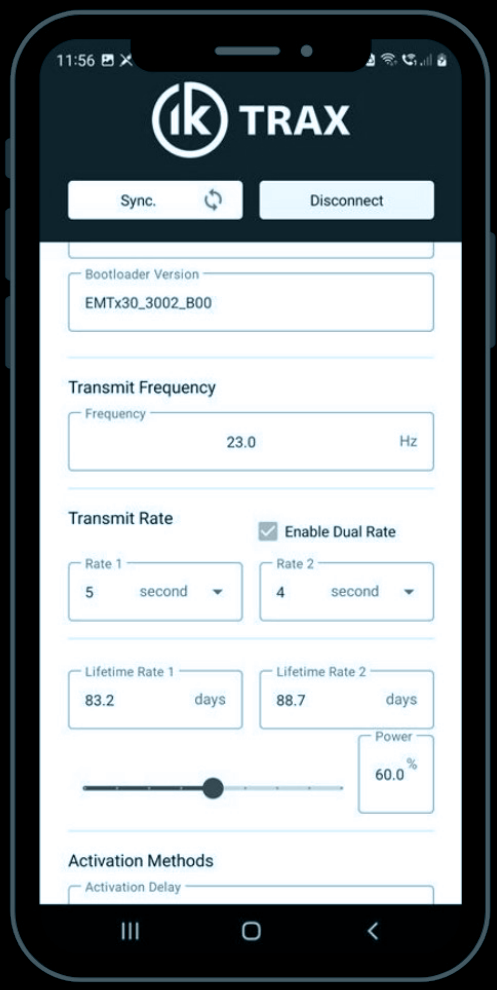
TRAX

Intelligent Pipeline Technology

EMTx Config Android Operating Manual



www.iktrax.com

EMTx_CONFIG_5002			
Rev	**Date**	**By**	**Summary of change**
A00	09/08/22	EI	CR01104 Initial release.
A01	10/04/24	SS	Customizations added, and changed the logo.

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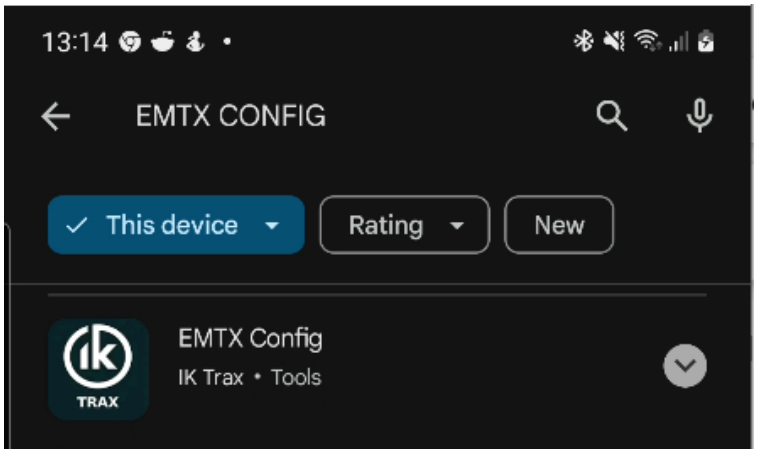
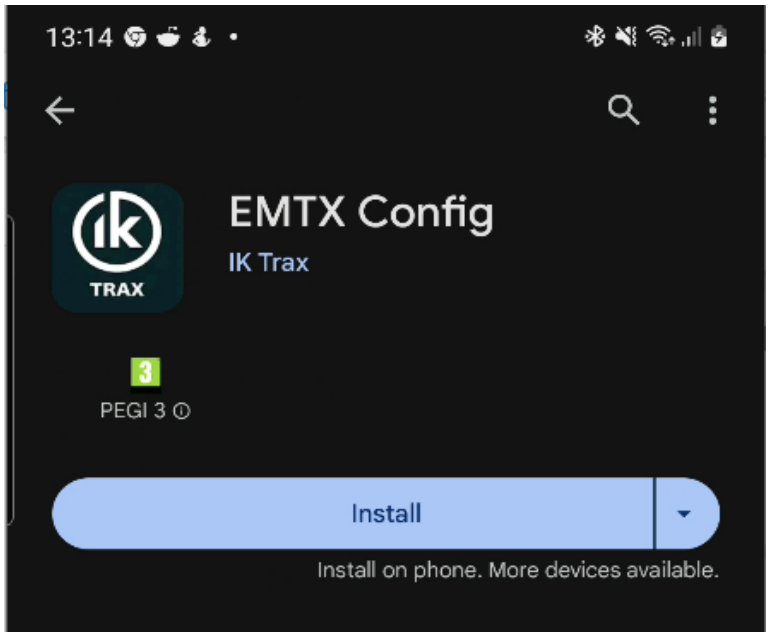
1. GENERAL DESCRIPTION

The IK Trax EMTx Config Android application is used to configure the EMTx series of EM transmitters. The user can configure the transmitter frequency, signal strength, pulse rates, pulse lengths and start delay. With these selected parameters the app can then predict the battery life for your application. The screen capture feature can be used to record the applied transmitter configuration.

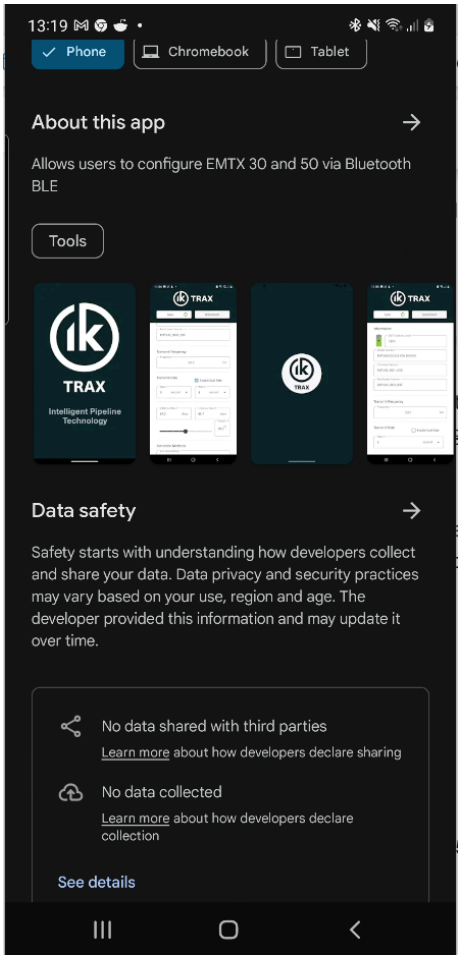
2. INSTALLATION FROM GOOGLE STORE



The app is available on google store under name of EMRX config, the logo displayed in the image.

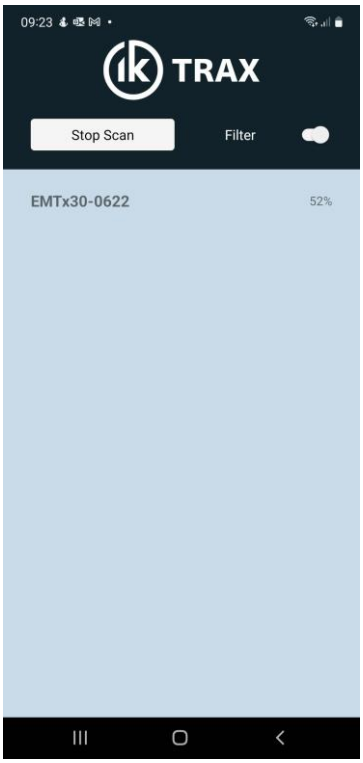


The app can be installed by clicking on the instal button on the app store listing.



The listing also contains some additional information about the application, including the screenshots of the app and data collection specifications.

3. ESTABLISHING BLUETOOTH CONNECTION



Upon starting the application, the screen shown will appear.

Start/Stop Scan – Starts or Stops a scan for nearby Bluetooth devices. A scan will remain active for approximately 60 seconds before being automatically stopped.

Filter – If enabled (as shown) will filter scan results to only show valid EMTx devices.

EMTx30-0622 52% - Example EMTx device showing model number (EMTx30), Serial Number (0622) and indicative Bluetooth signal strength (52%).

A connection between the EMTx unit and the EMTx application can be established by following the procedure below.

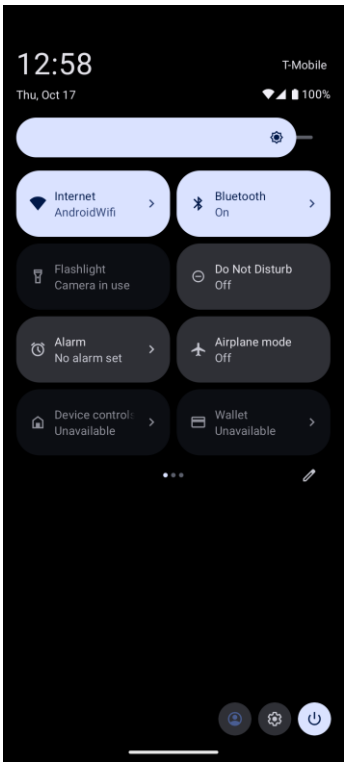
Note that the name and location of settings may vary by Android device. For more information contact your device manufacturer.

1. In the case of an EMTx30 or EMTx40 completely remove the **PCB endcap** to expose the Bluetooth antenna and maximise Bluetooth signal strength.

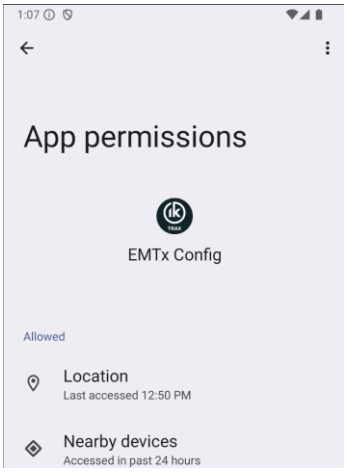
2. Keep the application host device and EMTx within 1m of each other throughout to maximise Bluetooth signal strength.

3. Turn off the EMTx by removing/loosening the **Battery Endcap** or loosening the bleed screw depending on the transmitter.

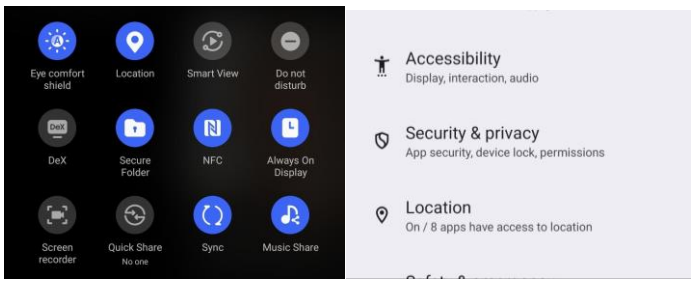
4. Ensure Bluetooth is enabled on the mobile device. This setting can be found in the Quick Settings panel which is revealed by swiping down from the top of the device screen.



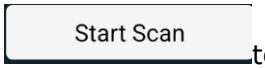
5. The Android operating system requires Location permissions to scan for and connect to Bluetooth devices. Ensure that the application has been allowed Location permissions (normally found under Settings> Apps> EMTx Config> Permissions> Location).



6. Some devices will need Location services to be enabled in the quick settings panel (also found under Settings> Location). The EMTx Config application does not use, record or report Location information.

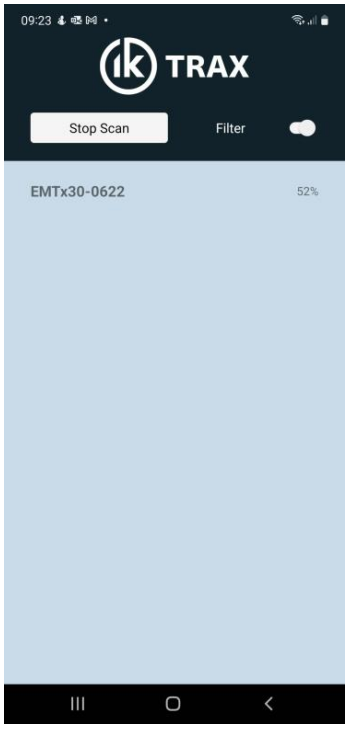


7. Open the EMTx Config application.

8. Press Start Scan 

to start a scan for nearby Bluetooth devices. This scan will last approximately 60 seconds before being automatically stopped (indicated by "Stop Scan" resetting to "Start Scan").

9. Before the Bluetooth scan finishes turn on the EMTx typically achieved by tightening the bleed screw or replacing the **<u>battery endcap</u>** (as per the appropriate operating manual). The EMTx device name should appear in the list of available devices on the application.

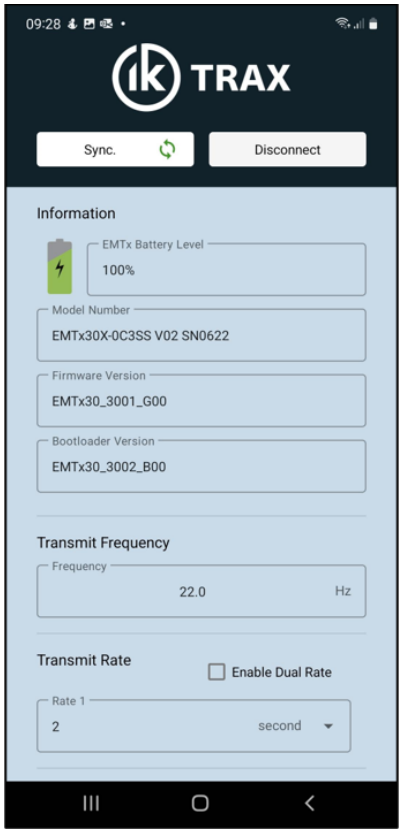


10. The Bluetooth will be active only for the short time after the transmitter power on (to save battery life) up to 10 seconds depending on the transmitter. <u>Please be aware of this time constraint</u>. If the window is missed, then the transmitter must be restarted by removing the Battery endcap or loosening bleed screw depending on the transmitter used (more information in the transmitter manual).

11. Select the desired device from the list to connect.

4. EMTX CONFIGURATION

Once a connection has been established as per 3 ESTABLISHING BLUETOOTH CONNECTION the screen shown will appear. All settings are shown as a scrollable list on the same screen. The black header is always visible at the top of the screen. Any settings not applicable to the connected EMTx will appear greyed out and not editable.



Sync. – Synchronises what is shown on the screen with the connected EMTx. If settings are synchronised, then a symbol will be shown otherwise a symbol will be shown. To save settings to an EMTx always press Sync. before disconnecting. After pressing Sync. always confirm the settings are reported as expected.

Disconnect – Disconnects from the connected EMTx. To save settings to an EMTx always press Sync. before Disconnect.

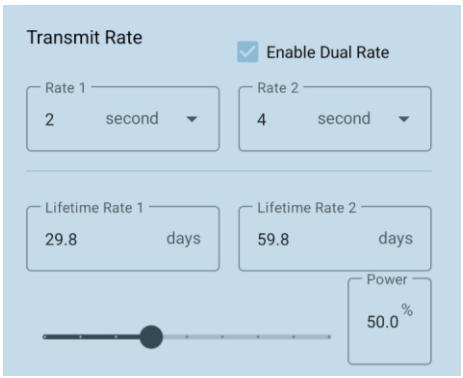
EMTx Battery Level – Indicates the battery level as a percentage, and if fallen below 25% then the battery icon will turn red.

Model Number – Full model number and serial number of connected EMTx. Not editable.

Firmware Version – Full firmware version and revision of connected EMTx. Not editable.

Bootloader Version – Full bootloader version and revision of connected EMTx. Not editable.

Transmit Frequency – Transmission frequency. Tap to edit.



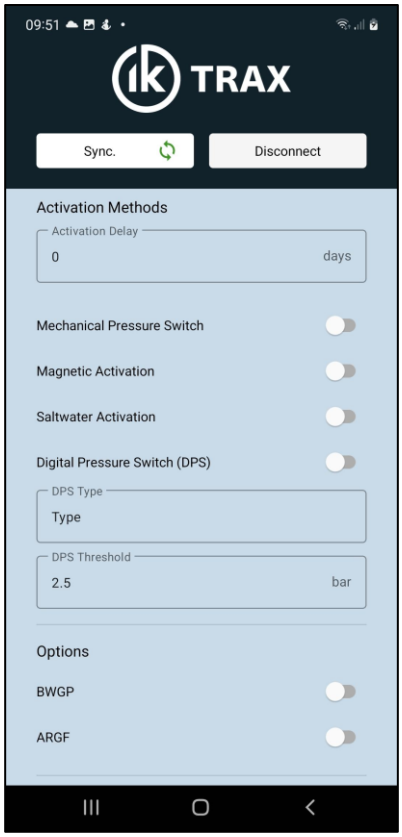
Enable dual rate tick box – allows the user to show or hide the dual rate options.

Rate 1 (OPEN) – Transmission rate if Dual Rate contacts open (default). Tap to edit.

Rate 2 (CLOSED) – Transmission rate if Dual Rate contacts closed. Tap to edit.

Transmit Power Slider – Transmission power level. Use slider to edit.

Lifetime (Battery) – Predicted lifetime at +5°C ambient for each transmit pattern. Note that these values will change depending on Frequency, Transmit Pattern & Rate and Transmit Power.



Activation Delay – Delays activation of the transmitter (from e.g. bleed screw insertion) by the configured number of days. Configure as "0" to activate EMTx with no delay.

Mechanical Pressure Switch – Enables mechanical pressure switch activation (if available).

Magnetic Activation – Enables magnetic activation (if available).

Saltwater Activation – Enabled saltwater activation (if available).

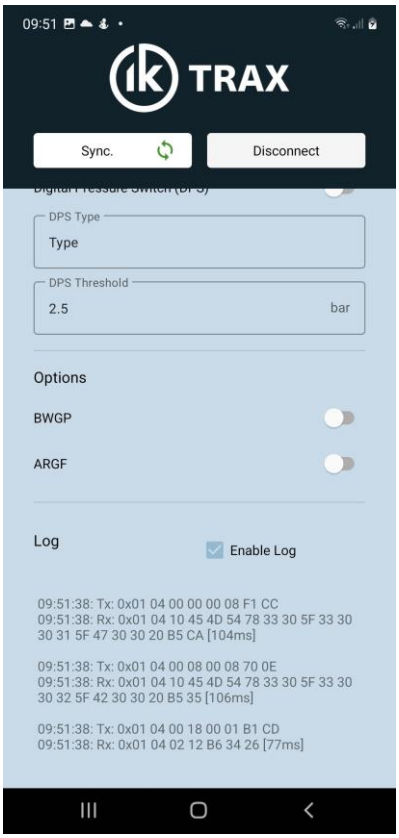
Digital Pressure Switch – Enabled DPS (if available).

DPS Type – Defines DPS type (if available).

DPS Threshold – Defines DPS Threshold (if available).

BWGP – Enables Break Wire Gauge Plate functionality (if available).

ARGF – Enables Auto Resetting Gauging Finger functionality (if available).



Log – Displays Modbus communication log in Hex format. This is used for troubleshooting purposes.