How to Connect to Carlson SurvCE



1. Configure the Bluetooth

1). Double click i to set Bluetooth. (If the icon i doesn't show on the interface, you can enter <u>Power</u> <u>Properties</u> to activate the Bluetooth.)



2). Enter into the following interface, and click scan to scan your device.

| Bluetoc | oth | | | | ОК | × |
|-------------------|----------|------|----------|----------|--------|------|
| Paired | Device | Ser | vers | Mode | Abou | ıt] |
| Select | device t | o st | art pa | airing. | | |
| Name | ! | _ | Add | ress | | T |
| | | | | | | 1 |
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| , <u>S</u> car | n All | | | _ | Clear | |
| * | | | B | | - - | |

| Bluetooth | | | | | ОК | × |
|---------------------------------|------|-----|------|--------------------|------------|-----|
| Paired Dev | vice | Ser | vers | Mode | Abo | out |
| Select device to start pairing, | | | | | | |
| Name | | | Add | ress | | Т |
| Unknown | | | 008 | 025AO | 15D1 | |
| | | | | | 2 | |
| | | | | | | |
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| Scan | All | - | | _ | Clea | r |
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3). When your device shows on the window, you can click the name, then click Pair.

| Bluetoc | oth | | | | ок 🗙 | | | | |
|--------------|---------------------------------|------|--------------|---------------|----------|--|--|--|--|
| Paired | Device | Ser | Servers Mode | | About | | | | |
| Select | Select device to start pairing. | | | | | | | | |
| Name | | | Add | ress | | | | | |
| Unkno | wn | | 008 | 025AO1 | 5D1 | | | | |
| WM_A | \dministra | at1 | 000 | D1B0F6 | 9F5 | | | | |
| SUN_S | SONGMEI | | 0019 | 97EFAO | A96 | | | | |
| W098 | 2/1/5.// | Pair | 111101 | r /sne/d | 43 RE | | | | |
| | | Ref | resh I | Vame | | | | | |
| | | Del | ete | | | | | | |
| | | | | | | | | | |
| <u>S</u> car | All | | | ▼ | Clear | | | | |
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4). Click Next, then select the proper COM port to connect to the receiver (here we set as COM8).

| Authentication | | | | |
|-----------------------------------------------------------------------------------------------------------|--|--|--|--|
| Enter a passcode to establish a secure connection. To proceed without authentication, press 'Next'. | | | | |
| Passcode: | | | | |
| Cancel Next | | | | |
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| Serial Profile | |
|-----------------------|----------------------|
| Select profile optior | ns and press 'Next'. |
| Encryption | Disable 🔻 |
| Mode | Serial 💌 |
| Port | COM8: 🔽 |
| | |
| | |
| Cancel | Next |
| * | 🕲 🎐 🔓 🛓 😫 |

5). Check Serial Port, then click Done



6). Click OK to finish configuration of Bluetooth.

| Bluetooth | ок 🗙 |
|---------------------|------------------|
| Paired Device Ser | rvers Mode About |
| Select device to st | art pairing. |
| | |
| Name | Address |
| Unknown | 008025A015D1 |
| WM_Administrat1 | 00C01B0F69F5 |
| SUN_SONGMEI | 00197EFA0A96 |
| W0982717522 | 0080259FAC43 |
| R | 0080259FACBE |
| | |
| | |
| Scan III | - Clear |
| | ▼ Clear |
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2. Configure Receiver & Radio

- 2.1. Base + External Radio
- 1). Equip > GPS Base



2). Select the manufacturer and model according to your GPS receiver. Here the model type is RUIDE/ R90T.

| 📚 GPS R | over | | \checkmark | X |
|----------|-------|-------|---------------|------|
| Current | Comms | Recei | ver R | тк] |
| | | | | |
| Manufact | urer: | | | |
| Ruide | | | - | |
| Model: | R90T | | | - |
| Load | Save | Renam | e <u>D</u> el | ete |
| . | | | 60 | |

3). Click <u>Comms</u> into the following interface, and choose <u>Bluetooth</u> and <u>Generic</u>. Then you can select the proper COM port to connect with your receiver. Here we set as COM7, same as Psion.



4). Click RTK into the following interface, then select <u>Cable or Generic Device</u> and click

| 📚 GPS Base 🛛 🔣 🔽 |
|------------------------------|
| Current Comms Receiver RTK |
| |
| Device: Cable or Generic C 💌 |
| Network None 🔽 |
| Port: COM 2 🔽 Parity: None 🔽 |
| Baud: 19200 💌 Stop: 1 💌 |
| Message Type: RTCM V3.0 |
| 🌮 🛥 🕹 🖬 🖬 🕹 |

5). Click Read From GPS to finish the configuration of Base.



NOTICE: Actually, the receiver can be set up on any position when it works as a base. If the base is set up at the known position, set it according to the above steps. If on an unknown position, just set the receiver in base mode, and it will get approximate coordinates to send correction as long as it has tracked enough satellites.

2.2. Rover + Built-in Radio

| 1). Equip > GPS Rover | | | | | | |
|-----------------------|--------------------|------------|----------------------|---------------|------------|--|
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| | <u>S</u> urvey | <u>C</u> C | IGO | <u>R</u> oa | id 🛛 | |
| | Eile | | E | quip | | |
| | 1 Total Station | 8 | <u>6</u> Loca | alizat | | |
| | 2 GPS Base | * | Z Mon Skyj | itor/ olot | M | |
| | <u>3</u> GPS Rover | 7 | <u>8</u> Tole | rances | 17 | |
| | 4 GPS Utilities | R\$ | <u>9</u> Perij | pherals | i ė | |
| | <u>5</u> Configure | * | <u>0</u> Abo Surv | ut /CE | | |
| | • | | | | Þ | |

2). Select the manufacturer and model according to your GPS receiver. Here the model type is RUIDE/ R90T.

| 📚 GPS R | over | | \checkmark | | × |
|-----------|--------------|---------------|--------------|---------------|-----|
| Current | Comms | Rece | iver | RT | к] |
| | | | | | |
| Manufact | urer: | | | | |
| Ruide | | | - | | |
| Pentax | | | | | Ţ. |
| Prexiso | | | | | |
| Ruide | | | | | |
| SatLab | | | | | - 1 |
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| Sokkia | | | | | |
| Spectra H | recision | | - | 1 | |
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| Load | <u>S</u> ave | <u>R</u> enan | ne 🖸 | <u>)</u> elet | e |
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| 📚 GPS | Rover 🔽 🗙 |
|--------|----------------------|
| Curren | t Comms Receiver RTK |
| | |
| Manufa | iturer: |
| Ruide | |
| Model: | R90T |
| Load | Save Rename Delete |
| | |
| 8 | |

3). Click Comms into the following interface, and choose <u>Bluetooth</u> and <u>Generic</u>. Then you can select the proper COM port to connect with your receiver. Here we set as COM7, same as Psion.

| 😂 GPS R | over | | × |
|----------|-----------|----------|-----------------------|
| Current | Comms | Receive | er RTK |
| Туре: | Bluetooth | n 🔻 | [|
| BT Type: | Generic | ¥ | l |
| Port: | СОМ 7 | _ | |
| | COM 7 | | |
| | COM 8 | | |
| | COM 9 | - | |
| | | | |
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4). In RTK you choose Internal UHF, and click 🖈 to connect to the receiver and configure radio channel. Here we set as Channel 3, same as the base.

| 😂 GPS R | over [🔁 🔼 | Ζ | × |
|-----------------|--------------------------------|-----|------|
| Current | Comms Receive | r | RTK |
| | | | |
| Device: | Internal UHF | • | * |
| Network | Internal UHF Internal GSM | | |
| Port: 0 | Cable or Generic De | | - |
| Baud: 19 | Pacific Crest PDL Satel 3AS | | - |
| Base ID ((| AirLink SS900 | | |
| | ARWest | | ID |
| Message | GSM Modem TRL-35 | | - |
| Send RSatel 2AS | | | |
| <u>.</u> | | Q., | : 00 |

| <mark>ಜಿ</mark> Configure I | nternal Radio 🔽 🔀 |
|-----------------------------|-------------------------------------|
| Channel: | 3 ▼ 3 ▲ 4 5 6 7 8 |
| 27 | @ 🕪 🖬 🛔 🗐 |

5). When configuration is done, go to Survey > Store. When the status shows *Fixed*, it means your receiver is positioned.



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|--------------------------|-------------------------------------------|-----------------------------|
| Pt: 1 | Desc: | нт: 0 |
| N:29719 HSIG:0 | 0604> E:-734117 0.026 ¥SIG:0. 0 | '04>Z:-0.3309 D39 |
| | |) ((|
| 2.6 | | - |

3. Rover + GPRS/GSM Module

Preparation:

- i. Fix TQX-0918EV-1 network antenna (the shorter one) on the top of R90T.
- Insert your SIM card into the slot at the back of R90T and make sure your SIM card has the function to surf the internet.
- Switch R90T to rover working mode + GPRS data link.
- iv. Build the connection between data collector and R90T trough Bluetooth.
- v. Take a CORS parameter as an example.

IP address: 58.248.35.130 Port: 6060 Domain: RTCM30 User name: whatever Password: whatever





 Select the manufacturer and model according to your GPS receiver. Here the model type is RUIDE/ R90T.



 Click Comms into the following interface, and choose <u>Bluetooth</u> and <u>Generic</u>. Then you can select the proper COM port to connect with your receiver. Here we set as COM7, same as Psion.

| 😂 GPS R | over | <u>k</u> | X |
|----------|-----------|----------|-------|
| Current | Comms | Receiver | RTK |
| Type: | Bluetooth | | |
| BT Type: | Generic | • | |
| Port: | COM 7 | • | |
| | | | |
| | | | |
| 27 | | 🗃 🎐 🎚 | - i 0 |

4) In <u>RTK</u>, choose <u>Internal GSM</u> in <u>Device</u> and click
 ☆.





| You will get | a GSM configur | ation and click | settings |
|--------------|------------------------------------------------|-----------------|----------|
| | 😤 Configure Int | ernal GSM | |
| | Provider: DNS: | Settings | |
| | • • • • • • • • • • • • • • • • • • • | •] | |
| · | Notes the settings | | |
| | | | |
| | APN Server: APN User Name: APN Password: | cmnet | |
| | • | | |

NOTICE: Input the APN information here. It is related to your SIM card and you can consult your SIM card supplier for support.

Click **C** to configure the device setting.

5) <u>Network</u>: <u>NTRIP</u>, then click **X** and input parameters of the CORS.

| 🚔 GPS R | over | | \checkmark | × |
|----------------------------|----------|-------------|--------------|-----|
| Current | Comms | Recei | ver | RTK |
| Device: | Internal | GSM | • | * |
| Network | NTRIP | | - | * |
| Port: | COM 2 | - | | |
| Baud: | 19200 | w/ | | |
| Parity: | None | 💌 St | op: 1 | - |
| 7855: [R | TCM30] | | - | * |
| Message | Type: 🖪 | тсм vз. | 0 | - |
| Conservation of the second | Pover Po | sition to l | Netwo | rk |

| Name: | 7855 🔽 Delete |
|-------------------------|----------------------------|
| IP Addres | s; 58.248.35.130 |
| Port: | 6060 |
| User Nam | e: 111111 |
| Password | ***** |
| -Broadcas Identifier | ster Information ———— |
| Operator | |
| Position | 0.00S 0.00W , |
| Misc: | |
| NMEA: | Rover position not needed. |

Click **c** to finish setting and choose the <u>Name</u>: <u>RTCM30</u>.

| 📚 Bases fo |)r 555 | | |
|--------------------------------|----------------------------|----------------------|---------|
| Name: | [RTCM30] | ▼ | Delete |
| User Name: | [RTCM30] | | |
| Password: | [CMR] [RTD] | | |
| Identifier · | YCDL | | |
| Short Id: | T1045217838 | | |
| Type: | H5986114413 T1045724495 | | agleGns |
| Format: | weicheng | |),10 💌 |
| Position: | wz01 | | |
| Misc: | H1186235215 | • | |
| Send Rover Position to Network | | | |
| 87 | | 3 | lo i 🗐 |

Click 🔽 to configure the rover.

Survey COGO Road Survey COGO Road Configuring rover 58.248.35.130:6060 [RTCM30] Cancel Cancel Configure ♀ PAbout SurvE I 6) When everything is done, it will go back to the main interface automatically.



7) When configuration is done, go to Survey > Store. When the status shows *Fixed*, you can begin the survey work

| STOR | RE PTS | | X |
|----------|------------------------------------|-------------------------|----------|
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| Fixed | H | 12 30 | m _ |
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| Pt: 1 | Desc: | нт: 0 |) |
| E:103487 | 722.>N:54666)14 SEP:0.0 | 72.4>Z:-16 28 | 52.07> |
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| • | | | P |