

Workhorse Configuration Summary

Date

Customer

Sales Order or RMA No.

System Type

Part number

Frequency kHz

Depth Rating (meters)

SERIAL NUMBERS:

System

CPU PCA

PIO PCA

DSP PCA

RCV PCA

AUX PCA

Transducer SN

REVISION:

Rev.

Rev.

Rev.

Rev.

Rev.

FIRMWARE VERSION:

CPU

SENSORS INSTALLED:

Temperature Heading Pitch / Roll Pressure Rating meters

FEATURES INSTALLED

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Water Profile | <input type="checkbox"/> High Rate Pinging | |
| <input type="checkbox"/> High Accuracy Bottom Tracking +/- 0.4% | <input type="checkbox"/> Shallow Bottom Mode | SxS Pro Key <input type="text"/> |
| <input type="checkbox"/> High Resolution Water Modes | <input type="checkbox"/> Wave Gauge Acquisition | <input type="checkbox"/> Section by Section (SxS) |
| <input checked="" type="checkbox"/> LADCP/Surface Track | <input type="checkbox"/> River Survey ADCP * | <input type="checkbox"/> Base Accuracy Bottom Tracking +/- 1.15% |

* Includes Water Profile, Bottom Track and High Resolution Water Modes

COMMUNICATIONS:

Communication

Baud Rate

Parity

Recorder Capacity MB (installed)

Power Configuration

Cable Length meters

WORKHORSE INSPECTION REPORT

GENERAL INFORMATION

REVISION: 0

Technician: Brian Werra Customer: NOAA Atlantic Oceanographic and Meteorological Laboratory RMA #: 28091531	Date Inspected: 8/24/2016 System S/N: 13279 Model: WHS300
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Reason for Return: problem with the data.
Confirmed Reason for Return: Yes

INSPECTION FINDINGS AND RECOMMENDATIONS

Replacement of system is required Replacement S/N 24472

TRANSDUCER: Replace/Exchange Required		Anti-Fouling/Barnacle Removal Required <input type="checkbox"/>			
	Urethane Condition	Failed Rub Test	Failed Ceramic Test	Repair Required	Modular
Beam 1	OK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beam 2	OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Beam 3	OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Beam 4	OK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<i>*Ceramic test is performed if Rub Test Fails. Check indicates Yes</i>					
Anodizing: Severe corrosion		Re-Anodize: Choose an item.			
Paint: Slight peeling or chipping		Re-paint: Choose an item.			
Powder Coat: Choose an item.		Re-powder coat: Choose an item.			
O-Ring Surface: OK		Mounting Plate: Click here to enter text.			
Comments: The cause of the system not collecting good data is due to the system flooding. Beam 4 had a water trail from one of the bolt holes. The Transducer is an old-style high pressure build and should be replaced. Beams 1 and 4 fail ceramic testing.					

SENSORS Damaged

Pressure: N/A Choose an item.
 Compass/Tilt/Pitch: Not Operational Choose an item.
 Temperature: Not Operational Choose an item.
 Comment:
 Click here to enter text.

ELECTRONICS Choose an item.

Board	Action	Comments
Firmware	N/A	Click here to enter text.
PIO	Faulty/Replace	Click here to enter text.
CPU	Faulty/Replace	Click here to enter text.
DSP	Faulty/Replace	Click here to enter text.
Receiver	Faulty/Replace	Click here to enter text.
Memory	Faulty/Replace	Click here to enter text.
Tuning	N/A	Click here to enter text.
HPA	N/A	Click here to enter text.
ECI	N/A	Click here to enter text.

Additional Comments:

All Boards have corrosion and must be replaced.

HOUSING: Damaged Replace-Mandatory

Anodizing: Slight corrosion Re-Anodize: Choose an item.
 Paint: Slight peeling or chipping Re-paint: Choose an item.
 Powder Coat: Not Applicable Re-powder coat: Not required
 O-Ring Surface: Damaged
 Machine: Choose an item. Machine: Choose an item.
 Comment:

The Bore O-Ring Seal has an indentation where the O-ring seals and a small scratch that goes down thru where the O-ring would seal. These are possible leak paths as well. This area cannot be re-surfaced the housing must be replaced. The surface of the housing has already been resurfaced once and cannot be resurfaced again. This Style housing is no longer available. The new housing will come with a separate end cap.



ENDCAP: Not Applicable Choose an item.

Anodizing: Choose an item.

Paint: Choose an item.

Powder Coat: Not Applicable

O-Ring Surface: Choose an item.

Machine: Choose an item.

Comment:

Click here to enter text.

Re-Anodize: Choose an item.

Re-paint: Choose an item.

Re-powder coat: Not required

Machine: Choose an item.

OTHER

I/O Connector: Not current revision

Dummy Plug: Not Current Revision

Cable: Choose an item.

Cover: Choose an item.

**Battery: Not Received - Recommend
new**

Comment:

The New End Cap will come with a connector. Replacement System will be WHS300-i-UG510

I/O Connector: Replace - Mandatory

Dummy Plug: Replace - Recommended

Cable: Choose an item.

Final Report

Date: 11/14/2016

System Testing: All tests passed

Repair Actions:

Replaced the system with S/N 24472.

WHFinalCheck-0024472

=====
WHFinalCheck[1.05] [Default] Report - Test initialization
Try# 1 Serial#: 0024472 2016/9/29 11:16:38.1

Looking for LPS-305 power supply-----Found

Initializing power supply-----OK

Looking for ADCP-----Found

System type-----Sentinal/Monitor

System Frequency-----307200Hz

Firmware----- 50.41 [0]

Beam Angle-----20

PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[01]]=====
WHFinalCheck[1.05] [MON/SEN_300] Report - Wakeup
Try# 1 Serial#: 0024472 2016/9/29 11:16:54.18

waking up ADCP-----OK

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 50.41
Teledyne RD Instruments (c) 1996-2014
All Rights Reserved.
>

PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[11]]=====
WHFinalCheck[1.05] [MON/SEN_300] Report - Serial Number
Try# 1 Serial#: 0024472 2016/9/29 11:16:58.0

waking up ADCP-----OK

Setting serial number to: 0024472

Verifying SN----- OK
PS0

WHFinalCheck-0024472

Instrument S/N: 24472

PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[21]]=====

```
WHFinalCheck[1.05] [MON/SEN_300] Report - Firmware
Try# 1 Serial#: 0024472 2016/9/29 11:17:13.86
```

waking up ADCP-----OK

Checking configuration(PS0)-----DONE
PS0

```
Instrument S/N: 24472
Frequency: 307200 HZ
Configuration: 4 BEAM, JANUS
Match Layer: 10
Beam Angle: 20 DEGREES
Beam Pattern: CONVEX
Orientation: DOWN
Sensor(s): HEADING TILT 1 TILT 2 TEMPERATURE
Temp Sens Offset: 0.01 degrees C
```

```
CPU Firmware: 50.41 [0]
Boot Code Ver: Required: 1.17 Actual: 1.17
DEMOD #1 Ver: ad48, Type: 1f
DEMOD #2 Ver: ad48, Type: 1f
PWRTIMG Ver: 85d3, Type: 6
```

Board Serial Number Data:

```
24 00 00 06 A3 57 04 09 CPU727-2011-00E
45 00 00 08 14 43 5E 09 DSP727-2001-04H
DA 00 00 08 2D 86 6D 09 REC727-1000-04F
FE 00 00 07 BE A0 BB 09 PIO727-3000-00G
```

>

Checking Temperature offset-----OK

PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[31]]=====

```
WHFinalCheck[1.05] [MON/SEN_300] Report - Performance tests
Try# 1 Serial#: 0024472 2016/9/29 11:17:20.5
```

waking up ADCP-----OK

WHFinalCheck-0024472

Clearing fault log-----OK

Setting power supply to 60 volts-----OK

Checking performance tests-----PASS

Setting power supply to 20 volts-----OK

Checking performance tests-----PASS

PASS PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[41]]=====

WHFinalCheck[1.05] [MON/SEN_300] Report - Recorder

Try# 1 Serial#: 0024472 2016/9/29 11:20:30.82

waking up ADCP-----OK

Setting deployment name to (RN_RDI_)----- OK

Erasing recorder-----RE ErASE erasing...

Recorder erased.

>OK

PASS PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[51]]=====

WHFinalCheck[1.05] [MON/SEN_300] Report - Options disabled

Try# 1 Serial#: 0024472 2016/9/29 11:20:37.16

waking up ADCP-----OK

Unit Setup:----[@N]---OK

checking for cold wakeup-----OK

checking wakeup message-----OK

OL	FEATURES	Installed
-----	-----	-----
Feature		Installed
-----	-----	-----

WHFinalCheck-0024472

BT-HA (High Accuracy 0.4%)	No
Water Profile	Yes
High Resolution Water Modes	No
LADCP/Surface Track/WM15	Yes
Wave Gauge Acquisition	No
Shallow Bottom Mode	No
High Rate Pinging	No
Narrow Bandwidth only (WB1)	No
BT-BA (Base Accuracy 1.15%)	No

See your technical manual or contact TRDI for information on how to install additional capability in your workHorse.

>Setting unit to factory defaults-----[

```

CR1
[Parameters set to FACTORY defaults]
>CK
[Parameters saved as USER defaults]
>
]---OK

```

PASS PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[61]]=====

WHFinalCheck[1.05] [MON/SEN_300] Report - Clock
Try# 1 Serial#: 0024472 2016/9/29 11:21:7.40

Break wakeup-----OK

Setting system time -----OK

TS160929112109

>

PASS PASS PASS PASS PASS PASS PASS PASS PASS
=====

[[71]]=====

WHFinalCheck[1.05] [MON/SEN_300] Report - Beam Corrections
Try# 1 Serial#: 0024472 2016/9/29 11:21:11.33

Waking up ADCP-----OK

Checking if matrix is loaded-----PS3

Beam width: 3.7 degrees

Beam	Elevation	Azimuth
1	-70.01	270.17
2	-70.27	90.16
3	-70.02	359.84
4	-69.90	179.83

Beam Directional Matrix (Down):

0.3419	-0.0010	0.9398	0.2396
-0.3376	0.0010	0.9413	0.2427
0.0010	-0.3418	0.9398	-0.2421
-0.0010	0.3437	0.9391	-0.2407

Instrument Transformation Matrix (Down):

1.4770	-1.4663	-0.0084	0.0002	Q14:	24199	-24024	-138
3							
0.0026	-0.0061	-1.4566	1.4612		42	-100	-23865
23941							
0.2644	0.2678	0.2665	0.2651		4332	4388	4367
4343							
1.0289	1.0422	-1.0397	-1.0338		16857	17075	-17034
-16938							

Beam Angle Corrections Are Loaded.

>

Checking if matrix is compatible with beam angle-----PASS

PASS PASS PASS PASS PASS PASS PASS PASS PASS

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