

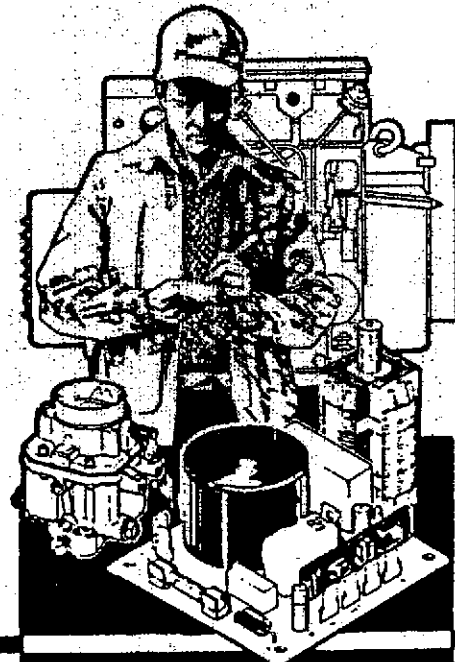
The following catalog has gaps in its page numbers, or doesn't have any numbers. We have chosen to leave the page numbering in the order that Acrobat assigns it.

Onan

Parts Manual

DTEA / DXEA
DTFA / DXFA

GenSet



Onan Service Parts

903-0202
11-88 (Spec A)
Printed in U.S.A.

TABLE OF CONTENTS

GENERAL INFORMATION	ii
INDEX	1
INTRODUCTION	2
EXHAUST SYSTEM	3
AIR CLEANER - STANDARD	4
AIR CLEANER - HEAVY DUTY	5
ELECTRONIC GOVERNOR	7
EXTERNAL ENGINE COMPONENTS - LEFT SIDE	9
EXTERNAL ENGINE COMPONENTS - RIGHT SIDE	11
COOLING SYSTEM - RADIATOR	13
CHASSIS	15
HEATER ENGINE COOLANT	16
GENERATOR - FRAME 3	17
STATOR SECTION OF GENERATOR - FRAME 3	19
ROTOR SECTION OF GENERATOR - FRAME 3	21
GENERATOR OVERSPEED SWITCH	22
GENERATOR OVERSPEED SENSOR	23
BLANK	24
GENERATOR PERMANENT MAGNET EXCITER	25
GENERATOR SET CONTROL	27
ENGINE CONTROL	29
GENERATOR CONTROL	31
POTENTIAL TRANSFORMER	32
WATTMETER	33
CONTROL HEATER	34

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.

The image shows a rectangular nameplate form with rounded corners and two circular mounting holes at the top. The Onan logo is prominently displayed at the top. Below the logo is a large rectangular box labeled "MODEL AND SPEC NO.". Underneath that is a smaller rectangular box labeled "SERIAL NO.". The bottom right corner of the form is slightly irregular, suggesting it might be a cutout from a larger sheet.

M-1149

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

▲WARNING

TAKE ALL NECESSARY PRECAUTIONS WHEN CHECKING OR CHANGING ENGINE OIL. DO NOT INGEST, BREATHE THE FUMES OR CONTACT THE OIL. USED ENGINE OILS HAVE BEEN IDENTIFIED BY FEDERAL AND SOME STATE AGENCIES AS CAUSING CANCER.

▲WARNING

TAKE ALL NECESSARY PRECAUTIONS WHEN HANDLING ENGINE GASKETS. DO NOT INGEST, BREATHE, OR CONTACT DUST FROM GASKETS. USE ADEQUATE VENTILATION AND WEAR PROTECTIVE GLOVES, MASK AND CLOTHING. ASBESTOS HAS BEEN IDENTIFIED BY FEDERAL AND SOME STATE AGENCIES AS CAUSING CANCER.

Index

Actuator, Governor 7
Adapter, Exhaust 3
Bell, End - Generator 19
Cable, Battery 9, 11
Cable, Pickup - Magnetic 7
Cap, Radiator 13
Cap, Rain - Exhaust 3
Chassis 15
Cleaner, Air 4, 5
Control, Engine 29
Control, Generator 31
Control, Generator Set 27
Cooling System 13
Drain, Oil 11
Exciter - Permanent Magnet 25
Exhaust System 3
Element, Air Cleaner 4, 5
Fan, Cooling 13
Gasket, Drain - Oil 11
Gauge, Pressure - Oil 29
Gauge, Temperature - Oil 29
Gauge, Temperature - Water 29
Generator 17
Governor, Electronic 7
Guard, Belt 13
Guard, Fan 13
Harness, Wiring - Control (AC) 31
Harness, Wiring - Control (DC) 29
Harness, Wiring - Control To Engine 29
Heater, Control 34
Heater, Coolant - Engine 16
Hose, Drain - Oil 11
Hose, Radiator 13
Housing, Control 27
Indicator, Service - Air Cleaner 4, 5
Light, Indicator 29
Line, Fuel - Flex 11
Meter, Ampere 31
Meter, Frequency 31
Meter, Tach 31
Meter, Time - Running 29
Pickup, Magnetic 7
Radiator 13
Rotor, Exciter 21
Rotor, Exciter - Components 21
Rotor, Exciter - Perm Magnet 25
Rotor, Generator 21
Sender, Pressure - Oil 11
Sender, Temperature - Low Engine 9
Sender, Temperature - Oil 11
Sender, Temperature - Water 11
Silencer, Exhaust 3
Stator, Exciter 19
Stator, Exciter - Perm Magnet 25
Stator, Generator 19
Switch, Overspeed 22
Switch, Pressure - Low Oil 11
Switch, Push - Reset/Panel 31
Switch, Push - Run/Stop/Remote 29
Switch, Rotary - Generator Control 31
Switch, Temperature - Hi Water 11
Switch, Thermostatic - Heater 16
Transformer, Current 17
Transformer, Potential 32
Valve, Drain - Oil 11
Voltmeter 29, 31
Wattmeter 33

Introduction

This Parts Manual applies to the Standard Gen 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

ENGINE ID. No.	GEN SET ID No.	RPM RATING	BATTERY VOLTAGE
Note 1. 6CT-G*#	Note 2. 100.0DTEA/DXEA-@	1500 RPM	24 VDC
6CT-G*#	125.0DTEA/DXEA-@	1800 RPM	24 VDC
6CTA-G*#	135.0DTFA/DXFA-@	1500 RPM	24 VDC
6CTA-G*#	150.0DTFA/DXFA-@	1800 RPM	24 VDC

Note:1 * - Letter S for Standby, Letter C for Continuous Duty applications

Note:1 # - Number 1 thru 9 used to denote size variations.

Note:2 @ - Numbers and a Letter are used to provide configuration identification. Voltage Codes follow Model Letter designations and separated from the Specification Number by a slant bar. The Specification Number: Number 1 is Standard, all others indicate configuration variations. The Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.

Electrical Data Table

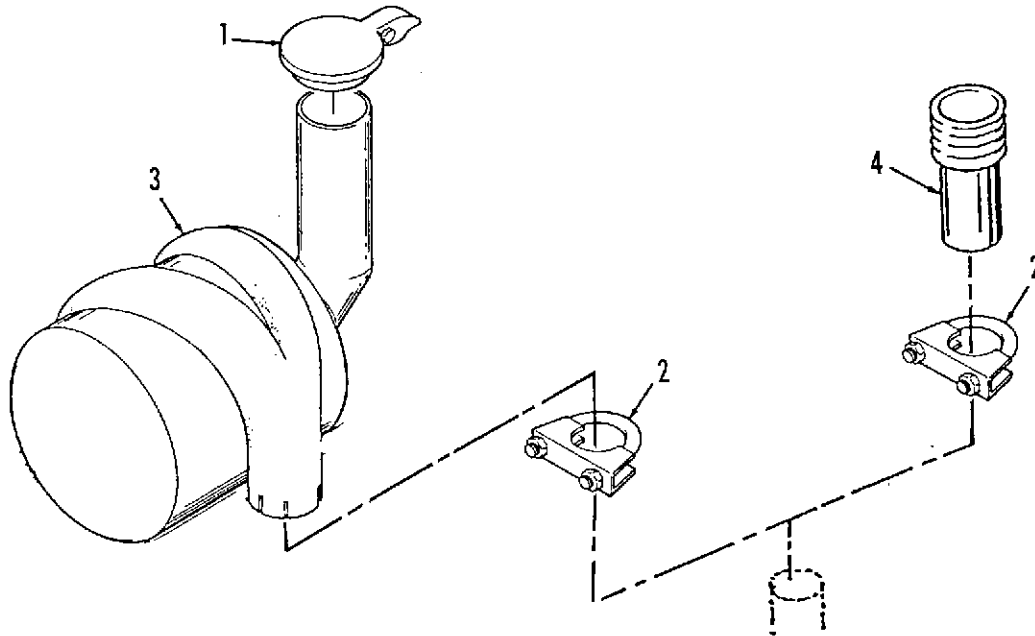
*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
H	347/600	60	4	3	
L	120/208	60	12	3	+
	127/220	60	12	3	
	139/240	60	12	3	
	240/416	60	12	3	
	254/440	60	12	3	
	277/480	60	12	3	
Z	110/190	50	12	3	+
	115/200	50	12	3	
	120/208	50	12	3	
	127/220	50	12	3	
	220/380	50	12	3	
	230/400	50	12	3	
	240/416	50	12	3	
	254/440	50	12	3	

+ - The Stators are Reconnectible.

Engine Replacement Parts

The Engine replacement parts can be ordered from the Cummins Engine Distributor except those parts modified or added during the Gen Set Assembly. When ordering engine parts, refer to the Engine Data plate and supply the Model, Serial, and CPL numbers. For assistance in ordering the Engine replacement parts, contact the nearest Cummins Engine Distributor or the Supplier from whom you purchased the Generator Set.

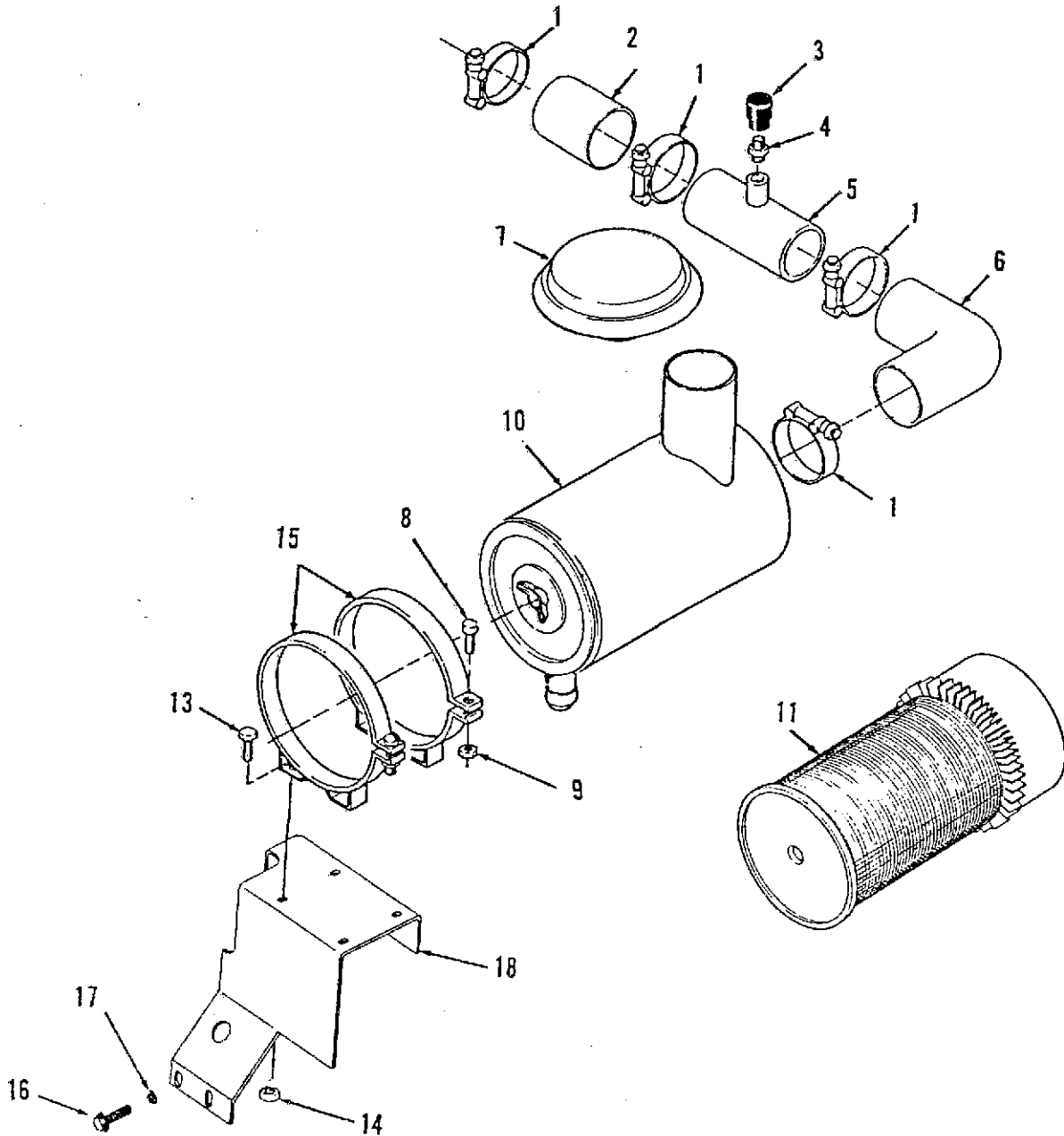
Exhaust System Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2062-07	1	Cap, Rain
2	155-2305	1	Clamp, Muffler

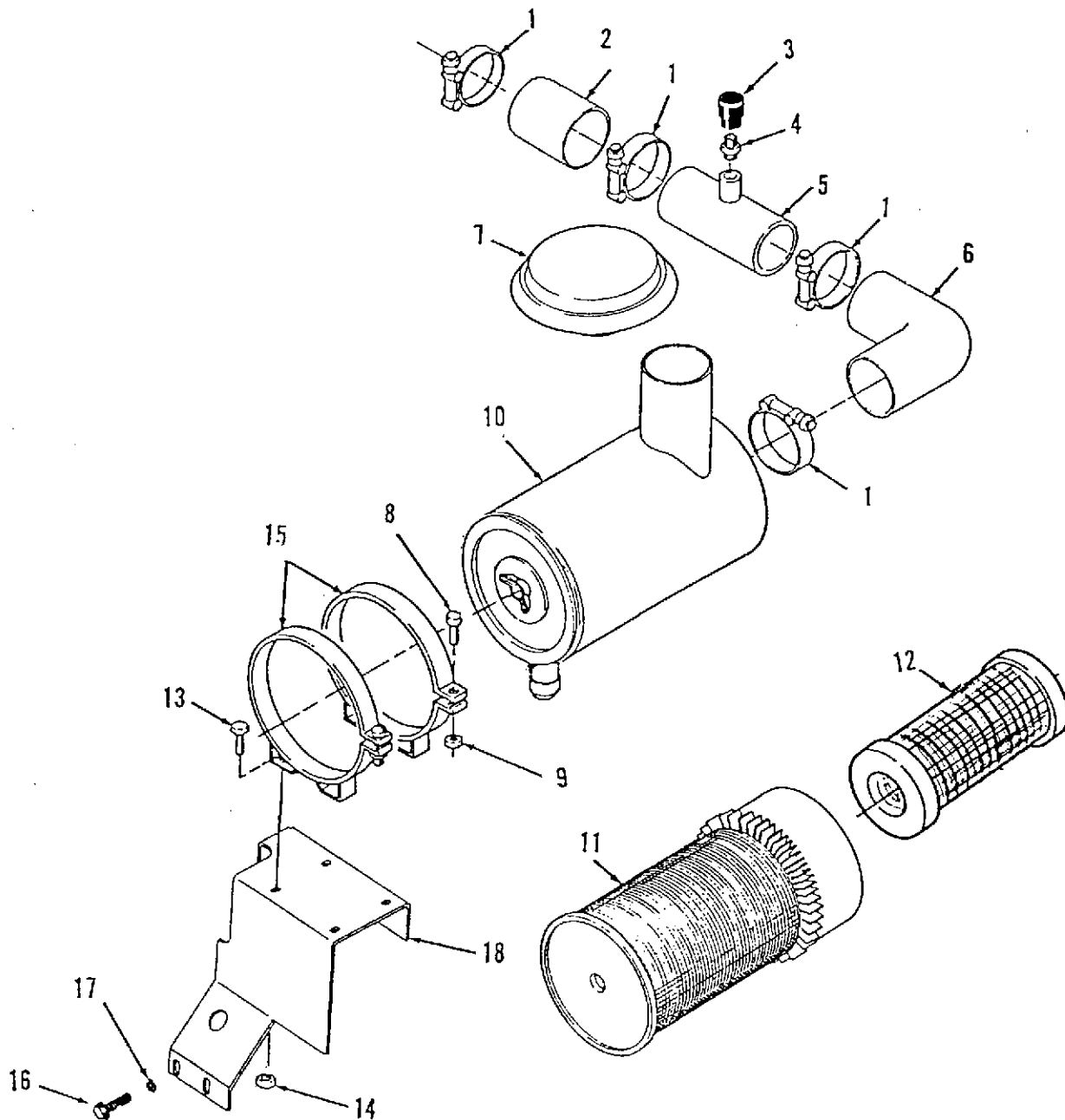
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3			Silencer
	155-2306	1	6CT Engine (D EA Set)
	155-2307	1	6CTA Engine (D FA Set)
4	154-2304	1	Adapter, Exhaust

Air Cleaner - Standard



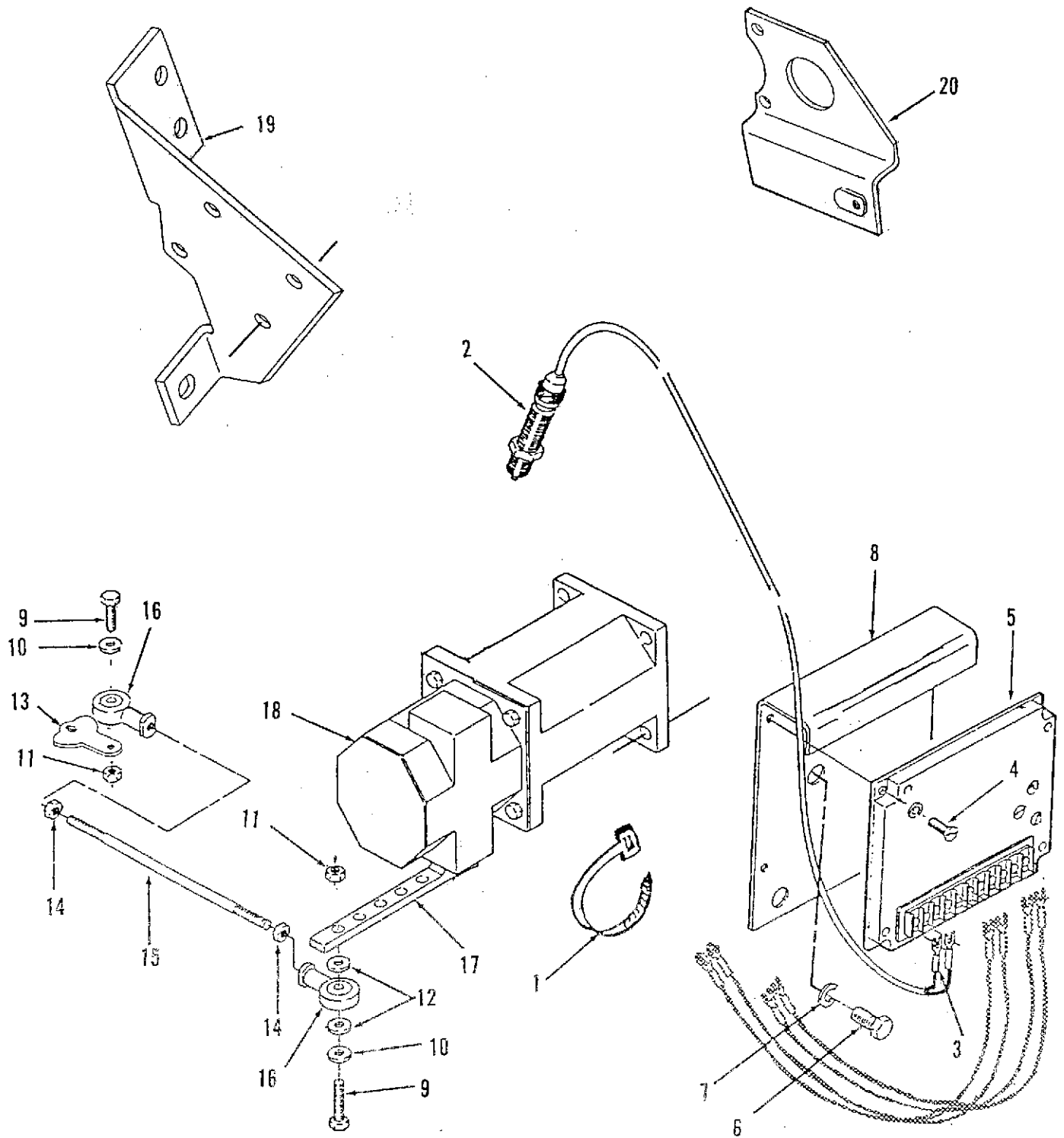
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0900	4	Clamp, Hose	11	140-2241	1	Element, Air Cleaner
2	503-1595	1	Hose	13	821-0029	4	Screw, Self-locking - Hex Washer Head (3/8-16 x 3/4")
3	140-1548	1	Indicator, Service	14	870-0281	4	Nut, Lock (3/8-16)
4	140-1260	1	Adapter, Filter - Indicator	15	140-1973	2	Band, Mounting
5	140-2238	1	Tube, Inlet - Air	16	600-2110	3	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
6	503-1354	1	Elbow, Rubber - Molded	17	850-2012	3	Washer, Lock (M12)
7	140-1601	1	Hood, Inlet - Air	18	140-2239	1	Bracket, Mounting - Air Cleaner
8	815-0135	2	Screw, Machine - Fillister Head (1/4-20 x 1")				
9	863-0002	2	Nut, Square (1/4-20)				
10	140-2240	1	Cleaner, Air (Includes Element)				

Air Cleaner - Heavy Duty



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0900	4	Clamp, Hose	11	140-2241	1	Element, Air Cleaner Primary (Outer)
2	503-1595	1	Hose	12	140-2251	1	Element, Air Cleaner Secondary (Inner)
3	140-1548	1	Indicator, Service	13	821-0029	4	Screw, Self-locking - Hex Washer Head (3/8-16 x 3/4")
4	140-1260	1	Adapter, Filter - Indicator	14	870-0281	4	Nut, Lock (3/8-16)
5	140-2238	1	Tube, Inlet - Air	15	140-1973	2	Band, Mounting
6	503-1354	1	Elbow, Rubber - Molded	16	800-2110	3	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
7	140-1601	1	Hood, Inlet - Air	17	850-2012	3	Washer, Lock (M12)
8	815-0115	2	Screw, Machine - Fillister Head (1/4-20 x 1")	18	140-2239	1	Bracket, Mounting - Air Cleaner
9	863-0002	2	Nut, Square (1/4-20)				
10	140-2240	1	Cleaner, Air (Includes Element)				

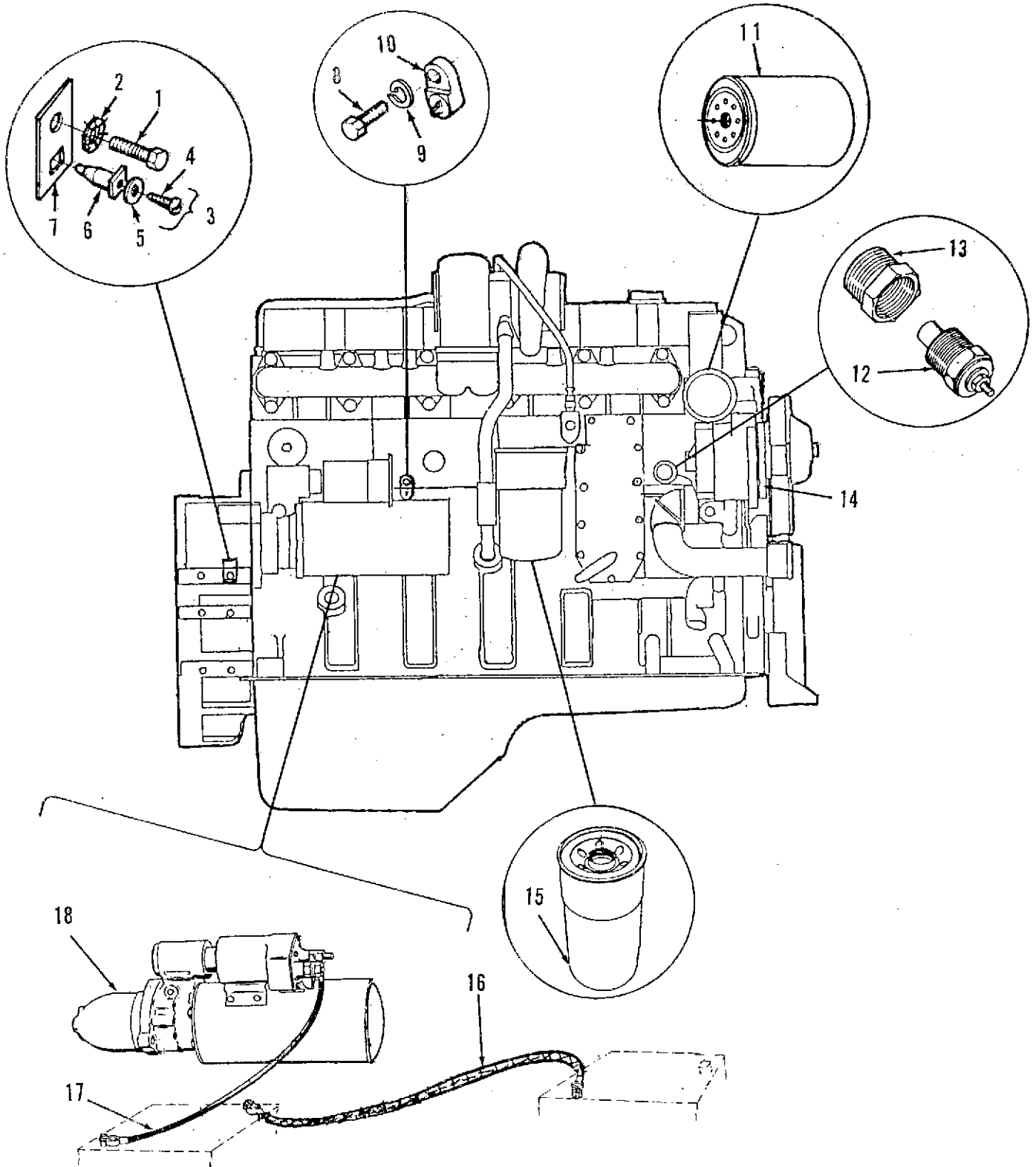
Electronic Governor



Electronic Governor

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	5	Tie, Cable	15	150-2218-03	1	Rod, Governor
2	150-2201	1	Sensor, Speed (Includes Electrical Lead)	16	150-2251	2	End, Rod
3	332-1279	2	Terminal (Use on Electrical Leads)	17	150-2203	1	Lever, Actuator - Governor
4	813-0103	4	Screw, Machine - Round Head (#10 - 32 x 3/4")	18	151-0612	1	Actuator, Governor - 24VDC
5	151-0611	1	Control, Governor		800-0008	4	Attaching Parts for Actuator
6	800-2110	2	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)		870-0212	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")
7	850-2012	2	Washer, Lock (M12)	19	150-2238	1	Nut, Lock (1/4 - 20)
8	150-2007	1	Bracket, Controller		800-2085	3	Bracket, Governor Actuator
9	815-0172	2	Screw, Machine - Hex Head (#10 - 32 x 1.00")		850-2010	3	Attaching Parts for Bracket
10	526-0327	2	Washer, Flat (15/64)	20	150-2252	1	Screw, Cap - Hex Head (M10 x 1.50 x 20mm)
11	870-0131	2	Nut, Hex W/ET (#10 - 32)		718-1021	1	Washer, Lock (M10)
12	526-0008	4	Washer, Flat (#10)		718-1027	1	Bracket
13	150-2237	1	Lever, Governor		860-2007	2	Attaching Parts for Bracket
14	870-0053	2	Nut, Screw - Hex Head (#10 - 32)				Screw, Cap - Hex Head (M6 x 1.0 x 20mm)
							Screw, Cap - Hex Head (M6 x 1.0 x 50mm)
							Nut, Hex (M6 x 1.0)

External Engine Components Left Side



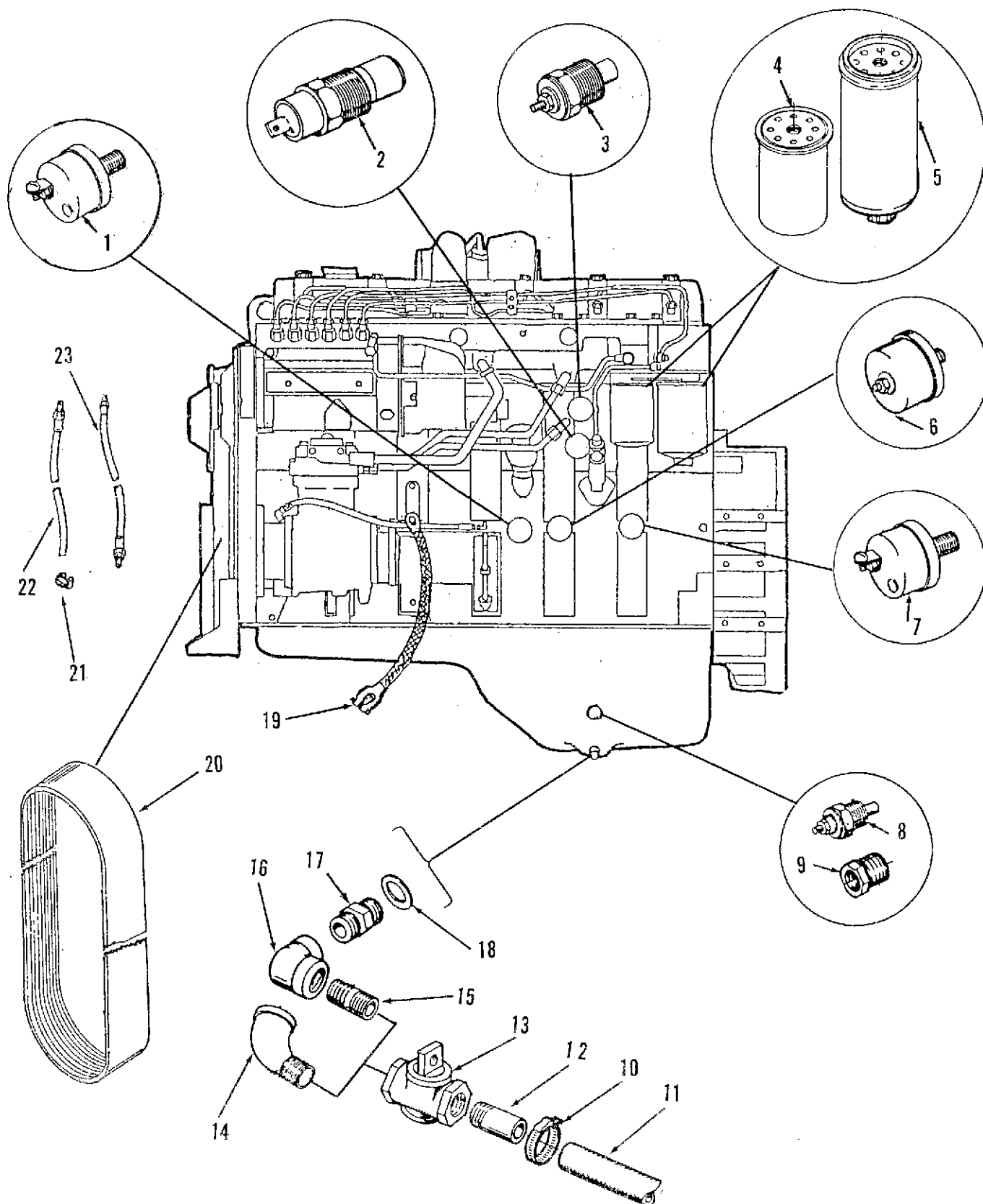
**External Engine Components
Left Side**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2110	1	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)	11	Note 1		Filter, Water - W/Corrosion Inhibiting Chemical DCA4
2	856-0013	1	Washer, Lock - EIT (1/2")		130-3537	1	Service
3	332-2739	1	Terminal Assembly (Includes item 3 thru 7)		130-3539	1	Pre-Charging
4	809-0035	1	Screw, Tapping - Round Head (#8 x 3/4")	12	309-0554	1	Switch, Thermostatic-Engine Coolant Temperature (S2)
5	508-0015	1	Washer, Insulating	13	505-0021	1	Bushing, Reducer
6	870-0196	1	Nut, Insulated	14	Note 2	1	Alternator - 24 VDC (CEC# 3911462)
7	332-2738	1	Board, Terminal	15	122-0756	1	Element - Oil Filter
8	800-2058	1	Screw, Cap - Hex Head (M8x1.25 x 25mm)	16	416-0923	1	Cable, Battery - Jumper
9	850-2008	1	Washer, Lock (M8)	17	416-0915	1	Cable, Battery (44"Lg)
10	309-0269	1	Switch, Thermostatic- Low Engine Temperature (S4)	18	Note 2	1	Starter, Electrical - 24 VDC (CEC# 3910644)

NOTES:

1. Replacement cartridges recommend and should be used in lieu of the Original Engine Factory Installed Item which contains a Pre-Charge amount of DCA or DCA4 Chemical. Replacement with Pre-charge Cartridge may overload the Cooling System and cause problems or failure of the Set.
2. CEC# - Cummins Engine Company Part Number.

External Engine Components Right Side



External Engine Components Right Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	309-0272	1	Switch, Pressure - Oil, Shutdown (S1)	11	503-0098	1	Hose
2	309-0553	1	Switch, Thermostatic - Engine Coolant Temperature, Pre-Alarm (S6)	12	505-0185	1	Nipple, Pipe - Half
3	193-0375	1	Sender, Temperature - Engine Coolant (E2)	13	504-0011	1	Valve, Shutoff
4	149-2251	1	Filter, Fuel - Secondary	14	505-0248	1	Elbow, Pipe - Street, 45 Deg.
5	149-2252	1	Filter, Fuel - Primary	15	505-0100	1	Nipple, Pipe (Note 1)
6	193-0244	1	Sender, Pressure - Oil (E1)	16	505-0040	1	Elbow, Pipe - 90 Deg (Note 1)
7	309-0561	1	Switch, Pressure - Oil, Pre-Alarm (S5)	17	102-1237	1	Adapter, Drain - Oil
8	193-0353	1	Sender, Temperature - Oil(E4)	18	102-1147	1	Gasket, Drain - Oil Pan
9	505-1373	1	Bushing, Reducer (M22 x 1/8 NPTF)	19	416-0619	1	Cable, Battery (18"Lg)
10	503-0197	1	Clamp, Hose	20		1	Belt, Drive - Fan & Altr
					Note 2	1	6CT Engine(CEC#3911573)
					Note 2	1	6CTA Engine(CEC#3911571)
				21	503-0685	1	Clamp, Hose
				22	501-0502	1	Line, Fuel - Flex (Fuel Out)
				23	501-0441	1	Line, Fuel - Flex (Fuel In)

NOTES:

1. Optional installation of Oil Drain Components uses items 15 and 16 in lieu of item 14.
2. CEC# - Cummins Engine Company Part Number.

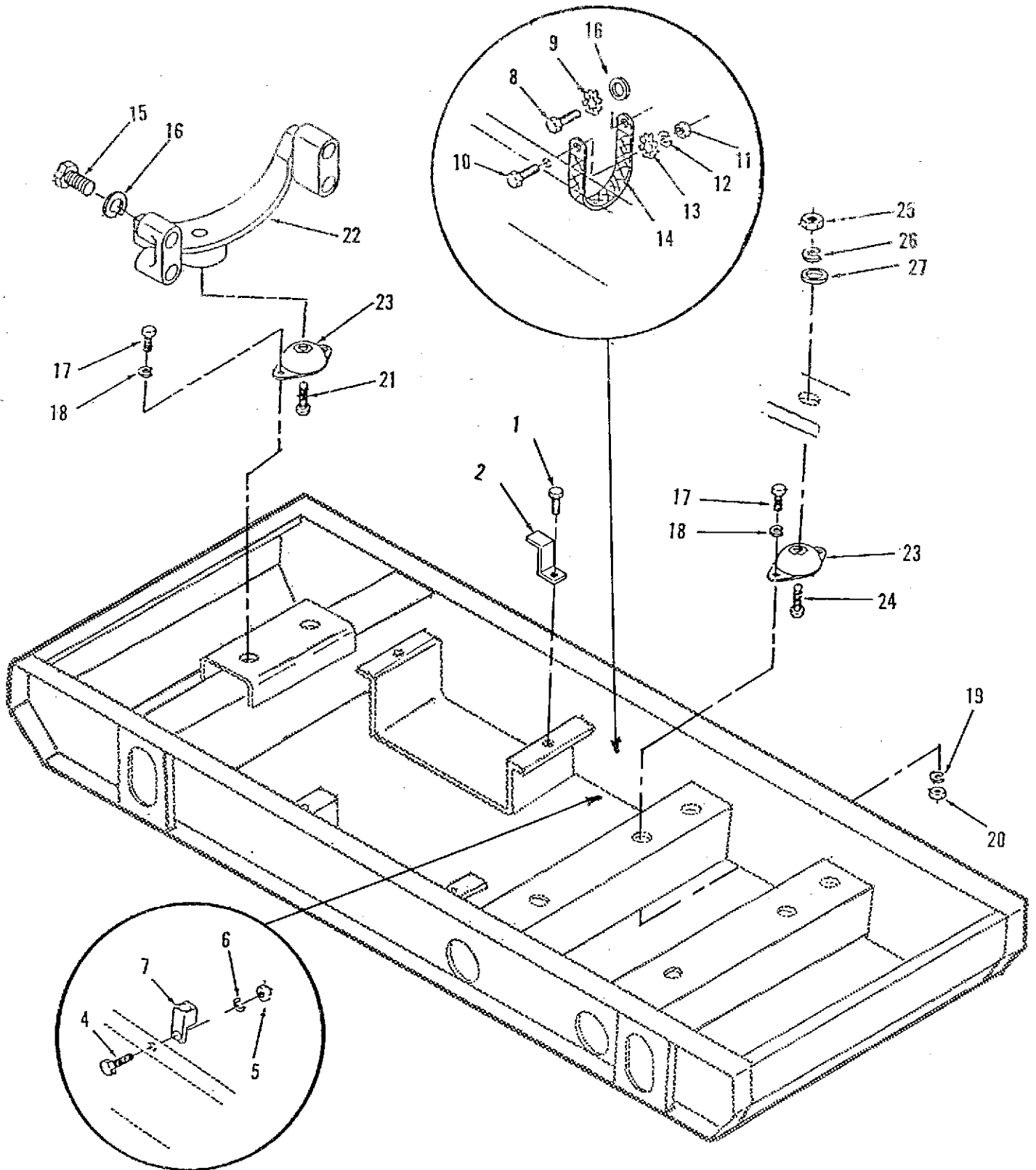
Cooling System - Radiator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0018	36	Screw, Cap - Hex Head (1/4-20 x 5/8")	20	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
2	130-3218	1	Guard, Belt	21	130-3204	1	Support, Grille - Lower
3	130-3217	1	Guard, Belt	22	130-3203	1	Support, Grille - Upper
4	130-3209-01	1	Guard, Fan	23	130-3206	2	Shroud - Top/Bottom
5	130-3209-02	1	Guard, Fan	24	821-0028	16	Screw, Self-locking - Hex Washer Head (3/8-16 x 1/2")
6	800-2096	4	Screw, Cap - Hex Head (M10 x 1.5 x 75mm)	25	130-3205	1	Wrapper, Shroud - Fan
7	850-2010	4	Washer, Lock - Spring (M10)	26	801-0049	4	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
8	130-3208	1	Fan, Radiator	27	526-0280	4	Washer, Bevel
9	130-3216	1	Spacer, Fan	28	870-0281	4	Nut, Self-locking - Hex (3/8-16)
10	503-0365	4	Clamp, Hose	29	130-3202-01	1	Guard, Radiator
11	503-1599	1	Hose, Radiator	30	130-3202-02	1	Guard, Radiator
12	503-1586	2	Clamp, Hose	31	502-0153	3	Plug, Pipe - Hex (1/4 NPT)
13	Note 1	1	Elbow, Hose (CEC#3909389)	32	504-0003	1	Cock, Drain (1/4 NPT)
14	130-3212	1	Tube, Outlet - Radiator	33	338-1919	1	Harness, Wiring
15	503-0465	4	Clamp, Hose	34	153-0322	1	Sender, Level - Coolant
16	503-1379-01	2	Hose, Radiator	35	130-3207	1	Radiator (Includes Cap)
17	130-3211	1	Tube, Inlet - Radiator	36	130-1788	1	Cap, Radiator - 14 PSI
18	870-0281	6	Nut, Self-locking - Hex (3/8-16)				
19	130-3210	1	Grille - Radiator				

NOTES:

1. CEC# - Cummins Engine Company Part Number.

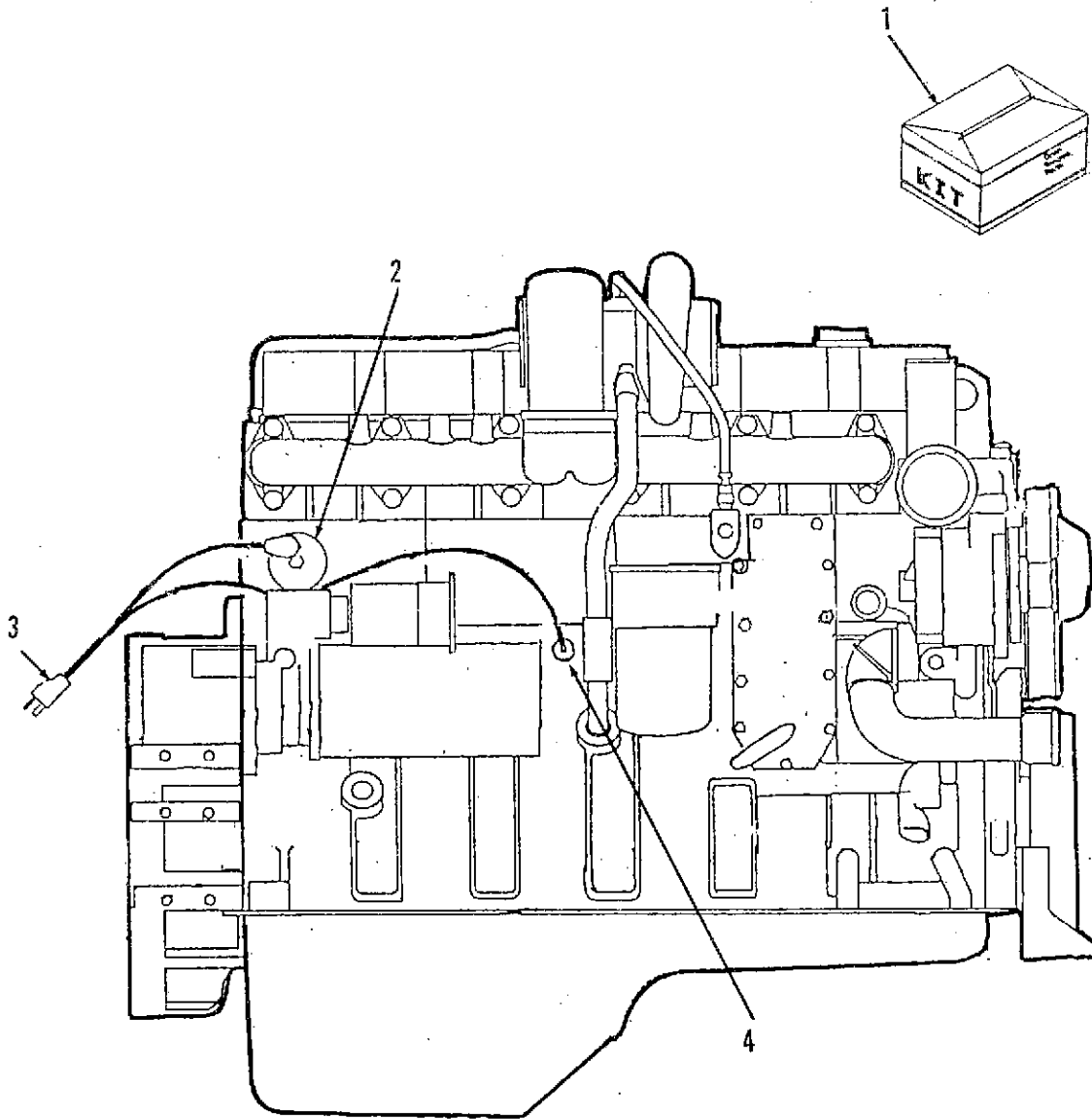
Chassis



Chassis

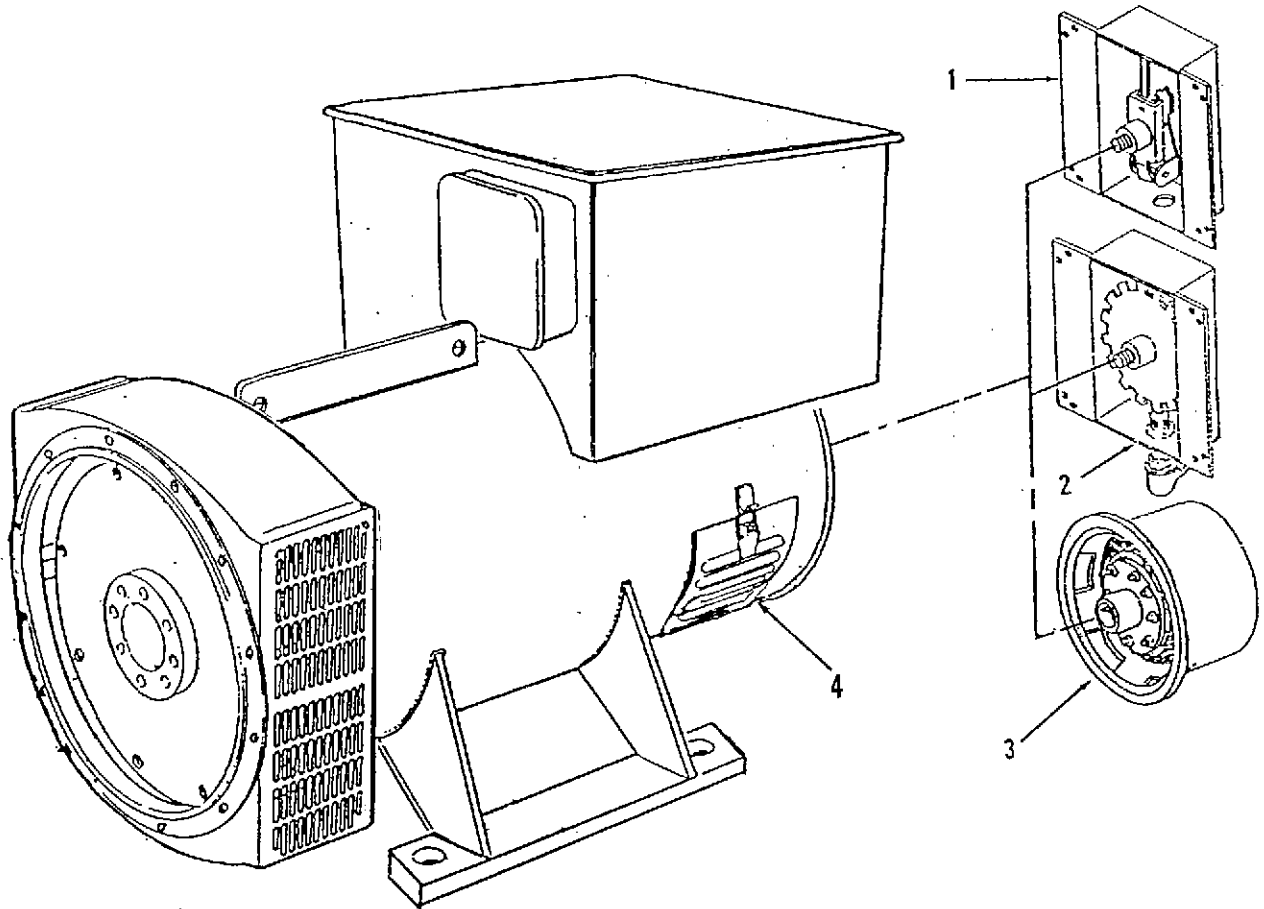
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0048	4	Screw, Cap - Hex Head (3/8-16 x 3/4")	15	800-2124	4	Screw, Cap - Hex Head (M12 x 1.75 x 90mm)
2	416-0850	4	Bracket, Retaining	16	850-2012	5	Washer, Lock (M12)
4	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")	17	800-0092	10	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
5	856-0008	1	Washer, Lock - EIT (5/16)	18	850-0060	10	Washer, Lock - Spring (1/2")
6	870-0257	1	Nut, Lock (5/16-18)	19	526-0219	10	Washer, Flat (1/2")
7	332-1473	1	Lug, Solderless	20	862-0016	10	Nut, Hex (1/2-13)
8	800-2111	1	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)	21	800-0520	1	Screw, Cap - Hex Head (3/4-10 x 1")
9	856-0013	1	Washer, Lock - EIT (1/2")	22	403-2690	1	Support, Engine
10	800-0092	1	Screw, Cap - Hex Head (1/2-13 x 1-1/2")	23	402-0568	5	Mount, Vibration
11	862-0016	1	Nut, Hex (1/2-13)	24	800-0156	4	Screw, Cap - Hex Head (3/4-10 x 2-1/4")
12	850-0060	1	Washer, Lock - Spring (1/2")	25	862-0008	4	Nut, Hex (3/4-10)
13	856-0013	1	Washer Lock - EIT (1/2")	26	850-0079	4	Washer, Lock - Spring (3/4")
14	337-0090	1	Strap, Electrical	27	526-0233	4	Washer, Flat (3/4)

Engine Coolant Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Kit - Engine Coolant Heater (Includes one each of items 2 thru 4)	2	333-0391	1	Heater, Electrical 120 Volts
	333-0393-01	1	120 Volts		333-0392	1	240 Volts
	333-0393-02	1	240 Volts	3			Cord, Electrical
					335-0162	1	120 Volts
					335-0163	1	240 Volts
				4	309-0555	1	Switch, Thermostatic

Generator Frame 3

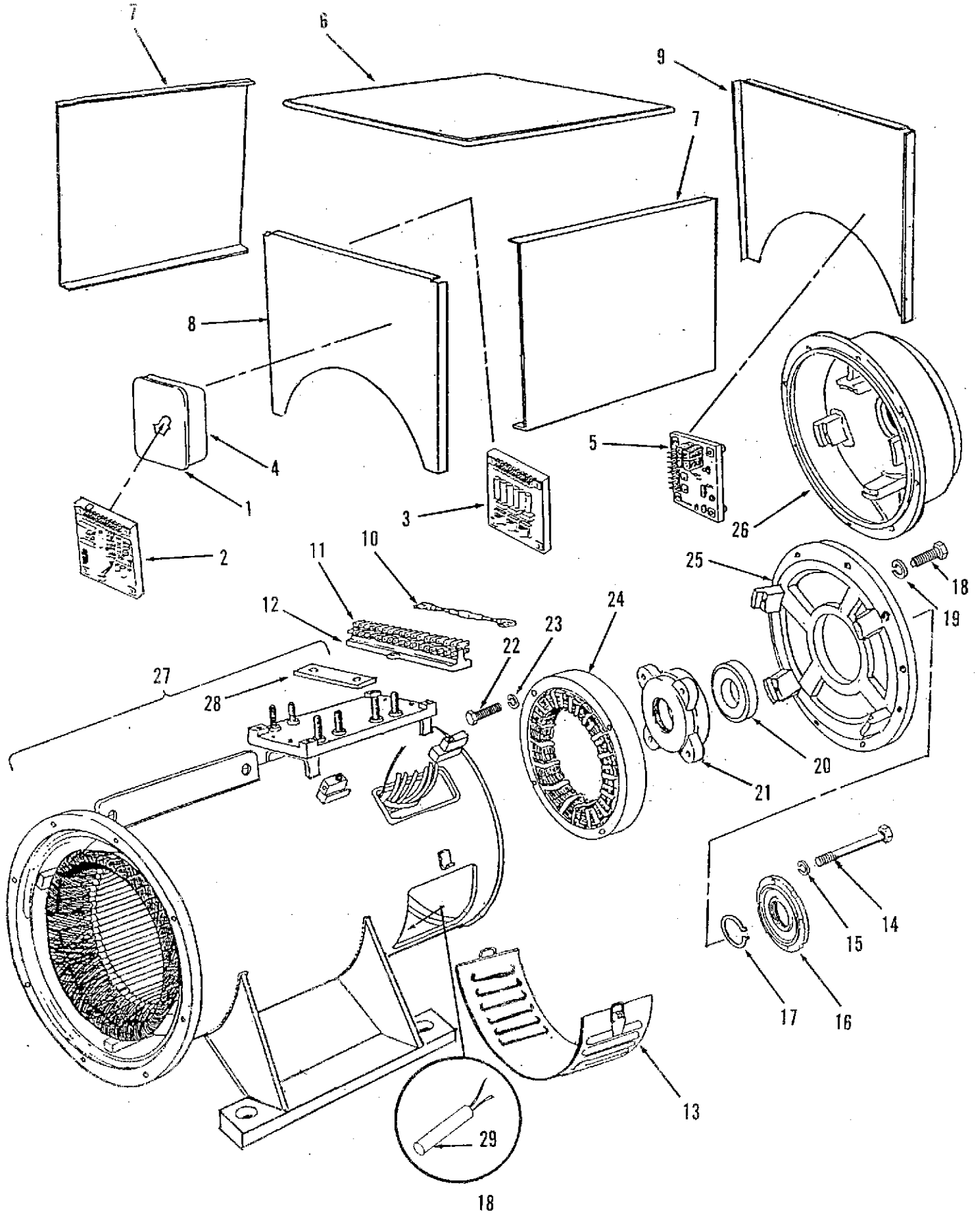


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	Note 1	1	Module, Overspeed Switch (See Separate Page for Components)	4	Note 2		Generator (See Separate Pages for Stator and Rotor Components)
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)		800-0156	4	Generator to Chassis Screw, Cap - Hex Head (3/4-10 x 2-1/2")
2	Note 1	1	Module, Overspeed Sensor (See Separate Page for Components)		850-0079	4	Washer, Lock - Spring (3/4")
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)		526-0238	4	Washer, Flat (3/4")
3	Note 1	1	Module, Permanent Magnet Exciter (See Separate Page for Components)		862-0008	4	Nut, Hex (3/4-10)
	249-0298	4	Attaching Parts Screw, Cap - Hex Head (M8 x 16mm)		800-2088	12	Adapter to Flywheel Housing Screw, Cap - Hex Head (M10 x 1.5 x 35mm)
	249-0218	4	Washer, Lock (M8)		850-2010	12	Washer, Lock - Spring (M10)
	249-0315	4	Clamp, Retaining		805-0015	8	Drive Disc to Flywheel Bolt - Hex Head (3/8-16 x 3/4", Grade 8)
					526-0124	8	Washer, Flat (1-1/2"OD x 13/32"ID)

Notes:

1. Components for Modules located on separate pages, consult Table of Contents for page number.
2. For replacement Generator please supply the complete Gen Set nameplate and Generator nameplate data.

Generator
Stator Section
Frame 3



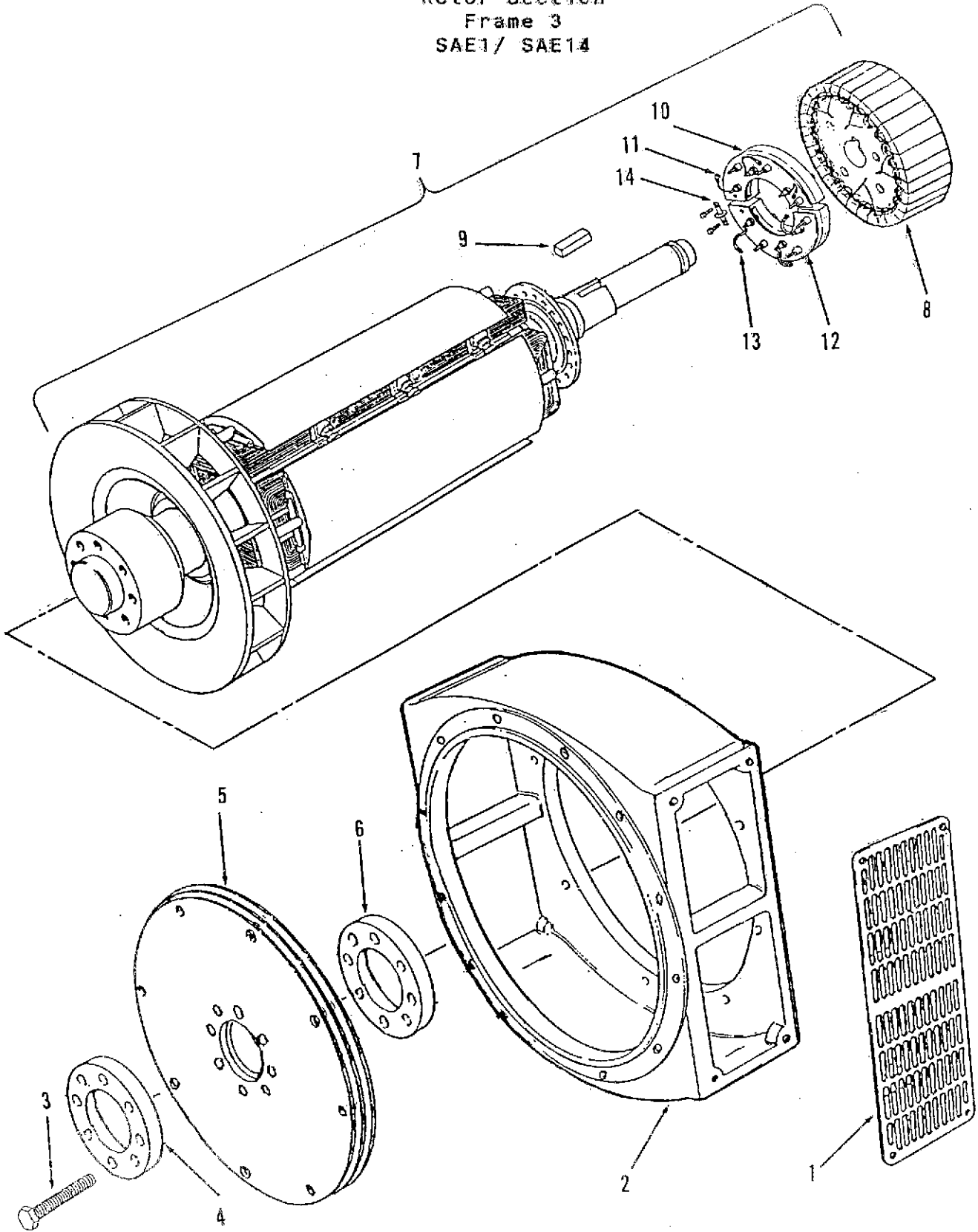
**Generator
Stator Section
Frame 3**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0631	2	Lid, Electrical Box - Plain	14	249-0302	4	Screw, Cap - Hex Head (M10 x 65mm)
	249-0304	8	Attaching Parts	15	249-0202	4	Washer, Lock - Spring (M10)
2			Regulator, Voltage	16	249-0362	1	Cap, Bearing - Outer
	305-0779	1	1 or 3 Phase, Series 4	17	249-0444	1	Circlip
			Excitation(Non PMG)	18	249-0201	8	Screw, Cap - Hex Head (M10 x 35mm)
	305-0770	1	1 Phase (Used with PMG)	19	249-0202	8	Washer, Lock - Spring (M10)
	305-0778	1	3 Phase (Used with PMG Exciter & 3 Phase Sensing Module)	20	249-0312	1	Bearing, Ball
			Manual	21	249-0361	1	Cap, Bearing - Inner
	305-0803	1	Attaching Parts	22			Screw, Cap - Hex Head (M6 x 55mm) Gen334AS, A or B
	249-0398	4	Pillar, Threaded		249-0291	4	(M6 x 70mm) Gen334C or D
3	249-0564	1	Module, 3 Phase Sensing	23	249-0212	4	Washer, Lock - Spring (M6)
			Attaching Parts	24			Stator, Exciter
	249-0398	4	Pillar, Threaded		249-0334	1	Gen334AS, A or B
4	249-0395	1	Box		249-0366	1	Gen334C or D
5	300-3209-02	1	Module, Frequency Detection	25	249-0354	1	Bracket, End
			Attaching Parts				Gen334AS, A or B
	249-0295	4	Screw, Cap - Hex Head (M5 x 35mm)	26	249-0355	1	Bracket, End
	249-0288	4	Washer, Plastic (M5)	27	Note 2	1	Gen334C or D
	249-0287	4	Nut, Hex - Nylon (M5)				Stator, Generator (Includes Terminal Studs and Links)
6	Note 1	1	Lid				Attaching Parts Stator to Adapter
7	Note 1	2	Panel, Side		249-0201	8	Screw, Cap - Hex Head (M10 x 35mm)
8	Note 1	1	Panel, Front				Washer, Lock - Spring (M10)
9	Note 1	1	Panel, Rear		249-0202	8	
10	249-0428	1	Resistor (Voltage Code H Only)	28	249-0404	4	Link, Terminal
11	249-0289	3	Block, Terminal - AUX	29			Heater, Electrical - Replacement
12	249-0424	1	Base, Terminal - AUX		249-0621	1	70 Watt, 120 VAC
13	249-0368	2	Grille, Inlet - Air		249-0622	1	70 Watt, 240 VAC

Notes:

1. Parts NOT STOCKED for replacement; If needed supply complete Gen Set nameplate data.
2. Part NOT STOCKED; Replacement is by complete Generator Assembly; please supply the complete Gen Set nameplate and the Generator nameplate data.

Generator
Rotor Section
Frame 3
SAE1/ SAE14



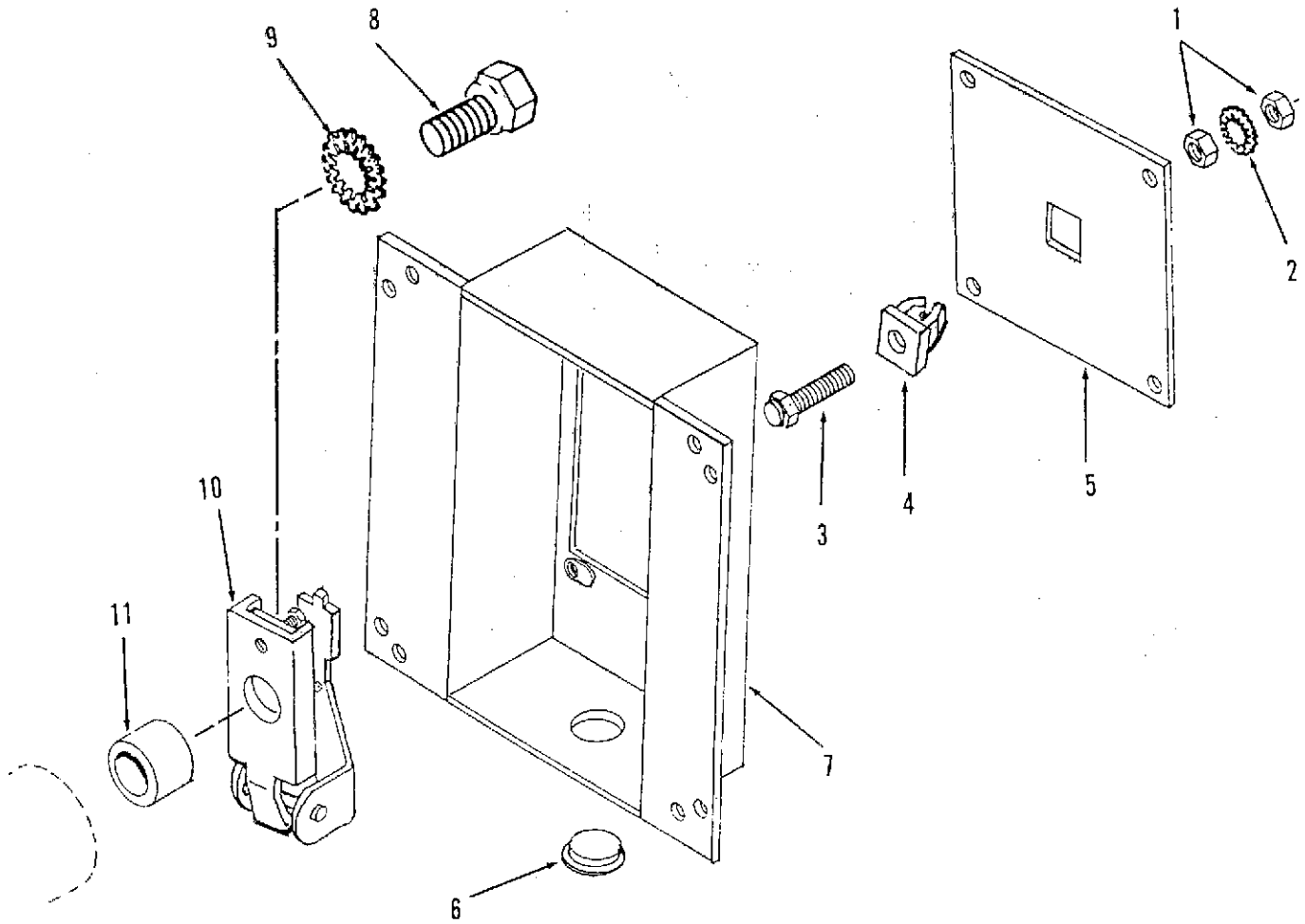
**Generator
Rotor Section
Frame 3
SAE1/ SAE14**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0371	2	Screen, Air - Adapter	8			Rotor, Exciter (Does Not Include Rectifier Assy)
	249-0294	8	Attaching Parts Screw, Cap - Hex Head (M5 x 12mm)		249-0336	1	Gen334AS
	249-0307	8	Washer, Lock - Spring (M5)	9	249-0367	1	Gen334A, B, C or D
	249-0308	8	Washer, Flat (M5)	10	249-0271	1	Key
2	249-0369	1	Adapter, Generator (SAE1)	10	249-0340	1	Rectifier Assy, Forward (Includes Item 11 Diodes)
3	249-0292	8	Screw, Cap - Hex Head (M16 x 60mm)	11	249-0281	3	Diode, Forward Polarity
4	249-0402	1	Plate, Pressure	12	249-0341	1	Rectifier Assy, Reverse (Includes Item 13 Diodes)
5	249-0328	3	Disc, Drive (SAE14)	13	249-0282	3	Diode, Reverse Polarity
6	249-0363	1	Spacer	14	249-0283	1	Varister
7	Note1	1	Rotor, Generator (Includes Exciter, Key, and Rectifier Assemblies)		249-0294	2	Attaching Parts Screw, Cap - Hex Head (M5 x 12mm)

Notes:

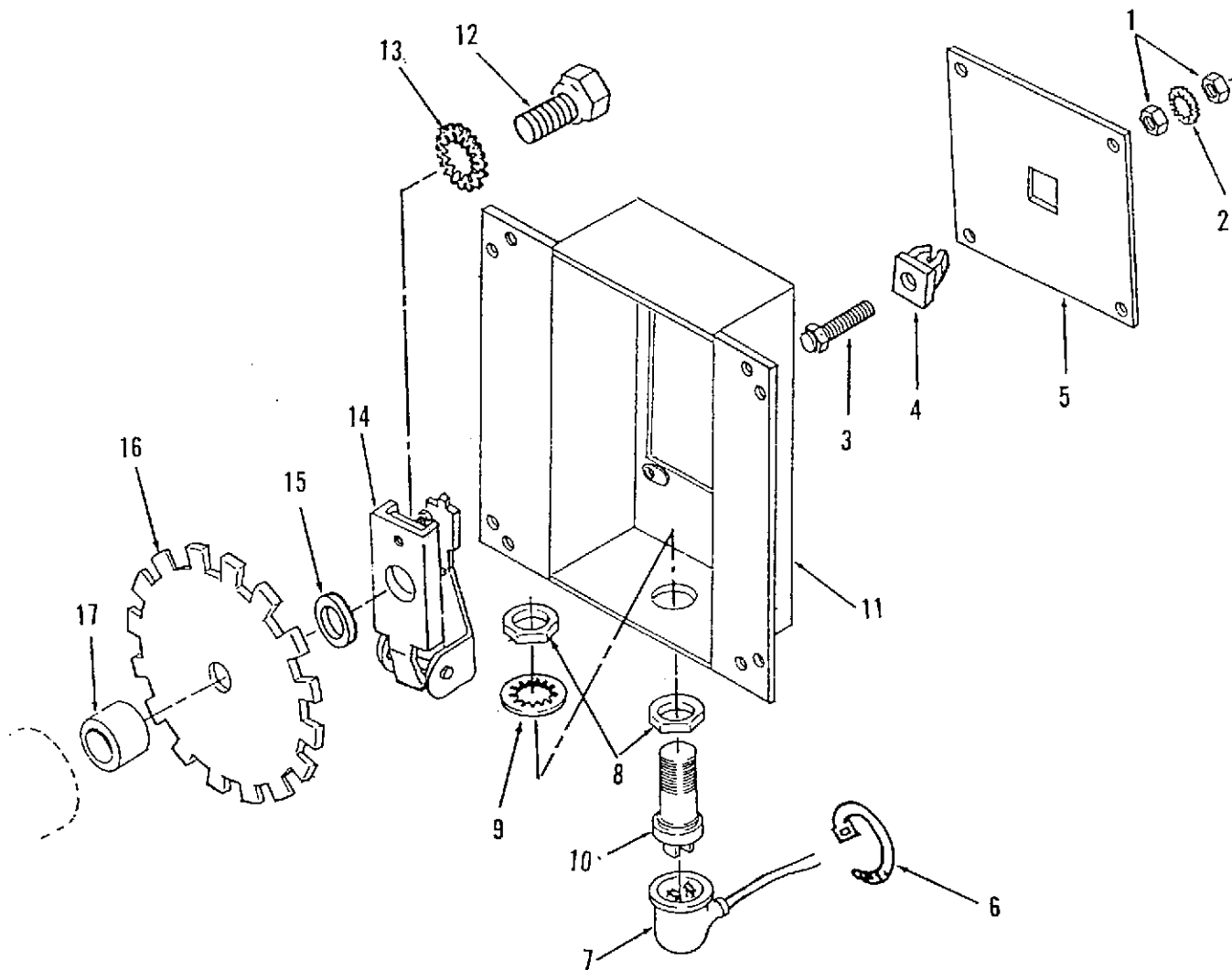
1. Part NOT STOCKED; Replacement is by complete Generator Assembly; please supply the complete Gen Set nameplate and the Generator nameplate data.

Generator Overspeed Switch



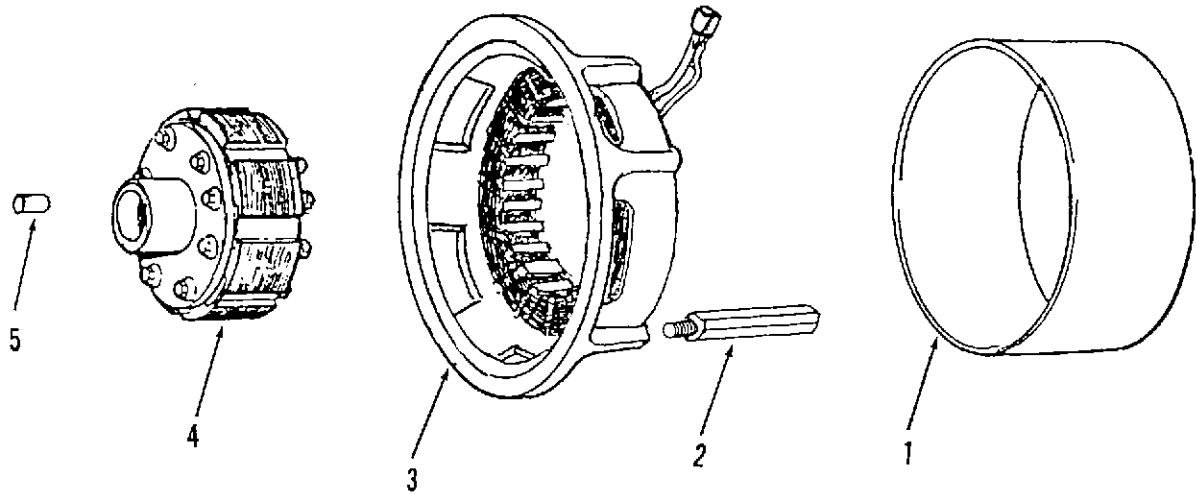
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)	6	517-0136	1	Plug, Plastic
2	853-0013	1	Washer, Lock - EIT (1/4")	7	150-2207	1	Cover, Overspeed Switch
3	150-0723	1	Point, Overspeed	8	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
4	870-0250	1	Nut, Insulated	9	856-0010	1	Washer, Lock - EIT (3/8")
5	150-2206	1	Plate, Mounting	10	150-0956	1	Switch, Overspeed
	821-0005	4	Screw, Self-locking - Hex (#10-32 x 1/2")	11	370-4032	1	Spacer, Sleeve

Generator Overspeed Sensor



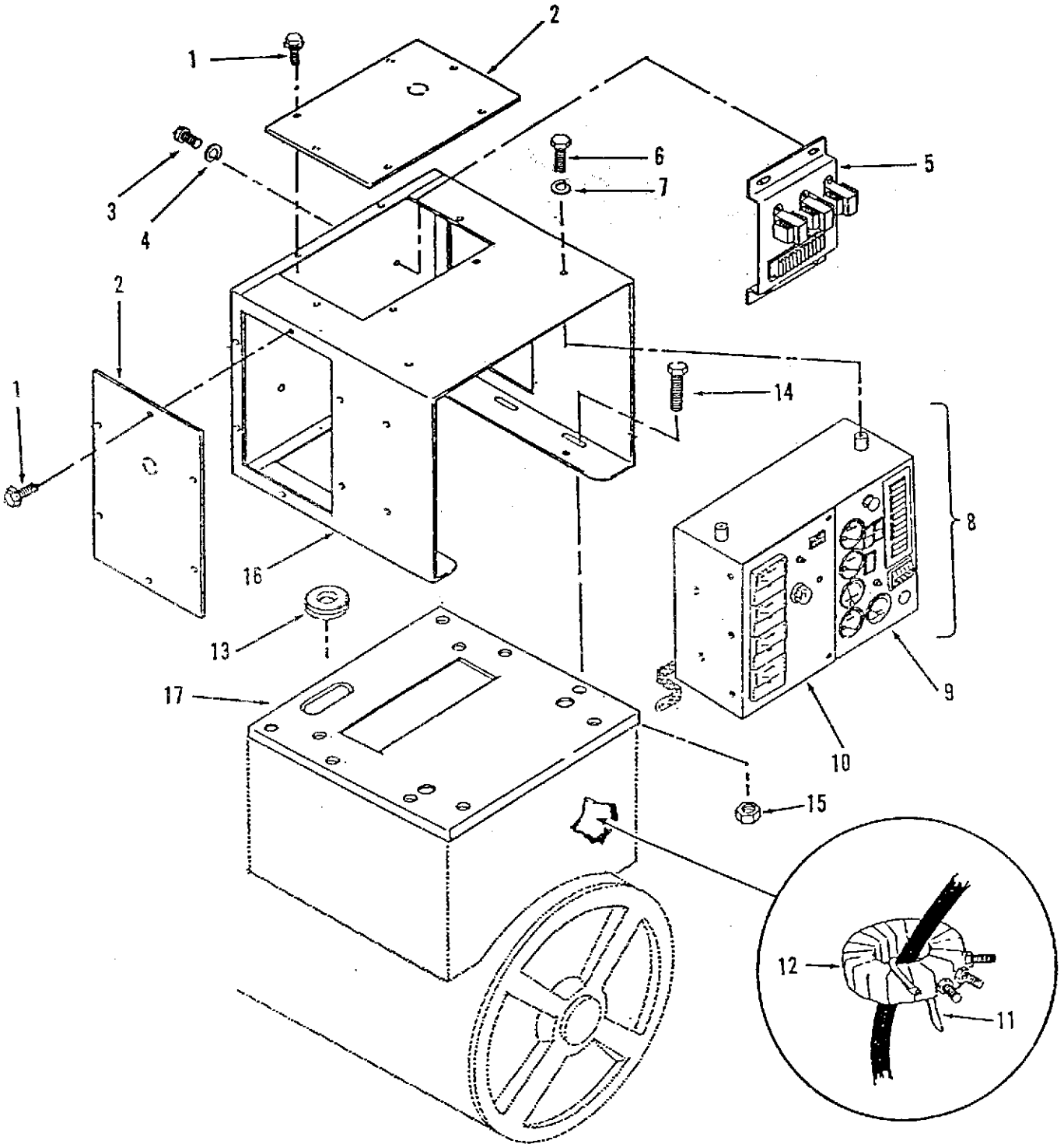
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)	9	854-0031	1	Washer, Lock - IT (3/4")
2	853-0013	1	Washer, Lock - EIT (1/4")	10	150-1406	1	Sensor, Speed
3	150-0723	1	Point, Overspeed	11	150-2207	1	Cover, Overspeed Switch
4	870-0250	1	Nut, Insulated	12	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
5	150-2206	1	Plate, Mounting	13	856-0010	1	Washer, Lock - EIT (3/8")
	821-0005	4	Screw, Self-locking - Hex (#10-32 x 1/2")	14	150-0956	1	Switch, Overspeed
6	332-1445	5	Tie, Cable	15	370-4031	1	Spacer, Sleeve
7	338-2189-02	1	Harness, Wiring	16	150-2204	1	Wheel - Speed Sensor
8	868-0011	2	Nut, Jam - Hex (3/4-16)	17	370-4032	1	Spacer, Sleeve

Generator Permanent Magnet Exciter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0497	1	Cover	4		1	Rotor, Exciter
	249-0294	3	Attaching Parts for Cover		249-0427	1	Frame 2, 3, 4 Generators
			Screw, Cap - Hex Head		249-0644	1	Frame 5, 6, 7 Generators
			(M5 x 12mm)				Attaching Parts for Rotor
	249-0307	3	Washer, Lock (M5)				Bolt - Select as Required
2	249-0496	3	Pillar, Threaded		249-0399	1	Frame 2, 3, 4 Generators
3	249-0426	1	Stator, Exciter with Frame		249-0495	1	Frame 5, 6, 7 Generators
					249-0202	1	Washer, Lock (M10)
				5	249-0313	1	Pin, Dowel

Generator Set Control



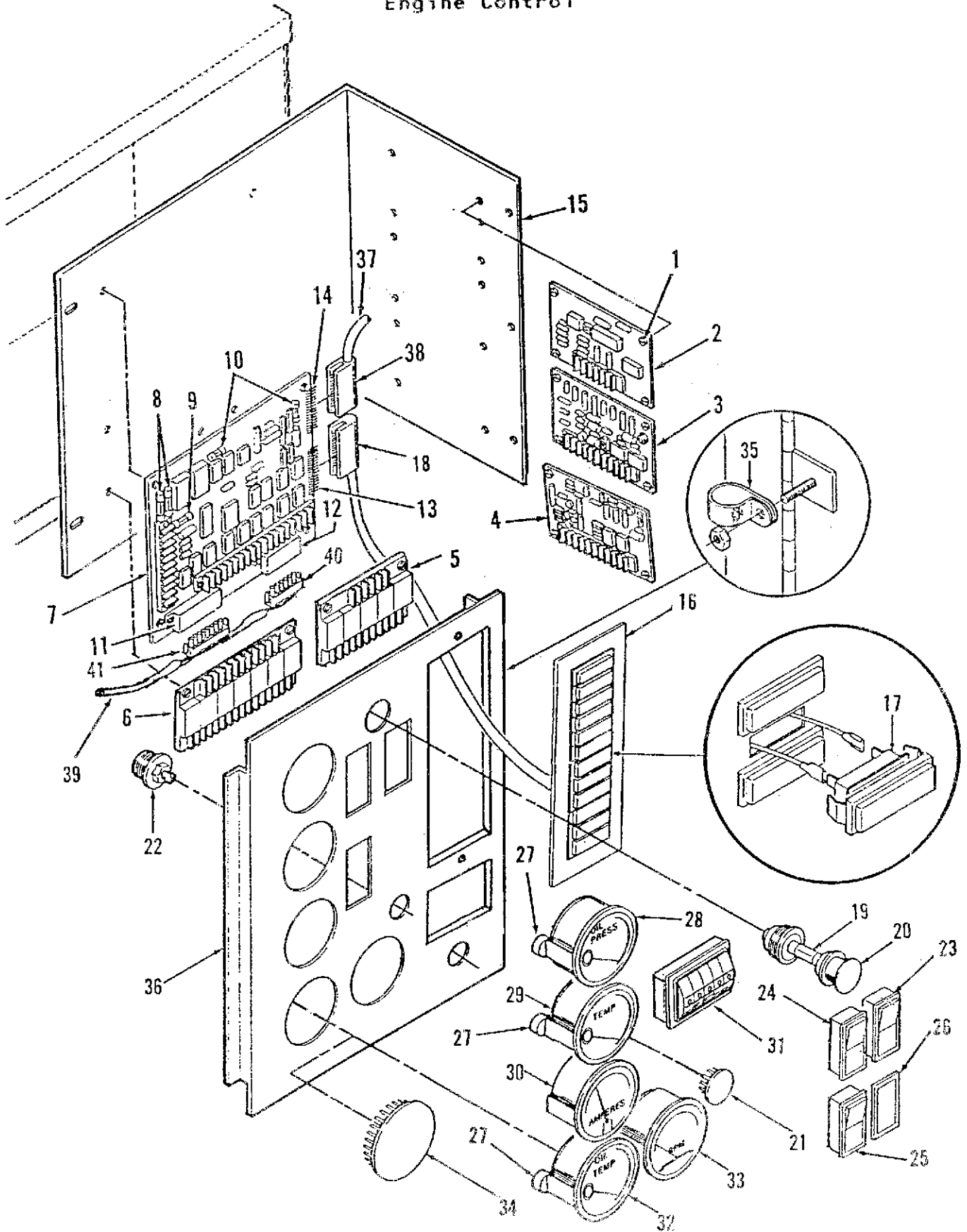
Generator Set Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0005	18	Screw, Self-locking - Hex (#10-32 x 1/2")	12			Transformer, Current - Reconnectible
2	319-0077	3	Panel, Box - Control	302-1794-02	3		Ratio 100/5 or 200/5 100 & 150kW Voltage Code H
3	812-0156	4	Screw, Machine - Round Head (1/4-20 x 1/2")	302-1794-04	3		Ratio 200/5 or 400/5 100kW Voltage Code Z.
4	850-0040	4	Washer, lock - Spring (1/4")	302-1794-05	3		Ratio 250/5 or 500/5 125kW Voltage Code L
5	Note 1	1	Transformer Assy, Potential (See Separate Page for Components)	302-1794-07	3		Ratio 375/5 or 750/5 135kW Voltage Code Z 150kW Voltage Code L
6	800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")	13	508-0051	1	Grommet
7	850-0045	4	Washer, Lock - Spring (5/16")	14	821-0018	6	Screw, Self-locking - Hex Head (1/4-20 x 5/8")
8	Note 1	1	Control, Set (See item 9 & 10 for Components)	15	870-0212	6	Nut, Self-locking - Hex (1/4-20)
9	Note 1	1	Control, Engine (See Separate Page for Components)	16	301-3155	1	Housing, Control
10	Note 1	1	Control, Generator (See Separate Page for Components)	17	319-0011	1	Adapter, Housing to Terminal Box (Frame 3 Generators)
11	332-0941	6	Tie, Cable				

Notes:

1. Components for Controls located on separate pages, consult Table of Contents for page number.

Engine Control



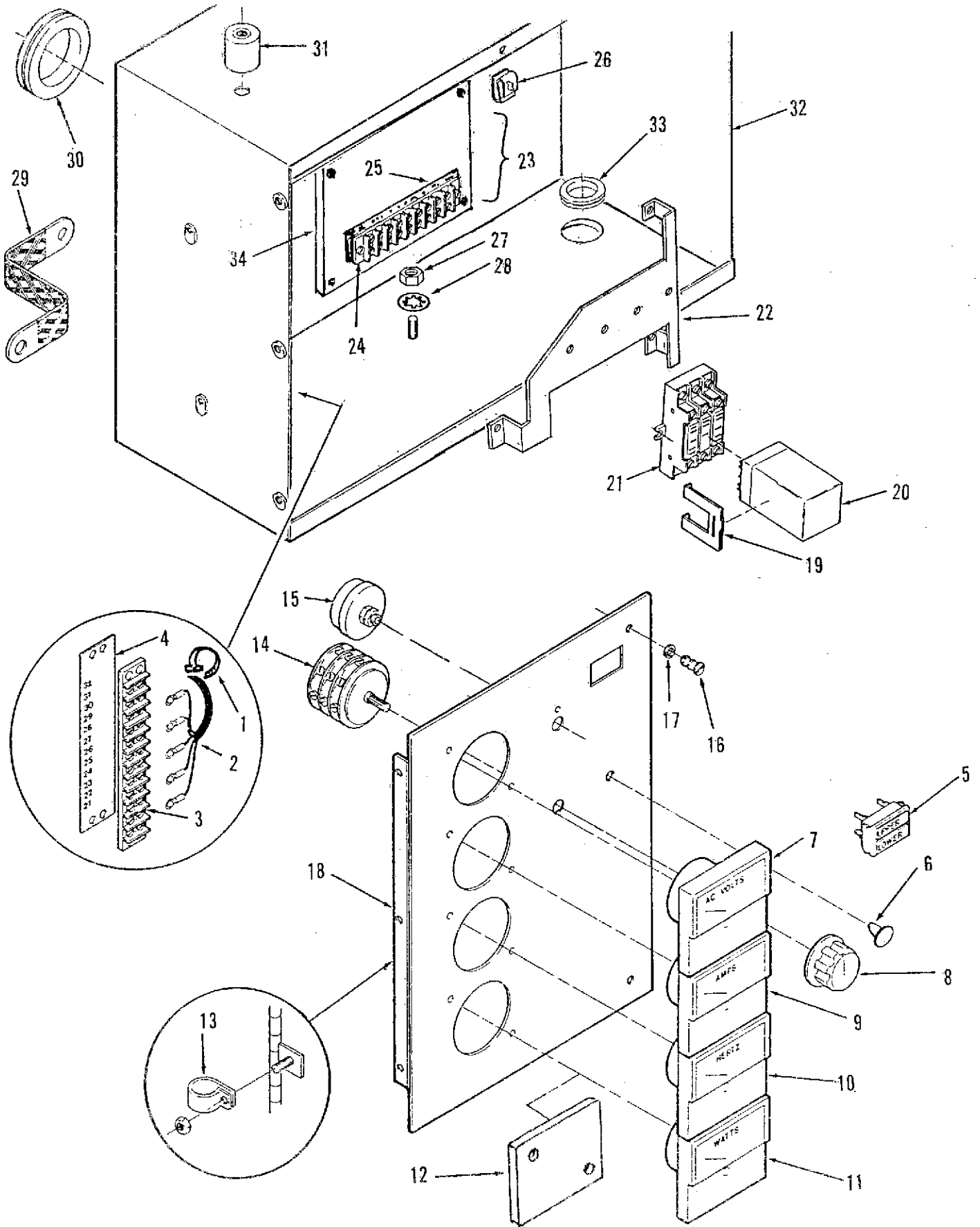
Engine Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")	17	322-0369-02	12	Lamp, Incandescent - 1/3 Watt 28 VDC
2	300-2899	1	Board, Time Delay, Start/Stop - 24 VDC (A15)	18	323-1310	1	Housing, 13 Pin (J3)
3			Board, Magnetic Sensor, Start Disconnect/Over Speed Sensor (A16)	19	322-0017	1	Lamp, Incandescent - 28 VDC (DS11)
	300-2903	1	Standard	20	322-0361	1	Holder, Lamp
	300-2904	1	Precision	21	517-0131	1	Plug, Button
4	300-2906	1	Board, Over-Under Voltage Sensor - 24 VDC (A17)	22	303-0280	1	Potentiometer (R11)
5	300-2856	1	Board, Relay - 24 VDC (A13)	23	308-0785	1	Switch, Push (S11)
5A	338-1836	1	Harness (A13 to A11) Note 2	24	308-0784	1	Switch, Push (S12)
6	300-2863	1	Board, Relay - 24 VDC (A14)	26	301-6257	1	Cover
6A	338-1835	1	Harness (A14 to A11) Note 2	27	193-0250	3	Resistor, Gauge (R12)
7			Board, Engine Monitor (A11) (Includes Fuses and Connectors)	28	193-0352	1	Gauge, Pressure - Oil (M11)
	300-2808	1	24 VDC, 2 Light	29	193-0351	1	Gauge, Temperature - Water (M12)
	300-2812	1	24 VDC, 12 Light	30	302-1790	1	Ammeter (M13)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	31	302-0885	1	Meter, Totalizing - Time (M14)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)		815-0385	2	Screw, Machine - Round Head (#6-31 x 1/2")
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)		870-0183	2	Nut, Hex with ET Lockwasher (#6-32)
11	323-1305	1	Connector, 8 Pin (P1)	32	193-0330	1	Gauge, Temperature - Oil (M15)
12	323-1303	1	Connector, 6 Pin (P2)	33	302-1873-01	1	Tachometer (M16)
13	323-1309	1	Connector, 13 Pin (P3)	34	517-0221	1	Plug, Button
14	323-1307	1	Connector, 12 Pin (P4)	35	332-0052	1	Clamp, Loop
15	301-8851	1	Bracket, Mounting		870-0131	1	Nut, Hex with ET Lockwasher (#10-32 x 1/2")
	821-0004	4	Screw, Self-locking - Hex Hd (#10-32 x 5/16")	36	Note 1	1	Door, Control
16			Module, Indicator - Fault (Includes Replaceable Lamps, Harness with Connector Housing & Contact Pins)(A12)	37	338-1817	1	Harness, Wiring - DC Meter (Includes Connector & Pins)
	322-0358-02	1	24 VDC, 2 Light	38	323-1308	1	Housing, 12 Pin (J4)
	322-0360-02	1	24 VDC, 12 Light	39	323-1302	12	Contact, Pin
	815-0385	2	Screw, Machine - Round Head (#6-32 x 1/2")				Harness, Wiring - Control to Engine (Includes Connectors and Pins)
	870-0183	2	Nut, Self-locking - Hex (#6-32)		338-2369	1	Use with 2 Fault Light Cont.
					338-2171	1	Use with 12 Fault Light Cont.
				40	323-1304	1	Housing, 6 Pin
					323-1200	6	Contact, Pin
				41	323-1306	1	Housing, 8 Pin
					323-1200	8	Contact, Pin

Notes:

- Selection required do to the variations in cutouts for meters, switches, etc; Contact nearest Authorized Distributor, provide configuration data for panel required. Distributor will consult with the Parts Technical Information Center for the replacement panel.
- Not Illustrated.

Generator Control



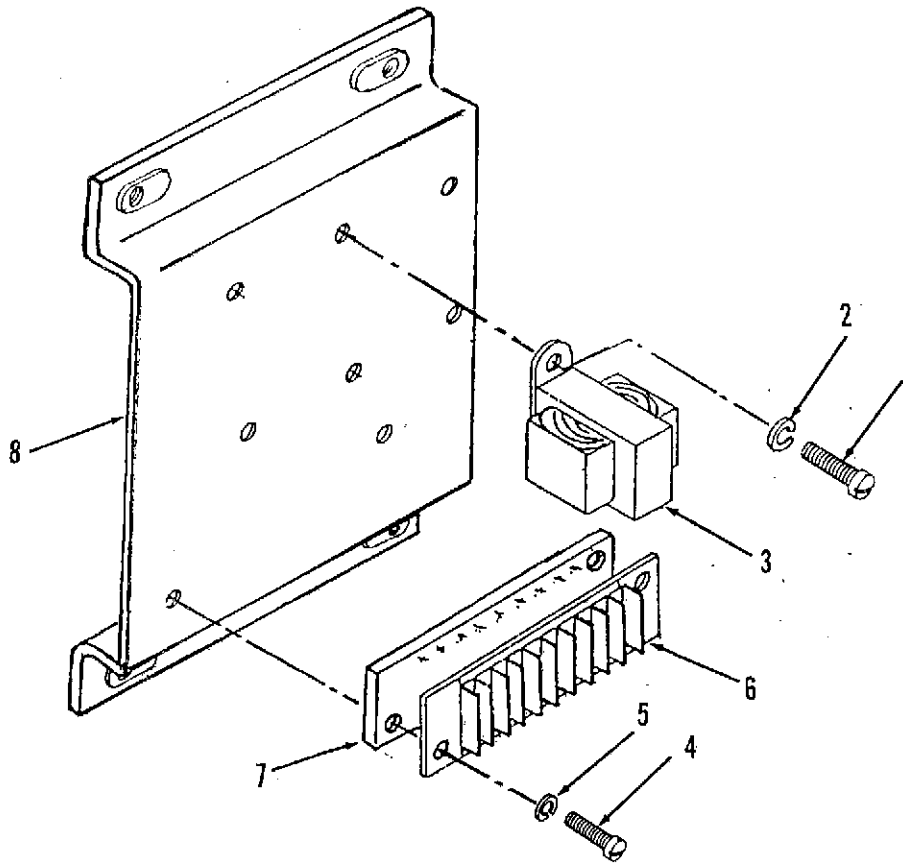
Generator Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	2	Tie, Cable	18	Note 2	1	Door, Control
2	338-2375	1	Harness, Wiring		821-0004	3	Screw, Self-locking - Hex (#10-32 x 5/16")
	812-0065	2	Screw, Machine - Round Head (#6-32 x 5/8")	19	307-1987	6	Clip, Relay
3	332-0607	1	Block, Terminal (TB1)	20	307-1056	3	Relay, 24 VDC (K21)
4	332-2723	1	Strip, Marker	21	323-0804	3	Socket, Relay
5	322-0363	1	Light, Indicator - Dual (DS21, DS22)		815-0544	6	Screw, Machine - Round Head with IT Lock Washer (#6-32 x 1/2")
6	517-0131	1	Plug, Button				Bracket, Mounting - Relay
7			Voltmeter (M21)	22	319-0447		Screw, Machine - Round Head (#6-32 x 5/8")
	302-1148	1	Dual Scale 0-300/0-600V		812-0065	4	
	302-1753	1	Single Scale 0-750V	23	301-9856	1	Terminal Board Assembly
8	303-0032	1	Knob	24	332-0751	1	Block, Terminal
9			Ammeter (M22)		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
			Single Scale	25	332-0853	1	Strip, Marker
	302-1176	1	0-200 Amp	26	406-0332	2	Receptacle, Fastener
			Dual Scale Volt. Codes L & Z	27	871-0015	1	Nut, Hex (1/4-20)
	302-1724	1	250/500 Amp	28	853-0013	1	Washer, Lock - ET (1/4")
	302-1725	1	375/750 Amp	29	337-0049	1	Strap, Electrical (Ground)
10	302-1720	1	Meter, Frequency (M23)		800-0024	1	Screw, Cap - Hex Head (5/16-18 x 1/2")
11	Note 1	1	Wattmeter (M24) (See Separate page for Components)		856-0008	1	Washer, Lock - EIT (5/16")
12	301-9993	1	Cover, Meter Hole	30	508-0051	1	Grommet
	815-0385	2	Screw, Machine - Round Head, Black (#6-32 x 1/2")	31	402-0527	2	Mount, Vibration
	870-0183	2	Nut, Hex with ET Lockwasher (#6-32)		800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")
13	332-0052	1	Clamp, Loop		850-0045	4	Washer, Lock - Spring (5/16")
	870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)	32	301-8065	1	Box, Control
14	308-0284	1	Switch, Rotary (S21)	33	508-0001	1	Grommet
15	303-0287	1	Rheostat (R21)	34	301-9855	1	Plate
16	406-0334	2	Clip, Fastener				
17	406-0333	2	Stud, Fastener				

Notes:

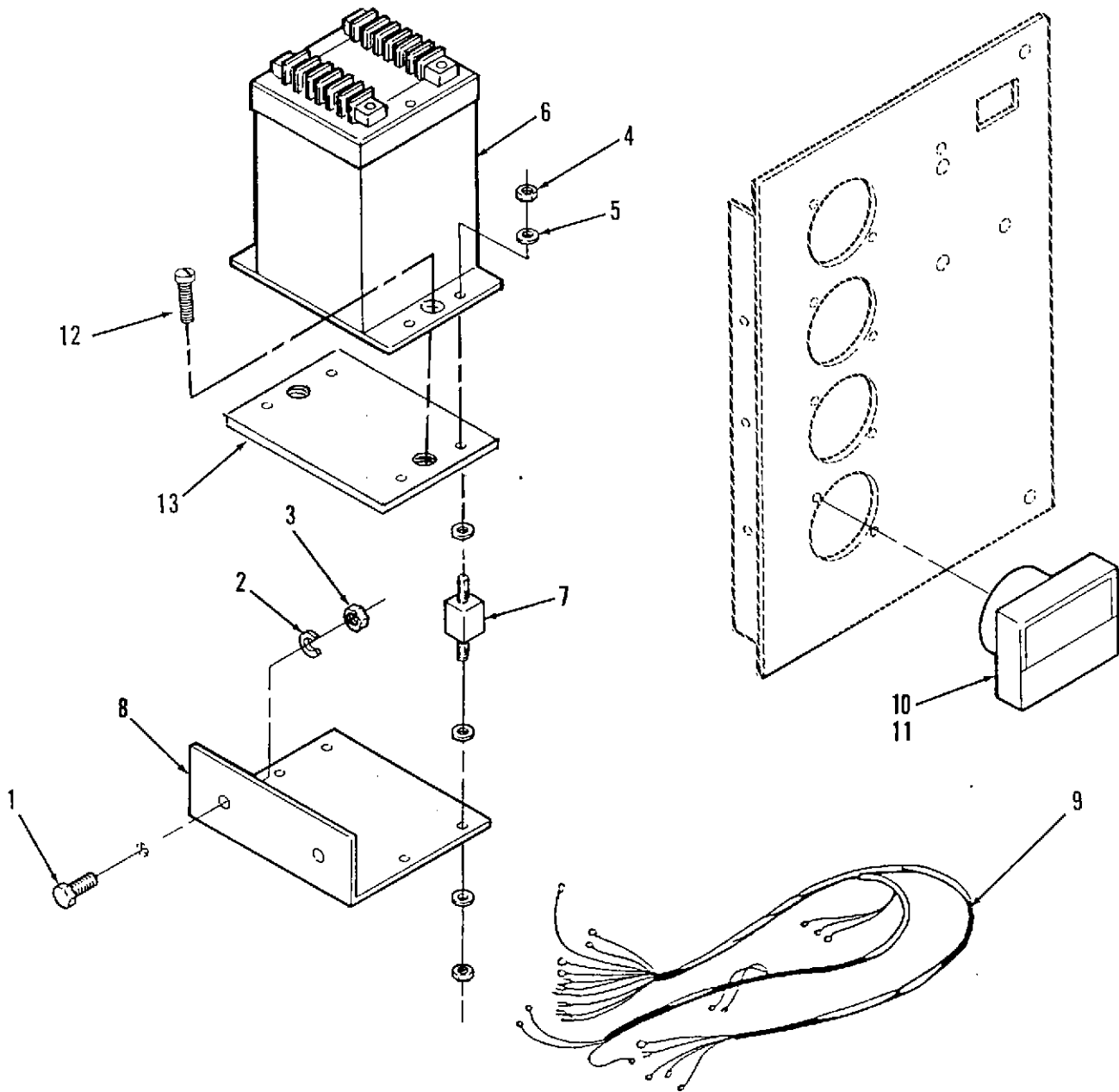
1. Components for Moduleless located on separate pages, consult Table of Contents for page number.
2. Selection required do to the variations in cutouts for meters, switches, etc; Contact nearest Authorized Distributor, provide configuration data for panel required. Distributor will consult with the Parts Technical Information Center for the replacement panel.

Potential Transformer



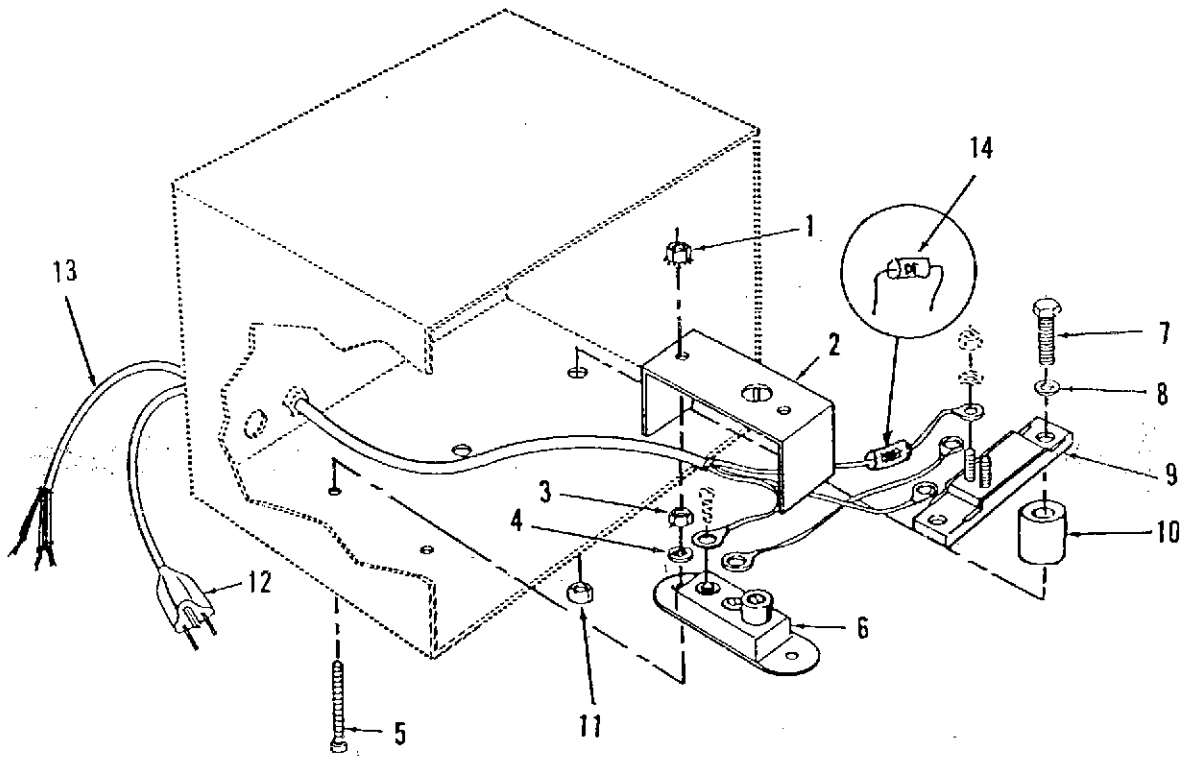
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0079	6	Screw, Machine - Round Head (#8-32 x 1/2")	6	332-2562	1	Block, Terminal (10 Place)
2	850-0025	6	Washer, Lock - Spring (#8)	7	332-2563	1	Strip, Marker
3	315-0642	3	Transformer, Potential	8	319-0032	1	Bracket, Mounting
4	812-0082	2	Screw, Machine - Round Head (#8-32 x 3/8")		812-0156	4	Attaching Parts for Bracket Screw, Machine - Round Head (1/4-20 x 1 1/2")
5	850-0025	2	Washer, Lock - Spring (#8)		850-0040	4	Washer, Lock - Spring (1/4")

Wattmeter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Cap - Hex Head (5/16-18 x 1/2")	9	338-1936	1	Harness, Wiring
2	850-0045	2	Washer, Lock (5/16)	10	302-1722	1	Wattmeter (Less Dial)
3	862-0014	2	Nut, Hex (5/16-18)	11			Dial, Wattmeter
4	860-0008	8	Nut, Hex (#8-32)		302-1721-06	1	Scale 0-160kW
5	856-0002	16	Washer, Lock - ET (#8)		302-1721-07	1	Scale 0-180kW
6	302-1833-01	1	Transducer, Watt		302-1721-08	1	Scale 0-200kW
7	402-0354	4	Mount, Shock	12	813-0102	2	Screw, Machine - Round Head (#10-32 x 3/8")
8	301-6987	1	Bracket, Mounting	13	319-0030	1	Plate, Support - Transducer

Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-locking - Hex (#6-32)	9	333-0151	1	Heater, Electrical 120VAC
2	301-1886	1	Cover		333-0378	1	240VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer
4	854-0006	2	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical (120VAC Application)
6	309-0128	1	Thermostat, Adjustable	13	338-2121	1	Harness Wiring with Diode, less plug (240VAC Application)
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")	14	357-0013	1	Diode
8	526-0113	2	Washer, Flat (5/16")	15	98-3232	1	Decal, Warning - Shock Hazard (Not Illustrated)