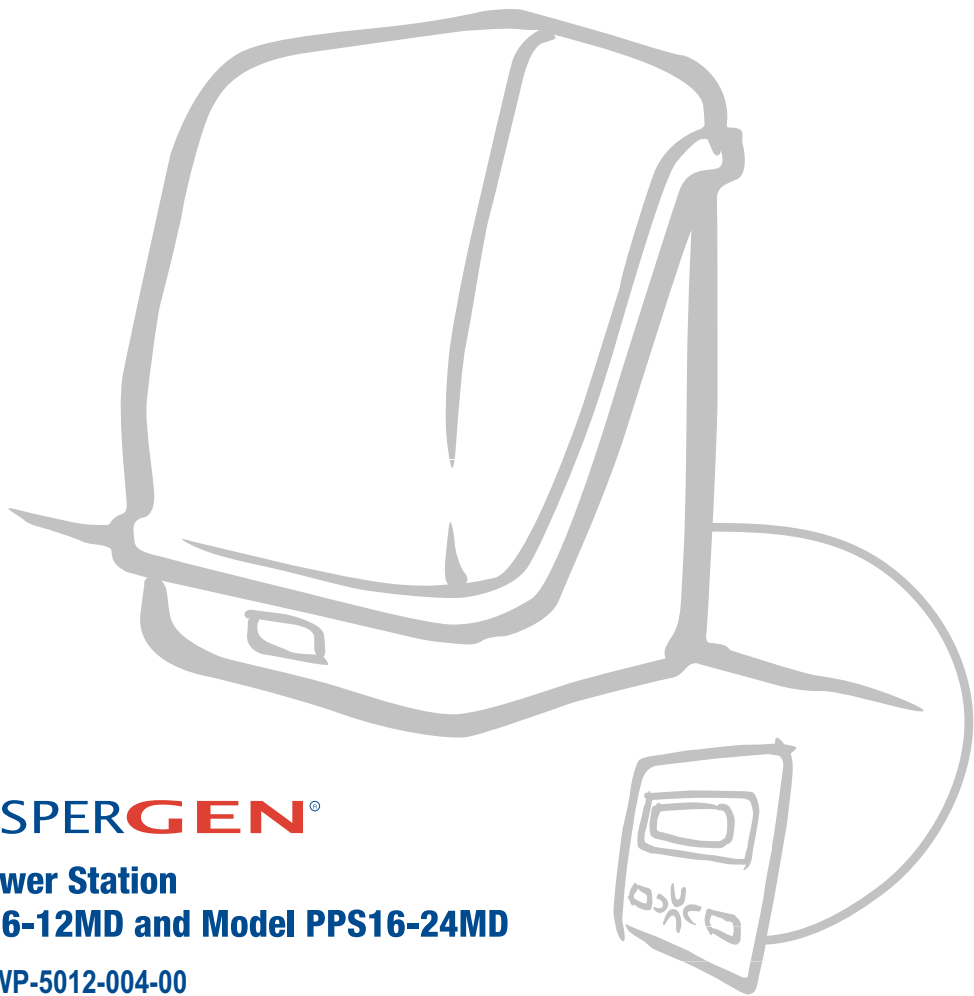




commissioning checklists



 **WHISPERGEN[®]**

**Personal Power Station
Model PPS16-12MD and Model PPS16-24MD**

Part Number: WP-5012-004-00
For Authorised Personnel Only

Variable Description	Micromon Field Name	DEFAULT SETTINGS	DEFAULT SETTINGS
		24 Volt	12 Volt
Air Ramp Down (Diesel)	Airrampdown (diesel)	0.75	0.75
Auto Charge	AutoCharge	0	0
Auxillary Negative	AuxNeg	3	3
Auxillary Positive	AuxPos	0	0
Battery Capacity (Ah)	BattSize	100	200
Block Alarm	BlockAlarm	84	84
Block Temperature (°C)	BlockTset	60	60
Crank Temperature (°C)	CrankTemp	145	145
Ecode1	Ecode1	0	0
Ecode2	Ecode2	0	0
Ecode3	Ecode3	0	0
Eglow1	Eglow1		
Diesel	diesel	40000	40000
Enable	Enable	0	0
Exhaust Alarm	ExhaustAlarm	545	545
Exhaust Set Point	ExhaustSetpt	480	480
External Control Mode	ExtContMode	2	2
External Control	ExtControl	0	0
Fault	Fault	0	0
Glow Plug Off	GlowOff1	190	190
Heat Management	HeatManage	0	0
Tail Current Percentage (%)	Itail %	0.07	0.07
Maximum Run Hours (hrs)	Max Hours	25	25
Maximum Battery Discharge (%)	MaxDisch %	0.35	0.35
Number of Faults Recorded	NumFaults	0	0
Number of Starts Recorded	NumStarts	0	0
O2 Run Factor	O2runfact	0.5	0.5
O2 Start Factor	O2startfact	1	1
Self Discharge (%)	SelfDisch %	0.05	0.05
Start Air	StartAir	25	25
Start Fuel	StartFuel1	4	4
Temperature Dump Bottom	TdumpBot	3	3
Temperature Dump Total	TdumpTot	14	14
Temperature Control	Tempco	-0.05	-0.025
Test Mode	Testmode	2	2
Temperature Extend	Textend	10	10
Time at full charge (hrs)	Time14to28	4	4
Top Cool	TopCool	120	120
Absorption Voltage (V)	Vabsorb	28.8	14.4
Version	Version	latest	latest
Float Voltage (V)	Vfloat	27.6	13.8
W Code 1	Wcode1	0	0
W Code 2	Wcode2	0	0
W Code 3	Wcode3	0	0

WhisperGen™ Commissioning

To validate the owner's warranty for the **WhisperGen™** the commissioning technician shall:

1. Complete the commissioning checklist in full, either hard copy or electronic.
2. Mail, fax or email copy of commissioning checklist to WhisperGen Ltd, New Zealand.
3. Sign owner's copy of Installation Checklist to validate the warranty.

Mail to: Po Box 13705, Christchurch, New Zealand

Fax number: +64 3 363 9284

Email to: service@whispergen.com

WhisperGen™ PPS16 12/24Volt DC Commissioning Checklist.

WhisperGen™ Serial Number:		
Date of Commissioning:		
Commissioning technician:	Name: Company: Address: Phone: Fax: Email:	
Owner:	Name: Address: Phone: Fax: Email:	
Location of WhisperGen™ or home shipyard of boat:	Marina or Shipyard Phone: Fax: Email:	
Details of Boat:	Boat Builder: Type and size of Vessel: Location of Whispergen™ in Boat:	

	Task	Details	Complete
1	Installation checklist completed		
2	WhisperGen is pressurised with nitrogen gas		
3	Computer connected and Micromon running		
4	Shore power disconnected and DC load applied (10-20A)		
5	Primary coolant system bled and flow checked		
6	Secondary cooling system bled and flow checked		
7	Fuel system bled and flow checked		
8	Exhaust Heat Exchanger flush system bled		
9	Exhaust Condensation drains in place and flow checked		
10	Starts Enabled		
11	Set 'External Control' to 1 (if this feature is installed)		
12	Battery size adjusted		
13	Battery 'Max Discharge' adjusted to obtain -20Ah		
14	Block temperature set point adjusted to 45°C		
15	Battery Amps read negative when load is applied		
16	Battery Volts are 0.6+ 0.1 greater than the Bus Voltage when the WhisperGen is in Standby mode		
17	First 'Run Factor' value		
18	Ambient Air temperature (approx)		
19	Seawater or secondary cooling inlet temperature (approx)		
20	Set Autocharge function 'On'		
21	WhisperGen should start automatically when preset battery Ah negative value is reached.		
22	Difference between Battery Volts and the Bus Voltage is no more than 0.20V with the glow plug on.		
23	Time for Flame to register on FID after 'Fuel On'		
24	FID reading at end of 'Stablising' period.		
25	O2 Value at the end of the 'Stabilising' period.		
26	Maximum O2 Average Error value during heat up.		
27	Gross Watts 5 seconds after cranking		
28	Gross Watts 5 minutes after cranking		
29	Secondary cooling system should start modulating the block temp at 45°C plus 3°C.		
30	WARNING: Shut down immediately if thermal runaway is threatened, i.e. temperature is over 50°C and increasing rapidly. (Check Primary Coolant system for air lock)		
31	If Block Temperature is steady and secondary system is operating then reset Block Temp set point to 60°C.		
32	Observe Block Temperature modulation at new setpoint. Record average value:		
33	Turn on Exhaust Gas Analyser and calibrate.		
34	Record variables on Run Log in sequence as shown.		

FULL POWER OPERATING PARAMETERS AND VARIABLES

Complete this section when:

1. **Runtime** (Min) is greater than **45**
2. **Bulk Charge** is displayed on the control panel
(If this is not possible, **Test Mode 1** may have to be selected to enable a full power parameter check)
3. **Coolant Temp** is between **60** and **70**; and
4. **Battery Volts** are between **13.7** and **14.8** for 12V systems and **27.4** and **28.8** for 24V Systems

Item	Details	Complete
Runtime (Min)		
Battery Volts		
Battery Amps		
Battery Amp-hours		
Battery Watts		
Gross Watts		
Hour Meter (Service visit only)		
Number of starts (Service visit only)		
Alt current		
Air %		
Bus Voltage		
Coolant Temperature		
Clamp Current		
Clamp Voltage		
Exhaust Temperature		
FID Current uA		
Fuel Frequency		
O2 Value/Ave error		
Excess Air % (Exhaust gas analyser) Range: 78-82%		
O ₂ % (Exhaust gas analyser) Range: 8.5-9.5%		
CO ppm (Exhaust gas analyser) <200ppm		
Software Version		
Nitrogen gas pressure reading (28-29Bar Hot)		
Number of Faults (Service visit only)		
Battery Settings in Service Menu		
Battery capacity set to: (Default 100Ah)		
Max battery Discharge set to: (Default 30%)		
Tail Current set to: (Default 0.07)		
Absorb Voltage set to: (Default 14.4 or 28.8V)		
Float Voltage set to: (Default 13.6 Or 27.8V)		
Time at >14V or >28V set to: (Default 4min)		
Self Discharge/Month set to: (Default 0.05%)		
User Adjustable Settings pre hand over.		
LCD display contrast setting OK		
LCD display back light setting OK		
Heat Manage set to:		
Temp setpoint set to:		
Auto-charge set to:		
External control set to:		
External control mode set to:		
Max run hours set to:		
CAUTION: MAKE SURE TEST MODE SETTING IS RESET TO 2		
Commissioner sign off and hand over.		

RUN LOG

Record all Variables at 5 minute intervals; Check and adjust Run Factor as required.
 Record all Variables and Full Power Operating Parameter Values at the 45 minute mark
 Final Record at 60 minute runtime before shutdown and sign off.

	SET	5 MIN	10MIN	15MIN	SET	20MIN	25MIN	SET	30MIN	Record	Final
										45MIN	60MIN
FUEL											
FID											
O2											
ERR											
AIR											
TEX											
TBLK	45				60			60			
VBUS											
VBAT											
IBAT											
IALT											
AH											
GW											

R/F	SET>	CHECK	SET>	CHECK	SET>	CHECK	CHECK	CHECK
XS AIR	78-82%							
O2	8.5-9.5%							
CO PPM	<200ppm							

NOTES: Record any anomalies or extra information here: