

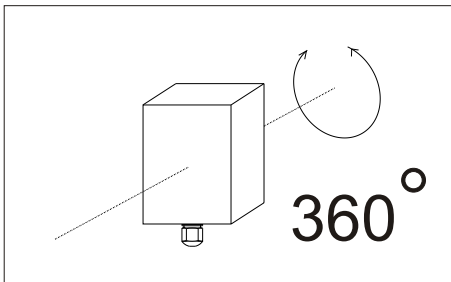
Installation

TERRA A20

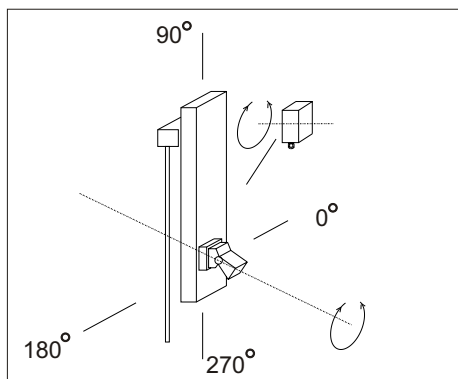
TERRA A-20 system contains two sensor units, one control unit and set of connection cables.

Careful installation will save a lot of money down the road, however it can be performed by mechanic, electrician or instrumentation technician on site. No specialty tools needed, no special knowledge or experience necessary.

It is important to find a good location for the sensors on your drill.



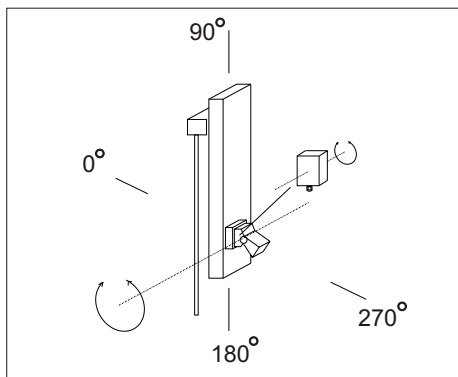
This picture shows how the sensor unit must be positioned. There is only one way the TERRA A20 sensor unit can “Read” the mast position.



Ring Sensor

To measure the “Ring” angle, position one sensor anywhere on the back of the mast, so it is “sitting flat” on the back of the mast; with cable bushing pointing down.

INSTALLATION TIP: Your sensor will give more stable reading if it is located closer to the center of the rotation (Actuator, pivoting point)



Dump Sensor

To measure the “Dump” angle, position your sensor so it is “Sitting -flat” on the either side of the mast, with with cable bushing pointing down.

INSTALLATION TIP: Your Dump Sensor will give you more stable reading if it is located before the mast Ring actuator. That way it doesn't travel when you move Ring lever.

Control unit

The control unit can be located anywhere on the drill. A good location could be on the setup control panel, or some other location where the operator can monitor the mast movements during setup.

Cables installation is one really important step. It could be, sometimes, time consuming but if it is done carefully, it shouldn't be repeated ever again.

The cables that you received with the sensors are specially designed for underground environment. They are very flexible, hi-lo temperature rated, water and oil resistant.

A good idea is to "hide" the cable inside a hydraulic hose and to "hide again all that hose" inside the mast profile or structural frame.

Wiring

To connect the control unit, remove all (six) lid screws and open the connection box. Follow the color code / markings.

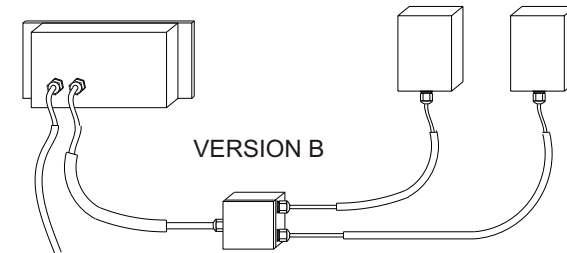
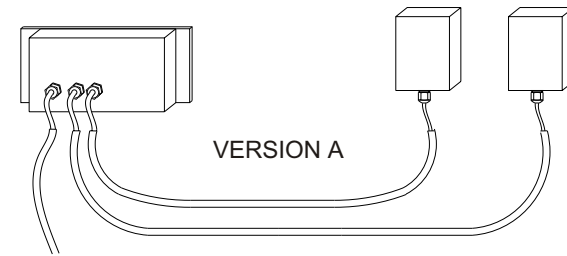
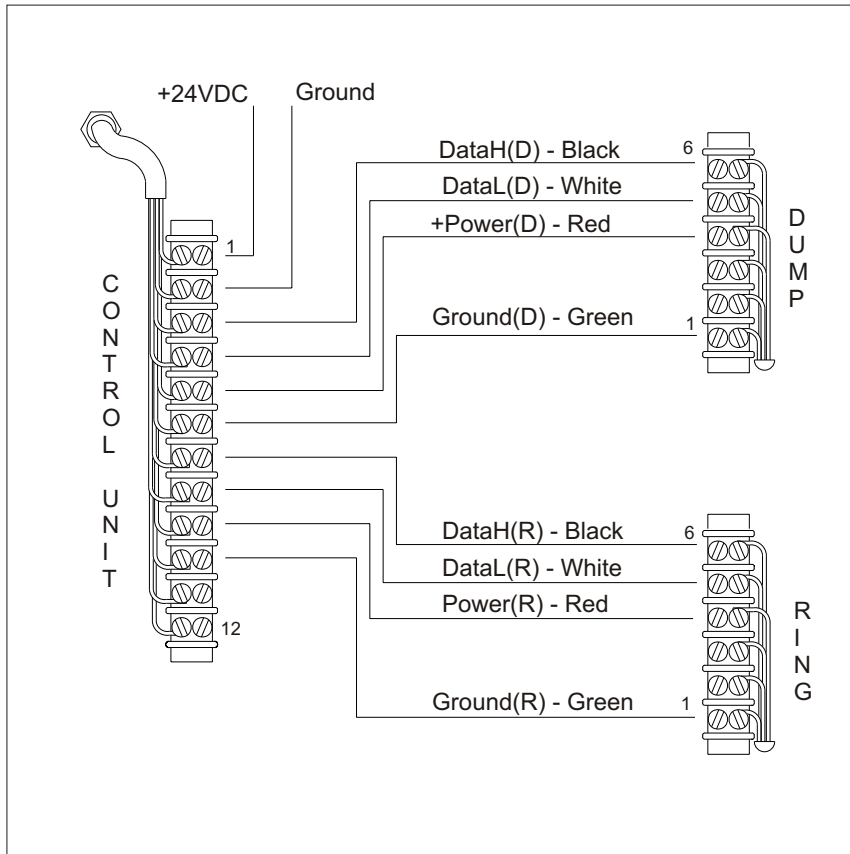
Make sure not to mix up Ring and Dump sensors sides. Power cable connection is on terminals #1 and #2. We have made sure that the unit will not sustain damage even in the case of reverse polarity hookup. Once, the wiring is completed, tighten all cable access clamps and close the connection box.

To access sensor connection terminals, open all four lid screws, remove the sensor lid and follow the color code (markings). There is only four wires to hookup and one cable access clamp to tighten after wiring is completed.

Installation (cont.)

TERRA A20

Wiring



Wiring diagram shows how all components are connected. At your convenience, you can choose VERSION A or VERSION B wiring.

In the case of VERSION B wiring:

Bring both sensor cables and one six prong cable into any watertight type electrical box.

Bundle all three power (red) wires together.

Bundle all three ground (green) wires together.

Connect each of four remaining data wires by following above schematic.

