



TSS440
INSPECTION CHECKLIST

Customer:
Job Number:
Asset Number:

Date of Inspection:
Pre/Post Rental:
Serial Number:
Checked by:

*******WARNING*******

During operation, the 440 System generates strong electromagnetic fields that radiate from the array of search-coils. There is evidence to support the claim that strong electromagnetic fields might present a hazard to nearby personnel.

To avoid any risk from electromagnetic radiation, do not allow personnel within 1.5 metres of the coil array with drive applied to the coils. Switch off the coil drive when there are personnel close to the coils.

Persons fitted with pacemaker type devices should seek medical advice before using or working on the system.

	PASS	FAIL	N/A
Record asset number of Processor Pod:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of Power Supply Pod:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of Altimeter:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of 1st Coil:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of 2nd Coil:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of 3rd Coil:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of 4th Coil:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of Coil Cable:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of PSU to Processor Pod Cable:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of Altimeter Cable:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record asset number of Spare Kit:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check all units for physical damage paying particular attention to the coils.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check all connectors for corrosion/damage & clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry out insulation & continuity test all cables & check for damage.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry out insulation test on all coils (should be greater than 200MΩ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry out resistance test on all coils pin 1 and 2 (should be 0.30Ω±0.05Ω)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry out PAT test on SDC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power up SDC & ensure unit boots correctly with no errors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check the TSS Deepview software starts when the unit is booted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check Deepview software version is current as per the software register & record:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Open up both pods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of Main Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of Driver Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of Analogue Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of PSU Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visually inspect all boards for damage, overheating, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check all internal wiring & connectors are secure & free from damage.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record PSU board type (110V or 240V):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure SMC connector jumper between analogue & processor board is secure at both ends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Connect system up as per manual & place 3 coils on test stand away from metal objects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check all earth connections are secure & verify continuity with multi-meter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power up system ensuring that a 1.5m exclusion zone is maintained around the coils.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verify communications on RS232.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verify communications on 2 Wire Current Loop.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verify communications on 4 Wire Current Loop.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Load software default values and leave the system running for 30 minutes to allow the electronics to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connect a voltmeter between pins TP1A & TP1C on main board & verify voltage is 5V. Adjust on PSU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connect voltmeter between pins TP6 & TP7 on driver board & verify voltage is 15V. Adjust on PSU board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry out a background compensation for 10 sets of readings & ensure the readings are stable: Early reading should not deviate by more than 50µV STD readings should not deviate by more than 10µV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Run the background noise profile & ensure all readings are stable to within ± 20µV.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set the target scaling factor to 45µV.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Switch the coil drive off & place the test pipe under the coils.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With the test pipe directly under the Port coil record the signal strength & VRT: (should be 240 ± 20µV & 76 ±5cm) µV: cm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With the test pipe directly under the Centre coil record the signal strength & VRT: (should be 210 ± 20µV & 76 ±5cm) µV: cm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With the test pipe directly under the Starboard coil record the signal strength & VRT: (should be 240 ± 20µV & 76 ±5cm) µV: cm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check correct operation of the altimeter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With the system running flex the 12-way link cable & ensure comms & signals are maintained.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power system off, fit spare 12-way link cable, fit spare coil + coil cable & retest system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With the test pipe directly under the Centre coil record the signal strength & VRT: (should be 210 ± 20µV & 76 ±5cm) µV: cm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure spare boards are sealed (if any boards have been open they will have to be fitted to the system & function checked as above before being re-sealed).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reassemble pods ensuring o-rings are clean & coated with a thin film of silicon grease (1 silica gel sachet in each pod).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry final function test with pods assembled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check output of RS232 data from com3 (log o/p) on SDC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check operation of video output (composite & S-Video).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check operation of overlay (composite & S-Video).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of spare Main Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of spare Driver Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of spare Analogue Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record serial number of spare PSU Board:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure system is clean & presentable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Package unit in transit case complete with:	Tick as required		

TSS Surface Display Console	<input type="checkbox"/>
1 x UK Mains Lead	<input type="checkbox"/>
1 x 9-way D-type Jumper Cable	<input type="checkbox"/>
1 x Transit Case	<input type="checkbox"/>
TSS440 Processor Pod, 3000m	<input type="checkbox"/>
TSS440 Power Supply Pod, 3000m	<input type="checkbox"/>
TSS Altimeter	<input type="checkbox"/>
ISA500 Altimeter	<input type="checkbox"/>
x Jubilee Clips	<input type="checkbox"/>
Jubilee Clips	<input type="checkbox"/>
1 x Altimeter Cable	<input type="checkbox"/>
Cable	<input type="checkbox"/>