

FC-1

High-Performance Portable Platform Operation Manual

Ver 1.20



Deviser Part No.: FC-1

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Conventions

This manual has the following conventions for presenting information.

WARNING: A warning alerts you to any condition that could cause personal injury.

CAUTION: A caution alerts you to any condition that could cause a mechanical failure or potential loss of data.

Make sure the AC power supply voltage meet the equipment requirements, otherwise it will cause an equipment failure.

Make sure to plug the power cable into an electrical outlet that has safety grounding before turning on the power switch.

Touch the internal circuit may cause a mechanical failure or personnel injury, so only trained engineers can remove the instrument cover and maintain the instrument.

Guarantee

This instrument is guaranteed for a period of 12 months from the date of shipment. Under warranty, any fault not caused by improper use will be repaired for free.

Liability of the user: Use this instrument according to this instruction manual. When this instrument needs to be repaired, please send it back to our company or our appointed repair center.

The guarantee is limited only to the instrument and does not involve any damage of equipment, personnel and property caused by improper use of the instrument.

Limitation of Guarantee

The warranty is not applicable for the faults resulted by improper use or inadequate maintenance (including software or interface), and unauthorized open of the instrument. Within the 12 months warranty period, calibration, maintenance service and consultation shall be free. After the 12 months warranty period, fees for material and repair workman will be charged reasonably.

The following items are not under warranty:

- A. Damages caused by improper voltage input.
- B. Deformation or damage of panel, switches, devices and case as well as defects involving internal parts caused by external mechanical force (shocking, dropping, and etc.).
- C. Defects caused by unauthorized repair.
- D. Defects caused by the instrument worked beyond the required technology specification.

Updates

Updates, if any, can be downloaded from the Deviser website at:<http://www.deviserinstruments.com>

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1 Introduction

FC-1 high-performance portable platform is developed by the Tianjin Deviser Electronics Instrument Co., Ltd, China. With compact size, superior processing capabilities and highly intuitive interface, the field technicians can perform OTDR, Ethernet testing and other multiservice testing easily and efficiently. The platform meets the needs of professional applications and helps you adapt to a variety of testing needs.

Features and Benefits:

- 7 "(800X480) LCD display.
- Excellent portable design and user-friendly site operation.
- Large-capacity lithium battery with long standby and working time.
- Quick, easy and user-friendly graphical user interface.
- ARM11 hardware + Linux software platform.
- Integrated software tools meet to field testing.
- Remote control can be set up and operated through a browser.

Note: Before using the platform for the first time, please charge, as detailed in the charging section.

2 Basic Feature

2.1 Main Frame

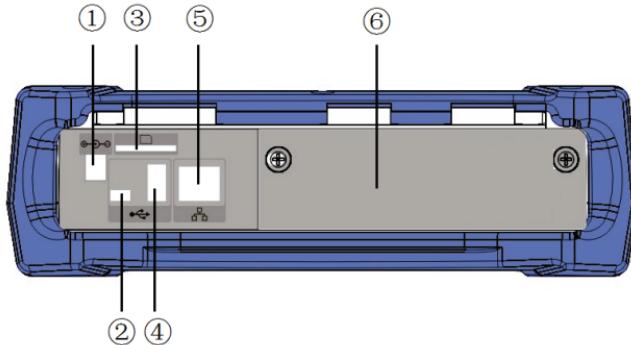


Figure 2.1 Top Figure of Main Frame

①AC adapter jack

②Mini USB interface

③SD jack

④USB interface

⑤Communication RJ45
interface

⑥Function interface card

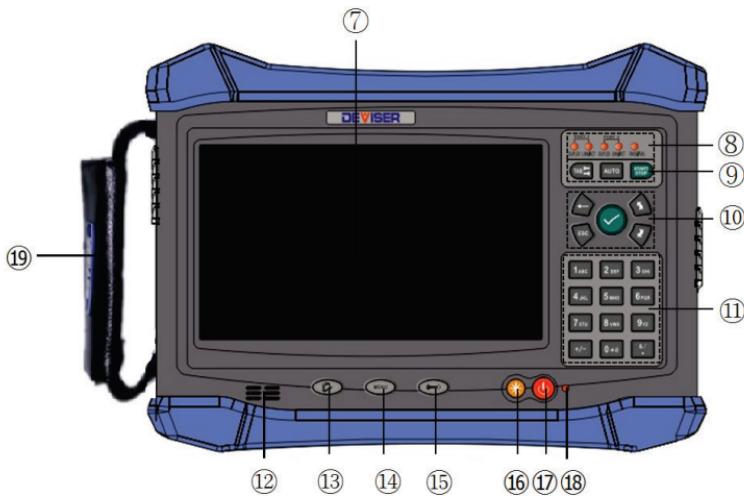


Figure 2.2 Front Figure of Main Frame

- | | |
|----------------------------|--------------------------------|
| ⑦7"LCD color touch screen | ⑧Module function indicators |
| ⑨Module function keys | ⑩Function operation keys |
| ⑪Number and character keys | ⑫Buzzer |
| ⑬File manage key | ⑭Menu key |
| ⑮Configuration key | ⑯LCD brightness adjustment key |
| ⑰Power key | ⑱Charge indicator light |
| ⑲Instrument strap | |

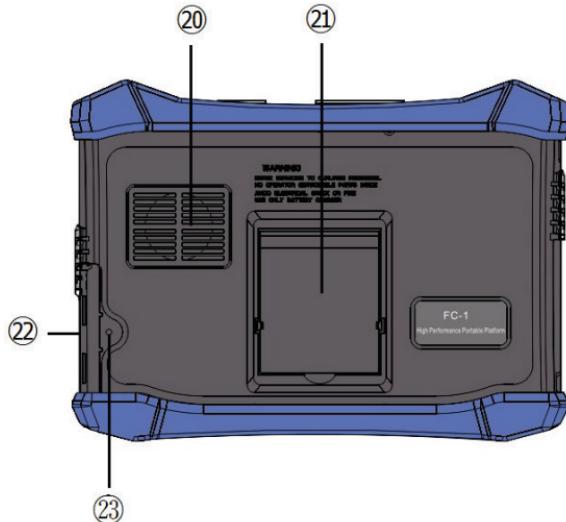


Figure 2.3 Back Figure of Main Frame

⑩Fan

⑪Back support

⑫Battery compartment cover

⑬Battery

compartment

2.2 Keyboard

	Power.
	LCD brightness adjustment. With and keys, to switch the backlight of the LCD between bright and dim.

	Configuration. To achieve the soft keyboard to bring up and disappear.
	Menu. To switch between Chinese and English in main interface.
	File management. To manage the system files, including copy, paste, delete, rename and etc.
	Tab. To switch controls in current selected interface.
	Module function.
Number and character. To type a variety of characters and numbers in text box.	
	Backspace. To delete a character before the cursor in the text box.
	Escape. To exit from the current interface or function.
	Up & down. To switch the current selected list box.
	Confirm. To confirm current operation.

3 Function Description

3.1 Power On and Power Off

3.1.1 Power On

Press the  button on the platform front panel. When you hear the buzzer sounds, the boot screen appears, indicating that the platform is powered on.

3.1.2 Power Off

When platform is working, press the  button at the front panel on the platform. The shutdown screen appears. Press  button on the shutdown screen or  key. The shutdown screen disappears, and the shutdown operation is cancel. Press  button on the shutdown screen or  key. When you hear the buzzer sounds, the screen is off and the platform is powered off.

When platform is working, press the  key at the front panel on the platform for a long time (for more than 5 seconds). When you hear the buzzer sounds, the screen is off, and the platform is directly powered off.

3.2 Main Interface

After the FC-1 high-performance portable platform boot, enter the Chinese main interface. The main interface includes four parts: a status bar, an information panel, an application list area and a switch area.



Figure 3.1 Main Interface

3.2.1 Status Bar

The status bar displays the current network connection status, U disk and SD card status, time, battery power status, screenshot function button and soft keyboard button.

Pressing the screenshot function button on the status bar can achieve the screenshot of the current graphics user interface. The screenshot pictures save to the file as bmp format to store to the platform "Documents" disk. The picture file with date and time of the screenshot as a file name is stored in the folder with the current date as its name.

Pressing the soft keyboard button on the status bar can achieve the soft keyboard to bring up and disappear.

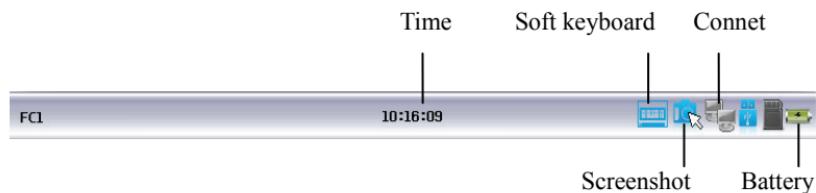


Figure 3.2 Status Bar

	Yes	No
Network connet		
U disk		
SD card		

Table 3.1 Different Connection Status Icon

Battery Power Status	Icon
Charging	
Depletion	
About 1/4 Power	
About 1/2 Power	
About 3/4 Power	
Full Power	

Table 3.2 Different Battery Power Status Icon

3.2.2 Information Panel

The information panel can switch the system language (Chinese or English). It displays an analog clock, date and software version.



Figure 3.3 Information Panel

3.2.3 Application List Area

Application programs are arranged in the list area in two rows and three columns. If they can not be released to the same page, the application programs display in the next page. The page number block just below indicate the current page. Horizontal slide touch screen in the area or press the keys and to switch the pages.

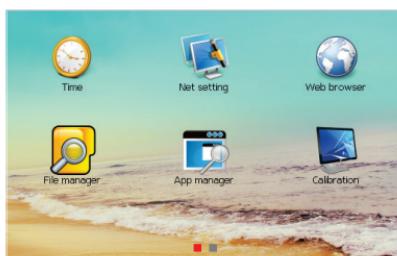


Figure 3.4 Program List Area

3.2.4 Switch Area

Press application icon  to show platform application programs.

Press model icon  to show platform model programs. Press the application icon  /model icon  or  key to switch.



Figure 3.5 Switch Area

3.3 Platform Application Programs

3.3.1 Time

In the first page of application list area, press the icon . You can set the date and time. Press 'OK' after the correct date and time is set, shown as below:



Figure 3.6 Date and Time Setting

3.3.2 Net Setting

In the first page of application list area, press the icon . You can set net configurations, including IP address, subnet mask, gateway IP

address, DNS IP address, and MAC address. Press ‘OK’ after the correct net configurations is set, shown as below:

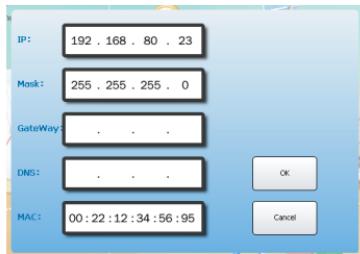


Figure 3.7 Net Setting

3.3.3 Web Browser

In the first page of application list area, press the icon to enter web browser. Press to exit web browser, shown as below:



Figure 3.8 Web Browser

- Note:
1. Make sure the platform communication RJ45 interface is already connected to the network which can access the Internet via a twisted pair.
 2. Make sure the network settings are correct, specific see "3.3.2 Net Setting".

3.3.4 File Manager

In the first page of application list area, press the icon  or  key at the front panel on the platform to open the file manager. The file manager can copy, paste, delete, rename, create folder and etc., shown as below:

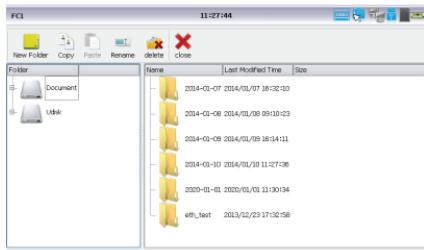


Figure 3.9 File Manager

3.3.5 Application Manager

In the first page of application list area, press the icon  to open the application manager. You can add or update platform model programs. When you add or update a model program, insert U disk or SD card which stores the model program. Press the "Add new model" bottom of list item, and then it turns to white. Press the "Add" button. The program

can identify all model programs existing in the U disk and the SD card automatically, and displays them in a new pop-up list. Select the desired model program, and press the 'Install' button to complete to add or update the model program.



Figure 3.10 Application Manager

- Note:
1. Make sure the U disk and SD card have stored the necessary model program, and the U disk and SD card can be accessed by the platform.
 2. Do not remove the battery when you add or update model programs.
 3. Do not remove the U disk or SD card when you add or update model programs.
 4. In order to complete adding or updating model programs successfully, it is recommended to use the AC adapter, and make sure there is enough free flash memory space in the platform.

3.3.6 Calibration

In the first page of application list area, press the icon  to open the calibration window. Using the touch screen pen press  appearing in the screen. After completing the top left corner, top right corner, bottom right corner, bottom left corner and the middle position of the touch screen calibration, program returns to the main interface, and ‘Please reboot to take effect!’ dialog box is pop-up. Press ‘reboot’ button. The platform automatic reboots, and touch screen calibration is completed.

3.3.7 Picture Viewer

In the second page of the application list area, press the icon  to open the picture viewer, shown as below:

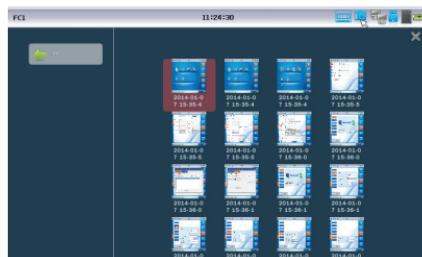


Figure 3.11 Picture Viewer

3.3.8 Calculator

In the second page of application list area, press the icon to open the calculator. Press button or to exit the calculator, shown as below:



Figure 3.12 Calculator

3.3.9 Disk

In the second page of the application list area, press the icon to open the disk information viewer. It can show the used size and the available size in the disk, shown as below:

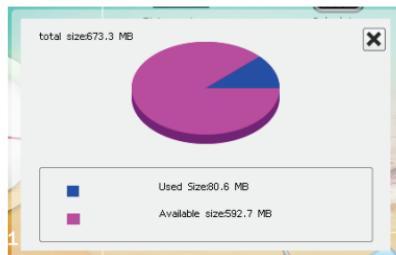


Figure 3.13 Disk Information

3.3.10 Update

In the second page of the application list area, press the icon to open the update dialog box. You can upgrade the firmware or platform program. Insert U disk or SD card which stores the upgrade program. The platform will identify the upgrade program automatically. Press firmware or platform list item, a confirmation dialog box is pop-up. Entering the upgrade process, the platform restarts automatically after the upgrade is completed.



Figure 3.14 Update

- Note:
1. Make sure the U disk and SD card have stored the necessary update program, and the U disk and SD card can be accessed by the platform.
 2. Do not remove the battery when you update the platform.
 3. Do not remove the U disk or SD card when you update the platform.
 4. In order to complete updating successfully, it is recommended to use the AC adapter, and make sure there is enough free flash memory space in the platform.

3.3.11 About

In the second page of application list area, press the icon  to open the 'about' dialog box which shows current software version, shown as below:



Figure 3.15 About

3.4 Soft Keyboard

Press  key at the front panel on the platform or  button at the status bar, and the soft keyboard is pop-up. Press 'CN' bottom to switch

to English input method. ‘CN’ bottom becomes ‘EN’. Press again to switch to Chinese input method. ‘EN’ bottom becomes ‘CN’. Chinese input method is Pinyin input method. Press number and character keys from **0~9** to **9~0** to select the word you need. Pressing **Esc** key again, the soft keyboard disappears, shown as below:



Figure 3.16 Soft Keyboard

3.5 LCD Brightness Adjustment

Press **☀** key at the front panel on the platform to open LCD backlight brightness adjustment window. Press **◀** and **▶** to adjust LCD backlight brightness. This window will be disappear when stop operation for 3 second.



Figure 3.17 LCD Brightness Adjustment

3.6 Charging

When the battery is fully charged, the charge indicator light is green. When the battery power is low, the charge indicator light turns to red. You need to connect the AC adapter to the AC adapter jack on the platform. The charge indicator light is flashing red when the battery is being charged. The charge indicator light turns to green when battery is already fully charged. It takes about 5 hours for full charging.

- Note:

 1. The platform internal battery is a lithium battery. This battery must be charged using a dedicated charger. Using other charger will damage the platform. The platform can not be charged exceed the temperature at 10°C to 35°C range, otherwise it will affect battery life.
 2. It is recommended to charge the platform in the power off status.
 3. Low temperatures may cause a temporary decline in battery capacity, but it will not cause damage to the battery.
 4. When the operating time was significantly shorter than normal, replace the battery.

The platform will shutdown automatically when the battery power is low.

4 Appendix

Instrument Specifications

Specifications	Range
Display	154.08mm*85.92mm (7inches) LCD
Display Resolution	800*480 pixel
Working Temperature	-10 ~ +50 °C
Storage Temperature	-20 ~ +60 °C
Weight	1820g
Dimension	245mm*160mm*63mm
AC Adapter	DC: 12.0V—5A
Battery	7.4V, 7500mAh
Battery Charging Time	5 hours
Battery Working Time	More than 8 hours

Standard Accessories

Standard Accessories	Number
Main Unit with Lithium-ion Battery	1
AC Adapter	1
Touch Screen Pen	1
Operation Manual	1
Portable Instrument Package	1
SD Card	1
Three-wire Power Cord (1.5m)	1

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