

## Altus APS3G Quick Start guide

### Revision 1.0.1

Congratulations on purchasing your new Altus APS3G System. This Important Quick Start Guide contains information you need to set up and begin using your Altus APS3G.

### Typical Box Contents

The following are provided with your Altus APS3G System:

- ✓ Each Altus APS3G GNSS Receiver typically comes with the following preinstalled items:
  - ✓ 2 x Lithium Ion Battery
  - ✓ 1 x 2GB SD Card
  - ✓ 1 x Cellular/GSM SIM Card Holder
  - ✓ 1 x Internal Cellular/GSM Wireless Modem
  - ✓ 1 x Internal UHF Wireless Radio
  - ✓ 1 x Bluetooth radio
- ✓ 1 x Altus APS3G Battery Charger with AC Adapter Power Supply
- ✓ 1 x LEMO 4-pin Power Cable (10031)
- ✓ 1 x LEMO 5-pin to Female DB9 Serial Controller Cable (10029)

Optional Items:

- ✓ 1 x LEMO 8pin to Male DB9 RS232 Serial Cable (10028)
- ✓ 1 x Field Controller w/ AC Adapter and USB Cable
- ✓ 1 x Data Collection Software (pre-installed in Controller)

### Additional Equipment Required

- GSM/GPRS Cellular Modem SIM Card with data service
- PC with Windows OS & SD Card Reader

## How to Use Your Altus APS3G



**FRONT**




**REAR**











*Install UHF Radio Antenna, formatted SD Card and activated SIM card before turning ON Altus APS3G.*

### Altus APS3G Power Switch ON/OFF & LED Information (FRONT)



Press  ON/OFF button to turn ON Altus APS3G. Hold ON/OFF switch for 4 seconds to turn OFF Altus APS3G.

LED	ICON	STATUS
BLUE		ON: Established Communication OFF: Idle for device bonding
ORANGE		ON (Solid): Transmitting RTK corrections ON (Flashing): Receiving RTK corrections OFF: No RTK Corrections
RED		ON: Receiver is Powered
GREEN		Rapid Flash: Searching for Satellites Interval Flashing: Tracking Satellites
RED		ON: Active Data Logging OFF: Inactive Data Logging
Data Logging	Press  two times < 1 sec. apart, and Data Logging LED turns ON/OFF	
Soft Reboot	Press  three times < 1 sec. apart	
Hard Reboot	Press  four times < 1 sec. apart	

## LEMO Connectors (BOTTOM)

PORT	# PINS	FUNCTION
PWR	4	External Power
SER 1	5	Controller/PC
SER 2	8	External Radio



## GSM/GPRS Cellular Modem

The Altus APS3G includes an internal GSM cellular modem. In order for the GSM Modem to transmit and receive data, a SIM Card with a data service plan is required.

1. Purchase and activate SIM card with a data service plan from a GSM/GPRS cellular carrier of your choice.
2. Install SIM card in your Altus APS3G and get the access information to ensure it works correctly prior to field use.

## SD Memory and SIM Card Compartment (REAR)



**LOCK**

Place coin in the slot. Turn clockwise to lock compartment & counter clockwise to unlock.



**UNLOCK**



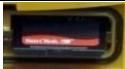

*Install/Remove SD or SIM card only while Altus APS3G is turned OFF.*



## Format SD Memory Card







**WARNING:** Turn OFF Altus APS3G when installing/Removing SD

	Turn OFF Altus APS3G. Push SD Card to release and pull out of slot
<b>FAT File System Format</b>	Use SD Memory Card Reader and Windows PC to format SD Card using FAT File System
	Slide SD Card in the slot until it locks into place

## SIM Card Installation



**WARNING:** Turn OFF Altus APS3G  
when Installing/Removing the SIM Card

	Turn OFF Altus APS3G. Push yellow button to release SIM Card holder
	Place SIM Card in SIM Holder
	Flip SIM Card Holder over to insert into the Altus APS3G SIM Card Holder slot.
	Slide SIM Card Holder in the slot until it is flush with the assembly.






## Battery Removal, Charge and Installation

Complete the following steps for removal, charge and installation of Altus APS3G batteries.



*Two fully-charged batteries can be used up to 14 hours.*

Check which battery is “in use” before removal. See battery status in collection software to replace battery “not in use”. See the **Power or Battery Status Indicator** section of this Quick Start Guide.

	Press battery release button to open battery compartment door (FRONT)
	To replace battery, pull or slide battery out and close the compartment door
	To charge battery, plug the AC battery charger into the wall socket and power LED turns ON
	Place Altus APS3G battery in charger for 2 hours or until LED turns GREEN for full charge. RED LED indicates battery not fully charged. Flashing RED indicates battery fault.
	To load battery in Altus APS3G, Slide the batteries in the slot and close compartment door.

## Communicating with Altus APS3G



*Serial cable communication takes precedence over Bluetooth®. Remove the serial cable from SER 1 port for Bluetooth to resume.*

For Wireless Bluetooth® communications with the ALTUS APS3G follow the steps below with a Controller (Allegro<sup>2</sup>, Archer<sup>2</sup>, ...). Refer to Altus APS3G User Manual for variations in controllers.

1. Turn on the Altus APS3G. The **red** LED will turn on and the **green** LED below the satellite icon starts to flash.
2. Turn on the Controller and Run data collection software.



*Be sure to select the appropriate Altus APS3G model located under the manufacturer: Septentrio. (Do not select old APS-3 models) The model is indicated by the product serial number. Select Altus APS3G for 25XXX series.*

For SurvCE go to step 3. For FieldGenius go to step 6.

3. SurvCE: Go to the *Equip* tab and select *GPS Rover*.
4. In the *Current* Tab, select *Manufacturer* and *Model*.
5. In the *Comms* Tab, select *Bluetooth* as the Type. Select the *Configure* button. Select *Find Receiver*, and a Bluetooth® Device search occurs. Highlight the Altus APS3G name then select the Bluetooth® button to bond.
6. FieldGenius: In the *Instrument* selection screen, select *GPS Rover* and select *Edit*.
7. Select *Model and Communication*. Choose the *Make & Model*. Select *Bluetooth Search* and a Bluetooth® Device search occurs. Select the Altus APS3G name, enter Bluetooth pin 'default', select *OK*, then select *Connect* to bond.

## SIM Card


Follow the steps below to verify that the GSM/GPRS Modem works correctly with an activated SIM Card.

Establish communication with Altus APS3G using data collection software.

### SurvCE:

1. Select Equip tab → GPS Rover → RTK tab
2. Device: Internal GSM  
Select Configuration button
3. Select a Provider & Dial mode
4. Select proper Network connection and Configure
5. Select Message Type
6. Select Base ID and check box to Send Rover Position to Network
7. Select green checkmark

### FieldGenius:

1. Select  → Link Configure
2. Link Device: Mobile  
GPS Port: Internal Device  
Select Setup
3. Select Connection Method  
Enter connection details for the RTK network being accessed
4. Select appropriate Data Format
5. Select Connect
6. Select Request Sourcetable
7. Select desired Mountpoint



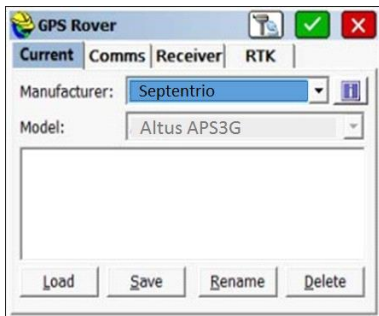
*Flashing orange RTK LED indicates Altus APS3G is receiving RTK Corrections.*



*WARNING: Incorrect Provider and APN Server will result in connection error.*

## Power or Battery Status Indicator

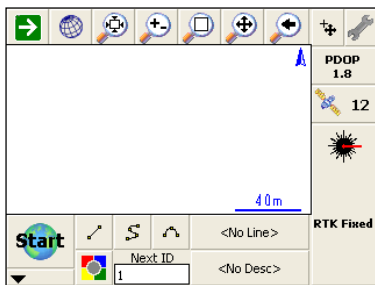
### For SurvCE:




In Equip Tab, select *GPS Rover* or *GPS base*.

Click on  button for Altus APS3G GNSS Firmware & Battery Status

### For FieldGenius:



Click on  button. Select *Sensor Information* for Altus APS3G GNSS Firmware & Battery Status

## Questions or Comments

Please contact Septentrio:

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