

GEN8**Base Station V1.5**

OPERATION INSTRUCTION

Introduce to the Base Station unit

On the control panel of the Gen8 Base Station V1.5 unit, the Power button to turn on/off the GPS transceiver, the Power LED, 4 bars charge LED and Survey LED display multiple status of the unit.

The Base Station installed a 12V/5000mAh lithium battery, it can keep the unit working continuously for over 20 hours per charge. It is compatible with the new USB PD 3.0 specifications, user can charge the battery with all kinds of charger on the market, and the maximum charge power is up to 20V/36W. With 36W quick charging, the unit will be fully charged within 2 hours. With the 15W slow charging, full charge may take 4-5 hours.

Survey- in:

The SURVEY LED indicates the RTK transceiver working status. When the Base Station unit is turned on, the RTK transceiver will start to search the satellite signal and Survey LED blinks to indicate the "searching stage". The SURVEY LED indicates the signal strength with different color. There are 3 flashing colors are telling the signal strength: poor, ok and good.

When GPS transceiver received and locked, the RTK transceiver will get the survey done and transmits the correction data to the rovers, the Survey LED will then stop blinking to be solid.

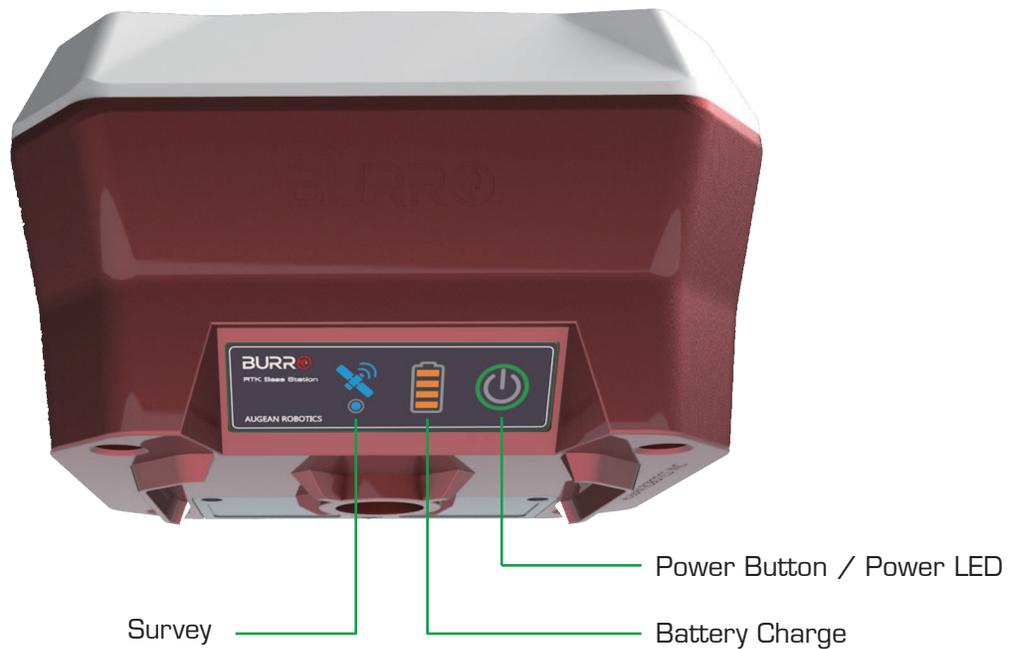
As the satellite signal strength may be weak or dropped, thus the Base Station unit then stops sending out correction data the SURVEY LED would blink again. When LED blinking, the robots would stop, user may not need to do anything to the base station, but waiting the signal receiving resumed, the robots would re-start running as soon as the Base Station receives the signal again.

If the robots stopped for long time due to the low signal condition staying for long time, user may move the Base Station unit to different location to find out the best spot where the signal is strongest.

Front Panel

To turn on the Base Station GPS: press the Power button.

To turn off the Base Station GPS: press and hold the Power button for about 2 seconds, until the Power LED and all other LEDs are off.



LED display

Power:

Solid Green – GPS transceiver is powered on
Off – GPS is off.

Battery:

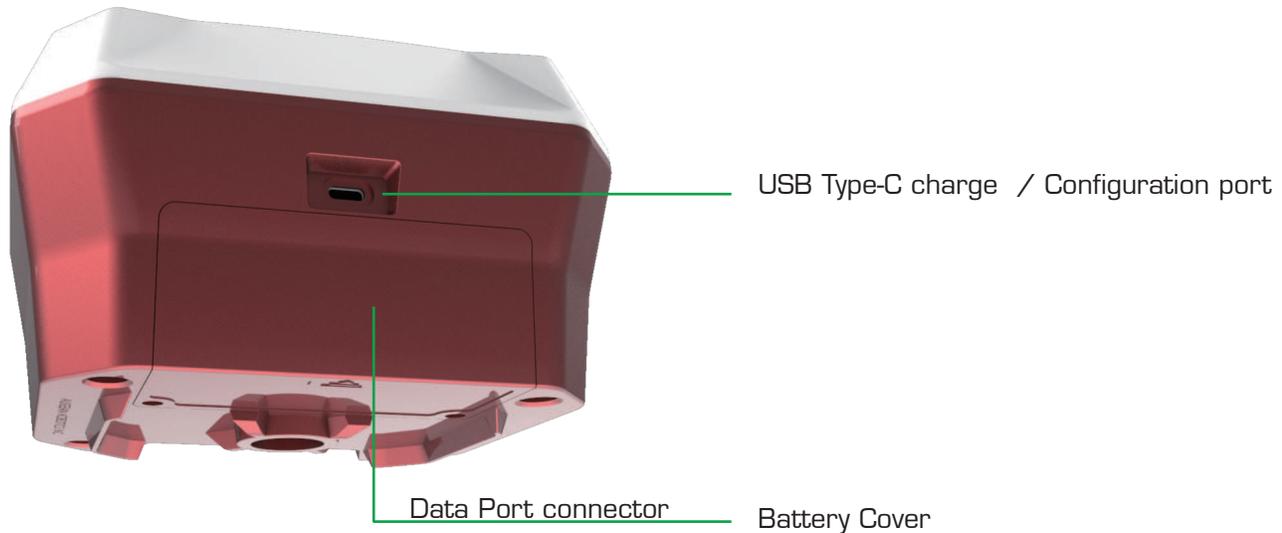
Flowing bars – Charging the battery, indicates the charge level
Solid bars – The remaining battery capacity when unit is turned on.

SURVEY:

Solid Green – GPS is survey-in and it is transmitting correction data to robots.
Blinking Yellow – Searching satellite and the signal is poor.
Blinking Blue – Searching satellite and the signal is OK.
Blinking Green – Searching satellite and the signal is good.

Note: when the unit setup location won't get good signal, user may move the location to find the best spot where the signal is strong.

USB port and Battery Cover



To charge the battery, connect the Type-C – Type-C cable to a PD 3.0 charger.

Base Station accepts any USB PD 3.0 chargers and any other type of USB charger. It can be quick charged with maximum 20V/36W power.

Note:

The water proof Type-A cable is used for charging under wet or raining condition, but the Type-A cable doesn't support quick charging, it will charge the battery with 5V/12W power, and may take about 4-5 hours to get the battery fully charged.

The 4 bar LEDs indicates the battery remain capacity when it is not in charging. When charging the battery, the LED indicates the charging level. Each bar represents 25% battery capacity.

The Battery

The lithium battery can last over 400 charge cycles, so there is no need to replace it in few years of use. In case of the battery defective or urgent use when the battery is low, user may replace it with a new battery.

To replace the battery, nu-screw 4 bolts on the battery cover, open the cover and take the battery out. Pull out the battery cable wires. Then connects the new battery cable on to the connector inside the battery bay, close the cover and install all the bolts. Make sure the water seal is secure.