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# **Quick Reference Operating Guide for KTUS-1L Radio Buoy**

## Components

The KTUS-1L radio buoy is delivered with the following major components:

### Antenna:

- 1. Whip (Upper section with pointed end)
- 2. Base (Lower section with wire and connector)
- 3. Coil (14 inch black coated cylinder with stainless ends

#### Main Unit:

The main unit consists of a stainless steel buoy body with attached stability float collar, and electronic unit with lid which is attached to the body by 4 locking bolts. A large "O" ring seals the electronic unit when the lid is evenly and proportionaly tightened. Inside the body beneath the electronic unit is the power supply, or 24 VDC battery. The electronic unit is attached to the battery via a 4 pin connector, and to the base antenna via a coupled screw fitting.

## **Assembly**

#### Antenna

- 1/ Screw the loading coil and lower antenna firmly together. The coil goes on the opposite end that the connector is located. The connector end of the cable attached to the lower antenna should be in the down position, since this will be attached to the buoy.
- 2/ Screw the upper antenna to the coil and connect firmly.

Set the antenna aside until buoy is made ready in following steps.

#### Buoy

- 1/ Unscrew the 4 locking bolts on the buoy lid. This is the access to the electronic unit.
- 2/ Carefully slide the electronic unit up until you can reach your hand down inside the buoy drum for access to the battery. Be careful not to disturb the positioning of the "O" ring which seals the lid.
- 3/ Connect the electronic unit power cable to the battery by carefully aligning the 4 pins which match the female side of the battery and gently pushing in. DO NOT FORCE THE CONNECTOR, IF ALIGNED, IT MATCHES. Then screw the connector collar carefully onto the battery threads. Be careful not to strip the threads.

- 4/ Replace the electronic unit carefully by inserting back into the body, and aligning the 4 slots with the bolts on the buoy body. Make sure the "O" Ring is seated properly in the slot.
- 5/ Tighten lid evenly and firmly.
- 6/ Screw the assembled antenna into the buoy lid firmly.
- 7. Wind any extra base antenna cable around the antenna, and then screw the connector into the buoy lid being careful not to cross thread the connection. Tighten firmly.

Buoy is now ready for operation.

## **Operation**

The KTUS-1L radio buoy is operated by a 3 position power switch located on top of the buoy. The 3 positions are "Off", "Test", and "On"

An LED indicator window is also located on the buoy lid for monitoring performance and battery condition.

1. Switch the power switch to "test" position.

a/ If the battery voltage is below 18V, the LED will flash red, which means it is time to change the battery.

b/ If the voltage is OK, the LED will be green, and the buoy will do a self test by transmitting the signal 3 times ending with a 5 second beep every 3 minutes.

2. Set the power switch to "on " position. The buoy will now transmit 3 times ending with a 5 second "beep" every 3 minutes. The LED should be flashing in green color, which indicates OK voltage (above 18V). If LED is red color, then replace battery immediately.

Buoy may now be deployed.

## Notes:

- A/ Make sure the buoy is switched to "off" position when not in use to save battery life.
- B/ Make sure the lid is tightly secured before deploying to avoid damage to the buoy.
- C/ Set the vessels DF unit to the same frequency as the buoy for homing.