

Double D Trailers P.O. Box 336 Highway 11 Pink Hill, NC 28572 252-568-4042 Phone 252-568-4958 Facsimile www.doubledtrailers.com



This manual contains safety information and operational instructions for your trailer.

You must read this manual before using your trailer.

You must follow all safety precautions and instructions.

1.	INTRODUCTION AND WARRANTY	1
1	I.1. Introduction	1
1	I.2. Warranty	2
2.	SAFETY	
	2.1.       Safety Alert Symbols and Signal Words         2.2.       Hazards	
2	2.2.1. Generator	
	2.2.2. LP Gas Fuel System	
	2.2.3. Carbon Monoxide (CO) Hazard	
	2.2.4. Shore Power	
	2.2.5.     Roof Antenna       2.2.6.     Slide Out	
2	2.2.6. Slide Out 2.3. Safety Warning Labels On Your Trailer	
~	2.3.1. Cook Top Warning Labels	
	2.3.2. Water System Warning Label	
_	2.3.3. LP Gas Warning Label	
	2.4.     Hazards From Modifying Your Trailer       2.5.     Reporting Safety Defects	
2	2.5. Reporting Safety Defects	
3.	SAFETY ALARMS AND FIRE EXTINGUISHER	8
-	3.1. Carbon Monoxide Detector	
-	3.2. LP Gas Detector	
	<ul> <li>3.3. Smoke Detector</li> <li>3.4. Fire Extinguisher</li> </ul>	
-		
4.	WATER SYSTEM	10
	1.1. Potable Water Supply	
4	4.2. External Water Supply	
	<ul><li>4.2.1. Connect To External Water Supply</li><li>4.2.2. Disconnect External Water Supply</li></ul>	
4	4.2.2. Disconnect External water Supply	
	1.4. Fill Potable Water Tank	
	1.5. Water Pump	
	4.6. Water Filter/Screen	
	<ul> <li>4.7. Water Heater</li> <li>4.8. Priming The Water System</li> </ul>	
4	4.8.1. Using The Potable Water Storage System	
	4.8.2. Using An External Water Supply	
	1.9. Toilet	13
4	1.10. Drain Waste Tank	13
5.	LIQUEFIED PETROLEUM (LP) GAS SYSTEM	15
5	5.1. LP Gas Usage Information	
	5.1.1. LP Gas Troubleshooting	
	5.1.2. LP Gas Tank Regulator	
6.	ELECTRICAL SYSTEM	18
6	6.1. General Information	
-	5.2. 12 Volt System	
	6.2.1. Disconnect Switch	
~	6.2.2. Batteries	
6	6.3. Generator 6.3.1. Stop Generator	
6	6.5.1. Stop Generator	
5	6.4.1. Disconnect Shore Power	

7. SLIDE OUT	
7.1. Extend Slide Out	
7.2. Retract Slide Out	
8. HEATING AND AIR CONDITIONING	
8.1. Operation	
8.1.1. Operate Furnace	
	aser
	er
8.1.4. Air Conditioner Maintenance	
9. APPLIANCES	
9.1. Refrigerators	
•	
9.5. Microwave Oven	
10. AWNING	
10.1.1. Open Awning	
11. INTERIOR FURNISHINGS	
11.1. Sofa Bed	
5	

### 1.1. INTRODUCTION



"Thank You for Choosing Double D Trailers"

Thank you.... From the family and owners of Double D Trailers

Dear Customer,

We want to thank you for purchasing a Double D Trailer from us. We have sold many trailers over the years and with great customer service and satisfaction. At Double D Trailers, we manufacture and build each and every trailer from the ground up and all are marketed direct over the internet to you, the customer. Now that you have your new trailer, we hope that you will enjoy many years of pleasure.

On behalf of our dedicated employees at Double D Trailers, we want to say that we are here for you. Let us know how we can be of service now and in the future.

At Double D Trailers, quality, service, customer satisfaction and acquiring new friends our trailer customer family is our goal.

Thank you again, we look forward to serving you well in the future.

mald V Serto

Donald Heath President/Dad

Brad Heath Sec/Treas/Son

# 1.2. WARRANTY

Double D Distributors, Inc. warrants that its products will be free from defects in materials and or workmanship to the original purchaser for a period of (4) four years from the date of manufacturing providing the conditions are met and satisfied. There may be a \$100.00 deductible per claim.

--Warranty takes effect from the date of invoice and is non-transferable.

--The warranty does not cover the following items, which are not manufactured or constructed by Double D Distributors, INC. The respective manufacturer with a copy of it warrants these components available upon request from Double D Distributors.

- Axle Assembled - 1 year limited warranty.

- Coupler - warranty as per manufacturers policy.

- Jack Assembly/Landing Gear - warranty as per manufacturers policy.

- Wheels - warranty and/or adjustment made by manufacturer's representative.

- Tires - <u>Click here for warranty</u> and authorization if you have tire problems. Carlisle tire/wheel is very good about this.

Normal wear items will not be replaced due to wear. These items include bearings, brakes, brake linings, hoses, etc.

Double D Distributors is not responsible for damage caused by the abuse or by the misapplication or misuse of the trailer.

Paint warranty does not cover wear, deterioration and/or damage from road elements, rock chips, improper wash solvents, salt, sand and/or weather condition. Also does not cover cracking from caulking sealants, etc.

Rust Warranty implies that in the four year period, the Galvaneal material will not rust thru. Rust warranty does not cover damaged areas from dents and also is void in evidence of abuse, misapplication, salt or misuse of the trailer. Warranty only is applicable to the Galvaneal material which includes the fenders, all the sheet metal including the roof, sides, front and rear of trailer. It does not cover hinges on certain model trailers, latches, steel frame, steel bumpers or shavings that may occur from manufacturing. Any modification to the Double D Trailer without prior written authorization from the factory will void this warranty.

Any Double D Trailer found to have defective material or workmanship must be serviced or corrected by an authorized factory representative or by the Double D Trailer Factory. Any Double D Trailer authorized representative may make repair and/or adjustments under this warranty repair and/or adjustment and cost to repair or adjust is agreed upon and approved by Double D Trailer Factory. Double D Trailers will **not** make reimbursements for any repairs and/or adjustments made without prior **written consent**.

Double D Distributors, INC will not be responsible for any consequential or incidental damages incurred as a result of any defect to include loss of time, inconvenience, loss of use of vehicle, etc.

Double D Distributors, INC reserves the right to make changes in design or make addition and/or improvements without being obligated to install or modify same upon other products covered by this warranty.

When required, photos of the defective part or parts of the actual part or parts may have to accompany the warranty approval before payment can or will be made. Any part or parts returned for warranty must be pre-paid freight to Double D Distributors, INC.

Double D Distributors, INC. reserves the right to decide if the workmanship or material defect should be serviced at the factory. Double D Distributors, INC will not allow any reimbursement for transportation to and from the factory or authorized place of repair.

Double D reserves the right to set the cost of warranty. This set amount would reflect the cost of the repair if it were done at the Double D Trailer facility with their personnel.

Overview: This limited warranty also does not cover: Damage or loss caused, in whole or in part, by failure to check torque lug nuts properly. Damage or loss caused, in whole or in part, by accident or negligence or by the abuse, misapplication or misuse of the trailer or any of its component parts. Any transportation charge to or from factory or service center. Normal items due to wear. These items include, but are not limited to, bearings, brakes, brake lining, or attaching brake parts. Items which are not manufactured or constructed by Double D. These items include, but are not limited to, assembled axles, coupler, jack assembly/landing gear, wheels, windows, latches, hinges, and tires. If these items are warranted by the *manufacturer or supplier thereof, and such warranty may* be extended to the original purchaser, Double D will make such warranties available. Damage or loss caused in whole or in part by prolonged exposure to salt air, road salt, animal excretions, acid rain, industrial fallout, or acts of God or nature that are uncontrollable. Any consequential or incidental damages based upon breach of contract, negligence, strict liability in tort, or any other legal theory, incurred as a result of any defect, to include

loss of time, inconvenience, loss of use of vehicle, or any other fees incurred by purchaser relating to any warranty claim.

# THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES

EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS AND NO ONE IS AUTHORIZED TO MAKE ANY FURTHER OR ADDITIONAL WARRANTIES ON BEHALF OF Double D Distributors, INC.

### 2.1. SAFETY ALERT SYMBOLS AND SIGNAL WORDS

This operator's manual is for Double D Trailers equipped with living quarters. Read this manual before operating any item in the living quarters.

The safety information in this manual is denoted by the safety alert symbol:  ${\color{black} {\Delta}}$ 

The level of risk is indicated by the following signal words:

# 

DANGER – Indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

# A WARNING

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

# 

CAUTION – Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

# NOTICE

NOTICE – Indicates a situation that could result in damage to the trailer or other property.

# 2.2. HAZARDS

This manual contains information on accessories that may, or may not be installed in your trailer. You must read the instruction manual for each of the accessories before operating them. You must follow all of the instructions and warnings in those manuals, and in this manual.

The primary hazards from operation of accessories are:

- Death by carbon monoxide poisoning from operation of:
  - Liquefied-Petroleum (LP) gas appliances.
  - LP, gasoline or diesel generator.

- Fire or explosion from accumulated, unburned LP gas.
- Electrocution or fire from generator or shore power.
- Crushing from the slide out.

### 2.2.1. <u>Generator</u>

If your trailer is equipped with a LP, gasoline or diesel generator, you must have and follow the generator manufacturer's instructions. You must have a working carbon monoxide detector in the trailer living quarters. Carbon monoxide is an odorless gas that can cause death. Be certain exhaust from a running generator does not accumulate in or around your trailer, by situations such as:

- Being drawn in by fans or vents operated in a trailer;
- Prevailing wind;
- Being trapped between your trailer and other trailers, vehicles, buildings and/or other nearby objects.

### **A** WARNING

Operating an LP, gasoline or diesel generator can lead to death or serious injury by:

- Carbon Monoxide
- Fire and Explosion
- Electrocution

Have a working carbon monoxide detector in the living quarters of the trailer before operating the generator.

Do not refuel a running generator or refuel near ignition sources.

### 2.2.2. LP GAS FUEL SYSTEM

Keep the LP gas tank supply valves closed at all times, except when using a gas appliance.

The LP gas system in your trailer is designed to operate on LP gas only, not natural gas. Natural gas is not safe for use in an LP gas system.

Be sure all LP gas appliances are off before opening the LP gas tank supply valves. If an appliance if left on, gas could accumulate in the trailer creating a fire or explosion hazard. Have the LP gas tanks filled by an LP gas supplier.

Turn off all gas appliances and pilot lights before refueling LP gas tanks, gasoline or diesel fuel tanks and when towing trailer. Some automatic ignition appliances may continue to spark even after the gas is turned off at the supply valve.

Make sure that the regulator vent faces downward and that the cover is in place to minimize vent blockage that could result in excessive gas pressure, causing a fire or explosion.

### A WARNING

Explosion or fire hazard.

Connect the LP gas system to a supply of LP gas only, not natural gas.

Do not place an LP gas tank inside the trailer.

Have the LP gas tank refilled by an LP gas supplier.

### WARNING

Explosion hazard.

Gas can accumulate in the trailer if an appliance control is left on, and the gas supply valve is opened.

Verify that all appliance controls are off before opening gas supply valve.

### A WARNING

Explosion or fire hazard.

If LP gas is detected by smell or by the LP gas detector:

- Do not touch electrical switches.
- Extinguish flames
- Turn off other gas appliances
- Shut off LP gas supply at the LP tanks.
- Leave the area until odor clears.

Have a qualified LP gas technician correct the source of LP gas leakage.

Do not use a flame to locate the source of an LP gas leak.

#### 2.2.3. CARBON MONOXIDE (CO) HAZARD

Carbon monoxide can come from operation of fuel burning appliances such as a generator, water heater, furnace, cook top and oven. Never operate any of these appliances while the trailer is in an enclosed building or confined area.

Carbon monoxide is an odorless gas that can cause brain damage or death.

Symptoms of carbon monoxide poisoning are:

- Headache
- Drowsiness
- Nausea
- Vomiting
- Shortness of breath
- Unconsciousness

If any of these symptoms exist, remove the victim immediately to fresh air and get medical attention.

**Never** operate portable fuel burning equipment (including charcoal and wood) inside the trailer. Carbon monoxide is produced by this equipment.

**Never** use a cooking appliance to provide comfort heating.

#### A WARNING

Carbon monoxide hazard.

Never operate fuel burning appliances or generator while the trailer is in an enclosed building or confined area.

Test the carbon monoxide detector for operation before using any gas appliances or generator.

### A WARNING

Carbon monoxide and fire hazard.

The fumes from burning gas contain carbon monoxide, an odorless gas that can cause death or brain damage.

Cooking appliances used for comfort heating can ignite surrounding surfaces.

Do not use cooking appliances for comfort heating.

Test the carbon monoxide detector before operating any gas burning appliance.

#### 2.2.4. SHORE POWER

#### A WARNING

Electrocution and fire hazard.

Always use the electrical cord specifically designed for your trailer.

Never use an extension cord.

Always connect the electrical cord to a grounded source of shore power.

Never remove prongs from the shore power plug.

Connect only to source of proper voltage.

#### 2.2.5. <u>Roof Antenna</u>



Electrocution hazard.

Antenna coming near or contacting power lines can cause electrocution.

Electrocution can occur without contact.

Be sure there are no overhead power lines over or near the trailer before raising antenna. 2.2.6. <u>SLIDE OUT</u>

### A WARNING

Crushing hazard.

People can be crushed by the extending or retracting slide out.

The pinch areas around the perimeter can crush and sever limbs.

Keep people away from the slide out while in motion.

### 2.3. <u>SAFETY WARNING LABELS ON</u> <u>YOUR TRAILER</u>

### A WARNING

The labels shown must be on the trailer and must be legible.

If any of these labels are missing or cannot be read, Call Double D Trailers at 252-568-4042 for replacement labels.

#### 2.3.1. COOK TOP WARNING LABELS

# WARNING

Top Cover Must Be In The Open Position Whenever Top Burner(s) Are In Operation. After Use Of Top Burner(s), Let Top Burner Grate Cool Before Closing Top Cover.

Figure 1-1 – Located on Outside Of Cook Top Lid

# **A**DANGER

ALL PILOT LIGHTS, APPLIANCES AND THEIR IGNITORS (SEE OPERATING INSTRUCTIONS) SHALL BE TURNED OFF BEFORE REFUELING OF MOTOR FUEL TANKS AND/OR PROPANE CONTAINERS. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

DO NOT FILL PROPANE CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.

FAILURE TO COMPLY COULD RESULT IN A FIRE OR PERSONAL INJURY.

# 

THIS PROPANE PIPING SYSTEM IS DESIGNED FOR USE WITH PROPANE ONLY. DO NOT CONNECT NATURAL GAS TO THIS SYSTEM.

Securely cap inlet when not connected for use. After turning on propane, except after normal cylinder replacement, test propane piping and connections to appliances for leakage with soapy water or bubble solution. Do not use products that contain ammonia or chlorine. LD-101

Figure 1-2 - Located Under Cook Top Lid

# **A** WARNING

IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING.

Cooking appliances need fresh air for safe operation.

Before operation:

- 1. Open overhead vent or turn on exhaust fan.
- 2. Open window.

FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY. LD-101

Figure 1-3 – Located Under Cook Top Lid

# **A DANGER**

# IF YOU SMELL PROPANE

- 1. Extinguish any open flames, pilot lights and all smoking materials.
- 2. Do not touch electrical switches.
- Shut off the propane supply at the container valve(s) or propane supply connection.
- 4. Open doors and other ventilating openings.
- 5. Leave the area until odor clears.
- 6. Have the propane system checked and leakage source corrected before using again.

### FAILURE TO COMPLY COULD RESULT IN EXPLOSION RESULTING IN DEATH OR SERIOUS INJURY. LD-101

Figure 1-4 - Located Under Cook Top Lid

### 2.3.2. WATER SYSTEM WARNING LABEL

POTABLE WATER ONLY. SANITIZE, FLUSH AND DRAIN BEFORE USING. SEE INSTRUCTION MANUAL. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

Figure 1-5 - Located Near LP Gas Tanks

# 2.3.3. LP GAS WARNING LABEL

# **A** DANGER

ALL PILOT LIGHTS, APPLIANCES AND THEIR IGNITORS (SEE OPERATING INSTRUCTIONS) SHALL BE TURNED OFF BEFORE REFUELING OF MOTOR FUEL TANKS AND/OR PROPANE CONTAINERS. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

# WARNING

DO NOT FILL PROPANE CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.

FAILURE TO COMPLY COULD RESULT IN A FIRE OR PERSONAL INJURY.

# **A**CAUTION

THIS PROPANE PIPING SYSTEM IS DESIGNED FOR USE WITH PROPANE ONLY. DO NOT CONNECT NATURAL GAS TO THIS SYSTEM. Securely cap inlet when not connected for use. After turning on propane, except after normal cylinder replacement, test propane piping and connections to appliances for leakage with soapy water or bubble solution. Do not use products that contain ammonia or chlorine. LD-101

Figure 1-6 - Located Near LP Gas Tanks

# 2.4. HAZARDS FROM MODIFYING YOUR TRAILER

Altering or modifying your trailer can damage safety and structural items and may void the warranty.

Before making any alteration to your trailer, contact Double D Trailers at 242-568-4042 and describe the alteration you are contemplating.

Altering your trailer must be performed by only qualified technicians who are familiar with your trailer and with the approval of Double D Trailers.

# 2.5. <u>REPORTING SAFETY DEFECTS</u>

If you believe that your vehicle has a defect that could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying us.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or us.

To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153), go to http://www.safercar.gov; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

# 3. SAFETY ALARMS AND FIRE EXTINGUISHER

If your trailer is equipped with a refrigerator, cook top and/or furnace, it will also be equipped with a:

- Carbon monoxide detector
- LP gas leak detector
- Smoke detector
- Fire extinguisher.

Test each of the detectors, and fire extinguisher after periods of storage, before each trip, or at least once per week.

The three detectors operate off of the trailer 12 volt battery. Verify that the 12 volt disconnect switch is on and the batteries are fully charged before testing detectors.

# 3.1. CARBON MONOXIDE DETECTOR

### A WARNING

Carbon monoxide hazard.

Verify the carbon monoxide detector is working before operating any gas appliance or generator.

Test the carbon monoxide detector:

- After periods of storage;
- Before each trip;
- At least once per week.

Press the test button (A) until alarm sounds, then release. See figure 3-1. If alarm does not sound, replace it before using any gas appliance.

Refer to the Owner's Manual provided with your carbon monoxide detector for additional safety, operating and maintenance information.



Figure 3-1 – Carbon Monoxide Detector

### 3.2. LP GAS DETECTOR

### **A** WARNING

Explosion and fire hazard.

Verify the LP gas detector is working before opening the LP gas supply valves.

Test the LP gas detector:

- After periods of storage;
- Before each trip;
- At least once per week.

Press the test button (1) until alarm sounds, then release button. The detector will sound alarm three times. See figure 3-2. If alarm does not sound, replace it before using any gas appliance.

The LED will flash red, and then return to normal operation, which is a green light that flashes every eight seconds.

Refer to the Owner's Manual provided for your LP gas detector for additional safety, operating and maintenance information.



Figure 3-2 – LP Gas Detector

# 3.3. SMOKE DETECTOR

Press the test button until alarm sounds, then release. See figure 3-3.

If alarm does not sound, replace it before using the trailer.

Refer to the Owner's Manual provided for your smoke detector for additional for additional safety, operating and maintenance information.

### Safety Alarms And Fire Extinguisher



Figure 3-3 – Smoke Detector

# 3.4. FIRE EXTINGUISHER

Press the white indicator on the top of the fire extinguisher down to test. If the indicator springs back up, the fire extinguisher is functional. If the indicator stays down, the fire extinguisher must be replaced.

Refer to the Owner's Manual provided for your fire extinguisher for recommended replacement,

recharging information, safety, operating and maintenance information.



Figure 3-4 – Fire Extinguisher

# 4. WATER SYSTEM

# NOTICE

Water system can be damaged.

Drain water system and winterize if trailer will be subjected to temperatures below 32° F.

# See "Storage and Winterizing" section of this manual.

Contact Double D Trailers and give them your trailer serial number to verify if your trailer plumbing system can be used in temperatures below 32° F.

# 4.1. POTABLE WATER SUPPLY

Your trailer is equipped with a potable water system that provides fresh water to the kitchen, lavatory, toilet and shower. Water is supplied by either the potable water storage tank in the trailer, or by an external water source.

# 4.2. EXTERNAL WATER SUPPLY

A pressurized external water supply connected to the water system bypasses the demand pump and potable water storage tank, supplying water directly to all faucets and toilet.

### 4.2.1. CONNECT TO EXTERNAL WATER SUPPLY

• Turn the demand pump switch off.

Note: Always make sure you are connecting to an approved potable water source, or a source you know is safe.

• Attach a potable water hose to the connection (A) on the side of the trailer. See figure 4-1.



Figure 4-1 – City Water Connection

### 4.2.2. DISCONNECT EXTERNAL WATER SUPPLY

- Turn off the external water supply.
- Open a faucet inside the trailer to relieve pressure in the water lines.
- Disconnect water hose and install cover on connection.

# 4.3. DISINFECTION/SANITATION

Disinfect the potable water tank before use. Disinfection is required before using trailer after periods of storage and at least every six months.

Follow the instructions below to properly sanitize the potable water system.

- Prepare a chlorine solution using 1 gallon of water and 1/3 cup household bleach (sodium hypochlorite solution). Prepare 1 gallon of chlorine solution for every 15 gallons of tank capacity. This will result in a residual chlorine concentration of 50 parts per million (ppm) in the water system.
- With tank empty, pour chlorine solution into the tank. Complete filling of tank with fresh water. Open each faucet and run the water until a distinct odor of chlorine can be detected in the water discharge.
- Turn off faucet as soon as chlorine is smelled.
- Allow the system to stand at least 4 hours when disinfecting with 50 ppm residual chlorine.
   Disinfection will not occur if the 50 ppm solution is removed before the 4 hour time period. If a shorter time period is desired, use a 100 ppm chlorine concentration in the system for at least one hour.
   Disinfection will not occur if the 100 ppm solution is removed before the 1 hour time period.
- Drain water tank at a recreational vehicle waste dumping facility and flush tank with fresh potable water.

To mix a 100 ppm concentration, use 1/2 cup of household bleach with 1 gallon of water to prepare the chlorine solution.

 Drain water at a recreational vehicle waste dumping facility and flush tank with fresh potable water.

### 4.4. FILL POTABLE WATER TANK

Note: Always make sure you are filling the potable water storage tank from an approved potable water source, or a source you know is safe.

To fill the potable storage tank, open the cap on the potable tank connector (A) and insert an approved potable water hose. The tank is vented to allow air to escape while filling. See figure 4-2.



Figure 4-2 – Fresh Water Connection

The display, located on the exhaust hood over the cook top, indicates the water level in the fresh water tank, waste tanks and 12 volt battery level. Press and hold the top of the "Monitor" switch on the exhaust hood to activate the display. To get an accurate battery level reading, the trailer must be disconnected from shore power, or the power converter and all 12 volt loads turned off. See figure 4-3



Figure 4-3 – Exhaust Hood Display

### 4.5. WATER PUMP

When you use the installed potable water tank, the pressure is supplied by the water pump. The pump is fully automatic and will run when a faucet is opened or the toilet is flushed after initial priming. There is an on/off switch (A) located on the exhaust hood over the cook top. The pump will operate only if this switch is on. A light on the switch indicates the water pump is on. See figure 4-4.



Figure 4-4 – Water Pump Switch

When the water system is not in use, or when you will be leaving the trailer for an extended period of time, move the water pump switch to the off position. If there is a slow leak or a faucet is left partially open, the pump could drain the entire tank and discharge the battery.

# 4.6. WATER FILTER/SCREEN

A water filter/screen is installed on the inlet of the water pump to trap debris before entering the trailer water system. At least every three months, when the water tank is empty, remove the cap (A) and filter/screen. Backwash with clean water, reinstall screen and cap. See figure 4-5.



Figure 4-5 – Water Filter/Screen

### 4.7. WATER HEATER

Your trailer may be equipped with one of several sizes of electrically controlled, LP gas operated water

heaters. Use the following instructions and the manufacturer's instructions for the water heater that is installed in your trailer.

### A DANGER

Carbon monoxide hazard.

Do not operate water heater while the trailer is in an enclosed building or confined area.

Test the carbon monoxide detector for operation before operating any gas appliances.

### **WARNING**

Explosion hazard.

LP gas may accumulate in the trailer if the appliance control is on and the gas supply valves are opened.

Verify appliances are off before opening gas supply valves.

Test LP gas detector before opening gas supply valves.

# A WARNING

Explosion and/or fire hazard.

If LP gas is detected (by smell or by the LP gas detector):

- Do not touch electrical switches
- Extinguish flames
- Turn off other gas appliances
- Open doors for ventilation
- Shut off LP gas supply at the LP tank
- Leave the area until odor clears

Correct the source of LP gas leakage before using LP appliances.

Do not use a flame to locate the source of an LP gas leak.

# A WARNING

Explosion and/or fire hazard.

Never store flammable items near this or any other appliance.

Appliances and LP gas valves must be turned off while refueling and towing trailer.

### NOTICE

Risk of water heater damage.

The heating element in the water heater will be damaged if the on/off switch is turned on without water in the water heater tank.

Prime the water system BEFORE turning the water heater switch "ON".

Open hot water faucet to be sure there is water in the tank, and that the water pump or external water supply is on.

Carbon monoxide is a gas that can cause death. Be certain that no exhaust from the water heater can accumulate in areas where people or animals are likely to be present.

• Verify water heater on/off switch (A) is in the off position. See figure 4-6 or 4-7.

If your trailer is equipped with an exhaust hood, the switch is located on the exhaust hood (figure 4-6). If your trailer is not equipped with an exhaust hood, the switch is mounted on the wall (figure 4-7).

- Open valves on LP gas tanks.
- Verify there is water in the water heater and move the water heater switch (A) to the on position. There will be a few seconds delay before the electronic ignition lights the burner. If the water heater fails to light, it will automatically attempt to relight again. If the burner fails to light after the second attempt, the reset light will illuminate and you will need to have a qualified technician inspect the water heater.
- To turn water heater off, move control switch (A) to the off position.
- For long term storage, see Section 12 in this manual.



Figure 4-6 – Water Heater Control On Exhaust Hood



Figure 4-7 – Water Heater Control On Wall

### 4.8. PRIMING THE WATER SYSTEM

#### 4.8.1. <u>Using The Potable Water Storage</u> <u>System</u>

- Verify that all water drain valves are closed, including the water heater.
- Verify that the water pump switch is in the off position and the water tank is full.
- Open all faucets, hot and cold.
- Turn the demand pump on.
- Close each faucet as it begins to run a steady stream of water.
- Turn the hot water faucet off last to ensure that the water heater tank is filled.
- After all faucets are primed and shut, check the water pump to ensure that it has stopped. If the pump continues to run, check for an open faucet or leaks.
- The water system is now ready for automatic operation. The water pump will start automatically when a faucet is opened or the toilet is flushed.

#### 4.8.2. USING AN EXTERNAL WATER SUPPLY

- Verify that all water drain valves are closed, including the water heater.
- Verify that the water pump switch off.

- Connect an external water supply hose.
- Open all faucets, hot and cold.
- Turn the water supply on.
- Close each faucet as it begins to run a steady stream of water.
- Turn the hot water faucet off last to ensure that the water heater tank is filled.
- The water system is now ready for use.

### 4.9. <u>TOILET</u>

Use the lever to add water to the toilet until the desired water level is reached. More water is generally needed to flush solids.

Use the lever to flush toilet, push down on the flush lever until contents leave the bowl. This may require holding the flush lever down for several seconds.

Release the flush lever by allowing it to snap back. This will ensure a positive seal. A small amount of water will remain in the bowl.

It is recommended that tissue approved for recreational vehicles be used to prevent clogging in the waste system. Regular tissue can clog the toilet and drains.

### 4.10. DRAIN WASTE TANK

# NOTICE

# Drain waste tank only at a recreational vehicle waste dumping facility.

Note: The waste drain hose is not provided with the trailer and may be purchased at parts@doubledtrailer.com.

- Remove cap (A) from connector located under the trailer and connect drain hose. Place other end of drain hose into dumping facility receptacle.
- Pull out on large drain line handle (B) first to drain sewage (black) tank. Only open one valve at a time. Push in to close after draining.
- Pull out on small drain line handle (C) to drain waste water (gray) tank. Draining this tank last will flush out the drain hose. Push in to close valve after draining.
- Remove drain hose, rinse and install cap (A). See figure 4-8.



Figure 4-8 – Waste Drain Valves

# 5. LIQUEFIED PETROLEUM (LP) GAS SYSTEM

### 5.1. LP Gas Usage Information

The exhaust fumes from burning LP gas contain carbon monoxide.

Carbon monoxide gas is odorless and can cause death or brain damage if inhaled. The carbon monoxide detector in the living quarters of your trailer must be operational.

The exhaust hood must be turned on while using the cook top and/or oven.

**NEVER** use the cooking appliances for comfort heating.

**NEVER** operate portable gas burning appliances (including wood or charcoal) inside the trailer. **NEVER** leave appliances on while towing trailer.

# A DANGER

#### Carbon monoxide and fire hazard.

Do not operate LP gas appliances while the trailer is in an enclosed building or confined area.

Do not use cooking appliances for comfort heating. The flame could ignite surrounding surfaces and the fumes contain carbon monoxide.

# Test the carbon monoxide detector for operation before operating any gas appliances.

Sparks or an open flame can ignite unburned LP gas. To prevent the accumulation of unburned LP gas, you must:

- Turn appliances and gas tank supply valves off when not in use.
- Verify all appliances are off before opening LP gas tank supply valves.
- LP gas detector in trailer must be operational.

### A WARNING

#### Explosion and fire hazard.

LP Gas tanks can discharge gas to the atmosphere as the air temperature changes.

# Never place an LP gas tank or other flammable liquids inside the trailer.

The LP gas system in your trailer is designed to operate on LP gas only, NOT natural gas. Natural gas is not safe for use in an LP gas system.



Explosion and fire hazard.

# Do not connect an LP gas system to a supply of natural gas.

When used for the first time, or after a period of storage, the LP gas lines can be full of air, and may need to be purged of air, before the appliances will stay lit. Have the LP gas lines purged by an LP gas supplier.

### A WARNING

Explosion and fire hazard.

Turn off all appliances before refilling fuel or LP gas tanks.

Fill the LP tanks with LP gas (butane or propane) only.

Do not store an LP gas tank inside the trailer.

# Do not operate portable gas appliances inside the trailer.

Keep the shutoff valves on your LP gas tanks closed at all times, except when you are operating an LP gas appliance. Before opening the LP shutoff valve, turn off all LP gas appliances. If an appliance is on when you open the shutoff valve, LP gas may accumulate in the trailer, which can result in an explosion.

The LP gas detector is located near the floor to detect the heavier-than-air LP gas.

# WARNING

Explosion and fire hazard.

If LP gas is detected by smell or by the LP gas detector:

- Do not touch electrical switches.
- Extinguish flames
- Turn off other gas appliances
- Open doors for ventilation
- Shut off LP gas supply at the LP tanks.
- Leave the area until odor clears.

Have a qualified LP gas technician correct the source of LP gas leakage before using LP appliances.

# Do not use a flame to locate the source of an LP gas leak.

LP gas is either propane or butane that is compressed into liquid form. LP gas must be completely vaporized before being burned. Butane gas will not operate if the outside temperature is 32° F or lower.

# NOTICE

# Butane may be used when the temperature is above freezing (32 degrees F).

# Propane gas will operate at temperatures as low as minus 44 degrees Fahrenheit (-44 F).

Keep the regulator for the LP gas system covered with a guard to protect it from road debris.

If you store your trailer, make sure that all appliances and generators are disabled prior to storing.

### 5.1.1. LP GAS TROUBLESHOOTING

Having liquid "gas" at your appliance is an indication that the LP gas tank is overfilled, or that the temperature is too cold.

If your LP gas appliances do not stay lit, it may be due to air or moisture in the LP gas system. Most LP gas suppliers can purge air from an LP gas system.

If your LP gas system is not providing gas with the shutoff valve open, it may be due to ice in the LP gas regulator.

As the temperature decreases, so does the vaporization rate for LP gas. Butane cannot be used when the temperature is 32° F or lower. In winter conditions, the vaporization rate for propane may not be enough to allow normal gas consumption. An insufficient fuel supply will resemble a frozen regulator. Reduce gas consumption before having the regulator inspected.

### 5.1.2. LP GAS TANK REGULATOR

The regulator is located between the LP gas supply tanks.

LP gas regulators must always be installed with the vent facing downward. Make sure that the regulator vent faces downward and that the cover is in place to minimize vent blockage that could result in excessive gas pressure, causing a fire or explosion.

Move the changeover lever (A) to point the tank you want to use. This tank will be the service tank and the other will be the reserve tank. Open both tank supply valves. The indicator (B) will illuminate green. This indicator will continue to illuminate green until the service tank is empty. When the service tank is empty, the regulator will automatically begin drawing LP gas from the reserve tank and the indicator will illuminate red.

To remove the empty tank, move the changeover lever to the reserve tank. The indicator will illuminate green and the reserve tank now becomes the service tank. Close the supply valve on the empty tank, disconnect line and have the tank refilled by an LP gas supplier.



Figure 4-1 – LP Gas Regulator

A regulator may freeze due to moisture in the LP gas, which can block the gas flow to the appliances. You can try thawing it with an incandescent light or contact your LP gas supplier. Keep the gas tank supply valves closed while not in use to help reduce the chance of moisture entering the LP gas system.



Explosion and fire hazard.

Never use a flame, heat lamp or hair dryer to thaw an LP gas regulator. Use an incandescent light bulb.

Do not remove the regulator cover or attempt to service the LP gas regulator.

# 6. ELECTRICAL SYSTEM

### 6.1. GENERAL INFORMATION

Your trailer is equipped with a 12 volt DC battery system, and a 30 amp 110 volt, or 50 amp 220 volt electrical systems. Both systems are controlled by a power converter.

The 12 volt system includes the batteries, 12 volt circuit breakers, fuses and 12 volt loads (water pump, lights, etc.)

The 110/220 volt system includes the shore power cord, 110/220 circuit breakers, and 110/220 volt loads (air conditioner, microwave, television, etc.)

Your trailer may be equipped with an optional generator to supply electrical power to the 110/220 loads in the trailer. The generator is to be used as a backup in a limited capacity, and is not intended to power all the loads in trailer at one time.

Electrical power is supplied to the trailer by the shore power cord or the generator. This electrical power goes to the power converter. The power converter will automatically convert a portion of the 110/220 volt power to 12 volt power. All of the items in the trailer normally powered by the batteries will then be powered by the converter. The converter has a charging circuit that will charge the 12 volt trailer batteries while the trailer is connected to shore power or running the generator.

# 6.2. <u>12 Volt System</u>

#### 6.2.1. DISCONNECT SWITCH

Your trailer can be equipped with a two position (A) or a four position (B) 12 volt disconnect switch. The switch is located near the battery box. See figure 6-1 and 6-2.

This switch must be on to operate any 12 volt loads in the trailer and to allow the batteries to charge while connected to shore power or running the generator.

Turn this switch off during periods of storage, while traveling or while not is use.



Figure 6-1 – Two Position 12 Volt Disconnect Switch



Figure 6-2 – Four Position 12 Volt Disconnect Switch

Trailers equipped with a four position switch are also equipped with two 12 volt batteries. The switch has positions for:

- OFF Disconnects entire 12 volt system
- 1 12 volt system uses battery #1
- ALL 12 volt system uses both batteries
- 2 12 volt system uses battery #2

While using 12 volt loads and not connected to shore power or running the generator, the recommended switch setting is #1 or #2. With the switch in the ALL position, you run the risk of depleting both batteries and if that happens, you will not be able to start the generator.

While connected to shore power or running the generator, the recommended switch position is ALL. The will allow both batteries to recharge.

#### 6.2.2. BATTERIES

The trailer 12 volt batteries are located in the battery box under the gooseneck. See figure 6-3.

The disconnect switch must be on to operate any 12 volt loads in the trailer, and to allow the batteries to charge while connected to shore power or running the generator.



Figure 6-3 – 12 Volt Batteries

### 6.3. GENERATOR

Your trailer may be equipped with one of several sizes of generators. The generator is to be used as a backup in a limited capacity, and is not intended to power all the loads in trailer at one time.

This manual will give you the basic start and stop procedures. Refer to the information provided by the generator manufacturer for additional safety, operational and maintenance information.

# A WARNING

Risk of severed digits.

The generator can be started from a remote switch inside the trailer.

Disconnect negative (-) battery cable from the generator battery before servicing the generator.

# A DANGER

Carbon monoxide hazard.

Do not operate generator while the trailer is in an enclosed building or confined area.

# A WARNING

LP, gasoline and diesel generators pose a risk of death from:

- Carbon Monoxide
- Fire and Explosion
- Electrocution

You must have a working carbon monoxide detector in the living quarters before operating a generator.

# Do not refuel a running generator or refuel near ignition sources.

Carbon monoxide is a gas that can cause death. Be certain that no exhaust from the generator can accumulate in areas where people or animals are likely to be present.

- Check engine oil level.
- Press and hold switch (A) in the PRIME position for 10-15 seconds to prime generator engine when cold. Amber light to the left of switch will illuminate when priming. See figure 6-4.
- Press and hold switch (B) in the START position to start generator. Release switch when generator starts.
- While the generator is running, the 12 volt disconnect switch on the side of the battery box must be in the ON or ALL position to allow use of the 12 volt loads and charge the trailer batteries.



Figure 6-4 – Generator Control Panel

#### 6.3.1. STOP GENERATOR

- Turn off all electrical loads and allow the generator to run for three minutes with no load to cool down.
- Press and hold switch (B) in the STOP position to stop generator engine. See figure 6-4. Release switch when generator stops.

### 6.4. SHORE POWER

### A WARNING

Electrocution and fire hazard.

Always use the electrical cord specifically designed for your trailer.

Use only a UL approved RV style 30 or 50 amp extension cord.

Always connect the electrical cord to a grounded source of shore power.

Never alter the shore power cord or connectors.

#### Connect only to source of proper voltage.

Your trailer may be equipped with a 50 amp or a 30 amp shore power cord. See figure 6-5.



Figure 6-5 – Shore Cord Options

The options and electrical loads installed in your trailer determine the shore power cord that was installed. If an extension cord is needed, use only a UL approved RV style 30 or 50 amp extension cord maximum 50 feet in length.

An adapter is provided with your trailer so the shore cord can be connected to a normal household outlet. This is only too used to charge the batteries, not to power any loads in the trailer.

If the power source at your site is not equipped for your 30 or 50 amp shore power cord, use the generator (if equipped) or move to another site.

- Open cover and pull shore cord (A) from storage bay. See figure 6-6.
- Connect shore cord to proper power source.

While connected to shore power, the 12 volt disconnect switch on the side of the battery box must

be in the ON or ALL position to allow use of the 12 volt loads and charge the trailer batteries.



Figure 6-6 – Shore Power Cord

#### 6.4.1. DISCONNECT SHORE POWER

- Turn off all electrical loads in the trailer.
- Disconnect shore cord from electrical source.
- Disconnect shore cord from trailer and close cover.
- Return shore cord to storage bay.

# 7. SLIDE OUT

# 7.1. EXTEND SLIDE OUT

This manual will give you the basic operating procedures for the slide out. Refer to the information provided by the slide out manufacturer for additional safety, operational and maintenance information.

### A WARNING

#### Crushing hazard.

Keep away from the inside and outside of slide out while extending and retracting.

Verify there is adequate clearance to fully extend the slide out.

# Trailer must be level to prevent damage to trailer and slide out.

To extend the slide out, turn key switch to the ON position. Press and hold EXTEND on switch (A). See figure 7-1.

Releasing switch will stop movement of the slide out. Release switch when slide out is fully extended. See figure 7-1.

Turn key switch to OFF.



Figure 7-1 – Slide Out Switch

# 7.2. <u>RETRACT SLIDE OUT</u>



Crushing hazard.

Keep away from the inside and outside of slide out while extending and retracting.

The pinch points can sever digits. See figure 7-2.



Figure 7-2 – Slide Out Pinch Points

Clear the interior area where the slide out will travel. Verify the exterior is clear of obstructions and bystanders.

To retract the slide out, turn key switch to the ON position. Press and hold RETRACT on switch (A). See figure 7-1. Releasing switch will stop movement of the slide out. Release switch when slide out is fully retracted.

# 8. HEATING AND AIR CONDITIONING

### 8.1. **OPERATION**

Your trailer can be equipped with an optional furnace and a standard air conditioning system. The furnace is operated on LP gas.

The air conditioner is equipped with heat strips that are designed to be a "chill chaser" only and are not designed to warm the trailer to a comfortable level during colder temperatures. Use the optional furnace during cold weather.

The trailer must be connected to shore power or running the generator to operate the air conditioning.

This manual will give you the basic operating procedures. Refer to the information provided by the furnace, air conditioning and thermostat manufacturer for additional safety, operational and maintenance information.

# A DANGER

Carbon monoxide hazard.

Do not operate furnace while the trailer is in an enclosed building or confined area.

Test the carbon monoxide detector for operation before operating any gas appliances.

### A WARNING

Explosion hazard.

LP gas may accumulate in the trailer if the appliance control is on and the gas supply valves are opened.

Verify appliances are off before opening gas supply valves.

Test LP gas detector before opening gas supply valves.

### A WARNING

Explosion and/or fire hazard.

If LP gas is detected (by smell or by the LP gas detector):

- Do not touch electrical switches
- Extinguish flames
- Turn off other gas appliances
- Open doors for ventilation
- Shut off LP gas supply at the LP tank
- Leave the area until odor clears

Correct the source of LP gas leakage before using LP appliances.

Do not use a flame to locate the source of an LP gas leak.

### A WARNING

Explosion and/or fire hazard.

Never store flammable items near this or any other appliance.

# Appliances and LP gas valves must be turned off while refueling and towing trailer.

Carbon monoxide is a gas that can cause death. Be certain that no exhaust from the furnace can accumulate in areas where people or animals are likely to be present.

#### 8.1.1. OPERATE FURNACE

- Verify that 12 volt disconnect switch is on.
- Verify that the thermostat control (A) is in the OFF position as shown. See figure 8-1.
- Open the LP gas supply valves.
- Select the desired temperature using the control (A).
- To turn furnace off, move thermostat switch to OFF as shown in figure 8-1.
- Turn off LP gas supply valves if applicable.



Figure 8-1 – Furnace Thermostat

#### 8.1.2. OPERATE DUCTED AIR CONDITIONING **OR CHILL CHASER**

A ducted system will have several air vents located in the ceiling of the trailer.

- Verify that the 12 volt disconnect switch is on. •
- Move the thermostat switch (D) to the Cool or Elec Heat position. See figure 8-2.
- Select the desired temperature using the Set Point Control (B).
- To turn off, move thermostat switch to "Off".



Figure 8-2 – A/C Thermostat

#### 8.1.3. OPERATE ROOF AIR CONDITIONING OR CHILL CHASER

A roof air system will have the air blowing directly out of the roof unit.

- Verify that the 12 volt disconnect switch is on. •
- Move the function knob (A) to the desired heat or cool position. See figure 8-3.
- Select the desired temperature using the temperature control knob (B).
- To turn air conditioning off, move thermostat switch to "Off".



Figure 8-3 – Roof Air Conditioner Controls

#### 8.1.4. AIR CONDITIONER MAINTENANCE

Remove cover (A) and return air filter. Clean or replace return air filter at least every three months. Install cover (A). See figure 8-4.



Figure 8-4 – Return Air Filter

# **9.** Appliances

# 9.1. <u>Refrigerators</u>

Your trailer can be equipped with a 2.7 cu ft, or a 6.0 cu ft refrigerator. The refrigerator will operate on 12 volt, LP gas or 110 volt power. This manual will give you the basic operating procedures. Refer to the information provided by the refrigerator manufacturer for additional safety, operational and maintenance information.

If you plan to operate the refrigerator on 12 volt DC power while traveling, it is recommended that you connect the shore line operate the refrigerator off of 110 volt AC power for at least 48 hours before traveling. This will get the refrigerator cool so that the 12 volt DC power can maintain that temperature.

### \Lambda DANGER

Carbon monoxide hazard.

Do not operate refrigerator on LP gas while the trailer is in an enclosed building or confined area.

Test the carbon monoxide detector for operation before operating any gas appliances.

### A WARNING

Explosion hazard.

LP gas may accumulate in the trailer if the appliance control is on and the gas supply valves are opened.

Verify appliances are off before opening gas supply valves.

Test LP gas detector before opening gas supply valves.

# A WARNING

Explosion and/or fire hazard.

If LP gas is detected (by smell or by the LP gas detector):

- Do not touch electrical switches
- Extinguish flames
- Turn off other gas appliances
- Open doors for ventilation
- Shut off LP gas supply at the LP tank
- Leave the area until odor clears

Correct the source of LP gas leakage before using LP appliances.

Do not use a flame to locate the source of an LP gas leak.



Explosion and/or fire hazard.

Never store flammable items near this or any other appliance.

Appliances and LP gas valves must be turned off while refueling and towing trailer.

Carbon monoxide is a gas that can cause death. Be certain that no exhaust from the refrigerator can accumulate in areas where people or animals are likely to be present.

# 9.2. 2.7 CU FT REFRIGERATOR



A. Piezo Lighter: Creates spark to ignite the burner.B. Flame Meter: Indicates if flame is present in the burner.

C. Gas Safety Valve: This closes the gas flow if the burner goes out.

D. Thermostat: Temperature control for the refrigerator.

E. Selector Switch: Selects the power source for the refrigerator.

### 9.2.1. LP GAS OPERATION

Initial start up on LP gas may be difficult due to air or stale gas in the lines. It is recommended that you light the cook top or water heater (follow all safety precautions for that appliance) to purge air and/or stale gas out of the lines before attempting to light refrigerator. Turn off cook top and/or water heater after purging lines.

The refrigerator operates quietly and efficiently on LP gas, but the initial cool down takes much longer than operating on 110 volt power.

- Open supply valves on LP gas tanks.
- Turn the thermostat (D) to the 5 setting. See figure 9-2.
- Turn the selector switch (E) to the LP gas position.



Figure 9-2 – Refrigerator Control Panel

**Risk of explosion.** 

Gas can accumulate in the refrigerator burner if the safety valve is held in for more than 30 seconds.

If flame is not present in the refrigerator burner after thirty seconds, release safety valve and wait five minutes before trying again.

 Push in and hold the gas safety valve (C) and push in the piezo lighter (A) several times in rapid succession, for about five seconds, but no longer than thirty seconds. When a flame is present in the burner and the flame meter (B) moves into the green area, release the gas safety valve.



Figure 9-3 – Refrigerator Controls

- If the flame meter does not move into the green area, wait five minutes and repeat step 4 again.
- Turn the thermostat to the desired temperature setting.

#### 9.2.2. 110 VOLT OPERATION

- Verify the shore line is connected and power source is on or the generator is running.
- Turn the selector switch (E) to the 110 volt electric position. See figure 9-4.
- Turn the thermostat (D) to the desire temperature setting.



Figure 9-4 – Refrigerator Controls

#### 9.2.3. 12 VOLT OPERATION

- Verify that the disconnect switch is turned on.
- Turn the selector switch (E) to the 12 volt battery position. See figure 9-5.
- Turn the thermostat (D) to the desire temperature setting.



Figure 9-5 – Refrigerator Controls

Note: 12 volt battery operation is intended only to maintain the temperature of the refrigerator and its contents when they are already cool. 12 volt battery

operation is not recommended for the initial start-up and cooling of the refrigerator.

The batteries must be fully charged to maintain cooling.

### 9.2.4. TURN REFRIGERATOR OFF

• Turn selector switch (E) to the off position. See figure 9-6.



Figure 9-6 – Refrigerator Controls

# 9.3. 6.0 CU FT REFRIGERATOR



Figure 9-7 – Refrigerator Control Panel

A. Display: Displays the refrigerator settings.

B. Temp Set Button: Temperature control for the refrigerator.

C. Mode Button: Selects power source for the refrigerator.

D. On/Off Button: Starts and stops the refrigerator.

Press the ON/OFF button (D) to turn the refrigerator on. See figure 9-8.



Figure 9-8 – Refrigerator Control Panel

The MODE button (C) allows you to select between automatic or one of the three manual modes.

In the automatic mode, the refrigerator will select the most efficient power source available. The first choice is 110 volts AC, then LP gas, and then finally 12 volts DC.

The manual mode allows you to select the power source for the refrigerator.

### 9.3.1. AUTOMATIC OPERATION

• Press the Mode button (C) until the letters "AU" show in the display (A). Release the mode button. See figure 9-9.



Figure 9-9 – Refrigerator Control Panel

**If 110 volt AC is available:** The letters "AC" will show in the display. After ten seconds, the display will go off and the green power on light will be illuminated. The refrigerator is operating on 110 volt AC power.

**If 110 volt AC are not available:** The letters "AC" will show in the display. After five seconds, "AU" and then "LP" will show in the display. Then, after ten seconds,

the display will go off and the green power on light will be illuminated. The refrigerator is operating on LP gas.

**If 110 volt and LP gas are not available:** The refrigerator will automatically switch to 12 volt DC power if the 12 volt disconnect switch is in the on position.

### 9.3.2. MANUAL OPERATION

#### 9.3.2.1. <u>110 Volt AC Operation</u>

- Verify the shore line is connected and power source is on or the generator is running.
- Push and hold the mode button (C) until "AC" is shown in the display (A). Release the mode button. After ten seconds, the display will go off and the green power on light will be illuminated. The refrigerator is operating on 110 volt AC power. See figure 9-10.



Figure 9-10 – Manual 110 Volt Operation

#### 9.3.2.2. LP Gas Operation

Initial start up on LP gas may be difficult due to air or stale gas in the lines. It is recommended that you light the cook top or water heater (follow all safety precautions for that appliance) to purge air and/or stale gas out of the lines before attempting to light refrigerator. Turn off cook top and/or water heater after purging lines.

The refrigerator operates quietly and efficiently on LP gas, but the initial cool down takes much longer than operating on 110 volt power.

 Push and hold the mode button (C) until "LP" is shown in the display (A). Release the mode button. After ten seconds, the display will go off and the green power on light will be illuminated. The refrigerator is operating on LP gas. See figure 9-11.



Figure 9-11 – Manual LP Gas Operation

#### 9.3.2.3. <u>12 Volt DC Operation</u>

• Push and hold the mode button (C) until "dC" is shown in the display (A). Release the mode button. After ten seconds, the display will go off and the green power on light will be illuminated. The refrigerator is operating on 12 volt DC power. See figure 9-12.



Figure 9-12 – Manual 12 Volt Operation

Note: 12 volt battery operation is intended only to maintain the temperature of the refrigerator and its contents when they are already cool. 12 volt battery operation is not recommended for the initial start-up and cooling of the refrigerator.

The batteries must be fully charged to maintain cooling.

#### 9.3.3. SELECT TEMPERATURE SETTING

 Push the "TEMP SET" button (B) and the current setting will show in the display (A). See figure 9-13. • Push and hold the "TEMP SET" button (B) until the desired setting is shown in the display (9 is the coldest setting) and then release button.



Figure 9-13 –Select Temperature Setting

# 9.4. Соок Тор

Your trailer can be equipped with an electric or LP gas cook top and/or oven. The exhaust hood must be on and a window open while the cook top and/or oven are in use to exhaust gas vapors and cooking odors. Read the manual provided by the cook top and oven manufacturer for safety, operational and maintenance information.



Carbon monoxide hazard.

Do not operate gas cook top and/or oven while the trailer is in an enclosed building or confined area.

Test the carbon monoxide detector for operation before operating any gas appliances.

# 

Explosion hazard.

LP gas may accumulate in the trailer if the appliance control is on and the gas supply valves are opened.

Verify appliances are off before opening gas supply valves.

Test LP gas detector before opening gas supply valves.



Explosion and/or fire hazard.

If LP gas is detected (by smell or by the LP gas detector):

- Do not touch electrical switches
- Extinguish flames
- Turn off other gas appliances
- Open doors for ventilation
- Shut off LP gas supply at the LP tank
- Leave the area until odor clears

Correct the source of LP gas leakage before using LP appliances.

#### **A** WARNING

Explosion and/or fire hazard.

Never store flammable items near this or any other appliance.

Appliances and LP gas valves must be turned off while refueling and towing trailer.

### 9.5. MICROWAVE OVEN

The microwave oven operated on 110 volts and I similar to a microwave that is used in a home. Read the manual provided by the microwave oven manufacturer for safety, operational and maintenance information.

# **10.** Awning

# A WARNING

Risk of serious injury.

Do not attempt to open the awning during rain, wind, lightning or snow conditions.

Close the awning if the possibility of these conditions exists.

# NOTICE

Risk of equipment damage.

Awning, supports and trailer can be damaged by wind.

Do not open the awning if the possibility of wind in excess of 15 mph exists.

### 10.1.1. <u>Open Awning</u>

• Loosen knobs (arrow) on each awning main arm. See figure 10-1.



Figure 10-1 – Loosen Knobs

• Open the latches (A) on each awning main arm. See figure 10-2.



Figure 10-2 – Open Awning Latches

• Use the pull rod provided and pull lock lever (B) downward to release awning lock. See figure 10-3.



Figure 10-3 – Lock Lever

• Insert the end of pull rod into loop (C) in the awning pull strap and pull the awning open. See figure 10-4 and 10-5.



Figure 10-4 – Awning Pull Strap



Figure 10-5 – Awning Fully Open

• Slide the rafter arms to the end of the main arms (D) until they snap into place. Tighten adjustment knobs (E) on each rafter arm. See figure 10-6.



Figure 10-6 – Tighten Rafter Arms

• Open latch handles (F) and extend main arms (D) to raise awning. Slope the awning downward away from the trailer. Close the handles (F) to lock in position. See figure 10-7.



Figure109-7 – Extend Main Rafter Arms



Figure 10-8 – Awning Fully Open

#### 10.1.2. CLOSE AWNING

 Open latch handles (F) and fully retract main arms (D). Close the handles (F) to lock in position. See figure 10-9.



Figure 10-9 – Retract Main Rafter Arms

 Loosen adjustment knobs (E) and release lock (arrow) and slide the rafter arms down to the bottom of the main arms. See figure 10-10.



Figure 10-10 – Retract Rafter Arms

• Grasp the awning pull strap and pull downward.

- Push the lock arm (B) up to the "roll up" position.
- Insert pull rod into loop in strap and GENTLY allow the awning to roll to the trailer. See figure 10-11.

# NOTICE

Risk of awning and/or trailer damage.

Do not release pull strap after lock lever has been released.

Awning is under tension, and may roll back against the trailer with force, which may result in damage.



Figure 10-11 – Retract Awning

• Close latches (A) on each awning arm. See figure 10-12.



Figure 10-12 – Close Awning Latches

• Tighten knobs (A) on each awning main arm. See figure 10-13.



Figure 10-13 – Tighten Knobs

# **11. Interior Furnishings**

# 11.1. <u>Sofa Bed</u>

Pull out and up on the front edge of the seat to lay the sofa down. To set up, push on the front edge of the seat while pulling upward on the back rest. See figures 11-1 and 11-2.



Figure 11-1 – Sofa-To-Bed



Figure 11-2 –Bed-To-Sofa

# 11.2. EGRESS WINDOW

One or more windows installed in the living quarters are egress style windows that can be opened and used as an exit in an emergency. Open the red latches (A) and push out on the bottom of the window to open. See figure 11-3.



Figure 11-3 – Egress Window Latches

# **12. STORAGE AND WINTERIZING**

### 12.1. PREPARE FOR STORAGE

Properly preparing your trailer for storage will reduce the risk of damage to the trailer.

If the trailer will be stored in an area at or below  $32^{\circ}$  F, winterize the trailer to protect the trailer and water system. See section 12.2.

- Remove all perishable items from the trailer.
- Turn off the water heater, refrigerator, furnace and gas supply valves.
- Clean the refrigerator and freezer. Prop the doors open and place an open box of baking soda in each.
- Drain the water heater, water lines, fresh water tank, waste tanks and toilet.
- Close all windows and vents.
- Cover and seal appliance vent openings to prevent rodent and insect entry.
- Disconnect shoreline and house batteries.
- Check with the battery manufacturer for proper storage and charging procedures.
- Check with the generator manufacturer for proper storage procedures on the generator.

### 12.2. WINTERIZE TRAILER

# NOTICE

Risk of damage to the trailer water system.

Drain and winterize water system to avoid damage to the trailer, tanks, pump, lines, toilet and water heater.

You MUST winterize your trailer if the trailer will be subjected to temperatures at or below 32° F.

### 12.2.1. Drain Water Lines

- Drain waste tanks as instructed in Section 3.
- Fill potable water tank least half full and turn the water pump on.
- Add approximately 10 gallons of water to the black tank by holding the toilet flush lever open.
- Add approximately 10 gallons of water to the gray tank by running the sink or shower faucets.

- Drive the tow vehicle and trailer to loosen and rinse material from the sides of the waste tanks.
- Drain the waste tanks as instructed in Section 3.
- Level the trailer.
- Drain the potable water tank and close drain valve.
- Turn water pump switch on. Open all faucets and operate the toilet until water stops flowing from each. Leave faucets open and turn the water pump switch off.
- Drain the water heater by removing plug (A), located on the outside of the trailer. See figure 11-1.



Figure 12-1 – Drain Water Heater

• Drain any remaining water from waste tanks.

### 12.3. <u>Remove Trailer From Storage</u>

- Have the LP gas system checked by a qualified technician.
- Add a few gallons of water to the holding tanks and check for leaks.
- Disinfect and sanitize the water system. See Section 3.
- Check the sealing valve on the toilet for proper sealing and operation. Lubricate seal with a silicon based lubricant.
- Remove protective coverings from appliance vent openings.

- Connect and charge 12 volt batteries. Check operation of all 12 volt accessories installed in the trailer.
- Connect shoreline and check operation of all 110/220 volt accessories installed in the trailer.
- Check operation of carbon monoxide detector, LP gas detector and smoke detector.
- Check fire extinguisher for proper charge.
- Blow dust and debris from the back of the refrigerator in the burner area. Dust and debris in the burner could prevent the burner from being lit.
- Start refrigerator and use a refrigerator thermometer to check for proper cooling.
- Check with generator manufacturer for the proper procedure for removing the generator from storage.