Contents of the shipping box

Nortek order no: 44237-1-627

Type of system: SIGNATURE 100

NORTEK
Vangkroken 2
N-1351 RUD
Norway
Tel: +47 6717 4500
Fax: +47 6713 6770
inquiry@nortek-as.com
www.nortek.no

Instrument type:

☐ Aquadopp	☐ AWAC	☐ Vectrino	☒ Signature100	☐ Signature1000
☐ Aquadopp profiler	☐ VM AWAC	☐ Vectrino profiler	☐ Signature250	☐ NortekDVL
☐ Aquadopp DW 3000/6000m	☐ Vector	☐ Signature55	☐ Signature500	☐ NLR DVL

Software version: SIGNATURE DEPLOYMENT **Firmware version:** 1.45922,2212_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:

		Extra set:
☐ Alkaline 50Wh	13.5V	☐
☐ Alkaline 100Wh	13.5V	☐
☐ Alkaline 540Wh	13.5V	☐
☐ Alkaline 540Wh	18V	☐
☐ Alkaline 90Wh	15V(Signature1000)	☐
☐ Alkaline 180Wh	18V(Signature500)	☐

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:** Alf Kåre

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

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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

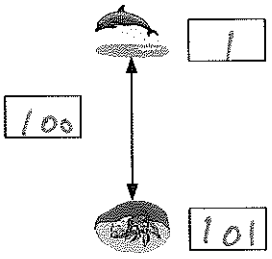
☒ Set clock

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	☒ OK	85 Ω	25 dB	> 80 dB	☒ OK
Beam 2	☒ OK	82 Ω	25 dB	> 80 dB	☒ OK
Beam 3	☒ OK	82 Ω	25 dB	> 80 dB	☒ OK
Beam 4	☒ OK	83 Ω	25 dB	> 80 dB	☒ OK
Beam 5	☒ OK	574 Ω	25 dB	> 80 dB	☒ OK

Velocity direction

XYZ coordinate system		ENU coordinate system	
X	☒ OK	E	☒ OK
Y	☒ OK	N	☒ OK
Z	☒ OK	U	☒ OK
Z_2	☒ OK	U_2	☒ 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	☒	Wave mode	☐	Vertical velocity	☐	64GB recorder	☐	Calibration license erased	☒
Burst Five beams	☐	Echo Sounder	☒	Dual frequency low	☐	128GB recorder	☐	Production license erased	☒
Bottom track	☐	Ice Measurement	☐	Dual frequency high	☐	256GB recorder	☒	Default configuration set	☒
High Resolution	☐	Altimeter	☐	16GB recorder	☐				

Cable/Harness

	Cable		Harness
Communication	☒	Communication	☒
Battery	☒	Battery	☒

Electrical isolation test

50V Ok ☒

External sensors

Power down

☒ OK

Date

Day: 29 Month: 06 Year: 20

Signature

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 ±0.2°.

Criteria of acceptance for compass sensor is ±2°.

Reference: Digital Protractor Series 950 Pro 3600. Accuracy ±0.05°.

Tilt Verification Results

	Diff. Up		Diff. Down	
Reference (°)	**Pitch (°)**	**Roll (°)**	**Pitch (°)**	**Roll (°)**
-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 (°)	Heading Diff. Up (°)	Heading Diff. Down (°)
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