



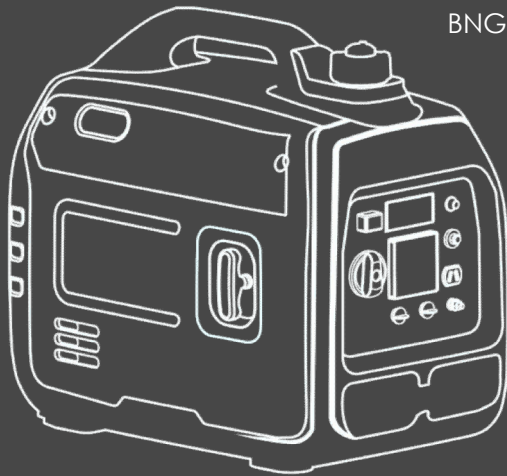
BN PRODUCTS-USA, LLC.
Quality Construction Tools

BN Products USA™ Customer Service (800) 992-3833

BNG2800iE

Inverter Generator

Inverter - Engine Parts Guide



BNG2800iE

2800
RUNNING WATTS

3000
MAX WATTS



[Parts Breakdown](#)

[Schematic](#)

[Specifications](#)

The BNG2800iE is a 3000 Watt (Max) / 2800 Watt (Rated), gasoline-powered inverter generator designed for job site use and recreational applications.

The compact design and enclosed case make this unit a convenient and lightweight power plant, that quietly produces stable power for your job site or recreational needs!



BN Products-USA™

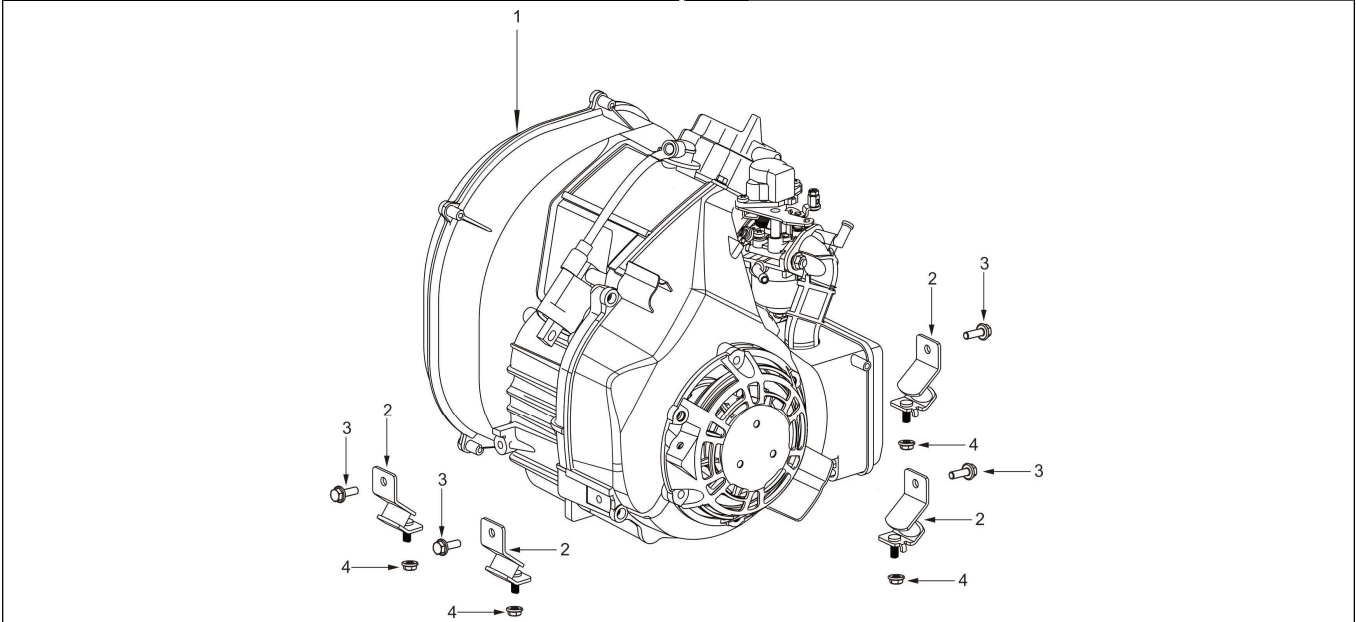
3450 Sabin Brown Road | Wickenburg, AZ 85390
(800) 992-3833 | www.BNProducts.com

Table of Contents			Page
Engine Mount	Figure 1	-	3
Fuel Tank	Figure 2	-	3
Muffler Shield	Figure 3	-	4
Left Shell Housing	Figure 4	-	4
Right Shell Housing	Figure 5	-	5
Inverter & Base Plate	Figure 6	-	5
Control Panel Assembly	Figure 7	-	6
Engine: Rotor/Stator	Figure 8	-	6
Engine: Head Sub-Assembly/Cylinder	Figure 9	-	7
Engine: Starter Pulley	Figure 10	-	8
Engine: Intake & Exhaust Valves	Figure 11	-	8
Engine: Crankshaft Assembly	Figure 12	-	9
Engine: Ignition Coil	Figure 13	-	9
Engine: Muffler	Figure 14	-	10
Engine: Crankcase	Figure 15	-	10
Engine: Carburetor	Figure 16	-	11
BNG2800iE Wiring Diagram (<i>Electrical Schematic</i>)	Figure 17	-	11
Technical Specifications	Figure 18	-	12

Engine Mount

Figure 1 - Engine Mount

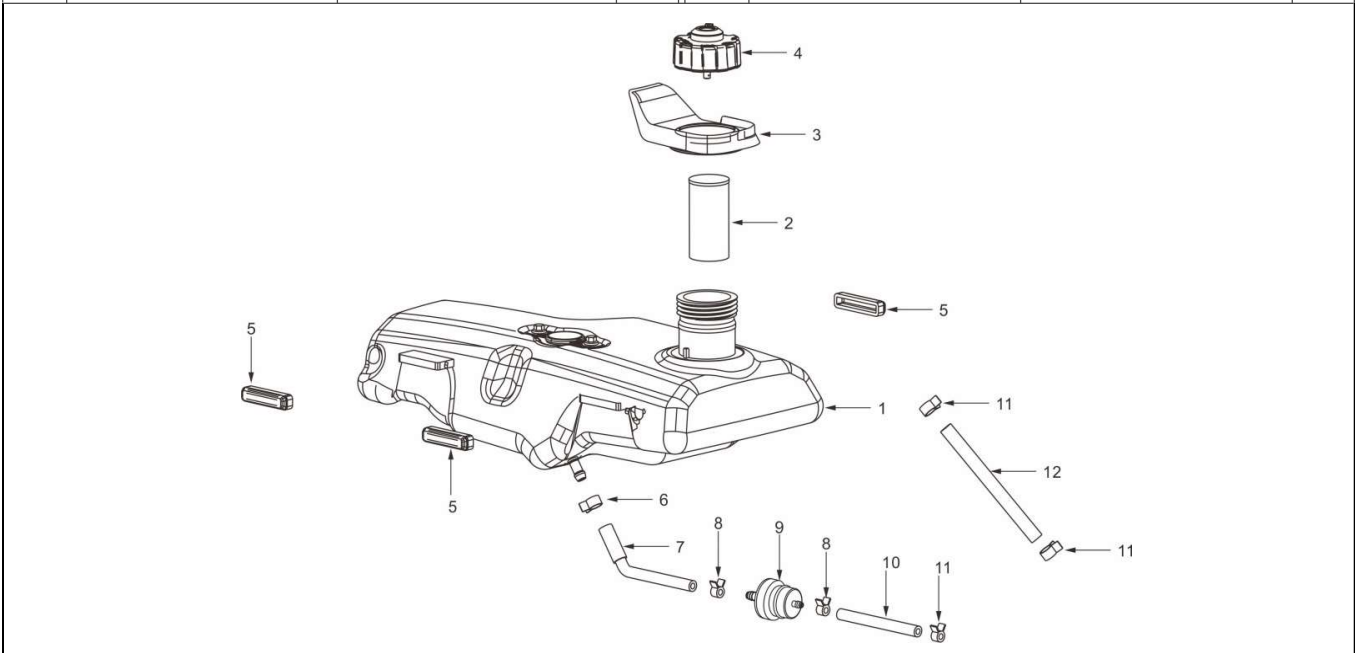
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	BP00.083.001.00	Engine	1	3	5789.06012.00.01	Bolt M6x12	4
2	3360.467.001V.00.00	Shock pad	4	4	6177.06000.00.01	Nut M6	4



Fuel Tank

Figure 2 - Fuel Tank

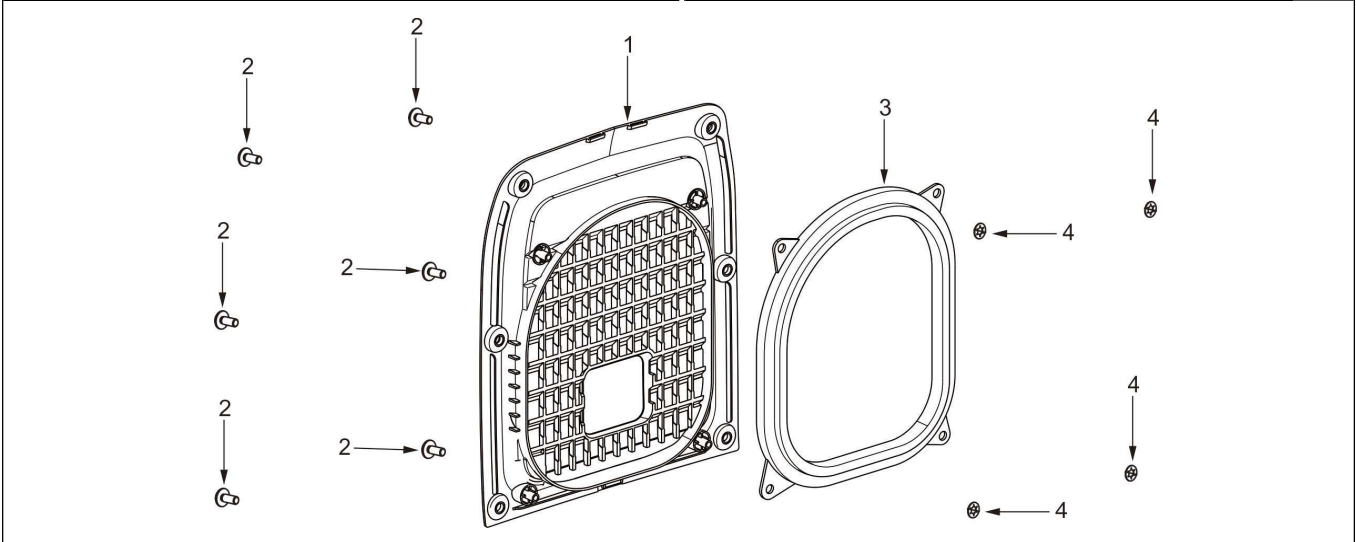
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	3200.474.C010.00.00	Fuel tank	1	7	2330.469.C030.00.21	Fuel line $\Phi 4.5\Phi 8.5 \times 25 + \Phi 6 \times \Phi 9.7 \times 30$	1
2	3200.474.C010.00.02	Fuel filter	1	8	2360.458.004V.00.00	Tube clamp $\Phi 10$	2
3	3200.469.001V.00.03	Sheath	1	9	2325.469.0010.00.00	Fuel filter	1
4	3200.474.C010.00.01	Tank cap	1	10	2330.469.C020.00.21	Fuel line $\Phi 6 \times \Phi 10 \times 55$	1
5	7868.469.001V.00.00	Sheath NR	3	11	2360.458.003V.00.00	Ferrule $\Phi 8$	3
6	2360.458.011V.00.00	Tube clamp $\Phi 10.5$	1	12	2330.474.C020.00.00	Fuel line	1



Muffler Shield

Figure 3 - Muffler Shield

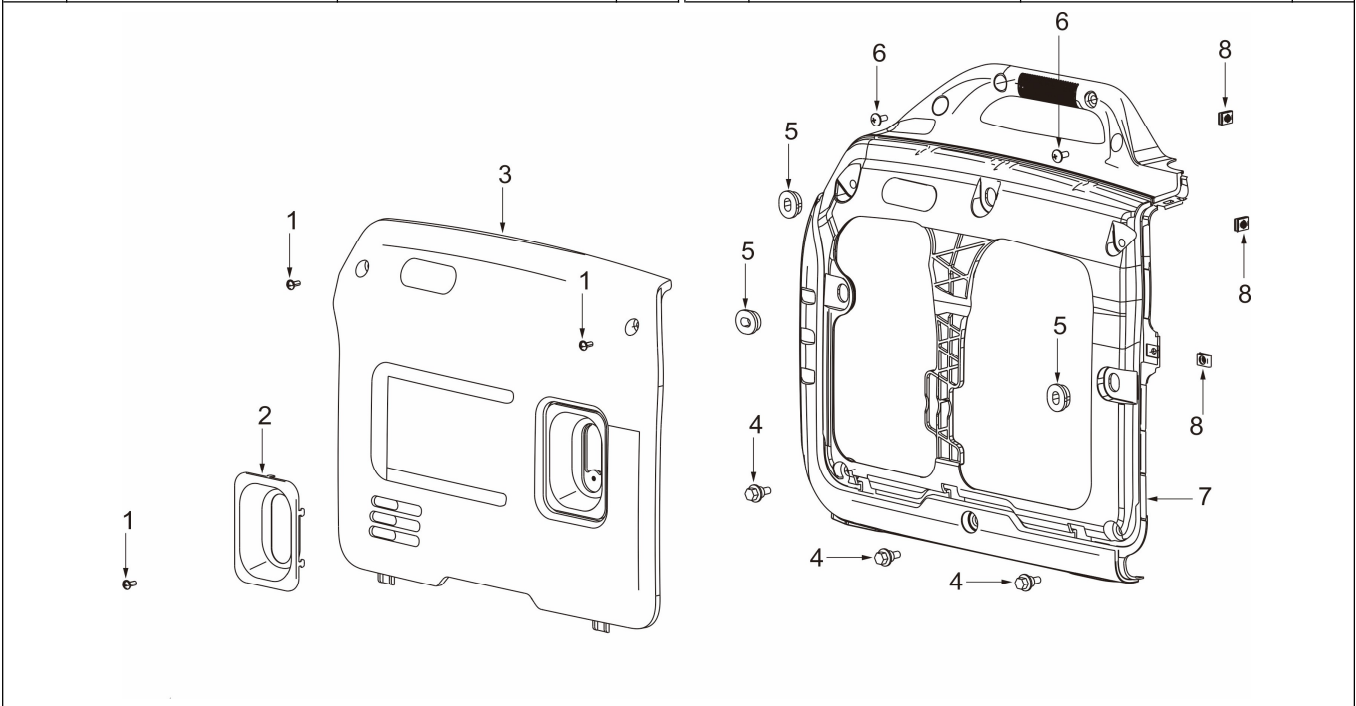
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	2420.474.001V.04.00	Muffler shield	1	3	7824.474.001V.00.00	Muffler sealant sleeve	1
2	0818.05016.00.07	Screw 5x16	6	4	5598.467.001V.00.00	Plum ring	4



Left Housing

Figure 4 - Left Housing

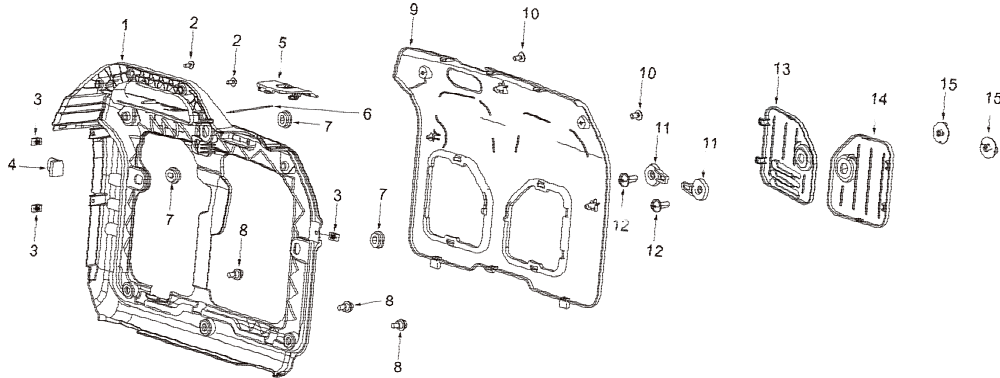
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	0818.05010.00.07	Screw 5x10	3	5	5522.467.002V.00.00	Sheath	3
2	7866.469.0011.00.00	Handle trim panel	1	6	0818.05016.00.07	Screw 5x16	2
3	5596.469.003V.P4.00	Ornament shell	1	7	2220.469.002V.04.00	Left shell	1
4	4789.467.001V.00.00	Step bolts M6x16.5	3	8	6178.05000.00.04	Nut M5	3



Right Housing

Figure 5 - Right Housing

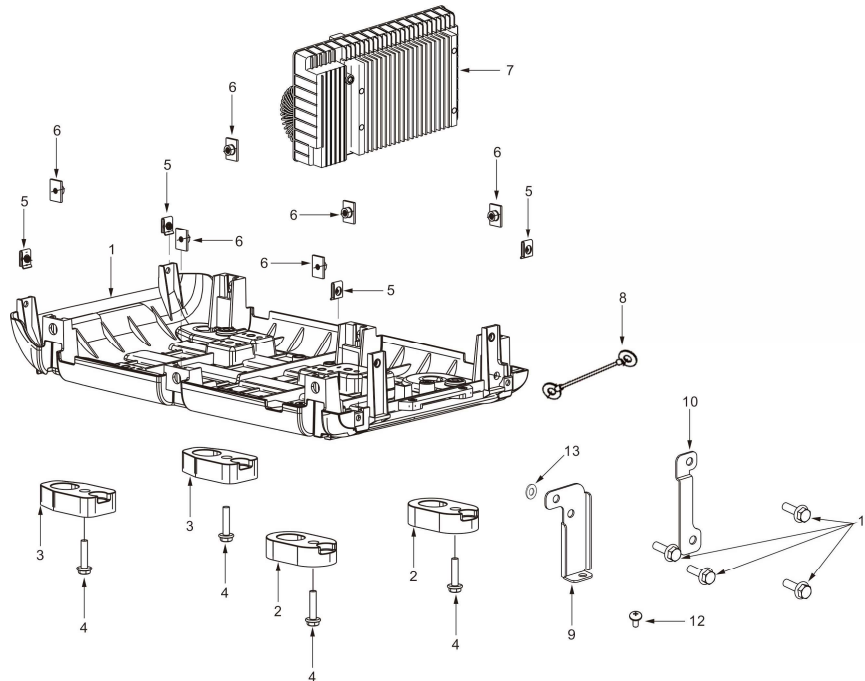
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	2222.469.002V.04.00	Right shell	1	9	5596.469.004V.P4.00	Right exterior cover	1
2	0818.05016.00.07	Cross recessed pan head screw 5x16	2	10	0808.05010.00.07	Screw 5x10	2
3	6178.05000.00.04	Nut M5	3	11	6345.469.001V.04.00	Maintenance cover latch	2
4	6234.467.002V.00.00	Sheath	1	12	0845.04012.00.01	Screw 4x12	2
5	4259.469.001V.P4.00	Spark-plug outer cover	1	13	7540.474.001V.P4.00	Oil maintenance cover	1
6	4562.469.001V.00.00	Anti loss rubber strip	1	14	7530.469.002V.P4.00	Air filter maintenance cover	1
7	5522.467.002V.00.00	Sheath	3	15	1560.469.001V.04.00	Maintenance cover handle	2
8	4789.467.001V.00.00	Step bolts M6x16.5	3				



Inverter & Base Plate

Figure 6 - Inverter & Base Plate

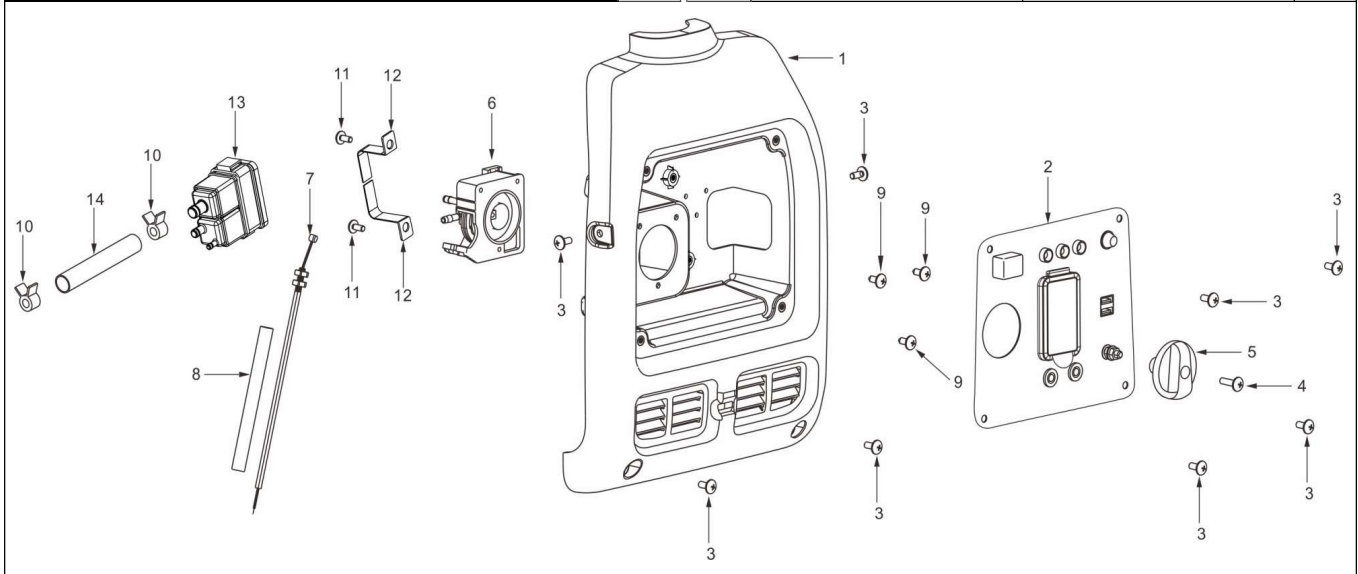
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	3340.469.0020.00.00	Base plate	1	8	3410.467.0040.00.00	Ground wire	1
2	3350.469.002V.00.00	Shock absorber (rear)	2	9	2473.474.001V.00.00	Fixed ears of inverter	1
3	3350.469.001V.00.00	Shock absorber (front)	2	10	2473.474.002V.00.00	Fixed ears of inverter	1
4	5789.06018.00.01	Bolt M6x18	4	11	5789.06012.00.01	Bolt M6x12	4
5	6178.05000.00.04	Nut M5	4	12	0818.05016.00.07	Cross pan head screw 5x16	1
6	3145.469.001V.00.00	Nut M6x20	6	13	4100.P75.001V.00.00	Shim 6x13x2	1
7	2470.474.001V.00.00	Inverter	1				



Control Panel Assembly

Figure 7 - Control Panel Assembly

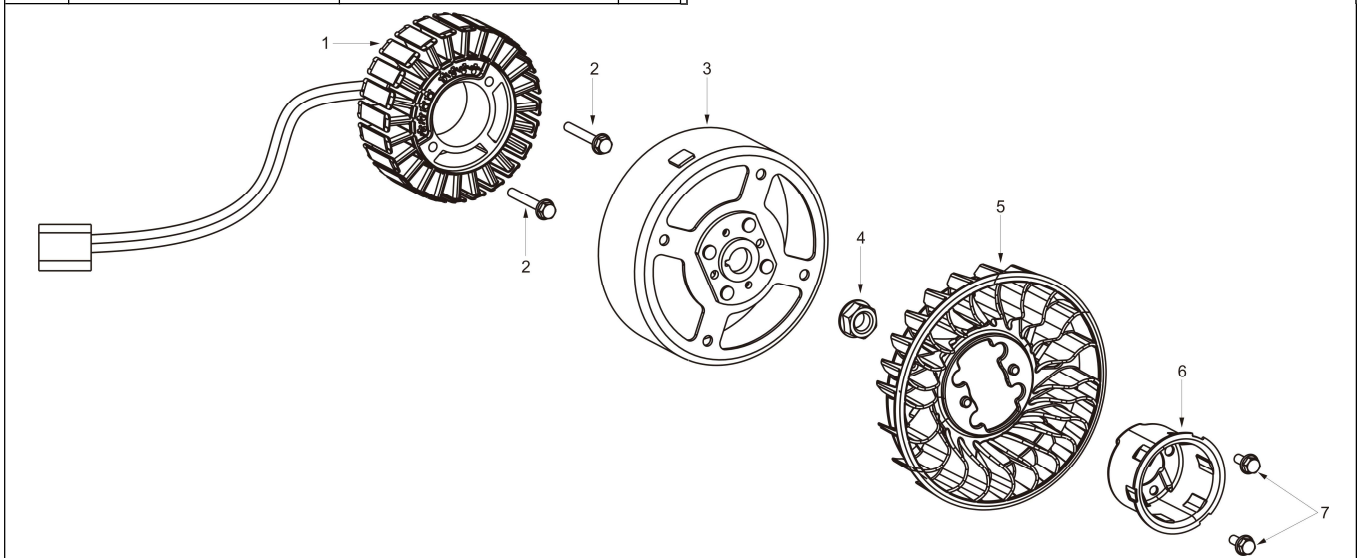
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	6655.469.002V.00.00	Front shell panel	1	8	2332.467.002V.00.00	Sheath 6x320	1
2	3370.474.0310.00.99	Control panel plate	1	9	0819.04212.00.01	Cross countersunk head tapping screw 4.2x12	3
3	0818.05016.00.07	Cross recessed pan head screw 5x16	8	10	2360.458.011V.00.00	Ferrule	2
4	0818.04014.00.01	Screw M4x14	1	11	5789.06012.00.01	Bolt M6x12	2
5	2141.467.001V.A6.00	Three in one switch dial	1	12	4441.474.0010.00.00	Carbon canister bracket	2
6	2140.467.011V.00.00	Three in one control switch	1	13	4440.474.0010.00.00	Carbon canister	1
7	2140.467.011V.00.03	Cable guide	1	14	2330.P70.004V.00.00	Fuel vent tube	1



Engine: Rotor/Stator

Figure 8 - Engine: Rotor/Stator

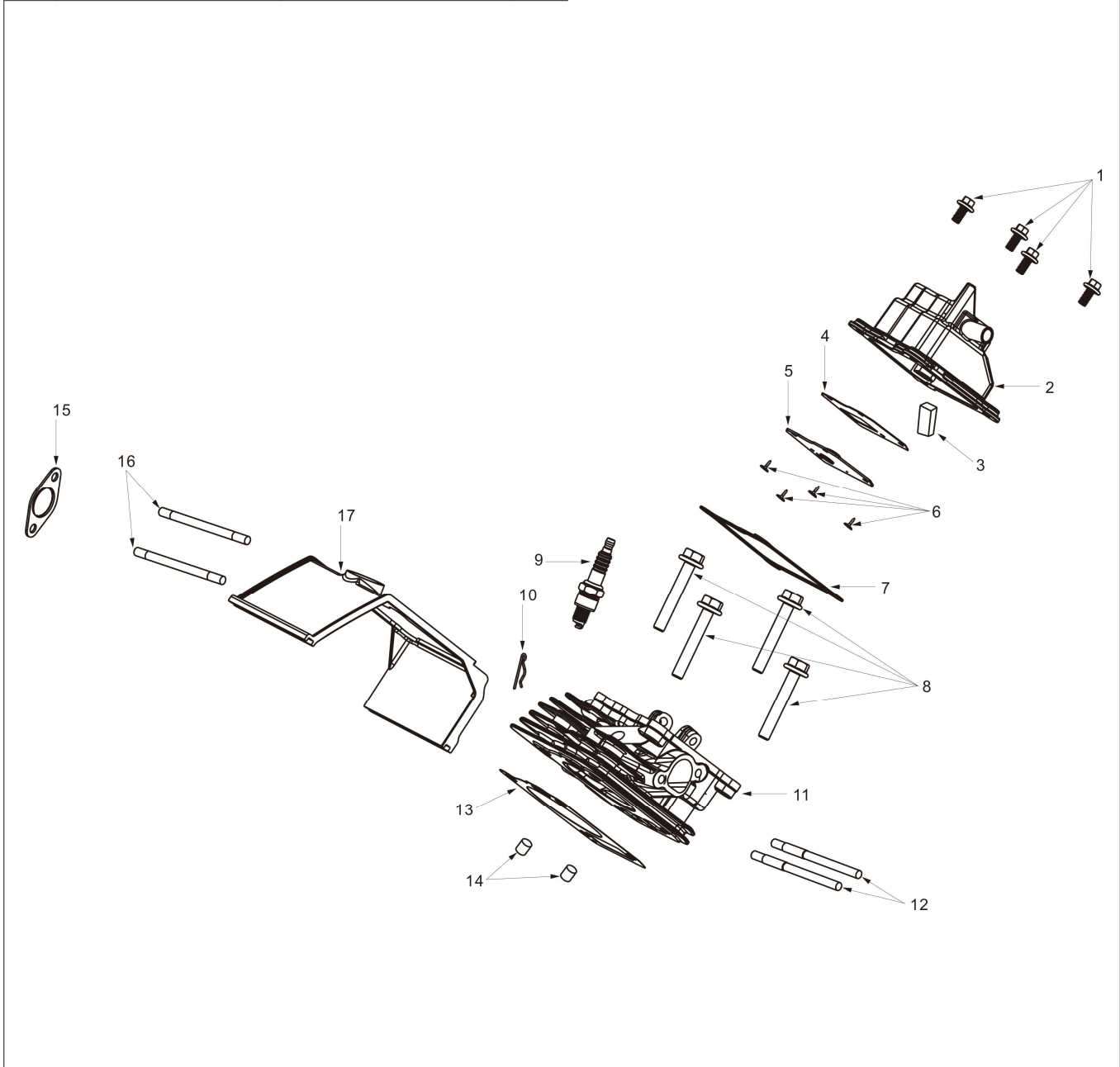
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	4000.474.0010.00.02	Motor stator	1	5	2030.T48.0020.63.00	Impeller	1
2	5787.06045.00.01	Bolt M6x45	2	6	2020.T48.001V.00.00	Starter mount	1
3	4000.474.001V.00.01	Rotor	1	7	5787.06012.22.01	Bolt M6x12	2
4	6177.14000.06.01	Stator	1				



Engine: Head Sub-Assembly/Cylinder

Figure 9 - Head Sub-Assembly/Cylinder

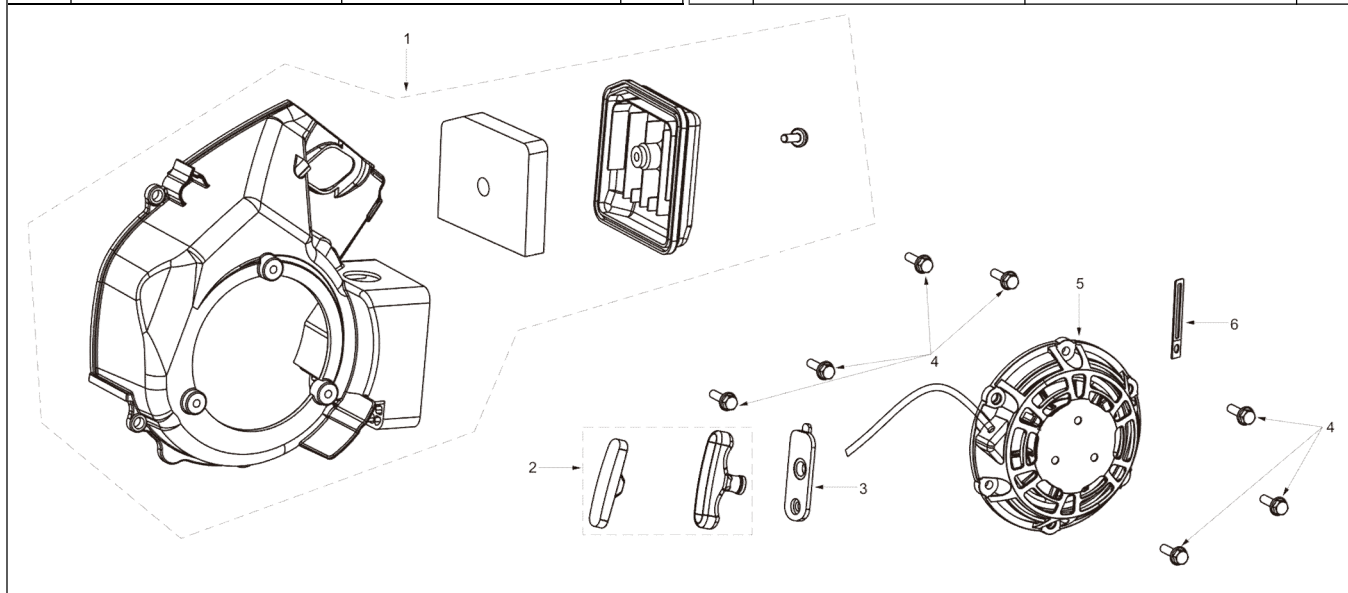
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	5789.06018.00.01	Bolt M6x18	4	10	1120.188.001V.00.00	Piston Rod swign clamp	1
2	0001.164.001V.00.00	Cover subassembly,Cylinder	1	11	0010.164.0011.00.00	Cylinder head	1
3	7080.165.001V.00.00	Oil screen 45x25x12.5	1	12	0900.06090.00.01	Stud bolt 9x60	2
4	3097.164.001V.00.00	Breather gasket	1	13	3020.164.001V.00.00	Cylinder head gasket	1
5	3088.164.001V.00.00	Breather valve cover plate	1	14	3170.168.002V.00.00	Pin	2
6	0818.04008.00.01	Cross head screw 4x8	4	15	3100.164.001V.00.00	Exhaust gasket	1
7	3000.164.001V.00.00	Cylinder head cover	1	16	7071.165.001V.00.00	Bolt M6x78	2
8	5789.08060.00.10	Bolt M8x60	4	17	2230.164.002V.00.00	Air deflector	1
9	2160.148.R001V.00.00	Spark plug	1				



Engine: Starter Pulley

Figure 10 - Starter Pulley

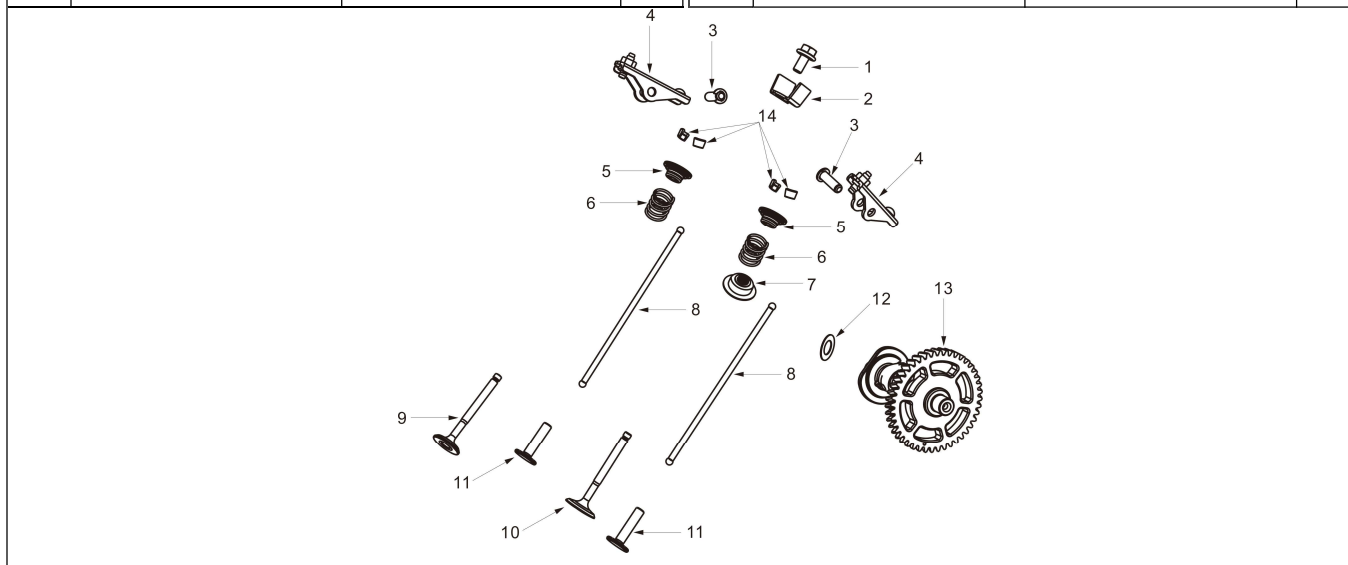
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	2000.164.001V.00.00	Air filter/cover	1	4	5787.06018.00.01	Bolt M6x18	7
2	2000.148.001V.00.01	Starting handle	1	5	2000.148.001V.00.04	Pulley cover	1
3	2186.T48.001V.00.00	Handle cover plate	1	6	1220.188.R001V.00.00	Crimping board	1



Engine: Intake & Exhaust Valves

Figure 11 - Intake & Exhaust Valves

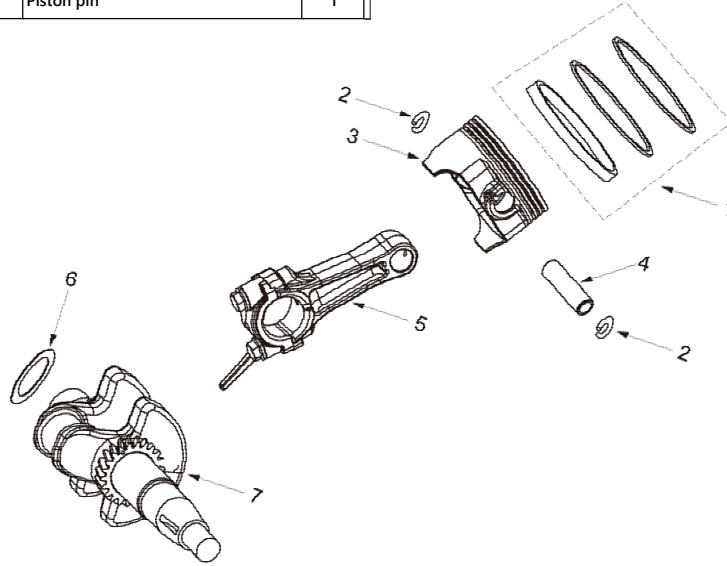
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	5787.06010.00.01	Bolt M6x10	1	8	0160.164.001V.00.00	Push rod	2
2	0107.164.001V.00.00	Rocker shaft stop	1	9	0030.164.001V.00.00	Exhaust valve	1
3	0100.P62.001V.00.01	Rocker pin	2	10	0020.164.0011.00.00	Intake valve	1
4	0100.164.001V.00.00	Rocker arm assembly	2	11	1030.164.001V.00.00	Tappet	2
5	0050.F70.R001V.00.00	Intake and exhaust valve spring seat	2	12	0185.164.002V.00.00	Wear resistant gasket	1
6	0040.168.001V.00.00	Valve spring	2	13	1040.164.0011.00.00	Camshaft components	1
7	0085.164.001V.00.00	Oil baffle	1	14	1120.F70.R001V.00.00	Valve clamp lock	4



Engine: Crankshaft Assembly

Figure 12 - Crankshaft Assembly

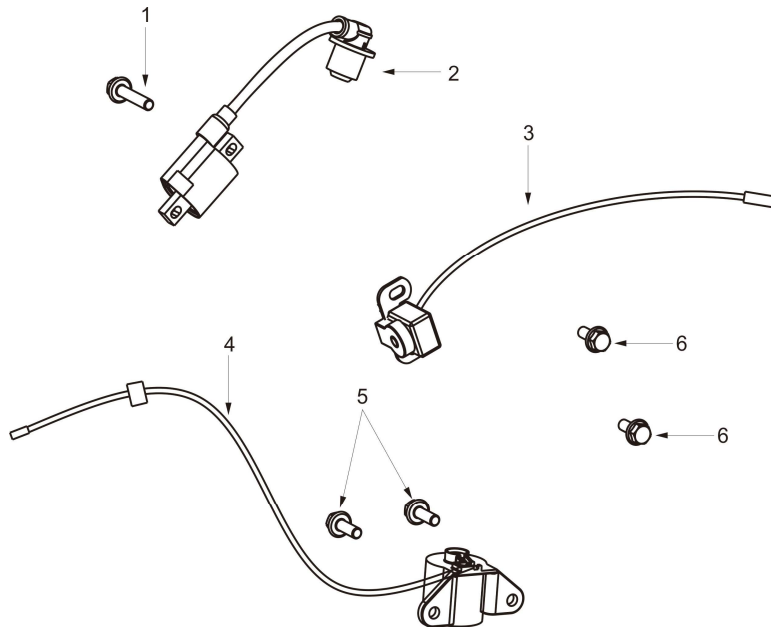
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	0210.164.001V.00.00	Piston ring	1	5	0190.164.001V.00.00	Connecting rod assembly	1
2	0230.160.001V.00.00	Piston pin clip	2	6	0185.164.001V.00.00	Washer 36 x 25.3 x 0.5	1
3	0200.164.001V.00.00	Piston	1	7	0180.164.0011.60.00	Crankshaft assembly	1
4	0220.164.001V.00.00	Piston pin	1				



Engine: Ignition Coil

Figure 13 - Ignition Coil

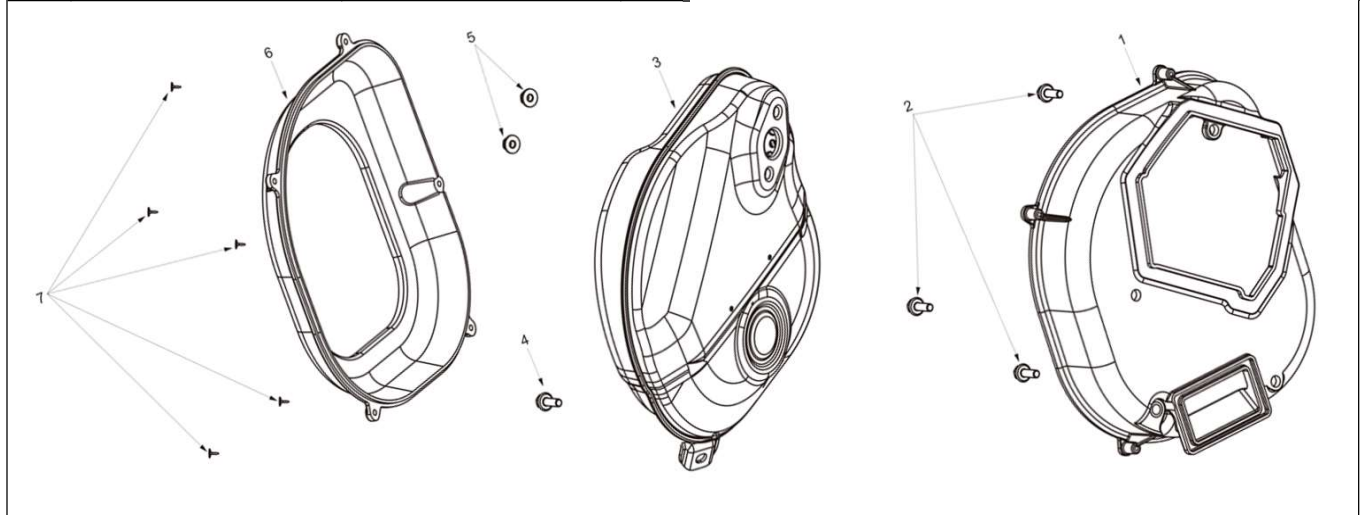
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	5789.05020.00.03	Bolt	1	4	1020.164.0011.00.00	Oil alarm sensor	1
2	1522.164.002V.00.00	Ignition coil	1	5	5787.06014.00.01	Bolt	2
3	2050.T48.002V.00.00	Trigger coil assembly	1	6	5787.06012.22.01	Bolt	2



Engine: Muffler

Figure 14 - Muffler

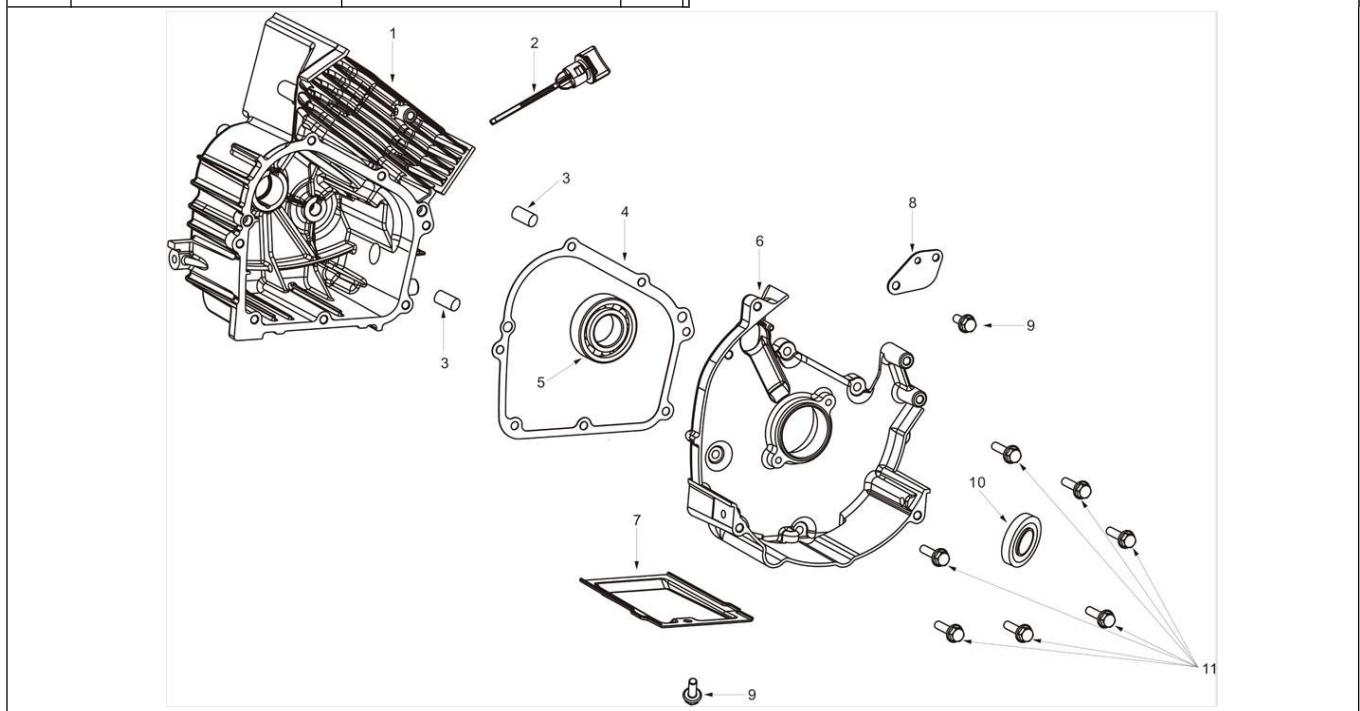
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	2400.164.001V.00.11	Muffler cover (front)	1	5	6177.06000.00.01	Locking nut with washer M6	2
2	5787.06018.00.01	Bolt M6x18	3	6	2400.164.001V.00.12	Muffler cover (rear)	1
3	2400.474.001V.00.00	Muffler components	1	7	0845.42016.00.01	Self tapping screw 4.2x16	5
4	5789.06040.00.01	Bolt M6x40	1				



Engine: Crankcase

Figure 15 - Crankcase

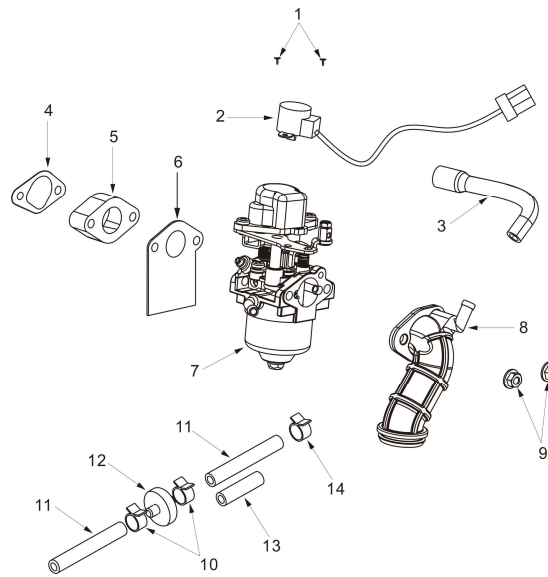
Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	1000.164.001V.00.00	Crankcase	1	7	2230.164.001V.00.00	Lower air deflector	1
2	1230.164.001V.00.00	Dipstick	1	8	2090.164.001V.00.00	Crimping board	1
3	3170.188.001V.00.00	Dowel pin 8x12	2	9	5787.06012.00.01	Bolt M6x12	2
4	3040.164.001V.00.00	Crankcase gasket	1	10	3150.168.001V.00.00	Oil seal 25x41.25x6	1
5	0270.168.002V.00.00	Bearing	1	11	5787.06025.00.01	Bolt M6x25	7
6	1010.164.001V.00.00	Crankcase cover	1				



Engine: Carburetor

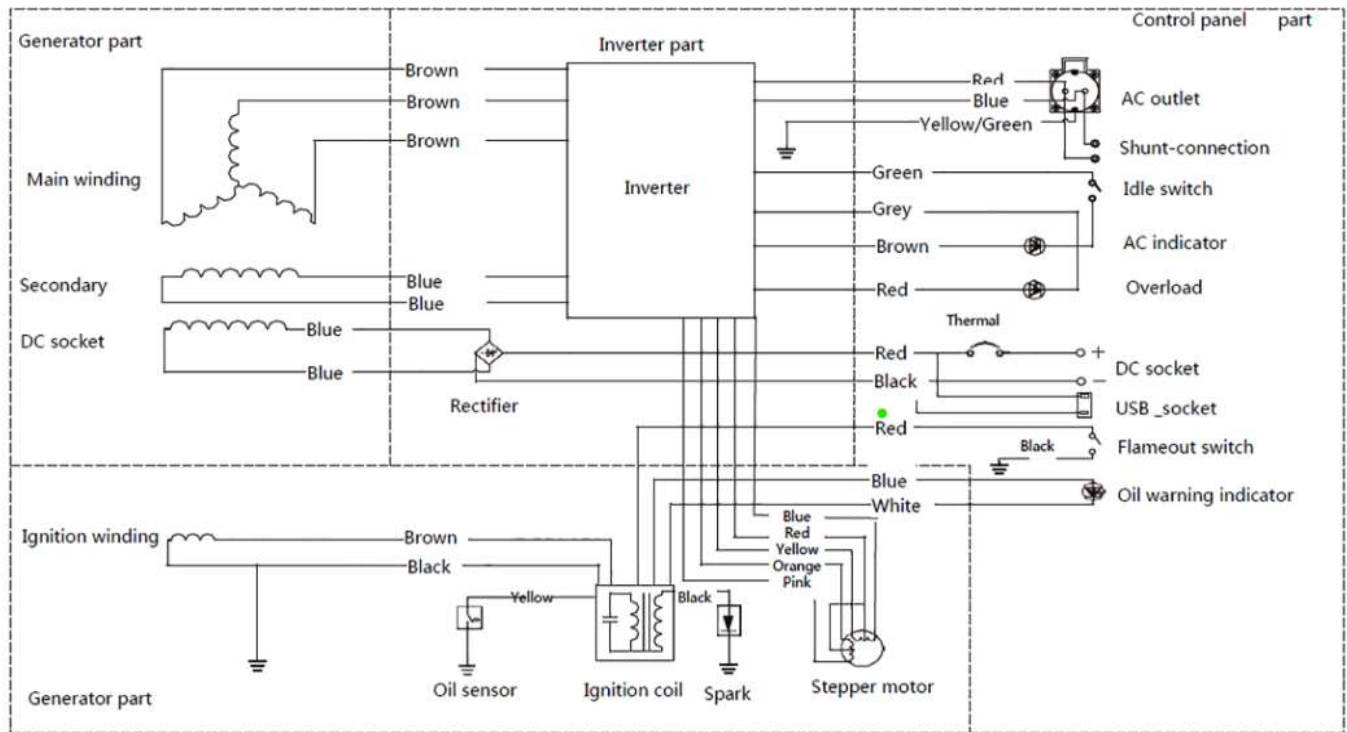
Figure 16 - Carburetor

Ref #	Part Number	Description	Qty	Ref #	Part Number	Description	Qty
1	0818.03006.10.01	Cross head screw 3x6	2	8	2410.164.001V.00.00	Throttle shaft	1
2	4000.474.0040.00.00	Stepper motor	1	9	6177.06000.00.01	Locking nut with washer M6	2
3	2370.F80.001V.00.00	Exhaust pipe	1	10	2360.458.004V.00.00	Ribbon tube clamp 10mm	2
4	3060.164.001V.00.00	Air intake gasket	1	11	2330.464.C010.00.21	Fuel line tube	2
5	2300.164.001V.00.00	Carburetor block	1	12	2325.469.0010.00.00	Fuel filter	1
6	3090.148.001V.00.00	Carburetor gasket	1	13	2332.467.006V.00.00	Silicone protective sleeve	1
7	2260.164.C012.00.00	Carburetor assembly	1	14	2360.458.002V.00.00	Ribbon tube clamp 8.5mm	1



BNG2800iE Wiring Diagram

Figure 17 - Electrical Schematic



Technical Specifications

Item	Parameter	
Engine model	148F/P-2	164F/P
Engine type	Single-cylinder, four-stroke, air-cooled, overhead valve, tilted 25° of the center of gasoline engine cylinder	
Bore size × Stroke (mm)	48.6×43	64×45
Displacement (cc)	79.7	145
Compression ratio	8.7± 0.2	8.7± 0.2
Gas distribution mode	OHV	OHV
Cooling mode	Forced air cooling	Forced air cooling
Output power (kW/r/min)	2.1/4500	3.8/4650
Starting method	Recoil start	
Fuel tank volume (L)	1 Gal	1 Gal
Fuel type and grade	Vehicle-use unleaded gasoline	
Lubricating oil capacity	0.35	0.45
Lubricating oil type	SAE 10W /30	SAE 10W /30
Lubrication mode	Splash lubrication	Splash lubrication
Noise dB (at 7m)	62	63
Rated power (kW)	1.8	2.8
Rated voltage (V) 1	120	120
Rated frequency (Hz)	50/60/50&60	50/60/50&60
Rated power factor	1	1
Phase number	Single phase	Single phase
DC output	12V 8.3A	12V 8.3A
Motor	Brushless (permanent magnet)	
Voltage regulation	Inverter regulation	
Frequency regulation	Inverter regulation	
Overall dimension (mm)	19" x 11.5" x 17" (480x290x430)	19" x 11.5" x 17" (480x290x430)
Net weight (kg)	40 lbs. (18)	47 lbs. (21)

BN Products-USA™

Quality Products Engineered with Intelligence and Imagination™