

FC-600

Field Computer

Operator's Manual

Copyright © August 2020 Topcon, Inc. All rights reserved.
Information is subject to change without notice.

Topcon® is a registered trademark of Topcon, Inc. FC-600 field computer is a recognized trademark of Topcon, Inc.

Android™ and Google Play are trademarks of Google LLC.

The *Bluetooth*® word mark is owned by the Bluetooth SIG, Inc. and any use of such marks by Topcon, Inc. is under license.

The names of other companies and products mentioned herein may be the trademarks of their respective owners.



WARNING! This symbol indicates that failure to follow directions could result in serious injury.



CAUTION: This symbol indicates that failure to follow directions could result in damage to equipment or loss of information.

Part Number: JSI 29832-00, TPS 1044634-01



Topcon Positioning Systems, Inc.

tel: 800.443.4567 | web: www.topconpositioning.com

7400 National Drive, Livermore, CA 94550

Contents

1	Getting Started	1
	The Anatomy of the FC-600	2
	Perform Initial Tasks	4
2	Standard Features	7
	Operating System	8
	Preloaded Apps	8
	Installing Apps	9
	Display and Touchscreen	13
	Keypad Features	15
	Power Management	17
	LED Activity Indicators	18
	Data Storage Options	18
	Bluetooth [®] Wireless Communication	19
	Wi-Fi Wireless Networking	20
	File Sharing	20
3	Storage, Maintenance, and Recycling	21
	Storing the FC-600 for More than Two Weeks	22
	Cleaning the FC-600	22
	Recycling the FC-600 and Batteries	23
4	Warranty and Repair Information	25
	Warranty Exclusions	26
	Remedy	27
	Limitation of Liability	27
	Warranty Repairs	28
	Repairing the FC-600	29
5	Warnings and Certifications	31
	Battery Warnings	32
	Wall Charger Warnings	33

6 Specifications	37
FC-600 Field Computer Specifications.	38
Index	43

1

Getting Started

Getting Started

The FC-600 Field Computer powered by Android™ features *Bluetooth*® wireless technology, Wi-Fi, and a numeric keypad. Standard accessories include a lithium-ion battery pack, AC wall charger, USB micro client sync cable, tripod hook, hand strap, and a capacitive blunt tip stylus and tether.

The Anatomy of the FC-600

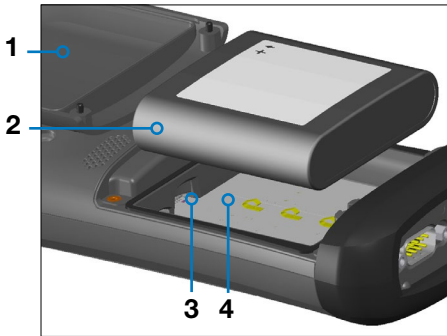
Front and Back Features



- 1 Bumper, Top
- 2 Touchscreen
- 3 Keypad
- 4 Sensor (option)
- 5 Microphone
- 6 Power Button
- 7 LED Indicators (charging indicator on the right, status indicator on the left)

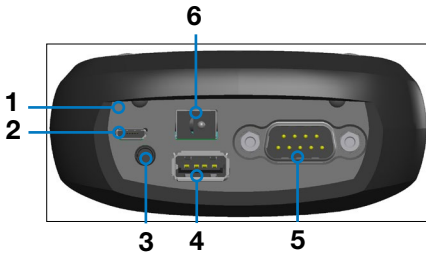
- 8 Speaker
- 9 Screw Holding Battery Door in Place (1 of 4 captive screws)
- 10 Hand Strap with Stylus Holder and Tether Ring
- 11 Door to Battery Compartment and SD Card Slot

Battery Compartment and Card Slots



- 1 Battery Door, Screws, Hand Strap (door removed)
- 2 Battery Pack
- 3 SD/SDXC Card Slot, Micro
- 4 Battery Compartment

Connector Module



- 1 Connector Module
- 2 USB Client, Micro
- 3 Microphone/Speaker Jack
- 4 USB Host, Full Size
- 5 9-pin Serial Port
- 6 12-24V DC Jack

Perform Initial Tasks

When you receive your FC-600, perform the tasks outlined in this section before first use.

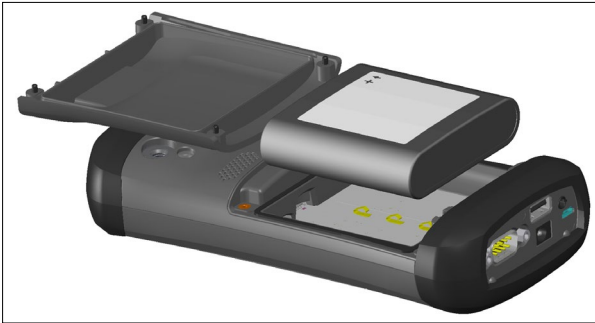
Install the Battery Pack and SD Card

The FC-600 uses a rechargeable Li-Ion battery pack. Install and charge the battery pack as follows:

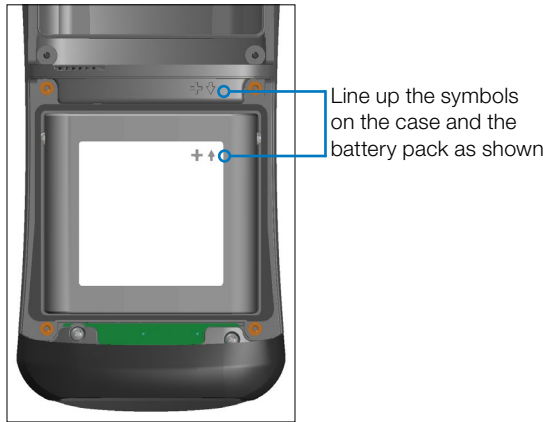
1. The battery compartment is accessed from the back of the handheld. Loosen the four captive screws holding the battery compartment door in place using a #1 Phillips screwdriver. Remove the door. You do not need to remove the hand strap.



CAUTION: The FC-600 is not sealed against water and dust when the battery door is not installed.



2. If you are using a micro SD card for additional memory, you can install it now before you install the battery pack or at another time. See more details about installing an SD card, see [“Data Storage Options” on page 18](#).
3. Place the Li-Ion battery pack in the compartment. Make sure the symbols on the battery pack label align with the symbols inside the compartment.



4. Replace the door and tighten the screws.

The red LED on the keypad blinks when the battery pack is charging. Charge the battery pack for 4-6 hours at room temperature.

2

Standard Features

Standard Features

This chapter discusses the standard features included on all FC-600 models.

Operating System

This FC-600 is powered by the Android Open Source Project (AOSP) operating system. Topcon chose this operating system because of its versatility and familiarity among users.

Turn on, Power Off, or Restart

To turn the FC-600 on, press and release the power key. On the Lock Screen, swipe up to reveal the Home Screen.

Press and briefly hold the power key to select *Power Off* or *Restart*.

Note: The display automatically goes to sleep after a set amount of time passes (you can adjust this in Settings). Press the power key and the lock screen appears. After you swipe up, the last screen open is shown.

Preloaded Apps

The FC-600 comes with the following preloaded apps:

- Calculator
- Calendar
- Clock
- Contacts
- Downloads
- Email
- Files
- Gallery
- Music
- Opera (web browser)
- Search
- Settings
- Sound Recorder

Note: Software on individual units may vary from this list.

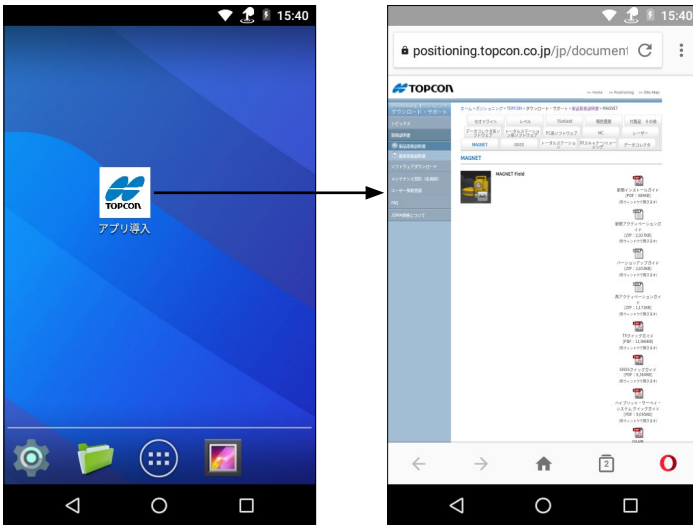
Installing Apps

The FC-600 is powered by the Android Open Source Project (AOSP). This project was created and is still maintained by Google. It is at the core of every Android OS. However, many Android devices have another layer, called Google Mobile Services (GMS). This is a suite of Google apps with proprietary features that are owned by Google. The FC-600 doesn't have GMS, which means that it doesn't have Google Play.

Although Google Play is a convenient and familiar way to download Android apps, it is not the only way.

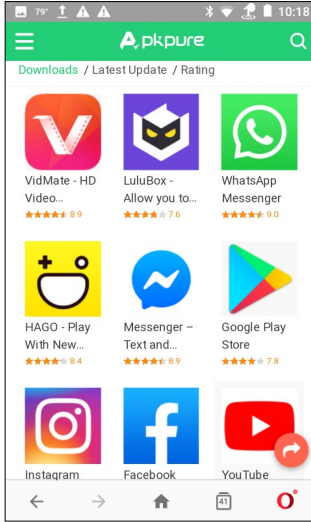
Topcon App Information

Your FC-600 came preloaded with a widget to take you to a Topcon information and documentation page for Magnet Field.



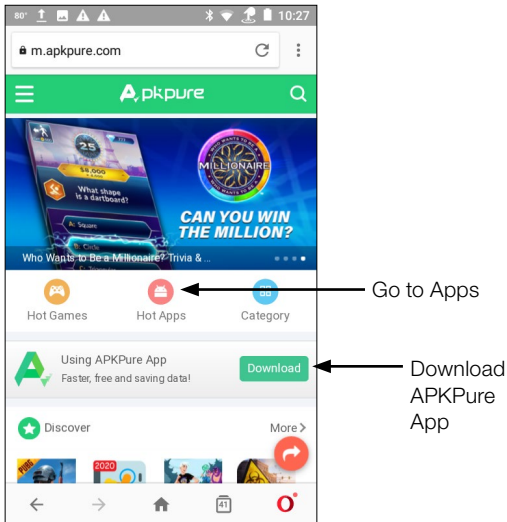
APKPure

In the APKPure app store, you will find many of the same apps available through Google Play.



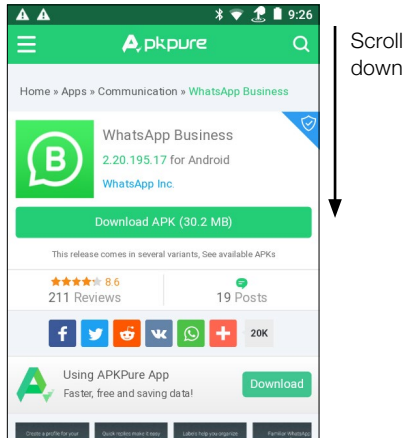
To access the APKPure store, go to apkpure.com.

On the home screen, you can tap on *Hot Apps* to go to the main app store or download the APKPure App for ongoing convenience.



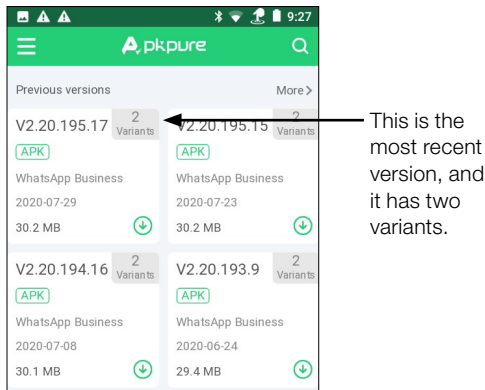
Note: If APKPure doesn't install after downloading, you may need to change a security setting. Go to Settings > Security. Turn on Unknown Sources. This allows the FC-600 to accept installation of apps from a less familiar source. If desired, disable this setting after installing APKPure.

APKPure App Versions on the FC-600

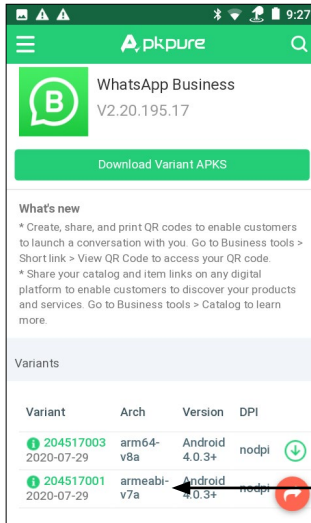


Only specific versions of apps in the APKPure store will work with the FC-600, which supports apps built using the **armeabi-v7a** architecture. To find the correct version, do the following:

1. Tap on the app you wish to download.
2. On the app page, scroll down to *Previous Versions*.
3. Select the most recent version that has variants.



4. Download the **armeabi-v7a** variant of the app.



Download the armeabi-v7a variant.

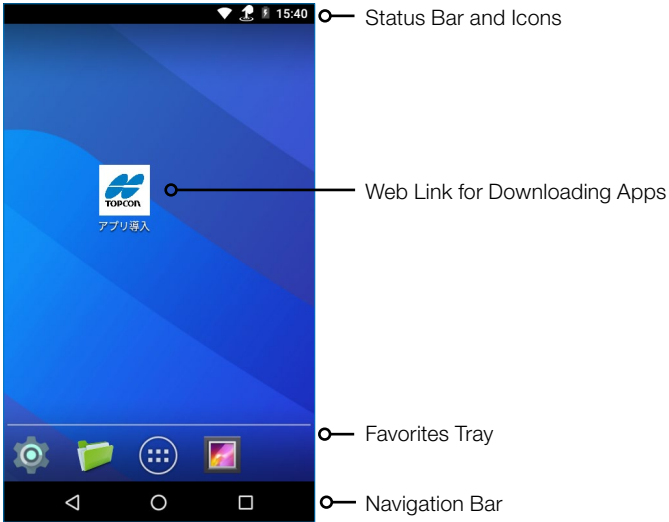
Other options for installing apps onto your FC-600 include the Amazon App Store, app developer webpages, and side loading apps by downloading them to a PC and then sharing them via USB or Flash drive to your FC-600. Android apps use the extension .apk.

Display and Touchscreen

To adjust display settings including brightness, wallpaper, sleep interval, font size, and orientation, go to *Settings > Display*.

Home Screen

The Home screen consists of the following elements:



Touchscreen Touch Control Setting

To adjust the Touchscreen Control setting, go to *Settings > Touch Control*. Select the profile you want the screen optimized for: Finger, Stylus, or Wet.

Note: When using the FC-600 in wet conditions, you must use your finger or the blunt tipped stylus that is included. A hard-tipped stylus will not work. Other third party styli might work with the FC-600 touch profiles.

Disabling and Enabling the Touchscreen

The touchscreen on the FC-600 can be disabled. This is useful when you are running an application and you want to see the screen while avoiding accidental touchscreen activation. The touchscreen can also be disabled for cleaning purposes.

To disable the touchscreen, it is necessary to program one of the programmable keys to provide this functionality.

1. Go to Settings > Keypad.
2. Select a key to program (P1–P8).
3. Scroll up and select Touchscreen Enable/Disable.

This programmed key will now function as the On/Off switch for the touchscreen.

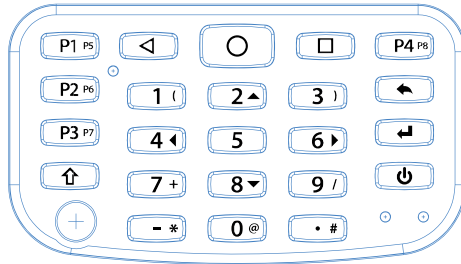
While the touchscreen is disabled, the following icon displays in the Status bar:



Keypad Features






The FC-600 has a sealed, backlit numeric keypad with function keys. Most of the keys are programmable.

To reprogram keys, go to *Settings > Keypad*.






The following table lists default settings for each key:

Button	Press and Release	Shift Function ↑
○	Home	Home
◀	Back	Back
□	App select	App select
P1 P5	Left	Brightness up
P2 P6	Up	Brightness down
P3 P7	Down	Tab
P4 P8	Right	Volume up
2 ▲	2	Up
4 ◀	4	Left
6 ▶	6	Right
8 ▼	8	Down
↶	Backspace (delete)	Volume down
↵	Enter	Enter

Button	Press and Release	Shift Function 
	Shift (Function) <ul style="list-style-type: none"> ■ Use specific shift function: Press and release  first, then press and release the button with the desired shift function. ■ Turn shift function on for all keys: Press and release  twice. To turn shift off, press and release again. See green LED description	See description of the specific buttons
	<ul style="list-style-type: none"> ■ Power ■ Restart 	None

The following functions are only available via programmable keys:

Volume Control

Control the volume on the FC-600 using the programmable keys. The default volume keys are P8 ( + P4) for *volume up* and  +  for *volume down*. The keys can be customized according to what is most comfortable for you by going to *Settings > Keypad*.

Screenshots

Taking screenshots on the FC-600 is enabled via the programmable key\’s. There is no default key for taking screenshots. To enable this function:

1. Go to *Settings > Keypad*.
2. Select a key you would like to program to take screenshots (P1–P8).
3. Scroll up and select *Screenshot*.

Power Management

The FC-600 uses a Li-Ion rechargeable battery pack. Battery life on a full charge can be 20 hours or more. This varies depending on the backlight, open applications, and radio usage.

! **CAUTION:** Only use batteries designed for the FC-600 from an approved vendor. Use of non-approved batteries will void your product warranty.

Charging the Battery Pack

The Li-Ion battery pack is charged most efficiently at room temperature (68°F or 20°C), but it will still charge at any temperature between 32° and 122° F (0° to 50° C). The battery pack may not charge outside of this range.

It is not possible to overcharge the FC-600 battery pack.

Removing the Battery for Long-Term Storage

To power off the FC-600 for long-term storage, follow these steps:

1. Press and briefly hold the power button and select *Power Off*.
2. Take out the battery pack and store it in a cool, dry location.
3. When you are ready to power on the FC-600, replace the battery pack. Plug in the AC wall charger and connect it to the FC-600 BEFORE you power it on. Press the power button, and the unit will start to boot up.

! **CAUTION:** Power-off the FC-600 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

How to Handle a Locked Up Unit

If the FC-600 is completely stuck and won't respond, hold the power key down for 2 to 3 seconds until the Power menu appears. Select *Power Off*. If that doesn't work, hold the power key down for 10 seconds. This causes a hardware shut off. Press the power key again to power it on.

! **CAUTION:** Forcing a shut-down while the unit is running can cause damage to the device. NEVER do this to power off an FC-600 in normal circumstances.

LED Activity Indicators

LED activity indicators are located on the keypad underneath the power button.



Red LED on the right (associated with power adapter):

- Blinking: AC adapter is plugged in, and the battery is charging
- Solid: AC adapter is plugged in, and the battery is full (not charging)

Green LED on the left (associated with shift functions):

- Solid: When you press the shift key, the green LED lights up and stays on until another key is pressed. If the shift function is locked, the green LED stays on.

Blue LED on the left (associated with notifications):

- The blue LED is available for notifications as controlled by individual apps.

Data Storage Options

Flash Data Storage

The FC-600 has 16 GB of internal flash data storage. Go to *Settings* > *Storage* to see how much storage is available, and how it is being used (storing Apps or Images, for example).

SD/SDXC Card

The FC-600 has a slot for a micro SD/SDXC card located in the battery compartment. To insert or remove a card, follow these steps:

1. Power off the handheld by holding the power button until the Power menu appears and selecting *Power Off*.



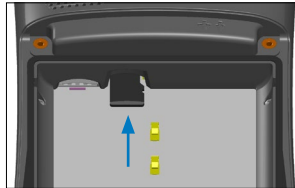
CAUTION: Power-off the FC-600 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

2. Loosen the screws to the battery compartment, and remove the door. The hand strap remains attached.



CAUTION: The FC-600 is not sealed against water and dust when the battery door is not installed properly.

3. Remove the battery pack.
4. An image on the battery compartment label shows the correct location and orientation for the SD card (slot on the right). Push the card into the slot to insert it. To remove the SD card, pull it out.



5. Replace the battery pack, and attach the battery door.
6. Power up the handheld.

Bluetooth® Wireless Communication

The FC-600 has built-in *Bluetooth*® wireless technology. It has a tested range of 100 feet (30 meters), but actual range varies depending on the output of both paired devices.

Test your FC-600 with the devices you connect it with. You may find the actual range extends far beyond the tested range.

Pairing a Device

To pair the FC-600 and another device using *Bluetooth* technology:

1. Turn both devices on.
2. Make *Bluetooth* discoverable on both devices. *Bluetooth* on the FC-600 is off by default. To activate it, go to *Settings > Bluetooth*.
3. In the *Bluetooth* settings screen, a list of all *Bluetooth* devices within range is shown. Tap on the name of the device in the list that you would like to pair with. If prompted, enter the PIN or pass code of the device you want to pair with.

The FC-600 should now be paired with the device.

Wi-Fi Wireless Networking

The FC-600 has a built-in Wi-Fi antenna, which allows it to connect to 2.4 GHz Wi-Fi networks.

Connecting to a Wi-Fi Network

To use Wi-Fi, you need to be in range of a Wi-Fi access point to make a connection. To set up Wi-Fi on the FC-600, follow these steps:

1. Go to *Settings > Wi-Fi*.
2. Toggle the radio button in the upper left corner to *On*.
3. The FC-600 automatically starts scanning the area for available Wi-Fi networks and displays a list.
4. Select the network you want to use and enter the network password (for locked networks). The FC-600 remembers the Wi-Fi network connections created.

Wi-Fi can be turned off and on and settings can be managed from *Settings > Wi-Fi* screen. Tap the network the FC-600 is currently connected to in order to view information like *Link speed*. Tap and hold to view other options like *Modify network*.

File Sharing

As with other Android devices, file sharing with the FC-600 is fairly straight forward. The easiest method for sharing files directly with a PC is via micro USB cable. Once the FC-600 is connected to the PC over the USB cable, the PC will ask permission and then recognized the FC-600 as it would an external drive.

Other options for file sharing are USB flash drive, *Bluetooth* wireless communications, cloud services, app synching, and email.

3

Storage, Maintenance, and Recycling

Storage, Maintenance, and Recycling

Follow the instructions in this chapter to properly maintain and recycle the FC-600.

Storing the FC-600 for More than Two Weeks

To store the handheld for two weeks or more, complete the following steps:

1. Charge the battery pack 30 to 50 percent.
2. Close all running programs, and power off the handheld by holding the power button until the Power menu appears and selecting *Power Off*.



CAUTION: Power-off the FC-600 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

3. Remove the battery pack.
4. Place the battery pack in a dry location.

Cleaning the FC-600

Touchscreen

1. Rinse the touchscreen in a slow stream of running water to loosen and rinse off any mud, grit, or other abrasive.
2. Apply warm water or a mild cleaning solution to a microfiber cloth and gently wipe off the touchscreen.
3. Rinse with water and dry with a microfiber cloth.



CAUTION: Do not use abrasive pads, soft bristle brushes, or harsh cleaning solutions on the touchscreen.

Case, Bumpers, and Connector Module

Make sure the battery door is securely installed. Use warm water, a mild soap, and a soft bristle brush to clean the case, bumpers, and connector module.



CAUTION: Do not direct a high-pressure stream of water at the device to clean it. This action could break the seal, causing water to get inside the device and voiding the warranty.



CAUTION: Exposure to some cleaning solutions may damage your device, including automotive brake cleaner, isopropyl alcohol, carburetor cleaner, and similar solutions. If you are uncertain about

the strength or effect of a cleaner, apply a small amount to a less visible location as a test. If any visual change becomes apparent, promptly rinse and wash with a known mild cleaning solution.

Recycling the FC-600 and Batteries

When the FC-600 reaches the end of its life, it must not be disposed of with municipal waste. It is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. If you cannot find a location, contact Topcon for information about disposal.

The Li-Ion battery packs for your FC-600 are recyclable. Avoid placing them in the trash or municipal waste system.

4

Warranty and Repair Information

Limited Product Warranty

Topcon, Inc. (“TPS”) warrants that the FC-600 Field Computer shall be free from defects in materials and workmanship, under normal intended use, for a period of 24 months from the date of shipment.

TPS warrants that the following items shall be free from defects in materials and workmanship, under normal intended use, for a period of ninety (90) days from the date of shipment:

- battery packs,
- media containing the FC-600 programs,
- desktop computer programs,
- user documentation, and
- accessories.

Warranty Exclusions

This warranty shall not apply if:

- (i) the product has been set up improperly or has been improperly installed or calibrated,
- (ii) the product is operated in a manner that is not in accordance with the user documentation,
- (iii) the product is used for a purpose other than for which it was designed,
- (iv) the product has been used in environmental conditions outside of those specified for the product,
- (v) the product has been subject to any modification, alteration, or change by or on behalf of customer (except and unless modified, changed or altered by TPS or under direct supervision of TPS),
- (vi) the defect or malfunction results from misuse or accident,
- (vii) the serial number on the product has been tampered with or removed, or
- (viii) the product has been opened or tampered with in any way.

This warranty is exclusive and TPS will not assume and hereby expressly disclaims any further warranties, whether express or implied, including, without limitation, any warranty as to merchantability, fitness for a particular purpose, non-infringement

or any warranties arising from the course of performance, dealing, or usage of trade. TPS specifically makes no warranties as to the suitability of its products for any particular application. TPS makes no warranties that

- its products will meet your requirements or will work in combination with any hardware or applications software products provided by third parties,
- the operation of its products will be uninterrupted or error free, or
- all defects in the product will be corrected.

TPS shall not be responsible for software, firmware, information, or memory data contained in, stored on, or integrated with any products returned to TPS for repair, whether under warranty or not.

Remedy

In the event a defect in materials or workmanship is discovered and reported to TPS within the specified warranty period, TPS will, at its option, repair the defect or replace the defective part or product. Replacement products may be new or reconditioned. TPS warrants any replaced or repaired product for a period of ninety (90) days from the date of return shipment, or through the end of the original warranty period, whichever is longer.

Limitation of Liability

To the fullest extent allowed by law, the obligation of TPS shall be limited to the repair or replacement of the product. TPS shall in no event be liable for special, incidental, or consequential, indirect, special or punitive damages of any kind, or for loss of revenue or profits, loss of business, loss of information or data, or other financial loss arising out of or in connection with the sale, installation, maintenance, use, performance, failure, or interruption of any product. Any responsibility and/or liability of TPS shall, in connection with a warranted product, be limited in the maximum amount to the original purchase price.

Warranty Repairs

To obtain warranty repair or service on the FC-600, submit a repair order on our website at

<https://www.topconpositioning.com/support>

or contact an authorized repair center within the applicable warranty period. Products returned for repair or service without proper authorization may acquire an additional handling fee and/or delay in the repair. The customer is responsible to prepay all shipping costs when sending equipment to a repair center. The repair center will return the repaired equipment by the same method it was received with costs of shipping prepaid.

Governing Law

This warranty is governed by the laws of California, U.S.A. and excludes the United Nations Convention on Contracts for the International Sale of Goods. The courts of California shall have exclusive personal jurisdiction in case of any disputes arising out of or in connection with this warranty.

Services and Materials Provided Under Warranty

- Analysis of problem by service technician
- Labor and materials required to fix defective parts
- Functional analysis performed after repair
- Repair turnaround within 10 working days of receipt unless special circumstances exist
- Shipping costs to return device to customer

Warranty Information

Warranty information for the FC-600 Field Computer is located on our website at

<https://www.topconpositioning.com/support>

You can evaluate and order warranty extensions, check warranty status, and view warranty terms and conditions.

Repairing the FC-600



CAUTION: Do not attempt to repair the FC-600 yourself. This action voids the warranty.

Information about repairs, upgrades, and evaluations is located on our website at

<https://www.topconpositioning.com/support>

You can locate a repair center, submit a repair order, check repair status, view terms and conditions, get shipping instructions, and view lead times.

Before returning a unit, please get permission by submitting a repair order from our website and waiting for confirmation or by contacting a repair center directly. Be prepared to provide the following information:

- Product serial number (inside the battery compartment; also found in System Information screen as described on the following page)
- Your name
- Name and shipping address of company/university/agency
- Best contact method (phone, fax, email, cell/mobile)
- Clear, highly-detailed description of the repair or upgrade
- Credit card/purchase order number and billing address (for a repair or upgrade that is not covered by the standard warranty or an extended warranty policy)

System Information for your FC-600

When you contact a repair center, you need some unique system ID information for your FC-600 (serial number, model number, etc.). Go to *Settings > About this device*. Information about software, hardware, the battery, the network and radio, regulatory information, and legal information can be viewed.

5

Warnings and Certifications

Product Warnings

Follow the warnings in this chapter to use the FC-600 and accessories safely.



Battery Warnings

WARNING! This device is for professional use only.

This device comes with a lithium ion rechargeable battery pack. To reduce the risk of fire or burns, do not disassemble, crush, puncture, short external contacts, or expose the battery pack to fire.

Do not disassemble, open, crush, bend, deform, puncture, or shred.

Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.

Only use the battery for the system for which it is specified.

Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.

Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.

Replace the battery only with another battery that has been qualified with the system.

Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.

Promptly dispose of used batteries in accordance with local regulations.

Battery usage by children should be supervised.

Avoid dropping the battery. If the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.

Improper battery use may result in a fire, explosion or other hazard.



CAUTION: Risk of explosion if battery is replaced by incorrect type.

Dispose of used batteries according to the instructions.



Wall Charger Warnings

WARNING! To reduce the risk of personal injury, electrical shock, fire or damage to the equipment:

Plug the wall charger into an electrical outlet that is easily accessible at all times.

Do not place anything on the wall charger cord or any of the other cables. Arrange them so that no one may accidentally step on or trip over them.

Do not pull on a cord or cable. When unplugging the wall charger from the electrical outlet, pull on the plug, not the cord.

Use only wall chargers intended for the FC-600. Using any other external power source can damage your product and void your warranty.

Certifications and Standards

FCC - United States

In compliance with the FCC rules 47 CFR 15.19(a)(3), the statements that follow must appear on the device or in the user documentation.

This device complies with Part 15 of the FCC Rules. Operation of this equipment is subject to the following two conditions:

1. The device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

In compliance with the FCC rules, 47 CFR 15.105(b), the user must be notified that this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

In compliance with the FCC rules, 47 CFR 15.21, the user must be notified that changes or modifications to the Rugged Handheld that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Only approved accessories may be used with this equipment. In general, all cables must be high quality, shielded, correctly terminated, and normally restricted to two meters in length. Wall chargers approved for this product employ special provisions to avoid radio interference and should not be altered or substituted.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada

This device complies with ISED licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

In compliance with Industry Canada rules, the following statement must appear on the device or in the user documentation:

This Class B digital apparatus complies with
Canadian ICES-003.

Radio Frequency Safety

This device has been evaluated for use in close proximity to the body. Use only accessories approved by Topcon. The use of third party accessories may not comply with FCC and international RF exposure requirements. To comply with FCC and other national

RF exposure requirements, do not co-locate this device with other transmitters.

This device operates in compliance with the radio frequency exposure limits for an uncontrolled environment. Users must follow instructions provided in the user documentation to satisfy compliance with radio frequency exposure requirements.

There cannot be any alteration to the authorized antenna system.

CE Marking (European Union)



Products bearing the CE marking comply with EU Directive 2014/53/EU.

CE compliance of this device is valid only if powered with/by a CE-marked wall charger provided by the manufacturer. Cables connecting to the USB host port must use a ferrite core/bead on the cable. The ferrite core must be placed on the cable near the end that connects to the FC-600.

6

Specifications

FC-600 Field Computer Specifications

FEATURE	SPECIFICATION
Operating System	<ul style="list-style-type: none"> ■ Android™ 7.1 AOSP by Google ■ Japanese, English, French, German, Spanish, Brazilian Portuguese
Processor	<ul style="list-style-type: none"> ■ 1.2 GHz Quad Core ARM Cortex A9 i.MX6
Memory	<ul style="list-style-type: none"> ■ 2 GB RAM
Primary Data Storage	<ul style="list-style-type: none"> ■ 16 GB Flash storage
Micro SD/SDXC Card Slot	<ul style="list-style-type: none"> ■ Micro SD/SDXC slot, user accessible
Physical Features	<ul style="list-style-type: none"> ■ Dimensions: 3.6" wide x 7.25" long x 1.5" thick (91 mm x 184 mm x 38 mm) ■ Weight, with battery: 1.3 lb (590g) ■ Durable hardened plastic in a shear-proof, shock-resistant design ■ Strong chemical resistance ■ Easy to grip ergonomic form factor ■ Impact-absorbing bumpers ■ Comfortable, wide hand strap
Display	<ul style="list-style-type: none"> ■ Active viewing area: 4.3" (109 mm) color WVGA LCD TFT ■ 800 x 480 pixel resolution ■ LCD backlight ■ Outdoor viewable ■ Portrait (default) or landscape orientation
Touchscreen	<ul style="list-style-type: none"> ■ Capacitive touch interface optically bonded to display to increase visibility ■ Strengthened glass ■ Scratch-resistant screen ■ Touchscreen disable function ■ Touchscreen profile options
Keyboard	<ul style="list-style-type: none"> ■ Numeric keypad ■ Modifier function ■ Programmable keys and LEDs ■ Backlight ■ On-screen keyboard option

FEATURE	SPECIFICATION
Batteries	<ul style="list-style-type: none"> ■ Rechargeable Li-Ion battery pack, 3.6VDC 12000mAh, 43.2Whr ■ Run time of up to 20 hours ■ Charging time 4 to 5 hours ■ Built-in battery intelligence ■ User-replaceable, field rechargeable
Connector I/O Module	<ul style="list-style-type: none"> ■ RS-232C 9-pin D-sub connector, +5VDC @ 500 mA available on ring in pin 9 via software configuration ■ USB Host (Full A) ■ USB Client (Micro B) ■ 12-24VDC jack for power input and battery charging ■ 3.5mm audio jack, supports speaker/microphone or stereo output (pin detect) ■ Docking contacts for charging ■ OEM configurable/customizable
Wireless Connectivity	<ul style="list-style-type: none"> ■ Bluetooth® wireless technology 4.2 BR/BDR/BLE “Smart Ready,” Class 1.5, range greater than 100 feet (30 m) ■ Wi-Fi 802.11b/g/n (2.4 GHz), U.S. and International
Audio	<ul style="list-style-type: none"> ■ Speaker ■ Microphone ■ 3.5 mm audio jack, supports stereo headset and microphone at the same time (speaker disable)
LED Activity Indicators	<ul style="list-style-type: none"> ■ Red: power applied/charging status ■ Blue: notification, application programmable ■ Green: shift function, application programmable

FEATURE	SPECIFICATION
Temperature Specifications	<ul style="list-style-type: none"> ■ Operating Temperature: -22° to 140° F (-30° to 60° C). <i>Note: Bluetooth[®] wireless technology is rated to -4° to 122° F (-20° to 50° C).</i> ■ Storage Temperature: -22° to 158° F (-30° to 70° C) ■ Battery Charging Temperature: 32° to 122° F (0° to 50° C) ■ Max use temperature for switching the power supply is 104° F (40° C)
Shock Resistance	<ul style="list-style-type: none"> ■ Withstands multiple 5 foot (1.5 m) drops to concrete
Environmental Ratings and Standards	<ul style="list-style-type: none"> ■ IP68 rating, waterproof and dustproof ■ MIL-STD810G test procedures: <ul style="list-style-type: none"> - Method 500.5 Low Pressure (Altitude) - Method 501.5 High Temperature - Method 502.5 Low Temperature - Method 503.5 Temperature Shock - Method 506.5 Rain - Method 507.5 Humidity - Method 510.5 Sand and Dust - Method 512.5 Immersion - Method 514.6 Vibration - Method 516.6 Shock
Warranties	<ul style="list-style-type: none"> ■ 24 months for FC-600 ■ 90 days for accessories ■ Extended service and maintenance plans

FEATURE	SPECIFICATION
Software Included	<ul style="list-style-type: none"> ■ Calculator ■ Calendar ■ Clock ■ Contacts ■ Downloads ■ Email ■ Files ■ Gallery ■ Music ■ Opera (web browser) ■ Search ■ Settings ■ Sound Recorder <p>Note: Software on individual units may vary from this list.</p>
Configurations	<ul style="list-style-type: none"> ■ Base with Wi-Fi, Bluetooth, 2GB RAM, 16GB Storage
Certifications and Standards	<ul style="list-style-type: none"> ■ FCC Class B ■ CE Marking (applicable EMC, R&TTE, and LVD directives) ■ Industry Canada ■ EN60950 Safety ■ Bluetooth SIG qualification ■ USB client ■ IP68 waterproof (1.4m for 2 hours) and dustproof ■ Designed to MIL-STD 810G
Standard Accessories	<ul style="list-style-type: none"> ■ Li-Ion battery ■ Hand strap ■ USB micro client sync cable ■ AC wall charger with international plug kit <ul style="list-style-type: none"> - Input: 100-240VAC, 50/60Hz, 0.5A - Output: 12VDC, 1.67A ■ Capacitive stylus and tether ■ Screwdriver ■ Quick Start Guide ■ Owner's Manual (available on Topcon website) ■ Two-year warranty

FEATURE	SPECIFICATION
Optional Accessories	<ul style="list-style-type: none">■ Shoulder strap■ Serial cable■ Vehicle charging adaptor■ Holster case■ Flip cover fitted case■ Tripod hook■ 8GB micro SDHC memory card■ Premium screen protectors <p>See your sales associate for more details on optional accessories.</p>

Note: Specifications are subject to change without notice.

Index

Index

A

- Activity Indicators 18
- Anatomy of the Rugged Handheld 2
- Android ii, 2, 8, 9, 12, 20, 38
- Apps 8–10
 - Installing 9
 - APKPure 10
 - Topcon App Information 9
 - Preloaded 8

B

- Backlight 15, 17, 38
- Battery Pack 2–3, 17, 29
 - Activity Indicators 18
 - Battery Life 17
 - Installation 4
 - Recycling 23
 - Specifications 39, 41
 - Storage 22
 - Warnings 32
 - Warranty 26
- Bluetooth 19, 39, 41
 - Pairing 19

C

- Care and Maintenance 22
 - Cleaning 22–23
 - Storage 22
- Cautions 4, 17, 18, 19, 22, 32
- Certifications and Standards 33
- Cleaning 22
- Connector Module 3, 39
 - Cleaning 22

D

- Data Storage 18

Display 13, 38
Disabling 14

F

Features
Standard 8
File Sharing 20

H

Hardware Features 2–3
Home Screen 13

K

Keypad 15
Programmable Keys 15–17
Disabling Touchscreen 14
Screenshots 16
Volume Control 16

L

Limitation of Liability 27

M

Microphone 39

O

Operating System 8, 38

P

Power Management 17
Battery Life 17
Charging Battery Packs 17
Power Off 8
Product Warnings 32

R

Recycling 23
Repairing 29
System Information 29
RS-232C Port 3, 39

S

- SD Cards 2, 3, 4, 18, 38, 42
- Speaker 2, 39
- Specifications 38–42
- Status Bar 13
- Storing the FC-600 Long Term 17, 22
- System Information 29

T

- Temperature Specifications 40
- Touchscreen
 - Protecting the Touchscreen 22
 - Specifications 38
 - Touch Control Setting 13

U

- USB 2, 3, 12, 20, 35, 39, 41

W

- Warnings 32, 33
- Warranty 26–29
 - Exclusions 26
 - Extended Warranties 28
 - Limitation of Liability 27
 - Remedy 27
 - Repairs 28
 - Services 28
 - Warranty Exclusions 26
 - Warranty Repairs 28
- Wi-Fi 2, 20, 39, 41



©2020 Topcon Corporation • 7400 National Drive • Livermore, CA • 94550 • All rights reserved.

Specifications subject to change without notice. • 1044634-01 Rev A • 8/2020