MEASURAND

Data Acquisition System Quick Start Guide

These quick start instructions provide a summary of the steps required to properly assemble a ShapeArray Data Acquisition System (DAS). Comprehensive instructions are available in the online manual:

https://support.measurand.com/solution/articles/19000034295-how-to-wire-a-shapearray-data-acquisition-system-saadas-

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NOTE: Measurand's data acquisition systems do not include a mounting pole or battery. These must be sourced locally prior to installation. Measurand recommends a pole that has an outside diameter of approximately 50 mm (2") and is long enough to stick up approximately 1.5 m to 2 m (5’ to 6.5’) once installed. Measurand recommends a battery with the following specifications: 12 V, 100 Ahr Max, Sealed Absorbed Glass Mat (AGM), Non-Spillable, Deep Cycle.

1. The Logger Enclosure will need to have a knockout removed from the bottom for cabling from the ShapeArray. Push the knockout in by applying pressure with a screwdriver from outside of the enclosure.

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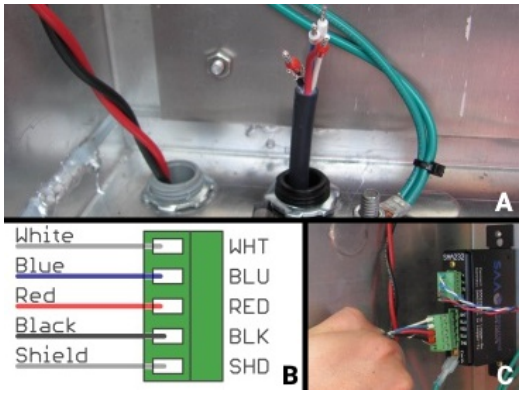
2. From the outside of the Logger Enclosure, insert the cable gland and secure it with a locknut on the inside. Remove the green Phoenix connector from the cable and thread it into the Logger Enclosure through the cable gland (A).

Wire the connector to the cable (B) and plug it into the SAA232 (C).

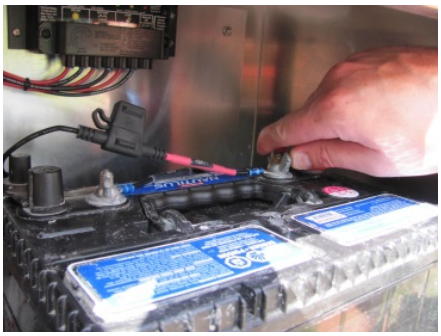


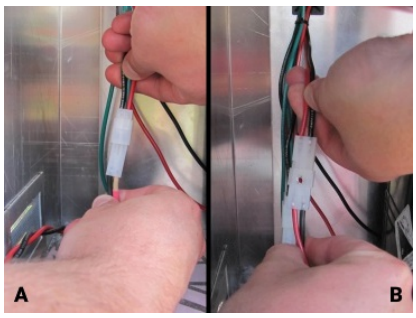
3. If you have a DAS-5, you will also need to remove two knockouts from the bottom of the Battery Enclosure. Into one of the knockouts, connect the solar panel cable with the gland that is pre-installed and secure it with a locknut. In the other knockout, connect the non-metallic conduit from the Logger Enclosure.

Instructions continue on reverse.

4. Insert the battery into the enclosure. For a DAS-5, the battery is placed in its own enclosure. Connect the wires labeled "+Batt" and "-Batt" to the battery terminals:

- Red wire with 10A fuse (+Batt) to the positive (+) terminal
- Black wire (-Batt) to the negative (-) terminal

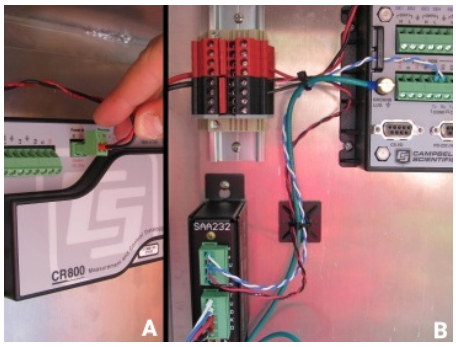




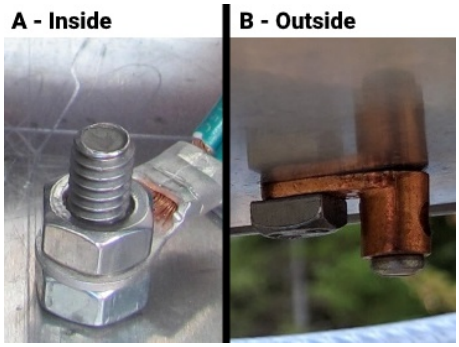
5. Connect the 4-pin connector pair for the solar panel (A). Connect the 2-pin connector pair for the data logger (B).

6. In the Logger Enclosure, plug the 2-pin power connector into the data logger (A). Ensure that the wiring between the data logger and the SAA232 is correct (B):

- White wire: SAA232 **Tx** to data logger COM port **Rx**
- Blue wire: SAA232 **Rx** to data logger COM port **Tx**
- Red wire: SAA232 12V to 12V power supply
- Black wire: SAA232 ground (G) to ground (G)



WARNING: Do not connect the red and black wires to the data logger's 12 V or switched 12 V (SW12V) power and ground connections. These should be connected directly to your power source.



7. Each of the enclosures in the data acquisition system have a grounding lug at the bottom of the enclosure. These lugs are shown from the inside (A) and outside (B) of the enclosure.

Connect the copper grounding lugs from the enclosures to an appropriate grounding mechanism.

WARNING: Consult local regulations for grounding for more detailed information on how to properly ground the data acquisition system.

More detailed information about ShapeArray and other Measurand products is available in our Support portal knowledge base and online manuals at the following URLs:

https://support.measurand.com

http://manuals.measurand.com

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