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**TOUGHBOOK® 54**

# QUICK-START GUIDE

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**JULY 2018**



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## CONTACT

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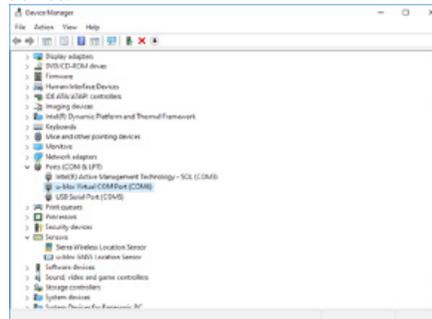
# TOUGHBOOK CF54 QUICK-START GUIDE

## GPS TROUBLESHOOTING:

01 //

### MY MAPPING SOFTWARE CAN'T CONNECT TO THE GPS COM PORT

1. Is the GPS module providing GPS strings?
  - a. Ensure that all GPS Mapping software is completed exited out
  - b. Click Start
  - c. Type GPS Viewer or navigate to the Panasonic Folder and open GPS Viewer.
  - d. Click Start and type Device Manager, then open it. You can also access it by opening a file folder, right-clicking on either “My Computer” or “This PC” on the left, and selecting “Manage”, then selecting device manager on the left side
  - e. Under the Ports section, locate the U-blox device and determine which COM port it is located on
  - f. In GPS viewer select that COM port and select 9600 for the baud rate, then click Connect
  - g. If you are seeing GPS information flow through this COM port, then the module is working. If not, the module may need to be enabled in the bios of the computer.
2. You may need to restore the GPS device to Legacy settings
  - a. Download the tools from this link:  
<https://keltek.sharefile.com/d/sb47bb4e582647db8>
  - b. Download Putty from this link:  
<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>
  - c. Open the Device Manager and locate the Port number for the U-blox GPS device.



- d. Run putty as a serial connection for that port at 9600 baud.
- e. If you see a section of gibberish before the \$GPRMC sentence, or don't see the \$GPRMC sentence at all, then run the tools below.
- f. Extract the tools to the desktop of an administrator-level account
- g. Right-click the “run.bat” file and select run as an administrator.
- h. The tool will adjust the GPS automatically.



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- i. The computer will reboot.
- j. Test the GPS with Putty once more before using a mapping software.
- k. The tool may need to be run a second time if there is still gibberish or the \$GPRMC sentence is still missing.
- l. Following a final reboot and successful test with Putty, you can relaunch the mapping software and direct it to the appropriate COM Port.

02 //

## MY MAPPING SOFTWARE GETS POOR GPS RECEPTION WHILE IN THE DOCKING STATION

1. Are the dock antennas connected correctly and the antenna switch ON?
  - a. To ensure that the pass-through on a Panasonic Toughbook or Toughpad is configured and wired correctly, refer to the chart below, remembering that every Panasonic computer is setup for Cellular in the Upper location. Several of the docking stations listed below also have an external antenna switch that must be in the external or ON position in order for the pass through to function properly. The only platform that is not listed here is the new CF-33, which is configured as Upper(Cellular or Wi-Fi) in Antenna Port 1 and Lower(GPS) in Antenna Port 2. Gamber Johnson Docks are all setup the same. Antenna Port 2 is used for GPS and Antenna Port 1 is used for Cellular or Wi-Fi.

Havis Docking Station Pass Through Antenna Information

### Panasonic Toughbook Computers

Havis Docking Station Part Number	Computer Antenna Configuration			Computer Antenna Specifications		Panasonic Computer Model
	High Gain Single	High Gain Dual	No Antenna	Upper	Lower	
DS-PAN-111-1 DS-PAN-112-1	Yes	No	Yes	B	A	Toughbook CF-30 Toughbook CF-31
DS-PAN-111-2 DS-PAN-112-2	No	Yes	Yes	B	A	
DS-PAN-111 DS-PAN-113 DS-PAN-112	Yes	Yes	Yes	N/A	N/A	
DS-PAN-211-2 DS-PAN-221-2 DS-PAN-212-2 DS-PAN-222-2 DS-PAN-214-2	N/A	Yes	Yes	A	B	Toughbook CF-19
DS-PAN-211 DS-PAN-214 DS-PAN-212 DS-PAN-221 DS-PAN-213 DS-PAN-222	N/A	Yes	Yes	N/A	N/A	
DS-PAN-301-2	N/A	Yes	Yes	A	B	
DS-PAN-301 DS-PAN-302	N/A	Yes	Yes	N/A	N/A	Toughbook CF-U1
DS-PAN-411-2 DS-PAN-412-2	N/A	Yes	No	A	B	Toughbook CF-53
DS-PAN-411 DS-PAN-412	N/A	Yes	Yes	N/A	N/A	
DS-PAN-421-2 DS-PAN-422-2	N/A	Yes	No	A	B	Toughbook CF-54
DS-PAN-421 DS-PAN-422	N/A	Yes	Yes	N/A	N/A	
DS-PAN-504 DS-PAN-505	N/A	N/A	Yes	N/A	N/A	Toughpad FZ-A1
DS-PAN-601 DS-PAN-602	N/A	N/A	Yes	N/A	N/A	Toughbook H2
DS-PAN-701-2 DS-PAN-702-2	N/A	Yes	Yes	B	A	Toughpad FZ-G1
DS-PAN-701 DS-PAN-702	N/A	Yes	Yes	N/A	N/A	
DS-PAN-801 DS-PAN-802	N/A	N/A	Yes	N/A	N/A	Toughpad JT-B1
DS-PAN-901-2 DS-PAN-902-2 DS-PAN-901 DS-PAN-906 DS-PAN-902 DS-PAN-906	N/A	Yes	No	B	A	Toughpad FZ-M1 Toughpad FZ-B2
DS-PAN-901 DS-PAN-905 DS-PAN-902 DS-PAN-906 DS-PAN-903	N/A	Yes	Yes	N/A	N/A	

NOTE 1: All Panasonic antenna dock connectors are type "TNC" Connectors  
 NOTE 2: Signal routing (GPS, WWAN, WLAN, etc.) is determined by the computer configuration (Panasonic build)

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## GPS TROUBLESHOOTING:

01 //

### I NEED TO USE TWO MAPPING APPLICATIONS FROM THE SAME COM PORT

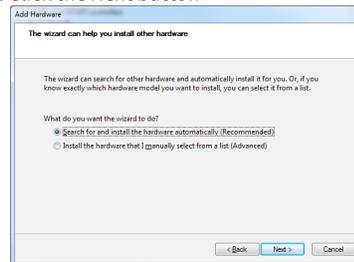
#### 1. Setup a Virtual COM Port that uses the same GPS Source

In past versions of each line of Toughbooks, in order to have multiple pieces of software utilizing the same GPS source, you had to use a 3rd-party software called a COM Splitter. This software attached itself to the COM port assigned to the GPS source, then duplicated it to two additional COM ports for both of your applications to use.

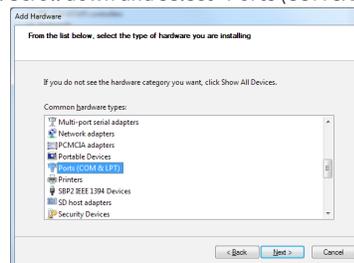
With the advent of the U-Blox GPS device, this is no longer required. The difference is that the U-Blox GPS device that is found in current mark series Toughbooks is a USB GPS device, not a serial device, so multiple applications can attach to the same device by creating virtual COM ports.

This process explains how to do this:

1. Click Start and type Device Manager, then open it. You can also access it by opening a file folder, right-clicking on either “My Computer” or “This PC” on the left, and selecting “Manage”, then select device manager
2. Click the Actions menu at the top and select Add legacy Hardware
3. Click the Next button



4. Select “Install the hardware that I manually select from a list(Advanced)”
5. Click Next
6. Scroll down and select “Ports (COM & LPT)”



7. In the left list select U-blox, and in the right list select the U-blox device, then click Next
8. Click Finish to complete the wizard. This now creates an additional COM port in device manager. Both of these COM ports can now be attached to your GPS software.

## ADDITIONAL TROUBLESHOOTING:

01 //

### WHERE DOES THE SIM GO ON THE CF-54?

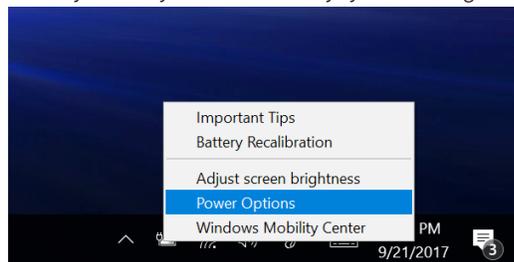
The SIM on a CF-54 gets installed on the back edge of the computer in the same bay as the HDMI port. Ensure that the SIM card is inserted with the brass contacts facing down.

02 //

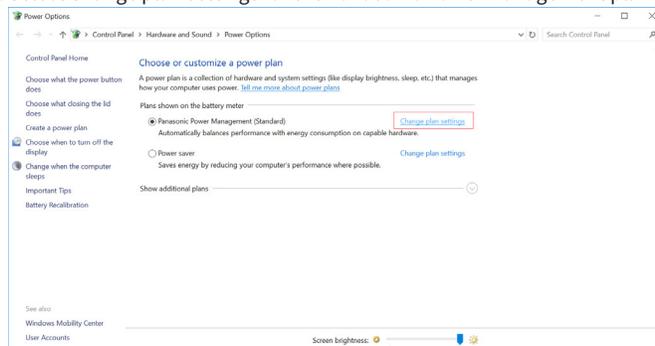
### SETTING UP THE SHUT-DOWN/ SLEEP OPTIONS

By default, Windows 10 encourages computers to dim the screen, go to sleep, and shutdown to save device battery life, however that is not always convenient for workflow. This process shows you how to force the computer to stay active.

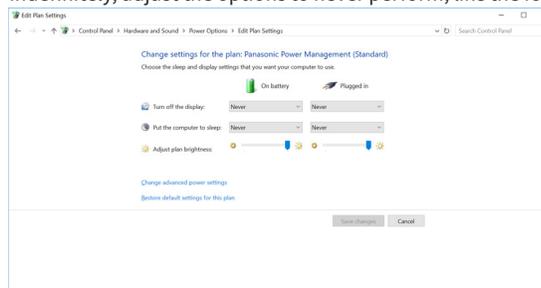
1. In the system tray locate the battery symbol and right-click on it.



2. Select Power Options from the list. This will open the Windows Power Options.
3. Select Change plan settings for the Panasonic Power Management plan



4. This opens up the details of the plan. To force Windows to keep the device active indefinitely, adjust the options to never perform, like the following.



5. Click the Save Changes button at the bottom of the screen to apply the settings.

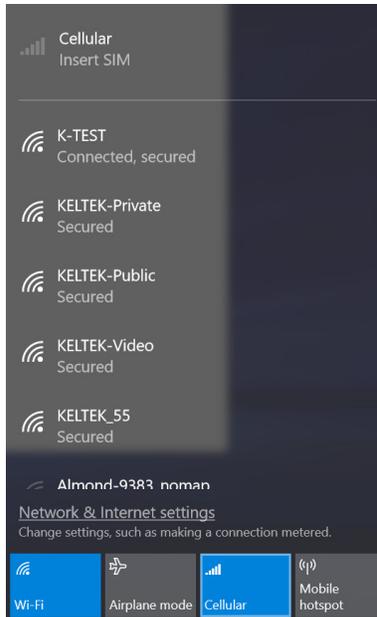
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## ADDITIONAL TROUBLESHOOTING:

03 //

### CONNECTING TO YOUR LTE NETWORK

Once the SIM has been inserted into the Toughbook, connection is quite simple. In previous Toughbook and Toughpad models, a third-party connection software was needed to interface with the cellular card. This is no longer the case as Windows 10 now manages the connection for you. Simply click on the Connection button down in the system tray near the clock, and ensure that the Cellular option is blue. If your SIM is inserted and activated, you will have the option to connect to it at the top of the menu.



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**THANK YOU.**





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**KELTEK INCORPORATED**

**THANK YOU FOR  
THE BUSINESS.**

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