

Pre-Synchronized
Read Instructions Carefully

Wireless Fuel Oil Level Monitoring System

Revised 7/1/2009 R6

FCC ID: S6T-377A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

The Rocket 7000 System includes the following components:

- 7070 Transmitter "Rocket" with gasket
- 7050 Bar type LCD Receiver display
- 7020 Metal Adapter (2" NPT)
- Mounting Screws (2)

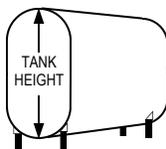
Tools Required:

- Pipe Wrench
- Thread Sealant
- Star/Philips Screw driver

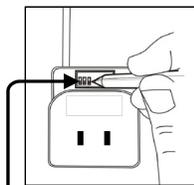
INSTALLATION STEPS

1. CONFIGURING THE RECEIVER

Determine the total tank height either by making a direct measurement or using the Table on the reverse side. The Receiver comes programmed from the factory for oval 138, 275 or 330 gal upright (Vertical) Steel tanks. **Important:** For tanks where the oil line comes from the top of the tank, subtract 6 inches (0.15m) from the measurement before configuring the Receiver below.



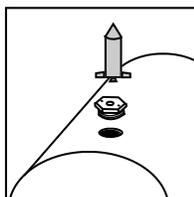
The Rocket 7000 system is capable of measuring fuel level in a tank up to 10 ft in height. A row of DIP switches is located on the back of the Receiver. After determining the tank height, use the Table to locate the correct DIP switch setting for your tank and set the switches accordingly. Toggling an individual switch up (towards the antenna) will put it into the "ON" position. **Plug the Receiver into a convenient 110 Volt outlet.** The top bar on the receiver display will flash rapidly for about 2 minutes and the screen will then show the last measurement received (could be any number of bars).



DIP switch 1 is used for enabling (ON-Factory Setting) or disabling (OFF) the audible low fuel level warning.

2. PREPARING FOR MOUNTING ONTO THE TANK

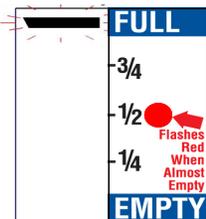
Using a pipe wrench, if necessary, loosen the metal plug in an unused opening at the top of the tank. The Rocket 7000 System comes with a metal adapter that will screw into a 2" NPT opening in the tank. (For 1 1/2" or 1 1/4" NPT openings or European style double-wall tanks, please contact a participating distributor for a correctly sized adapter). Put pipe sealant on the Adapter threads and tighten the Adapter into the tank opening. For basement tanks, temporarily place a cover (for example, a rag) over the adapter to minimize fuel odors until the Transmitter is fastened to the Adapter in Step 4.



3. RECEIVER / TRANSMITTER SYNCHRONIZATION

NOTE: The Transmitter and Receiver in this package have been PRE-SYNCHRONIZED. Unless you are adding another Receiver or replacing a defective Transmitter or Receiver, there is no need to re-synchronize and you can proceed to Step 4.

To synchronize a Receiver to a Transmitter, plug the Receiver into a convenient 110 Volt live electrical outlet. **Note: If you are adding Receiver(s), you must unplug existing Receivers for this tank and plug ALL the Receivers back in to put them into the synchronization mode.** The LCD display on the Receiver will show a flashing top bar (for about 2 minutes) as shown in the figure. During this 2 minute "Learn" period, slide the Transmitter, starting at the bottom of the right side of



INSTALLATION STEPS—CONTINUED

3. SYNCHRONIZATION—CONTINUED

of the Receiver until the black dots meet or until the Receiver bars begin to increase. Keep the devices in that position for about 20 sec or until all ten bars flash and a short "beep" occurs to indicate that synchronization is complete. The Transmitter stays in "Fast" transmit mode for 10 minutes following synchronization. To deactivate Fast transmit mode, again slide the Transmitter dot towards or past the Receiver dot.

4. INSTALLING THE TRANSMITTER

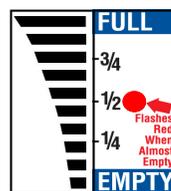
Plug the Receiver in and wait for the top bar to stop flashing. Slide the Transmitter dot, starting at the bottom right side of the Receiver, up past the Receiver dot to put the Transmitter into "Fast" mode. Separate the device. Moving the Transmitter up and down above a solid surface should decrease or increase the number of bars respectively. Now fasten the Transmitter to the Adapter using the screws provided. **Do not over tighten.**

CONGRATULATIONS! You have completed the installation of the Rocket 7000 system. The transmitter will send the fuel level to the Receiver eight times an hour. If you have a float gauge on your tank, you can now verify the Rocket 7000 system reading.

NORMAL OPERATION

The Rocket 7000 system uses ultrasonic radio wave technology to measure the fuel level in the tank. It then uses wireless transmission to send the measured fuel level to the Receiver. Measurements and transmissions are done eight times every hour.

NORMAL RECEIVER LCD SCREEN DISPLAYS



FULL



LOW



ALMOST EMPTY

NOTE: WHEN THE "ALMOST EMPTY" WARNINGS FIRST OCCUR, THERE IS ABOUT 5" OF FUEL LEFT IN THE TANK

BEEPS EVERY HOUR

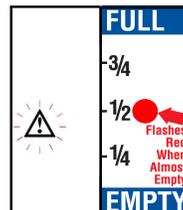
TROUBLE SHOOTING

NOTE: In the event of a power failure or if the Receiver is unplugged, it is **not necessary to re-synchronize the Receiver with the Transmitter.** When the Receiver is back under power, the top bar on the LCD display will flash for 2 minutes and the display will then show the last measurement received prior to losing power. It may take up to one hour until a new measurement signal is received from the Transmitter.

FLASHING TRIANGLE—NO BARS DISPLAYED

Indicates that the receiver has not received a signal for two hours. Possible causes are:

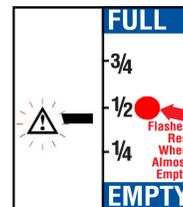
- Receiver not matched to transmitter—Resynchronize
- Receiver location not suitable—Relocate receiver
- Failed Battery—Replace Battery (use 3 Volt CR2430)
- Moisture inside Transmitter (broken seal)



FLASHING TRIANGLE—MIDDLE BAR DISPLAYED

Indicates that the Transmitter is not receiving an echo from its ultrasonic signal inside the tank. Likely cause:

- Condensation on the sensing surface at the bottom of the Transmitter. Allow time to dry. If condition persists, remove Transmitter from the tank and clean sensor surface and verify that the seal is undamaged.



DIP Switch Settings for the OEM Rocket 7000 LCD Receiver

Measured Tank Height		Set Switches ON	Settings for Commonly Available Tanks		
Metric (Meters)				English (Inches)	
From	To	From	To		
0.50	- 0.55	20	- 22	2 thru 8 OFF	
0.55	- 0.60	22	- 24	7	
0.60	- 0.65	24	- 26	6,8	23" High Oval Horizontal Steel Tanks (240 Gal)
0.65	- 0.70	26	- 28	6,7,8	
0.70	- 0.75	28	- 30	5,7	Standard 27" High Oval Horizontal Steel Tank (137, 275, 330 Gal) Highland Horizontal Cylinder Tank (160, 240, 320 Gal)
0.75	- 0.80	30	- 31	5,6	
0.80	- 0.85	31	- 33	5,6,7,8	
0.85	- 0.90	33	- 35	4,8	
0.90	- 0.95	35	- 37	4,6	
0.95	- 1.00	37	- 39	4,6,7	Higland UL-142 38" Dia. 185-300 Gal
1.00	- 1.05	39	- 41	4,5,8	
1.05	- 1.10	41	- 43	4,5,7,8	
1.10	- 1.15	43	- 45	4,5,6,7	Factory Setting Standard Oval Vertical Steel Tank (137, 275, 330 Gal) Roth DWT-400L (110 Gal)
1.15	- 1.20	45	- 47	3	Schütz No. 825026 (165 Gal)
1.20	- 1.25	47	- 49	3,7,8	Highland Vertical Cylinder Tank (128 Gal), Higland UL-142 48" Dia. 500-1000 Gal and Granby/Dehoust No. 961225 (160 Gal)
1.25	- 1.30	49	- 51	3,6,8	
1.30	- 1.35	51	- 53	3,5	
1.35	- 1.40	53	- 55	3,5,7	
1.40	- 1.45	55	- 57	3,5,6,8	
1.45	- 1.50	57	- 59	3,5,6,7,8	
1.50	- 1.55	59	- 61	3,4,7	Highland Vertical Cylinder Tank (160 Gal), Roth DWT-620L (165 Gal) and Roth DWT-1000L (275 Gal)
1.55	- 1.60	61	- 63	3,4,6	
1.60	- 1.65	63	- 65	3,4,6,7,8	Schütz No. 825034 (265 Gal), Granby/Dehoust No. 961226 (275 Gal) and Highland UL-142 64" Dia. 1,000-4,000 Gal
1.65	- 1.70	65	- 67	3,4,5,8	Roth DWT-1500L (400 Gal)
1.70	- 1.75	67	- 69	3,4,5,6	
1.75	- 1.80	69	- 71	3,4,5,6,7	
1.80	- 1.85	71	- 73	2,8	Highland Vertical Cylinder Tank (192 Gal) and Highland UL-142 6ft Dia. 4,000-6,000 Gal
1.85	- 1.90	73	- 75	2,7,8	
1.90	- 1.95	75	- 77	2,6,7	
1.95	- 2.00	77	- 79	2,5	
2.00	- 2.05	79	- 81	2,5,7,8	
2.05	- 2.10	81	- 83	2,5,6,8	
2.10	- 2.15	83	- 85	2,4	
2.15	- 2.20	85	- 87	2,4,7	
2.20	- 2.25	87	- 89	2,4,6,8	
2.25	- 2.30	89	- 91	2,4,6,7,8	
2.30	- 2.35	91	- 93	2,4,5,7	
2.35	- 2.40	93	- 94	2,4,5,6	
2.40	- 2.45	94	- 96	2,4,5,6,7,8	Highland UL-142 8ft Dia. 4,000-15,000 Gal
2.45	- 2.50	96	- 98	2,3,8	
2.50	- 2.55	98	- 100	2,3,6	
2.55	- 2.60	100	- 102	2,3,6,7	
2.60	- 2.65	102	- 104	2,3,5,8	
2.65	- 2.70	104	- 106	2,3,5,7,8	
2.70	- 2.75	106	- 108	2,3,5,6,7	
2.75	- 2.80	108	- 110	2,3,4	
2.80	- 2.85	110	- 112	2,3,4,7,8	
2.85	- 2.90	112	- 114	2,3,4,6,8	
2.90	- 3.00	114	- 116	2,3,4,5	
3.00	- 3.10	116	- 120	2,3,4,5,6,8	Highland UL-142 10ft Dia. 8,000-20,000 Gal