0002 (NNOUZ
INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 STATION Name: PPOZ (NNOUZ
Local Date/Time: 20/6/03/09 16:42 GMT Pate/Time: 28/6/03/10 0:40 Field Team: Neal Local + Daule Fralls GPS location N 39.79909 W119.00600* 931 m
Equipment Sensor S/N: 6 2 3 3 Sensor Type: L 2 8 DAS S/N: 990 B Clock S/N: 960
Flash Disk 1 S/N:
Level Sensor Declination: Orientation: true north / magnetic north
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 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: PoPo ToND 20 16 2. Clear RAM (Control ⇒ RAM ⇒ Clear) 3. Reset System (Control ⇒ Reset) ✓ 4. Format Flash Disk (Control ⇒ Format Disk) Disk 1:
10. Disk Setup (Control ⇒Disk) Dump Threshold: 66% Auto-wrap Dump on ET Tap the SEND button to send the information to the DAS

Date 2016/03/09 Station PP02
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 VOff
Events: RAM: 232of 4352_
Disk 1: 0.188 of 1997 Disk 2: 0 of 1997
Temp: /3.5° Power: Input 12.9V Bkup: 3.3V
Ch: 123 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 hord JORMA LOCATION OF SHIPPING CASES
SITE NOTES: hast is trument of the day!

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		0001 (NN024)
INSTALL SHEET (STAND ALONE) Project: Po	roTomo2016 STATIC	N Name: PPOY (NNOZ4)
Field Team: 1/10/ LORD & DANTE	ate/ lime: 9/6/02	109 23:05 947 M
Fauipment		28
Sensor S/N: 5001 DAS S/N: 945 B Clock S/N: 2399	Sensor Type	
Flash Disk 1 S/N: 50 14 994 Flash Disk 2 S/N: 50 1 3335	Size:	2.6B
INSTALL SENSOR Level Sensor Declination: 13.50 Orientation:	true north)/ m	nagnetic north
Power System Set-UP 1. Test output of the batteries (13.5-15 VDC) 2. Connect the batteries to the power cable 3. Test the voltage out of the power cable from NOTE: Make sure the polarity is correct.	om pin A+ to C-(San	
INSTALL DAS Connect GPS, and Sensor to DAS and there	n connect Power.	
 DAS Setup Send Parameters to DAS (Edit Station Name Work with Config ⇒ load ⇒ das_par_file ⇒ 	· Edit ⇒ enter station i	number) √ name ⇒Details⇒ <i>enter sensor sn</i>
⇒Send to DAS ⇒From DAS ⇒ Edit ⇒ Ve 2. Clear RAM (Control ⇒ RAM ⇒ Clear) 3. Reset System (Control ⇒ Reset) √ 4. Format Flash Disk (Control ⇒ Format Disk) 5. Monitor/Tap Test (Control ⇒ Monitor ⇒ Stream Ch 1: 1050/1340 Ch 2: 1280/1090	isk 1: Disk 2: n 1 [if >= 20 SPS] ⇒ 0 Ch 3:	chans) 6390 / 1960
6. Check Clock Status (Control ⇒ Status ⇒ GPS Sec since LL:*Note Phase Diff: us (sho	clock MUST lock beto uld be a small numbe	r)
GPS Location of Site: \(\mathcal{D} \) 39: 48.590. 7 Start Acquisition (Control ⇒ Status ⇒ Start Acquisition)	cq)	ck year and time)
Start time: 20(6:069:73:19:3 8. Verify RAM Increasing (Control ⇒ Status ⇒ U 9. Force RAM Dump to Disk 1 (Remove disk 2; Control ⇒ Normal Status ⇒ U Verify RAM decreases and disk 1 increases Replace disk 2	pdate) Control ⇒ RAM ⇒ Dui	mp)
10. Disk Setup (Control ⇒Disk) Dump Threshold: 66% Auto-wrap Dump on ET No Tap the SEND button to send the informat	ne pull-down arrow to	change setting)

Date 206/03/09 Station PP 44
11. Write .CFG Pile 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: RAM: LZ of 4352
Disk 1: 0.291 of 1950 Disk 2: 0 of 1950
Temp: 16.5°C Power: Input 12.9 Bkup: 3.3
Ch: 123 DS: C
Firmware Version <u>3.99</u> (Control⇒Satus⇒Versions)
3.4.3 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: Weal Lord / ORMAT
LOCATION OF SHIPPING CASES
SITE NOTES:

INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 STATION Name: PPO5 (NN 207)
Local Date/Time: 3/9/2016 13:48 GMT Date/Time: 9 MARIG 16 21:48
Local Date/Time: 3/9/2016 GMT Date/Time: 9 MAR 16 21:48
ried ream. Next Lord
GPS location N 39. 81208 W 119. 00007 937m Equipment
Sensor S/N: KISH Sensor Type: L-28
DAS S/N: 978
Clock S/N: 1873
Flash Disk 1 S/N: <u>\$013899</u> Size: 2 <i>GB</i>
Flash Disk 2 S/N: So 11886 Size: 268
INICTALL CENCOR
INSTALL SENSOR
Level Sensor Declination: Orientation: true north / magnetic north
Declination: Stass Orientation: 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:
INCTALL DAG
INSTALL DAS Connect CDS, and Sensente DAS, and the sensente DAS,
Connect GPS, and Sensor to DAS and then connect Power. DAS Setup
Send Parameters to DAS (Edit Station Name & Enter Sensor serial number)
Work with Config \Rightarrow load \Rightarrow das_par_file \Rightarrow Edit \Rightarrow enter station name
⇒Channels(#1)⇒Details⇒ <i>enter sensor sn</i> ⇒Send to DAS
⇒From DAS ⇒ Edit ⇒ Verify experiment name: Por Nono20/6
2. Clear RAM (Control ⇒ RAM ⇒ Clear)
3. Reset System (Control ⇒ Reset)
4. Format Flash Disk (Control ⇒ Format Disk) Disk 1: U Disk 2: U
5. Monitor/Tap Test (Control ⇒ Monitor ⇒ Stream 1 lif >= 20 SPSI → chans)
Ch 1: -3240/5720 Ch 2: -1004/1357 Ch 3: -2712/766
6. Check Clock Status (Control ⇒ Status ⇒ GPS) Time:
Sec since LL: *Note clock MUST lock before starting acquisition
Phase Diff: us (should be a small number) SV's:
SV's: 4 MODE > cycled 7260 W119:00.0016 918 m
7 Start Acquisition (Control -> Status -> Start Acquisition
7. Start Acquisition (Control ⇒ Status ⇒ Start Acq) Start time: 20/0:069:25:19:49 (check year and time)
8. Verify RAM Increasing (Control ⇒ Status ⇒ Update) (Check year and time) (Ces) 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 Tan the SEND button to cond the information to the DAC
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 \Rightarrow Status \Rightarrow Update). Yes / No
12. DAS status (⇒Update) (or Control ⇒ Status)
Acq: Start(On) / Off
Events: RAM: 246 of 4352
Disk 1: 6,297 of 1997 Disk 2: 6 of 1950
Temp: 17.5 Power: Input 12.8 Bkup: (0.9)
Ch: 123 DS:
Temp:
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: Project: PoroTomo2016
Local Date/Time: 2016 03 09 15:48 GMT Date/Time: 2016 03 09 23:47 Field Team: Noal Lond & Dauty Frank GPS location N 39 80458 0 W19 00 210 939 m Equipment
Sensor S/N: ICIBG Sensor Type: LZE DAS S/N: 7568 1706
Flash Disk 1 S/N: 5014993 Size: Z 6B Flash Disk 2 S/N: 5013730 Size: Z 6B
Level Sensor Declination: Orientation: true north / magnetic north
Power System Set-UP
 Test output of the batteries (13.5-15 VDC WARNING: DO NOT test current). Voltage: 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
Send Parameters to DAS (Edit Station Name & Enter Sensor serial number)
Work with Config \Rightarrow load \Rightarrow das_par_file \Rightarrow Edit \Rightarrow enter station name
⇒Channels(#1)⇒Details⇒ <i>enter sensor sn</i> ⇒Send to DAS
⇒From DAS ⇒ Edit ⇔ Verify experiment name: PoPo to two 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: $\frac{-3430}{11250}$ Ch 2: $\frac{-1880}{2870}$ Ch 3: $\frac{-2412}{2085}$ 6. Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow GPS) Time: $\frac{2016!}{2085}$ Check Clock Status (Control \Rightarrow Status \Rightarrow Check Clock Status (Control \Rightarrow Check Clock Status (Control \Rightarrow Status (Control \Rightarrow Status (Control \Rightarrow Check Clock (Control \Rightarrow Check (Control \Rightarrow Che
Sec since LL:*Note clock MUST lock before starting acquisition
Phase Diff: us (should be a small number)
SV's: 10 MODE > cycled
GPS Location of Site: $N39:48:2759 \longrightarrow 119:00.0697 \longrightarrow 1271 $ 7. Start Acquisition (Control \Rightarrow Status \Rightarrow Start Acq) Start time: $20/6:069:23:58:5)$ (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 <i>decreases</i> and disk 1 <i>increases</i> (Control ⇒ Status ⇒ Update)
Replace disk 2 Yes I) No
10. Disk Setup (Control ⇒Disk)
Dump Threshold: 66%
Auto-wrap No (select the pull-down arrow to change setting)
Dump on ET No V
Tap the SEND button to send the information to the DAS

Install_StandAlone v2012 (1/9/2012)

Turn Page Over

Date 20/6) 03 09	Station PP 13
11. Write .CFG File to Disk (Control⇒Status⇒DAS LP/W	
Tap the WRITE button, then OK, to write the .cfg file	to the disk.
Verify that the value of disk space used increases (C	Control ⇒Status ⇒Update). Yes / No
12. DAS status (⇒Update) (or Control ⇒ Status)	or the small local control of the same
Acq: Start On Off	1263
Events: 2 RAM: 188	of 4552
Disk 1: 0.186 of 1950 Disk 2: 0	of 1950
Temp: 16.4°C Power: Input _	12.90 Bkup: 3.3 V
Ch: $1,2,3$ DS: C	
Firmware Version 3.4.3 (Control⇒Satus⇒Versi	ons)
Make sure all unused connectors are capped.	
RECORD DIRECTIONS TO SITE AND ANY OTHER COMMENT	S AND NOTES
TAKE A PICTURE OF THE SITE (Or Several)	
CONTACT/LANDOWNER: Veal Land long	an N
001171017271112111	7/7
LOCATION OF SHIPPING CASES	

SITE NOTES:

20 NG (NN 179)
INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 STATION Name: PP 06 (NN 179)
Field Team: Neal Lord Dante Krata
GPS location N 39,80654 W 119,00587 913 m Equipment Sensor S/N: COG6 Sensor Type: L-28
Sensor S/N: DAS S/N: GOGG Sensor Type: L-28 GSIF
Clock S/N: 1857 Flash Disk 1 S/N: 5013 2 69 Size: 2 CB
Flash Disk 2 S/N: 501 2 0 58 Size:
INSTALL SENSOR Level Sensor
Declination: 19-5 Orientation: 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: POPOTOMO 16
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 \Rightarrow Monitor \Rightarrow Stream 1 [if >= 20 SPS] \Rightarrow chans) Ch 1: 23400/+26600 Ch 2: 424//534 Ch 3: -2600/1096 Ch 1: -4120 / +4970 www
6. Check Clock Status (Control ⇒ Status ⇒ GPS) Time: 161069: 20: 03: 25
Sec since LL:*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: 46.33/2 W //9: 0.3529 1259 M
7. Start Acquisition (Control ⇒ Status ⇒ Start Acq) Start time: 20/0: 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 <i>decreases</i> and disk 1 <i>increases</i> (Control ⇒ Status ⇒ Update) Yes / No Replace disk 2 Yes / No
Replace disk 2
10. Diak Setup (Central - Dick) 1
10. Disk Setup (Control ⇒Disk) 1 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 7	PPOS
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 ⇒l	Update)./ Yes /No
12. DAS status (⇒Lpdate) (or Control ⇒ Status)		
Acq: Start On / Off		
Events: RAM: _379 of _	6400	
Disk 1: 0.422 of 1950 Disk 2: 0.063 of	1950	
Temp: 49 Power: Input 8 Power	_ Bkup :	<u>3.3 </u>
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 TAKE A PICTURE OF THE SITE (Or Several)	NOTES	
contact/Landowner: Neal Lord / C	RMA	T
LOCATION OF SHIPPING CASES/		

SITE NOTES:

INSTALL SHEET (STAND ALONE) Project: PoroTomo2016 STATION Name: PPOI (NNI
Local Date/Time: 3/9/2016 16:48 GMT Date/Time: 9-MAR. 16 18:48 Field Team: Neal Lord, Dante Fratta GPS location N39.80169 W119.00940 902m Equipment
Sensor S/N: 5-022 Sensor Type: 1-28 DAS S/N: 991C 1856 Clock S/N: 1856 5015004 Size: 268 Flash Disk 1 S/N: 501950 Size: 268
Level Sensor Declination: Orientation: true north/ magnetic north
Power System Set-UP 1. Test output of the batteries (13.5-15 VDC WARNING: DO NOT test current). Voltage: 12.9 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:
6. Check Clock Status (Control ⇒ Status ⇒ GPS) Time: Sec since LL: *Note clock MUST lock before starting acquisition Phase Diff: *Vo. 0000 o o o o o o o o o o o o o o o o
7. Start Acquisition (Control ⇒ Status ⇒ Start Acq) Start time: 7. Ut G: UG : UG : UG : UG : UG : UG : UG
10. Disk Setup (Control ⇒Disk) Dump Threshold: 66% Auto-wrap Dump on ET No Tap the SEND button to send the information to the DAS

Date Station PPO 1
 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). 12. DAS status (⇒Update) (or Control ⇒ Status)
Acq: Star(On) Off Events: Disk 1:
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:
PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station: 170 Local Date/Time: 3/6/2016 16:04 GMT Date/Time: 16 mArza のようはできます。
Field Team: Neal Lord GPS Location of Site: N 39. 80166 W119,00943 1236 m
F!
DAS S/N:
Clock S/N: 1856
(Do the next step within the "Service" and look for sensor information in the parameter
set from Clie below: 27
set from Clie below: 22 Sensor Type: L-28
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Start On 10ff Events: RAM: 23 63 of 4352
Acq: Start On Port Events: 173 Disk 1: 1877 of 1950 Temp: 32.8 *Power: Input 12 Bkup chg: 3.3
Temp: <u>3 2 . 8</u> *Power: Input <u>12 @ Bkup chg</u> : <u>3 . 3</u>
Ch: 123 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: OOS OF Phase Diff SV's:
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: Socsof 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: 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
10. Start Acquisition: (Control ⇒Status ⇒Start Acq)
Start Acquisition: (Control ⇒ Status ⇒ Start Acq) Start time: 20(65076)23:49:28 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):
<pre>If telemetered: Auto-wrap Yes If stand-alone: Auto-wrap No</pre>
ii Stand-alone. Addo-wiap 110

Date 3/16/2016

Station_PPO1

14.	Write .CFG File to Disk (Control⇒Sta	atus⇒DAS LP/WP)
	Tap the WRITE button to write the	ctg file to the disk.
	Verify that the value of disk space u	used increases (Control ⇒Status).
15. I	DAS status (Control ⇒Status)	,
	Acq: Start On / Off - NOTE Acquis	ition MUST be ON to get data
	Events: (RAM: 216 of 4353
	*Disk 1: 0-203 of 1950	Disk 2: of
	Temp: _ 3 2 2	Power: Input 12-8 Bkup chg: 3-3
	Ch: $(2-3)$	DS: c
	Firmware Version ろうろ (Contro	ol⇒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).

	PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station:
	Local Date/Time: WEDNESDAT GMT Date/Time: 2016 03 17 01:58
	Field Team: LORD & FEIGL
	GPS Location of Site: BRADY HOTSPRINGS NEVADA
_	Equipment N39.8554 WH9.00587 913~
	DAS S/N: 451F
	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 <u>6-066</u> Sensor Type: <u>L28</u>
	Gensor Type.
	Get DAS initial Status:
	DAS Status (Control ⇒ Status)
	Acq: Start(Op)/ Off
	Events: 175 RAM: 3595 of 6400
	Disk 1: $17/4$ of 1950 Disk 2: 0.063 of 1950
	Temp: 15.5 *Power: Input 12.0 Bkup chg: 3.3
	Ch: <u>123</u> DS: <u>C</u>
	*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 - 2105 SV's: 9
	Sec since LL. Or or or Phase Diff Or CS SV's: 1
	Service
	1. Stop Acquisition (Control ⇒Status ⇒Stop Acq) ✓
	2. Get RT130 parameters from the DAS
_	Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: (20 €0 70/70 ≥0/6
013269	Get Sensor Serial Number: ○ ⇒ Channels ⇒ Details ⇒ record sensor S/N above
. •	3. Swap Disks (wait for disk writing to finish) Green
	Orig. Disk 1 S/N:50/3769 Size: Orig. Disk 2 S/N:50/205/Size: Q G-R
	LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
	Swap Disk 1 S/N: 3012088 Size: 368 Swap Disk 2 S/N: Size:
	5. Clear RAM (Control ⇒RAM ⇒Clear) L
	6. Reset System (Control ⇒Reset) Note: this initializes the GPS
	7. Format Flash Disk (Control ⇒Format Disk ⇒ Disk 1: VV Disk 2: X
	8. Monitor/Tap Test (Control ⇒Monitor ⇒Stream 1) Ch 1: Ch 2: Ch 3:
	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) O,001 lus
	SVS:
	10. Start Acquisition: (Control ⇒Status ⇒Start Acq)
	10. Start Acquisition: (Control ⇒ Startus ⇒ Start Acq) Start time: 2016:077:02:10:04 2016:07:02:20:52
	11. Verity 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
Service	sheet v2012 Mar 12 Turn Page Over

Date 2016/03/17

Station_PP\$6

ıa	e.CFG File to Disk (Control⇒S up the WRITE button to write the erify that the value of disk space	cfa file to the disk	
15. DAS s	status (Control ⇒Status)	used increases (Control ⇒S	tatus).
Ac Ev <i>O , 14</i> *Di Tei Ch	q: StartOn// Off - NOTE Acquents: 1 ents: 1 isk 1: 0.234 of <u>1950</u> mp: <u>14</u> : 23	RAM: <u>243</u> of <u>62</u> Disk 2: <u>×</u> of	ata 1700 up chg: <u>3,</u> 3 V

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).

PRETIER 130 SERVICE SHEET (PoroTomo 2016) Station: PP 05
ricia realli. Neal and Lealen
Equipment
DAS S/N: 978 F
Clock S/N: 1873
(Do the next step within the "Service" and look for sensor information in the parameter
set from Cile below);
Sensor S/N K 154 Sensor Type: Lag
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Start On Off
Events: 185 RAM: 1462 of 4352
DISK 1: 1715 OF 1997 Disk 2 to of 1950
Power: Input 11.4 Bkup chg: 6.4
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: 6638 Phase Diff 6 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: 5613896Size: Orig. Disk 2 S/N: 5611886 Size:
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 561/846 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:
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)
5V S
10. Start Acquisition: (Control ⇒Status ⇒Start Acq)
Start time: 2016:677:14:49:46
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

Service_sheet v2012 Mar 12

Turn Page Over

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: 6,422 of 1956 Disk 2: of

Temp: +2,3.c Power: Input 13.3 Bkup chg: Ø.4

Ch: _____ 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:

Lithium Battery Dead 0.4 V

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station: Propagation
Local Date/Time: 17 Mar 19:48 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: 9908
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 <u>C.233</u> Sensor Type: <u>L28</u>
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Start(On)/ Off
Events: 199 RAM: <u>7052</u> of <u>4357</u> Disk 1: <u>1576</u> of <u>1997</u> Disk 2: 6 of <u>1997</u>
Temp: +16.•c *Power: Input μ.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: Ohm Phase Diff -l ns SV's: 8
THOSE DIN STATE OF ST
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: 768 Orig. Disk 2 S/N:5014 Size: 268
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5615614 Size: 2C.B 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: <u>//</u> Ch 2: <u>//</u> Ch 3: <u>//</u>
9. Check Clock Status (Control ⇒Status ⇒GPS)
Sec since LL: *Note clock MUST lock before starting
acquisition
Phase Diff3 us (should be a small number)
SV's:
10 . Start Acquisition : (Control ⇒Status ⇒Start Acq)
Start time: 2616:678:63:61:07
11. Verify_RAM Increasing (Control ⇒Status ⇒Update)
(Yes)/ No
12. Force RAM Dump to Disk – pull Disk 2 (Control ⇒RAM ⇒Dump)
Verify RAM decreases (es)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
<i>If stand-alone:</i> Auto-wrap No
Trum Bone Over

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: 0.184 of 1917 Disk 2: 0 of 1917

Temp: 115°C Power: Input 12. C Bkup chg: 3.3

DS: C

Firmware Version <u>43.4.3</u> (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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station:
Local Date/Time: 3/18/20/6 11:23 GMT Date/Time: 18 MAR 2016 18:7.3
Field Team: Neal Lord. Leshe Parker
GPS Location of Site: $N 39.80986 \omega 118.99610 1358 \omega$
Equipment
_ · · · _
Clock S/N: 2399
(Do the next step within the "Service" and look for sensor information in the parameter
set from Cile below):
Sensor S/N SOUL Sensor Type: L- 28
Cot DAC initial Status
Get DAS initial Status:
DAS Status (Control Status)
Acq: Start On / Off
Events: 212 Disk 1: 16.15 of 1950 Temp: 27.9 PAM: 1312 of 4357 Disk 2: 0 of 1950 *Power: Input 11.8 Bkup chg: 3.3
Temp: 373
Temp: <u>27.3</u> *Power: Input 11.8 Bkup chg: <u>3.3</u> Ch: 12.3 DS:
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.
Clock Status (Control ⇒ Status ⇒GPS)
Sec since LL: ○ ○ 27 Phase Diff SV's: 7
Friase Dill SV S
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq) 2 6 16 018 18: 76-35
2. Get RT130 parameters from the DAS
Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: Poroton® 2016
Get Sensor Serial Number: ⇒Channels⇒Details⇒record sensor S/N above
3. Swap Disks (wait for disk writing to finish)
3. Swap Disks (wait for disk writing to finish) Orig. Disk 1 S/N: Sol 1 Size: Z66 Orig. Disk 2 S/N: Size: Z
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: Sol 3335 Size: Swap Disk 2 S/N: Size: 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: <u>2016 078 18:41:41</u>
11. Verify RAM Increasing (Control ⇒Status ⇒Update)
es A 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
<i>If stand-alone:</i> Auto-wrap No

Station PPOY

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: 135 of 135

*Disk 1: 0.188 of 950 Disk 2: of

Temp: 25.9 Power: Input 13.2 Bkup chg: 3.3 Ch: 123 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).

2003
PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station:
Local Date/Time: 3/18/2016 11:56 GMT Date/Time: 18 WHILTER 18:56
Local Date/Time: 3/18/2016 11:56 GMT Date/Time: 18 MARZOLE 18:56 Field Team: Near Local Leslie Parker GPS Location of Site: N 39-80460 W 119-00117 1349
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/NK 1 8 6 Sensor Type: L - 2 8
Sensor S/N Sensor Type:
Cat DAS initial Status
Get DAS initial Status:
DAS Status (Control ⇒ Status) Acq: Start On/ Off
Events: 212 RAM: 290 of 4352
RAM: 290 of 4352
Temp: 78.9 *Power: Input 11.8 Rkun cha: 5.7
Temp: 28.9 *Power: Input 11.8 Bkup chg: 5.3 Ch: 123 DS:
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise
continue.
Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: Phase Diff SV's: SV's:
1 Hade 5 H
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq) ✓
2 Cat DT420 neversations from the DAC
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: 501499 Size: Orig. Disk 2 S/N: 501373 Size:
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5013-730 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: _ ハ ∪ _ Disk 2:
8. Monitor/Tap Test (Control ⇒Monitor ⇒Stream 1)
Ch 1: Ch 2: Ch 3: 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: 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
<i>If stand-alone:</i> Auto-wrap No
Turn Page Over

14. Write .CFG File to Disk (Control⇒Sta 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 (Gontrol ⇒Status)	oralis (Seria of A Status).
Acq: Start On / Off - NOTE Acquis	sition MUST be ON to get data
Events:	RAM: 274 of 4352
*Disk 1: <u>0, 266</u> of <u>195</u>	Disk 2: of
Temp: <u>27.4</u>	Power: Input 17.9 Bkup chg: 3,3
Ch: 123	DS: C
Firmware Version 3.4.3 (Contro	ol⇒Satus⇒Versions)

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).

	PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station: PPoz.
	Local Date/Time: 2016 · 63.21, 01:37 GMT Date/Time: 2016 · 63.21, 14:37
	Field Team: Neal Land & Lealey Parker
	GPS Location of Site: N39.79110° W 119.00602°
	Equipment
	DAS S/N: 910B
	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 <u>G238</u> Sensor Type: <u>L28</u>
	Get DAS initial Status:
	DAS Status (Control ⇒ Status)
	Acq: Start On / Off
	Events: 84 RAM: (110 of 4352
	Disk 1: <u>546</u> of <u>1947</u> Disk 2: of
	Temp: <u>+8.5</u> *Power: Input <u>12.</u> 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: Phase Diff - l 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: PoroTomo 2016
	Get Sensor Serial Number: ⇒Channels⇒Details⇒record sensor S/N above
	3. Swap Disks (wait for disk writing to finish)
	Original State of City Size Contract Co
	Orig. Disk 1 S/N: 5015 0(4) Size: 2 GB Orig. Disk 2 S/N: Size: Size:
3211	LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
5018411	Swap Disk 1 S/N: So ISON Size: <u>2GB</u> Swap Disk 2 S/N: <u>Size:</u> Size:
	6. Popot System (Control - Department - Depa
	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:
	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: q
	10. Start Acquisition: (Control ⇒Status ⇒Start Acq) Start time: 2016: 0€1: เนะ 50:35
	11. Verify RAM Increasing (Control ⇒Status ⇒Update)
	(es)/ 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
0 1	1 - 2010 1 12

IF POWER IS BAD

POWER: Check Power ONLY IF the station has Power Problems

Firmware Version 3.4.3 (Control⇒Satus⇒Versions)

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

1. Disconnect the solar panel.

123

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: PROS
LOCAL Date/Time: Marc 23 13 37 GMT Date/Time: 03 10 0 10 0
Field Team: New Lord : Lesles Parker GPS Location of Site: N 39, 812250 N; 119, 60014
GPS Location of Site: N 39,812250 W 119 (50011)
Equipment
DAS S/N: 978 F
Clock S/N: 1873
(Do the next step within the "Service" and look for sensor information in the parameter
set from Clie below):
and the second of the second o
Sensor S/N K154 Sensor Type:
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Start On / Off
Events: 153 RAM: 2736 of 4352 Disk 1: 1615 of 1150 Disk 2: of
Disk 1: 1615 of 1950 Disk 2: of
Temp: <u>২৭.४°</u> *Power: Input <u>13.3</u> Bkup chg: <u>৩.৭</u>
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: 😗 🛇 :૫ 2 Phase Diff 🔃 🗸 Us SV's: 🐇
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq) ✓
2. Get RT130 parameters from the DAS
Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: PeroTomo ⊋ clo
Get Sensor Serial Number: ⇒Channels⇒Details⇒record sensor S/N above
3. Swap Disks (wait for disk writing to finish)
Original Disks (Walt for disk writing to finish)
Orig. Disk 1 S/N: Size: QGB Orig. Disk 2 S/N: Size: Size:
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5014981 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: 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: & Griodia de a siriali number)
10. Start Acquisition: (Control ⇒Status ⇒Start Acq)
Start time: 2016:153:20:52:11 2016:1683:21:04:13
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
<i>If stand-alone</i> : Auto-wrap No
sheet v2012 Man 12 Trans Dage Organ

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

Temp: 25,5 Power: Input 12,1 Bkup chg: 6,4 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:

Double-cheek new batters is actually charged

PROSTOK 420 SERVICE SHEET (ParaTama 2046) Station:
PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 3/23/26/6 67:51 GMT Date/Time: 23 MA 12 20/6 19:51
Field Team: New
Field Team: Newl GPS Location of Site: N39.80SSと いれらの558
Equipment DAS S/N: 951F
DAS S/N: 1>17
Clock S/N: <u>(857</u> (Do the next step within the "Service" and look for sensor information in the parameter
set from Clie below):
Sensor S/N 6 Sensor Type:
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Starton / Off
Acq: Start on Off Events: 157 Disk 1: 1577 of 1950 Temp: +0.1 Ch: 173 Disk 2: - of - Bkup chg: 3.3 DS:
Temp: +0.1 *Power: Input 10.9 Bkup cha: 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)
Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: Phase Diff SV's:
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq) ¹ /
2. Get RT130 parameters from the DAS Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: Cot Sensor Serial Number: Cot Sensor Serial Number: Cot Sensor Serial Number:
Get Selisor Seliai Number. Channels Details record selisor 5/14 above
3. Swap Disks (wait for disk writing to finish) Orig. Disk 1 S/N: 501205 Size: Orig. Disk 2 S/N: Size:
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up Swap Disk 1 S/N: <u>5015015</u> Size: Swap Disk 2 S/N: Size: Swap Disk 2 S/N: Size: Size: Swap Disk 2 S/N: Size: Swap Disk 2 S/N: Size: Size: Swap Disk 2 S/N: Swap Disk 2 S/N: Swap Disk 2 S/N: Size: Swap Disk 2 S/N:
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 / 1 / 1 / 2 / 2 us (should be a small number)
SV's:
10. Start Acquisition: (Control ⇒Status ⇒Start Acq)
Start time: 2016:083:15:02:31
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 helew #17)
*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,	120	ĺ	(
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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)

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station:
Local Date/Time: 3/23/2016 07:78GMT Date/Time: 23m/) x 2016 14 228
Field Team: Ne W
GPS Location of Site: N39.80055 WILT.00887 1168
Equipment DAS S/N: 991C
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 Sensor Type: L-75
Ochsor Type.
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Events: RAM: of 9357
Acq: Start On / Off Events:
Temp: - Z . 1 *Power: Input 12 .0 Bkup chg: 3 . 3
<u></u>
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise
continue.
Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: ○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○
Sec since LL: Social Phase Diff SV's: SV's:
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq)
2. Get RT130 parameters from the DAS
Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: Paration 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: 3011930 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: \(\frac{11667}{61667} \)Size: \(\frac{1}{6} \)Swap Disk 2 S/N: \(\frac{1}{6} \)Size: \(\frac{1}{6} \)
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: <u>ついし</u> : リタフ:リソ・リッ
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 7/2 1/2 5:3

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~ COCCA CAA				

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 Acquis	ition MUS	ST be ON	I to ge	t data
Events:	Cra	RAM:	11	of _	4352
*Disk 1:② <u>ろいろ</u>	of 1950	Disk 2:		of	90000000000000000000000000000000000000
Temp: 7 · 1		Power:	Input _/_	3.1	Bkup chg: 🔼 🦒
Ch: 12-3		DS:	C		
	~ 10 ^				

Firmware Version <u>3.%.</u> (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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 3/2 1/2016 075 GMT Date/Time: 24 MAR 2016 14 50 Field Team:
Field Team: No sid
GPS Location of Site: N 23 80981 13118 GB/15 112 Suc
Equipment DAS S/N: 4458
DAS S/N: 475 5
Clock S/N: 2 3 9 1
(Do the next step within the "Service" and look for sensor information in the parameter
set from Clie below): Sensor S/N Sensor Type:
Gerisor Type.
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Acq: Staft On Off
Events: 191
Temp: $\frac{70.5}{-0.4}$ of $\frac{10.5}{10.5}$ of 10.5
Temp: *Power: Input
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise
continue.
Clock Status (Control ⇒ Status ⇒GPS)
Sec since LL: Phase Diff - SV's:
Service
1. Stop Acquisition (Control ⇒Status ⇒Stop Acq)
0. O-4. DT400
Work with Config ⇒From DAS ⇒Edit ⇒Verify experiment name: Porotomo 7016
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: Size: LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: So 1997 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
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: 2016:089:15:62:77
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
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Station	P	PO	4

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: S of 1357

*Disk 1: 0,172 of Disk 2: of Power: Input 13,2 Bkup chg: 3,3

Ch: DS: DS: C

Firmware Version <u>3.4.3</u> (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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 26 Mar 2016 16 3 GMT Date/Time: 26 Mar 2016 23 36
GPS Location of Site: 34.8045 N 118.446 12W
Equipment
DAS S/N: 945 B
Clock S/N: Z 3 (Do the next step within the "Service" and look for sensor information in the parameter
sot from Clip below):
Sensor S/N 5001 Sensor Type: L28 Orientation
Get DAS initial Status:
DAS Status (Control⇒ Status)
A Ot- ot Or V Off
Events: 57 Disk 1: 399 of 1950 Disk 2: of
Disk 1: 399 of 1950 Disk 2: of
Temp: <u>33.4</u> *Power: Input <u>12.8</u> Bkup cng: <u>56.</u> 3.5
Ch: 123 DS:
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise
continue.
Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: HO Sec Phase Diff O HS SV's: SV's:
Sec since LL: Phase Dill O/CS SV s. O
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: 5014995Size: 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
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
To the state of th

14. Write .CFG File to Dis	k (Control⇒Status⇒DAS LP/WP)
Tap the WRITE butte	on 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: c	of of
Temp:	Power: Input Bkup chg:
Ch:	DS:
Firmware Version	(Control-Satus-Versions)

Station

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

Date

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Station: Prob
Local Date/Time: 26 Mar 2616 1524 GMT Date/Time: 26 March 23124
GPS Location of Site: 39,80552 N 119,60589 W
Equipment
DAS S/N: 951F
Clock S/N: 1757
(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 Orientation: Get DAS initial Status: 3460
Get DAS initial Status:
DAS Status (Control > Status)
Aca: Start On Off
Fvents: XO RAM: 972 of 6400
Disk 1: 703 of 1966 Disk 2: of
Events: 80 Disk 1: 703 of 1966 Temp: 30.4 RAM: 972 of 6400 Disk 2: of
Events: 80 Disk 1: 703 of 1966 Temp: 30.4 Ch: 123 RAM: 972 of 6400 Disk 2: of
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise
continue.
Clock Status (Control → Status →GPS)
Sec since LL: Occase Phase Diff Ong SV's:
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: 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: 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 (Co	ontrol⇒Status⇒DAS LP/WP)
Tap the WRITE button to	write the .cfg file to the disk.
Verify that the value of di	sk space used increases (Control ⇒Status).
15. DAS status (Control ⇒Statu	s)
Acq: Start On / Off - NO	TE Acquisition MUST be ON to get data
Events:	RAM: of
*Disk 1: of	
Temp:	Power: Input Bkup chg:
Ch:	DS:
Firmware Version	(Control→Satus→Versions)

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 26 Mar 16 16 23 GMT Date/Time: 26 Mar 16 23:23 Field Team: Cardiff / Cord GPS Location of Site: 34 76462N 119, 0012W Equipment DAS S/N: 456 B 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 166 Sensor Type: L28 Orientation
Get DAS initial Status: DAS Status (Control Status) Acq: Start On Off Events: 1974
continue. Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: 27 sec Phase Diff / MS 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: →1373 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: 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:
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 (Co	ontrol⇒Status⇒DAS LP/WP)
Tap the WRITE button to	write the .cfg file to the disk.
Verify that the value of di	isk space used increases (Control ⇒Status).
15. DAS status (Control ⇒Statu	us)
Acg: Start On / Off - NC	OTE 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)

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 26 May 16 1608 GMT Date/Time: 26 May 2016 2308
Field Toom: Cust III
GPS Location of Site: 39, 79910 N 119, 0060 W
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 (233) Sensor Type: L25
Sensor S/N G 233 Sensor Type: L 20 Orientation Get DAS initial Status:
Get DAS initial Status:
DAS Status (Control ⇒ Status)
Aca: Start On V Off
Events: 130 RAM: 1 tt of 4 5 5 3
Disk 1: 930 of 950 Disk 2: of
Temp: 27.9 *Power: Input 12.4 Bkup cng: 5.5
Ch: 123 DS: TIS B
*If Power is Low, follow instructions at the end "IF POWER IS BAD"; otherwise continue.
01 1 01 1 (0 -1-1 (0 -1-1 (0 -1-1 (0 -1 (0
Sec since LL: 6 135€ Phase Diff - 2 MS SV's: 8
Theorem I have bin over in
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: Size:
LABEL these DATA Disks – do not reuse them until data are downloaded and backed up
Swap Disk 1 S/N: 5013711 Size: 2 6 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 (C	ontrol⇒Status⇒DAS LP/WP)
Tap the WRITE button to	write the .cfg file to the disk.
Verify that the value of d	isk space used increases (Control ⇒Status).
15. DAS status (Control ⇒State	us)
Acq: Start On / Off - NO	OTE Acquisition MUST be ON to get data
Events:	RAM: of
*Disk 1: of	
Temp:	Power: Input Bkup chg:
Ch:	DS:
Firmware Version	(Control—Satus—Versions)

Station

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 26 Mar 2016 15:38 GMT Date/Time: 26 Mar 2016 22:38 Field Team: Carliff/Local GPS Location of Site: 34 81207 N 119.0001 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 Sensor Type: 26 Mar 2016 22:38 Get DAS initial Status:
Ot B/10 Illinar status.
DAS Status (Control ⇒ Status) Acq: Start On / Off
Events: 74 Disk 1: 1520 of 435 Disk 2: of
Disk 1: 15647 of 1950 Disk 2: of
Ch:(_>_3
continue.
Clock Status (Control ⇒ Status ⇒GPS) Sec since LL: ○ ○ ○ Phase Diff ○ ル > SV's:
Sec since LL: O CO CO Phase Diff O ACS SV's: O
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.5014981 Size: Swap Disk 2 S/N: Size: 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
	sk (Control⇒Status⇒DAS LP/WP)
	ton to write the .cfg file to the disk.
Verify that the value	e 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 of of
Temp:	Power: Input Bkup chg:
Ch:	DS:
Firmware Version	(Control⇒Satus⇒Versions)

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).

PRefTek 130 SERVICE SHEET (PoroTomo 2016) Local Date/Time: 26/3/2016 1503 GMT Date/Time: 26 Wach 16, 22:03 Field Team: Vocal Could GMT Date/Time: 26 Wach 16, 22:03 GPS Location of Site: 39 80180 U9 60945W 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 5-0 22 Sensor Type: 28 Ogentation: 3540
Get DAS initial Status: DAS Status (Control ⇒ Status)
Acq: Start On / Off Events: 7
Events: 71 Disk 1: 818 of 1950 Temp: +289 Ch: 123 RAM: 1886 of 4352 Disk 2: of *Power: Input 12,7 Bkup chg: _3.3 DS:
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: ○○:○○:○ 7. Phase Diff ○ μς SV's: 8
Service
 Stop Acquisition (Control ⇒Status ⇒Stop Acq) 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: 501887Size: 265 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	
	sk (Control⇒Status⇒DAS LP/WP) tton to write the .cfg file to the disk.
•	e of disk space used increases (Control ⇒Status).
15. DAS status (Control =	
	- 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)

Station

Make sure all plugs and connections have been replaced.

IF POWER IS BAD

Date

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).