HLP RT-130 Station Installation (v4) (revised 6/27/2007 DEJ)

Connect cables:
1) Build power system 2) RT-130 (GPS) to GPS 3) Check power with voltmeter
4) Sensor to RT-130 (CH-1) 5) power to RT-130 6) Cie to RT-130 (comm)

>Cie -> PFC_130 -> Control -> RAM -> Clear:............
Control -> Reset DAS:....................
Control -> Format Disk -> 1:............ Format Disk -> 2:............

>Check that GPS has locked: Control -> Status -> GPS
(Warning: Load parameters from Cie to DAS ONLY AFTER GPS LOCK)

>Exit Control (click Done on successive screens until return to Control)
>PFC_130 -> Work with Configuration (Refer to Configuration Sheet for RT-130 in back of service binder)
>Work with Configuration -> Load -> HLP (or) Work with Configuration -> New -> Name: HLP - Master
>Edit configuration file...
>Send to DAS...
>Confirm (optional): Upload from DAS and confirm that parameters have been correctly set in RT-130...

SENSOR MASS POSITION: (Measure initial voltage at breakout box, vault open)
Voltage CH 1: 12.82 CH 2: 11.5 CH 3: 10.8
Push mass center button from breakout box if any CH > +/-1.5 V (Guralp) or +/-2.5 V (STS-2) and, if necessary, repeat at 2-3 minute intervals until centered. Seal up vault and continue centering if necessary through the Cie.

> Control -> Aux. Cntr -> Aux. Ch.
If any CH > +/-1.5V (Guralp) or +/-2.5V (STS-2), touch center 1-3 (and update) until all CH < +/-1.5 V or 2.5 V.

Final mass position voltages: CH 1: 0.3 CH 2: 0.9 CH 3: 0.5

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint and Range
CH 1: 1154, 501 CH 2: -231, 322 CH 3: 1/1805, 9551 (drifting)

START ACQUISITION:
Control -> Status -> Start Acq.
DAS Status: (use Update to Refresh)
Time: 2008/14/22:30:34
Acq: Start
Events: 7
RAM: 37 of 4352 (+Increasing)
Disk1: 0 of 1950 (Current)
Disk2: 0 of 1950 (Current)
Temperature: 18.2°C
Power: 15.9, 3.3
Ch: 123, DS: CC

GPS Status: GPS
Time: 2008/14/22:37:44
Sec since LL: 0.1 min
Phase Diff.(us): 0
Mode: Cycle
Status: Ask SVs: 10
Lat: 42°24', 3623
Lon: 119°01', 5692
Elev(m): 1728

DEPARTURE TIME(local): 15:45

*****PLEASE NOTE ANY SPECIAL PROBLEMS BELOW ON THIS SHEET*****

Sensor is from old station OR011. Slow to center, but appears O.K. Two flash memory cards could not be recognized by
DAS initially. Odd behavior. Disk labeled, one was PASCAL.
HLP RT-130 SERVICE SHEET (v4) (last revised 20080716 MJF)

Voltage CH 1: O.O CH 2: O.O CH 3: 1.0
Use Center 1-3 to center if any CH > +/-1.5 volts Guralp; > +/-2.5 volts STS-2. Check here_
Continue with centerer command (and update) until all channels are < +/- 1.5 V (Guralp); 2.5 V (STS2)
Enter final mass position voltages: CH 1: ___ CH 2: ___ CH 3: ___

DAS Status: Control -> Status: (use Update to Refresh)
Acq: Start on
Events: 2018
RAM: 119 0 of 4380 Kb X Increasing?
Disk1: 332 of 1950 Kb X (Current)
Disk2: 0 of 1950 Kb ___ (Current)
Temperature: +23.0 C
Power: 12.7 Ins 3.3 bkp
Ch: 183 DS: CC

GPS Status: GPS
Sec since LL: 20: 00: 20: 00
Phase Diff.(us): 0
Mode: cycle
Status: 31586 SV’s: 10
Lat: 49°41’06’’
Lon: 13°01’56’’
Alt(m): 7926

CALIBRATION: Control -> Aux. Cntrl -> Test 1-3..... Wait quietly for 18 min.

STOP ACQUISITION: Control -> Status -> Stop Acq: Wait until disk is no longer in use, update status screen then remove and record time here:

X Remove disk(s) and label with station ID, date, disk #, & final data amount (in Mb)
Once disks are removed (1/2 (circle one or both). Install new disk(s): Confirm that correct disk has been removed by checking disk content: Control -> Status: disk1/disk2.

IMPORTANT NOTE: Disk 1 must be current once acquisition starts. If changing both disks, then insert disk1 first, and leaving disk2 slot empty, dump RAM to disk1 (Control -> RAM -> Dump RAM), then insert disk2 and proceed.

ROUTINE SERVICE
Control -> RAM -> Clear X
Control -> Reset DAS X
Control -> Format Disk 1 ___
Control -> Format Disk 2 ___

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M=1445 R=779 CH 2: M=224 R=224 CH 3: M=847 R=964
Microseism? Y Microseism? Y Microseism? Y

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Acq: Start on
Events: 2
RAM: 120 of 4380 Kb X Increasing?
Disk1: 0 of 1950 Mb X (Current)
Disk2: 0 of 1950 Mb ___ (Current)
Temperature: +24.0 C
Power: 12.7 Ins 3.3 bkp
Ch: 183 DS: CC

GPS Status: GPS
Sec since LL: 00: 00: 39: 30
Phase Diff.(us): 0
Mode: cycle
Status: 31586 SV’s: 10
Lat: 49°41’05’’
Lon: 13°01’56’’
Alt(m): 7919

DEPARTURE TIME(local): 13:40

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*

GPS antenna has orange ring wrapped all metal parts on connector with rubber tape.
HLP RT-130 DEMOBILIZATION SHEET (v4) (last revised 20090904 MJF)

STATION: DR 1 Month: 9 Day: 16 Year: 2009 ARRIVAL TIME (local): 10:51
Voltage CH 1: -0.1 CH 2: -0.1 CH 3: 0.9 5
Use Center 1-3 to recenter if any CH > +/1.5 volts Guralp; > +/2.5 volts STS-2. Check here √
Continue with recenter command (and update) until all channels are < +/- 1.5 V (Guralp); 2.5 V (STS2)
Enter final mass position voltages: CH 1: 0 CH 2: -0.3 CH 3: 0.3

DAS Status: Control -> Status: (use Update to Refresh)
Acq: S10 V UN
Events: 3 65 4
RAM: 7 57 4 1 752 4 8 V Increasing?
Disk1: 1 32 3 0 8 1 450 V (Current)
Disk2: 1 32 3 0 8 1 450 V (Current)
Temperature: 2 8 m 9 o c
Power: 12.8 m 0 3 b c h, 0 0 c 5 m 9 V
Ch: 1 2 3 DS: C

GPS Status: GPS
Time: 20 9: 17 5 0 1
Sect since LL: 0 0 0 0 0 0 0
Phase Diff.(us): Positive 00 0 0 0 0 3
Mode: C 1 U
Status: 0 C 0 0 4 SV's: 4
Lat: 4 2 7 0 0 0 3 V W
Lon: 1 0 10 0 0 0 3 C 0
Alt (m): 1 7 6 0

CALIBRATION: Control -> Aux. Contrl -> Test 1-3:......Wait quietly for 18 min..@ 11:19 a.m

STOP ACQUISITION: Control -> Status -> Stop Acq: Wait until disk is no longer in use, update status screen then remove and record time here: 20 09: 15 9: 10 30: 39

✔ Remove disk(s) and label with station ID, date, disk #, & final data amount (in Mb)

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DEMobilize STATION

SENSOR
✔ If sensor is a 3T: lock masses twice with power on using breakout box; confirm masses pegged; disconnect breakout box (NB: May need to connect AUX power cable to breakout box first, or use HCU with power cable)
✔ If sensor is an STS2: disconnect breakout box; lock masses with power off
✔ Confirm alignment of sensor with vault alignment line. If not aligned, enter misorientation value: 10 A
✔ Remove sensor; enter sensor information: Type: STS 2 Serial #: 1902 A
✔ Enter assumed declination from installation (as written on sensor pad): 15 0 9 6 E
✔ Confirm Brunton compass declination is set to same value as that written on pad. See below
✔ Measure orientation of vault alignment line (N-S for Guralp; E-W for Streichsen). Enter orientation: 7 3 0 0 9 E
If measured orientation does not appear to be correct, double check measurement and confirm with at least one other team member!

DATALOGGER
✔ Disconnect power box
✔ Disconnect datalogger (all cables); enter serial #: A0S3
✔ Disconnect batteries; cover terminals with plastic caps or tape
✔ Disconnect solar panels and GPS; enter GPS serial #: 3 5 0 1

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*