

FIG. 21: Attach the 90 degree antenna adapter (3) to the radio modem.

Secure the radio antenna (4), using the antenna connector adapter.

Screw the bolt of the tripod into the base of the RTK base bracket to secure.

To minimize shadowing of the GPS antenna from the GPS satellite constellation, which is in a band around the equator, the recommended position for the vertical radio antenna is to the south of the center of the GPS antenna when the reference station is located in the southern hemisphere and to the north when located in the northern hemisphere.



FIG. 21

FIG. 22: Extend the tripod legs to raise the antenna as high as possible. Spread the legs wide for stability.

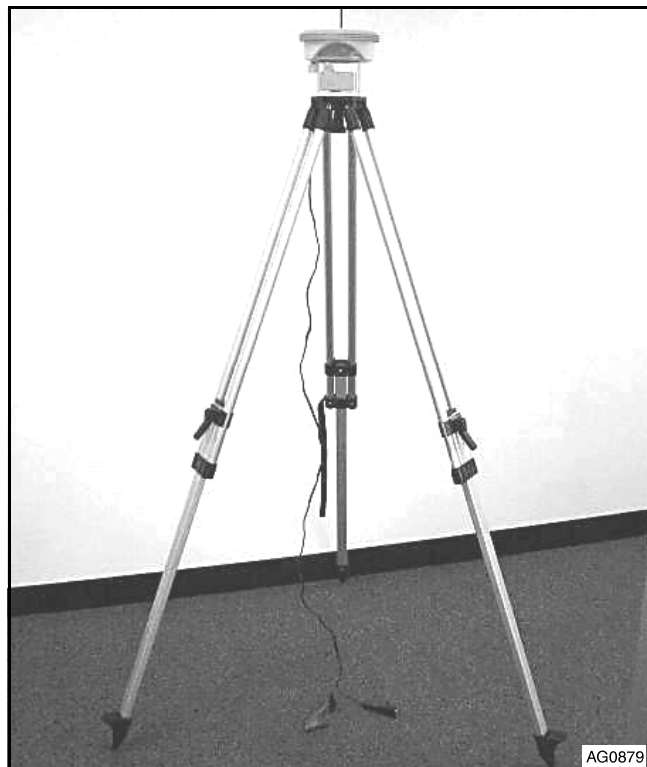


FIG. 22

FIG. 23: Level the tripod as much as possible for the best reception of GPS signal, using the leveling bubble (5) in the top of the tripod.

Connect the power cord battery clamps to a fully charged 12V battery. Connect the red clamp to the positive post and the black clamp to the negative post.

With the reference station powered up, locate with a clear view of the sky. Once the unit has tracked enough satellites, (the TRK light will be a steady yellow) the unit will average data for three minutes and then fix the position to the current approximate location. After this, the unit will begin transmitting correction information.

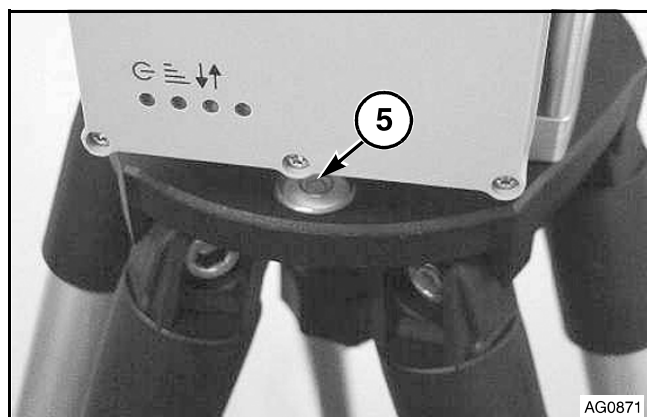


FIG. 23

System operation

Operational Status

FIG. 24: The operational status of the reference station can be determined using the indicator lights on the antenna and radio.

Indicator Light		Description
TRK (1)	tracking status	red - in power on mode or indicating receiver error flashing yellow - tracking a few satellites steady yellow - tracking adequate amount of satellites
BT (2)	currently not used	green - on
PWR (3)	power	yellow - sufficient power off - no power

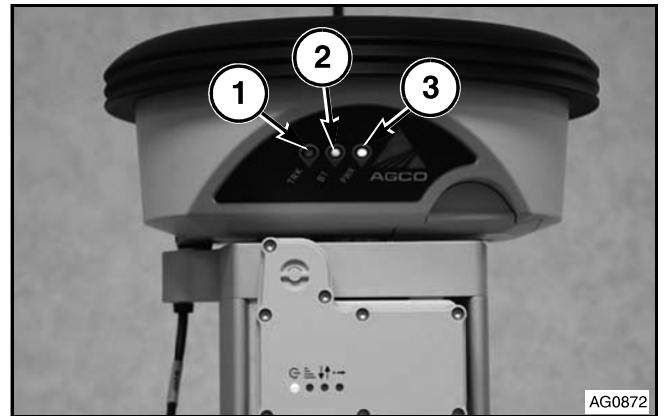


FIG. 24

FIG. 25: Radio indicator lights - During normal operation, the power light should be green, and the Rx/Tx light should flash green once a second. If another radio of the same configuration is listening to this reference station, the RF link status will flash red once per second.

Indicator Light		Description
Power (4)	power status	green - power red - no power
Link (5)	RF link status	red - if identifiable data messages exist on the radio channel
Rx/Tx (6)	serial status	green - modem is receiving or transmitting data over the serial interface
Mode (7)	Programming mode	red - if in programming mode

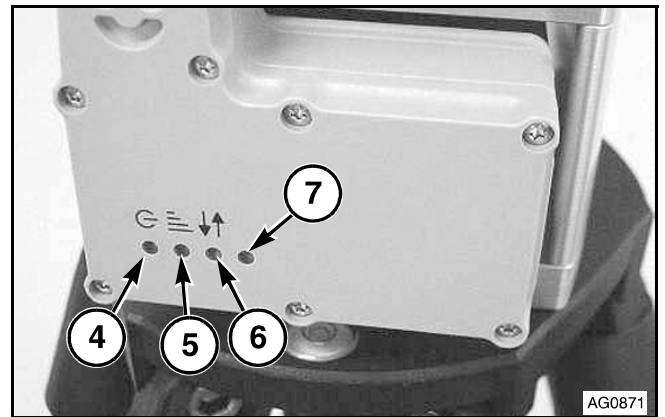


FIG. 25

Checking Status of Radio Modem - During normal operation the power light should be green. If a transmitting base is nearby, the Rx/Tx light should flash green once a second and the RF link status light will flash red once per second.

Checking Status of Radio - During normal operation the power light should be green if no transmitting reference station is in range. If a transmitting base is nearby, the Rx/Tx light should flash green once a second and the RF link status will flash red once per second.

Indicator Light		Description
Power (4)	power status	green - power red - no power
Link (5)	RF link status	red - if identifiable data messages exist on the radio channel
Rx/Tx (6)	serial status	green - modem receives or transmits data over the serial interface
Mode (7)	Programming mode	red - if the radio modem is in programming mode.