



Parts Manual

Generator Set

with PowerCommand® 2100 Controller

GGFD (Spec D-K)

GGFE (Spec D-K)

MODEL IDENTIFICATION

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

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION
AND DATE (IF APPLICABLE)

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.



This symbol warns of immediate hazards which will result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.

PRODUCT SAFETY PRECAUTIONS



Service and repair of Onan equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.



Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.



Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!



Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!

Introduction

This Parts Catalog applies to the Cummins Power Generation standard generator models GGFD and GGFE as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding with the same reference number in the parts list. Parts illustrations are typical. Unless otherwise mentioned in the description or the page heading, parts are interchangeable between models. Throughout this catalog left and right sides are determined by facing the engine (front) of the set unless noted in the description column.

Engine parts that have been modified or added by Cummins Power Generation are identified in this catalog. All other Engine replacement parts must be ordered from the engine manufacturer by referring to the engine manufacturers nameplate and supplying all available information. Contact your nearest engine parts distributor for assistance in ordering replacement parts.

Replacement Engine

Cummins Generator Model	Ford Engine Model / Base Engine Number
GGFD – Spec D	ESG6421-6005-A / 9C-722AA
GGFE – Spec D	ESG6421-6005-A / 9C-722AA
GGFD – Begin Spec E	ESG6421-6005-A / 5C-722AA
GGFE – Begin Spec E	ESG6421-6005-A / 5C-722AA

Replacement engines cannot be ordered from Cummins Power Generation. Order from your nearest Ford Distributor.

Generator Set Data Table

Model/Specification	Electrical Data					Battery Voltage
	Watts	Volts	Hertz	Wire	Phase	
35GGFD*	35,000	#	60	4,6,12	1 or 3	12 VDC
30GGFE*	30,000	#	50	4,6,12	1 or 3	12 VDC
35GGFE*	35,000	#	50	4,6,12	1 or 3	12 VDC
42GGFE*	42,000	#	60	4,6,12	1 or 3	12 VDC
47GGFE*	47,000	#	60	4,6,12	1 or 3	12 VDC

* The specification number denotes customer requested options or deviations from the Standard model. The specification letter advances with major manufacturing changes.

Broad Range Reconnectible.

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Abbreviations

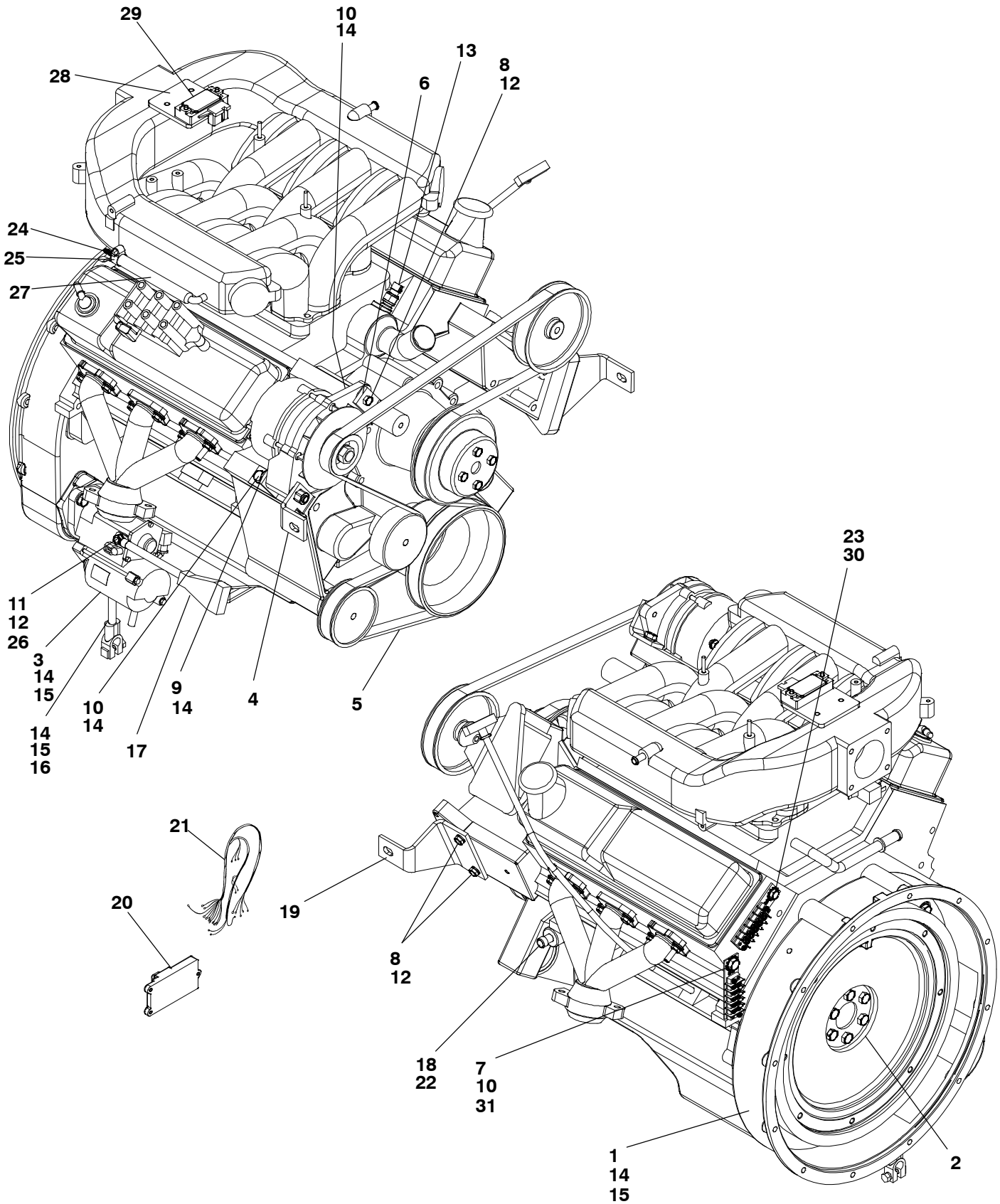
Some of the following abbreviations may be used throughout this Parts Catalog:

AC	Alternating Current	mm	Millimeter
Amp	Ampere	MOH	Mobile Off Highway
A/R	As Required	NFS	Not For Sale
AVR	Automatic Voltage Regulator	NPT	National Pipe Thread
AWG	American Wire Gauge	OD	Outside Diameter
Deg	Degree	oz.	Ounce
DC	Direct Current	PMG	Permanent Magnet Generator
EFC	Electronic Fuel Control	Ph	Phase
ET	External Tooth	PC	Printed Circuit
EIT	External/Internal Tooth	RFI	Radio Frequency Interference
GFI	Ground Fault Interrupter	RT	Right
ID	Inside Diameter	Spec	Specification
IT	Internal Tooth	Thk	Thick
IEC	International Electrotechnical Commission	UL	Underwriters Laboratories Inc.
kW	Kilowatt	UNC	Union National Coarse
LPG	Liquid Petroleum Gas	UNF	Union National Fine
LT	Left	VAC	Volts Alternating Current
M(meter Number)	Meter	VDC	Volts Direct Current
		W/(ET, IT, EIT)	With

Paint and Thread Sealant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Onan Green Enamel (Non-Metallic)				
	525-0305	-	12 oz. Pressurized Spray Can				
	525-0306	-	Quart Can				
	525-0304	-	Gallon Can				
	518-0601	-	Sealant, Thread (6 ml Tube)				

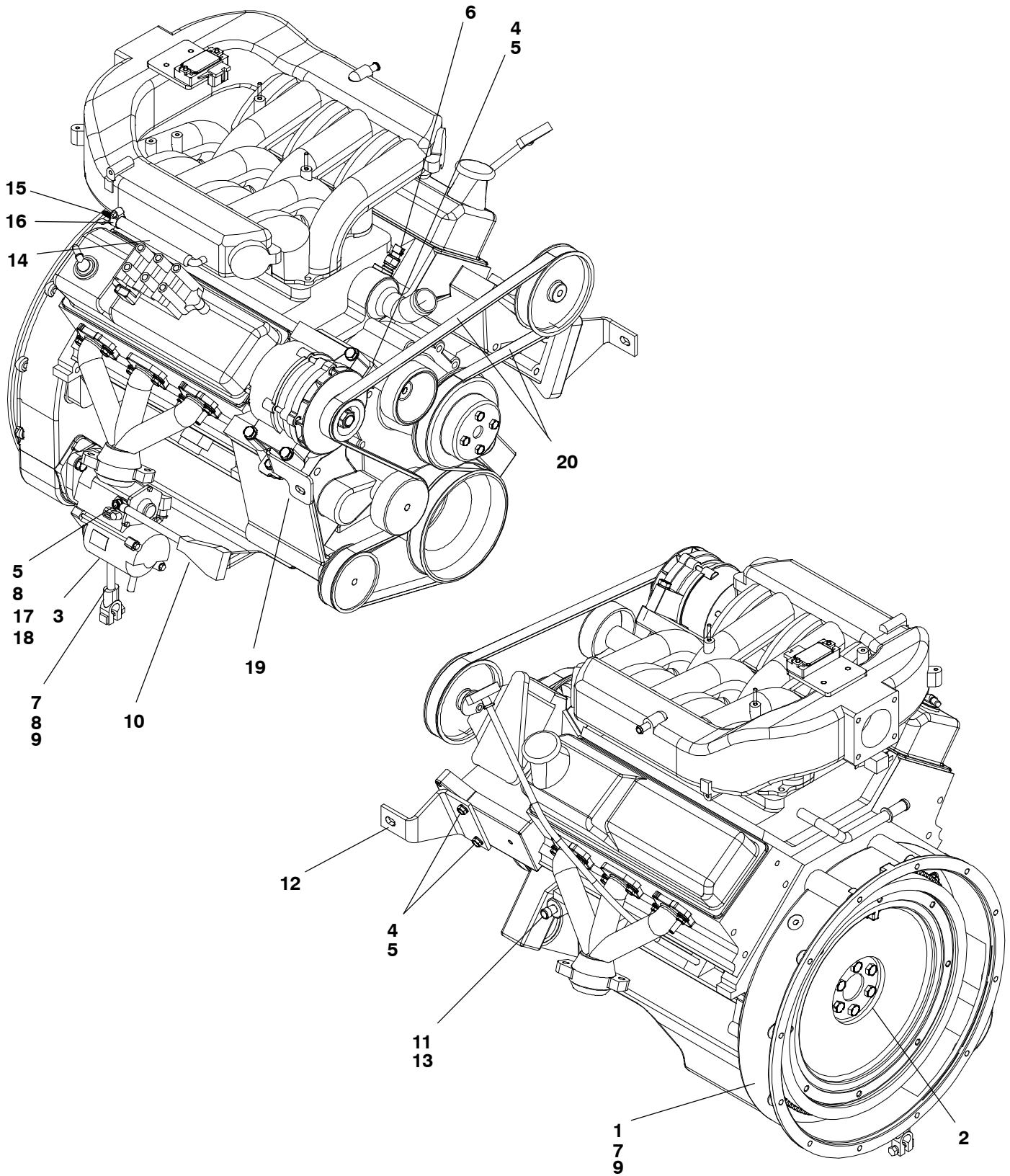
External Engine Parts Spec D-E



External Engine Parts Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	231-0395-02	1	Adapter, Generator	11	860-2008	2	Nut, Hex (M8 x 1.25)
2	104-1972	1	Flywheel and Ring Gear	12	850-2008	6	Washer, Lock – Split (M8)
3	191-2213	1	Starter (1.4 Kw) (See separate page for components)	13	193-0529-01	1	Sender, Water Temperature
4	191-2309-02	1	Bracket, Alternator	14	850-2010	12	Washer, Lock – Split (M10)
5	511-0161-19	1	Belt, Serpentine(In some applications,this belt may be shorter than the original belt provided with the generator set.This belt is designed to be routed as shown on page (6 or 8) of this manual,which omits routine around the idler pulley near the water pump and alternator.)	15	800-2088	8	Screw, Cap – Hex Head (M10 x 1.5 x 35)
6	191-2287-02	1	Bracket, Alternator	16	416-0549	2	Cable, Battery
7	856-0010	1	Washer – W/EIT (5/16)	17	416-1019	1	Boot, Battery
8	800-2059	3	Screw, Cap – Hex Head (M8 x 1.25 x 30)	18	193-0444	1	Sender, Oil Pressure
9	800-2097	1	Screw, Cap – Hex Head (M10 x 1.5 x 80)	19	155-3458-02	1	Bracket, Exhaust
10	800-2086	4	Screw, Cap – Hex Head (M10 x 1.5 x 25)	20	166-0884	1	Module, Ignition
				21	338-4285	1	Harness, Ignition
				22	505-0007	1	Bushing, Reducer (1/8 x 1/4)
				23	800-2057	1	Screw, Cap – Hex Head (M8 x 1.25 x 20)
				24	502-1299	1	Connector, Hose
				25	503-0446	1	Clamp, Hose
				26	416-1084	1	Boot, Starter
				27	503-2296-01	1	Hose, Breather (3/8 ID)
				28	193-0546	1	Bracket, Sensor – Map
				29	193-0545	1	Sensor, Map – Ignition
				30	856-0008	1	Washer – W/EIT (5/16)
				31	856-0010	1	Washer – W/EIT (3/8)

External Engine Parts Begin Spec F

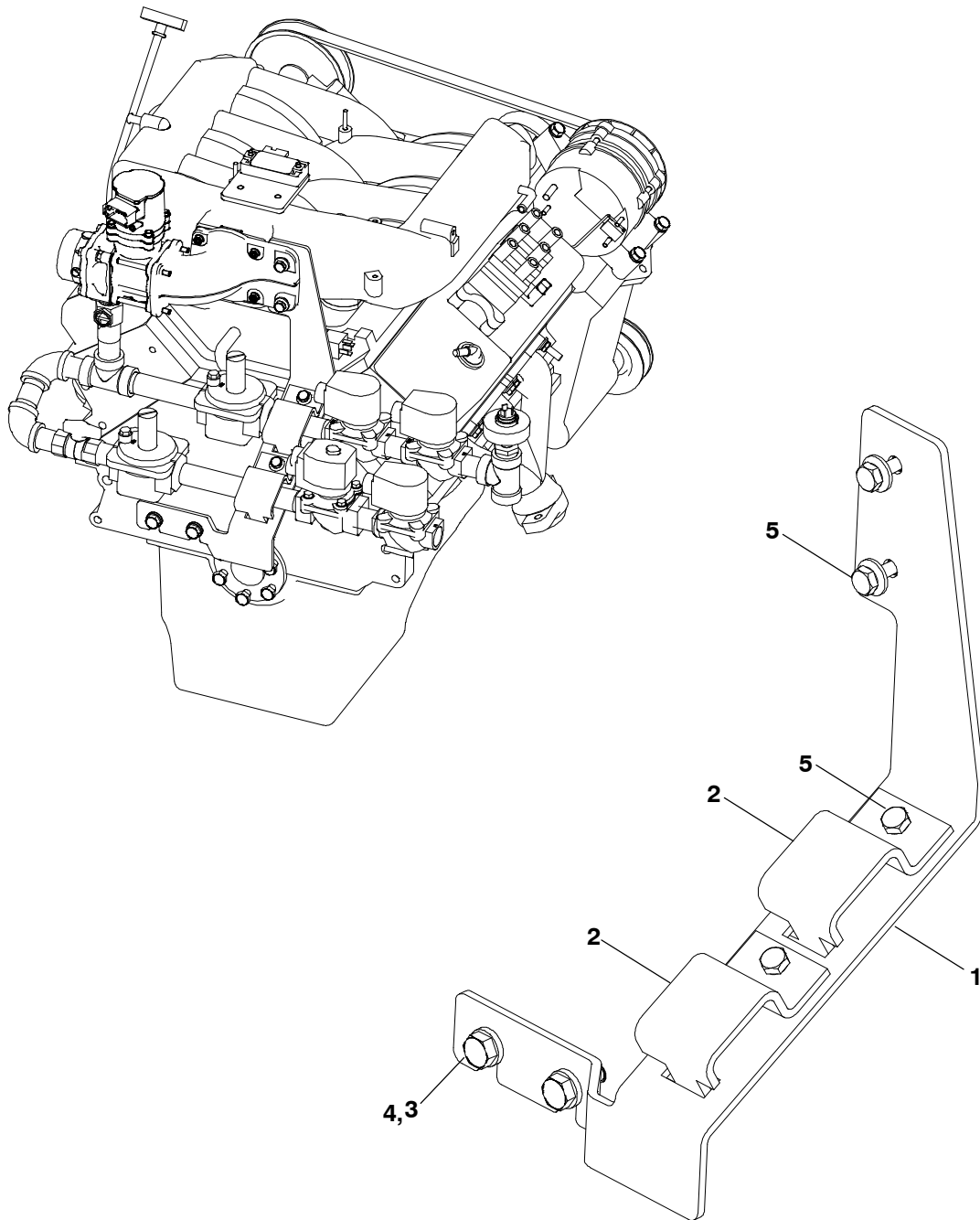


External Engine Parts

Begin Spec F

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	231-0395-02	1	Adapter, Generator	14	503-2296-01	1	Hose, Breather (3/8 ID)
2	104-1972	1	Flywheel and Ring Gear	15	502-1299	1	Connector, Hose
3	191-2213	1	Starter (1.4 Kw) (See separate page for components)	16	503-0446	1	Clamp, Hose
4	800-2059	3	Screw, Cap – Hex Head (M8 x 1.25 x 30)	17	416-1084	1	Boot, Starter
5	850-2008	4	Washer, Lock – Split (M8)	18	860-2008	1	Nut, Hex (M8 x 1.25)
6	193-0529-01	1	Sender, Water Temperature	19	155-4626-02	1	Bracket, Exhaust
7	850-2010	3	Washer, Lock – Split (M10)	20	511-0161-19	1	Belt, Serpentine (In some applications, this belt may be shorter than the original belt provided with the generator set. This belt is designed to be routed as shown on page (6 or 8) of this manual, which omits routing around the idler pulley near the water pump and alternator)
8	800-2088	4	Screw, Cap – Hex Head (M10 x 1.5 x 35)				
9	416-0549	2	Cable, Battery				
10	416-1019	1	Boot, Battery				
11	193-0444	1	Sender, Oil Pressure				
12	155-3458-02	1	Bracket, Exhaust				
13	505-0007	1	Bushing, Reducer (1/8 x 1/4)				

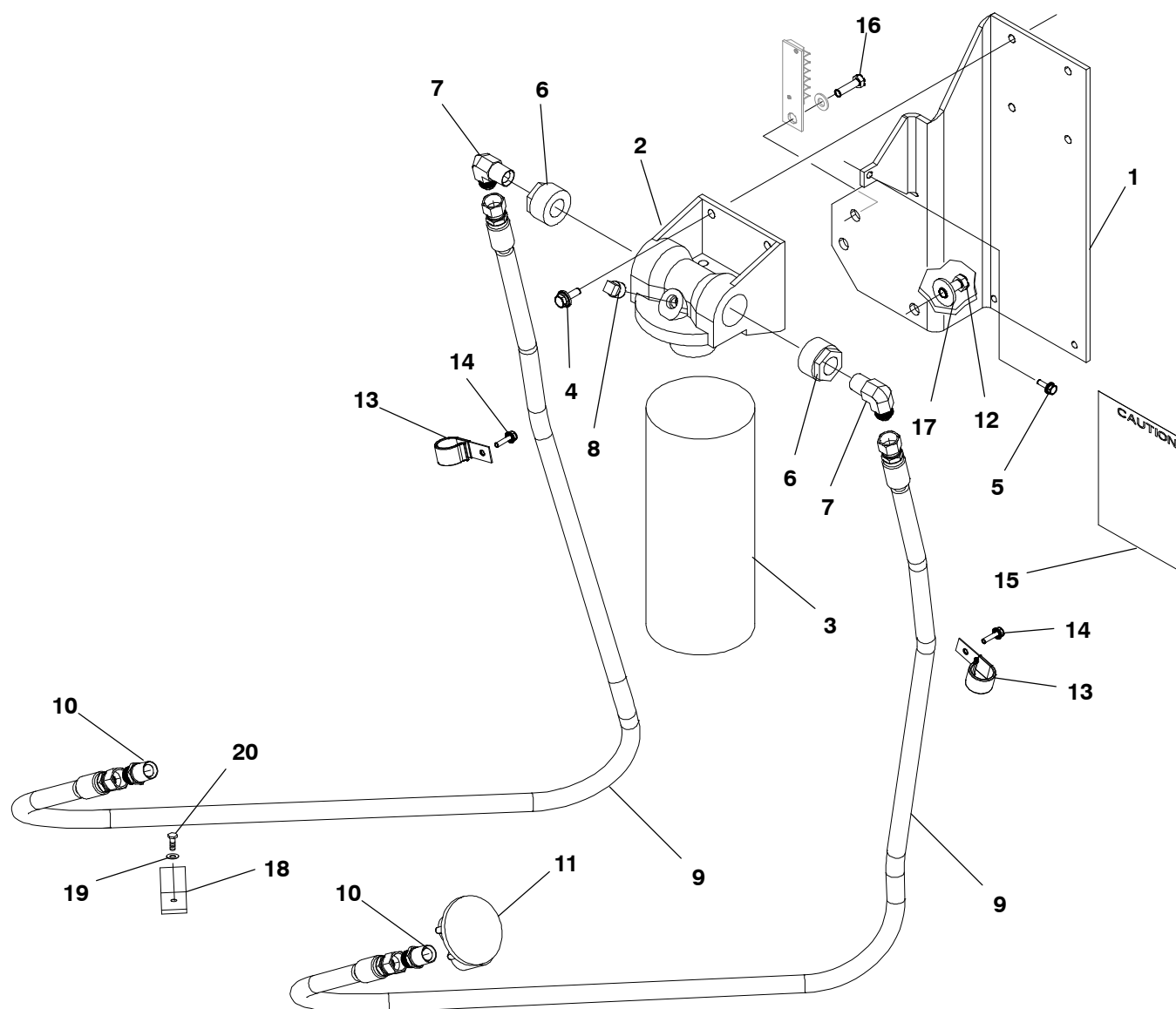
Engine Bracket Begin Spec K



Engine Bracket Begin Spec K

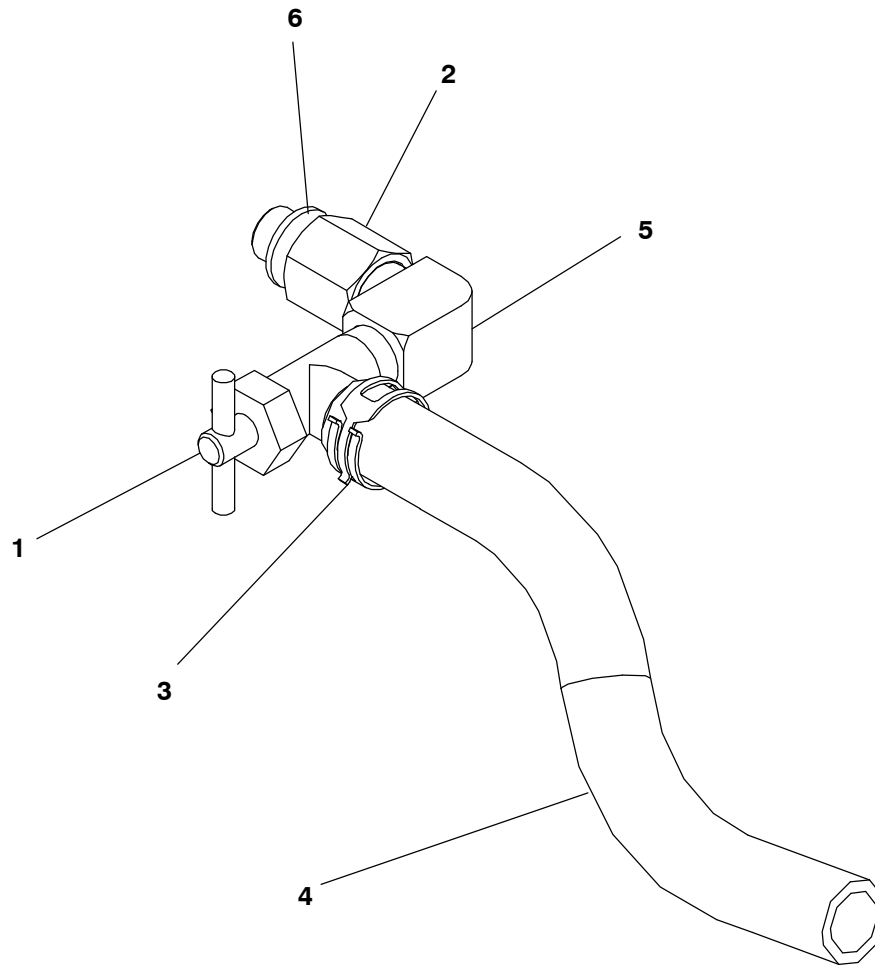
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1334-02	1	Bracket	6	150-2651	1	Sensor, Magnetic Pickup (not shown)
2	148-1194-02	2	Clamp				
3	526-0174	2	Washer, Flat				
4	800-2086	2	Screw, Hex-Head (M10 x 25)				
5	821-6003-03	4	Scerw, Hex-Head (M8 x 25)				

Oil System Heavy Duty



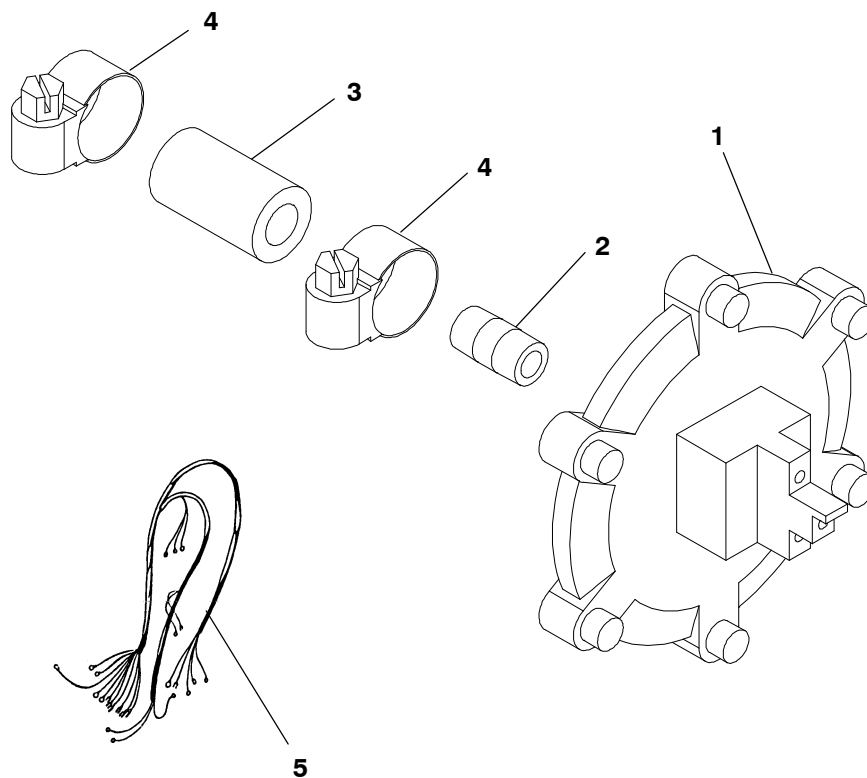
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	122-0855-02	1	Bracket, Oil Filter	12	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)
2	122-0857-02	1	Adapter, Oil Filter	13	332-3196	2	Clamp, J
3	122-0859	1	Filter, Oil	14	821-6002-04	2	Screw, Hex Head (M6 x 1 x 20)
4	821-6003-02	4	Screw, Hex Head (M8 x 1.25 x 20)	15	098-7937	1	Label, Caution
5	821-6002-03	3	Screw, Hex Head (M6 x 1 x 16)	16	800-2059	1	Screw, Cap – Hex Head (M8 x 1.25 x 30)
6	505-2030	2	Bushing, Reducer	17	526-0141	2	Washer, Flat
7	505-2029	2	Adapter, Pipe	18	332-2921	1	Clamp, J
8	502-0155	1	Plug, Square Head Pipe	19	526-0433	1	Washer, Flat (M12)
9	501-0728	2	Hose, Assembly	20	800-2543-02	1	Screw, Cap – Hex Head (M12 x 1.75 x 25)
10	502-1374-14	2	Connector, Male				
11	122-0858	1	Adapter, Oil Filter				

Oil Drain



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	504-0176	1	Valve, Oil Drain	4	503-1660-08	1	Hose, Oil Drain
2	102-1503-03	1	Adapter, Oil Drain	5	502-1180	1	Elbow, Street (90°)
3	503-0131	1	Clamp, Hose	6	102-0664	1	Gasket, Oil Drain

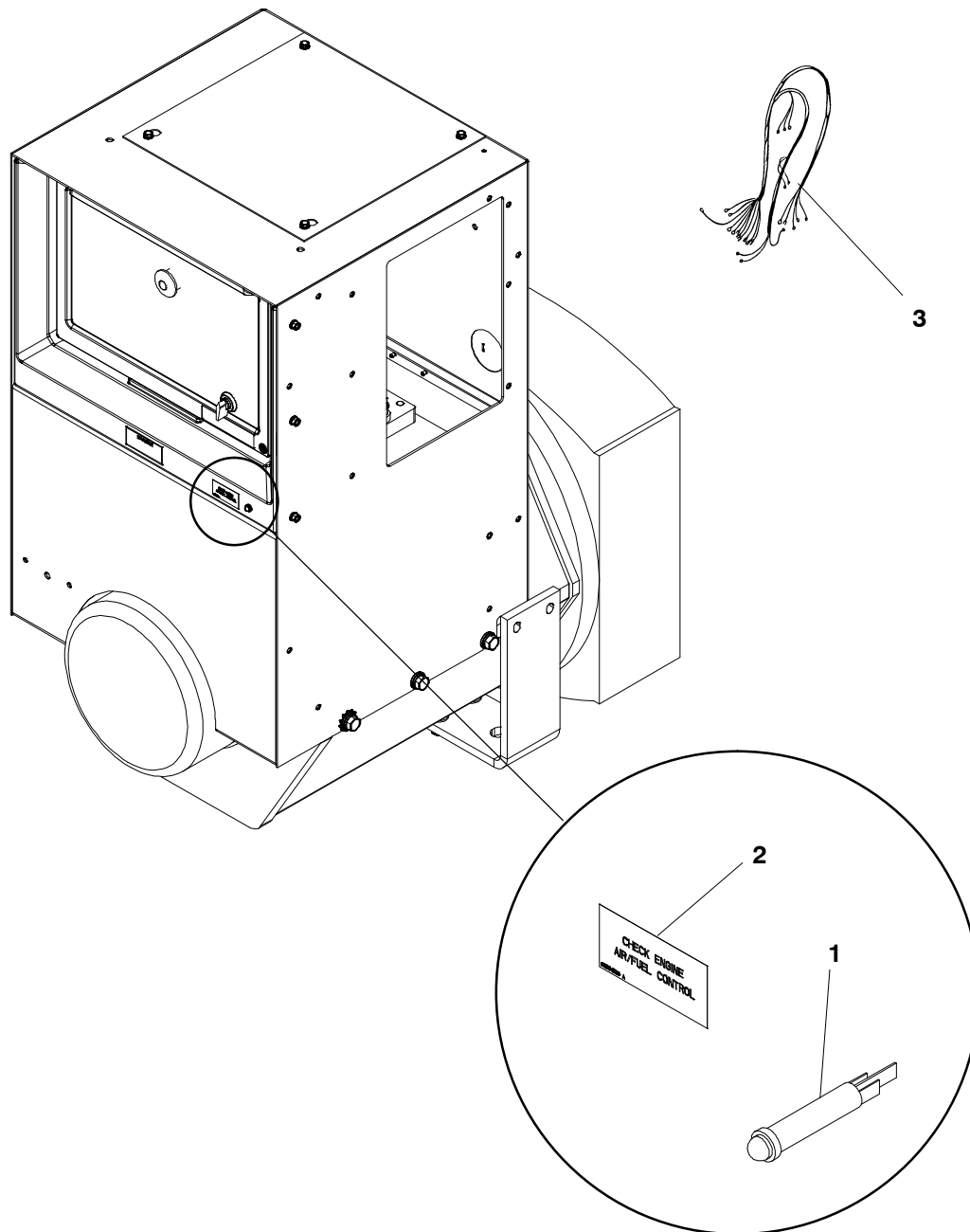
Vacuum Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1099	1	Switch, Vacuum
2	505-0098	1	Nipple, Pipe (1/8 x .75)
3	503-2004	-	Hose - Bulk (3/8 ID) (Order by the Foot - 1 Foot Required)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	503-0446	2	Clamp, Hose
5	338-3667	1	Harness, Wiring - Vacuum Switch

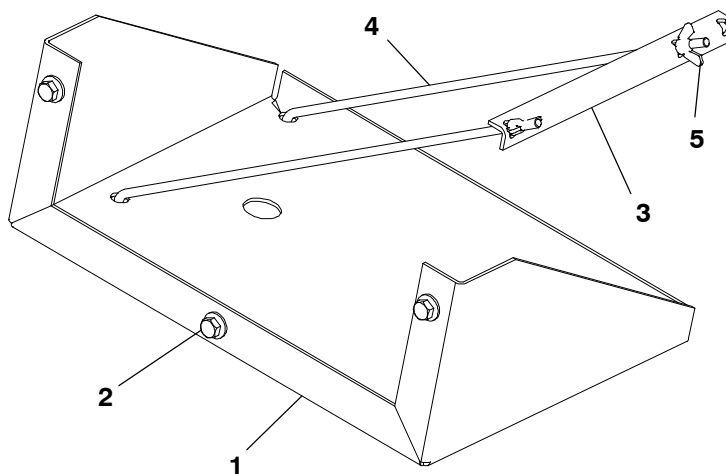
Check Engine Lamp Low Fuel Alarm Harness



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	322-0508	1	LED - Red (12 Volt)
2	098-8155	1	Label, Warning

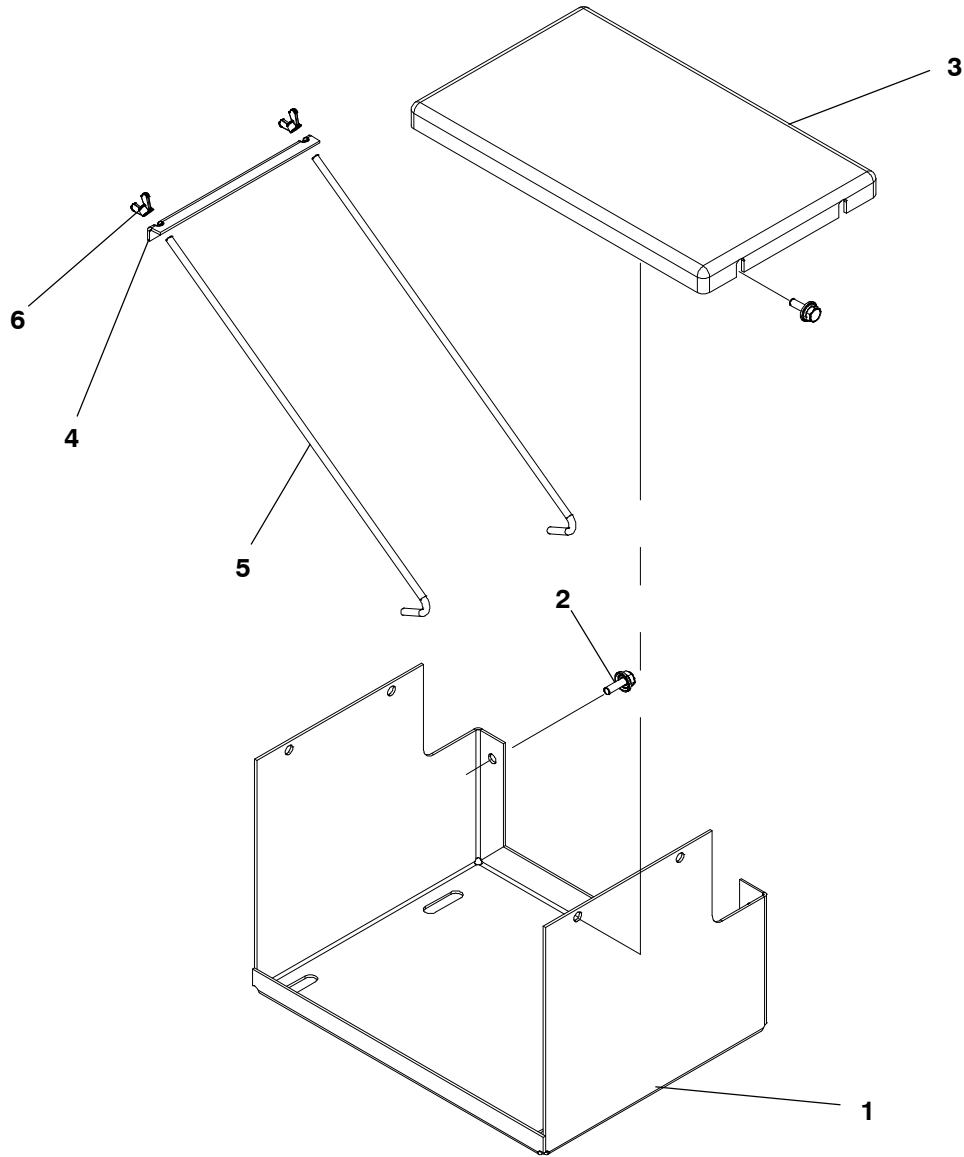
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	338-3740	1	Harness, Low Fuel Alarm

**Battery Tray
Standard
For Non-UL 2200 Approved Generator Sets**



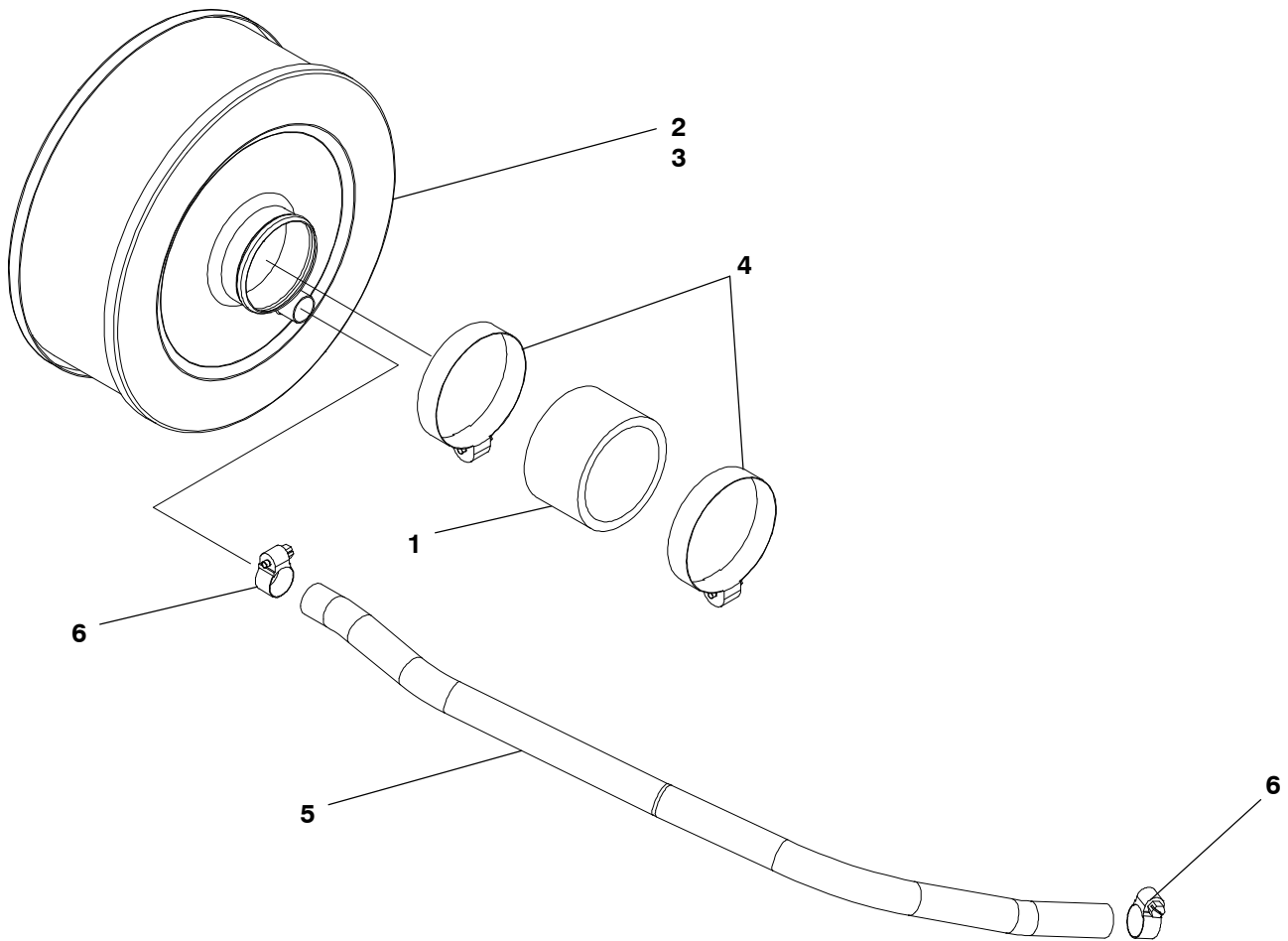
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4267	1	Tray, Battery	3	416-1033	1	Hold Down, Battery
2	821-6007-02	3	Screw, Hex Head – Stainless Steel (M8 x 1.25 x 20)	4	416-0993-02	2	Rod, Hold Down – Battery
				5	865-0030	2	Nut, Wing (M6)

Battery Tray **For UL 2200 Approved Generator Sets**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	416-1100-02	1	Tray, Battery	4	416-1103-02	1	Hold Down, Battery
2	821-6003-02	7	Screw, Hex Head (M8 x 1.25 x 20)	5	416-0993-02	2	Rod, Battery Hold Down
3	416-1101	1	Cover, Battery	6	865-0030	2	Nut, Wing

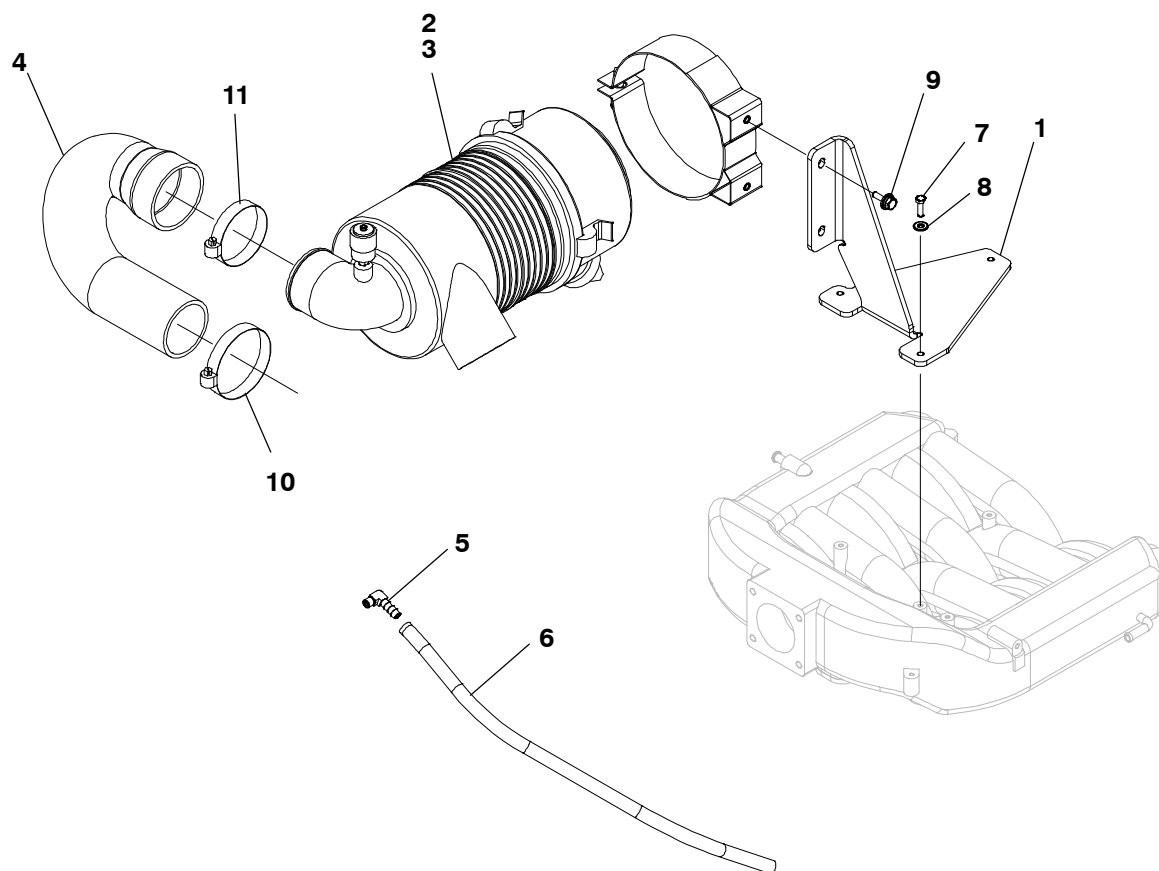
Air Cleaner Normal Duty



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-2254	1	Hose, Air
2	140-3387	1	Cleaner, Air
3	140-3147	1	Element, Replacement
4	503-1870-05	2	Clamp, Hose

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	503-2004	–	Hose, Breather – Bulk (Order by the Foot – 2 Feet Required)
6	503-0446	2	Clamp, Hose

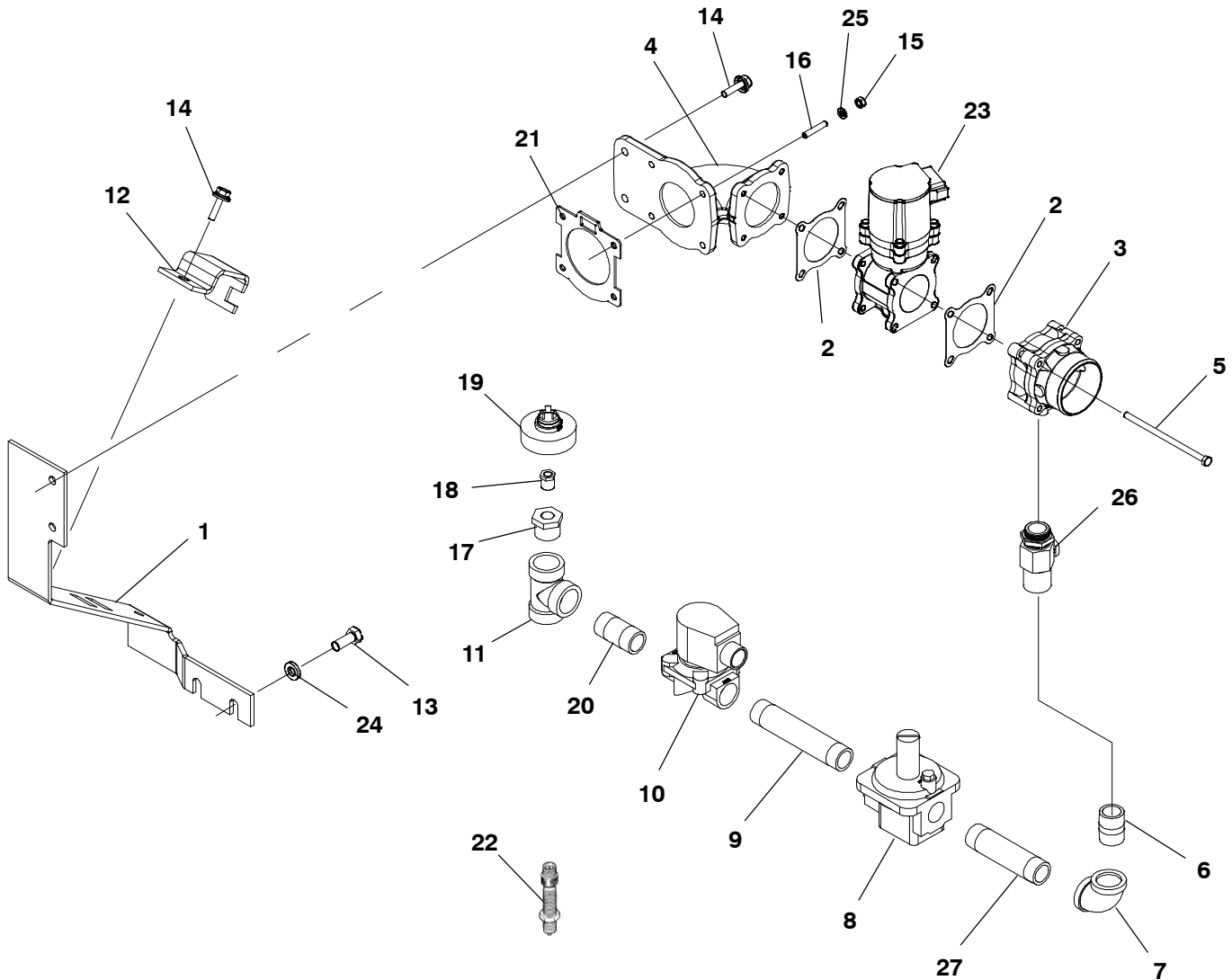
Air Cleaner Heavy Duty



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-3489-02	1	Bracket, Air Cleaner
2	140-3271	1	Cleaner, Air
3	140-3272	1	Element, Replacement
4	503-2275	1	Hose, Air Cleaner
5	502-1353-01	1	Elbow, Pipe - 90°
6	503-2296-03	1	Hose, Breather (3/8 ID)
7	800-2034	3	Screw, Cap - Hex Head (M6 x 1 x 20)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	526-0018	2	Washer, Flat (1/4)
9	821-6003-02	2	Screw, Hex Head (M8 x 1.25 x 20)
10	503-1870-05	1	Clamp, Hose
11	503-1870-06	1	Clamp, Hose

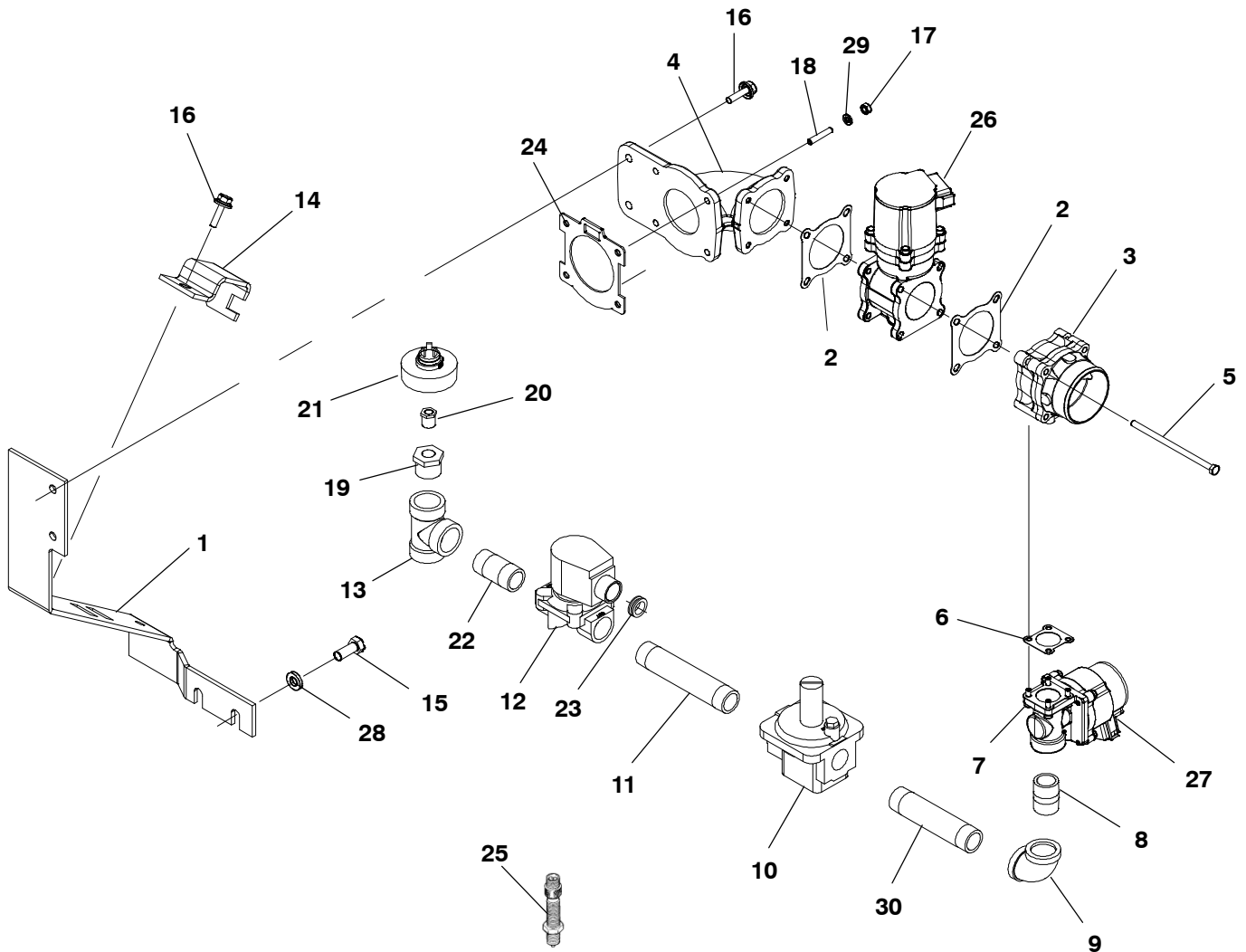
**Base Fuel System
Natural Gas / LP Vapor
Spec D-E**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	15	862-0026-54	4	Nut, Hex (M6 x 1)
2	145-0813	2	Gasket, Throttle Body	16	520-1024-01	4	Stud (M6)
3	148-1200-01	1	Mixer, ITB	17	505-0020	1	Bushing, Reducer (3/4 x 1/4) - With Pressure Switch
4	154-3137	1	Adapter, Intake	18	505-0007	1	Bushing, Reducer (1/4 x 1/8) - With Pressure Switch
5	815-1536	4	Screw, Cap - Hex Head (M6 x 1 x 110)	19	309-0669-01	1	Switch, Low Pressure
6	505-0102	1	Nipple, Pipe (3/4 x 1.38)	20	505-0085	1	Nipple, Pipe (3/4 x 2.00) - With Pressure Switch
7	505-0132	1	Elbow, Pipe	21	146-0807	1	Gasket, Throttle Body
8	148-1231	1	Regulator	22	150-2651	1	Pickup, Magnetic
9	505-0341	1	Nipple, Pipe (3/4 x 5.00)	23	150-2807	1	Actuator, Rotary (43mm)
10	307-2930	1	Valve, Solenoid	24	526-0174	2	Washer, Flat
11	505-0166	1	Tee - With Pressure Switch	25	850-0114-53	4	Washer, Lock - Split (M6)
12	148-1194-02	1	Clamp, Fuel System	26	504-0210	1	Valve, Fuel
13	800-2086	2	Screw, Cap - Hex Head (M10 x 1.5 x 25)	27	505-0343	1	Nipple, Pipe (3/4 x 1.38)
14	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)				

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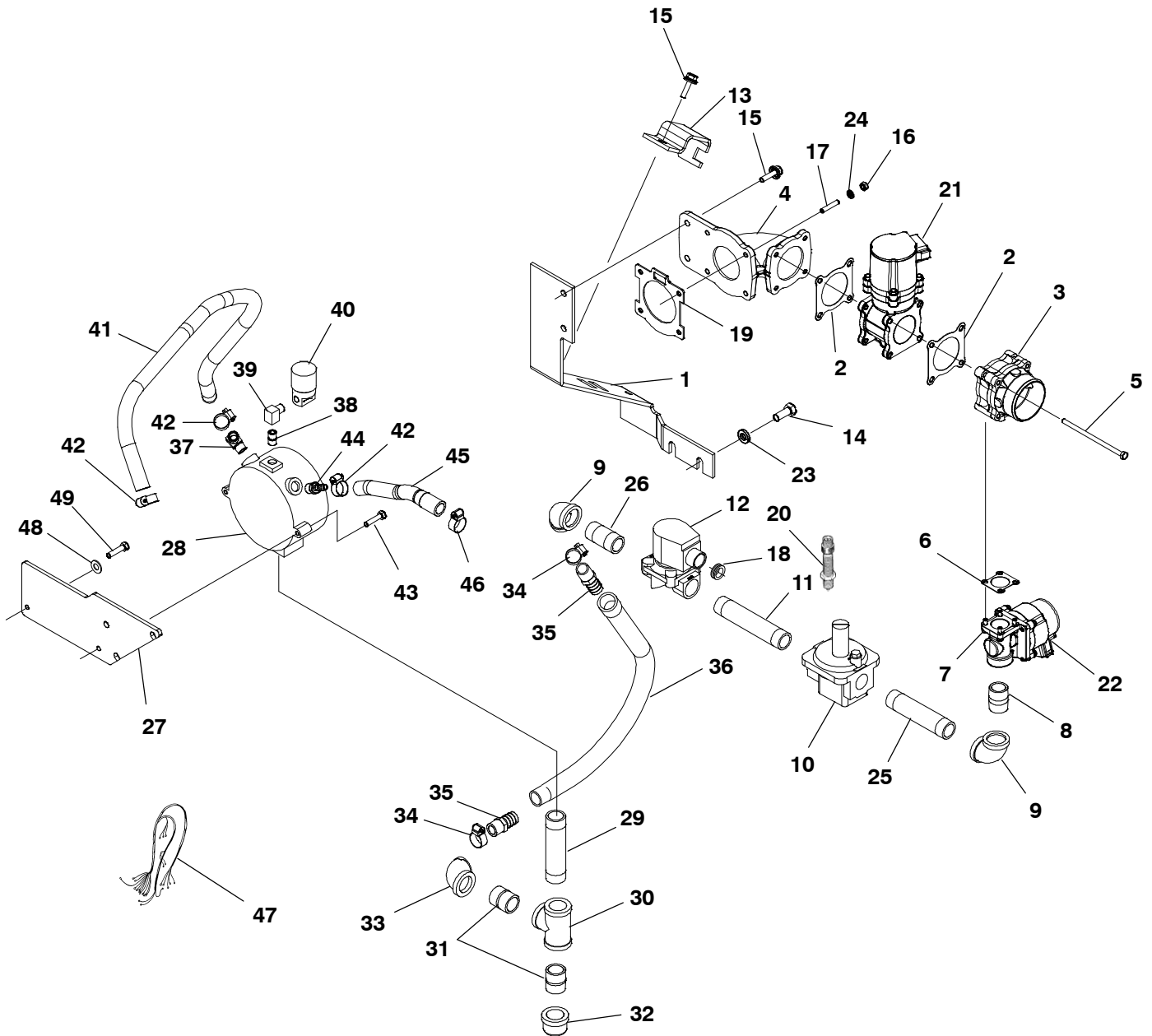
**Low Emission Fuel System
Natural Gas / LP Vapor
Spec D-E**



**Low Emission Fuel System
Natural Gas / LP Vapor
Spec D-E**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	17	862-0026-54	4	Nut, Hex (M6 x 1)
2	145-0813	2	Gasket, Throttle Body	18	520-1024-01	4	Stud (M6)
3	148-1200-01	1	Mixer, ITB	19	505-0020	1	Bushing, Reducer (3/4 x 1/4) – With Pressure Switch
4	154-3137	1	Adapter, Intake	20	505-0007	1	Bushing, Reducer (1/4 x 1/8) – With Pressure Switch
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	21	309-0669-01	1	Switch, Low Pressure
6	148-1241	1	Gasket, Mixer	22	505-0085	1	Nipple, Pipe (3/4 x 2.00) – With Pressure Switch
7	802-2537	4	Screw, Cap – Socket Head	23	508-1158	1	Grommet
8	505-0102	1	Nipple, Pipe (3/4 x 1.38)	24	146-0807	1	Gasket, Throttle Body
9	505-0132	1	Elbow, Pipe	25	150-2651	1	Pickup, Magnetic
10	148-1231	1	Regulator	26	150-2807	1	Actuator, Rotary (43mm)
11	505-0341	1	Nipple, Pipe (3/4 x 5.00)	27	300-5530-01	1	Control
12	307-2930	1	Valve, Solenoid	28	526-0174	2	Washer, Flat
13	505-0166	1	Tee – With Pressure Switch	29	850-0114-53	4	Washer, Lock – Split (M6)
14	148-1194-02	1	Clamp, Fuel System	30	505-0343	1	Nipple, Pipe (3/4 x 4.50)
15	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)				
16	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)				

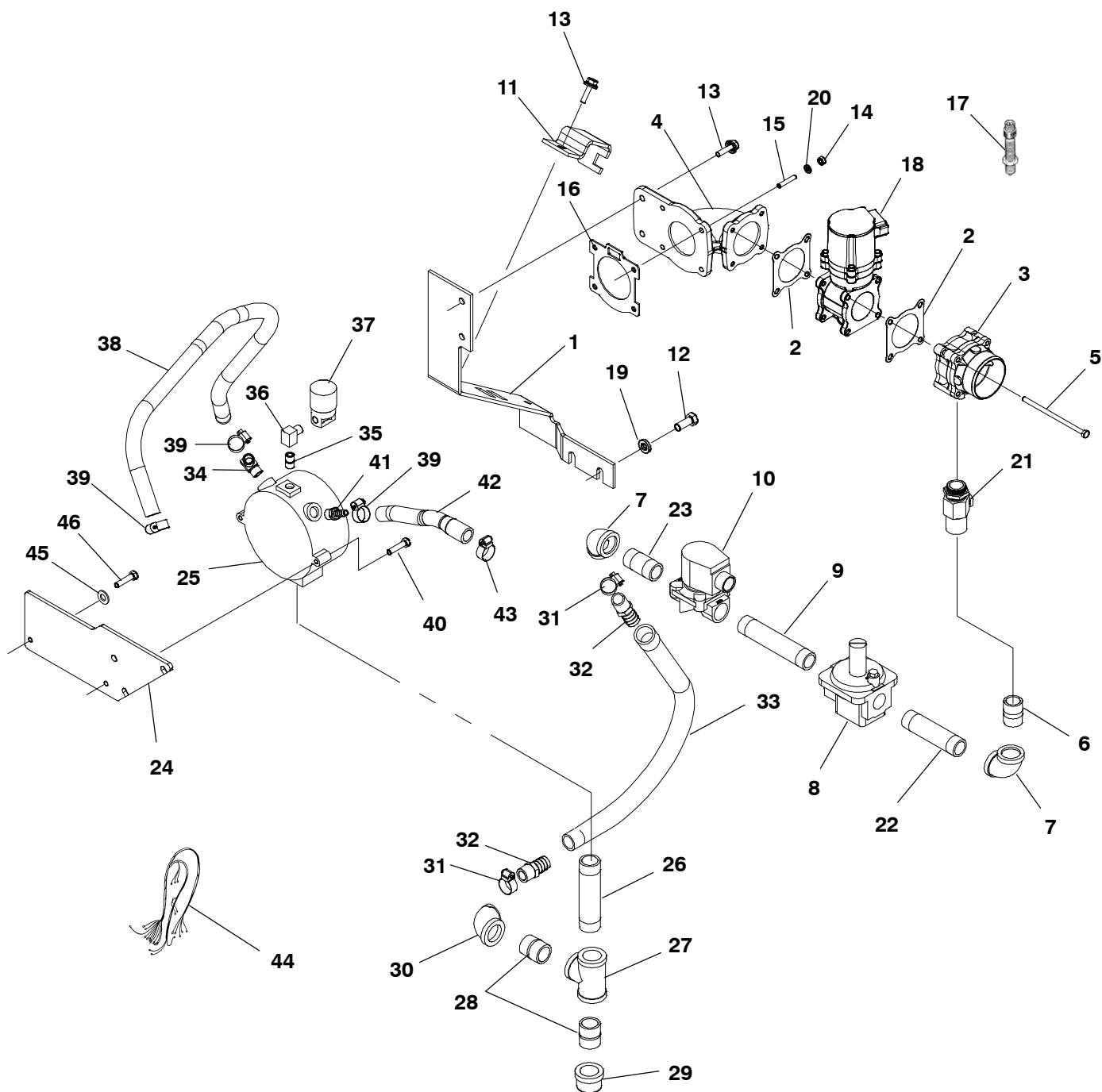
Low Emission Fuel System LP Liquid Spec D-E



Low Emission Fuel System
LP Liquid
Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	24	850-0114-53	4	Washer, Lock – Split (M6)
2	145-0813	2	Gasket, Throttle Body	25	505-0343	1	Nipple, Pipe (3/4 x 4.5)
3	148-1200-01	1	Mixer, ITB	26	505-0085	1	Nipple, Pipe (3/4 x 2.00)
4	154-3137	1	Adapter, Intake	27	148-1239-02	1	Bracket, Converter
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	28	148-1240	1	Converter
6	148-1241	1	Gasket, Mixer – With Low Emission	29	505-0089	1	Nipple, Pipe (1 x 5.0)
7	802-2537	4	Screw, Cap – Socket Head – With Low Emission	30	505-0304	1	Tee
8	505-0102	1	Nipple, Pipe (3/4 x 1.38)	31	505-0004	2	Nipple, Close
9	505-0132	2	Elbow, Pipe	32	505-0479	1	Cap, Pipe
10	148-1231	1	Regulator	33	505-0356	1	Elbow, Reducer
11	505-0341	1	Nipple, Pipe (3/4 x 5.00)	34	503-2157-02	2	Clamp, Hose
12	307-2886	1	Valve, Solenoid	35	502-0836	2	Hose, Barb (3/4)
13	148-1194-02	1	Clamp, Fuel System	36	503-1565	1	Hose, Fuel (3/4 ID)
14	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	37	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
15	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)	38	505-0099	1	Nipple, Close (1/4 x .88)
16	862-0026-54	4	Nut, Hex (M6 x 1)	39	502-0054	1	Elbow, Street
17	520-1024-01	4	Stud (M6)	40	307-0268-01	1	Valve, Solenoid
18	508-1158	1	Grommet	41	503-2293-01	1	Hose, Coolant
19	146-0807	1	Gasket, Throttle Body	42	503-0183	3	Clamp, Hose
20	150-2651	1	Pickup, Magnetic	43	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
21	150-2807	1	Actuator, Rotary (43mm)	44	502-0943	1	Adapter, Pipe
22	300-5530-01	1	Control	45	503-2185-02	1	Hose, Coolant
23	526-0174	2	Washer, Flat	46	503-1136	1	Clamp, Hose
				47	338-4395	1	Harness, Wiring – Jumper
				48	526-0174	3	Washer (3/8)
				49	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)

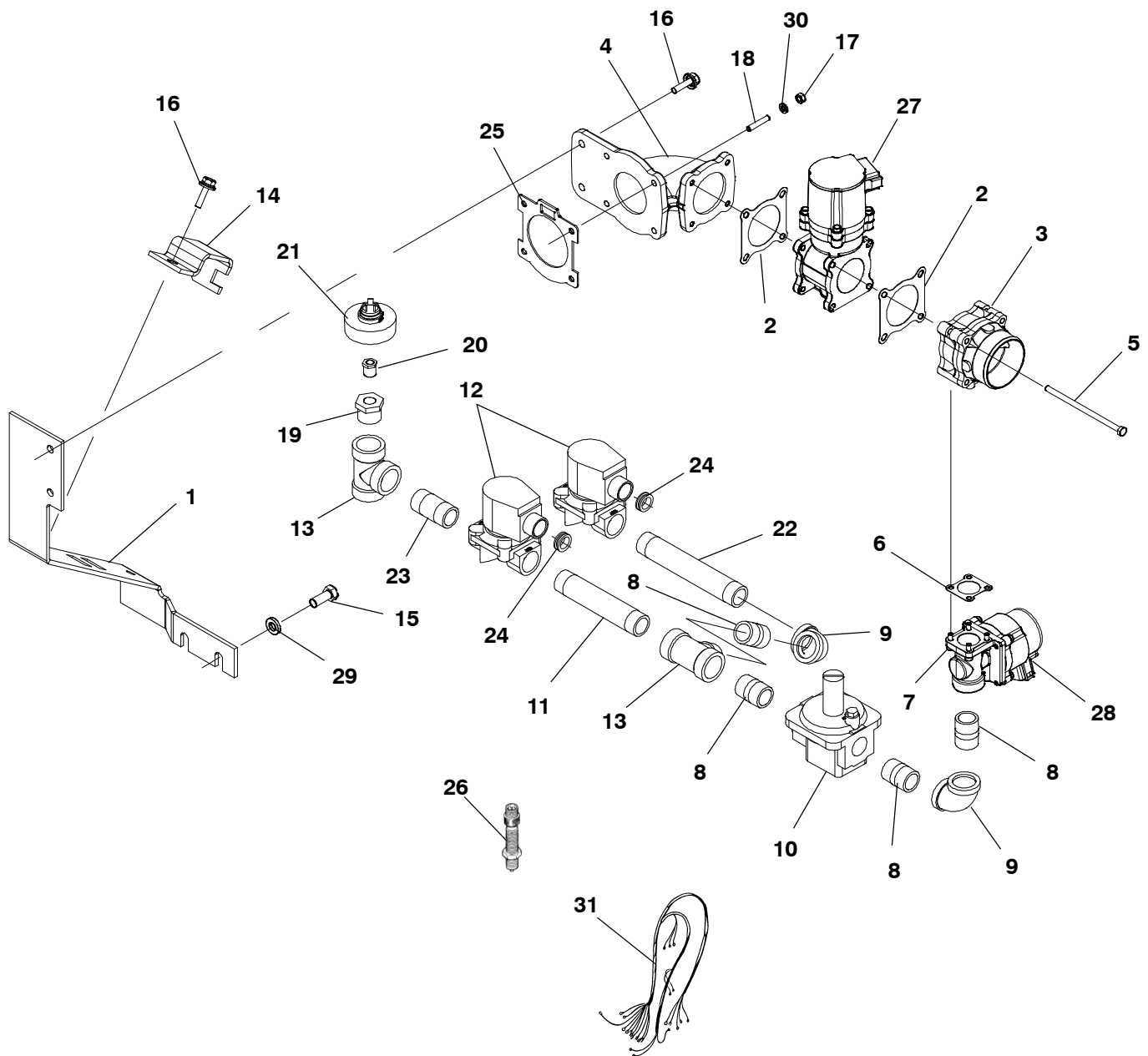
Base Fuel System **LP Liquid** **Spec D-E**



**Base Fuel System
LP Liquid
Spec D-E**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	24	148-1239-02	1	Bracket, Converter
2	145-0813	2	Gasket, Throttle Body	25	148-1240	1	Converter
3	148-1200-01	1	Mixer, ITB	26	505-0089	1	Nipple, Pipe (1 x 5.0)
4	154-3137	1	Adapter, Intake	27	505-0304	1	Tee
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	28	505-0004	2	Nipple, Close
6	505-0102	1	Nipple, Pipe (3/4 x 1.38)	29	505-0479	1	Cap, Pipe
7	505-0132	2	Elbow, Pipe	30	505-0356	1	Elbow, Reducer
8	148-1231	1	Regulator	31	503-2157-02	2	Clamp, Hose
9	505-0341	1	Nipple, Pipe (3/4 x 5.00)	32	502-0836	2	Hose, Barb (3/4)
10	307-2930	1	Valve, Solenoid	33	503-1565	1	Hose, Fuel (3/4 ID)
11	148-1194-02	1	Clamp, Fuel System	34	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
12	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	35	505-0099	1	Nipple, Close (1/4 x .88)
13	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)	36	502-0054	1	Elbow, Street
14	862-0026-54	4	Nut, Hex (M6 x 1)	37	307-0268-01	1	Valve, Solenoid
15	520-1024-01	4	Stud (M6)	38	503-2293-01	1	Hose, Coolant
16	146-0807	1	Gasket, Throttle Body	39	503-0183	3	Clamp, Hose
17	150-2651	1	Pickup, Magnetic	40	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
18	150-2807	1	Actuator, Rotary (43mm)	41	502-0943	1	Adapter, Pipe
19	526-0174	2	Washer, Flat	42	503-2185-02	1	Hose, Coolant
20	850-0114-53	4	Washer, Lock – Split (M6)	43	503-1136	1	Clamp, Hose
21	504-0210	1	Valve, Fuel	44	338-4395	1	Harness, Wiring – Jumper
22	505-0343	1	Nipple, Pipe (3/4 x 1.38)	45	526-0174	3	Washer (3/8)
23	505-0085	1	Nipple, Pipe (3/4 x 2.00)	46	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)

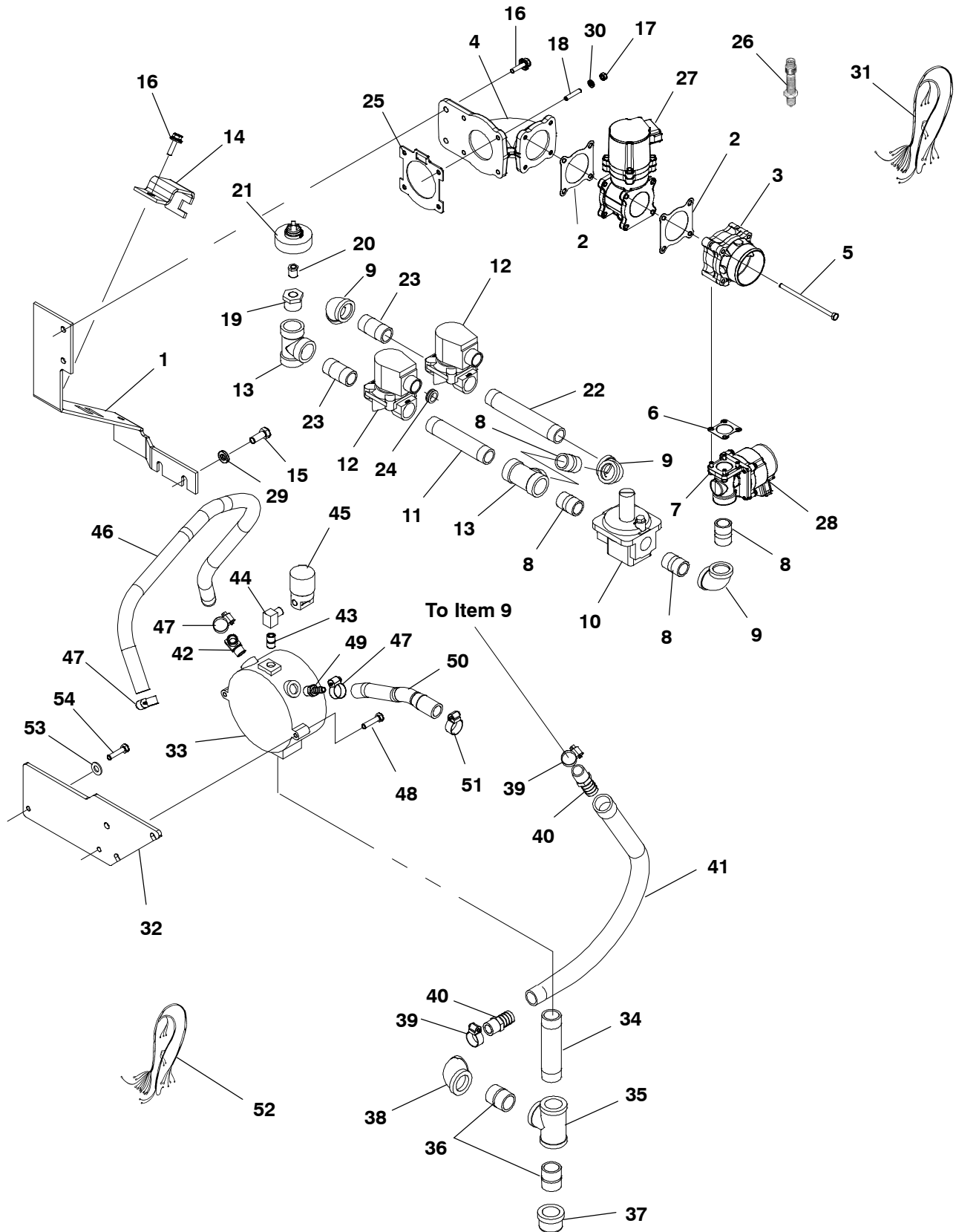
**Low Emission Fuel System
Natural Gas / LP Vapor With Automatic Changeover
Spec D-E**



Low Emission Fuel System
Natural Gas / LP Vapor With Automatic Changeover
Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	17	862-0026-54	4	Nut, Hex (M6 x 1)
2	145-0813	2	Gasket, Throttle Body	18	520-1024-01	4	Stud (M6)
3	148-1200-01	1	Mixer, ITB	19	505-0020	1	Bushing, Reducer (3/4 x 1/4) – With Pressure Switch
4	154-3137	1	Adapter, Intake	20	505-0007	1	Bushing, Reducer (1/4 x 1/8) – With Pressure Switch
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	21	309-0669-01	1	Switch, Low Pressure
6	148-1241	1	Gasket, Mixer – With Low Emission	22	505-0754	1	Nipple, Pipe (3/4 x 6.00)
7	802-2537	4	Screw, Cap – Socket Head – With Low Emission	23	505-0085	1	Nipple, Pipe (3/4 x 2.00) – With Pressure Switch
8	505-0102	4	Nipple, Pipe (3/4 x 1.38)	24	508-1158	2	Grommet
9	505-0132	2	Elbow, Pipe	25	146-0807	1	Gasket, Throttle Body
10	148-1231	1	Regulator	26	150-2651	1	Pickup, Magnetic
11	505-0341	1	Nipple, Pipe (3/4 x 5.00)	27	150-2807	1	Actuator, Rotary (43mm)
12	307-2930	2	Valve, Solenoid	28	300-5530-01	1	Control
13	505-0166	2	Tee – With Pressure Switch	29	526-0174	2	Washer, Flat
14	148-1194-02	2	Clamp, Fuel System	30	850-0114-53	4	Washer, Lock – Split (M6)
15	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	31	338-3816-01	1	Harness, Dual Fuel
16	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)				

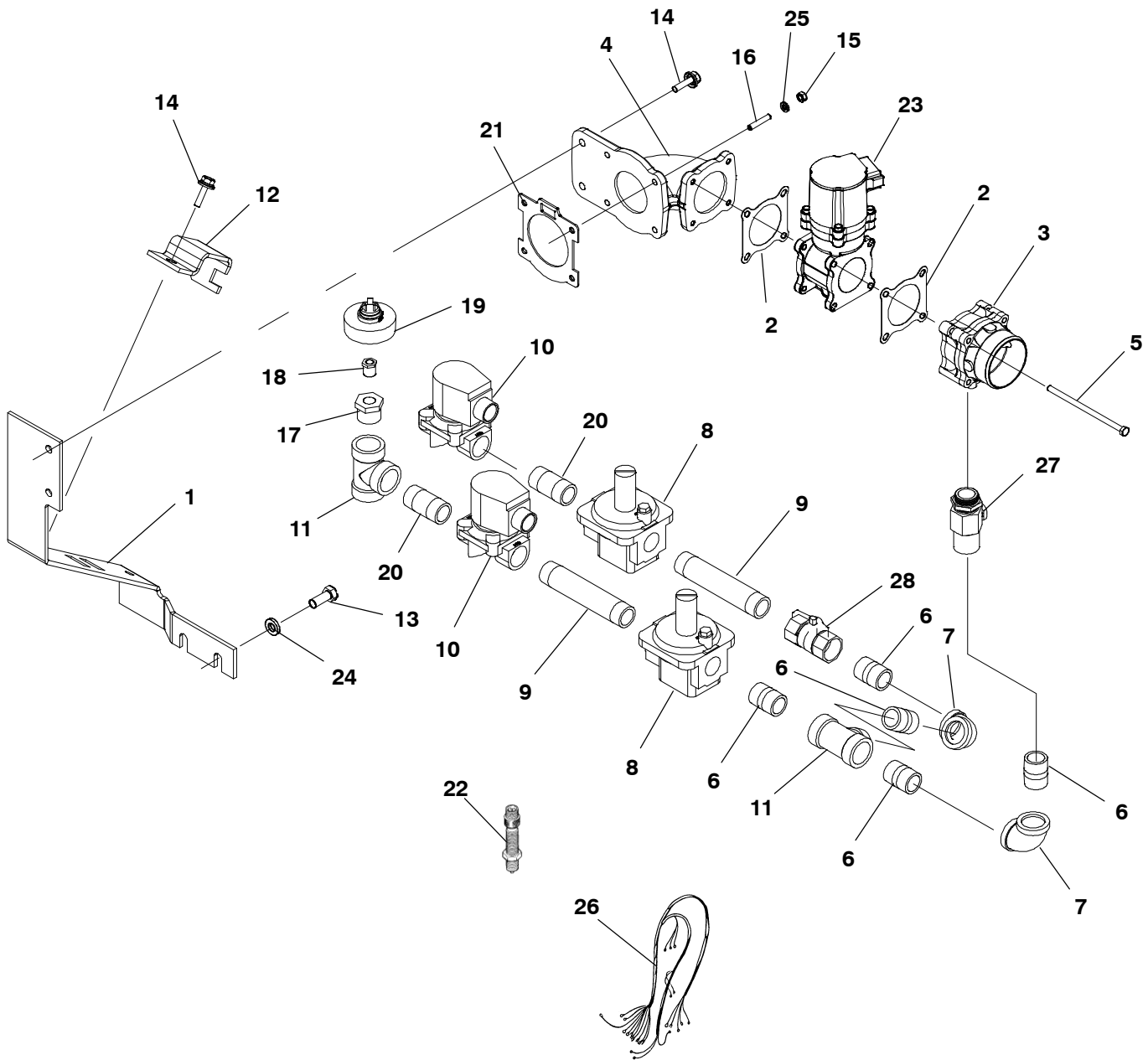
**Low Emission Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Spec D-E**



Low Emission Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	25	146-0807	1	Gasket, Throttle Body
2	145-0813	2	Gasket, Throttle Body	26	150-2651	1	Pickup, Magnetic
3	148-1200-01	1	Mixer, ITB	27	150-2807	1	Actuator, Rotary (43mm)
4	154-3137	1	Adapter, Intake	28	300-5530-01	1	Control
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	29	526-0174	2	Washer, Flat
6	148-1241	1	Gasket, Mixer – With Low Emission	30	850-0114-53	4	Washer, Lock – Split (M6)
7	802-2537	4	Screw, Cap – Socket Head – With Low Emission	31	338-3816-01	1	Harness, Dual Fuel
8	505-0102	4	Nipple, Pipe (3/4 x 1.38)	32	148-1239-02	1	Bracket, Converter
9	505-0132	3	Elbow, Pipe	33	148-1240	1	Converter
10	148-1231	1	Regulator	34	505-0089	1	Nipple, Pipe (1 x 5.0)
11	505-0341	1	Nipple, Pipe (3/4 x 5.00)	35	505-0304	1	Tee
12	307-2930	2	Valve, Solenoid	36	505-0004	2	Nipple, Close
13	505-0166	2	Tee – With Pressure Switch	37	505-0479	1	Cap, Pipe
14	148-1194-02	2	Clamp, Fuel System	38	505-0356	1	Elbow, Reducer
15	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	39	503-2157-02	2	Clamp, Hose
16	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)	40	502-0836	2	Hose, Barb (3/4)
17	862-0026-54	4	Nut, Hex (M6 x 1)	41	503-2358	1	Hose, Fuel (3/4 ID)
18	520-1024-01	4	Stud (M6)	42	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
19	505-0020	1	Bushing, Reducer (3/4 x 1/4) – With Pressure Switch	43	505-0099	1	Nipple, Close (1/4 x .88)
20	505-0007	1	Bushing, Reducer (1/4 x 1/8) – With Pressure Switch	44	502-0054	1	Elbow, Street
21	309-0669-01	1	Switch, Low Pressure	45	307-0268-01	1	Valve, Solenoid
22	505-0754	1	Nipple, Pipe (3/4 x 6.00)	46	503-2293-01	1	Hose, Coolant
23	505-0085	2	Nipple, Pipe (3/4 x 2.00) – With Pressure Switch	47	503-0183	3	Clamp, Hose
24	508-1158	1	Grommet	48	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
				49	502-0943	1	Adapter, Pipe
				50	503-2185-02	1	Hose, Coolant
				51	503-1136	1	Clamp, Hose
				52	338-4395	1	Harness, Wiring – Jumper
				53	526-0174	3	Washer (3/8)
				54	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)

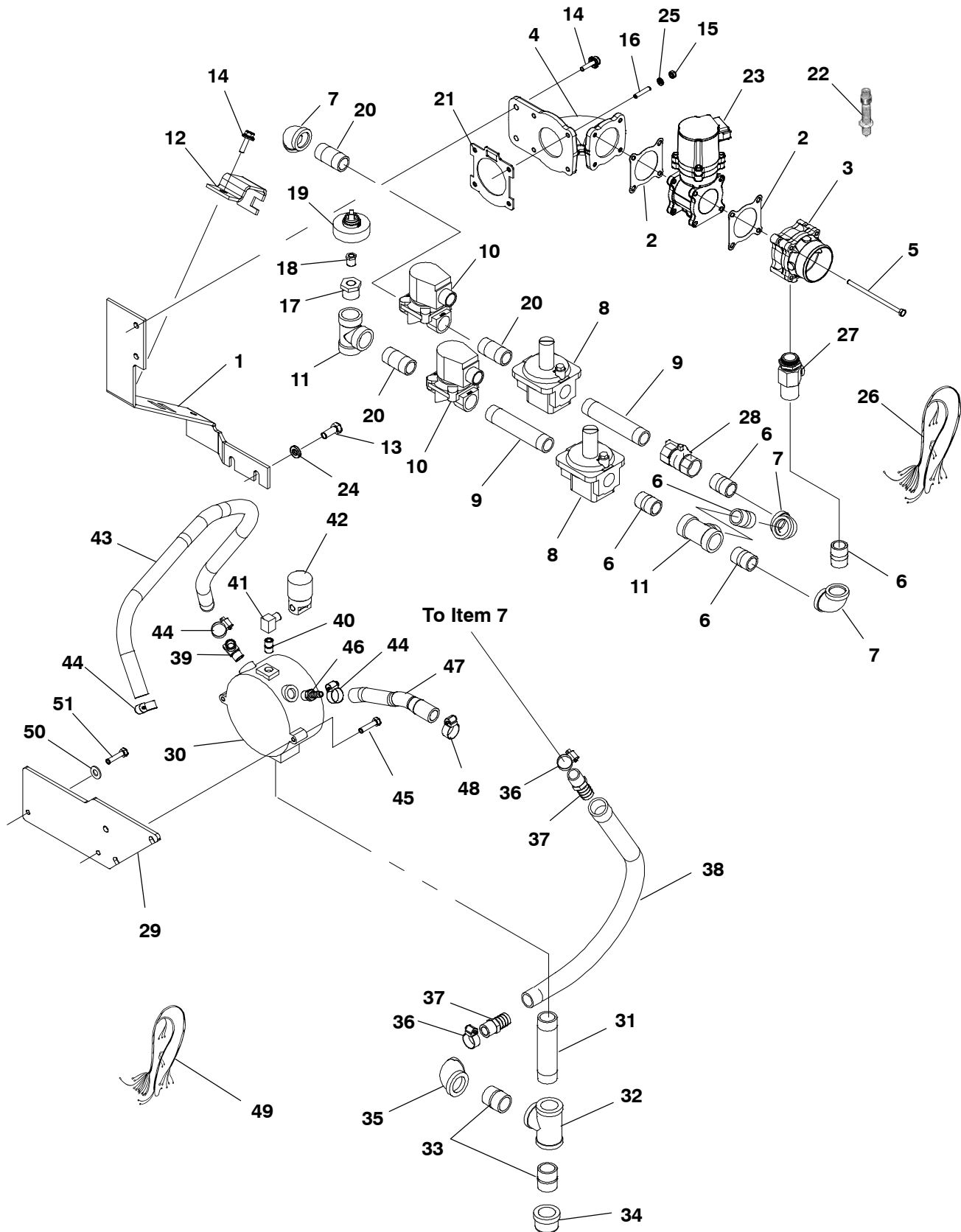
Base Fuel System
Natural Gas / LP Vapor With Automatic Changeover
Spec D-E



Base Fuel System
Natural Gas / LP Vapor With Automatic Changeover
Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	15	862-0026-54	4	Nut, Hex (M6 x 1)
2	145-0813	2	Gasket, Throttle Body	16	520-1024-01	4	Stud (M6)
3	148-1200-01	1	Mixer, ITB	17	505-0020	1	Bushing, Reducer (3/4 x 1/4)
4	154-3137	1	Adapter, Intake	18	505-0007	1	Bushing, Reducer (1/4 x 1/8)
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	19	309-0669-01	1	Switch, Low Pressure
6	505-0102	5	Nipple, Pipe (3/4 x 1.38)	20	505-0085	2	Nipple, Pipe (3/4 x 2.00)
7	505-0132	2	Elbow, Pipe	21	146-0807	1	Gasket, Throttle Body
8	148-1231	2	Regulator	22	150-2651	1	Pickup, Magnetic
9	505-0341	2	Nipple, Pipe (3/4 x 5.00)	23	150-2807	1	Actuator, Rotary (43mm)
10	307-2930	2	Valve, Solenoid	24	526-0174	2	Washer, Flat
11	505-0166	2	Tee	25	850-0114-53	4	Washer, Lock – Split (M6)
12	148-1194-02	2	Clamp, Fuel System	26	338-3816-01	1	Harness, Dual Fuel
13	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	27	504-0210	1	Valve, Fuel
14	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)	28	504-0171	1	Valve

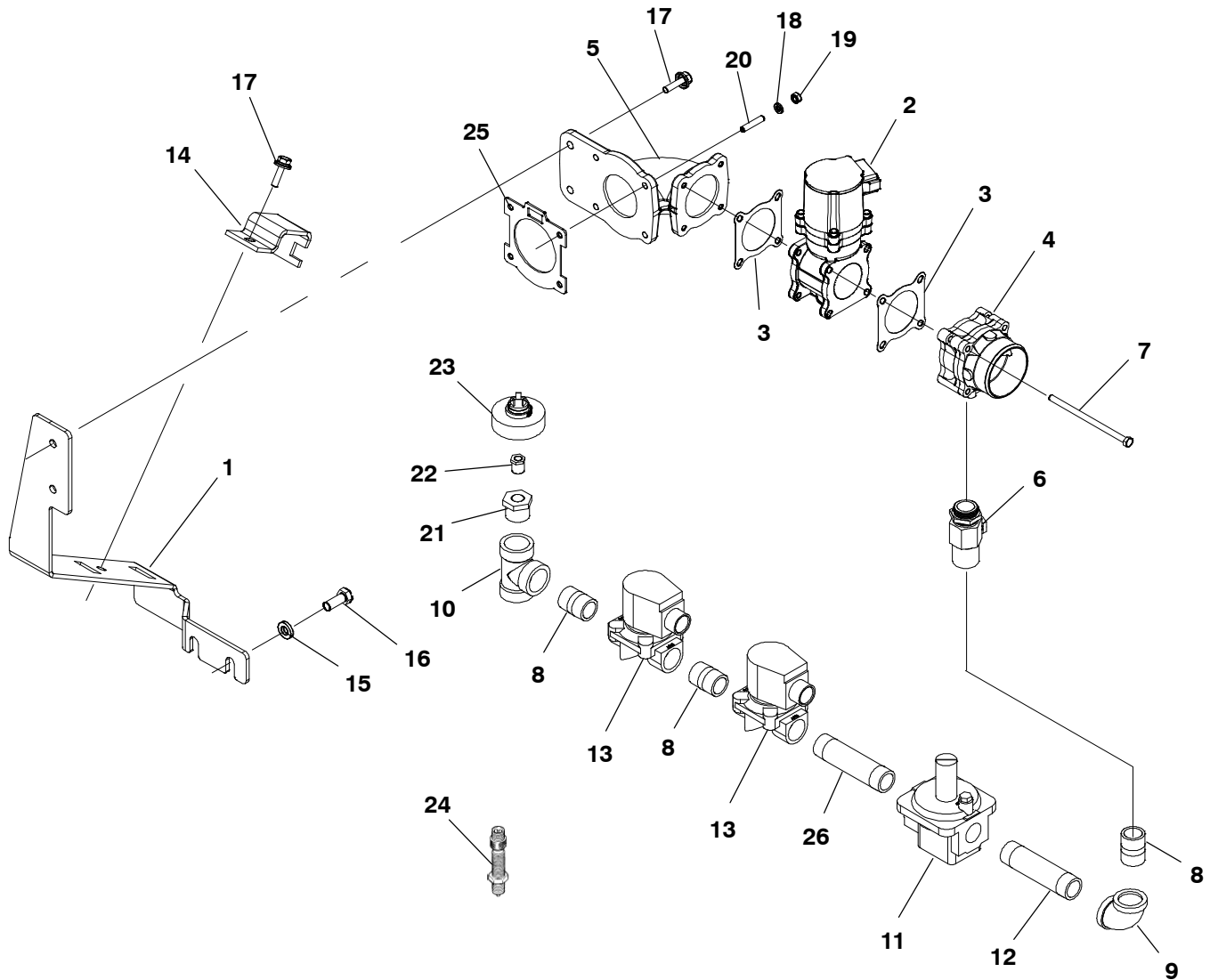
Base Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Spec D-E



Base Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1216-02	1	Bracket, Fuel System	25	850-0114-53	4	Washer, Lock – Split (M6)
2	145-0813	2	Gasket, Throttle Body	26	338-3816-01	1	Harness, Dual Fuel
3	148-1200-01	1	Mixer, ITB	27	504-0210	1	Valve, Fuel
4	154-3137	1	Adapter, Intake	28	504-0171	1	Valve
5	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	29	148-1239-02	1	Bracket, Converter
6	505-0102	5	Nipple, Pipe (3/4 x 1.38)	30	148-1240	1	Converter
7	505-0132	4	Elbow, Pipe	31	505-0089	1	Nipple, Pipe (1 x 5.0)
8	148-1231	2	Regulator	32	505-0304	1	Tee
9	505-0341	2	Nipple, Pipe (3/4 x 5.00)	33	505-0004	2	Nipple, Close
10	307-2930	2	Valve, Solenoid	34	505-0479	1	Cap, Pipe
11	505-0166	2	Tee – With Pressure Switch	35	505-0356	1	Elbow, Reducer
12	148-1194-02	2	Clamp, Fuel System	36	503-2157-02	2	Clamp, Hose
13	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)	37	502-0836	2	Hose, Barb (3/4)
14	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)	38	503-1565	1	Hose, Fuel (3/4 ID)
15	862-0026-54	4	Nut, Hex (M6 x 1)	39	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
16	520-1024-01	4	Stud (M6)	40	505-0099	1	Nipple, Close (1/4 x .88)
17	505-0020	1	Bushing, Reducer (3/4 x 1/4) – With Pressure Switch	41	502-0054	1	Elbow, Street
18	505-0007	1	Bushing, Reducer (1/4 x 1/8) – With Pressure Switch	42	307-0268-01	1	Valve, Solenoid
19	309-0669-01	1	Switch, Low Pressure	43	503-2293-01	1	Hose, Coolant
20	505-0085	3	Nipple, Pipe (3/4 x 2.00) – With Pressure Switch	44	503-0183	3	Clamp, Hose
21	146-0807	1	Gasket, Throttle Body	45	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
22	150-2651	1	Pickup, Magnetic	46	502-0943	1	Adapter, Pipe
23	150-2807	1	Actuator, Rotary (43mm)	47	503-2185-02	1	Hose, Coolant
24	526-0174	2	Washer, Flat	48	503-1136	1	Clamp, Hose
				49	338-4395	1	Harness, Wiring – Jumper
				50	526-0174	3	Washer (3/8)
				51	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)

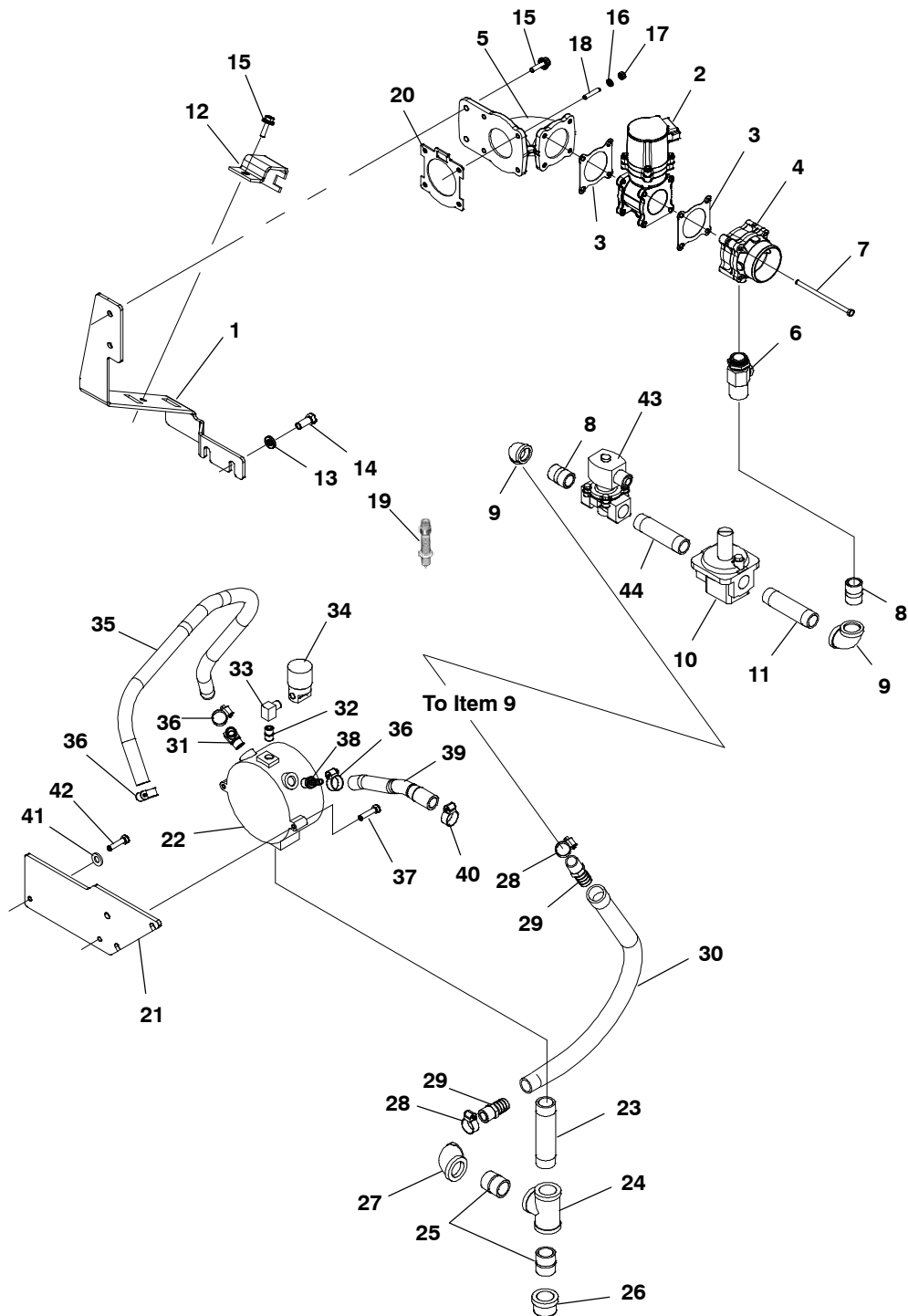
**Base Fuel System
Natural Gas / LP Vapor
Begin Spec F**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1334-02	1	Bracket, Fuel System	15	526-0174	2	Washer, Flat
2	150-2807	1	Actuator, Rotary (43mm)	16	800-2086	2	Screw, Cap - Hex Head (M10 x 1.5 x 25)
3	145-0813	2	Gasket, Throttle Body	17	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)
4	148-1200-01	1	Mixer, ITB	18	850-0114-53	4	Washer, Lock - Split (M6)
5	154-3137	1	Adapter, Intake	19	862-0026-54	4	Nut, Hex (M6 x 1)
6	504-0210	1	Valve, Fuel	20	520-1024-01	4	Stud (M6)
7	815-1536	4	Screw, Cap - Hex Head (M6 x 1 x 110)	21	505-0020	1	Bushing, Reducer (3/4 x 1/4) - With Pressure Switch
8			Nipple, Pipe (3/4 x 1.50)	22	505-0007	1	Bushing, Reducer (1/4 x 1/8) - With Pressure Switch
	505-2278	2	Without Pressure Switch	23	309-0669-01	1	Switch, Low Pressure
	505-2278	3	With Pressure Switch	24	150-2651	1	Pickup, Magnetic
9	505-0132	1	Elbow, Pipe	25	146-0807	1	Gasket, Throttle Body
10	505-0166	1	Tee - With Pressure Switch	26	505-0343	1	Nipple, Pipe (3/4 x 4.50)
11	148-1231	1	Regulator				
12	505-0337	1	Nipple, Pipe (3/4 x 4.50)				
13	307-2930	2	Valve, Solenoid				
14	148-1194-02	1	Clamp, Fuel System				

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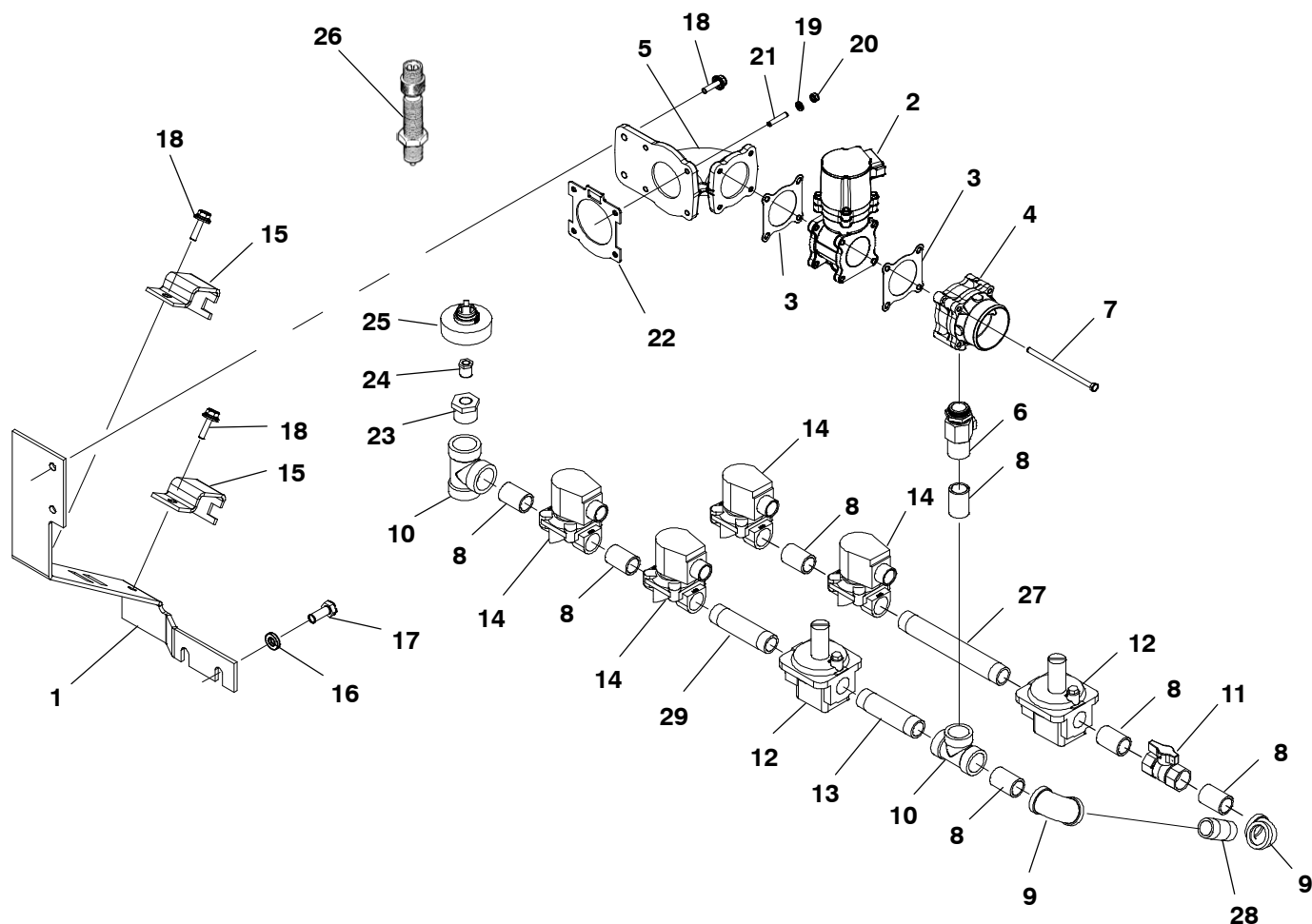
Base Fuel System
LP Liquid
Begin Spec F



**Base Fuel System
LP Liquid
Begin Spec F**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1334-02	1	Bracket, Fuel System	25	505-0004	2	Nipple, Close
2	150-2807	1	Actuator, Rotary (43mm)	26	505-0479	1	Cap, Pipe
3	145-0813	2	Gasket, Throttle Body	27	505-0356	1	Elbow, Reducer
4	148-1200-01	1	Mixer, ITB	28	503-2157-02	2	Clamp, Hose
5	154-3137	1	Adapter, Intake	29	502-0836	2	Hose, Barb (3/4)
6	504-0210	1	Valve, Fuel	30	503-1565	1	Hose, Fuel (3/4 ID)
7	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	31	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
8	505-2278	2	Nipple, Pipe (3/4 x 1.50)	32	505-0099	1	Nipple, Close (1/4 x .88)
9	505-0132	2	Elbow, Pipe	33	502-0054	1	Elbow, Street
10	148-1231	1	Regulator	34	307-0268-01	1	Valve, Solenoid
11	505-0337	1	Nipple, Pipe (3/4 x 4.50)	35	503-2293-01	1	Hose, Coolant
12	148-1194-02	1	Clamp, Fuel System	36			Clamp, Hose
13	526-0174	2	Washer, Flat		503-0183	3	Without Coolant Heater
14	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)		503-0183	2	With Coolant Heater
15	821-6003-03	3	Screw, Hex Head (M8 x 1.25 x 25)	37	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
16	850-0114-53	4	Washer, Lock – Split (M6)	38	502-0943	1	Adapter, Pipe
17	862-0026-54	4	Nut, Hex (M6 x 1)	39	503-2516-01	1	Hose, Coolant – Without Coolant Heater
18	520-1024-01	4	Stud (M6)	40	503-1136	1	Clamp, Hose – Without Coolant Heater
19	150-2651	1	Pickup, Magnetic	41	526-0174	3	Washer (3/8)
20	146-0807	1	Gasket, Throttle Body	42	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)
21	148-1239-02	1	Bracket, Converter	43	307-2886	1	Valve, Solenoid
22	148-1240	1	Converter	44	505-0343	1	Nipple, Pipe (3/4 x 4.50)
23	505-0089	1	Nipple, Pipe (1 x 5.0)				
24	505-0304	1	Tee				

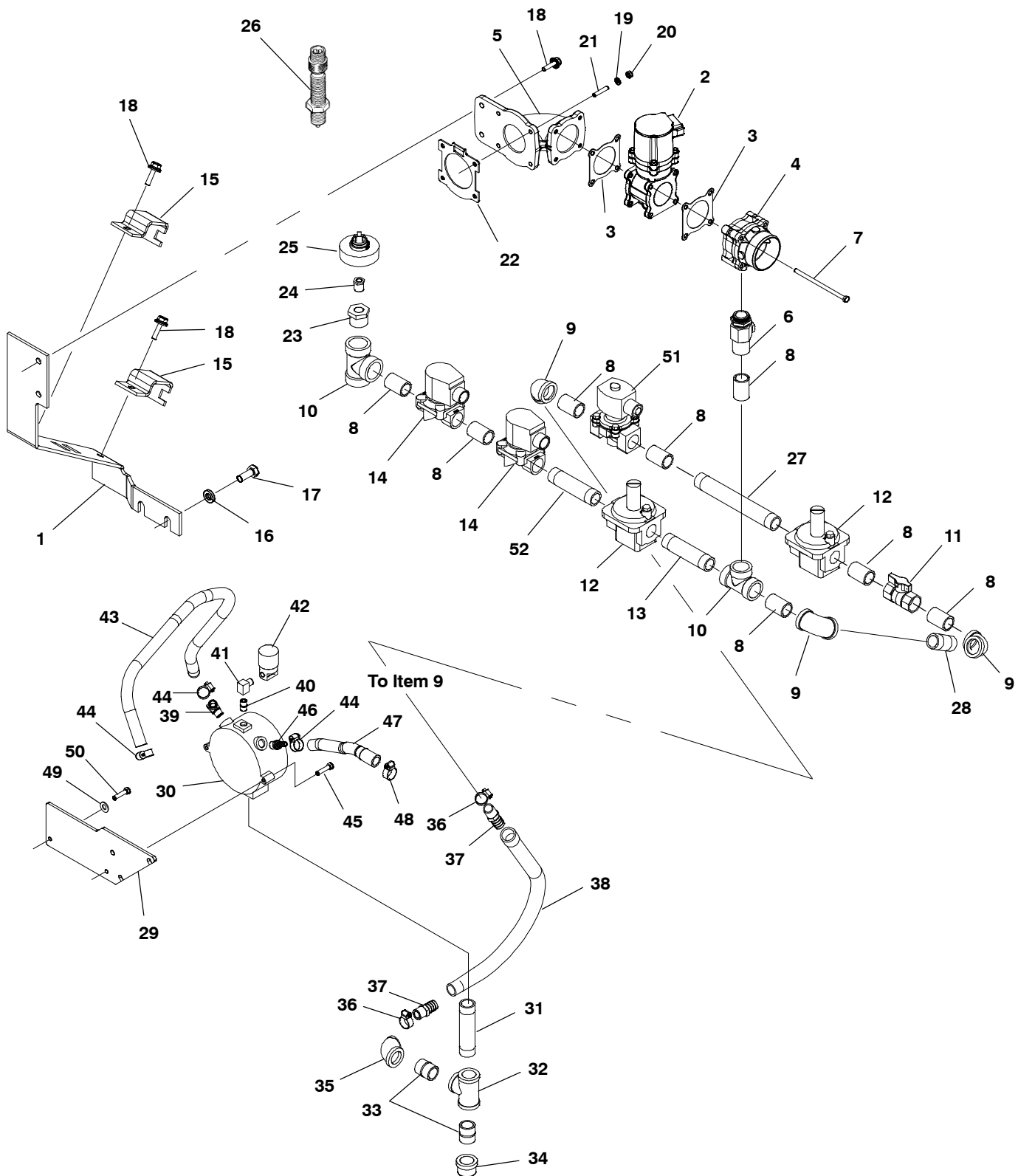
Base Fuel System
Natural Gas / LP Vapor With Automatic Changeover
Begin Spec F



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1334-02	1	Bracket, Fuel System	16	526-0174	2	Washer, Flat
2	150-2807	1	Actuator, Rotary (43mm)	17	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)
3	145-0813	2	Gasket, Throttle Body	18	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)
4	148-1200-01	1	Mixer, ITB	19	850-0114-53	4	Washer, Lock – Split (M6)
5	154-3137	1	Adapter, Intake	20	862-0026-54	4	Nut, Hex (M6 x 1)
6	504-0210	1	Valve, Fuel	21	520-1024-01	4	Stud (M6)
7	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	22	146-0807	1	Gasket, Throttle Body
8	505-2278	7	Nipple, Pipe (3/4 x 1.50)	23	505-0020	1	Bushing, Reducer (3/4 x 1/4)
9	505-0132	2	Elbow, Pipe	24	505-0007	1	Bushing, Reducer (1/4 x 1/8)
10	505-0166	2	Tee	25	309-0669-01	1	Switch, Low Pressure
11	504-0171	1	Valve	26	150-2651	1	Pickup, Magnetic
12	148-1231	2	Regulator	27	505-0671	1	Nipple, Pipe (3/4 x 7.19)
13	505-0337	1	Nipple, Pipe (3/4 x 4.50)	28	505-0085	1	Nipple, Pipe (3/4 x 2.00)
14	307-2930	4	Valve, Solenoid	29	505-0343	1	Nipple, Pipe (3/4 x 4.50)
15	148-1194-02	2	Clamp, Fuel System				

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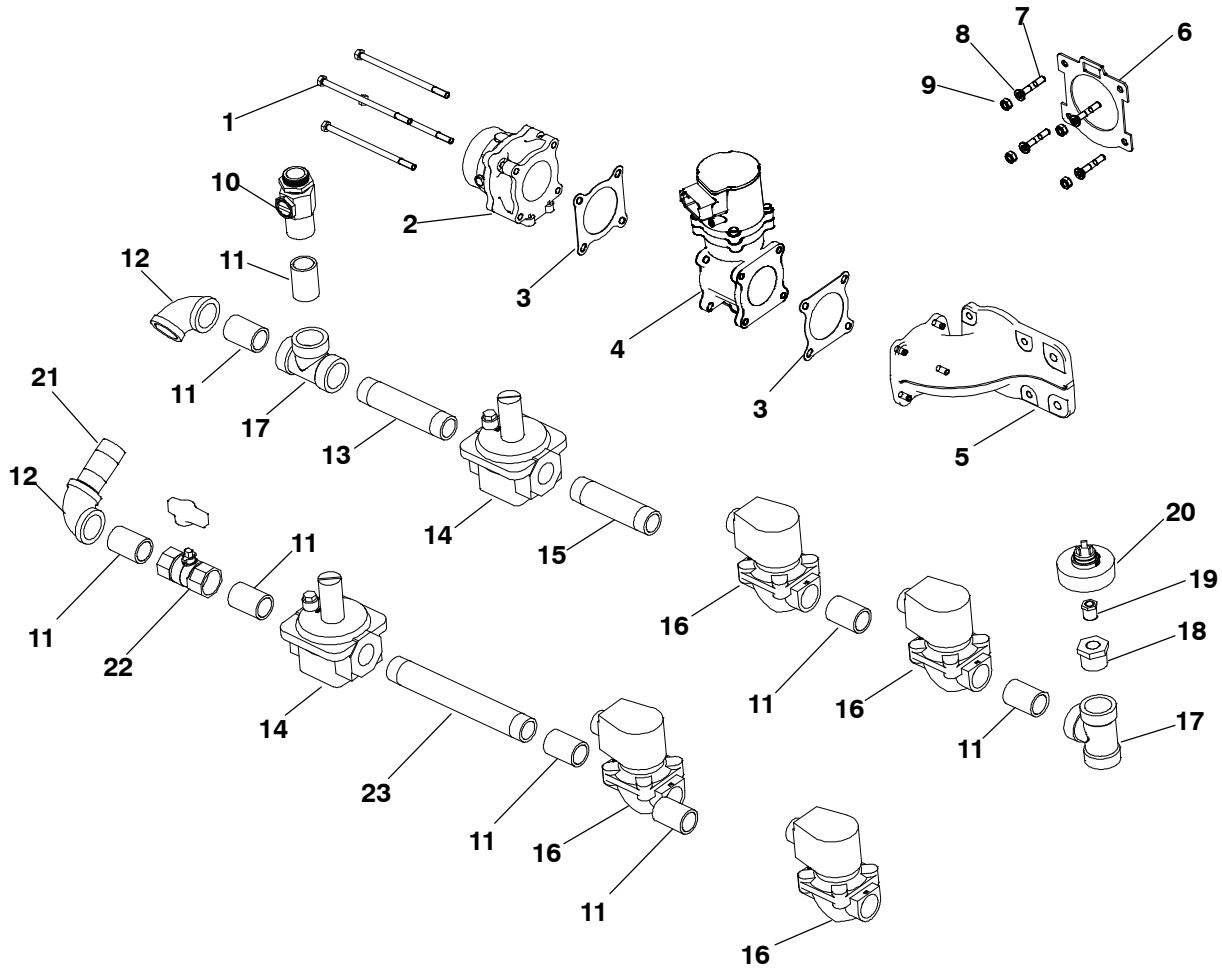
Base Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Begin Spec F



Base Fuel System
Natural Gas / LP Liquid With Automatic Changeover
Begin Spec F

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1334-02	1	Bracket, Fuel System	29	148-1239-02	1	Bracket, Converter
2	150-2807	1	Actuator, Rotary (43mm)	30	148-1240	1	Converter
3	145-0813	2	Gasket, Throttle Body	31	505-0089	1	Nipple, Pipe (1 x 5.0)
4	148-1200-01	1	Mixer, ITB	32	505-0304	1	Tee
5	154-3137	1	Adapter, Intake	33	505-0004	2	Nipple, Close
6	504-0210	1	Valve, Fuel	34	505-0479	1	Cap, Pipe
7	815-1536	4	Screw, Cap – Hex Head (M6 x 1 x 110)	35	505-0356	1	Elbow, Reducer
8	505-2278	7	Nipple, Pipe (3/4 x 1.50)	36	503-2157-02	2	Clamp, Hose
9	505-0132	3	Elbow, Pipe	37	502-0836	2	Hose, Barb (3/4)
10	505-0166	2	Tee	38	503-1565	1	Hose, Fuel (3/4 ID)
11	504-0171	1	Valve	39	502-0942	1	Elbow, Hose – 90° (3/8 x 5/8)
12	148-1231	2	Regulator	40	505-0099	1	Nipple, Close (1/4 x .88)
13	505-0337	1	Nipple, Pipe (3/4 x 4.50)	41	502-0054	1	Elbow, Street
14	307-2930	2	Valve, Solenoid	42	307-0268-01	1	Valve, Solenoid
15	148-1194-02	2	Clamp, Fuel System	43	503-2293-01	1	Hose, Coolant
16	526-0174	2	Washer, Flat	44			Clamp, Hose
17	800-2086	2	Screw, Cap – Hex Head (M10 x 1.5 x 25)		503-0183	3	Without Coolant Heater
18	821-6003-03	4	Screw, Hex Head (M8 x 1.25 x 25)		503-0183	2	With Coolant Heater
19	850-0114-53	4	Washer, Lock – Split (M6)	45	815-0924	2	Screw, Cap – Hex Head (M6 x 1 x 40)
20	862-0026-54	4	Nut, Hex (M6 x 1)	46	502-0943	1	Adapter, Pipe
21	520-1024-01	4	Stud (M6)	47	503-2516-01	1	Hose, Coolant – Without Coolant Heater
22	146-0807	1	Gasket, Throttle Body	48	503-1136	1	Clamp, Hose – Without Coolant Heater
23	505-0020	1	Bushing, Reducer (3/4 x 1/4)	49	526-0174	3	Washer (3/8)
24	505-0007	1	Bushing, Reducer (1/4 x 1/8)	50	800-2087	3	Screw, Cap – Hex Head (M10 x 1.5 x 30)
25	309-0669-01	1	Switch, Low Pressure	51	307-2886	1	Valve, Solenoid
26	150-2651	1	Pickup, Magnetic	52	505-0343	1	Nipple, Pipe (3/4 x 4.50)
27	505-0671	1	Nipple, Pipe (3/4 x 7.19)				
28	505-0085	1	Nipple, Pipe (3/4 x 2.00)				

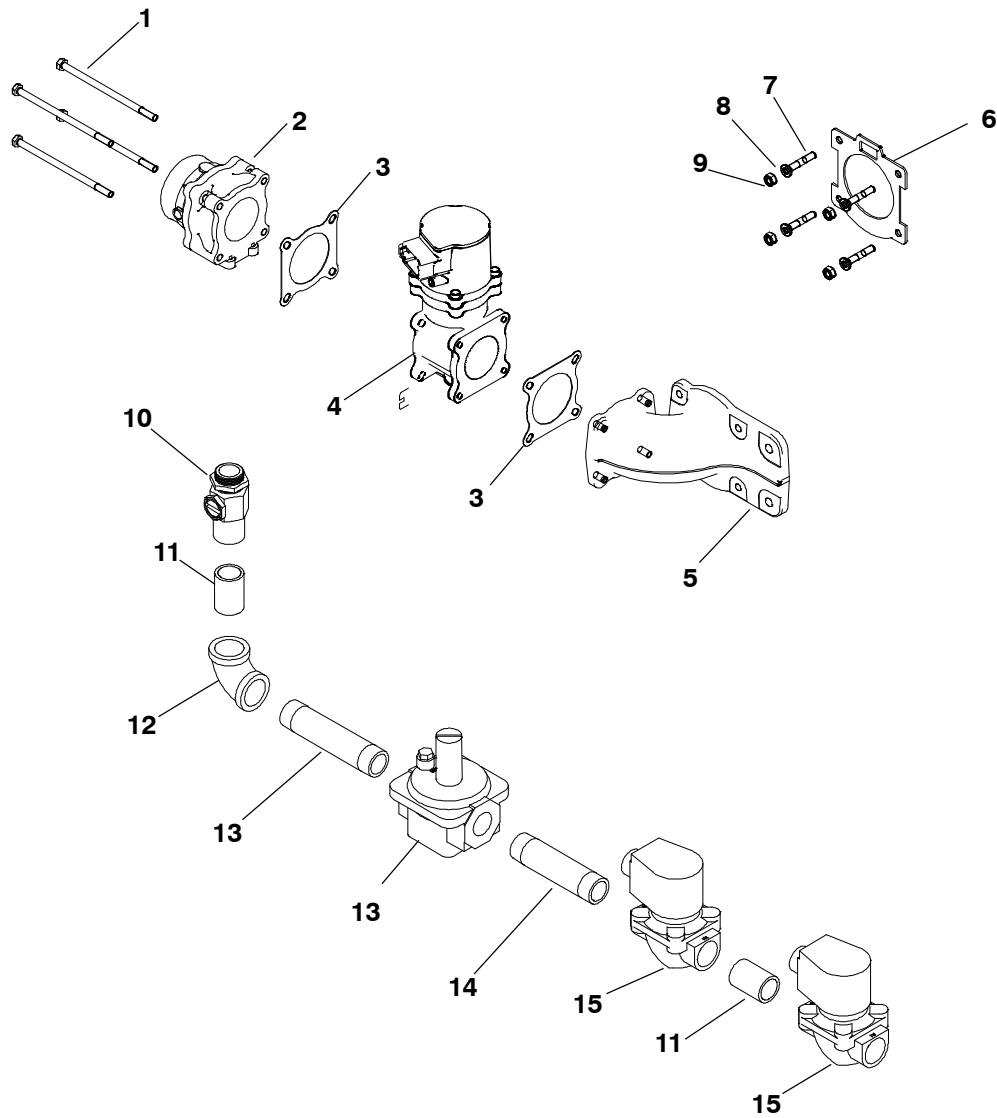
**Base Fuel System
Natural Gas / LP Liquid
Begin Spec K**



Base Fuel System
Natural Gas / LP / LPLiquid
Begin Spec K

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-1536	4	Screw (M6 x 1.0 x 110)	14	148-1231	2	Regulator
2	148-1200-01	1	Mixer	15	505-0337	1	Nipple, Pipe (3/4 NPT x 4.0)
3	145-0813	2	Gasket, Throttle-Body	16	307-2930	4	Valve, Solenoid
4	150-2807	1	Actuator, Rotary	17	505-0166	2	Tee, Reducing
5	154-3137	1	Adapter, Intake	18	505-0020	1	Reducer (3/4 NPT x 1/4)
6	146-0807	1	Gasket, Throttle-Body	19	505-0007	1	Reducer (1/4 NPT x 1/8)
7	520-1024-01	4	Stud (M6)	20	309-0669-01	1	Switch, Low Pressure
8	850-0114-53	4	Washer, Lock (M6)	21	505-0805	1	Nipple, Pipe (3/4 NPT)
9	862-0026-54	4	Nut, Hex (M6)	22	504-0171	1	Valve, Shut off
10	504-0210	1	Valve, Fuel	23	505-0671	1	Nipple, Pipe (3/4 NPT)
11	505-2278	8	Nipple, Pipe				
12	505-0132	2	Elbow, Pipe				
13	505-0343	1	Nipple, Pipe (3/4 NPT x 4.5)				

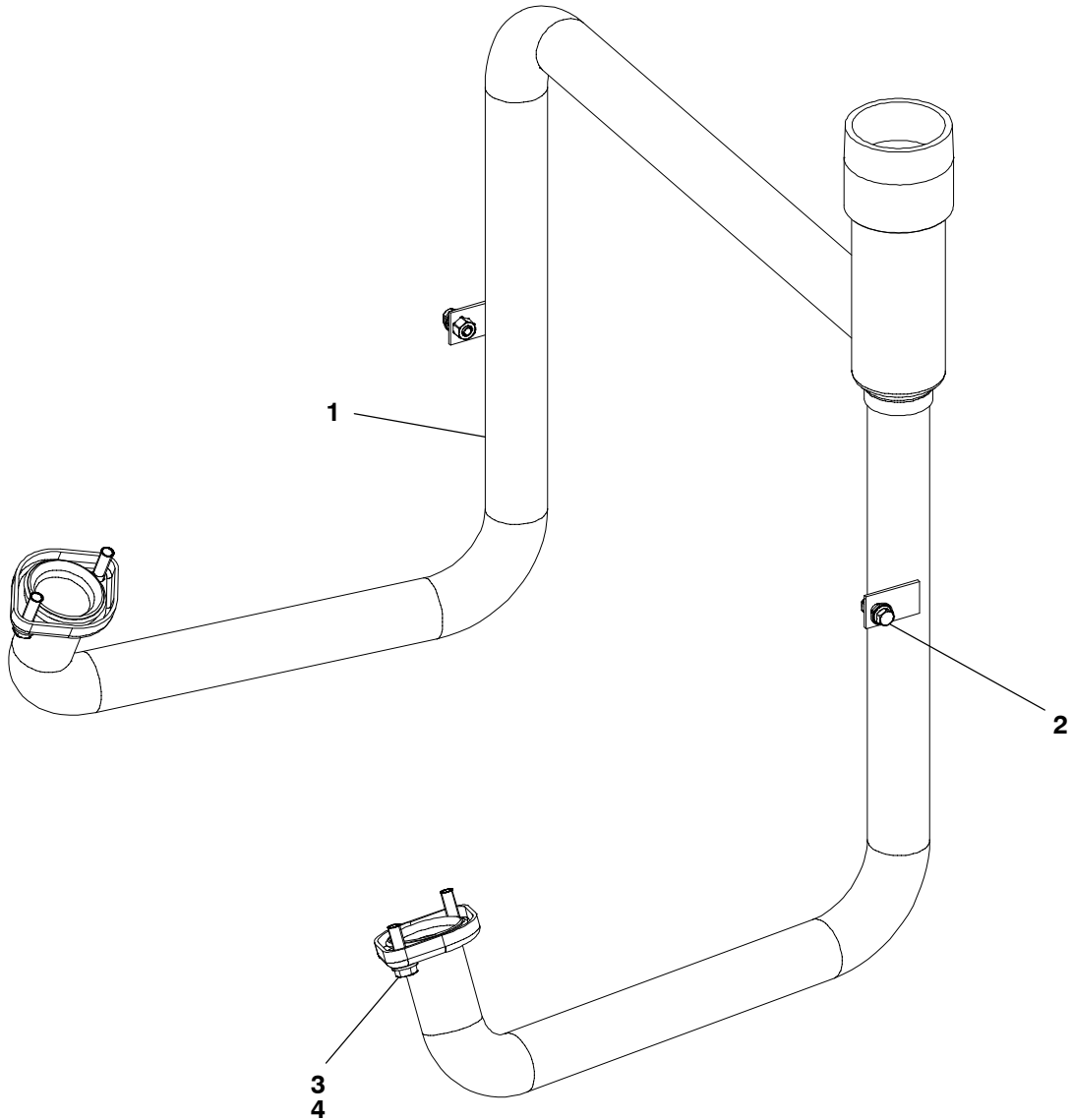
Base Fuel System
Natural Gas / LP Liquid
Begin Spec K



Base Fuel System
Natural Gas / LP / LPLLiquid
Begin Spec K

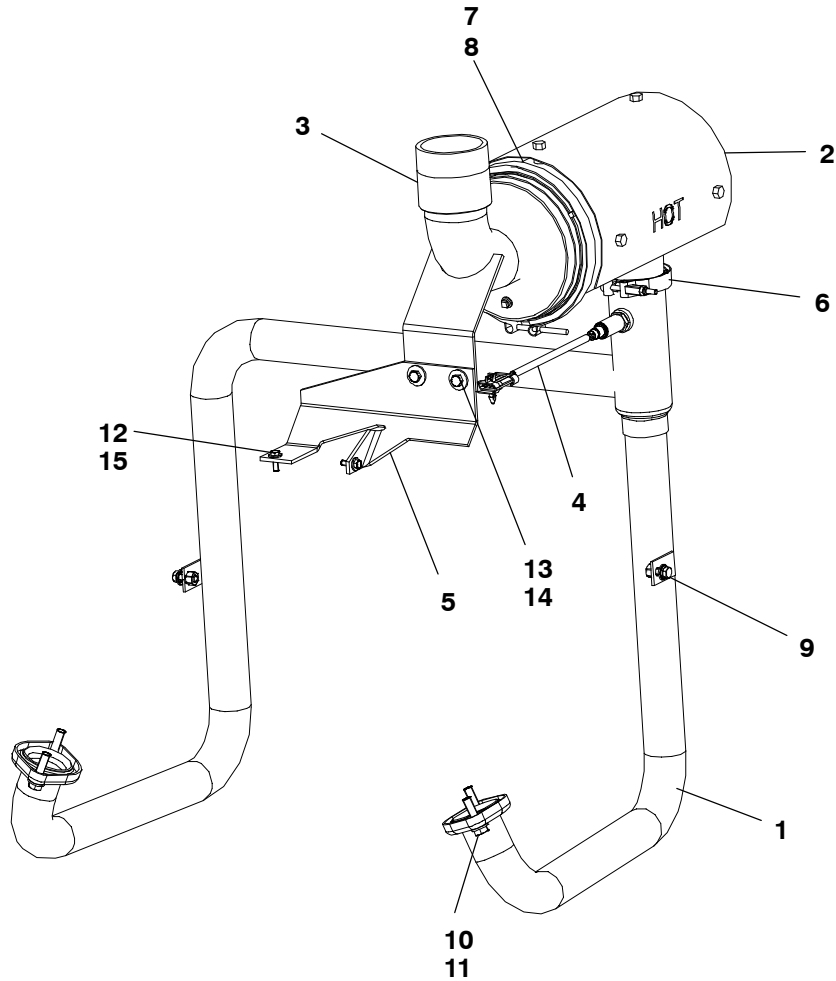
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-1536	4	Screw (M6 x 1.0 x 110)	10	504-0210	1	Valve, Fuel
2	148-1200-01	1	Mixer	11	505-2278	2	Nipple, Pipe
3	145-0813	2	Gasket, Throttle-Body	12	505-0132	1	Elbow, Pipe
4	150-2807	1	Actuator, Rotary	13	148-1231	1	Regulator
5	154-3137	1	Adapter, Intake	14	505-0337	1	Nipple, Pipe (3/4 NPT x 4.0)
6	146-0807	1	Gasket, Throttle-Body	15	307-2886	2	Valve, Solenoid
7	520-1024-01	4	Stud (M6)				
8	850-0114-53	4	Washer, Lock (M6)				
9	862-0026-54	4	Nut, Hex (M6)				

Exhaust System With Threaded Exhaust Pipe



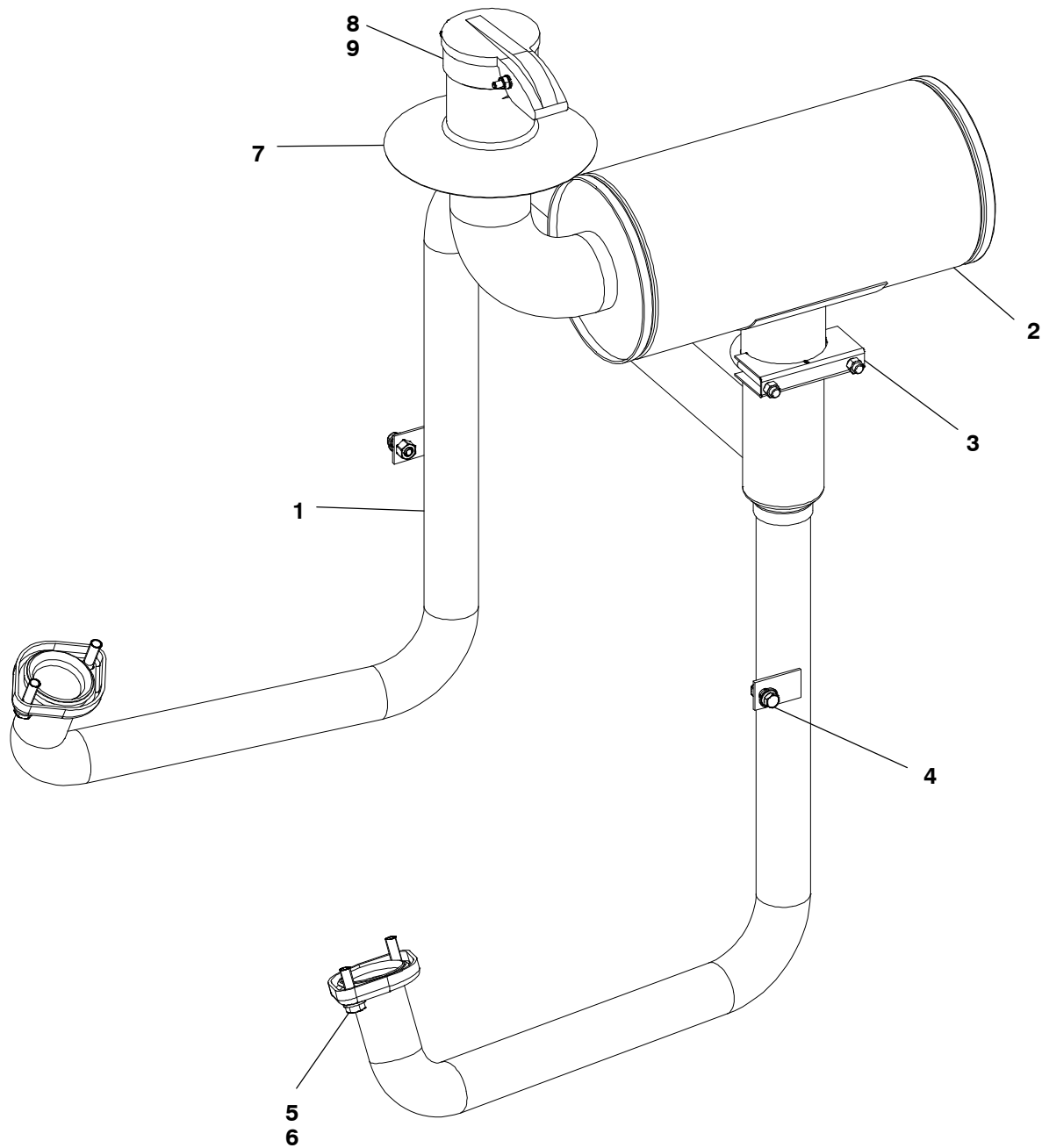
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3377	1	Tube, Exhaust – NPT	3	526-2120	4	Washer, Flat (M10)
2	821-6003-02	2	Screw, Cap – Hex Head (M8 x 1.25 x 20)	4	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)

Low Emission Exhaust System With Threaded Exhaust Pipe



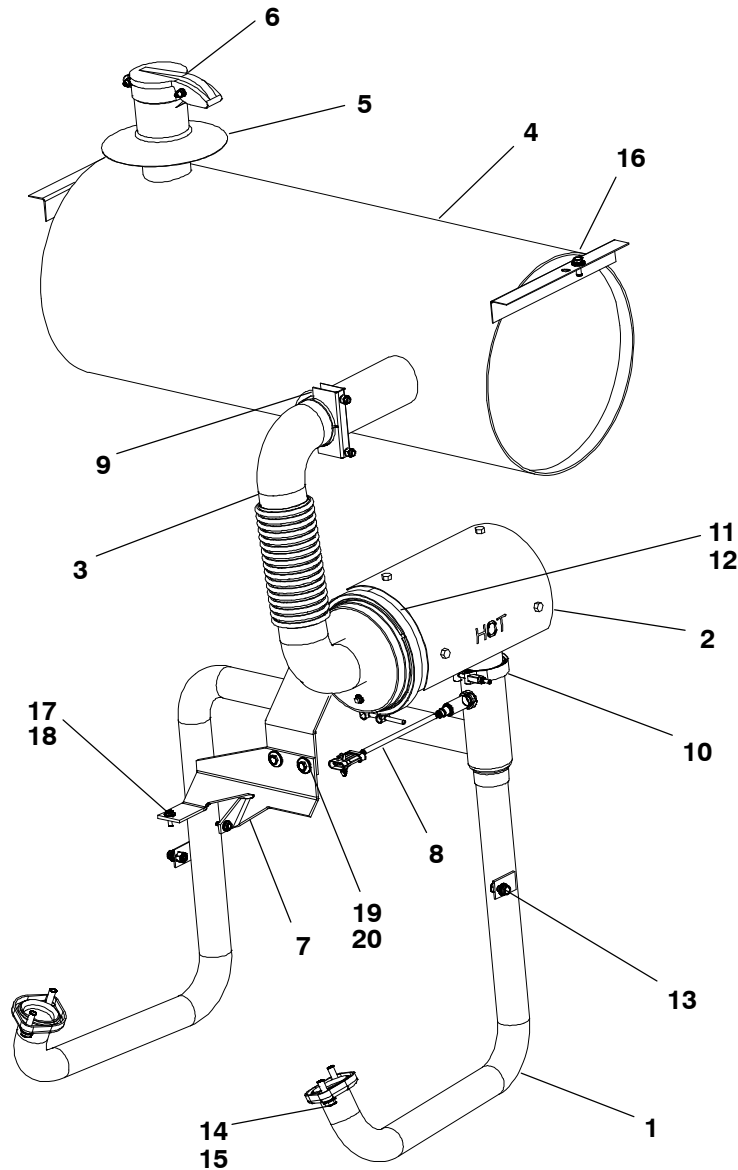
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3565	1	Tube, Exhaust	10	526-2120	4	Washer, Flat (M10)
2	155-3597-01	1	Converter, Catalytic	11	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)
3	155-3678	1	Elbow, Exhaust	12	800-2034	2	Screw, Cap – Hex Head (M6 x 1.5 x 20)
4	193-0499	1	Sensor, Oxygen	13	526-0113	2	Washer, Flat (5/16)
5	155-3594-02	1	Bracket, Exhaust	14	800-2057	2	Screw, Cap – Hex Head (M8 x 1.25 x 20)
6	155-2565	1	Clamp, V-Band	15	526-0018	2	Washer, Flat (1/4)
7	155-3588	1	Gasket, Exhaust				
8	155-3589	1	Clamp, Exhaust				
9	821-6003-02	2	Screw, Cap – Hex Head (M8 x 1.25 x 20)				

Engine Mounted Muffler



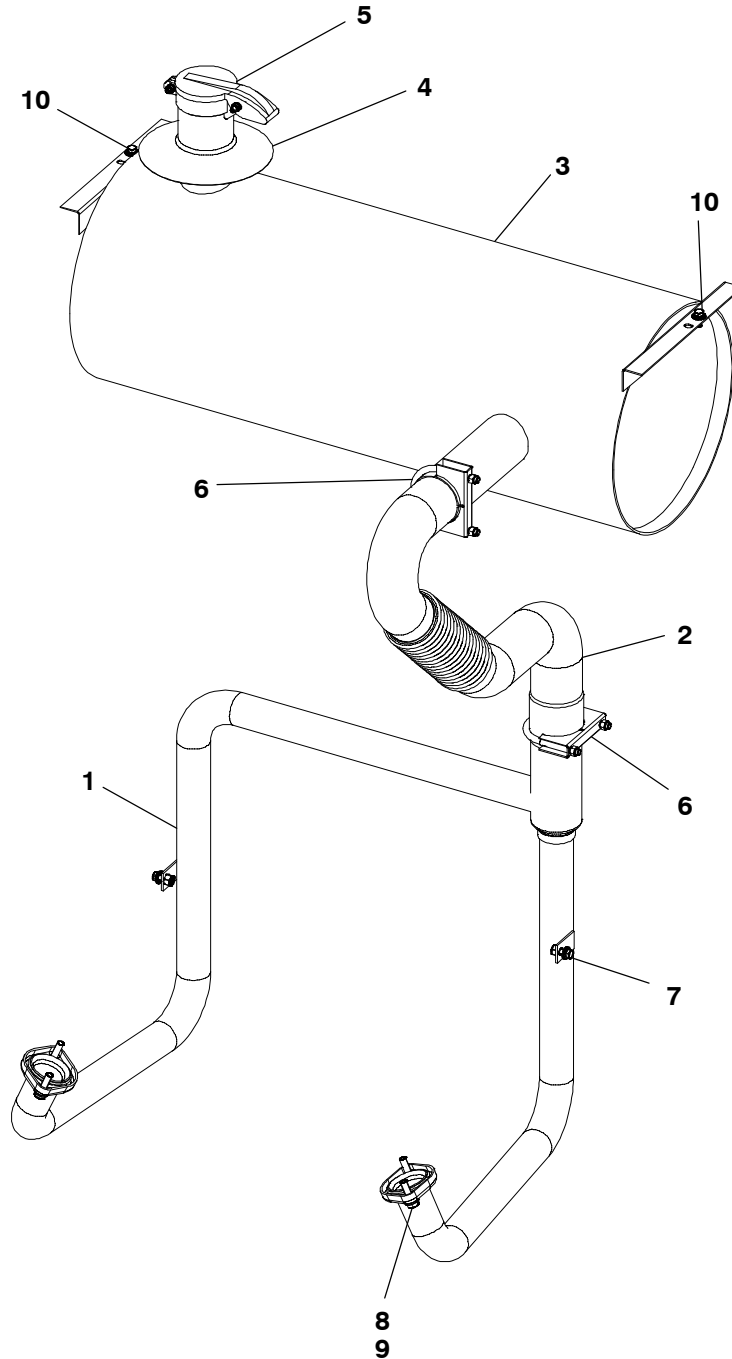
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3378	1	Tube, Exhaust	6	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)
2	155-3193	1	Muffler	7	155-3102-02	1	Shield, Rain (Unhoused Sets)
3	155-2175	1	Clamp, Muffler (3.0" OD)	8	155-2062-10	1	Cap, Rain (Unhoused Sets)
4	821-6003-02	2	Screw, Hex Head (M8 x 1.25 x 20)	9	155-2062-03	1	Cap, Rain (Housed Sets)
5	526-2120	4	Washer, Flat (M10)				

Low Emission Exhaust Critical Muffler For Sound Attenuating Enclosure



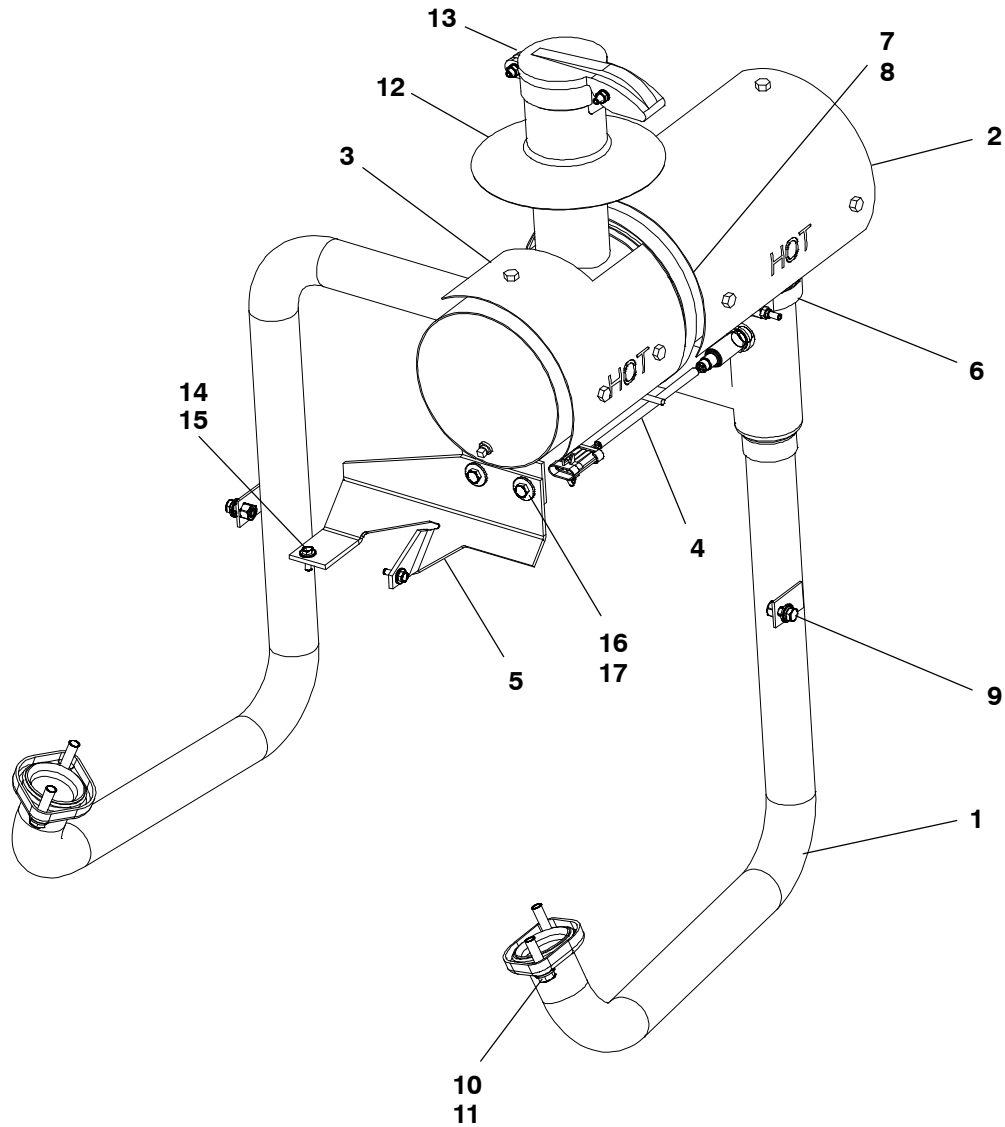
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3565	1	Tube, Exhaust	14	526-2120	4	Washer, Flat (M10)
2	155-3597-01	1	Converter, Catalytic	15	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)
3	155-3567	1	Exhaust, Transition	16	821-6007-02	2	Screw, Hex Head – Stainless Steel (M8 x 1.25 x 20)
4	155-3167	1	Muffler	17	526-0018	2	Washer, Flat (1/4)
5	155-3102-02	1	Shield, Rain	18	800-2034	2	Screw, Cap – Hex Head (M6 x 1 x 20)
6	155-2062-10	1	Cap, Rain	19	526-0113	2	Washer, Flat (5/16)
7	155-3594-02	1	Bracket, Exhaust	20	800-2057	2	Screw, Cap – Hex Head (M8 x 1.25 x 20)
8	193-0499	1	Sensor, Oxygen				
9	155-2175	1	Clamp, Muffler (3.00)				
10	155-2565	1	Clamp, V-Band				
11	155-3588	1	Gasket, Exhaust				
12	155-3589	1	Clamp, Exhaust				
13	821-6003-02	2	Screw, Hex Head (M8 x 1.25 x 20)				

Critical Muffler For Sound Attenuating Enclosure



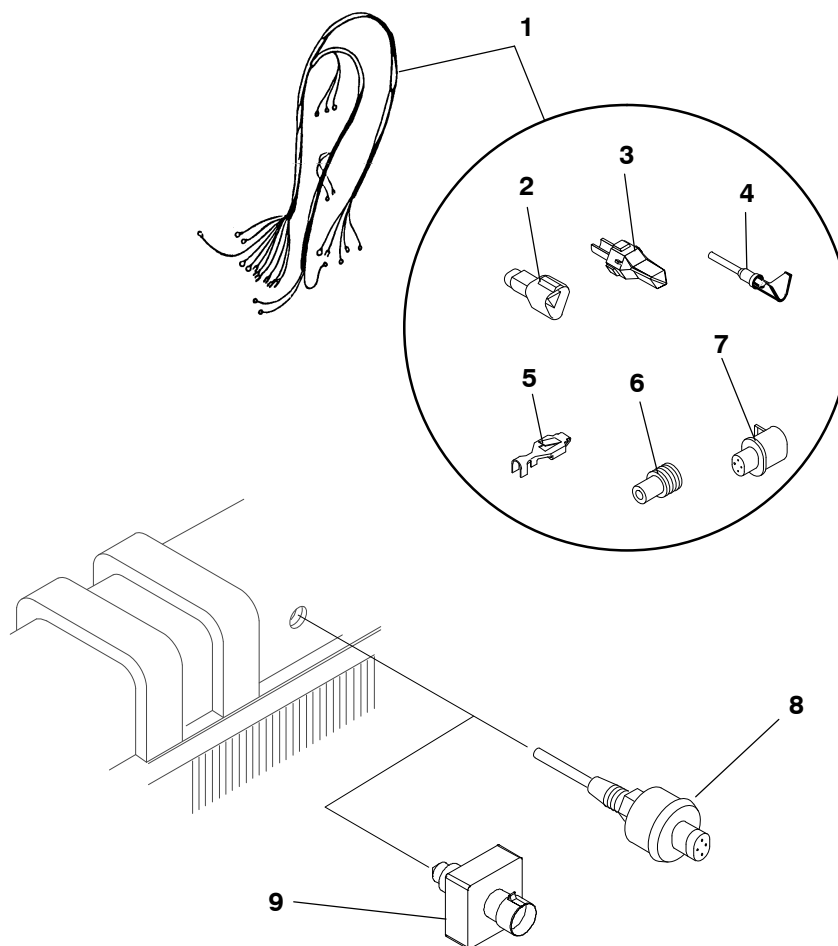
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3378	1	Tube, Exhaust	8	526-2120	4	Washer, Flat (M10)
2	154-3048	1	Tube, Exhaust	9	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)
3	155-3167	1	Muffler	10	821-6007-02	2	Screw, Hex Head – Stainless Steel (M8 x 1.25 x 20)
4	155-3102-02	1	Shield, Rain				
5	155-2062-10	1	Cap, Rain				
6	155-2175	2	Clamp, Muffler (3" OD)				
7	821-6003-02	2	Screw, Hex Head (M8 x 1.25 x 20)				

Low Emission Exhaust Engine Mounted Muffler



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3565	1	Tube, Exhaust	12	155-3102-02	1	Shield, Rain – Unhoused Sets
2	155-3597-01	1	Converter, Catalytic	13			Cap, Rain
3	155-3570	1	Muffler		155-2062-10	1	Unhoused Sets
4	193-0499	1	Sensor, Oxygen		155-2062-03	1	F182 Housing
5	155-3594-02	1	Bracket, Exhaust	14	526-0018	2	Washer, Flat (1/4)
6	155-2565	1	Clamp, V-Band	15	800-2034	2	Screw, Cap – Hex Head (M6 x 1 x 20)
7	155-3588	1	Gasket, Exhaust	16	526-0113	2	Washer, Flat (5/16)
8	155-3589	1	Clamp, Exhaust	17	800-2057	2	Screw, Cap – Hex Head (M8 x 1.25 x 20)
9	821-6003-02	2	Screw, Hex Head (M8 x 1.25 x 20)				
10	526-2120	4	Washer, Flat (M10)				
11	800-2089	4	Screw, Cap – Hex Head (M10 x 1.5 x 40)				

Low Coolant Level Sender

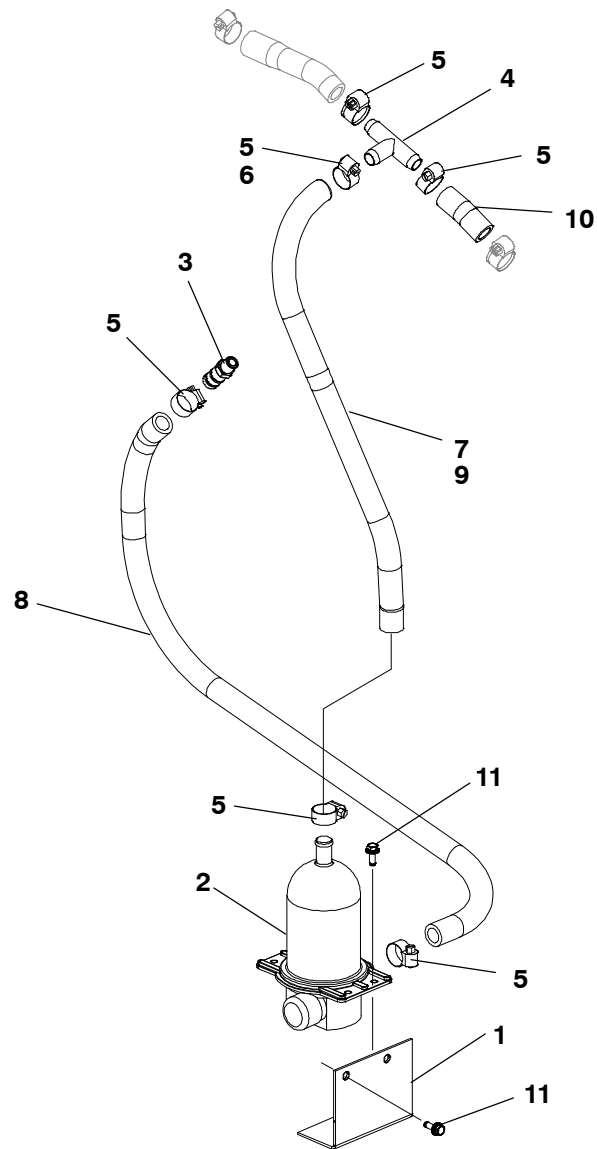


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Sensor – Low Coolant (Includes Parts Marked *) – Spec D-E
	338-4178-01	1	30"
	338-4178-02	1	70"
2	323-1494	1	* Connector, Receptacle
3	323-1502	1	* Wedge, Receptacle
4	323-1491	3	* Terminal, Pin (S7)
5	323-1709	4	* Terminal, Socket

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	323-1708	4	* Seal, Cable
7	323-1765	1	* Housing, Connector (4 Pin)
8	193-0468	1	Sender, Low Coolant – Spec D-E
9	193-0558	1	Sender, Low Coolant – Begin Spec F

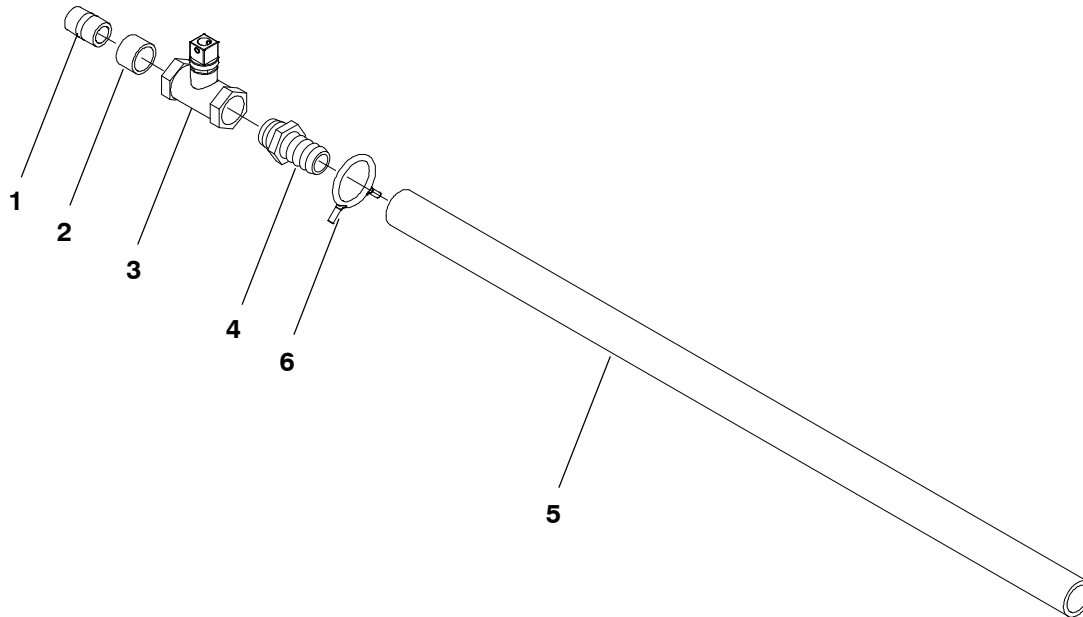
* – Parts Included in Sensor Harness

Coolant Heater



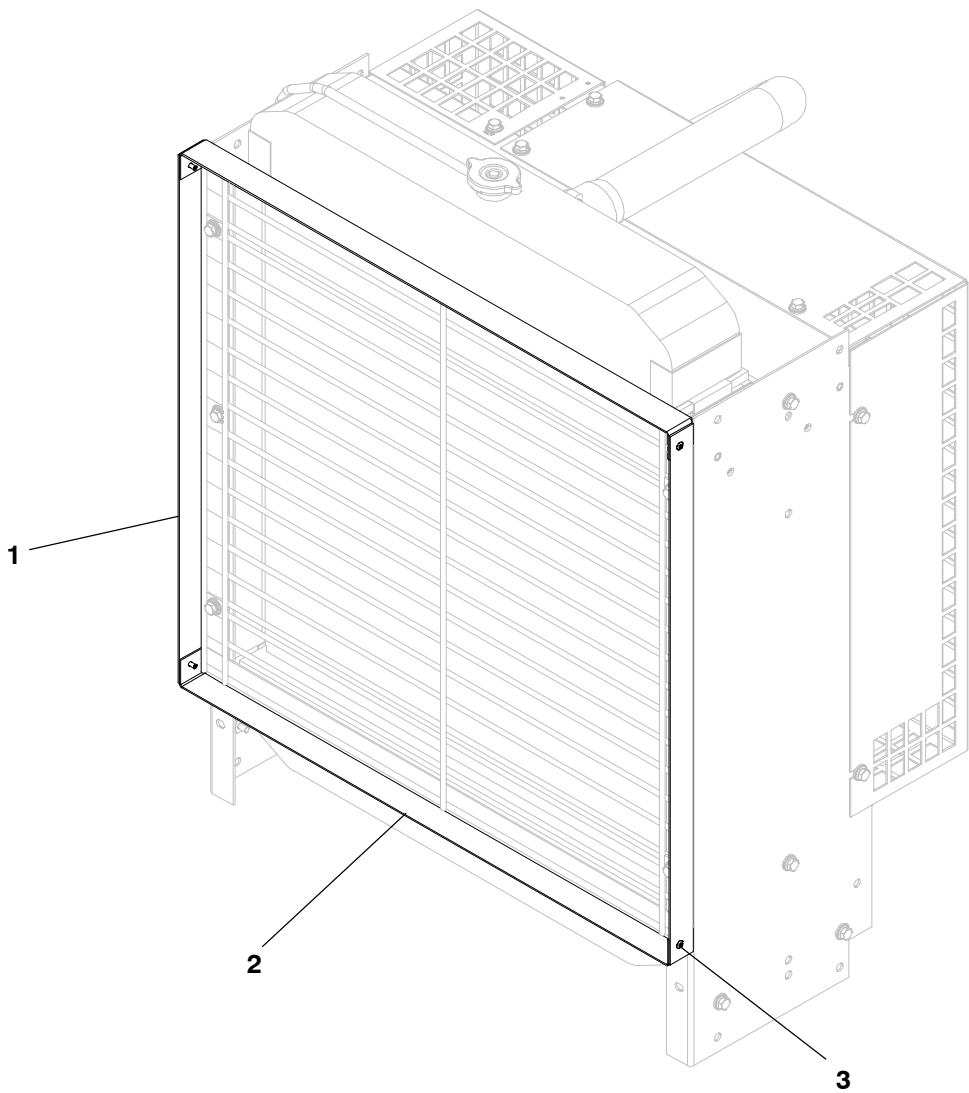
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0616	1	Bracket, Mounting – Heater	6	503-1136	1	Clamp, Hose
2			Heater, Engine Coolant	7	503-2185	1	Hose, Coolant – Engine
	333-0588-03	1	120 Volt	8	503-2293-01	1	Hose, Coolant – Engine
	333-0588-04	1	240 Volt	9	503-2293-02	1	Hose, Coolant – Engine (With Liquid LP Fuel System)
3	502-0613	1	Adapter, Hose	10	503-2293-03	1	Hose, Coolant – Engine (With Liquid LP Fuel System)
4	502-0870	1	Tee (With Liquid LP Fuel System)	11	821-6006-01	4	Screw, Hex Head – Stainless Steel (M6 x 1.0 x 16)
5			Clamp, Hose				
	503-0183	3	Without Liquid LP Fuel System				
	503-0183	7	With Liquid LP Fuel System				

Radiator Drain



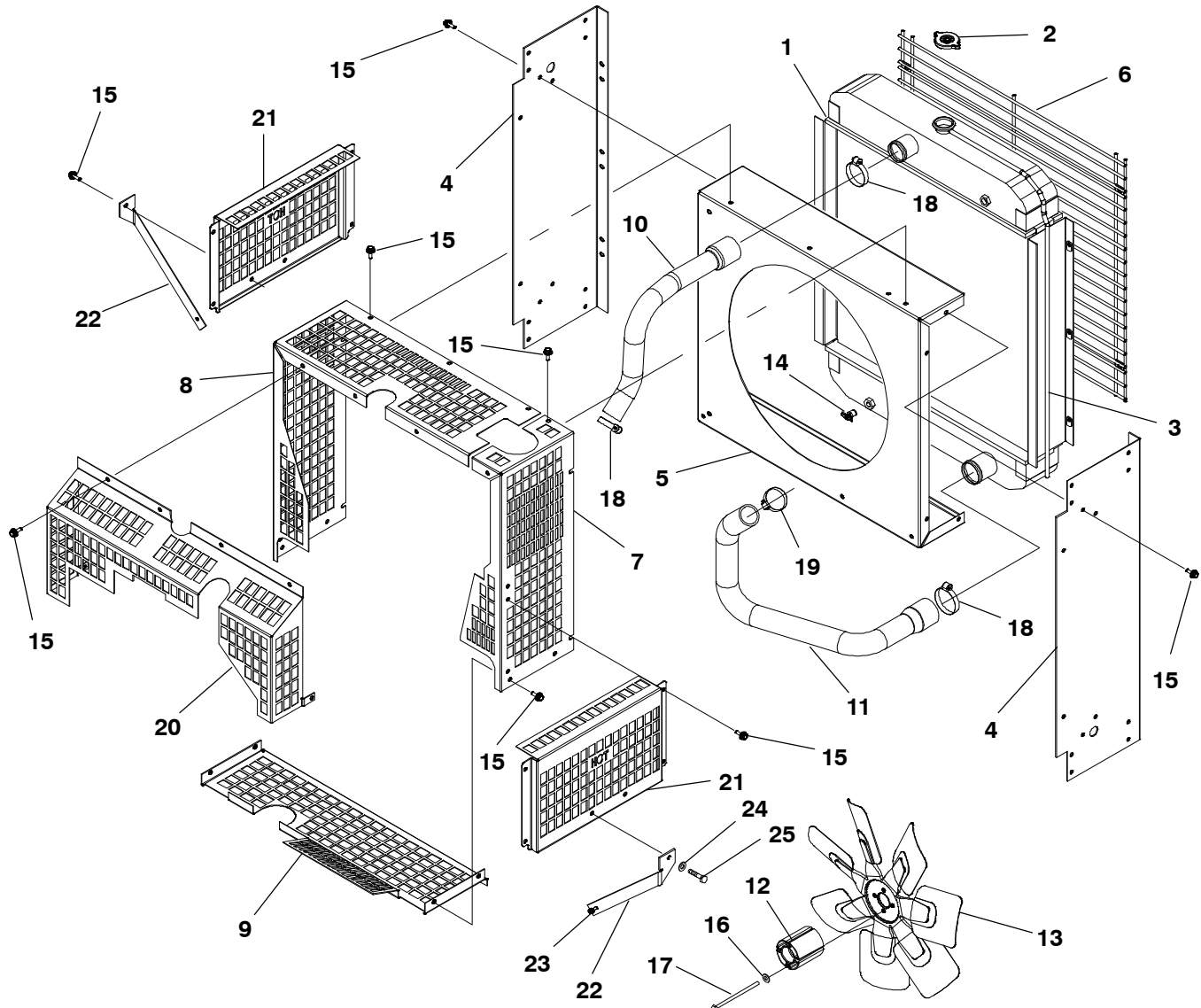
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	502-0047	1	Nipple, Pipe (1/4)	5	503-0098	-	Hose - Bulk (Order by the Foot - 2 Feet Required)
2	502-0802	1	Bushing, Flush (1/4 x 1/2)	6	503-0197	1	Clamp. Hose
3	504-0011	1	Valve, Shutoff (1/2)				
4	502-0827	1	Hose, Barb (1/2 x 3/4)				

Duct Adapter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4623	2	Adapter, Duct (Side)	3	818-0231-02	4	Rivet, Pop
2	130-4622	2	Adapter, Duct (Top and Bottom)				

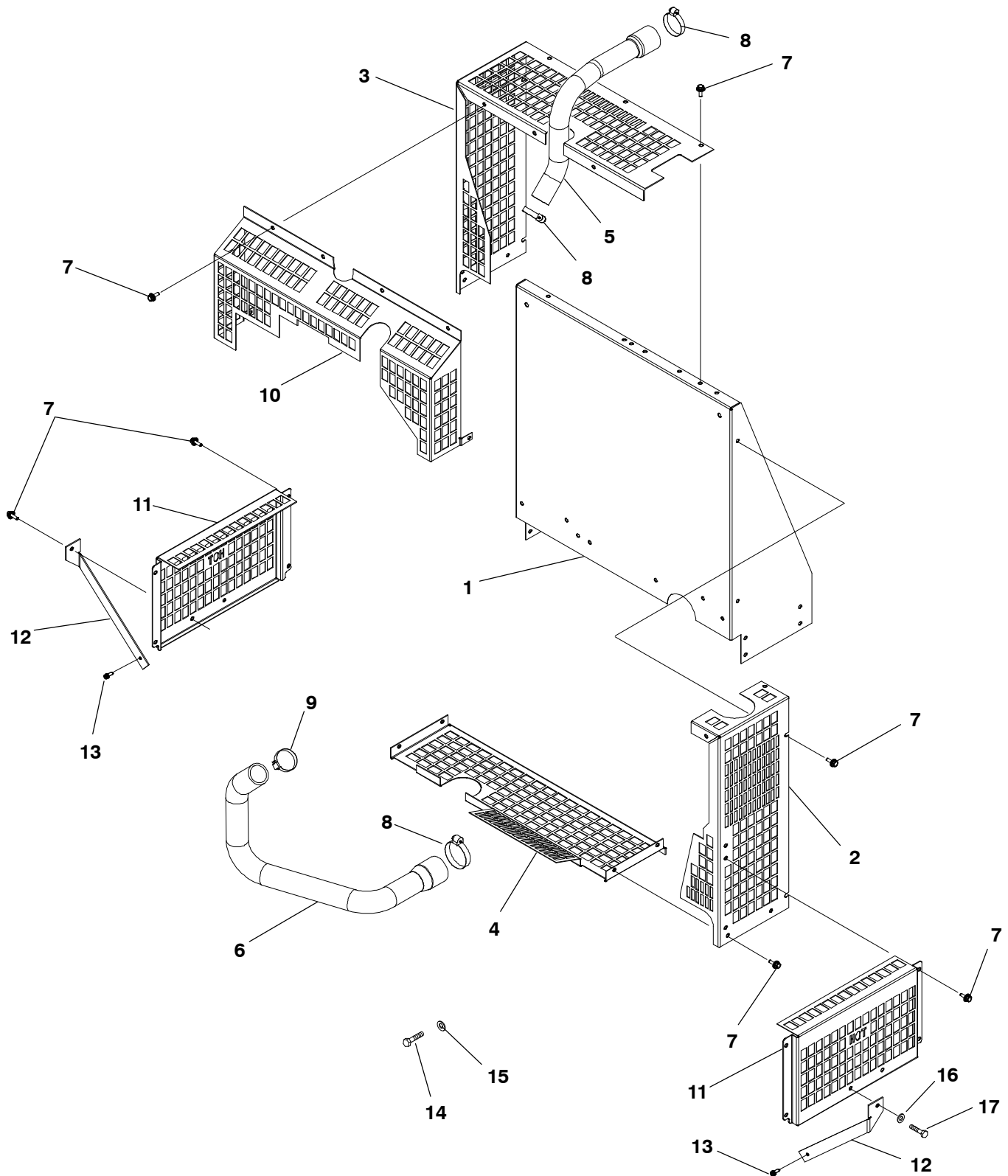
Radiator Spec D



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4596-02	1	Radiator (Includes Cap and Overflow Hose)	15	821-6003-02	40	Screw, Hex Head (M8 x 1.25 x 20)
2	130-1788	1	Cap, Radiator - 14 PSI	16	740-1006	4	Washer, Flat (M8)
3	503-0276	-	Hose, Overflow - Bulk (Order by the Foot - 4 Feet Required)	17	800-2073	4	Screw, Cap - Hex Head (M8 x 1.25 x 110)
4	130-4767	2	Side, Housing	18	503-0465	3	Clamp, Hose
5	130-5273-02	1	Shroud, Fan	19	503-0365	1	Clamp, Hose
6	130-4602	1	Grille	20	130-5270-02	1	Guard, Fan
7	130-5269-02	1	Guard, Fan - Left Hand	21	155-3389-02	2	Shield, Heat
8	130-5271-02	1	Guard, Fan - Right Hand	22	155-3391-02	2	Bracket
9	130-5272-02	1	Guard, Fan - Bottom	23	815-0941-03	2	Screw, Thread Forming (M6 x 1.0 x 18)
10	503-2169	1	Hose, Radiator	24	526-0122	1	Washer, Flat (11/32 ID x 23/32 OD)
11	503-2170	1	Hose, Radiator	25	800-3017-17	1	Screw, Cap - Hex Head (M8 x 1.25 x 12)
12	130-5213-02	1	Spacer, Fan				
13	130-5383	1	Fan				
14	504-0003	1	Cock, Drain				

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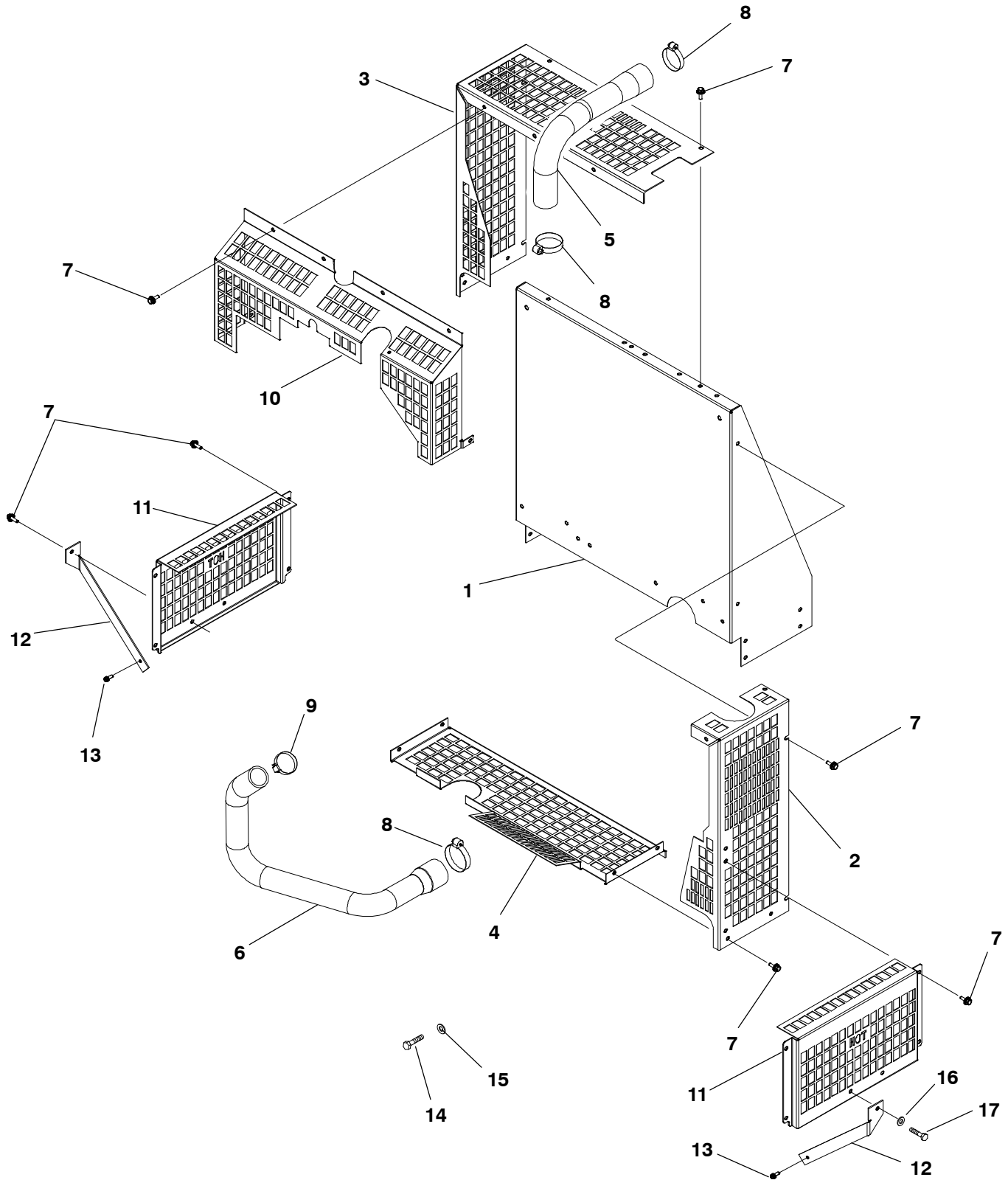
Remote Radiator Spec D



Remote Radiator Spec D

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-6603-02	1	Panel, Front – Radiator Housing	11	155-3389-02	2	Shield, Heat
2	130-5269-02	1	Guard, Fan – Right Hand	12	155-3391-02	2	Bracket, Shield
3	130-5271-02	1	Guard, Fan – Left Hand	13	815-0941-03	2	Screw, Thread Forming (M6 x 1.0 x 18)
4	130-5272-02	1	Guard, Fan – Bottom	14	526-2101	4	Screw, Cap – Hex Head (M8 x 1.25 x 12)
5	503-2169	1	Hose, Radiator – Inlet	15	130-5306-02	4	Washer (M8)
6	503-2170	1	Hose, Radiator – Outlet	16	526-0122	1	Washer, Flat (11/32 ID x 23/32 OD)
7	821-6003-02	30	Screw, Hex Head (M8 x 1.25 x 20)	17	800-3017-17	1	Screw, Cap – Hex Head (M8 x 1.25 x 12)
8	503-0465	3	Clamp, Hose				
9	503-0365	1	Clamp, Hose				
10	130-5270-02	1	Guard, Fan				

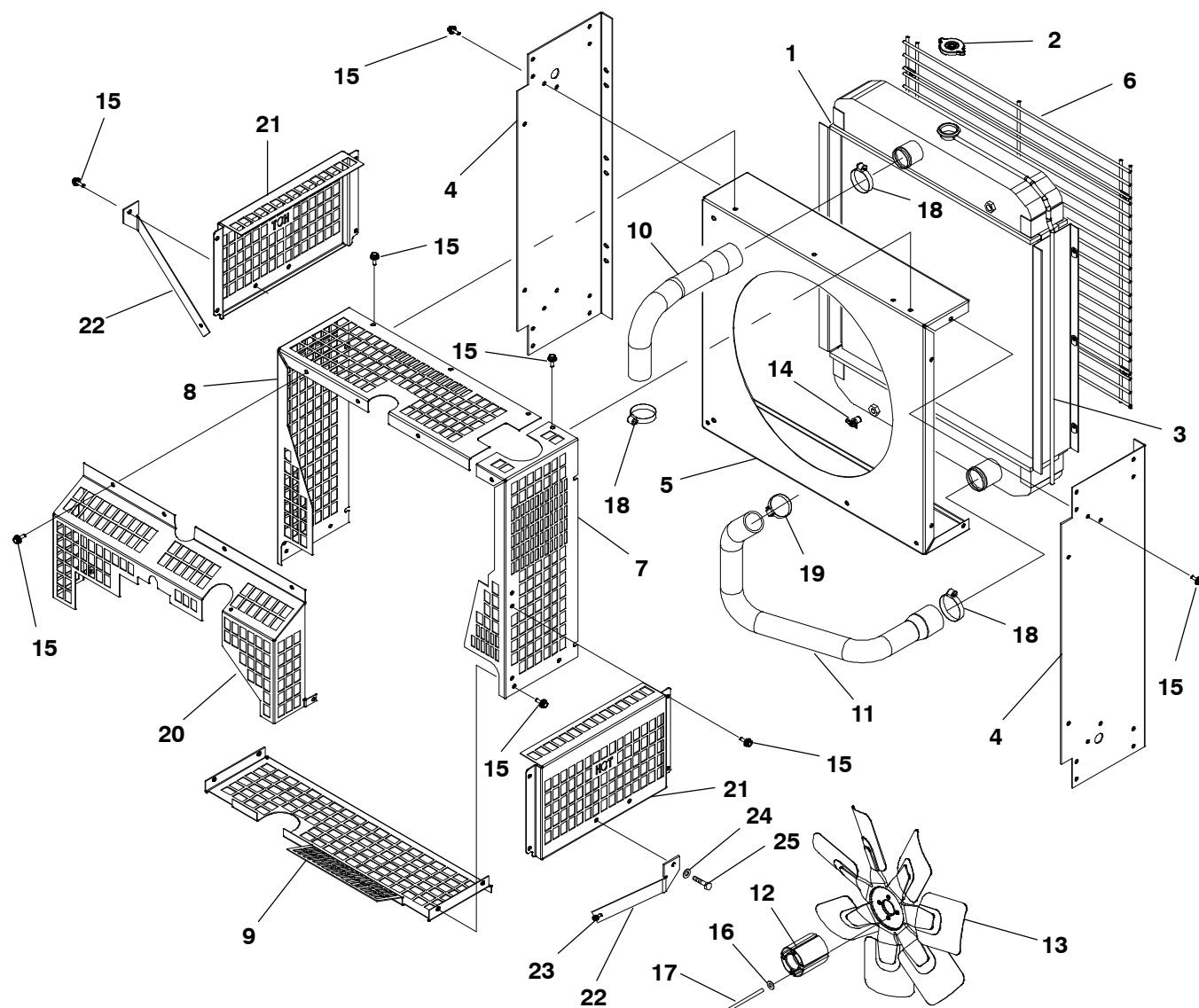
Remote Radiator Begin Spec E



Remote Radiator Begin Spec E

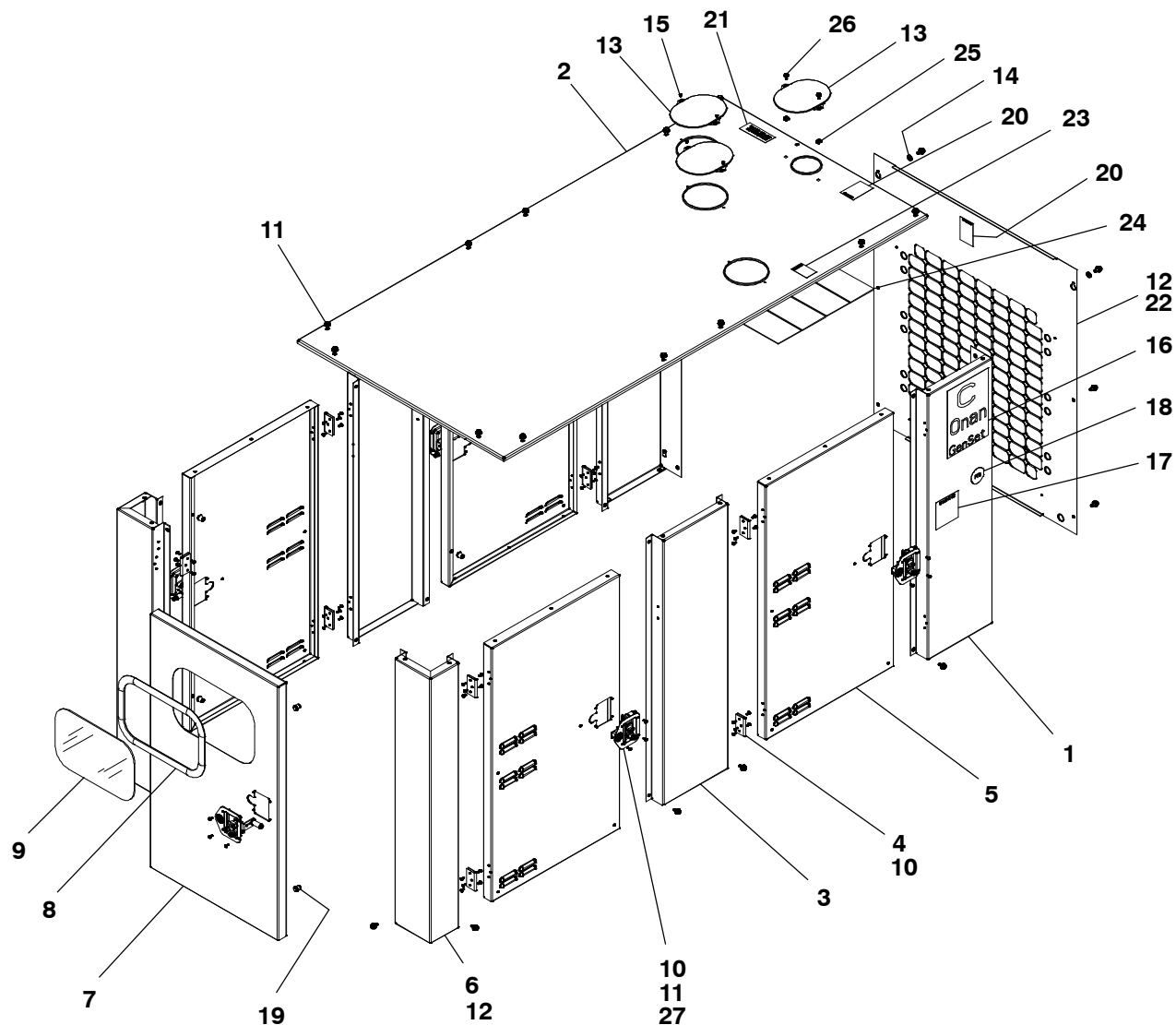
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-6603-02	1	Panel, Front – Radiator Housing	11	155-3389-02	2	Shield, Heat
2	130-5269-02	1	Guard, Fan – Right Hand	12	155-3391-02	2	Bracket, Shield
3	130-6168-02	1	Guard, Fan – Left Hand	13	815-0941-03	2	Screw, Thread Forming (M6 x 1.0 x 18)
4	130-5272-02	1	Guard, Fan – Bottom	14	526-2101	4	Screw, Cap – Hex Head (M8 x 1.25 x 12)
5	503-2507	1	Hose, Radiator – Inlet	15	130-5306-02	4	Washer (M8)
6	503-2170	1	Hose, Radiator – Outlet	16	526-0122	1	Washer, Flat (11/32 ID x 23/32 OD)
7	821-6003-02	30	Screw, Hex Head (M8 x 1.25 x 20)	17	800-3017-17	1	Screw, Cap – Hex Head (M8 x 1.25 x 12)
8	503-0465	3	Clamp, Hose				
9	503-0365	1	Clamp, Hose				
10	130-6169-02	1	Guard, Belt				

Radiator Begin Spec E



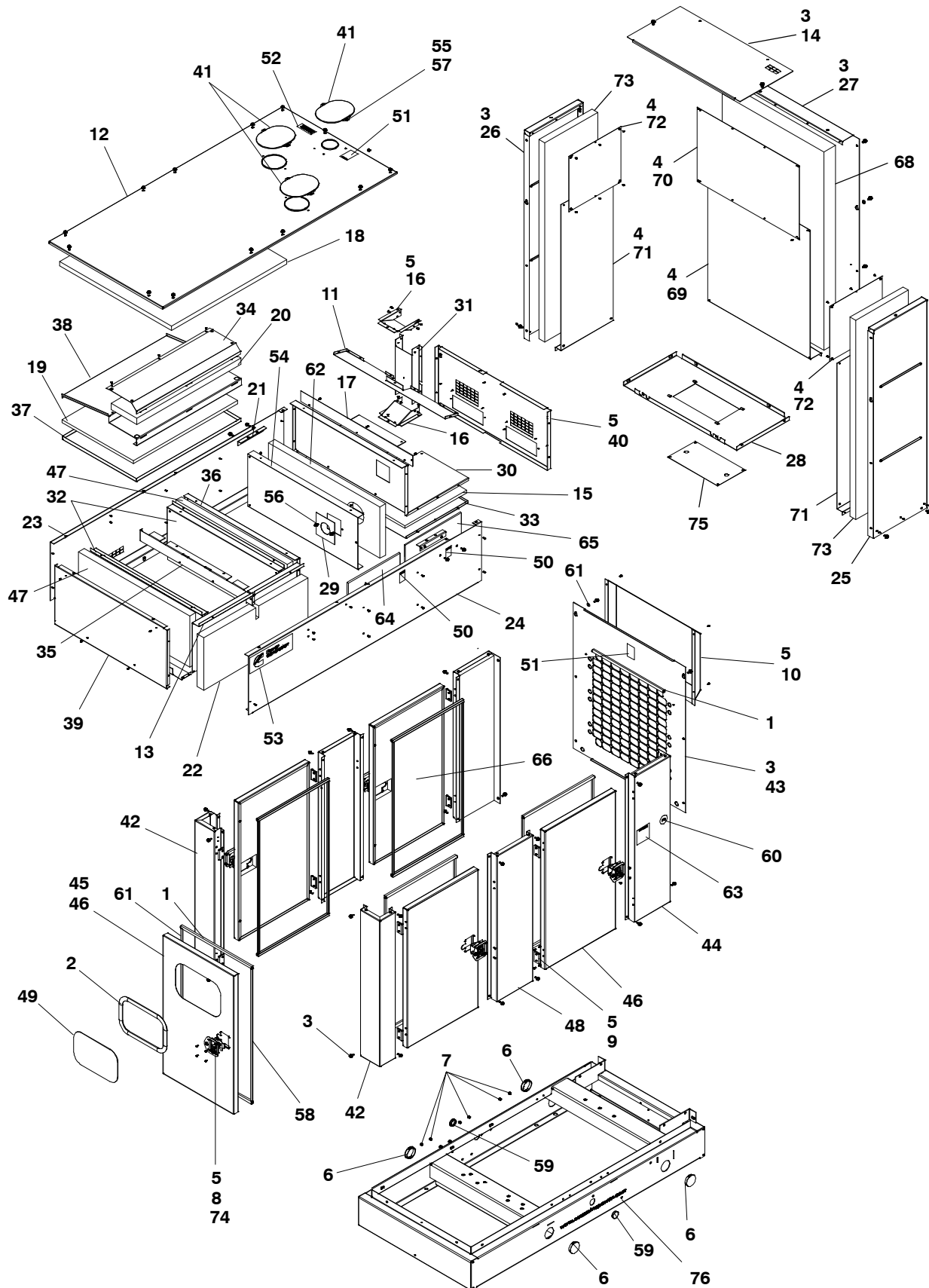
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4596-02	1	Radiator (Includes Cap and Overflow Hose)	15	821-6003-02	40	Screw, Hex Head (M8 x 1.25 x 20)
2	130-1788	1	Cap, Radiator - 14 PSI	16	740-1006	4	Washer, Flat (M8)
3	503-0276	-	Hose, Overflow - Bulk (Order by the Foot - 4 Feet Required)	17	800-2073	4	Screw, Cap - Hex Head (M8 x 1.25 x 110)
4	130-4767	2	Side, Housing	18	503-0465	3	Clamp, Hose
5	130-5273-02	1	Shroud, Fan	19	503-0365	1	Clamp, Hose
6	130-4602	1	Grille (Unhoused Sets)	20	130-6169-02	1	Guard, Belt
7	130-5269-02	1	Guard, Fan - Left Hand	21	155-3389-02	2	Shield, Heat
8	130-6168-02	1	Guard, Fan - Right Hand	22	155-3391-02	2	Bracket
9	130-5272-02	1	Guard, Fan - Bottom	23	815-0941-03	2	Screw, Thread Forming (M6 x 1.0 x 18)
10	503-2507	1	Hose, Radiator	24	526-0122	1	Washer, Flat (11/32 ID x 23/32 OD)
11	503-2170	1	Hose, Radiator	25	800-3017-17	1	Screw, Cap - Hex Head (M8 x 1.25 x 12)
12	130-5213-02	1	Spacer, Fan				
13	130-5383	1	Fan				
14	504-0003	1	Cock, Drain				

Housing F182 Enclosure



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-5908	2	Panel, Side – Radiator Housing	14	526-0451	2	Washer, Flat (M8)
2	405-8240-01	1	Roof	15	818-0237-01	4	Rivet, Pop (1/8)
3	405-5745	2	Post, Housing – Center	16	098-7902-03	3	Label, Model Identification
4	406-0831	10	Hinge, Housing	17	098-4732	2	Label, Warning
5	405-5832	4	Door, Housing	18	098-4500	2	Label, Prototype
6	405-5916	2	Post, Corner – Housing	19	895-0382	10	Bumper, Door
7			Door, Rear	20	098-4730	2	Label, Warning
	405-5902	1	Units Without Window	21	098-5429	1	Label, Coolant Fill
	405-5903	1	Units With Window	22	405-5910	1	Panel, Front – Radiator Housing
8	895-0363	-	Weatherstrip – Units with Window – Bulk (Order by the Foot – 4 Feet Required)	23	098-7451	1	Label, Caution
9	319-2653	1	Window, Control	24	130-4848	6.3'	Insulation, Exhaust
10	818-0231-02	70	Rivet – Pop (3/16)	25	870-0504	2	Nut, Captive – Floating (M6 x 1.0)
11	406-0972-01	5	Latch, Door	26	821-6006-01	2	Screw, Hex Head (M6 x 1.00 x 16)
12	821-6007-02	28	Screw, Hex Head (M8 x 1.25 x 20)	27	406-0782	5	Key, Replacement (Fits Latch 406-0972-01)
13	155-3238	3	Cover, Exhaust				

Housing F172 Enclosure – F173 Enclosure with Single Front Duct



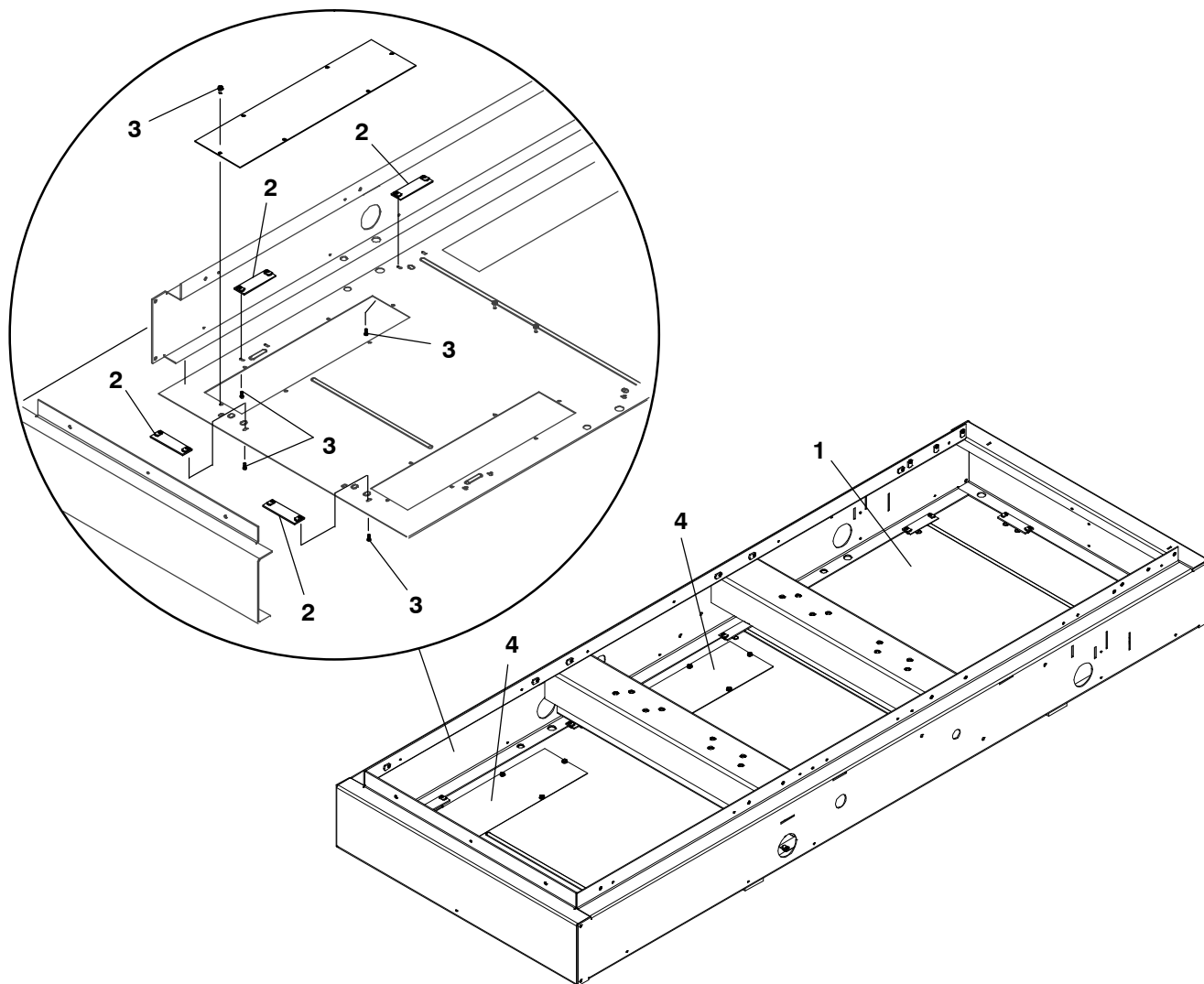
Housing

F172 Enclosure – F173 Enclosure with Single Front Duct

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	895-0384	11	Weather Seal Top & Bottom	39	405-5953	1	Extension, Rear
2	895-0363	–	Weather Strip – Window – Bulk (Order by the Foot – 4 Feet Required)	40	405-5952	1	Extension, Front
3			Screw, Hex Head (M8 x 1.25 x 20)	41	155-3238	3	Cover, Exhaust
	821-6007-02	47	F172 Housing	42	405-5916	2	Post, Corner – Housing
	821-6007-02	69	F173 Housing	43	405-5910	1	Panel, Front – Radiator Housing
4			Rivet (1/8")	44	405-5908	2	Panel, Side – Radiator Housing
	818-0237-01	70	F172 Housing	45	405-5903	1	Door, Housing W/Window Cutout
	818-0237-01	80	F173 Housing	46	405-5902	5	Door, Housing WO/Window
5	818-0231-02	105	Rivet (3/16")	47	405-5841	2	Insulation
6	517-0322	6	Plug, Hole	48	405-5745	2	Post, Housing – Center
7	517-0131	6	Plug, Hole	49	319-2653	1	Window, Control (if equipped)
8	406-0972-01	5	Latch, Door	50	098-7451	3	Label, Caution
9	406-0831	10	Hinge	51	098-4730	2	Label, Caution
10	405-6035	1	Baffle, Air – Discharge	52	098-5429	1	Label, Coolant Fill
11	405-6068	1	Baffle, Recirculation – Muffler	53	098-7902-03	3	Label, Logo
12	405-8240-01	1	Roof	54	405-8312	1	Retainer, Insulation
13	405-8311	1	Retainer, Insulation	55	821-6006-01	2	Screw, Hex Head (M6 x 1.0 x 16)
14	405-6010	1	* Cover, Discharge	56	526-0011	2	Washer, Flat
15	405-6005	1	Insulation – Muffler	57	870-0504	2	Nut, Captive – Floating
16	405-6003	2	Box, Radiator Fill	58	895-0385	5	Weather Seal – Side
17	405-6029	1	Barrier, Air Flow	59	517-0138-07	2	Plug
18	405-6001-01	1	Insulation	60	098-4500	2	Label, Prototype Tested
19	405-6000-03	1	Insulation	61	895-0386	5	Weather Seal
20	405-6000-02	1	Insulation	62	405-6109	1	Insulation
21	405-5998	2	Support, Muffler	63	098-4732	2	Label, Warning
22	405-5997	1	Insulation	64	128-0154-04	1	Insulation, Foam
23	405-5996	1	Extension, Side – RH	65	128-0252	2	Insulation, Foam
24	405-5995	1	Extension, Side – LH	66	405-5734	2	Insulation
25	405-5991-02	1	* Side, Discharge – LH	67	526-0451	4	Washer, Flat (M8)
26	405-5991-01	1	* Side, Discharge – RH	68	405-6000-07	1	* Insulation
27	405-5990	1	* Discharge, Front	69	405-8309	1	* Retainer, Insulation
28	405-9022-02	1	* Discharge, Bottom	70	405-8314	1	* Retainer, Insulation
29	405-5987	1	Barrier, Air	71	405-8310	2	* Retainer, Insulation
30	405-5966	1	Box, Muffler	72	405-8313	2	* Retainer, Insulation
31	405-6030	1	Fill Neck, Radiator	73	405-6000-04	2	* Insulation
32	405-8307	2	Cover, Perforated	74	406-0782	5	Key, Replacement (Fits Latch 406-0972-01)
33	405-8306	1	Retainer, Insulation				
34	405-8305	1	Inlet, Perforated	75	405-9023-02	1	* Panel, Access
35	405-5957	2	Angle, Support	76	098-8220	2	Label, Information (White)
36	405-5956	1	Duct, Support				
37	405-8304	1	Inlet, Perforated				
38	405-5954	1	Duct, Bottom – Inlet				

* – Parts used only on F173 Housing

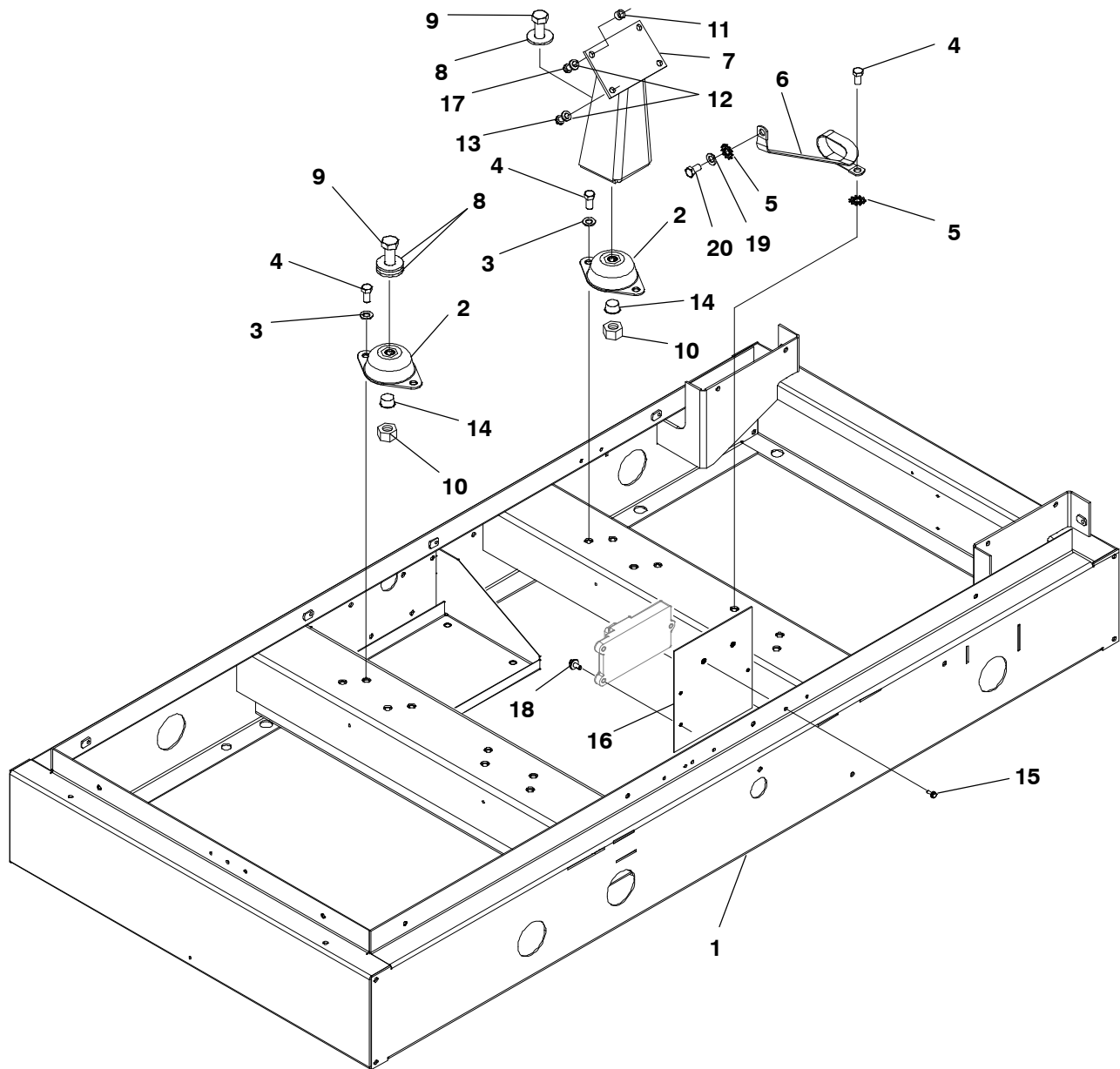
Skid Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4290	1	Pan, Skid
2	403-4110	10	Clamp
3	821-6002-03	38	Screw, Self-Locking – Hex Washer Head (M6 x 1 x 16mm)

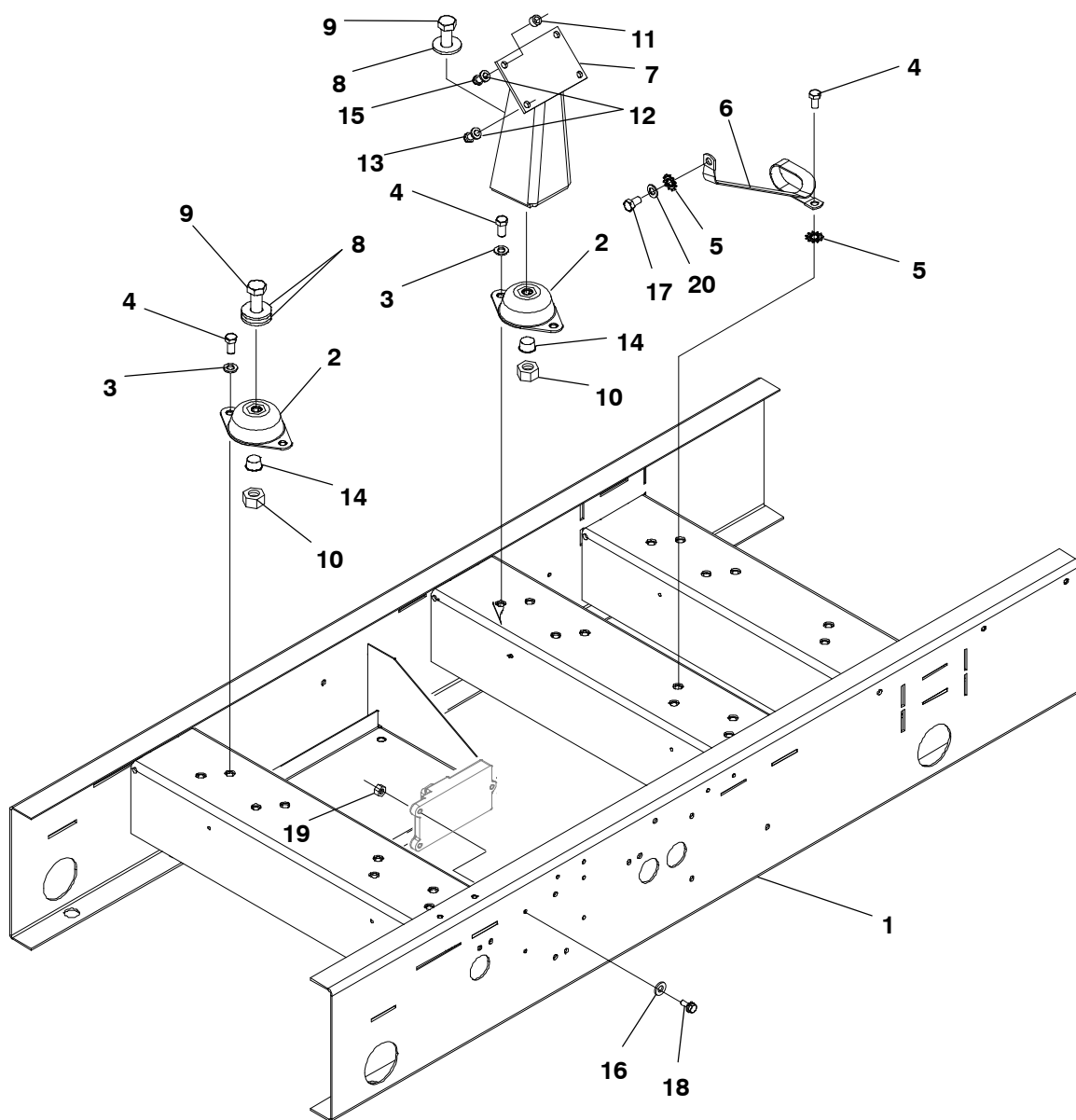
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	403-4116	3	Cover, Stub-Up

Skid Housing Compatible



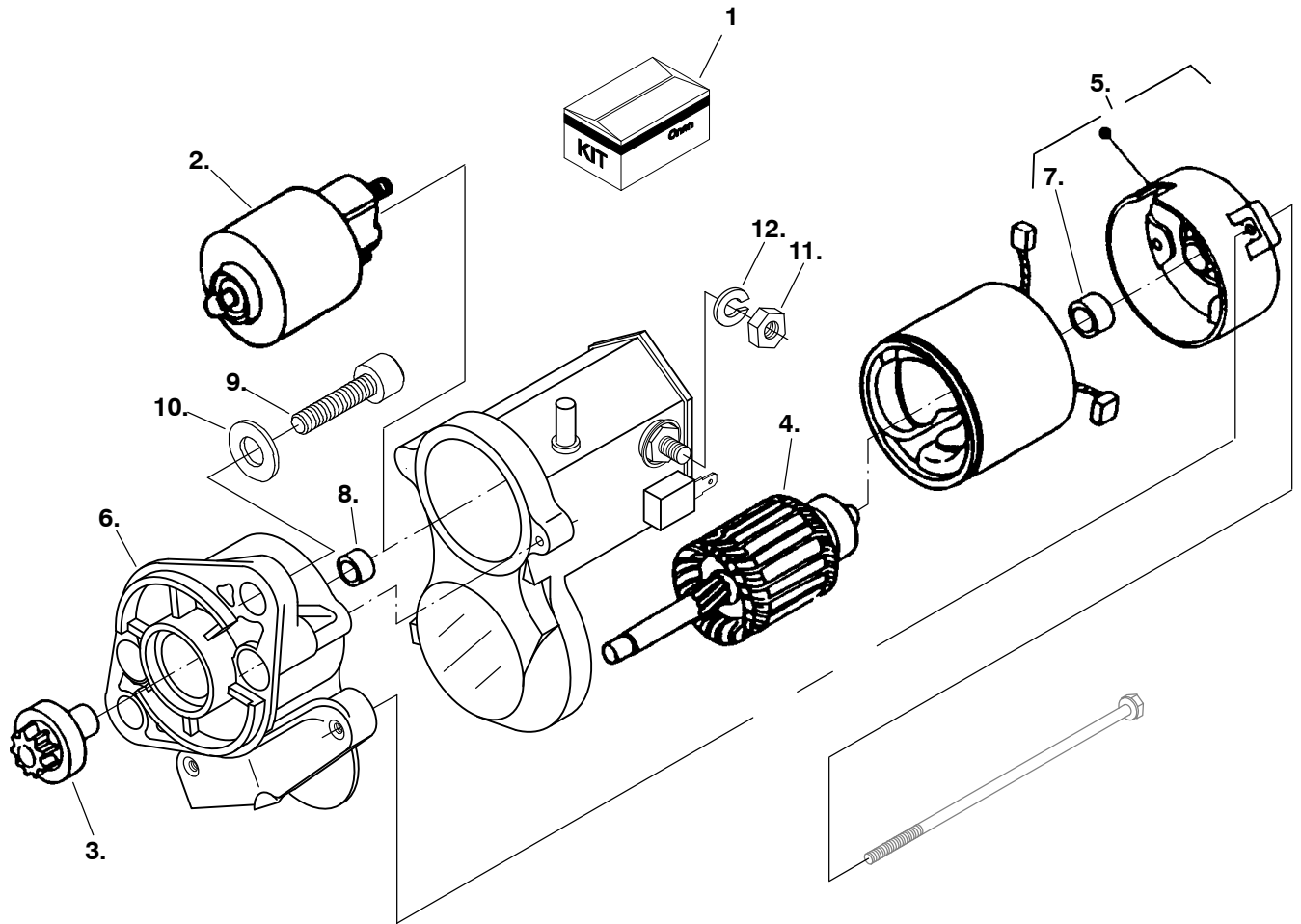
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4487-02	1	Skid	13	800-2530-03	4	Screw, Cap – Hex Head (M10 x 1.5 x 25)
2	402-0779-02	4	Cushion, Vibration Isolator	14	517-0094	4	Plug, Plastic
3	526-0433	8	Washer, Hardened (M12)	15	821-6006-01	2	Screw, Hex Head – Stainless Steel (M6 x 1 x 16)
4	800-2543-02	9	Screw, Cap – Hex Head (M12 x 25)	16	403-5072-02	1	Bracket, Ignition Module
5	856-0013	2	Washer, Lock – WIT (1/2)	17	800-2530-05	2	Screw, Cap – Hex Head (M10 x 1.5 x 35)
6	337-0090-01	1	Strap, Electrical	18	815-0793-03	3	Screw, Cap – Hex Flange Head – Thread Forming (M5 x 0.8 x 12)
7	403-4486-02	2	Bracket, Engine – Mounting	19	526-2140	1	Washer, Flat (M12)
8	526-0238-01	6	Washer, Flat (3/4)	20	800-2112	1	Screw, Cap – Hex Head (M12 x 1.75 x 30)
9	800-0607	4	Screw, Cap – Hex Head (3/4-10 x 2)				
10	862-0044	4	Nut, Hex – Heavy (3/4-10)				
11	403-4496-02	2	Spacer, Motor Mount				
12	526-0174	6	Washer, Flat (M10)				

Skid Non-Housing Compatible



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4497-02	1	Skid	12	526-0174	6	Washer, Flat (M10)
2	402-0779-02	4	Cushion, Vibration Isolator	13	800-2530-03	4	Screw, Cap - Hex Head (M10 x 1.5 x 25)
3	526-0433	8	Washer, Hardened (M12)	14	517-0094	4	Plug, Plastic
4	800-2543-02	9	Screw, Cap - Hex Head (M12 x 25)	15	800-2530-05	2	Screw, Cap - Hex Head (M10 x 1.5 x 35)
5	856-0013	2	Washer, Lock - WIT (1/2)	16	526-0008	3	Washer, Flat (3/16)
6	337-0090-01	1	Strap, Electrical	17	800-2110	1	Screw, Cap - Hex Head (M12 x 1.75 x 20)
7	403-4486-02	2	Bracket, Engine - Mounting	18	800-2010	3	Screw, Cap - Hex Head (M5 x 0.8 x 20)
8	526-0238-01	6	Washer, Flat (3/4)	19	860-2006	3	Nut, Hex (M5 x 0.8)
9	800-0607	4	Screw, Cap - Hex Head (3/4-10 x 2)	20	526-2140	1	Washer, Flat (M12)
10	862-0044	4	Nut, Hex - Heavy (3/4-10)				
11	403-4496-02	2	Spacer, Motor Mount				

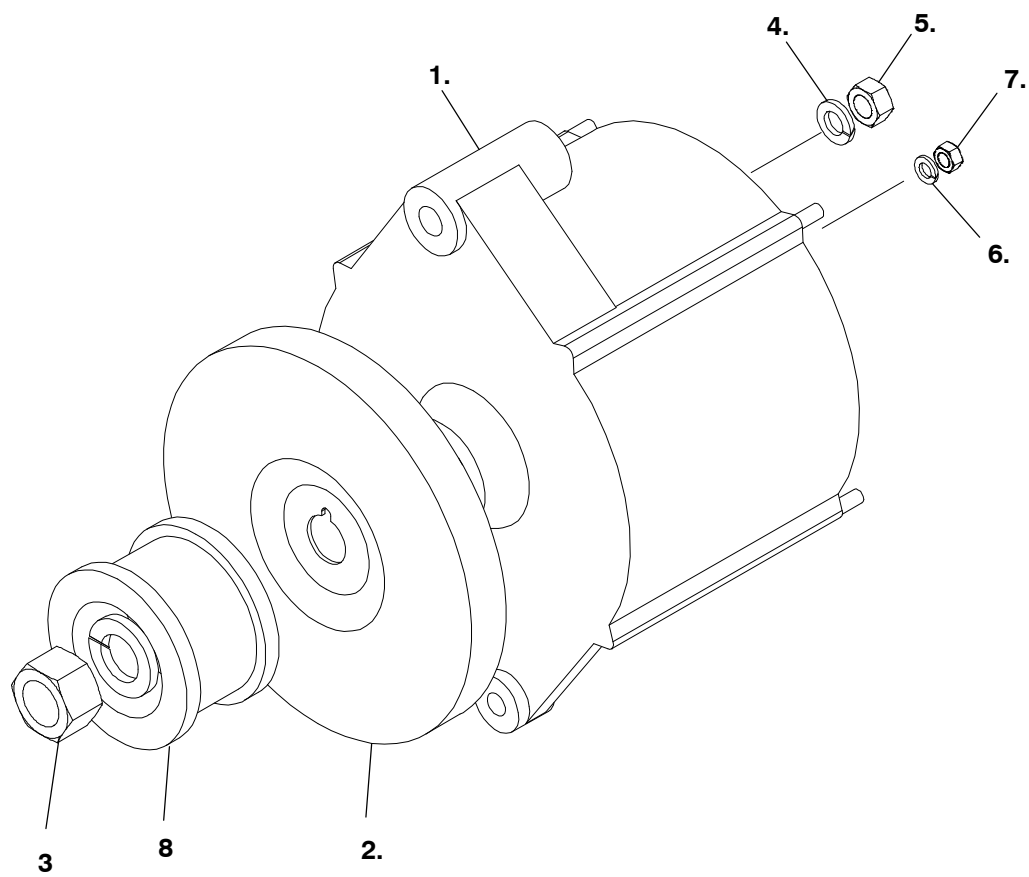
Starter Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-2213	1	Starter (1.4kW)
1.	191-2215	1	Kit, Starter Brush
2.	191-2216	1	Switch
3.	191-2217	1	Clutch
4.	191-2218	1	Armature
5.	191-2219	1	Frame, Commutator End
6.	191-2220	1	Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7.	191-2221	1	Bearing, Commutator End
8.	191-2222	1	Bearing, Pinion End
9.	186-6675	2	Screw, Socket Head Cap (M10 x 1.5 x 35mm)
10.	186-6619	2	Washer, Spring (M10)
11.	186-6274	1	Nut, Hex (M8 x 1.25)
12.	186-6618	1	Washer, Spring (M8)

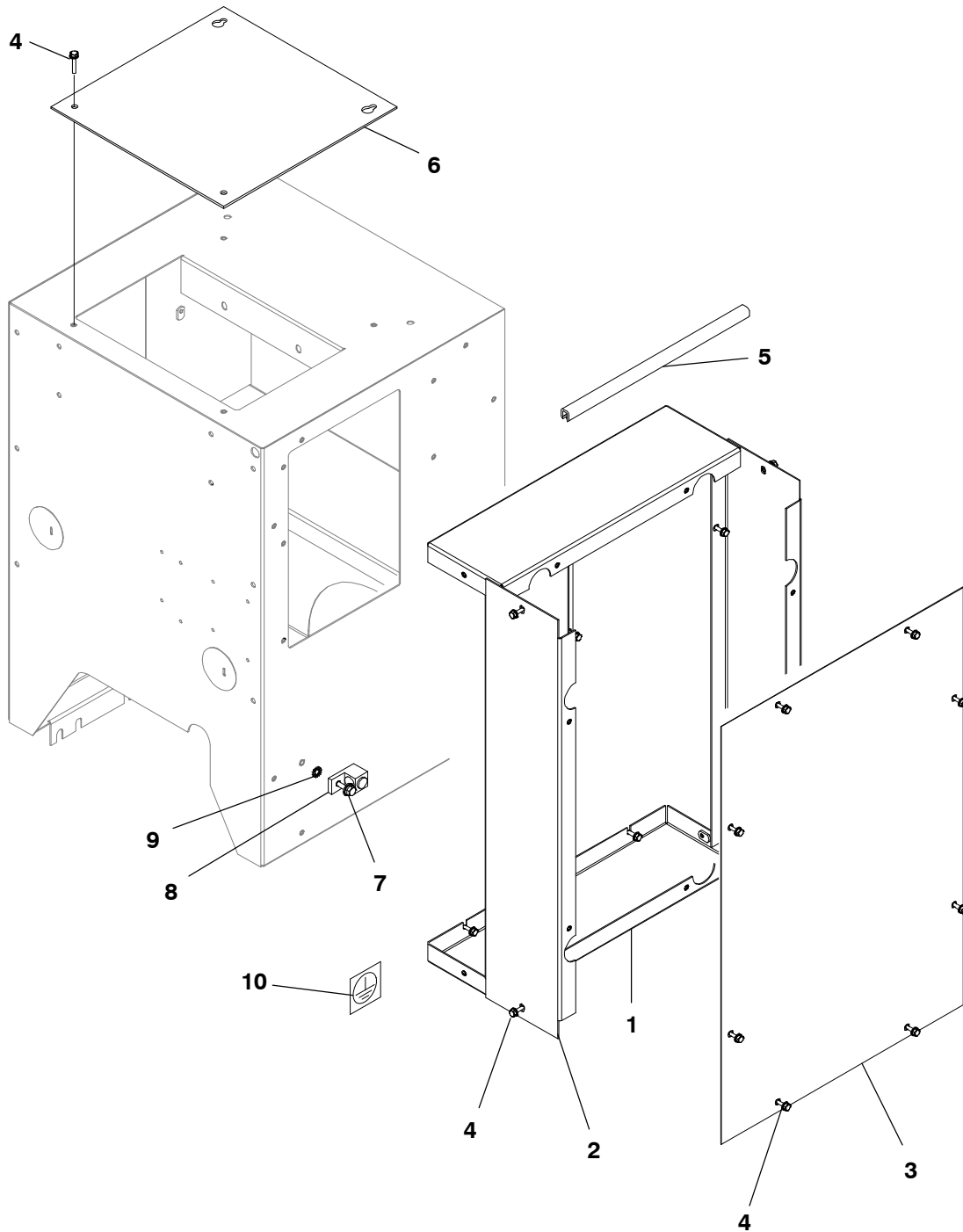
Alternator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1.	191-2326-01	1	Alternator (Spec A-E)
1.	A032W921	1	Alternator (Begin Spec F Not Shown)
2.	191-2330	1	Fan, Alternator
3.	860-2031	1	Nut, Hex (M16 x 1.5)
4.	850-2008	1	Washer, Lock (M8)

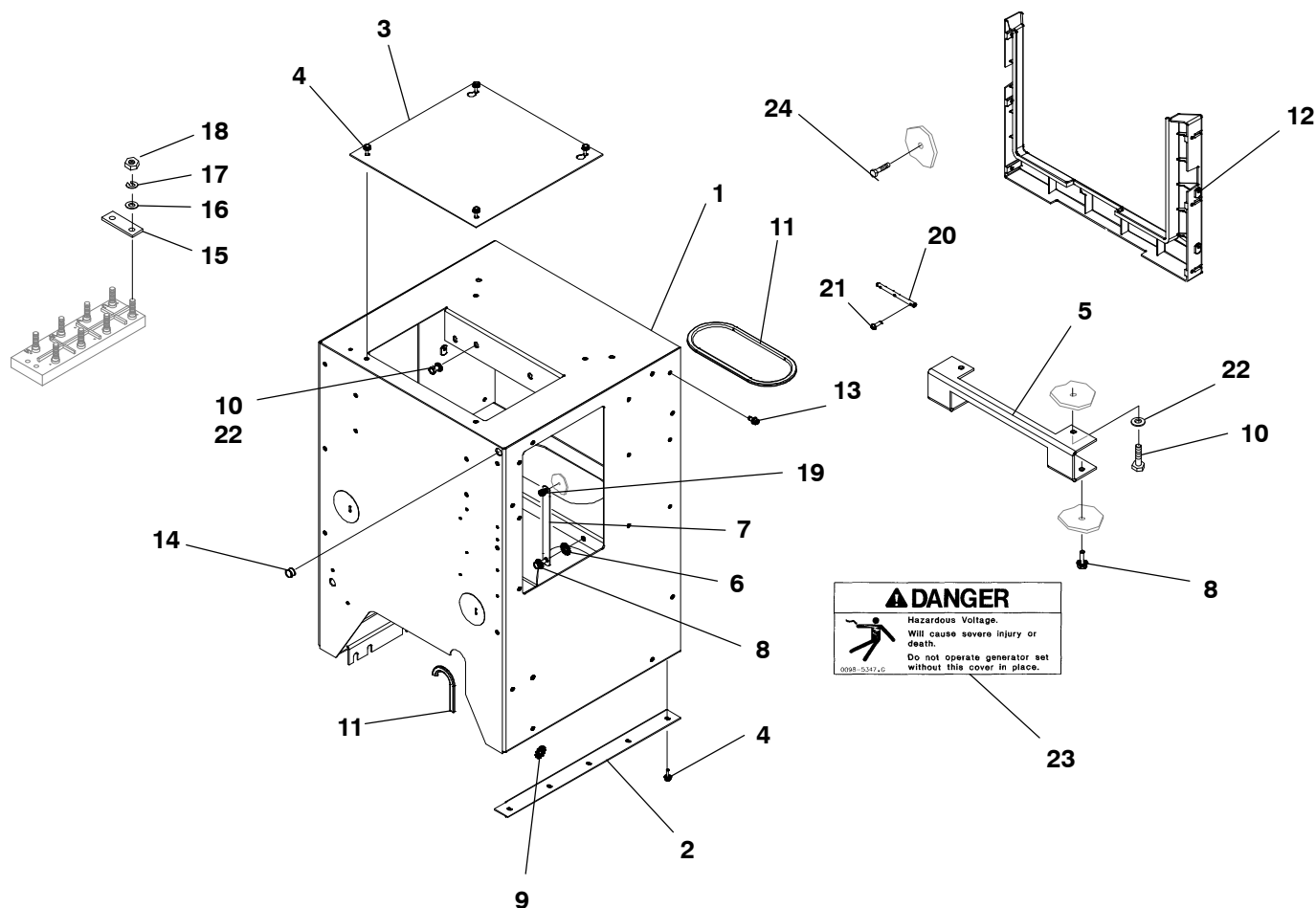
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5.	860-2008	1	Nut, Hex (M8)
6.	850-2005	2	Washer, Lock (M5)
7.	860-2006	2	Nut, Hex (M5)
8.	512-0229	1	Pulley, Alternator
9.	A023W921	1	Alternator (Spec F-K)

Entrance Box



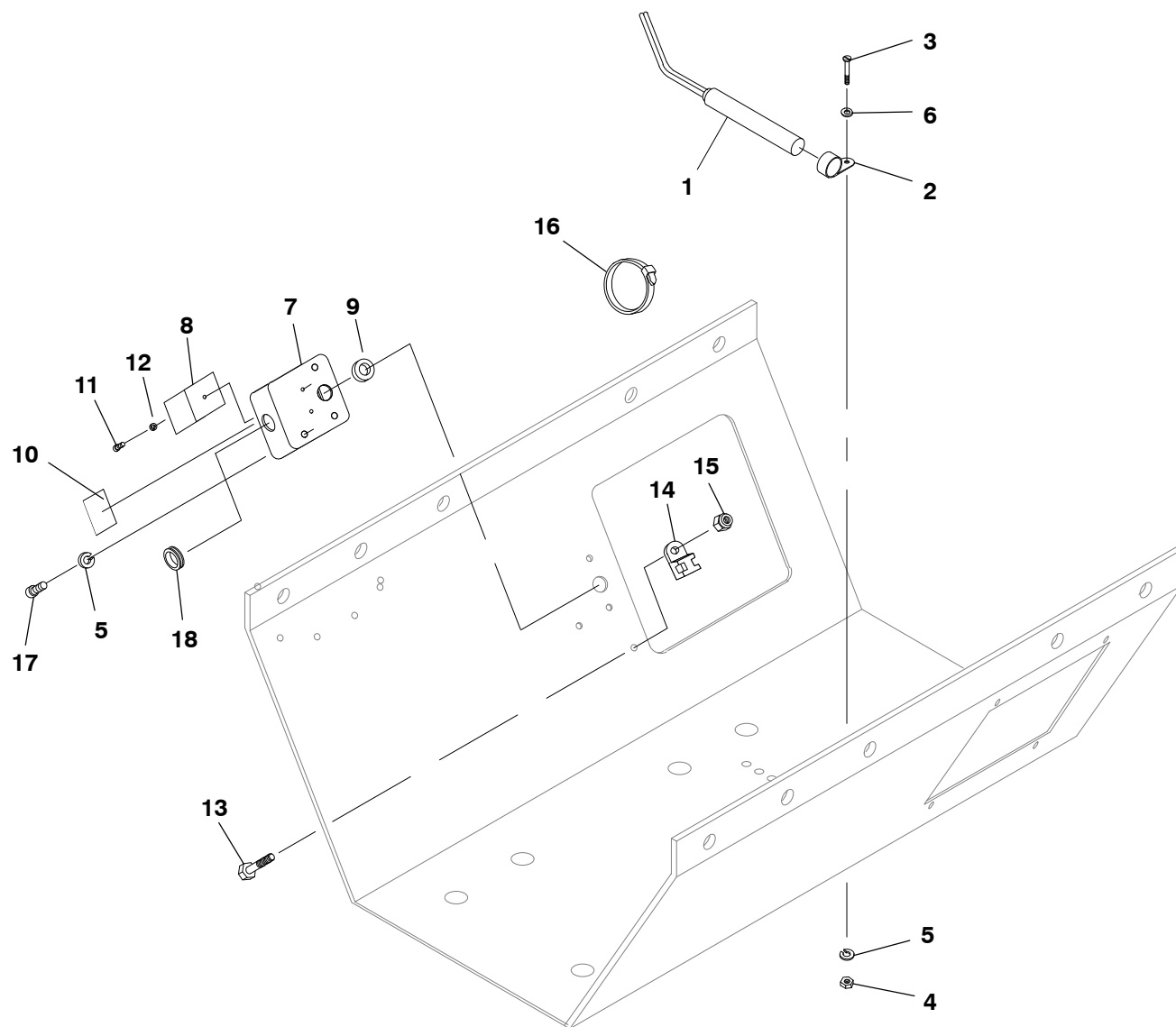
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3072	2	Panel, End – CB Box	6	319-2996	1	Cover, Control Housing
2	319-2978	2	Panel, Side – CB Box	7	821-6003-02	1	Screw, Hex Head (M8 x 1.25 x 20)
3	319-2979-02	1	Cover, CB Box	8	332-1473	1	Lug, Solderless
4	821-6002-03	24	Screw, Hex Head (M6 x 16)	9	856-0008	1	Washer, Lock – EIT (5/16)
5	508-0239	–	Edging – Bulk (Order By The Foot – 2 Feet Required)	10	098-6537	1	Label, Ground

Control Housing



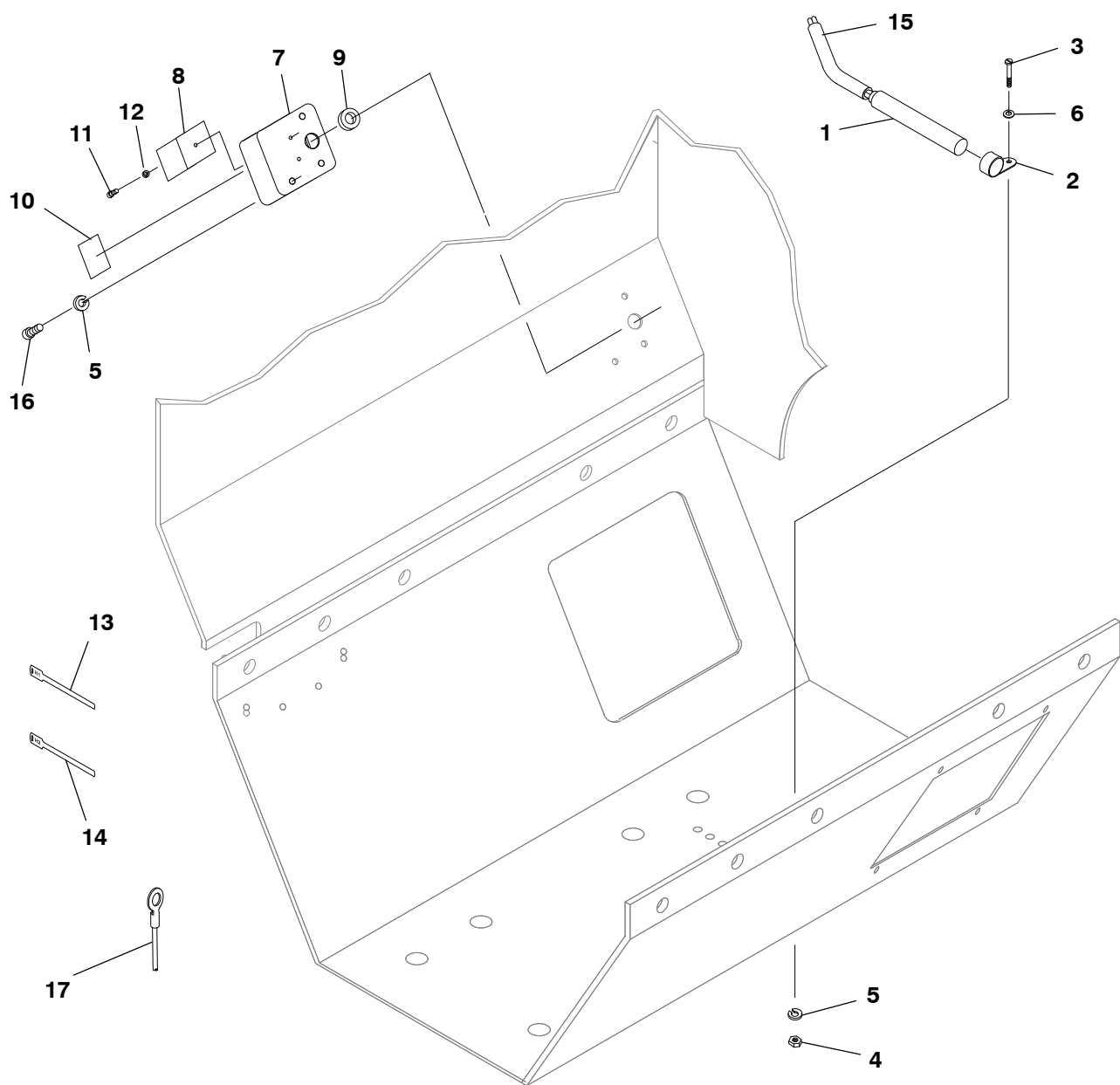
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Panel, Housing – Control	12	319-4457	1	Panel, Control
	319-3208	1	UCD22	13	815-0943-02	6	Screw, Hex Washer Head – Thread Forming (1/4-10 x .5)
	319-2967	1	UC27	14	517-0135	1	Plug, Hole
2	319-3207	1	Bracket, Control Mounting	15	332-2987	4	Link, Terminal
3	319-2996	1	Cover, Housing – Control	16	526-2120	8	Washer, Flat (M10)
4			Screw, Hex Head (M6 x 16)	17	850-2010	8	Washer, Lock (M10)
	821-6002-03	9	UCD22	18	860-2009	8	Nut, Hex (M10 x 1.5)
	821-6002-03	4	UC27	19	819-1144	1	Screw, Pan Head – Cross Recessed (M6 x 8)
5	319-4456-02	1	Bracket, Control	20	332-3740	1	Clamp, Strain
6	856-0010	1	Washer, Lock – W/EIT (3/8)	21	814-2150	3	Screw, Flat Head – Cross Recessed (M3 x 0.5 x 10)
7	337-0049	1	Strap, Bond	22	526-2100	4	Washer, Flat (M8)
8	821-6003-01	3	Screw, Hex Head (M8 x 1.25 x 16)	23	098-5347-01	1	Label, Danger
9			Washer, Lock – W/EIT	24			Screw, Hex Head (M5 x 0.8 x 12)
	856-0012	1	UCD22 (7/16)		821-6001-02	3	UCD22
	856-0013	1	UC27 (1/2)		821-6001-02	2	UC27
10	800-2052	4	Screw, Cap – Hex Head (M8 x 1.25 x 12)				
11	508-0305-02	–	Edging – Bulk (Order By The Foot – 3 Foot Required)				

Generator Heater Standard



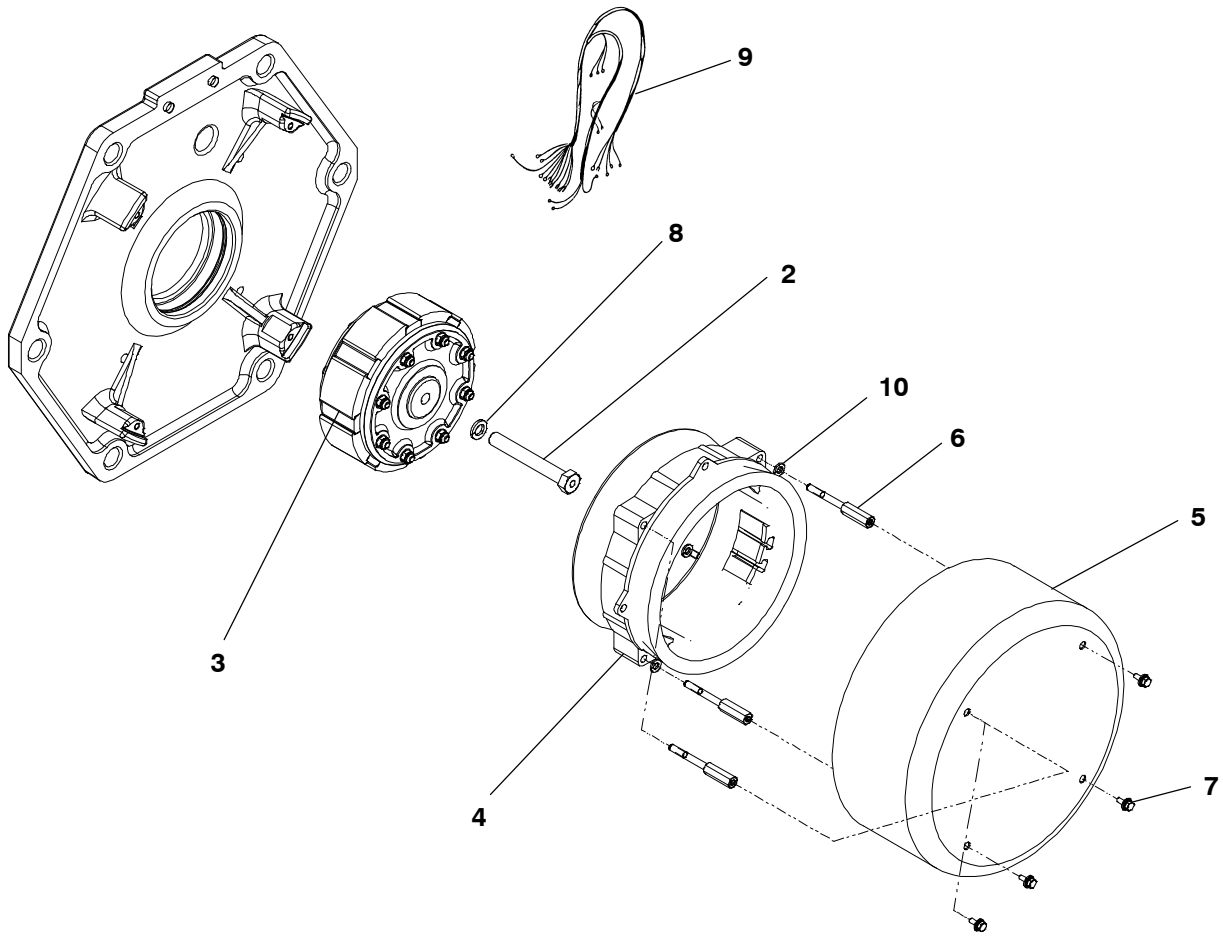
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0438-07	1	Cartridge, Heater	10	098-7281	1	Label, Warning – Heater
	333-0438-08	1	120 Volt	11	822-3047	1	Screw, Pan Head (M3 x 20)
2	332-3024-11	2	240 Volt	12	850-2003	1	Washer, Lock (M3)
3	822-3075	5	Clamp, Loop	13	800-3034	1	Screw, Cap – Hex Head (M4 x .7 x 12)
4	860-2005	2	Screw, Pan Head (M4 x 16)	14	332-3228	1	Nut, Tie – Cable
5	850-2004	4	Nut, Hex (M4)	15	870-2064-01	1	Nut, Nylon
6	526-2050	2	Washer, Lock (M4)	16	332-1389	1	Tie, Cable
7	330-0142	1	Washer, Flat (M4)	17	815-0792-04	2	Screw, Countersunk – Pan Head (M4 x .7 x 12)
8	332-3023	1	Box, Terminal – Heater	18	517-0021	1	Plug, Dot – Button
9	508-0228	1	Block, Terminal				
			Grommet				

Generator Heater Quiet Site



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0438-07	1	Cartridge, Heater	9	508-0228	1	Grommet
	333-0438-08	1	110-125 Volt	10	098-6142	1	Label, Heater Adjust
2	332-3024-11	2	220-260 Volt	11	822-3047	1	Screw, Pan Head (M3 x 20)
3	822-3075	5	Clamp, Loop	12	850-2003	1	Washer, Lock (M3)
4	860-2005	1	Screw, Pan Head (M4 x 16)	13	532-0474-19	1	Marker, Wire (H1)
5	850-2004	3	Nut, Hex (M4)	14	532-0474-20	1	Marker, Wire (H2)
6	526-2050	1	Washer, Lock (M4)	15	898-1254-19	1	Sleeving, Insulating
7	330-0142	1	Washer, Flat (M4)	16	815-0242	2	Screw, Thread Cutting - Pan Head (#8-32 x .5)
8	332-3023	1	Box, Terminal - Heater	17	226-4780	2	Lead
			Block, Terminal				

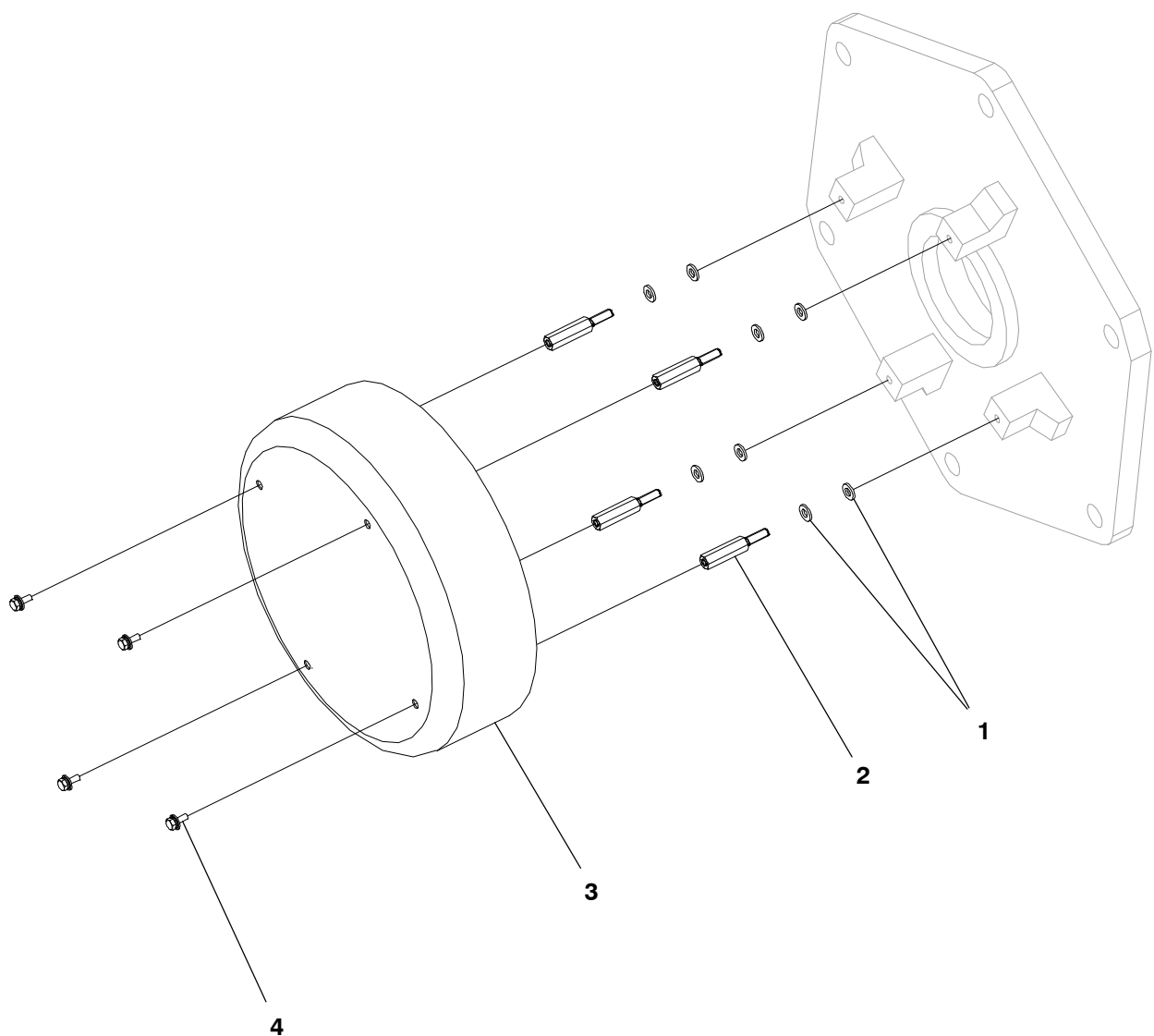
Permanent Magnet Generator (PMG)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	775-0049	1	Pin, Parallel (Not Shown)
2	815-0761-01	1	Bolt, Mounting - PMG
3	201-3446	1	Rotor, PMG
4	220-4233	1	Stator, PMG
5	234-0875-02	1	Cover, End Bell
6	232-3462-02	4	Spacer, Cover

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	821-6001-01	4	Screw, SEMS - Hex Head (M5 x 0.8 x 10)
8	850-2010	1	Washer, Lock (M10)
9	338-3011	1	Harness, Wiring - PMG
10	850-2006	4	Washer, Lock (M6)

End Bell

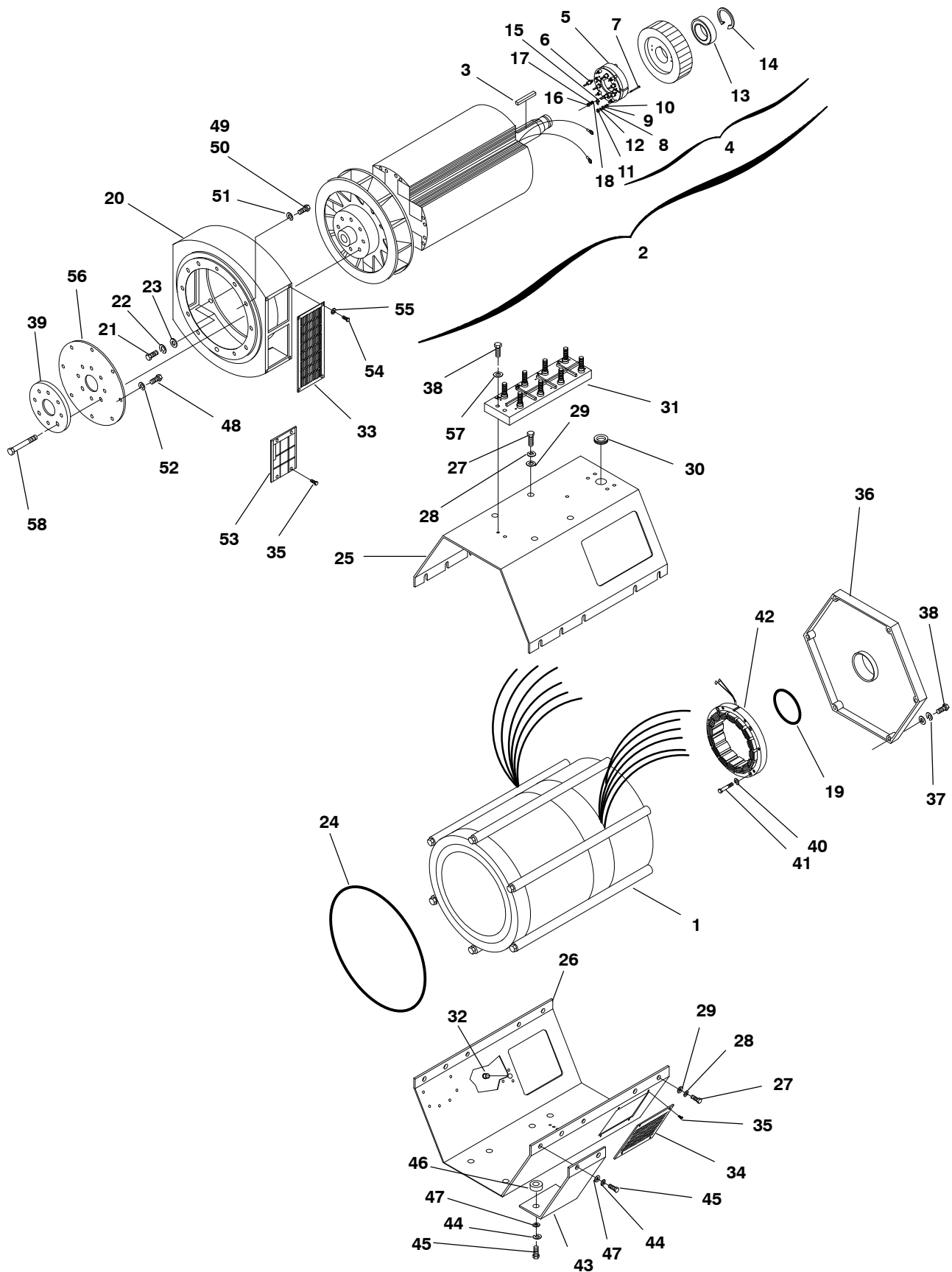


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	526-2080	8	Washer, Flat (M6)
2	232-3462-01	4	Spacer, Cover
3	234-0875-01	1	Cover, End Bell

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	821-6001-01	4	Screw, Hex Head (M5 x 0.8 x 10)

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Generator



Generator

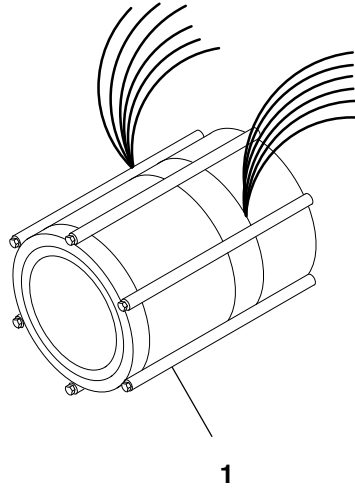
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stator, Generator (See separate page for part numbers)	28			Washer, Lock – Spring (M10)
					850-0114-55	8	130/160 Stack Length
					850-0114-55	10	180/240 Stack Length
2			Rotor Assembly, Generator (Includes parts marked *)	29			Washer, Flat (M10)
	201-3557-01	1	130mm Stack Length		526-0399-62	8	130/160 Stack Length
	201-3557-02	1	160mm Stack Length		526-0399-62	10	180/240 Stack Length
	201-3557-03	1	180mm Stack Length	30	508-1057	1	Grommet
	201-3557-04	1	240mm Stack Length	31	232-3421	1	Block, Terminal
3			* Key, Exciter Rotor	32	517-0135	1	Plug, Hole
	515-0298-01	1	130, 160mm Stack Length	33	234-0990	2	Guard, Fan
	515-0298-02	1	180, 240mm Stack Length	34	234-0878	2	Screen, Air Inlet
4			* Rotor Assembly, Exciter (Includes Parts Marked #)	35	821-6001-02	24	Screw, SEMS (M5 x 12mm)
	201-3434-01	1	130, 160mm Stack Length	36	211-0422	1	Bell, End
	201-3434-02	1	180, 240mm Stack Length	37	850-0114-54	3	Washer, Lock (M8)
				38	800-2060	3	Screw, Cap – Hex Head (M8 x 1.25 x 35)
5			** Rectifier Assembly (Includes Parts Marked +)	39	232-3960	1	Plate, Pressure
	357-0091	1	Forward (with Positive Diode)	40	850-2006	4	Washer, Lock – Spring (M6)
	357-0092	1	Reverse (with Negative Diode)	41			Screw, Cap – Hex Head (M6 x 1)
6			**+ Diode		800-2038	4	130, 160mm Stack Length
	358-0135-01	3	Positive		800-2040	4	180, 240mm Stack Length
	358-0135-02	3	Negative	42			Stator, Exciter
7	800-3009	3	**+ Screw, Cap – Hex Head (M4 x 35mm) (CR1,2,3,4,5,6)		220-4293-04	1	130, 160mm Stack Length
8	860-2005	3	**+ Nut, Hex (M4)		220-4293-05	1	180, 240mm Stack Length
9	850-2004	3	**+ Washer, Lock – Spring (M4)	43	232-3940	2	Bracket, Mounting – Generator Foot
10	526-2050	3	**+ Washer, Flat (M4)	44	850-0114-55	8	Washer, Lock (M10)
11	870-2064-01	6	** Nut, Locking – Nylon (M4)	45	800-3017-41	4	Screw, Cap – Hex Head (M10 x 45)
12	526-2050	6	** Washer, Flat (M4)	46	232-3730-03	4	Spacer, Foot – Mounting
13	510-0165	1	* Bearing, Ball	47	526-0423	8	Washer, Flat
14	518-0122	1	* Ring, Retaining	48	805-0015	8	Bolt, Place (3/8-16 x 1)
15	304-0807	1	* Varistor	49	800-2088	4	Screw, Cap – Hex Head (M10 x 35mm)
16	860-2006	2	* Nut, Hex (M5)	50	800-2090	6	Screw, Cap – Hex Head (M10 x 35mm)
17	850-2005	2	* Washer, Lock – Spring (M5)	51	850-2010	12	Washer, Lock – Spring (M10)
18	526-2060	2	* Washer, Flat (M5)	52	526-0174	8	Washer, Flat (3/8)
19	509-0266-01	1	O-Ring	53	234-0981	2	Guard, Fan
20	231-0383	1	Adapter, Generator	54	821-6001-01	8	Screw, Self-Locking – Hex Washer Head (M5 x 10mm)
21	800-3017-20	6	Screw, Cap – Hex Head (M8 x 1.25 x 25)	55	526-0399-11	8	Washer, Flat
22	850-0114-54	6	Washer, Lock (M8)	56	232-3959-01	1	Disc, Drive
23	232-3441	6	Washer, End Bell	57	526-2100	3	Washer, Flat (M8)
24	508-0139		Seal, Edging – Bulk (Order by the foot – 3 Feet Required)	58	805-2021-06	8	Screw, Cap – Hex Head
25			Cover, Stator – Top				
	234-0936-01	1	130, 160mm Stack Length				
	234-0936-02	1	180, 240mm Stack Length				
26			Cover, Stator – Bottom				
	232-3819-01	1	130, 160mm Stack Length				
	232-3819-02	1	180, 240mm Stack Length				
27			Screw, Cap – Hex Head				
	800-3017-37	8	130, 160mm Stack Length (M10 x 1.5 x 25mm)				
	800-3017-37	10	180, 240mm Stack Length (M10 x 1.5 x 25mm)				

* –Parts Included in Generator Rotor Assemblies

–Parts Included in Exciter Rotor Assemblies

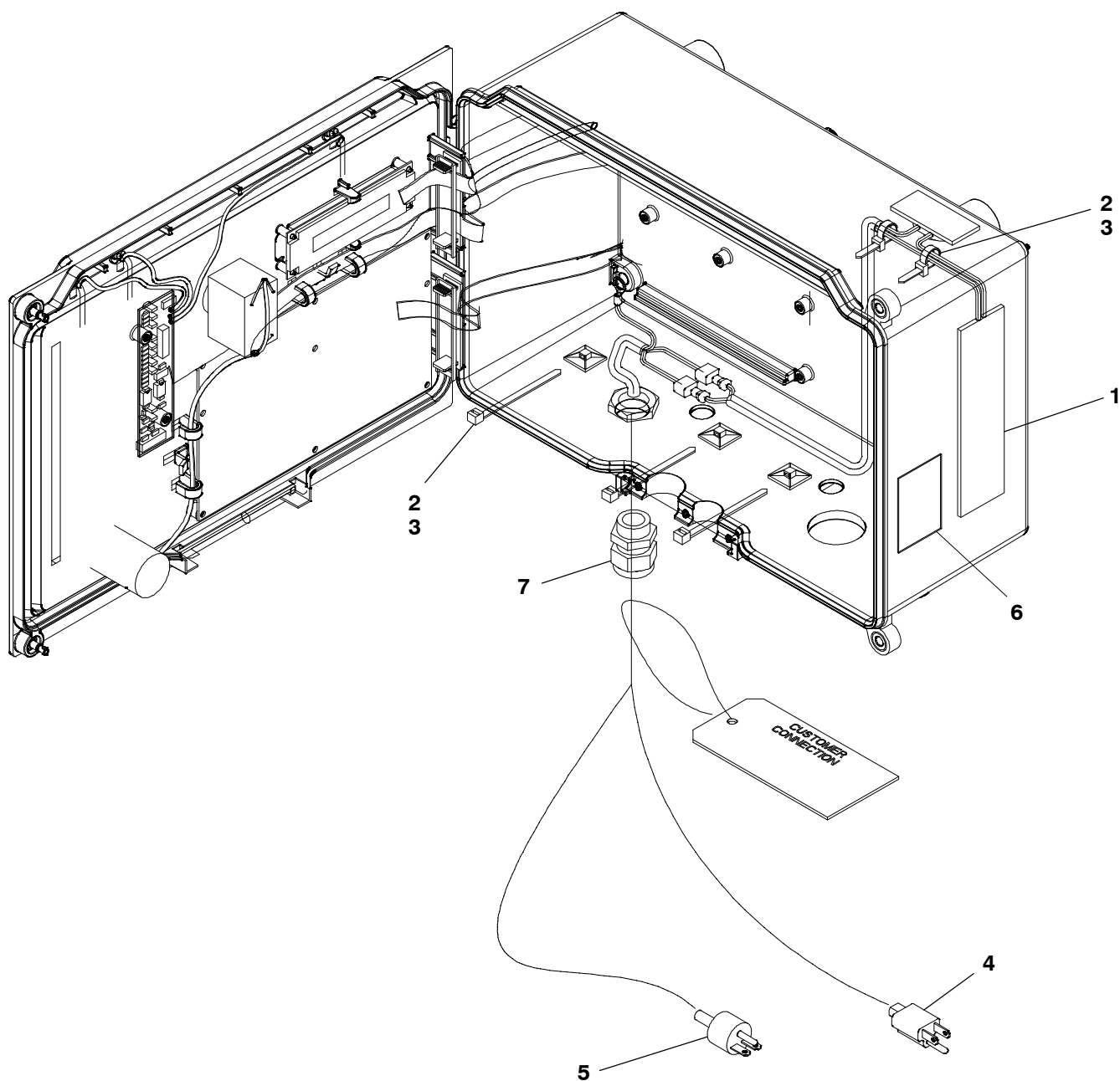
+ –Parts Included in Rectifier Assemblies

Generator Stator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stator, Generator
			GGFD
	220-4447-06	1	130mm Stack Length, Winding Code 6
	220-4447-07	1	160mm Stack Length, Winding Code 6
	220-4447-11	1	130mm Stack Length, Winding Code 11
	220-4447-12	1	160mm Stack Length, Winding Code 11
	220-4447-16	1	130mm Stack Length, Winding Code 14
	220-4447-26	1	130mm Stack Length, Winding Code 17
			GGFE
	220-4447-08	1	180mm Stack Length, Winding Code 6
	220-4447-09	1	240mm Stack Length, Winding Code 6
	220-4447-11	1	130mm Stack Length, Winding Code 11
	220-4447-13	1	180mm Stack Length, Winding Code 11
	220-4447-14	1	240mm Stack Length, Winding Code 11
	220-4447-17	1	160mm Stack Length, Winding Code 14
	220-4447-18	1	180mm Stack Length, Winding Code 14
	220-4447-27	1	160mm Stack Length, Winding Code 17
	220-4447-28	1	180mm Stack Length, Winding Code 17

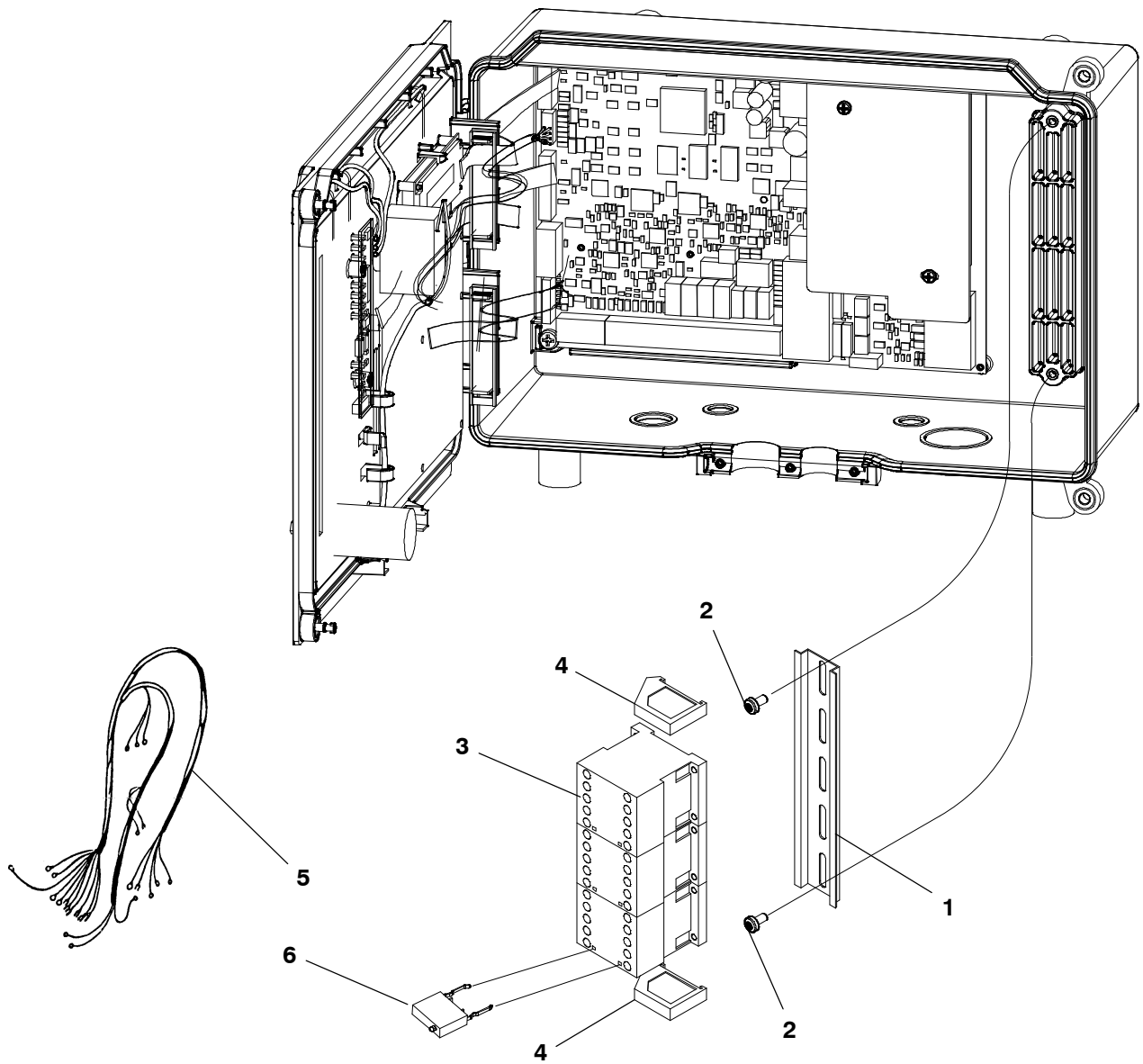
Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0661-01	1	Heater, Control 120V
	333-0661-02	1	240V
2	332-2420	3	Mount, Cable Tie
3	332-1445	3	Tie, Cable
4	335-0173	1	Cable, Control Heater – 120V

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	335-0173-01	1	Cable, Control Heater – 240V
6	098-6195	1	Label, Caution
7	323-2003-02	1	Strain Relief

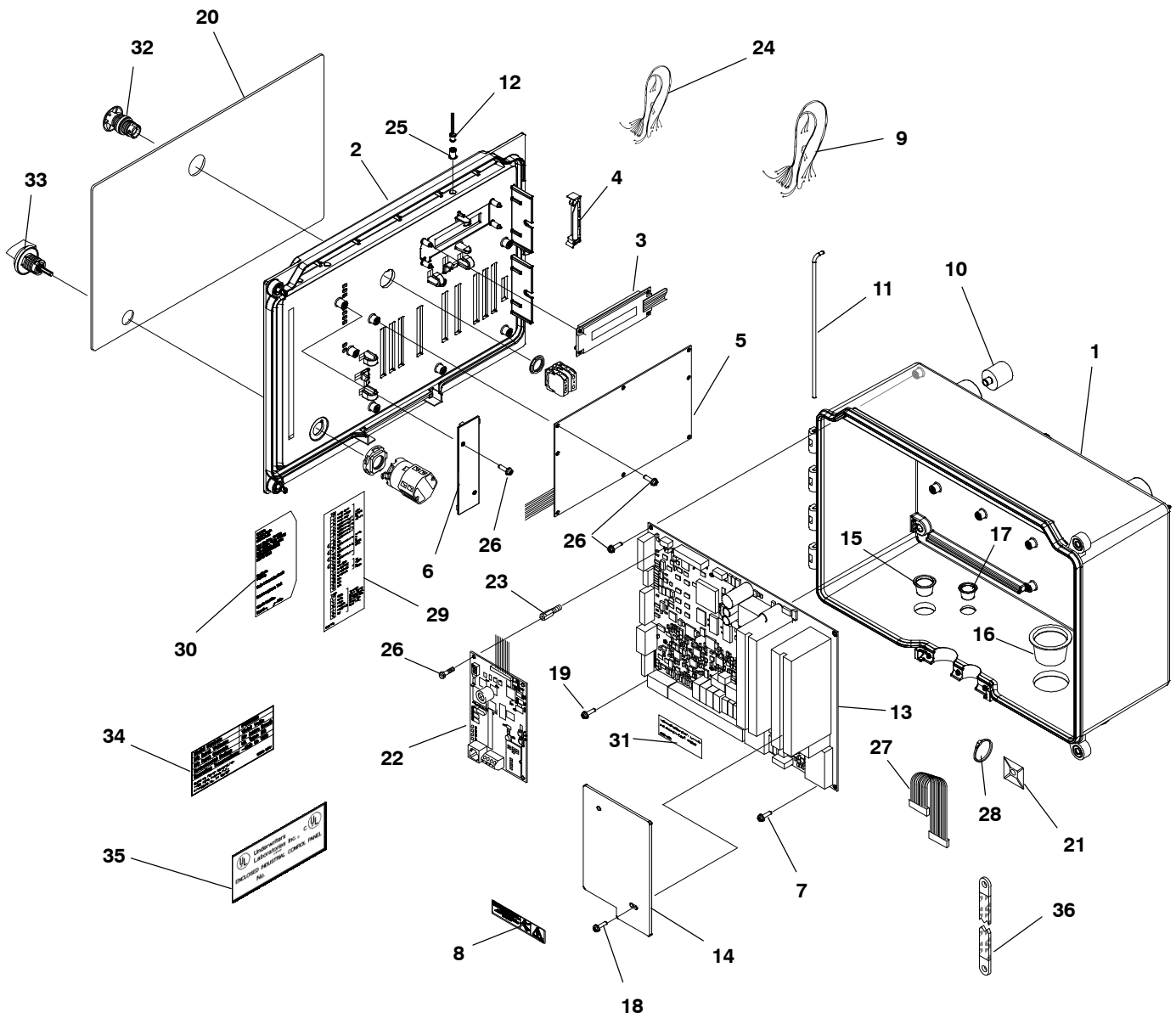
Control Relay



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-3842-01	1	Rail, Terminal Block	4	332-2878	2	Bracket, End - Terminal
2	819-1154	2	Screw, Pan Head - Cross Recessed (M5)	5	338-4438	1	Harness, Relay
3	307-2873	3	Relay, Control - 12V (K10, K11, K12)	6	305-1009	3	Suppressor, Voltage

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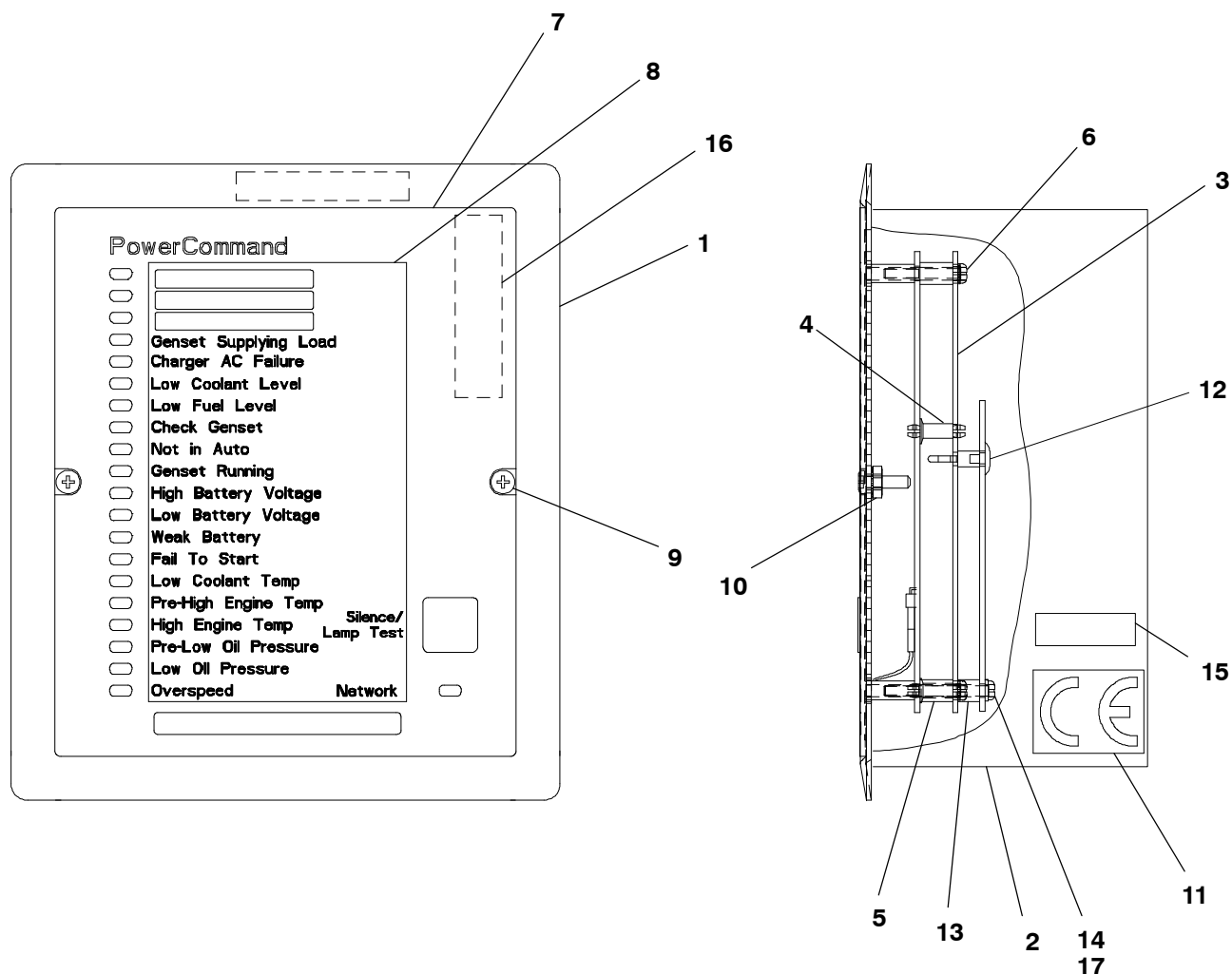
Control



Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-4487	1	Box, Control	19	819-1144	2	Screw, Pan Head – Cross
2	319-4488	1	Door Control				Recessed (M6 x 8)
3	300-5467	1	Display, Digital	20			Panel, Membrane
4	332-3896	4	Clamp, Cable		300-5446	1	With Bargraph
5	300-5180	1	Board, Printed Circuit – Bargraph		300-5447	1	Without Bargraph
6	300-5383	1	Board, Printed Circuit – LED	21	332-2420	2	Mount, Cable Tie
7	819-1137-02	4	Screw, Pan Head – Cross Recessed (M3 x 8)	22	327-1275	1	Board, Printed Circuit – NCM
8	098-7904	2	Label, Danger	23	870-2213-02	4	Standoff, Hex Threaded – With NCM
9	338-3991	1	Harness, Control – Door	24	338-3994	1	Harness, Panel Light
10	402-0764-01	4	Mount, Isolator	25	322-0488	3	Lens, LED
11	406-0845	1	Pin, Hinge	26			Screw, Pan Head – Cross Recessed (M3 x 6)
12	322-0491	3	Lamp, LED		819-1137-01	9	Without Bargraph
13	327-1379-01	1	Board, Printed Circuit – Base (Includes Fuses)		819-1137-01	15	With Bargraph
	321-0321-06	1	Fuse, Fast – 10A	27	335-0189	1	Cable, Ribbon
	321-0321-04	1	Fuse, Fast – 5A	28	332-1445	3	Tie, Cable
	321-0321-01	1	Fuse, Fast – 2A	29	098-7918	1	Label, Information
14	319-4497	1	Guard, Electrical	30	098-7961-01	1	Label, Information – Panel Insert
15	517-0356	1	Plug, Hole (Fits 22.5mm DIA. Hole)	31	098-7989	1	Label, Instruction – Torque
16	517-0357	1	Plug, Hole (Fits 38mm DIA. Hole)	32	308-0999	1	Switch, Emergency Stop
17	517-0355	2	Plug, Hole (Fits 16mm DIA. Hole)	33	308-1085	1	Switch, Selector
18	815-0792-02	2	Screw, Machine – Pan Head (M4 x 0.7 x 8)	34	098-8057	1	Label, Information – Rating
				35	098-6984	1	Label, UL
				36	337-0049	1	Strap, Bond

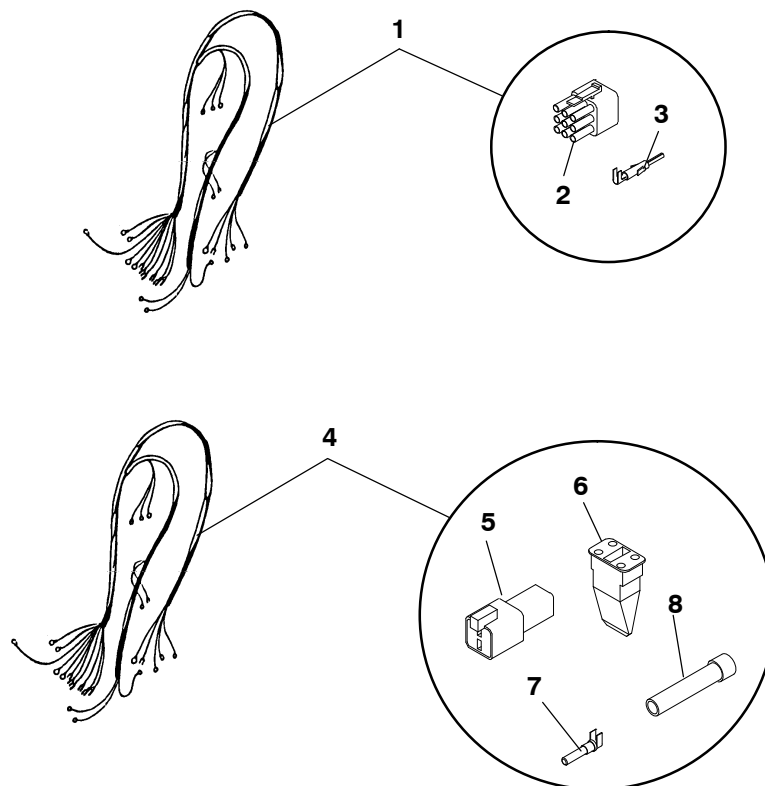
Annunciator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-4148-02	1	Panel, Annunciator
2	301-3090	1	Box, Control – Panel With Enclosure
3	327-1521	1	Board, Printed Circuit
4	332-3332-04	3	Post, Circuit Board
5	332-4064	4	Spacer, Printed Circuit Board
6	819-1160-01	3	Screw (M3 x 10)
7	300-5338	1	Panel, Membrane
8			Label, Information
	098-8321-04	1	Chinese/Spanish
	098-8321-01	1	English
	098-8321-03	1	French
9	815-0385	2	Screw, Machine – Round Head – Cross Recessed (#6-32 x 1/2)

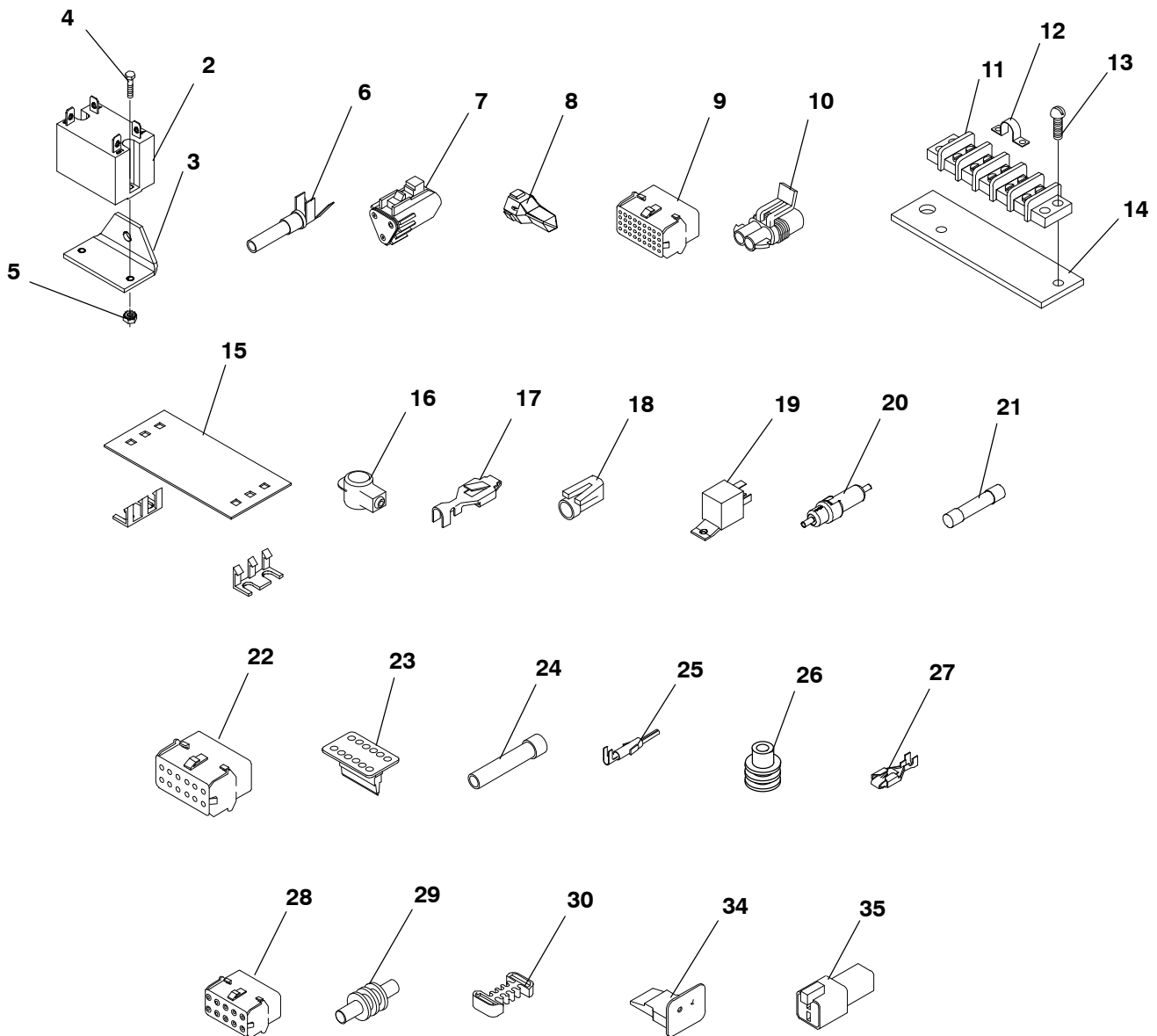
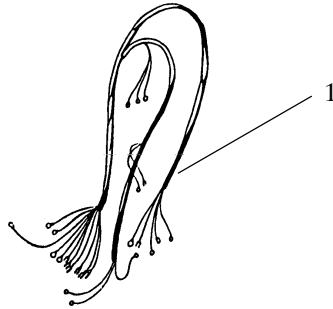
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	870-0183	2	Nut, Hex – W/ET (#6-32) – Panel Mounted
11	098-6959-01	1	Label, CE Listed – Panel With Enclosure
12	332-4118	1	Spacer, Printed Circuit Board
13	332-4088	1	Spacer, Printed Circuit Board
14	819-1161-01	1	Screw, Pan Head – Cross Recessed (M3 x 30)
15	098-6118	1	Label, Cabinet (Type 1) – Panel With Enclosure
16	098-8379	1	Label, Information
17	850-2003	1	Washer, Lock – Spring (M3)

Wiring Harnesses AC Control and Fuel Select



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring – AC Control (Includes Connector Plug and Contact Pins)	2	323-1523	1	Plug, Connector (24 Place)
	338-4185	1	Shunt	3	332-3790	9	Pin, Contact
	338-4180	1	PMG	4			Harness, Wiring – Fuel Select (Includes the Following Parts)
					338-4725-01	1	Natural Gas
					338-4725-02	1	Propane
					338-4725-03	1	Dual Fuel
				5	323-1549	1	Socket, Receptacle
				6	323-1547	1	Wedge, Receptacle (4 Pin)
				7	323-1491	2	Terminal, Pin
				8	323-1591	2	Seal, Plug

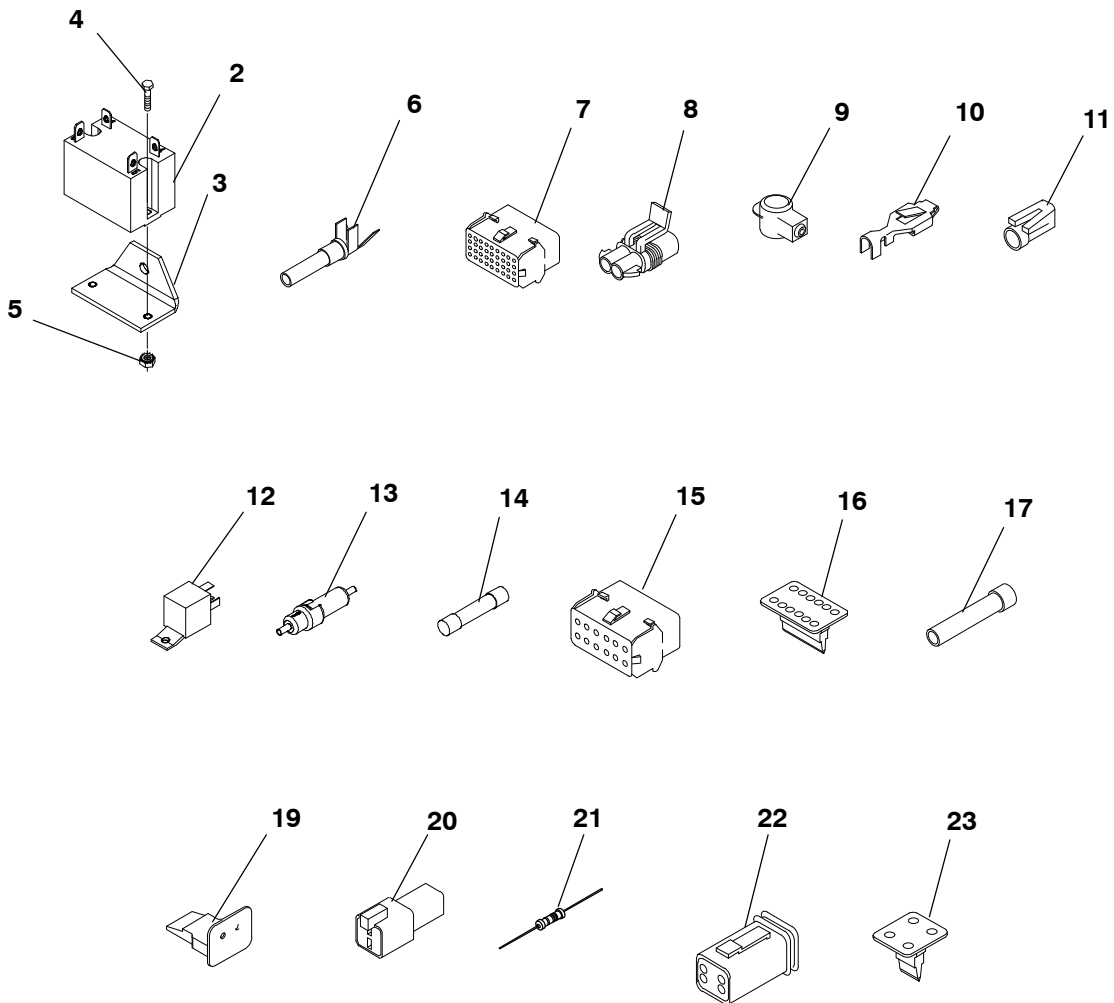
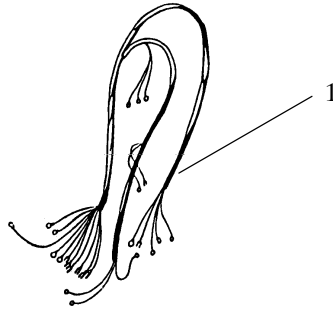
Engine Wiring Harness Spec D-E



Engine Wiring Harness Spec D-E

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-4235	1	Harness, Wiring – Engine to Control (Includes Parts Listed Below)	17	323-1667	3	Socket, Terminal
2	307-2968-03	2	Relay, Power (12V)	18	323-1666	1	Connector, Socket
3	307-2982-02	2	Bracket, Relay	19	307-2817-01	1	Relay (12V)
4	812-0079	4	Screw (#8-32 x .5)	20	321-0371	1	Holder, Fuse
5	870-0221	4	Nut, Hex – W/ET (#8-32)	21	321-0372-07	1	Fuse (20 Amp)
6	323-1492	18	Socket, Contact	22	323-1582	2	Plug – 12 Pin
7	323-1493	1	Connector, Plug	23	323-1583	2	Wedge, Plug
8	323-1503	1	Wedge, Plug	24	323-1591	12	Plug, Connector
9	323-1525	1	Connector – 36 Pin	25	323-1707	2	Terminal, Pin
10	323-1755	1	Connector, Socket	26	323-1708	6	Seal, Cable
11	332-0604	2	Block, Terminal	27	323-1709	4	Terminal, Socket
12	332-1043	8	Jumper	28	323-1710	1	Connector, Receptacle
13	815-0538	4	Screw, Cross Recessed – Pan Head – W/ET (#8-32 x .50)	29	323-1712	7	Seal, Cavity (P8)
14			Bracket, Terminal Mounting	30	323-1719	1	Lock, Housing
	319-2006-01	1	Marked "26"	31	323-1818	2	Terminal, Socket (Not Illustrated)
	319-2006-02	1	Marked "GND"	32	323-1975	1	Housing, Connector (Not Illustrated)
15	332-3792-01	1	Cover, Terminal Block (Includes Spring Clips)	33	323-1976	1	Lock, Connector (Not Illustrated)
16	416-1021-02	1	Boot	34	323-1500	1	Wedge, Plug
				35	323-1504	1	Connector, Plug

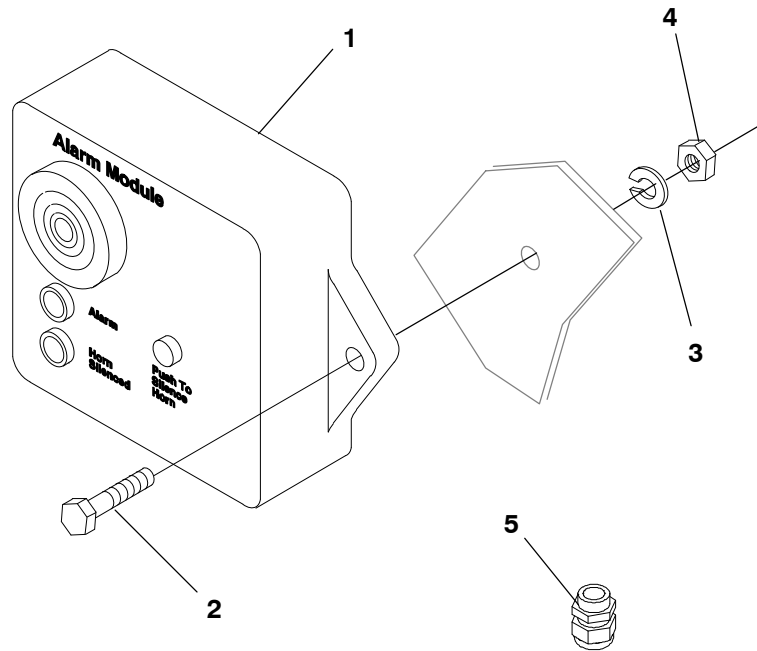
Engine Wiring Harness Begin Spec F



Engine Wiring Harness Begin Spec F

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-4793	1	Harness, Wiring – Engine to Control (Includes Parts Listed Below)	12	307-2817-01	1	Relay (12V)
				13	321-0371	1	Holder, Fuse
2	307-2968-03	3	Relay, Power (12V)	14	321-0372-07	1	Fuse (20 Amp)
3	307-2982-02	3	Bracket, Relay	15	323-1582	1	Plug – 12 Pin
4	812-0079	6	Screw (#8-32 x .5)	16	323-1583	1	Wedge, Plug
5	870-0221	6	Nut, Hex – W/ET (#8-32)	17	323-1591	9	Plug, Connector
6	323-1492	9	Socket, Contact	18	323-1818	2	Terminal, Socket (Not Illustrated)
7	323-1525	1	Connector – 36 Pin	19	323-1500	1	Wedge, Plug
8	323-1755	1	Connector, Socket	20	323-1504	1	Connector, Plug
9	416-1021-03	1	Boot	21	350-0980	1	Resistor (2W, 510Ω)
10	323-1667	6	Socket, Terminal	22	323-1546	1	Plug (P1)
11	323-1666	2	Connector, Socket	23	323-1548	1	Wedge, Plug (P1)

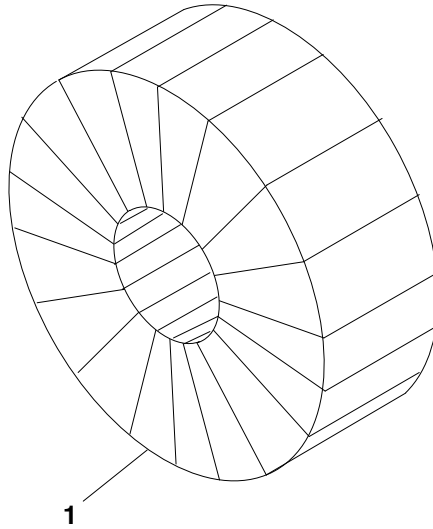
Alarm Module



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-3998-02	1	Module, Alarm (12V)
2	800-0006	2	Screw, Cap - Hex Head (1/4-20 x 7/8)

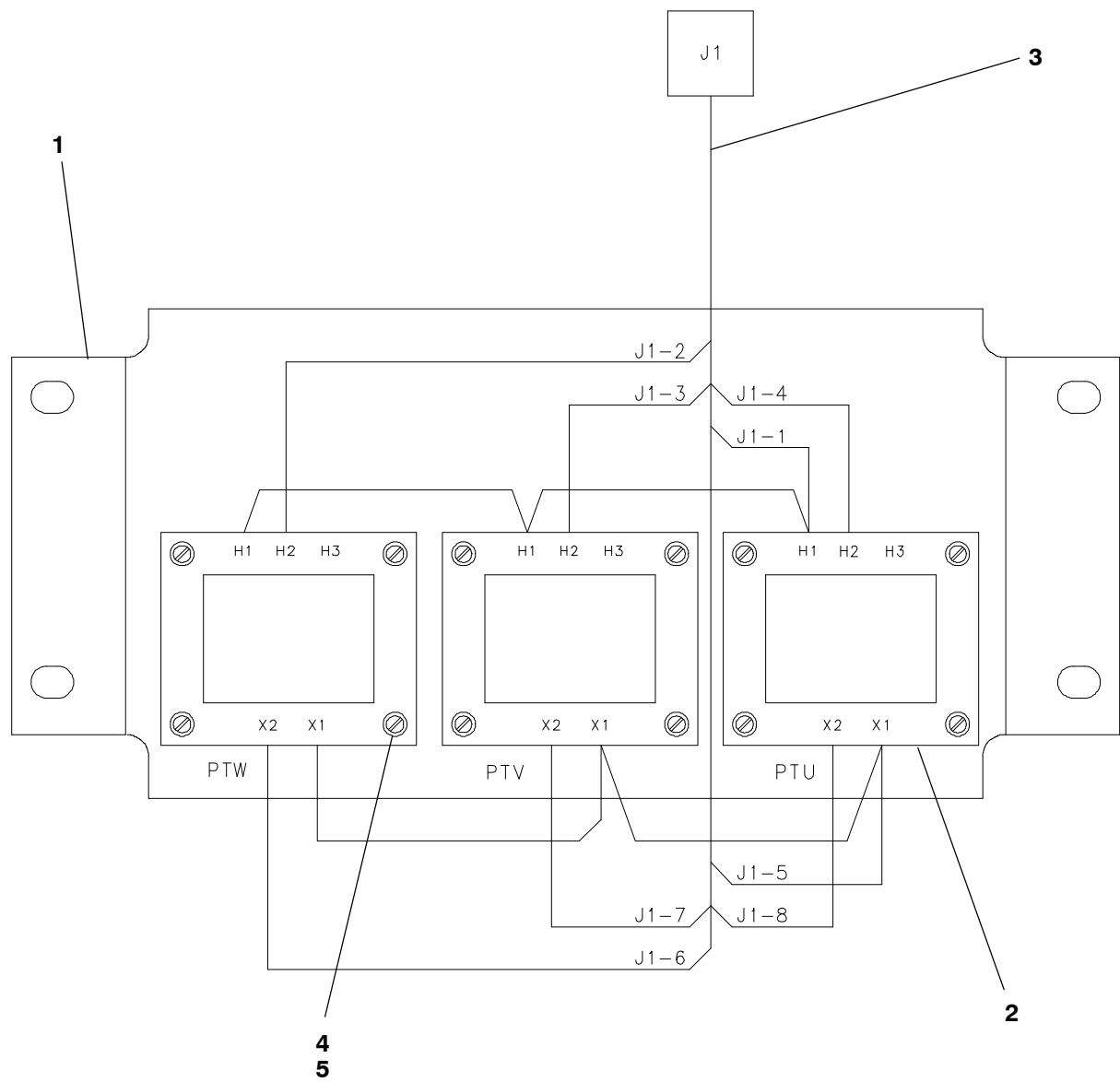
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	850-0040	2	Washer, Lock (1/4)
4	862-0001	2	Nut, Hex (1/4-20)
5	323-2003-01	1	Strain Relief

Current Transformer



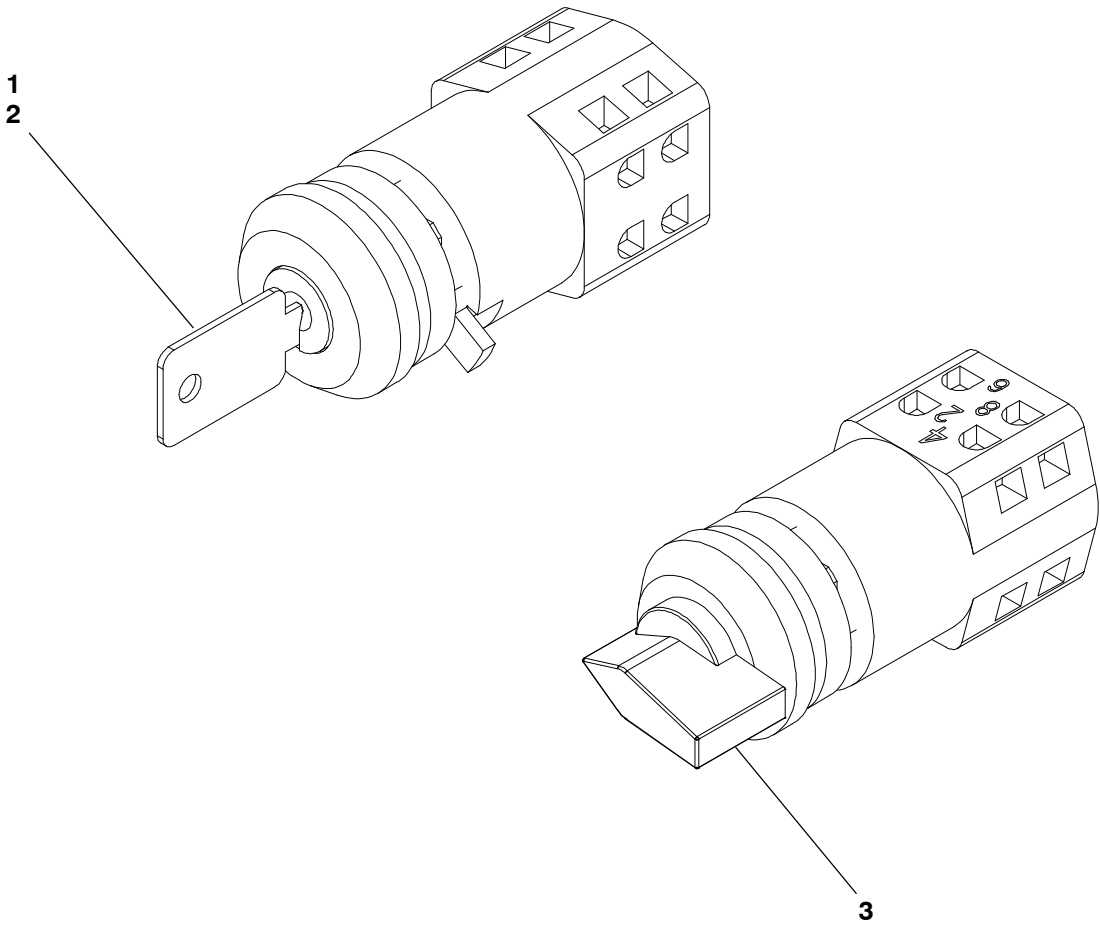
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Transformer, Current (CT1, CT2, CT3)				
	302-2057-01	3	138/1 or 276/1 Primary Ratio				
	302-2057-02	3	158/1 or 316/1 Primary Ratio				
	302-2057-03	2	173/1 or 346/1 Primary Ratio				
	302-2058-21	3	122/1 Primary Ratio				

Transformer



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-1245	1	Bracket, Transformer	4	870-0221	12	Nut, Self-Locking
2	315-0717-00	3	Transformer	5	812-0087	12	Screw, Machine – Round Head
3	338-3337	1	Harness, Transformer				(#8-32 x 1-1/2)

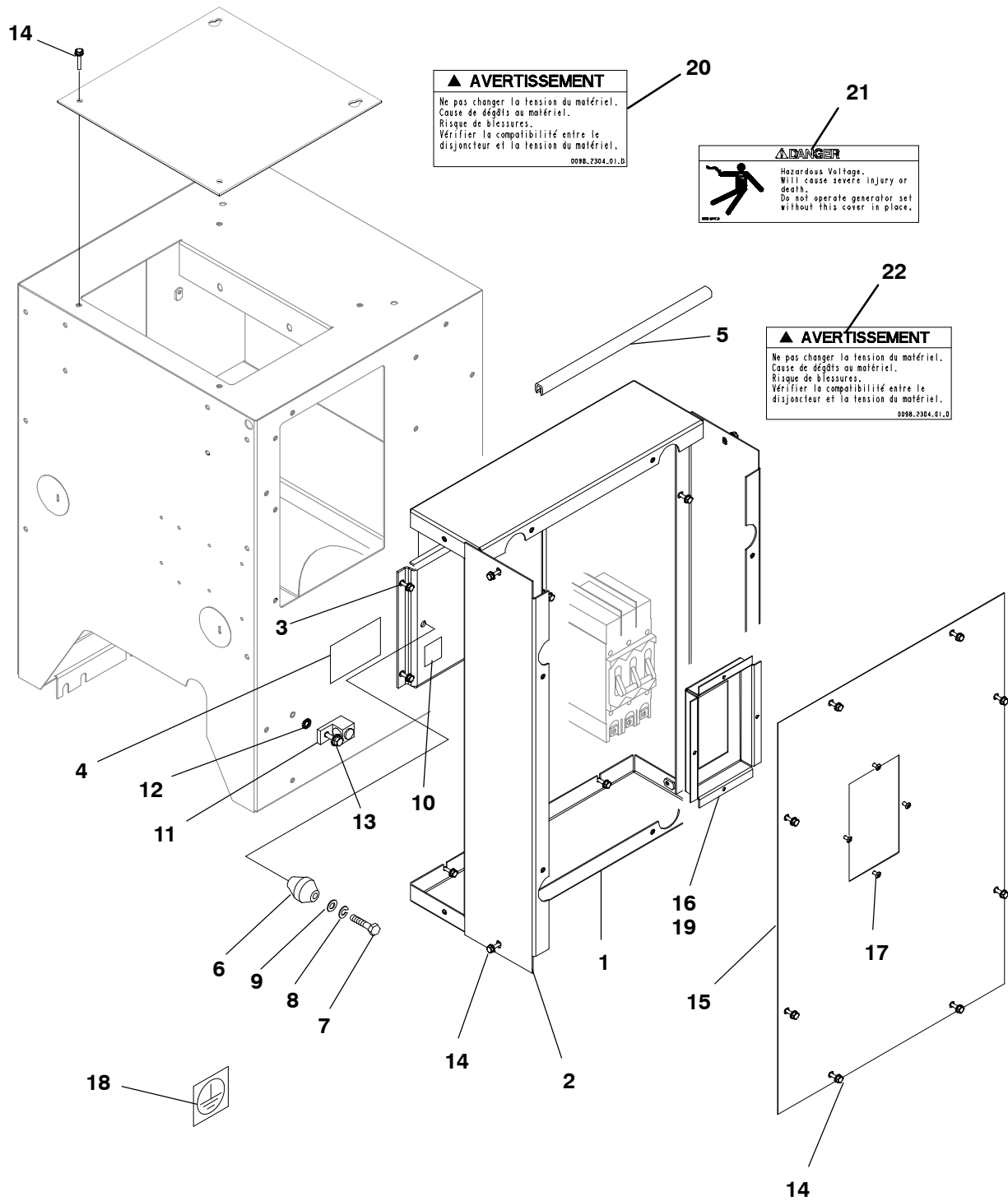
Operator Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	308-1045	1	Switch, Key Operator
2	308-1046	2	Key - Spare

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	308-1085	1	Switch, Selector

Circuit Breaker Box

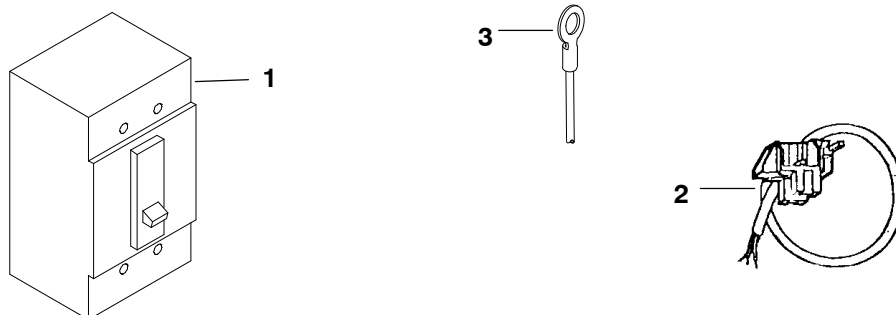


Circuit Breaker Box

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3072	2	Panel, End – CB Box	16			Cutout, CB Box
2	319-2978	2	Panel, Side – CB Box				UL
3			Bracket, Mounting – CB	319-3150	1		600 Volt, 300–630 Amp, 3 Pole
	319-5390-02	1	600 Volt Breaker	319-3240	1		240 Volt, 300–400 Amp, 2/3 Pole
	319-3243	1	240 Volt Breaker	319-3241	1		600 Volt, 10–100 Amp, 3 Pole
4	098-2304	1	Label, Warning	319-3242	1		240 Volt, 100–250 Amp, 2/3 Pole
5	508-0239	–	Edging – Bulk (Order By The Foot – 2 Feet Required)	319-3304	1		600 Volt, 125–600 Amp, 3 Pole
6	332-2744-07	1	*Standoff, Insulator				IEC
7	800-0048	2	*Screw, Cap – Hex Head (3/8–16 x .75)	319-3150	1		750 Volt, 300–630 Amp, 3/4 Pole
8	850-0050	2	*Washer, Lock (3/8)	319-3241	1		660 Volt, 10–100 Amp, 3 Pole
9	526-0029	1	*Washer, Flat (3/8)	319-3242	1		750 Volt, 70–250 Amp, 3/4 Pole
10	098-5854-04	1	*Label, Bus – Warning	319-3304	1		660 Volt, 125–600 Amp, 3 Pole
11	332-1473	1	Lug, Solderless	17	818-0231-02	4	Rivet, Pop
12	856-0008	1	Washer, Lock – EIT (5/16)	18	098-6537	1	Label, Ground
13	821-6003-02	1	Screw, SEMS – Hex Head (M8 x 1.25 x 20)	19	319-5393-02	1	Cup, Switch – QDL 2 and 3 Pole
14	821-6002-03	24	Screw, SEMS – Hex Head (M6 x 1 x 16)	20	098-2304-01	2	Label, Warning (French)
15			Cover, CB Box	21	098-5347	1	Label, Danger
	319-3151	1	With Circuit Breaker	22	098-5347-01	1	Label, Danger (French)
	319-2979-02	1	Entrance Box Only				

* = UL Rated Breakers only.

Circuit Breaker

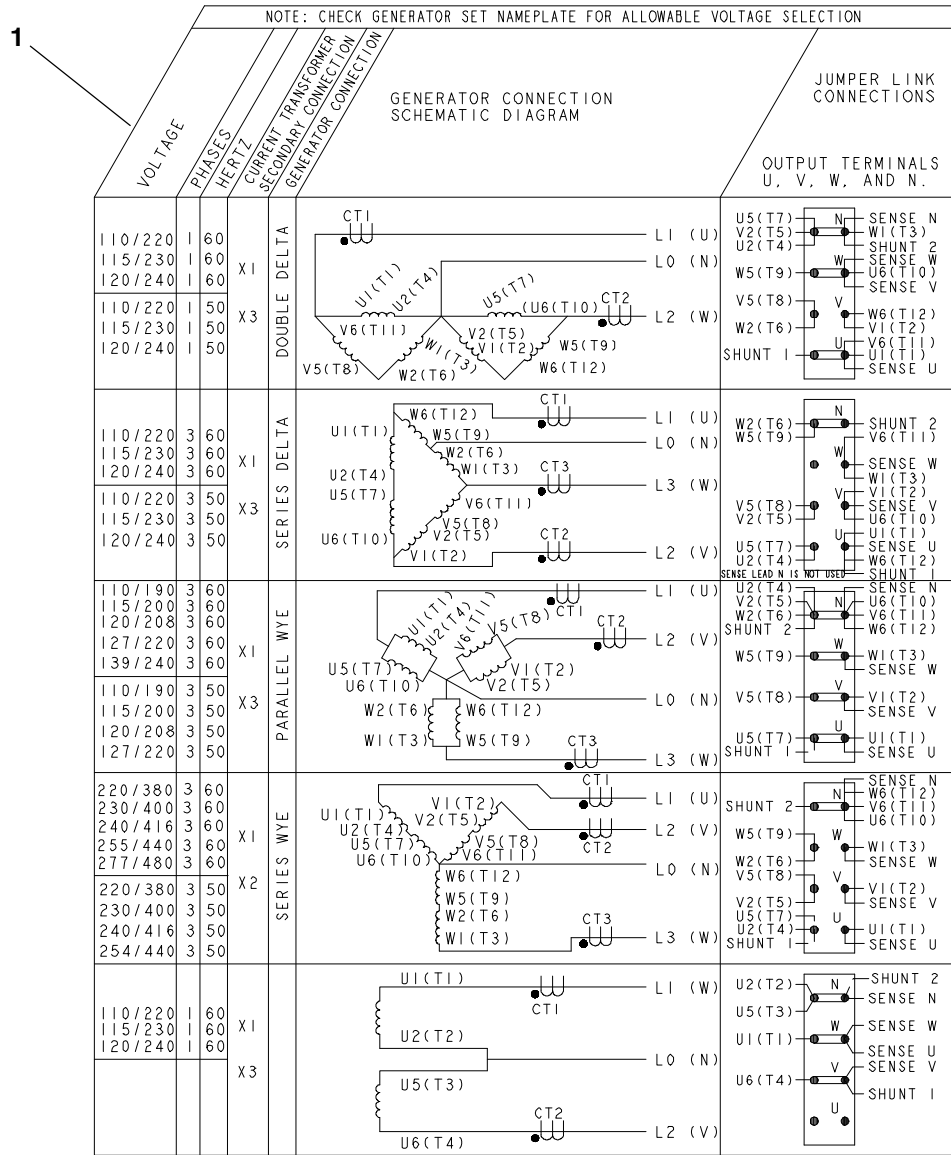


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Breaker, Circuit
			2 Pole (UL) QDL
	320-2238-07	1	100 Amp (240 Volts)
	320-2238-06	1	125 Amp (240 Volts)
	320-2238-05	1	150 Amp (240 Volts)
	320-2238-04	1	175 Amp (240 Volts)
	320-2238-03	1	200 Amp (240 Volts)
	320-2238-02	1	225 Amp (240 Volts)
	320-2238-01	1	250 Amp (240 Volts)
			3 Pole (UL) QDL
	320-2238-14	1	100 Amp (240 Volts)
	320-2238-13	1	125 Amp (240 Volts)
	320-2238-12	1	150 Amp (240 Volts)
	320-2238-11	1	175 Amp (240 Volts)
	320-2238-10	1	200 Amp (240 Volts)
	320-2238-09	1	225 Amp (240 Volts)
			3 Pole (UL & IEC) J-Frame
	320-2347-01	1	* 250 Amp
	320-2347-02	1	* 225 Amp
	320-2347-03	1	* 200 Amp
	320-2347-04	1	* 175 Amp
			3 Pole (UL & IEC) H-Frame
	320-2346-05	1	* 150 Amp
	320-2346-06	1	* 125 Amp
	320-2346-07	1	* 100 Amp
	320-2346-08	1	* 90 Amp
	320-2346-09	1	* 80 Amp
	320-2346-10	1	* 70 Amp
	320-2346-17	1	* 60 Amp
	320-2346-18	1	* 50 Amp
	320-2346-19	1	* 40 Amp
	320-2346-20	1	* 30 Amp
	320-2346-21	1	* 20 Amp
	320-2346-22	1	* 15 Amp

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2			Accessories, Circuit Breaker:
	320-1981-02	1	Trip, Shunt (12V)
	320-1981-01	2	Switch – Used as an Auxiliary Contact or Trip Alarm
3			Lead (Quantity Used As Required)
	226-0893	1	3/8" Ring Terminal End to 1" Stripped End – No Markings (33") (#1/0 Wire)
	226-3505-01	1	3/8" Ring Terminal End to 1" Stripped End – No Markings (30") (#4 Wire)
	226-3505-03	1	3/8" Ring Terminal End to 3/8" Ring Terminal End – Marked "LO" (30") (#4 Wire)
	226-3505-04	1	3/8" Ring Terminal End to 3/8" Ring Terminal End – Marked "LO" (30") (#1/0 Wire)

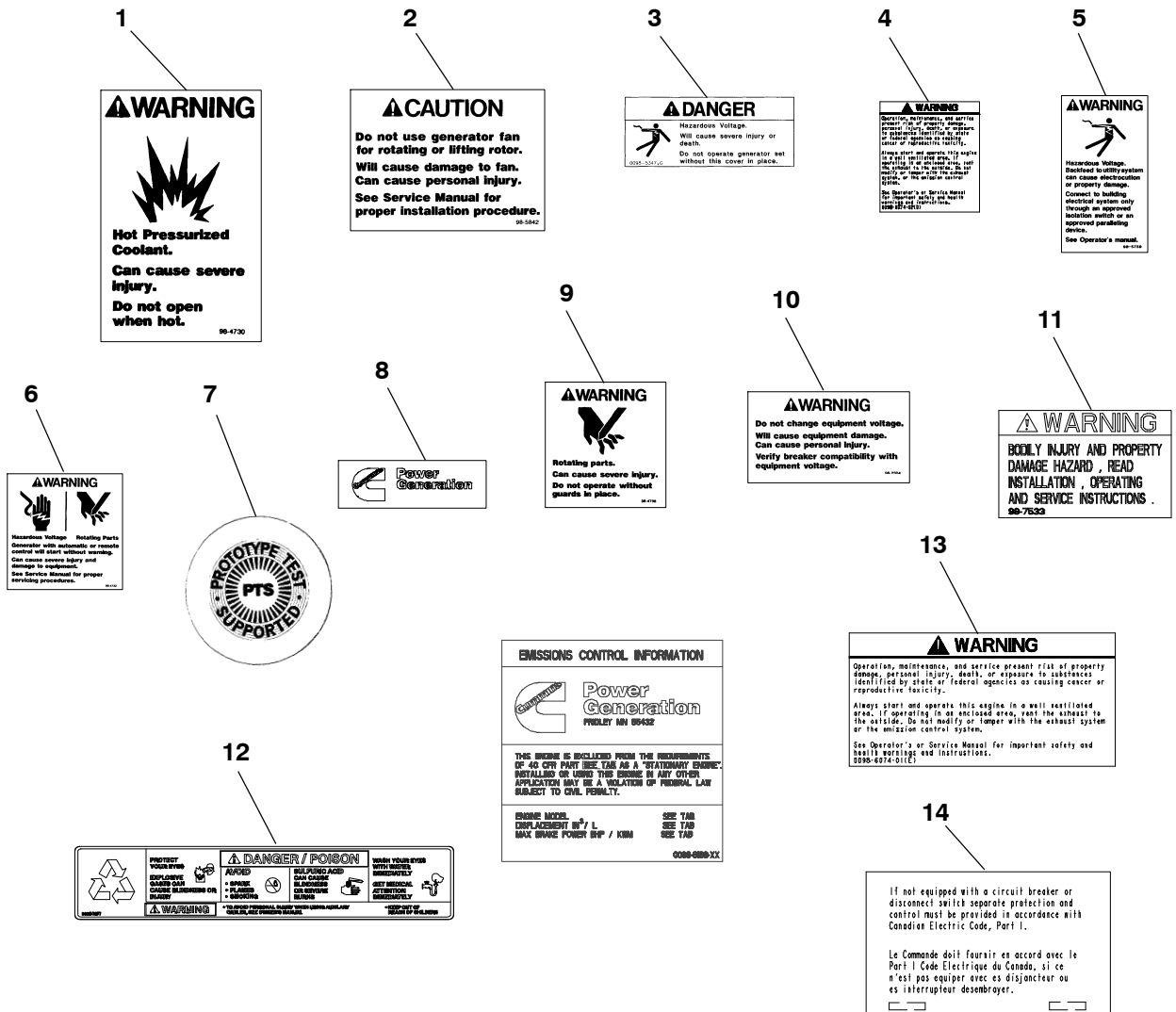
* – Includes Mounting Hardware

Information Label



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	098-8037	1	Label, Information				

Miscellaneous Labels



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7	098-4500	A/R	Label - Prototype Tested	14	098-8220	2	Label, Information (White)

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