



1976 Palm Beach
TZE166V100710

Tankless Water Heater Seminar **DISCLAIMER**

DISCLAIMER:

Information presented by **GMC Motorhomes International** is intended only to communicate thoughts, ideas, opinions and procedures to and from **GMC Motorhome** owners; there is no attempt to replace or supersede recommendations from **General Motors Corporation** or any other component manufacturer or local and national codes relating to these modifications.

All opinions expressed are those of the author and not **GMCM**.

Mention of any product does not constitute endorsement by the author or **GMCM**.

Neither the author or **GMCM** assume any responsibility for what you choose to do to your coach.





1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

- **As far as I know, all GMCs finished at the factory or Gemini had electric water heaters installed with some having engine assist heat.**
- **That's OK if you always camp with an electric hookup or don't mind running the generator.**



1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

We stay at Camp Wal-Mart a couple of nights whenever we travel in the GMC.



WAL★MART®



1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

**We also like to stay in State and National forests
that have no hookups.**



Land Of Many Uses



1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

That is the problem, *there is a lack of hot water for showers* in the morning.

(and yes we use our shower)





1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

**I don't like it, but I can take a cold shower when
necessary.**





1976 Palm Beach
TZE166V100710

What's the problem with the OEM Water Heater?

My wife on the other hand doesn't enjoy cold showers.





1976 Palm Beach
TZE166V100710

Water Heater Alternatives

Install a LP gas water heater in my Palm Beach?

“An LP-gas water heater can be installed in GMC interior models, but a main structural member makes it virtually impossible to put in the current water heater location. Coachman raised the couch and the aisle floor to provide adequate depth under the couch to install the heater at a sufficient angle to approximately match the contour of the GMC Motorhome body. Even though an LP-gas water heater fit Coachmen floor plans, its protruding exterior door alters the smooth appearance of the motor home body.”

Wes Caughlan, GMC Motorhome News –June 1995

When I read this, I decided not to try and install a standard RV LP water heater





1976 Palm Beach
TZE166V100710

Water Heater Alternatives

But you have to have a sunny day!





1976 Palm Beach
TZE166V100710

Water Heater Alternatives

Kind of complicated if you want to shower indoors.



- * 40,000 BTU's
- * 12 V Water Pump Included
- * Electronic Ignition
- * 16' Shower Hose
- * 50 Hours of Continuous Hot Water

[Get best price now](#) 

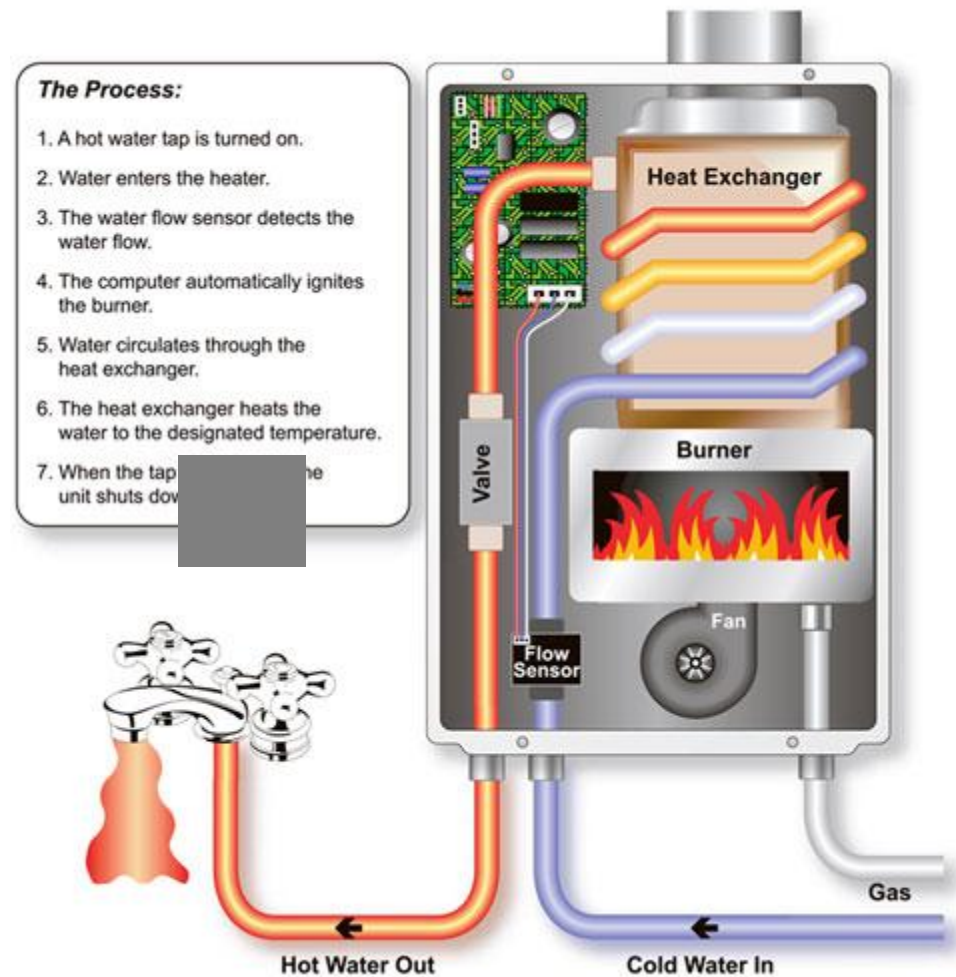


1976 Palm Beach
TZE166V100710

Tankless Water Heater

What are they

“These are water heaters that instantly heat water as it flows through the device, and do not retain any water internally except for what is in the heat exchanger coil.” from wikipedia





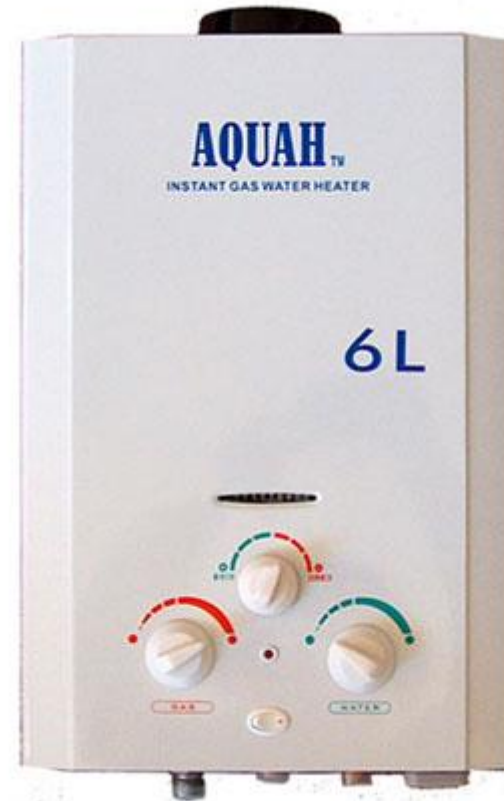
1976 Palm Beach
TZE166V100710

Tankless Water Heater

Several GMCers have them and love how they work.

"I absolutely love this thing, and I'm not burning a lot of propane to keep 6 gallons hot all the time."Ray Erspamer.

Ray has a Royale with a LP gas water heater.



Tankless Water Heater

Several GMCers have them and love how they work.

Dan Gregg wrote in his blog, *“Now we can dry camp and never run the generator again. I love this. We are fully self sufficient now, just like an RV should be. We do not need to depend on any kind of hookups with our solar and instant hot water unit.”*

He also wrote, *“**Basically it was a simple and straight forward install.**”*



FAMOUS LAST WORDS –
“simple and straight forward install”



1976 Palm Beach
TZE166V100710

Tankless Heater Locations



Install in the bathroom



Install behind the reefer



Mount outside

I decided to go with the behind the fridge approach, since it seemed like it would take up the least living space and would be easier than mounting in a new compartment.



1976 Palm Beach
TZE166V100710

Where I got mine

For less than \$150



Hi, das-rjw! (Not you?)

[My eBay](#) | [Sell](#) | [Community](#) | [Customer Support](#)

[CATEGORIES](#) ▾ [ELECTRONICS](#) [FASHION](#) [MOTORS](#) [TICKETS](#) [DEALS](#) [CLASSIFIEDS](#)

[eBay Buyer Protection](#) [Learn more](#)

[Back to search results](#) | [Home & Garden](#) > [Home Improvement](#) > [Heating, Cooling & Air](#) > [Water Heaters](#) > [Tankless](#)

[Add to Watch list](#)



FREE
shipping

AQUAH PROPANE GAS TANKLESS WATER HEATER 6L, 1.6 GPM

Item condition: **New**

Quantity: 9 available

Price: **US \$169.50**

[Buy It Now](#)

Best Offer:

[Make Offer](#)

[Add to Watch list](#) ▾

Shipping: **FREE** Standard Shipping [See more services](#) ▾ | [See all details](#)

Delivery: Estimated between **Wed. Sep. 7** and **Tue. Sep. 13** ⓘ

Returns: 30 days money back, buyer pays return shipping | [Read details](#)



eBay Buyer Protection

Covers your purchase price plus original shipping.

[Learn more](#)

Top-rated seller

tannkless (445 ⭐)

100% Positive feedback

- ✓ Consistently receives highest buyers' ratings
- ✓ Ships items quickly
- ✓ Has earned a track record of excellent service

[Save this seller](#)

[See other items](#)



Other item info

Item number: 110732856348

Item location: OH, United States

Ships to: **United States**
[See exclusions](#)

Payments: **PayPal**,
Visa/MasterCard,
Discover
[See details](#)

History: 1 sold

[Print](#) | [Report item](#)

[Sell one like this](#)

[Description](#)

[Shipping and payments](#)

The guy was great to buy from and shipping was fast!

Share:



1976 Palm Beach
TZE166V100710

Mounting Concerns

How to attach it to the coach.





1976 Palm Beach
TZE166V100710

Mounting Concerns

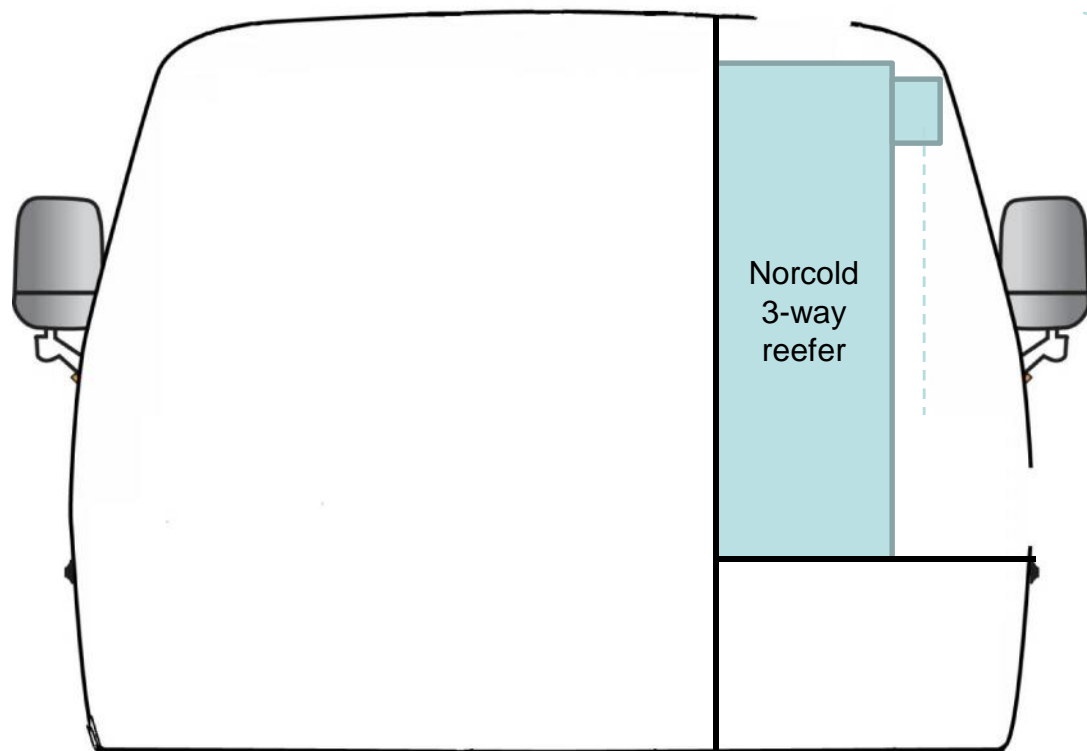
How to attach it to the coach.





1976 Palm Beach
TZE166V100710

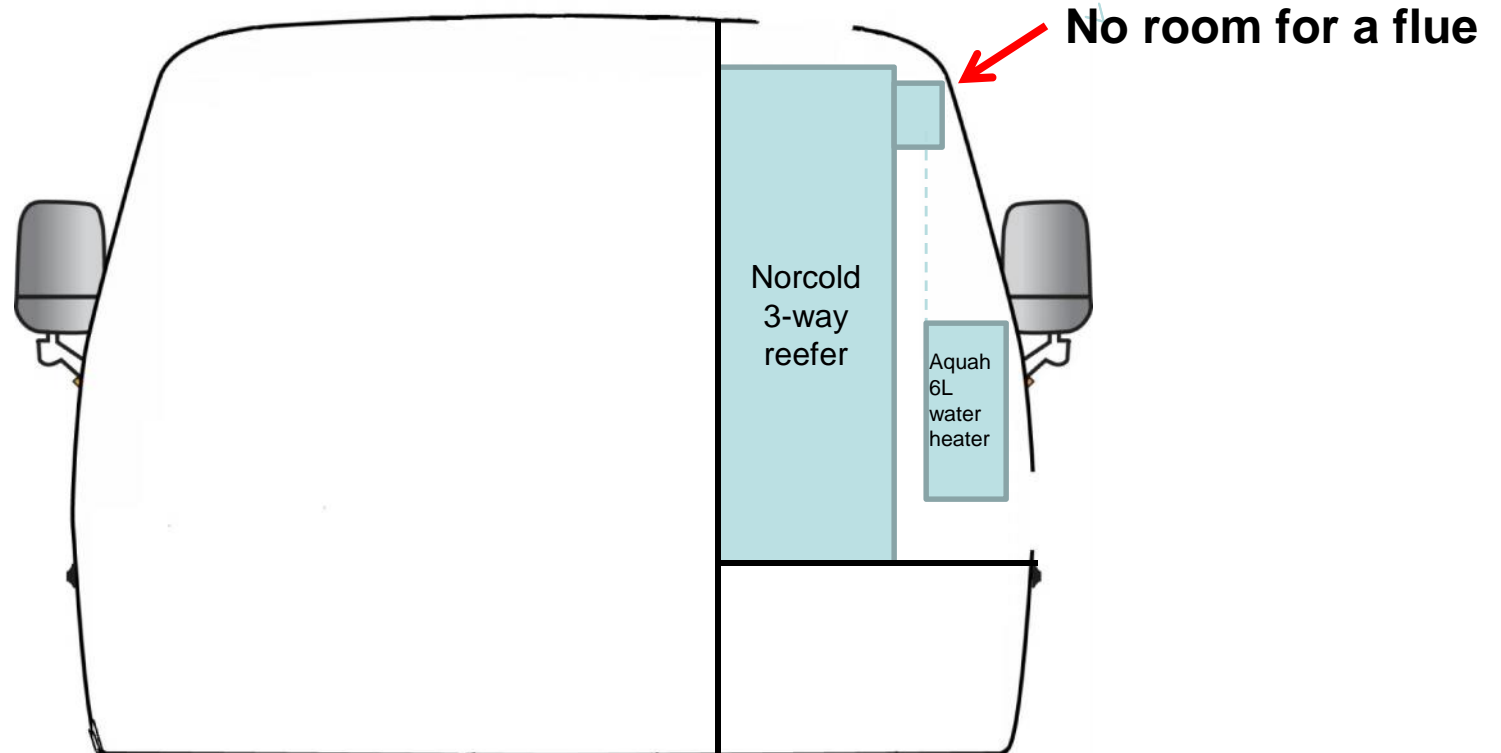
Original location of my “new” gas reefer





1976 Palm Beach
TZE166V100710

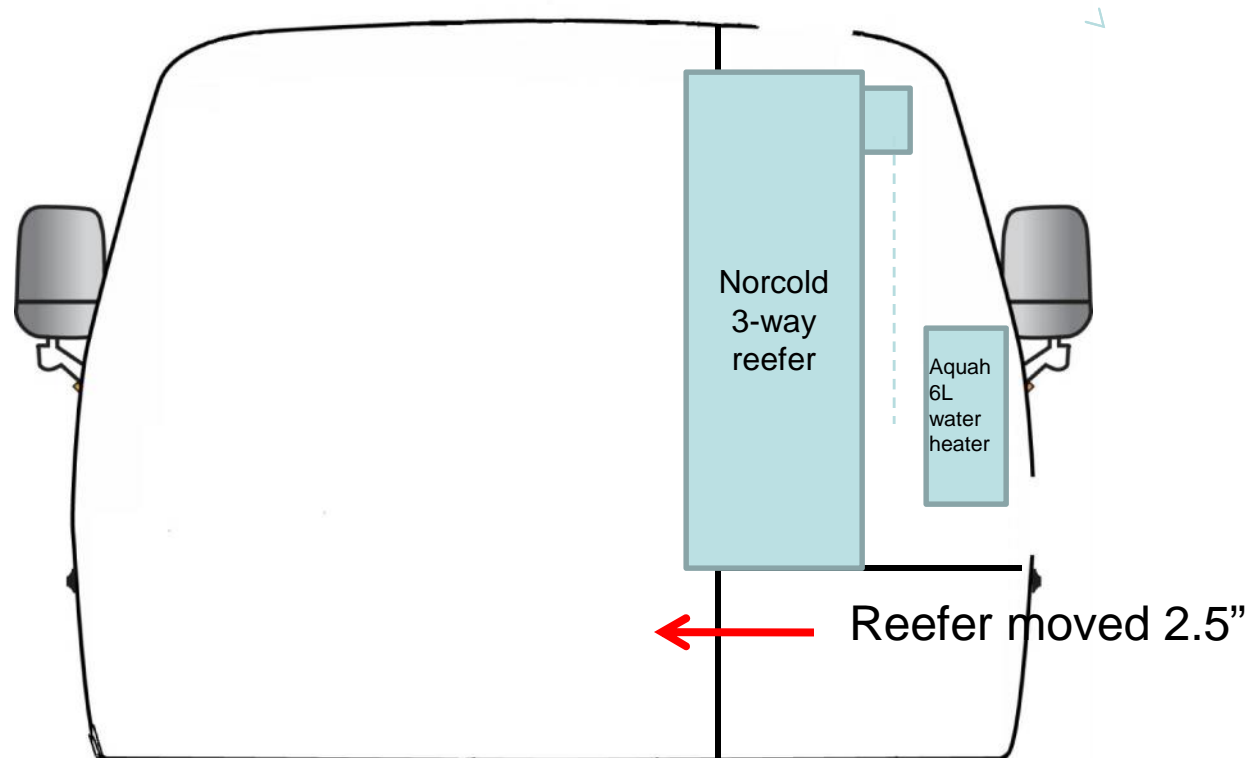
**Original location of my “new” gas reefer”
With the heater installed. How to vent?**





1976 Palm Beach
TZE166V100710

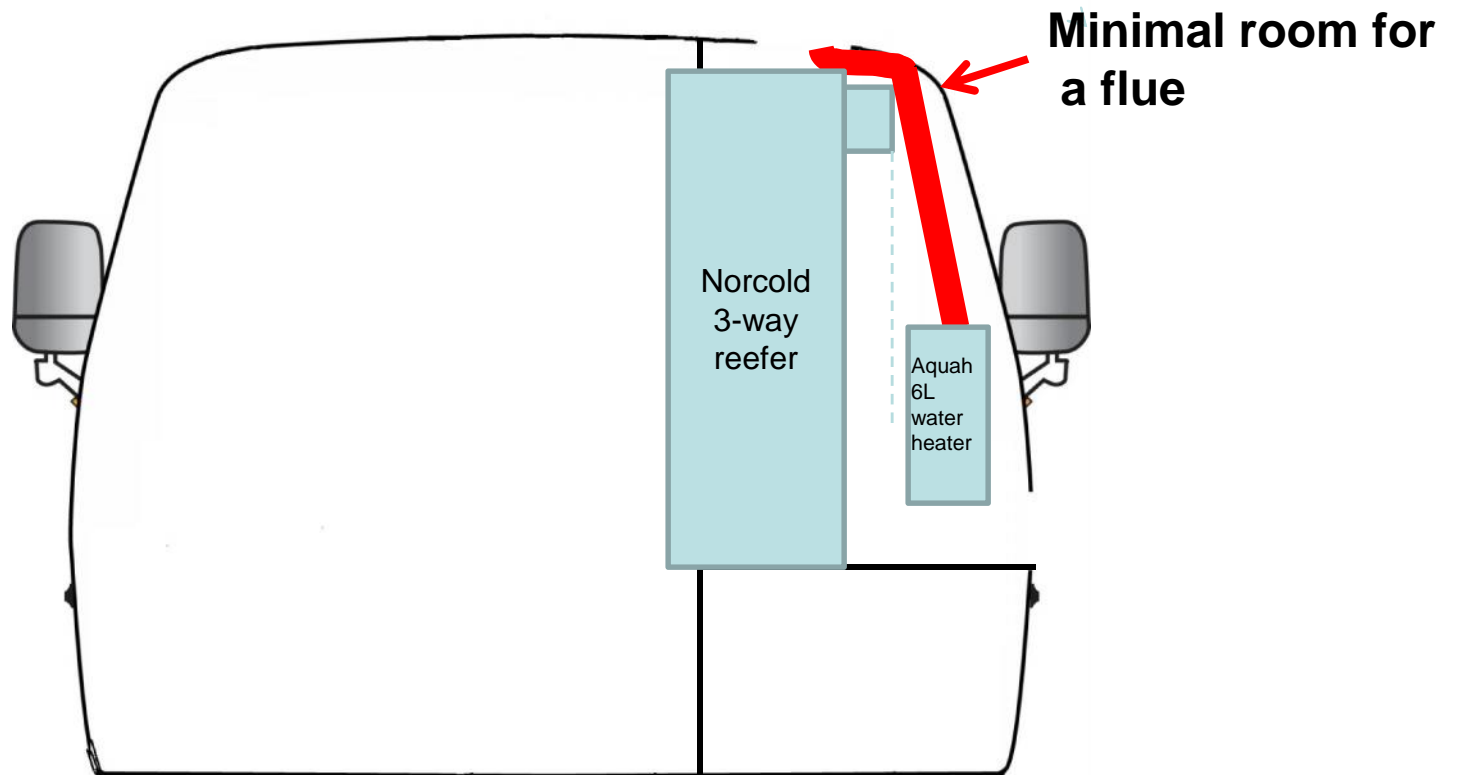
Move the reefer 2.5" to allow room for venting.





1976 Palm Beach
TZE166V100710

Now there is “almost” enough room to vent the water heater out the reefer vent.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I didn't like the idea of flammable foam insulation in the water heater area.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I chipped all the insulation out.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I chipped all the insulation out.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I filled the void with heat resistant fiberglass insulation.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I filled the void with heat resistant fiberglass insulation.





1976 Palm Beach
TZE166V100710

Mounting Concerns

I covered the insulation with sheet metal.

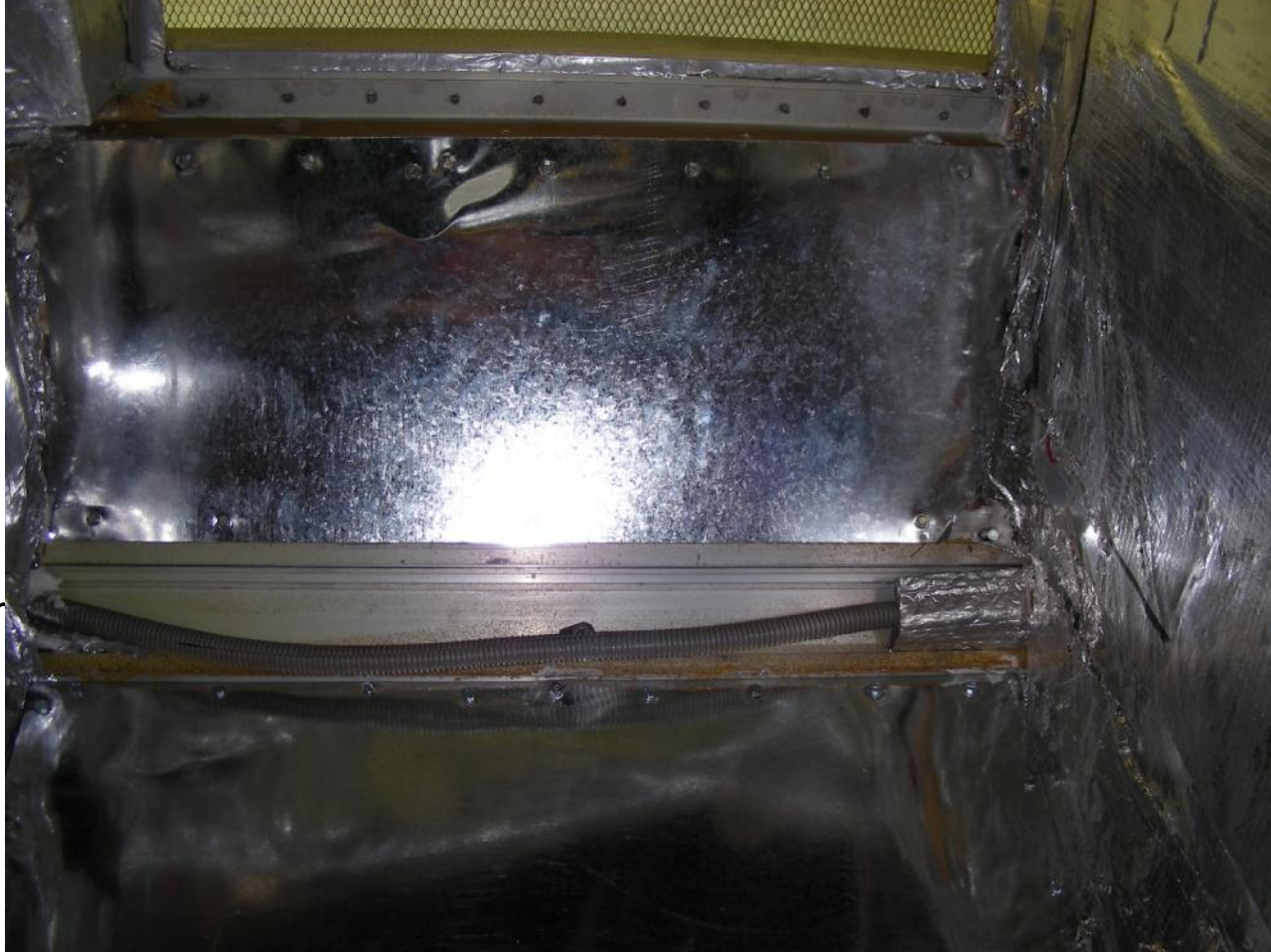




1976 Palm Beach
TZE166V100710

Mounting Concerns

I covered the insulation with sheet metal.



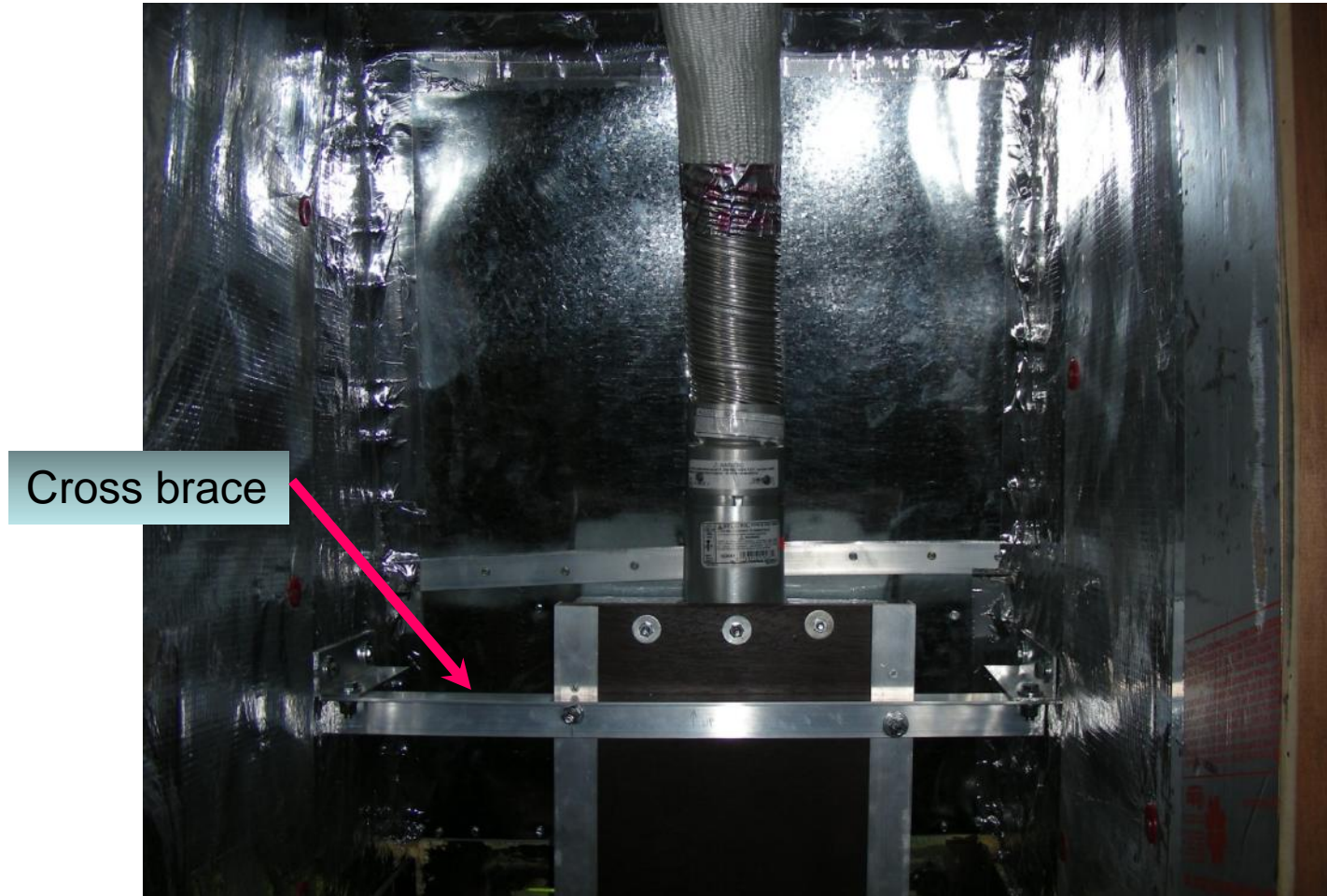
• In



1976 Palm Beach
TZE166V100710

Mounting Concerns

I found some rated flexible vent pipe at Lowes.

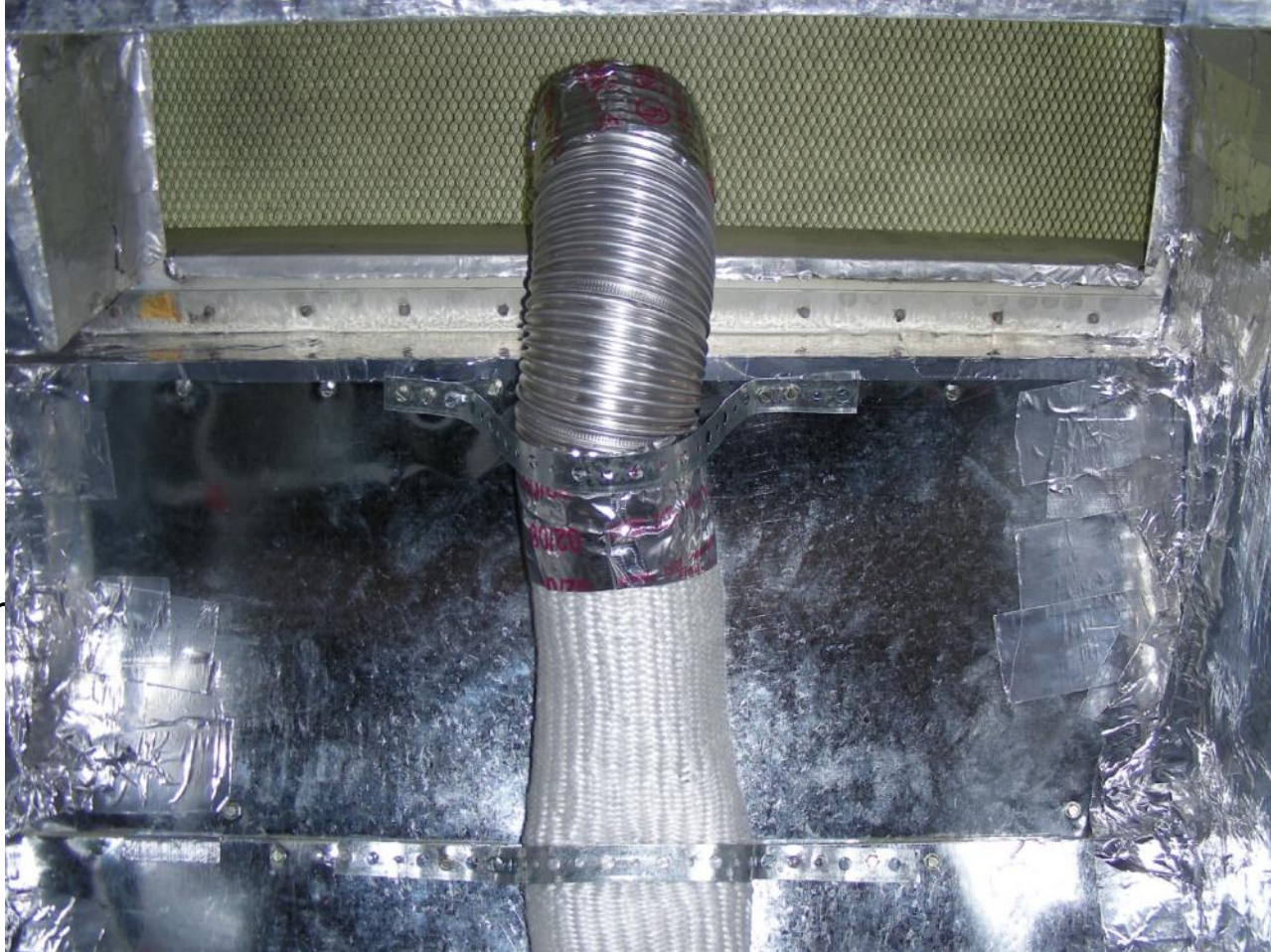




1976 Palm Beach
TZE166V100710

Mounting Concerns

Trimmed it bent to fit. Secured with metal straps.



• In



1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

I made up this crude template to make sure the reefer would clear the rear.

Using this helped to prove that my 2.5" extension worked.





1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

You can see how little space there is in the rear of the fridge and the flue.





1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

This shows how much I had to squeeze the flue. Also shown is the high fiber glass wrapping that is supposed to be high temperature.





1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

Installed a baffle between the reefer and water heater.



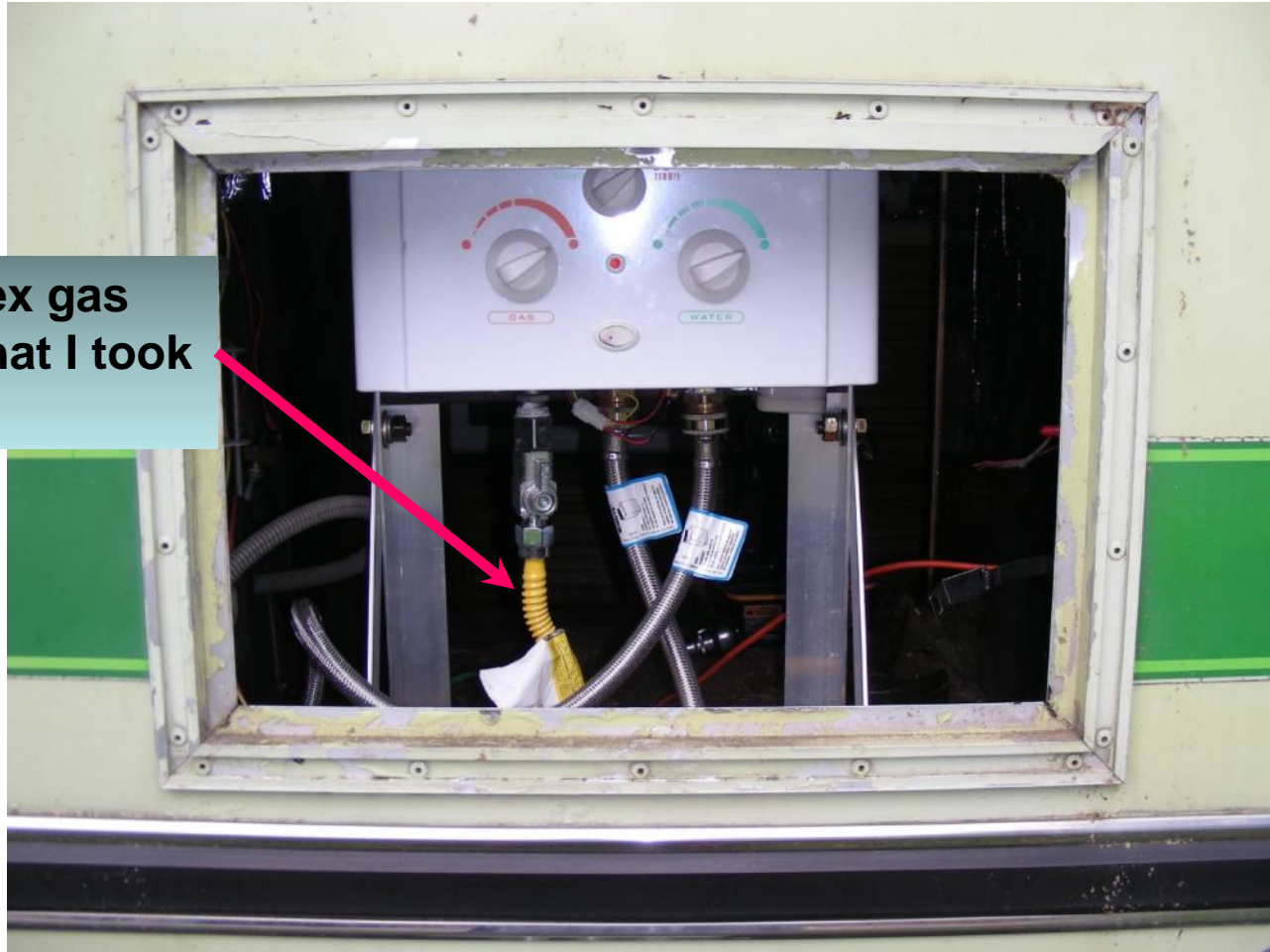


1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

Notice the flex gas connector that I took out later.





1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

I made up this frame to frame the 2.5" extension of the refrigerator.





1976 Palm Beach
TZE166V100710

Tankless Water Heaters

How to make sure there was enough room.

Extending the refrigerator 2.5" didn't make much of an impact on the interior





1976 Palm Beach
TZE166V100710

Water Line

- I started out using braided water line for faucets.
 - I found the flow was too slow.
- I ended up using braided stainless steel washing machine hose
 - The flow matched the output of the water heater.



1976 Palm Beach
TZE166V100710

Heater By Pass



Warning: The water in this water heater is cold and always remains cold except for the times that hot water is being used. DO NOT INSTALL IN AN AREA WHERE IT COULD FREEZE. Drain the heater entirely if freezing temperatures are anticipated in area where heater is installed. See chapter 4.7 for draining instructions. To prevent any freeze damage, introduce short bursts of compressed air (20-40psi/0.14-0.28mPa) through these connection to remove the residual water in the horizontal pipes and water valve

- Help in winterizing
- Isolate heater in freezing weather.





1976 Palm Beach
TZE166V100710

LP Gas Line

Coated Stainless Steel Gas Appliance Connector?

I read online about using flex gas line. Plenty of people do in the RV environment. I went to Lowes and bought enough to connect to the water heater.

I bought three pieces of various sizes (including one for the reefer).

It worked, but then I decided *to read about its use*.



Flex gas lines like these are available from Home Depot, Lowes and other big box stores



1976 Palm Beach
TZE166V100710

Tankless Water Heater

Have I opened a “can of worms”?

After some reading about gas lines, I realized that maybe I had opened up a can of worms with this project. To try and do it right was going to be a hassle.

Again, like other projects of mine, installing a tankless water heater was ending up being ***much easier said than done.***



© Ron Leishman * www.ClipartOf.com/435810

ISSUES



1. These inexpensive water heaters are not designed for RVs.
2. There is not enough clearance in the space to comply with the installation manual.
3. Most people seem to use gas lines that are not approved.
4. There is not enough room to install the specified exhaust vent
5. Is a *Temperature & Pressure valve* needed?
6. Can they be installed in a confined space like behind the reefer?

I don't know all the answers.

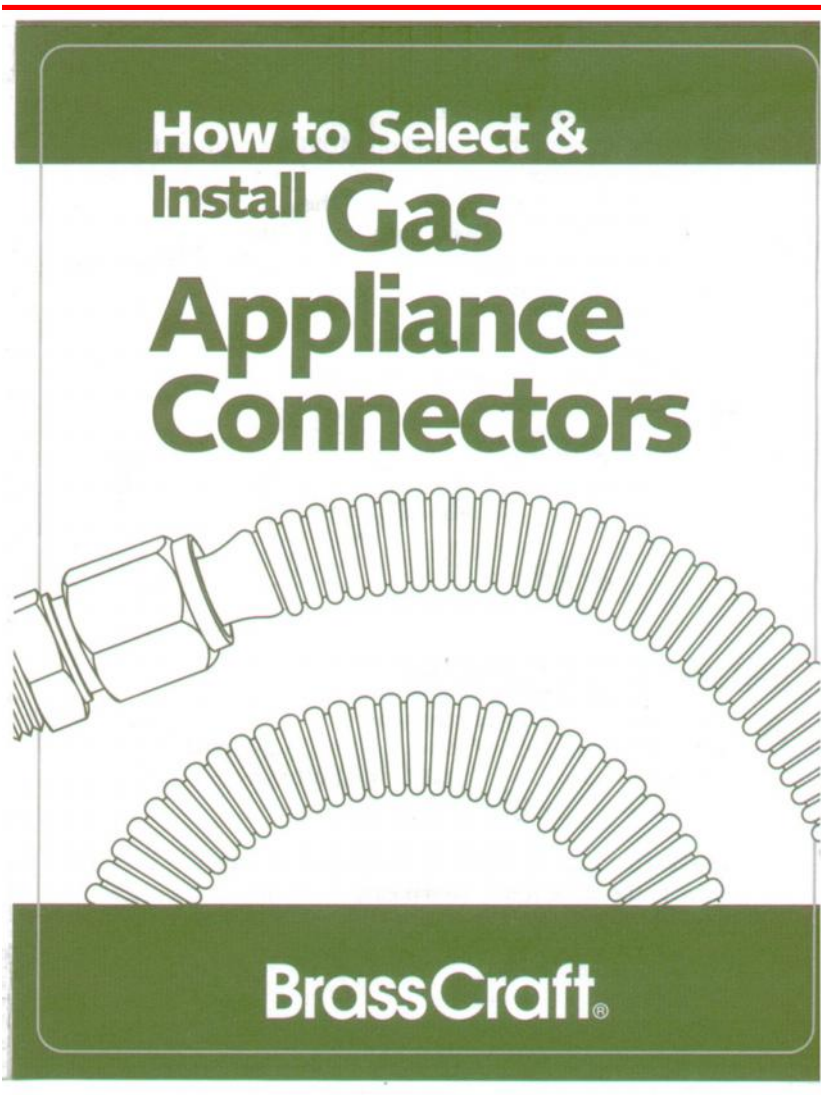
However, it **might be** an acceptable risk installing one of these water heaters since the units don't run very long.



1976 Palm Beach
TZE166V100710

LP Gas Line

Coated Stainless Steel Gas Appliance Connector?



Flex gas lines like these are available from Home Depot, Lowes and other big box stores



1976 Palm Beach
TZE166V100710

LP Gas Line

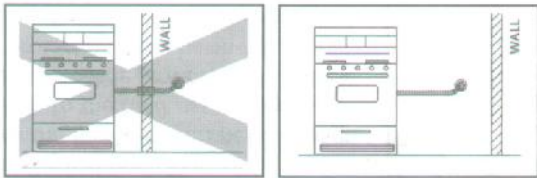
Coated Stainless Steel Gas Appliance Connector?

✓ **DO NOT** use connector on appliances in moving vehicles such as RV's, trailers, etc. However, this product may be used in manufactured housing (permanent residence mobile homes).

✓ **DO NOT** join this connector to another connector.

✓ **DO NOT** stretch connector to make it fit. Connector must be at least 2 to 3 inches longer than the distance from the gas supply line to appliance.

⚠ **WARNING:** Connector is for use in accessible locations only. **DO NOT** conceal connector or run connector through enclosed outdoor BBQ pits, walls, partitions, floors or appliance panels.




Flex gas lines like these are available from Home Depot, Lowes and other big box stores



1976 Palm Beach
TZE166V100710

LP Gas Line

BrassCraft®
Committed to Quality, Driven by Innovation

 Español

About Us | Contacts | Careers | Where to Buy | Site Map

WATER STOPS | WATER CONNECTORS | GAS VALVES | GAS CONNECTORS | FITTINGS

Site Search:

[Home](#)

[FAQ's](#)

[About Us](#)

[What's New](#)

[Where to Buy](#)

[Document Library](#)

[Customer Support](#)


[Faucet/Toilet Repair](#)

[Industry Information](#)


[BrassCraft College](#)

[Buy American Act](#)


[Masco Companies](#)

Frequently Asked Questions 

13 FAQ's Found

Select Category:
Gas Products 

Search for:



[Click on Question to show or hide the Answer](#)

[Q: Why did we change the gas connector information from the ring to the nut?](#)

[Q: Can a gas connector or gas fitting be re-installed?](#)

[Q: Can BrassCraft gas connectors be used in a gas log application?](#)

[Q: Can BrassCraft gas connectors be used with fuel oil?](#)

[Q: What are the general certifications for BrassCraft gas connectors?](#)

[Q: What temperature can our gas connectors be exposed to?](#)

[Q: Why do the gas connector fittings have a male thread and female thread?](#)

[Q: Can our gas connectors withstand UV lighting for extended periods?](#)

[Q: Do we offer a gas connector for mobile home installations?](#)

[Q: Is CSA the same as CGA or AGA?](#)

[Q: Can I connect two gas connectors together to obtain the length I need?](#)

[Q: When installing the Safety+PLUS, I can hear the gas flow, but it does not work, why?](#)

[Q: Do BrassCraft gas appliance connectors need to be bonded to the dwelling's electrical service panel?](#)



1976 Palm Beach
TZE166V100710

LP Gas Line

Coated Stainless Steel Gas Appliance Connector?

Q: Do we offer a gas connector for mobile home installations?

A:

Yes, our CSSC and CSSB connectors are approved and listed to ANSI Z21.75/CSA6.27 for manufactured homes. Either series of connectors can be used for crossover connections (one half of the home to the other) or for connecting the home to the exterior gas supply source. However, our gas connectors are not for use with RV's.

Q: Can I connect two gas connectors together to obtain the length I need?

A:

No, this could influence the gas flow rate, introduce new leak paths, and is expressly prohibited by the model codes.





1976 Palm Beach
TZE166V100710

LP Gas Line

Coated Stainless Steel Gas Appliance Connector?

Frequently Asked Questions

1 FAQ's Found

Select Category:
Gas Products

Search for:
re-installed

Click on Question to show or hide the Answer

Q: Can a gas connector or gas fitting be re-installed?

A:
No, the product standards and model plumbing codes prohibit it. Products may be damaged during removal or re-installation and may be unsafe for use.

I also didn't know that you could not reuse these connectors.





1976 Palm Beach
TZE166V100710

LP Gas Line

Coated Stainless Steel Gas Appliance Connector?

L.P. Gas Hose

NEW! Stainless Steel Braided Cover Now Available

L.P. Gas hose for outdoor cooking appliances. Largest Domestic manufacturer of LP Gas Hose. Available in bulk, finished assemblies, or cut-lengths, high or low pressure.

STANDARDS: U.L. 569 Recognized Component / CSA listed.

PACKAGING: Coiled, tied, and shrink-wrapped to pallet.

Also available in finished assemblies.

APPLICATIONS:

- Outdoor Gas Grills
- Turkey Fryers
- Fish Cookers
- Torches
- Patio Heaters

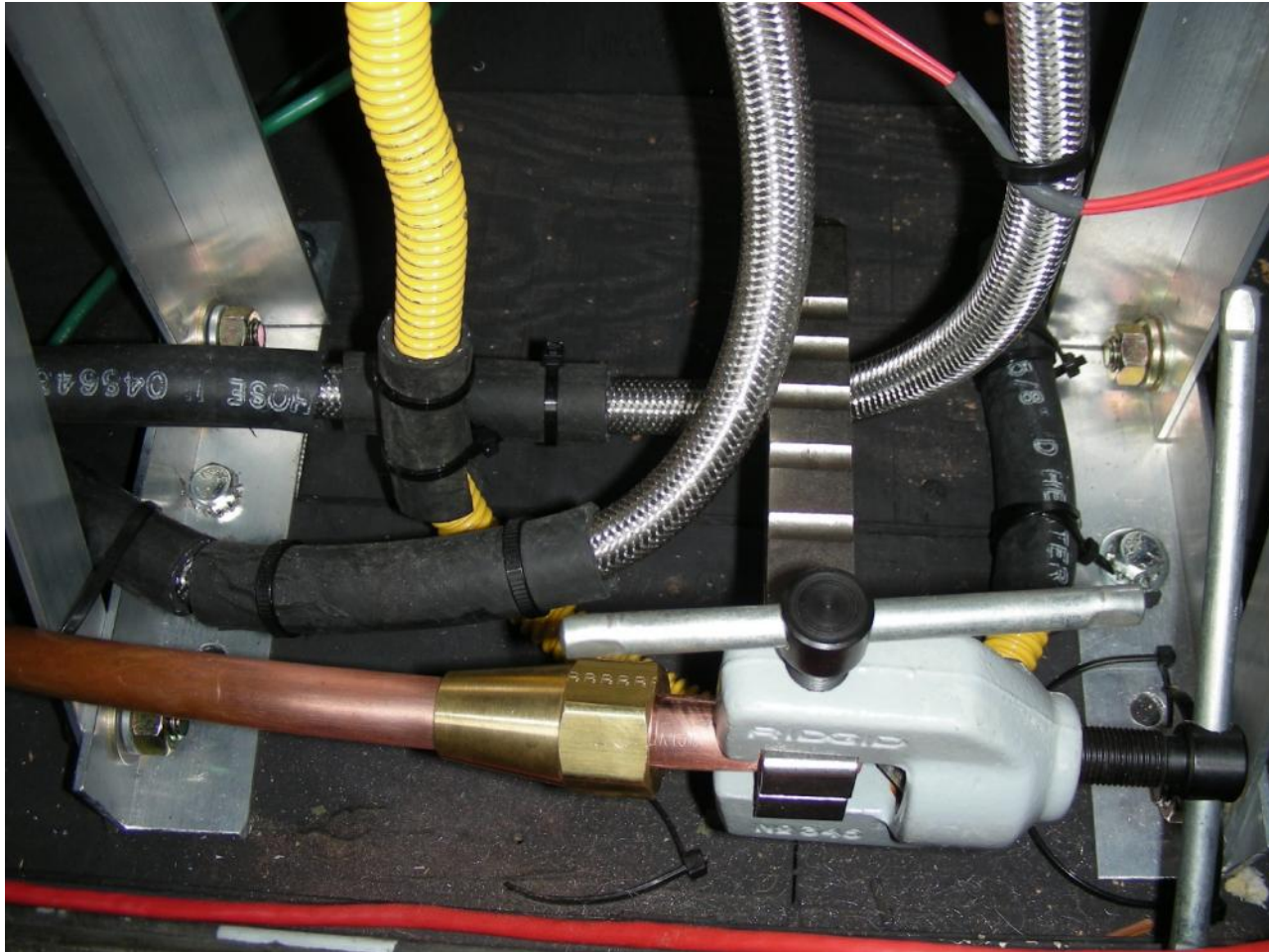
COLOR: Black





1976 Palm Beach
TZE166V100710

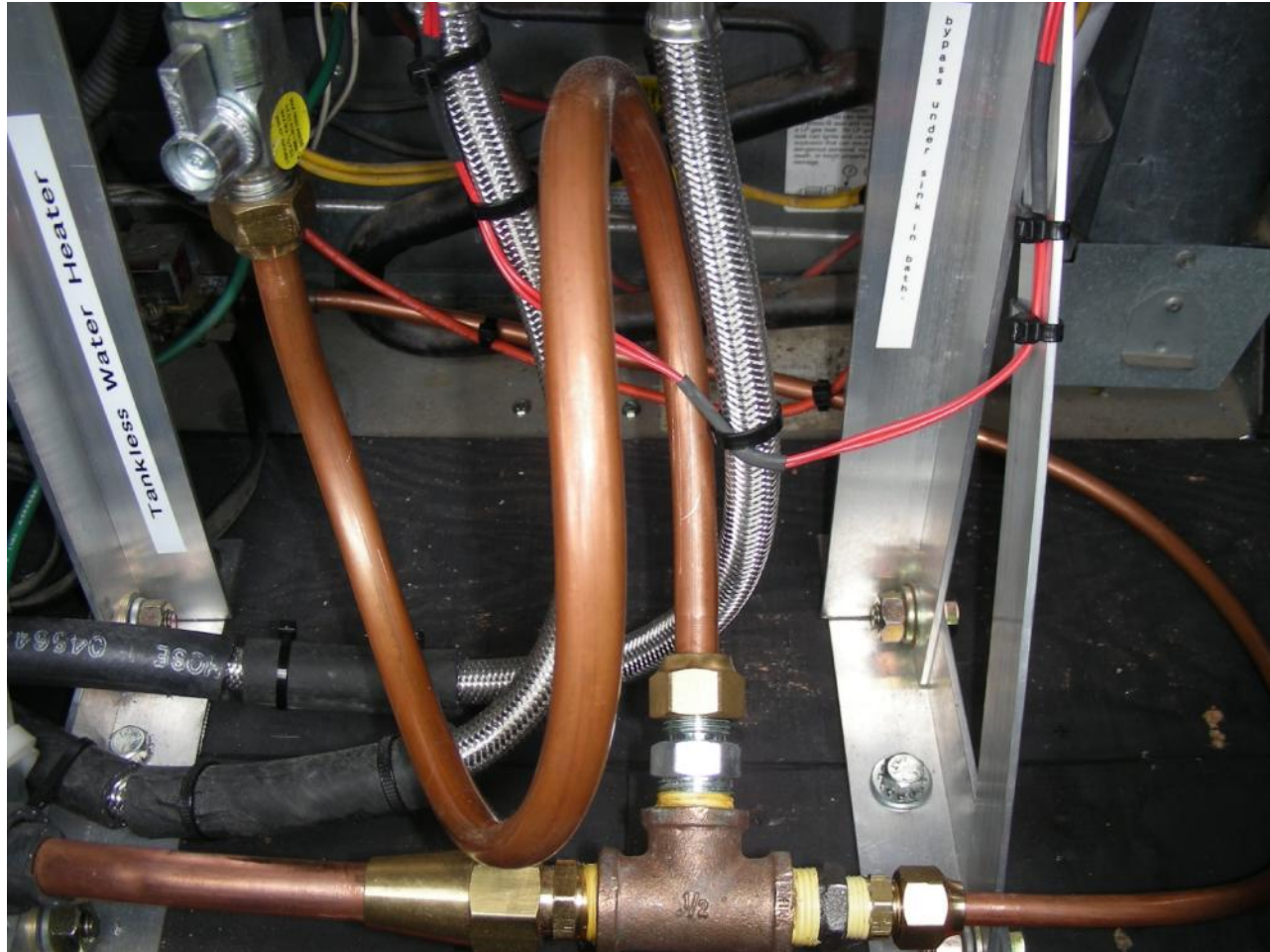
LP Gas Line





1976 Palm Beach
TZE166V100710

LP Gas Line






1976 Palm Beach
TZE166V100710

Rubber LP Gas Line?

http://www.tridentmarine.com/stage/lpg_hose_fitting.htm

**TRIDENT
MARINE
SYSTEMS**

U.S.: 1-800-414-BOAT
Intl.: 724-745-9311

Select a product ▾

search

Home | Hose | **LP Gas** | Wet Exhaust | Distributors | Marine Standards

LPG Hose & Fittings

This page displays our LP hose & fittings. LP Gas for marine appliances is inexpensive, long lasting, universally available, clean, quiet, and relatively simple to operate.

▶ [learn more about LP gas basics](#)

Assembly Option Diagrams:

- ▶ [Basic Single Cylinder Options](#)
- ▶ [Basic Dual Cylinder Options](#)

▶ [LP Gas](#)

- ▶ [Regulators](#)
- ▶ **[Hose & Fittings](#)**
- ▶ [Grill Systems](#)
- ▶ [Control/Detection](#)
- ▶ [Cylinders](#)
- ▶ [Lockers](#)

▶ [Contact Us](#)
▶ [Trident News](#)



#10 in diagrams

LPG Supply Line Hose #1014-3838-XXX

We prefer hose to copper supply line tubing because it won't corrode or develop stress/fatigue cracks and it is much easier to install. This UL listed hose is fully assembled and leak tested with solid brass fittings (3/8" female swivel flare each end), and high pressure, thermoplastic, LPG hose. Assemblies are UL Listed. Standard Lengths: 5', 10', 15', 20', 25', 30', 35', 40'. Other lengths and rubber construction are available on quantity special order.



1976 Palm Beach
TZE166V100710

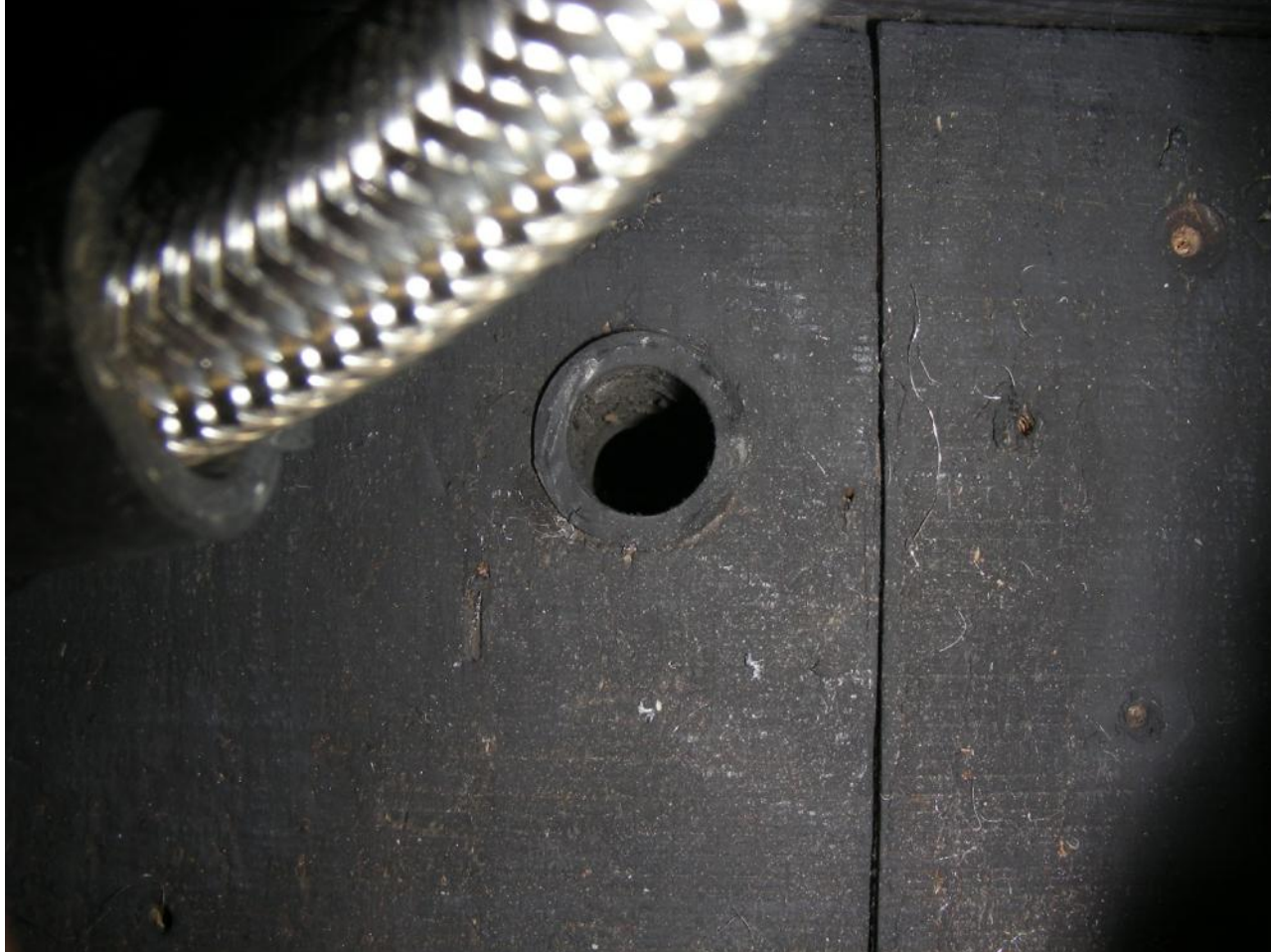
LP Gas Drain





1976 Palm Beach
TZE166V100710

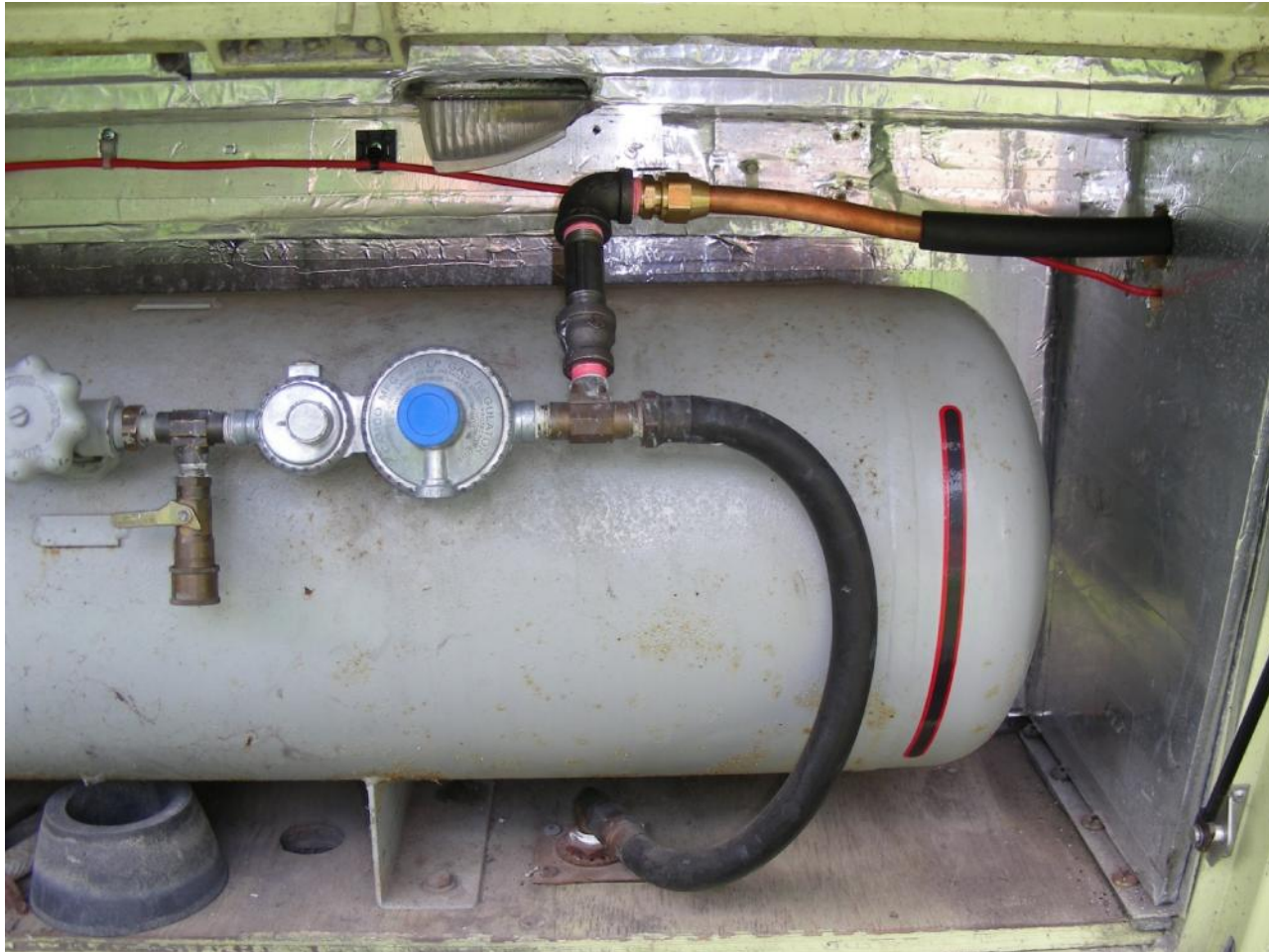
LP Gas Drain





1976 Palm Beach
TZE166V100710

LP Gas Line





1976 Palm Beach
TZE166V100710

Temperature and pressure (*T&P*) Valve?



The *T&P* valve is crucial because a water heater is a pressurized tank, and all such tanks need a way to release pressure if it becomes too great

I said no, because there is no tank.



1976 Palm Beach
TZE166V100710

ISSUES

The internet seems to have an plenty of tankless water heaters that supposedly can be used in RVs, but Is that really true?

EZ 101 LPG (Propane) Portable Tankless Water Heater

This easy to use propane powered tankless water heater was designed for a fast and easy setup. It is built using quality parts for longevity even when used in the worst conditions.

Tested by us in our USA laboratory, this model delivers up to 1.6 gallons per minute of consistent and continuous hot water at a 45°F rise. The EZtankless Model EZ 101 is aesthetically pleasing and has simple design features that make this outdoor unit easy to use and install as well as unobtrusive if located within view of working or living spaces.

ONLY \$134.99

Best Uses:

Outdoor Shower | Barn | Shop | Pool Shower | Grooming Pets |
Horses | Tailgating | Picnics | Fishing | Hunting | Auto Shop | Cabin |
Cottage | Camping | RV | Camper | Concession Trailer |
Construction Site

Anywhere Hot Water Is Needed!



1976 Palm Beach
TZE166V100710

Mounting Concerns

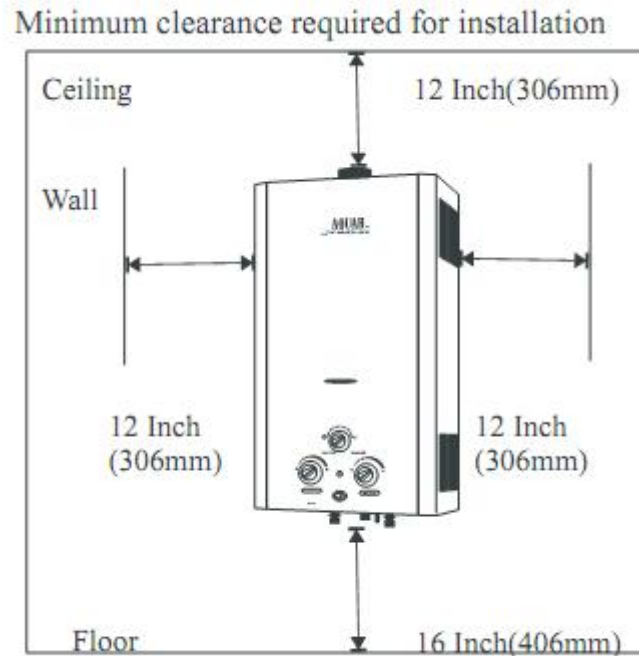


Fig. 2.5

There is not enough room behind the reefer to do this.



1976 Palm Beach
TZE166V100710

ISSUES

Warning: if the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death. Do not store or use gasoline or other flammable vapor and liquids in the vicinity of this or any other appliance.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

In the Commonwealth of Massachusetts the installation must be performed by a licensed plumber or gas fitter.

Upon completion of the installation, these instructions should be handed to the user of the appliance for future reference.



1976 Palm Beach
TZE166V100710

ISSUES

3.6 Venting



Danger: Do not reduce the vent pipe size. Do not put an elbow directly on top of heater. Failure to follow venting requirements may result in dangerous exhaust gases to enter living space.

Venting
Natural Draft

Minimum height : 6 feet (15.5cm) with no elbows
Water

3.3 Heater placement and clearances

The water heater is designed for installation on a non-combustible wall (see 3.4 mounting installation) provided the floor below the heater is non-combustible.



Warning:

*The gas water heater is not designed for:
installation in bathroom,
bedroom, or other occupied rooms*

2.3 General rules to follow for safe operation

1. You should follow these instructions when you install your heater. In the United States: The installation must confirm with local codes or, in the absence of local codes, the National Fuel Gas Code ANSI Z223.1/NFPA54.



1976 Palm Beach
TZE166V100710

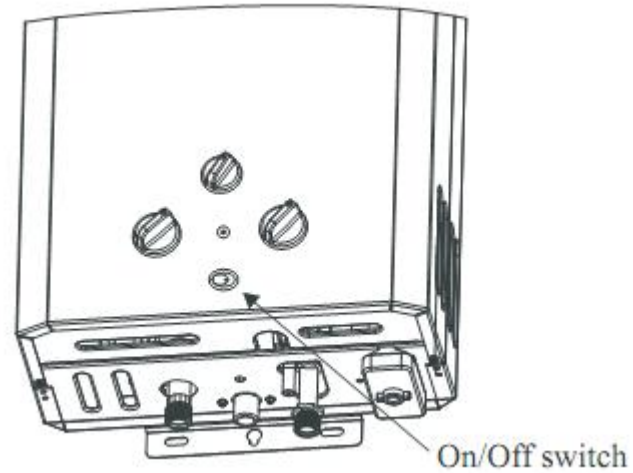
LP Gas Line





1976 Palm Beach
TZE166V100710

On/Off Switch



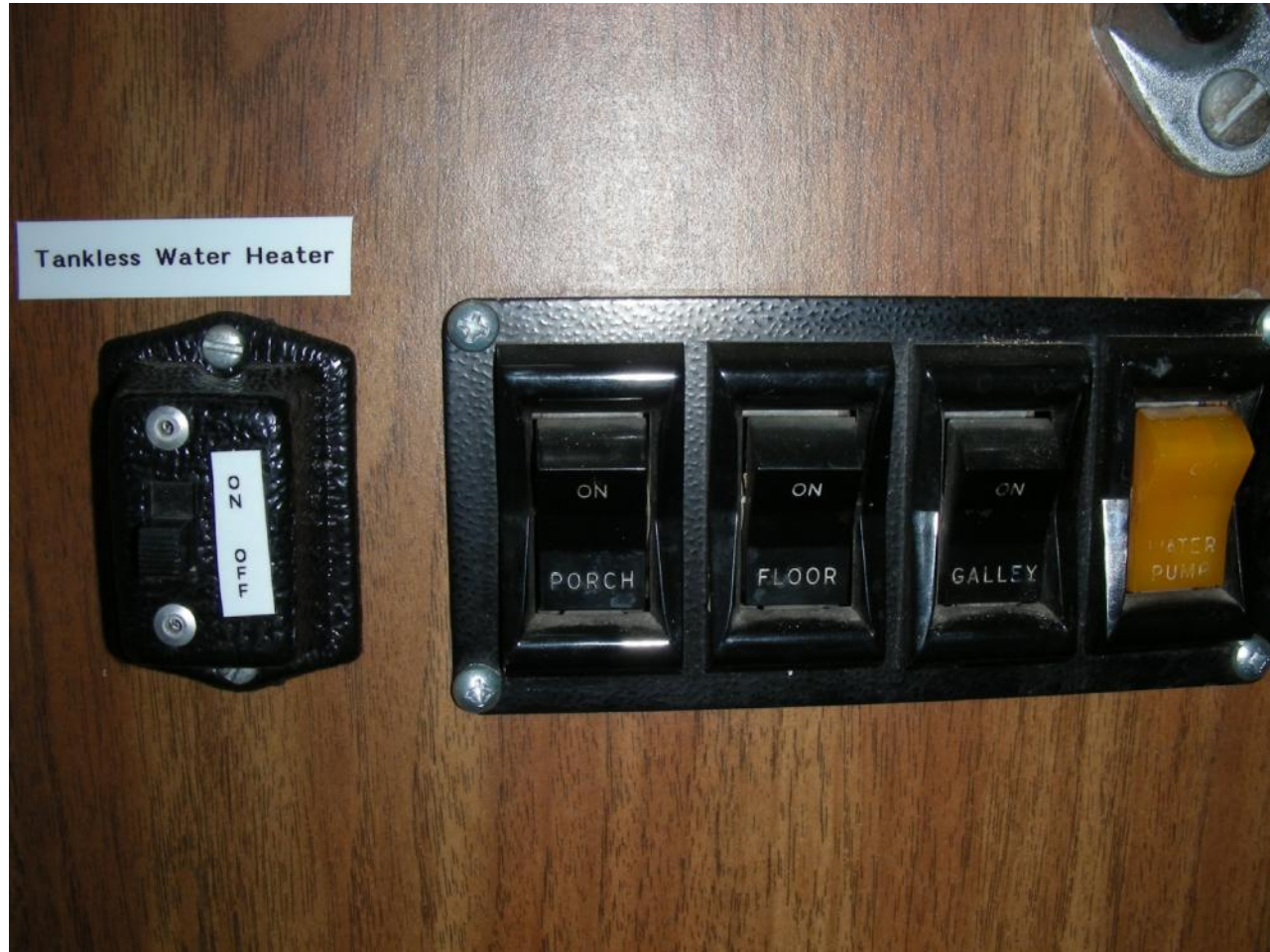
- I didn't want the heater to come on when using the OEM heater.



1976 Palm Beach
TZE166V100710

On/Off Switch

I didn't want the heater to come on when using the OEM heater.





1976 Palm Beach
TZE166V100710

Does it Work?





1976 Palm Beach
TZE166V100710

Does it Work?

- Install.





1976 Palm Beach
TZE166V100710

Does it Work?





1976 Palm Beach
TZE166V100710

Does it Work?





1976 Palm Beach
TZE166V100710

Does it Work?



• In



1976 Palm Beach
TZE166V100710

Does it Work?





1976 Palm Beach
TZE166V100710

Does it Work?

- YES
- We now have the best of two worlds
 - The OEM electric with engine assist
 - LP gas (with low flow) for dry camping.





Tankless Water Heater Seminar ***DISCLAIMER***

However, because of the risks involved, I can't recommend that this upgrade be done by a GMC owner unless they understand the issues.

