



AIR

BRUSHLESS SYSTEM

VIPER R/C SOLUTIONS

AIR SERIES

ELECTRONIC SPEED CONTROL

Air Series Technical Specifications

	Air-10	Air-25	Air-40
P/N	6VSARD1001	6VSARD2501	6VSARD4001
Support Li-Po Cell	2S-3S	2S-3S	2S-6S
BEC	Linear	Linear	Switching
Continuous Current	10A	20A	40A
Burst Current (15 Sec with proper air flow)	12A	25A	50A
Dimension (mm)	41x14x8	42x27x12	64x30x12
Wire Size	20awg	16/18awg	14awg
Weight (g)	7g	24g	47g

	Air-60	Air-80	Air-120
P/N	6VSARD6001	6VSARD8001	6VSARA2001
Support Li-Po Cell	2S-6S	2S-6S	2S-6S
BEC	Switching	Switching	Switching
Continuous Current	60A	80A	120A
Burst Current (15 Sec with proper air flow)	75A	95A	150A
Dimension (mm)	64x30x14	64x30x14	58x43x17
Wire Size	14awg	12awg	10awg
Weight (g)	59g	73g	128g



For service and technical inquiries, please visit Viper-RC.com.
Or e-mail to Technical.Support@viper-rc.com.
Made in Taiwan

Air Series Features

- Wide range of selection from 10A to 100A for different airplane applications
- Easy ESC setting process with radio transmitter
- Programmable Motor Timing for the best efficiency/performance demands
- Programmable Li-Po Battery Management System that automatically detects Li-Po cell number
- Programmable Flying Mode (Normal / Brake / Soft Start)
- Build-in thermal protection that cuts motor power when ESC reaches 230 °F

Precautions

- Safety #1. Viper R/C Solutions, Inc. is not responsible for your use of this product, or for any damages or injuries you may cause as a result or its usage. Always set up the ESC and motor with airplane propeller away from your body and others all times.
- Always follow your Li-Po battery manufacture's safety guidelines. Your Viper Air Series ESC is designed by default to operate with Li-Po battery packs. The factory default is 3.0V per cell cutoff voltage.
- Ensure to connect correct battery polarity to your Viper Air Series ESC. Any reversed polarity will damage the ESC, and void the factory warranty.
- Ensure to install the ESC in a location with good air flow, and good protection.

Programmable Functions & Factory Default

Function	1	2	3
Motor Timing	Low	**Standard	High
Battery Management System	**3.0V/Cell	2.8V/Cell	n/a
Flying Mode	**Normal	Brake	Soft Start

** Factory default

Connect Air Series ESC

- The battery power input side has RED (positive) and BLACK (negative) wires. You need to solder it with desired battery connector. Make sure to solder it with correct polarity.
- The motor side has 3 wires in BLACK color. You need to solder it with matching size female bullet connector.
- There is no polarity for the 3 motor wires.
- If the motor spins the wrong direction when throttle is applied, simply swap any 2 of the motor wires. It will reverse motor direction.

Air Series Set Up Procedure

1. Radio/ Throttle Calibration

Every new Viper Air Series ESC needs to perform radio/throttle calibration. Please follow below process after you connect the ESC to proper receive channel:

- Set throttle stick on the transmitter to full throttle position.
- Power on transmitter
- Connector battery pack to your Air ESC, then the ESC will engage to calibration mode with confirmation tones (♪ ♪ ♪ ♪ ♪ ♪)
- Set throttle stick on the transmitter to idle position, then the ESC will finish the calibration process with confirmation tones (♪ ♪ ~ ♪ ♪)

After calibration is completed, you could power off the ESC by removing

2. Set Up Motor Timing

After radio/throttle calibration process, the system will enter programming mode automatically if power is still on. There are 3 options in Motor Timing section (Low / Standard / High). Low motor timing will make the motor to run with less RPM, while High motor timing will increase the motor RPM for better performance.

- Low Motor Timing ♪~♪
- Standard Motor Timing ♪~♪♪
- High Motor Timing ♪~♪♪♪

When you hear the corresponding tones, move the throttle stick from idle to full throttle position to select the option. Then you move the stick from full throttle to idle position to save the setting. If you do not need to set up other functions, you could remove the battery connector to

3. Battery Management System

After Motor Timing section, the system will enter Battery Management System section. There are 2 options in this section (3.0V or 2.8V/ Cell). The 3.0V/Cell option is factory default. The 2.8V/Cell option provides more aggressive low voltage cut off for longer flying time.

- 3.0V/Cell ♪♪~♪
- 2.8V/Cell ♪♪~♪♪

When you hear the corresponding tones, move the throttle stick from idle to full throttle position to select the option. Then you move the stick from full throttle to idle position to save the setting. If you do not need to

4. Flying Mode

After Battery Management System section, the system will enter Flying Mode section. There are 3 options in this section (Normal/Brake/Soft Start).

- Normal Mode ♪♪♪~♪
- Brake Mode ♪♪♪~♪♪
- Soft Start Mode ♪♪♪~♪♪♪

When you hear the corresponding tones, move the throttle stick from idle to full throttle position to select the option. Then you move the stick from full throttle to idle position to save the setting.

Product Warranty

Your VIPER Air Series ESC is guaranteed to be free from defects in materials and workmanship for a period of 365 days. Your **original receipt** showing the item and the date and place of purchase is required with your warranty service application. An ESC that is found to have been mishandled, abused or used incorrectly, including use in an application other than that for which the ESC is intended, will not be covered under the warranty. Viper R/C Solutions, Inc. has no control over the use of the ESC application with other electronic devices such as motors and batteries. Viper R/C Solutions, Inc. is not liable for any loss or damage, whether direct or indirect, incidental, or consequential, or any situation from the use, misuse or abuse of the product. Your Air series ESC is not a toy. This product is not intended for use by a child under age of 14 without adult supervision. The Air Series ESC generates a lot of power that could result physical injuries. By setting up, connecting or operating the product, the user accepts all related liabilities.

The following is considered mishandled and not covered by the factory warranty:

- Physical/mechanical damage due to external impact.
- Modification or disassembled by the user.
- Incorrect application setting
- Overheating that causes wires and connector desoldering.
- Product damage by water or dirt.
- Lack of maintenance that accumulates dirt and moisture to cause product malfunction.
- Unsecured/ improper installation that causes physical/mechanical damage .

For warranty service, please go to <http://viper-rc.com/contact.php> or e-mail to technical.support@viper-rc.com .



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