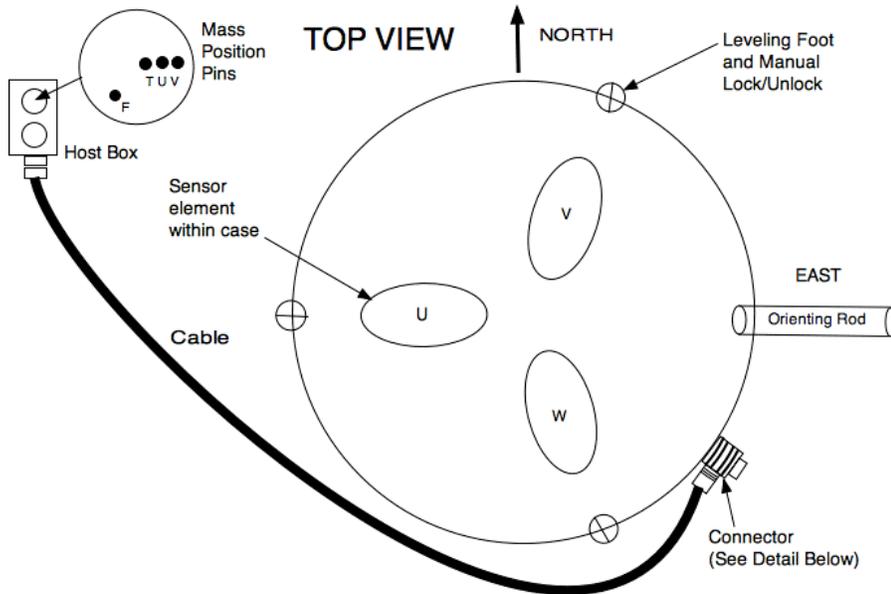


# Summary Sheet for PASSCAL Sensor Streckheisen STS-2



## Channel Order:

(Positive voltage on digitizer channel means ground moved in given direction)

- 1 Up
- 2 North
- 3 East

## Sensitivity:

1500 Volts/meter/second

## Step Calibration:

If needed in the field, consult the PIC Calibration Guide.

## Physical Characteristics:

**Size:** Cylinder 23.5 cm diameter, 23 cm high

**Weight:** 9 kg

**Shipping Weight:** 24.9kg **Size:** 48.3 x 48.3 x 40.6 cm

## Power consumption:

40-100mA – depends on generation

## Frequency Response:

Natural Freq. 0.0083 Hz (120 sec)

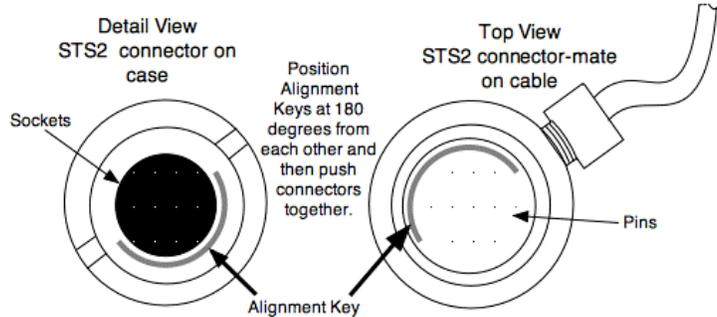
Damping 0.707 critical

Poles and Zeros:

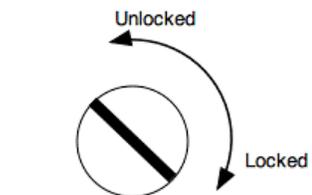
depends on generation

## Installation Tips: (See also the STS-2 Field Note, these are TIPS not complete instructions)

1. The sensor pad should be within 5° of level, marked with lines oriented north and east. Construction of the sensor enclosure is critical to data quality.
2. Try to keep the sensor cool and shaded during the set up phase. Align the sensor-orienting rod to east; the U element foot is west. Level the sensor by adjusting the feet until the bubble in the spirit level lies entirely within the inner circle. Twist the top part of the foot mechanism down (clockwise) onto the bottom part to lock it.
3. Attach the cable to the sensor by positioning the metal alignment keys on the connectors at 180° from each other and then push (do not twist) to seat the connector. Secure the cable so that tugs on it (inadvertent or otherwise) do not budge the sensor and attach the other end to the connector on the side of the green Host Box if it is not attached already.
4. Connect the Host Box to the digitizer with the STS-2 to digitizer (RT130 or Q330) cable checking that you have attached the cable to the correct connector on the top of the Host Box. This will power the sensor, so proceed quickly to unlock the masses.
5. Unlock the masses by using the small, red-handled STS2 screwdriver in the Lock/Unlock slot located just above the leveling foot. GENTLY turn counter clockwise as you face the screw to unlock until you feel the slight pressure of the stop. DO NOT over torque.
6. Give the sensor an initial centering pulse by using the button on the Host Box and check the mass position voltages with a multimeter. Mass position voltages are pins T U V (F is ground) corresponding to U W and V respectively. The voltages should look like they are moving toward +/- 1.5 volts.
7. Note the serial number. Cover the sensor with insulation, insulate the vault and close the vault.
8. When the area is secure and quiet, send another center pulse the sensor using the handheld controller attached to the digitizer. The voltage should be within 1.5 volts of zero. Wait 90 seconds between recentering attempts and vary between the handheld controller and the button on the Host Box. If after more than 10 attempts an element mass position voltage still has not come within +/-1.5 volts, replace the sensor if available and consult PIC staff for further instruction.



## Detail View: Unlock/Lock Masses



GENTLY Turn to Unlock or Lock

## Contents of a Streckheisen STS2 Shipping Box:

1. STS-2 Sensor
2. An STS-2 Host Box with a connector for the cable and a Monitor Port connector on top and 1 recenter button on the side
3. STS-2 Sensor to Host Box cable (connector ends are 24-pin to 15pin L-connector)
4. Host Box to digitizer cable (either 19-pin to 24-socket for RT130 digitizer or 26-pin to 24-socket for Q330 digitizer)