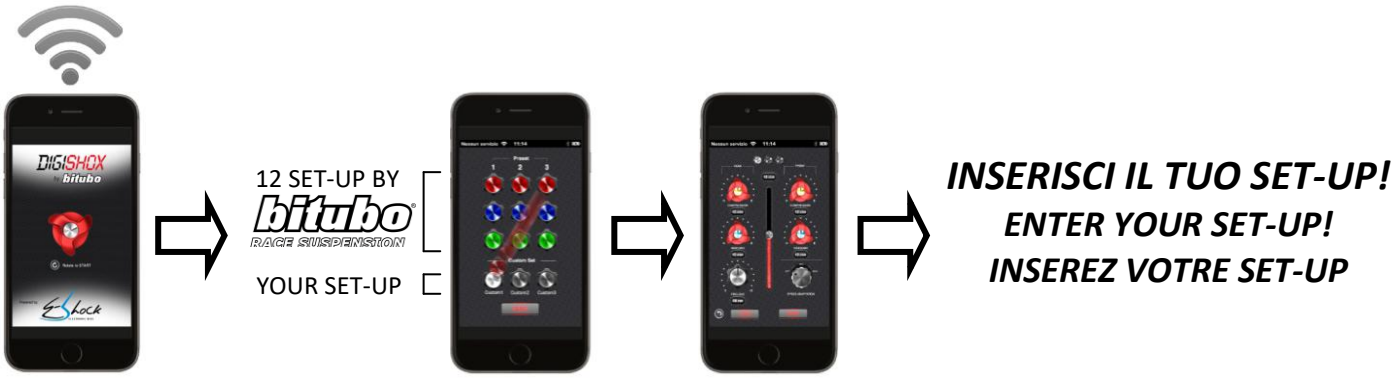
DIGISHOX by bitubo QUALITY SYSTEM CERTIFICATED UNI EN ISO 9001:2008 50 100 9149	Manuale d'uso del sistema *System User's Guide* *Manuel d'utilisation du système* Rev. 00 Del 05/01/2018
N° di matricola / Serial N° / N° de serie	



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Contents

1 Introduction

The DIGISHOX system allows adjusting damping both suspensions and back suspension spring preload (optional) using a special selector on the vehicle handlebar. The system has 9 non-modifiable factory-set adjustments to which 3 more can be added, customised by the user and achievable with the appropriate Application, downloadable from the most common App stores onto your smartphone.

The system consists of the following elements:

- 1 LED Panel (Trident): dashboard with multicoloured LEDs.
- 1 Selector: Handlebar selector.
- 1 CPU (Neptuny): Adjustment control unit.
- 1 Sensre GPS (E-Shark).
- 1 Electrical wiring: wiring complete with connectors and relays ready to be installed.
- 1 CARTRIDGES KIT : Fork cartridges with hydraulic adjustments assisted by stepper-motors; hydraulic spring preload adjustment.
- 1 MONOSHOCK : Back shock absorber with hydraulic adjustments assisted by stepper-motors; spring preload adjustment with electro-hydraulic control (if available).
- IOS / Android application for the customisation of the adjustment parameters

2 IOS Operating system

The application dedicated to the IOS System allows downloading the default calibration from the Digishox system. Through the application, it is also possible to create, modify and receive the calibrations via Bluetooth. For all the functions, please refer to paragraph 4.

2.1 IOS Application installation

Open iTunes from your terminal, search for the "Bitubo Digishox Manager" app in the APP Store, download it and start the application from your terminal.

3 Android Operating system

The application dedicated to the Android System allows downloading the default calibration from the Digishox system. Through the application, it is also possible to create, modify and receive the calibrations via Bluetooth. For all the functions, please refer to paragraph 4.

3.1 Android application installation

Open Google Play from your terminal, search for the "Bitubo Digishox Manager" app in the APP Store, download it and start the application from your terminal.

4 Use of the application

4.1 First use and uploading a configuration file

When using the application for the first time or following the reset of the loaded configuration, the starting screen is as shown in Figure 2.
Please note that, on the side of the ⚙ symbol, it is reminded that no serial code has yet been entered for a valid configuration file.

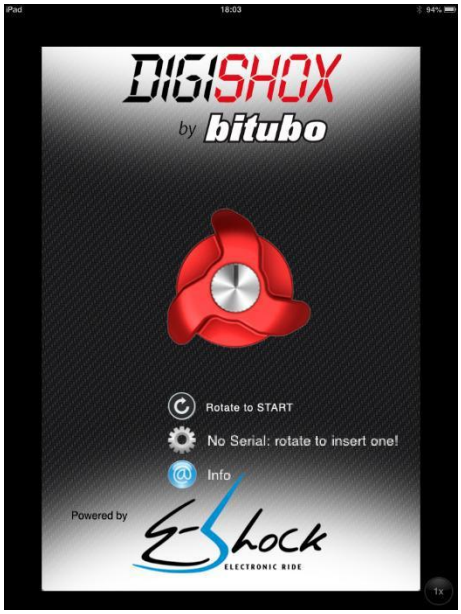


Figure 2 - Initial app screen on first use and after configuration reset.

Rotating the knob, the Serial Number of the purchased DS system that you wish to upload (Figure 3) must be entered. The Serial Number is printed on the silver label on page 1 of this manual.
Warning: The Serial Number consists of 16 characters including numbers, letters and symbols.

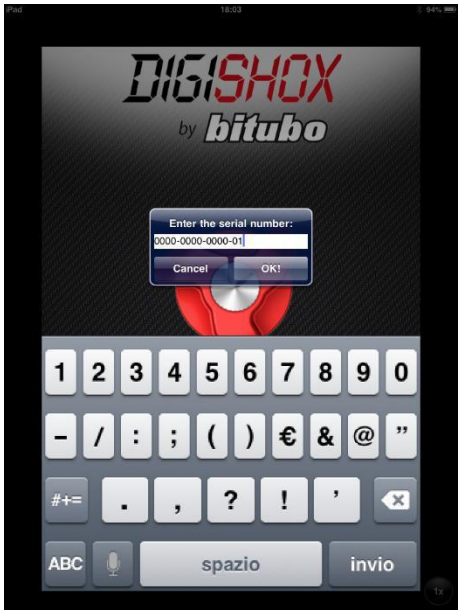


Figure 3 - Entering the Serial Number

Once the code has been entered, pressing OK uploads the configuration parameters and the app main screen is displayed (Figure 4).

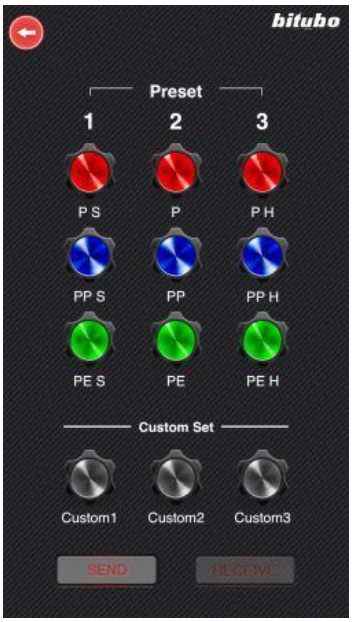


Figure 4 - Main screen

4.2 Main screen functions

The main screen (Figure 4) shows the available calibrations, divided into preset - defined by the configuration file - and custom. The system makes available 9 preset, divided into 3 colours (red, blue and green) and 3 custom (white) calibrations.

Clicking on one of the coloured LEDs, the adjustment screen can be accessed (Figure 7).

For details on the adjustment screen functions, see section 4.3.

It is possible to copy a preset calibration onto a custom one dragging the preset calibration indicator onto the custom calibration indicator. If the operation takes place correctly, at the end the custom calibration will bear the same name as the copied preset calibration (Figure 5).

Figure 5 - Copying a preset calibration onto a custom one

When the user has set the custom calibrations, all the relative indicators are white (see Figure 6).
At this point, the calibrations can be sent via Bluetooth by pressing
the SEND key.
It is also possible to check the maps sent pressing the RECEIVE key.
A message confirms the communication status. During the communication, the LEDS on the dashboard flash blue in sequence.
NOTE: the Bluetooth device must be previously paired and connected through the Your device settings menu.

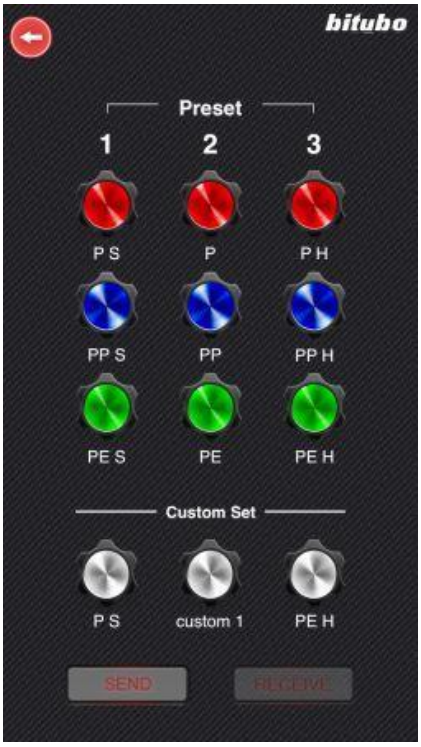


Figure 6 - Main screen ready to send the parameters

Figure 7 - Adjustment screen

4.3 Adjustment screen functions

The adjustment screen allows displaying the calibration details in terms of hydraulics, preload (if available) and damping adjustment according to speed. Moreover, for custom maps, it is possible:

- to modify calibrations acting on the knobs
- to modify the calibrations selecting the desired parameter, touching the relative knob and then dragging the vertical bar to the centre of the screen
- save and load your calibrations: at the end of both operations a confirmation message is displayed (Figure 8 and Figure 9).

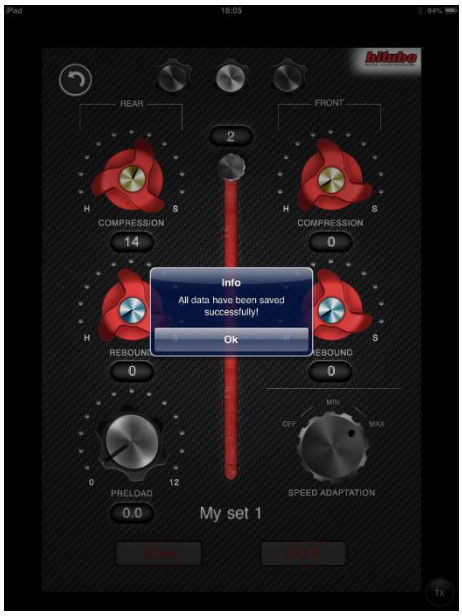
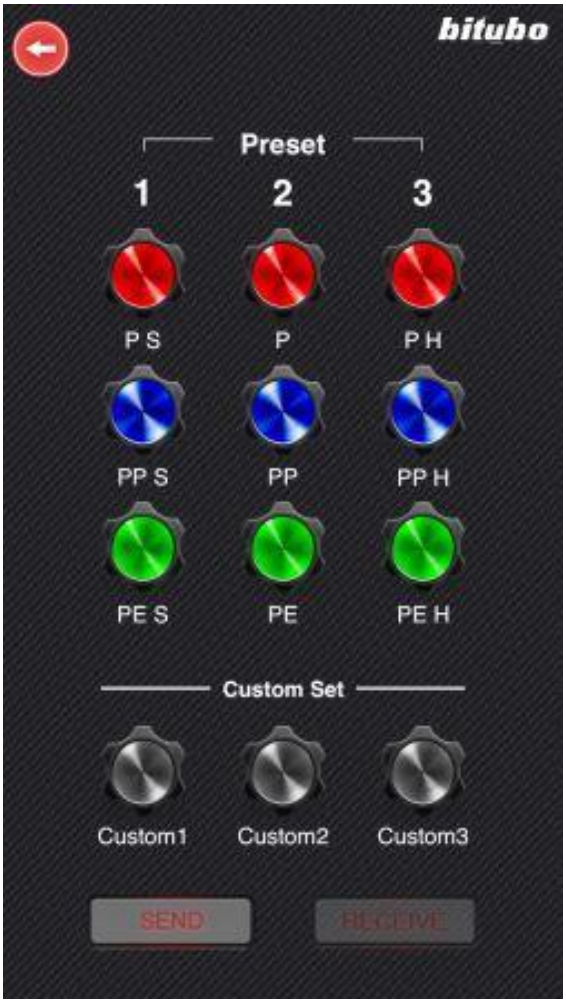


Figure 8 - Saving a customised calibration

Figure 9 - Uploading a customised calibration

4.4 Calibration matrix

	1	2	3
Red	PS	P	PH
Blue	PPS	PP	PPH
Green	P*S	P*	P*H



Key

- P = Driver adjustment
- PP = Driver/Passenger adjustment
- P_ = Adjustment for Dedicated Use
  - PE = Enduro driver
  - PR = Racing driver
  - PS = Sport driver
  - PT = Touring use

- 1 = Soft setting
- 2 = Standard setting
- 3 = Hard setting

5 5 Using the DIGISHOX system

5.1 Standard use

Calibration selection takes place using the handlebar selector. In particular:

- To change the calibration number, press one of the two keys briefly, according to the desired direction.
- To change the colour of the calibration, press for about a second one of the two keys, according to the desired direction.
- NOTE: if custom calibrations have never been uploaded via the app, it will not be possible to choose the white colour.

During the adjustment, the LED of the selected calibration flashes quickly, becoming fixed when the operation is complete.

If there is electro-activated preload, the system checks the conditions to carry out the adjustment exist, that is:

- Sufficient battery voltage
- If the GPS signal is valid, the vehicle speed must be less than 5 km/h
- If the GPS signal is invalid, the acceleration and angle speeds measured must not exceed the set thresholds.

If the calibration provides for a change in the preload but the conditions required to start the adjustment have not been checked, the LED relative to the calibration flashes slowly to remind the user that the adjustment is not complete. As soon as the conditions are checked, the system implements the adjustment.

5.2 System reset

It is possible to reset the system by pressing the 2 keys of the handlebar selector at the same time for at least 2 seconds. If the system is fitted with electro-activated preload, carry out the procedure with the bike switched on.

The reset consists in zeroing the hydraulic adjustments and preload.

At the end of the reset, adjustments are implemented in compliance with the set calibration.

5.3 Diagnostics

If system malfunctions are detected, the dashboard highlights them by lighting one or more LEDs yellow as per the explanation in Table 1.

MESSAGE	MULFUNCTION	POSSIBLE SOLUTIONS
Led 1 Flashing orange	Problems in stepper-motor control or preload motor because of over-current, over-voltage, over-temperature or driver failure	1. Switch the system on and off 2. Check that the hydraulic actuation system of the preload is not blocked (if any)
Led 2 Flashing orange	Communication error between dashboard and control unit	1. Switch the system on and off 2. Check the wiring of the CAN backbone
Led 3 Flashing orange	Low battery voltage	1. Switch on the bike motor 2. If present and if its adjustment is being requested, check that the electro-actuation system of the preload is not blocked
Led 3 Fixed orange	Preload incorrectly initialized or error during the last movement of the preload	1. Carry out a reset of the preload

Table 1 - Description of the error messages