

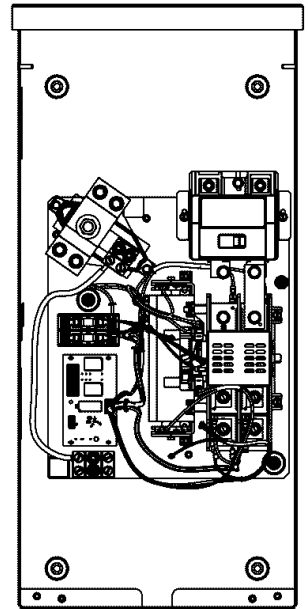
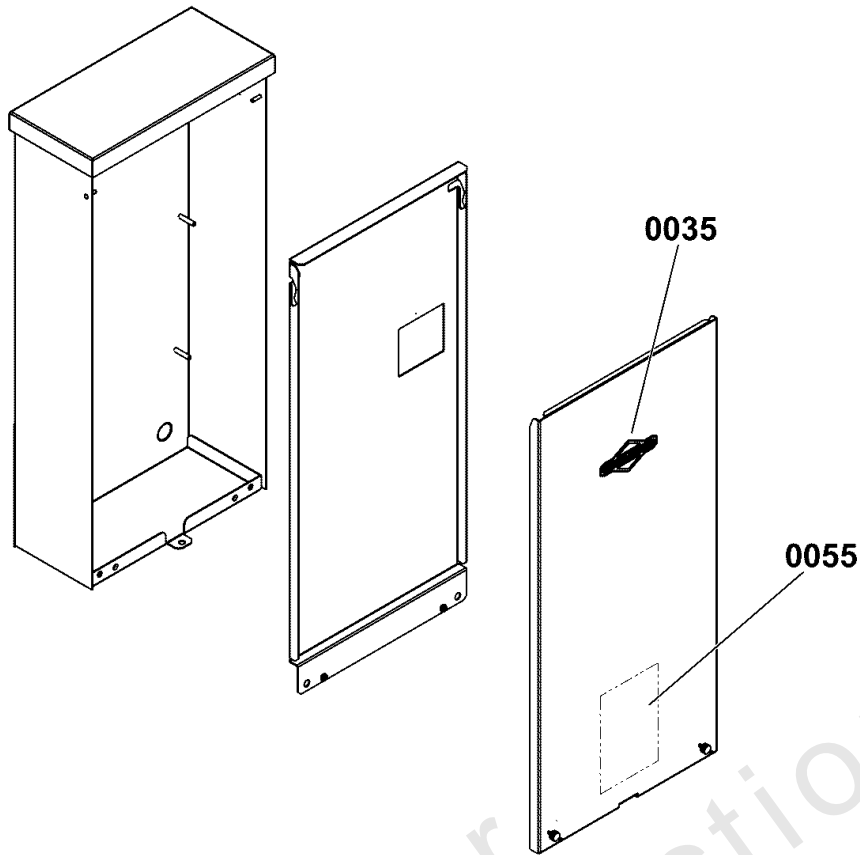


Parts Manual

Mfg. No: 071251-00
150 Amp Automatic Transfer Switch and
Gateway

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0035

Briggs & Stratton Corporation
SERVICE DISCONNECT SWITCH AND AUTOMATIC TRANSFER SWITCH

RATED VOLTAGE	240 VAC	DATE OF MANUFACTURE
RATED CURRENT	150 AMP	

THESE DEVICES ARE INTENDED FOR USE ON A 120/240 VAC SINGLE-PHASE, THREE-WIRE SYSTEM. THIS TRANSFER SWITCH IS SUITABLE FOR USE IN A CIRCUIT CAPABLE OF DELIVERING SHORT-CIRCUIT CURRENT, UTILITY SIDE 22KAIC AND GENERATOR SIDE 10KAIC AT 240VAC.

AUTOMATIC TRANSFER SWITCH FOR USE ON STANDBY SYSTEMS
 Suitable for control of motors, electric discharge lamps, tungsten filament lamps, and electrical heating equipment with the sum of the motor full-load ampere ratings and the ampere rating of other loads does not exceed the rating of the switch, and the tungsten load does not exceed 50 percent of the switch rating.

AUTOMATIC SEQUENCE

- UTILITY FAIL - Utility voltage sensor senses when utility voltage is below 70% of nominal. Engine start sequence is initiated after 5-second time delay.
- ENGINE WARM-UP - Time delay to allow engine warm-up before transfer fixed at 20 seconds or 50 seconds with optional odd weather package.
- TRANSFER - Transfer from utility to standby supply occurs after standby voltage is above set levels. Minimum engine run time is 4 minutes after transfer.
- UTILITY PICKUP - Voltage pickup level is 80% of nominal voltage.
- RETRANSFER - Retransfer from generator utility supply 10 seconds after utility voltage is above pickup level.
- ENGINE COOL-DOWN - Engine will run for 60 seconds after retransfer.

Testing of Automatic Transfer Switch - Turn the service disconnect switch to the "OFF" position. The automatic sequence will follow. To go back to utility power, turn the service disconnect to the "ON" position.

ON THE GENERATOR SIDE, THIS TRANSFER SWITCH IS SUITABLE FOR USE IN A CIRCUIT CAPABLE OF DELIVERING THE SHORT-CIRCUIT CURRENT OF 10KA AT 240VAC WHEN PROTECTED BY A BREAKER WITH A MAXIMUM CLEARING TIME OF 0.025 SECS.

Suitable for use as service equipment - NORMAL source only. An additional disconnect must be readily available for the alternate source, unless the alternate source is an accessible generator and can be readily shutdown.

Consult Owners Manual for explanation of Transfer System operation and features.
 Enclosure is type NEMA 3R, suitable for indoor and outdoor installation.
 Wiring to generator must be enclosed in conduit.
 Connect utility and standby generator supply as shown.

Connector tightening torques shall be as follows:

UTILITY	250	GROUND	50
GENERATOR	250	CONTROL	15
NEUTRAL	250	FUSIBLE DISK	15

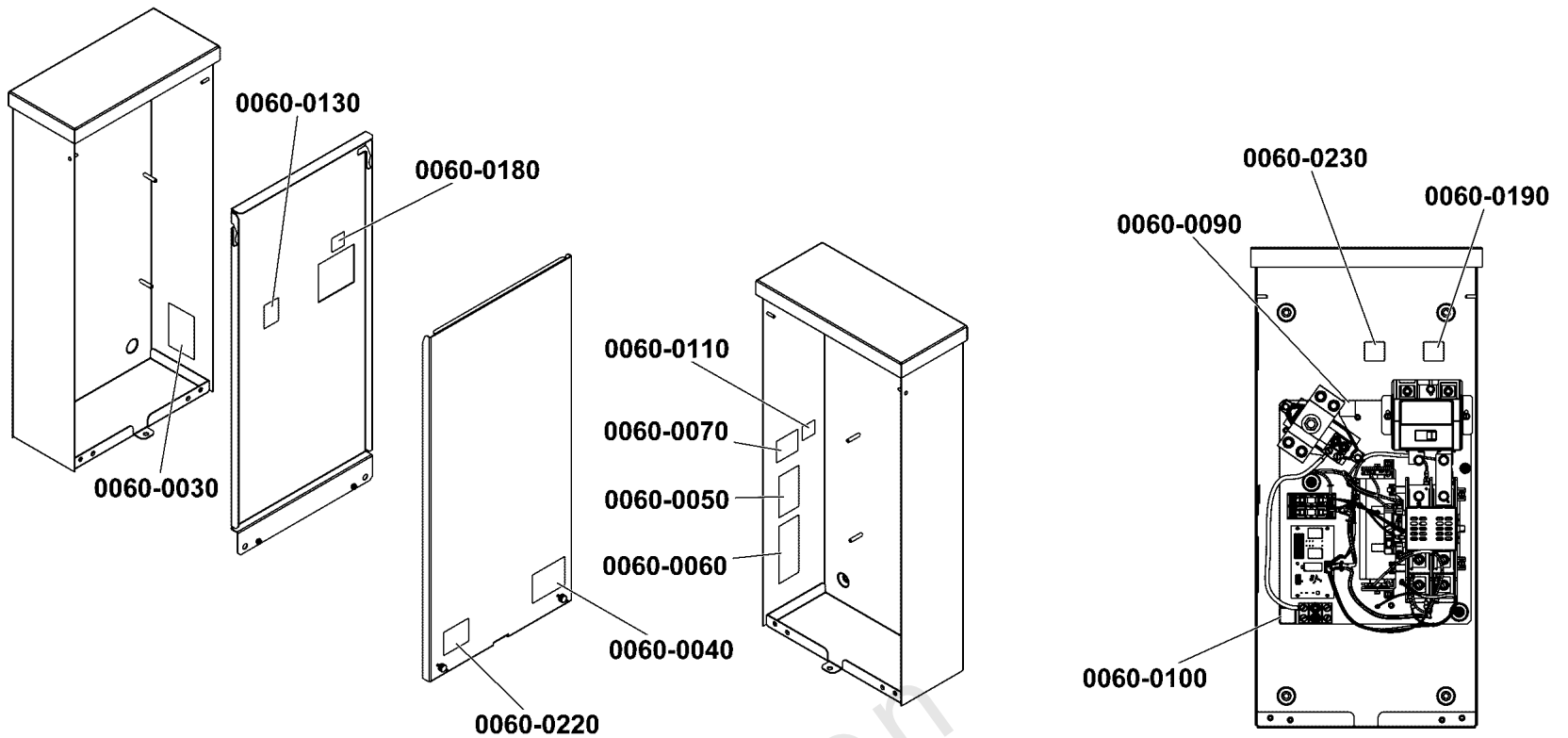
Use oxide inhibitor on all aluminum lamination. All terminal and bus lugs are suitable for copper or aluminum wire of 60/75°C rating. 80589-015

0055

Decals Group - ATS Informational

REF NO	PART NO	QTY	DESCRIPTION
0035	-----	1	DECAL, B&S Logo
0055	84004858	1	DECAL, Transfer Switch, 150A

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<p>0060</p> <p>Suitable for use as service equipment in Canada Peut être utilisé comme équipement de réparation au Canada Adecuado para uso como equipo de servicio en Canadá</p> <p>80016022</p>	<p>NOTICE AVIS AVISO</p> <p>A-A Terminals rated 1 AMP, 24 Volt AC B-B Terminals rated 1 AMP, 120 Volt AC Pilot duty. Bornes A-A pour une tension nominale de 1 A, 24 V c.a. Bornes B-B pour une tension de 1 A, 120 V c.a. Service du pilote. Terminales calibrados A-A 1 Amperio, 24 Voltios CA Terminales calibrados B-B 1 Amperio, 120 Voltios CA Relé auxiliar.</p> <p>80016094</p>	<p>Continuous load current not to exceed 80% of circuit breaker rating Le courant de charge en continu ne dépasse pas 80% du courant nominal du disjoncteur La carga de corriente permanente no debe exceder el 80% del calibre del interruptor</p> <p>80016097</p>	<p>When protected by one of the type circuit breakers described below, rated not more than 125 amperes, this transfer switch is rated for use on a circuit capable of delivering not more than 22,000 rms symmetrical, 240 volts max. Lorsqu'il est protégé par l'un des types de disjoncteurs de circuit décrits ci-dessous, avec une valeur nominale ne dépassant pas 125 A, cet interrupteur de transfert est coté pour une utilisation sur un circuit capable de fournir au maximum un courant de 22 000 RMS symétrique, avec un voltage de 240 V maximum. Cuando se protege con uno de los tipos de interruptores que se describen a continuación, con un calibre no mayor a 125 amperios, este interruptor de transferencia está calibrado para ser usado en un circuito capaz de suministrar no más de 22,000 rms simétricos, máximo 240 voltios.</p> <p>Cutler-Hammer Type QCHW Cutler-Hammer Type GB, GHB, GC, GHC Cutler-Hammer Type FD, GD, HFD Square D Type QDM1, QDM2, QDM1-VH, QDM2-VH Square D Type Q2-H, Q2H, QDL GE Type THHG, THGQ, THGL, THOD, THDL, THQDL Siemens Type HED4</p> <p>80016109</p>	<p>Utility Disconnect Fonctionnalité Débrancher Utilidad Desconectar</p> <p>80016103</p>
<p>0060-0010</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. Risque de décharge électrique. Ne pas retirer la couverture. Aucune pièce à entretenir par l'utilisateur à l'intérieur. Confier l'entretien à du personnel de service qualifié. 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>80016112</p>	<p>NOTICE AVIS AVISO</p> <p>Wire all Class 2 circuits using type CL3, CL3P, CL3R or equivalent conductors. OR Wire all circuits as Class 1 or Electric Light and Power circuits. Lier tous les circuits électrique de Classe 2 en utilisant des conducteurs CL3, CL3P, CL3R ou équivalent. OU Lier tous les circuits électriques en tant que Classe 1 ou comme lumière électrique ou circuits d'alimentation. Conecte todos los circuitos de clase 2 al usar conductores de tipo CL3, CL3P, CL3R o equivalentes. O Conecte todos los circuitos como clase 1 o luz eléctrica y circuitos de energía.</p> <p>80016095</p>	<p>0060-0080</p> <p>N</p> <p>80016104</p>	<p>0060-0140</p> <p>When protected by one of the type circuit breakers described below, rated not more than 250 amperes, this transfer switch is rated for use on a circuit capable of delivering not more than 25,000 rms symmetrical, 240 volts max. Lorsqu'il est protégé par l'un des types de disjoncteurs de circuit décrits ci-dessous, avec une valeur nominale ne dépassant pas 250 A, cet interrupteur de transfert est coté pour une utilisation sur un circuit capable de fournir au maximum un courant de 25 000 RMS symétrique, avec un voltage de 240 V maximum. Cuando se protege con uno de los tipos de interruptores que se describen a continuación, con un calibre no mayor a 250 amperios, este interruptor de transferencia está calibrado para ser usado en un circuito capaz de suministrar no más de 25,000 rms simétricos, máximo 240 voltios.</p> <p>Cutler-Hammer Type BWH, CSR Cutler-Hammer Type FD, HFD Cutler-Hammer Type JDB, JD, HJD Square D Type QDM2, QDM2-VH Square D Type QDM2-VH, QDM2-VH, QDM2-VH Square D Type Q2-H, Q2H, QDL GE Type THQD, THQDL GE Type SF, TFJ, TFK</p> <p>80016234</p>	<p>0060-0180</p> <p>Utility Connection Fonctionnalité Connexion Utilidad Conexión</p> <p>80016104</p>
<p>0060-0020</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. 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. 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>0060-0060</p> <p>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</p> <p>80015819</p>	<p>0060-0090</p> <p>Utility 240 VAC Fonctionnalité 240 V CA Utilidad 240 VAC</p> <p>80016108</p>	<p>0060-0150</p> <p>Generator Service Disconnect Génératrice Réparation Débrancher Generador Servicio Desconectar</p> <p>80016107</p>	<p>0060-0190</p> <p>Generator Connection Génératrice Connexion Generador Conexión</p> <p>80016105</p>
<p>0060-0030</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>Electric shock hazard could result in death or serious injury. More than one live circuit - disconnect all sources of supply before servicing. Risque de choc électrique pouvant provoquer des blessures graves, voire la mort. Plus d'un circuit sous tension - débrancher toutes les sources d'alimentation avant d'entreprendre le dépannage. Riesgo de descarga eléctrica que puede resultar en muerte o lesión seria. Más de un circuito vivo - desconecte todas las fuentes de suministro antes de servicio.</p> <p>80089550</p>	<p>0060-0070</p> <p>Reinstall Barrier After Service or Maintenance Réinstaller la barrière Après la réparation ou l'entretien Reinstalar barreras Después del servicio o Mantenimiento</p> <p>80016101</p>	<p>0060-0100</p> <p>Utility 240 VAC Fonctionnalité 240 V CA Utilidad 240 VAC</p> <p>80016108</p>	<p>0060-0170</p> <p>Service Disconnect Réparation Débrancher Servicio Desconectar</p> <p>80016109</p>	<p>0060-0200</p> <p>Located at Generator Située à Génératrice Ubicado en Generador</p> <p>80016107</p>
<p>0060-0040</p>	<p>0060-0130</p>	<p>0060-0110</p> <p>Suitable for use as service equipment except in Canada Peut être utilisé comme équipement de réparation à l'exception du Canada Adecuado para uso como equipo de servicio excepto en Canadá</p> <p>80016100</p>	<p>0060-0160</p> <p>Generator Disconnect Génératrice Réparation Débrancher Generador Servicio Desconectar</p> <p>80016103</p>	<p>0060-0210</p> <p>WARNING AVERTISSEMENT ADVERTENCIA</p> <p>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 800207</p>
<p>0060-0050</p>	<p>0060-0120</p>	<p>0060-0120</p> <p>Reinstall Barrier After Service or Maintenance Réinstaller la barrière Après la réparation ou l'entretien Reinstalar barreras Después del servicio o Mantenimiento</p> <p>80016101</p>	<p>0060-0230</p>	<p>0060-0220</p> <p>Generator Disconnect Génératrice Réparation Débrancher Generador Servicio Desconectar</p> <p>80016104</p>

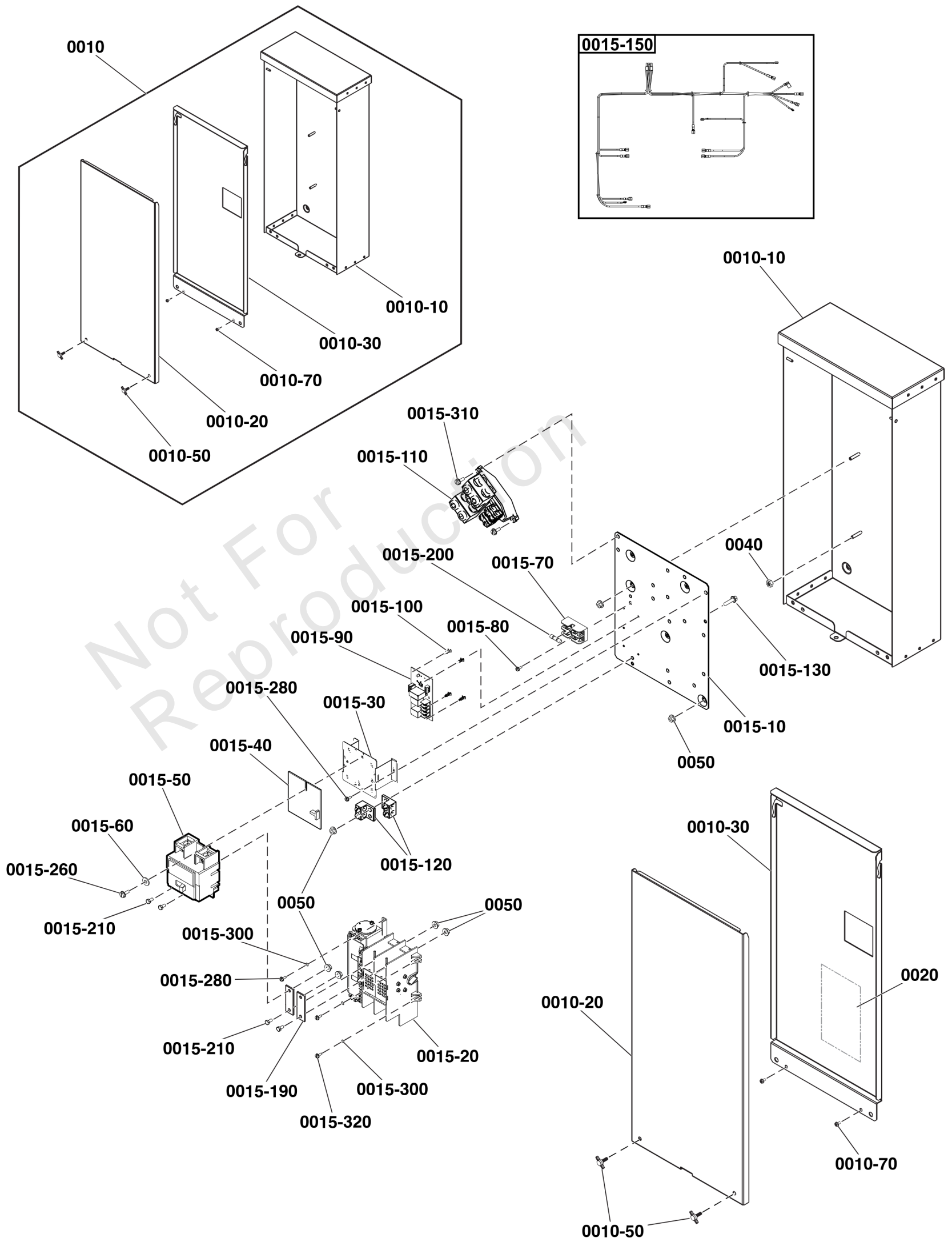
Decals Group - ATS Warning

REF NO	PART NO	QTY	DESCRIPTION
0060	770133	1	DECAL SHEET - WARNINGS -(Includes items 0060-0010 thru 0060-0220)
0060-0010	-----	1	DECAL, Suitable as SRV Equipment, Canada
0060-0020	-----	1	DECAL-WARNING, SHOCK
0060-0030	-----	1	DECAL-WARNING, ELECTRIC SHOCK
0060-0040	-----	1	DECAL-WARNING, ELECTRIC SHOCK
0060-0050	-----	1	DECAL, Notice, Contacts Rated
0060-0060	-----	1	DECAL, Notice, Wire Circuits
0060-0070	-----	1	DECAL-FUSE REPLACEMENT
0060-0080	-----	1	DECAL, Breaker, Circuit
0060-0090	-----	1	DECAL-NEUTRAL
0060-0100	-----	2	DECAL-GROUND
0060-0110	-----	1	DECAL, Utility 240VAC
0060-0120	-----	1	DECAL, Suitable as Service Equipment
0060-0130	-----	1	DECAL, Reinstall Barrier
0060-0140	-----	1	DECAL, Approved Circuit Breakers, 100A
0060-0150	-----	1	DECAL, Approved Circuit Breakers, 200A
0060-0160	-----	1	DECAL, Generator Service Disconnect
0060-0170	-----	2	DECAL, Service Disconnect
0060-0180	-----	2	DECAL, Disconnect, Utility
0060-0190	-----	2	DECAL, Connection, Utility
0060-0200	-----	1	DECAL, Connection, Generator
0060-0210	-----	1	DECAL, Location
0060-0220	-----	1	DECAL, Warning -(The installation of this decal is required for units manufactured after 08/30/2018 and sold in the state of California.)
0060-0230	-----	1	DECAL, Generator Disconnect Located at Generator

Transfer Switch - Hingeless Enclosure

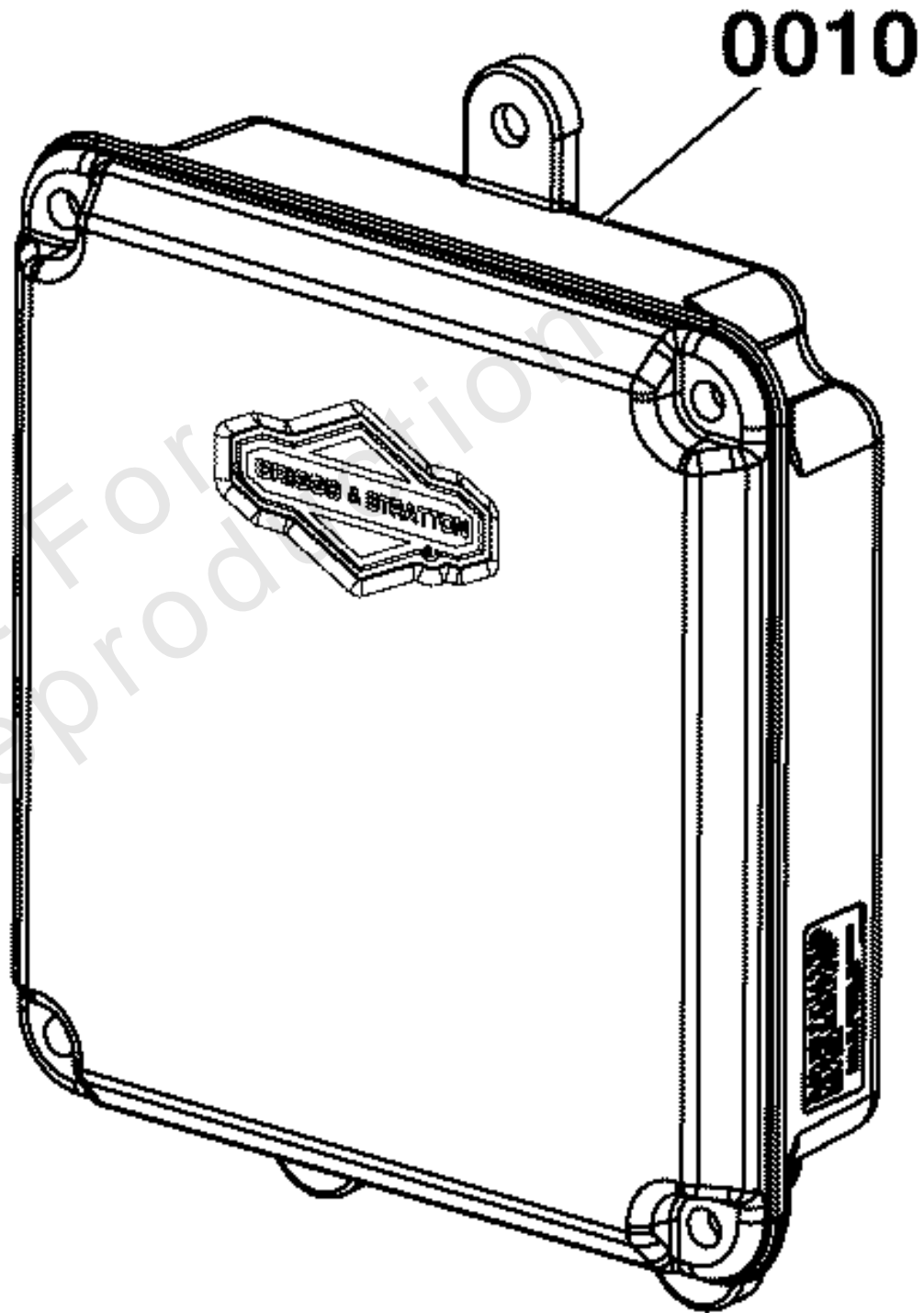
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 071251-00



Transfer Switch - Hingeless Enclosure

REF NO	PART NO	QTY	DESCRIPTION
0010	-----	1	ASSEMBLY, Enclosure -(*See footnote)
0010-10	-----	1	ENCLOSURE -(*See footnote)
0010-20	84004672	1	DOOR -(Incl. Ref. No. 0060)
0060	-----	1	DECAL SHEET - WARNINGS
0010-30	84005082	1	PANEL, Deadfront -(Incl. Ref. Nos. 0020, 0060)
0020	193664GS	1	INSULATION, Dead Front
0060	-----	1	DECAL SHEET - WARNINGS
0010-50	315108GS	2	SCREW
0010-70	703967	2	SCREW, #10-32 x 3/8, Torx Hex Washer Head Self-Tap, ZC/CL
0015-10	-----	1	PANEL, Back -(*See footnote)
0015-20	84002607	1	CONTACTOR, 200A
0015-30	770433	1	BRACKET
0015-40	192879GS	1	INSULATION, Circuit Breaker
0015-50	204144GS	1	BREAKER, Circuit, 150A
0015-60	23897GS	1	WASHER, Flat, #10 - M5
0015-70	192151GS	1	FUSE HOLDER, 30 Amp 2P
0015-80	192730GS	2	SCREW, Hex Head, Trilobular, #6-32 x 3/8
0015-90	770434	1	BOARD, Circuit
0015-100	707397	4	SPACER
0015-110	84004679	1	ASSEMBLY, Neutral, 200A
0015-120	84004498	2	LUG
0015-130	-----	1	SCREW, 1/4"-20 x 1"
0015-150	84004510	1	HARNESS, Wire
0015-190	319267GS	2	BAR, Bus
0015-200	205110GS	2	FUSE, 10 Amp 600v
0015-210	22287GS	4	SCREW, 1/4" - 20 x 3/4"
0015-260	24679GS	1	TRILOBULAR, #10-32 x 3/4
0015-280	194561GS	4	HHS, Trilobular, #10-32 x 3/8
0015-300	23762GS	4	WASHER
0015-310	32713GS	2	TAPTITE, #10-32 X 5/8
0015-320	200020GS	2	SCREW, Trilobular, #10-32 x 1/2
0020	193664GS	1	INSULATION, Dead Front
0040	45771GS	2	NUT, M8 - 1.25
0050	703061	9	NUT, 1/4-20, Keps, Conical Washer



Wireless Gateway

REF NO	PART NO	QTY	DESCRIPTION
0010	6520	1	ASSEMBLY, Wireless Gateway

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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		in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
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		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
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).

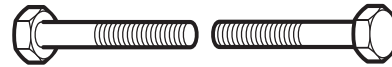
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

