STANLEY
FATMAX

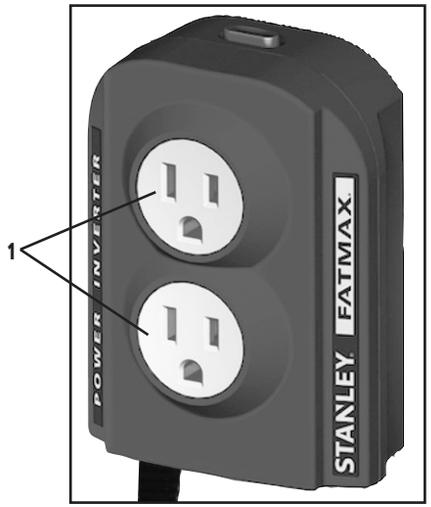
PCI140

# 140 WATT POWER INVERTER
## INSTRUCTION MANUAL

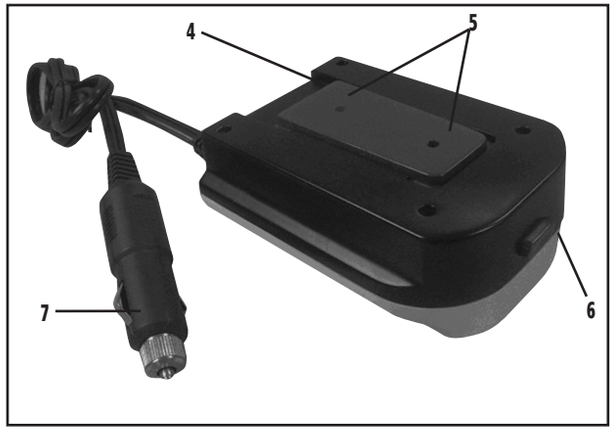

**SAVE THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE.**

ETL LISTED
Intertek

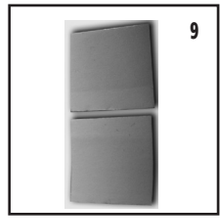
# FEATURES
# CARACTERÍSTICAS












## FEATURES

1. Three-prong 120 volt AC outlets
2. On/off button with bi-color power/fault LED indicator
3 USB power port
4. Mounting clip
5. Holes for attaching the mounting clip
6. Mounting clip release button
7. 12VDC accessory plug
8. Mounting clip screws (2 pcs.) (KA3x10)
9. Mounting clip double-sided tape (2 pcs.)

## CARACTERÍSTICAS

1. Tomacorrientes de tres patas de CA de 120 voltios
2. Botón con./desc. con el indicador LED bicolor de potencia y fallas
3 Puerto de la energía USB
4. Pinza de montaje
5. Agujeros para montar la pinza de montaje
6. Botón de lanzamiento de la pinza de montaje
7. Enchufe del accesorio 12VDC
8. Tornillos de la pinza de montaje (2 pedazos) (KA3x10)
9. Cinta de doble cara para de la pinza de montaje (2 pedazos)



# SAFETY GUIDELINES / DEFINITIONS

**DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION:** Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

**RISK OF UNSAFE OPERATION.** When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. Manufacturer strongly recommends that this product NOT be modified and/or used for any application other than for which it was designed. Read and understand all warnings and operating instructions before using any tool or equipment.

# IMPORTANT SAFETY INSTRUCTIONS

## READ ALL INSTRUCTIONS

**WARNING: Read all instructions before operating the inverter. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.**

### GENERAL SAFETY WARNINGS AND INSTRUCTIONS

**WARNING:** This product or its power cord contains lead, a chemical known to the State of California to cause cancer and birth defect or other reproductive harm. Wash hands after handling.

- **Avoid dangerous environments.** Don't use inverters in damp or wet locations.
- **Keep children away.** Keep away from children. This is not a toy!
- **Store indoors.** When not in use, inverters should be stored indoors in dry, and high or locked-up places – out of reach of children.
- **Disconnect the inverter** from the power supply when not in use.
- **Proper cooling is essential** when operating the inverter. Do not place it near a vehicle's heat vent or in direct sunlight.
- **Use of accessories and attachments:** The use of any accessory or attachment not recommended by manufacturer for use with this inverter could be hazardous.
- **Stay alert.** Use common sense. Do not operate inverter when you are tired.
- **Use of accessories and attachments:** The use of any accessory or attachment not recommended by manufacturer for use with this inverter could be hazardous.
- **Do not operate** the inverter near flammable liquids or in gaseous or explosive atmospheres. Motors in tools or appliances used with the inverter may spark, and the sparks might ignite fumes.

### SPECIFIC SAFETY INSTRUCTIONS FOR INVERTERS

**WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK:**

- Never immerse the inverter in water or any other liquid, or use when wet.
- Do not insert foreign objects into the inverter's outlets.

**WARNING: TO REDUCE THE RISK OF FIRE:**

- Make sure that the 12 volt outlet is free of debris and the inverter fits tightly in the outlet.
- Do not operate near flammable materials, fumes or gases.
- Do not expose to extreme heat or flames.
- If the vehicle accessory outlet fuse opens (blows) when plugging in this inverter, do not use this inverter with this vehicle accessory outlet:
  - Do not repeatedly replace the fuse.
  - Do not replace the vehicle accessory outlet fuse with one of a higher amperage rating.
  - Never attempt to patch the fuse with tin foil or wire.

**Any of these actions may cause serious electrical damage and/or a fire.**

This inverter is rated to draw 9.5 amperes from a 12V vehicle outlet. Ensure that the engine system in your vehicle can supply sufficient energy to the inverter without causing the vehicle accessory outlet fuse to open.

The fuse must be rated higher than 12 amps. Information on the vehicle accessory fuse ratings are typically found in the vehicle operator's manual.

**CAUTION: TO REDUCE THE RISK OF INJURY OR PROPERTY DAMAGE:**

- It is not necessary (or desirable) to turn your vehicle on to operate this inverter. Simply turn the engine switch to the accessory position (usually the second position, just before "engine start"). Or turn on the running lights (the small lights that surround the car). This is generally the first button on the light switch, depending on the make of vehicle.
- If the inverter shuts down repeatedly, the car battery charge may be low. Discontinue inverter use to avoid draining the battery.
- Disconnect appliance plug from inverter outlet before working on the appliance.

- Do not attempt to connect or set up the inverter or its components while operating your vehicle. Not paying attention to the road may result in a serious accident.
- Always use the inverter where there is adequate ventilation. Do not block ventilation slots.
- Always turn the inverter off by disconnecting it from the power source when not in use.
- Make sure the nominal powering voltage is 12 volts DC, center connection positive (+).
- Do not use with positive ground electrical systems.* Reverse polarity connection will result in a blown fuse and may cause permanent damage to the inverter and will void warranty.
  **The majority of modern automobiles, RVs and trucks are negative ground.*
- Keep in mind that this inverter will not operate high wattage appliances or equipment that produce heat, such as hair dryers, microwave ovens and toasters.
- Do not open the inverter — there are no user-serviceable parts inside. Opening the inverter will void manufacturer's warranty.
- Do not use this inverter with medical devices. It is not tested for medical applications.
- Install and operate inverter only as described in this Instruction Manual.

# SAVE THESE INSTRUCTIONS

**WARNING: TO REDUCE THE RISK OF INJURY OR PROPERTY DAMAGE:** Follow these instructions and those published by the manufacturer of any equipment you intend to use with this inverter. Review cautionary markings on these products.

## INTRODUCTION

Congratulations on purchasing your new ***Stanley® Fatmax® 140 Watt Power Inverter***. **Read this Instruction Manual and follow the instructions carefully before using your new inverter.**

This power inverter is configured to supply continuous power in the form of two 120 volt AC outlets and one 5 volt USB charging port to run most household or electronic appliances.

## HOW THIS INVERTER WORKS

This inverter is an electronic device that converts low voltage DC (direct current) electricity from a battery to 120 volts AC (alternating current) household power. It converts power in two stages. The first stage is a DC-to-DC conversion process that raises the low voltage DC at the inverter input to 145 volts DC. The second stage is a MOSFET bridge stage that converts the high voltage DC into 120 volts, 60 Hz AC.

### Power Inverter Output Waveform

The AC output waveform of this inverter is known as a modified sine wave. It is a stepped waveform that has characteristics similar to the sine wave shape of utility power. This type of waveform is suitable for most AC loads, including linear and switching power supplies used in electronic equipment, transformers, and small motors.

**CAUTION: Rechargeable Devices**

- Certain rechargeable devices are designed to be charged by plugging them directly into an AC receptacle. These devices may damage the inverter or the charging circuit.
- When using a rechargeable device, monitor its temperature for the initial ten minutes of use to determine if it produces excessive heat.
- If excessive heat is produced, this indicates the device should not be used with this inverter.
- This problem does not occur with most of the battery-operated equipment. Most of these devices use a separate charger or transformer that is plugged into an AC receptacle.
- The inverter is capable of running most chargers and transformers.

## PROTECTIVE FEATURES

The inverter monitors the following conditions:

**Input Voltage Too Low:** This condition is not harmful to the inverter, but could damage the power source, so the inverter will automatically shut down when input voltage drops below 10.5 ± 0.5 volts DC.

**Input Voltage Too High:** The inverter will automatically shut down when DC input voltage exceeds 16 ± 0.5 volts, as this can harm the unit.

**Thermal Shutdown Protection:** The inverter will automatically shut down when the unit becomes overheated.

**Overload/Short Circuit Protection:** The inverter will automatically shut down when an overload or short circuit occurs.

**Note:** The Power/Fault LED Indicator will light red to indicate an input voltage too low, input voltage too high or thermal fault condition OR flash red and blue to indicate an overload or short circuit fault condition before automatic shutdown occurs.

## RATED VERSUS ACTUAL CURRENT DRAW OF EQUIPMENT

Most electrical tools, appliances, electronic devices and audio/visual equipment have labels that indicate the power consumption in amps or watts. Be sure that the power consumption of the item to be operated is below 140 watts for 20 minutes, 120 watts for 60 minutes and 100 watts continuous or the unit may overheat and shut down. If the power consumption is rated in amps AC, simply multiply by the AC volts (120) to determine the wattage.

Resistive loads are the easiest for the inverter to run; however, it will not run larger resistive loads (such as electric stoves and heaters), which require far more wattage than the inverter can deliver. Inductive loads (such as TVs and stereos) require more current to operate than do resistive loads of the same wattage rating.



For safety reasons, the inverter will simply shut down if it is overloaded. To restart the unit, simply unplug all devices plugged into the inverter; disconnect the inverter from any 12 volt DC power source; then reconnect the inverter BEFORE plugging the appliance(s) back in.

## OPERATING INSTRUCTIONS

The power/fault LED indicator lights blue when the inverter is properly connected to a functioning DC power source and the on/off button is pressed to turn the unit on. The AC and USB outlets are ready to use. (If the power/fault LED indicator lights red or flashes red and blue, refer to the Troubleshooting Section of this Instruction Manual.)

To turn the unit off, press the on/off button to turn the unit off, then disconnect it from the 12 volt DC power source.

**CAUTION: TO REDUCE THE RISK OF PROPERTY DAMAGE:**

- **The Power Inverter must be connected only to batteries with a nominal output voltage of 12 volts. The unit will not operate from a 6 volt battery and will sustain permanent damage if connected to a 24 volt battery.**
- Always connect the inverter to the 12 volt DC power source **before** plugging any devices into the unit.
- The standard North American 120 volt AC and USB outlets allow simultaneous operation of multiple devices. Simply plug the equipment into the unit and operate normally.

**Note:** Ensure that the wattage of all equipment simultaneously plugged into the inverter does not exceed 140 watts for 20 minutes, 120 watts for 60 minutes and 100 watts continuous or the unit may overheat and shut down.

### Operation of the 120 Volt AC Outlets and USB Power Port

1. Connect the unit's 12VDC accessory plug to a vehicle's accessory outlet or other 12 volt DC power source. Make sure there is adequate space for proper ventilation of the inverter.
2. Rotate the plug slightly to make sure there is good contact.
3. Press the on/off button to turn the inverter on.
3. The bi-color power/fault LED indicator will light blue, indicating a proper connection. If the bi-color power/fault LED indicator lights red or flashes red and blue, a fault condition exists. Refer to the Troubleshooting Section of this Instruction Manual.
4. Plug the (110/120 volt AC) appliance into the inverter's three-prong AC outlets and/or plug the USB-powered device into the inverter's USB Charging Port and operate normally.

**Notes:** If the inverter does not work, make sure the ignition/accessory switch is actually powering the accessory outlet. Some vehicles require the ignition switch to be turned on.

Some laptop computers may not operate with this inverter.

The inverter will not operate appliances and equipment that generate heat, such as hair dryers, electric blankets, microwave ovens and toasters.

This inverter's USB charging port does not support data communication. It only provides 5 volts/1,000 mA DC power to an external USB-powered device.

Some USB-powered household electronics may not operate with this USB charging/power port. Check the manual of the corresponding electronic device to confirm that it can be used with this type of USB charging/power port.

Remember to disconnect the unit from any power source when it is not in use.

**CAUTION: TO REDUCE THE RISK OF PROPERTY DAMAGE:** Remember to turn the inverter off and disconnect it from any power source when it is not in use. Also remember to turn off the accessory outlet switch to avoid draining's the vehicle's battery.

### Mounting the unit by Mounting Clip

The unit can be mounted can be mounted on any flat, secure surface, especially inside the vehicle, by installing the mounting clip located at the back of unit.

1. Press the mounting clip release button at the top of unit and simultaneously slide the mounting clip off the back of the inverter.
2. Mount the mounting clip with two supplied KA3x10 screws or the two supplied pieces of double-sided tape on any flat, secure surface.
3. To attach the inverter to the mounting clip, slide the unit into the mounting clip until you hear a "click" indicating the unit is secured in place.
4. To detach the unit, press and hold the mounting clip release button on the top of unit and gently slide it off the mounting clip.

**CAUTION: To reduce the risk of product damage:**

- Only use the mounting clip for mounting the inverter. The mounting clip is not intended to support additional weight. Do not attach to or hang anything from the mounted inverter.
- When disconnecting an appliance from the mounted inverter, use one hand to hold the mounted inverter in place and gently unplug the appliance with the other hand. Otherwise, the inverter could be unseated from the mounting and fall.
- Always press and hold the mounting clip release button to gently slide the inverter off the mounting clip. Attempting to slide the inverter without holding the mounting clip release button or forcing the inverter in any way could damage the locking mechanism.

### Operating Tips

The inverter should only be operated in locations that are:

DRY — Do not allow water or other liquids to come into contact with the inverter.

COOL — Surrounding air temperature should ideally be 10-20°C (50-68°F). Keep the inverter away from direct sunlight, when possible.

WELL-VENTILATED — Keep the area surrounding the inverter clear to ensure free air circulation around the unit. Do not place items on or over the inverter during operation. The unit will shut down if the internal temperature gets too hot. The inverter will auto-reset after it cools down.

SAFE — Do not use the inverter near flammable materials or in any locations that may accumulate flammable fumes or gases. This is an electrical appliance that can briefly spark when electrical connections are made or broken.

## CARE AND MAINTENANCE

### Storage

1. Ideal storage temperature range is 0-35°C (32-104°F).
2. Store and use the inverter in a cool, dry place with adequate ventilation for all-around air circulation.
3. Avoid locations that are exposed to heating units, radiators, direct sunlight, or excessive humidity or dampness.

### Fuse Replacement

If the inverter is overloaded, and the blue LED is not lit, the internal 12 amp fuse may be blown. To replace the fuse:

1. Unscrew the flange of the plug (counterclockwise).
2. Remove the end contact, flange and fuse.
3. Inspect the fuse to see if it is good or blown.
4. Replace with a new 12 amp fuse, if needed.
5. Carefully reassemble the fuse, end contact and flange. Do not overtighten the flange (clockwise).

## TROUBLESHOOTING

### Common Audio Problems

**Buzzing Sound In Audio Systems**
Some inexpensive stereo systems and boom boxes make a buzzing sound when operated from the inverter, because the power supply in the electronic device does not properly filter the modified sine wave produced by the inverter. The only solution to this problem is to use a sound system that has a higher quality power supply.

### Common Power Output Problems

**Input voltage below 10.5 volts**
Recharge auto battery or check DC power supply.

**Equipment being operated draws too much power**
Reduce load to maximum 140 watts for 20 minutes, 120 watts for 60 minutes, 100 watts continuous.

**Inverter in thermal shutdown condition**
Allow inverter to cool down. Ensure there is adequate ventilation around the unit and that the load is no more than 100 watts for continuous operation.

**AC output is shorted**
Unplug the AC appliance. Disconnect the unit from any 12 volt DC power source. Check the appliance cord.

## SPECIFICATIONS

| | |
|---|---|
| DC input: | 12 volts DC, 9.5 amps |
| AC output: | 120VAC, 60Hz, 140 watts (for 20 minutes), 120 watts (for 60 minutes), 100 watts continuous |
| Output waveform: | Modified Sine Wave |
| USB power port: | 5 volts DC, 1,000 mA |
| | 12A/250VAC |

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