



**TRITECH 620PD**  
**INSPECTION CHECKLIST**

**Customer:**  
**Job Number:**  
**Asset Number:**

**Date of Inspection:** 31/08/2021 09:10  
**Pre/Post Rental:**  
**Serial Number:**  
**Checked by:**

	PASS	FAIL	N/A
Record 620pd Sonar Asset Number: s/n:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Record Trittech Hub Asset Number: s/n:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Check all items listed at the end of this checklist have been returned.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Check the condition of the transducers of the 620pd and note any scuffs or indentations on them.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Check the condition of both bulkhead connector pins for dirt, pitting or misalignment in any way.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Ensure aux port dummy plug has been returned and it's pins are in good condition.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Check the PAT test dates of the hub and AC leads and retest if required.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Check the subsea tail(s) have been returned and are around the correct length they were as supplied. This is by default 2 or 3M. Any shorter and it should be assessed whether it's rechargeable to the customer.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>Note: A Unique provided tail is wired for both Ethernet and VDSL whereas when supplied by Trittech there are sometimes two tails - one wired for only Ethernet Comms and the other for VDSL Only. These need to be confirmed and labelled accordingly.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Meter and megger the subsea tails(s) as per the wiring diagram.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Meter the Trittech Hub - 620pd deck cable / Test cable then plug one end of it into the Main port on the 620. Plug the dummy plug into the 620pd aux port.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Plug top end of deck cable into hub port k or l (either will work and both will need to be tested). For Dual head one would use Port K and the other Head Port L but for single head testing Port K or L can be used (Port K as default).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Connect ethernet cable from hub to a laptop that has the latest version of Gemini software installed.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The sonar is by default 192.168.2.201 with subnet mask: 255.255.255.0 and the hub 192.168.2.101 so set the laptop address to another free address within the range 192.168.2.xxx eg 192.168.2.150. Leave speed setting of the LAN port to Auto	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Deploy 620pd in the middle of the test tank - ensuring its level and the transducers are pointing downwards. <b>Note Uniques units are the downward facing model and not the forward looking type.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Apply power to the Hub and ensure the on button at the front of the unit is pressed to switch unit on followed by the LAN button to establish LAN comms between the hub and the 620pd. <b>Note - Unique Hubs are Ethernet only, the VDSL button on the front panel of the hub is blanked off. A SCU may be needed to confirm the VDSL operations of the head if it's configured for Ethernet and VDSL.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Open the Gemini software and select <b>Profiler</b> from the <b>Configuration Options &gt; Sonar Type</b> dropdown menu within the Advanced tab.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Click the <b>Online</b> button from the main page and within a few seconds the text in comms window at the bottom of the screen should go from <b>red to green</b> and begin updating when comms have been established with the 620pd. The Connect button at the top of the screen should also now have gone from red to green.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Note the Sonar serial number, IP Address and Firmware Version of the connected sonar in the <b>bottom section of the main screen advanced tab</b> . If the sonar software is a new version and the 620pd has an older version of firmware installed the software may prompt an automated firmware update to be completed for version to match.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Gemini GUI Version:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
620pd ID:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
620pd firmware version:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Current IP Address and subnet mask of 620pd:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
From the <b>Sonar ports</b> tab on the bottom of the software page	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
From the <b>hubs tab</b> all the font should be <b>green and the hub serial number, IP address and versions should be shown</b> . If no info is here or is not green it may be required to <b>toggle off and on again the enable comms button</b> in the <b>hub setup tab</b> on the bottom of software page.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Hub Device ID: Hub Firmware Version: Hub IP Address:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
In the <b>Hub setup tab</b> , the inputs to the 8 serial ports A - H can be set. Firstly configure ports A-D for position, time, motion and SVS accordingly then ensure all four are decoded by the software. A simulation program such as Generate can be used to input GGA, Motion EM3000, Time ZDA via individual RS232 cables from a test laptop to the hub. <b>Use a MiniSVS to input SV data to the Hub. It should be set at format 1234.567 M/S.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Again initially if an input isn't being received toggling the enable comms button at top of this tab off/on again usually resolves it. All the data being received on each nomated serial port of the hub can be seen here and green showing it's received update rate.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Also connect a PPS / TTL signal via a bnc cable onto the pps port on the hub. This can be input via a TTL signal from a signal generator or a real PS signal from a GPS system alternatively.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
From the Sensors <b>ports</b> tab on the bottom of the software page, all decoded and used inputs are shown so the user can ensure desired inputs are being accepted.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Next Configure Ports E-H on the hub via the <b>Hub setup tab</b> again and connect the position, motion, SVS and time RS232 strings to these ports instead of ports A-D then ensure the inputs are received and decoded correctly when plugged into these ports.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Back in the <b>Configuration Options</b> section on the right of the screen select <b>Sound Velocity: Measured</b> and then the correct sound velocity of the MiniSVS that's being interfaced to the hub should be shown on the main main top right.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
In the <b>Digitisation Section on the right side of software screen</b> , the <b>depth/range gates</b> plus the <b>automatic bottom tracking features</b> can be set. Note: the <b>draw targets button needs to be enabled</b> before the software displays any tank or seabed on the Main Sonar display. To get a good and consistent tank image the 620pd head should be positioned perfectly level in the tank and most likely in the centre of tank but the user can move the head to a position that gives the best profile/outline of the tank bottom and sides.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Adjust the <b>gain + range settings</b> on the main software display and then set the <b>depth gates min/max values accordingly</b> to give the best tank image. <b>Take screenshots of the system tracking the tank sides and save to asset folder on the network.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Take screenshots showing all 8 serial ports on the Hub received data.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>Take screenshots showing the Hub and Head Versions from the Sonar and Hubs Tabs at bottom of main window.</b>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Power system down and then plug the deck lead cable from Port K into Port L. Power up system again and connect to sonar in same manner as before. Ensure system also performs fine when plugged into Port L.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Power system down again then wipe everything down and pack away in transit cases. Take note in itemised list below that all items are present.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Ensure the software sticks with the system have the latest version of Gemini software, plus all pdf manuals and wiring diagrams on them.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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	Tick as required
Package unit in its blue plastic case / yellow accessories bag complete with:	
3M Tail Wired for Ethernet Only	<input type="checkbox"/>
3M Tail Wired for VDSL Only	<input type="checkbox"/>
3M Tail Wired for Ethernet + VDSL	<input type="checkbox"/>
Wiring diagram	<input type="checkbox"/>
Burton Dummy plug and locking collar (For 620pd Aux Port)	<input type="checkbox"/>
1 x USB Stick containing ops manuals and software	<input type="checkbox"/>
1 x Black Plastic Transit Case	<input type="checkbox"/>
	<input type="checkbox"/>
1 x Trittech Hub	<input type="checkbox"/>
3 x AC Power Leads (UK/EU/US)	<input type="checkbox"/>
4 x 9WF-F RS232 Cables	<input type="checkbox"/>
1 x Ethernet Cable	<input type="checkbox"/>
2 x 10M Port K/L to Mux Ethernet cables	<input type="checkbox"/>
1 x 15M Deck / Test Cable (Hub Port K or L - 620pd)	<input type="checkbox"/>
1 x BNC PPS Cable	<input type="checkbox"/>
1 x Blue Wooden Transit Case	<input type="checkbox"/>

Comments:	
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