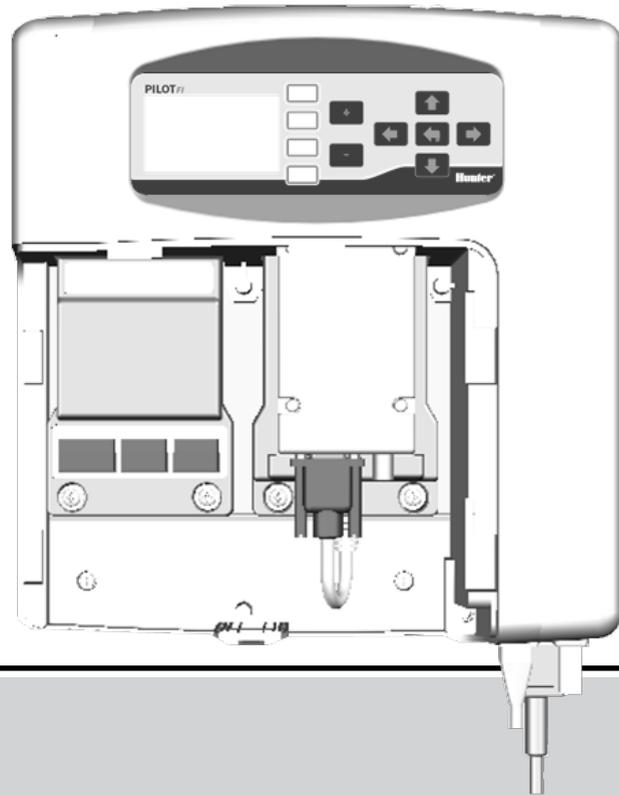


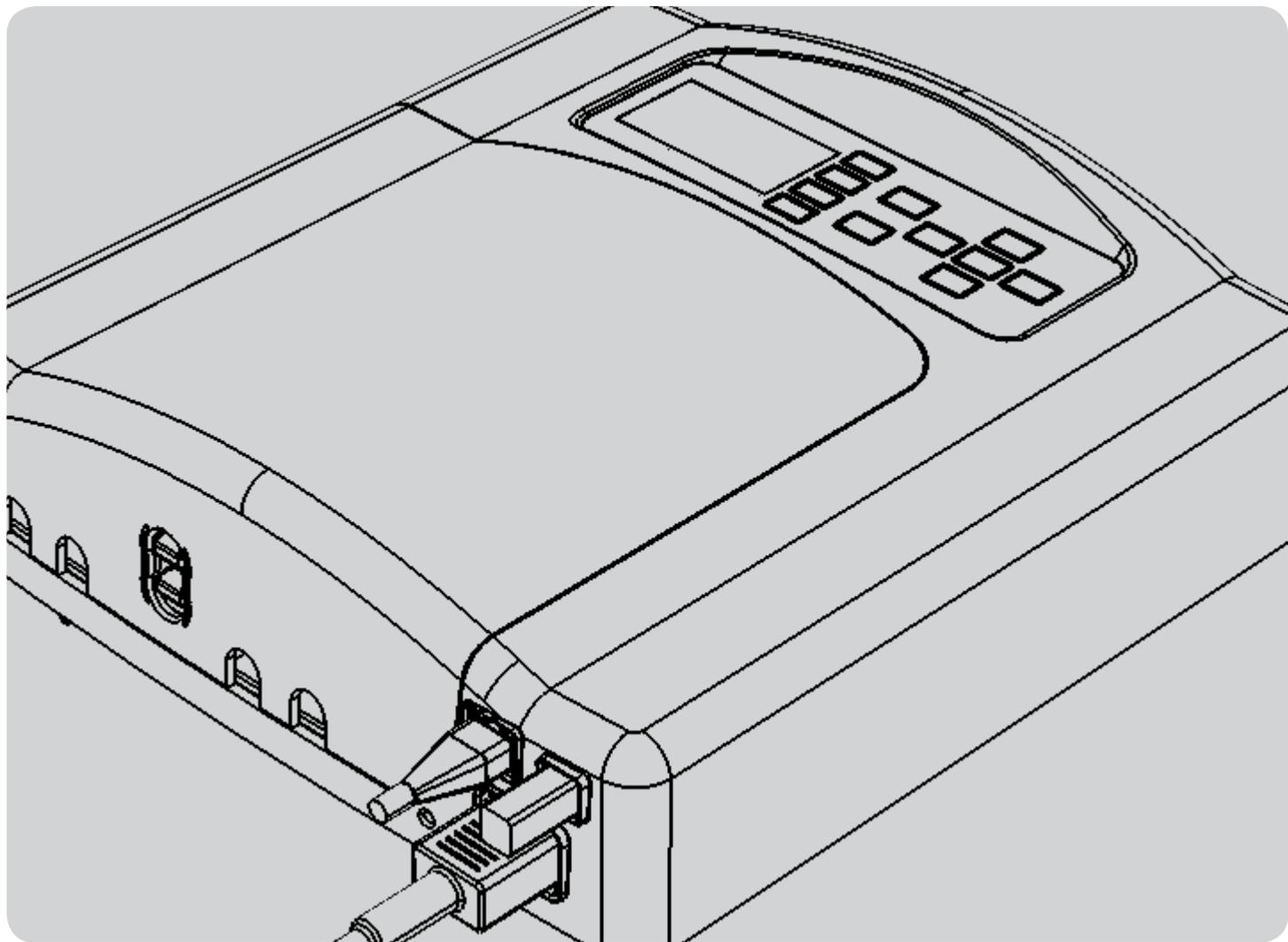
# PILOT-FI



**NEW**

Pilot-FI Field Interface  
Operator's Manual

**Hunter**<sup>®</sup>



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# OVERVIEW

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The PILOT-FI field interface is used with PILOT-FC field controllers or PILOT-DH decoder hubs to interface the field equipment with a central computer. When configured in this way irrigation management takes place at the central computer and irrigation cycles are transmitted as required to the field equipment.

The PILOT-FI control panel is used for set up and troubleshooting.



- **White Buttons:** White buttons to the right of the display are used to select among options as you work with the Controller.
- **Arrow Buttons:** Arrow buttons are used to move around within the display.
- **Back Button:** The BACK  button takes you back to the previous screen.
- **+/- Keys:** The  and  keys are used to increase and decrease numeric values.

*NOTE: Settings are saved automatically so there is no need for a SAVE button.*

# ALARMS

Most of the time the PILOT-FI field interface will display a checkmark  which means everything is working correctly.



An exclamation point  indicates there are one or more alarms.



To view the alarms select ALARMS.

## No Modules Installed

To communicate with field controllers or decoder hubs the PILOT-FI must have at least one communications module installed. If no communications module is detected the following alarm will be displayed.

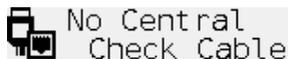


If this alarm is seen turn off the PILOT-FI power, open the front cover and install the missing communications module. If a communications module is already installed, remove it and inspect the connections for damage then reseal the module.

Reapply power to the PILOT-FI and the alarm should clear.

## No Central Detected

Under normal operation the PILOT-FI is connected by cable (USB or Ethernet) to the irrigation control computer. If the PILOT-FI does not detect the presence of the irrigation computer an alarm will be displayed.



## **ALARMS**

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If this alarm is seen either the irrigation computer is not turned on or the cable between the PILOT-FI and the irrigation computer is missing, damaged or not properly connected.

# DISPLAY SETTING

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## Language Setting

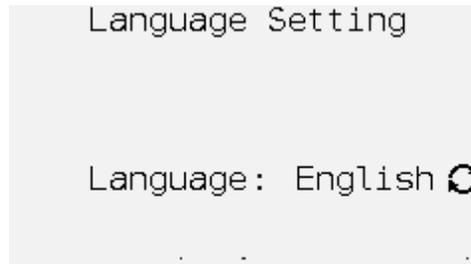
1. Select MENU to open the Main Menu.



2. Select DISPLAY SETTING.



3. Select LANGUAGE SETTING.



4. Use the OPTION  button to select the language.

## Display Contrast

Adjusting display contrast can make it easier to read under certain lighting conditions.

1. Select MENU to open the Main Menu.



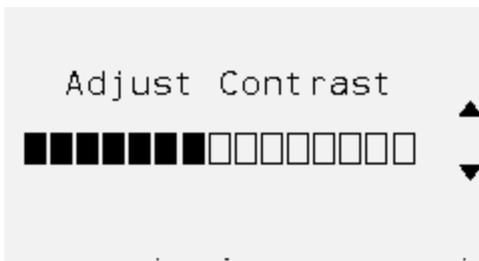
## DISPLAY SETTING

---

2. Select DISPLAY SETTING.



3. Select DISPLAY CONTRAST.



4. Use the up ▲ and down ▼ arrows to increase or decrease display contrast.

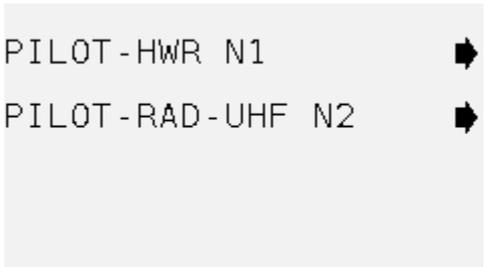
# COMMUNICATIONS MODULE SETUP

The PILOT-FI field interface is used as part of a central control system. When used in this way all field controllers or decoder hubs on the site are linked together and managed by a central computer. To communicate with the field equipment one or more communication modules are installed. Communication modules are available for hardwired, UHF radio and license-free radio systems. Only installed modules are displayed in the menu.

1. Select MENU to open the Main Menu.



2. Select COMM MODULE SETUP.

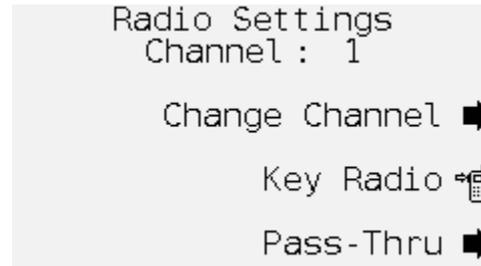


## Hardwire Communications

There are no settings required for the hardwire module. Simply plug the module into an available slot in the field interface.

## PILOT-FI UHF Radio Communications

1. Select PILOT-RAD-UHF. N2 refers to the second plug-in slot from the left in the field interface.



2. The channel will be displayed. The default channel is 1.
3. If necessary, select CHANNEL to change the radio channel. Use the +/- buttons to increase or decrease the channel setting.
4. Select KEY RADIO to activate the radio's push-to-talk when testing the radio.
5. Select PASS-THRU to put the radio in pass-through mode for testing and troubleshooting.

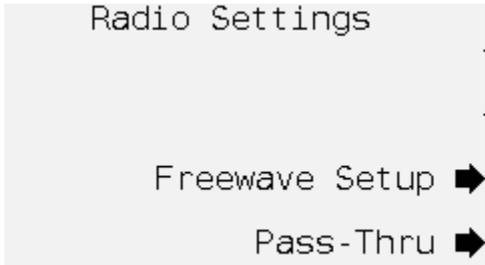
# COMMUNICATIONS MODULE SETUP

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## License-free 900 MHz Spread-spectrum Radio (US Only)

The license-free 900 MHz spread-spectrum radio operates at a frequency which can be used in the United States and does not require a license.

1. Select PILOT-RAD-900.



2. Select PASS-THRU to put the radio in pass-through mode for testing and troubleshooting.
3. If necessary, select FREEWAVE RADIO SETUP to configure the radio.
4. Set NETWORK ID, TX SUBNET ID, RX SUBNET ID and RADIO MODE as required.

## License-free 2.4 GHz Spread-spectrum Radio (International Only)

The license-free 2.4 GHz radio operates at a frequency which can be used in many international locations and does not require a license.

1. Select PILOT-RAD-24.
2. Select PASS-THRU to put the radio in pass-through mode for testing and troubleshooting.
3. If necessary, select FREEWAVE RADIO SETUP to configure the radio.
4. Set NETWORK ID, TX SUBNET ID, RX SUBNET ID and RADIO MODE as required.

# TESTING

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The PILOT-FI field interface has several communication test features.

1. Select MENU to open the Main Menu.

```
Display Setting ➡  
Comm Module Setup ➡  
Testing ➡  
View Module Info ➡
```

2. Select TESTING.

```
Field Communication ➡  
Central Status ➡  
Maintenance Radio ➡
```

## Field Communication Test

The field communication test will attempt to communicate with the selected controller. Successful attempts will accumulate and the signal quality will be displayed. For best results allow the test to run for several minutes.

1. Select FIELD COMMUNICATION.

```
Perform Test ➡  
Monitor Test ➡
```

2. To test communications between the PILOT-FI and a field controller or decoder hub select PERFORM TEST.

```
Target : FC/DH  
Controller : 00  
Attempts : 0  
Quality : 0%  
  
Start ➡
```

# TESTING

- 3. Use the +/- buttons to set the target controller or hub number. The target is the controller or hub you are trying to communicate with.
- 4. Select START.

```
Target : FC/DH
Controller : 001
Attempts : 16
Quality : 97%
RSSI : 96%

Stop ➡
```

- 5. During the test, signal quality is measured and displayed. Wait for at least 10 attempts to get a reliable quality measurement.



**NOTE: UHF radio communication modules include an RSSI measurement. RSSI is an indication of the strength of the signal received from the target controller.**

- 6. To stop the test select STOP.

- 7. To monitor a communication test being run between two controllers or hubs select MONITOR test.

```
Perform Test ➡
Monitor Test ➡
```

- 8. If signals transmitted between the two other devices can be detected they will be displayed. The REQUEST signal is sent from the source (controller initiating the test) to the target controller. The RESPONSE is sent from the target back to the source.

```
Request
FC/DH 28 ➡ FC/DH 3

Response
FC/DH 28 ◀ FC/DH 3
```

# TESTING

---

## Check Connectivity with the Central Computer

When used with a central control the PILOT-FI must be connected via cable to the computer running the PILOT central control software. Normally the PILOT-FI will be connected to the central computer using a USB cable. If the PILOT-FI and central computer are more than 15 feet (5 meters) apart the ethernet connection must be used.

1. Select CENTRAL STATUS.

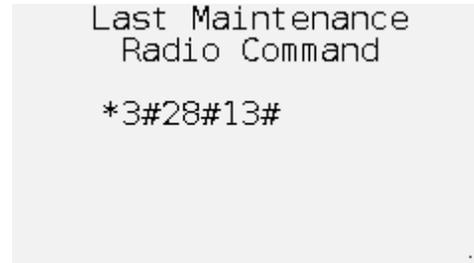


2. Field interface connectivity with the central computer is shown. Should both USB and ethernet cables be connected at the same time the system will use the ethernet connection.

## Maintenance Radio

The maintenance radio is a handheld radio with numeric keypad used to send commands for sprinkler control while out on the golf course.

1. Select MAINTENANCE RADIO.



2. The last command received from the maintenance radio will be displayed.
3. This test works in real time so the display can be monitored as commands are keyed into the maintenance radio.

## MODULE INFORMATION

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The field interface is made with several components or modules. Each module has its own version indicating when it was manufactured. Occasionally it may be necessary to identify the version number of a module.

All module information is presented in a similar format therefore these instructions only describe the facepack module.

1. Select MENU to open the main menu.

```
Display Setting ➤  
Comm Module Setup ➤  
Testing ➤  
View Module Info ➤
```

2. Select VIEW MODULE INFO.

```
Installed Modules  
  
Facepack 1 ➤  
Communications 2 ➤
```

3. Select FACEPACK.

```
Facepack  
Modules  
Module 1 of 1  
Name: PILOT-FP-FI  
Firmware: 0.01.002 b  
Bootload: 3  
Slot: N/A  
Board: 0
```

# SPECIFICATIONS

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## Dimensions

12" H x 11½" W x 3¼" D (30 cm H x 29 cm W x 8 cm D)

Weight: 4½ lbs. (2 kg)

## Electrical

### Power Supply Input

120/230 VAC at 60/50 Hz

0.6 amps maximum at 120 VAC

0.2 amps maximum at 230 VAC

## Features and General Specifications

- 6 languages: English, Spanish, French, German, Korean and Chinese
- Wall-mount indoor enclosure
- Modular design
- Supports both USB and Ethernet connections to irrigation computer
- Communications options to field equipment are hardwire, UHF radio and license-free spread-spectrum radio

# Hunter®

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