

Follow the instructions below to attach the Sani-Con Turbo 500 to the RV coach.

Warning! Read and understand the warnings listed in this document before you install, operate, or service this system. If you do not obey these warnings there is a risk of property loss, injury, or electrocution. Do not make any changes to this unit as this could result in property damage, injury, or electrocution.

Thetford Corporation accepts no responsibility or liability for damage to equipment, injury, or death that may result from the system's improper installation, service, or operation.

Thetford Corporation recommends that plumbing and electrical work be performed by a licensed tradesperson. Local permit and code compliance is required.

Contents

- (1x) Sani-Con Turbo 500 Assembly - with OT (over-temperature) protected pump
- (1x) Hose and Nozzle Assembly with nozzle caps
- Owners Manual
- (2x) Labels with serial #

Required Materials (Not Provided)

- Plumbing and End Caps (if necessary)
- Switch
- Relay (Example: American Terminal ER-1200)
- Fuse and Fuse Holder or Breaker
- Wiring
- Mounting Hardware
- 2" Hose Clamp (actual dimension is 1.9")
- Schedule 30, 40, 80, or DWV rated hard pipe fittings or minimum 10 PSI flexible pipe rating for pressure side of pump.

Questions?

If you have any questions or need assistance, please contact Technical Support at 1-800-444-7210, available Monday through Friday 8 a.m. to 6 p.m., Eastern Standard Time.

General Guidelines & Considerations

- Gray water bypass can be achieved by plumbing the discharge line in a manner that gravity can allow liquid to flow to the hose with no upward plumbing.
- All systems rely on gravity to move the liquid waste to the pump; therefore, make sure that the pump inlet is mounted *below* the RV holding tank.
- Plan the installation so that the pump does not extend beyond the side of the coach
- Consider using 5/16-18 threaded rod or a solid strap pipe hanger and a 3.5" pipe hanger (4" inner diameter) to install unit.
- Each assembly comes with two labels. One label should be placed in the hose compartment; the other should be placed in the Owner's Manual.

NOTICE

Labels (2x) are specific to each pump based on serial #.

- If black and gray tanks are heated, treat Sani-Con Turbo 500 in same manner.
- Duty Cycle: Intermittent, five minutes continuous operation; 20 minutes off.
- Gray water plumbing should be 2" - 3" pipe to provide fastest pumping. 1 1/2" pipe drains slower than the pump and causes pump to cavitate during use.
- It is important to plumb hose avoiding sharp angles or bends during use or storage.
- Placement of the hose connection MUST be serviceable by the customer.

OEM Installation Manual

Warnings and Cautions

Read and understand the warnings and cautions listed in this document before you install or operate this unit.



Do not make any changes to this unit, as this could result in property damage or injury.



Do not let the pump run dry, as this will damage the macerator.



Gray and black water tanks **MUST BE COMPLETELY FREE FROM DEBRIS** before installing and operating the pump. Failure to comply with this warning could result in a voided product warranty and equipment failure.



Plumbing from pump to storage compartment **MUST** be plumbed with Schedule 30, 40, 80, or DWV rated hard pipe fittings or minimum 10 PSI flexible pipe rating for pressure side of pump.



The installation site of the pump **MUST** be able to support a minimum of 30 pounds.



Plan for sufficient clearance under the RV once the Sani-Con system is installed. Lowest point of unit **MUST** be above axles of coach.

Winterizing the Sani-Con Unit

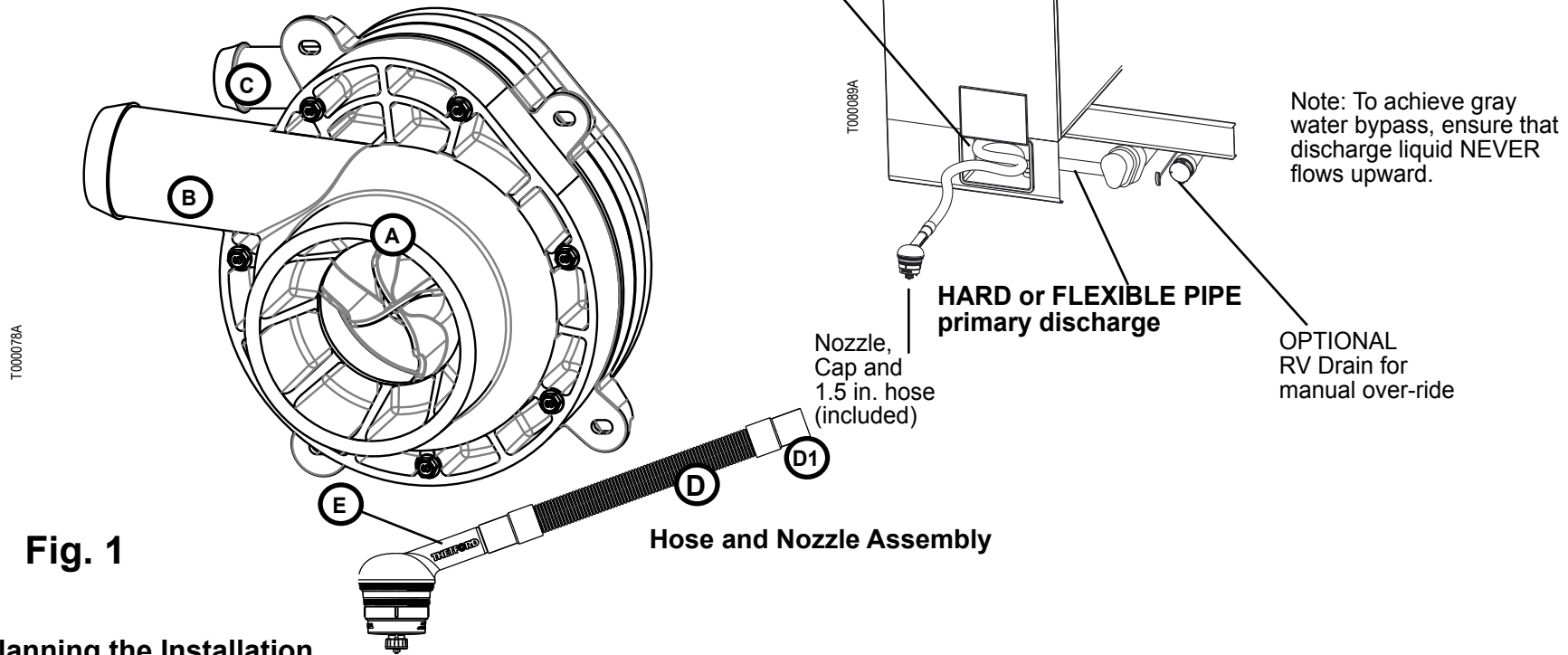
1. Ensure all tanks are empty.
2. Pour RV antifreeze into empty black water tank.



Be sure to have container available for capturing system fluid!

3. Turn on pump.
4. Run pump until antifreeze begins to discharge from universal nozzle.
5. Turn off pump; chase out hose.

Pump Assembly



Planning the Installation

A. Inlet Port

- 3" inlet port
- Pump material is polypropylene - **solvent bonding is NOT RECOMMENDED.**
- **RECOMMENDATION FOR SERVICING.** Use rubber coupling.
- Support with 3.5" (4" inner diameter) hanger 1" from pump inlet.
- Recommend Wye or Tee before pump to allow manual over-ride, easy service access, or to dislodge something from the pump.

B. Discharge Port

- 1.25" rubber coupling should be used to connect hard plumbing to discharge port connection.
- Plumbing should be kept as short as possible to increase pump efficiency.

C. Wire Lead Exit

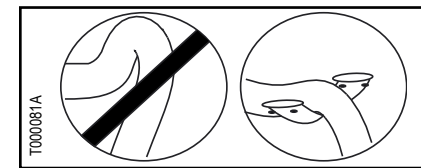
- Wires should be covered to protect from foreign objects and water

D. Discharge Hose

TIP: For easy cleaning, recommend removable storage tray for hose and nozzle.

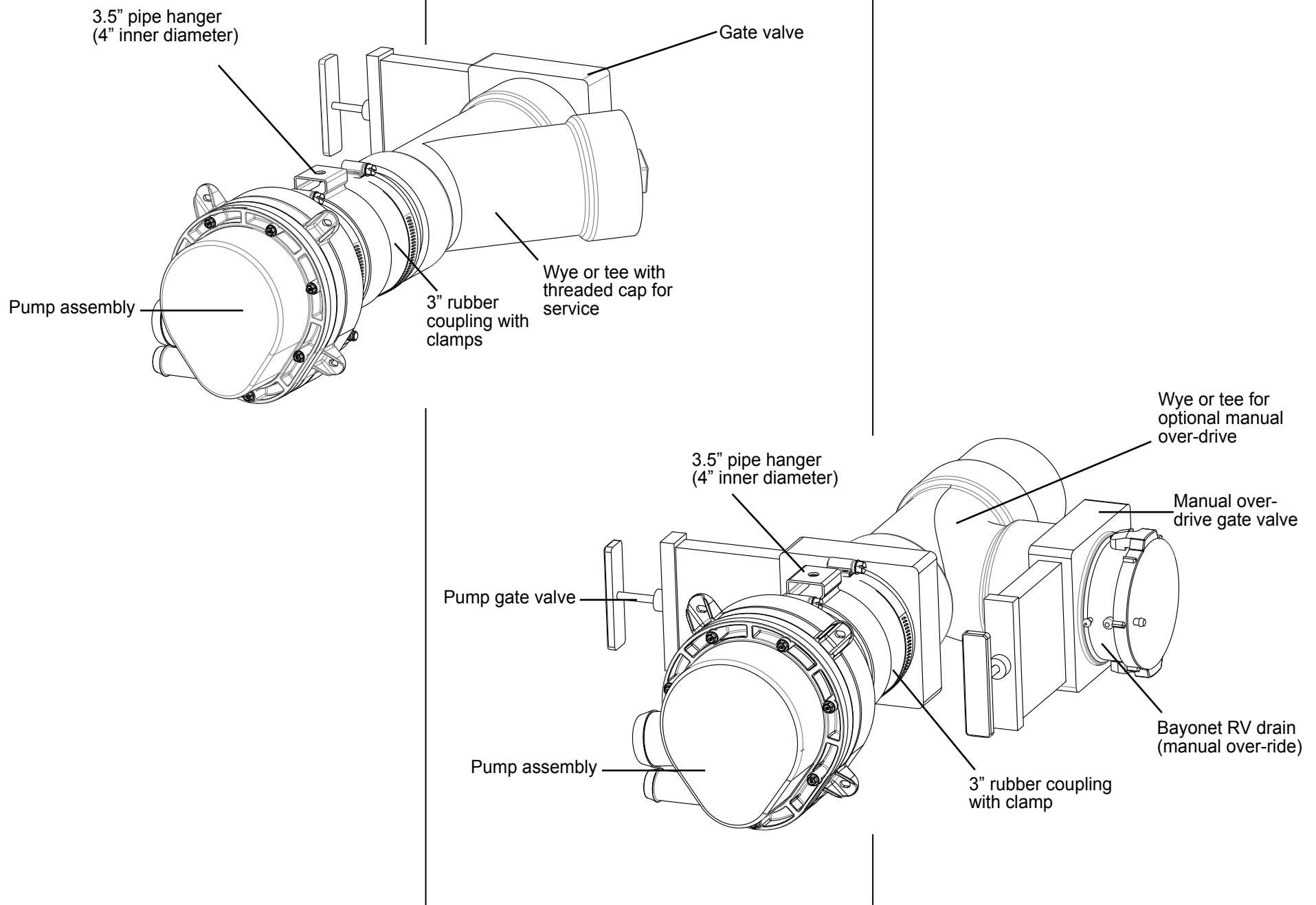
D1. Discharge Hose Cuff

- Hose cuff accepts 1.5" hose barb, should be clamped with supplied clamp
- Hose barb (not supplied) should be securely fastened inside of discharge hose compartment.
- Sharp bends and stress at hose cuffs reduce life of hose and should be minimized. Recommend supporting hose within 2"- 5" of cuff.



E. Universal Nozzle with Caps

Recommended Installation



Recommended Wiring Diagram

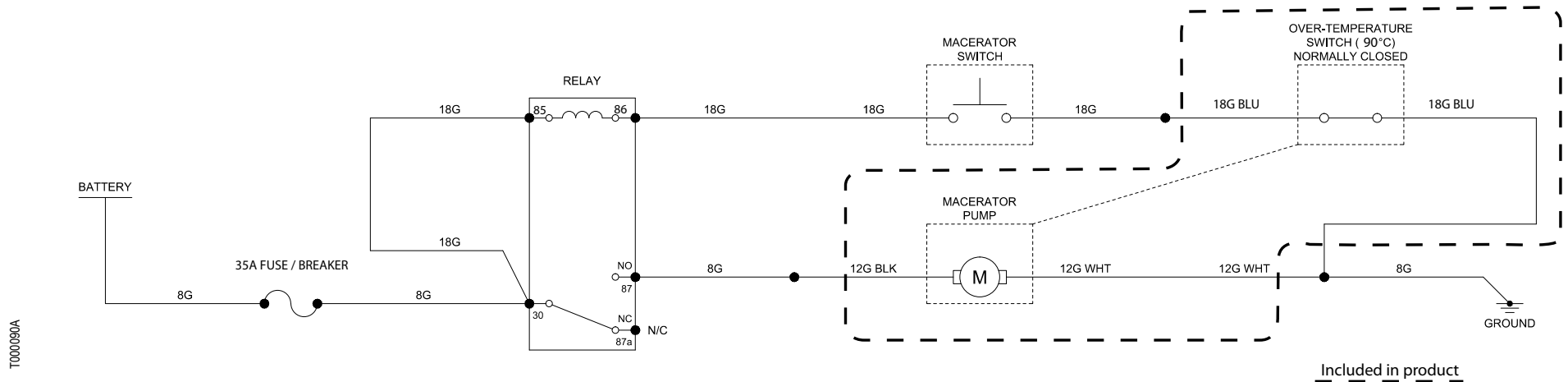


Fig. 2

Planning the Installation

Fig. 2 represents recommended wiring configuration. Other wiring configurations are possible based on your installation.

- Ensure switch, relay and fuse are sized according to the voltage and current. If wired like the example above, a 1A switch will suffice.
- Wiring configuration **MUST** include internal over-temperature switch and relay for protection of pump.
- Pump requires a 12-VDC/35 AMP dedicated circuit with 35 AMP breaker or fuse between main bus or battery.

- Wire size is dependent on distance between pump and power source. Actual wire sizes should be calculated according to installation.



While the pump is turned on, verify electrical system by measuring voltage at motor; refer to **Fig 1-C** (must be 12V). Improper installation may cause damage to motor or decrease pump efficiency.



The positive and negative wires should be braided to prevent radio interference during operation.

Hose Barb Planning

Regardless of installation selection, plan to minimize stress points on the hose.

90° Hose Barb - Plumbed from Bottom

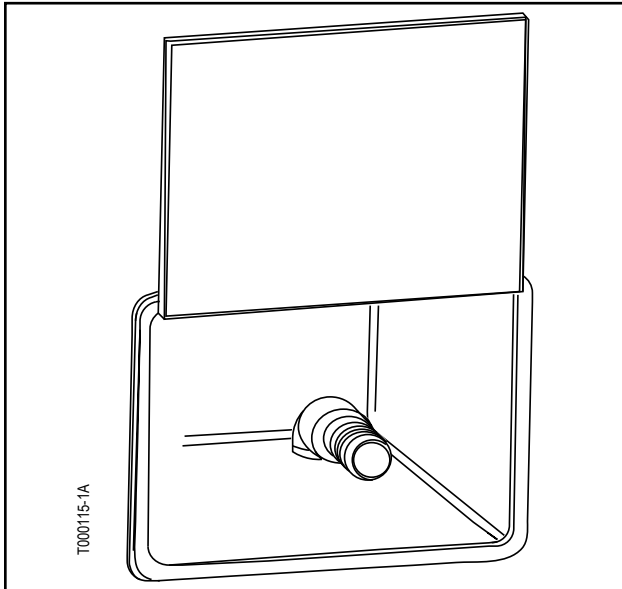


Fig. 3a

NOTICE

RECOMMENDATION: Plumb the hose barb AT OR NEAR BOTTOM of the compartment with the hose barb pointing AWAY from the RV coach.

90° Hose Barb - Plumbed from Side

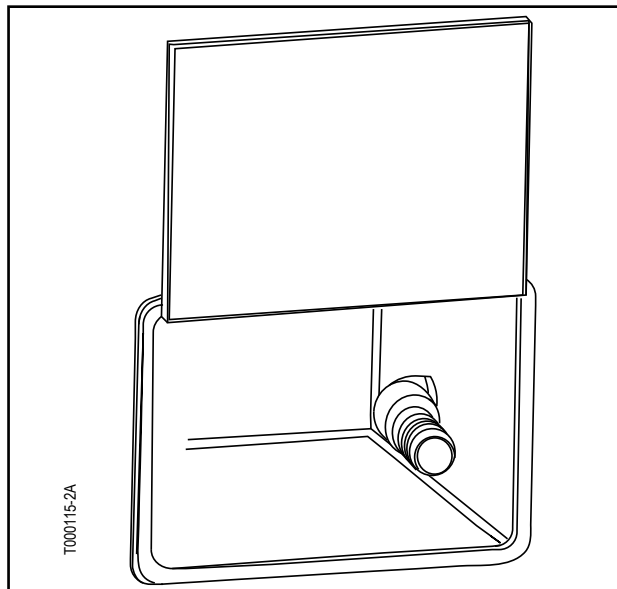


Fig. 3b

NOTICE

RECOMMENDATION: Plumb the hose barb AT OR NEAR BOTTOM of the compartment with the hose barb pointing AWAY from the RV coach.

Straight Hose Barb - Plumbed from Back

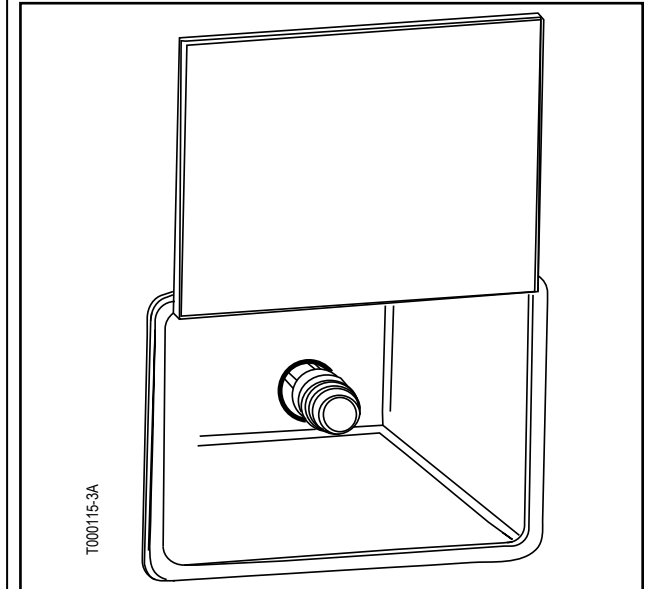


Fig. 3c

NOTICE

RECOMMENDATION: Plumb the hose barb AT OR NEAR BOTTOM of the compartment with the hose barb pointing AWAY from the RV coach.