HLP Q330 SERVICE SHEET (Last revised 05/21/07 DEJ)

STATION: CR033  Month: 06  Day: 22  Year: 2007  ARRIVAL TIME (local): 10:15
OPERATOR: David, Levan Matt  POWER: BATT-1: 13.75  BATT-2
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
1: -19  2: -9  3: 15
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: HLG01 > DP4 * Station: CR033
[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streckelen), DP4 Station should match station name]

> Views > System: (use Refresh to Update)
Last GPS Lock: 42 min ago
Phase error: -0.00000
Clock quality: 0.0 Loc & Free
Input volts: 13.50
Temperature: 28°C
Last Resync: 05:10:28

Satellite views: 13
Satellites used: 15

Calibration and Waveform Monitor

Calibration

> Cmnds > DURATION bar: 240 sec (wrongly labeled "min" on Ctie); SETTLING bar: 6 min; TRAILER bar: 1 min
> Calibration > Waveform > STEP. AMPLITUDE bar: -24 db Guralp or -18 db STS2; STEP POLARITY: Positive
Sit Quietly for 12 min and note local start time here: 10:26 Click O.K. when finished.

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

CH 1 784 566 51.6 CH 2 819 590 49.8 CH 3 -18 -464 77.1

> Status > Data Port Txr > Data4 * Packet Buffer  Increasing? (press Refresh)
> Cmnds > 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: 2573938
> Commands > Baler Cmsd > iTurn Off Baler (wait for slow green blink = idle)
> Swap out Baler
> Status > Data Port Txr > Data4 * Packet Buffer  Increasing?
> Cmnds > Baler > ISend command to baler (Baler should now be on)
> Status > Data Port Txr > Data4 * Packet Buffer  Decreases to zero? Packets Sent: 2574938

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 Resync: 64
> Commands > Make Doctfile (A bug here means you should delete "Cont." 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): 10:50

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

All looks normal. Some condensation a small amount of standing water in lower corner of action packer. Tarp was wet. No sign of leakage around bulkhead.
**Q330 Station Installation (Last revision 05/21/2007 DEJ)**

**STATION NAME:** Q330  
**OPERATOR:** James West  
**FORD JOHNSTON COOPER**  
**MONTH:** 05  
**DAY:** 23  
**YEAR:** 2007  
**ARRIVAL TIME:** 14:45 AM  

**SENSOR TYPE:** STS-2  
**SENSOR SN:** 19140  
**Q330 SN:** 10773  
**BAKER SN:** 05581  
**GPS SN:** 1006241  
**Handheld GPS Sta Loc:** Lat: 43, 07143  
**Lon: 119, 02796**  
**Elev:** 1553 m

**POWER:** BATT-1: 12.73  
**BATT-2: 12.78**  
**Solar panel output (-18V): 19.19**

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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)

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

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**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 6 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 (V10 < 15 (Guralp); < 25 (STS-2))

- Voltage (10) CH 1: 142, CH 2: 27, CH 3: 138
- 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: \(142\), \(141\), \(133\), \(132\), \(134\), \(136\), \(137\), \(138\), \(139\), \(140\) CH 2: \(134\), \(135\), \(136\), \(137\), \(138\), \(139\), \(140\), \(141\), \(142\), \(143\)

**Views > System**

- Last GPS Lock: 6 min
- Phase Error: 5 uS
- Clock Quality: 50 Lock (7)
- Input volts: 12.6
- Q330 Software Version: 1.83

**Status > GPS**

- GPS Time: 22/14:02
- GPS Date: 23/05/2007
- Lat: 43, 071417
- Lon: 119, 02796
- Elev: 1553.5 m

**Status > Data Port Txf > Data4**

- Packet Buffer: \(\text{XINCREASING? (refresh)}\)
- Baler cmsg > Turn on Baler: \(\text{Send baler cmd}^\prime\). Check baler is on (solid green light)
- Status > Data Port Txf > Data4. Packet Buffer decreases to zero? = \(\text{Sets Sent: 14886}\)

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

**Status > General > Total ReSync: 04**

**Commands:** Make Dcfile. 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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**DEPARTURE TIME (local): 14:52 PM**

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

STATION: Q330 Month: 06 Day: 4 Year: 2007 ARRIVAL TIME (local): 5:29
OPERATOR: Maurice & Laura POWER: BATT-1: 13.42 BATT-2: 13.41

SENSOR MASS POSITION: > Views > Sensors *Boom Positions
1: -32 2: -22 3: 19
Use Center A to recenter 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: -7 3: -7

> Views > Data Recording > DP3 *Station: HLSQ1 > DP4 *Station: MRO33
[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: 29 mins ago
Phase error: 0.000000
Clock quality: AD Locke frozen (H)
Input volts: 13.05
Temperature: 12°C
Last Resync: 2007-05-23 10:28

> Views > System: Turn GPS ON. Status > GPS
Locked?...[X]
Satellites viewed: 12 Satellites used: 8
Time: 00:39:15
Date: 05/10/2007
Latitude: 49.734177
Longitude: 119.023996
Elev (m): 1542.0

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; IStart.
Sit Quietly for 12 min and note local start time here: 5:42 PM 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 1167 437 1726 CH 2 4165 3001 3289 CH 3 -6149 -8895 5670

Microseisms visible? [X] (check if yes)

> Status > Data Port Txfr > Data4 *Packet Buffer [X] Increasing? (press Refresh)
> Cmds > Baler > !Send command to baler (Baler should turn on, with packets being sent)
> Status > Data Port Txfr > Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 1158882
> Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
> Swap out Baler
> Status > Data Port Txfr > Data4 *Packet Buffer [X] Increasing?
> Cmds > Baler > !Send command to baler (Baler should now be on)
> Status > Data Port Txfr > Data4 *Packet Buffer [X] Decreases to zero? Packets Sent: 11589051
[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 Resync: 64
> 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): 6:05 PM

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

Station looks great, no problems.
HLP Q330 SERVICE SHEET (Last revised 06/22/07 DEJ)

STATION:  OR 33  Month: May  Day: 21  Year: 2008  ARRIVAL TIME (local): 12:00 PM
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
1: 0.8  2: 1.2  3: -0.6
Use Center A to recenter if any CH > +/-15 for Gurapl; > +/-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: 14LS03 > DP4 * Station: 0R033
[DP3 Station should match program (HLG?? for Gurapl, HLS?? for Streckel), DP4 Station should match station name]

> Views > System: (use Refresh to Update)
Last GPS Lock: 175 min
Phase error: 0
Clock quality: 0 Locks Frozen
Input volts: 13.95
Temperature: 14
Last Boot: 2007-11-15 21:30:46

> Views > System: Turn GPS ON. Status > GPS
Locked? [ ]
Satellites viewed: 3
Satellites used: 1
Time: 19:02:38
Date: 21/05/2008
Latitude: 43.7740633
Longitude: 119.0277933
Elev (m): 158.83

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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 Gurapl or -18 dB STS2; STEP POLARITY: Positive
☐ > Cmds > Calibration > CALIBRATE CHANNELS: ISelect all 3 channels; START: 1 minute; IS tart.

Sit Quietly for 12 min and note latest start time here: __________________________ C lick 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  679  93  161.9  CH 2  996  511  92.4  CH 3  249  -301  122.9
☐ Microseisms visible? [ ] (check if yes)

☐ > Status > Data Port Txfr > Data4 * Packet Buffer [ ] Increasing? (press Refresh)
☐ > Cmds > Baler > iSend command to baler (Baler should turn on, with packets being sent)
☐ > Status > Data Port Txfr > Data4 * Packet Buffer (Decreases to zero)?  Packets Sent: 162 44 363
☐ > Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
☐ > Status > Data Port Txfr > Data4 * Packet Buffer [ ] Increasing?
☐ > Cmds > Baler > iSend command to baler (Baler should now be on)
☐ > Status > Data Port Txfr > Data4 * Packet Buffer (Decreases to zero)?  Packets Sent: 162 44 665
[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 Alt button once to turn Baler on and check that data transferred.]

> Status > General * Total Resyncs: 65
> 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): 12:12 PM

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

Handwritten note:

Message
(102.118.33.48): Baler
X:0R033 readback
158 recs seq end:
16734552
HLP Q330 SERVICE SHEET (v8) (last revised 20080716 MJF)

STATION: OR033 Month: 9 Day: 9 Year: 2008 ARRIVAL TIME (local): 18:43
OPERATOR: James Carlson POWER: BATT-1: 13.00 BATT-2: 13.00
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
1. 15 2. -3 3. -10
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: HLS03 > DP4 *Station: OR033
[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: 76 minutes
Phase error: 0
Clock quality: 0 H Lock, Frozen "H"
Input volts: 12.6
Temperature: 25 C
Last Boot: 2007-11-15 21:30:46

> Views > System: Turn GPS ON. Status > GPS
Locked? [ ]
Satellites viewed: 10 Satellites used: 8
Time: 01:48:05
Date: 10/09/2008
Latitude: 43.774110
Longitude: 119.027981
Elev (m): 1543.3

Calibration, Recheck of Sensor Mass Positions, and Waveform Monitor

☐ > Cmds > Calibration: DURATION bar: 6 min (if running Q330Beta V1.441); 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:

☐ > 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 > chan1,2,3 > Start: Enter Max Min Midpoint (click "stop" to record values)
CH 1 514 -54 165.8 CH 2 373 322 152.6 CH 3 116 -400 129.2
Microseism? [ ]
Microseism? [ ]

☐ > Status > Data Port Txd > Data4 *Packet Buffer ✓ Increasing? (press Refresh)
☐ > Cmds > Baler > !Send command to baler (Baler should turn on, with packets being sent)
☐ > Status > Data Port Txd > Data4 *Packet Buffer (Decreases to zero)? Packets Sent: 25862384
☐ > Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)
☐ > Swap out Baler
☐ > Status > Data Port Txd > Data4 *Packet Buffer ✓ Increasing?
☐ > Cmds > Baler > !Send command to baler (Baler should now be on)
☐ > Status > Data Port Txd > Data4 *Packet Buffer ✓ Decreases to zero? Packets Sent: 25862571
[Note: If the Q330 does not transfer data to the Baler by 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 Resyncc: 65"
☐ > 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): 19:04

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*
Site in good condition, some disturbance of rocks around tarp.
Replace tarp.
HLP Q330 DEMOBILIZATION SHEET (v3) (last revised 20090904 MJF)

STATION: GRO23  Month: 9  Day: 8  Year: 2009  ARRIVAL TIME (local): 4:30
OPERATOR: Lara Sama-Duck  POWER: BATT-1: 13.05  BATT-2: 13.09
Q330 S/N: 0452  OLD BALER S/N: 05516
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
1: 4  2: 13  3: 1

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: H5023 > DP4 *Station: DPO32
[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: 0 min
Phase error: 000025
Clock quality: 3D clock (4)
Input volts: 12.60 V
Temperature: 26 C
Last Boot: 2009-04-14 16:29:33
Last Resync: 2009-04-14 16:29:53

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 CHANNELS: 1Select all 3 channels; START: 1 minute; START.
Sit quietly for ~18 min and note local start time here: 8:28:06

[ ] Status > Data Port Txtr > Data4 * Packet Buffer Increasing? (press Refresh)
[ ] Cmds > Baler > ISend command to baler (Baler should turn on, with packets being sent)
[ ] Status > Data Port Txtr > Data4 * Packet Buffer (Decreases to zero)? Packets Sent: 37338328
[ ] 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: 91°
  Remove sensor, enter sensor information: Type: STS-Z  Serial #:
[ ] Enter assumed declination from installation (as written on sensor pad): 15°40'
[ ] 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: 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 #: 1073
[ ] Label baler with station name and date
[ ] Disconnect batteries; cover terminals with plastic caps or tape
[ ] Disconnect solar panels and GPS; enter GPS serial #: 106978

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