Phoenix 300™ Quick Start Guide
for Receivers with USB
(P/N 016-0171-549 Rev C 4/14 E23137)

Phoenix 300 with USB Correction Services

If an optional activation key is applied to the Phoenix 300 receiver, the following features and menus will be available in the Phoenix 300 menu structure:

GS or OmniSTAR Authorization
- OmniSTAR Correction Mode (requires NovAtel version 6.40 or lower)
- OmniSTAR Configuration and Display Menus
- GS - Satellite and GS - Slingshot Correction Modes (requires NovAtel version 6.400 or higher)
- GS - Satellite and GS - Slingshot Configuration Menus

RTK Authorization
- RTK Correction Mode (Correction Mode Screen)
- RTK Display Menu
- RTK Configuration Menu

Note: *Refer to the Phoenix 300 with USB Operation Manual or contact a local Raven dealer for information on correction services available for Phoenix 300 receivers with newer firmware versions.*

Using a Phoenix 300 with the Slingshot Field Hub

A Field Hub adapter cable must be used to connect the Phoenix 300 receiver to a Slingshot Field Hub. ***Connecting the Phoenix 300 receiver to a Field Hub using any standard serial cable could result in data overages***. *Contact a local Raven or Slingshot dealer for available cable options or additional assistance.*

Setting the Phoenix 300 Correction Modes

1. Contact a local Raven dealer to obtain the authorization code for the desired correction services.
2. Apply the activation key to the receiver. Refer to the Phoenix 300 Operation Manual for assistance with activating features on the Phoenix 300 DGPS receiver.
3. Use the Menu Structure Guide on the other side of this document to navigate to the Correction Mode screen in the Correction Configuration Menu.
4. Press ← and use the ↑ or ↓ keys to select the desired correction mode.
5. Press ← to save the selected setting. The Display and Configuration menus for the correction service will be available in the receiver menu after the correction mode is set. Refer to the Phoenix 300 with USB Operation Manual for a detailed description of the features and settings available for use with the selected correction mode.

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Overview

This document contains information for authorizing a Phoenix 300 receiver to utilize optional features. To be compatible with USB activation key files, the Phoenix 300 receiver must have the following:

- NovAtel Serial Number starting with a 'B.'
- Raven firmware version 3.00 or higher.

Note: *Phoenix 300 software and firmware updates are available from the Raven web site:*

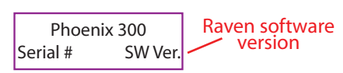
www.ravenhelp.com

Contact OmniSTAR for assistance with OmniSTAR subscriptions. Contact a local Raven dealer for additional information or to activate GS correction services.

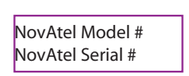
Checking Software Version & Updating the Phoenix 300 Receiver

Before purchasing an unlock key for optional features, use the following procedure to check the Raven firmware version, NovAtel serial number, and NovAtel firmware version currently installed on the receiver.

1. From the Home Display screen, press the → button to display the Receiver Information screen.



2. Press the ↓ button to view the GPS Engine Information screen.



USB Feature Authorization Process

Note: *It may take a few minutes to complete the authorization process. Do not remove power from the Phoenix 300 receiver or disconnect the USB flash drive during the feature activation process.*

1. Check the software and firmware versions as described above. Have the receiver serial number and firmware version information available when contacting a local Raven dealer for the necessary authorization code.
2. A software key file will be generated for the receiver and will be sent via email.

   Note: *The key file is specific to the receiver and cannot be used to activate features on another Phoenix 300.*
3. When the authorization file is received, transfer the file directly to the root directory of a USB flash drive. Do not extract or unzip the file.
4. Shutdown the Phoenix 300 receiver.
5. Insert the USB flash drive with the authorization file into the USB port on the back of the receiver.
6. Turn the receiver power on. The authorization process will begin automatically during the start up process. Allow the receiver to power up and complete the authorization process before proceeding.

   When the update is complete, the receiver will restart automatically. When the Home Display screen is shown on the Phoenix 300, the receiver is ready for operation.

Phoenix 300 Menu Structure

Start

Home Display Screen

D3x08 H01 HP05
System OK

press →

XP/HP AutoRestart

*From the Home Display Screen, press ← to access the Output Config Screen.

Note: Press ↓ and ↑ at the same time to return to the Home Display screen at any time.

Receiver Display Menu

Phoenix 300
Rcvr SN SW Ver.

press ↓

Engine Model
Activation Code

press ↓

NovAtel FW Version
NovAtel SN

GPS Display Menu

GPS D3x
SatsTrk 08 of 10

press ↓

GPS P 2.3 H 1.2
DOPS V 1.9 T 1.3

press ↓

N 30 19'23.9622
W 97 41'52.3710

press ↓

GPS Spd 0.0 mph
COG 0.0 T

press ↓

Std. Dev σ 3.8749
2.8917 2.5773

OmniSTAR Display Menu[1]

OmniSTAR HP
N. Amer Central

press ↓

CNR: 30.0
Signal Locked

press ↓

VBS Exp: 100
W:1379 S:04319999

press ↓

VBS Status: 0000
System OK

press ↓

HP Exp: 100
W: 1329 S:0431999

press ↓

XP/HP: 00060000
System OK

press ↓

SAT 1554.197 MHz
Baud: 1200

press ↓

Serial Number:
771915

press ↓

Service ID (hex):
C865

or

RTK Display Menu[2]

RTK
Ref ID: 0145

press ↓

Baseline
25.67 mi

press ↓

Throughput 1003
99 [3]

Utility Options Menu

Utility Options
press ↓ to enter

press ↓

Configure Unit
Do Not Change

press ↓

Radar Config
Press ← or →

press ↓

LCD Contrast
40%

press ↓

LCD Backlight
On

press →

Min Speed
0.25 mph

press ↓

Clamp Speed
01.00 mph

press ↓

Hold Time
005.00 sec

Correction Config Menu

CorrectionConfig
press ↓ to enter

press ↓

Correction Mode:
WAAS

SBAS Config Menu

SBAS Config
press ↓ to enter

press ↓

SBAS#138 SNR 40
Ele 31 Azi 118

GS - Slingshot Config Menu[4]

GS Config
press ↓ to enter

press ↓

Accuracy Warning
20 cm

press ↓

PortB Baud Rate
115200 bps

or

GS - Satellite Config Menu[5]

GS Config
press ↓ to enter

press ↓

Accuracy Warning
20 cm

press ↓

GS Beam
AUTO

press ↓

Activation Code
X123:4567:8910

press ↓

Operating Mode
Enabled

press ↓

Expiration Date
Y: 0 D: 0

press ↓

Hours Remaining
0 Hours

press ↓

Satellite CNR
0.00 dB

or

OmniSTAR Config Menu[1]

OmniSTAR Config
press ↓ to enter

press ↓

Service ID#11
N.Amer Central

press ↓

Set User Defined
1534.7410@1200

press ↓

AutoRestart Mode
Automatic

or

RTK Config Menu[2]

RTK Config
press ↓ to enter

press ↓

RTK Format:
RTCMV3

press ↓

RTK Network:
Disabled

press ↓

RTK Smoothing
Disabled

press ↓

PortB Baud Rate
115200 bps

Output Config Menu

Output Config
press ↓ to enter

press ↓

PortA Baud Rate
19200 bps

press ↓

PortA MsgOutput
press ← or →

press →

Msg:GGA
Interval 1.0 sec

From the Msg:GGA screen, press → to return to the PortA/B MsgOutput screens

press ↓

PortB Baud Rate
19200 bps

press ↓

PortB MsgOutput
press ← or →

press →

Msg:GGA
Interval 1.0 sec

press ↓

Port Forwarding:
Off

Return to Start (Home Screen)

1. The OmniSTAR display and configuration menus may only be displayed if the Correction Mode setting is set to OmniSTAR.
2. The RTK display and configuration menus may only be displayed if the Correction Mode setting is set to RTK.
3. The RTK Throughput screens displayed are dependent upon the selected RTK Network setting.
4. The GS Configuration menu will show the GS - Slingshot configuration options if the Correction Mode is set to use the "GS - Slingshot" correction services.
5. The GS Configuration menu will show the GS - Satellite configuration options if the Correction Mode is set to use the "GS - Satellite" correction services.

Menu Legend

Display Screens

Configuration Screens

NMEA Rate Conversion

0.1 seconds = 10 Hz
0.2 seconds = 5.0 Hz
1.0 seconds = 1.0 Hz
5.0 seconds = 0.2 Hz