

# Simple Fan Speed Dimmer (FRC-2)

## OVERVIEW

The Aerofan Fan Speed Dimmer (FRC-2) is a simple device designed for precise speed control of a group of Aerofan Electronically Commutated (EC) fans. Featuring an intuitive adjustment knob, it allows users to adjust fan speeds accurately from 0% to 100%. Multiple Aerofans can be grouped and controlled together using a single FRC-2 module. Utilizing sophisticated digital communication and EC fan technology, the FRC-2 ensures precise and seamless control of the connected fans, promoting optimal performance and precise airflow management.

EC fan technology enhances energy efficiency and operational reliability. EC fans incorporate brushless DC motors with integrated electronics for lower energy consumption and longer life expectancies. The user-friendly interface of the FRC-2 makes it easy to set desired fan speeds, making it particularly beneficial for environments such as data centers, industrial facilities, and large commercial spaces. To conclude, the FRC-2 offers an excellent choice for fan speed management.



## GENERAL INFORMATION

|                    |                                   |
|--------------------|-----------------------------------|
| Brand              | Aero-Fan                          |
| Model              | FRC-2                             |
| Exterior dimension | 170*90*54 mm / 6.7*3.54*2.12 inch |
| Weight             | 0.265lb                           |

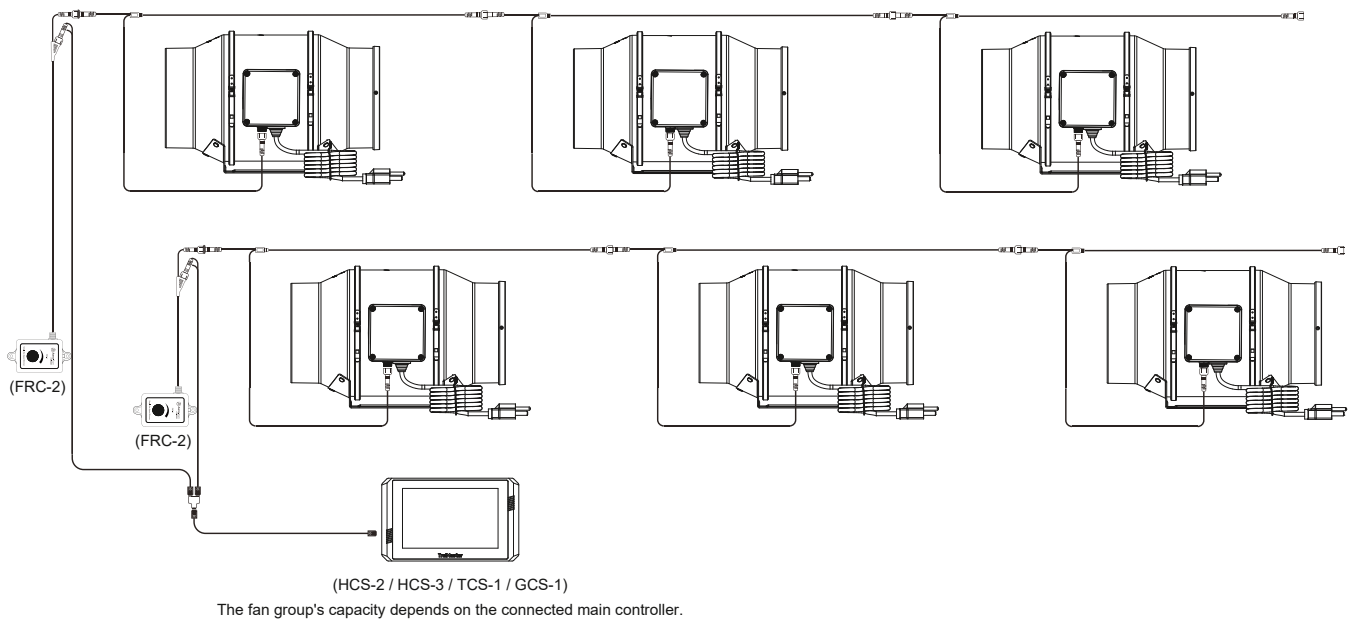
## SPECIFICATIONS

| ITEMS                 | SPECIFICATIONS               |
|-----------------------|------------------------------|
| Input Voltage         | 12V *Provided by the Aerofan |
| Amperage              | 0.1A                         |
| Operating Temperature | 32-104°F                     |
| Operating Humidity    | ≤ 90%                        |

## PACKAGE CONTENTS

- 1x Simple Fan Speed Dimmer (FRC-2)
- 1x 4ft M12 Cable

## CONNECTION DIAGRAM



## INSTRUCTIONS

1. Controlling the speed of a group of fans with the FRC-2 is straightforward due to its intuitive control knob:

- **Increasing Fan Speed:**
  - Turn the control knob clockwise.
  - The fan speed will incrementally rise as you rotate the knob.
  - The maximum fan speed is 100%, allowing the fan to operate at full capacity.
  - Useful for situations requiring maximum ventilation or cooling.
- **Decreasing Fan Speed:**
  - Turn the control knob counterclockwise.
  - The fan speed will gradually decrease as you rotate the knob.
  - The minimum fan speed is 0%, effectively turning off the fan.
  - Ideal for conserving energy when full airflow is not needed.

The control knob's smooth and responsive design ensures precise adjustments, making it easy to achieve the desired fan speed with minimal effort, which is especially beneficial in environments where fine-tuned airflow is critical.

## 2. Control Knob

Controlling the speed of multiple fans with the FRC-2 is a straightforward process.

To increase the fan speed, turn the control knob clockwise. The maximum fan speed that can be set is 100%.

To decrease the fan speed, turn the control knob counterclockwise. The minimum fan speed that can be set is 0%.

Note that the Swing function will be automatically disabled if the fan speed is decreased to 0%.

## 3. Hydro-X Pro (HCS-2) / Hydro-X Plus (HCS-3) Connection

Connect the FRC-2 to the HCS-2/HCS-3 controller using the 12' RJ12 to 4-pin Connector Cable (ECS-9). Insert one end of the cable into the "DEVICES" port on the HCS-2/HCS-3 controller, and plug the other end into the corresponding port on the FRC-2.

Once the connection is established, press the control knob on the FRC-2 once to assign an address to the FRC-2 on the HCS-2/HCS-3 controller. This will enable communication between the two devices.

When the HCS-2/HCS-3 controller successfully connects and addresses the FRC-2, the remote control functionality can be accessed through the controller. Turning the knob will reflect the fan speed set on the controller.

## 4. Temporary Override Mode

To activate the Temporary Override Mode, simply turn the rotation knob or press any button. This mode allows you to bypass the controller's schedule and make immediate adjustments to the fan settings. Once activated, the fan will operate based on the temporary adjustment data for a duration of 30 minutes.

### Important Notes

- **Automatic Reversion:**  
If no further adjustments are made from the FRC-2 within the 30-minute period, the fan will automatically revert to the controller's original settings and exit the Temporary Override Mode.
- **Controller Adjustments:**  
If any adjustments are made using a connected HCS-2/HCS-3 controller, the fan will immediately exit the Temporary Override Mode and switch to the new settings configured on the controller.
- **Standalone Operation:**  
If no controller is connected to the fan(s) and FRC-2, the FRC-2 will function only as a manual adjustment device. The fan speed will remain fixed at the level set by the rotation knob, without any automatic schedule adjustments.

For any issues or concerns with our products, DO NOT return them to the store. Please contact our tech support department at [support@trolmaster.com](mailto:support@trolmaster.com) or call 877-420-9876.

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