SENTRY-PRO POWER SYSTEMS

By Gillette Generators, Inc.

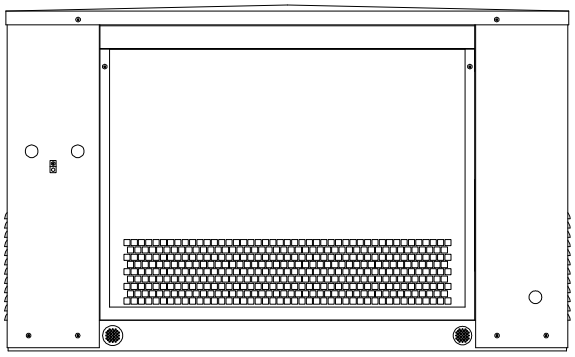
MODEL

SPS-120

AIR COOLED LPG/NG, RESIDENTIAL STANDBY GEN-SET

SUBARU ENGINE-GENERATOR WITH KW POWER RATINGS RANGE

Model SERIES		STANDBY 130ºC RISE	
	HZ	LPG	N.G.
SPS-120	60	12.0	11.0



STANDARD FEATURES

- All generator sets are USA wound, built, and thoroughly tested. Complete production models are USA factory built.
- Full power capacity to start up to a 5 ton A/C unit, equipped with "Easy Start" circuitry.
- All generator sets will accept 100% rated load in one step, per NFPA-110.
- All generators are UL-1446 certified.
- Capacitor load compensated (CLC) voltage regulation for ±3% is standard on all gen-sets.
- Mechanical engine governor incorporates a special actuator, which allows precise ±2% frequency regulation, from no load to full load. Built-in dual oil coolers yield longer engine service life.
- A brushless rotating field generator design with shunt wound excitation system and available at a broad range of voltages.
- Solid state, digital microprocessor logic and ultra-bright LED, annunciation display for different engine and generator functions, plus automatic fault shutdowns; high temp., over-crank, over-speed, under-speed, low oil, and low battery.
- The heavy duty, rugged dry fueled engine is capable of delivering rated power at 3600 RPM (60 HZ).
- All generator set control systems components and accessories provide a 2-year limited warranty at time of initial start-up. Optional extended warranties are available. Generators and engines are governed by separate warranties.
- "OPEN" Generator Sets: There is no enclosure, so gen-set must be placed within a weather protected area, un-inhabited by humans or animals, with proper ventilation.
- "LEVEL 1" All Aluminum Housing: Full weather protection and average sound attenuation for normal applications.
- "LEVEL 2" All Aluminum Housing: Full weather protection and superior sound attenuation for specific low noise applications. (See "Sound Level" chart on page 3)
- New, 3 year LTD. Warranty on all Subaru dry fuel engines.

GENERATOR RATINGS

GENERATOR MODEL	VOLTAGE		PH	HZ	LIQUID PROPANE GAS FUEL 130ºC RISE STANDBY RATING		NATURAL GAS FUEL 130ºC RISE STANDBY RATING	
	L-N	L-L			KW/KVA	AMP	KW/KVA	AMP
SPS-120-1-1	120	240	1	60	12/12	50	11/11	46
SPS-120-3-2	120	208	3	60	12/15	42	11/13.8	38
SPS-120-3-3	120	240	3	60	12/15	36	11/13.8	33
SPS-120-3-4	277	480	3	60	12/15	18	11/13.8	17
SPS-120-3-5	127	220	3	60	12/15	40	11/13.8	36

RATINGS: All single phase gen-sets are rated at unity (1.0) power factor. All three phase gen-sets are rated at .8 power factor. 130° "STANDBY RATINGS" are strictly for gen-sets that are used for back-up emergency power to a failed normal utility power source. This standby rating allows varying loads, with no overload capability, for the entire duration of utility power outage. 105° "PRIME RATINGS" are strictly for gen-sets that provide the prime source of electric power, where normal utility power is unavailable or unreliable. A 10% overload is allowed for a total of 1 hour, within every 12 hours of operation. All gen-set power ratings are based on temperature rise measured by resistance method as defined by MIL-STD 705C and IEEE STD 115, METHOD 6.4.4. All generators have class H (180°C) insulation system on both rotor and stator windings. All factory tests and KW/KVA charts shown above are based on 130°C (standby), and 105°C (prime) R/R winding temperature, within a maximum 30°C ambient condition. Generators operated at standby power ratings must not exceed the temperature rise limitation for class H insulation system, as specified in NEMA MG1-22.40. Specifications & ratings are subject to change without prior notice.

APPLICATION AND ENGINEERING DATA FOR MODEL SPS-120

GENERATOR SPECIFICATIONS

Type ..... 2 Pole, 3600 RPM, revolving field design
Exciter ..... Brushless, shunt excited
Voltage Regulator ..... Capacitor load compensated (CLC)
Voltage Regulation ..... ±3%, No load to full load
Frequency ..... 60 HZ (50 HZ available)
Frequency Regulation ..... 2% (2 cycles, no load to full load)
Unbalanced Load Capability ..... 50% of nameplate rating
Motor Starting .... 4 HP, Code G w/ 35% Dip on specific voltages
Total Stator and Rotor Insulation ..... Class H, 180°C
Temperature Rise ..... 130°C R/R, standby rating @ 30°C amb.
..... 105°C R/R, prime rating @ 30°C amb.
Bearing ..... 1, Pre-lubed and sealed
Power Leads ..... 4 Leads for dedicated single phase
..... Optional 3 Leads for dedicated three phase
Coupling ..... Direct taper shaft
Total Harmonic Distortion ..... Max 6½% (MIL-STD705B)
Telephone Interference Factor ..... Max 250 (NEMA MG1-22)
Deviation Factor ..... Max 5% (MIL-STD 405B)
Alternator ..... Self ventilating and drip-proof
Ltd. Standby Warranty ..... 24 Months or 1000 hrs., first to occur
Ltd. Prime Warranty ..... 12 Months or 500 hrs., first to occur

GENERATOR FEATURES

- Full alternator protection with solid state microprocessor, based controller, for automatic shutdown protection.
- Automatic voltage regulation by capacitor load compensation (CLC) design, yielding ±3% from no load to full load.
- Alternator power ratings are based on temperature rise, measured by resistance method, as defined in MIL-STD 705C and IEEE STD 115, Method 6.4.4.
- Power ratings will not exceed temperature rise limitation for class H insulation as per NEMA MG1-22.40.
- Insulation resistance to ground, exceeds 1.5 meg-ohm.
- Stator receives 3000 V. hi-potential test on main windings, and rotor windings receive a 3000 V. hi-potential test, as per MIL-STD 705B.
- All windings are subjected to "surge" testing to confirm winding integrity and consistency with dielectric voltage withstand test per UL2200.39.
- Full copper windings with UL-1446 listing on all alternators.
- All gen-sets are prototyped and production tested.
- Full load testing on all engine-alternator sets, before shipping.
- Harmful harmonic distortions over 10% in generator power will harm digital loads. Gillette distortions are only 6%.

ENGINE SPECIFICATIONS AND APPLICATIONS DATA

ENGINE

Manufacturer ..... Subaru
Model and Type ..... EH722LZ2640, 4 cycle
Aspiration ..... Naturally
Cylinder Arrangement ..... V-Twin, 2 cylinders
Displacement Cu. In. (cm^3) 43.9 (720)
Bore x Stroke In. (mm.) ..... 3.31 x 2.56 (84 x 65)
Compression Ratio 8.3:1
Main Bearings & Style ..... Over-sized Ball Bearing
Cylinder Head ..... Aluminum
Crankshaft ..... Forged High Carbon Steel
Exhaust Valve ..... Hardened for dry fuel use
Governor ..... Mechanical
Frequency Reg. (steady state) ..... ±2%
Air Cleaner ..... (1) Replaceable main paper element
Oil Filter ..... (1), Replaceable spin-on
Special Ltd. Standby Subaru Engine Warranty ..... 36 Months

Speed ..... 60 HZ
Rated RPM……..……..3600
Max Power, bhp Standby / LPG…… 25
Max Power, bhp Prime / LPG…… ..23
Max Power, bhp Standby / Nat. Gas…….. 22.5
Max Power, bhp Prime / Nat. Gas…… 20.0

FUEL SYSTEM (EPA-CARB Certified)

Type ..... LPG or NAT. GAS, vapor withdrawal
Fuel Pressure (kpa), in. H_2O* (1.74-2.74), 7"-115" Water column
Secondary Fuel Regulator ..... NG or LPG vapor system
Auto Fuel Lock-Off Solenoid ..... (2) Solenoids
Add redundant fuel shutoff for safety precautions.

FUEL CONSUMPTION AT 3600 RPM, 60 HERTZ USE

	LP GAS: AT VARYING LOADS	FT³/HR (M³/HR)
STDBY	100% LOAD	88 (2.48)
	75% LOAD	71 (2.00)
	50% LOAD	53 (1.50)
PRIME	100% LOAD	79 (2.23)
	75% LOAD	64 (1.81)
	50% LOAD	48 (1.36)
LPG = 2500 BTU X FT³/HR = Total BTU/HR		

	NAT. GAS AT VARYING LOADS	FT³/HR (M³/HR)
STDBY	100% LOAD	195 (5.51)
	75% LOAD	170 (4.80)
	50% LOAD	120 (3.39)
PRIME	100% LOAD	176 (4.97)
	75% LOAD	153 (4.32)
	50% LOAD	108 (3.05)
NG = 1000 BTU X FT³/HR= Total BTU/HR		

LPG CONVERSION: 8.50 FT^3 = 1 LB. ; 36.4 FT^3 = 1 GAL

OIL SYSTEM

Type ..... Full Pressure
Oil Pan Capacity qt. (L) 1.24 (1.2)
Oil Pan Capacity W/ filter & (2) oil coolers qt. (L) 1.80 (1.7)
All Weather, Year around, synthetic oil use ..... #OW-40

ELECTRICAL SYSTEM

Ignition System ..... Electronic
Eng. Alternator:
Ground ..... Negative
Volts DC 12
Max. Amp Battery Charging Output 15
Min. Battery Req: ..... 12 VDC, 55 Amp/Hr, Size BCI# 21R or 26R (8½"lg X 7"wi X 8¾"hi), type "T", "L", or "X" terminals.
Minimum Cold-Cranking amps at 0°F (-17.8°C) : ..... 390 CCA
Eng. Starter Motor ..... 12 VDC

COOLING SYSTEM

Air cooled by generator and engine suction fans. A maximum 759 CFM cooling intake air is needed for proper engine cooling.

EXHAUST SYSTEM

Residential type muffler with 58 CFM exhaust flow and an exhaust back pressure at 3600 RPM full load, of 30" water column.

ENGINE CLASS AND EMISSION LIMITS

If an engine is not handheld (trimmer, blower, etc.) and is greater than or equal to 225cc displacement, it is a Class II engine. Following are maximum emission levels for CARB & EPA Class II engines.

CALIFORNIA TIER II (GRAMS / HP-HOUR)

CLASS	DISPLACEMENT	$HC+NO_X$	CO
II	25 HP = 720 CC	6.8	214

USA EPA PHASE 2 (GRAMS / KILOWATT HOUR)

CLASS	DISPLACEMENT	$HC+NO_X$	CO
II	25 HP = 720 CC	8.0	549

1 HORSEPOWER = .746 KW 1 KW = 1.341 HORSEPOWER

Subaru engines are EPA and CARB (California Air Resources Board) certified for LPG and Natural Gas.

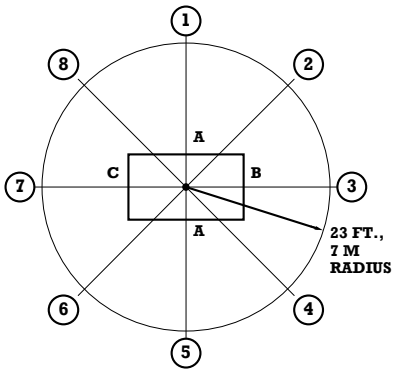
DERATING FACTORS

Engine horse power ratings meet SAE J1349 test codes. Reduce 3.5% for each 1000 feet, over 328 feet above seal level and 1% for every 10°F (5.65°C) rise, above 77°F (25°C). Generator specifications are in accordance with ASA, NEMA, and IEEE standards.

ACOUSTIC DATA

A= Access Doors,
B= Engine End cool air
C= Generator End hot air & exhaust exit

Note: All tests are full load operation in standard weather with Open (no enclosure), Level 1 Enclosure, or Level 2 Enclosure.



Model SPS-120 O-Open (no enclosure)

Position	1	2	3	4	5	6	7	8
dB(A)	75	74	76	74	75	77	79	77

Model SPS-120 E-Level 1 Enclosure

Position	1	2	3	4	5	6	7	8
dB(A)	69	69	71	68	69	72	73	72

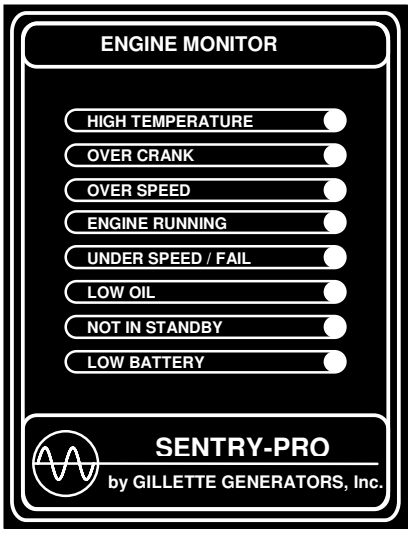
Model SPS-120 S-Level 2 Enclosure

Position	1	2	3	4	5	6	7	8
dB(A)	66	66	67	66	66	68	70	69

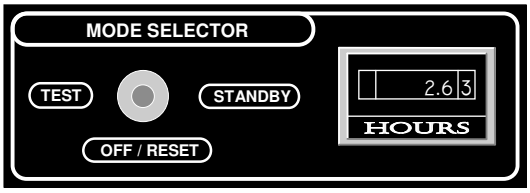
STANDARD ENCLOSURE FEATURES

- All Aluminum Exterior Housing, ensuring a rust and tarnish free installation.
- Powder coat, backed-on enamel finish, passes UL 1000 hour salt spray test.
- 10 independent metal wash stages, with a final iron phosphate metal etching before powder coat finish.
- Interior "Sound Dampening" preventing metal "ringing".
- Interior sound absorbing foam through out enclosure.
- Two, locking doors for access to controllers.
- Hot muffler is concealed away from "touch".
- Access to engine service through bolted access panels.

ENGINE MONITOR & OPERATION MODE FOR RESIDENTIAL STANDBY GENERATOR SETS



These sets use standard (2) wire start interfacing fully compatible with any dry contact start-stop system that might be installed on ATS, remote start-stop control panels, Trace inverters for controlling solar power battery arrays, etc. The start-stop signal on such equipment is utilized by the gen-set to initialize a (4) second countdown before the gen-set actually begins its first crank cycle, to avoid start-ups due to momentary power outages.



These standby gen-sets are "stand-alone" units which can work with any type ATS system or any other type sensing device, using (2) wire start-stop interfacing.

Standard features of SPS series standby sets are:

Solid State Digital Microprocessor providing automatic engine start-stop; auto shutdown for low oil, high temperature, over speed, under speed, engine fail, engine crank failure (after 3 failed crank attempts); battery charge fail; a "not in standby mode" warning indicator and a built-in (4) second engine start delay and (2) minute engine cool down delay. Timer cycles can be disabled in the field if application requirements so dictate. The "Mode Selector" switch serves (3) functions: A "Test" position (causing the gen-set to start and run indefinitely, without ATS switching the load); a "Standby" position (the system is ready to start automatically, whenever utility power fails); and an "Off/Reset" position (the engine can not start under any condition, so this is the service position and reset position when any fault is corrected). The "Engine Monitor" has (8) highly visible LED annunciators for all conditions. When mode switch is placed in "Standby" all (8) LED's will flash (3) times serving as a lamp test. The panel also includes a mainline circuit breaker and run time meter.

STANDARD AND OPTIONAL FEATURES FOR MODEL SPS-120

CONTROL PANEL:

SPS Series, automatic start-stop engine controller, utilizing solid state digital microprocessor with (8) ultra-bright LED annunciators. Panel also has main line circuit breaker, run time meter, and mode selector switch with "Test", "Standby", or "Off/Reset" positions.

ENGINE:

Full flow air cleaner and oil filter • full pressure oil system with (2) separate oil coolers • spin-on oil filter • residential muffler • 12 VDC battery charging alternator • vibration isolators • secondary dry fuel regulator with redundant dry fuel lock-off solenoid • overhead valve Subaru engine with EPA/CARB certified dry fuel system • 3 year engine warranty

GENERATOR:

AC generator with capacitor regulation system • single bearing • brushless design • class H, 180°C insulation system • self ventilated, drip proof construction

ELECTRICAL:

Battery tray • battery cables • battery straps • 2-stage, float type 3 amp auto battery charger

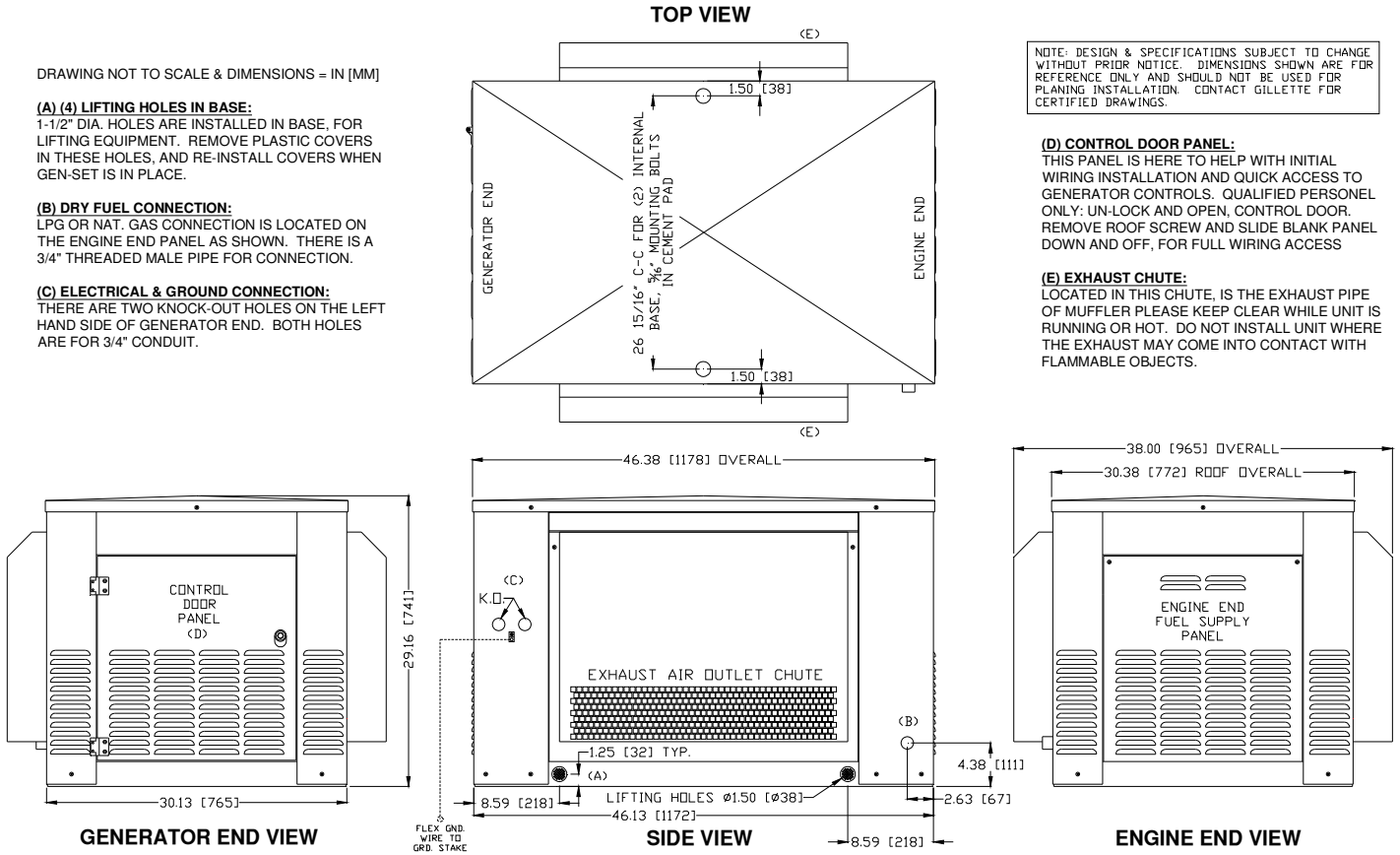
SUPPORT:

Operation, maintenance, and installation instructions
Call 1-800-777-9639 or Fax 1-574-262-1840
E-mail : sales@gillettegenerators.com
Web : www.gillettegenerators.com

OPTIONAL FEATURES & ACCESSORIES

- ☐ Remote annunciator
- ☐ 3 Phase winding
- ☐ 3 Phase ATS system
- ☐ 1 Phase ATS system
- ☐ Open (no enclosure) for special applications
- ☐ Super-Silent housing w/ special sound deadening foam
- ☐ All stainless steel weather housing
- ☐ Crankcase oil heater for faster cold weather starts

DIMENSIONAL OVERVIEW PRINT FOR MODEL SPS-120



DIMENSIONS AND WEIGHTS

FOR ALUMINUM OR STAINLESS STEEL HOUSINGS	Open Set	Level 1 Enclosure	Level 2 Enclosure
Length in	46	46	46
Width in	30	38	38
Height in	24.5	28.5	28.5
Net Weight lbs	385	490	515
Ship Weight lbs	435	540	565
INCREASE IN WEIGHT FOR STAINLESS STEEL HOUSING	N/A	+70	+95

DISTRIBUTED BY:

PRIMA POWER SYSTEMS INC.

PRIMA Power Systems Inc
420 Short Rd, Abbotsford, B.C.,
V2S 8A7, Canada
Telephone: 1-604-746-0606
Email: sales@primapowersys.com
Fax: 1-604-746-0667
Website: http://www.primapowersys.com

SUBARU
Industrial Power Products

V-Twin
> Print chart

25HP / EH72 LP/NG

Engine Overview:
Subaru EH72 25hp LP/NG is a keyed shaft V-Twin engine optimized to run on vapor withdrawal LP or natural gas. This engine is EPA and CARB certified for both stationary and portable applications.

Engine Family Overview:
Featuring six models ranging from 18 to 28 horsepower, the V-Twin Cylinder Series Industrial Engines are the workhorses of the Subaru commercial grade engine line. This series provides maximum versatility offering models with horizontal or vertical PTO shafts, allowing engine use with an even greater variety of industrial and construction equipment. Compared to conventional side-valve engines, Subaru's V-Twin provides smooth, reliable torque throughout the rpm range, improved breathing room at high rpm and low fuel consumption.

Specifications:

Class	Air-cooled, 4-Stroke, V-Twin cylinder, Overhead Valve, LPG/NG gas-fueled engine
Shaft	Horizontal, Keyed Shaft
Cylinders	2
Displacement	720
Cycles	4
Fuel	LP/NG Vapor Withdrawal
Max HP/RPM (Gross HP)	LPG-(Propane content of 95% or higher) : 25hp/3600--Natural Gas (Methane content of 90% or equivalent) : 21hp/3600
Bore x Stroke mm	84 x 65
Starter	Electric
Dry Weight lbs	101.3
Dry Weight kg	46
Length inches (mm)	12.5 (317)
Width inches (mm)	18.8 (477)
Height inches (mm)	18.7 (475)

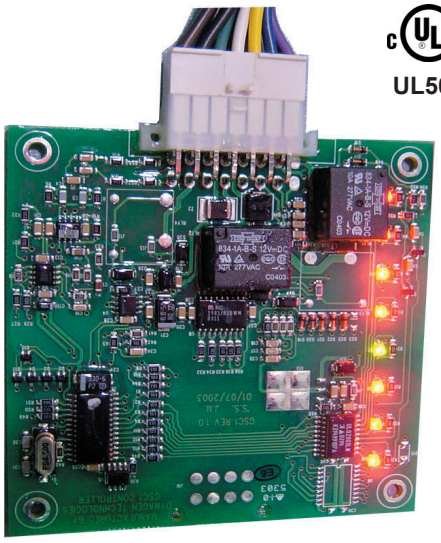
Air Cleaner	Dual Element
Muffler (type)	Optional
Ignition System	Hot Spark* Electronic Ignition
Lube System	Full Pressure--Spin-on Oil Filter
Oil Sensor	Low Oil Pressure
Emission Rating	EPA/CARB
Color	Black
Governor System	Mechanical Flyweight
Fuel System	Throttle Body LP/NG
Crankshaft options	Keyed or Taper

Key Features & Benefits:

Cast-Iron Cylinder Liner	Cast-iron cylinder liners enhance reliability and extend engine life.
Forged High-Carbon Steel Crankshaft	Forged high-carbon steel crankshaft provides maximum reliability under demanding loads.
Large-Capacity Air Cleaner Element	Large-capacity air cleaner with dual elements enhances reliability.
Oversized Ball Bearing Support	Large main bearing support on PTO side of crankshaft minimizes shock under heavy loads.
Single Piece Aluminum Die-Cast Cylinder Block	The configuration of the twin cylinder in the 90º (v-arrangement) offers compactness and is lightweight. Strong crankcase reinforcing ribs prove this engine is built with durability in mind.
Three-Year Limited Warranty	Subaru provides a three-year limited warranty. See warranty policy for details.

DynaGen Technologies Inc.

GSC 102 AutoStart™ Engine Controller



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UL508

The Lowest Cost Full Featured OEM Auto-Start Solution Available

Specialized for Small Generator Applications

• Portables • Residential • Light Commercial

The GSC102 is the lowest cost, full featured autostart on the market and has been field proven in thousands of small generator installations. Factory-fixed settings save time on every installation and protect against unauthorized field tampering. And, when it comes to reliability consider that the GSC102 is **conformally coated** to protect against moisture and is backed by DynaGen's standard **5-Year Warranty** - the longest in the industry.

7 Fixed Controller Settings

- Crank Disconnect: 20Hz • Overspeed: 69Hz • Crank Tries: 3 • Crank/Rest: 10sec/10 sec
- Underspeed Failure: initiated when speed falls below 53 Hz for 2.5 seconds
- Time Delay Engine Start: 0 sec or 10sec • Time Delay Engine Cooldown: 0 sec or 2 min

Zero Speed Restart

If the speed of the controller does not go to zero during Crank/Rest the controller will wait until the speed goes to zero before re-initiating the cranking sequence.

General Fault Conditions

• Low Oil • High Coolant Temperature • Overcrank • Overspeed • Underspeed

Not In Auto

When no power is applied to the AUTO terminal and +12VDC is maintained to the NOT IN AUTO terminal, the NOT IN AUTO LED will illuminate indicating the AUTO/OFF/TEST is not in the AUTO position.

Low Battery Voltage

If the battery voltage drops below a fixed setting the Low Battery condition is displayed.

Low Oil Pressure Input

Can close to +V Battery or to Ground to initiate a failure and is disabled during Oil Bypass.

High Engine Temperature Input

Can close to +V Battery or to Ground to initiate a failure.

Time Delay on Engine Start

Provides a delay before cranking is initiated where an output is energized between the time the start/stop signal is provided to the controller and cranking is begun. (LED flashing)

Optional Fixed Cool-Down Period

Will keep the engine running for a fixed period after the start/stop signal is removed. With wire jumper cut Cool-Down is disabled and the unit will shut off engine when start/stop signal is removed.

Specifications

Operating VDC Limits:
- 5.0VDC min. - 16VDC max. Optional 24VDC available

Standby Current Draw:
- 8mA at 12VDC

Operating Current Draw:
- 140mA at 12 VDC

Reverse Polarity Protected

Speed Sensing Input:
- Direct Generator AC Output 60Hz up to 300VAC

Operating Temperature Range:
- -40ºC to +85ºC

Fuel & Crank Contact Output:
- 5A max. each, Continuous Sourcing (+ bat) output

Annunciation & Fault Outputs:
- 300mA max. Sourcing Outputs Continuous Sourcing (+ bat) output

Lamp Test Terminal:
- Close to +Battery to test LEDs

Unit Dimensions:
- 4"(W) x 4.375" (L) x 0.75" (D)

Oct/06

Compact size and well known for its proven reliability, the A-Series utilizes the hydraulic magnetic principle which provides precise operation and performance even when exposed to extremely hot and/or cold application environments. When aesthetics demand a clean contemporary and functional design, the visi-rocker two-color actuator can be specified. A rockerguard and push-to-reset bezel help prevent inadvertent actuation. A specially constructed version is now available for applications requiring CE markings. The A-Series is used in many telecommunications and marine applications. In addition, these breakers meet CSA Standard 22.2 No. 100 for the Generator & Welder markets.

1-6 poles (handle), 1-3 poles (rocker). 0.02 - 50 amps, up to 277 VAC or 80 VDC, with a choice of time delays, terminals and actuator colors.

Agency Certifications

UL Recognized

UL Standard 1077	Component Recognition Program as Protectors Supplementary (Guide CCN/QVNU2, File E75596)
UL Standard 508	Switches, Industrial Control (Guide CCN/NRNT2, File E148683)
UL Standard 1500	Protectors, Supplementary for Marine Electrical & Fuel Systems (Guide PEQZ2, File E75596) Ignition Protection

UL Listed

UL Standard 489A	Communications Equipment (Guide CCN/DITT, File E189195)

CSA Accepted

Component Supplementary Protector under Class 3215 30, File 047848 0 000 CSA Standard C22.2 No. 235

TUV Certified

EN60934, under License No. R72040875

VDE Certified

EN60934, VDE 0642 under File No. 10537

GUEST

PRODUCT SPECIFICATION

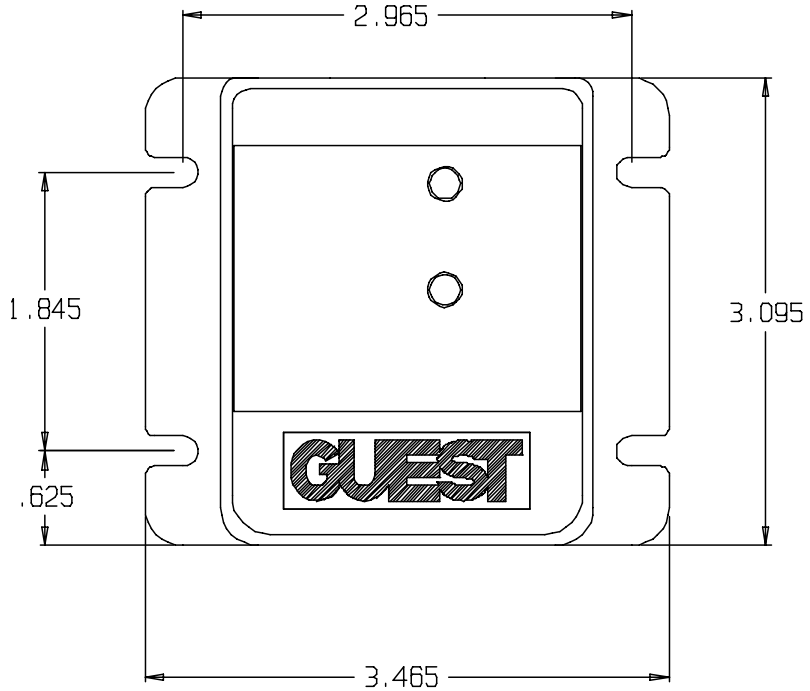
PS - 728063 **Rev. B**

1.0 PRODUCT NUMBER: 2603

2.0 DESCRIPTION: The 2603 is an automatic 2-Stage battery charger with 1 3 amp, 12 Vdc output.

2.1 Dimensions (reference)

3.1 in	**Height**	3.5 in	**Width**	2.34 in	**Depth**
7.9 cm		8.9 cm		6 cm	



Weight (reference)

Approximately 1 lb. (0.5 kg)

2.2 Cabling

18” AC Cable 18/2 SPT cord with standard 115 Vac AC connector
4’ DC output cable, 18 awg wires, fused with alligator clips

2.3 Features

- Watertight, shockproof, and corrosion proof
- LED status indicator
- Reverse Polarity Protected

3.0 ELECTRICAL CHARACTERISTICS:

3.1	**Battery Recommendation**	
	Maximum Battery Size:	36 Amp Hours per leg
	Battery Type:	SLA, AGM, Gel
	Maximum Recharge Time:	12 hours
3.1	**Input Rating**	
	Input Voltage Range:	100 – 130VAC
	Input Current Rating:	0.5 Amps maximum
3.2	**Float – Maintenance Stage**	
	Float Voltage:	13.2 – 13.85V
	Float Current:	0 – 0.2A
	LED status:	green led on or blinking

3.3 Absorption – N/A for this charger

3.4 Full Load – Bulk Stage

Full Load Voltage:	11.5 – 14.1 VDC
Full Load Current:	0.2A – 3A
LED status:	green led off or dim, red led is on

3.5 Reverse Polarity Protection

Reverse polarity protected by fuse

3.6 Short circuit/ overload Protection

Maximum Short Circuit Current:	5 A (typical)
Current Limit:	4 A (+/- 10 %)

3.7 Inhibit

N/A

4.0 TEMPERATURE CHARACTERISTICS:

4.1 Operating Temperature Range

Minimum Temperature:	-20 °C
Maximum Temperature:	50 °C

4.2 Storage Temperature Range

Maximum Temperature:	70 °C

5.0 AGENCY CERTIFICATION:

5.1 EMI/RFI

N/A

5.2 UL

This product meets and is listed under UL1236 for battery chargers.

6.0 WARRANTY

This product has a 2 year warranty.

7.0 REVISION HISTORY:

The table below identifies the revision history of this procedure.

Revision	Product Specification Change Summary	Initials	Effective Date
A	Initial Release	NBM	1/22/04
B	Add UL approval	TM	8/16/04

Originator: Nate Minegar	Position: Engineer
Approved by: Brian Tofedlt	Position: Engineering Manager

GEN-SET DIMENSIONAL OVERVIEW PRINT OF MODEL SPS-120

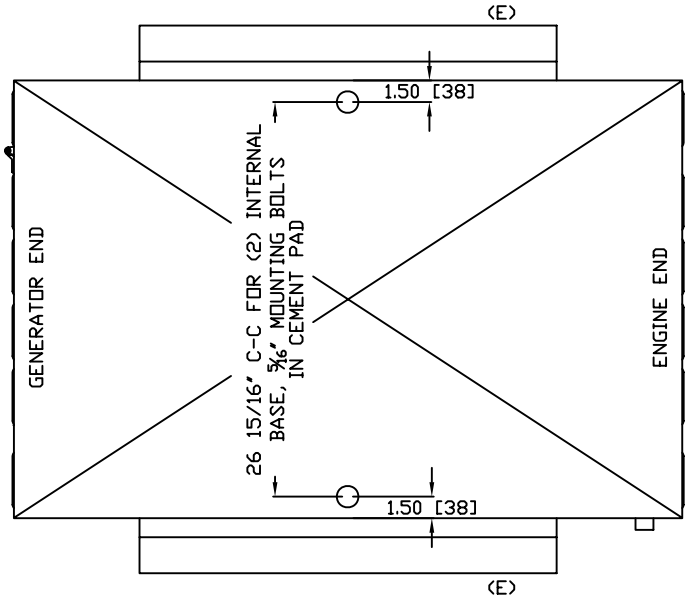
DRAWING NOT TO SCALE & DIMENSIONS = IN [MM]

(A) (4) LIFTING HOLES IN BASE:
1-1/2" DIA. HOLES ARE INSTALLED IN BASE, FOR LIFTING EQUIPMENT. REMOVE PLASTIC COVERS IN THESE HOLES, AND RE-INSTALL COVERS WHEN GEN-SET IS IN PLACE.

(B) DRY FUEL CONNECTION:
LPG OR NAT. GAS CONNECTION IS LOCATED ON THE ENGINE END PANEL AS SHOWN. THERE IS A 3/4" THREADED MALE PIPE FOR CONNECTION.

(C) ELECTRICAL & GROUND CONNECTION:
THERE ARE TWO KNOCK-OUT HOLES ON THE LEFT HAND SIDE OF GENERATOR END. BOTH HOLES ARE FOR 3/4" CONDUIT.

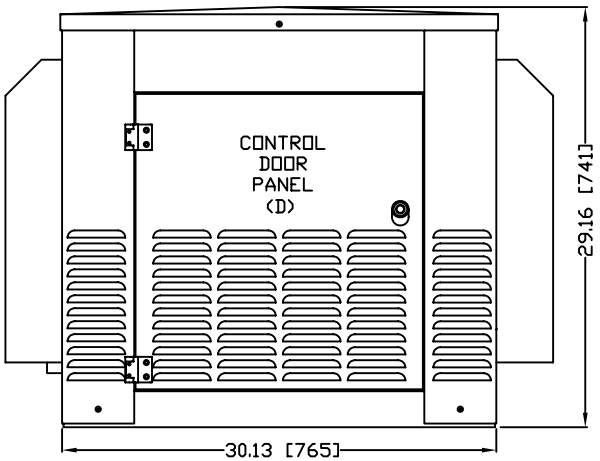
TOP VIEW



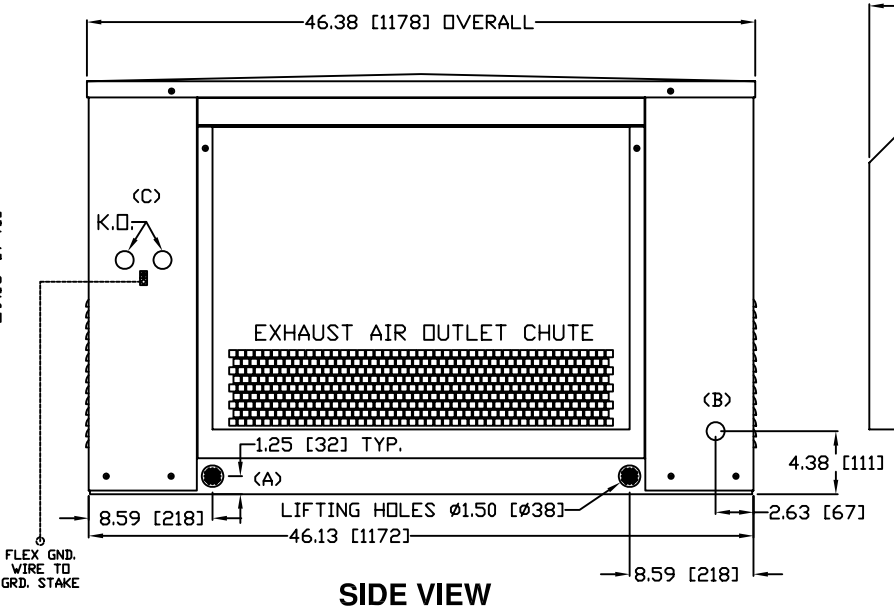
NOTE: DESIGN & SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR PLANING INSTALLATION. CONTACT GILLETTE FOR CERTIFIED DRAWINGS.

(D) CONTROL DOOR PANEL:
THIS PANEL IS HERE TO HELP WITH INITIAL WIRING INSTALLATION AND QUICK ACCESS TO GENERATOR CONTROLS. QUALIFIED PERSONEL ONLY: UN-LOCK AND OPEN, CONTROL DOOR. REMOVE ROOF SCREW AND SLIDE BLANK PANEL DOWN AND OFF, FOR FULL WIRING ACCESS

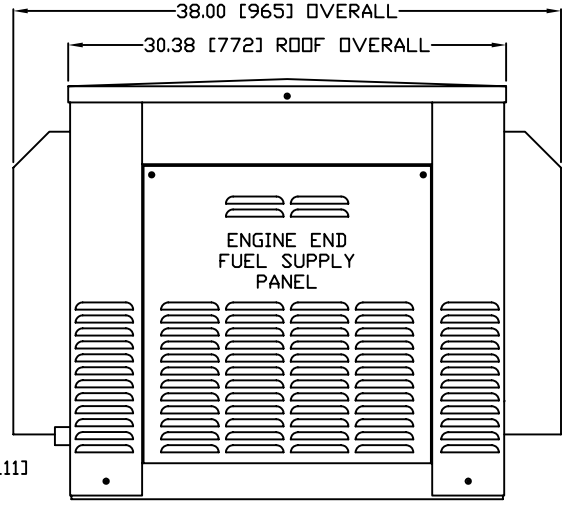
(E) EXHAUST CHUTE:
LOCATED IN THIS CHUTE, IS THE EXHAUST PIPE OF MUFFLER PLEASE KEEP CLEAR WHILE UNIT IS RUNNING OR HOT. DO NOT INSTALL UNIT WHERE THE EXHAUST MAY COME INTO CONTACT WITH FLAMMABLE OBJECTS.



GENERATOR END VIEW



SIDE VIEW



ENGINE END VIEW

FILENAME: SPS-120-HOUSING-DIM-OVERVIEW-20101010

GILLETTE LIMITED WARRANTY

FOR SPS SERIES STATIONARY STANDBY EMERGENCY POWER SYSTEMS

The Gillette Generator is designed around the latest technology, manufactured and quality inspected by carefully trained and experienced craftspersons. Gillette warrants to the original end user, for the time periods as shown below, that each generator finished product is free from defects in materials and workmanship. Gillette, at it's option, will repair, replace, or offer appropriate adjustments, for any generator part that, upon examination and testing by Gillette's factory engineers or by a Gillette authorized service dealer, is found to be defective, when generator set is properly installed, operated and maintained, according to Gillette's instructions. All transportation costs for parts returned to the factory, and new parts sent back to end user, are to be borne and paid by the end user. This warranty is not transferable and does not apply to malfunctions caused by damages, unreasonable use, misuse, unauthorized repair persons, or normal wear and tear. All warranty cost allowances must be within limits as shown in "Gillette Warranty Policies", procedures and flat rate manual.

GILLETTE PRODUCT	WARRANTY TIME PERIOD
SPS-120 Standby Gen-Sets……..….(3) Years or 1000 hours (whichever occurs first), from date of manufacture.	
(Warranty is void in prime power applications)	**Standby:** First year covers parts and labor. Second & Third year covers parts only.

THIS WARRANTY SHALL NOT APPLY TO (AND NOT LIMITED TO) THE FOLLOWING:

- Normal engine wear, tune-ups, service parts, including batteries, fuses, and engine fluids.
- Generators in trailer mounted use.
- Original installation or start-up costs.
- Damage due to insect or rodent infestation.
- Gen-sets that are altered from original design.
- Radiators replaced rather than repaired.
- Failures beyond manufacturers control: Riots, wars, theft, fire, freezing, lightening, earthquake, windstorm, hail, flood, hurricane, and all other external causes and Acts of God.
- Any incidental, consequential, or indirect damages, caused by manufacturers defects, or any delay in repair or replacement of defect.
- Costs due to trouble shooting with jobsite repair person, where no defect is found.
- Costs for equipment (cranes, hoist, trucks) for removal or re-installation of gen-set.
- Adjustments to fuel systems or governor systems at time of start-up, or anytime thereafter.
- Excess mileage costs are not permitted. Authorized service provider is limited to 200 mile round trip.
- Diesel engine damage due to constant light loads (wet stacking).
- Travel expense on any portable generators.
- Any labor time that is deemed excessive, by factory.
- Overtime labor and overnight freight costs.
- Steel enclosures, and all other deterioration of parts, installed within 25 miles of saltwater contaminants.
- Failures due, but not limited to, normal wear, misuse, negligence, or faulty installations, such as in-adequate fuel lines or gas pressures.
- Travel or labor expenses and all other costs, incurred while investigating performance complaints, unless problem is caused by defective materials or workmanship by Gillette.
- Warranties of associated equipment, not of Gillette manufacture (auto transfer switches, engines, generators) are subject to the individual manufacturers assigned warranties.
- Failure to use and exercise gen-set for long periods of time.
- Parts installed from sources other than engine or generator manufacturer.
- Manufacturer is not responsible for loose connections caused by vibrations during shipment to jobsite. All connections must be checked during start-up.
- All shipments are F.O.B. factory, consigned to the transit carrier. All shipping damage repairs, are between carrier and receiver.
- Any associated costs for replacing components, found to be defective.
- Rental costs of equipment during any warranty procedures.
- Room and board expense due to overnight service conditions.

Any implied or statutory warranty, including any other warranty as to the merchant ability or fitness for a particular purpose or use, is expressly limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty may last, or the exclusion or limitation of incidental or consequential damages, so the above listing of limitations or exclusions, may not apply to you.

This is our written limited warranty and we make no other expressed warranty. No other identity is authorized to make any different or additional warranties on Gillette's behalf. This Gillette warranty gives you specific rights. You may have additional rights that may vary from state to state.

GILLETTE GENERATORS, INC.
1340 WADE DRIVE ● ELKHART, IN 46514

WARRANTY SERVICE PH: 866-537-4388
WARRANTY SERVICE FAX: 574-262-1840
WEBSITE: www.gillettegenerators.com