

Contents of the shipping box



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Nortek order no:

44237-1-621

Type of system:

SIGNATURE 100

Instrument type:

- | | | | | |
|---|----------------------------------|--|--|--|
| <input type="checkbox"/> Aquadopp | <input type="checkbox"/> AWAC | <input type="checkbox"/> Vectrino | <input checked="" type="checkbox"/> Signature100 | <input type="checkbox"/> Signature1000 |
| <input type="checkbox"/> Aquadopp profiler | <input type="checkbox"/> VM AWAC | <input type="checkbox"/> Vectrino profiler | <input type="checkbox"/> Signature250 | <input type="checkbox"/> NortekDVL |
| <input type="checkbox"/> Aquadopp DW 3000/6000m | <input type="checkbox"/> Vector | <input type="checkbox"/> Signature55 | <input type="checkbox"/> Signature500 | <input type="checkbox"/> NLR DVL |

Software version:

SIGNATURE
DEPLOYMENT

Firmware version:

1.45422.222-11/169

Other:

Cable:

☒ 10m length

☐ Other:

Connector:

☐ 8-pin Inline

☐ 12-pin UW

☒ 6-pin Inline

☐ 7-pin Souriau

☐ Other:

Communication:

☐ RS232

☒ Ethernet

☐ RS422

☐ Other:

Options:

☐ Analog input

☐ Synch

☐ Analog output

☐ Other:

Battery cannister:

☐ Paradopp battery cannister

☐ Single battery aluminium cannister

☐ Double battery aluminium cannister

Battery cables:

☐ 2pin Inline-2pin

☐ 8pin Inline-2pin

☐ 8pin rectangular-2pin

Accessories:

☒ Toolkit

☒ Quick guide

☒ Final test checklist

☐ Seeding material

☐ USB to serial converter RS232

☐ Altronix AL310 USB driver

☐ Recorder kit/ProLog

☐ Battery harness for 2 batteries

Batteries:

- | | | |
|---|---------------------|--------------------------|
| <input type="checkbox"/> Alkaline 50Wh | 13.5V | <input type="checkbox"/> |
| <input type="checkbox"/> Alkaline 100Wh | 13.5V | <input type="checkbox"/> |
| <input type="checkbox"/> Alkaline 540Wh | 13.5V | <input type="checkbox"/> |
| <input type="checkbox"/> Alkaline 540Wh | 18V | <input type="checkbox"/> |
| <input type="checkbox"/> Alkaline 90Wh | 15V (Signature1000) | <input type="checkbox"/> |
| <input type="checkbox"/> Alkaline 180Wh | 18V (Signature500) | <input type="checkbox"/> |

Extra set:

AC/DC Power supply

☐ 15V standard

☐ 48V Signature55
Online

☐ 24V Vectrino

☒ 24V DC/DC &
Signature

Plug

☐ EU

☐ UK

☒ US

Other:

Date:

29/6-20

Responsible:

Olav Hauch

Final test checklist AD2CP



Order number:
 44237-1-621

Name: Signature 100
 Instrument serial number: 101650
 Frequency: 100 KHz Main board: AD2CP-2352
 Firmware versions: 1.4.5422.2212-11/169

Label checked ☒ OK
 Dock test ☒ OK
 Baudrate 115200 ☒ OK

Comments:

Tilt check
☒ Pitch up
☒ Roll up
☒ Status bit
☒ Pitch down
☒ Roll down
 pitch & roll within +/- 0.2 °

Clock
☒ Set clock
Heading
☒ Up
☒ Down
 tolerance: +/- 2 °

Pressure
 Psensortemp ☒ OK
 tolerance: +/- 0.1 % of
 1500 m

Temperature
☒ OK
 tolerance: +/- 0.1 °

Beam check

Correct order	Beam Imp	Noise floor	Amplitude in tank	Range
Beam 1 <input checked="" type="checkbox"/> OK	85 Ω	25 dB	> 80 dB	<input checked="" type="checkbox"/> OK
Beam 2 <input checked="" type="checkbox"/> OK	82 Ω	25 dB	> 80 dB	<input checked="" type="checkbox"/> OK
Beam 3 <input checked="" type="checkbox"/> OK	82 Ω	25 dB	> 80 dB	<input checked="" type="checkbox"/> OK
Beam 4 <input checked="" type="checkbox"/> OK	83 Ω	25 dB	> 80 dB	<input checked="" type="checkbox"/> OK
Beam 5 <input checked="" type="checkbox"/> OK	574 Ω	25 dB	> 80 dB	<input checked="" type="checkbox"/> OK

Velocity direction

XYZ coordinate system	ENU coordinate system
X <input checked="" type="checkbox"/> OK	E <input checked="" type="checkbox"/> OK
Y <input checked="" type="checkbox"/> OK	N <input checked="" type="checkbox"/> OK
Z <input checked="" type="checkbox"/> OK	U <input checked="" type="checkbox"/> OK
Z2 <input checked="" type="checkbox"/> OK	U2 <input checked="" type="checkbox"/> OK

Head file
☒ Headfile checked
☒ Saved as read only

Serial communication
☐ RS422 NA
☐ RS232

Trigger
☐ TTL NA
☐ RS485

Recorder erased
☒ OK
 Rec size: 256 GB

Ethernet
 MAC address: 8C:68:78:00:09:30
 Static IP address:
 Set host name: 101650
 DHCP enabled ☒
 FTP OK ☒

Licenses

Averaging mode <input checked="" type="checkbox"/>	Wave mode <input type="checkbox"/>	Vertical velocity <input type="checkbox"/>	64GB recorder <input type="checkbox"/>	Calibration license erased <input checked="" type="checkbox"/>
Burst Five beams <input type="checkbox"/>	Echo Sounder <input checked="" type="checkbox"/>	Dual frequency low <input type="checkbox"/>	128GB recorder <input type="checkbox"/>	Production license erased <input checked="" type="checkbox"/>
Bottom track <input type="checkbox"/>	Ice Measurement <input type="checkbox"/>	Dual frequency high <input type="checkbox"/>	256GB recorder <input checked="" type="checkbox"/>	Default configuration set <input checked="" type="checkbox"/>
High Resolution <input type="checkbox"/>	Altimeter <input type="checkbox"/>	16GB recorder <input type="checkbox"/>		

Cable/Harness
 Communication ☒ Cable Communication ☒ Harness
 Battery ☒ Battery ☒

Electrical isolation test
 50V Ok ☒

External sensors

Power down
☒ OK

Date
 Day 29 Month 06 Year 20
 Signature



Tilt and Compass Report

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Details

Instrument Type	Signature100
Instrument S/N	101650
Date	June 11, 2020
Operator	Kim Dunserudhagen
Location	Nortek Factory Norway
Result	Passed

Description

Calibration and verification is performed in a two axis automated jig. Continuous and fixed-point measurements are collected to calibrate and verify the sensor.

Criteria of acceptance for tilt sensor is $\pm 0.2^\circ$.

Criteria of acceptance for compass sensor is $\pm 2^\circ$.

Reference: Digital Protractor Series 950 Pro 3600. Accuracy $\pm 0.05^\circ$.

Tilt Verification Results

Reference ($^\circ$)	Diff. Up		Diff. Down	
	Pitch ($^\circ$)	Roll ($^\circ$)	Pitch ($^\circ$)	Roll ($^\circ$)
-30.00	-0.13	-0.06	-0.11	-0.14
-15.00	0.03	0.15	0.13	0.06
0.00	0.11	-0.08	0.11	0.14
15.00	-0.15	-0.04	-0.12	-0.12
30.00	0.13	0.13	-0.04	-0.07

Compass Verification Results

Reference ($^\circ$)	Heading Diff. Up ($^\circ$)	Heading Diff. Down ($^\circ$)
0.00	-0.31	0.24
45.00	-0.18	-0.08
90.00	-0.21	-0.40
135.00	-0.33	-0.39
180.00	-0.06	0.04
225.00	-0.04	0.14
270.00	0.03	0.41
315.00	-0.19	0.45