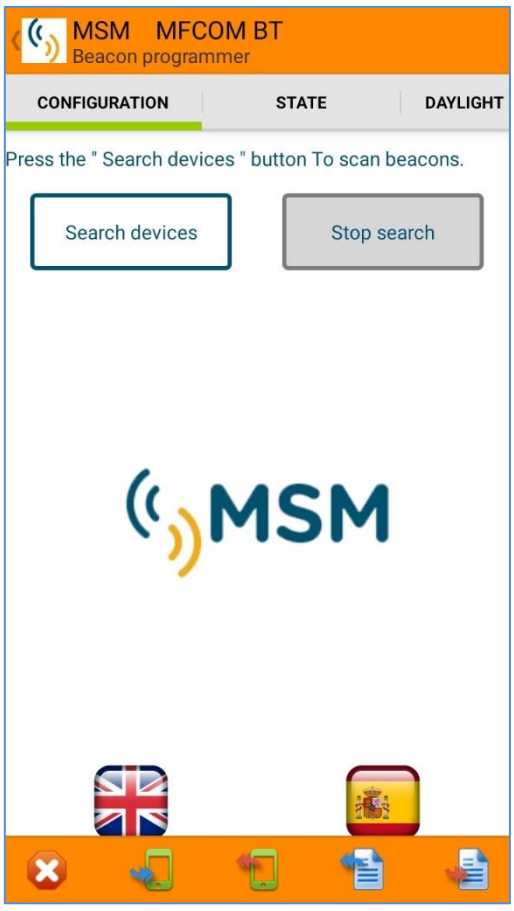
USER MANUAL

SETUP APP
MFCOM BT



REF: MFCOM-BT-MAN-ENG		
REV	DATE	REVISION
01	17-05-16	Revision 01
02	30-11-16	Revision 02
03	30-01-19	Revision 03
04	11-10-19	MFCOM-BT 4.581

1. MF12 Flasher Configuration

The App MFCOM BT is required for MF12 flasher configuration through Bluetooth, for Android devices versions.

The flasher is set in factory and it has no need for modifications. In case modifications of the original configuration are needed, use this app on a tablet or mobile equipped with Android.
The MFCOM BT allows the user to modify MF12 parameters such as the identifier, the configuration, the flash character, etc.

The screens of the APP of this manual may vary in appearance according to the mobile device used, its screen resolution and the version of Android used.

Main functions:

- 6 user's flash characters programming.
- Photocell sensitivity adjustment in Lux.
- Day-night offset: photocell delay from day to night.
- Synchronism offset mode selection to produce running lights
- Dimer mode for night reduction for leading lights.
- Adjustable LED intensity with reduction in %.
- Low battery voltage alarm configuration.
- Solar charge regulator settings configuration.
- Automatic screen adjustment to available functions in the flasher version.

To set the flasher, the following items are required:

- Android mobile device or tablet (by the user).
- Transfer the application installer file MFComBT.apk using a Computer into the Android device and proceed to install it.

Warning: For security, your device is set to block installation of applications not obtained from Google Play. Before installing the file MFComBT.apk, you should enable third party apps installation on the Android in "Settings -> Security" and then check the box next to "Unknown sources".

When installed the App MFCOM BT in an Android device, connect the battery to the beacon.
Press the icon MFCOM BT in the tablet or mobile device:

Then, enter in the application for configuration screen and connection.
The login screen will appear. The default login is 88888.

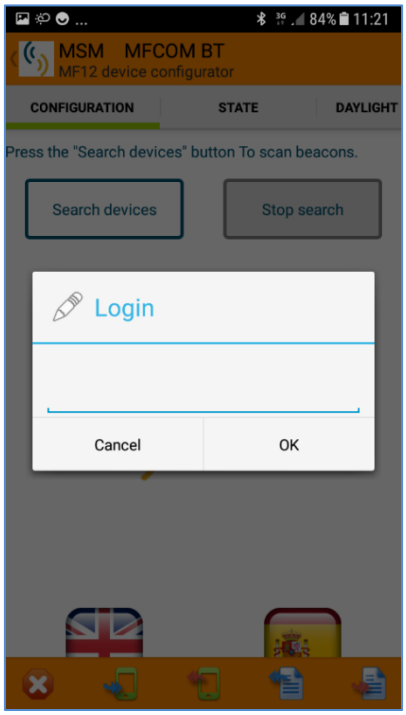


Figure 1 MFCOM BT Configuration and connection.

If you need to change the language, press the flag corresponding to the desired language. You will have to reinitiate the application to update the selection (leave the application with the exit button and enter again).

Press on **Search devices**.

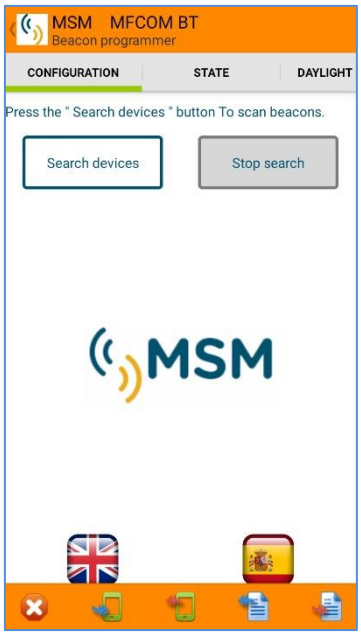


Figure 2 MFCOM BT Search devices.

Select the desired device in the list of beacons detected.
If you want to list more beacons press the icon to scroll between the different beacons.

Figure 3 MFCOM BT MFCOM BT Select device.

Put the Bluetooth PIN (default PIN: 123).

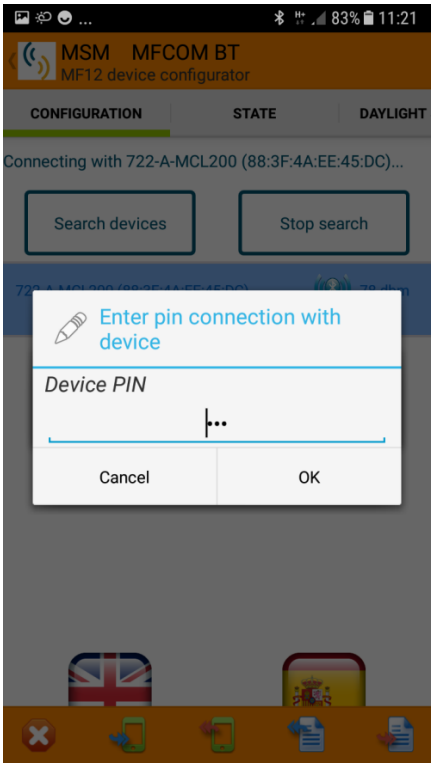


Figure 4 MFCOM BT PIN Introduction.

Once the connection is established, the App shows that the connection has been established.

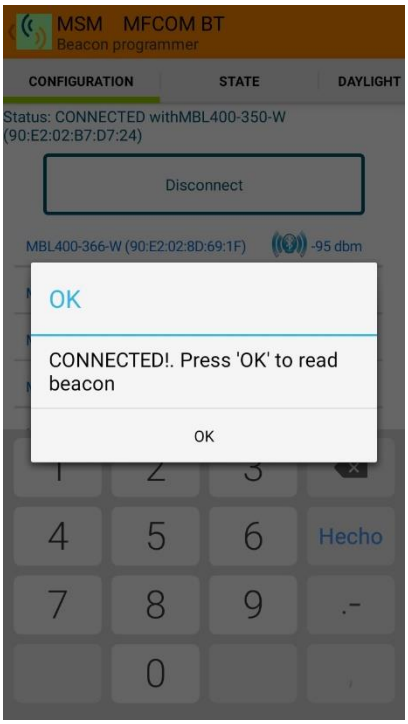


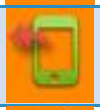
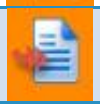
Figure 5 MFCOM BT Connection Settings Set.

Pressing OK starts reading the flashing configuration by loading the beacon data and displaying the configuration in the different tabs of the application.

If you want to read the beacon data again, click on the “READ MF” icon  . The data of the beacon will be identified and its parameters shown through tabs.

We can browse through the different configuration and data visualisation tabs, swiping right or left in the top menu, or swiping right or left on the main screens of configuration and data visualisation (Configuration, State, Daylight Sensor, Power, Flashes, Communications, Remote Control, Rhythms).

1.1. FUNCTIONS DESCRIPTION

	Exit the program.
	Current settings reception.
	Parameter transmission.
	Open old configuration files from the Android device.
	Save configuration files in the Android device.

1.2. STATE MENU

Basic information about the flasher are shown in the status menu as:

ID Number
Model.
Flashes table.
Firmware version.
Hardware Version.
Serial number.

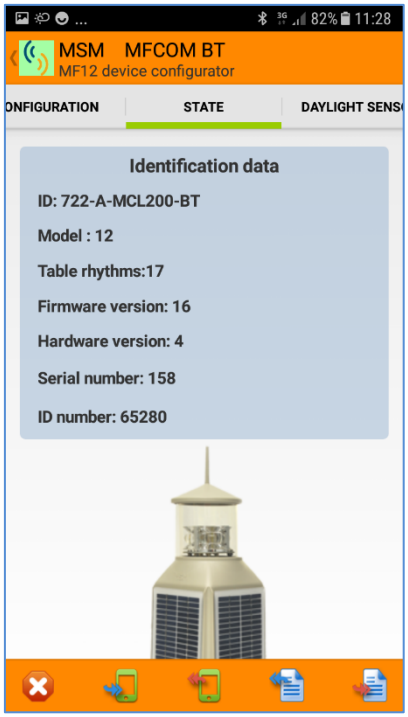


Figure 6 MFCOM BT State Menu

1.3. DAYLIGHT SENSOR MENU

The beacon ON/OFF is controlled by the daylight photocell integrated in the beacon. The sensitivity of the photocell can be adjusted in different lux levels.

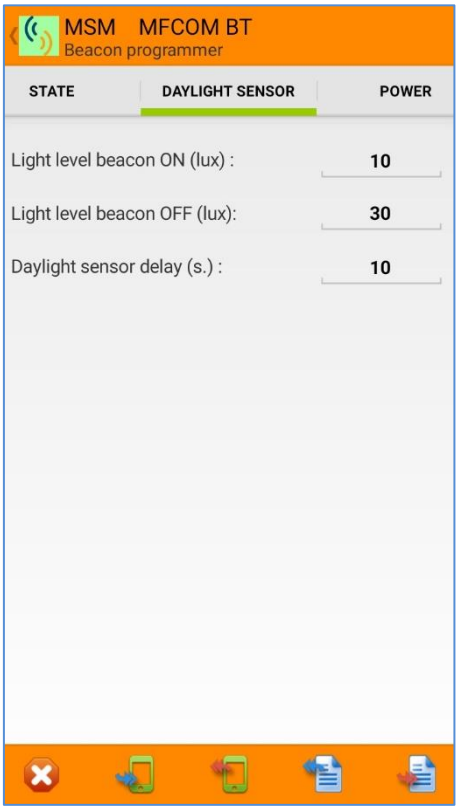


Figure 7 MFCOM BT Photocell Menu

Recommended values for the photocell adjustment:

Light level beacon ON: 40 lux.
Light level beacon OFF: 60 lux.

The value in lux for ON must be lower than the value for OFF to avoid oscillations in the turning ON and OFF of the beacon.

The daylight sensor delay is a delay in the activation of the beacon after detecting night in the photocell.

Once adjusted the new values, they have to be transmitted to the beacon through the button:

1.4. POWER MENU

The Power menu allows adjusting the limits of detection of the alarms of current and temperature that the flasher uses to generate malfunctioning alarms.

To adjust correctly those values, you must know the nominal power of the beacon and its current in normal operation mode.

- Maximum LEDs consumption.
- Minimum LEDs consumption.
- High temperature alarm.
- Maximum panel current.
- Sun radiation.
- Beacon type

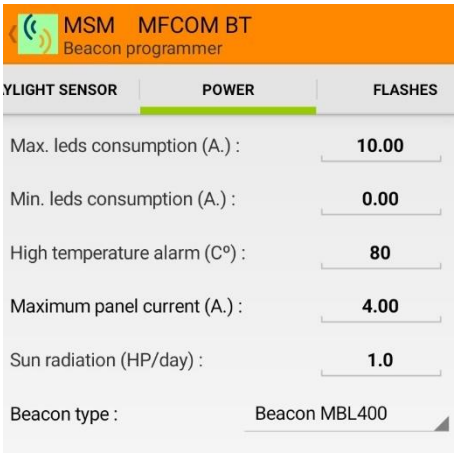


Figure 8 MFCOM BT Power Menu

SELF-POWERED LANTERNS SOLAR SYSTEM CONFIGURATION

The solar system self-powered lanterns can automatically manage their energy balance to avoid excessive battery drainage during the winter months.

This automatic system, calculates the power applied to the LEDs depending on the consumption rate of programmed flash and solar radiation available in the place where the flashing beacon is installed.

Therefore we set the flashing beacon correctly if we use the MCL series, Self-Powered lanterns.

Sun radiation.

We will program the equivalent peak sun hours in the worst month of the year according to the orientation of the flashing beacon panels.

The data should be consulted in sources that allow us to determine the solar energy that the flashing beacon are going to have on the winter worst month.

Beacon type

The beacon type will allow us to choose the self-powered beacon model being used.

- MCL200: Select models MCL180, MCL200 sunlight.
- MCL250: Select Solar MCL250 model.
- MBL400: select the model MBL400, MBL400S, MBB500.

1.5. FLASHES MENU

This menu allows adjustment of the flash characteristic.

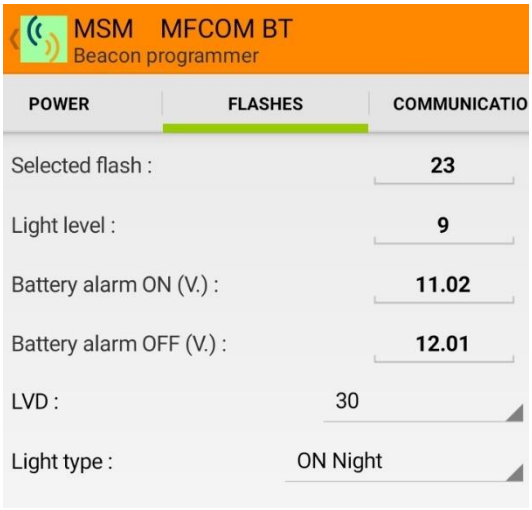
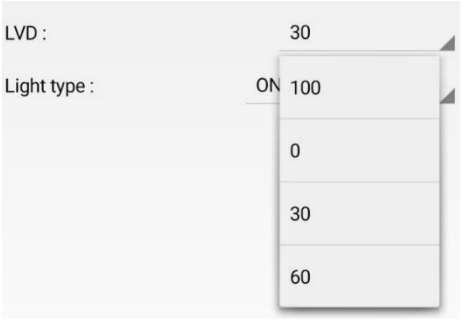


Figure 9 BT MFCOM Flashes Menu.

Selected flash: Indicates the number of selected flash within the table of 256 rhythms tables included in the User Manual of the beacon.
Light level: Allows to select the light level of the beacon from 1 to 10.
Battery alarm ON: Voltage level for alarm activation.
Battery alarm OFF: Voltage level for alarm deactivation.
LVD: The alarm generates in the beacon the LVD mode activation, in order to avoid the complete discharge of the battery and possible damages. The LVD mode has 4 options configurable:

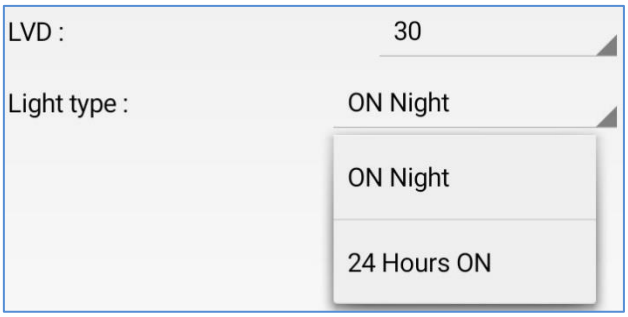
1. Continue on operating at 100% consumption. (100)
2. Switch off the light in order not to discharge further the battery. (0)
3. Reduce 30% the consumption (30)
4. Reduce 60% the consumption (60)



(*)Reduction of consumption implies reduction on luminous intensity in the same proportion. Check that the lantern provides the proper range.

LIGHT TYPE

Allows choosing between two options:
ON Night: Working only at night at **X% (0-100) Intensity Led**
24H ON: Working 24 hours at **X% (0-100) Intensity Led** during day and attenuated by **X% (0-100)** during the night to prevent dazzling effect. This mode is used in LED leading lights and other beacons on request.



1.6. COMMUNICATIONS MENU

The flasher can be remotely controlled by multiple ways. On this screen you can configure the various options.

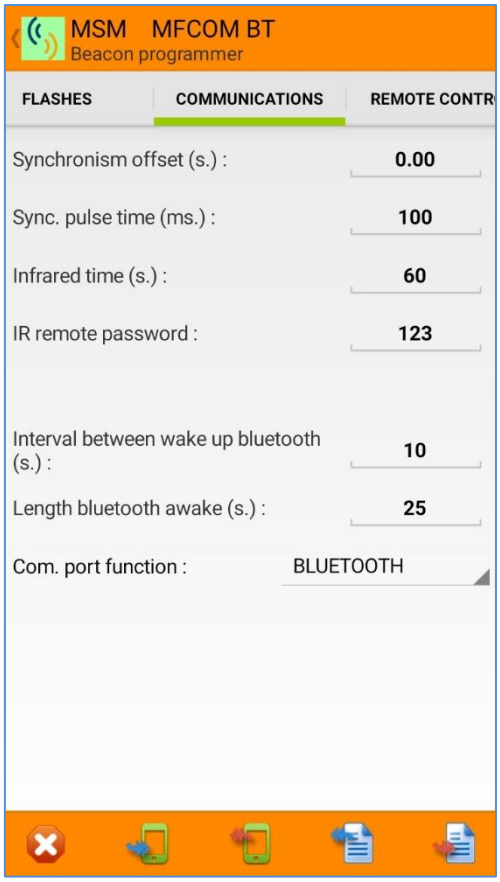


Figure 10 MFCOM BT Communications Menu

Synchronization pulse time

This parameter is used to select different synchronization pulses length, in order to connect the MSM beacon with beacons from other manufacturers. From factory, the standard time is 100ms.

IR Programmer configuration

The MF12 flasher can also be controlled with an IR remote programmer that allows the remote configuration of the beacon.
The IR programmer has a configurable access password (123 by default)
The same password is also used for the protection of the connection by Bluetooth.

The IR data reception is activated after a day/night step during a configurable time (60sec by default)

Figure 11 Remote programmer IR

Configuration of the remote control port TEL

The MF12 flasher has a RS232 communications port for the remote control of the beacons. The TEL port can be programmed to work with different equipment of remote control with different protocols:

- Disconnected: if the remote control is not used, the TEL port must be disconnected
- MFGSM: Connection with the remote control modules MFGSM, MFSAT, MHUHF and MFVHF through RS232
- RS485: Connection of the beacon with remote station by RS485 with MODBUS protocol.
- AIS: RS422 connection with AIS Transponder to emit Message 21 and 6.

1.7. REMOTE CONTROL MENU

In Remote Control, the actual beacon status is shown. By clicking on “Read”, the results can be visualized, indicating if the beacon is on night or day mode, the voltage data, etc. If the operation is correct it will be shown in Green. If there is any alarm for improper operation it will be shown in red.

In addition, commands can be sent to the beacon to allow different status as “Force ON” (to switch ON the beacon), “Force OFF” (to switch OFF the beacon) and “Normal mode” using photocells for switching OFF/ON.

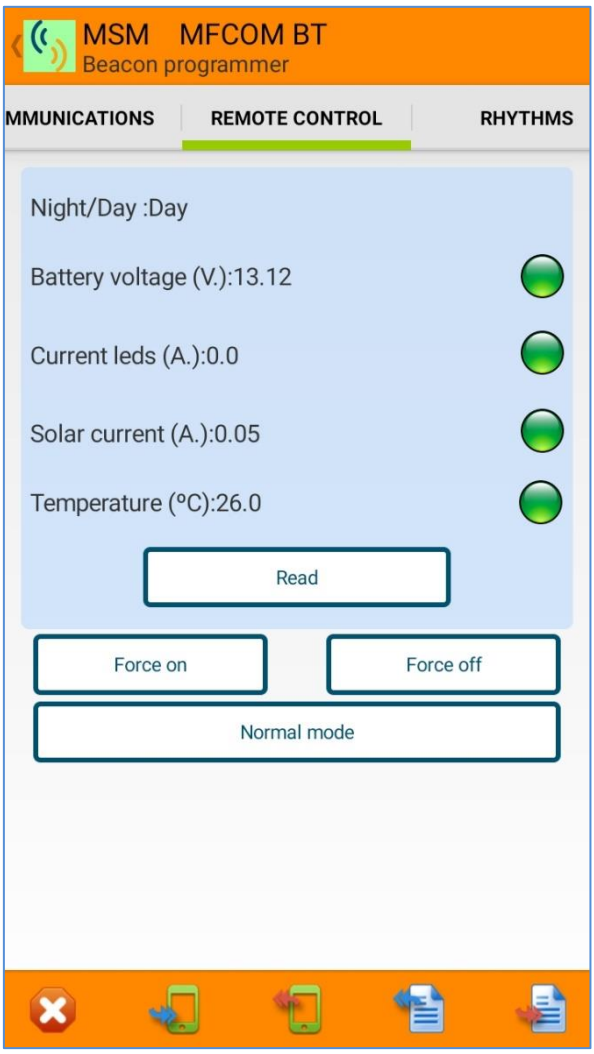


Figure 12 MFCOM BT Remote Control Menu.

1.8. RHYTHMS MENU

This screen allows the user to edit the rhythms 1-6 from the table of rhythms to use flash rhythms that are not contained in the table of the manual.

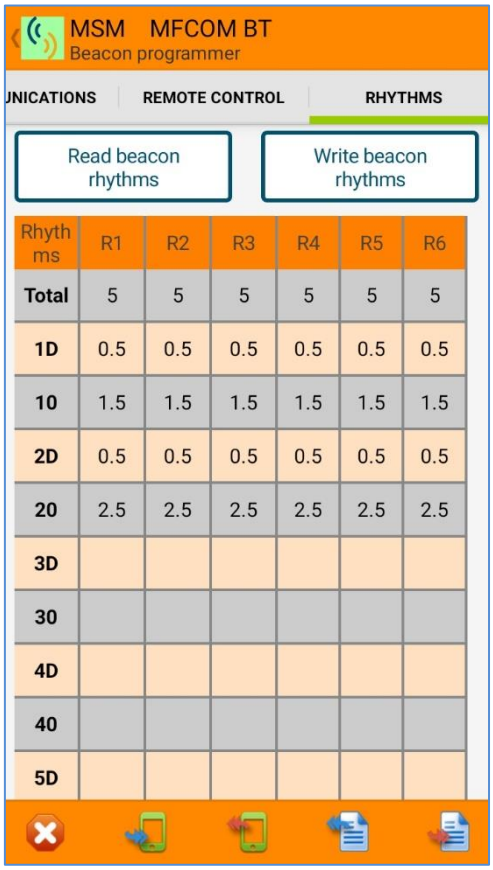


Figure 13 MFCOM BT Rhythms menu.

The maximum rhythm length allowed is 16 On/Off cycles.
'Write rhythms' to store the edited flashes into the flasher to be used.
'Read rhythms' to load the flasher memory with the last flashes transmitted.

WARNING!

It is necessary to maintain activated for a few seconds the cell of which we want to change the value of the rhythm so that the corresponding edition screen appears.

Figure 14 MFCOM BT User Rhythms Edition.

1.9. DATA UPDATE

For the parameters adjusted in the app of the tablet or mobile device to become effective, press the "Write MF" icon to upload them.

To verify that the data are correctly recorded press the "Read MF" icon to see that the changes have been successful.

The option "Save" icon saves the configuration file, that can be uploaded later on.

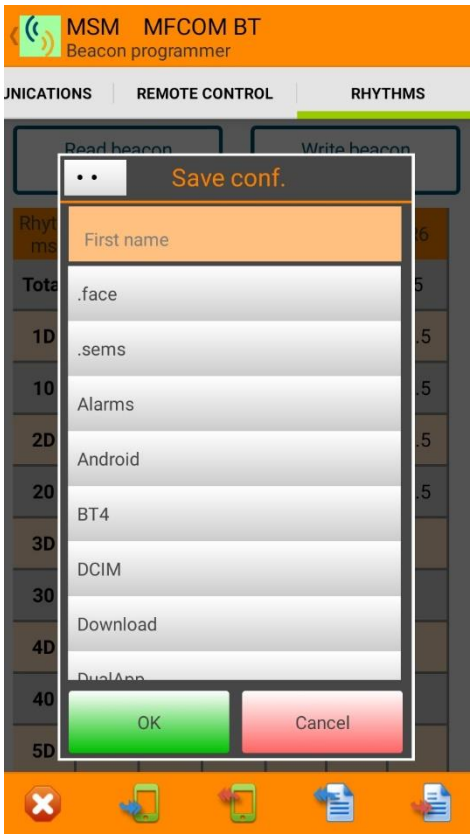


Figure 15 MFCOM BT Save Configuration.

The “Upload file” icon  allows uploading a previously saved configuration file.

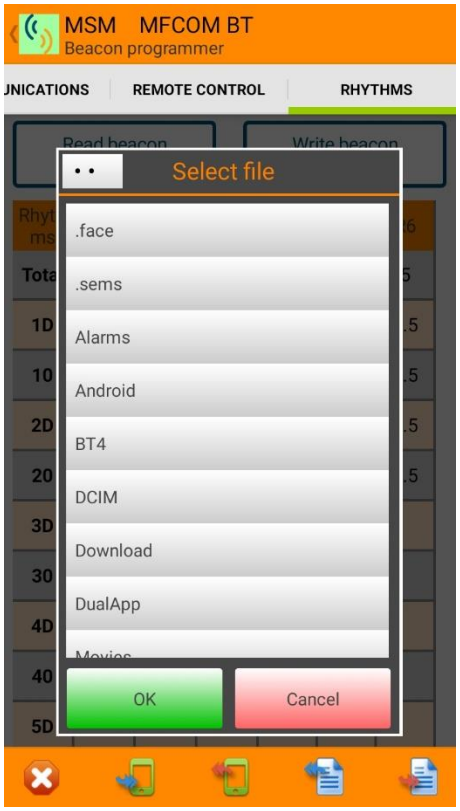


Figure 16 MFCOM BT Upload configuration.

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