Brushless Motor speed controller Manual
W12A/ W25A/W30A

Operation Limit:

12A: <u>max current</u> 15A, continuous current 12A for 10 minutes

25A: <u>max current</u> 30A, continuous current 25A for 10 minutes

30A: <u>max current</u> 35A, continuous current 30A for 10 minutes

Voltage Range: 6V-12V

Number of Batteries: 4-12NiMH, 2-3LiPo

BEC Output: 5V1.5A.2LiPo\4-5mini servo, 3Lipo\3-4mini servo

Protective Functions:

✦ Automatically select 2-3LiPo,protective voltages are 6V/9V respectively;

✦ Automatically select NiMH, the protective voltage for each battery is 0.8V.

✦ Safe start –will not start if the throttle stick is not in the right position;

✦ Temperature protection, shutdown if the surface temperature reaches 110℃

✦ lost of control protection, shutdown after I second without signal.

Performance:

✦ <u>motor limit:</u>

☆   2-pole   adversion   as high as 300000rpm

☆   12-pole adversion 50000rpm

☆   14-pole adversion 42000rpm

✦ For 8KHzpWM control ,

✦ Position of the full, throttle will be adjust automatically

✦ BEC and MCU use separate power supply for table operation.

Setting Method:

1. Open the transmitter, switch throttle stick to the full power position (for FUTABA series transmitter, the throttle stick shall be switched to REV).
2. Connect the receiver and motor.
3. Connect the power to the speed controller.

4．If the transmitter is in normal condition, it will have the following sound: (if there are no more sounds after a long low sound at the end of this sound, check the reverse setting of the transmitter throttle channel).

☆ B: indicates LIPO automatic protection

☆ BB BB: indicates NiMH/NiCD automatic protection

☆ BBB BBB: indicates brake selection

5. If there is setting you want in the process of sound cycle, switch the throttle stick, to the lowest position at the first time interval. (For example, select LIPO automatic protection: switch the throttle stick to the lowest position when   hearing one B sound)

6. If there is another additional setting, quickly switch the gun to the highest position to make a selection.

7. If you have finished the setting you require, wait 2 seconds and the motor will send a confirmation sound for battery protection. It is usable after confirming the position of throttle stick.

8. LIPO automatic protection has only 2 voltage protection points, i.e 6V and 9V. There is no need to use a full capacity battery.

9. NiMH automatic protection is calculated according to the real number of batteries. Sets 0.8V for each battery. In order to ensure accurate judgment of the battery voltage, please charge the battery to full capacity. If the battery is not at full capacity. The speed controller will estimate the protection voltage according to 53% of the full capacity.

10. the brake is seeing as default set

11. Reset the brake operation to release the brake function. .

12. Factory parameter reset function: because this series of electronic governor has an overheating and false operation protective function, if you find that the speed controller is accelerating or changing is direction, or the throttle is different from the original condition, you can reset the factory parameters to obtain the highest performance.

When starting the machine there is a long B sound. It indicates that the electronic governor is in LIPO protection mode. The BBB sound indicates that it is in NiMH/NiCD automatic protection mode.

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BRUSHLESS MOTOR CONTROLLER

SETUP MENU （for 50A and 70A）　　NO POWER OUTPUT TO RECEIVER

Type	Current		Dimension	BEC	Voltage	Battery	Protective
	Moment	Continuous (10minutes)					
50A	55A	50A	43×38×10mm	5V/3A on-off type manostat or OPTO	13-25V	LIPO 4-6 NIMH/Nicd 12-18	4/5 /6LIPO protective voltage 13/15V/18V
70A	75A	70A	58×38×12mm				

1. Connect the motor and receiver to the speed controller

2. Move throttle stick on full power position (UP Position)

3. Turn on the transmitter.

4. Reconnect battery power to the speed controller

After 3 sec you can hear (all sound is 3 times)

♪—　　　　　　　　　　CELL Type and Number

♪— —　　　　　　　　　BRAKE

◊— — —   TIMING MODE

◊— — — —   PWM

ON you need programming menu, move the throttle stick to the middle position？

1. CELL Type and Number SET

    •—   NiMh/Nicd   AUTO（0.8V/CELL）

    •— —   4LIPO （2.75V/CELL）

    •— — —   5LIPO（2.75V/CELL）

    •— — — —   6LIPO（2.75V/CELL）

2. BRAKE SET

    ••—   NO

    ••— —   SOFT

    ••— — —   MID

    ••— — — —   HARD

3. TIMING MODE SET

    •••—   3°

    •••— —   8 °

    •••— — —   15°

    •••— — — —   30°

4. PWM SET

    ·—   8KHZ

    ·— —   16KHZ

    ·— — —   32KHZ

IF the option is you need, then move the throttle stick to UP position.

The long BEEP is save the option. And the system will go to the programming menu.

You can setup other options.

When all you need option is setup ok, push the throttle stick to down position, after

1 sec the system will save all option, and then you can start the motor now!!

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BRUSHLESS MOTOR CONTROLLER
SETUP MENU (for new 18A /20A)

First, connect the motor and receiver to the speed controller

Remove battery power from the speed controller.

Turn on the transmitter.

Move throttle stick on full power position (UP Position)

Reconnect battery power to the speed controller

After 3 sec you can hear (all sound is 3 times)

𝄞—   CELL Type AND Number

𝄞— —   BRAKE

𝄞— — —   TIMING MODE

𝄞— — — —   Voltage Protection

ON you need programming menu, move the throttle stick to the middle position

5.   Cell type and number SET

•—

•— —   2LIPO （7.4V）

•— — —   3LIPO（11.1V）

6.   BRAKE SET

••—   NO

••— —	SOFT
••— — —	MID
••— — — —	HARD

7. TIMING MODE SET

•••—	2º
•••— —	7 º
•••— — —	15º
•••— — — —	30º

8. Voltage Protection

••••—	2.8V/CELL
••••— —	2.9V/CELL
••••— — —	3.0V/CELL

Attention: 10C or higher battery suggest select the 3.0V as the protection voltage.
IF the option is you need, then move the throttle stick to UP position.
The long BEEP is save the option. And the system will go to the
programming menu. You can setup other options.
When all you need option is setup ok, push the throttle stick to down position,
after 1 sec the system will save all option, and then you can start the motor now.

Tower Pro Brushless Speed Controller Manual

（100A）

The restrictions on the use of the 100A Brushless ESC:

1. The ambient air.

2. The current cannot exceed 50A and the time cannot exceed one minute when the throttle stick to the middle position.

Basic character：

Type	Current		Dimension	BEC	Voltage	Battery	Protective function
	moment	continuous (10minutes)					
100A	120A	110A	75×55×20mm	OPTO	13-32V	LIPO 4-8 NIMH/Nicd12-24	4-6-8 LIPO protective voltage is 13/18/24V

Setting way：

1. Connect the motor and receiver to the speed controller

2. Move throttle stick on full power position, (UP Position)

3. Turn on the transmitter.

4. Reconnect battery power to the speed controller. After 3sec you can hear (all

sound is 3times)

♪—   Cell Type and Number

♪— —   Brake

♪— — —   Timing　Mode

♪— — — —   PWM

If you need programming menu, move the throttle stick to the middle position
　　1. CELL Type and Number Set

·—   NIMh / Nicd AUTO (0.8V/CELL)

·— —   4LIPO （2.75V/CELL）

·— — —   6LIPO   (2.75V/CELL)

·— — — —   8LIPO   (2.75V/CELL)

2. BRAKE SET

·—	NO
·— —	SOFT
·— — —	MID
·— — — —	HARD

3. TIMING MODE SET

·—	3°
·— —	8°
·— — —	15°
·— — — —	30°

4. PWM SET （频率设定）

·—	8KHZ	8
·— —	16KHZ	16
·— — —	32KHZ	32

IF the option is you need, then move the throttle stick to UP position.

The long BEEP is save the option. And the system will go to the programming menu.

You can setup other options.

When all you need option is setup OK, push the throttle stick to down position, after

1sec the system was save all option, and then you can start the motor now!!