



REPLACE/UNINSTALL/MAINTAIN A MODEM OR A TRANSMITTER

REPLACE A FAULTY MODEM

- ⓘ A faulty modem will need to be replaced (with a new modem)
To install the new modem, you should follow the installation process as outlined in the Installation Form.
- The replacement modem will have a new serial number which will need to be registered with the RMS Software.

UNINSTALL A TRANSMITTER

- Only Transmitters 2,3 and/or 4 can be uninstalled. Transmitter 1 is a Default Transmitter, and cannot be removed**
You can uninstall any one of Transmitters 2,3 and 4. e.g. uninstall Transmitter 2 and leave Transmitters 3 and 4 as they are.

Procedure

- a. Turn off the modem power
- b. Insert something blunt such as a biro point into the service button hole, using this to hold down the button while turning back on the modem power - The GREEN LED should light up.
- c. Release the service button. The modem is now in Learn Mode, which is active for 2 minutes only.
- d. If no Transmitter is matched to the selected position (2-4) on the modem during this 2 minute period, it will time out. When this is allowed to happen, the Transmitter which had been installed in this position - as Transmitter 2,3 or 4 - will be deleted from memory.

ⓘ To select the correct position on the modem

- In Learn Mode the YELLOW LED gives distinctive grouped flashes - in groups of 1, 2, 3 or 4 flashes to indicate which Transmitter you are dealing with. i.e. the 1st, 2nd, 3rd or 4th Transmitter/tank.
- Repeating steps a-c above will bring you through the Transmitters - in sequence - so that you can select the Transmitter (from 2-4) that you wish to uninstall.

If the modem is turned off accidentally, turning it on again will automatically put it into Learn Mode for Transmitter 1. Because this Transmitter cannot be

REPLACE A FAULTY TRANSMITTER

STEP 1

- a. Turn the modem off. While off, insert something blunt such as a biro point into the service button hole, using this to hold down the button while turning back on the modem power - The GREEN LED should light up.
- b. Release the service button. The modem is now in Learn Mode; it will stay like this for 2 minutes before timing out.
- c. The YELLOW LED will now give distinctive grouped flashes - in groups of 1, 2, 3 or 4 flashes to indicate that you are about to match the modem to the 1st, 2nd, 3rd or 4th Transmitter/tank.

Repeating steps a-c will bring you through the Transmitters - in sequence - so that you can select the Transmitter that you wish to replace.

- ⓘ Simply turning the modem off and then on again will automatically put the modem into Learn Mode for Transmitter 1.

STEP 2

Once you have the correct Transmitter for replacement selected:

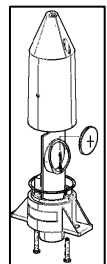
- a. Touch the black dots found on the right side of the RMS modem and the (new) Transmitter together for approx 20 seconds. In this phase, the GREEN LED should flash.
- b. At the end of the 20 seconds, the RED LED will flash briefly to indicate that the matching sequence has been completed. The YELLOW LED will stay on.
- c. Separate the Transmitter and the modem. The YELLOW LED will remain on, and the GREEN LED will continue to flash indicating that the modem and Transmitter are

CHANGING THE BATTERY

Though the lithium battery will have a very long service life - estimated at over five years - it will eventually become exhausted and need changing.
Replacement batteries can be purchased from most camera shops or chemists. The battery type is VARTA CR2430.
Alternatively, replacement batteries, together with new O-ring seals and bags of desiccant are available from Dunraven directly.

Procedure

- Remove the Transmitter from the tank and bring it indoors, into a clean, dry environment.
- Using a Philips head screwdriver, unscrew the two self-tap screws located under the foam seal.
- Remove the top cover, noting the position of the O-ring seal and bag of desiccant.
- Flip out the old battery
- Clip in the new battery, with '+' (positive) outermost, as shown.
- ⓘ There is a locating peg protruding from the cover near one of the screw holes, which fits into the matching peg hole in the base, dictating which way the cover goes on.
- Ensuring the O-ring is seated correctly, re-fit the cover
- Evenly tighten the two screws - taking care not over tighten
- Return the Transmitter to the tank, ensuring that it is repositioned correctly.



TROUBLE SHOOTING

At each DialUp, the modem gives a report of the Transmitter Status:

OK : The Transmitter is working

! : Problem / Error

!	Cause	Solution
Bund Status (BS)	<p>There is leaking Oil or Water in between the two layers of the tank.</p> <p>The Bund Sensor is damaged</p>	<p>Check the Tank for leaks in between the skins, or if the Lid is properly attached.</p>
<p>No Echo (NE)</p> <p>(No ultra-sonic echo)</p>	<p>May be caused by condensation on sensing cone</p> <p>The sensor cone is not clean</p> <p>The Transmitter is screwed on too tightly</p> <p>The probe has been badly installed and the signal meets an obstacle</p> <p>The temperature is below that of the Operating temperature range</p>	<p>Do nothing and allow to dry naturally by placing in dry location</p> <p>Remove Transmitter from tank. Check that the Transmitter sensor cone is clean</p> <p>Slightly loosen the Transmitter</p> <p>Check that the Transmitter is vertical</p> <p>When the temperature is above -10°, the system will work correctly</p>
<p>Radio Signal (RS)</p> <p>(No radio signal, After waiting for two hours)</p>	<p>Location of receiver to Transmitter <i>Please note that the radio transmission distance will be reduced by the proximity of metal, e.g. steel in buildings, metal domestic appliances etc that are effectively between the Transmitter and receiver.</i></p> <p>Bad matching</p> <p>Exhausted battery</p> <p>Moisture ingress due to seal damage</p> <p>N If the tank is underground. The signal is too low to the ground to be received</p>	<p>Try repositioning modem closer to the Transmitter</p> <p>Check for correct matching procedure, See Modem Installation form for details</p> <p>Replace the battery. See Modem Installation form for details</p> <p>Contact your supplier or our After-Sale-Service</p> <p>Try repositioning the receiver closer to the Transmitter (Talk your supplier about the Apollo')</p>
BAT	<p>Transmitter battery is low</p>	<p>Replace the battery</p> <p>N Do not open the Transmitter during the Warranty</p>

N The tank level should be received every hour. Sometimes external phenomena may temporarily reduce the signal. It is advisable to wait for over an hour before thinking there may be a problem.

Each faulty product must receive Dunraven After-Sale-Service approval before being returned to Dunraven (info@dunravensystems.com).

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