HLP Q330 Station Installation (Last revision 05/21/2007 DEJ)

STATION NAME: IDB10 OPERATOR: West/ Ford/ Epad
MONTH: 10 DAY: 14 YEAR: 2007 ARRIVAL TIME (local): 19:00 AM
SENSOR TYPE: C65204 T SENSOR S/N: T34049
Q330 S/N: L387 BALER S/N: O66259 GPS S/N: O636008
Handheld GPS Sta Loc: Lat: 42.54479 Lon: 116.78381 Elev: 1660 ft

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Connect cables:
1) Build power system 2) Connect Q330 (Qnet) to baler 3) Q330 (GPS) to GPS
4) Power to Q330 5) Clie to Q330 (console)
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[Warning: Q330 does not supply power to Clie, and cable draws continuous power. Disconnect cable from Clie when not in use.]

Clie > Q330Beta > Cmds > Cloning
  > Select file to clone (STS2 (HLG01) or Guralp (HLG01))
  > Station names
    > Click “Palm overrides 330” in dropdown
    > Check “Edit/Verify”
    > IP Addresses: Un-Check “Edit/Verify”
    > Send
    > Station Names > DP4 > New (Enter Station Name in ALL CAPS, up to 5 characters)
    > Save/Reboot
  > Views (from dropdown) > Data Recording > DP3
    > Confirm that Station is same as sensor clone name (e.g. HLG01)
  > Views (from dropdown) > Data Recording > DP4
    > Confirm that station name and sample rates are correct.

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☐ Connect Sensor to Q330. Verify that sensor configuration matches sensor type.

☐ Unlock sensor. For Guralp, to unlock from Clie: Views > Sensor. Set duration = 10 sec. > Unlock A.

  > Views > Sensor (click “refresh”): Mass Positions (V<10 < 15 (Guralp); < 25 (STS-2))
  Voltage (*10) CH 1: 8 CH 2: 4 CH 3: -8
  Set Duration = 10 and click Center A command if any channel > 15 (Guralp); > 25 (STS-2) and click Refresh □

  > Views > Quickview (waveform monitor) > chan1,2,3 > Start: Write down Max Min Midpoint (click “stop” to record values)

CH 1 521.4 -77.4 831.0 CH 2 -8988 -190420 1701.9 CH 3 51430 -21815 6492.6

  > Views > System
Last GPS Lock: -0.00000000
Phase Error: -0.0000000
Clock Quality: 32 LOCK (T)
Input volts: 1.455
Last boot: 2007-10-14 17:13:43
Q330 Software Version: 1.39

  > Status > GPS (confirm GPS lock)
GPS Time: 17:27:58
GPS Date: 14/10/2007
Lat: 42.54479767
Lon: 116.78360000
Elev: 1660.78241600

  > Status > Data Port Txf > Data4
Packet Buffer: 18964 (increasing? (refresh))

  > Cmds > Baler cmd > Turn on Baler: □ “Send baler cmd”. Check baler is on (solid green light):
  > Status > Data Port Txf > Data4
Packet Buffer decreases to zero?: □ Packets Sent: 1405
[Note: If the Q330 does not transfer data to the Baler try clearing the Baler “Association” by holding the Baler Attention button until the light turns solid red (~5 sec). Release the button and then, after the light begins to flash green, press the Attention button once to shut down the Baler. Repeat the process once more, ending in Baler shutdown. Press Attn button once to turn Baler on and check that data transferred.]

  > Status > General > Total ReSyncs: 88

  > Commands> Make Docsfile. add station name (STA) to default filename, Conf-YrMoDy-Q330-STA, and delete “Conf_” from start of filename (or filename will be too long for station names 4 or more characters in length.)

DEPARTURE TIME (local): 11:50

*PLEASE DETAIL SPECIAL PROBLEMS ON BACK OF THIS SHEET, AND NOTE BELOW*
HLP Q330 SERVICE SHEET (Last revised 06/22/07 DEJ)

STATION: ID010  Month: 05  Day: 16  Year: 2008  ARRIVAL TIME (local): 10:44 AM
OPERATOR: Long, Wagner
Q330 S/N: 660803  OLD BALER S/N: 06299  NEW BALER S/N: 05917
POWER: BATT-1: 13.72  BATT-2: 13.72
SENSOR MASS POSITION: Views > Sensors > Boom Positions
1: -23  2: 25  3: 20
Use Center A to recenter if any CH > +/- 15 for Guralp; > +/- 25 for STS-2. Check here.
Continue with Center A command (and update) until all channels are < +/- 15 or 25.
Enter final mass positions: 1: 8  2: -15  3: -7
Views > Data Recording > DP3 Station: HLG01 > DP4 Station: ID010
[DP3 Station should match program: (HLG?? for Guralp, HLP?? for Streckeisen), DP4 Station should match station name]
Views > System: (use Refresh) to Update
Last GPS lock: 23 min ago
Phase error: 0
Clock quality: [Lock, Frozen (CH)]
Input volts: 13.35
Temperature: 15°C
Last Boot: 2007-10-14 17:23:09
Last Resync: 2007-10-14 17:26:53
Views > System: Turn GPS ON. Status > GPS
Locked? Yes
Satellites viewed: 10
Satellites used: 9
Time: 16:56:04
Date: 16/10/2007
Latitude: 43.5447567
Longitude: -116.853565
Elev (m): 1654.9
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Calibration and Waveform Monitor

> Cmns > Calibration: DURATION bar: 240 s (wrongly labeled "min" on Ccts); SETTLING bar: 6 min; TRAILER bar: 1 m
> Cmns > Calibration > Waveform > STEP: AMPLITUDE bar: -24 dB Guralp or -18 dB STS 2
> Cmns > Calibration > CALIBRATE CHANNELS: Select all 3 channels, START. 1 minute: START.
Sit quietly for 12 min and note local start time here: __________. Click Stop, then OK when finished.
Views > Quickview (waveform monitor) > chan1,2,3 > Start. Write down Max Min Midpoint (click "stop" to record values)
CH 1 894 1446 104.6 CH 2 -821 -3977 3800 CH 3 -1236 -5787 70.6
Microseisms visible? Yes on channel 1
Status > Data Port Txr > Data4 "Packet Buffer越来越大" Press Refresh
Status > Data Port Txr > Data4 "Packet Buffer Decreases to zero" Packets Sent: 18576524
Status > Data Port Txr > Data4 "Packet Buffer should now be on"
Status > Data Port Txr > Data4 "Packet Buffer Decreases to zero" Packets Sent: 18576524
[Note: if the Q330 does not transfer data to the Balder try clearing the Balder "Association" by holding the Balder Attention button until the light turns solid red (~5 sec). Release the button and then, after the light begins to flash green, press the Attention button once to shut down the Balder. Repeat the process once more, ending in Balder shutdown. Press Att button once to turn Balder on and check that data transferred.]
Status > General > Total Resynches: 88
Commands > Make Docfile. (A bug here means you should delete "Conf" at the start of the default filename, append the station name to end of the remaining default filename and click OK. Check that name is correct.)
DEPARTURE TIME (local): 11:04 AM

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

Generally a nice-looking site. An animal (rabbit maybe?) has dug a large hole into the side of the vault dirt pile. We filled it in.

Some paste on barrel was expected on E side.

Site is quite buggy!
HLP Q330 SERVICE SHEET (v8) (last revised 20080716 MJF)

STATION: ID 014  Month: 9  Day: 12  Year: 2008  ARRIVAL TIME (local): 14:43
Q330 S/N: 13277  OLD BALER S/N: 025917  NEW BALER S/N: 025917
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
   1: 10  2: -9  3: -17

Use Center A to recenter if any CH > +/-15 for Guralp; > +/-25 for STS-2. Check here.
Continue with Center A command (and update) until all channels are < +/-15 or 25.
Enter final mass positions: 1: 0  2: 0  3: 0

> Views > Data Recording > DP3 *Station: HLG01 > DP4 *Station: ID 014

[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streckeisen). DP4 Station should match station name]

> Views > System: (use Refresh to Update)
Last GPS Lock: 47 min ago
Phase error: 4
Clock quality: 2D lock 40m 40m 40m
Input volts: 1.23V
Temperature: 28C
Last Boot: 2007-10-14 17:12:44
Last Rsync: 2007-10-14 17:12:45

> Views > System: Turn GPS ON. Status > GPS
Locked?: X
Satellites viewed: 9
Satellites used: 6
Time: 20:46:38
Date: 13/07/2008
Latitude: 42.5947507
Longitude: 114.7920050
Elev (m): 1144.4

Calibration, Recheck of Sensor Mass Positions, and Waveform Monitor

☐ > Cmds > Calibration: DURATION bar: 6 min (if running Q330 beta V1.440); SETTLING bar: 6 min.; TRAILER bar: 5
☐ > Cmds > Calibration > Waveform > STEP: AMPLITUDE bar: -24 db Guralp or -16 db STS2; STEP POLARITY: Positive
☐ > Cmds > Calibration > CALIBRATE CHANNELS: !Select all 3 channels; START: 1 minute; !Start.
Sit Quietly for ~18 min and note local start time here:

☐ > Views > Sensors: Use Center A to recenter if any CH > +/-15 for Guralp; > +/-25 for STS-2. Check here.
Enter final mass positions: 1: 0  2: 0  3: 0

WAVEFORM MONITOR: > Views > Quickview > chan1,2,3 > Start: Enter Max Min Midpoint (click "stop" to record values)
CH 1: 553 484 405 405 1069 1069 1069 1069 1069 1069 1069 1069
CH 2: 553 484 405 405 1069 1069 1069 1069 1069 1069 1069 1069
CH 3: 553 484 405 405 1069 1069 1069 1069 1069 1069 1069 1069

Microseism? Y Microseism? Y

☐ > Status > Data Port Txf > Data4 “Packet Buffer” Y Increasing? (press Refresh)
☐ > Cmds > Baler > !Send command to baler (Baler should turn on, with packets being sent)
☐ > Status > Data Port Txf > Data4 “Packet Buffer (Decreases to zero)” Y Packets Sent: 288890562
☐ > Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
Swap out Baler
☐ > Status > Data Port Txf > Data4 “Packet Buffer” Y Increasing?
☐ > Cmds > Baler > !Send command to baler (Baler should now be on)
☐ > Status > Data Port Txf > Data4 “Packet Buffer” Y Decreases to zero? Y Packets Sent: 288890742

(Note: If the Q330 does not transfer data to the Baler try cleaning the Baler “Association” by holding the Baler Attention button until the light turns solid red (~5 sec). Release the button and then, after the light begins to flash green, press the Attention button once to shut down the Baler. Repeat the process once more, ending in Baler shutdown. Press Attn button once to turn Baler on and check that data transferred.)

☐ > Status > General > Total Resyncs: 28
☐ > Commands > Make Docfile (A bug here means you should delete "Conf._" at the start of the default filename, append the station name to end of the remaining default filename and click OK. Check that name is correct.)

DEPARTURE TIME (local): 14:54

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

- replaced tarps
- added wire ties to solar panel mounts
HLP Q330 DEMOBILIZATION SHEET (v3) (last revised 20090904 MJF)

STATION: JD010  Month: 09  Day: 3  Year: 2009  ARRIVAL TIME (local): 10:41 10
Q330 S/N: 000663  OLD BALER S/N: 091655
SENSOR MASS POSITION: > Views > Sensors > Boom Positions
1: 10  22  3: 3
Use Center A to recenter if any CH > +/-15 for Guralp; > +/-25 for STS-2. Check here.
Continue with Center A command (and update) until all channels are < +/-15 or 25.
Enter final mass positions: 1: 22  2: -6  3: 3

> Views > Data Recording > DP3 > Station: HLG01  > DP4 > Station: JD010
[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streckeisen), DP4 Station should match station name]

> Views > System: (use Refresh to Update)
Last GPS Lock: 0min 21s
Phase error: -0.000000
Clock quality: 3D Lock (T)
Input volts: 15.15V
Temperature: 72.0C
Last Boot: 2009-10-02 17:42:15
Last Resync: 2009-10-02 17:43:11

> Views > System: Turn GPS ON. Status > GPS
Locked? [X]
Satellites viewed: 14  Satellites used: 11
Time: 17:42:07
Date: 10/3/2009
Latitude: 42.47417697
Longitude: 116.27626
Elev (m): 10617.0

--- CALIBRATION ---

[X] Cmds > Calibration: DURATION bar: 6 min (if running Q330Beta V1.44); SETTLING bar: 6 min.; TRAILER bar: 5
[X] Cmds > Calibration > Waveform > STEP: AMPLITUDE bar: 24 db Guralp or 18 db STS2; STEP POLARITY: Positive
[X] Cmds > Calibration > CALIBRATE CHANNELS: /Select all 3 channels; START: 1 minute; /Start.
Sit Quietly for ~18 min and note local start time here: 10:41:30

[X] Status > Data Port Txf > Data4 > Packet Buffer [ ] Increasing? (press Refresh)
[X] Cmds > Baler > /Send command to baler (Baler should turn on, with packets being sent)
[X] Status > Data Port Txf > Data4 > Packet Buffer (Decreases to zero)? /Packets Sent: 1314
[X] Commands > Baler Cmds > /Turn Off Baler (wait for slow green blink = idle)

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--- DEMOBILIZE STATION ---

[X] 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)
[X] If sensor is an STS2: disconnect breakout box; lock masses with power off
[X] Remove alignment of sensor with vault alignment line. If not aligned, enter misorientation value: 5° W
[X] Enter assumed declination from installation (as written on sensor pad): 14° N
[X] Confirm Brunton compass declination is set to same value as that written on pad

Measure orientation of vault alignment line (N-S for Guralp; E-W for Streckeisen). Enter orientation: 5° W

If measured orientation does not appear to be correct, double check measurement and confirm with at least one other team member!

--- DATALOGGER ---

[X] Disconnect power box
[X] Disconnect datalogger (all cables); enter serial #: 10021103
[X] Label bALER with station name and date
[X] Disconnect batteries; cover terminals with plastic caps or tape
[X] Disconnect solar panels and GPS; enter GPS serial #: D020005

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