

# OWNER'S MANUAL

## AUTOPILOT TOUCHSCREEN MULTI-FAN CONTROLLER AIRFLOW HVLS FANS



FALCON III



EAGLE VI

**BLUE GIANT®**

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## 1.0 SOFTWARE FEATURES

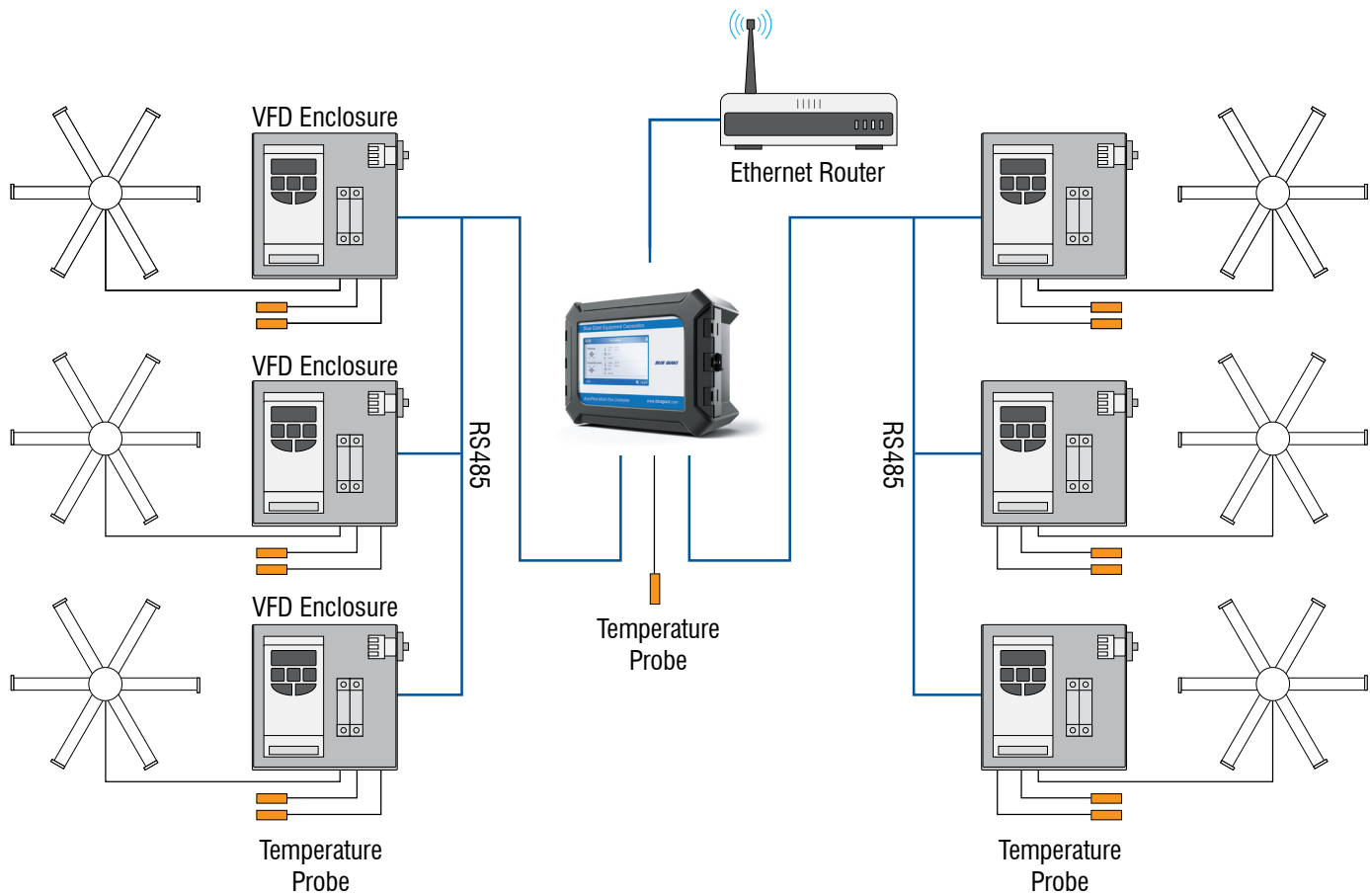
- End user to have full control of each individual AirFlow HVLS Fan's output RPM.
- Ability to view current speed of each AirFlow HVLS Fan.
- Ability to turn each AirFlow HVLS Fan on or off from the controller.
- Ability to control and network a minimum of 24 AirFlow HVLS Fans (12 per leg) together.
- Ability to continue to operate AirFlow HVLS Fans in both forward and reverse directions.
- Ability to name each AirFlow HVLS Fan connected separately.
- Password lockout with four (4) user levels.
- Three (3) preferred settings. Each AirFlow HVLS Fan connected to the controller will have these options and each AirFlow HVLS Fan will be able to have a different preferred temperature setting:
  - **Cooling:** Ability to choose a temperature at the floor level in which if the temperature rises too much, the fan will increase its RPM automatically until the chosen temperature is reached.
  - **Destratification:** Ability to choose a temperature at the floor level and have the fan adjust it's RPM automatically to level out the floor and ceiling temperature.
  - **Manual:** Gives user full control of each individual fan's output RPM.
- Schedule a fan or group of fans to start and stop at user defined time intervals.

## 2.0 TECHNICAL SPECIFICATIONS

### AutoPilot Controller Specifications

Power Supply	90-250V 50/60 Hz
Dimensions	13.5" w x 10" h x 6" d (343 mm x 254 mm x 153 mm)
Weight	5.3 lbs (2.4 kg)
Language Protocol	Modbus RS485 communication
Temperature Inputs	Two local inputs / Up to 48 remote inputs
Display Operating Temperature	32°F - 105°F (0°C - 40.5°C)
Display	800 x 480 pixels
Touchscreen Size	6" w x 3.375" h (153 mm x 86 mm)
Enclosure Material	B1 standard splash proof
User Interface	7" (178 mm) capacitive touchscreen
Power Consumption	25W
Fans per AutoPilot	Maximum 24 fans; 12 fans per leg

### 3.0 FIELD WIRING DIAGRAM

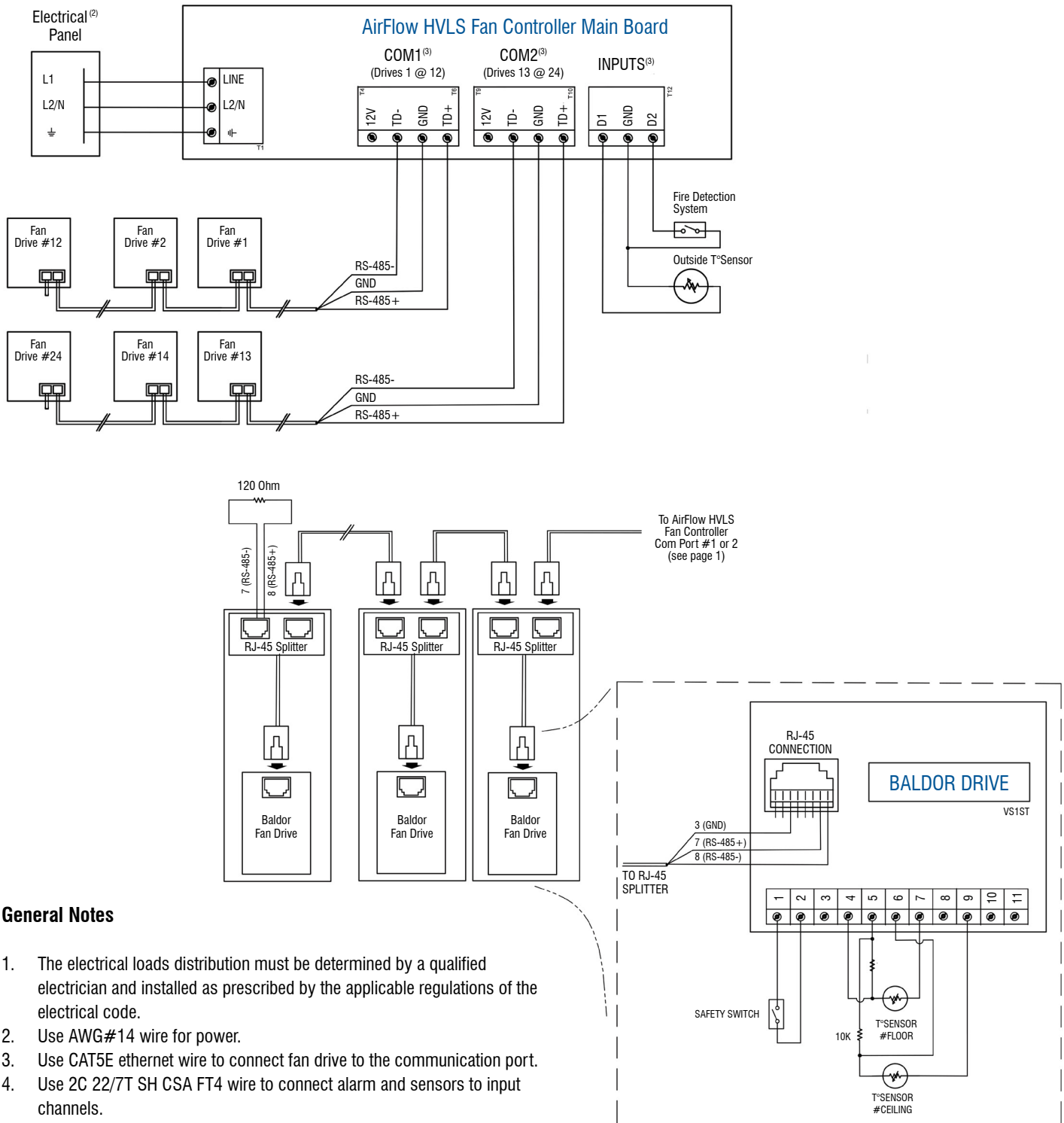


## 4.0 INTEGRATION

- Control your fans from a computer or web-enabled smart device.
- **Multiple levels of access:**
  - Administrator
  - Technician
  - Operator
  - Viewer
- Control fans from almost anywhere.
- Updates and patches are automatic.
- Two (2) temperature probes per fan required. One (1) located at roof level and one (1) located at occupant level.



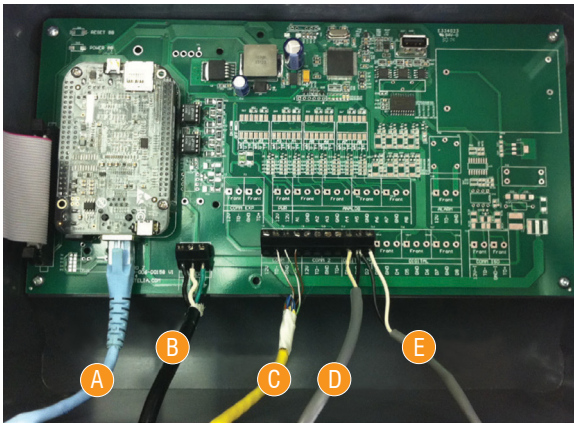
## 5.0 CONTROLLER WIRING DIAGRAMS



### General Notes

1. The electrical loads distribution must be determined by a qualified electrician and installed as prescribed by the applicable regulations of the electrical code.
2. Use AWG#14 wire for power.
3. Use CAT5E ethernet wire to connect fan drive to the communication port.
4. Use 2C 22/7T SH CSA FT4 wire to connect alarm and sensors to input channels.

## 5.0 CONTROLLER WIRING DIAGRAMS (continued)



- A. Ethernet
- B. Power
- C. Com to VFD
- D. Outside Temperature Probe
- E. Fire Alarm Signal

## 6.0 PROGRAMMING

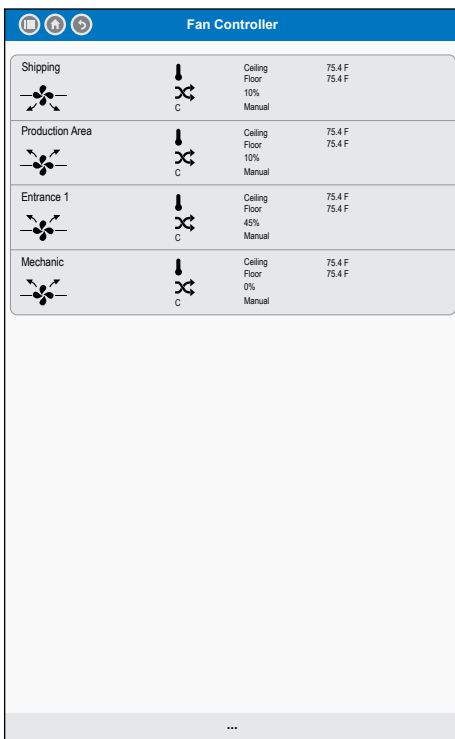
All interfaces will be accessible via a web browser; either desktop or mobile device. However, it must be touch screen compatible.

The controller will allow a maximum of 16 users to be defined and will support a minimum of three (3) simultaneous connections.

The following example shows a typical interface on a mobile device that the controller is able to offer.

- Design for 800 x 480 HMI

It will display the same way on the local touch screen via local web browser connected to the Internet / Wi-Fi.



Each page will follow this typical configuration:

### Header

- Page title and icon
- Blue Giant logo

### Main Content (depending on the page)

### Footer

- Current time (AM / PM display)
- Current season
- Outside temperature



Winter



Summer

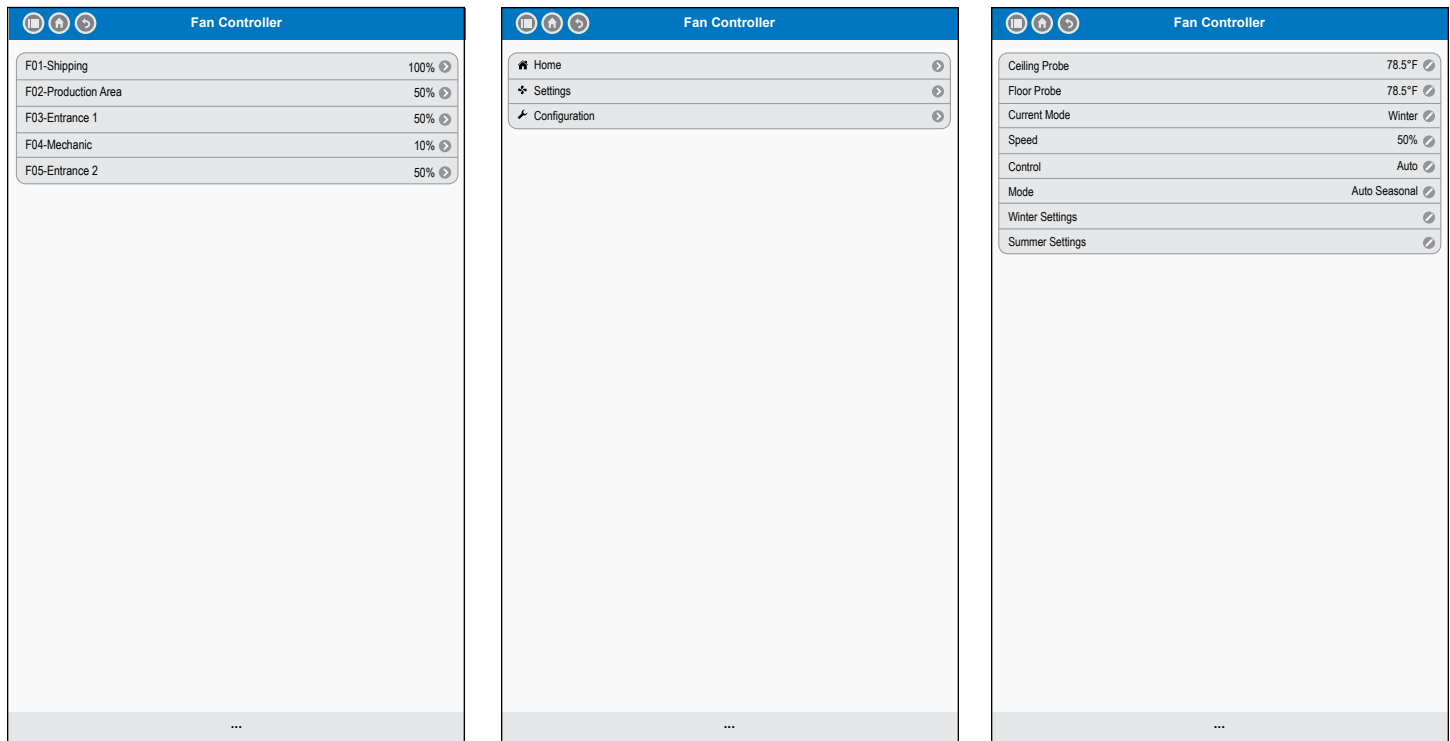
The application must be multilingual (English by default).

All interfaces will be accessible via a Web browser; ether desktop or mobile device. The software will allow four (4) types of access based on privileges (see 3.3.3.4.1 for details).

The controller will allow a maximum of 16 users and support a minimum of three (3) simultaneous connections.

## 6.0 PROGRAMMING (continued)

Here you can set the preferred temperature set points of each fan individually and set the fans to automatic or manual control modes.



**This page displays current fan data:**

- Current ceiling temperature
- Current floor temperature
- Current mode (manual control, override, winter, summer)
- Current speed (%)

**It displays the following parameters:**

- Control (Auto / OFF / Manual)
- Mode (Auto Seasonal / Winter / Summer / Override)

**In Auto-Seasonal mode it provides also shortcut to (see above):**

- Schedule setting
- Winter settings
- Summer settings (destratification)

**In Winter mode it provides also shortcut to (not illustrated):**

- Schedule setting
- Winter settings (destratification)

**In Summer mode it provides also shortcut to (not illustrated):**

- Schedule setting
- Summer settings



## 6.0 PROGRAMMING (continued)

Here you can connect the AutoPilot to your network. By connecting to your network, you can control your fans from any internet ready mobile device.

**Fan Controller**

F01-Shipping	100%
F02-Production Area	50%
F03-Entrance 1	50%
F04-Mechanic	10%
F05-Entrance 2	50%

...

**Fan Controller**

- Local Network
- Local Settings
- System Configuration
- Users
- Diagnosis
- About

...

**Fan Controller**

**Local Network**

IP Address	192.168.1.10
Subnet	192.168.1.1
Mask	255.255.0.1
Primary DNS	8.8.8.8
Secondary DNS	8.8.4.4

Apply Settings

**Dynamic DNS**

Service Provider	---
User name	---
Password	---
Domain Name	---

Apply Settings

...

This page allows configuration of all network settings of the fan controller. If these parameters are modified through remote connection, the connection will be lost. User must have to reconnect with the new settings. Here you can display all defined users and accessibility.

**Fan Controller**

F01-Shipping	100%
F02-Production Area	50%
F03-Entrance 1	50%
F04-Mechanic	10%
F05-Entrance 2	50%

...

**Fan Controller**

- Local Network
- Local Settings
- System Configuration
- Users
- Diagnosis
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...

**Fan Controller**

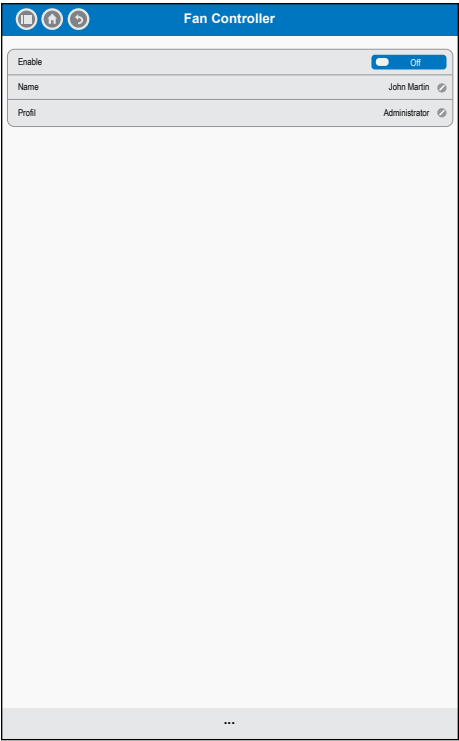
John Martin	Administrator
Adam Smith	Technician
Janet Smith	Operator
George Adams	Viewer

Add New User

...

6.0 PROGRAMMING (continued)

All interfaces will be accessible via a web browser; either desktop or mobile device. The software will allow four (4) types of access based on privileges.



- Administrator:** This user has all accesses and can manage the account of other users.
- Technician:** This user can modify any installation setup and operational parameters but cannot manage users.
- Operator:** This user can only modify operational parameters but cannot see installation setup or other users.
- Viewer:** This user can only see operational parameter but access to the configuration menu is not allowed.

If **DELETE USER** is selected, a message is displayed to confirm before deleting.

- Here you can set the preferred temperature set points of each fan individually and set the fans to automatic or manual control modes
- Here you can connect the AutoPilot to your network. By connecting to your network, you can control your fans from any internet ready mobile device.
- Here you can display all defined users and accessibility.



## NOTES



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