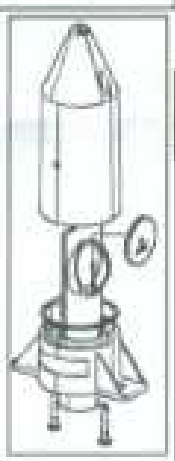
APOLLO ULTRASONIC RECEIVER MULTI SWITCH SETTING CHART

Measure the vertical height of the tank from the transmitter position on top of the tank to the bottom of the tank. Read to the nearest measurement on the chart.

Height of tank in mm.	Set Switches On	Height of tank in mm.	Set Switches On
500	All Off	1750	3,4,5,6,7
550	7	1800	2,8
600	6,8	1850	2,7,8
650	6,7,8	1900	2,6,7
700	6,7	1950	2,5
750	5,8	2000	2,5,7,8
800	5,6,7,8	2050	2,5,6,8
850	4,8	2100	2,4
900	4,6	2150	2,4,7
950	4,6,7	2200	2,4,6,8
1000	4,5,8	2250	2,4,6,7,8
1050	4,5,7,8	2300	2,4,5,7
1100	4,5,6,7	2350	2,4,5,6
1150	3	2400	2,4,5,6,7,8
1200	3,7,8	2450	2,3,8
1250	3,6,8	2500	2,3,6
1300	3,5	2550	2,3,6,7
1350	3,5,7	2600	2,3,5,8
1400	3,5,6,8	2650	2,3,5,7,8
1450	3,5,6,7,8	2700	2,3,5,6,7
1500	3,4,7	2750	2,3,4
1550	3,4,6	2800	2,3,4,7,8
1600	3,4,6,7,8	2850	2,3,4,6,8
1650	3,4,5,8	2900	2,3,4,5
1700	3,4,5,6	3000	2,3,4,5,6,8

Battery removal

Remove the transmitter unit from the tank and take it to a safe location.
The battery can be accessed by removing 2 self-tapping screws from the base of the unit. See sketch.
Remove the old battery noting the orientation ('+' mark facing outwards), and replace with a new battery. 3V-CR2430.
Re-assemble, ensuring the O-Ring is undamaged and secured in position.
Re-locate the transmitter on the tank.
No Need to Rematch

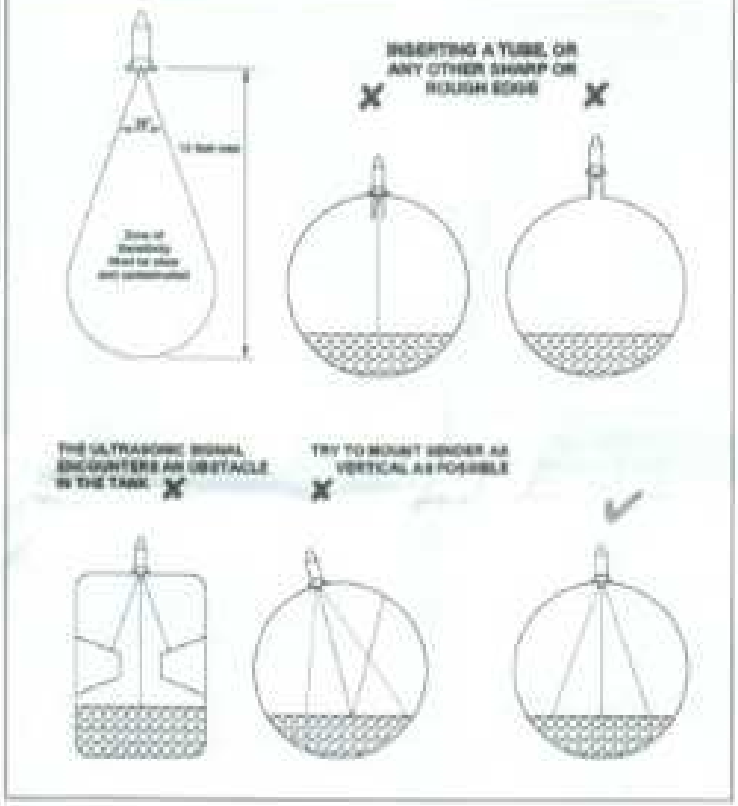


Specifications

Tank Depth measurement :
Minimum depth : 0,1 m, Maximum depth : 3 m
Max communication distance:
200m in normal 'line of sight' conditions
Power Supply :
Receiver: 150-250V, 50-60Hz, Meets EN60335
Transmitter: 3-volt lithium cell
Battery life :
10 years (estimated life)
Wireless communications :
433 mHz FM transmission, EN 300-220
Max and Min Operation Temp (Transmitter) :
Operating temperature range -10° - +60°C.

Not Suitable for pressurised containers. Use on tanks vented to Atmosphere.

Installation Help



For support contact:
info@dunravensystems.com
© Dunraven Systems Ltd.

If happy with the Apollo, recommend it to a friend.

APOLLO ULTRASONIC OIL LEVEL MONITOR

THE RIGHT CHOICE

- The Apollo Ultrasonic Oil Level Monitor measures the level of usable oil in your tank in 10 graduations of the tank height.
- We give a full 1 year warranty subject to normal conditions. Supplied with long life lithium battery (3V-CR2430). The warranty becomes invalid if the sealed unit is opened.
- Suitable for use in tanks for the storage of diesel fuel, kerosene, gas oil types A2, C1, C2, and D as defined by BS 2869. Check with the manufacturer and/or supplier before using with any other fluids.
- The Apollo Ultrasonic will fit easily to most standard oil storage tanks (plastic or steel) that has a 20 mm, 32 mm or 38mm (1½") gauge hole.

TOOLS REQUIRED

Standhilips head screwdriver.

INSTALLATION INSTRUCTIONS

1 SETTING RECEIVER

- Accurately measure the height of your tank. Using the tank height chart on ***page 2***, read across to the relevant multi switch settings. The multi switches are located in a recess at the back of the receiver above the pins.



- Using screwdriver or tip of ball point pen, flip the relevant switch(es) upwards (= **ON**). As an example, if the tank is 850 mm high, set switches **ON (Up)** Number **4 & 8**.
- **Set switch 1 on/up to enable the low level audible warning.**

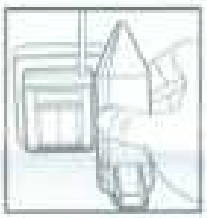
Your **Apollo Ultrasonic** receiver is now programmed to your tank height.

2 MATCHING RECEIVER AND TRANSMITTER

You should match the receiver with the transmitter so that the system code is unique to your tank. You only need to do this once.



- Plug receiver into a suitable and convenient electrical socket and switch on. The display screen on the front of the receiver will show a flashing top bar as shown in diagram. This indicates that the receiver is awaiting a unique code. The flashing top bar will last for 2 minutes **during which time you can match the transmitter to the receiver.**



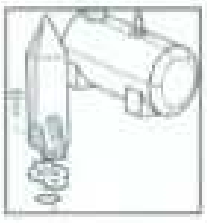
- Hold the transmitter against the receiver right hand side, as shown, **so that the black dots are touching each other (important!) for about 20 seconds to allow unique code to be transferred.** Bars will increase up the display screen. During the matching process you will hear an audible beep to indicate matching is in progress. A change in tone will indicate completion of the matching process. When all 10 bars are shown they will flash to indicate that the unique code is transferred.

3 FITTING TRANSMITTER

The procedure is the same for fitting to both old and new tanks.

For tanks with pre-drilled 20 mm or 32 mm hole

- Remove cap from hole and insert transmitter, ensuring the weather seal is securely in place.



- Ensure the transmitter is **vertical** on top of the tank.
- Tighten on to the tank using the 2 stainless steel 19mm long self-tapping screws supplied. **Do not use longer screws. Do not overtighten.**

For tanks with 1½" (38 mm) BSP gauge socket
An optional adapter is available.

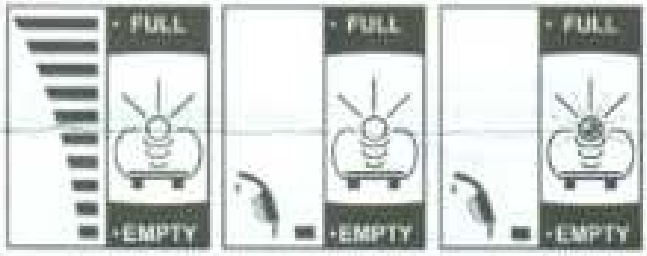
- Unscrew cap from hole and fit the adapter by screwing into gauge socket.
- Fit the transmitter to the adaptor on the tank as described above.

The Apollo Ultrasonic Oil Level Monitor is now fully installed. If the transmitter is installed within 10 minutes of matching, the current level will be displayed, otherwise it may take one hour for the correct oil level indication to be displayed on screen.

NOTE:
In the event of a power failure or if the receiver is switched off or moved to a new socket.
When power returns again or unit is switched on, the receiver display screen will show the top bar flashing. **There is no need to repeat the matching instruction**. The top bar will continue to flash for 2 minutes, after which time the display screen will revert to the last valid reading.

APOLLO ULTRASONIC ON SCREEN DISPLAYS

NORMAL MESSAGES (images for illustration purposes)



Full *Early Warning* *Almost empty*

OTHER MESSAGES

Flashing triangle, no bars
No radio signal received from transmitter (For a period greater than 4 hours

- check for correct matching procedure
- location of receiver to transmitter (try repositioning receiver)



Fixed triangle only
Low battery warning, unit will continue to give a reading until the battery is exhausted.

- Replace Lithium CR2430 battery in transmitter



Flashing triangle, middle bar only
No ultrasonic echo
Failure of transmitter to receive an echo from the fuel surface

If message persists

- check that the transmitter is fitted vertically on the tank

No Echo