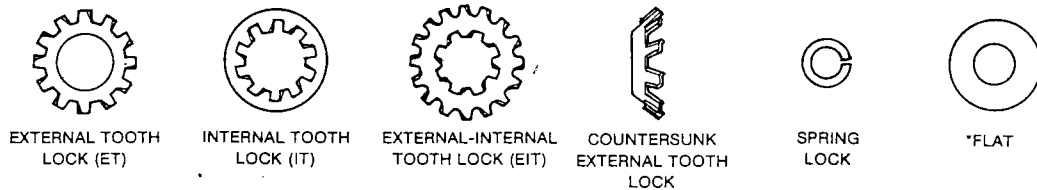
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Cap - Hex Washer Head (5/16 - 18 x 1/2")
2	850-0045	2	Washer, Lock (5/16)
3	862-0014	2	Nut, Hex (5/16 - 18)
4	860-0008	8	Nut, Hex (#8 - 32)
5	856-0002	16	Washer, Lock - W/ET (#8)
6	302-1843	1	Transducer, Watts
	302-1833-01	1	Voltage Code E
			Voltage Code H, L, Z

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	402-0354	4	Mount, Shock
8	301-6987	1	Bracket, Transducer - Watts
9	338-1936	1	Harness, Transducer - Watts
10	302-1722	1	Meter, Watt - DC
11	302-1721-03	1	Dial, Meter - Watt
12	813-0102	2	Screw, Machine - Round Head
13	319-0030	1	Plate, Transducer

HARDWARE IDENTIFICATION

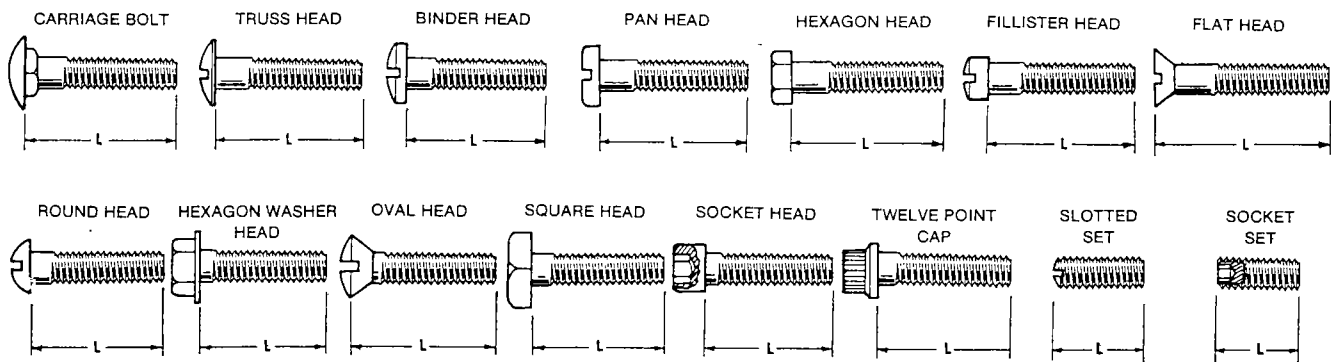
Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

WASHER TYPES



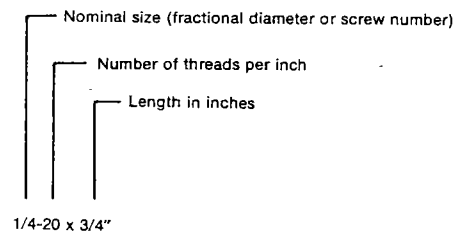
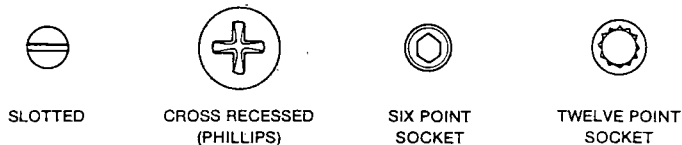
* - Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

BOLT AND SCREW TYPES



L - Measure length between these points.

INTERNAL DRIVE TYPES



NUT TYPES





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