

FC-5000 Data Collector - Tech Notes (TNC#053)

Below is a listing of technical information related to Topcon / Sokkia hardware and software systems. The information offered is intended to aid distributors and end users with in depth explanations and improved workflows.

For follow up information, please contact the Topcon Technical Support Teams at: support@topcon.com

Topcon USB Driver for GNSS Receivers:

The FC-5000 Operating System comes with the GNSS USB Driver pre-installed.

GPS/GNSS Antennas:

In Geo models of the FC-5000, to achieve the best accuracy keep the GPS/GNSS antenna obstruction free, the GPS/GNSS antenna is under the notification LED's and is intended to work in both portrait view and landscape view.

Accessing Task Manager:

To access the Task Manager on the FC-5000 press and hold the "Windows icon" key, then press the "On" key (top right keypad button).

Windows 10 File Transfer Via Bluetooth:

Files can be transferred from device to device via Bluetooth with Windows 10. For a guide please use the link below.

[Bluetooth_File_Transfer_Configuration_for_Windows_10.docx](#)

Touchscreen Profiles:

There are 4 Touchscreen Profiles that you can choose from:

- FINGER (ideal for finger touch).
- STYLUS (ideal for small tip stylus).
- WET (ideal for wet conditions).
- FINGER & STYLUS (combination of finger and stylus).

It is recommended that you not use the fine stylus when in the Wet screen touch profile. You should use your finger or a larger stylus in wet conditions.

Screen Calibration Tool for Pen or Touch Input:

The FC-5000 utilizes a capacitive touchscreen which doesn't require calibration. The calibration tool in Windows 10 is intended for a resistive touchscreen. If the Windows 10 calibration tool is used, it may degrade touch screen performance.

Workflow Resolution:

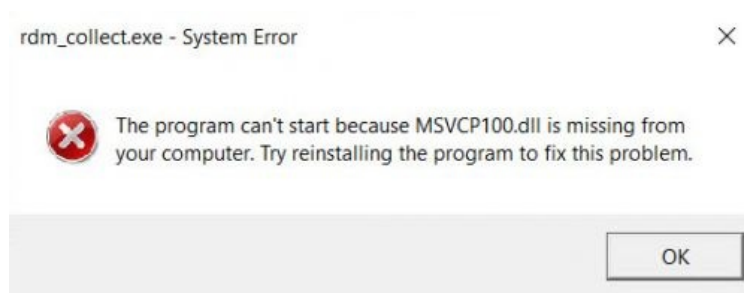
If the Windows 10 calibration tool is used, switching to a different touchscreen profile will resolve the issue. You will need to attach a USB keyboard or mouse to complete this process.

1.Once you are at the Start screen (or have the Start menu up) which is showing the tile icons, swipe (or scroll) down to the bottom-right tile which should be "Touchscreen Profiles" utility. Tap (or click) on it to open.

2.Tap (or click) on one of the profiles which are not currently highlighted. Wait for the bottom progress bar to complete.

System Error - Missing DLL File:

Programs that only exist in a 32-bit version may display an System Error when trying to execute. FC-5000 Operating System does not include Microsoft Visual C++ 2010 Redistributable Package (x86).



Workflow Resolution:

Download and install the [Microsoft Visual C++ 2010 Redistributable Package \(x86\)](#).

MAGNET Office and Tools Installation:

In order to install MAGNET Office on the FC-5000 you are required to type in the organization name. You will need to do so by accessing the on-screen keyboard either by selecting Settings > Ease of Access or simply typing "Keyboard" into the search bar. Then type in your organization name and follow the rest of the installation steps.

If the following message appears "Downloading of Installation data from the web has failed", please make sure that the FC-5000 is connected to the internet while installing. If it is connected to the internet and the issue persists then run the installation process over again. If it continues to happen you will need to contact Topcon Technical Support at techsupport@topcon.com or 1-866-486-7266.

Unreadable Text within MAGNET:

Certain text within MAGNET Office and Tools may be smaller than other text making it difficult to read. It is recommended that the display settings on the controller be set to 125%.

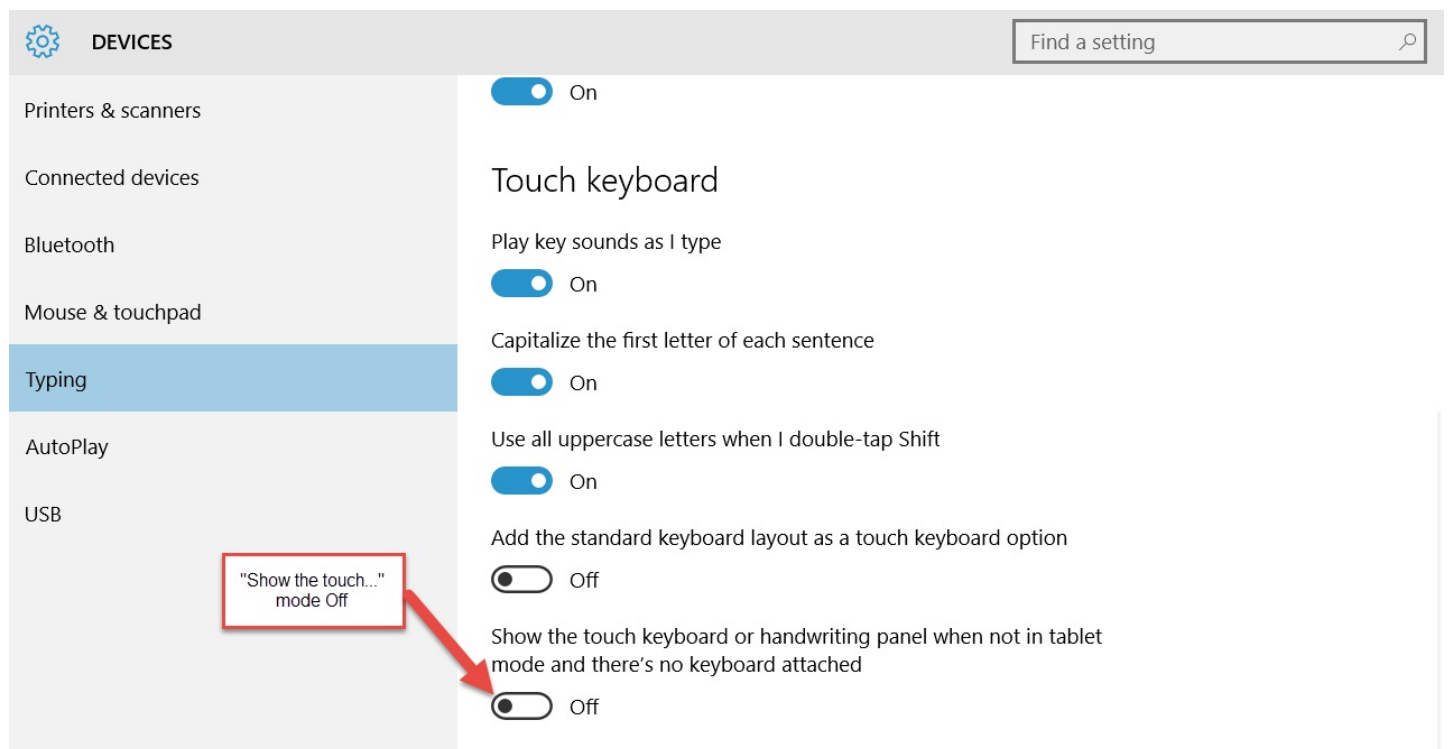
Workflow Resolution:

When the device is on Tablet mode tap the 3 horizontal lines at the top left corner of the screen or when the device is on Desktop mode tap the Windows icon on the lower left corner of the screen, then tap Settings > System > Display and then change the text size to 125%.

MAGNET Field Virtual Keyboard Configuration:

The following screenshots display the configuration of the MAGNET Field virtual keyboard.

Windows 10 Settings:



Swipe to the left from the right side of the screen:

Point Layer Photo

● Point 1001 ☐ Control P

Code ▼

Local(USft)

North	<input type="text" value="0.000"/>
East	<input type="text" value="0.000"/>
Elevation	<input type="text" value="0.000"/>

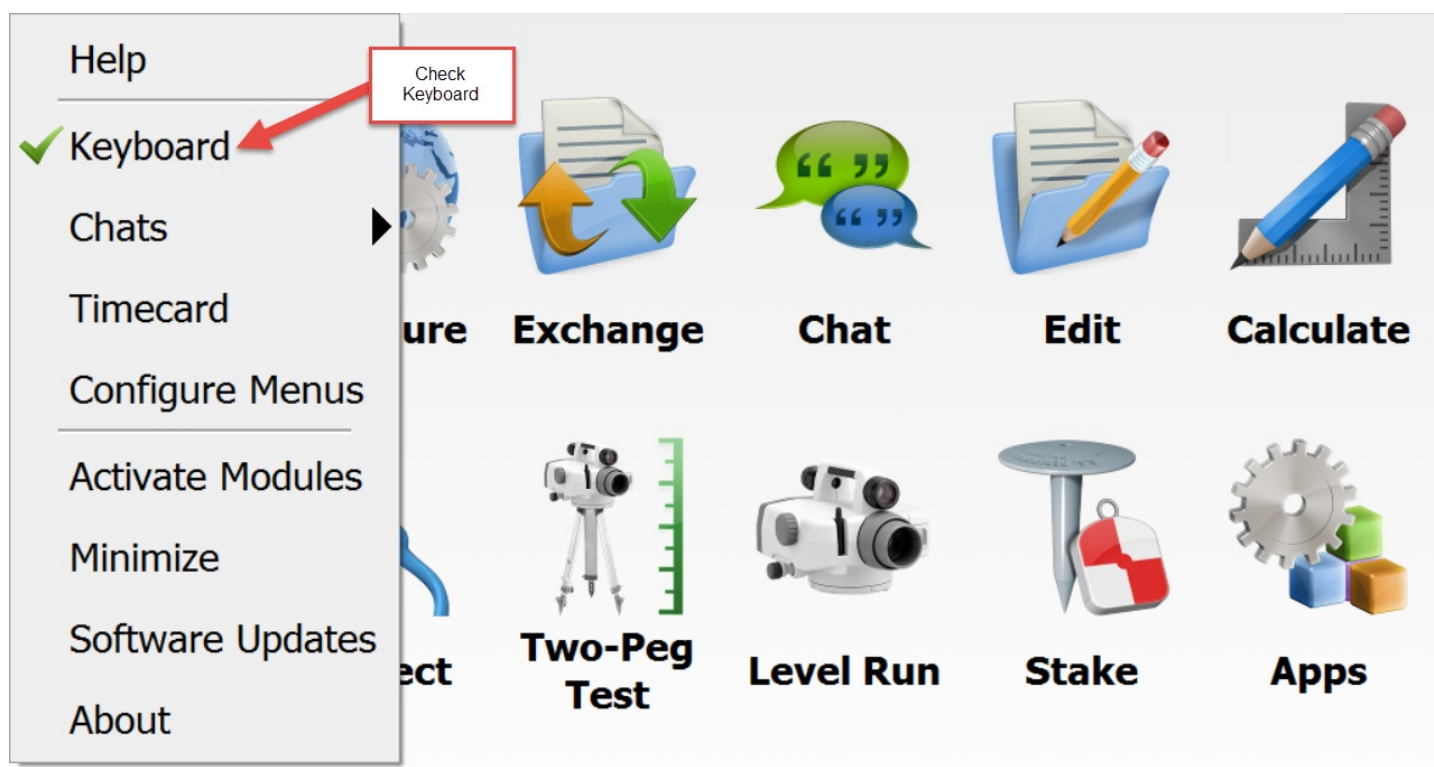
No new notifications

Tablet mode Off


Expand ^

Tablet mode Rotation lock Note All settings

Tap on MAGNET icon on the top left corner of the home screen:

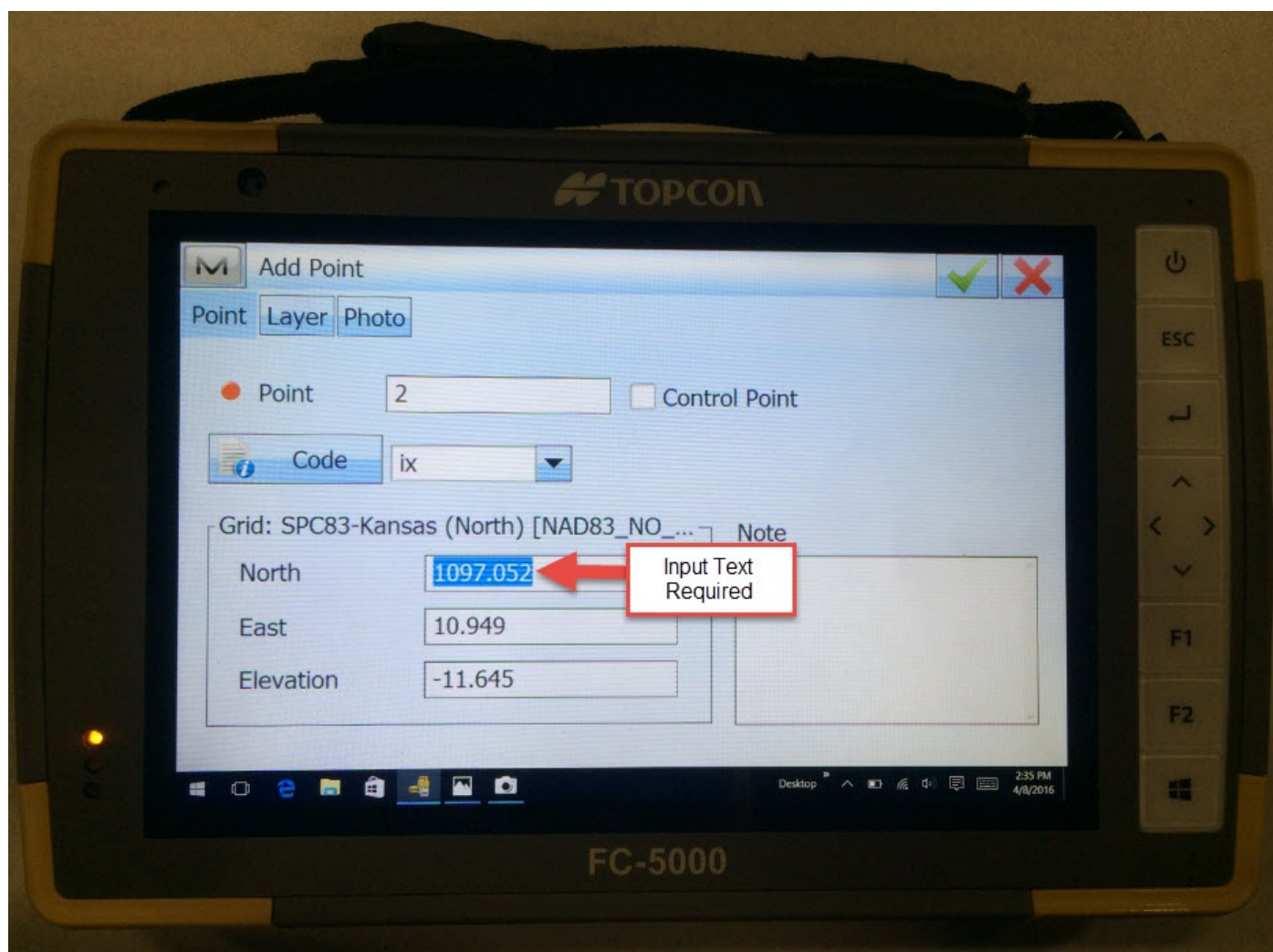


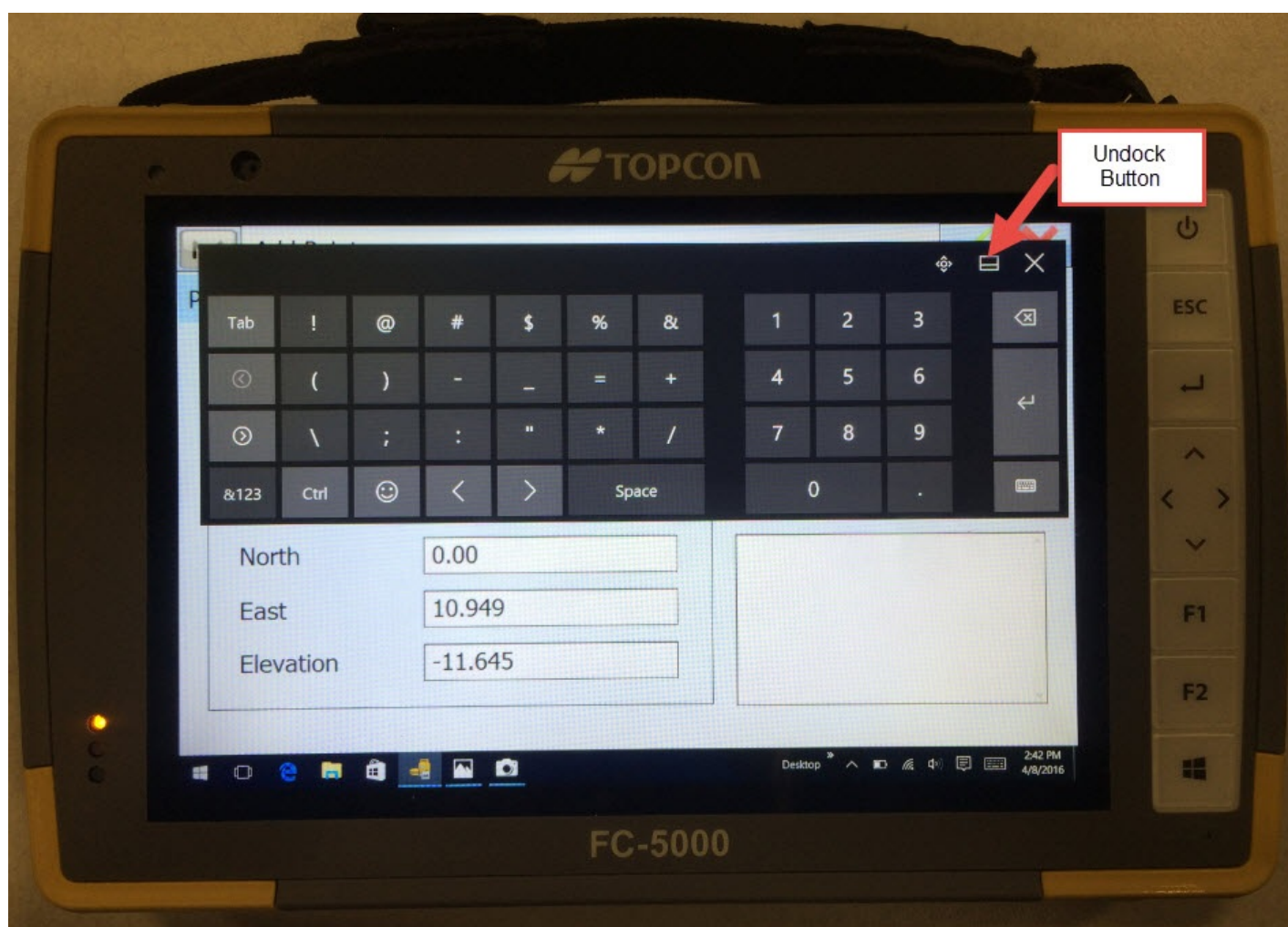
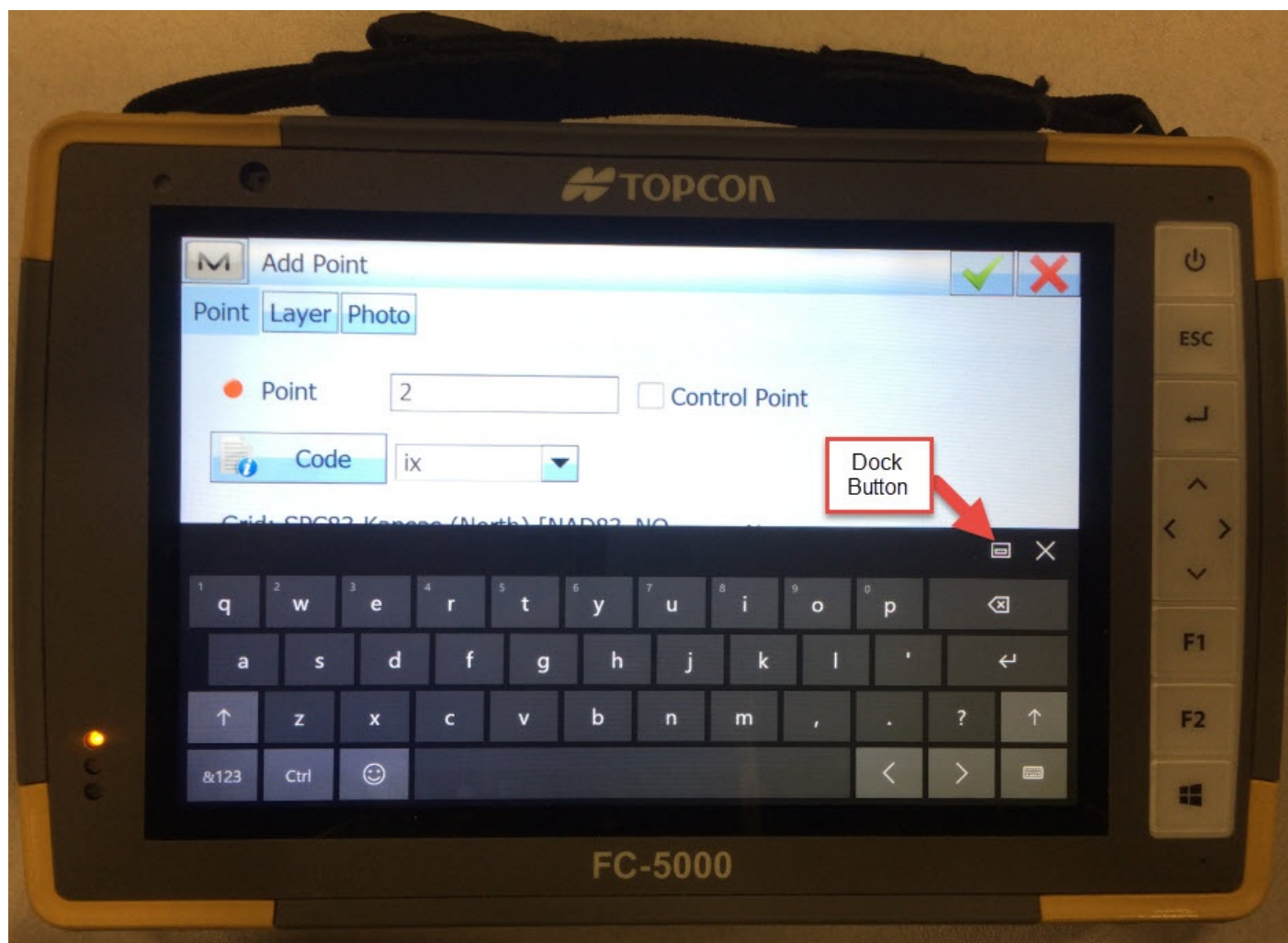
MAGNET Field virtual keyboard view:

1001											Clear
											
`	1	2	3	4	5	6	7	8	9	0	Backspace
?	Q	W	E	R	T	Y	U	I	O	P	Home
Caps	A	S	D	F	G	H	J	K	L	Shift	
<-	"	Z	X	C	V	B	N	M	,	.	->
Enter	'	/	*	Space			+	-	=	Enter	

Virtual Touch Keyboard Overlaps Field Boxes:

In some cases when browsing the internet or when using a MAGNET application the touch keyboard overlaps some of the input text field boxes. When this occurs you can drag/move the keyboard around the screen by clicking the Undock button on the virtual keyboard, by default the virtual keyboard is set as Dock.





Taking Photos Using the FC-5000:

The FC-5000 has two built in cameras:

Front Facing Camera is 2MP with no flash.



Rear Facing Camera is 8MP with flash. When using the Rear Facing Camera with the Tab-Tite RAM Mount your view will be obstructed. Remove the FC-5000 from the mount to take pictures.



Taking Photos within MAGNET Field:

When you take a photo in MAGNET Field with the controller's default Landscape orientation (Upright) the image will be oriented correctly. However, there is no tool to rotate the image view to match the other three controllers's orientations (Portrait, Landscape, Portrait).

Landscape A (upright):



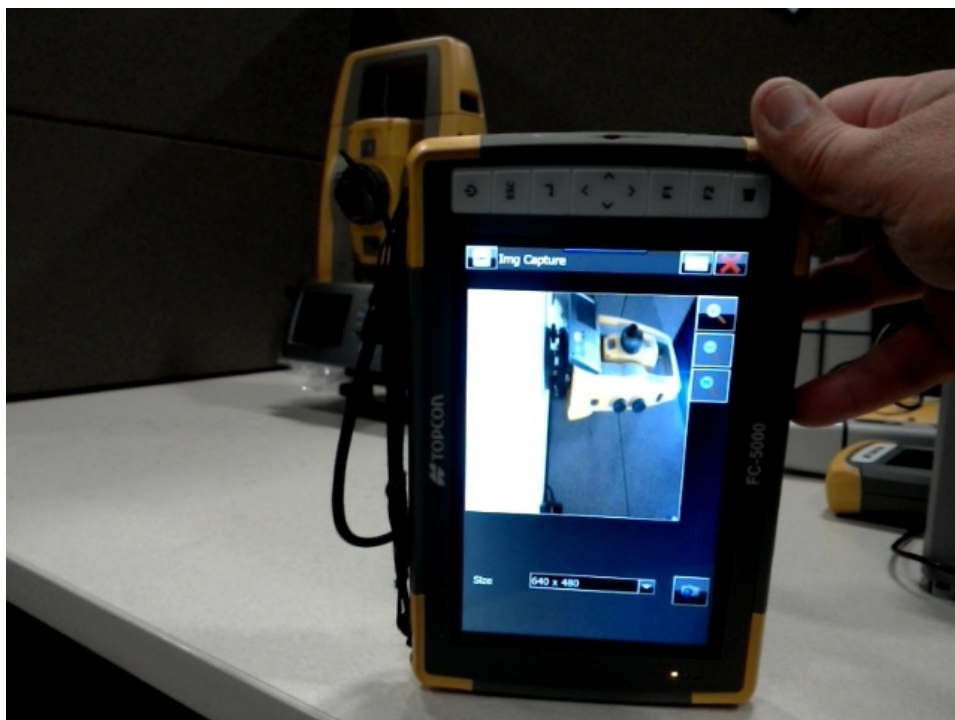
Portrait A:



Landscape B (upside down):



Portrait B:



Network RTK, Auto Topo and Sleep Mode:

The FC-5000 has a sleep mode feature that is set as a default setting. If sleep mode is on Network RTK, or Auto Topo will stop working. Network RTK in MAGNET Field will disconnect itself from the mount point thus losing the fixed position. Auto Topo will also lose its fixed position losing its ability to keep taking topo shots.

Workflow Resolution:

Select Sleep to "Never" by going to Settings > Systems > Power & Sleep and selecting "Never".

Resetting the FC-5000:

If the FC-5000 becomes unresponsive, slow or programs won't launch performing a reset might solve the issue. You might be asked to perform a reset when an application is finished being installed. Be sure to close and save all other data before performing a reset to prevent data loss.

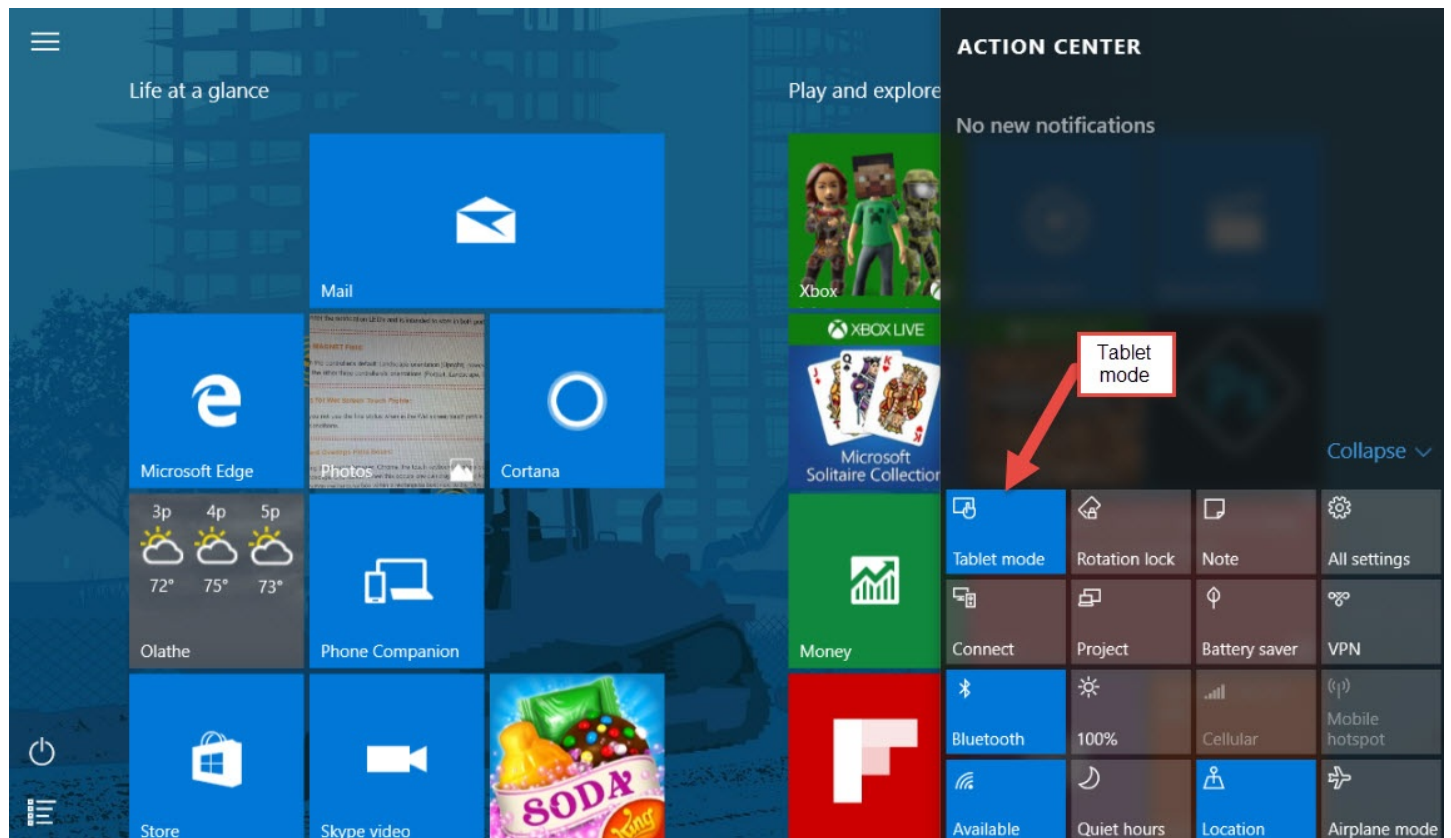
Workflow Resolution:

On Tablet mode: select Power symbol and select Restart.

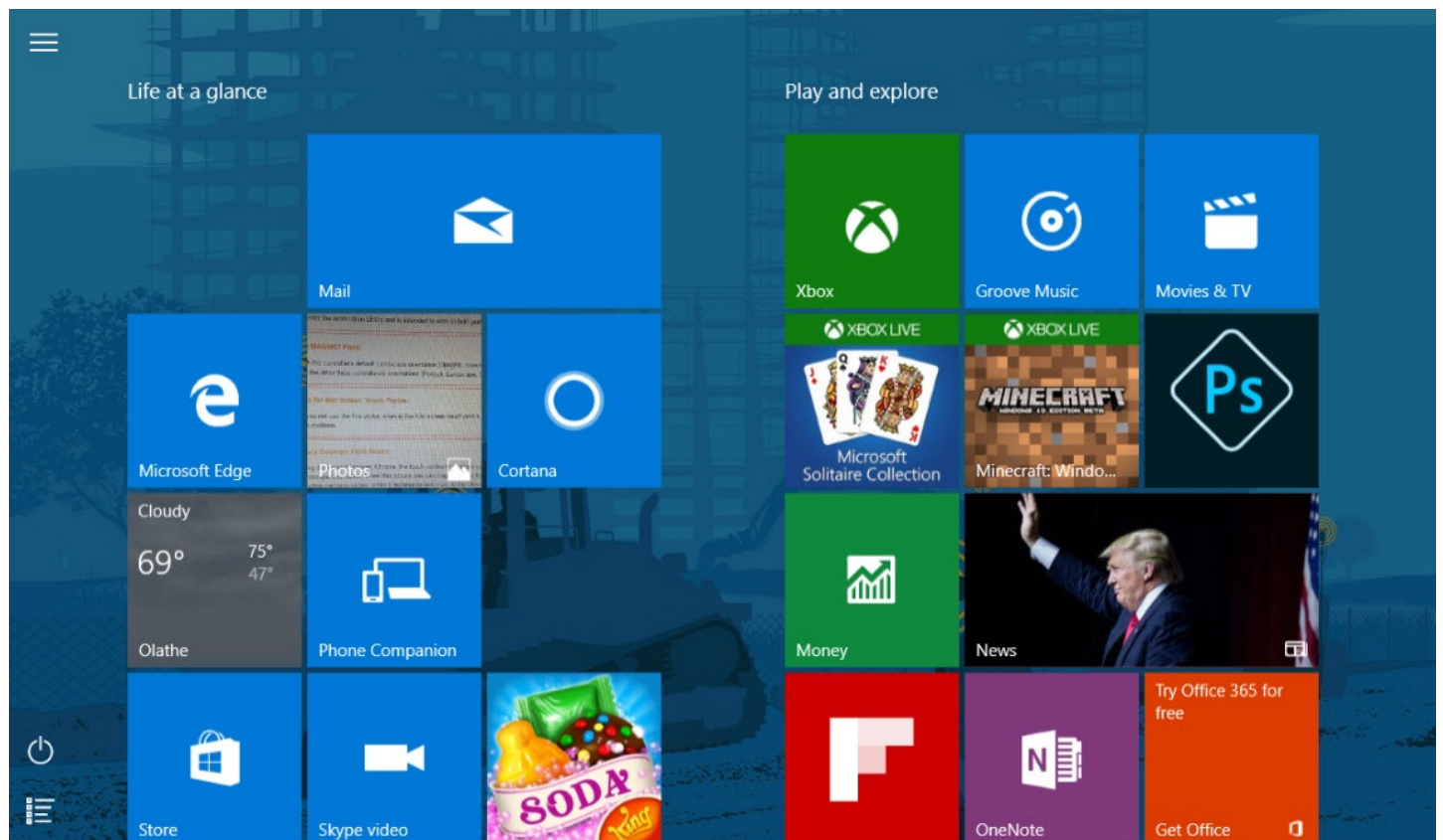
On Desktop mode: tap the Start menu (Windows symbol), select the Power symbol, and select Restart.

CAUTION: During a reset applications are closed and any unsaved work may be lost.

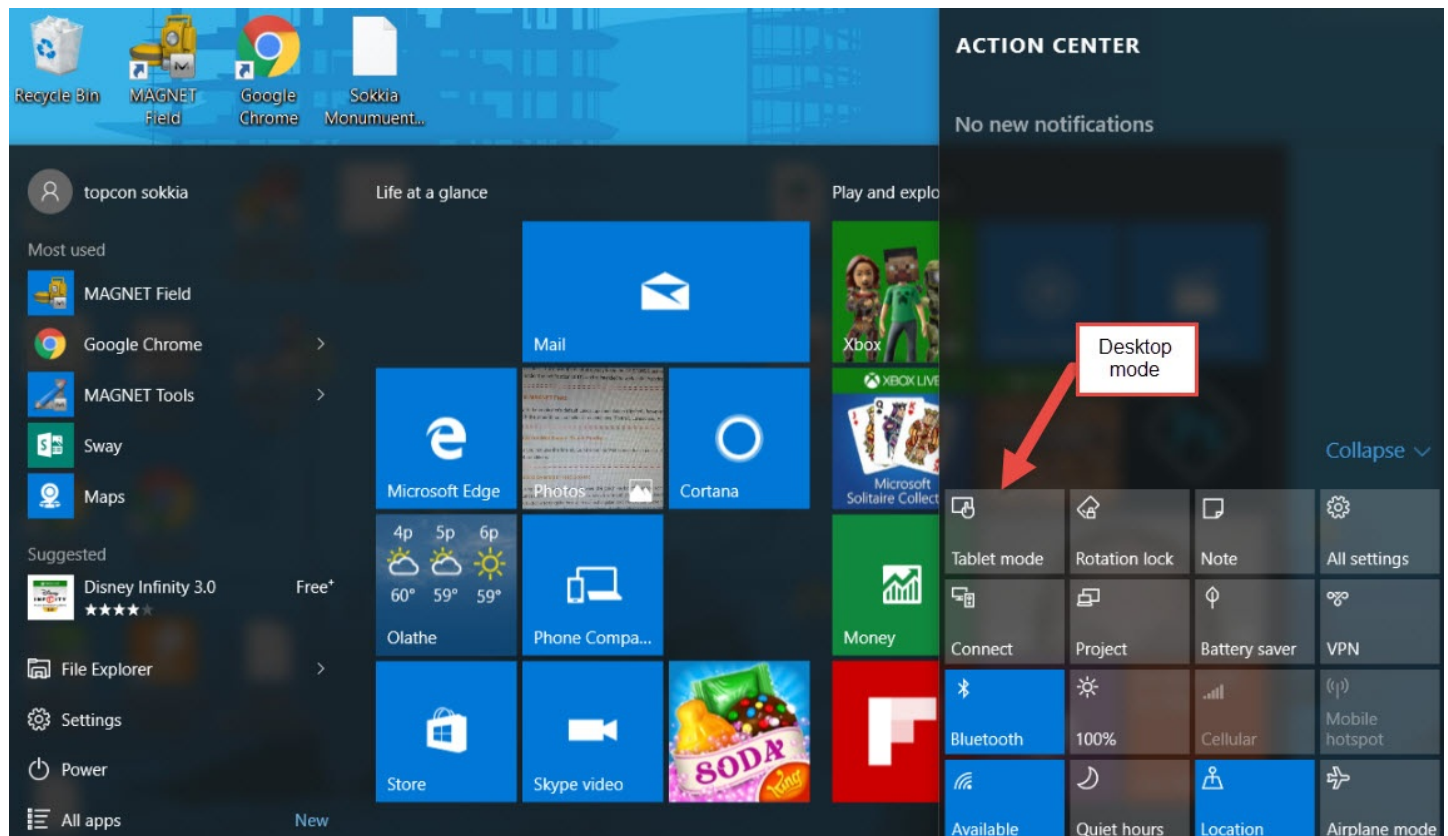
Tablet mode:



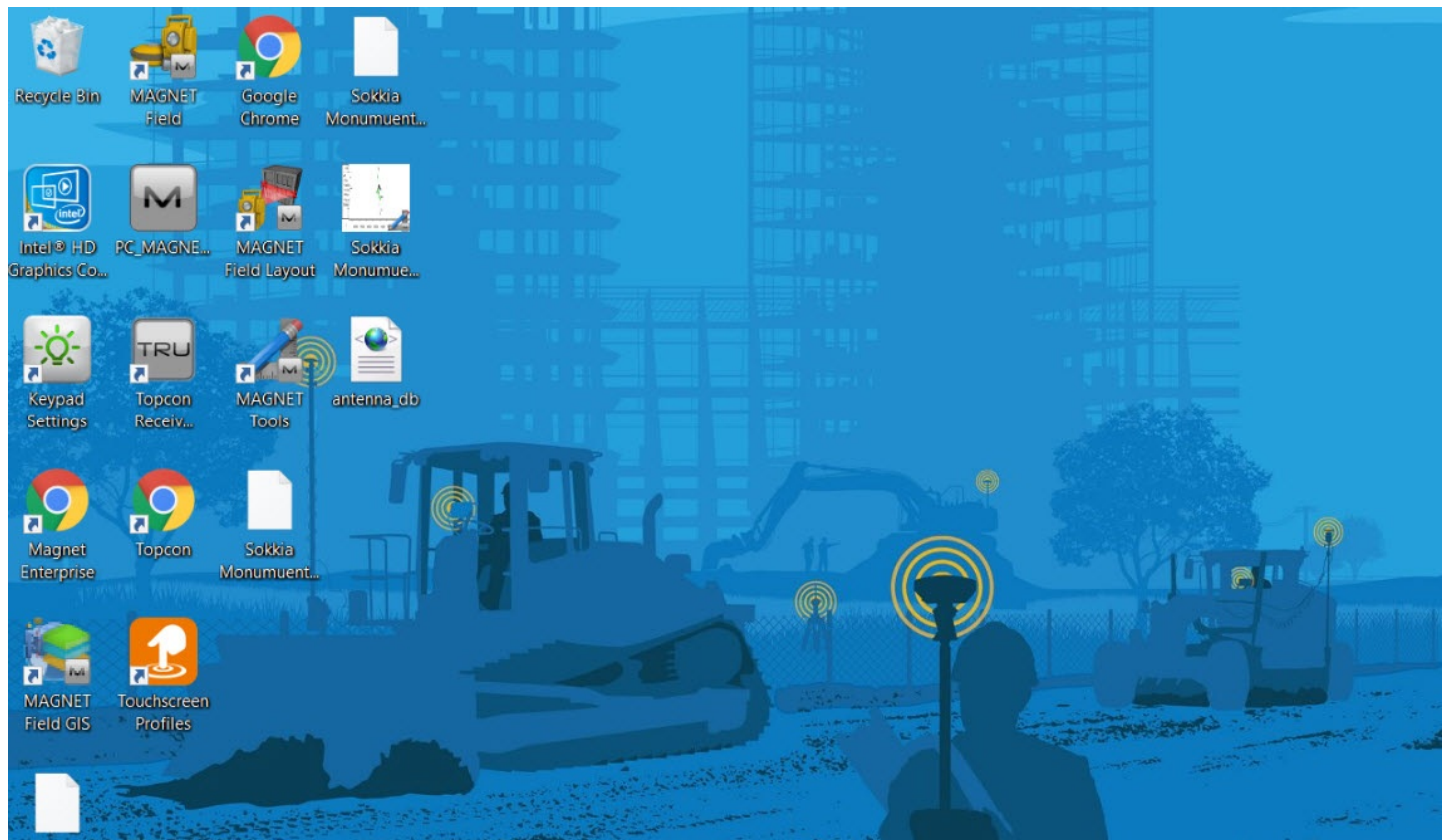
Tablet view:



Desktop mode:



Desktop view:



If FC-5000 becomes Locked Up:

If the FC-5000 becomes locked up, won't respond, or you cannot access the start menu you will need to perform a hard reset (different from the reset methods listed above).

Workflow Resolution:

1. Hold the "Power" button for five seconds, slide window to shut down. Wait for all of the LEDs to shutdown. (this can take up to around 30 seconds), and then press the "Power" button again.
2. If step 1 doesn't work, hold the "Power" button 10 seconds until the screen goes black, and then briefly press the "Power" button again.

If steps 1 or 2 doesn't resolve the issue you will need to contact Topcon Technical Support at techsupport@topcon.com or 1-866-486-7266.

FC-5000 connecting to the DS-200i via Wi-Fi:

Connection with the FC-5000 is limited with the DS-200i. The Wi-Fi connection will only work with a infrastructure connection using a Wi-Fi router or a WT-100.

Workflow Resolution:

Use a Wi-Fi router or a WT-100 for the wifi connection with the FC-5000

Required Configurations:

OS:

OS v16077 and above

Software:

[MAGNET Enterprise](#)

[MAGNET Field v3.2.1](#) and above

[MAGNET Field Site v3.2.1](#) and above

[MAGNET Field Layout v3.2.1](#) and above

[MAGNET Field GIS v3.2.1](#) and above

[MAGNET Office v3.2.1](#) and above

[MAGNET Office Takeoff and Mass Haul v3.2.1](#) and above

[MAGNET Office Tools v3.2.1](#) and above

[MAGNET Office Layout v3.2.1](#) and above

[MAGNET Relay v3.2.1](#) and above

[MAGNET Mobile Exchange v3.2.1](#) and above

[TRU v3.0.2](#) and above

Created April 8, 2016