



INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 **STATION Name:** PP02 (NN002)

Local Date/Time: 2016/03/09 16:42 GMT Date/Time: 2016/03/10 0:40
 Field Team: Neal Wood + Automata
 GPS location: N 39.79909° W 119.00600° 931m

Equipment
 Sensor S/N: 6233 Sensor Type: L28
 DAS S/N: 990B
 Clock S/N: 460
 Flash Disk 1 S/N: 5013336 Size: 2GB
 Flash Disk 2 S/N: 5015014 Size: 2GB

INSTALL SENSOR
 Level Sensor
 Declination: 13.5° Orientation: 0° true north / magnetic north

Power System Set-UP
 1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: _____
 2. Connect the batteries to the power cable
 3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
NOTE: Make sure the polarity is correct. Voltage: _____

INSTALL DAS
 Connect GPS, and Sensor to DAS and then connect Power.

DAS Setup
 1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number)
 Work with Config => load => das_par_file => Edit => enter station name
 => Channels(#1) => Details => enter sensor sn
 => Send to DAS
 => From DAS => Edit => Verify experiment name: PORO TOMO 2016

2. **Clear RAM** (Control => RAM => Clear)
 3. **Reset System** (Control => Reset)
 4. **Format Flash Disk** (Control => Format Disk) Disk 1: Disk 2:
 5. **Monitor/Tap Test** (Control => Monitor => Stream 1 [if >= 20 SPS] => chans)
 Ch 1: -16470/29775 Ch 2: 13750/210395 Ch 3: -7400/8850
 6. **Check Clock Status** (Control => Status => GPS) Time: 2016:070:00:51:48
 Sec since LL: 0 *Note clock MUST lock before starting acquisition
 Phase Diff: -8 us (should be a small number)
 SV's: 5 MODE > cycled
 GPS Location of Site: N 39: 47.9460 W 119: 00.3602 1266m

7. **Start Acquisition** (Control => Status => Start Acq)
 Start time: 2016:070:00:52:42 (check year and time)
 8. **Verify RAM Increasing** (Control => Status => Update) Yes/No
 9. **Force RAM Dump to Disk 1** (Remove disk 2; Control => RAM => Dump) Yes/No
 Verify RAM *decreases* and disk 1 *increases* (Control => Status => Update) Yes/No
Replace disk 2 Yes/No

10. **Disk Setup** (Control => Disk)
 Dump Threshold: 66%
 Auto-wrap: No (select the pull-down arrow to change setting)
 Dump on ET: No
 Tap the SEND button to send the information to the DAS

Date 2016/03/09

Station DP02

11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button, then OK, to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒ Status ⇒ Update). Yes / No

12. **DAS status** (⇒ Update) (or Control ⇒ Status)

Acq: Start On / Off

Events: 1

Disk 1: 0.188 of 1997

RAM: 232 of 4352

Disk 2: 0 of 1997

Temp: 13.5°

Power: Input 12.9V Bkup: 3.3V

Ch: 12.3

DS: C

Firmware Version 3.9.3 (Control⇒Satus⇒Versions)

Make sure all unused connectors are capped. ✓

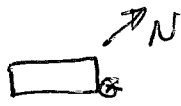
RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES

TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: Neal Wood / ORMA

LOCATION OF SHIPPING CASES _____

SITE NOTES: Last instrument of the day !!



INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 STATION Name: PP04 (NN024)

Local Date/Time: 2016/03/09 15:04 GMT Date/Time: 2016/03/09 23:05

Field Team: Neal Lord & DANTE FRATTA

GPS location N 39.80983° W 118.99613 947 m

Equipment

Sensor S/N: 5001 Sensor Type: L28
DAS S/N: 995B
Clock S/N: 2399
Flash Disk 1 S/N: 5014994 Size: 2GB
Flash Disk 2 S/N: 5013335 Size: 2GB

INSTALL SENSOR

Level Sensor
Declination: 13.5° Orientation: 0° **true north** / magnetic north

Power System Set-UP

1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: _____
2. Connect the batteries to the power cable
3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
NOTE: Make sure the polarity is correct. Voltage: _____

INSTALL DAS

Connect GPS, and Sensor to DAS and then connect Power. ✓

DAS Setup

1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number) ✓
Work with Config ⇒ load ⇒ das_par_file ⇒ Edit ⇒ enter station name
⇒ Channels(#1) ⇒ Details ⇒ enter sensor sn
⇒ Send to DAS
⇒ From DAS ⇒ Edit ⇒ Verify experiment name: POROTOMO 2016
2. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓
3. **Reset System** (Control ⇒ Reset) ✓
4. **Format Flash Disk** (Control ⇒ Format Disk) Disk 1: ✓ Disk 2: ✓
5. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1 [if >= 20 SPS] ⇒ chans)
Ch 1: 6570/1340 Ch 2: 1280/7090 Ch 3: 202804/1021 - 6390/1960
6. **Check Clock Status** (Control ⇒ Status ⇒ GPS) Time: 2016:069:23:18:37
Sec since LL: 0 *Note clock MUST lock before starting acquisition
Phase Diff: 0 us (should be a small number)
SV's: 7 MODE > cycled
GPS Location of Site: N 39:48.5901 W 118:59.7675 1281 m
7. **Start Acquisition** (Control ⇒ Status ⇒ Start Acq)
Start time: 2016:069:23:19:33 (check year and time)
8. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update) **Yes/No**
9. **Force RAM Dump to Disk 1** (Remove disk 2; Control ⇒ RAM ⇒ Dump) **Yes/No**
Verify RAM *decreases* and disk 1 *increases* (Control ⇒ Status ⇒ Update)
Replace disk 2 **Yes/No**
10. **Disk Setup** (Control ⇒ Disk) ✓
Dump Threshold: 66%
Auto-wrap: No (select the pull-down arrow to change setting)
Dump on ET: No
Tap the SEND button to send the information to the DAS

Date 2016/03/09

Station PP04

- 11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓
 Tap the WRITE button, then OK, to write the .cfg file to the disk.
 Verify that the value of disk space used increases (Control ⇒Status ⇒Update). Yes / No

12. **DAS status** (⇒Update) (or Control ⇒ Status)
 Acq: Start On Off
 Events: 1
 Disk 1: 0.291 of 1950 RAM: 221 of 4352
 Disk 2: 0 of 1950 Disk 2: 0 of 1950
 Temp: 16.5°C Power: Input 12.9 Bkup: 3.3
 Ch: 123 DS: C
 Firmware Version 3.4.3 (~~3.3.3~~) (Control⇒Satus⇒Versions)

Make sure all unused connectors are capped.

RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES
TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: Neal Lord / ORMAI
LOCATION OF SHIPPING CASES _____

SITE NOTES:

INSTALL SHEET (STAND ALONE)

Project: PoroTomo2016



STATION Name: PP05 (NN207)

Local Date/Time: 3/9/2016 13:48

GMT Date/Time: 9 MAR 16 21:48

Field Team: Newt Lord

GPS location N 39.81208 W 119.00007 937m

Equipment

Sensor S/N:	<u>K154</u>	Sensor Type:	<u>L-28</u>
DAS S/N:	<u>978F</u>		
Clock S/N:	<u>1873</u>		
Flash Disk 1 S/N:	<u>5013899</u>	Size:	<u>2GB</u>
Flash Disk 2 S/N:	<u>5011886</u>	Size:	<u>2GB</u>

INSTALL SENSOR

Level Sensor

Declination: 13.5° Orientation: 0° true north / magnetic north

Power System Set-UP

1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: _____
2. Connect the batteries to the power cable
3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
NOTE: Make sure the polarity is correct. Voltage: _____

INSTALL DAS

Connect GPS, and Sensor to DAS and then connect Power.

DAS Setup

1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number)
Work with Config => load => das_par_file => Edit => enter station name
=>Channels(#1)=>Details=>enter sensor sn
=>Send to DAS
=>From DAS => Edit => Verify experiment name: PoroTomo2016
2. **Clear RAM** (Control => RAM => Clear)
3. **Reset System** (Control => Reset)
4. **Format Flash Disk** (Control => Format Disk) Disk 1: Disk 2:
5. **Monitor/Tap Test** (Control => Monitor => Stream 1 [if >= 20 SPS] => chans)
Ch 1: -3240/5720 Ch 2: -1009/1337 Ch 3: -2712/266
6. **Check Clock Status** (Control => Status => GPS) Time: 2016:069:22:13:35
Sec since LL: 0 *Note clock MUST lock before starting acquisition
Phase Diff: 1.25 us (should be a small number)
SV's: 4 MODE > cycled
GPS Location of Site: N 39:48.7260 W 119:00.0056 918m
7. **Start Acquisition** (Control => Status => Start Acq)
Start time: 2016-069-22-19:49 (check year and time)
8. **Verify RAM Increasing** (Control => Status => Update) Yes / No
9. **Force RAM Dump to Disk 1** (Remove disk 2; Control => RAM => Dump)
Verify RAM *decreases* and disk 1 *increases* (Control => Status => Update) Yes / No
Replace disk 2 Yes / No
10. **Disk Setup** (Control => Disk)
Dump Threshold: 66%
Auto-wrap No (select the pull-down arrow to change setting)
Dump on ET No

Tap the SEND button to send the information to the DAS

Date 3/9/2016

Station PP05

11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button, then OK, to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status ⇒Update). **Yes / No**

12. **DAS status** (⇒Update) (or Control ⇒ Status)

Acq: Start On / Off

Events: 1

Disk 1: 8,297 of 1997

Temp: 17.5

Ch: 123

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

RAM: 246 of 4352

Disk 2: 0 of 1950

Power: Input 12.8 Bkup: 0.4 *

DS: C

Make sure all unused connectors are capped.

RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES

TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: _____

LOCATION OF SHIPPING CASES _____

SITE NOTES:

INSTALL SHEET (STAND ALONE)

Project: PoroTomo2016



STATION Name: PP03 (NN013)

Local Date/Time: 2016/03/09 15:48 GMT Date/Time: 2016/03/09 23:47

Field Team: Neal Lord + Dante Knatter

GPS location N 39.80458° W 119.00121° 939m

Equipment

Sensor S/N:	<u>12186</u>	Sensor Type:	<u>L28</u>
DAS S/N:	<u>956B</u>		
Clock S/N:	<u>1706</u>		
Flash Disk 1 S/N:	<u>5014993</u>	Size:	<u>2GB</u>
Flash Disk 2 S/N:	<u>5013730</u>	Size:	<u>2GB</u>

INSTALL SENSOR

Level Sensor
Declination: 13.5° Orientation: 0° true north / magnetic north

Power System Set-UP

1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: _____
2. Connect the batteries to the power cable
3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
NOTE: Make sure the polarity is correct. Voltage: _____

INSTALL DAS

Connect GPS, and Sensor to DAS and then connect Power.

DAS Setup

1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number)
Work with Config => load => das_par_file => Edit => enter station name
=>Channels(#1)=>Details=>enter sensor sn
=>Send to DAS
=>From DAS => Edit => Verify experiment name: POROTOMO 2016
2. **Clear RAM** (Control => RAM => Clear)
3. **Reset System** (Control => Reset)
4. **Format Flash Disk** (Control => Format Disk) Disk 1: Disk 2:
5. **Monitor/Tap Test** (Control => Monitor => Stream 1 [if >= 20 SPS] => chans)
Ch 1: -3430/11250 Ch 2: -1880/2870 Ch 3: -2412/2085
6. **Check Clock Status** (Control => Status => GPS) Time: 2016.069.23:57:38
Sec since LL: 0 *Note clock MUST lock before starting acquisition
Phase Diff: -4 us (should be a small number)
SV's: 10 MODE > cycled
GPS Location of Site: N39:48.2759 W 119:00.0697 1271 m
7. **Start Acquisition** (Control => Status => Start Acq)
Start time: 2016:069:23:58:51 (check year and time)
8. **Verify RAM Increasing** (Control => Status => Update) **Yes / No**
9. **Force RAM Dump to Disk 1** (Remove disk 2; Control => RAM => Dump)
Verify RAM *decreases* and disk 1 *increases* (Control => Status => Update) **Yes / No**
Replace disk 2 **Yes / No**
10. **Disk Setup** (Control => Disk)
Dump Threshold: 66%
Auto-wrap: No (select the pull-down arrow to change setting)
Dump on ET: No
Tap the SEND button to send the information to the DAS

Date 2016/03/09

Station PPD3

11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button, then OK, to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status ⇒Update). **Yes / No**

12. **DAS status** (⇒Update) (or Control ⇒ Status)

Acq: Start On / Off

Events: 2

RAM: 188 of 4352

Disk 1: 0.188 of 1950

Disk 2: 0 of 1950

Temp: 16.4°C

Power: Input 12.9V Bkup: 3.3V

Ch: 1,2,3

DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all unused connectors are capped.

RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES
TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: Neal Law / ORMA

LOCATION OF SHIPPING CASES _____

SITE NOTES:



INSTALL SHEET (STAND ALONE) Project: Porotomo2016 STATION Name: PP06 (NN179)

Local Date/Time: 3/9/2016 11:42 GMT Date/Time: 9 MAR 16 19:42

Field Team: Neal Lord, Dante Frana

GPS location N 39.80554 W 119.0087 913 m

Equipment

Sensor S/N: 0066 Sensor Type: L-28
 DAS S/N: 951F
 Clock S/N: 1857
 Flash Disk 1 S/N: 5013289 Size: 2GB
 Flash Disk 2 S/N: 5012058 Size: 2GB

INSTALL SENSOR

Level Sensor
 Declination: 13.5° Orientation: 0° true north / magnetic north

Power System Set-UP

1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: _____
2. Connect the batteries to the power cable
3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
NOTE: Make sure the polarity is correct. Voltage: _____

INSTALL DAS

Connect GPS, and Sensor to DAS and then connect Power.

DAS Setup

1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number)
 Work with Config => load => das_par_file => Edit => enter station name
 =>Channels(#1)=>Details=>enter sensor sn
 =>Send to DAS
 =>From DAS => Edit => Verify experiment name: POROTOMO 2016
2. **Clear RAM** (Control => RAM => Clear)
3. **Reset System** (Control => Reset)
4. **Format Flash Disk** (Control => Format Disk) Disk 1: Disk 2:
5. **Monitor/Tap Test** (Control => Monitor => Stream 1 [if >= 20 SPS] => chans)
 Ch 1: 23400 / +26600 Ch 2: 424 / 1534 Ch 3: -2620 / 1090 Ch 4: -4120 / +4970 *new test*
6. **Check Clock Status** (Control => Status => GPS) Time: 16:069:20:03:25
 Sec since LL: 0 *Note clock MUST lock before starting acquisition
 Phase Diff: +1 us (should be a small number)
 SV's: 8 MODE > cycled
 GPS Location of Site: N 39: 48.3312 W 119: 0.3529 1259m
7. **Start Acquisition** (Control => Status => Start Acq)
 Start time: 2010: 069: 20: 05: 35 (check year and time)
8. **Verify RAM Increasing** (Control => Status => Update) Yes/No
9. **Force RAM Dump to Disk 1** (Remove disk 2; Control => RAM => Dump)
 Verify RAM *decreases* and disk 1 *increases* (Control => Status => Update) Yes/No
 Replace disk 2 Yes/No
10. **Disk Setup** (Control => Disk)
 Dump Threshold: 66%
 Auto-wrap No (select the pull-down arrow to change setting)
 Dump on ET No
 Tap the SEND button to send the information to the DAS

Date 2016/03/09

Station 7P06

11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button, then OK, to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status ⇒Update). Yes / No

12. **DAS status** (⇒Update) (or Control ⇒ Status)

Acq: Start On / Off

Events: 1

RAM: 379 of 6400

Disk 1: 0.422 of 1950

Disk 2: 0.063 of 1950

Temp: +19°C

Power: Input 12.9 Bkup: 3.3

Ch: 1,2,3

DS: C

Firmware Version 3.9.3 (Control⇒Status⇒Versions)

Make sure all unused connectors are capped.

RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES

TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: Neal Lord / ORMAT

LOCATION OF SHIPPING CASES _____

SITE NOTES:

INSTALL SHEET (STAND ALONE)

Project: PoroTomo2016

STATION Name: PP01 (NN172)

Local Date/Time: 3/9/2016 16:48

GMT Date/Time: 9-MAR-16 18:48

Field Team: Neal Lord, Dante Fratta

GPS location: N 39.80169 W 119.00940 902m

Equipment

Sensor S/N:	<u>5-022</u>	Sensor Type:	<u>L-28</u>
DAS S/N:	<u>991C</u>		
Clock S/N:	<u>1856</u>		
Flash Disk 1 S/N:	<u>S015004</u>	Size:	<u>2GB</u>
Flash Disk 2 S/N:	<u>S011950</u>	Size:	<u>2GB</u>

INSTALL SENSOR

Level Sensor

Declination: 13.5° Orientation: 0° **true north / magnetic north**

Power System Set-UP

1. Test output of the batteries (13.5-15 VDC **WARNING: DO NOT** test current). Voltage: 12.94
 2. Connect the batteries to the power cable
 3. Test the voltage out of the power cable from pin A+ to C- (Same as battery voltage.)
- NOTE:** Make sure the polarity is correct. Voltage: _____

INSTALL DAS

Connect GPS, and Sensor to DAS and then connect Power.

DAS Setup

1. **Send Parameters to DAS** (Edit Station Name & Enter Sensor serial number)
 Work with Config => load => das_par_file => Edit => enter station name
 => Channels(#1) => Details => enter sensor sn
 => Send to DAS
 => From DAS => Edit => Verify experiment name:
2. **Clear RAM** (Control => RAM => Clear)
3. **Reset System** (Control => Reset)
4. **Format Flash Disk** (Control => Format Disk) Disk 1: Disk 2:
5. **Monitor/Tap Test** (Control => Monitor => Stream 1 [if >= 20 SPS] => chans)
 Ch 1: -4917/2166 Ch 2: -6473/2043 Ch 3: -1980/3846
6. **Check Clock Status** (Control => Status => GPS) Time: _____
 Sec since LL: 0 *Note clock MUST lock before starting acquisition
 Phase Diff: +0.000004 us (should be a small number)
 SV's: 9 MODE > cycled
 GPS Location of Site: _____
7. **Start Acquisition** (Control => Status => Start Acq)
 Start time: 2016:069:19.18.08 (check year and time)
8. **Verify RAM Increasing** (Control => Status => Update) **Yes/No**
9. **Force RAM Dump to Disk 1** (Remove disk 2; Control => RAM => Dump)
 Verify RAM *decreases* and disk 1 *increases* (Control => Status => Update) **Yes/No**
Replace disk 2 **Yes/No**
10. **Disk Setup** (Control => Disk)

Dump Threshold:	66%
Auto-wrap	No (select the pull-down arrow to change setting)
Dump on ET	No

Tap the SEND button to send the information to the DAS

Date _____

Station PP01

11. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button, then OK, to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status ⇒Update). Yes No

12. **DAS status** (⇒Update) (or Control ⇒ Status)

Acq: Start On Off

Events: 1

RAM: 397 of 4352

Disk 1: 0.547 of 1950

Disk 2: 0 of 1950

Temp: 17.3

Power: Input 12.9 Bkup: 3.3

Ch: 123

DS: e

Firmware Version 3.4.3 (Control⇒Status⇒Versions)

Make sure all unused connectors are capped.

RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENTS AND NOTES

TAKE A PICTURE OF THE SITE (Or Several)

CONTACT/LANDOWNER: _____

LOCATION OF SHIPPING CASES _____

SITE NOTES:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP01

Local Date/Time: 3/16/2016 16:04 GMT Date/Time: 16 MAR 2016 23:04

Field Team: Neal Lord

GPS Location of Site: N 39.80166 W 119.00943 1236m

Equipment

DAS S/N: 991C

Clock S/N: 1856

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below)

Sensor S/N: 5-022 Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On Off

Events: 573

Disk 1: 1877 of 1950

Temp: 32.8

Ch: 123

RAM: 2363 of 4352

Disk 2: 0 of 1950

*Power: Input 120 Bkup chg: 3.3

DS: 5

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:02:10 Phase Diff -1 SV's: 10

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 501504 Size: 2 Orig. Disk 2 S/N: 501195 Size: 2

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 501195 Size: 2 Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1 us (should be a small number)

SV's: 10

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq) ✓

Start time: 2016 076; 23:19:28

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases (Yes) / No

AND Disk 1 increases (Yes) / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 3/16/2016

Station PP01

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓
Tap the WRITE button to write the .cfg file to the disk.
Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 1 RAM: 216 of 4353

*Disk 1: 0.203 of 1950 Disk 2: _____ of _____

Temp: 32.3 Power: Input 12.8 Bkup chg: 3.3

Ch: 123 DS: c

Firmware Version 3.4.3 (Control⇒Status⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.
2. Test output of the batteries (12.5 – 13 Volts DC)

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP06

Local Date/Time: WEDNESDAY GMT Date/Time: 2016 03 17 01:58

Field Team: WORLD & FEIGL

GPS Location of Site: BRADY HOTSPRINGS NEVADA

Equipment: N39.8554 W119.00587 913w

DAS S/N: 951F

Clock S/N: 1857

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N G066 Sensor Type: L28

Get DAS initial Status:

DAS Status (Control => Status)

Acq: Start (On/Off)

Events: 175

Disk 1: 1714 of 1950

Temp: 15.5

Ch: 123

RAM: 3595 of 6400

Disk 2: 0.063 of 1950

*Power: Input 12.0 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control => Status => GPS)

Sec since LL: 0:00:04 Phase Diff -2.115 SV's: 9

Service

1. **Stop Acquisition** (Control => Status => Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config => From DAS => Edit => Verify experiment name: POROTOMO 2016

Get Sensor Serial Number: 05 => Channels => Details => record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish) green ✓

Orig. Disk 1 S/N: 5013269 Size: _____ Orig. Disk 2 S/N: 5012058 Size: 2GB

LABEL these DATA Disks - do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5012058 Size: 2GB Swap Disk 2 S/N: X Size: _____

5. **Clear RAM** (Control => RAM => Clear) ✓

6. **Reset System** (Control => Reset) Note: this initializes the GPS ✓ ✓ ✓

7. **Format Flash Disk** (Control => Format Disk => Disk 1: ✓✓ Disk 2: X)

8. **Monitor/Tap Test** (Control => Monitor => Stream 1)
Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control => Status => GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1.1 us (should be a small number) 0.001 us

SV's: 9 6

10. **Start Acquisition:** (Control => Status => Start Acq)

Start time: 2016:077:02:10:04 2016:07:02:20:52

11. **Verify RAM Increasing** (Control => Status => Update)

(Yes) No

12. **Force RAM Dump to Disk** - pull Disk 2 (Control => RAM => Dump)

Verify RAM decreases (Yes) No

AND Disk 1 increases (Yes) No (Control => Status => Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control => Disk):

If **telemetered:** Auto-wrap Yes

If **stand-alone:** Auto-wrap No

Date 2016/03/17

Station PP06

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk. ✓

Verify that the value of disk space used increases (Control ⇒Status). ✓

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ⁸⁵ ON to get data

Events: 1 RAM: 293 of 6400

0.141 *Disk 1: 0.234 of 1950

Disk 2: X of _____
Power: Input 13.1 Bkup chg: 3.3V

Temp: 14

Ch: 123

DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP05

Local Date/Time: Mar 17 07:33 GMT Date/Time: Mar 17 14:33

Field Team: Neal and Leaten

GPS Location of Site: N 39.81211 W 119.00009

Equipment

DAS S/N: 978F

Clock S/N: 1973

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N K154 Sensor Type: L28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: (Start On) / Off

Events: 185

Disk 1: 1715 of 1997

Temp: -1.2°C

Ch: 123

RAM: 1462 of 4352

Disk 2: 0 of 1950

*Power: Input 11.9 Bkup chg: 0.4

DS: C

***If Power is Low**, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:38 Phase Diff 0 us SV's: 10

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 501396 Size: _____ Orig. Disk 2 S/N: 5011896 Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5011896 Size: _____ Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: Ch 2: Ch 3:

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -2 us (should be a small number)

SV's: 8

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:07:14:49:46

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

(Yes) / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases (Yes) / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update) 13.3 v

Replace Disk 2

***NOTE** Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 17 Mar

Station PP05

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 3

RAM: 321 of 4352

*Disk 1: 0.422 of 1950

Disk 2: of

Temp: +2.3°C

Power: Input 13.3 Bkup chg: 0.4

Ch: 123

DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

Lithium Battery Dead 0.4 V

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP02

Local Date/Time: 17 Mar 19:49 GMT Date/Time: 18 Mar 02:48

Field Team: Neal and Lesley

GPS Location of Site: N 39° 47.9458' W 119° 0.3609' 1263m

Equipment

DAS S/N: 9903

Clock S/N: 460

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 6233 Sensor Type: L28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start (On) / Off

Events: 199

RAM: 2052 of 4352

Disk 1: 1576 of 1997

Disk 2: 0 of 1997

Temp: +16.0C

*Power: Input 11.9 Bkup chg: 3.3

Ch: 123

DS: C

***If Power is Low**, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 0.1ms Phase Diff -1 ns SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5013336 Size: 2GB Orig. Disk 2 S/N: 5015014 Size: 2GB

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5015014 Size: 2GB Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: X Disk 2: X)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: ✓ Ch 2: ✓ Ch 3: ✓

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -3 us (should be a small number)

SV's: 6

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:078:03:01:07

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

(Yes) / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases (Yes) / No

AND Disk 1 increases (Yes) / No (Control ⇒ Status ⇒ Update)

~~Replace Disk 2~~

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 17 Mar

Station pp 02

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status). ✓

15. **DAS status** (Control ⇒Status)

Acq: Start On Off - NOTE Acquisition MUST be ON to get data

Events: 1

RAM: 110 of 4352

*Disk 1: 0.188 of 1997

Disk 2: 0 of

Temp: +15°C

Power: Input 12.6 Bkup chg: 3.3

Ch: 123

DS: C

Firmware Version 3.4.3 (Control⇒Status⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PreTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP04

Local Date/Time: 3/18/2016 11:23 GMT Date/Time: 18 MAR 2016 18:23

Field Team: Neal Lord, Leslie Parker

GPS Location of Site: N 39.80986 W 118.99610 1358m

Equipment

DAS S/N: 945B

Clock S/N: 2399

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 5001 Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 212

Disk 1: 1615 of 1950

Temp: 27.9

Ch: 123

RAM: 1312 of 4352

Disk 2: 0 of 1950

*Power: Input 11.8 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 0:0:27 Phase Diff 0 SV's: 9

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) 2 @ 16:078:18:26-35

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: PoroTomo2016

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5013335 Size: 2GB Orig. Disk 2 S/N: 5013335 Size: 2

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5013335 Size: 2 Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: no Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: ✓ Ch 2: ✓ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff 2 us (should be a small number)

SV's: 6

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq) ✓

Start time: 2016 078 18:41:41

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

(Yes) No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases (Yes) / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk): ✓

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 3/18/2016

Station PP04

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 1 RAM: 135 of 4352

*Disk 1: 0.188 of 1950 Disk 2: of

Temp: 25.4 Power: Input 13.2 Bkup chg: 3.3

Ch: 123 DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP03

Local Date/Time: 3/18/2016 11:56 GMT Date/Time: 18 MAR 2016 18:56

Field Team: Neal Lord, Leslie Parker

GPS Location of Site: N 39.80460 W 119.00117 1349

Equipment

DAS S/N: 956B

Clock S/N: 1706

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N K186 Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control => Status)

Acq: Start On/Off
Events: 212 RAM: 290 of 4352
Disk 1: 1762 of 1950 Disk 2: 0 of 1950
Temp: 28.9 *Power: Input 11.8 Bkup chg: 5.3
Ch: 123 DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control => Status => GPS)

Sec since LL: 0 Phase Diff -1.25 SV's: 9

Service

1. Stop Acquisition (Control => Status => Stop Acq) ✓
2. Get RT130 parameters from the DAS
Work with Config => From DAS => Edit => Verify experiment name: PoroTomo 2016
- Get Sensor Serial Number: => Channels => Details => record sensor S/N above
3. Swap Disks (wait for disk writing to finish)
Orig. Disk 1 S/N: 501498 Size: 2 Orig. Disk 2 S/N: 5013730 Size: 2
LABEL these DATA Disks - do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5013730 Size: 2 Swap Disk 2 S/N: _____ Size: _____
5. Clear RAM (Control => RAM => Clear) ✓
6. Reset System (Control => Reset) Note: this initializes the GPS ✓
7. Format Flash Disk (Control => Format Disk => Disk 1: NO Disk 2: _____)
8. Monitor/Tap Test (Control => Monitor => Stream 1)
Ch 1: ✓ Ch 2: ✓ Ch 3: ✓
9. Check Clock Status (Control => Status => GPS)
Sec since LL: 0 *Note clock MUST lock before starting acquisition
Phase Diff -1.25 us (should be a small number)
SV's: 9
10. Start Acquisition: (Control => Status => Start Acq)
Start time: 2016 078 19:11:49
11. Verify RAM Increasing (Control => Status => Update)
(Yes/No)
12. Force RAM Dump to Disk - pull Disk 2 (Control => RAM => Dump)
Verify RAM decreases (Yes/No)
AND Disk 1 increases (Yes/No) (Control => Status => Update)
- ~~Replace Disk 2~~
- *NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)
Disk 2 must be zero (formatted and ready for data after Disk 1 is full)
13. Check Disk Setup (Control => Disk): ✓
If telemetered: Auto-wrap Yes
If stand-alone: Auto-wrap No

Date 3/18/2016

Station PP03

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 1

RAM: 244 of 4352

*Disk 1: 0.266 of 1950

Disk 2: of

Temp: 27.4

Power: Input 12.9 Bkup chg: 3.3

Ch: 123

DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP02

Local Date/Time: 2016-03-21, 07:37 GMT Date/Time: 2016-03-21, 14:37

Field Team: Ned Lord & Lesley Parker

GPS Location of Site: N 39.79910° W 119.00602°

Equipment

DAS S/N: 990B

Clock S/N: 460

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N G23B Sensor Type: L28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 84

RAM: 1110 of 4352

Disk 1: 596 of 1997

Disk 2: _____ of _____

Temp: +8.5

*Power: Input 12.0 Bkup chg: 3.3

Ch: 123

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 Phase Diff -1 us SV's: 9

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: PoroTomo2016

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5015014 Size: 2GB Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

5015014 →

Swap Disk 1 S/N: 5015014 Size: 2GB Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: Disk 2:)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)
Ch 1: Ch 2: Ch 3:

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1 us us (should be a small number)

SV's: 9

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:081:14:50:35

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date Mar 21

Station PP02

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk. ✓

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 1 RAM: 90 of 4352

*Disk 1: 0.102 of 1950 Disk 2: _____ of _____

Temp: +9 Power: Input 13.1 Bkup chg: 3.3

Ch: 123 DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

Installed 33 amp battery

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PR05

Local Date/Time: Mar 23 13:37 GMT Date/Time: 03:23:20:39

Field Team: Neal Lord & Lesley Parker

GPS Location of Site: N 39.81225° W 119.60014°

Equipment

DAS S/N: 978F

Clock S/N: 1873

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N K154 Sensor Type: _____

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 153

Disk 1: 1615 of 1950

Temp: 29.8°

Ch: 123

RAM: 2736 of 4352

Disk 2: _____ of _____

*Power: Input 12.3 Bkup chg: 0.4

DS: e

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:42 Phase Diff 0 us SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: PoroTomo 2016

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 501986 Size: 2 GB Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 501981 Size: 2 GB Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)
Ch 1: Ch 2: Ch 3: skipped ✓

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:00 *Note clock MUST lock before starting acquisition

Phase Diff 0 -1 us (should be a small number)

SV's: 8

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:03:20:52:11 2016:03:21:04:13

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date Mar 23

Station PP05

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk. ✓

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On/ Off - NOTE Acquisition MUST be ON to get data

Events: 1

RAM: 169 of 4352

*Disk 1: 1 of 1950

Disk 2: of

Temp: 28.6

Power: Input 13.1 Bkup chg: 0.4

Ch: 123

DS: C

Firmware Version 3.4.3 (Control⇒Status⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

Double-check new battery is actually charged

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: P06

Local Date/Time: 3/23/2016 14:51 GMT Date/Time: 23 MAR 2016 14:51

Field Team: Neu

GPS Location of Site: N39.80552 W119.00558

Equipment

DAS S/N: 951F

Clock S/N: 1857

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 6066 Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control => Status)

Acq: Start On / Off

Events: 157

Disk 1: 1579 of 1950

Temp: 40.1

Ch: 123

RAM: 811 of 6400

Disk 2: - of -

*Power: Input 11.9 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control => Status => GPS)

Sec since LL: 0 Phase Diff -2 SV's: 9

Service

1. Stop Acquisition (Control => Status => Stop Acq)

2. Get RT130 parameters from the DAS

Work with Config => From DAS => Edit => Verify experiment name: PoroTomo 2016

Get Sensor Serial Number: => Channels => Details => record sensor S/N above

3. Swap Disks (wait for disk writing to finish)

Orig. Disk 1 S/N: 5012058 Size: 2 Orig. Disk 2 S/N: - Size: -

LABEL these DATA Disks - do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5015015 Size: 2 Swap Disk 2 S/N: - Size: -

5. Clear RAM (Control => RAM => Clear)

6. Reset System (Control => Reset) Note: this initializes the GPS

7. Format Flash Disk (Control => Format Disk => Disk 1: Disk 2:

8. Monitor/Tap Test (Control => Monitor => Stream 1)

Ch 1: - Ch 2: - Ch 3: -

9. Check Clock Status (Control => Status => GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1 us us (should be a small number)

SV's: 8

10. Start Acquisition: (Control => Status => Start Acq)

Start time: 2016:083:15:02:51

11. Verify RAM Increasing (Control => Status => Update)

Yes/No

12. Force RAM Dump to Disk - pull Disk 2 (Control => RAM => Dump)

Verify RAM decreases Yes/No

AND Disk 1 increases Yes/No (Control => Status => Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check Disk Setup (Control => Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 3/23/2016

Station PP06

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓
Tap the WRITE button to write the .cfg file to the disk.
Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)
Acq: Start On/ Off - NOTE Acquisition MUST be ON to get data
Events: 1
*Disk 1: 0.219 of 7950 RAM: 43 of 6400
Temp: 1.1 Disk 2: of
Ch: 123 Power: Input 13.2 Bkup chg: 3.3
DS:
Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.
 2. Test output of the batteries (12.5 – 13 Volts DC)
- WARNING: DO NOT test the current of the battery
3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).
- ! Make sure the polarity is correct
4. Test the solar panel output (18 Volts DC)
 7. Connect the solar panels to power box
 8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PreTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP 01

Local Date/Time: 3/23/2016 07:28 GMT Date/Time: 23 MAR 2016 14:28

Field Team: Noel

GPS Location of Site: N39.80055 W119.00887 1168

Equipment

DAS S/N: 991C

Clock S/N: 1856

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 5022

Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 160

Disk 1: 1680 of 1950

Temp: -2.1

Ch: 123

RAM: 1963 of 4352

Disk 2: — of —

*Power: Input 12.0 Bkup chg: 3.3

DS: 2

***If Power is Low**, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:00:32 Phase Diff -1 SV's: 11

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: PoroTomo 2016

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5011950 Size: 2 Orig. Disk 2 S/N: — Size: —

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5011887 Size: 2 Swap Disk 2 S/N: — Size: —

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: ✓ Disk 2: —)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: — Ch 2: — Ch 3: —

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1 us (should be a small number)

SV's: 11

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:083:14:40:49

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

***NOTE** Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 3/23/2016

Station PP01

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 9 RAM: 11 of 4352

*Disk 1: 0.313 of 1950 Disk 2: of

Temp: -2.1 Power: Input 13.1 Bkup chg: 3.3

Ch: 123 DS: c

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP04

Local Date/Time: 3/24/2016 07:50 GMT Date/Time: 24 MAR 2016 14:50

Field Team: Neal

GPS Location of Site: N 37.80981 W 118.99615 1133m

Equipment

DAS S/N: 945B

Clock S/N: 2397

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 5001 Sensor Type: L-28

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On/ Off

Events: 141

Disk 1: 1013 of 1950

Temp: -0.4

Ch: 123

RAM: 1044 of 4852

Disk 2: — of —

*Power: Input 12.3 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 Phase Diff -1 SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: PoroTomo 2016

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5013335 Size: 2 Orig. Disk 2 S/N: — Size: —

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 5014998 Size: 2 Swap Disk 2 S/N: — Size: —

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear) ✓

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS ✓

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: ✓ Disk 2: —)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: — Ch 2: — Ch 3: —

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: 0 *Note clock MUST lock before starting acquisition

Phase Diff -1 us (should be a small number)

SV's: 8

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: 2016:084:15:02:22

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

(Yes) No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases (Yes) No

AND Disk 1 increases (Yes) No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date 3/24/2016

Station PP04

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LP/WP) ✓

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: 1 RAM: 85 of 4352

*Disk 1: 0.172 of 1950 Disk 2: of

Temp: 1.1 Power: Input 13.2 Bkup chg: 3.3

Ch: 123 DS: C

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PPO4

Local Date/Time: 26 Mar 2016 16:54 GMT Date/Time: 26 Mar 2016 23:56

Field Team: Lord / Cardiff

GPS Location of Site: 39.80985 N 118.99612 W

Equipment

DAS S/N: 945 B

Clock S/N: 2399

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 5001

Sensor Type: L28

Orientation: 0°

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: (Start On) / Off

Events: 57

Disk 1: 399 of 1950

Temp: 23.4

Ch: 123

RAM: 117 of 4352

Disk 2: — of —

*Power: Input 12.8 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 40 sec Phase Diff 0 Mc SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5014995 Size: 2GB Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: _____ Size: _____ Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: _____ *Note clock MUST lock before starting acquisition

Phase Diff _____ us (should be a small number)

SV's: _____

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: _____

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date _____

Station _____

14. Write .CFG File to Disk (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. DAS status (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____

Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PPO6

Local Date/Time: 26 Mar 2016 15:24 GMT Date/Time: 26 March 2016 22:24

Field Team: Lord & Gault

GPS Location of Site: 39.80552 N 119.60589 W

Equipment

DAS S/N: 951F

Clock S/N: 1857

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 6066

Sensor Type: L28

Orientation: 346°

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 80

Disk 1: 703 of 1950

Temp: 30.4

Ch: 123

RAM: 972 of 6400

Disk 2: _____ of _____

*Power: Input 12.7 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:00:26 Phase Diff 0ms SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5015015 Size: 2GB Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: _____ Size: _____ Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: _____ *Note clock MUST lock before starting acquisition

Phase Diff _____ us (should be a small number)

SV's: _____

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: _____

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date _____

Station _____

14. Write .CFG File to Disk (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. DAS status (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____

Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP-03

Local Date/Time: 26 Mar 16 1623 GMT Date/Time: 26 Mar 16 23:23

Field Team: Cardiff/Kord

GPS Location of Site: 39.86462N 119.00121W

Equipment

DAS S/N: 956B

Clock S/N: 1706

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N K186

Sensor Type: L28

Orientation:
0°

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On Off

Events: 197

Disk 1: 1604 of 1950

Temp: 25.9

Ch: 123

RAM: 288 of 4352

Disk 2: of

*Power: Input 12.3 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 27sec Phase Diff 145 SV's: 10

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq) ✓

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name:

Get Sensor Serial Number: ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5013730 Size: 2GB Orig. Disk 2 S/N: Size:

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: Size: Swap Disk 2 S/N: Size:

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: Disk 2:)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: Ch 2: Ch 3:

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: *Note clock MUST lock before starting acquisition

Phase Diff us (should be a small number)

SV's:

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time:

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date _____

Station _____

14. Write .CFG File to Disk (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. DAS status (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____

Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PPO2
Local Date/Time: 26 Mar 16 1608 GMT Date/Time: 26 Mar 2016 2308

Field Team: Cardiff/Lord
GPS Location of Site: 39.79910N 119.00600W

Equipment

DAS S/N: 990B
Clock S/N: 460

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N G233 Sensor Type: L28 Orientation: 30

Get DAS initial Status:

DAS Status (Control => Status)

Acq: Start On / Off
Events: 130
Disk 1: 930 of 1950 RAM: 1772 of 4352
Disk 2: — of —
Temp: 27.9 *Power: Input 12.4 Bkup chg: 3.3
Ch: 123 DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control => Status => GPS)

Sec since LL: 13 sec Phase Diff -245 SV's: 8

Service

1. **Stop Acquisition** (Control => Status => Stop Acq) ✓
 2. **Get RT130 parameters from the DAS**
Work with Config => From DAS => Edit => Verify experiment name: _____
Get Sensor Serial Number: _____ => Channels => Details => record sensor S/N above
 3. **Swap Disks** (wait for disk writing to finish)
Orig. Disk 1 S/N: _____ Size: _____ Orig. Disk 2 S/N: _____ Size: _____
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5013711 Size: 2GB Swap Disk 2 S/N: _____ Size: _____
 5. **Clear RAM** (Control => RAM => Clear)
 6. **Reset System** (Control => Reset) Note: this initializes the GPS
 7. **Format Flash Disk** (Control => Format Disk => Disk 1: _____ Disk 2: _____)
 8. **Monitor/Tap Test** (Control => Monitor => Stream 1)
Ch 1: _____ Ch 2: _____ Ch 3: _____
 9. Check **Clock Status** (Control => Status => GPS)
Sec since LL: _____ *Note clock MUST lock before starting acquisition
Phase Diff _____ us (should be a small number)
SV's: _____
 10. **Start Acquisition:** (Control => Status => Start Acq)
Start time: _____
 11. **Verify RAM Increasing** (Control => Status => Update)
Yes / No
 12. **Force RAM Dump to Disk** – pull Disk 2 (Control => RAM => Dump)
Verify RAM decreases Yes / No
AND Disk 1 increases Yes / No (Control => Status => Update)
Replace Disk 2
- *NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)
Disk 2 must be zero (formatted and ready for data after Disk 1 is full)
13. Check **Disk Setup** (Control => Disk):
If telemetered: Auto-wrap Yes
If stand-alone: Auto-wrap No

Date _____

Station _____

14. Write .CFG File to Disk (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. DAS status (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____

Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PPO5

Local Date/Time: 26 Mar 2016 15:38 GMT Date/Time: 26 Mar 2016 22:38

Field Team: Cardiff/Lord

GPS Location of Site: 39.81207 N 119.00011 W

Equipment

DAS S/N: 978F

Clock S/N: 1873

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N K154

Sensor Type: L28

Orientation: 0°

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 74

Disk 1: 13647 of 1950

Temp: 28.3

Ch: 123

RAM: 1520 of 4352

Disk 2: — of —

*Power: Input 12.3 Bkup chg: 0.4

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 0:00:00 Phase Diff 0ms SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: _____ Size: _____ Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: 501498 Size: 2GB Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: _____ *Note clock MUST lock before starting acquisition

Phase Diff _____ us (should be a small number)

SV's: _____

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: _____

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date _____

Station _____

14. Write .CFG File to Disk (Control⇒Status⇒DAS LP/WP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. DAS status (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____
Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments:

PRefTek 130 SERVICE SHEET (PoroTomo 2016)

Station: PP01

Local Date/Time: 26/3/2016 1503 GMT Date/Time: 26 March 16, 22:03

Field Team: Lord / Corlett

GPS Location of Site: 39.80170N, 119.00945W

Equipment

DAS S/N: 9910

Clock S/N: 1856

(Do the next step within the "Service" and look for sensor information in the parameter set from Clie below):

Sensor S/N 5-022

Sensor Type: L28

Orientation: 354°

Get DAS initial Status:

DAS Status (Control ⇒ Status)

Acq: Start On / Off

Events: 81

Disk 1: 818 of 1950

Temp: +28.8

Ch: 123

RAM: 1886 of 4352

Disk 2: - of -

*Power: Input 12.7 Bkup chg: 3.3

DS: C

*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.

Clock Status (Control ⇒ Status ⇒ GPS)

Sec since LL: 00:00:07 Phase Diff 0.45 SV's: 8

Service

1. **Stop Acquisition** (Control ⇒ Status ⇒ Stop Acq)

2. **Get RT130 parameters from the DAS**

Work with Config ⇒ From DAS ⇒ Edit ⇒ Verify experiment name: _____

Get Sensor Serial Number: _____ ⇒ Channels ⇒ Details ⇒ record sensor S/N above

3. **Swap Disks** (wait for disk writing to finish)

Orig. Disk 1 S/N: 5011887 Size: 2GB Orig. Disk 2 S/N: _____ Size: _____

LABEL these DATA Disks – do not reuse them until data are downloaded and backed up

Swap Disk 1 S/N: _____ Size: _____ Swap Disk 2 S/N: _____ Size: _____

5. **Clear RAM** (Control ⇒ RAM ⇒ Clear)

6. **Reset System** (Control ⇒ Reset) Note: this initializes the GPS

7. **Format Flash Disk** (Control ⇒ Format Disk ⇒ Disk 1: _____ Disk 2: _____)

8. **Monitor/Tap Test** (Control ⇒ Monitor ⇒ Stream 1)

Ch 1: _____ Ch 2: _____ Ch 3: _____

9. Check **Clock Status** (Control ⇒ Status ⇒ GPS)

Sec since LL: _____ *Note clock MUST lock before starting acquisition

Phase Diff _____ us (should be a small number)

SV's: _____

10. **Start Acquisition:** (Control ⇒ Status ⇒ Start Acq)

Start time: _____

11. **Verify RAM Increasing** (Control ⇒ Status ⇒ Update)

Yes / No

12. **Force RAM Dump to Disk** – pull Disk 2 (Control ⇒ RAM ⇒ Dump)

Verify RAM decreases Yes / No

AND Disk 1 increases Yes / No (Control ⇒ Status ⇒ Update)

Replace Disk 2

*NOTE Verify Disk 1 is (Current) and should be a non-zero value. (See below #17)

Disk 2 must be zero (formatted and ready for data after Disk 1 is full)

13. Check **Disk Setup** (Control ⇒ Disk):

If telemetered: Auto-wrap Yes

If stand-alone: Auto-wrap No

Date _____

Station _____

14. **Write .CFG File to Disk** (Control⇒Status⇒DAS LPWP)

Tap the WRITE button to write the .cfg file to the disk.

Verify that the value of disk space used increases (Control ⇒Status).

15. **DAS status** (Control ⇒Status)

Acq: Start On / Off - NOTE Acquisition MUST be ON to get data

Events: _____ RAM: _____ of _____

*Disk 1: _____ of _____ Disk 2: _____ of _____

Temp: _____ Power: Input _____ Bkup chg: _____

Ch: _____ DS: _____

Firmware Version _____ (Control⇒Satus⇒Versions)

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

NOTE: The following tests should be performed with the solar panels in full sun. Check solar panel is clean.

1. Disconnect the solar panel.

2. Test output of the batteries (12.5 – 13 Volts DC

WARNING: DO NOT test the current of the battery)

3. Test the voltage out of the power box to the DAS from pin A+ to C-. (Same as battery voltage measured above).

! Make sure the polarity is correct

4. Test the solar panel output (18 Volts DC)

7. Connect the solar panels to power box

8. Test the voltage at the battery terminals (Greater than the battery voltage measured above).

Comments: