








**MINI AUTODROMO RCE
DELLE APUANE**
OFFICIAL VTB TEST CIRCUIT



VTB4REDS> [English version](#)

sequence for running a VTB test bench by helping the new ESC Reds ZX Pro 160A 1:10 Gen2 Bluetooth with Bluetooth External Module

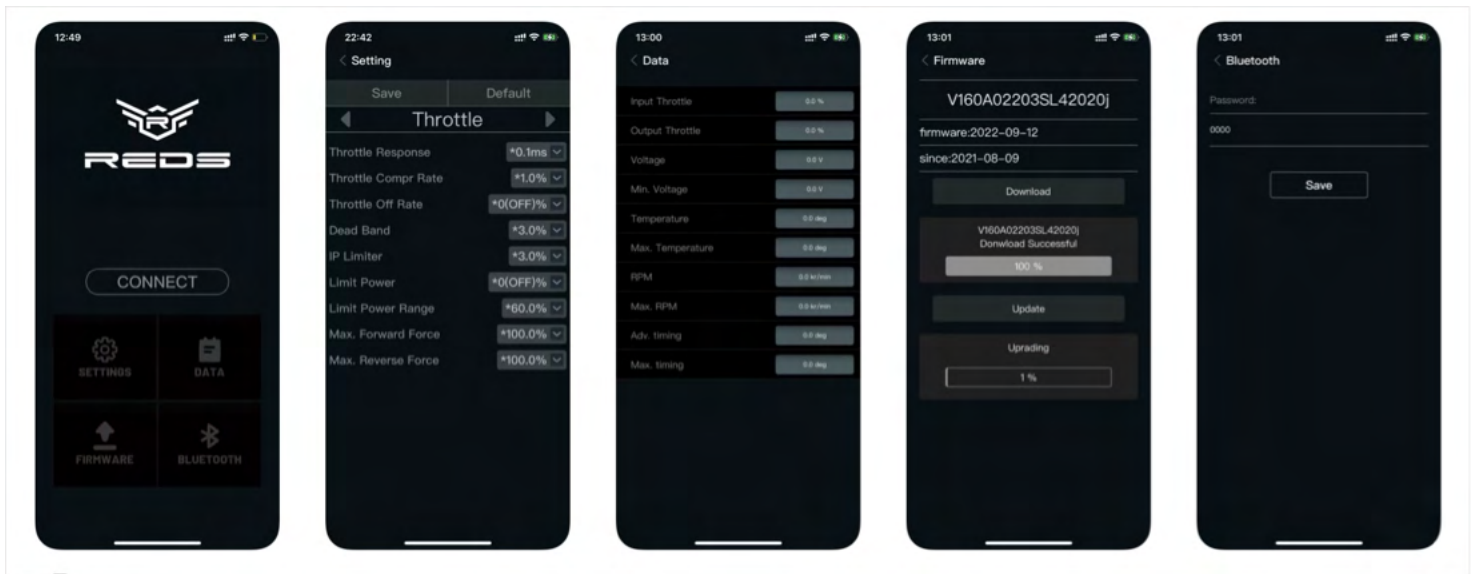






TECHNICAL SPECIFICATIONS

Winding	4.5	5.5	6.5	7.5	8.5	10.5	13.5	13.5 Torque	17.5	21.5
#Code	MTTE0030	MTTE0031	MTTE0032	MTTE0033	MTTE0034	MTTE0035	MTTE0036	MTTE0036T	MTTE0037	MTTE0038
Rotor	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
KV [RPM/V]	7050	5950	5150	4450	4050	4450	3800	3500	3050	2500
Power [W]	570W	500W	445W	410W	390W	320W	255W	255W	190W	150W
Max Current [A]	77A	67A	60A	55A	50A	43A	35A	35A	26A	20A
Weight	165g	165g	165g	165g	165g	145g	145g	145g	145g	145g
Category	Modified	Modified	Modified	Modified	Modified	Stock	Stock	Stock	Stock	Stock
EFRA Homolog.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BRCA Homolog.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Feature	Value
Rotor Diameter	12.3-12.5 mm
Motor Diameter	35.8mm
Motor Length	51.4mm
Shaft Diameter	3.17mm
Weight	140-165g

Model	1/10 32 Bit 160A	1/8 32 Bit 150A	1/8 32 Bit 220A
Cont./Peak Current	160A/1200A	150A/950A	220A/1000A
LiPo/NiMH Cells	2-3 LiPo/4-9 NiMH	2-6 LiPo/6-18 NiMH	2-4 LiPo/6-12 NiMH
BEC Output	6.0V/7.4V Adjustable, 3A	6.0V/7.4V Adjustable, 6A	6.0V/7.4V Adjustable, 6A
Size	38.0*37.0*31.0mm	55.0*48.0*36.0mm	55.2*40.2*36.5mm
Weight	95g	180g	155g



first of all, access the VTB and open a new one "VTB PRO 2 POLES" card and enter all the requested data leaving the required values of "RPM rotate" and "MAX RPM MOTOR on ESC REDS".

If the model has a rotor Stock:

1 - Take the ready-mounted track model equipped with a 100% charged battery (ready to race model)

2 - Position the model on a base and make sure it is firmly stable to it; make sure the wheels and all the various components and gears turn free without obstruction.

⚠ During the bench test, pay the utmost attention and always make sure the model is always in a stable and safe position.

3 - Connect the Bluetooth external module to the socket on the ESC (the socket is located between the fan power supply and the ON / OFF button).

4 - Turn on the radio control and then the model: the model will light up in "Ready Race" configuration, and the red LED on the external module will activate to report that it is able to communicate.

5 - Open the Reds app installed on your mobile device (phone or tablet) and press the "Connect" button; as soon as the devices interface, a window will open showing the list of active Bluetooth devices near the mobile device.

6 - Press the "Connect" button to the right of the name "BLE-B0DCF26-XXXXXXXXX (our ESC)

7 - Activating the communication between the 2 devices, the REDS app home page is automatically opens up to us that shows us the following Buttons :

#" Disconnet "- to end Bluetooth communication.

#"Setting" - opens a settings (Throttle, Brake, Boost, Turbo, General).

#"Data" - opens to direct data (the model is active and regularly communicates with the radio control; all the functions of the model are available at 100%.

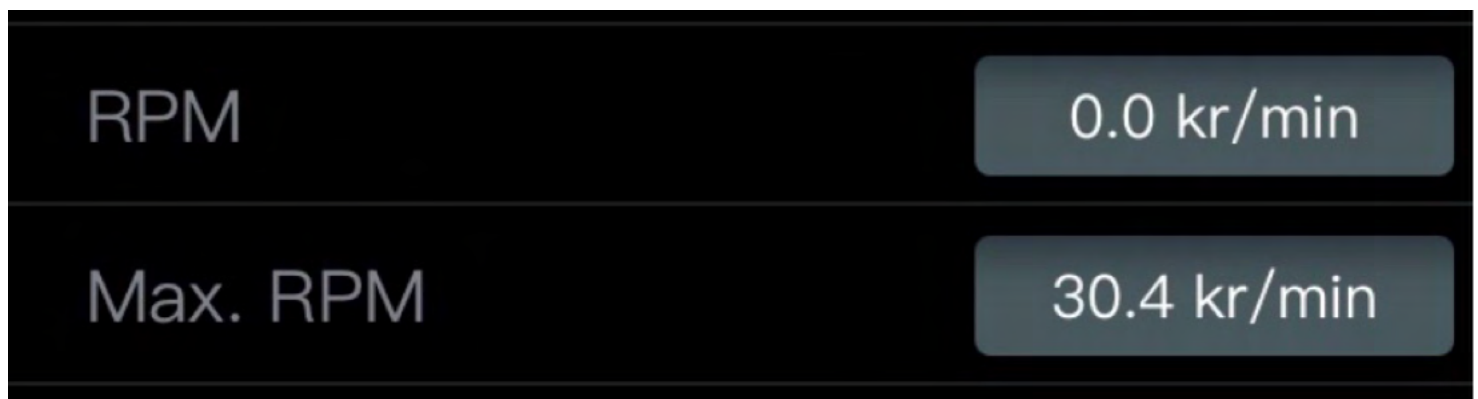
#"Firmware" - for searching for system updates and their installation: "Download" to download any update available, "UPDATE" To install and overwrite the system (with the update you need, at the end of installation, turn off the ESC and restart it).

#"Bluetooth" - Opens the access data of your ESC (Password) opens to the page.

8 - Press "Data": the Window will allow us to assist live in data production (some of them will be kept in memory and will be viewable with calm).

9 - Take the radio control and start the model slowly, bringing it gradually (in about 5 seconds) up to maximum power (the window Throttle must show 100%), keeping the maximum gas for 2 max 3 seconds; then release.

10 - Read the "Max RPM" Motor value on the app; Log out and spreading both the model and radio control.



11 - Resume the VTB card previously opened and complete the "Max RPM Motor on ESC REDS" field only by entering the Result value on the App (do not change the "RPM Rotate value" window, it will be automatically generated by the VTB).

ⓘ Giri ruota effettivi ⓘ Max RPM Motor	<input type="text" value="Giri ruota effettivi"/> <input type="text" value="Valore MAX RPM MOTORE su ESC REDS"/>
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ⓘ Giri ruota effettivi ⓘ Max RPM Motor	<input type="text" value="Giri ruota effettivi"/> <input type="text" value="30400"/>
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⚠ Complete only this field. ➡

12 - Click the "Calculate" button (or press "Enter" on the keyboard); The VTB card will show you immediately.

13 - Get down to the VTB card, enter a name / title of the bench recognition just made (example: [model YZ ,13.5T track YZ, FDR XXXX]) and press "Save as new". The card will be stored in your own reserve area of the VTB.

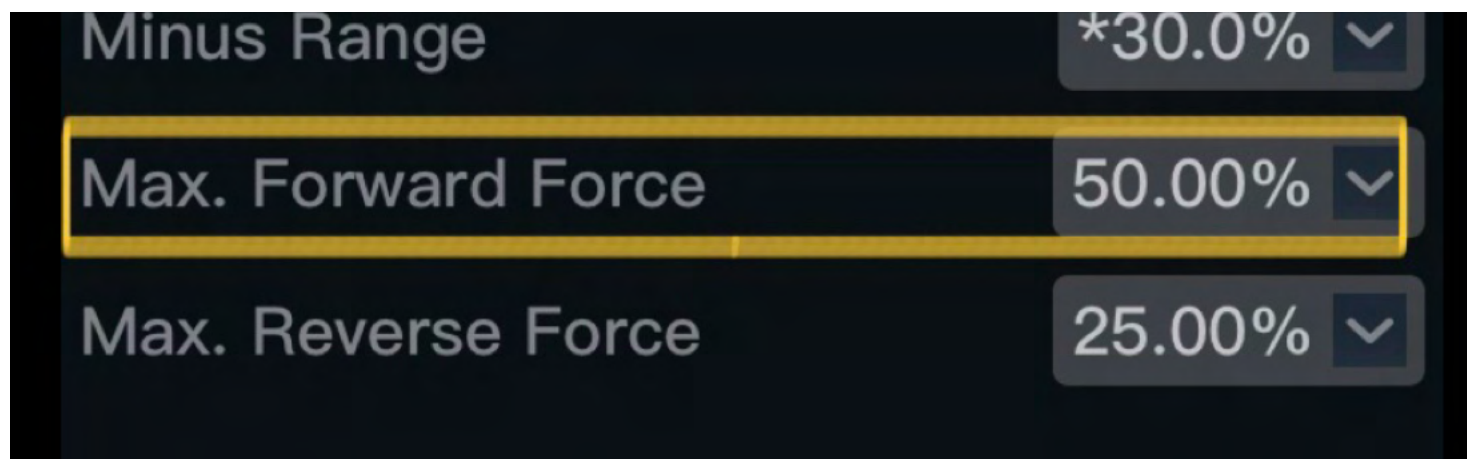
ATTENTION ⚠ ⚠ ⚠:

If you proceed to carry out a VTB bench to a model with modified rotor, follow this procedure before running step 8 :

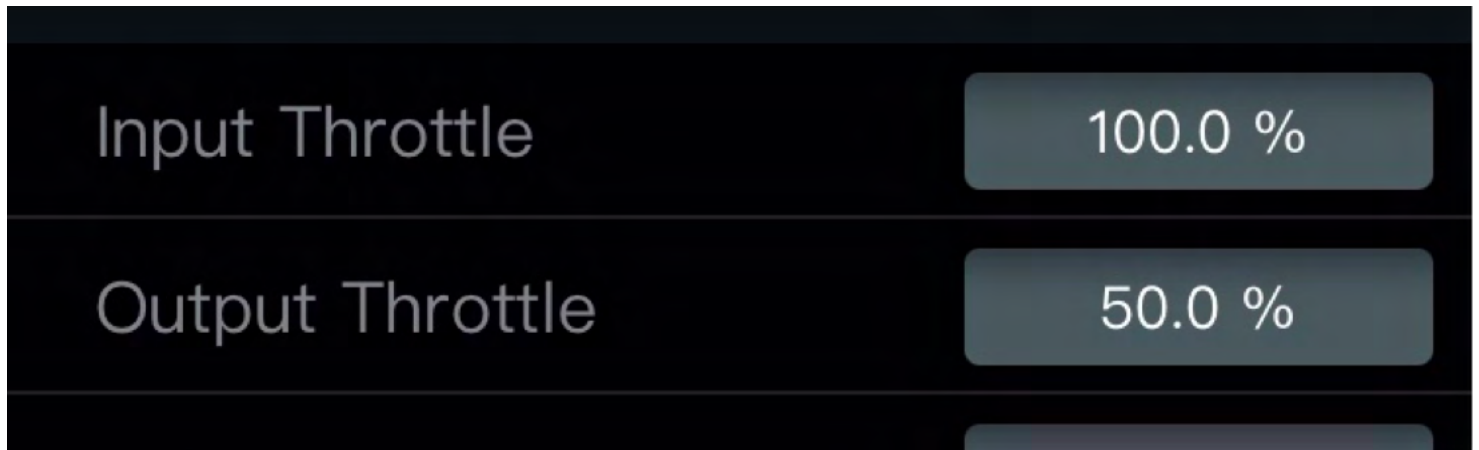
if the Model has a modified rotor:

1 bis - access with the Reds app, by the button "Setting" present in Home, on the "Throttle" page.

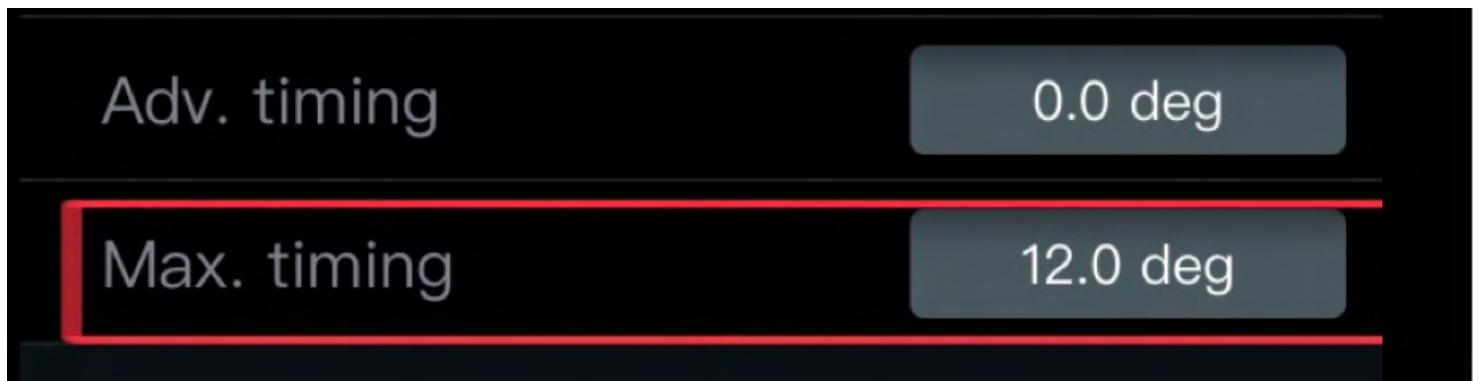
2 bis - access the sliding window of the "Max Forward Force" item and select 50%, then press "Save"; the ESC has thus stored the new setting.



Performed this adjustment, we could resume the sequence from "rotor stock point 9": the engine will give exactly half of the power supplied although 100% of the gas applies (what can be observed by the "Throttle" window in "Data").



Always check in the "Data" window, that the "Max Timing" value shows the total value of Boost and Turbo advance that we have previously set (example : if we set 3° of Boost and 9° of turbo, the correct value resulting at the end of the test at the counter "Max timing" must be equal to 12 °).



11 bis - Take the value "Max RPM Motor" stored by the app and multiply it x 2.

The resulting value from this calculation will be the value to be inserted in the VTB card in the "Max RPM Motor on ESC Reds" field.

Example: Value in App RPM 30,400 x 2 = RPM Motor 60,800 (value for VTB).

▶▶ Continue as from "rotor stock point 12".

(10 bis) ⚠ After carrying out the VTB bench to a Modified model, remember to restore and save the value of "Max Forward Force" at 100% in the app before entering the track.



