GT.POWER

Servo Tester

Operating Manual

To ensure the functionality and lifespan of the LCD, please do not place anything on top of the LCD display.

Please ensure correct polarity of the battery when connecting to the device.

1.Ensure that the connected battery is a 2 cell series setup .

2. Ensure the polarity of the batteries; positive and negative end.

3.Ensure that there is enough capacity in the battery to power the device.

Warnings

Spoilt of Defective batteries might cause permanent damage to the device. Please ensure the use of new or “healthy” battery pack for the safe operation of the device. Kindly dispose defective battery in the proper manner.

Manufacturer and Distributor are not responsible for the incorrect usage of the device due to not following user's manual, and will not be liable for any breakage or damage.

Feature

Characteristic of digital servo performance tester from G.T power:

• High performance-to-price ratio, combined with proprietary test algorithm, which guarantee that the test is fast and stable.

• G.T power tester can be powered by lipo battery through the balance charging wire adaptor or DC power supply. It is both convenient and flexible.

• The rolling menu toolbar makes the operation clear and easy.

• The function setting is easy and practical which covers most parameters that end users need.

• The device is equipped with servo and receiver wires, which makes the measurement operation a lot easier.

• The device is equipped with clear and high contrast LCD Monitor to show individual parameter and menu selection. which assures the user will see the testing infomation accurately and completely.

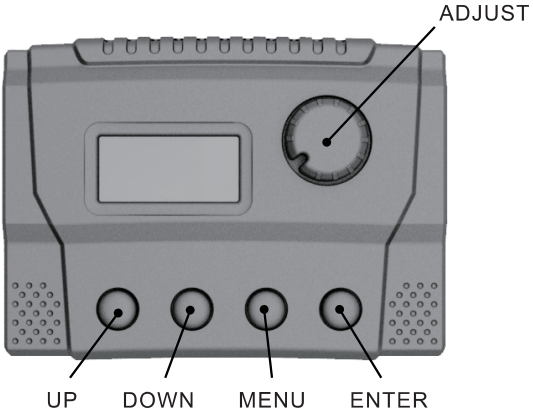
• Bigger buttons are used over the smaller ones ,which proves good feedback and reduces misoperations.

1. Summary:

This Servo tester is used to test digital or analog servo, including seven functions as following:

LN MODE ED MODE FP MODE DB MODE SP MODE WP MODE PW MODE

Please refer to the position chart of servo tester:



2. Operate method:

Power supply connection register reserve two kinds of connector: DC connector and pincushion
Power supply voltage 6-12V.

After power on, it shows as follows:

After 1 second later, it shows as follows:

Press “UP&DOWM ” to choose ANALOG or DIGITAL mode, press “ENTER” to enter the menu of function choice, as show in fig:

Press “UP&DOWM”to choose to enter the testing module of the corresponding function.

2.1. LN MODE

After entering **LN MODE**, it shows as follows:

It can choose NORMAL or EXTEND, the difference between the NORMAL and EXTEND is the width range of output pulse, the range of output pulse of NORMAL is 1000us-2000us. The range of output pulse of EXTEND is 500us-2500us.

Press “Enter” , It shows as follows when entering chosen mode.

Numbers on the second line show the current pulse width. Note: This function is used to test the linearity and vibration of servo. (This can also be used to test the linearity and vibration point of ESC)
Press “MENU” to exit.

2.2.ED MODE:

After entering ED MODE, it shows as follows:

Here it is to set the times of endurance test, “UP” button could be chosed in every section, “DOWN” button is to set value. When everything gets ready, press “ENTER” to start testing:

Numbers on the first line stand for the times left of endurance test, and the first number on the second line stands for hunting range of servo(0-5), however,It could be adjusted via knob, and the second number stands for its speed(0-5) and also it can be adjusted via “UP&DOWM ”.

This function mainly tests the endurance of servo.
Press “MENU” to exit.

2.3.FP MODE

It's pretty simple for three point test mode, when entered, press “UP&DOWN” to output 1000us,1500us, 2000us pulse separately, which can test its Rollback Ability.Note: This function is used to test the servo's ability to neutral itself. (If equipped on the plane, you can find out the theoretic mid-point of servo exactly)
Press “MENU” to exit.

2.4.DB MODE

After entering DB MODE, it shows as follows:

The default output of dead zone proves zero. Pressing “UP&DOWN”, the value of SET 00US will change as well as output signal. And the range is 00US-30US.
When testing, the value varies from lower to higher until the steering engine has apparent& regular action, at this time, the value shown on the screen is the dead zone for steering engine.
The variation of dead band is very important for a servo, it will directly affect the overall resolution of the servo respondent input signal directly.

In a common servo, the theoretic dead bans is 1US; the corresponding respondent step is 1000. Due to the fitting and placing of the servo, the actual dead band of the servo will be different from the theoretic dead band. The actual frequency of band for the physical servo can be tested by measuring the dead band. A proper servo can be chosen for usage in relevance from the result of the dead band.
Note: This function is used to test the dead band of servo (It can also be used to calculate the resolution of servo). The test can also be used to choose the servo based on differential timing, reaction timing. (This is great for models like CCPM which need 3 servos for it's rotor head.
Press “MENU” to exit.

2.5.SP MODE

Plug into the servo that need testing, then press “ENTER” to start testing, testing screen shows **SPEED TESTING**, which means testing is going on, about 3s later, the screen shows as follows:

0.22 represents the time taken for the servo to rotate 60°, a retest can be done by pressing ENTER. The reaction time recorded for each servo might differ in the tests. In order to find the most consistent piece of servo, simply put it through a series of test; the closer the test result the more consistent the servo.

Press “ENTER” to test again.

2.6.WP MODE:

After entering **WP MODE**, it shows as follows:

BOUND is the swing range of servo. SPEED is the swing speed of servo, BOUND is adjusted by knob(0-25), SPEED is adjusted by “UP&DOWN”. There are just a little difference between SPEED of digital mode and SPEED of analog mode. The range of the SPEED of digital mode is 0-10, the range of analog mode is 0-20. This function is used to test the ageing and life of the servo. There are some certain reparative functions for some aquiver servos.
Press “ENTER” to test again.

2.7.PW MODE

The mode is used to test the pulse width of input , connect with pulse, it will show **INIT .....WAITING** after enter this mode., 2 seconds later, the screen will show:

It is mean that the pulse width of input is 1541 us.
This mode can test the output pulse of

connector and test whether there is any problem on the signal unstable of the quiver of servo. When connect with the connector, it needn't connect with the extra power supply, connect with the pulse connector, the tester will use to the power supply of the pulse connector, the program will enter the pulse width testing mode automatically.
Press “ENTER” to test again.

Note:

Note:


Rolls