

# Instruction Manual



5146 - X-40 On-Demand Water Heater & Instant Hot Shower Battery Powered Push Button Ignition & Padded Storage Case (propane and 12 Volt Power Source/Battery not included)

# Read Directions Before Operating Follow Directions at all Times

#### **FOR YOUR SAFETY**

If you smell gas:

- 1. Do not attempt to light the appliance.
- 2. Extinguish any open flame.
- 3. Disconnect from fuel supply.

#### **FOR YOUR SAFETY**

Do not store or use gasoline or other liquids with flammable vapors in the vicinity of this or any other appliance.

#### **DANGER CARBON MONOXIDE HAZARD**

Operating this item in an enclosed space can kill you. Never use this appliance indoors or in an enclosed space such as a camper, tent, car, boat or home.

#### DANGER CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor and can kill you. Use only outdoors in well ventilated area.

FOR OUTDOOR USE ONLY

### **DIRECTIONS - FOLLOW THESE DIRECTIONS AT ALL TIMES**

Read, understand and follow the instructions printed in this instruction manual, on shower and on propane tank before operating this product. Failure to comply with all instructions can result in serious bodily injury, death and/or property loss. CARBON MONOXIDE HAZARD - Operating this item in an enclosed space can kill you. Never use this appliance indoors or in an enclosed space such as a camper, tent, car, boat or home. Zodi assumes no responsibility for improper use. These directions may refer to options not included on your model. Keep children & pets away from product when operating. Water must be flowing from showerhead before igniting and whenever heater is on.

**CAUTION** DO NOT OPERATE INDOORS. FOR OUTDOOR USE ONLY. Propane products emit carbon monoxide and can kill you. Never use in enclosed space.



#### PACKAGE CONTENTS:

- X-40 Outfitter Portable Hot Shower and Water Heater
- Electronic battery powered ignitor (AA Battery Included)
- 12 Volt pump with debris cap with 12 Volt terminal clips
- Extra large padded gear bag
- Rugged propane regulator for easy attachment to most 20 lb propane tanks
- Extra long shower hose and water-saving showerhead
- · Instruction manual
- · Warranty card

#### **SET UP**

- 1. Select a flat, well-ventilated area outdoors 15ft (5M) clear of tents, vehicles & flammable material.
- 2. Remove heater, hoses and pump from gear bag.
- 3. Fold out retractable legs and position X-40 on level and stable ground.
- 4. Insert AA-battery into ignitor on front of X-40 with tip end (+) facing out and replace ignitor cap. To test, push ignitor button and listen for clicking sound. This means ignitor is working properly.

#### **CONNECTING TO PROPANE**

- 1. Securely connect propane regulator on X-40 gas hose to a 5 gallon propane tank. Propane tank not included.
- 2. Position propane tank a safe distance away from X-40.
- 3. Leave propane tank gas valve in the "OFF" position.
- 4. Check that propane valve on front of X-40 is in the "OFF" position (points to the left).
- 5. Before using, test system for propane leaks (see next page).

#### **STARTING WATER FLOW**

- 1. Place pump in water source and connect pump to a 12 Volt battery or 12 Volt power source (12 Volt power source not included.)
- 2. If using the optional garden hose adapter, connect the X-40 to water source and turn on water from water source to obtain a flow of about 1 gallon of water per minute.
- 3. Water will begin to flow from showerhead.

DO NOT PROCEED UNTIL WATER IS FLOWING FROM SHOWERHEAD. WATER MUST ALWAYS BE FLOWING FROM SHOWERHEAD WHEN HEATER IS ON.

#### **IGNITING HEATER**

- Once water is flowing from showerhead, ignite the heater.
   To do this, turn propane tank gas valve to the "ON" or "OPEN" position.
- 2. On the front of the HOT TAP X-40, push in the Propane Valve and turn left (down) while pushing in and holding the ignitor button. System should ignite within 3 seconds.
- 3. Once system is ignited, release ignitor button.
- 4. Keep hands, face, arms and clothing away from top, sides and bottom of X-40 during and after ignition.
- Keep entire system clear of flammable materials at all times.
- 6. Feel for heat rising from top of X-40.
- 7. If still cool, DO NOT RE-IGNITE.
- 8. Shut off propane valve on front of X-40 and replace AA battery in ignitor by twising ignitor cap off. Insert battery with tip end (+) facing out and replace ignitor cap.
- 9. To ignite manually, place lit match into hole on back side of X-40, then push in and turn propane valve to ignite.

#### SHOWERING

- Adjust propane valve to adjust water temperature. Changes will take 30 seconds.
- 2. The shower hose is extra long so you can stand a safe distance away from the X-40 during shower period.
- Never have the shower hose so taut that it may cause the X-40 to tip over.
- If water pressure drops, immediately turn showerhead away from body and shut "OFF" propane valve on the front of the X-40. Go to STARTING WATER FLOW Section.

Do not turn heater on until proper water flow has been regained.

#### SHUT DOWN

- 1. To shut down, turn "OFF" propane valve on front of X-40, then turn "OFF" propane tank gas valve.
- 2. Allow water to continue flowing for 1 minute, then shut "OFF" water pump by disconnecting from 12 Volt Power Source or turning off water source.

#### STORING AND TRANSPORTING

- 1. Allow X-40 to cool and remove regulator from propane tank before handling, storing or transport.
- 2. To prevent freeze damage to heating coil, before storing system in cold climates, remove any residual water by blowing air through pump hose and shower.
- 3. Store X-40 in storage bag.

# Warnings & Tips for Best Performance

**NOTE:** System designed to increase water temperature by 25°-70°F. If water exiting showerhead is not hot enough, place showerhead in same water container as pump & recirculate water for a few minutes. System not designed to heat water over 100°F or injury may result.

WATER PRESSURE: If water flow/pressure drops or water temperature increases, immediately point showerhead away from body & safely turn off heater until proper water pressure is regained. CAUTION: WATER MAY BE HOT WHEN WATER PRESSURE IS REGAINED. KEEP CLEAR OF SHOWERHEAD UNTIL DESIRED WATER TEMPERATURE IS OBTAINED.

**WATER DRIPPING FROM BOTTOM:** Water dripping from the bottom of the heater during use is normal. This is condensation and will occur every time the heater is on, especially in humid climates.

LOW WATER PRESSURE: Low water pressure is usually due to the power supply delivering less than 12 Volts. Check that pump is connected to a good 12 Volt power source (battery or generator.) Voltage below 12 Volts will cause the water flow to be reduced. Other common low water pressure problems include kinked hoses, vapor lock, plugged pump or showerhead being too high above pump. Weak batteries or vapor lock will cause pump to perform poorly. If a fully charged battery is not available, reduce distance between pump and showerhead by elevating water container on table. With heater OFF and cool, initiate water flow with weak batteries by applying suction to showerhead. Check hoses for kinks. Check debris screen at end of pump remove pump cap and clean out input area if needed. Shake pump under water to release vapor lock. Pumps are NOT covered by warranty. New pumps are available at www.zodi.com and are replaced by removing hose at pump.

CONNECTING PROPANE: This product uses propane gas. Propane gas can explode, burn and is a fire hazard. Propane gas is heavier than air and can accumulate in low areas. Never store propane indoors or near any heat source, near any open flames, near any pilot light, in direct sun light, near any ignition source or where temperatures exceed 120°F. Dispose of empty gas cylinders in a safe and responsible manner. Always attach & detach gas cylinder outdoors away from flames, other ignition sources & only when heater is cool to touch. If propane cylinder has a protective cap, remove protective cap. Check that propane cylinder and fittings are clean and free of dirt and debris. Turn off propane gas valve, connect X-40 gas regulator to the propane tank until connection is tight. Do NOT overtighten. Check propane cylinder is tight and is not leaking at connection by testing for leaks with soapy water (see below).

**TESTING FOR GAS LEAKS:** To ensure safety, test for leaks before using shower. Never use flame to check for leaks. With propane valve turned completely off and propane connected to shower, apply soapy water (1 part liquid detergent to 3 parts water) around area where the gas valve connects to the propane. Bubbles near propane connection indicate leaks. If bubbles are present, ensure the propane connection is not crossthreaded. Check that propane cylinder connection is tight. Repeat process (test for leaks) until no leaks are present. If leaks persist, do not use product, but contact Zodi.

ADJUST WATER TEMPERATURE: Adjust water temperature with gas control knob located on front of X-40 near bottom of panel. If water is too hot, reduce gas flow using propane valve. If water is not hot enough, increase gas flow using propane valve on front of X-40 or recycle water. To recycle water, place showerhead in the same water container as the pump and recycle water until it reaches a suitable temperature. If using optional Garden Hose Adapter, adjust water flow to 1 gallon or less per minute. Water flows above 1 gallon per minute may result in lower than desired water temperatures. BTU output varies and may reach up to 40,000 BTU dependent upon altitude, atmospheric conditions, outside temperature, and propane level and temperature. Cold and empty propane tanks decrease performance. Also, fully charged batteries and different 12 Volt power sources may result in higher flows of water, causing water temperature to be slightly lower. For best performance, use a full propane tank stored at room temperature. High altitude or wind also can result in lower water temperatures.

WARNING - SYSTEM GETS HOT DURING USE: Allow system to cool before handling. Do not place any items including towels, soap & shampoo on or near heater. Keep children & pets clear of heater when operating. Operate only outdoors in well ventilated areas clear of any flammable vapors & material. For best performance, shield system from wind and use propane tanks stored at room temperature.

**SHOWER HOSES:** Check that pump hose and shower hose are not kinked. Squeeze kinks from all hoses before use. Do not use system with kinked hoses.

**REMOVING PROPANE FROM UNIT:** Only attach or detach gas cylinder outdoors, away from flames and ignition sources, after the heater has cooled completely. To remove propane from your shower, untwist propane regulator on X-40 from valve on propane tank until fully removed. Replace protective cap on propane tank. Store propane outdoors. Read manufacturer's directions on propane cylinder for other warnings.

**CLEANING RECOMMENDATIONS:** Clean outside of shower housing using a soft damp cloth. Clean inside of hoses and heating system by placing pump in clean water with baking soda and turning the pump on for 1 minute. Rinse after with clean water. Never submerge heater in water.

**STORAGE:** Remove propane cylinder from heater before transport or storage. For added protection, wrap heater in towel before storing in storage bag. To prevent freeze damage to coil in cold climates, drain all water from coil by blowing air through pump hose and shower until all water is removed from X-40. Store heater in storage bag to prevent dust and insects from clogging burner during storage. Damaged and torn storage bags, freeze damage and pumps are not covered by warranty. Always store propane outdoors - see propane warnings above.

**Warranty Disclaimer:** Due to the harsh conditions product may be exposed to, there is no warranty on electronic components including piezo push button & battery operated pump. Never modify, alter or use with any part or device not approved by Zodi.

If you experience a challenge with your Zodi Water Heater PLEASE DO NOT return product to the store.

### **CAUTION - READ THIS BEFORE OPERATING SHOWER**

For first use, your shower may require manual igniting with a match to burn off oils used in production. Your shower may also require manual ignition with a match if ignitor gets wet. Ignitor will resume proper operation after drying out. Manual ignition port is located on either side near the bottom of the back panel of the heater. Simply insert lit match into manual ignition port and gently open gas valve.

Water must be flowing from showerhead before igniting propane burner. Water must always be flowing from showerhead when propane heater is on.

If pump is removed from water, output water temperatures inreases or waterflow stops or decreases, point showerhead away from body and turn heater off until proper water flow and temperature return. CAUTION: WATER MAY BE HOT WHEN WATER PRESSURE IS REGAINED. KEEP CLEAR OF SHOWERHEAD UNTIL DESIRED WATER TEMPERATURE IS OBTAINED.

Do not use system indoors. Operating this item in an enclosed space can kill you. Never use this appliance indoors or in an enclosed space such as a camper, tent, car, boat or home. This appliance can produce carbon monoxide which has no odor and can kill you. Use only outdoors in well ventilated area at least 15 ft (5M) clear from flammable materials, and completely clear of flammable liquids or vapors when igniting & operating.

Check that all hoses are free of kinks. Most kinks occur during storage or immediately after use when the hoses are warm. Do not ignite heater with kinks in pump hose or shower hose.

Hoses must be completely and tightly secured to hose connections on heater and pump. Make sure hoses are tightly secured prior to each use.

System not designed to heat water over 100°F. System not designed to heat water for consumption.

Allow heater to cool before handling, transporting and storing. Do not place any items including towels, soap or shampoo on or near heater. Keep children and pets clear when operating. Do not leave system unattended when operating.

Propane must be in a vertical position and safely positioned and anchored to firm flat ground when heating. Do not connect to remote gas supply.

This system uses a high performance heater. When heater is turned all the way up, you may notice hot spots on heater housing or flames near top of system. If flames exit exhaust holes at top of heater, turn down propane valve. Housing color may darken with use but will usually return after system has cooled. Note: Discoloration is not covered by warranty.

Under certain conditions hotter water can be obtained by turning gas valve down.

Test water temperature before use. If too hot, turn down gas valve. If not hot enough, recycle water as explained on previous page.

When using the optional garden hose adapter adjust water pressure to 1 gallon from the showerhead in 1 min. Water pressure higher than this will result in cooler water temperatures.

Visually check burner for blue flame. If flame is yellow propane tank may be low and may need replacing.

When heater is on, small water drops caused by condensation will drip from bottom. This is normal, heater is NOT leaking.

Do not obstruct or restrict the flow of air for combustion.

If using a weak 12 Volt battery, it may be necessary to apply suction to showerhead to initiate water flow (heater must be off).

To prevent freeze damage to coil in cold climates, drain all water from coil by blowing air through pump hose and shower. Heater must be turned off and cool to touch. Ensure all water is removed from the X-40 before storing.

Turn off gas valve on propane tank and disconnect regulator from propane tank between uses. Remove propane cylinder from system before and during transport and storage. Do not store propane indoors.

The pump is a limited life item and will require replacement with extended use. To extend the life of the pump: remove pump from water when not in use, rinse pump with fresh water after each use, shake pump to remove water after use and store pump only when completely dry.

Pumps are not covered under warranty. For best performance, always use fully charged 12 Volt batteries and full propane tanks. Replacement pumps can be found at your nearest camping retailer or at www.zodi.com.

Improper use can result in injury or death. Zodi Outback Gear is not responsible for improper use.

Zodi Hot Tap X-40 Outfitter Instant HOT Shower Max Rating: <40,000 btu/hr Gas Type: Propane Model: 5146 Patent Pending

Zodi PO Box 4687 Park City, UT 84060

Parts: www.zodi.com

Assembled and Made in USA Designed in Park City, UT USA

## Zodi options and upgrades for your Zodi X-40 Hot Shower

#### **ZODI I.HUT**

Enjoy privacy anywhere with this self supporting hut.
Almost 4 feet wide per side!



#### **ZODI I HUT CANOPY**

Added privacy, protection from inclement weather. Perfect addition to your camping.



#### **12 VOLT PUMP**

Get a back up 12 Volt pump for your Zodi X-40 Shower. Great for outfitters and cabins.



#### **ZODI SHOWER POLE**

Enjoy hands free showering. Adjustable height. Works with all Zodi showers and Huts.



