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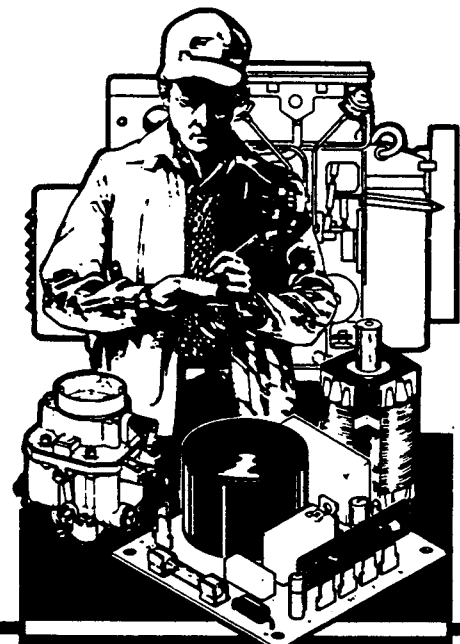
Onan

**Parts
Manual**

D G D A

D G D B

GenSet



Onan Service Parts

960-0243
5-88 (Spec A)
Replaces
3-87 (Spec A)
Printed in U.S.A.

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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
65.0 DGDA - */ # @	65,000 WATTS	1500 RPM	24 VDC
80.0 DGDA - */ # @	80,000 WATTS	1800 RPM	24 VDC
85.0 DGDB - */ # @	85,000 WATTS	1500 RPM	24 VDC
100.0 DGDB - */ # @	100,000 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.

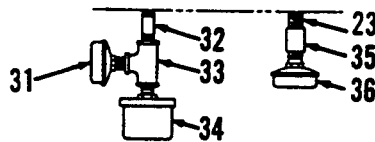
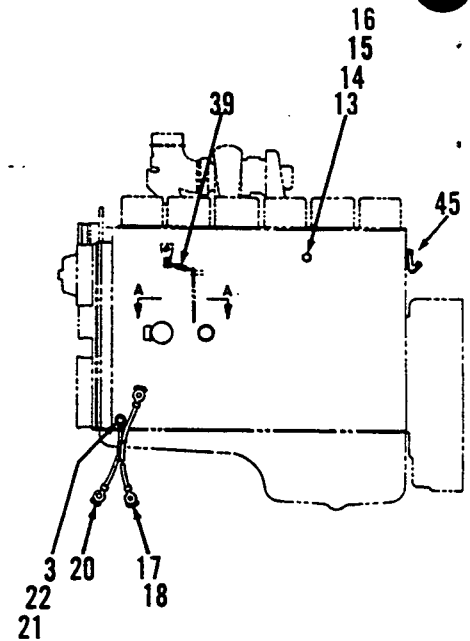
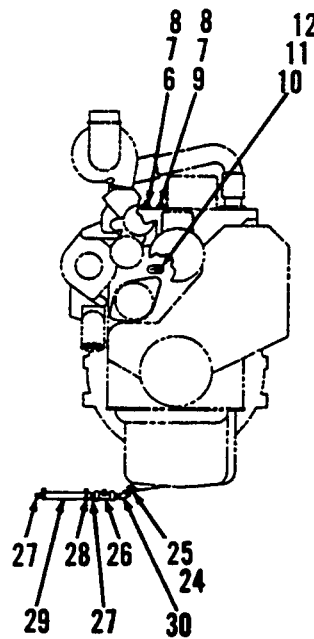
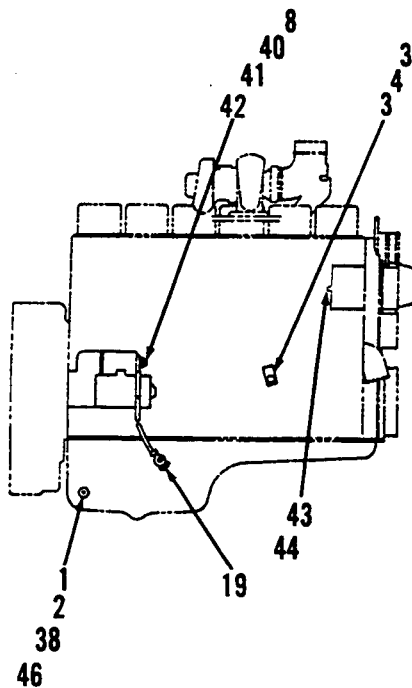
+ - These Generators are Reconnectible, Refer To Installation Manual for wiring data.

Maintenance Engine Parts

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	187-0014	1	Filter, Oil
2	187-0011	1	Filter, Fuel
3	187-0012	1	Filter, Fuel
4	187-0008	6	Gasket, Cover - Valve
5	187-0009	1	Belt, Drive
6	187-0020	1	Thermostat
7	187-0010	1	Gasket, Thermostat
8			Injector
	187-0005	6	DGDA
	187-0006	6	DGDB

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9			Pump, Injection
	187-0016	1	DGDA
	187-0019	1	DGDB
10	187-0001	1	Pump, Water
11	187-0003	1	Gasket Kit, End - Top
12	187-0013	1	Pump, Transfer - Fuel

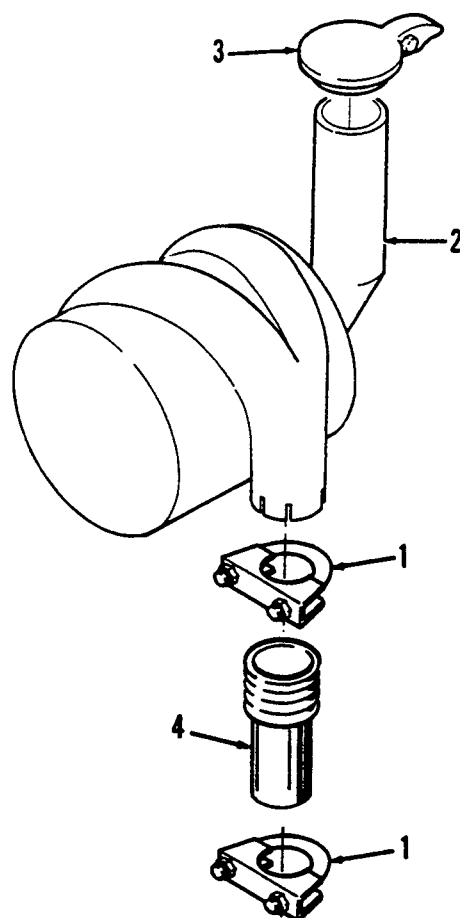
Engine Accessories



VIEW A-A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0353	1	Sender, Temperature - Oil	24	102-1147	1	Gasket, Drain - Oil Pan
2	187-0146	1	Washer, Sealing	25	102-1237	1	Adapter, Drain - Oil
3	856-0013	3	Washer, Lock - W/EIT (1/2)	26	504-0011	1	Valve, Shutoff
4	332-2739	1	Bracket Assembly, Terminal	27	505-0185	2	Nipple, Half
6	309-0554	1	Switch, Temperature - Hi Water	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	505-0248	1	Elbow, Street
9	309-0553	1	Switch, Temperature - Pre Water	31	309-0561	1	Switch, Safety - Oil
10	800-2058	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	Sender, Temperature - Lo Engine	34	193-0244	1	Sender, Pressure - Oil
13	193-0375	1	Sender, Temperature - Water	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	416-0915	1	Cable, Battery (9")	40	871-0028	1	Nut, Hex (3/8 - 16)
18	332-0941	2	Tie, Cable	41	850-0050	1	Washer, Lock (3/8)
19	416-0444	1	Cable, Battery (44")	42	860-0008	1	Nut, Hex (#8 - 32)
20	416-0893	1	Cable, Battery (10")	43	115-0025	1	Nut, Tappet (1/4 - 28)
21	800-2110	1	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)	44	850-0040	1	Washer, Lock (1/4)
22	850-2012	1	Washer, Lock (M12)	501-0441		1	Line, Fuel - Flex (Fuel In)
23	505-0098	1	Nipple, Close	501-0502		1	Line, Fuel - Flex (Fuel Out)
				503-0685		1	Clamp, Hose
				332-2921		2	Clamp, J
				187-0198		1	Plug

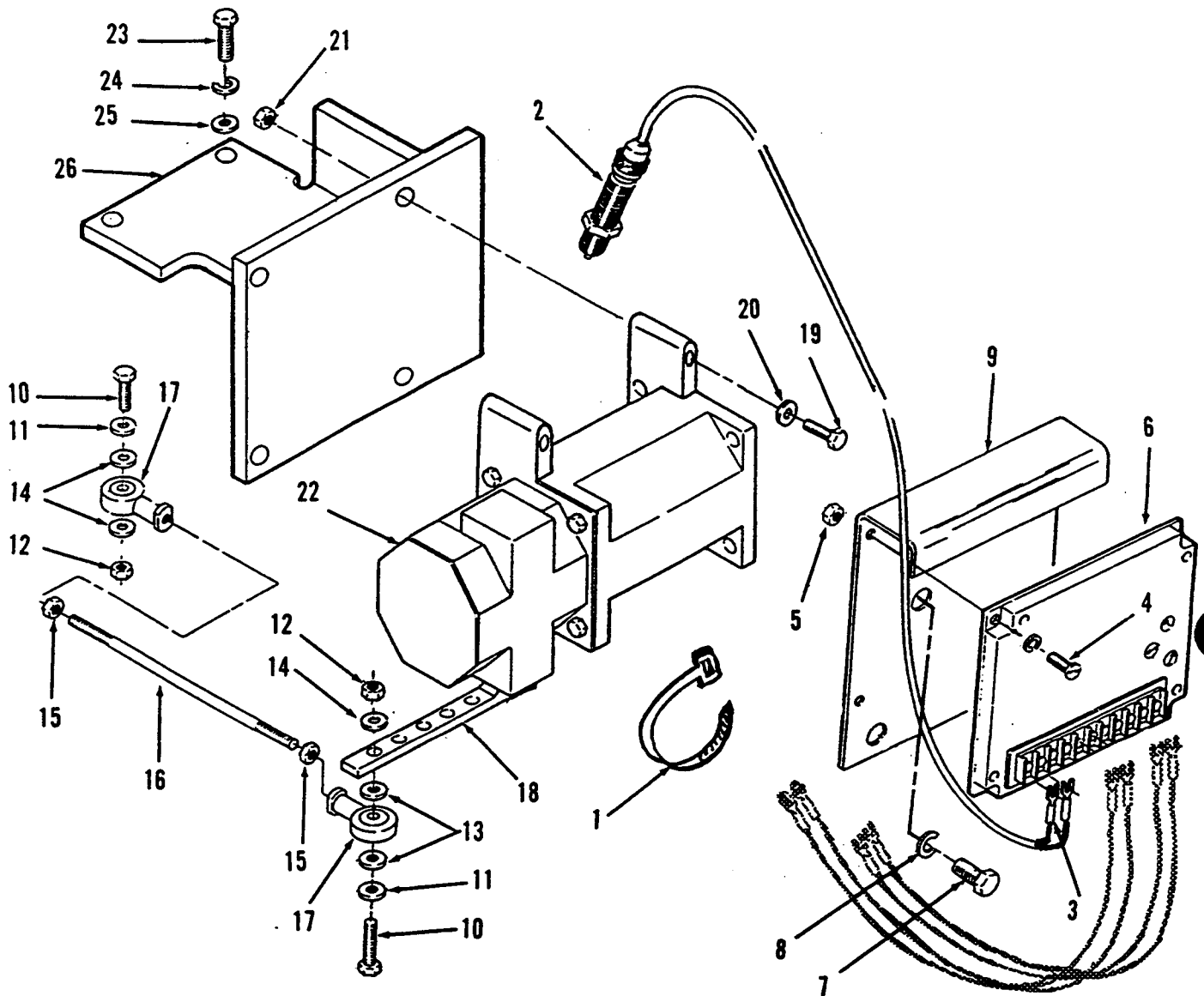
Exhaust System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2175	2	Clamp, Muffler
2	155-2251	1	Silencer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	155-2062-03	1	Cap, Rain
4	155-2253	1	Adapter, Exhaust

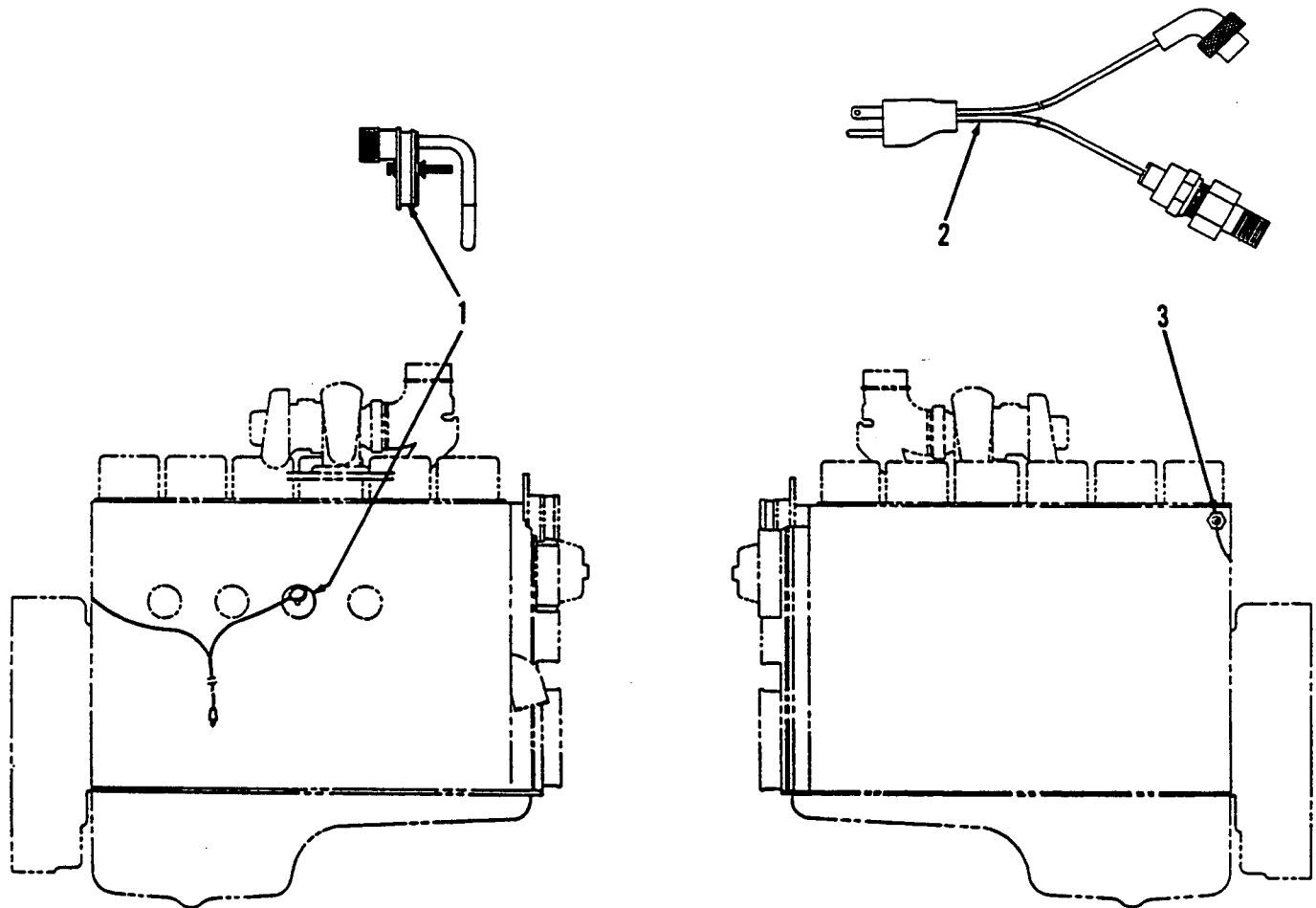
Electronic Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	5	Tie, Cable
2	150-2201	1	Sensor, Speed - Includes Leads, Less Terminals
3			Terminal, Electrical (For all Electrical Leads)
	332-1279	8	Spade, #6
	332-0325	1	Ring, #10
	332-1087	1	Ring, 1/2"
4	813-0103	4	Screw, Machine - Round Head (#10-32 x 3/4")
5	870-0131	4	Nut, Hex - W/ET (#10-32) (Not used all installations)
6	151-0611	1	Control, Governor
7	800-2110	2	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
8	850-2012	2	Washer, Flat (M12)
9	150-2007	1	Bracket, Mounting
10	815-0172	2	Screw, Machine - Hex Head (#10-32 x 1")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	526-0327	2	Washer, Flat (13/64)
12	870-0131	2	Nut, Hex - W/ET (#10-32)
13	526-0008	2	Washer, Flat (#10)
14	526-0196	3	Washer, Flat - Aluminum
15	870-0053	2	Nut, Hex (#10-32)
16	150-2218-02	1	Rod - Governor
17	150-2251	2	Joint, Ball
18	150-2203	1	Lever, Actuator - Governor
19	800-0012	4	Screw, Cap - Hex Head (1/4-20 x 2 1/4")
20	526-0018	4	Washer, Flat (1/4)
21	870-0212	4	Nut, Self-locking - Hex (1/4-20)
22	151-0632	1	Actuator, Governor (24VDC)
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

Water Heater



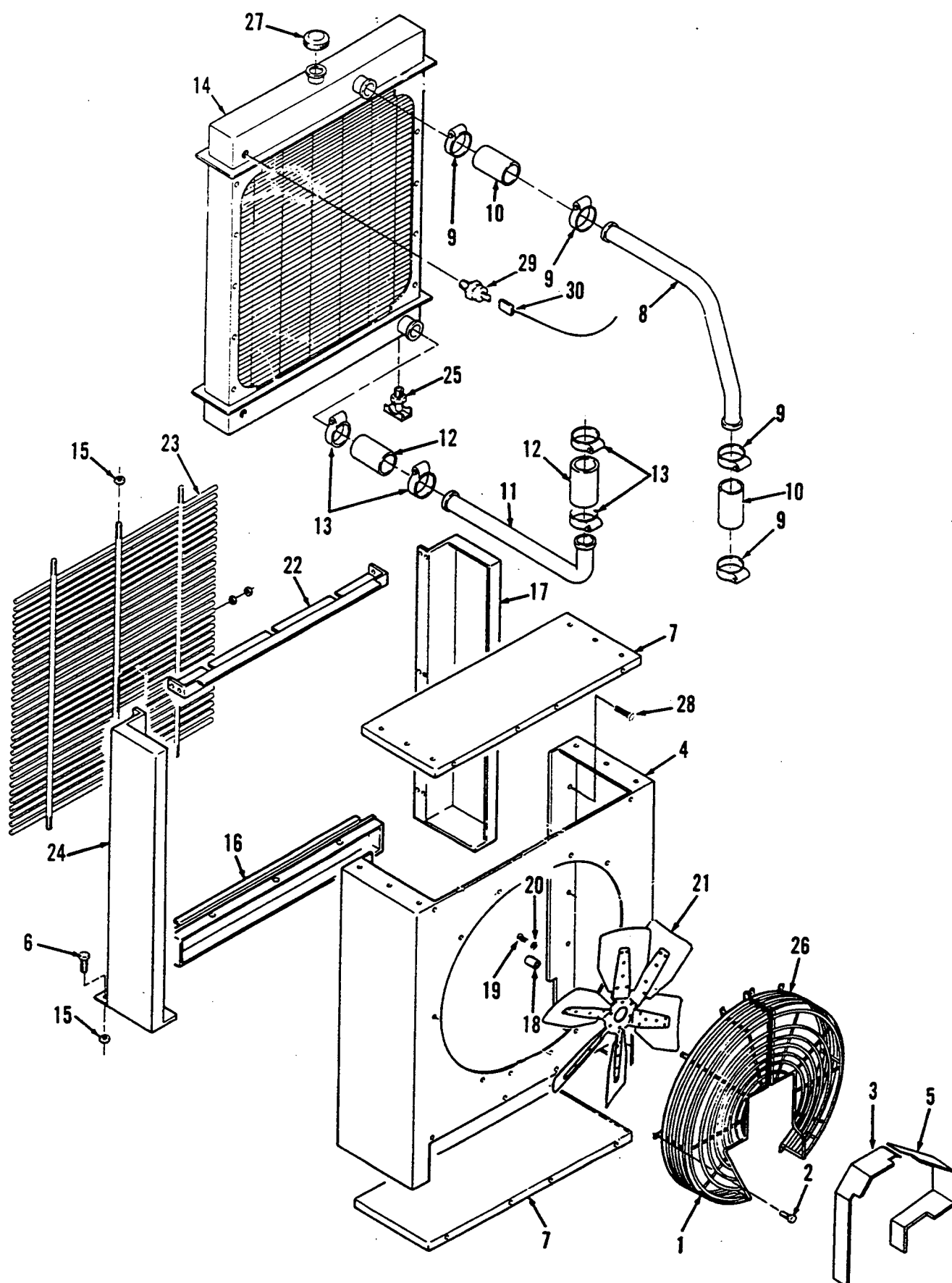
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0291-01	1	Heater, Engine - 750 Watt
	333-0291-02	1	120 Volt
2	333-0292-01	1	240 Volt
	333-0292-02	1	Thermostat (Includes Plug)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	505-0851	1	Bushing, Reducer
4	155-2353	1	Shield, Heat
5	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	98-5393	2	Label, Warning	7	332-0941	1	Tie, Cable
4	98-2235	1	Decal, Ground	8	98-4500	2	Label, Tested - Prototype

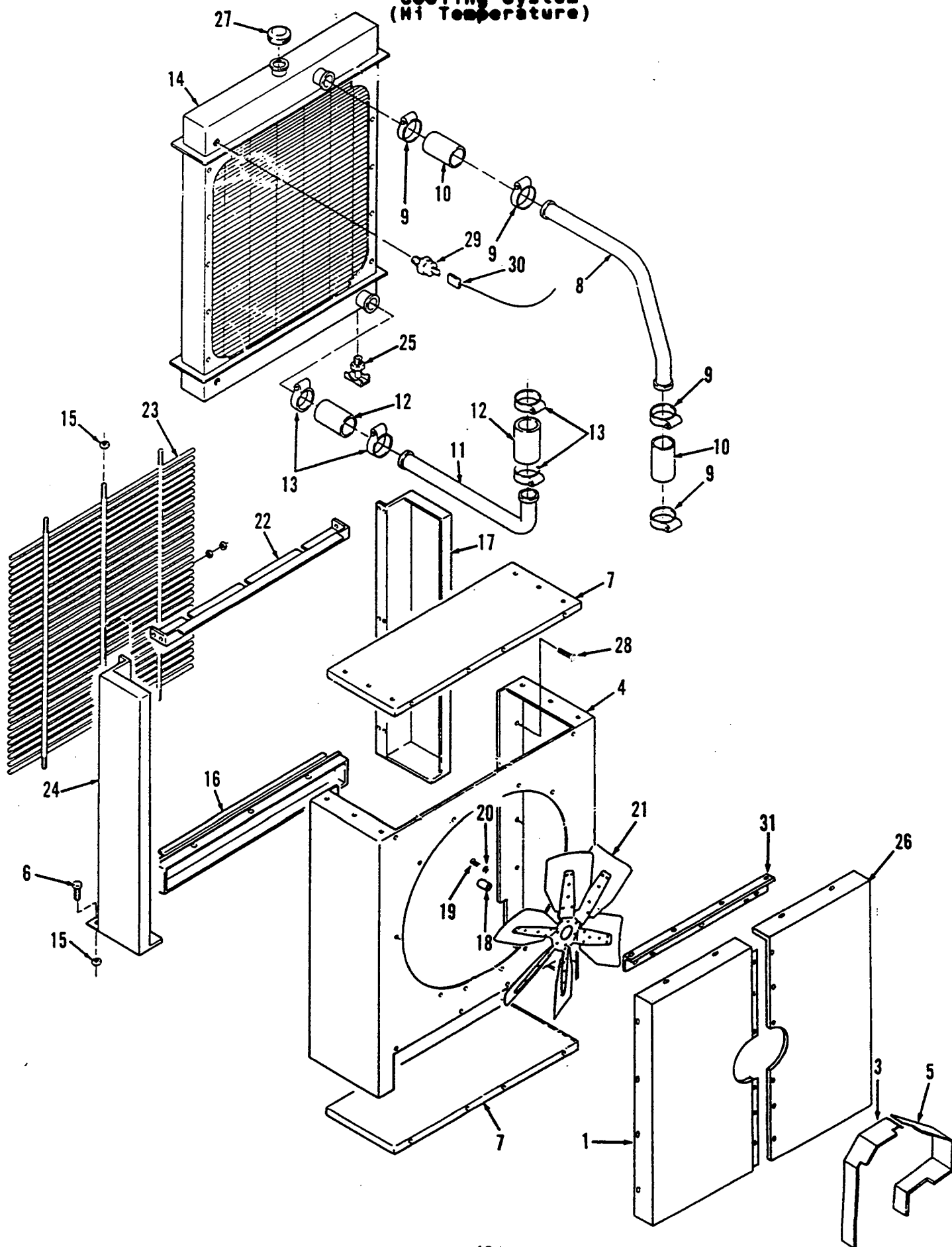
Cooling System (Standard)



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	17	130-3087-02	1	Guard, Radiator - Left Hand
2	821-0018	34	Screw, Cap - Hex Head (1/4 - 20 x .62")	18	130-3082	1	Spacer, Fan
3	130-3085	1	Guard, Belt - Right Hand	19	800-2068	4	Screw, Cap - Hex Head (M8 x 1.25 x .75mm)
4	130-3091	1	Wrapper, Shroud - Fan	20	850-2008	4	Washer, Lock (M8)
5	130-3086	1	Guard, Belt - Left Hand	21	130-3080	1	Fan, Radiator
6	821-0029	12	Screw, Cap - Hex Head (3/8 - 16 x .75")	22	130-3089	1	Support, Grille
7	130-3092	2	Shroud, Fan	23	130-3088	1	Grille Assembly
8	130-3083	1	Tube, Inlet - Radiator	24	130-3087-01	1	Guard, Radiator - Right Hand
9	503-0365	4	Clamp, Hose	25	504-0028	1	Cock, Drain
10	503-1391-01	2	Hose, Radiator	26	130-3069-02	1	Guard, Fan - Left Hand
11	130-3084	1	Tube, Outlet - Radiator	27	130-1788	1	Cap, Radiator
12	503-1379-01	2	Hose, Radiator	28	821-0028	12	Screw, Cap - Hex Head (3/8 - 16 x 1/2")
13	503-0465	4	Clamp, Hose	29	193-0322	1	Sender, Coolant - Low
14	130-3064	1	Radiator	30	338-1919	1	Harness, Wiring - Low Coolant
15	870-0281	15	Nut, Lock (3/8 - 16)	31	502-0153	1	Plug, Hex
16	130-3090	1	Support, Grille	32	821-0010	8	Screw, Lock (1/4 - 20 x 1/2")

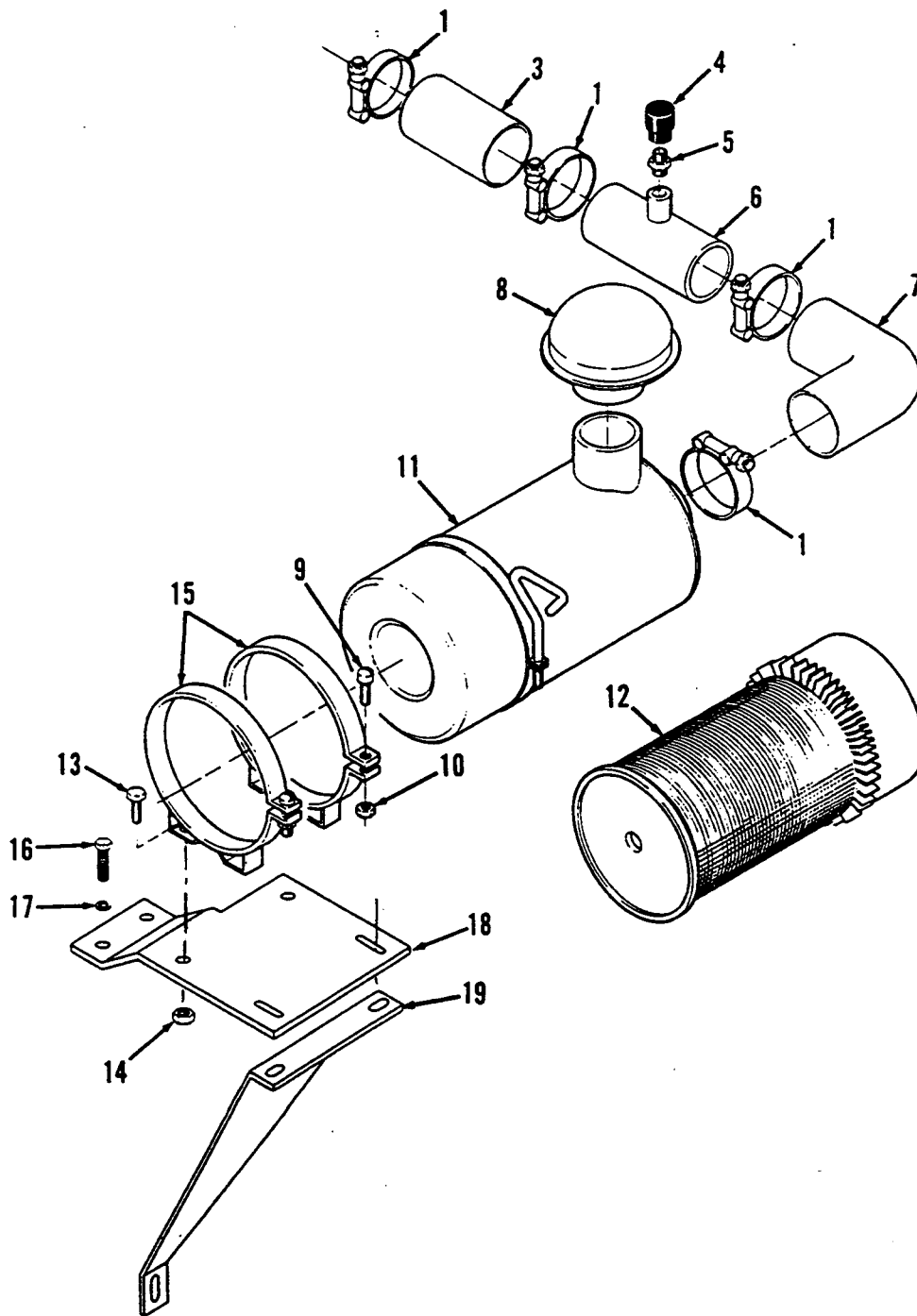
Cooling System (Hi Temperature)



Cooling System (Hi Temperature)

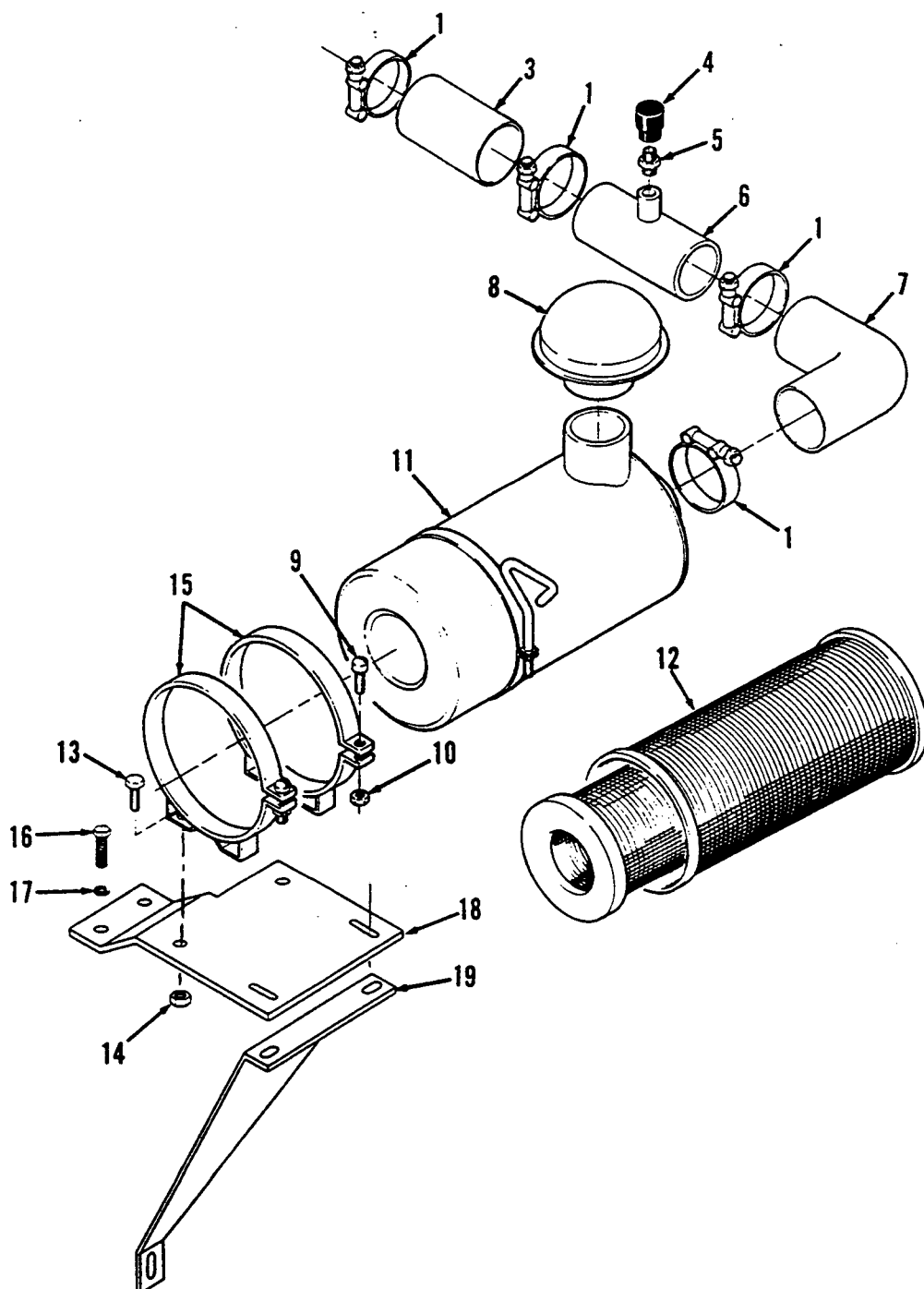
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-3140	1	Guard, Fan - Right Hand	17	130-3087-02	1	Guard, Radiator - Left Hand
2	821-0018	59	Screw, Cap - Hex Head (1/4 - 20 x .62")	18	130-3082	1	Spacer, Fan
3	130-3085	1	Guard, Belt - Right Hand	19	800-2068	4	Screw, Cap - Hex Head (M8 x 1.25 x .75mm)
4	130-3091	1	Wrapper, Shroud - Fan	20	850-2008	4	Washer, Lock (M8)
5	130-3086	1	Guard, Belt - Left Hand	21	130-3080	1	Fan, Radiator
6	821-0029	12	Screw, Cap - Hex Head (3/8 - 16 x .75")	22	130-3089	1	Support, Grille
7	130-3092	2	Shroud, Fan	23	130-3088	1	Grille Assembly
8	130-3083	1	Tube, Inlet - Radiator	24	130-3087-01	1	Guard, Radiator - Right Hand
9	503-0365	4	Clamp, Hose	25	504-0028	1	Cock, Drain
10	503-1391-01	2	Hose, Radiator	26	130-3141	1	Guard, Fan - Left Hand
11	130-3084	1	Tube, Outlet - Radiator	27	130-1788	1	Cap, Radiator
12	503-1379-01	2	Hose, Radiator	28	821-0028	12	Screw, Cap - Hex Head (3/8 - 16 x 1/2")
13	503-0354	4	Clamp, Hose	29	193-0322	1	Sender, Coolant - Low
14	130-3064	1	Radiator	30	338-1919	1	Harness, Wiring - Low Coolant
15	870-0281	15	Nut, Lock (3/8 - 16)	31	130-3102	4	Bracket, Guard - Fan
16	130-3090	1	Support, Grille				

Air Cleaner (Standard)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0868	4	Clamp, Hose	11	140-2147	1	Cleaner, Air
3	503-1460	1	Hose, Radiator	12	140-2148	1	Element, Cleaner - Air
4	140-1548	1	Indicator, Service	13	821-0033	4	Screw, Lock (7/16 - 14 x .75")
5	140-1260	1	Fitting, Filter - Safety	14	870-0437	4	Nut, Lock (7/16 - 14)
6	140-2152	1	Tube, Inlet - Air	15	140-1599	2	Band, Mounting
7	140-1467	1	Elbow, Cleaner - Air	16	800-2110	3	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
8	140-1435	1	Cap, Cleaner - Air	17	850-2012	3	Washer, Lock (M12)
9	815-0115	2	Screw, Machine - Fillister Head (1/4 - 20 x 1")	18	140-2153	1	Bracket, Mounting - Air Cleaner
10	863-0002	2	Nut, Square (1/4 - 20)	19	140-2154	1	Bracket, Mounting - Air Cleaner

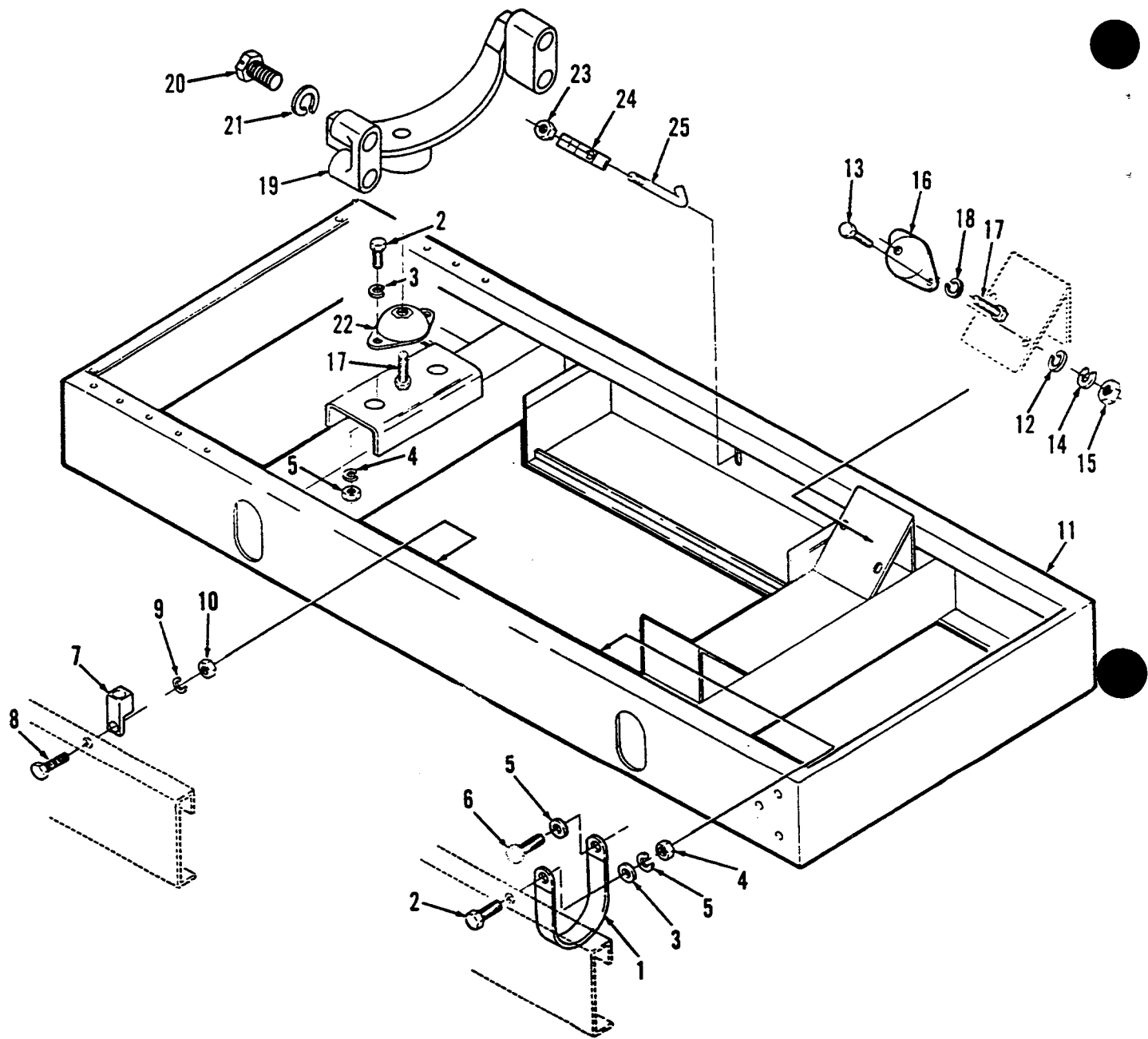
Air Cleaner (Heavy Duty)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0868	4	Clamp, Hose
3	503-1460	1	Hose, Radiator
4	140-1548	1	Indicator, Service
5	140-1260	1	Fitting, Filter - Safety
6	140-2152	1	Tube, Inlet - Air
7	140-1467	1	Elbow, Cleaner - Air
8	140-1435	1	Cap, Cleaner - Air
9	815-0115	2	Screw, Machine - Fillister Head (1/4 - 20 x 1")
10	863-0002	2	Nut, Square (1/4 - 20)
11	140-2149	1	Cleaner, Air

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	140-2148	1	Element, Cleaner - Air Primary
	140-2150	1	Secondary
13	821-0033	4	Screw, Lock (7/16 - 14 x .75")
14	870-0437	4	Nut, Lock (7/16 - 14)
15	140-1599	2	Band, Mounting
16	800-2110	3	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
17	850-2012	3	Washer, Lock (M12)
18	140-2153	1	Bracket, Mounting - Air Cleaner
19	140-2154	1	Bracket, Mounting - Air Cleaner

Chassis



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	337-0090	1	Strap, Electrical
2	800-0091	3	Screw, Cap - Hex Head (1/2 - 13 x 1")
3	850-0060	3	Washer, Lock (1/2)
4	862-0016	3	Nut, Hex (1/2 - 13)
5	856-0013	2	Washer, Lock - W/EIT (1/2)
6	800-2111	1	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)
7	332-1473	1	Lug, Solderless
8	800-0026	1	Screw, Cap - Hex Head (5/16 - 18 x .75")
9	856-0008	1	Washer, Lock - W/EIT (5/16)
10	870-0257	1	Nut, Lock (5/16 - 18)
11	403-2568	1	Skid
12	526-0219	6	Washer, Flat (1/2)
13	800-0071	4	Screw, Cap - Hex Head (7/16 - 14 x 1")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
14	850-0055	4	Washer, Lock (7/16)
15	862-0004	4	Nut, Hex (7/16 - 14)
16	402-0568	2	Cushion, Mounting
17	800-0520	3	Screw, Cap - Hex Head (3/4 - 10 x 1")
18	850-0079	3	Washer, Lock (3/4)
19	403-2567	1	Support, Engine
20	800-2119	4	Screw, Cap - Hex Head (M12 x 1.75 x 65mm)
21	850-2012	5	Washer, Lock (M12)
22	402-0030	1	Cushion, Mounting
23	870-0212	1	Nut, Lock (1/4 - 20)
24	416-0854	1	Bracket, Mounting - Battery
25	416-0853	1	Holddown, Battery

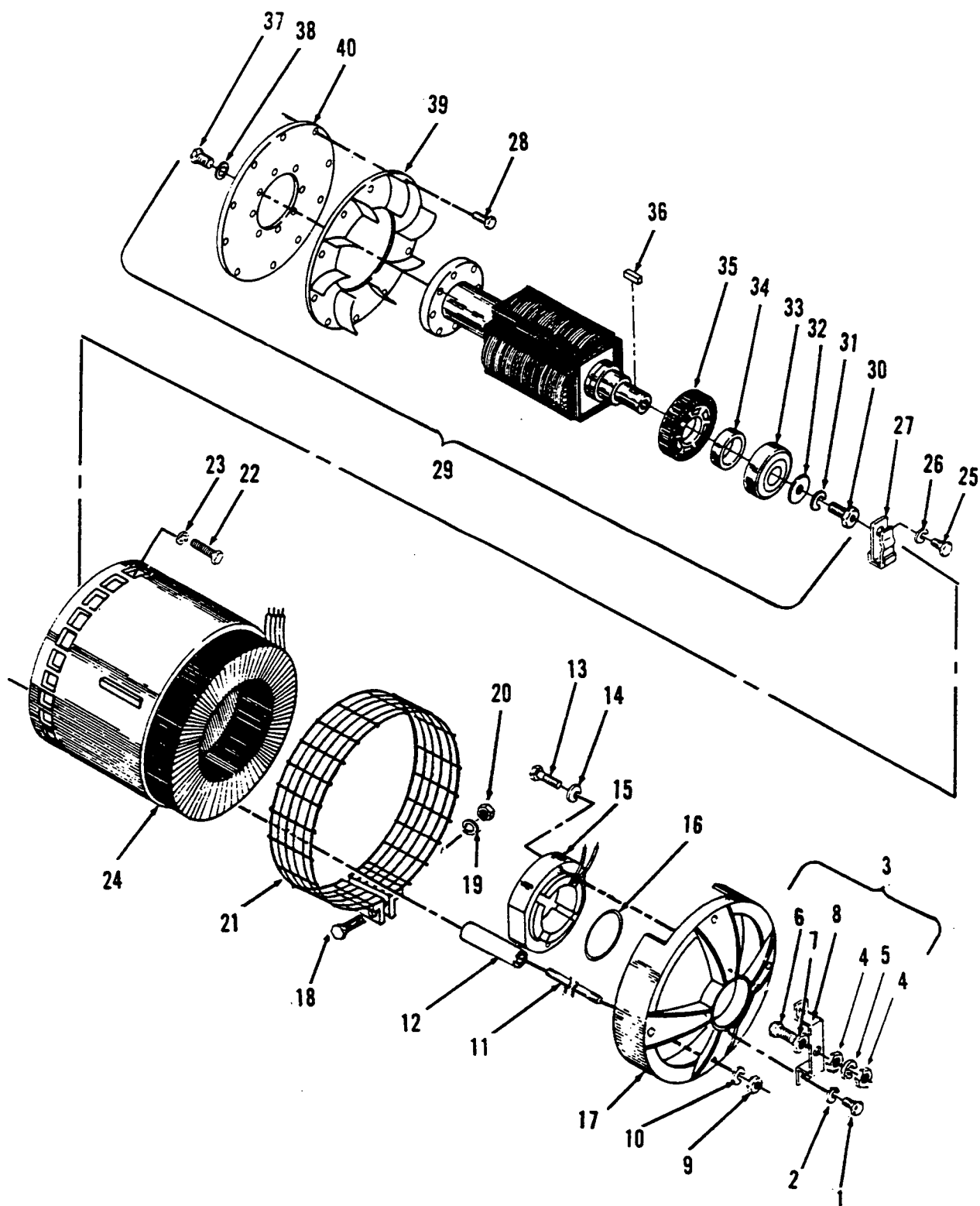


Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	405-3847	1	Top, Housing
4	405-3841	2	Door, Grille
5	405-3837	2	Panel, Side - Housing
6	405-3827-02	1	Post, Center - Right Hand
7	405-3827-01	1	Post, Center - Left Hand
9	405-3835	2	Door, Side
10	405-3836	1	Door, Control
13	405-3826-01	1	Post, Rear - Right Hand
14	405-3833	1	Grille
15	405-3828	1	Panel, Rear
16	405-3826-02	1	Post, Rear - Left Hand
17	405-3825	2	Door, Access - Side
21	98-5429	2	Decal, Fill - Coolant
22	406-0626	5	Handle, Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
23	406-0639	5	Key, Handle
	821-0029	22	Screw, Lock (3/8 - 16 x .75")
	870-0281	18	Nut, Lock - Hex (3/8 - 16)
	819-1083	9	Screw, Pan Head - Recessed (1/4 - 20 x .44")
	821-0014	14	Screw, Lock (5/16 - 18 x .5")
	870-0257	10	Nut, Lock - Hex (5/16 - 18)
	406-0624	4	Hinge, Door - Grille (L-Shape)
	815-0236	8	Screw, Thread Forming (5/16 - 18 x .62")
	406-0574	4	Hinge, Door - Panel (L-Shape)
	870-0235	20	Nut, Lock (#8 - 32)
	815-0607	20	Screw, Oval Head (#8 - 32 x 3/8")

Generator

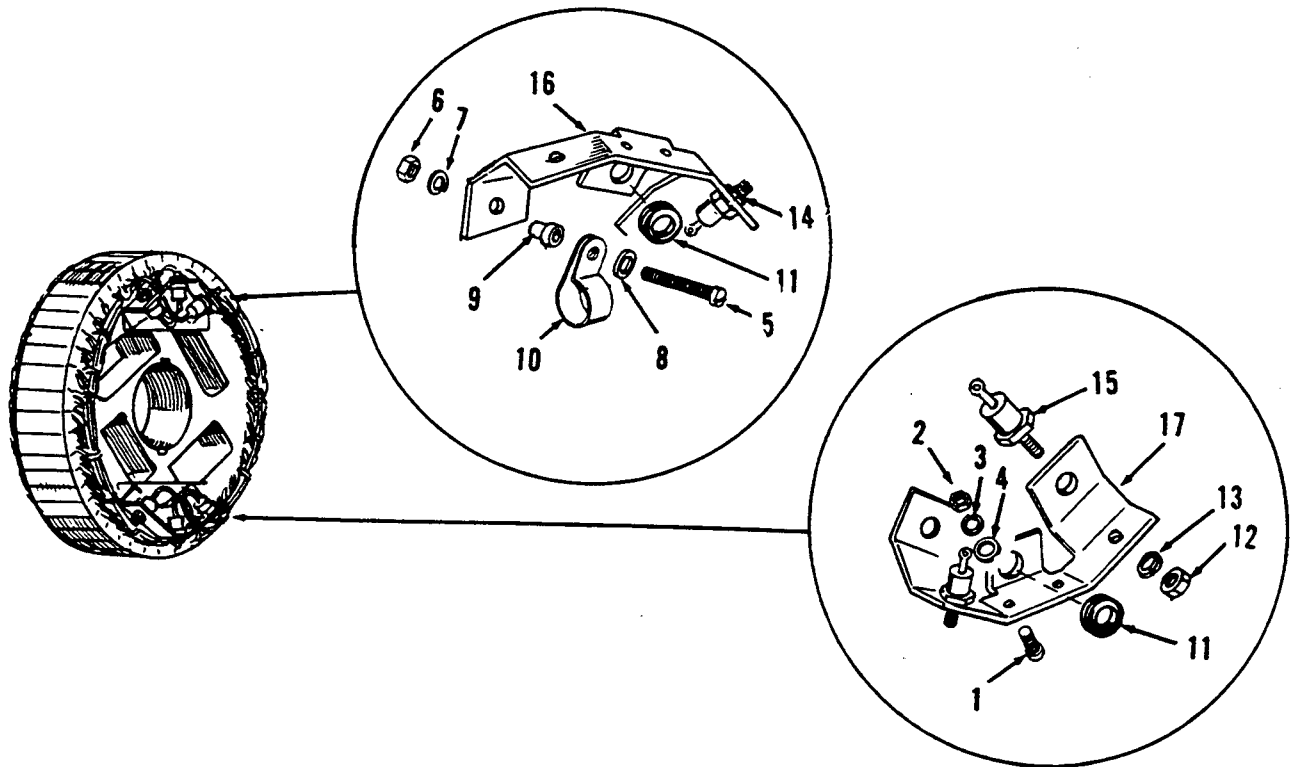


Generator

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 DGDA
6	150-0723	1	*Contact, Electrical				Voltage Code L
7	870-0250	1	*Nut, Insulated		201-3263	1	Standard
8	150-1356	1	*Bracket, Mounting - Contact		201-3266	1	Extended Stack
9	750-1008	4	Nut, Hex (M10 x 1.5)		201-3360	1	Environmentally Protected
10	850-2010	4	Washer, Lock - Spring (M10)				Voltage Code Z
11			Stud				Standard
	520-2416	4	DGDA				Extended Stack
			485.8mm		201-3263	1	Standard
	520-2419	4			201-3266	1	Extended Stack
			587.4mm				DGDB
	520-2418	4	DGDB				Voltage Code L
			549.3mm		201-3265	1	Standard
	520-2421	4			201-3273	1	Extended Stack
12	503-1274	4	Hose, Rubber		201-3362	1	Environmentally Protected
13	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")				Voltage Code E, Z
14	850-0040	4	Washer, Lock - Spring (1/4)		201-3265	1	Screw, Cap - Hex Head (Mod)
15			Stator, Exciter	30	800-0513	1	Washer, Lock (3/4)
	220-2353	1	Standard	31	850-0079	1	Washer, Flat (3/4)
	220-1774		Environmentally Protected	32	526-0238	1	Bearing, Ball
16	509-0125	1	Seal, Oil - "O" Ring	33	510-0101	1	Spacer, Sleeve
17	211-0185	1	End Bell, Generator	34	232-2102	1	Rotor, Assembly - Exciter (See Separate Page for Components)
18	114-0023	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")	35			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		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 DGDA	39	205-0089	1	Disk, Drive - Generator
			Voltage Code L	40	232-2078	1	
	220-1457	1	Standard				
	220-1460	1	Extended Stack				
	220-1789	1	Environmentally Protected				
	220-2000	1	Voltage Code Z				
			DGDB				
			Voltage Code L				
	220-1459	1	Standard				
	220-1462	1	Extended Stack				
	220-1791	1	Environmentally Protected				
	220-2629	1	Voltage Code E				
	220-2002	1	Voltage Code Z				

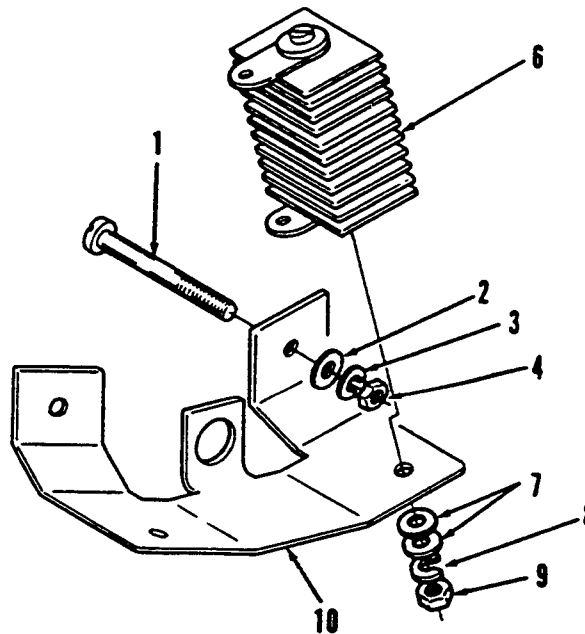
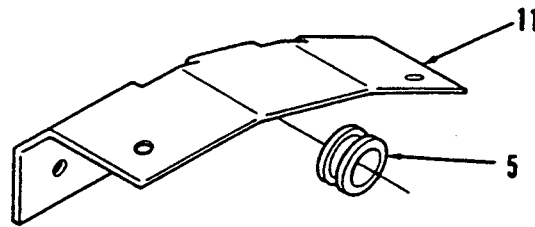
* Parts included in Overspeed Contact Assembly.
+ Parts included in Generator Rotor Assembly.

Exciter Rotor Components



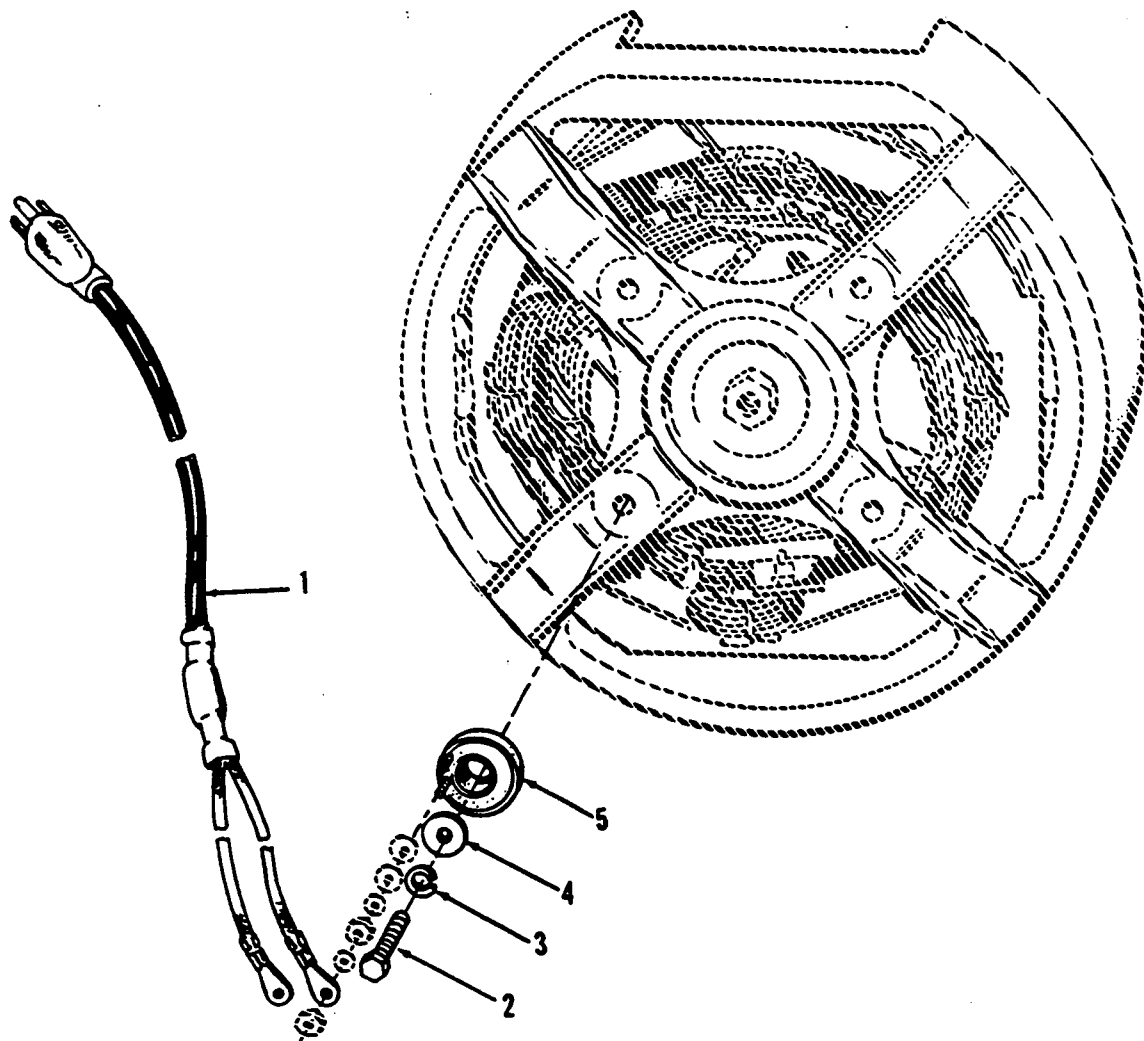
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	201-1739	1	Rotor Assembly, Exciter	9	508-0187	4	Spacer, Stepped
1	813-0100	2	Screw, Machine - Round Head (#10 - 32 x 1/2")	10	332-0050	2	Clamp, Loop
2	870-0053	2	Nut, Hex (#10 - 32)	11	508-0093	2	Grommet, Rubber
3	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



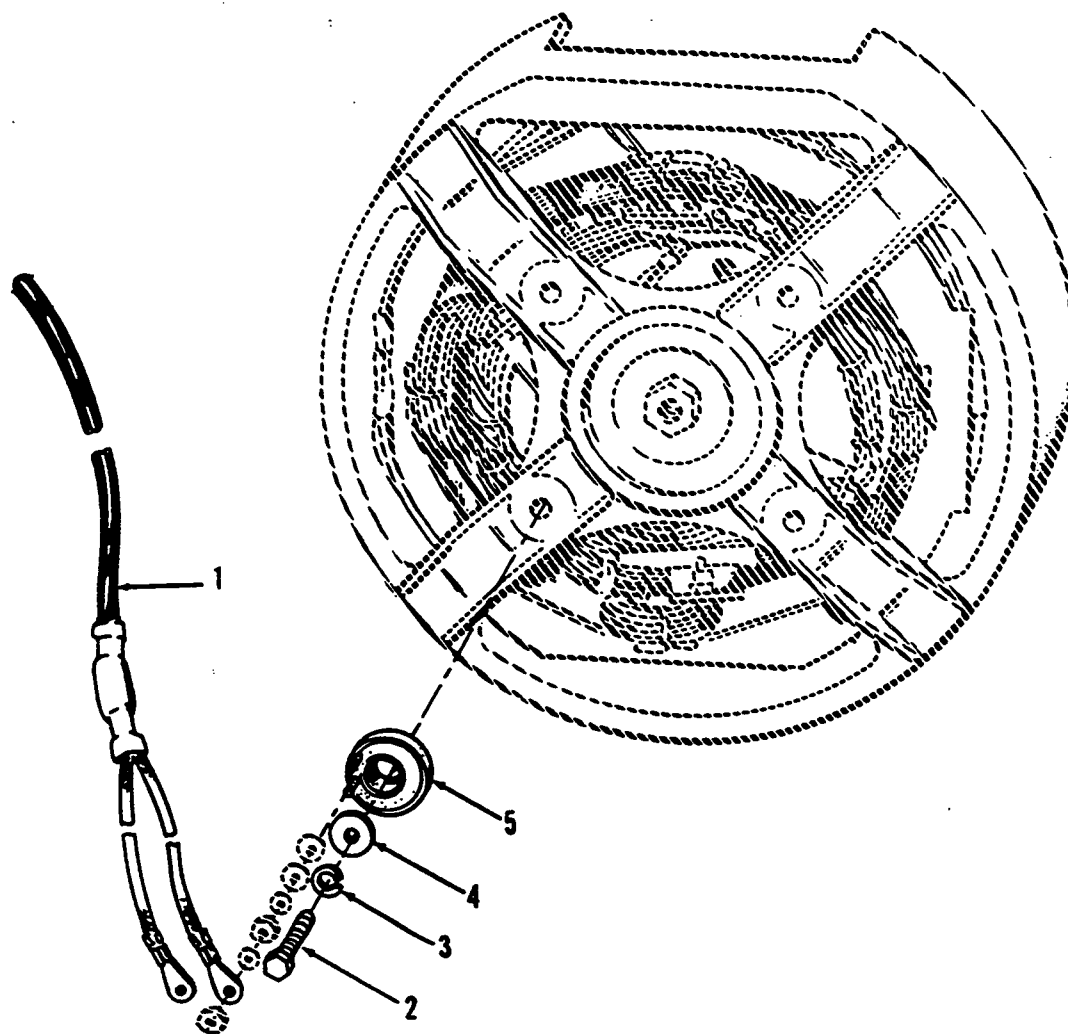
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	232-2445	1	Suppressor, Voltage	6	305-0526	1	Suppressor Set, Voltage
1	813-0112	4	Screw, Machine - Round Head (#10 - 32 x 2-1/2")	7	526-0140	4	Washer, Flat (#10)
2	526-0140	4	Washer, Flat (#10)	8	850-0030	4	Washer, 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)

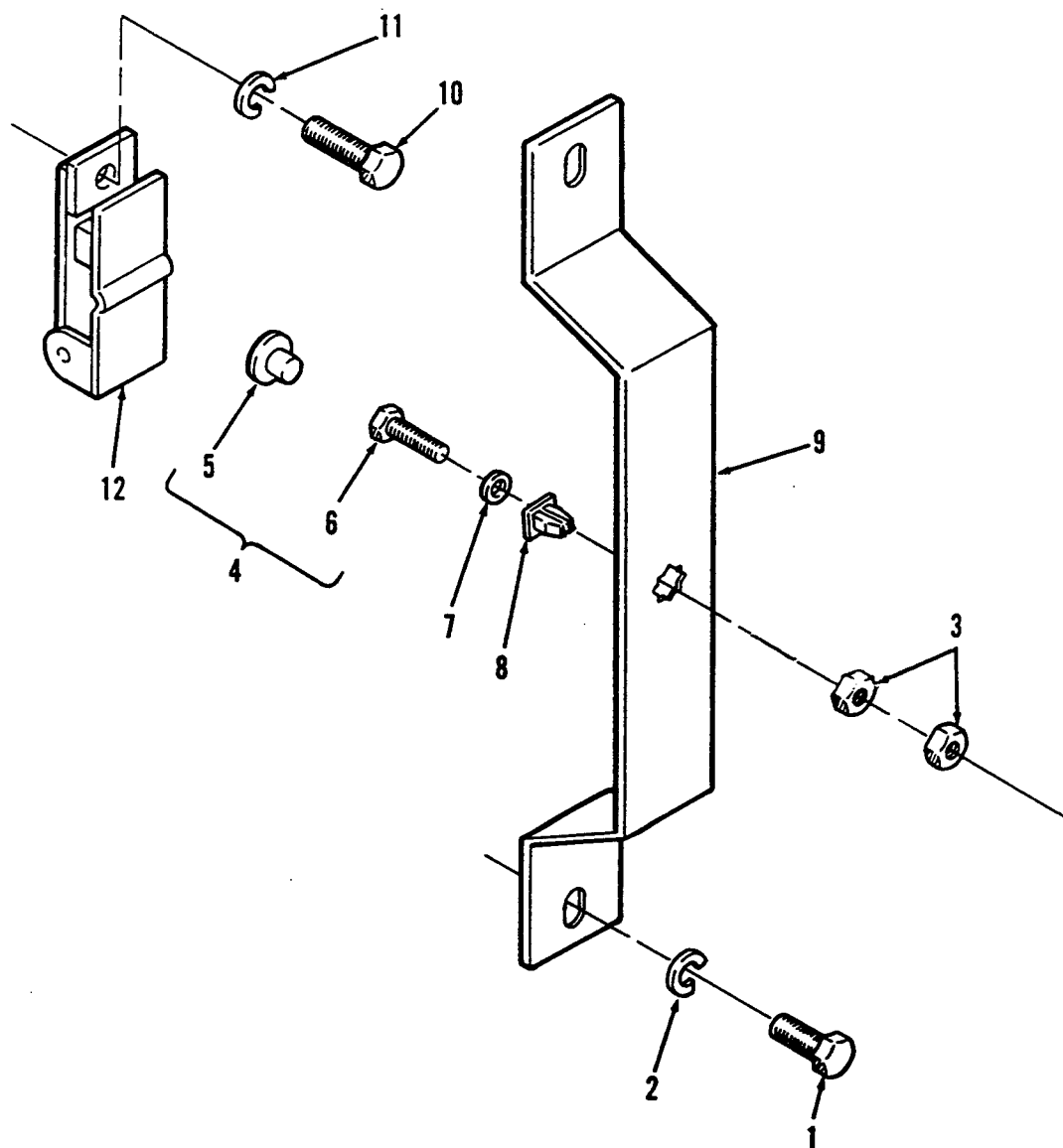


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable Assembly	2	800-0004	1	Screw, Cap - Hex Head (1/4 - 20 x 5/8")
	226-0090	1	Lead	3	850-0038	1	Washer, Lock (1/4)
	226-3615	1	Lead Assembly (Includes Diode Rectifier)	4	526-0158	1	Washer, Flat (1/4)
	357-0013	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				

This diagram illustrates the assembly of a mechanical component, likely a pulley or a part of a larger machine. The components are numbered 1 through 18, indicating their sequence or identification in the assembly process. The assembly includes a large pulley-like structure on the left, a central gear mechanism, and a mounting bracket on the right. The parts are shown in an exploded view, allowing for a clear understanding of their relative positions and how they fit together. The numbered parts are: 1. A small screw or bolt. 2. A washer or spacer. 3. A small cylindrical component. 4. A larger cylindrical component. 5. A small circular component, possibly a pin or a small washer. 6. A small circular component. 7. A small circular component. 8. A small circular component. 9. A small circular component. 10. A rectangular mounting bracket. 11. A small screw or bolt. 12. A small screw or bolt. 13. A small rectangular component. 14. A small rectangular component. 15. A gear or pulley. 16. A small cylindrical component. 17. A small circular component. 18. A small circular component.

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	301-9402	1	Bracket, Mounting
11	800-0053	1	Screw, Cap - Hex Head (3/8 - 16 x 1-3/4")
12	856-0010	1	Washer, Lock - W/EIT (3/8)
13	150-0717	1	Switch, Overspeed
14	526-0077	1	Washer, Flat (3/8)
15	150-1557	1	Wheel, Sensor - Speed
16	370-4011	1	Spacer, Sleeve
17	854-0031	1	Washer, Lock - W/IT (3/4)

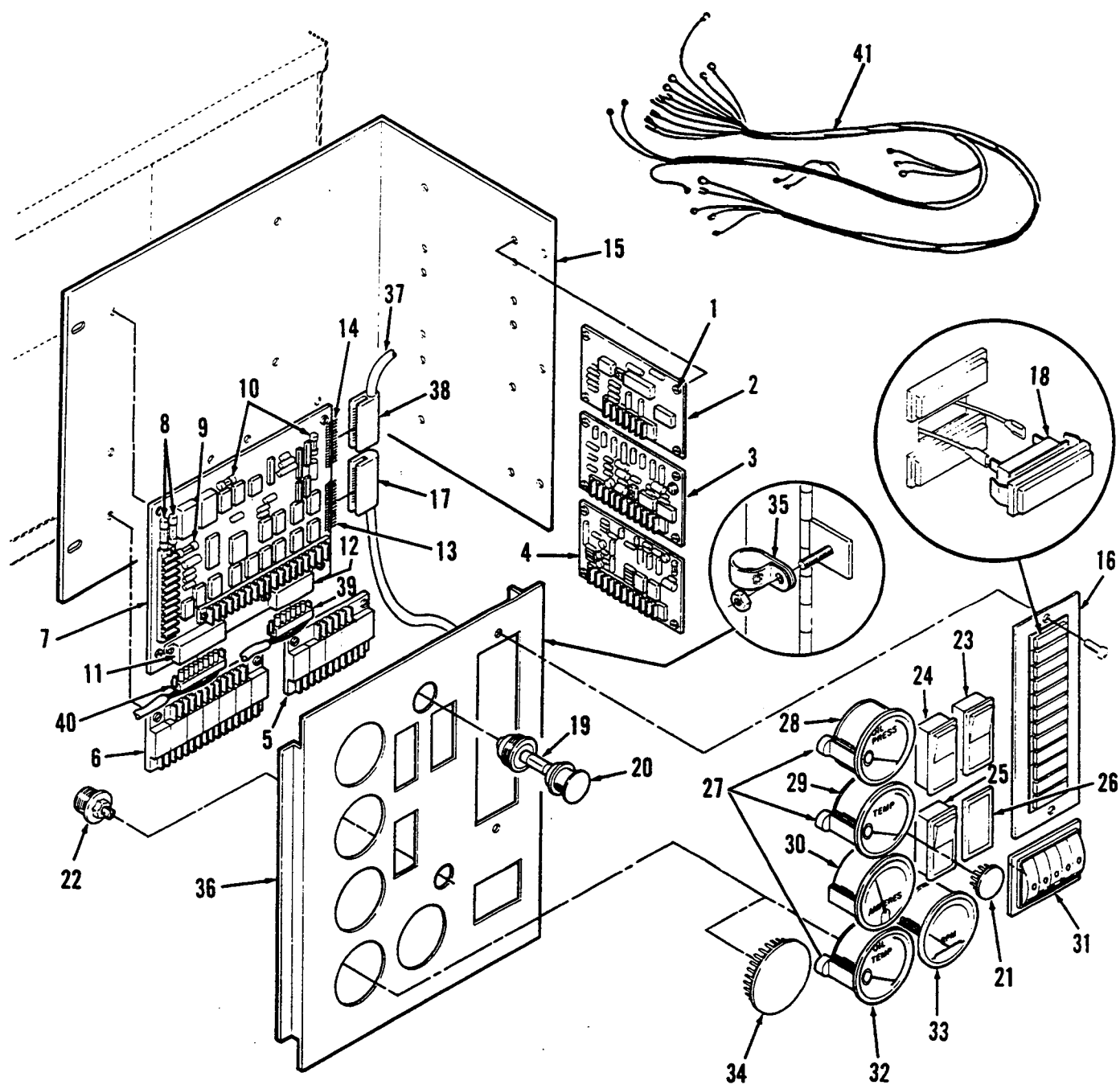
Overspeed Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1/2")
2	850-0040	2	Washer, Lock - Spring (1/4)
3	862-0001	2	Nut, Hex (1/4 - 20)
4	150-0723	1	Point Assembly, Overspeed (Includes Contact And Screw)
5	306-0036	1	Contact, Electrical
6	150-0724	1	Screw, Cap - Hex Head (Mod)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	853-0013	1	Washer, Lock - W/ET (1/4)
8	870-0250	1	Nut, Insulating (1/4)
9	150-1356	1	Bracket, Mounting
10	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
11	856-0010	1	Washer, Lock - W/EIT (3/8)
12	150-0717	1	Switch, Overspeed

Engine Control

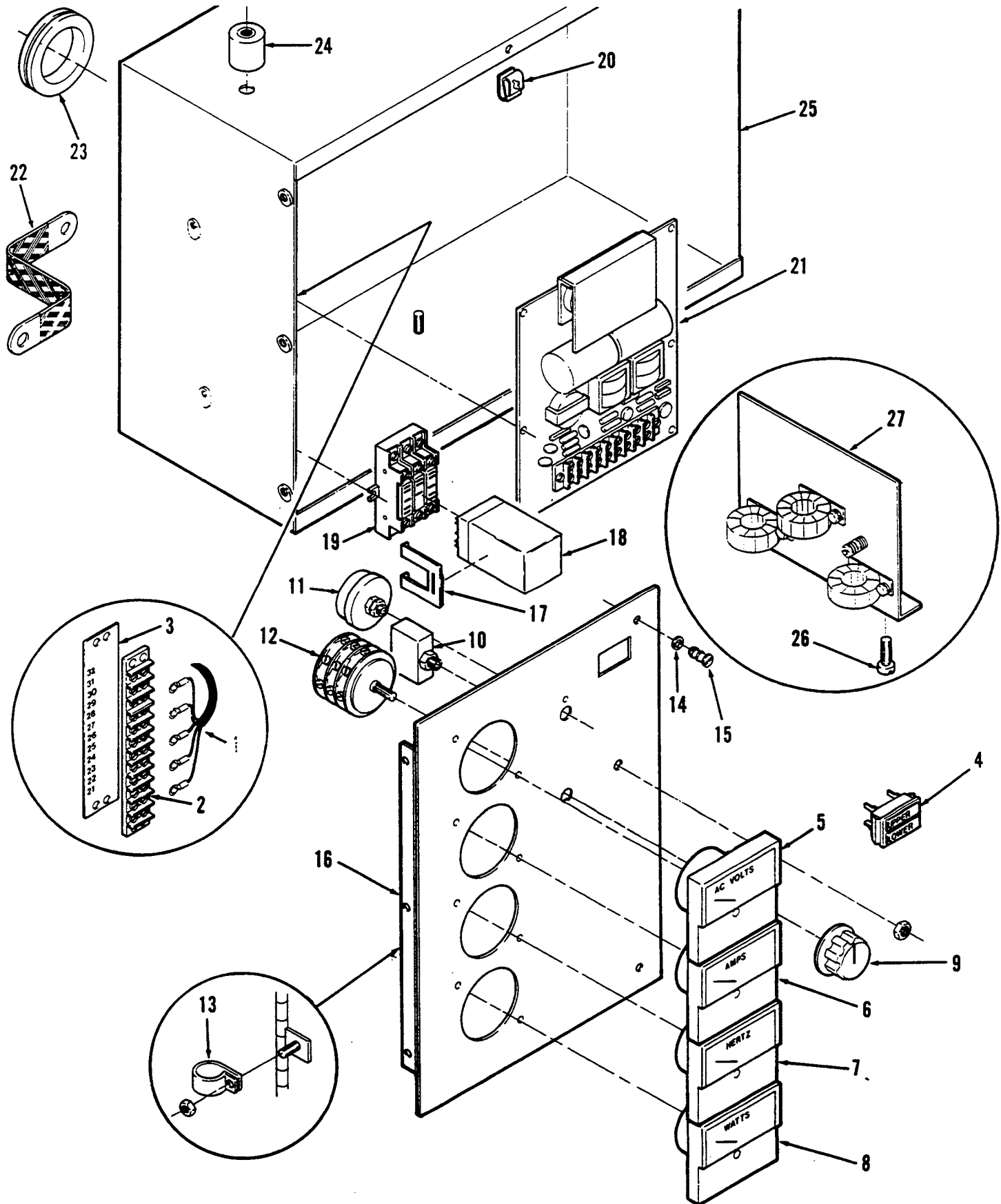


Engine Control

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)	18	323-1302	13	Contact, Pin
3			Board Assy, Printed Circuit - Magnetic Pickup (A16)	19	322-0369-02	1	Lamp, Incandescent - 1/3 Watt 28 Volts DC
	300-2903	1	Standard (Fixed Sensitivity)	20	322-0017	1	Lamp, Incandescent - 28 Volts DC (DS11)
	300-2904	1	Precision (Adj Sensitivity)	21	322-0361	1	Holder, Lamp
4	300-2906	1	Board Assy, Printed Circuit - Over/Under Volt Sensor (A17)	22	517-0131	1	Plug, Button
5	300-2856	1	Board Assy, Printed Circuit - Relay Assembly - (A13)	23	151-0402	1	Potentiometer - Speed Control (R11)
6	300-2863	1	Board Assy, Printed Circuit - Relay Assembly - (A14)	24	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
7			Board Assy, Printed Circuit - Engine Monitor - (A11) (Includes Fuses & Connectors)	26	308-0784	1	Switch, Push - Run/Stop/ Remote (S12)
	300-2808	1	2 Light Control	27	301-6257	1	Cover, Hole - Switch
	300-2812	1	12 Light Control	28	193-0250	3	Resistor, Gauge (R12)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	29	193-0352	1	Gauge, Pressure - Oil (M11)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	30	193-0351	1	Gauge, Temp - Water (M12)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	31	302-1790	1	Meter, Ampere - DC (M13)
11	323-1305	1	Connector - 8 Pin (P1)	32	302-0885	1	Meter, Running Time (M14)
12	323-1303	1	Connector - 6 Pin (P2)	33	193-0330	1	Gauge, Temp - Oil (M15)
13	323-1309	1	Connector - 13 Pin (P3)	34	302-1873-01	1	Tach, Meter (M16)
14	323-1307	1	Connector - 12 Pin (P4)	35	517-0221	1	Plug, Button
15	301-8851	1	Bracket, Mounting - Printed Circuit Board Assembly	36	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)	37	301-9055-01	1	Door, Control
	322-0358-02	1	2 Light Control		301-9055-02	1	5 Gauge Holes
	322-0360-02	1	12 Light Control	38	323-1308	1	3 Gauge Holes
	815-0385	2	Screw, Machine - Round Head (#6 - 32 x 1/2")	39	323-1302	12	Harness, Wiring - DC (Includes Connector Housing)
	870-0183	2	Nut, Self-Locking - ET Hex Washer Head (#6 - 32)	40	323-1304	1	Housing, Conn - 12 Pin (J4)
				41	323-1200	6	Contact, Pin
					323-1200	6	*Housing, Conn - 6 Pin (J2)
					323-1306	1	*Contact, Pin
					323-1200	8	*Housing, Conn - 8 Pin (J1)
					338-2090	1	*Contact, Pin
							Harness, Wiring - Control To Engine (Includes Parts Marked *)

* Parts included in Control To Engine Wiring Harness

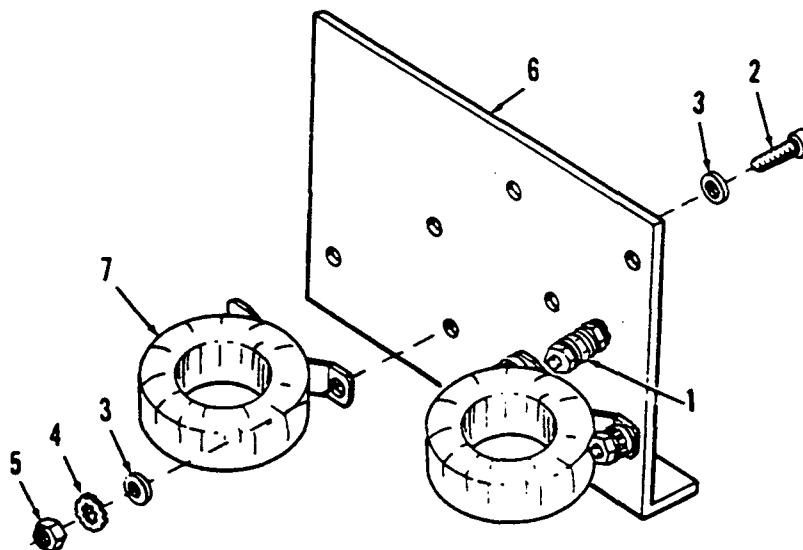
Generator Control



Generator Control

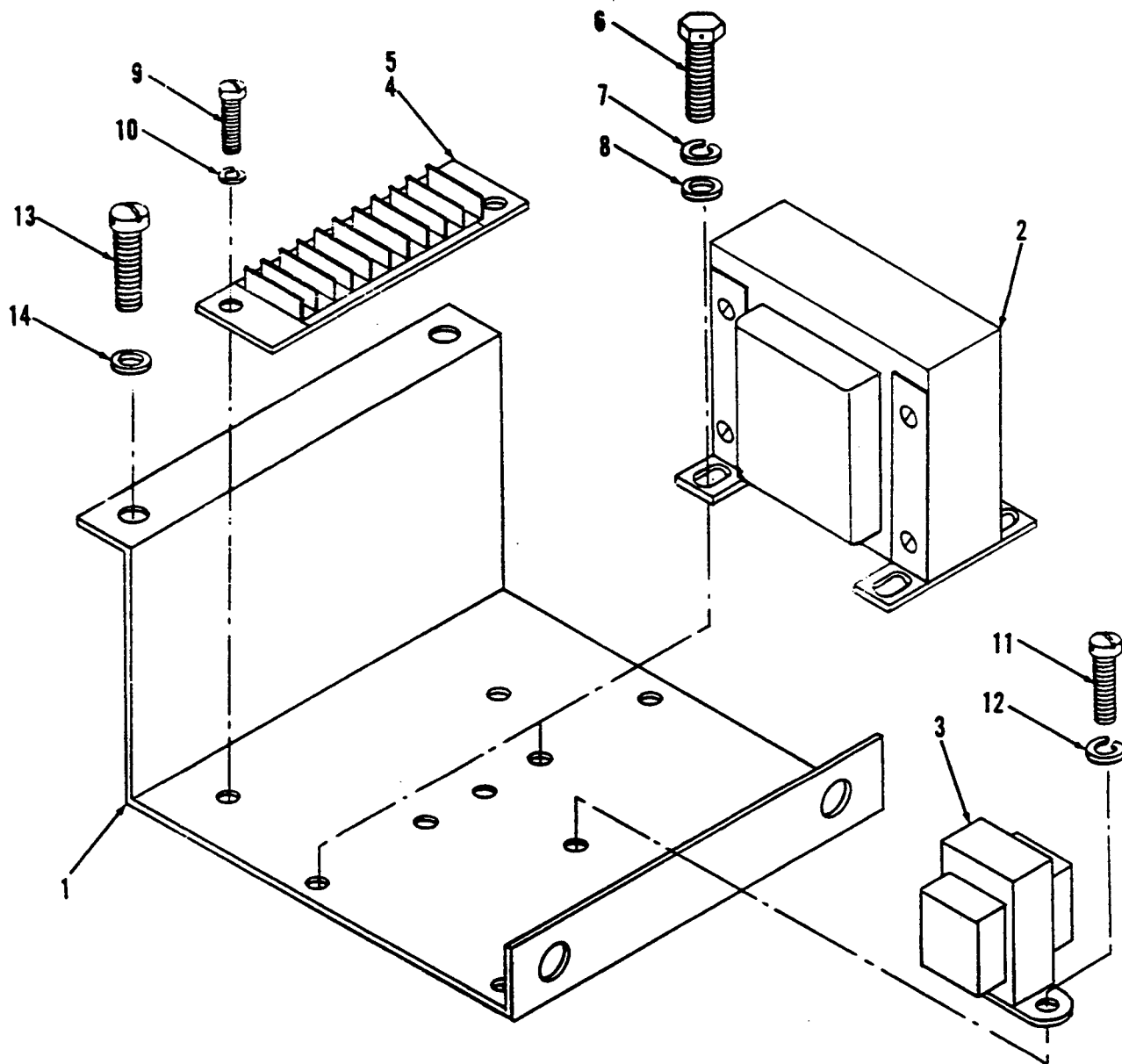
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - AC (Includes Terminal Block)	16			Door, Control
	338-1818	1	Controls With Meters		301-9054-01	1	4 Meter Holes
	338-1853	1	Controls Without Meters		301-9054-02	1	3 Meter Holes
	812-0065	2	Screw, Machine - Round Head (#6 - 32 x 5/8")		301-9054-03	1	No Meter Holes
2	332-0607	1	Block, Terminal (TB1)		821-0004	3	Screw, Self-Locking-Hex Washer Head (#10 - 32 x 5/16")
3	332-2723	1	Strip, Marker	17	307-1987	2	Clip, Retaining - Relay
4	322-0363	1	Light, Indicator - Dual (DS21, DS22)	18	307-1056	1	Relay, 24 VDC
5	302-1148	1	Meter, Volt - AC (M21)	19	323-0804	1	Socket, Relay
6			Meter, Ampere (M22)		815-0544	2	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
	302-1685	1	0-200/400	20	406-0332	2	Receptacle, Turnbutton Fastener
	302-1724	1	250/500				
	302-1725	1	375/750	21	300-2880	1	Regulator, Voltage (VR21)
7	302-1720	1	Meter, Frequency (M23)		815-0544	6	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
8		1	Meter, Watt (M24) (See Separate Page For Components)	22	337-0049	1	Strap, Electrical (Ground)
9	303-0032	1	Knob		800-0024	1	Screw, Cap - Hex Head (5/16 - 18 x 1/2")
10		1	Breaker, Circuit (CB21)				Washer, Lock - EIT (5/16)
	320-1121	1	Without Auxiliary Contacts		856-0008	1	Grommet
	320-1438	1	With Auxiliary Contacts	23	508-0051	1	Mount, Vibration
11	303-0261	1	Rheostat (R21)	24	402-0527	4	Screw, Cap - Hex Head (5/16 - 18 x 3/8")
12	308-0284	1	Switch, Rotary (S21)		800-0045	4	Washer, Lock - Spring (5/16)
13	332-0052	1	Clamp, Loop		850-0045	4	Box, Control
	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 -32)	25	301-8065	1	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
14	406-0334	2	Clip, Retaining - Turnbutton Fastener	26	821-0010	2	Transformer Assembly - Curr (See Separate Page For Components)
15	406-0333	2	Stud, Fastener - Turnbutton	27		1	

Current Transformer



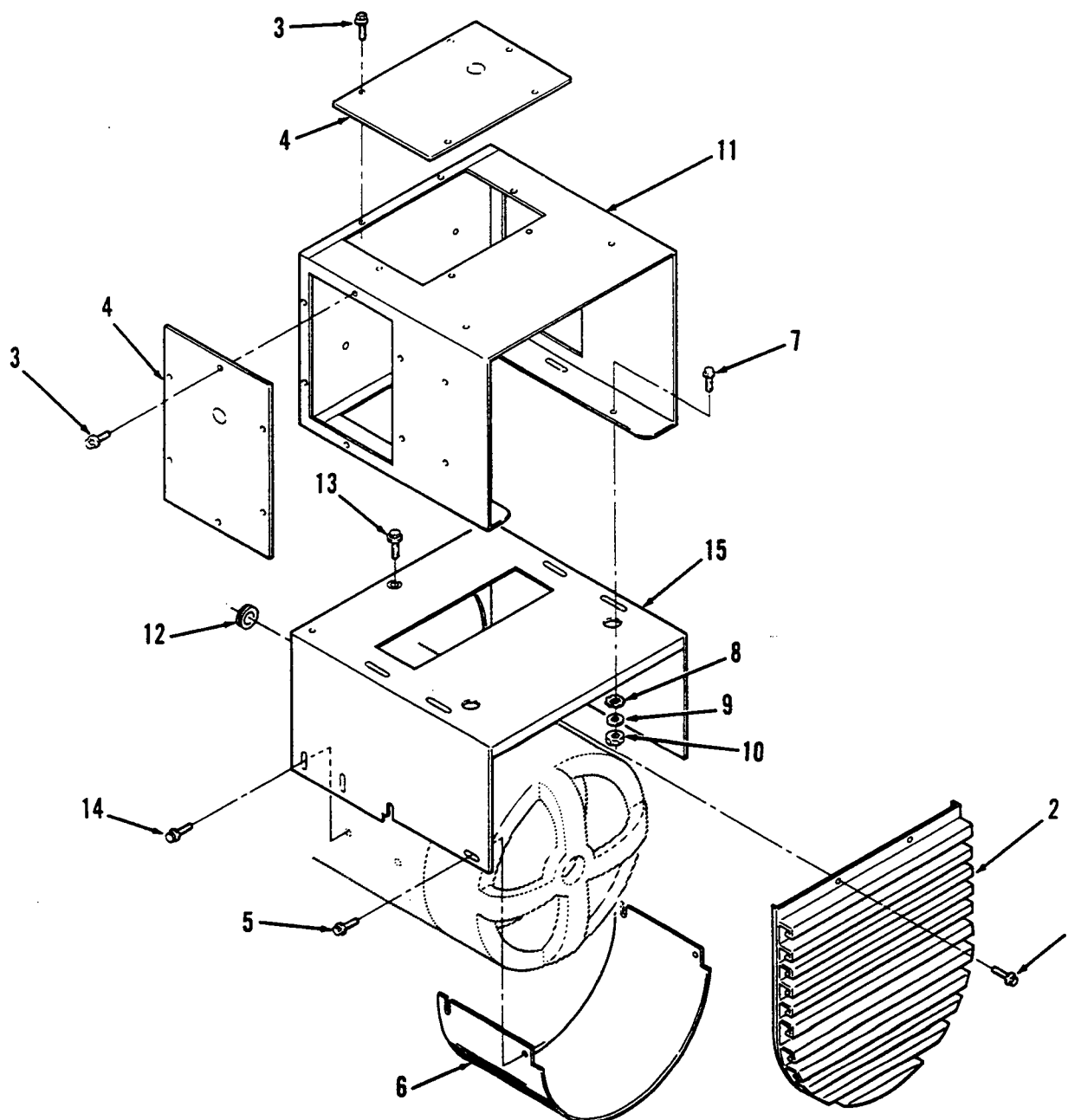
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Terminal Assembly, Ground (Includes Parts Marked *)	2	821-0005	6	Screw, Cap - Hex Washer Head (#10 - 32 x 1/2")
815-0203	1		Screw, Machine - Round Head Brass (#10 - 32 x 7/8")	3	526-0008	12	Washer, Flat (#10)
871-0010	3		Nut, Hex - Brass (#10 - 32)	4	856-0003	6	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	302-0608	3	Transformer, Current - 400/5

Current Transformer (Voltage Code E)



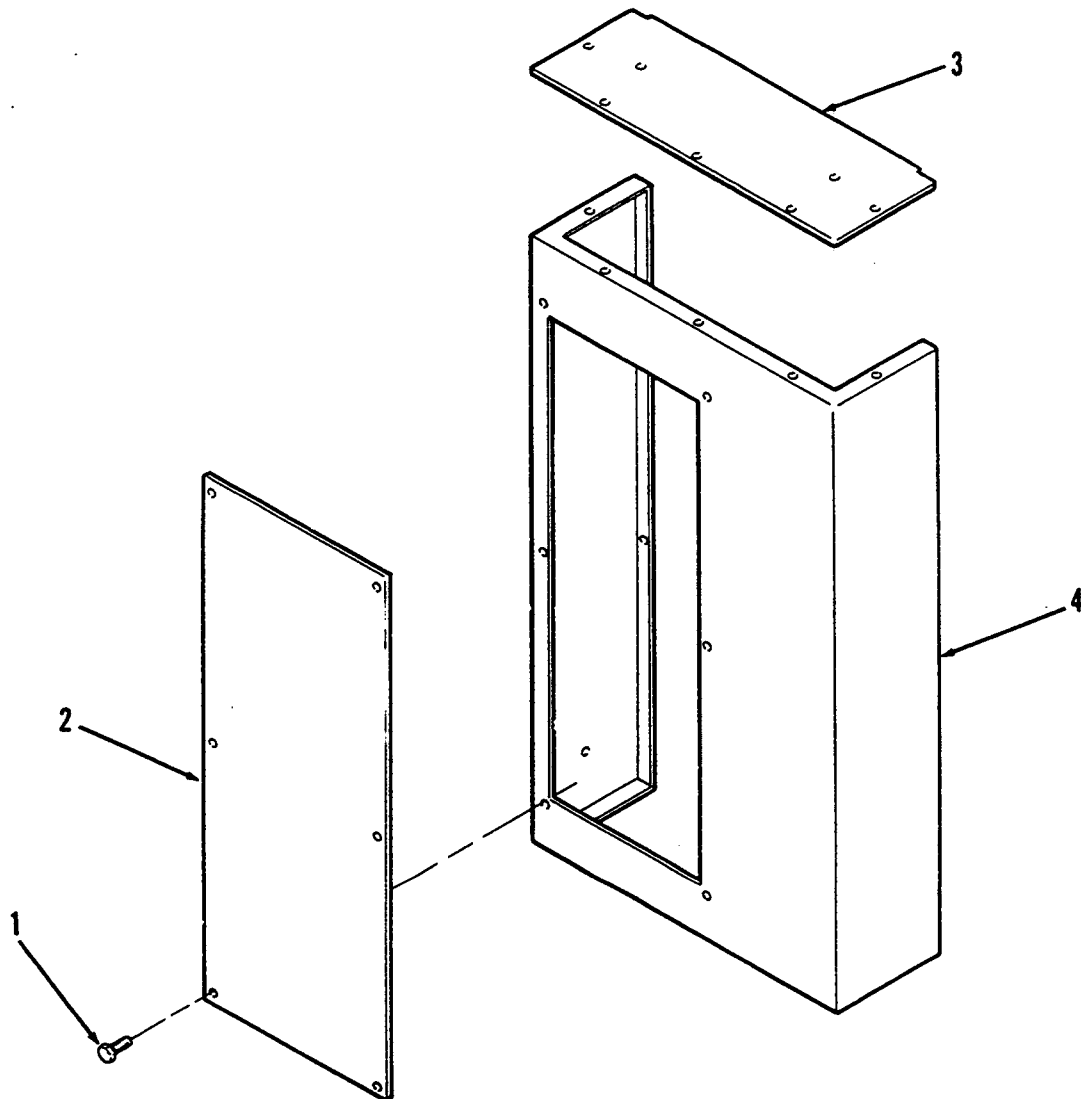
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-9540	1	Bracket, Mounting - Transformer	9	812-0077	2	Screw, Machine - Round Head (#8 - 32 x 3/8")
2	315-0636	2	Transformer, Current	10	850-0025	2	Washer, Lock (#8)
3	315-0635	1	Transformer, Current	11	812-0079	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



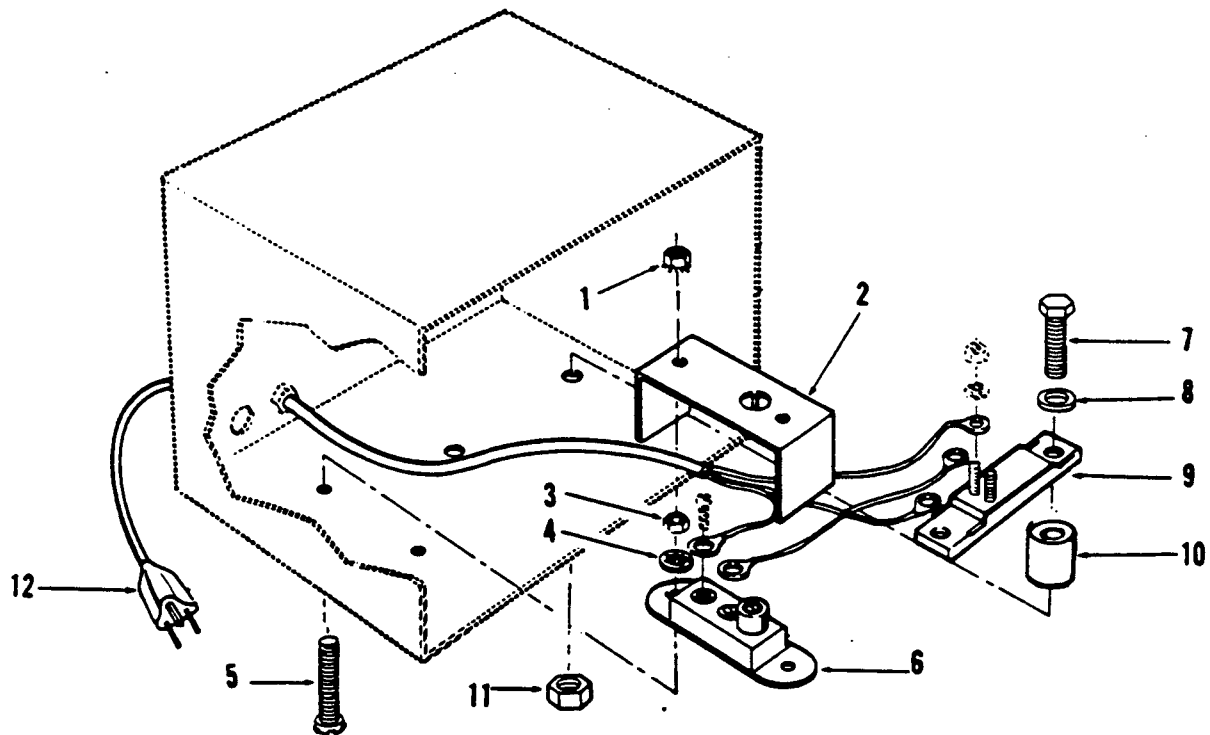
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	9	526-0018	5	Washer, Flat (1/4)
2	234-0370	1	Grille, Inlet - Air	10	870-0212	6	Nut, Hex (1/4 - 20)
3	815-0350	18	Screw, Tap - Hex Washer Head (#10 - 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



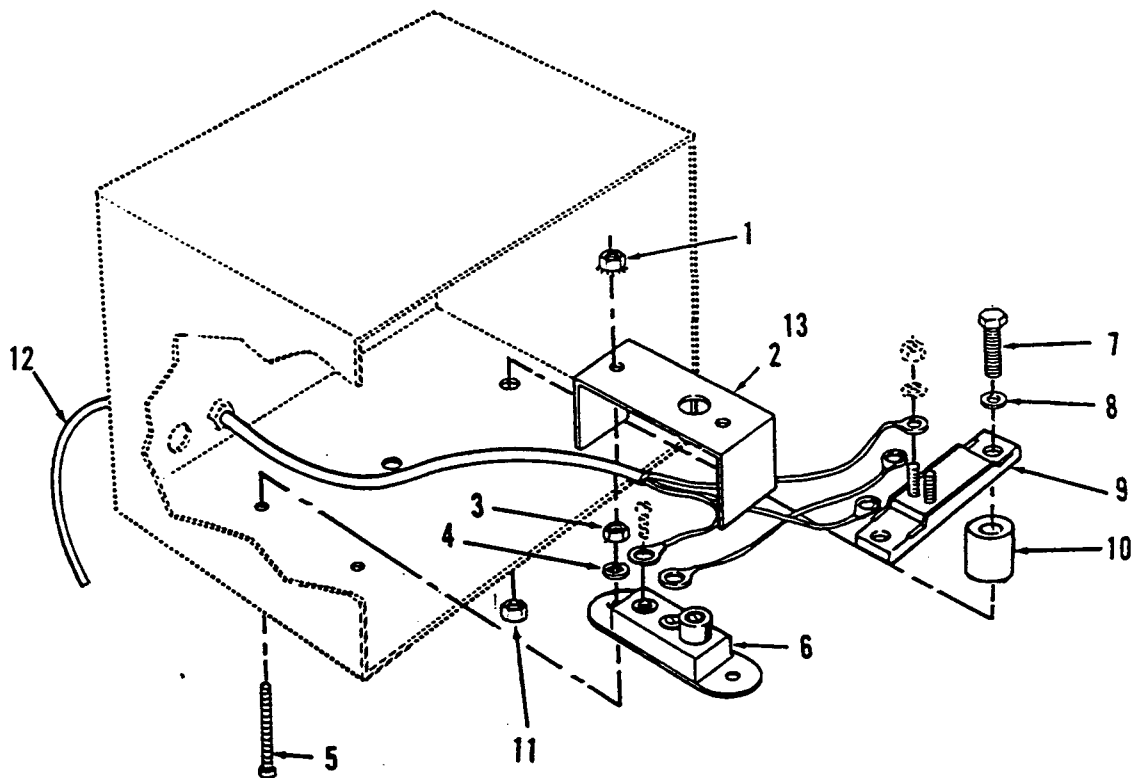
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	16	Screw, Lock (1/4 - 20 x 1/2")	3	301-9669	2	Panel, Breaker - Circuit
2	301-9975	1	Cover, Breaker - Circuit	4	301-9668	1	Box, Breaker - Circuit

Control Master (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

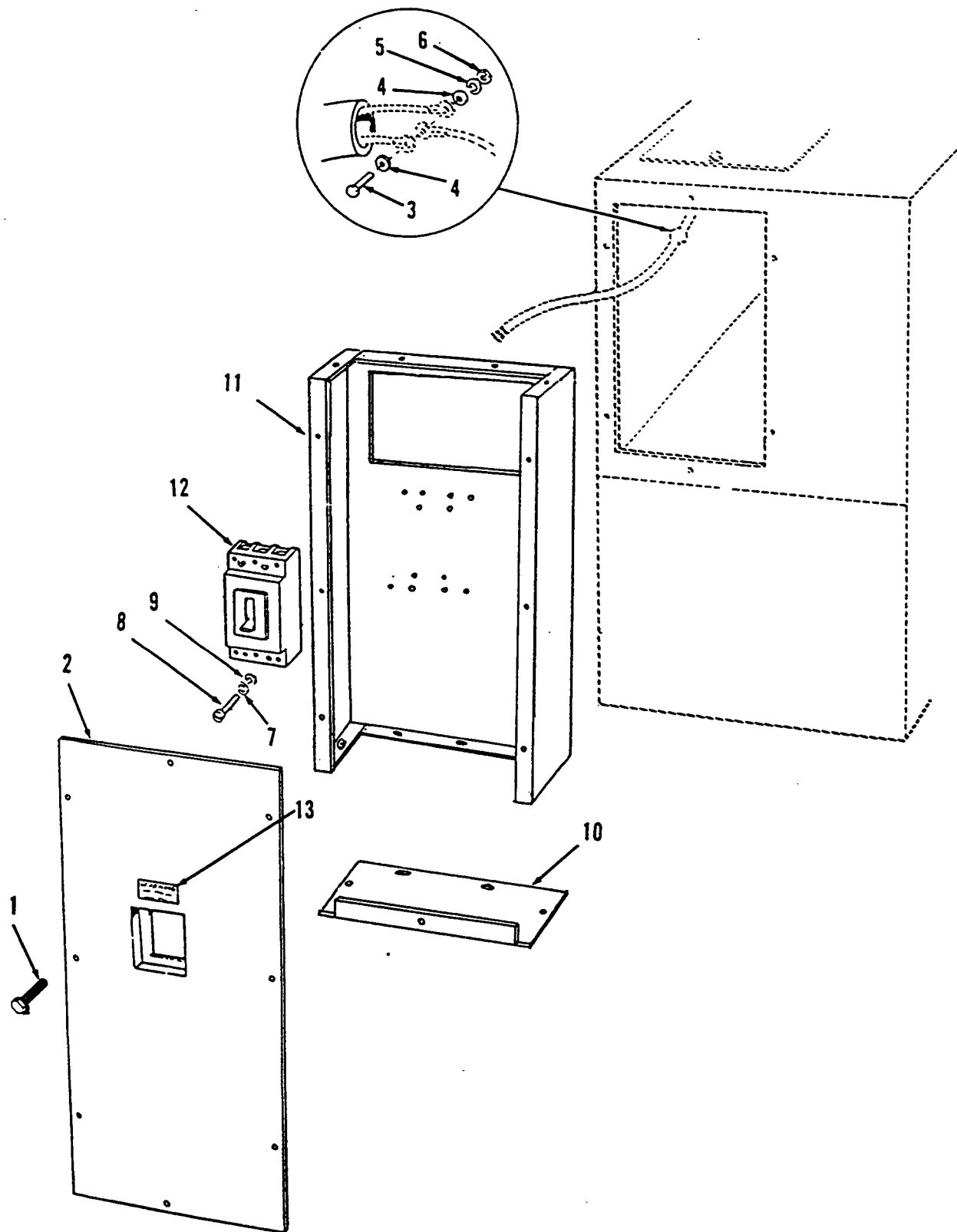
Control Heater (240 Volt)



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

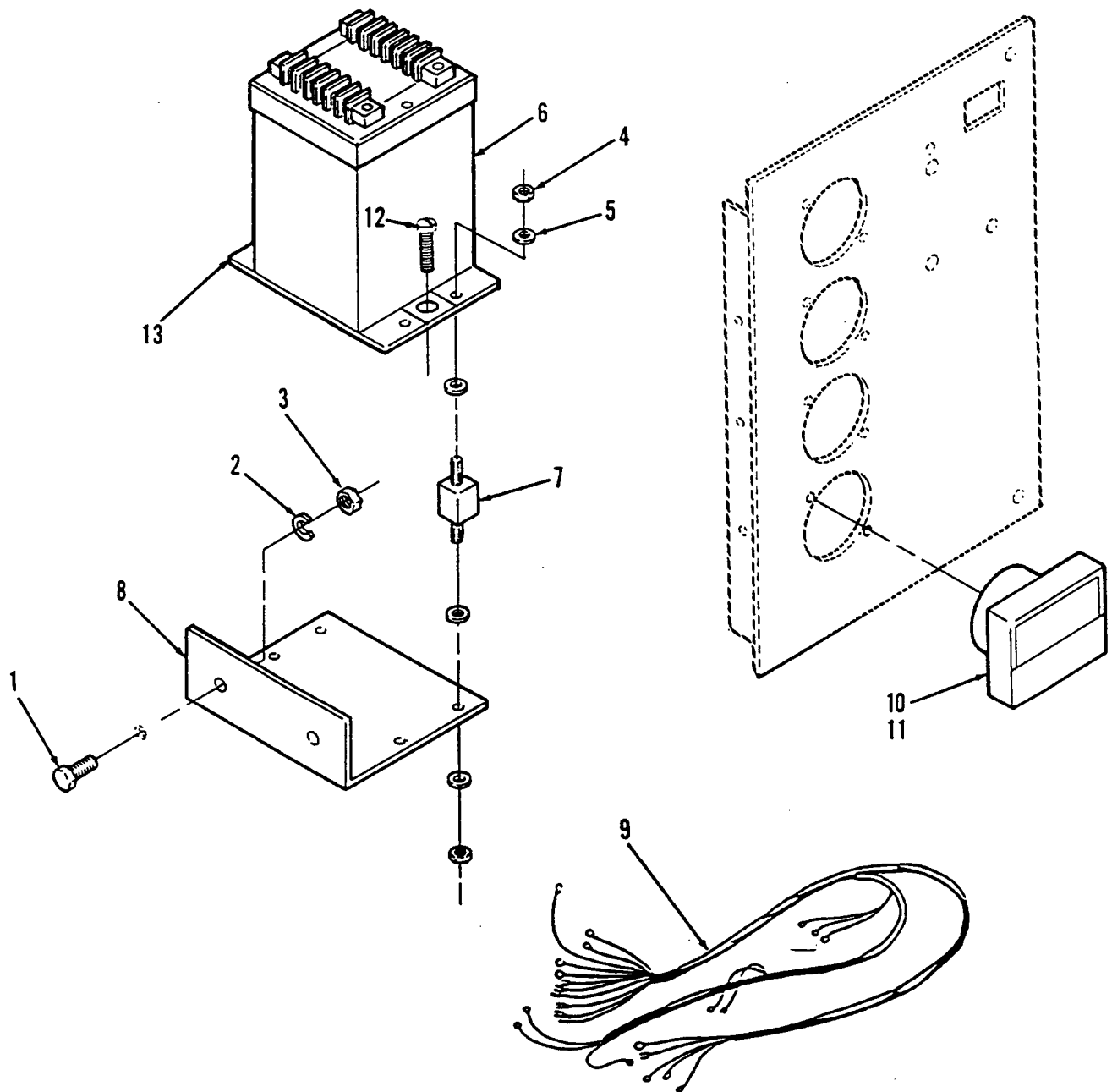


Circuit Breaker

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

NOTE: Breakers do not include auxiliary contacts and/or shunt trips.

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			Dial, Meter - Watt
	302-1721-04	1	DGDA
	302-1721-05	1	DGDB
12	813-0102	2	Screw, Machine - Round Head
13	319-0030	1	Plate, Transducer