PURE SINE WAVE

DC TO AC POWER INVERTER

WELGEN W SERIES

Model No. W15SN-12 / W30SN-12
W15SN-24 / W30SN-24

User's Guide

TECHNICAL SPECIFICATION REFERENCE

150W Pure Sine Wave Inverter

Article-No.	W15SN-12E	W15SN-24E	W15SN-12A	W15SN-24A
Output Power: Continuous: Surge:	150W 150W 300W			
Output Voltage:	230V+/-3%		115V+/-3%	
Output Frequency:	50Hz +/-1%		60Hz +/-1%	
Output Wave Form:	Pure Sine Wave			
Total Harmonic Distortion:	3%			
Input Voltage Range:	10.5V ~ 16.5V	21V~33V	21V~33V	10.5V~16.5V
Maximum efficiency:	88%			
No Load Current :	<0.6 A	<0.4 A	<0.5 A	<0.3 A
Input current maximum:	20A	10A	20A	10A
Low Battery Alarm:	10.5V	21V	10.5V	21V
Low Battery Shut-Down:	10V	20V	10V	20V
Dimension (L x W x H):	215 x 147 x 66 mm			
Weight :	1.28Kgs			
Safety Certification :	EN60950-1 : 2001 EN60950-1 : 2001+A11 : 2004			
EMC :	EN55022 : 2006 Class B EN55024 : 1998+A1 : 2001+A2 : 2003 EN61000-3-2 : 2006 EN61000-3-3 : 1995+A1 : 2001+A2 : 2005			
E Mark :	E13 10R-023658			

Function of LED (fig. 6 , page 3)
* Green : Power On
* Orange : Input low voltage , Input over voltage , Low battery alarm
Over temperature , Over load , Short circuit ,

Protection : Reset mode
* Input low voltage……..Automatic
* Input over voltage…….Automatic
* Low battery alarm…...….Automatic
* Over temperature..…...….Automatic
* Over load……..…...…..Manual
* Short circuit ..…...…..Manual

TECHNICAL SPECIFICATION REFERENCE

300W Pure Sine Wave Inverter

Article-No.	W30SN-12E	W30SN-24E	W30SN-12A	W30SN-24A
Output Power: Continuous: Surge:	300W 300W 500W			
Output Voltage:	230V+/-3%		115V+/-3%	
Output Frequency:	50Hz +/-1%		60Hz +/-1%	
Output Wave Form:	Pure Sine Wave			
Total Harmonic Distortion:	3%			
Input Voltage Range:	10.5V ~ 16.5V	21V~33V	21V~33V	10.5V~16.5V
Maximum efficiency:	88%			
No Load Current :	<0.7 A	<0.5 A	<0.5 A	<0.4 A
Input current maximum:	40A	20A	40A	20A
Low Battery Alarm:	10.5V	21V	10.5V	21V
Low Battery Shut-Down:	10V	20V	10V	20V
Dimension (L x W x H):	215 x 147 x 66 mm			
Weight :	1.32Kgs			
Safety Certification :	EN60950-1 : 2001 EN60950-1 : 2001+A11 : 2004			
EMC :	EN55022 : 2006 Class B EN55024 : 1998+A1 : 2001+A2 : 2003 EN61000-3-2 : 2006 EN61000-3-3 : 1995+A1 : 2001+A2 : 2005			
E Mark :	E13 10R-023658			

Function of LED (fig. 6.2 , page 3)
* Green : Power On
* Orange : Input low voltage , Input over voltage , Low battery alarm
Over temperature , Over load , Short circuit ,

Protection : Reset mode
* Input low voltage……..Automatic
* Input over voltage…….Automatic
* Low battery alarm…...….Automatic
* Over temperature..…...….Automatic
* Over load……..…...…..Manual
* Short circuit ..…...…..Manual

GENERAL SAFETY, INSTALLATION, & OPERATING GUIDELINES

GENERAL SAFETY

1. Never attempt to operate the inverter from any power source other than a 12V or 24V battery.
2. Read this General Safety, installation, and Operation Guidelines carefully before using your inverter and strictly follow the instructions.
3. For 300W inverter, failure to properly connect wiring between inverter and power source will result in reverse polarity. Reverse polarity will blow the internal fuse in the inverter and permanently damage said inverter. Damage caused by reverse polarity is not covered under our warranty. 150W inverter directly plug into cigarette lighter socket of auto for connection. (fig. 3, page 5)
4. Loose connections can result in a severe decrease in voltage which may cause damage to the wires and insulation.
5. Keep inverter and 12V or 24V battery (power source) away from any inflammables to avoid possible fire or explosion. Note that it is normal to experience sparks during connection between the Positive (+) Terminals of the inverter and 12V or 24V battery. This is caused by the current flow to charge the capacitors within the inverter.
6. Always properly ground the inverter before operation to avoid possible electrical shock. Connect the earth cable to the chasis terminal (fig. 5, page 6).
7. Make sure that the power consumption of the appliance or equipment you wish to operate is compatible with the capacity of the inverter.
8. Monitor battery charger temperature for approximately ten (10) minutes when attempting to recharge battery chargers. Immediately disconnect when battery chargers become abnormally warm.
9. When operating the inverter with a car or marine battery, start the engine every 30 to 60 minutes and let it run for approximately 10 minutes to recharge the battery.
10. In the every event of a continuous audible alarm or automatic shut-off, immediately turn the inverter power switch to OFF position. Do not restart the inverter until the source of the problem has been identified and corrected.
11. Do not expose the inverter to moisture.
12. Avoid placing inverter near sources of heat or under direct sunlight.
13. Make sure inverter is well ventilated during use. At least, keep a free space of 10 cm around the inverter (fig. 1, page 5).

Installation

1. Location Set-up. Power inverter unit/s will have to be installed on cool, dry, and well ventilated area. Away from inflammables.
2. Cables. Make sure to use the correct cables. A chart is provided below, for your reference:

Max. watt Output	Amps Req'd..	Wire Gauge
150W	15A	#14 or $2mm^2$
300W	30A	#10 or $4mm^2$

3. Grounding. Connect Chassis Ground Terminal Lug to earth ground or vehicle chassis using #8 AWG wire.

Operational Guidelines

Step 1 Remove inverter from its packaging. Check to verify that the ON/OFF Switch is in the OFF position (fig. 6,page 6).

Step 2 Connect the cables to the Power Input Terminals located at the rear part of the inverter. Do not tighten these screws excessively.

Step 3 Connect the cable securely from the Negative Terminal (-) of the inverter to the Negative Terminal (-) of the 12V or 24V power source (fig. 2, page 5).

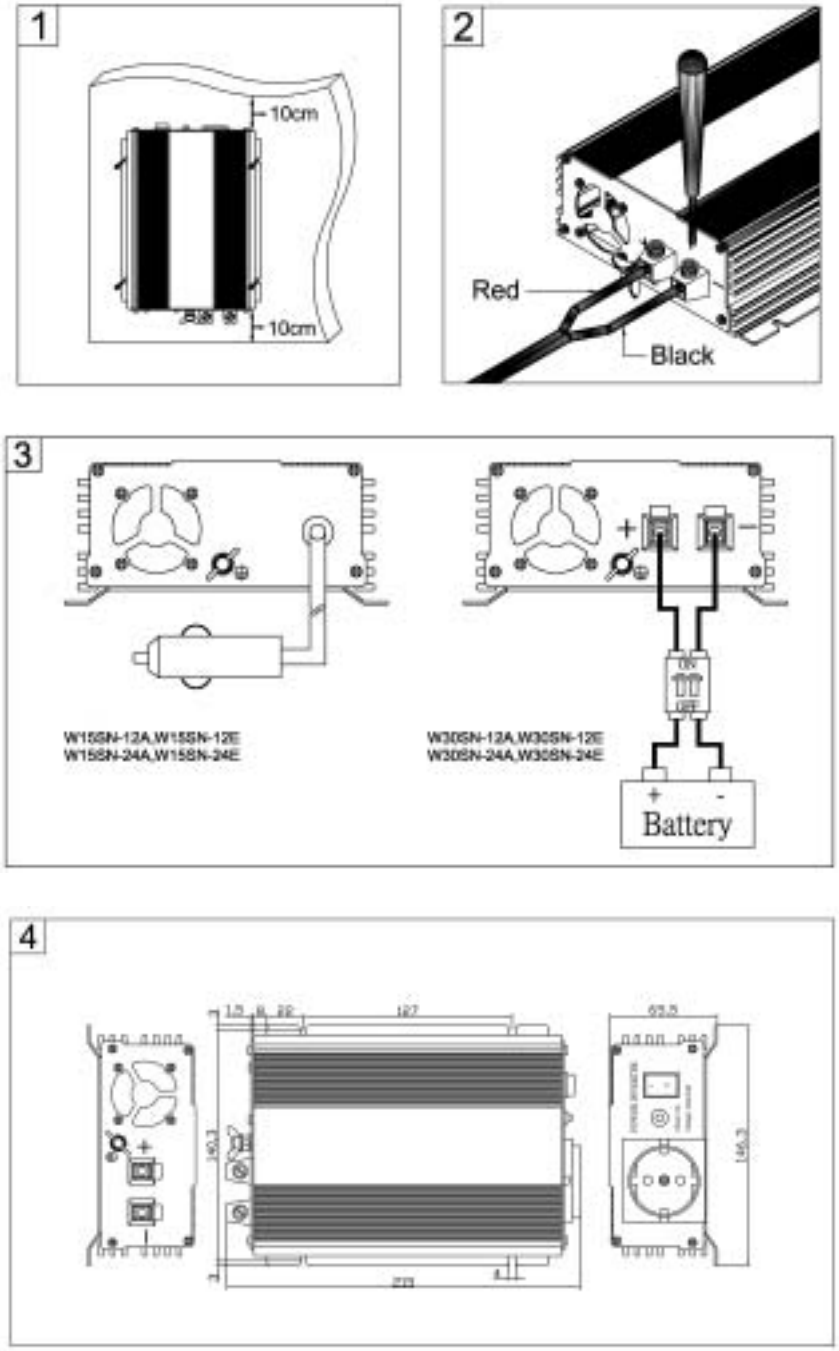
Step 4 Connect the cable securely from the Positive Terminal (+) of the inverter to the Positive Terminal(+) of the 12V or 24V power source.
Step 3 and 4 for 300W inverter. For 150W inverter, please directly plug into cigarette lighter socket of auto.

Step 5 Set power switch to ON position. Check the status of the LED indicators. LED indicators should be lighted.

Step 6 Set power switch to OFF position.

Step 7 Plus the equipment / appliance into the AC receptacle at the front panel of the inverter (fig. 6, page 6). Leave the equipment / appliance switched OFF.

Step 8 Set the power switches of both inverter and equipment / appliance, respectively, to ON position. (The inverter is now ready to transfer power to the equipment / appliance.)



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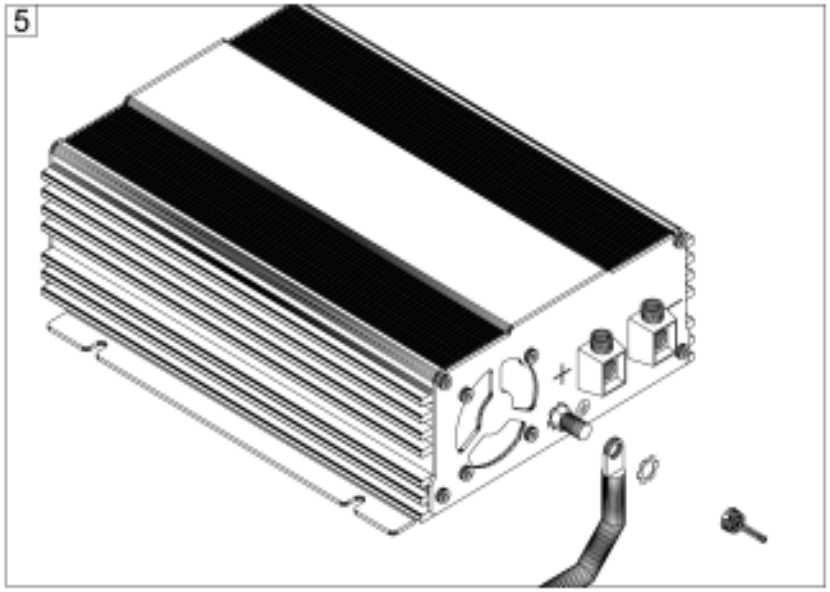

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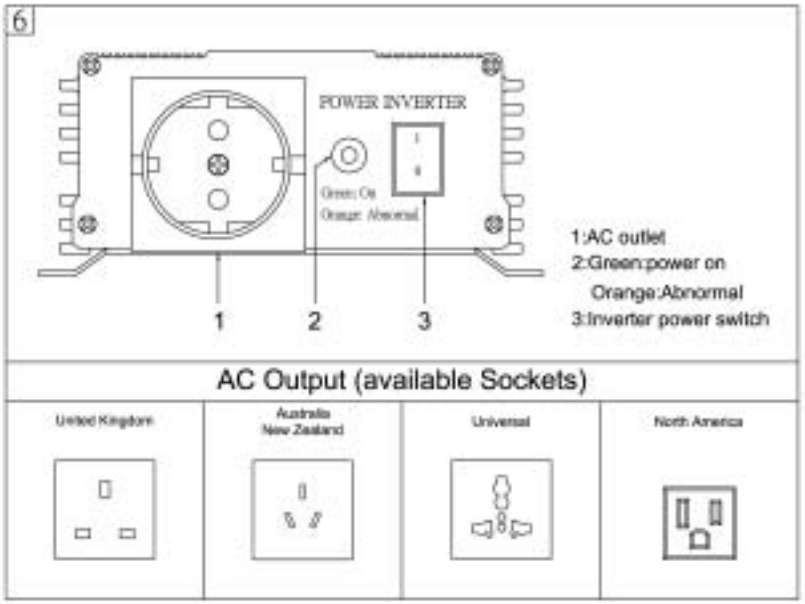

Dear Customer,

Thank you for your preferred choice in purchasing our inverters. Our power inverter series are designed to be your best companion at home, in the office, when traveling, outdoors camping, at sea, etc. Low DC current is converted into AC current to run your household and office appliance. That is why our inverter series can be used to operate most TVs, DVRs, sound systems, PCs & laptops, refrigerators, handy tools, among others. Definitely a must to stay in control whenever and wherever you are.

You will have to install and use inverter properly, and according to our operating procedures, to maximize its advanced technology on dependable operation and years of reliable service. Please read to content of this User's Guide carefully and file for future reference.

Sincerely yours,

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