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

STATION NAME: J0005
OPERATOR: Ford / Eager / West

MONTH: 10 DAY: 12 YEAR: 2007 ARRIVAL TIME (local): 12:00 PM
SENSOR TYPE: Guralp ST SENSOR S/N: T53892
Q330 S/N: 1389
BALER S/N: 05339
GPS S/N: 299-40024
Handheld GPS Sta Loc: Lat: 42°33'39" Lon: 116°13'30.5"
Elev: 958.8 m
POWER: BATT-1: 12.80 BATT-2: 12.80
Solar panel output (~18V): 19.92

Connect cables:
1) Build power system
2) Connect Q330 (Onet) to baler
3) Q330 (GPS) to GPS
4) power to Q330
5) Clie to Q330 (console)

[Warning: Q330 does not supply power to Clie, and cable draws continuous power. Disconnect cable from Clie when not in use.]

Clie > Q330 Beta > Cmds > Cloning
Select file to clone (STS2 (HLS01)) 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 > Data Recording > DP4
Confirm that Station: is same as sensor clone name (e.g. HLG01)
Views > Data Recording > DP3
Confirm that Station name and sample rates are correct.

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: 0 CH 2: 0 CH 3: -11
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 5314 644 97.6 CH 2 2812 2389 18.5 CH 3 1596 11670 766.5

Views > System
Last GPS Lock: 0 min 50 s
Phase Error: 0
Clock Quality: 3D lock (1)
Input volts: 13.50
Last boot: 2007/1/12 18:37:57
Q330 Software Version: 1.9

Status > GPS (confirm GPS lock)
GPS Time: 18:38:20
GPS Date: 12/6/2007
Lat: 42°33'36"17"
Lon: 116°13'30.93"
Elev: 996.2

Status > Data Port Txfr > Data 4
Packet Buffer: (increasing? (refresh))
Cmds > Baler cmds > Turn on Baler. Y “Send baler cmd”. Check baler is on (solid green light): Y
Status > Data Port Txfr > Data 4. Packet Buffer decreases to zero?: Y Packets Sent: 155

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: 68

Commands > Make Docfile. 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): 11:52 AM

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

STATION: 1DOO5  Month: 05  Day: 16  Year: 2008  ARRIVAL TIME (local): 8:31 AM
OPERATOR: Wagner/Long
SENSOR MASS POSITION: Views > Sensors > Boom Positions
1: 2  2: 2  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: 2  2: -2  3: 2

Views > Data Recording > DP3 *Station: HLS01*  > DP4 *Station: 1DOO5*
[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: 9h 00m ago
Phase error: 0R00000
Clock quality: M 0D 236000 (H)
Input volts: 12.90
Temperature: 27°C
Last Boot: 2007-10-12 18:37:07
Last Resync: 2007-10-12 18:37:29

Calibration and Waveform Monitor

 Cmds > Calibration: DURATION bar: 240 s (wrongly labeled "min" on C,CE)-SETTLING bar: 6 min.; TRAILER bar: 1 m
 Cmds > Calibration > Waveform > STEP. AMPLITUDE bar: -24 db Guralp or -18 db STS2; STEP POLARITY: Positive
 Cmds > 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 O.K. when finished.

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

CH 1 293 -151 80.1  CH 2 -132 -697 113.2  CH 3 2526 1898 12.1
Microseisms visible? ✓ (check if yes)

Status > Data Port Txr = Data4 *Packet Buffer ✓ Increasing? (press Refresh)
Status > Baler > Send command to baler (Baler should turn on, with packets being sent)
Status > Data Port Txr = Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 18741754
Commands > Baler > Send command to baler (Baler should now be on)
Status > Data Port Txr = Data4 *Packet Buffer ✓ Decreases to zero? Packets Sent: 18742377

[Note: If the Q330 does not transfer data to the Baler try clearing the Baler's "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 Att button once to turn Baler on and check that data transferred.]

Status > General *Total Resync: 68
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): 9:05 AM

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

Stasion looks good. Large, yucky scorpion living under tarp. :([/p]
HLP Q330 SERVICE SHEET (v8) (last revised 20080716 MJF)

STATION: T0045 Month: 09 Day: 12 Year: 2008 ARRIVAL TIME (local): 1508
OPERATOR: Useful POWER: BATT-1: 12.29 BATT-2: 12.07
Q330 S/N: 2399 OLD BALER S/N: 2622 NEW BALER S/N: 2679
SENSOR MASS POSITION: > Views > Sensors "Boom Positions:
1 2 3 4
2 2 -3 3 7
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 2 3 4

> Views > Data Recording > DP3 *Station: HLP001 > DP4 *Station: T0045
[DP3 Station should match program (HLP?? for Guralp, HLS?? for Streckese)]

> Views > System: (use Refresh to Update)
Last GPS Lock: 14:14:42 11/8
Phase error: 0
Clock quality: Ntosh F (14)
Input volts: 13.94
Temperature: 33.6
Last Boot: 2007-10-12 18:37:00
Last Resync: 2007-10-12 18:37:24

> Views > System: Turn GPS ON Status > GPS Locked: X
Satellites viewed: 10 Satellites used: 10
Time: 23:15:02

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 2 3

WAVEFORM MONITOR: > Views > Quickview > chan 1, 2, 3 > Start: Enter Max Min Midpoint (click "stop" to record values)
CH 1 115 0 -125 220 CH 2 29 -1160 534 CH 3 10 -141 126

Microseism? Y "Microseism? Y"

> Status > Data Port Txr > Data4 *Packet Buffer Y Increasing? (press Refresh)
> Commands > Baler > Isend command to baler (Baler should turn on, with packets being sent)
> Status > Data Port Txr > Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 29057695
> Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
Swap out Baler
> Status > Data Port Txr > Data4 *Packet Buffer Y Increasing?
> Cmds > Baler > !Send command to baler (Baler should now be on)
> Status > Data Port Txr > Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 29057695
(Note: If the Q330 does not transfer data to the Baler try clearing the "Attention Baler Association" by holding the 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 Attention button once to turn Baler on and check that data transferred.)

> Status > General "Total Resync: 169" > 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): 17:21

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

- replaced tarp
- added wire ties to solar panel mount
- many, many gnats present @ site
HLP Q330 DEMOBILIZATION SHEET (v1) (last revised 20080716 MJF)

STATION: 1D 005  Month: 09  Day: 12  Year: 2009  ARRIVAL TIME (local): 2:20
 SENSOR MASS POSITION: > Views > Sensore * Boom Positions
 1: __ 2: __ 3: __ 4: __ 5: __
 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: __ 2: __ 3: __ 4: __

> Views > Data Recording > DP3 > Station: HLG 91 > DP4 > Station: 1D 005
[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: 0:03:30  Az. 0
  Phase error: 0
  Clock quality: 0h lock; Frozen (H)
  Input volts: 12.75 V
  Temperature: 34°C
  Last Boot: 2009-10-12 13:37:07
  Last Resync: 2009-01-01 00:00:56

> Views > System: Turn GPS ON. Status > GPS
  Locked: ✔
  Satellites viewed: 7
  Satellites used: 5
  Time: 20:44:11
  Date: 2009-10-12
  Latitude: 42.833101
  Longitude: 116.1330400
  Elev (m): 1440.7

Calibration

✓ > Cmds > Calibration: DURATION bar: 6 min (if running Q330Beta V1.44); SETTLING bar: 6 min.; TRAILER bar: 5
✓ > Cmds > Calibration: Waveform > STEP, AMPLITUDE bar: -24 db Guralp or -18 db STS2; STEP POLARITY: Positive
✓ > Cmds > Calibration: CALIBRATE CHANNESL: !Select all 3 channels; START: 1 minute; !Start.

Sit Quietly for ~18 min and note local start time here: 1:52 (time4) local start time 2:52

✓ > Status > Data Port Txf: > Dat4 > Packet Buffer: ✔ Increasing? (press Refresh)
✓ > Cmds > Baier > !Send command to baier (Baier should turn on, with packets being sent)
✓ > Status > Data Port Txf: > Dat4 > Packet Buffer (Decreases to zero)? Packets Sent: 60597318
✓ > Commands > Baier Cmds > !Turn Off Baier (wait for slow green blink = idle)

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DEMOBILIZE STATION

SENSOR

☐ If sensor is a 3T: lock masses with power on; then disconnect breakout box

GURALP UNLOCK PROCEDURE: from Cive: Views: > Sensor. Set duration = 10 sec. > Lock A.
  Can also use buttons on breakout box to Lock.
  NB: If station uses a Q330 (and only then!), may need to connect AUX power cable to breakout box first.
☐ 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: ____________
☐ Remove sensor; enter sensor information: Type: Guralp 5T  Serial #: 33892
☐ Enter assumed declination from installation (as written on sensor pad): 14.4
☐ 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: N-S
  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 #: 1389
☐ Disconnect batteries; cover terminals with plastic caps or tape
☐ Disconnect solar panels and GPS; enter GPS serial #: 29940829

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