

SEELEVEL II™

Holding Tank Monitors for RVs

BUYER'S GUIDE

Printed in Canada

CANADA
Garnet Instruments
286 Kaska Road
Sherwood Park, AB T8A 4G7

USA
Garnet US Inc.
5360 Old Granbury Road
Granbury, TX 76049

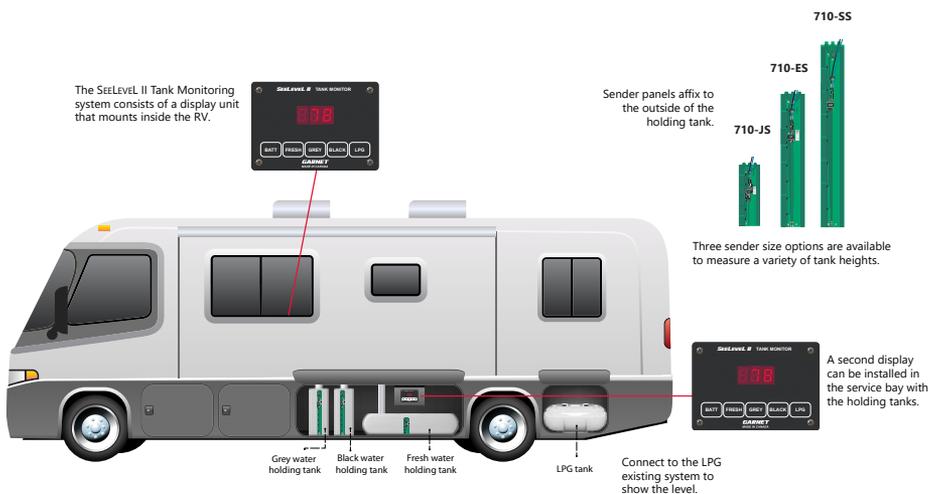
GARNET

Liquid management solutions, your way.

RVgauge.com | **1-800-617-7384**

SEELVEL II™ The RV Holding Tank System

The SEELVEL II series of holding tank monitors consists of a display unit that mounts inside the RV, and sender panels that stick to the side of the holding tank. A single 2 conductor wire is used to connect all the sender panels to the display.



How do I select which **SEELEVEL™** system I need?

How many tanks does your RV have?

Garnet has three options of SEELEVEL II holding tank systems, 2-Tank, 3-Tanks, 4-Tanks (not including LPG tanks - see below).

Does your existing display have a pump and/or water heater switch?

We have a variety of models available that are equipped with a pump switch and one that includes water heater switch. Look at your existing gauge to see if you have either of these.

Is your RV unit equipped with RV-C interface?

RV-C is a communications protocol used in recreation vehicles to allow various components to communicate. The 709-RVC and 709-RVC PM are RV-C network compatible, the tank levels and alarms are available on the RV-C bus for the fresh, grey, black and one LP tank. There is one alarm output available which can be used to signal a high or low water or sewer level as required.

LPG tank

If you have a propane (LPG) tank on your RV that is equipped with an electrical sensor we have models available that can connect and show the level of propane in percent of full from 0% to 100%.

Select your display.

See our current catalogue to find out which model has the features you require.

How tall are your tanks?

Before you purchase your system you will need to locate all your holding tanks. Measure the height of the tanks to determine which sender configuration to use and how long the senders should be. Senders can be cut to length or stacked to fit almost any size and shape plastic or poly tank.

After you have answered the above questions see the following instructions to determine which senders you need.

Which **SEEL**™ Tank Senders Do I need?

1 Measure the tank height from top to bottom.

2 Determine measurable space

Measurable space is the "ideal" position of the sender on the tank." *Caution:* Installing a sender outside of the recommended **measurable space** may affect your readings".

- We recommend that the senders be installed from 1/4" to 1/2" from the top and bottom of the tank. This **gap** ensures that the sender can read properly through the tank wall as the corners or rounded edges of the tanks can be too thick for the sender to read through.
- Subtract the **gap** space from the overall tank height. If you choose a 1/2" gap, then you would subtract 1" from the overall tank height. This will result in your **measurable space**.

Note: This is not a static formula that can be used on every tank. With some fresh tanks, the outlet for the pump feed may sit more than 1 inch above the bottom of the tank. Your water pump may begin to suck air before the tank is completely empty. In these cases, you want to install the fresh tank sender above the outlet for the pump feed. This will ensure that the monitor reads "0" before the pump begins to suck air.

3 Determine number of segments

The **measurable space** will determine the length of the sender you need, you can begin to choose which sender will give the best resolution for the sender space available.

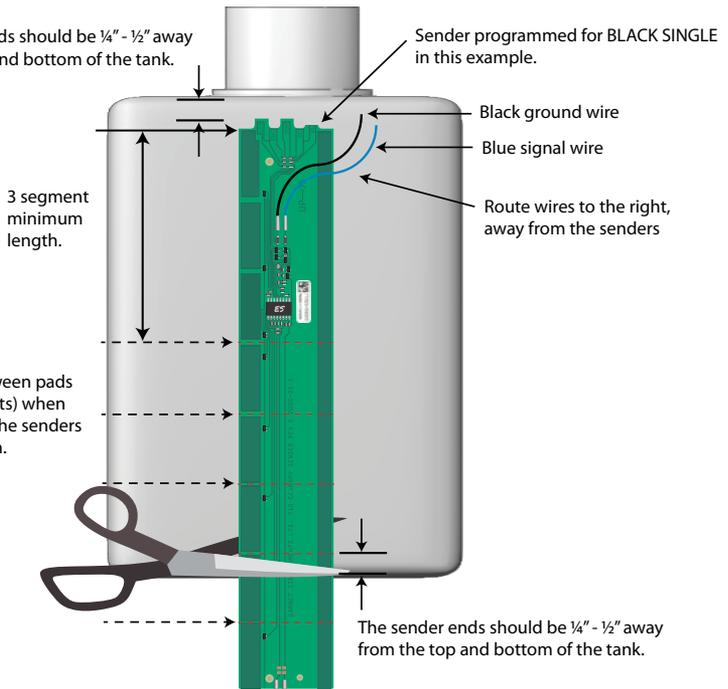
- In order to get the best reading possible, you want as many read segments (referred to as pads in the manual) as possible on the tank. These segments are the dark green rectangles located on the left side of the sender. The segment length varies with each model of sender.
- The 710JS has a total of six 1" segments, the 710ES has a total of eight 1 1/2" segments, and the 710SS has a total eight 2" segments.

4 More segments, better resolution

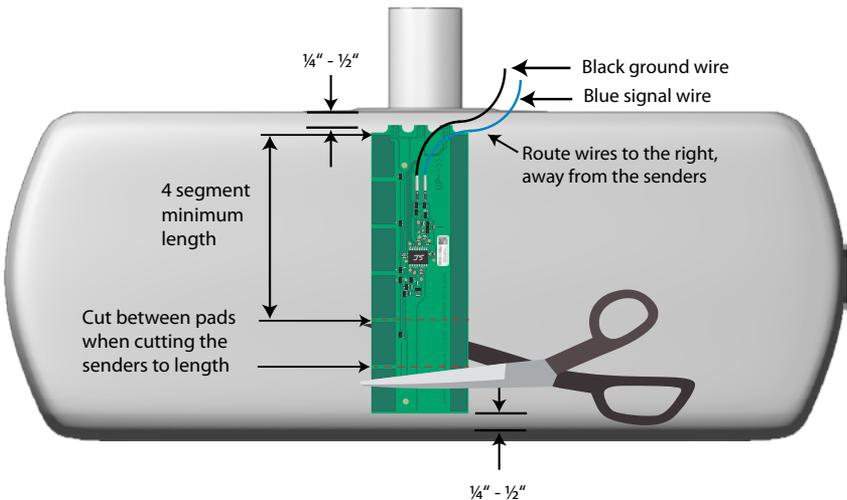
- During installation, you will be cutting the senders to length. As shown in the following illustrations, you can **ONLY CUT BETWEEN THE PADS/SEGMENTS**. This plays a factor in choosing which sender will give the best resolution. You can remove as many as 2 segments from the 710JS and 5 segments from the 710ES and 710SS senders.
- The goal is to have as many segments as possible for the measurable space. If you have 6" of measurable space, you could cut either a 710ES or 710SS down to 6". However, this will give you 4 segments on the 710ES and only 3 on the 710SS, therefore the 710ES would provide a better resolution.
- An uncut 710JS would allow for 6 segments in this space. Since there are more segments available, your resolution will be better.

Installation Tip: When the length of space to be measured falls in the middle of a segment, cut the sender to the shorter length. This will increase your gap or space at the top or bottom of the tank. However, for fresh tanks, we recommend leaving the larger gap at the top of the tank. The most important measurement on a fresh tank is when it is nearing empty. The opposite is true for grey, galley or black tanks. You want to leave the larger gap at the bottom of these tanks.

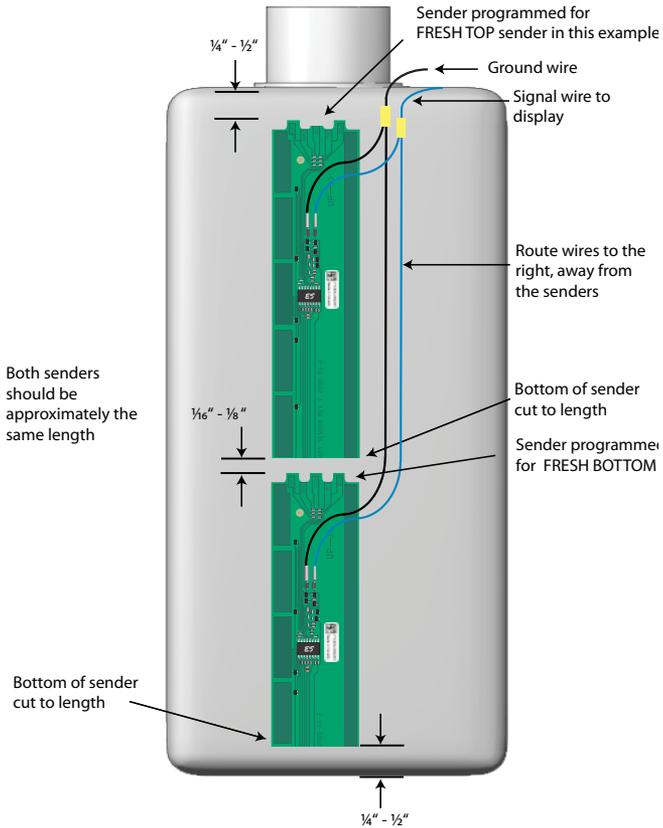
The sender ends should be $\frac{1}{4}$ " - $\frac{1}{2}$ " away from the top and bottom of the tank.



Typical Single 710-ES or 710-SS Sender Installation



Typical Single 710-JS Sender Installation



Typical Stacked 710-ES or 710-SS Sender Installation

My Tank Height Specs

	Measurable Height	Qty. 1 or 2	Which Sender(s) 710JS/710ES/710SS
Fresh Water Tank			
Grey Water Tank			
Black Water Tank			
Galley Water Tank			

5 Recommended single senders for tank heights.

710JS is recommended for *measurable space* between 4 1/2" to 7" high.

710ES is recommended for *measurable space* between 5" to 13" high.

710SS is recommended for *measurable space* between 14" to 17" high.

6 Recommended taller tank options.

For taller tanks, there are a few available recommended options.

Caution: Only two 710ES or 710SS senders can be stacked together.

Option #1: Stack two 710ES's for measurable space between 13" to 25" high.

This option requires an additional 710ES to be purchased. For tanks of this height, installing two stacked 710ES's is the best solution. As noted in the installation guide found in the owner's manual, we recommend cutting each sender to approximately the same lengths when possible.

Option #2: Use a **single 710SS** for measurable space 14" to 18" high.

This option may not allow for the maximum amount of segments for this measurable space, but is a more cost-effective alternative to purchasing an additional 710ES for stacking. An additional charge is applied when upgrading to a 710SS.

Option #3: Stack **two 710SS's** for measurable space 25" to 34" high.

As with the 710ES, we recommend cutting each 710SS to approximately the same lengths when possible.

TANK SENDER CHART

Tank Height	Best Resolution	Other Acceptable
4 1/2" - 5"	JS	-
5" - 7"	JS	ES
7" - 13"	ES	SS
13" - 17"	stacked ES	SS
17" - 25"	stacked ES	stacked SS
25" - 34"	stacked SS	-

When it comes to making these decisions, we always encourage a phone call or e-mail. We are more than happy to walk you thru the process of purchasing and installing your SEELEVEL™ RV Tank monitor. We would love to share our knowledge and experience with you.

Garnet's state-of-the-art technology is one of the most accurate monitors available in the market today.

