

Power Dome® EX



User's Manual

We are constantly improving our products so specifications are subject to change without notice. Visit our website for the latest product information.

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Power Dome® EX by Wagan Tech®

Thank you for purchasing the Power Dome® EX by Wagan Tech®. With normal care and proper treatment it will provide years of reliable service.

IMPORTANT INFORMATION

- Please read and understand all warnings, cautions, and notes included in this manual before using the Power Dome® EX. Follow instructions provided by your vehicle manufacturer and other devices intended to be used with this unit. Keep these instructions for future reference.
- Make sure the Power Dome is fully charged before first use. We recommend 48 hours for initial charge.

GENERAL WARNINGS



HIGH VOLTAGE: The inverter output can be lethal. Improper use may result in property damage, personal injury, or loss of life.

- This appliance is NOT intended for use by persons with reduced physical, sensory, or mental capabilities.
- Children or persons lacking in experience and knowledge also should NOT operate this appliance unless he/she has been given supervision or instruction concerning the proper usage and warnings of the appliance by a person responsible for their safety.
- For proper and safe operation of any accessory outlet, do not place anything in it except the plug of the accessory to be used.
- Use only the chargers, cables, and clamps provided. Unauthorized parts may damage the unit.
- This product has no consumer serviceable parts other than the external fuse. Do not attempt to open the unit's enclosure, doing so will void the warranty.

STORAGE

This unit may be stored in any position. Make sure the clamps and air hose are securely tucked away in their original positions. Store in a cool, dry area. If the unit is not used for a prolonged period of time, recharge every 3 months.

PROPER DISPOSAL

- Appliance, accessories, and packaging should be recycled in an environmentally friendly manner. Plastic parts are coded for purposes of separation when recycling.
- Battery-powered electrical appliances contain materials which are harmful to the environment. Do not dispose of batteries and/or electric/electronic appliances in normal household refuse. When the battery has reached the end of its lifetime, please take the entire unit to a battery recycling facility.



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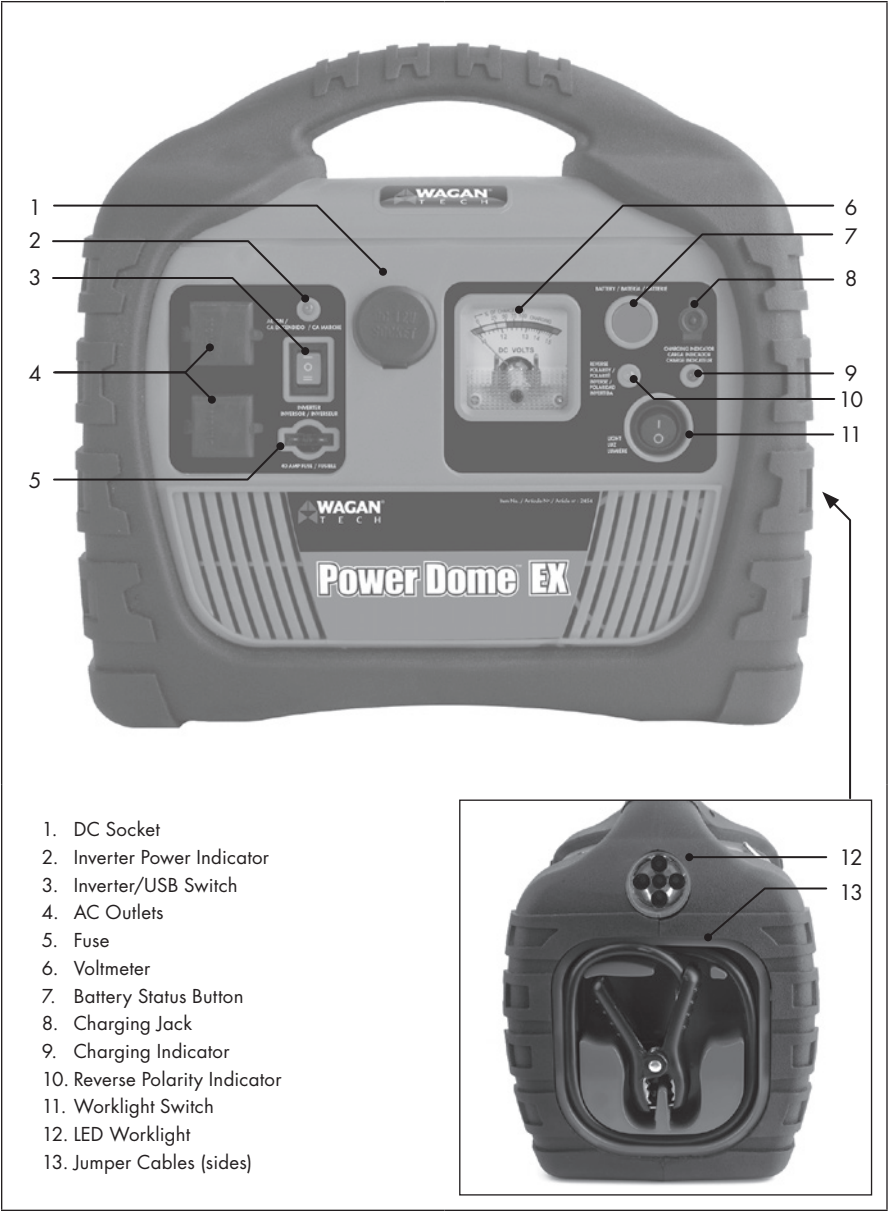
PRODUCT FEATURES

- Powerful jumpstarter with heavy-duty cables and clamps.
- Jumpstart cable polarity indicator for safety protection.
- Voltmeter for checking battery status.
- High pressure air flow compressor for inflating tires and sports equipment with easy-read analog pressure gauge.
- Built-in power inverter providing two 115-volt AC outlets.
- Additional DC accessory socket for powering DC appliances.
- One USB power port for charging mobile devices.
- Bright, long-lasting LED area light.
- AM/FM radio to stay tuned during disasters and emergencies.
- Audio input jack for external music players.
- AC/DC recharging adapter & DC recharging cable (fused) included.

SPECIFICATIONS

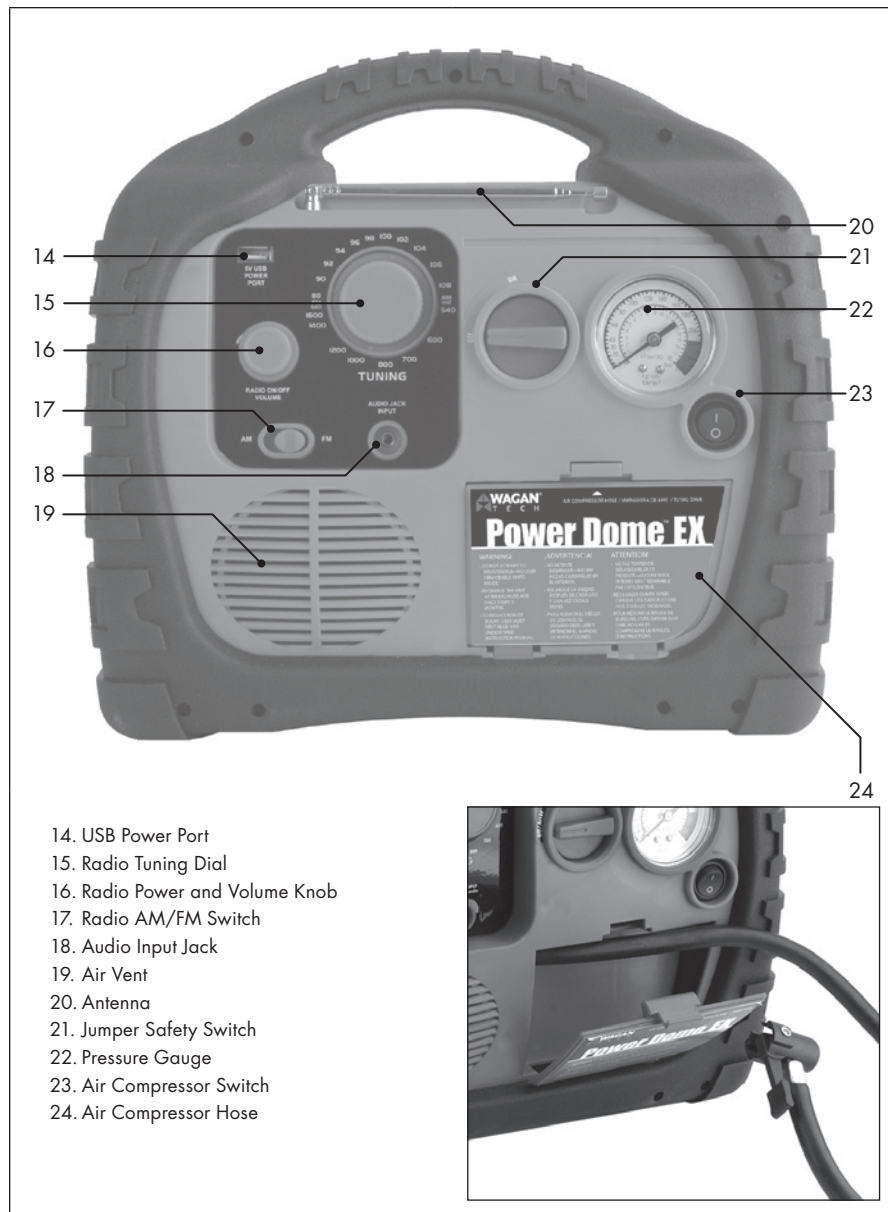
Battery	AGM Sealed lead acid, 12V, 18Ah
Peak Amps	900A
Jumper Cables	6 AWG, 24-inch
Air Compressor	260 PSI, analog gauge
Inverter Continuous Output Power	400W (modified sine wave)
Inverter Peak Surge	800W (for a max of 0.3 seconds)
Inverter Low Voltage Alarm	10.5V \pm 0.5V
Low Voltage Shut-off	10.0V \pm 0.5V
Fuse	40A
AC Outlets (x2)	115V, 60 Hz
DC Socket	12V, 11A max, 132W
USB Power Port	5V, 500 mA
Work Light	5-LED
Dial-tune Radio	AM 520–1710 kHz / FM 88–108 MHz
Audio Input Jack	3.5 mm diameter ($\frac{1}{8}$ inch)
Charging Time (AC)	34 hours
Charging Time (DC—with engine running)	12 hours
Dimensions WxLxH (inches)	12.0 x 9.0 x 11.0
Weight (lb)	20.0
AC Charging Adapter Output	12V, 500mA DC

FRONT VIEW



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REAR VIEW



BATTERY STATUS

The voltmeter provides the current state of charge on the internal battery. It is the user's responsibility to periodically monitor the battery's status and recharge every 3 months in addition to recharging after each use.

1. Disconnect any input or output power cords and turn off all switches.
2. Press and hold the Battery Status button.
3. Read the voltmeter to determine battery status.
 - < 12V: Battery is discharged, charge immediately
 - ~ 12V: Battery should be charged before jumpstarting a vehicle
 - > 12.5V: Battery is fully charged

CHARGING THE POWER DOME



ELECTRICAL SHOCK! Exposure to water may cause electrical shock. Exposure to water and excessive moisture will also damage the unit and void the warranty.

Charge your Power Dome in an upright position for a full 48 hours before initial use. The Power Dome can be charged continuously via AC adapter without damaging the internal battery. In order to prolong the life of the Power Dome (as with all lead-acid batteries), be sure to fully recharge the unit every 3 months even if the Power Dome has not been used.

AC Charging

Only use the AC charging adapter supplied with this unit. Make sure the supplied AC/DC charging adapter is powered by the correct voltage (110V AC or 220V AC depending on your country/region).

1. Make sure all Power Dome switches are off.
2. Open the dust cover on the charging jack.
3. Plug the DC end of the AC/DC charging adapter into the Power Dome's charging jack.
4. Connect the AC end of the AC/DC charging adapter to the wall outlet.
5. The charging indicator will light up during the charging process.
6. When charge is complete, disconnect the adapter from the AC outlet first, then from the charging jack.
7. Replace the dust cover on the charging jack.

DC Charging in Your Vehicle or Boat

Only use the DC charging adapter supplied with this unit. Your vehicle engine **must be running** while charging the Power Dome. **Do NOT exceed 12 hours** of continuous charging time.

1. Make sure all Power Dome switches are off.
2. Open the dust cover on the charging jack.
3. Plug the small end of the DC power cord into the Power Dome's charging jack.
4. Plug the large end of the DC power cord into an accessory (cigarette lighter) socket.



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5. The charging indicator will light up during the charging process. Do NOT charge for more than 12 hours at one time.
6. When charge is complete, disconnect the power cord from the accessory socket first, then from the unit's charging jack.
7. Replace the dust cover on the charging jack.

JUMPSTARTER

Warnings

- Lead-acid batteries can release explosive gases. Failure to follow instructions may cause property damage, explosion hazard, and/or personal injury.
- Do not smoke while jumpstarting.
- Jumpstart a vehicle or boat in a well ventilated area.
- Do not attempt to jumpstart a frozen battery.
- This product is not intended for use in the rain or temperatures above 130°F.
- Do not let the jumper cables or other attached appliances get wet.
- Do not wear vinyl clothing when jumpstarting—friction can cause static electricity sparks.
- Remove all metal jewelry to avoid short circuits.
- Always use safety glasses when jumpstarting battery. Keep battery terminals clean and be careful to keep corrosion from coming in contact with eyes—acid can cause blindness and/or severe burns.
- Never allow red and black clamps to touch or connect to the same piece of metal—this can cause short-circuits, power arcing, and/or explosion.
- Make sure someone is available to give assistance if needed.
- Keep out of reach of children.
- This unit is for use with 12 volt systems only.

Operation

CAUTION: If the engine fails to start after three attempts, discontinue jumpstart procedure. Excessive engine cranking can damage the vehicle's starter motor. Look for other problems that may need to be corrected or call for professional service.

1. Review the Jumpstarter warnings.
2. Put the vehicle's gear in "park" position and make sure the brake is set.
3. Turn off the vehicle ignition and accessories (e.g. radios, lights, air conditioners), and disconnect all devices such as GPS and mobile phones or tablets.
4. Turn off all Power Dome switches and disconnect all accessories.
5. Determine the polarity of the vehicle's battery terminals. The positive (POS, P, +) battery terminal is usually larger in diameter than the negative (NEG, N, -) terminal. If you are unsure, you should refer to the vehicle owner's manual.

6. Determine the ground system of your vehicle.
 - If vehicle to be started has the positive battery terminal connected to chassis (this is rare and usually found in older car models from the 1950s or earlier):
 - a. Connect the black (–) clamp first to vehicle battery's negative (black) terminal.
 - b. Connect red (+) clamp to vehicle chassis or a solid, non-moving, metal vehicle component or body part. DO NOT clamp directly to positive battery terminal or a moving part.
 - If vehicle to be started has a negative ground system:
 - a. Connect the red (+) cable clamp first to the vehicle's positive (red) battery terminal.
 - b. Next, connect the black (–) clamp to the vehicle chassis or non-moving, metal vehicle component.
7. Observe the color of the Reverse Polarity Protection Indicator.
 - If the light is RED, **DO NOT TURN ON THE JUMPER SAFETY SWITCH!**
 - a. Cable clamps need to be reversed.
 - b. Disconnect the black clamp first then the red clamp.
 - c. Reconnect and observe the indicator again.
 - If the light is GREEN, turn on the Jumper Safety Switch.
 - a. Inside the vehicle, turn on the ignition switch and attempt to start the engine.
 - b. Crank a maximum of 3 seconds. If the engine does not start, wait 3 minutes before the next attempt.
 - c. After the engine starts, turn off the Jumper Safety Switch.
 - d. Disconnect the clamps in the reverse order of connection prior to jumpstarting.
8. Be sure that the cables and clamps are securely stored.
9. Recharge the Power Dome as soon as convenient.

AIR COMPRESSOR

This Power Dome is equipped with an air compressor that can provide up to 260 PSI (pounds per square inch) of pressure for a variety of uses such as vehicle tires and sports equipment.

CAUTION: Be careful not to over inflate, monitor the compressor gauge while inflating. Never connect or disconnect the nozzle with the compressor operating. To avoid overheating, do not operate the air compressor for more than 10 minutes at a time. After 10 minutes, allow the compressor to cool for 15 minutes before using again.

Operation

In the event that the vehicle tire is completely flat, raise the vehicle using a recommended jack before inflating the tire.

1. Before any tire inflation, look for manufacturer's recommended inflation pressure.
2. Open the compartment door at the rear of the Power Dome and extend the air hose.
3. Position the Power Dome so that you can see the pressure gauge.



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4. Make sure the chuck lever is positioned up (away from the chuck opening).
5. Determine if you will need an air hose adapter for your object.
 - To inflate a vehicle tire:
 - a. Remove the valve cap from the valve stem of the tire.
 - b. Attach the chuck of the air hose to the tire's valve stem.
 - c. Push the chuck lever down to secure the chuck to the valve stem.
 - To inflate a sports equipment, air mattress, rafts, or other plastic inflatables:
 - a. Insert the proper valve stem adapter into stem connector as far as possible.
 - b. Push the chuck lever down to secure the adapter.
 - c. Remove the valve cap from your inflatable object if there is one.
 - d. Insert the other end of the valve stem adapter into inflatable's air valve opening as far as possible.
6. Set the Air Compressor Switch on to the "I" position to start inflation.
7. Monitor the pressure gauge while inflating the tire.
8. When recommended tire pressure has been reached, turn off the air compressor.
9. Disconnect the hose and replace valve cap.
10. Return the hose back to its compartment for storage.
11. Recharge the Power Dome as soon as it is convenient.

POWER INVERTER

The Power Dome® EX can run most AC appliances or a combination of appliances up to 400 watts. Operating time is dependant on the AC load (required wattage) and the current charge/condition of the Power Dome's internal battery. Reduced AC loads and/or having a full charge on the internal battery will result in longer operating time. Ordinary overloads will cause the inverter to automatically shut down. Reduce the load and restart the inverter.

There is a user-replaceable automotive-type fuse protecting the inverter from an unlikely excessive power draw or short circuit. **REPLACE ONLY WITH THE SAME TYPE AND RATING FUSE.** To replace the fuse, simply pull it out with a pair of needle nose pliers and insert the new fuse.

Caution

Some rechargeable devices are equipped with a separate AC charger. These devices are likely to operate properly with the inverter in this unit. Rechargeable devices that have built-in chargers (see your device's user manual) may not operate properly with this unit because the inverter is modified sine wave.

Some motorized devices may operate at excessively elevated temperature when used with this inverter. During first use with this inverter, check for excessive motor temperature. Abnormally elevated temperature of the device is an indication that they should not be used together.

Operation

1. Check the required current draw of the appliance/device to be powered and make sure it does not exceed the Power Dome's maximum wattage.
2. Prior to plugging in your device, turn your power tool or appliance off. Mobile devices are fine to keep on, but operating them during the charging process will prolong charging time.
3. Open the AC outlet dust cover.
4. Connect the electrical plug of your device/appliance to either of the two AC outlets.
5. Set the Inverter/USB Switch to the "I" position.
6. Observe the Inverter Power Indicator. If the LED remains green, proceed to plugging in and turning on the second device/appliance.
 - If the power indicator remains green, then both devices/appliances are operating properly.
 - If the power indicator is no longer lit, reduce the AC load. If the inverter still does not operate after load is reduced, refer to the troubleshooting table at the end of this User's Manual.
7. After use, remove the device/appliance plug(s), close the dust cover(s), and turn the Inverter/USB Switch off.
8. Recharge the Power Dome as soon as it is convenient.

DC OUTPUT SOCKET

The DC accessory socket can power a DC load up to 11 Amps. Overloading the socket will result in tripping the self-resetting circuit breaker. Removing the overload automatically restores power to the DC socket. For proper and safe operation of the 12 Volt DC power accessory socket, do not place anything in them except the 12V DC plug of the accessory to be used.

1. Check the required current draw of the appliance/device to be powered and make sure it does not exceed the Power Dome's maximum wattage.
2. Remove the dust cover from the DC socket.
3. Insert the 12V DC plug of your device/appliance into the Power Dome's DC socket.
4. Operate your device/appliance as usual.
5. After use, remove the device/appliance's plug and close the dust cover.
6. Recharge the Power Dome as soon as convenient.

USB POWER PORT

1. Connect a user-supplied USB cable to the USB power port on the Power Dome.
2. Set the Inverter/USB Switch to "I" position. (You may also choose to operate the USB and AC outputs at the same time by setting the switch to the "II" position.)
3. Check for the indicator to be lit.
4. Operate your mobile device as usual.



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5. After use, disconnect the USB cable and turn the Inverter/USB Switch off.
6. Recharge the Power Dome as soon as convenient.

WORK LIGHT

The Work Light is a cluster of bright LEDs located at the side of the Power Dome. The location of the Work Light allows the light to be used while the Power Dome is being carried.

1. Set the Light Switch to the “|” position.
2. The light will illuminate.
3. Turn off the light when it is not in use.

AM/FM RADIO

The Power Dome's radio can receive frequencies in the standard AM and FM broadcast bands (AM 520–1710 kHz, FM 88–108 MHz). An extendable antenna provides adequate signal to receive all local radio stations. When not in use, the antenna should be stored in the retracted position. This will prevent damage to the antenna while Power Dome is being transported.

NOTE: All AM band radios are subject to receiving noise interference from electronic devices, static lightning strikes, and some motorized equipment. If you are operating the Power Dome's inverter and noise is being received on the AM band, turn off the inverter or change the radio to receive an FM frequency.

Turning On the Radio

1. Carefully raise and extend the antenna.
2. Turn the radio Power/Volume knob clockwise to turn the radio on. The more you turn the knob to the right, the higher the volume.
3. Turn the “TUNING” knob in either direction to adjust the station.
4. When finished, turn the radio Power/Volume knob counter-clockwise to turn the radio off.
5. Carefully retract the antenna and return it to the lowered position.

3.5MM AUDIO INPUT

1. Turn the radio on.
2. Insert a user-supplied 3.5mm audio cable into the audio input jack.
3. Insert the opposite end of the cable into a compatible audio device.
4. Turn on the audio device and set it to output sound. The sound should be audible from the Power Dome speakers.

Note: The Power Dome's USB Power Port can conveniently charge your audio or mobile device while music is playing.

TROUBLESHOOTING

Problem	Cause	Solution
Air compressor shut-off.	High temperature protection.	Allow the Power Dome cool for about 10 minutes.
Lack of power output.	Power Dome battery voltage is below 10 volts.	Recharge the Power Dome immediately.
	Excessive current drawn by appliance being operated.	Reduce load to maximum wattage. <ol style="list-style-type: none"> 1. Turn off the device and inverter. 2. Disconnect device. 3. Turn the inverter on and let it run for a minimum of 2 minutes. 4. Turn inverter off. 5. Quickly plug device into inverter. 6. Turn on both the inverter and the device.
	Inverter fuse blown.	Check and replace if necessary. Be sure replacement fuse is the same type and rating.
Loud buzzing sound.	Battery charge level is too low.	<ol style="list-style-type: none"> 1. Disconnect all appliances. 2. Turn inverter off. 3. Charge Power Dome fully. (See <i>charging section for more details.</i>)
Inverter Power Indicator is not lit.	Excessive voltage drop.	Check internal battery status and recharge if voltage drops below 10 volts.
	Inverter is overloaded.	Reduce load to maximum wattage.
Inverter automatically shuts down.	AC overload.	Unplug and power off to restart then reduce AC load to maximum wattage.
Television/power tool will not start.	Required wattage exceeds Power Dome peak surge for start-up.	Toggle the Inverter Switch on and off in quick succession for 5 times. If the device does not start, the device is not compatible with this type of inverter.
Television Interference.	Picture breaking up (static).	Place the Power Dome as far as possible from the TV, antenna, and coaxial cable.
		TV station may be out of range.
Static/noise interference in audio system.	Sound system has weak alternating current shielding.	Do not use the Power Dome's inverter with low-quality audio AC filtering system.
		Replace audio system with high quality noise filtering.

WAGAN Corp. Limited Warranty

The WAGAN Corporation warranty is limited to products sold only in the United States.

Warranty Duration:

Product is warranted to the original purchaser for a period of one (1) year from the original purchase date, to be free of defects in material and workmanship. WAGAN Corporation disclaims any liability for consequential damages. In no event will WAGAN Corporation be responsible for any amount of damages beyond the amount paid for the product at retail.

Warranty Performance:

During the warranty period, a product with a defect will be replaced with a comparable model when the product is returned to WAGAN Corporation with an original store receipt. WAGAN Corporation will, at its discretion, replace or repair the defective part. The replacement product will be warranted for the balance of the original warranty period. This warranty does not extend to any units which have been used in violation of written instructions furnished.

Warranty Disclaimers:

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume any other liability in connection with the sale of our products. There shall be no claims for defects or failure of performance or product failure under any theory of tort, contract or commercial law including, but not limited to negligence, gross negligence, strict liability, breach of warranty, and breach of contract.

Returns:

WAGAN Corporation is not responsible for any item(s) returned without an official Return Authorization number (RA#). Please contact our customer service team by phone or email to obtain an RA#. You can also visit our website and chat with our team during our normal business hours. For more details and instructions on how to process a warranty claim, please read the "Returns" section under the "Contact" page on our website. WAGAN Corporation is not responsible for any shipping charges incurred in returning the item(s) back to the company for repair or replacement.

Register your product online at <http://tinyurl.com/wagan-registration> to be added to our email list. You will receive previews on our upcoming products, promotions, and events.

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