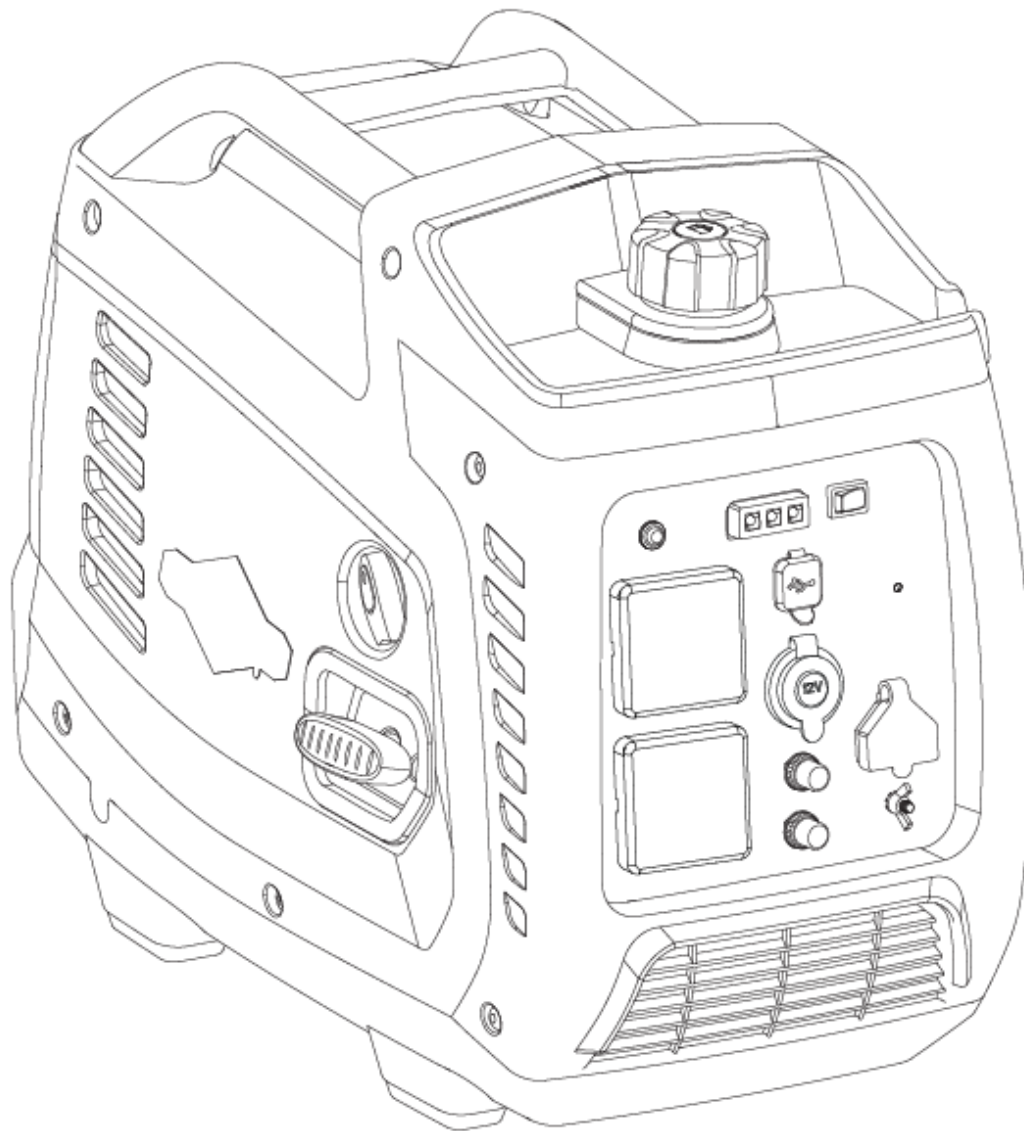


Parts Manual

Mfg. No: 030861-00
P2500 Briggs & Stratton Inverter
Generator, AUS



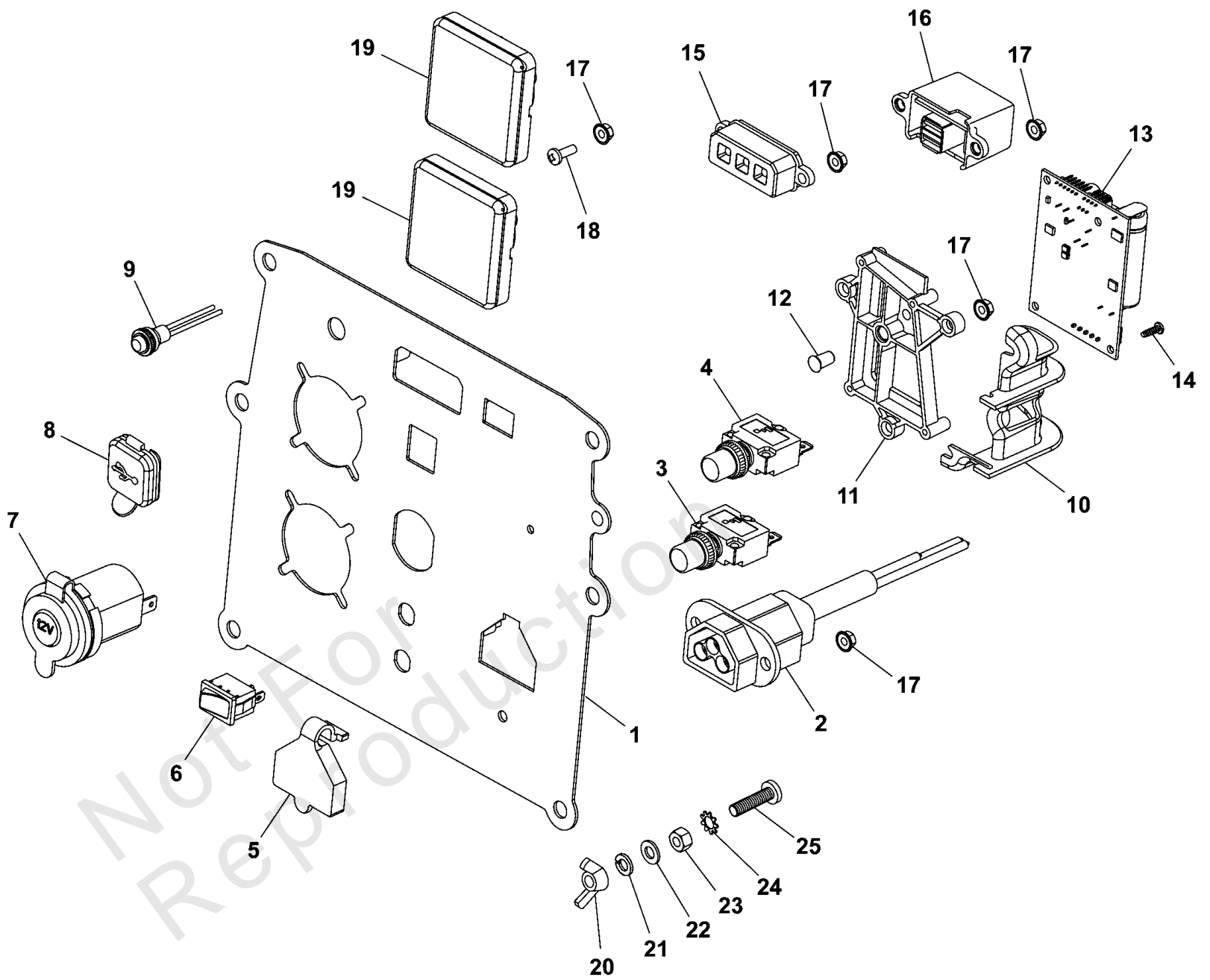
Model Components	Page
Control Panel.....	4
Main Unit P1.....	6
Main Unit P2.....	10
Main Unit P3 Engine.....	12
Wiring Diagram/Schematic.....	14
Torque Specification Chart.....	16

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Control Panel

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



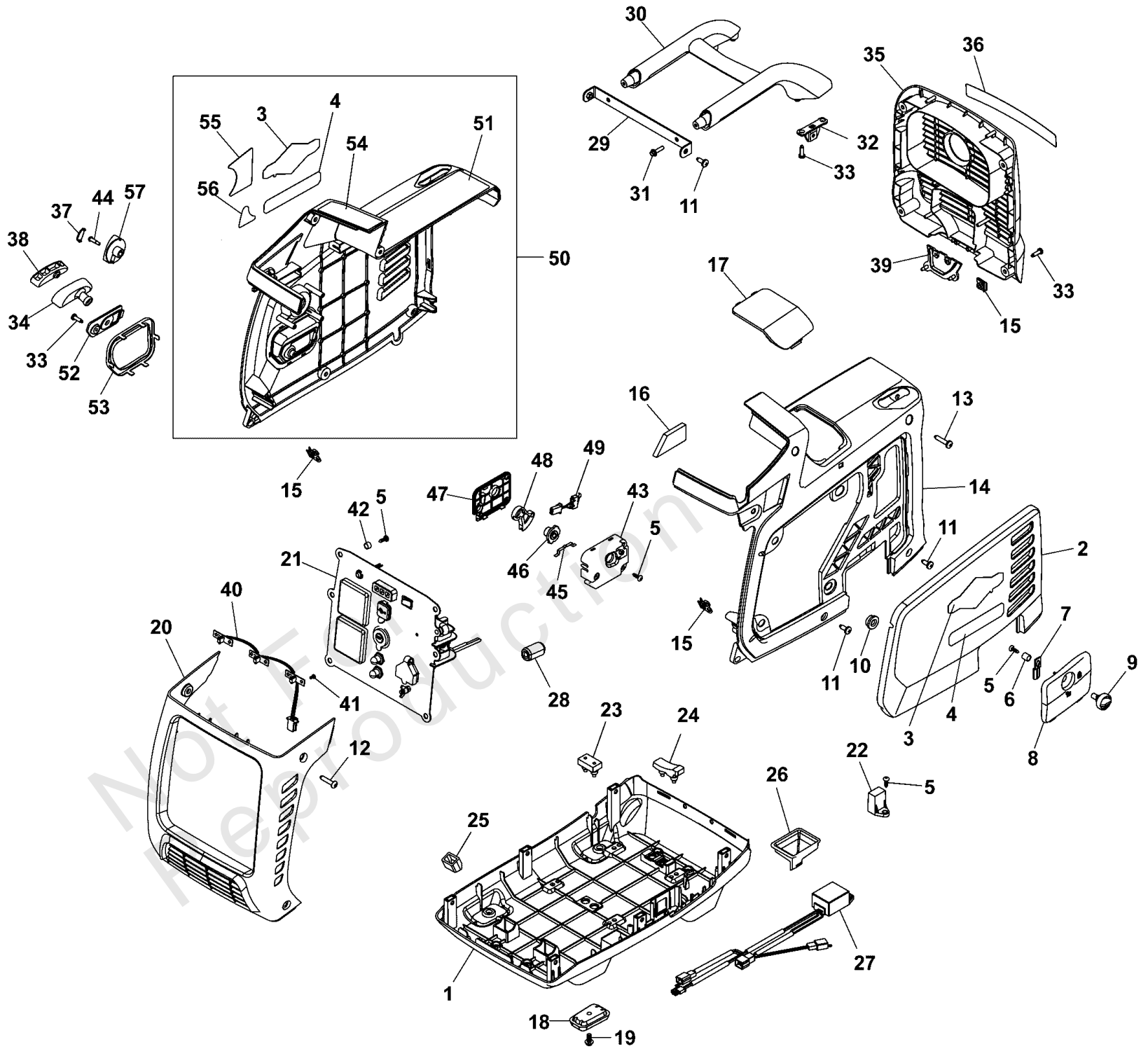
Control Panel

REF NO	PART NO	QTY	DESCRIPTION
1	84005049	1	PANEL-CONTROL
2	705488	1	PORT-PARALLEL
3	84005048	1	BREAKER-CIRCUIT
4	84004761	1	BREAKER-CIRCUIT
5	705478	1	COVER-PORT
6	311442GS	1	SWITCH
7	314531GS	1	OUTLET, 12VDC
8	84005027	1	COVER-USB
9	319463GS	1	BUTTON-SELECT
10	84005025	1	SHIELD
11	772213	1	BRACKET-MODULE
12	772217	1	LIGHT-PIPE
13	84004007	1	MODULE-CO
14	84001081	4	SCREW
15	84005026	1	LED- INDICATOR
16	84005046	1	USB
17	795016	9	NUT
18	-----	8	SCREW, M4-0.7 x 12
19	314532GS	2	OUTLET
20	84002979	1	WING NUT
21	84003036	1	WASHER-LOCK
22	84003037	1	WASHER-FLAT
23	84003038	1	NUT
24	84003039	1	WASHER-SERRATED
25	84003035	1	SCREW

Main Unit P1

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



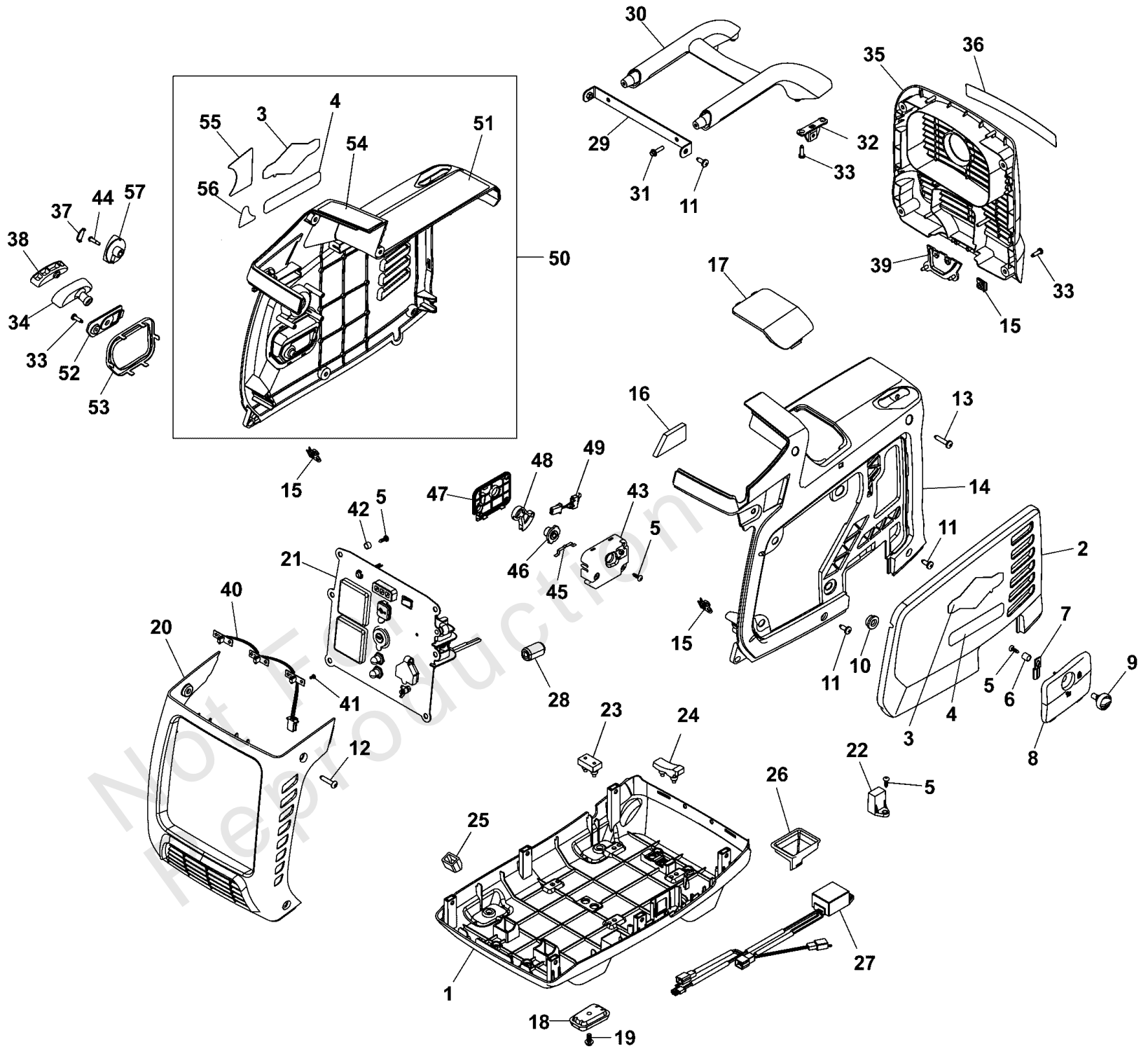
Main Unit P1

REF NO	PART NO	QTY	DESCRIPTION
1	84004872	1	COVER-BASE
2	84004977	1	PANEL-SIDE -(Includes Items 3 & 4)
3	84004981	1	DECAL
4	84004982	1	DECAL
5	84002962	8	SCREW
6	84002927	2	SLEEVE
7	84002928	1	LATCH-HOOK
8	84004870	1	DOOR-ACCESS
9	84004957	1	KNOB
10	84004959	1	GROMMET
11	84005245	4	SCREW
12	84005247	1	SCREW
13	84005246	1	SCREW
14	84005978	1	PANEL-SIDE
15	84002982	4	NUT-SPECIAL
16	84004968	1	FOAM
17	84004869	1	DOOR-ACCESS
18	84004949	4	MOUNT-VIBRATION
19	706865	4	SCREW, M6 x 18
20	84004971	1	PANEL-FRONT
21	84005975	1	ASSY-CONTROL PANEL
22	84005262	1	RECTIFIER
23	84005257	2	SHOCK-PAD
24	84005255	2	SHOCK- PAD
25	84004961	4	MOUNT-RUBBER
26	84004884	1	TRAP-DRAIN
27	84004964	1	RECTIFIER
28	84005258	1	FERRITE
29	84004956	1	BRACKET
30	84004970	1	HANDLE
31	-----	2	* BOLT, M5 x 20
32	84004965	1	LINK
33	84002910	2	SCREW
34	84002971	1	GRIP-RECOIL
35	84004983	1	COVER-EXHAUST -(Includes Item 36)
36	84005000	1	DECAL
37	311377GS	1	COVER, Knob
38	311414GS	1	INSERT, Grip
39	84004950	1	BRACKET-SEALING
40	84004871	1	LAMP-LED
41	197958GS	3	SCREW, Tapping, 3 x 6
42	84005263	4	SPACER
43	84004882	1	BODY, Fuel Selector
44	84002926	1	SCREW
45	84004881	1	SPRING
46	84004880	1	WHEEL-FUEL SELECTOR
47	84004878	1	COVER
48	84004883	1	ROCKER ARM-FUEL SELECTOR
49	84004879	1	SWITCH
50	84004986	1	COVER-SIDE

Main Unit P1

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



Main Unit P1

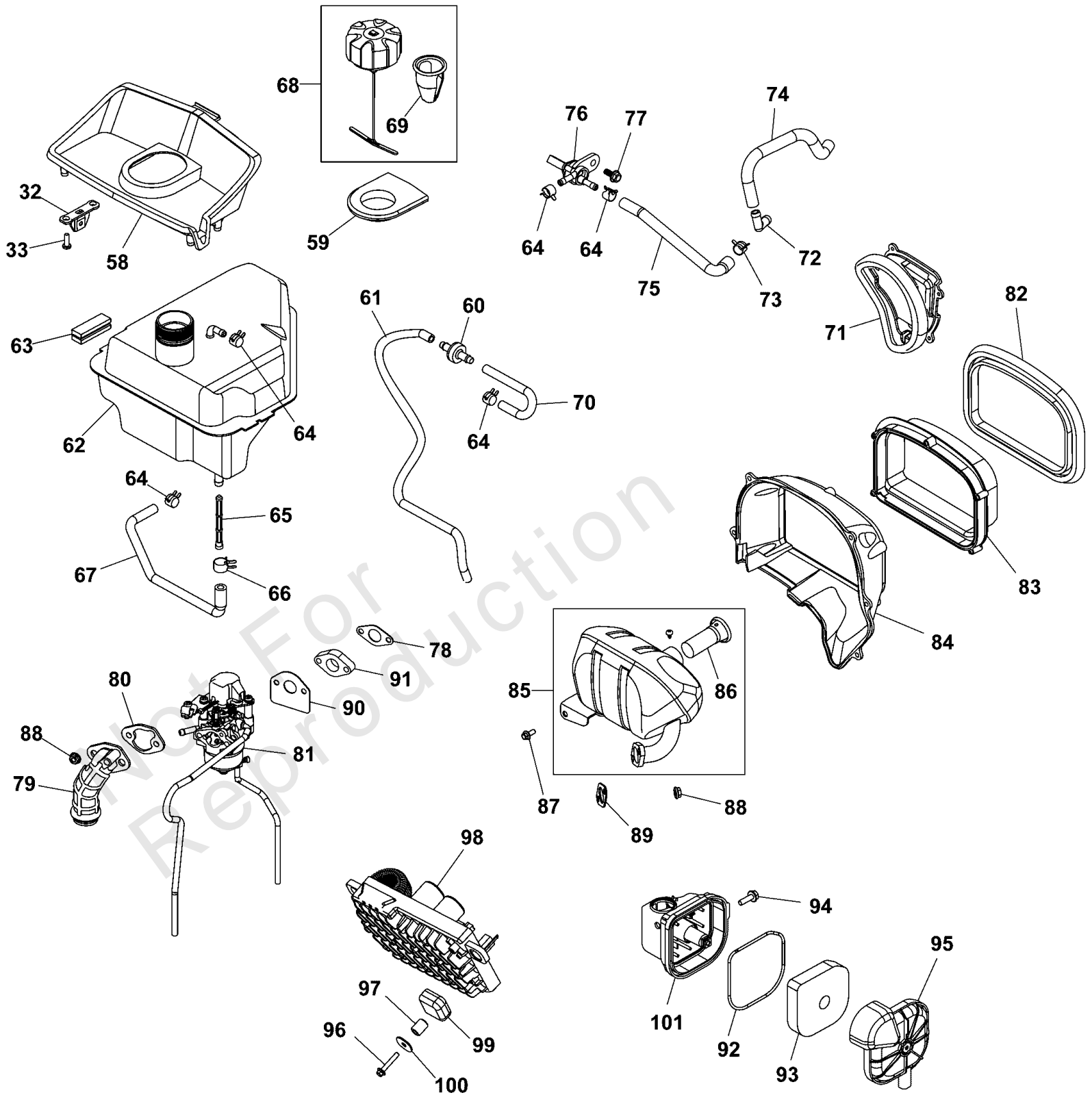
REF NO	PART NO	QTY	DESCRIPTION
51	84004995	1	DECAL
52	84004875	1	PANEL-RECOIL
53	84004877	1	COVER-ROPE RECOIL
54	84004999	1	DECAL
55	84005016	1	DECAL
56	84005974	1	DECAL
57	84004863	1	KNOB

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Main Unit P2

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



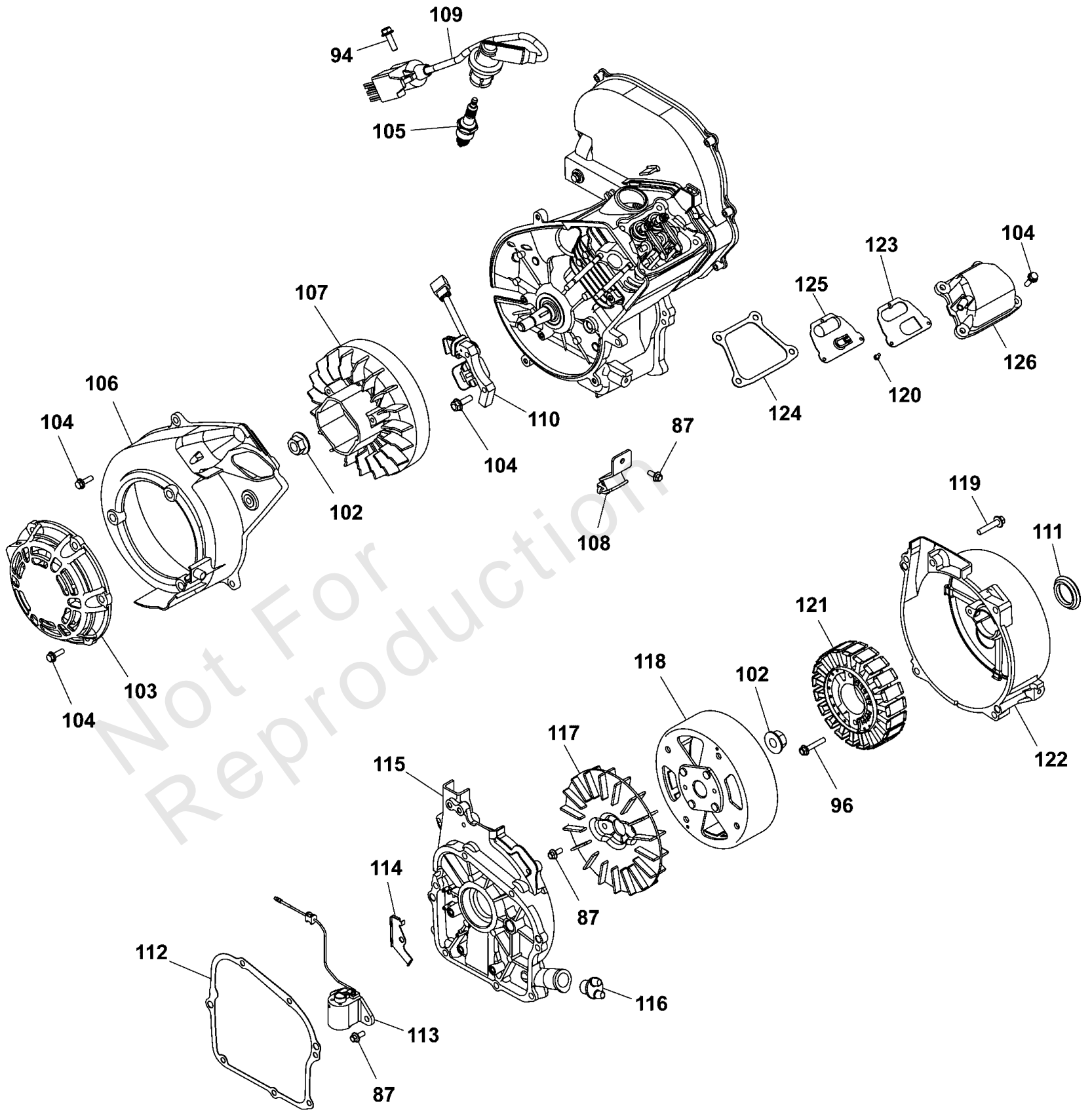
Main Unit P2

REF NO	PART NO	QTY	DESCRIPTION
32	84004965	1	LINK
33	84002910	2	SCREW
58	84004867	1	TRAY-FUEL
59	84004955	1	GROMMET
60	317108GS	1	CHECK VALVE
61	84004967	1	HOSE
62	84004866	1	TANK-FUEL
63	319941GS	4	MOUNT-VIBRATION
64	48031GGS	5	Clamp, Hose band
65	707168	1	FILTER-FUEL TANK
66	84002949	1	CLAMP
67	84004954	1	HOSE
68	84005967	1	CAP-FUEL
69	84004862	1	LEVEL-FUEL
70	317447GS	1	HOSE
71	84004951	1	COVER-INLET
72	84004808	1	PIPE
73	84005275	1	CLAMP
74	84004812	1	HOSE-BREATHER
75	84004953	1	HOSE-FUEL
76	84002959	1	VALVE-FUEL
77	-----	1	BOLT, M5 x 12
78	84004803	1	GASKET
79	84004807	1	PIPE-AIR CLEANER
80	84004821	1	GASKET
81	84004806	1	CARBURETOR
82	84004952	1	SEAL
83	84004818	1	COVER-MUFFLER
84	84004817	1	COVER-MUFFLER
85	84004816	1	MUFFLER
86	703189	1	ARRESTOR-SPARK
87	-----	1	BOLT, M6 x 12
88	-----	1	NUT, Hex Flange, M6
89	84004815	1	GASKET
90	84004805	1	GASKET
91	84004804	1	INSULATOR
92	84004860	1	SEAL
93	84003886	1	FILTER-AIR
94	-----	1	BOLT, M6 x 20
95	84004864	1	COVER-AIR BOX
96	-----	4	BOLT, M5 x 30
97	84005277	4	SPACER
98	84005977	1	INVERTER
99	84004962	4	PAD-RUBBER
100	84005278	4	WASHER
101	84004865	1	COVER-AIR BOX
102	84004860	1	SEAL
103	84003886	1	FILTER-AIR
104	-----	2	BOLT, M6 x 20
105	84004864	1	COVER-AIR BOX

Main Unit P3 Engine

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



Main Unit P3 Engine

REF NO	PART NO	QTY	DESCRIPTION
87	-----	4	BOLT, M6 x 12
94	-----	1	BOLT, M6 x 20
96	-----	1	BOLT, M5 x 30
102	84004820	1	NUT
103	84004802	1	RECOIL
104	-----	2	BOLT, M6 x 16
105	84003884	1	PLUG-SPARK
106	84004801	1	COVER-FAN
107	84004800	1	FLYWHEEL
108	84005290	2	MOUNT-VIBRATION
109	84004814	1	COIL-IGNITION
110	84004799	1	ASSY-COIL
111	84004791	1	SEAL
112	84004798	1	GASKET
113	84004797	1	GAUGE-OIL
114	-----	1	CLAMP
115	-----	1	COVER, Crankcase
116	84004819	1	CAP-OIL
117	84004795	1	FAN
118	84004794	1	ROTOR
119	-----	4	BOLT, M6 x 30
120	84005289	4	SCREW
121	84004793	1	STATOR
122	84004792	1	COVER-END
123	84004811	1	GASKET
124	84004809	1	GASKET
125	84004810	1	VALVE-BREATHER
126	84004813	1	COVER

Wiring Diagram/Schematic

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 030861-00



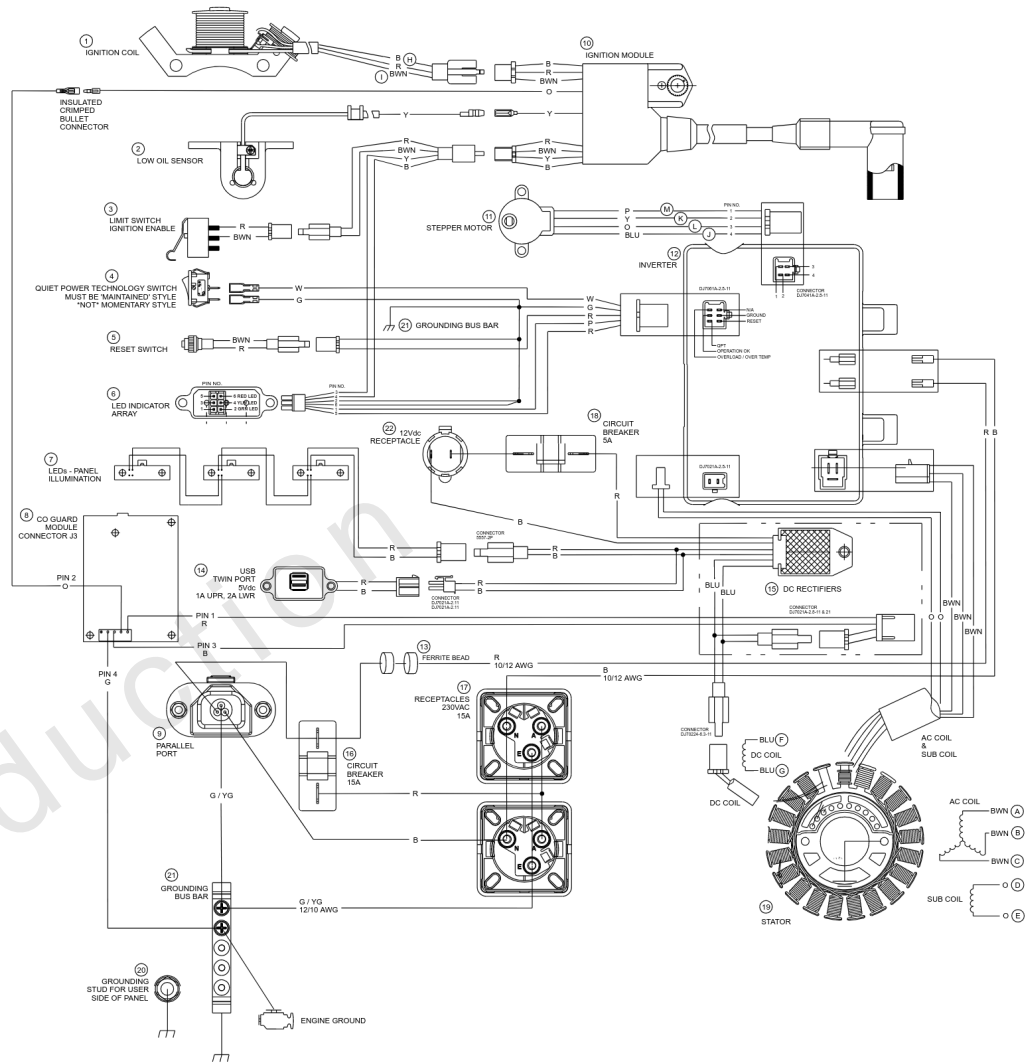
BALLOON	ITEM DESCRIPTION
1	IGNITION COIL
2	LOW OIL SENSOR
3	LIMIT SWITCH - IGNITION
4	SWITCH - QPT - MAINTAINED STYLE
5	SWITCH - RESET
6	LED INDICATOR ARRAY
7	LEDs - PANEL ILLUMINATION-12Vdc IN
8	CO MODULE - GEN 2 - 12 Vdc INPUT
9	PARALLEL PORT RECEPTACLE
10	IGNITION MODULE
11	STEPPER MOTOR
12	INVERTER
13	FERRITE BEAD
14	USB RECEPTACLE
15	DC RECTIFIER - 12Vdc W 12Vdc OUTLET
16	CIRCUIT BREAKER - 15A
17	VAC RECEPTACLE - 15A
18	CIRCUIT BREAKER - 5A
19	STATOR
20	GROUND STUD - USER SIDE OF PANEL
21	GROUNDING BUS BAR
22	12Vdc RECEPTACLE

CODE	WIRE COLOR
B	BLACK
BWN	BROWN
G	GREEN
P	PINK
BLU	BLUE
O	ORANGE
R	RED
W	WHITE
Y	YELLOW
GY	GREEN W YELLOW

RESISTANCE [ohm]	@65degF ±10%
A-B	4.3
A-C	4.3
B-C	4.3
D-E	0.422
F-G	0.1285
H-I	130
J-K	50
L-M	50

NOTES:

- POTTING COMPOUND: MIANYANG WELLS 9053-87M/A/B (UL FILE E223455) OR BAS ENGINEERING APPROVED EQUIVALENT.
- POTTING COMPOUND TO BE APPLIED SUCH THAT WIRES ARE PROVIDED WITH SUFFICIENT STRAIN RELIEF.
- ALL CONNECTORS TO BE UL OR CSA RECOGNIZED.
- APPLICATION OF CONNECTORS TO COMPLY WITH RELEVANT SECTIONS OF UL 486 A THRU E AND WITH CONNECTOR MANUFACTURER APPLICATION INSTRUCTIONS.
- WIRE GAGES NOT EXPLICITLY SHOWN TO BE SELECTED TO ENSURE PROPER AMPACITY.
- WIRE INSULATION TO COMPLY WITH UL 1010 OR UL 1283 OR BAS ENGINEERING APPROVED EQUIVALENT ENSURING INSULATION RATINGS OF MINIMUM 600V AND 95°C.
- SPADE TERMINALS TO EXHIBIT UPTURNED ENDS IN ACCORDANCE WITH PGMA G300-2018 SEC 5.1.3.2.3.
- GROUNDING POINTS MUST NOT BE SHARED WITH USER SIDE PANEL GROUND. USE RING TERMINAL, SEPARATE WELD STUD AND STAR WASHER OR OTHER APPROPRIATE MEANS IN ACCORDANCE WITH PGMA G300-2018 SEC 5.5.12.
- ALL PUSH-ON CONNECTORS TO BE OF INSULATED TYPE AND APPROPRIATE FOR AWG AND BLADE TERMINAL SIZE.
- STATOR IS UNIQUE FOR 60HZ AND 50HZ VERSIONS.
- REFER TO FAD FOR COMPONENT PART NUMBERS.



Wiring Diagram/Schematic

REF NO	PART NO	QTY	DESCRIPTION
--	-----		Wiring Diagram only
--	-----		WARNING - Generator Voltage Could Cause Electrical Shock or Burn Resulting in Death Or Serious Injury. To Avoid Electrical Shock Or Burn Hazard, Please Refer Service To Qualified Personnel.

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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	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.

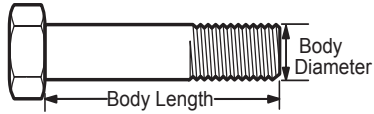


Nut, M8

Thread Diameter (mm)

Inside Diameter (in) Threads per inch

Nut, 1/2-16

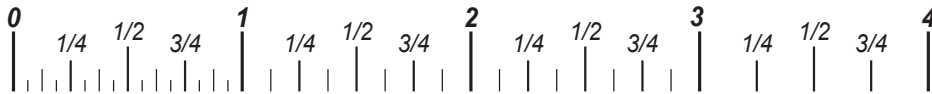


Screw, M8- 1.25 x 25

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).

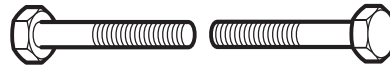
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

