Playing it Safe

What should I do if I cant get the Desert Star Pilot system to work?

1. Verify the VideoRay system is working properly. If not, correct any issues before trying to diagnose the Desert Star system.

2. Verify the topside surface station and transducers all work.

a) The surface station should emit a single blink approximately one per second. If you do not see a blink or if the system blinks three times per second, press the reset button or turn off the panel and turn it back on again. If this does not fix the problem, the surface station is probably not functioning and will need further diagnosis.

b) Place each transducer's plug in S1 one at a time and verify that they produce a click. If you cannot hear the click, you can wet the transducer and hold it to your forehead. You should feel the click.

c) If no transducers emit a click, the surface station is probably not functioning and will need further diagnosis.

d) If any transducer does not emit a click, it is probably not functioning and will need further diagnosis.

3. Verify the TLT mobile station function with the ROV powered on.

a) You should see a red LED blink about once per second.

b) If you do not see the blink, verify power on the accessory port (Pro 3: 48 V DC pins 3-5, 12 V DC pins 9-5; Pro 4: 24 V DC pins 3-5, 12 V DC pins 9-5). If power is present, the TLT mobile station is probably not functioning and will need further diagnosis.

4. Verify communication between the surface station and TLT mobile station.

a) With the TLT mobile station in the water next to the S1 surface transducer, you should see a double blink on the surface station.

b) Also verify the TLT double blinks. This may be difficult to detect in water, so you can try to place the S1 surface transducer in contact with the TLT in air.

5. Make sure the geometry entered into the configuration matches the actual locaiton of the tranducers.

a) Make sure you are using the correct units.

b) Make sure the transducers are in the correct connections S1 - S3.

c) Ensure that the surface station transducer positions on screen match reality.

6. Make sure the COM port is set correctly (Options -> Acoustic Navigation Com Port).

7. Download the correct configuration file for the environment in which you are operating (Action -> Download Configuration).

8. Perform a noise test for each surface transducer.

a) Tapping the transducer should cause an indication on the noise test graph.

9. Verify the filter settings (Item -> Filter Settings on the main menu).

a) Increase the Maximum Speed filter to 1000m/s

b) Decrease the Minimum Range filter to 0m

c) Increase the Maximum Range filter to 1000m

d) Increase the Maximum Error to 100m

e) Increase the Maximum Holiday to 100m

10. Turn on Ignore Depth in Nav Calculations (under Options on the main menu)

If none of the above work, contact VideoRay and report the results of the tests performed.

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