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

STATION NAME: Q330
OPERATOR: KTH
MACS: 07-COM

MONTH: 4
DAY: 12
YEAR: 2006
ARRIVAL TIME (local): 1:45 PM

SENSOR TYPE: 2
SENSOR SN: 1578115

Q330 SN: 94
BALE-SN: 676602
GPS SN: 12340001
Elev: 967

Handheld GPS StLoc: Lat: 61.2414
Lon: 48.9722

POWER: Batt-1: 12.4
Batt-2: 12.7
Solar panel output (~18V): 11.2.3

Connect cables:
- 1) Build power system
- 2) Connect Q330 (Gnet) to baler
- 3) Q330 (GPS) to GPS
- 4) Clee to Q330 (console)
- 5) Clee to Q330 (console)

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

Clee > Q330 Beta > Clee
- Select file to clone (STS2 HLS01) or Guralp (HLG01)
- Station name
- Check "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.

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

Unlock sensor
- For Guralp, to unlock from Clee: Views > Sensor, Set duration = 10 sec. > Unlock A.
- Views > Sensor (click "refresh"), Mass Positons (V*10 = 15 (Guralp), V = 25 (STS-2))
- 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: 566792 -1016692 5674.2 CH 2: 4645.1 -31688 2572.2 CH 3: 415120 +2963 3172.9

Views > System
- Last GPS lock:
- Phase Error:
- Clock Quality:
- Input volts:
- Last boot: 2007-09-16 21:44:42
- Q330 Software Version: 1.0.9

Views > Status
- GPS Time:
- GPS Date:
- Lat:
- Lon:
- Elev:

Views > Status
- Data Port Txr
- Data Port Rxr
- Packet Buffer:
- Increasing?
- Refresh

Commands
- Make Docfile, add station name (STA) to default filename, Conf-YrMoDay-Q330-STA, and delete "Conf_" from start of filename (if filename is too long for station names 4 or more characters in length)

DEPARTURE TIME (local): 8:45

"PLEASE DETAIL SPECIAL PROBLEMS ON BACK OF THIS SHEET, AND NOTE BELOW"
HLP C330 SERVICE SHEET (Last revised 06/22/07 DEJ)

STATION: 08/12 Month: 0 Day: 23 Year: 2007 ARRIVAL TIME (local): 2:40 PM

OPERATOR: Maureen Caroline POWER: BATT-1: 12.90 BATT-2: 12.80

Q330 SN: 91 OLD BALER SN: 0535 + NEW BALER SN: 05413

SENSOR MASS POSITION: > Views > Sensors *Boom Positions
1: -22 2: -39 3: 22

Use Center A to center 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: -39 3: 22

> Views > Data Recording > DP3 *Station: H.L.01 > DP4 *Station: 08/12

[DP3 Station should match program (HLG?? for Guralp, H.L.?? for Streckelsen), DP4 Station should match station name]

> Views > System: (use Refresh to Update) Last GPS Lock: 11.7 mins ago
Phase error: 0.00000 Z
Clock quality: 1.0 Lock, Frozen (H)
Input volts: 18.6
Temperature: 26
Last Boot: 2007-06-12 21:49:46
Last Resync: 2007-06-12 22:03:12

Satellites viewed: 11 Satellites used: 4

Locked? ✓

SIT QUIETLY for 12 min and note local start time here: 2:49 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)

CH1 1705 134 138 143 18 CH2 28 32

Microseisms visible? ✓ (check if yes)

> Status > Data Port Invr > Data4 Packet Buffer ✓ Increasing? (press Refresh)
> Commands > Baler > Send command to baler (Baler should turn on, with packets being sent)
> Status > Data Port Invr > Data4 Packet Buffer (Decreases to zero)? Packets Sent: 951582
> Commands > Baler > Send command to bale (wait for slow green blink = idle)
> Sweep Baler
> Status > Data Port Invr > Data4 Packet Buffer ✓ Increasing?

[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: 98

> Commands > Make Default (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): 3:10 PM

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

STATION: 6R012  Month: 10  Day: 7  Year: 2007  ARRIVAL TIME (local): 2:45 pm
OPERATOR: Jeff R., Steve H., Anesi M.  POWER: BATT-1: 12.74  BATT-2:_________
SENSOR MASS POSITION: > Views > Sensors * Boom Positions
1: _-127_  2: _93_  3: _76_
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: _-1_  2: _-20_  3: _-12_

> Views > Data Recording > DP3 *Station: 6LS01  > DP4 *Station: 05P012
[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: 1  1 min
Phase error: -0.000000
Clock quality: 0.0 lock Frozen (H)
Input volts: 12.6
Temperature: 16.6
Last Boot: 2007-09-14 20:52:59
Last Resync: 2007-09-14 20:53:22

> Views > System: Turn GPS ON. Status > GPS
Locked?...X
Satellites viewed: 10  Satellites used: 4
Time: 21:53:36
Date: 7/10/07
Latitude: 44.2737450
Longitude: 121.8895657
Elev (m): 952.9

Calibration and Waveform Monitor

☐ > Cmds > Calibration: DURATION bar: 240 s (wrongly labeled "min" on Clie); SETTLING bar: 6 min.; TRAILER bar: 1 min
☐ > 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 5916 4246 3516  CH 2 365 945 3056  CH 3 2566 2416 299.5
☒ Microseisms visible?  X  (check if yes)

☒ > Status > Data Port Tx/r > Data4 *Packet Buffer X Increasing? (press Refresh)
☒ > Cmds > Baler > !Send command to baler (Baler should turn on, with packets being sent)
☒ > Status > Data Port Tx/r > Data4 *Packet Buffer (Decreases to zero)?  Packets Sent: 1991845
☒ > Commands > Baler Cmds > !Turn Off Baler (wait for slow green blink = idle)

Swap out Baler
☒ > Status > Data Port Tx/r > Data4 *Packet Buffer X Increasing?
☒ > Cmds > Baler > !Send command to baler (Baler should now be on)
☒ > Status > Data Port Tx/r > Data4 *Packet Buffer X Decreases to zero?  Packets Sent: 1992050
[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: 99
☐ > 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): 3:05

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

foam plug at solar panel missing  plugged up with shop tack, retaped, tape around wire
G+S cable chewed up
HLP Q330 SERVICE SHEET (Last revised 06/22/07 DEJ)

STATION: OR017  Month: 05  Day: 20  Year: 2008  ARRIVAL TIME (local): 10:50 AM
OPERATOR: Long Wagner  POWER: BATT-1: 13.80 BATT-2: 13.81
Q330 SN: 991  OLD BALER SN: 05680  NEW BALER SN: 05442
SENSOR MASS POSITION: > Views > Sensors > Boom Positions
                        1: 19  2: 15  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: 2: 3:

> Views > Data Recording > DP3 *Station: HLO03 > DP4 *Station: OR017
[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streekseisen), DP4 Station should match station name]

> Views > System: (use Refresh to Update)
Last GPS Lock: 00:00:44.0
Phase error: 0.0000000
Clock quality: 0: Locked [ ]
Input volts: 13.65
Temperature: 19°C
Last Boot: 2003-11-14 14:28:11
Last Resync: 2003-11-14 14:28:14

> Views > System: Turn GPS ON. Status > GPS
Locked? [ ]
Satellites viewed: 11
Satellites used: 7
Time: 13:53:27
Date: 2010/05/20
Latitude: 44.27.59
Longitude: -121.4892
Elev (m): 646.9

Calibration and Waveform Monitor

☐ Cmds > Calibration: DURATION bar: 240 s (wrongly labeled "min" on Clie); SETTLING bar: 5 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; STOP: 5 minutes

Sit quietly for 12 mins 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 4333 32 430 2 430 2 CH 2 -898 -7291 291 6 CH 3 4452 2548 180 4
☐ Microseisms visible? [ ]

☐ Status > Data Port Txfr > Data4 > Packet Buffer: Increasing? (press Refresh)
☐ Status > Data Port Txfr > Data4 > Packet Buffer (Decreases to zero)? Packets Sent: 16254532
☐ Cmds > Baler > Send command to Baler (Baler should turn on, with packets being sent)
☐ Status > Data Port Txfr > Data4 > Packet Buffer: Decreases to zero?
☐ Commands > Baler Cmds > Turn Off Baler (wait for slow green blink = idles)
☐ Swap Out Baler

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

☐ Status > General > Total Resyncs: 101
☐ 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): 11:05 AM

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Construction noise VERY evident on waveform monitor.
Construction site was very active.

 Might be a good candidate site to pull this fall?

Otherwise site looks good.
HLP Q330 DEMOBILIZATION SHEET (v1) (last revised 20080716 MJF)

OPERATOR: Keeley, B. III, Burrell, A. II  POWER: BATT-1: 12V  BATT-2: 12V
Q330 S/N: Q330.1  OLD BALER S/N: 12547  NEW BALER S/N: 1
SENSOR MASS POSITION: > Views > Sensors > Boom Positions
  1: 22 2: 45 3: 8
  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: -12 3: 9

> Views > Data Recording > DP3 *Station: HLS 03 > DP4 *Station: OR012
[DP3 Station should match program (HLG?? for Guralp, HLS?? for Streckheisen), DP4 Station should match station name]

> Views > System: (use Refresh to Update)
  Last GPS Lock: 170 mins ago
  Phase error: 0
  Clock quality: 0 D.L.X.E.  10/26/6 (H)
  Input volts: 12.6 V
  Temperature: 18°C
  Last Boot: 11/11/14  16:28
  Last Resync: 11/11/14 16:28

> Views > System: Turn GPS ON. Status > GPS
  Locked? √
  Satellites viewed: 10  Satellites used: 4
  Time: 10:16:27
  Date: 11/11/26/14
  Latitude: 44.735783
  Longitude: 121.491467
  Elev (m): 948.9

Calibration
✓ 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: !Select all 3 channels; START: 1 minute; !Start .

Sit quietly for ~18 min and note local start time here: 9:21 AM

✓ Status > Data Port Txfr > Data4 *Packet Buffer 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: 203,573,49
✓ 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 with power on; then disconnect breakout box

GURALP UNLOCK PROCEDURE: from Cile: 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: STS-2  Serial #: 123456789
☐ Enter assumed declination from installation (as written on sensor pad): 15°0'40" E

☐ 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 Streckheisen). Enter orientation:

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 #: 991
☐ Disconnect batteries; cover terminals with plastic caps or tape
☐ Disconnect solar panels and GPS; enter GPS serial #: 12310021

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