

# Southstar Hardware Setup Guide

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## 1. Intro

Thank you for your purchase of the Southstar Acoustic Tracking System. This guide describes the Southstar Hardware, as well as gives instructions for setup.

## 2. Component List

- 1 Storage case
- 1 MCU-5 Charging system (8 pin version)
- 1 RF Modem Dongle
- 5 TLT-32A Acoustic modules
- 5 FRF-2 RF modems
- 6 RF antennas
- 5 100ft.Data cables
- 4 Buoys and Buoy counterweight assemblies
- 4 Tripods and Tripod hardware sets
- 4 100ft Stainless steel braided cable

- 12 5lb. Lead diver weights



### 3. Hardware Setup

#### 3.1 Electronics Setup:



1. - FRF-2: Fully charge all of the FRF-2 units using the MCU-5 charging station.
  1. The charging process takes typically a full 24hrs or until the status indicator on the FRF-2 units are solid green.
  2. The MCU-5 is capable of charging all of the FRF-2 units simultaneously.
  3. Attach the FRF-2 units to the Buoy units. (see hardware diagrams for dimensional setup data)
  4. Connect supplied antennae when deploying the FRF/Buoy units to the array to reduce chance of breakage.
2. RF Dongle:
  1. Connect supplied antenna.
  2. Connect the RF Dongle to the PC running the Southstar software.



### 3.2 Tripod setup:



1. Unfold the tripod legs and insert hitch pins.
2. Install the TLT mounting hardware. (see hardware diagrams for dimensional setup data)
3. Attach the stainless steel tether cable's small carabiner to the eye-loop on the side of the tripod.
4. Attach TLT-32A to the TLT mounting hardware. (see hardware diagrams for dimensional setup data)
5. Attach supplied eight pin 100' data cable.
6. Attach the 5lb. diver weights to the feet of the tripods using the supplied stainless steel bolts and washers. (see hardware diagrams for dimensional setup data)
7. Attach the data cable to the stainless steel tether cable using cable ties and/or electrical tape giving some slack on the data cable in between ties to allow for strain relief.
8. Before deploying the tripods with the TLT-32A into the water they must be connected to an FRF-32A unit at zero depth. Note if the TLT-32A fails to report depth correctly in the Southstar software the depth of the TLT-32A must be entered manually in the Divebase software.

### 3.3 Buoy Unit setup:

1. Attach Buoy to the Buoy shackle/counterweigh assembly. (see hardware diagrams for dimensional setup data)
2. Attach the large carabiner to the shackle
3. Feed the data cable up through the Buoy.

4. Attach The FRF-2 unit to the 5/8" stainless steel threaded rod of the Buoy counterweight assembly. (see hardware diagrams for dimensional setup data)
5. Attach the male end of the data cable to the bottom of the FRF-2 unit.

