



Parts Manual

Mfg. No: 076880-05
30,000 Watt LC Standby Generator

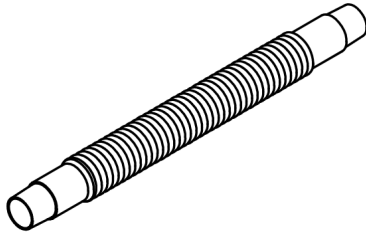
Model Components	Page
Accessories Group.....	4
Control Panel Group.....	6
Decals Group - Base.....	8
Decals Group - Circuit Protection.....	10
Enclosure Group.....	12
Engine Group.....	14
Engine Group - Common Service Parts.....	16
Engine Group - Fuel Components.....	18
Heater Group.....	20
Power Group.....	22
Torque Specification Chart.....	24

Not For
Reproduction

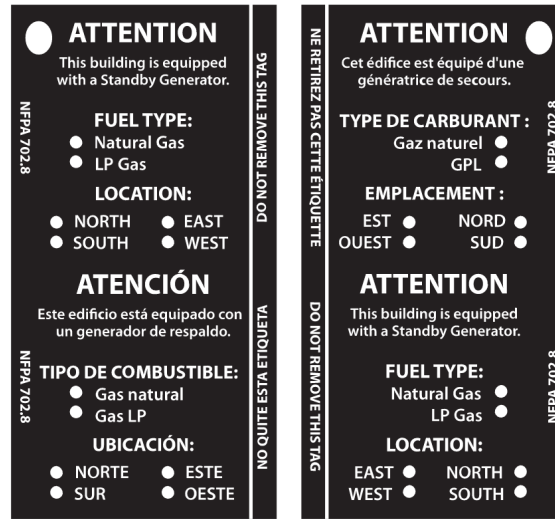
Accessories Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



0020



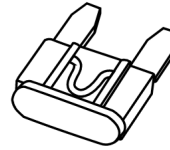
0030



0040



0060



0070

Accessories Group

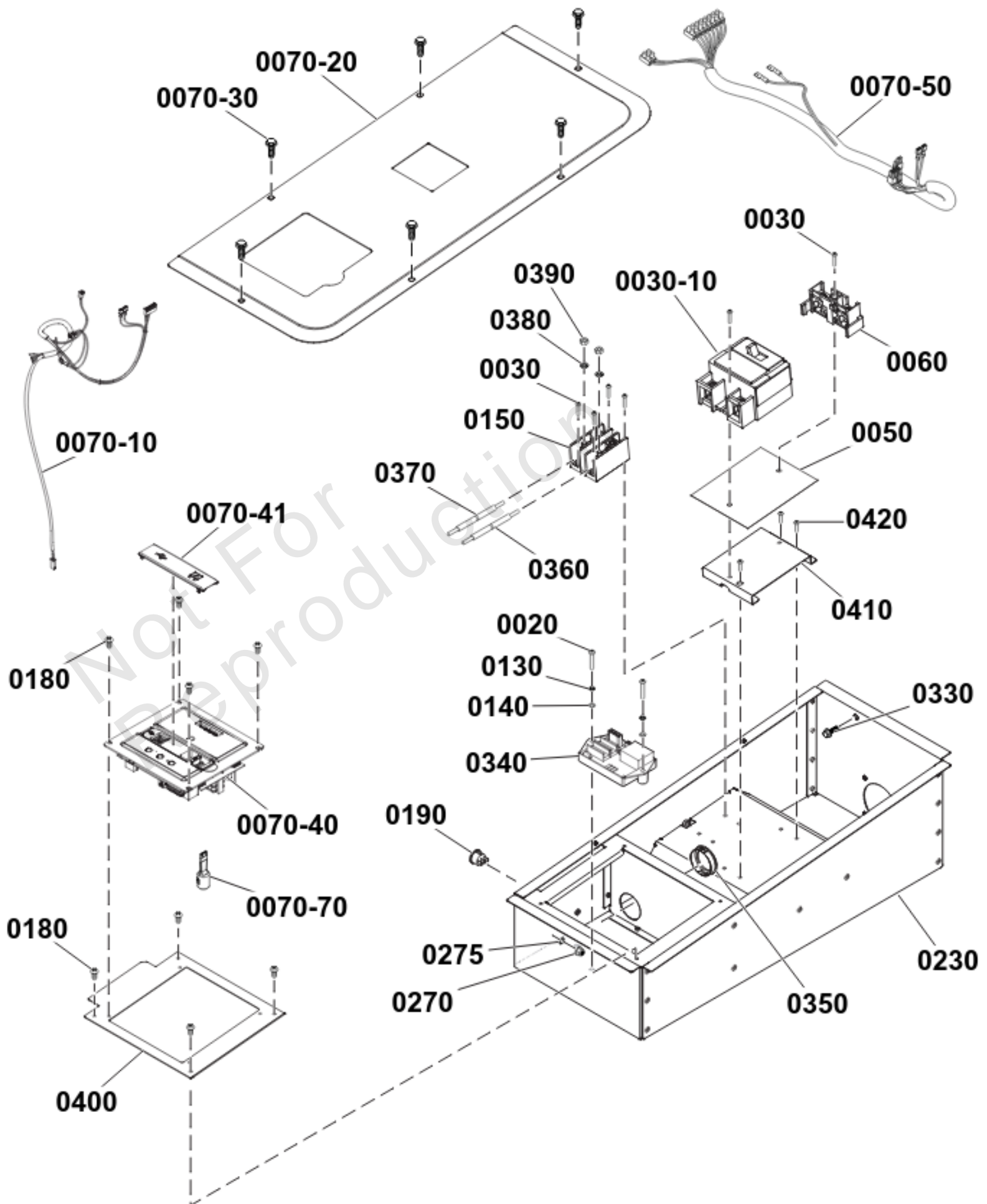
REF NO	PART NO	QTY	DESCRIPTION
0020	205206GS	1	FUEL HOSE, Flexible
0030	706988	1	HANG TAG-ATTN. STANDBY EQUIPMENT
0040	319693GS	1	PAINT, Touch Up, Cont. Charcoal, Texture
0060	314290GS	1	KEY, Latch
0070	198573GS	2	FUSE, Auto Type, 15 Amp
--	319677GS		PAINT, Spray, Cont. Charcoal, Texture -(Optional Accessory - Not Included)
--	6268-01		KIT-MAINTENANCE-1000 HR -(Optional Accessory - Not Included)
--	6270		KIT-COLD WEATHER (Includes Battery Warmer & Block Heater) -(Optional Accessory - Not Included)
--	6280		KIT-OIL CHANGE -(Optional Accessory - Not Included)
--	6182		WARMER, Battery -(Optional Accessory - Not Included)
--	6276		WIRELESS MONITOR -(Optional Accessory - Not Included)

Not For Reproduction

Control Panel Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



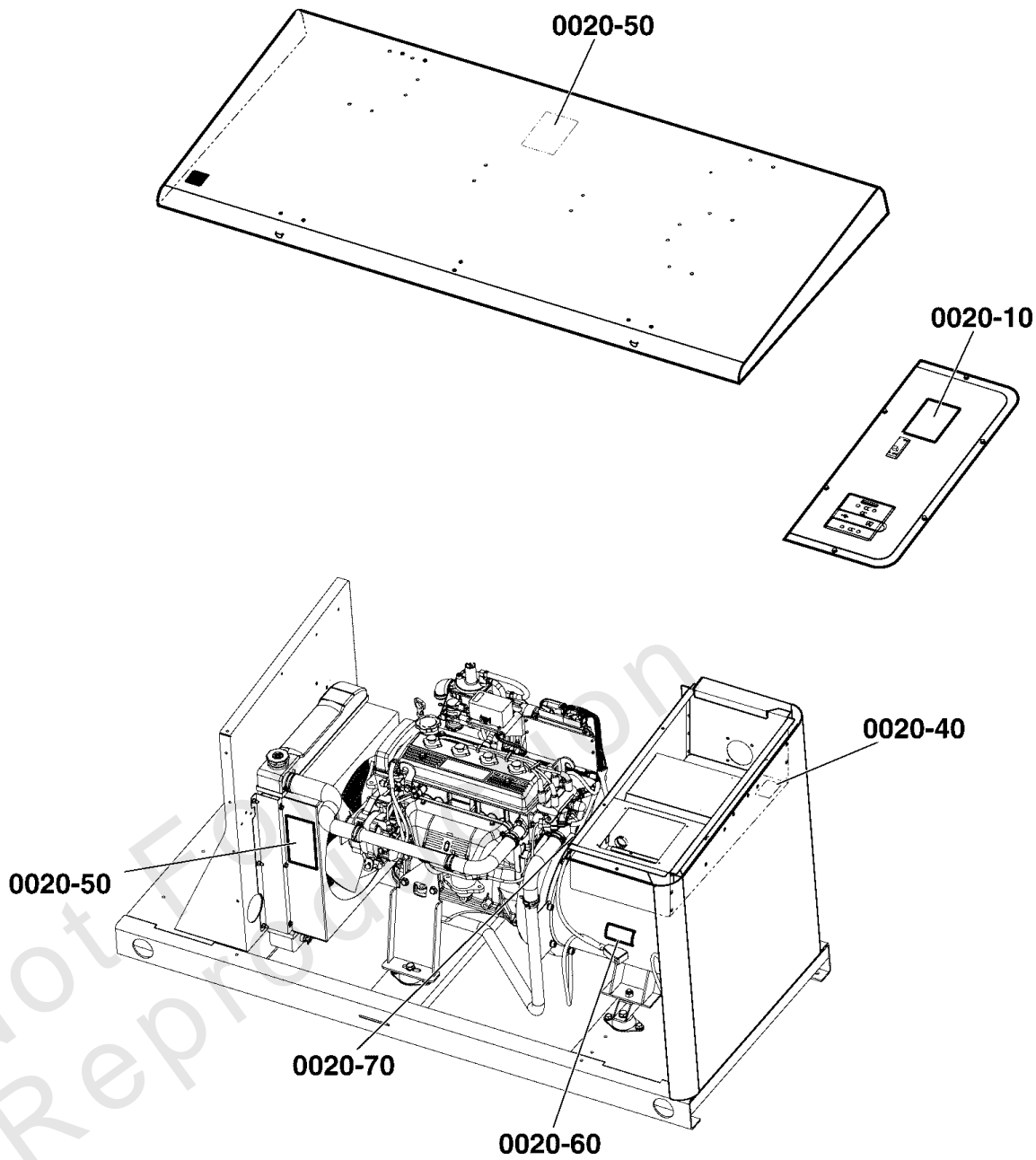
Control Panel Group

REF NO	PART NO	QTY	DESCRIPTION
0020	79224GS	2	SCREW
0030	80077GS	6	SCREW
0030-10	209168GS	1	CIRCUIT BREAKER, 150A, 2 Pole -(Use on 076080-00, 076106-00, 076108-00, 076880-00, 076880-01, 076880-02)
0030-10	319606GS	1	BREAKER-CIRCUIT, 125A, 2 Pole -(Use on 076107-00, 076107-02, 076109-00, 076180-00, 076180-01, 076180-02, 076180-03, 076198-00, 076480-00, 076780-00, 076880-04, 076880-05)
0050	204519GS	1	INSULATION
0060	204530GS	1	KIT, Load Lug Conversion
0070-10	319686GS	1	HARNESS-WIRE
0070-20	BA317637GS	1	COVER, DOOR
0070-30	690933	6	SCREW
0070-40	314618GS	1	CONTROL PANEL -(Includes Ref. No. 0070-41)(**See footnote)
0070-41	319009GS	1	DOOR, Access
0070-50	314639GS	1	HARNESS-WIRE
0070-70	704281	1	CAPACITOR
0130	207805GS	2	WASHER
0140	207806GS	2	WASHER
0150	208365GS	2	BLOCK, Terminal
0180	315436GS	8	SCREW, #10-16 X 3/8"
0190	315551GS	1	SWITCH, Rocker
0230	707900	1	BOX-CONTROL PANEL
0270	-----	1	* NUT, M6, Flange Head, Lock -(*See footnote)
0275	26850GS	1	WASHER, Ext. M6 - 1/4" Shakeproof
0330	690933	4	SCREW
0340	209856GS	1	REGULATOR, Voltage
0350	707901	2	BUSHING
0360	-----	1	WIRE
0370	-----	1	WIRE
0380	22097GS	2	WASHER
0390	92278GS	2	ASSY, STATOR, 4000DPE90
0400	707902	1	BRACKET-CONTROL PANEL
0410	707903	1	BRACKET
0420	317005GS	3	SCREW
--	6479		ACCESSORY, KIT, OFF BOARD RADIO -(Not Illustrated)
--	770128		CONNECTOR-AVR -(Not Illustrated)

Footnotes:

* Items without part numbers are common fasteners and are available at your local hardware store.

** If system has a wireless monitor, 6479 (Off Board Radio Kit) will be required along with control panel.

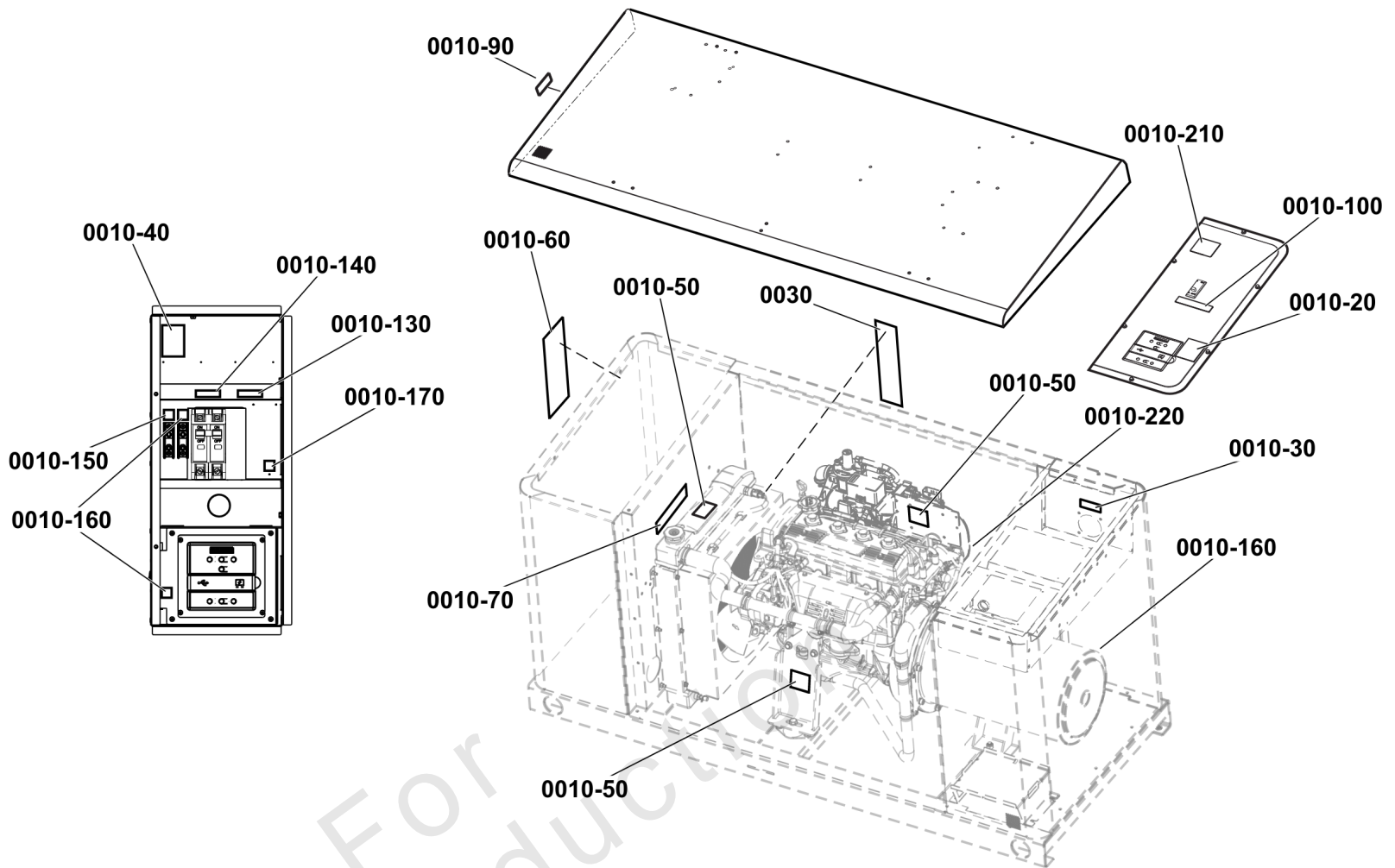


<p>0020-10</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Failure to read & follow Operator and Installation manuals could result in death or serious injury.</p> <p>Ne pas lire et respecter les manuels de l'utilisateur et d'installation pourrait entraîner des blessures graves ou la mort.</p> <p>No leer y seguir las indicaciones de los manuales de operación e instalación podría causar la muerte o lesiones serias.</p> <p>Generator starts automatically which could result in serious injury. Remove control panel fuse and disconnect battery prior to servicing.</p> <p>La génératrice démarre automatiquement, ce qui pourrait entraîner des blessures graves. Retirez le fusible du panneau de contrôle et débranchez la batterie avant d'effectuer un entretien.</p> <p>El generador arranca automáticamente, lo que podría causar lesiones serias. Retire el fusible del panel de control y desconecte la batería antes de realizar algún servicio.</p> <p>Risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.</p> <p>Risque de décharge électrique. Ne pas retirer le couvercle. Aucune pièce à entretenir par l'utilisateur à l'intérieur. Confier l'entretien à du personnel de service qualifié.</p> <p>Riesgo de descarga eléctrica, no quite la cubierta. No hay partes que puedan ser reparadas por el usuario en el interior. Haga que personal calificado realice el servicio.</p> <p>80015809</p>	<p>0020-20</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.</p> <p>Risque de décharge électrique. Ne pas retirer le couvercle. Aucune pièce à entretenir par l'utilisateur à l'intérieur. Confier l'entretien à du personnel de service qualifié.</p> <p>Riesgo de descarga eléctrica, no quite la cubierta. No hay partes que puedan ser reparadas por el usuario en el interior. Haga que personal calificado realice el servicio.</p> <p>80014016</p>	<p>NG LP</p> <p>0020-70</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Electric shock hazard could result in death or serious injury. Disconnect all sources of supply voltage before servicing.</p> <p>Risque de choc électrique pouvant provoquer des blessures graves, voire la mort. Débranchez toutes les sources de tension électrique avant l'entretien.</p> <p>Riesgo de descarga eléctrica que puede resultar en muerte o lesión seria. Desconecte todas las fuentes de energía antes de reparar.</p> <p>80015810</p>	<p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Generator starts automatically which could result in serious injury. Remove control panel fuse and disconnect battery prior to servicing.</p> <p>La génératrice démarre automatiquement, ce qui pourrait entraîner des blessures graves. Retirez le fusible du panneau de contrôle et débranchez la batterie avant d'effectuer un entretien.</p> <p>El generador arranca automáticamente, lo que podría causar lesiones serias. Retire el fusible del panel de control y desconecte la batería antes de realizar algún servicio.</p> <p>Hot surface could result in serious injury. Do not touch.</p> <p>La surface chaude pourrait entraîner des blessures graves. Ne touchez pas.</p> <p>La superficie caliente podría causar lesiones serias. No tocar.</p> <p>Hot pressurized coolant could result in severe injury. Do not open when hot. Allow coolant to cool before servicing.</p> <p>Le liquide de refroidissement pourrait provoquer de sévères blessures. Ne pas ouvrir lorsque le liquide de refroidissement est chaud. Laissez refroidir le liquide de refroidissement avant d'effectuer l'entretien.</p> <p>El refrigerante caliente a presión podría causar lesiones severas. No abra cuando esté caliente. Permita que el refrigerante se enfríe antes de dar servicio.</p> <p>Moving parts can crush and cut which could result in death or serious injury.</p> <p>Do not operate with guard removed. Remove panel fuse and negative battery cable before servicing.</p> <p>Les pièces mobiles peuvent écraser et couper ce qui pourrait causer la mort ou des blessures graves.</p> <p>Ne pas utiliser l'appareil lorsque le protecteur est retiré. Enlevez le fusible du tableau ainsi que le câble négatif de la batterie avant d'effectuer l'entretien.</p> <p>Las partes móviles pueden aplastar y cortar, lo que puede resultar en muerte o lesión seria.</p> <p>No opere si se ha removido la guarda. Retire el fusible del panel y el cable negativo de la batería antes de dar servicio.</p> <p>80015815</p>
<p>0020-10</p>	<p>0020-30</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Electric shock hazard could result in death or serious injury. Do not install or remove current transformer when generator is operating. Place generator in off position and remove controller fuse before servicing.</p> <p>Risque de choc électrique pouvant provoquer des blessures graves, voire la mort. Ne pas installer ou retirer le transformateur de courant lorsque la génératrice est en fonction. Placez la génératrice à la position d'arrêt et retirez le fusible de contrôle avant tout entretien.</p> <p>Riesgo de descarga eléctrica que puede resultar en muerte o lesión seria. No instale ni retire el transformador cuando el generador está en funcionamiento. Apague el generador y retire el fusible del controlador antes de reparar.</p> <p>80015809</p>	<p>0020-60</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Explosion of battery gases could result in death or serious injury. Keep all sources of ignition away from battery. Battery contains acid which could result in blindness or severe burns. Avoid contact with acid.</p> <p>L'explosion des gaz de la batterie peut provoquer des blessures graves, voire la mort. Tenez toutes les sources d'allumage éloignées de la batterie. La batterie contient de l'acide pouvant causer la cécité ou de sévères brûlures. Évitez le contact avec l'acide.</p> <p>La explosión de la batería podría causar la muerte o lesiones serias. Mantenga todas las fuentes de ignición lejos de la batería. La batería contiene ácido que podría causar ceguera o quemaduras serias. Evite el contacto con el ácido.</p> <p>80015816</p>	<p>0020-50</p>

Decals Group - Base

REF NO	PART NO	QTY	DESCRIPTION
0020	708797	1	DECAL SHEET-WARNINGS -(Includes all decals shown on page)
0020-10	-----	1	DECAL-WARNING, OPERATOR MANUAL
0020-20	-----	1	DECAL-WARNING, SHOCK
0020-30	-----	1	DECAL-WARNING, ELECTRIC SHOCK
0020-40	-----	1	DECAL-WARNING, ELECTRIC SHOCK
0020-50	-----	2	DECAL-WARNING
0020-60	-----	1	DECAL-WARNING, RISK OF EXPLOSION
0020-70	-----	1	DECAL-FUEL SOURCE

Not For Reproduction



NOTICE AVIS AVISO

FUEL REQUIREMENTS
Estimated generator fuel supply requirements for both natural gas and LP vapor:

Model	Natural Gas		LP Vapor	
	BTU/H	m ³ /h	BTU/H	m ³ /h
35kW	344,452	9.8	399,116	4.5
48kW	470,963	13.3	505,670	5.7
60kW	681,500	19.3	800,300	9.1

Fuel inlet pressure requirements at full load are:
Inches of WC mm of WC
7-11 178-279

Model	Natural Gas		LP Vapor	
	BTU/H	m ³ /h	BTU/H	m ³ /h
25kW	368,100	10.42	387,000	4.38
30kW	414,500	11.74	436,800	4.95

Fuel inlet pressure requirements at full load are:
Inches of WC mm of WC
5-11 127-279

EXIGENCES EN MATIERE DE CARBURANT
Approvisionnement approximatif en carburant pour le gaz naturel et le propane gazeux:

Modèle	Gaz naturel		Propane gazeux	
	BTU/H	m ³ /h	BTU/H	m ³ /h
35kW	344,452	9.8	399,116	4.5
48kW	470,963	13.3	505,670	5.7
60kW	681,500	19.3	800,300	9.1

Les exigences de pression d'admission du carburant à plein rendement sont:
Pouces CE mm de CE
7-11 178-279

Modèle	Gaz naturel		Propane gazeux	
	BTU/H	m ³ /h	BTU/H	m ³ /h
25kW	368,100	10.42	387,000	4.38
30kW	414,500	11.74	436,800	4.95

Les exigences de pression d'admission du carburant à plein rendement sont:
Pouces CE mm de CE
5-11 127-279

REQUERIMIENTOS DE COMBUSTIBLE
Requerimientos estimados de combustible para el generador para gas natural y gas LP:

Modelo	Gas Natural		Gas LP	
	BTU/H	m ³ /h	BTU/H	m ³ /h
35kW	344,452	9.8	399,116	4.5
48kW	470,963	13.3	505,670	5.7
60kW	681,500	19.3	800,300	9.1

Los requerimientos de presión de entrada de combustible a carga completa son de:
pulgadas de columna de agua mm de columna de agua
7-11 178-279

Modelo	Gas Natural		Gas LP	
	BTU/H	m ³ /h	BTU/H	m ³ /h
25kW	368,100	10.42	387,000	4.38
30kW	414,500	11.74	436,800	4.95

Los requerimientos de presión de entrada de combustible a carga completa son de:
pulgadas de columna de agua mm de columna de agua
5-11 127-279

0010

WARNING AVERTISSEMENT ADVERTENCIA

To reduce the risk of fire, replace only with same type and rating of fuse.

2.5AMP TYPE AGC

Pour réduire le risque d'incendie, remplacez avec un fusible de même type et classification.

2.5 A TYPE AGC

Para reducir el riesgo de incendio, reemplaze solamente con un fusible del mismo tipo y capacidad.

2.5 AMP TIPO AGC

NOTICE AVIS AVISO

ALL TERMINAL AND BUS LUGS ARE SUITABLE FOR COPPER WIRE 60/75°C RATING

TOUTES LES BORNES ET COSSES DE COLLECTEURS CONVIENTENT AUX FILS DE CUIVRE DE CALIBRE 60/75°C

TODOS LOS CONECTORES DE TERMINAL Y DE BUS SON APROPIADOS PARA CABLE DE COBRE CON CAPACIDAD DE 60/75°C

0010-40

WARNING AVERTISSEMENT ADVERTENCIA

Engine exhaust contains carbon monoxide, a poisonous gas that could kill you in minutes. You cannot smell it or see it. Install outdoors only. Install carbon monoxide alarms in home.

Hot surface could result in serious injury. Do not touch.

Engine exhaust could ignite combustibles resulting in death or serious injury. Exhaust side of weatherproof enclosure shall have 5 ft. (1.5m) min clearance from any structures, shrubs, trees or any vegetation.

This equipment may create sparks that could start fires around dry vegetation. A spark arrester may be required. Contact local fire agencies for regulations relating to fire prevention requirements.

L'échappement du moteur contient du monoxyde de carbone, un gaz toxique pouvant tuer en quelques minutes. Vous ne pouvez ni le sentir ni le voir. Installez à l'extérieur seulement. Installez les alarmes de monoxyde de carbone dans la maison. La surface chaude pourrait entraîner des blessures graves. Ne touchez pas.

L'échappement du moteur peut enflammer les combustibles, ce qui peut provoquer des blessures graves, voire la mort. La sortie pour l'échappement de l'enceinte à l'épreuve des intempéries doit avoir un dégagement d'au moins 1,5 m (5 pi) de toutes structures, buissons, arbres ou autres végétaux. Cet équipement peut produire des étincelles pouvant déclencher des incendies autour de la végétation sèche. Un pare-étincelles pourrait être nécessaire. Contactez les responsables locaux des incendies pour connaître les exigences réglementaires liées à la prévention des incendies.

Los gases de escape del motor contienen monóxido de carbono, un gas venenoso que podría matarlo en minutos. No puede verlo ni olerlo. Instale solamente en exteriores. Instale alarmas de monóxido de carbono en el hogar. La superficie caliente podría causar lesiones serias. No tocar.

Los gases de escape del motor podrían incendiar materiales combustibles, lo que podría causar la muerte o lesiones serias. El lado de escape del gabinete impermeable debe tener un espacio libre de 5 pies (1.5 m) de distancia desde cualquier estructura, arbusto, árbol o cualquier vegetación. Este equipo puede causar chispas que podrían iniciar incendios en vegetación seca. Podría requerirse un supresor de chispas. Póngase en contacto con las agencias locales de combate a incendios para consultar las regulaciones referentes a requisitos de prevención de incendios.

0010-10

RAINPROOF ENCLOSURE **ÉTANCHE À LA PLUIE ENCEINTE** **GABINETE A PRUEBA DE LLUVIA**

GENERATOR SERVICE DISCONNECT **GÉNÉRATRICE ENTRETIEN DÉBRANCHER** **DESCONECTOR DE SERVICIO DEL GENERADOR**

0010-10

WARNING AVERTISSEMENT ADVERTENCIA

To reduce the risk of fire, replace only with same type and rating of fuse.

15AMP TYPE ATO

Pour réduire le risque d'incendie, remplacez avec un fusible de même type et classification.

15 A TYPE ATO

Para reducir el riesgo de incendio, reemplaze solamente con un fusible del mismo tipo y capacidad.

15 AMP TIPO ATO

WARNING AVERTISSEMENT ADVERTENCIA

Hot surface could result in serious injury. Do not touch.

La surface chaude pourrait entraîner des blessures graves. Ne touchez pas.

La superficie caliente podría causar lesiones serias. No tocar.

0010-50

Replace with UL listed fuse of same type and rating 600 volt, 10 amp

Remplacez avec un fusible homologue UL de même type et classification de 600 volts, 10 amp.

Reemplace con un fusible certificado por UL del mismo tipo y clasificación: 600 voltios, 10 amperios

0010-110

0010-90

0010-100

0010-130 **0010-180** **0010-190** **0010-200**

0010-140

0010-150 **0010-160** **0010-170** **0010-210** **0010-220** **0010-230**

WARNING AVERTISSEMENT ADVERTENCIA

Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Cancer et Troubles de l'Appareil Reproducteur
www.P65Warnings.ca.gov

Cáncer y Problemas Reproductivos
www.P65Warnings.ca.gov

0010-210

NOTICE AVIS AVISO

CONDUIT ENTRY AREA
ZONE D'ENTRÉE DU CONDUIT
ÁREA DE ENTRADA DE CONDUIT

0010-30

CAUTION MISE EN GARDE PRECAUCION

Connect output of generator to suitably rated transfer switch in accordance with the Canadian Electrical Code, Part 1.

Branchez la sortie de la génératrice à un commutateur converteur de classification convenable, selon le Code canadien de l'électricité, partie 1.

Conecte la salida del generador a un interruptor de transferencia de la capacidad adecuada de acuerdo con el Código Eléctrico Canadiense, Parte 1.

0010-60

WARNING AVERTISSEMENT ADVERTENCIA

Hot pressurized coolant could result in severe injury. Do not open when hot. Allow coolant to cool before servicing.

Le liquide de refroidissement pourrait provoquer de sévères blessures. Ne pas ouvrir lorsque le liquide de refroidissement est chaud. Laissez refroidir le liquide de refroidissement avant d'effectuer l'entretien.

El refrigerante caliente a presión podría causar lesiones severas. No abra cuando esté caliente. Permita que el refrigerante se enfríe antes de dar servicio.

0010-70

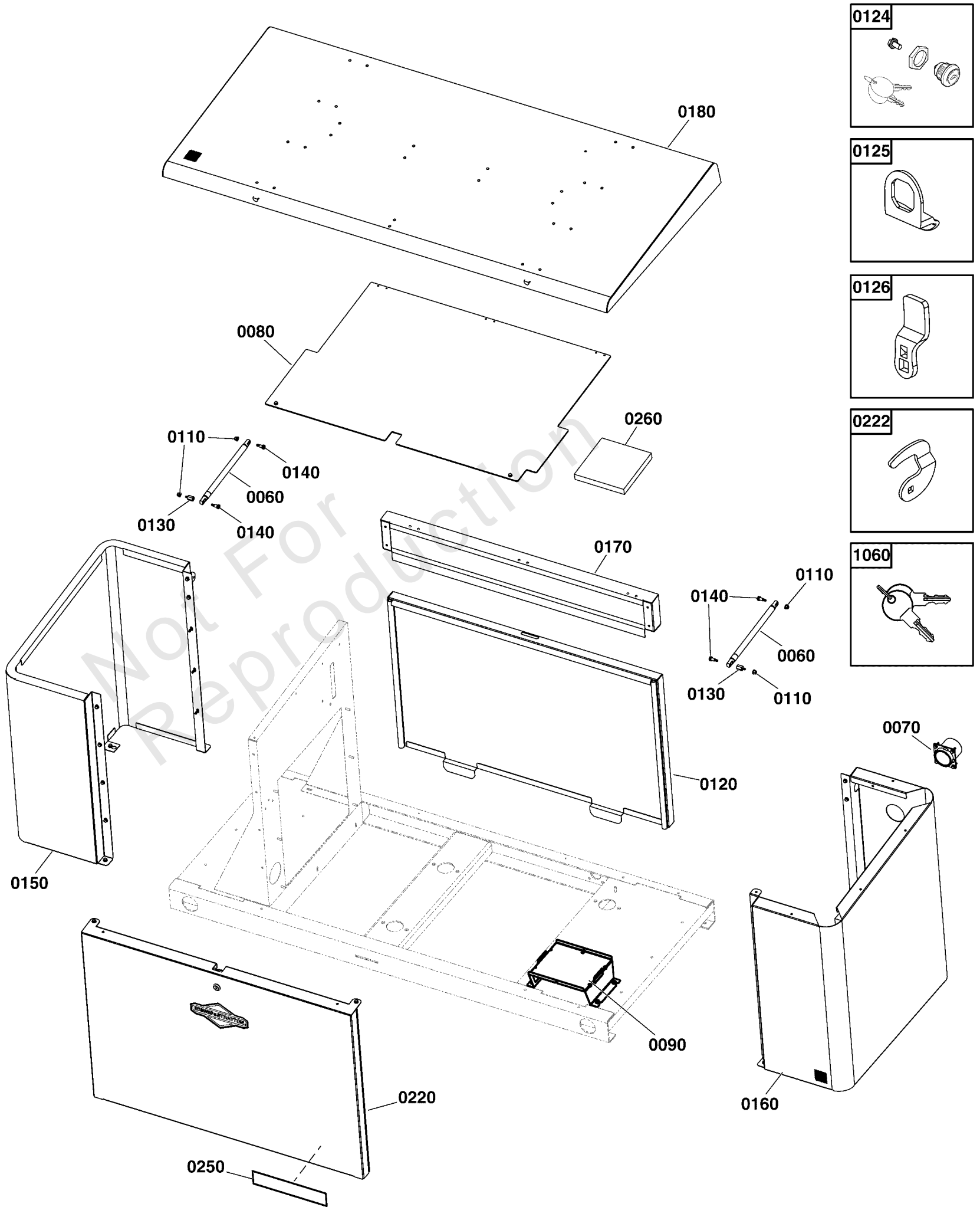
Decals Group - Circuit Protection

REF NO	PART NO	QTY	DESCRIPTION
0010	84011107	1	DECAL SHEET, Warnings -(Includes all decals shown on sheet.)
0010-10	-----	1	DECAL-WARNING, RISK OF FIRE
0010-20	-----	1	DECAL-WARNING, FUSE
0010-30	-----	1	DECAL-NOTICE, CONDUIT ENTRY
0010-40	-----	1	DECAL-NOTICE, TERMINAL & BUS LUGS
0010-50	-----	3	DECAL-WARNING, HOT SURFACE
0010-60	-----	1	DECAL-WARNING, EXHAUST
0010-70	-----	1	DECAL-WARNING, HOT COOLANT
0010-90	-----	1	DECAL-RAINPROOF ENCLOSURE
0010-100	-----	1	DECAL-DISCONNECT
0010-110	-----	1	DECAL-FUSE REPLACEMENT
0010-120	-----	1	DECAL-CIRCUIT BREAKER
0010-130	-----	1	DECAL, Terminal Strip, Numbers 8-1
0010-140	-----	1	DECAL-L1 / L2
0010-150	-----	1	DECAL-NEUTRAL
0010-160	-----	3	DECAL-GROUND
0010-170	-----	1	DECAL-TERMINAL, 25/26
0010-180	-----	1	DECAL-TERMINAL STRIP
0010-190	-----	1	DECAL-TERMINAL STRIP
0010-200	-----	1	DECAL-TERMINAL STRIP
0010-210	-----	1	DECAL, Warning -(The installation of this decal is required for units manufactured after 08/30/2018 and sold in the state of California.)
0010-220	-----	1	DECAL
0010-230	-----	1	DECAL
0030	771702	1	DECAL-NOTICE, FUEL REQUIREMENTS

Enclosure Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



Enclosure Group

REF NO	PART NO	QTY	DESCRIPTION
0060	314649GS	2	SHOCK, Roof
0070	BG318007GS	1	FITTING
0080	318597GS	1	GUARD
0090	BA319333GS	1	TRAY-BATTERY
0110	-----	4	* NUT, M6, Flange Head, Lock -(*See footnote)
0120	704255	1	DOOR-BACK -(Includes Ref. Nos. 0124, 0125 & 0126)
0124	314619GS	1	LATCH
0125	704295	1	TAB-PULL
0126	196001GS		LATCH-ARM -(Back Door)
0130	704297	2	ADAPTER
0140	-----	4	* BOLT, Shoulder, M6, 8 x 12 -(*See footnote)
0150	704256	1	BULKHEAD-EXHAUST
0160	704258	1	BULKHEAD-ALTERNATOR
0170	704260	1	RAIL-DOOR
0180	704262	1	ROOF
0220	770032	1	DOOR-FRONT -(Includes Ref. Nos. 0124 & 0222)
0222	315443GS	1	LATCH-ARM -(Front Door)
0250	770458	1	BADGE-FORTRESS
0260	84004648	1	SHIELD, Water
1060	314290GS	1	KEY

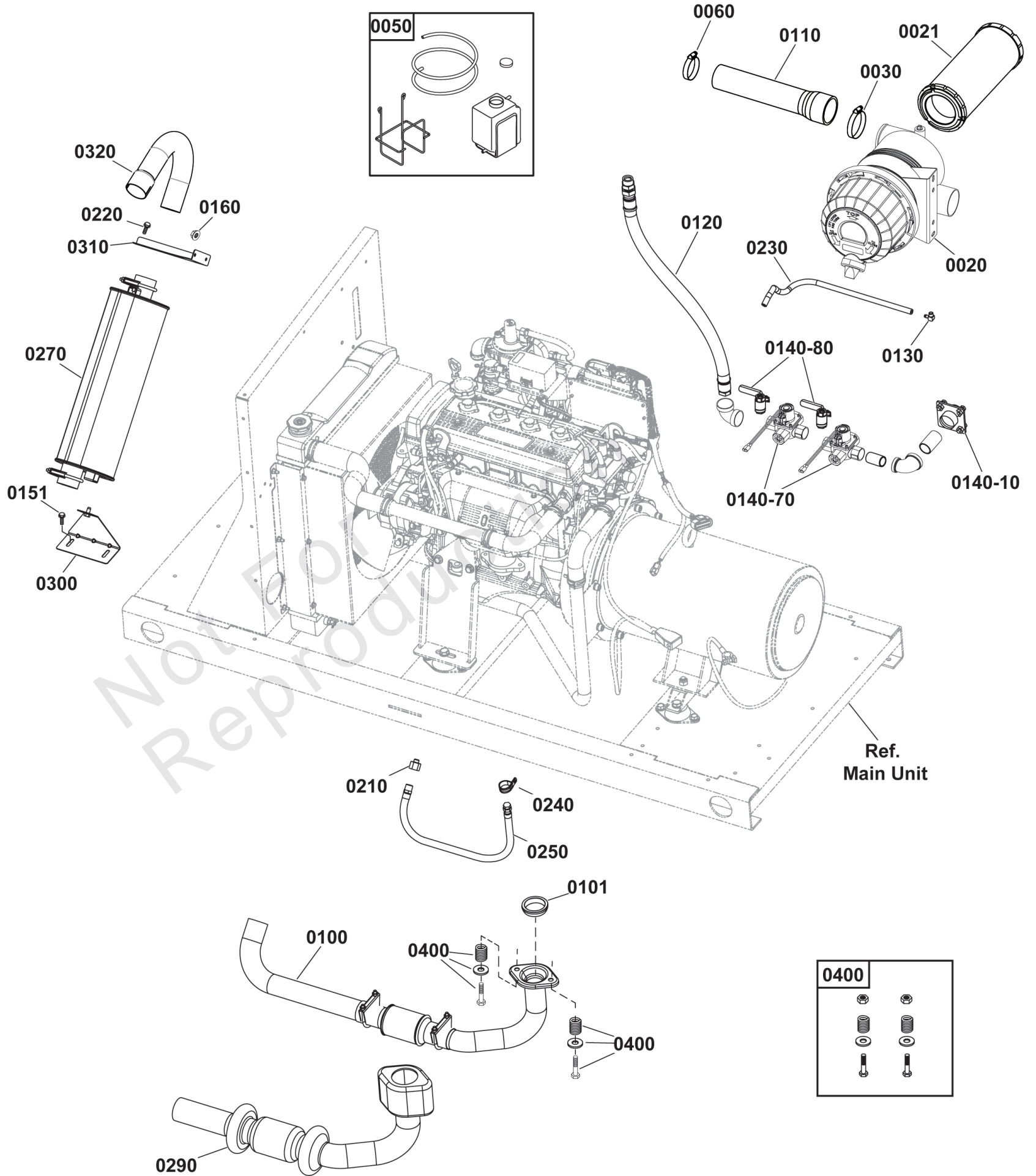
Footnotes:

* Items without part numbers are common fasteners and are available at your local hardware store.

Engine Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



Engine Group

REF NO	PART NO	QTY	DESCRIPTION
0020	709904	1	AIR CLEANER
0021	709906	1	CARTRIDGE-AIR CLEANER
0030	205016GS	1	CLAMP, 3.5"
0050	205226GS	1	KIT, Bottle Overflow
0060	84007135	1	CLAMP, Hose
0100	317579GS	1	EXHAUST
0101	704268	1	GASKET
0110	770546	1	TUBE
0120	318595GS	1	HOSE-FUEL
0130	319774GS	1	FITTING
0140-10	BC310518GS	1	COUPLING
0140-70	706433	2	SOLENOID-GAS FUEL
0140-80	312788GS	2	BALL, Valve, 1/8
0151	-----	7	* BOLT, Flange, M6 X 1 X 20 -(*See footnote)
0160	-----	2	* NUT, M6, Flange Head, Lock -(*See footnote)
0210	704337	1	ADAPTER
0220	706348	2	BOLT
0230	704269	1	HOSE, FUEL
0240	704270	1	CLAMP
0250	704271	1	HOSE-OIL DRAIN
0270	704272	1	MUFFLER
0290	206985GS	1	SLEEVE, Insulation
0300	704275	1	BRACKET
0310	704276	1	BRACKET
0320	704277	1	DIFFUSER
0400	707925	1	KIT-HARDWARE, EXHAUST -(Includes all items shown in box.)

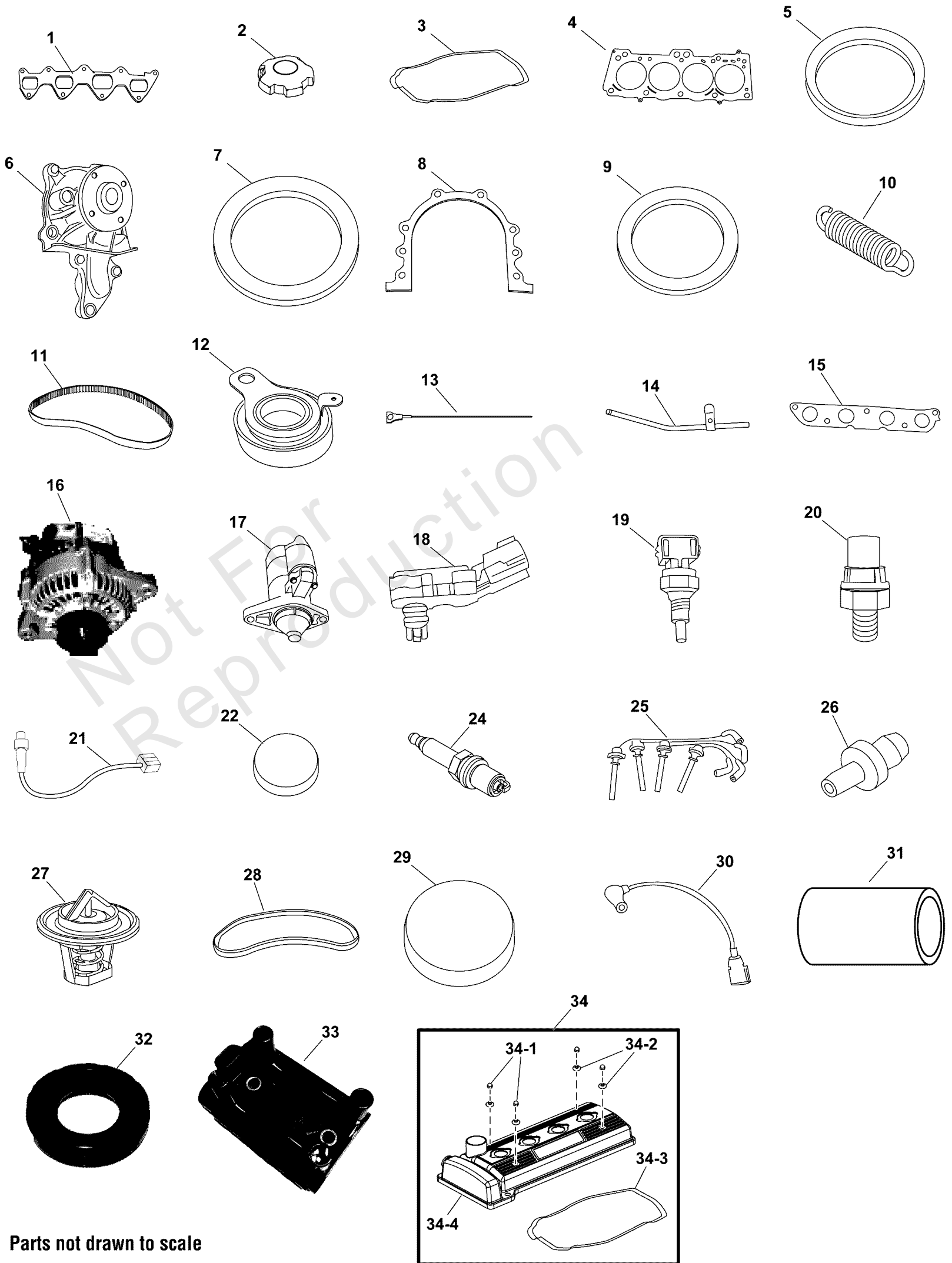
Footnotes:

* Items without part numbers are common fasteners and are available at your local hardware store.

Engine Group - Common Service Parts

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



Parts not drawn to scale

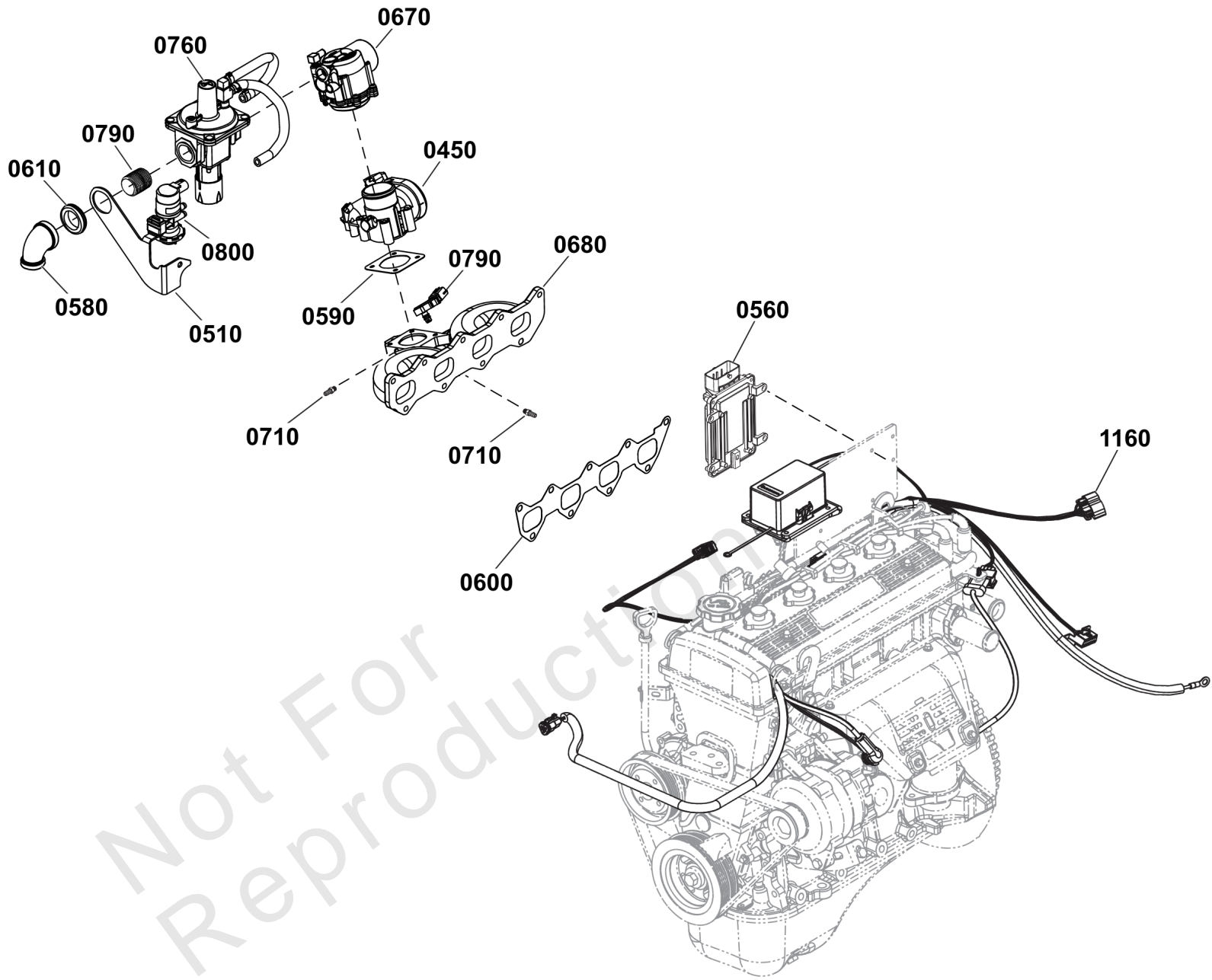
Engine Group - Common Service Parts

REF NO	PART NO	QTY	DESCRIPTION
1	318472GS		GASKET-INTAKE MANIFOLD
2	318702GS		CAP-OIL
3	318703GS		GASKET-VALVE COVER
4	318705GS		GASKET-HEAD
5	318706GS		O-RING-WATER PUMP
6	318708GS		WATER PUMP
7	318709GS		SEAL, Crank, Rear
8	318710GS		GASKET-REAR MAIN
9	318711GS		SEAL, Crank, Front
10	318712GS		SPRING-TENSIONER, TIMING BELT
11	318713GS		BELT-TIMING
12	318714GS		TENSIONER-TIMING BELT
13	318717GS		DIPSTICK
14	318718GS		TUBE-DIPSTICK
15	318719GS		GASKET-EXHAUST MANIFOLD
16	318720GS		ALTERNATOR-ENGINE
17	318721GS		STARTER
18	318722GS		SENSOR-MAP
19	318723GS		SENSOR, Temperature
20	318725GS		SENSOR-OIL PRESSURE
21	318726GS		SENSOR-OXYGEN
22	318727GS		PLUG-FREEZE, 35mm
24	318729GS		SPARK PLUG
25	318730GS		WIRE-SPARK PLUG SET
26	318734GS		PCV VALVE
27	318735GS		THERMOSTAT
28	318737GS		BELT
29	319370GS		PLUG-FREEZE, 40mm
30	318724GS		SENSOR-CRANK POSITION
31	709898		HOSE-WATER PUMP
32	709899		SEAL-SPARK PLUG TUBE
33	709900		COILPACK-IGNITION
34	84006473	1	KIT, Valve Cover -(Incl. Ref. Nos. 34-1, 34-2, 34-3, 34-4)
34-1	-----	4	NUT, Acorn
34-2	-----	4	GASKET, Bolt
34-3	318703GS	1	GASKET-VALVE COVER
34-4	-----	1	COVER, Valve

Engine Group - Fuel Components

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



Engine Group - Fuel Components

REF NO	PART NO	QTY	DESCRIPTION
0450	318470GS	1	BODY-THROTTLE
0510	-----	1	BRACKET, Fuel Control Valve
0560	84008544	1	ECU
0580	-----	1	FITTING, Reducer Elbow, 90° -(*See footnote)
0590	318473GS	1	GASKET
0600	318472GS	1	GASKET-INTAKE MANIFOLD
0610	318876GS	1	GROMMET
0670	318474GS	1	MIXER-FUEL
0680	-----	1	MANIFOLD
0710	-----	2	NIPPLE, Hose, 3/8" x 1/8" NPT
0760	318478GS	1	REGULATOR-FUEL
0790	704221	1	SENSOR
0800	84007638	1	VALVE, Fuel Control
1160	84008543	1	HARNESS, Wire

Not For
Reproduction

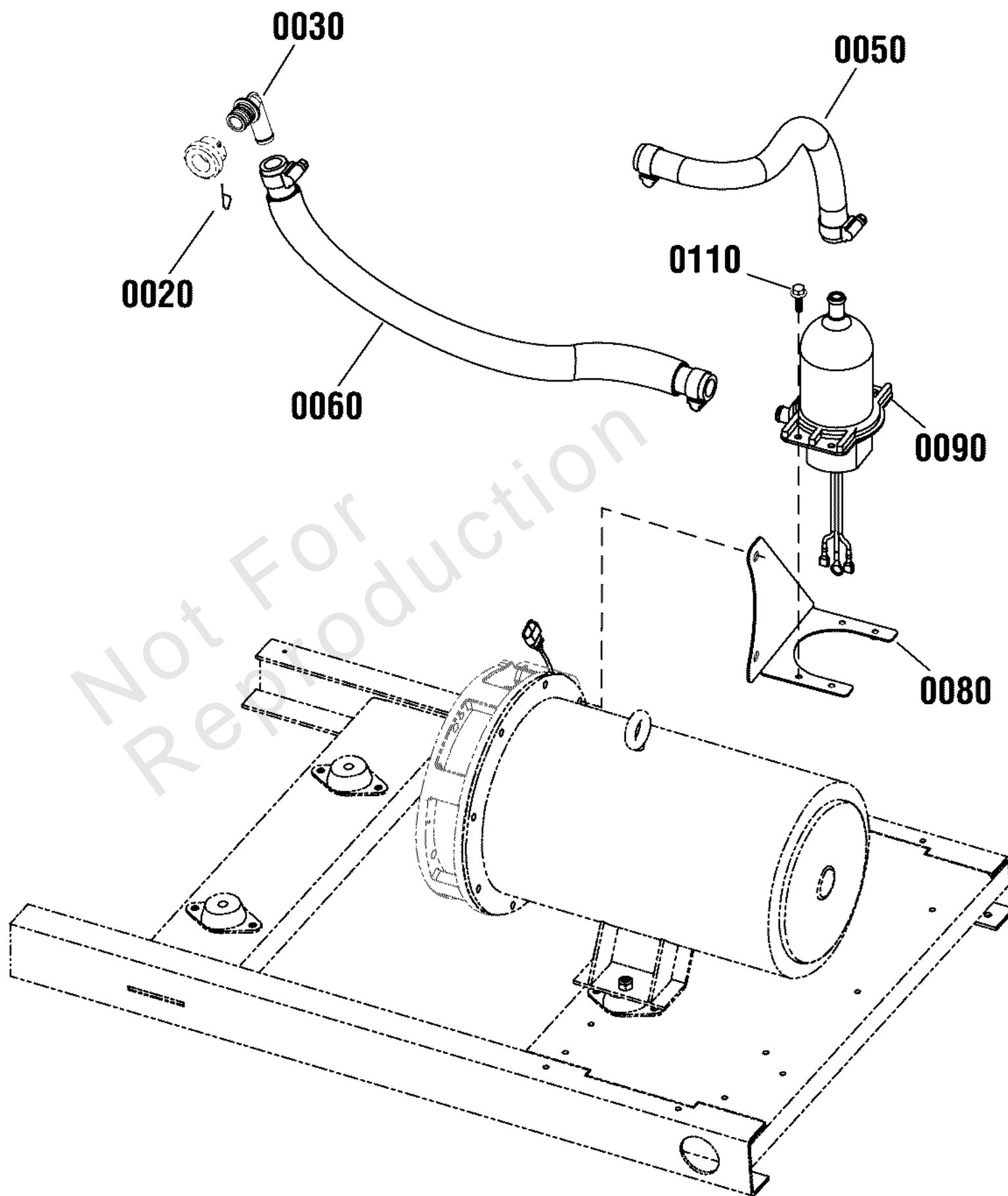
Footnotes:

Note:* Refer to your local hardware store for replacement parts.

Heater Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 076880-05



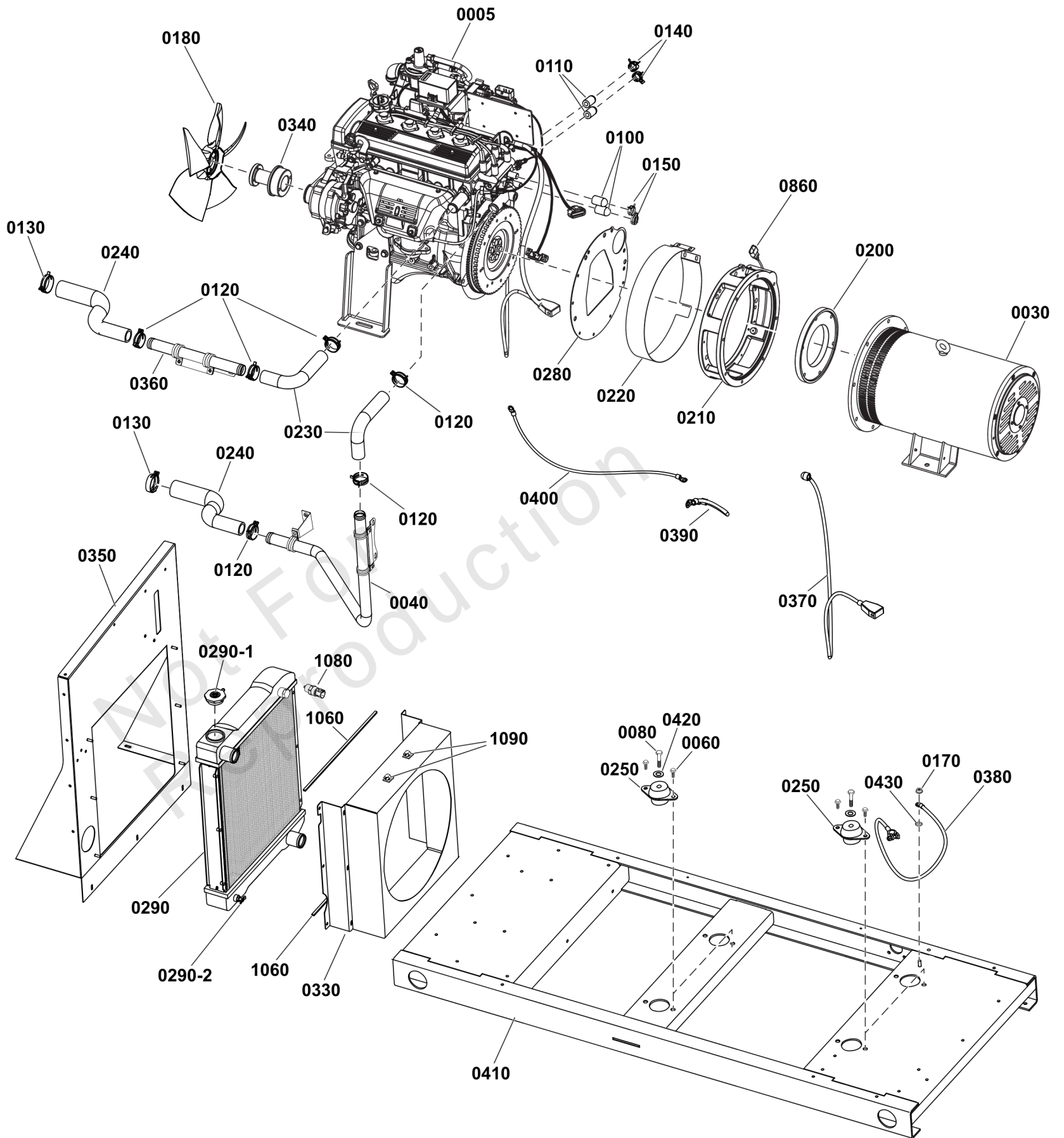
Heater Group

REF NO	PART NO	QTY	DESCRIPTION
0020	314146GS		CLIP
0030	314147GS		FITTING
0050	-----		HOSE-HEATER
0060	-----		HOSE-HEATER
0080	-----		BRACKET
0090	770033		HEATER, 240V
0110	-----		* BOLT, Flange, M6 X 1 X 20 -(*See footnote)

Not For
Reproduction

Footnotes:

* Items without part numbers are common fasteners. Purchase locally.



Power Group

REF NO	PART NO	QTY	DESCRIPTION
0005	317591GS		** ENGINE
0030	704273		ALTERNATOR
0040	318521GS		TUBE
0060	-----		BOLT, Flange, M10 X 1-1/2 X 20
0080	-----		BOLT, M12 X 1-3/4 X 3/4
0100	319775GS		CAP, Port, Rubber, 11/16"
0110	319776GS		CAP, Port, Rubber, 5/16"
0120	318541GS		CLAMP
0130	318542GS		CLAMP
0140	704219		CLAMP
0150	704218		CLAMP
0170	-----		NUT, Flange, M8
0180	704220		FAN
0200	-----		FLANGE, Alternator
0210	-----		ADAPTER, Flange, Engine/Alternator
0220	-----		GUARD, Flywheel
0230	318520GS		HOSE
0240	318519GS		HOSE
0250	204653GS		MOUNT-VIBRATION
0280	-----		COVER, Flywheel
0290	318373GS		RADIATOR -(Includes Ref. Nos. 290-1 & 0290-2)
0290-1	704673		CAP, Radiator
0290-2	707487		VALVE-DRAIN
0330	319018GS		COVER-FAN
0340	-----		SPACER, Fan, Radiator
0350	317569GS		SUPPORT
0360	318522GS		TUBE
0370	318369GS		WIRE
0380	318370GS		WIRE
0390	318371GS		WIRE
0400	318372GS		WIRE
0410	-----		BASE
0420	49808GS		WASHER
0430	193686GS		WSHR, M10, SHKPRF, EXT
0860	318724GS		SENSOR
1060	707455		SEAL
1080	708761		SENSOR-LOW COOLANT
1090	197355GS		CLIP

Footnotes:

* Items without part numbers are common fasteners. Purchase locally.

** Contact Briggs & Stratton for parts and service.

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs		ft/lbs	
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs	
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread Diameter (mm)

Inside Diameter (in) Threads per inch

Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm) Distance between threads (mm) Body Length (mm)

Body Diameter Threads per inch Body Length (in)

Screw, 1/2- 16 x 2



Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

Common Hardware Types

Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

Wrench & Fastener Size Guide

1/4" Bolt or Nut Wrench—7/16"	5/16" Bolt or Nut Wrench—1/2"	3/8" Bolt or Nut Wrench—9/16"	7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

