

Date 1/13/2015Station 300

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**INSTALL SHEET (Q330 Surface Site with Wilan Telemetry)**Local Date/Time: 2:15 pm MST GMT Date/Time: 2:45 GMTField Team: Tanner, Vuk, Daniel

GPS Location of Site: \_\_\_\_\_

**Equipment**

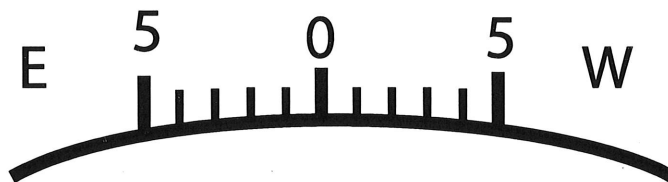
Sensor S/N: T3Z01 Sensor Type: Guralp-3T  
~~Q330~~ S/N: 01000010FAAE4961 Q330 TagID: 2937  
~~Wilan~~ S/N: Q330 IP: 204.114.29.12 ~~Wilan~~ IP: 06173  
 Clock S/N: \_\_\_\_\_ Baler Tag: →  
 Baler S/N: \_\_\_\_\_ GPSX-1001-5: DY8A10122

**INSTALL SENSOR**

Check that compass declination is set to 8° E

Switch label: 300 SW1

Place an arrow on the figure below showing where the declination marks is position on this compass (cross check against above to avoid sign errors)



aligned using  
marks on granite  
slab.

*Guralp 3T*

- N/A Add layers of landscaping timber to provide clearance for this larger sensor  
☒ Sweep any dirt from the top of the concrete base  
☒ Attach the alignment jig and use it to simultaneously level and orient the sensor  
☒ Lock feet of sensor  
☒ Connect the sensor cable to the sensor and then to the DAS (leave enough slack to allow you to reattach the alignment jig)  
☒ Reattach the alignment jig and fill out the alignment table below (4 measurements). If initial orientation is off by more than 1 degree align and relevel before making final measurements.

*Trillium or STS2*

- N/A {  
 Sweep any dirt from the top of the concrete pad  
 Use a ruler and sharpie to scribe an alignment line on the concrete base for this sensor  
 Connect the sensor cable to control box and sensor  
 Align the sensor using the mark and the alignment rod, level, repeat until level and aligned (fill out table below)

**ALL SENSORS**

- N/A Cut a length of 2" fire hose to run from sensor vault to DAS enclosure  
N/A Use a fish tape to pull the DAS to control box cable through the fire hose and connect both ends  
☒ Unlock masses  
☒ Center masses  
☒ Working with your partner verify the sensor is functional with a stomp test  
N/A Install vault cover with screws  
N/A Cover vault with at least 2 layers of black plastic  
N/A Bury sensor using sandbags filled with dirt, mound dirt on top of vault cover, and add mulch to top

## DUGL Experiment

Station Name 300

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Use Brunton compass adjacent to sensor measurement jig, measuring North (N) and South (S). Reverse the jig and repeat recording the 4 measurements below. Record to your best guess of the nearest 0.1 degree. If orientation is more than 1 degree away from NS try to realign. For Trillium and STS2 sensors use left and right side of alignment rod

Brunton Left (N)	Brunton Left (S)	Brunton Right (N)	Brunton Right (S)

**Q330 Hardware Setup**

- N/A {
- ☐ Install solar panels on post using brackets and wood screws.
  - ☐ Reconfigure guy wires if necessary
  - ☐ Place the dog house near the solar panel pole with the door facing downhill to allow water to drain
  - ☐ Install GPS on top of pole (must see the sky)
  - ☐ Install Wilan radio on the pole (make sure the antenna is on the side facing Yates)
  - ☒ Run GPS and network cables and connect to Q330 (do not bundle up until testing is finished)
  - ☒ Connect the baler to the Q330

**Power system tests:**Initial battery voltage (V) N/A

Solar panel output test:

Sun condition when tested (circle one): (a) sun on panels, (b) cloudy, (c) sun on panels at low angle

Panel 1 output (V) N/APanel 2 output (V) N/A

Equipment power up:

- N/A {
- ☐ Make sure power box is set for sealed battery mode
  - ☐ Plug battery into power box. Record voltage showing on LCD display (V) 14.3 V
  - ☐ Connect both solar panels to power box. Record voltage on display (V) X
  - ☒ If all looks ok, connect the Q330 to power (Note with Guralp unlock cannot happen till now)
  - ☒ Check here when the GPS LED goes yellow

**Q330 Operations with the Clie (program Q330B147 on the SONY Clie PDA)**

- ☐ Clone the program into the Q330

N/A **Commands->Cloning**

```

>Select file to clone based on sensor type
>Station names
    >Palm overrides 330
    >"Check" Edit/Verify
>IP Addresses
    >Palm overrides 330
    >"Un-Check" Edit/Verify
!Send
    >Station Names
        >DP4 >New
            !Enter current station name (All CAPS and up to 5 letter/number characters)
            !Ok
!Save/Reboot
!Ok
  
```

☒ Views ->Data Recording ->DP4 \*Station name 300 (SENSOR TYPE)

Note: DP3 station name should correspond to sensor type.

☒ Views ->Data Recording ->DP4 \*Station 300 (STATION NAME) \*Net X6 (NETWORK CODE)

☒ Connect sensor to Q330 AFTER Cloning the Q330 for correct sensor type

Baler

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**SITE NOTES (Anything strange or notable)**

**Checklist****Paperwork**☒ Completed pages 1-3**Sensor**N/A ☐ Compass declination set and recorded☒ Oriented☒ Level☒ Feet locked**Power system**☒ Battery terminals tight☒ All power box connection tight☒ Any external power cables to box secured from rodent damage☒ Cables in the air have drip lines☒ No cables are on the ground without protectionN/A ☐ SOLAR: panel boxes closed☒ AC: battery minder plugged in powered**Q330**☒ Completed paperwork on pages 1-2☒ Acquiring data☒ All unused connectors capped**Site**N/A ☐ Multiple layers of plastic on top of vault☐ Plastic configured to not collect water around sensor vault☐ Vault well covered with sandbags and dirt (6 inches minimum)☐ Cables all secured☐ Dog house door is secured☐ Cable entry plugged with plumber's puttyInventories

Survap-3T, 1 gray cable, 1 black cable, breakout box

Q330 + Buler

Q330 serial → Buler + power cable

Q330 QNET &amp; ethernet cable

power box + power cable (4 cables spliced together)

GPS transceiver

Battery + battery tender

Transceiver → Q330 cable

Network switch

Power ~~switch~~ switch

UPS