FM Scale Mobile

Android App Installation Guide | for 10x, 29x, A10 and G3 Series

Before you start

You need an Android phone or tablet running **Android 6.0 or later**, about 60 MB of free space, and an internet connection for the download. No Google account is required.

Preparing your scale

The app talks to the indicator/scale through its command interface. Parameter numbers below are the same for all supported models:

- **All connection types:** in **F16**, set the interface you will use (WIFI, Bt, or the UART / USB port) to **CMD** (command communication with computer).
- **Wi-Fi / LAN (TCP):** configure the WIFI module (**F40 - F45**): protocol **TCP**, role **Server**. Note the scale's **IP address** (F42) and **port number** (F45) and enter them in the app as Host and Port. Keep the heartbeat connection check **Off**. Restart the indicator/scale after changes.
- **USB cable:** the app's default **Auto** baud setting works with the scale's default serial settings. If you changed the scale's baud rate, set the same value in the app.
- **Bluetooth Classic (SPP):** pair the scale in Android's Bluetooth settings first, then select it in the app. **Bluetooth 4.0 (BLE):** no pairing needed - select the scale directly in the app.

If in doubt, refer to your model's Setup & Calibration Manual or contact your dealer.

Installation - three steps

1. **Download the app.** On your Android device, open the browser and go to **https://fm.com.tw/resource/driversnsoftwares**, then tap **FM Scale Mobile Android App (for 10x, 29x, A10 and G3 Series)** to download the APK file.
2. **Open the downloaded file.** Tap the download notification, or open it from the **Files** app (Downloads folder). If Android asks, allow your browser to **install apps from this source**. This permission is requested only once.
3. **Install.** Tap **Install**, wait a few seconds, then tap **Open**. You will find **FM Scale Mobile** on your home screen afterwards.

About the Google Play Protect message

During installation, Android may show a message such as **"App scanned. This app was not verified by Play Protect"** or ask you to send the app for scanning. This is normal for any app that is distributed directly by the manufacturer instead of through the Google Play Store. The app is published and digitally signed by Fidelity Measurement. Simply tap **Install anyway** (sometimes under **More details**) to continue. It is safe to choose **Don't send** when asked about scanning.

First start

When you first connect to your scale, the app may ask for permissions depending on the connection type: **Nearby devices / Bluetooth** for Bluetooth connections, or **USB access** when a USB cable is attached. Please allow them. A Wi-Fi / LAN TCP connection needs no extra permission.

Updating to a newer version

The app checks for updates automatically and will let you know when a newer version is available. You can also check at any time in **Settings > Check for Update**. Simply download and install the new version - there is no need to uninstall first. The app installs over the old version and **all your settings are kept**.

Indicator/Scale Setup Procedures

Use this section to prepare the indicator/scale before connecting FM Scale Mobile. The parameter numbers and names below follow the FM 29i/29s setup method; equivalent items are used on other supported models.

Common requirement for every connection: In **F16 Communication Ports Setting**, select the interface being used and set its transmission type to **CMD**. FM Scale Mobile obtains data by sending commands such as *j#. Do not select PC, Auto or Manual output mode.

1. Serial / USB

Choose this setup for RS232 through an Android USB-to-serial adapter, or for a supported direct USB-C serial connection.

F16 interface	Select **UART 0**, **UART 1**, or **USB**, matching the physical connector in use.
Transmission type	Set to **CMD**.
Baud rate	Select the required value. Default: **115200**. The app and indicator/scale must match.
Parity	Select **None**, **Odd**, or **Even**. The app and indicator/scale must match.
Data length	Select **7** or **8 bit**. The app and indicator/scale must match. Stop bits are **1**.
Protocol type	Complete the CMD setting sequence. FM Scale Mobile uses the command interface; do not use continuous PC output.

Indicator/Scale procedure

1. Enter internal functions, go to **F16**, and press **Print/M+**.
2. Select the physical interface (UART 0, UART 1 or USB), then select **CMD**.
3. Set baud rate, parity and data length. Press **Print/M+** after each item to save.
4. In the app, select **USB OTG Serial**. Use Auto only when supported; otherwise enter the same serial settings manually.
5. Connect the cable, approve the Android USB permission request, then tap **Connect**.

If there is no response: confirm the correct UART/USB interface was selected, F16 is CMD, RX/TX/GND wiring is correct, and no PC terminal or other app is holding the same connection.

Indicator/Scale Setup Procedures

Bluetooth Classic SPP and Bluetooth 4.0 BLE

2. Bluetooth 2.0 - Classic SPP

F16 interface	Select **BT** and set the transmission type to **CMD**.
F50 Bluetooth Type	Select **BT2.0**.
F50 Working Type	Select **Andro (Android App)**. This configures the module for Bluetooth Classic SPP use.
Bluetooth name / PIN	Set a recognizable device name and PIN, then save the F50 sequence.

Indicator/Scale and Android procedure

1. Complete the F16 and F50 settings. Restart the indicator/scale after changing Bluetooth type or working type.
2. On Android, open **Settings > Bluetooth** and pair with the indicator/scale using its PIN.
3. In FM Scale Mobile, select **Bluetooth Classic SPP**. Auto Detect chooses only a clear paired scale candidate; otherwise use Manual Setting and select the correct paired name and MAC address.
4. Tap **Connect**. The app opens the SPP link and begins command polling automatically.

3. Bluetooth 4.0 - BLE

F16 interface	Select **BT** and set the transmission type to **CMD**.
F50 Bluetooth Type	Select **BT4.0**.
F50 Working Type	Select **iOS**. On this module, iOS is the BLE/GATT app mode and is also used by FM Scale Mobile on Android.
Bluetooth name	Set a recognizable name and complete the F50 save sequence.

Indicator/Scale and Android procedure

1. Complete the F16 and F50 settings above. Restart the indicator/scale after changing Bluetooth type or working type.
2. **Do not pair BLE in Android Bluetooth settings.** BLE discovery and connection are handled inside the app.
3. In FM Scale Mobile, select **Bluetooth 4.0 BLE** and allow the Nearby Devices permission.
4. Use Auto Detect when there is one clear scale-like BLE device. Otherwise use Manual Setting, scan, and select the correct device name and address.
5. Tap **Connect**. Keep the Android device close to the indicator/scale for the first test.

> Bluetooth Classic and BLE are different connection types. A BT2.0 module must use Bluetooth Classic SPP; a BT4.0 module in BLE app mode must use Bluetooth 4.0 BLE. Selecting the wrong type will not connect.

Indicator/Scale Setup Procedures

Wi-Fi / LAN TCP

4. Wi-Fi / LAN TCP

F16 interface	Select **WIFI** and set the transmission type to **CMD**.
F40 Working Mode	Normally select **STA** so the indicator/scale joins the same Wi-Fi/LAN network as the Android device. AP mode may be used for a direct network.
F41 STA settings	Enter the Wi-Fi SSID, authentication/encryption type and password.
F42 Network settings	Select DHCP or Static. Record the indicator/scale IP address. A static/reserved IP is recommended for routine use.
F45 Transport	Set protocol to **TCP**, role to **Server**, and enter the local TCP port. Keep the heartbeat/timeout connection check **Off** for the app connection.

Indicator/Scale and Android procedure

1. Set F16 WIFI to CMD, then configure F40-F45. Press **Print/M+** to save every setting page.
2. Restart the indicator/scale after changing Wi-Fi module settings.
3. Connect the Android device to the same Wi-Fi network. Confirm that the network does not isolate wireless clients from each other.
4. In FM Scale Mobile, select **Wi-Fi / LAN TCP**. Enter the indicator/scale IP address as Host and the F45 local port as TCP Port. The app default port is **8899**, but it must match F45.
5. Tap **Connect**. If connection fails, verify the IP address, port, TCP Server role, Wi-Fi signal, and network firewall/client-isolation settings.

Final check for all methods: The app should show Connected and update the live result. If it connects but does not show valid data, confirm F16 is CMD and the CMD protocol setting is valid. Use only one active connection to the indicator/scale during testing.