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

**STATION NAME:** Q330  
**OPERATOR:** Mike, Maureen, Matt, Caroline, Kristandra  
**MONTH:** Q6  
**DAY:** 27  
**YEAR:** 2007  
**ARRIVAL TIME (local):** 10:24

**SENSOR TYPE:**  
**Q330 S/N: 9217**  
**SIGNAL S/N: 9217**  
**BAER S/N: 95489**  
**GPS S/N: 20440009**  
**Handheld GPS Station Location:** Lat 42, 71, Lon 117, 134, Elev 14,15  
**Power:** Batt 1: 71, Batt 2: 12, 85  
**Solar panel output (~18V): 11, 4**

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**Connect Cables:**

1. Build power system  
2. Connect Q330 (Net) to baer  
3. Q330 (GPS) to GPS  
4. Set power to Q330  
5. Ctie to Q330 (console)

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

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**Ctie > Q330 Beta > Cams > Cloning**

1. Select file to clone (STS2 (HLS01)) or Guralp (HLG01)  
2. Station names  
3. Click "Palm overrides 330" in dropdown  
4. Check "Edit/Verify"  
5. IP Addresses: Un-Check "Edit/Verify"  
6. Send  
7. Station names > DP4 > New (Enter Station Name in ALL CAPS, up to 5 characters)

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

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

**Views > Sensor (click refresh).** Make Positions (V*10 ~ Guralp, < 75 (STS-2)).

**Voltage (10): CH 1: 4.1 CH 2: 1.3 CH 3: 1.7**

**Set Duration = 10 and click Center A command if any channel >15 (Guralp). >25 (STS-2) and click Refresh**

**Views > Quickview (waveform monitor) > chan 1, 2, 3 > Start:** Write down Max Min Midpoint (click "stop" to record values)

CH 1: 34937 CH 2: 26168 CH 3: 3164.9

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**Status > Data Port Test > Data 4**  
Packet Buffer: 34710  
(increasing? (refresh))

**CMDS > Baler CMDS > Turn on Baler:** Send baler cmd. Check baler is on (solid green light).  
**Status > Data Port Test > Data 4.** Packet Buffer decreases to zero?  
**Status > Data Port Test > Data 4.** Packets sent: 184

[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 Att button once to turn Baler on and check that data transferred.]

**Status > General > Total Resynchs:** 1

**Commands:** Make Ctie file  
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)

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"PLEASE DETAIL SPECIAL PROBLEMS ON BACK OF THIS SHEET, AND NOTE BELOW"

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One lead from solar panel that plugs into power box became disconnected vault base - rough

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DEPARTURE TIME (local): 11:31
HLP Q330 SERVICE SHEET (Last revised 06/22/07 DEJ)

OPERATOR:  Kevin Baker  Angela Mangus  POWER: BATT-1: 13.8V  BATT-2: 13.8
Q330 S/N: 972  OLD BALER S/N: 88144  NEW BALER S/N: 88145
SENSOR MASS POSITION: > Views > Sensors *Boom Positions
1: -5 2: 125 3: -127
Use Center A to recenter if any CH > +/-15 for Guralp; > +/-25 for STS-2. Check here X.
Continue with Center A command (and update) until all channels are < +/-15 or 25.
Enter final mass positions: 1: 2: 26 3: 1

> Views > Data Recording > DP3 *Station: HLP01 > DP4 *Station: HLP04
[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: 158hr ago
Phase error: 0.0000000
Clock quality: O P Lock Frozen (H)
Input volts: 13.8V
Temperature: 11C

> Views > System: Turn GPS ON. Status > GPS
Locked? [X]
Satellites viewed: 12 Satellites used: 5
Time: 19:00:09
Date: 06/11/2007
Longitude: 42.7168500
Latitude: 117.1934833
Elev (m): 1389.2

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Calibration and Waveform Monitor

☐ > Cmds > Calibration: DURATION bar: 240 s (wrongly labeled "min" on Clie); 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) > chan 1,2,3 > Start: Write down Max Min Midpoint (click "stop" to record values)
CH 1 5260 5519 74.8  CH 2 5457 5004 116.4  CH 3 1769 951 68.7
X Microseisms visible? X (check if yes)

X > Status > Data Port Txfr > Data4 *Packet Buffer X Increasing? (press Refresh)
X > Cmds > Baler > !Send command to baler (Baler should turn on, with packets being sent)
X > Status > Data Port Txfr > Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 8643499
Y > Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
X Swap out Baler
X > Status > Data Port Txfr > Data4 *Packet Buffer X Increasing?
X > Cmds > Baler > !Send command to baler (Baler should now be on)
X > Status > Data Port Txfr > Data4 *Packet Buffer X Decreases to zero? Packets Sent: 8643668
[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: 2

> 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): 12:15

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*
HLP Q330 SERVICE SHEET (v6) (Last revised 06/22/07 DEJ)

STATION: OR104   Month: 5   Day: 17   Year: 2008   ARRIVAL TIME (local): 13:45
Q330 S/N: 972   OLD BALER S/N: 05143   NEW BALER S/N: 05265
SENSOR MASS POSITION: > Views > Sensors > Boom Positions
1: -1 2: -2 3: -3
Use Center A to recenter if any CH > +/-15 for Guralp; > +/-25 for STS-2. Check here. (STS-2)
Continue with Center A crmmand (and update) until all channels are < +/- 15 or 25.
Enter final mass positions: 1: -15 2: -2 3: -1

> Views > Data Recording > DP3 *Station: HLS03 > DP4 *Station: OR104
[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streckeisen), DP4 Station should match station name]

> Views > System: (use Refresh to Update) > Views > System: Turn GPS ON. Status > GPS
Last GPS Lock: 5 min ago
Phase error: 4.6 usec
Clock quality: 00 Lock, frozen (H)
Input volts: 12.7V
Temperature: 26°C
Last Boot: 2007-11-10 19:47:40
Last Resync: 2007-11-10 19:48:01
Satellites viewed: 11
Satellites used: 11
Time: 20:02:20
Date: 17/05/2008
Latitude: 42.7161917
Longitude: 117.1934300
Elev (m): 1413.1

Calibration and Waveform Monitor

- Check 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 17 -287.427.1 CH 2 934 11 125.5 CH 3 932 1625 110.2
- Microseisms visible? ✓ (check if yes)

- Status > Data Port Txf > Data4 *Packet Buffer ✓ Increasing? (press Refresh)
- Status > Data Port Txf > Data4 *Packet Buffer (Decreases to zero)? 16334656
- Commands > Baler > ISend command to baler (wait for slow green blink = idle)
- Status > Data Port Txf > Data4 *Packet Buffer ✓ Increasing?
- Commands > Baler > ISend command to baler (Baler should now be on)
- Status > Data Port Txf > Data4 *Packet Buffer ✓ Decreases to zero? 163346717

[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: 93"
> 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): 14:20

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

Everything working normally. No water in action packer.
HLP Q330 SERVICE SHEET (v8) (last revised 20080716 MJF)

STATION: OR104  Month: 9  Day: 14 Year: 2008  ARRIVAL TIME (local): 10:05
OPERATOR: James Carson  POWER: BATT-1: 13.54  BATT-2: 13.54
Q330 S/N: 972  OLD BALER S/N: 05265  NEW BALER S/N: 05819
SENSOR MASS POSITION: Views Sensors Boom Positions
1: 9 2: 7 3: 3
Use Center A to recenter if any CH > +15 for Guralp; > +15 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:

> Views > Data Recording > DP3 Station: HLS03 > DP4 Station: OR104
[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: 48 min ago
Phase error: 0.0
Clock quality: 0.0 lock, frozen (H)
Input volts: 13.85
Temperature: 19°C
Last Boot: 2008-08-11 07:16:51
Last Resync: 2008-08-11 07:19:12

Locked? Y
Satellites viewed: 11 Satellites used: 10
Time: 12:15:55
Date: 14/09/2008
Latitude: 42.7168117 Longitude: 117.1935050
Elev (m): 1404.9

Calibration, Recheck of Sensor Mass Positions, and Waveform Monitor

☐ > Cmds > Calibration: DURATION bar: 6 min (if running Q330Beta V1.44i); 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 CHANNELS: ISelect all 3 channels; START: 1 minute; lStart.
Sit quietly for ~18 min and note local start time here:

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

WAVEFORM MONITOR: Views > Quickview > chan1,2,3 > Start: Enter Max Min Midpoint (click "stop" to record values)
CH 1 -105 -53 25.5 25.5
CH 2 -711 -384 38.1
CH 3 2645 2325 56.8

Microseism? ✔
Microseism?

☑ > Status > Data Port Txr > Data4 > Packet Buffer ✔ Increasing? (press Refresh)
☑ > Cmds > Baler > lSend command to baler (Baler should turn on, with packets being sent)
☑ > Status > Data Port Txr > Data4 > Packet Buffer (Decreases to zero)? Packets Sent:
☑ > Commands > Baler Cmds > lTurn Off Baler (wait for slow green blink = idle)
☑ > Status > Data Port Rxr > Data4 > Packet Buffer ✔ Decreases to zero? Packets Sent: 297-4796
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: 94
> 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): 10:25

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

All normal at station. Tarp replaced.
HLP Q330 DEMOBILIZATION SHEET (v3) (last revised 20090904 MJF)

STATION: 08104  Month: 9  Day: 13  Year: 2009  ARRIVAL TIME: 14:50
OPERATOR: James, uHanna, Peter  POWER: BATT-1: 13:05  BATT-2: 13:06
Q330 S/N: 972  OLD BALEER S/N: 05-974
SENSOR MASS POSITION: > Views > Sensors *Boom Positions
1: +18  2: +17  3: +19
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: 

> Views > Data Recording > DP3 *Station: HLS3 > DP4 *Station: 08104
[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: 120 MINS 000
Phase error: 2 Micro Sec
Clock quality: 0D Lock, Frozen
Input volts: 12.75
Temperature: 70.6
Last Boot: 2009-08-07 11:33:49
Last Resync: 2009-08-07 11:34:10

Calibration
> Cmds > Calibration: DURATION bar: 6 min (if running Q330Beta V1.44f); 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 CHANNELS: Select all 3 channels; START: 1 minute; START.
Sit quietly for ~18 min and note local start time here: 15:01:40

> Status > Data Port Txr > Data4 *Packet Buffer > Increasing? (press Refresh)
> Cmds > 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: 3236098
> Commands > Baler Cmds > TURN OFF Baler (wait for slow green blink = idle)

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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: orientation ok
☐ Remove sensor, enter sensor information: Type: STS2  Serial #: 10927
☐ Enter assumed declination from installation (as written on sensor pad): 15°40' East
☐ 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: E-W

*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 #: 972
☐ Label baler with station name and date
☐ Disconnect batteries; cover terminals with plastic caps or tape
☐ Disconnect solar panels and GPS; enter GPS serial #: 2994009

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