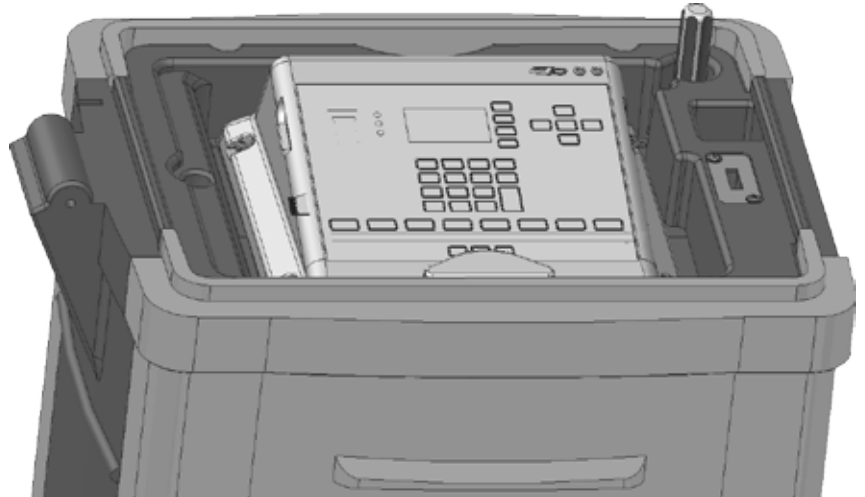


PILOT-DH



NEW

Pilot-DH Decoder Hub
Operator's Manual

Hunter[®]

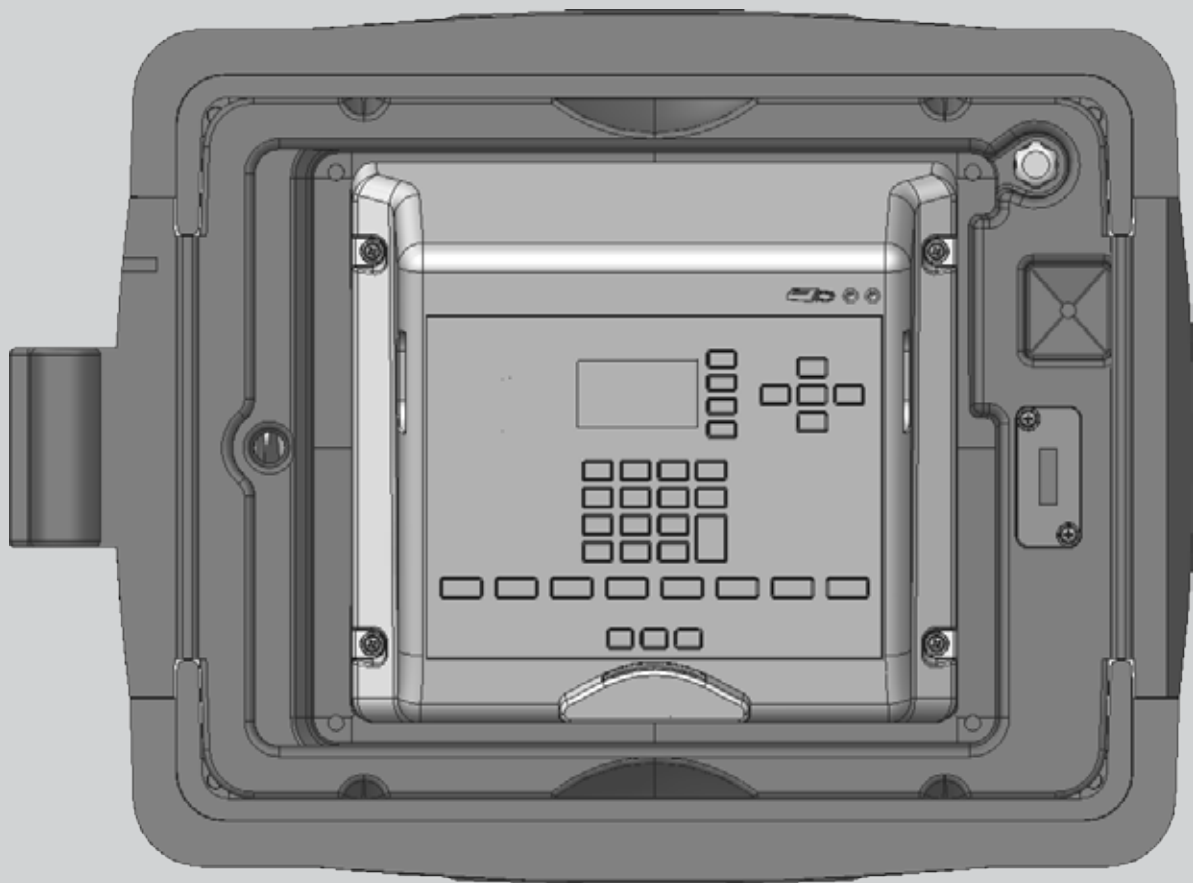



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QUICK START

Set Date and Time

1. Press the SETTINGS  button.
2. Select HUB SETTINGS then SET TIME.
3. Set the date and time.

Create Schedules

1. Press the SCHEDULE IRRIGATION  button.
2. Select WATER DAYS.
3. Enter a schedule number.
4. Use the OPTION  button to select a type of schedule.
 - **Water all Days:** Schedule will run every day.
 - **Days of the Week:** Schedule will run on selected days of the week.
 - **Skip Days:** Schedule will run according to interval such as every other day.
 - **Manual Only:** Schedule can only be run manually and will not be given a start time.
5. Press the BACK  button.
6. Select START TIMES.
7. Use the keypad to enter a schedule number. In this case it is the same schedule number used in step (3).

8. Use the OPTION  button to choose a start time option.
 - **Auto:** Schedule starts at the time entered.
 - **Start Plus Repeats:** Schedule starts at the time entered then repeats the indicated number of times.
 - **Start to End:** Schedule starts at the time entered then repeats as many times as necessary until the entered end time.
9. Press the BACK  button.
10. Select RUNTIMES.
11. Enter runtimes for each station (STA), block (BLK) or delay (DLY) you want in this schedule. Use the +/- keys to choose STA, BLK or DLY.
12. Repeat these steps for each schedule you want to create.
13. The hub is now ready to water automatically and will run stations at the scheduled times.

OVERVIEW






The Pilot-DH Decoder Hub is used to control decoder stations. In conventional field controller systems up to 80 valve wires plus common wires are brought back and connected to terminals in the controller. Decoder systems use one or more two-wire cables to which decoders, typically hidden in valve boxes are wired. Sprinkler valve wires are then connected to the decoder outputs. Because the decoder hub can manage up to 999 decoders, it is possible for all the sprinklers on the golf course to be controlled with a single hub. This means the entire control system is underground.

The decoder hub features a large display for system status as well as function buttons for the most commonly used features.

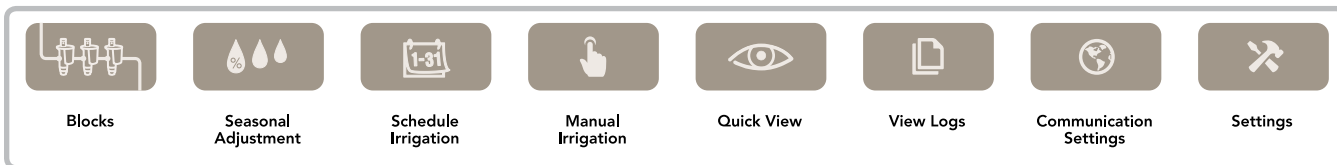
- **White Buttons:** White buttons to the right of the display are used to select among options as you work with the hub.



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

- **Arrow Buttons:** Arrow buttons are used to move around within the display.
- **Back Button:** The BACK  button takes you back to the previous screen.
- **+/- Buttons:** The  and  keys on the numeric keypad can be used to quickly increase and decrease values.
- **DEL Button:** The DEL  button on the numeric keypad is used to erase information typed in error.
- **AM/PM Button:** The AM/PM  button on the numeric keypad is used to choose between morning and evening when entering a time on hubs where the 12-hour clock option is selected.

This row of function buttons is the first step for the most commonly used features.

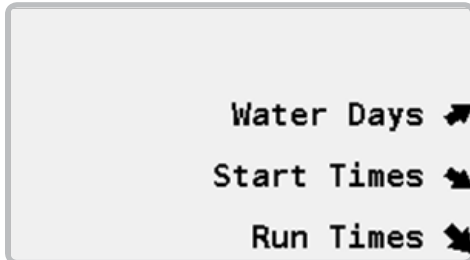


SCHEDULE IRRIGATION

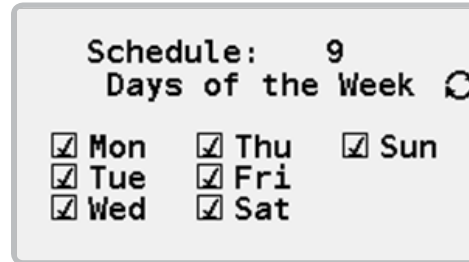
Schedules are lists of sprinklers, valves or blocks (see *Blocks page 6*) that start watering at a pre-determined time. Sprinklers and valves are often called stations. Schedules can also contain delays which are periods of time between the end of one sprinkler's runtime and the start of the next one. Each schedule can have up to eight start times. The hub can have up to 32 schedules; each with up to 64 stations, blocks or delays in any combination. For each schedule you define the daily water cycle, the automatic start time and runtimes for each station or block.


Create a Schedule

1. Press the SCHEDULE IRRIGATION  button.





2. Select WATER DAYS and enter the schedule number.



3. Use the OPTION  button to select the type of daily water cycle.
 - **Water all Days:** Schedule will run every day.
 - **Days of the Week:** Schedule will run on selected days of the week.
 - **Skip Days:** Schedule will run according to an interval such as every other day.
 - **Manual Only:** Schedule can only be run manually and will not be given a start time.


SCHEDULE IRRIGATION


4. Press the BACK  button then select START TIMES and enter the schedule number.


Schedule: 9 




Auto




1 - 2:00am	5 - _____
2 - _____	6 - _____
3 - _____	7 - _____
4 - _____	8 - _____

5. Use the OPTION  button to select a start time option.
- **Auto:** Schedule starts at the time entered.
 - **Start plus Repeats:** Schedule starts at the time entered then repeats the indicated number of times.
 - **Start to End:** Schedule starts at the time entered then repeats as many times as necessary until the end time.

6. Use the BACK  button then select RUNTIMES and enter the schedule number.

Schedule: 9 

STA/BLK #	RUNTIME	
STA 2	0:10	
STA 4	0:20	
STA 6	0:10	
STA 8	0:10	
Adjusted Total	2:40	

7. Enter stations (STA), blocks (BLK) or delays (DLY) with runtimes. Use the +/- buttons to choose STA, BLK or DLY. Use DELETE  to remove stations. Use INSERT  to insert stations. Use COPY  to copy stations to the next line and automatically increment the station number.

Adjusted Total is the total runtime of all stations in the schedule with any seasonal adjustment applied. (see *Seasonal Adjustment page 10*)

Once a schedule is created the water days, start times and runtimes can be quickly changed by selecting the appropriate menu option and entering the number of the schedule you want to edit. The +/- buttons can be used to quickly scroll through the list of available schedule numbers.

BLOCKS

Blocks are groupings of two to ten decoder stations that will run simultaneously. They are used to shorten irrigation time when your system has enough hydraulic capacity. When a block of sprinklers is created the block is treated like a single station. This means a block placed in a schedule will get a single runtime and all sprinklers in the block will run for that length of time.

Create a Block

1. Press the BLOCKS  button.

Block 3				
stations				
1	3	5	7	9
—	—	—	—	—

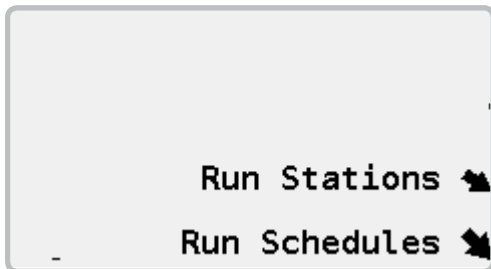
2. Use the numeric keypad to enter a number from one to 64 to identify the block.
3. Enter up to ten station numbers in any order.
4. You can create up to 64 blocks with up to ten stations each.

MANUAL IRRIGATION

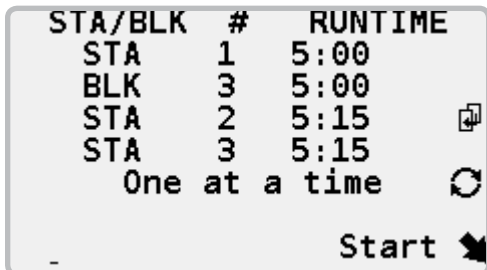
Manual irrigation is used to manually start schedules or stations. Both automatic schedules (see *Schedule Irrigation page 4*) and manual only schedules (those with water days set to manual) can be started this way. Manual irrigation is allowed even when the hub is paused (see *Pause page 14*) or in rain shutdown (see *Rain Shutdown page 13*).



Run Stations Manually

1. Press the MANUAL IRRIGATION  button.







2. Select RUN STATIONS.



3. Use the OPTION  button to select a runtime option.
 - **One at a Time:** Each station in the list must complete its full runtime before the next station will turn on.
 - **Simultaneous:** Multiple stations will turn on at the same time up to the power capabilities of the hub.
4. Enter station (STA) or block (BLK) numbers with runtimes. Use the +/- buttons to choose STA or BLK. Use COPY  to copy settings to the next line and automatically increment the station number.
5. Select START.

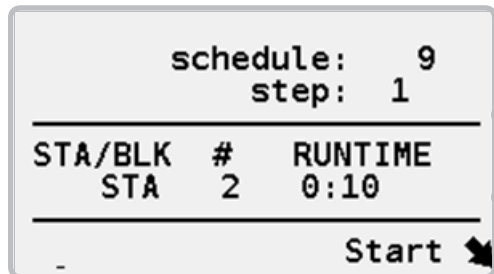
MANUAL IRRIGATION

Stop Stations

1. Press the QUICK VIEW  button if the display is not already showing running stations.
2. Use the UP  and DOWN  buttons to move the station pointer  through the list of running stations until it points to the station you want to stop.
3. Select STOP. The station will turn off and be removed from the list of running stations.

Run Schedules Manually

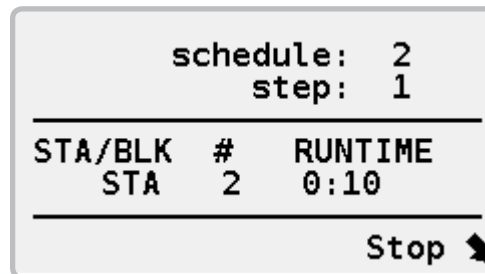
1. Press the MANUAL IRRIGATION  button then select RUN SCHEDULES.



2. Enter the schedule number. If you do not want to run the entire schedule, enter the step within that schedule where you want watering to start.
3. Select START.

Stop Schedules

1. Press the MANUAL IRRIGATION  button then select RUN SCHEDULES.



2. Enter the schedule number. Use the +/- buttons to quickly scroll through the available schedule numbers.
3. Select STOP.

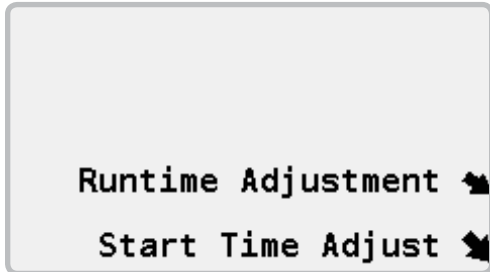
SEASONAL ADJUSTMENT

Seasonal adjustment is used to make quick adjustments to schedules as weather conditions change and the season progresses.

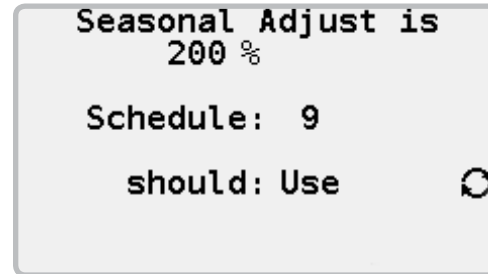
- **Runtime Adjustment:** Change runtimes for stations in selected schedules by the percentage you enter.
- **Start Time Adjustment:** Increase or decrease start times for all automatic schedules in 30 minute increments.


Runtime Seasonal Adjustment

1. Press the SEASONAL ADJUSTMENT  button.



2. Select RUNTIME ADJUSTMENT.



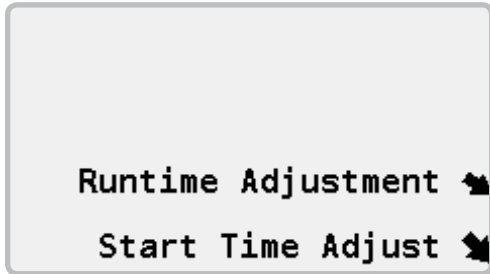
3. Enter a percentage adjustment using the keypad.
4. For each schedule use the OPTION  button to indicate if the schedule should USE or IGNORE the adjustment. You can scroll through the schedules quickly using the +/- buttons.
5. Seasonal runtime adjustments can be from one to 300%.

SEASONAL ADJUSTMENT

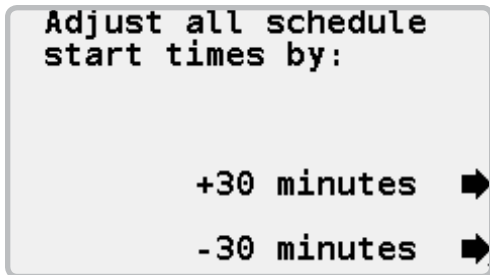
Start Time Seasonal Adjustment

Start time seasonal adjustment is used to quickly adjust schedule start times earlier or later in the evening as the season progresses and it begins to get dark earlier or later. Using start time seasonal adjustment you can quickly change the start times for all your schedules by + or - 30 minutes.

1. Press the SEASONAL ADJUSTMENT  button.



2. Select START TIME ADJUSTMENT.



3. As the season progresses and days get longer, use the +30 MINUTES button to make all your schedules start 30 minutes later. Later in the season, as days get shorter, use the -30 MINUTES button to make schedules start earlier.

QUICK VIEW

When no stations are running Quick View shows both the current time and next scheduled start time.

08:58pm

Next Start: 11:59pm

When sprinklers are running they will be displayed with remaining minutes of runtime. If the station is running as part of a schedule, a schedule (SH) number will be shown. If the schedule was started manually the type will be shown as MAN. Schedules started automatically are identified with a type of AUTO.

12:06am

Active 2 ▲

▶	STA	SH	TYPE	TO GO	▲
	18	--	Man	2:22	▲
	1	1	Auto	4:52	▼

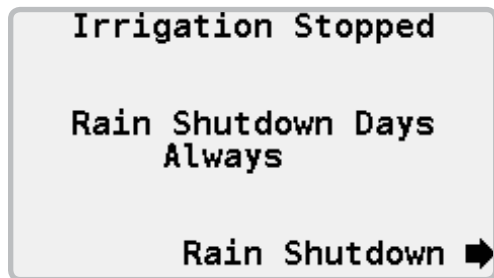
Stop ▶

RAIN SHUTDOWN

Rain shutdown is used to prevent schedules from starting automatically when it is raining. Because after it rains there may be no need to water for a while, rain shutdown can be set to prevent automatic schedule starts for up to 99 days.

Put Hub in Rain Shutdown

1. Press the RAIN SHUTDOWN  button.

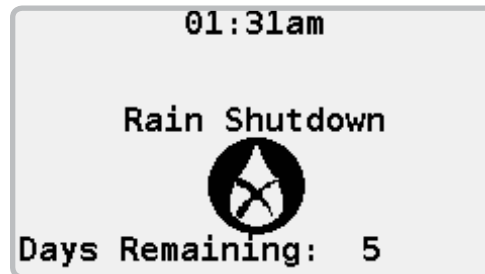



2. By default the number of days is set to ALWAYS which means schedules will not start automatically until you cancel the rain shutdown. Using the +/- buttons select the number of days automatic schedules should be interrupted.



NOTE: During rain shutdown you can still run schedules and stations manually. (see *Manual Irrigation page 7*)

3. Select RAIN SHUTDOWN.



4. Once the hub is in rain shutdown the display will change to show the number of days before automatic starts will resume.
5. To resume automatic irrigation before rain shutdown expires, press the RESUME  button.

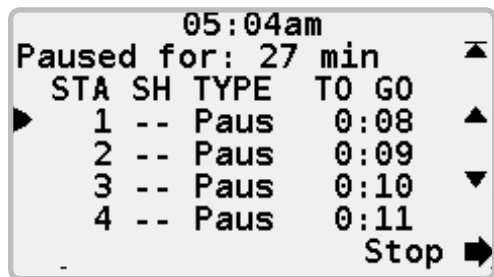
PAUSE


When irrigation is paused, all sprinklers turn off and automatic schedule starts are prevented. The hub remembers what was running along with any remaining minutes of runtime. This way, when irrigation resumes, watering will pick up where it left off and all sprinklers will get their full minutes of runtime.

Pause includes a 30 minute safety timer so if you forget to resume irrigation, it will start automatically after 30 minutes.

Pause Irrigation

1. Press the PAUSE  button.



2. Sprinklers that are running will turn off and automatic starts will be prevented.
3. The display will change to show irrigation is paused (Pause) and the pause timer will begin to count down.
4. To resume irrigation press the RESUME  button.

VIEW LOGS

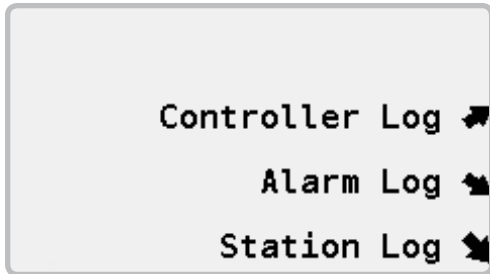
The hub maintains three sets of logs.

- **Controller Log:** Contains information about the hub.
- **Alarm Log:** Contains a list of alarms that have been triggered.
- **Station Log:** Contains information about decoder station outputs.

The logs are all very similar so only the controller log will be shown.

View Controller Log

1. Press the VIEW LOGS  button.



2. Select CONTROLLER LOG.



NOTE: The number following alarm log is the number of alarms listed in the log.

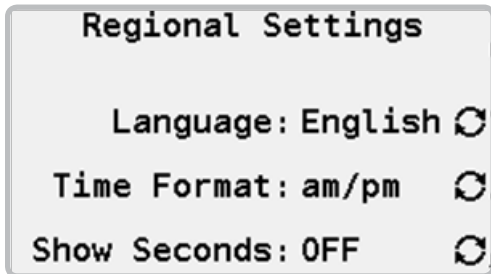





3. The log will show one entry at a time starting with the most recent. Use the UP ▲ and DOWN ▼ buttons to move to other log entries. The TOP ▲ button returns you to the most recent log entry.

REGIONAL SETTINGS

Regional Settings are used to set the time format and language.

1. Press the REGIONAL SETTINGS  button.



2. Use the OPTION  button to select the display language for the hub.
3. Use the OPTION  button to select 12-hour or 24-hour time format for the hub.
4. Use the OPTION  button to display timers to the minute or to the second.

SETTINGS

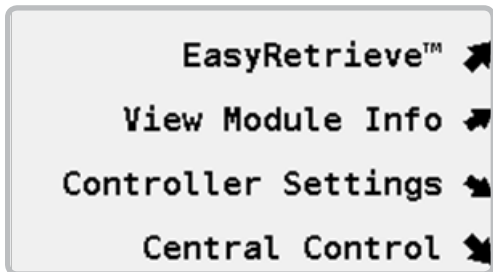
Settings contain a number of hub and station settings.

EasyRetrieve™

EasyRetrieve is used to make a backup of t schedules in the hub. Once created, the schedules can easily be restored.

Store Schedules using EasyRetrieve™

1. Press the SETTINGS  button.



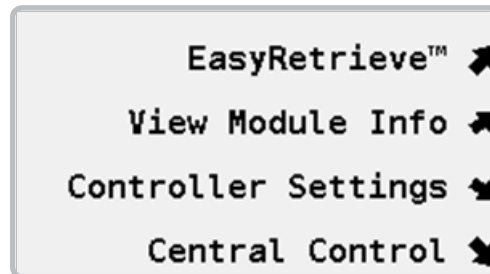
2. Select EASYRETRIEVE™.



3. Select STORE.

Recall Schedules using EasyRetrieve™

1. Press the SETTINGS  button.



2. Select EASYRETRIEVE™.



3. Select RECALL.

SETTINGS

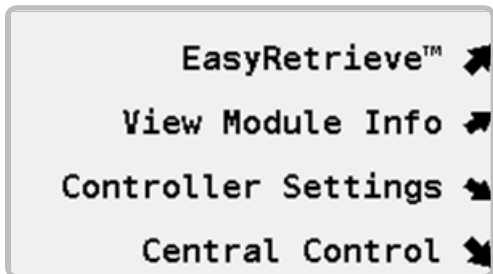
Module Information

The hub 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.

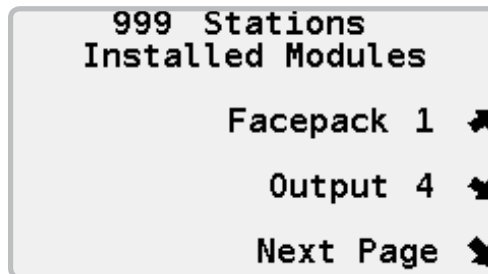
All module information is presented in a similar format therefore these instructions only describe the output module.

View Module Information

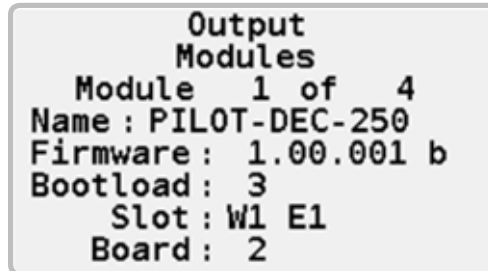
1. Press the SETTINGS  button.



2. Select VIEW MODULE INFO. The total number of stations available in the hub is displayed at the top.



3. Select OUTPUT.




DECODER HUB SETTINGS

Decoder hub settings are those settings which only apply to the decoder hub.

Program a Decoder

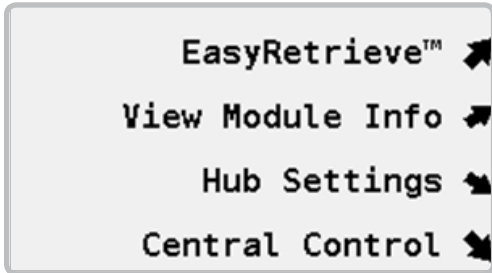
For the hub to identify decoders connected to it, each one must have a unique address. Because the hub can manage up to 999 decoders, the addresses range from 1 to 999. Each decoder output module installed in the hub can run up to 250 decoder addresses. The first module on the left will be decoder addresses 1 to 250. The next module is decoder addresses 251 to 500 and so on.

Decoders arriving from the factory do not have a set address. Therefore each one must be programmed before it can be used. The decoder hub can be used to program the address in a decoder station. It does not matter which color goes in which hole.

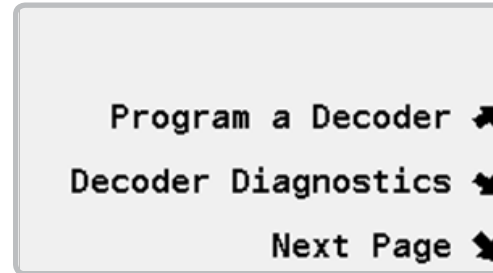
At the top of the control panel, find the programming port identified with . There are two holes in which you will insert the red and blue wires of the decoder.




Then use the decoder hub controls to program the decoder.

1. Press the SETTINGS  button.



2. Select HUB SETTINGS.



3. Select PROGRAM A DECODER. The display will show a short message indicating it is searching for a decoder then, if it finds one, show a listing such as the one shown here. All available outputs are listed and the current address recorded into the station. You can change the addresses as required. The TURN PAGE  button takes you to the second page where you can set the POWER FACTOR and INRUSH. When you finish making your changes select SAVE . A message will appear indicating the decoder information is being saved. When it completes you will have the option of programming another decoder or press the EXIT  button and quit.

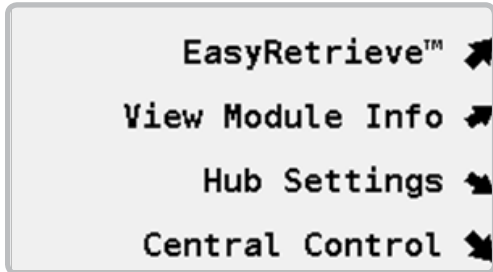


DECODER HUB SETTINGS

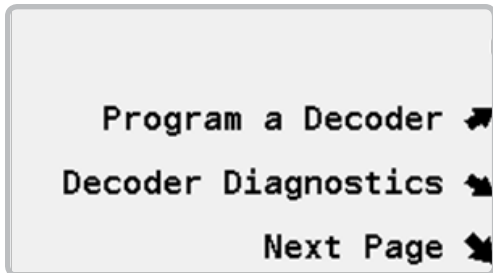
Decoder Diagnostics

Decoder diagnostics are a set of troubleshooting tools built into the decoder hub.

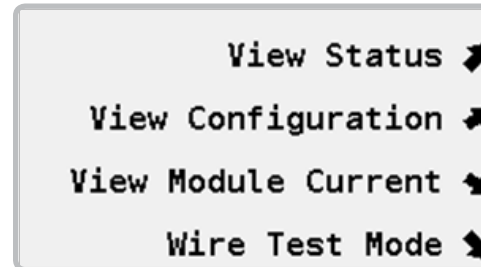
1. Press the SETTINGS  button.



2. Select HUB SETTINGS.



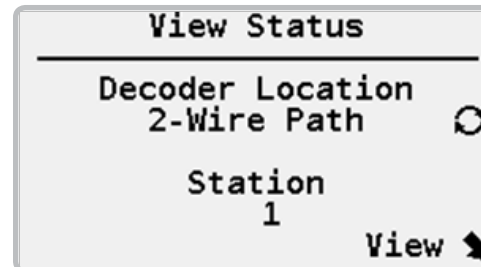
3. Select DECODER DIAGNOSTICS.




View Status

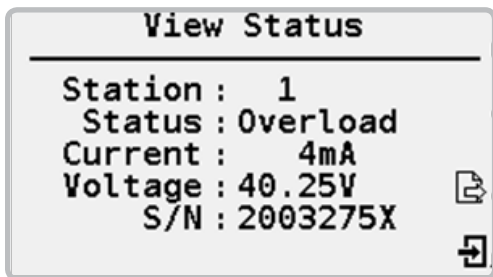
This diagnostic analyzes a decoder station to provide detailed status information.

1. Select VIEW STATUS.

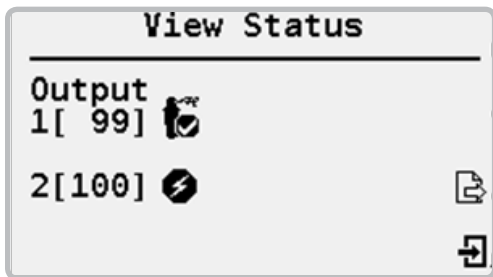


DECODER HUB SETTINGS






- Use the OPTION  button to select a decoder on the two-wire path or one connected to the programming port. If the two-wire path option is selected use the numeric keypad to set the decoder station number.
- Select the VIEW button. The hub will find the decoder then display the decoder's current, voltage, S/N (serial number) and status.



- Use the EXIT button if you are done, or press the TURN PAGE button.



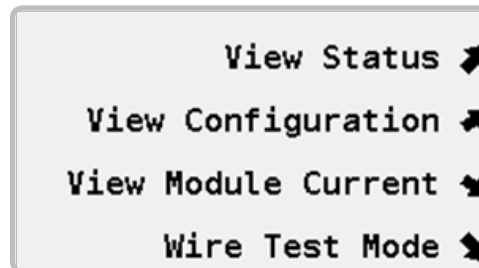
- The status display provides the following information:

-  No sprinkler solenoid detected, not watering. If solenoid is installed, replace solenoid
-  No sprinkler solenoid detected, watering. If solenoid is installed, replace solenoid
-  Sprinkler solenoid detected, not watering
-  Sprinkler solenoid detected, watering
-  Decoder station overload. Replace solenoid

View Configuration

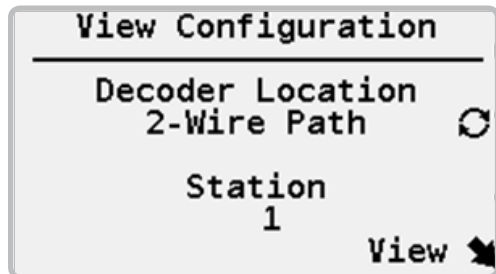
View configuration retrieves the settings from a decoder along with its version number.


- Select HUB SETTINGS.
- Select DECODER DIAGNOSTICS.

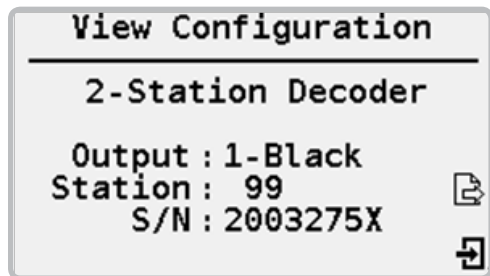




DECODER HUB SETTINGS

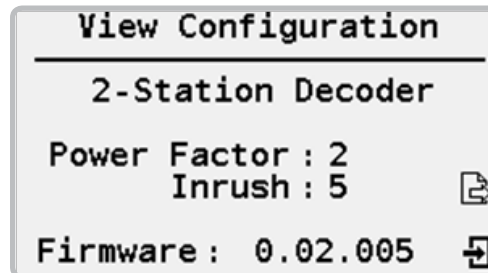
3. Select VIEW CONFIGURATION.



4. Use the OPTION  button to select a decoder on the two-wire path or one connected to the programming port. If the two-wire path option is selected use the numeric keypad to set the decoder station number.
5. Select the VIEW button. The hub will find the decoder then display the type of decoder being queried, the station number and the decoder's serial number.

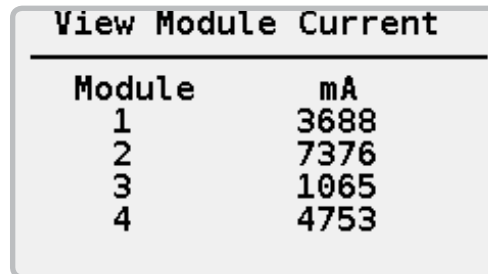


6. Use the EXIT  button if you are finished or the TURN PAGE  button to view the next page of information. The second page contains power and inrush factors as well as the decoder's firmware version.



View Module Current

1. Select VIEW MODULE CURRENT.



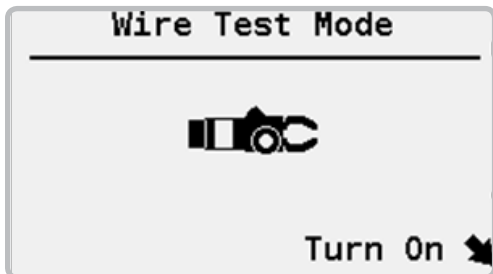
2. The amount of current being supplied by any 250-station output modules installed will be shown.

DECODER HUB SETTINGS

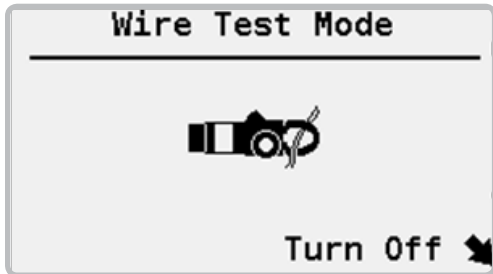
Wire Test Mode

When troubleshooting a decoder system it is sometimes necessary to put it in a special test mode. Instructions on how to troubleshoot the wire path are beyond the scope of this manual.


1. Select DECODER DIAGNOSTICS.
2. Select WIRE TEST MODE.

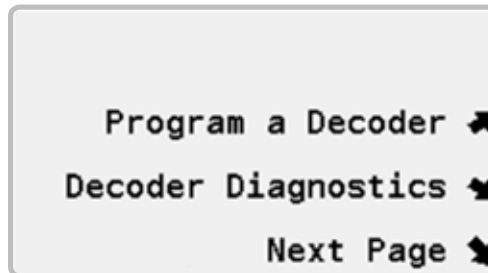


3. Select TURN ON to start the WIRE TEST MODE.

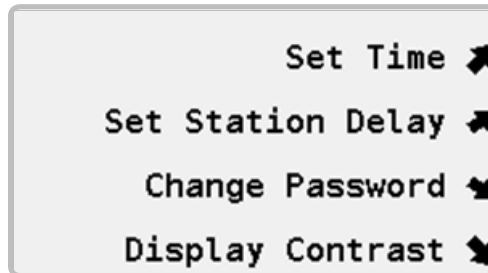


Date and Time

1. Press the SETTINGS  button.
2. Select HUB SETTINGS.

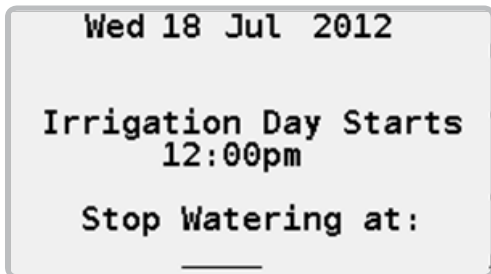


3. Select NEXT PAGE.



DECODER HUB SETTINGS

4. Select SET TIME.



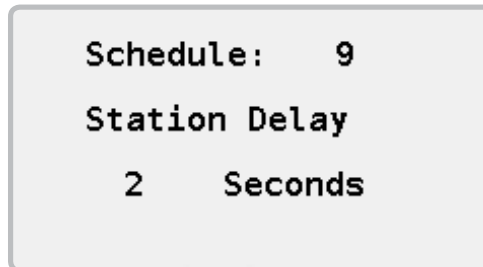
5. Enter the current month, day and year.
6. Enter the current time.
7. Change the beginning of the irrigation day if necessary. This should be a time half way between when watering ends in the morning and watering starts in the evening. For example, if you water from 8:00 pm (20:00) until 4:00 am (04:00) you should end the irrigation day around noon.
8. Optionally, enter the STOP WATERING time. This is the time at which any running automatic irrigation will stop. It is used to define a fixed watering window.

Delay between Stations

Station delay briefly suspends activation of each station within a schedule to avoid low pressure problems and temporary high electrical demand. Each schedule can be given its own station delay.

1. Press the SETTINGS  button.

2. Select HUB SETTINGS.
3. Select NEXT PAGE.
4. Select SET STATION DELAY.




5. Enter a schedule number.
6. Enter a station delay.

Password

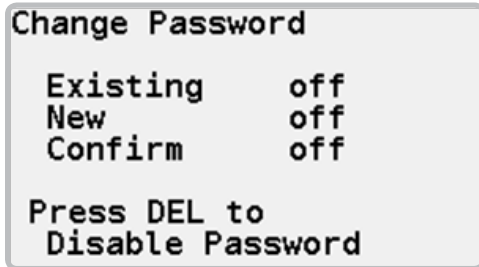
The password prevents unauthorized changes to certain hub settings such as automatic schedules. The first time a hub is used it will not have a password.

Set Password

1. Press the SETTINGS  button.
2. Select HUB SETTINGS.
3. Select NEXT PAGE.


DECODER HUB SETTINGS

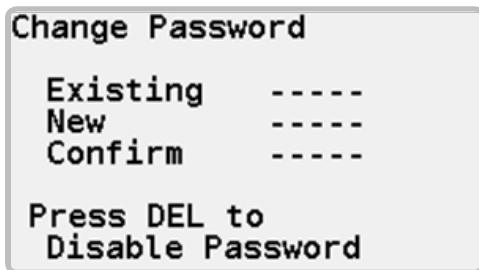
4. Select CHANGE PASSWORD.



5. Using the numeric keypad enter a new password, press the OK button. Enter the password again to confirm and press OK.



Change Existing Password

1. Press the SETTINGS  button.
2. Select HUB SETTINGS.
3. Select NEXT PAGE.
4. Select CHANGE PASSWORD.



5. Use the numeric keypad to enter the existing password, press the OK button. Enter a new password, press OK, confirm the new password and press OK.


Disable Password

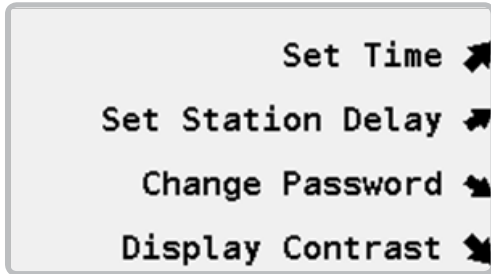
1. Press the SETTINGS  button.
2. Select CONTROLLER SETTINGS.
3. Select NEXT PAGE.
4. Select CHANGE PASSWORD.
5. Use the numeric keypad to enter the existing password.
6. Press the DEL  key to disable the password.

DECODER HUB SETTINGS

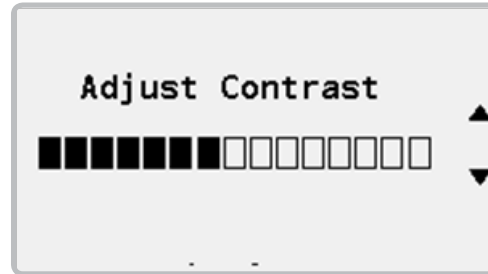
Display Contrast

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

1. Press the SETTINGS  button.
2. Select HUB SETTINGS.
3. Select NEXT PAGE.



4. Select DISPLAY CONTRAST.




5. Use the UP ▲ and DOWN ▼ arrows to increase or decrease the display contrast.

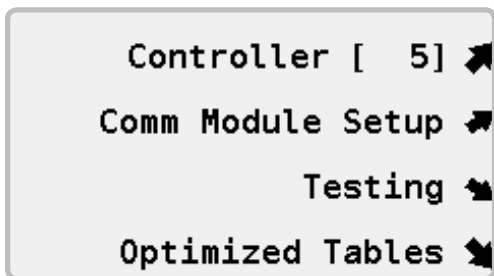
CENTRAL CONTROL SETTINGS

Pilot hubs can be used as stand-alone hubs as well as part of a central control system. When used as part of a central control system all hubs on the site are linked together and managed by a central computer. The central control settings are used to configure the hub to work as part of this system.

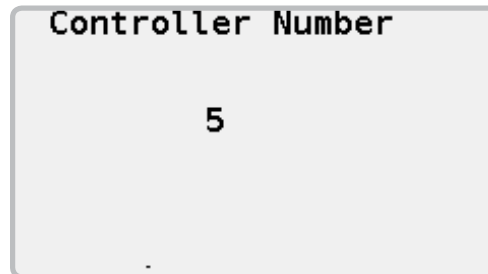
Hub ID

To be identified in the control system each hub must have a unique ID.

1. Press the **SETTINGS**  button.
2. Select **CENTRAL CONTROL**. If the hub already has a number it will be shown inside square brackets [].



3. Select **CONTROLLER** to assign or change the hub number.



4. Use the numeric keypad to assign a number between 1 and 999.

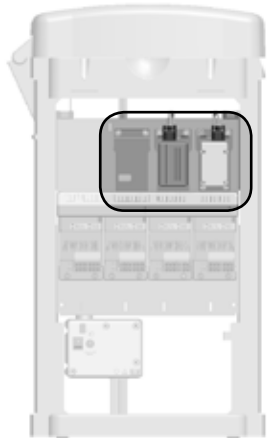



NOTE: hub numbers must be unique.

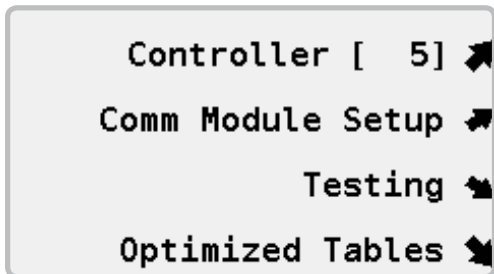
Communication Modules

When the Pilot hub is used as part of a central control system all hubs on the site are linked together and managed by a central computer. To communicate with the central computer one or more communication modules are installed. Communication modules are available for wired, UHF radio and license-free spread-spectrum radio systems and are green. Only available modules are displayed in the menu.

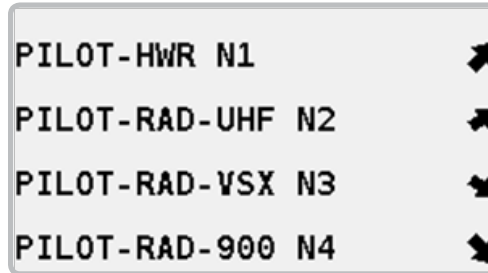
CENTRAL CONTROL SETTINGS



1. Press the SETTINGS  button.
2. Select CENTRAL CONTROL.



3. Select COMM MODULE SETUP.

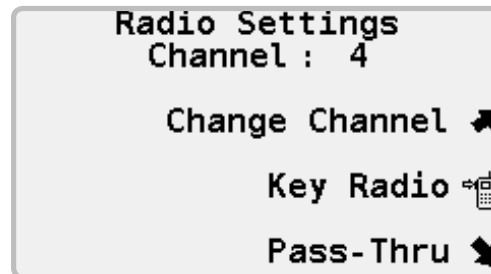


Wired Communications


1. Select PILOT-HWR N1. N1 refers to the first, narrow plug-in slot in the hub.
2. There are no settings for the hardwire module in a decoder hub.

Pilot UHF Radio Communications

1. Select PILOT-RAD-UHF N2. N2 refers to the second, narrow plug-in slot in the hub.



CENTRAL CONTROL SETTINGS

2. The channel will be displayed.
3. If necessary select CHANNEL to change the radio channel.
4. Select KEY RADIO  to activate the radio's push-to-talk when testing the radio.
5. Select PASS-THROUGH to put the radio in pass-through mode for testing and troubleshooting.

License-free 900 MHz Spread-spectrum Radio

1. Select PILOT-RAD-900 N4.
2. Select FREEWAVE RADIO SETUP.



3. CUSTOM MODE is used when configuring the radios manually.
4. FREEWAVE SETUP is used if you must make changes to the NETWORK ID, TX SUBNET ID, RX SUBNET ID and RADIO MODE.
5. Select PASS-THROUGH to put the radio in pass-through mode for testing and troubleshooting.

License-free 2.4 GHz Radio

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 FREEWAVE RADIO SETUP.



3. CUSTOM MODE is used when configuring the radios manually.
4. FREEWAVE SETUP is used if you must make changes to the NETWORK ID, TX SUBNET ID, RX SUBNET ID and RADIO MODE.
5. Select PASS-THROUGH to put the radio in pass-through mode for testing and troubleshooting.

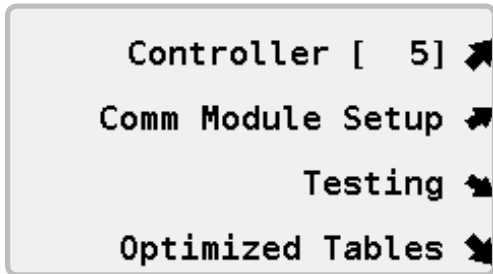
System Testing

The Pilot hub has several communication test features. Available tests will depend on the type of communications module(s) installed.

1. Press the SETTINGS  button.

CENTRAL CONTROL SETTINGS

2. Select CENTRAL CONTROL.



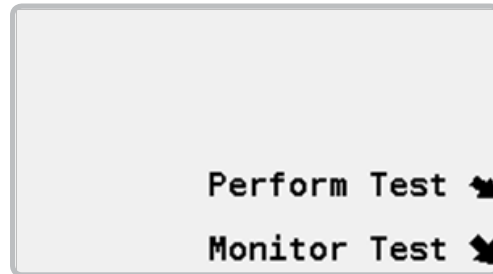
3. Select TESTING.



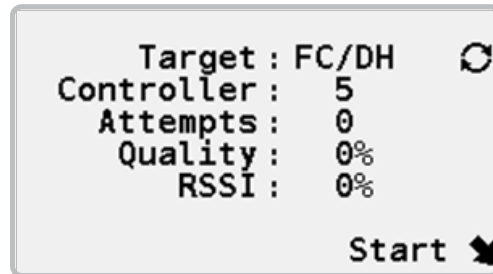
Field Communication Test


The communication test will attempt to communicate with the interface or selected hub. 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.



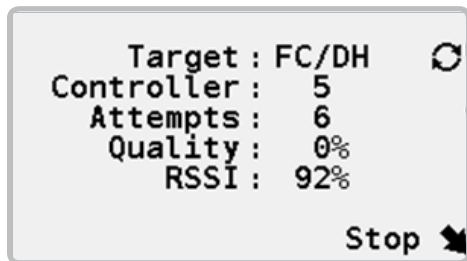
2. Select PERFORM TEST.



3. Use the OPTION  button to select FI (used to test communication between the hub and the field interface) or FC/DH (used to test communication to another hub in the network).
4. If the FC/DC test was selected in step two above, use the numeric keypad to enter the number of the target hub to be used in the test.

CENTRAL CONTROL SETTINGS

5. Select START. The hub will attempt to signal the target while monitoring for successful replies. This information is combined into the QUALITY statistic. 100% means the hub received a reply for every attempted call. 0% means none of the signal attempts resulted in a successful reply.



6. If you are using a UHF radio system an additional measurement labeled RSSI is displayed. RSSI is a measure of the signal strength for radio message received by the hub. 100% RSSI is the strongest possible signal. 0% RSSI means the radio is not receiving any signals.

Monitor Communication

As the hub communicates the TX and RX lights will flash. Monitor communications will listen for a heartbeat signal from the Pilot-FI field interface. The heartbeat is sent out about every 20 minutes therefore the LAST HEARTBEAT time should be within that time period. If it is not the field interface may be off or you may be experiencing a communication problem.

1. Select MONITOR COMMMS.


SLOT	MODULE	TX	RX
1	HWR	●	○
2	RAD	○	●
3	RAD	●	○
4	UNK	●	○

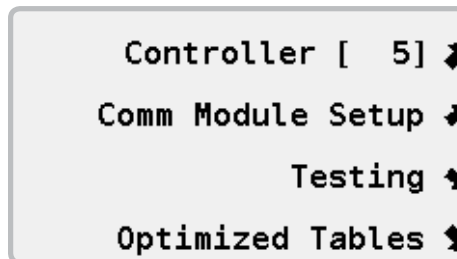
Last Heartbeat Result

2. Installed communication modules will be listed. HWR is hardware module, RAD is radio module and UNK is unknown. Active communication is displayed by the transmit (TX) and receive (RX) lights.

Optimized Tables

When watering using flow-optimized schedules from the central computer, the central control sends a list of flow-optimized events to the hub. The event list is placed in a table for review when troubleshooting the system. The tables are called optimized tables.

1. Press the SETTINGS  button.
2. Select CENTRAL CONTROL.



CENTRAL CONTROL SETTINGS

3. Select OPTIMIZED TABLES.

```

Show Table Details ↗
Show Table Summary ↘
Show Manual Events ↙
    
```

4. Select SHOW TABLE DETAILS to view a detailed listing of flow optimized events.

Event Day: 1			
	START	STA	RUNTIME ▲
1	_____	-	_____ ▲
2	_____	-	_____ ▲
3	_____	-	_____ ▲
4	_____	-	_____ ▼
5	_____	-	_____
6	_____	-	_____

5. Select SHOW TABLE SUMMARY to view a summary of the flow optimized events.

```

Last Download
No Downloads

DAY COUNT      DAY COUNT
1      0        3      0
2      0

Current Day is  3 of 3
    
```

6. Select SHOW MANUAL EVENTS to view a detailed listing of maintenance radio activity.

Manual Events			
	START	STA	RUNTIME ▲
1	_____	-	_____ ▲
2	_____	-	_____ ▲
3	_____	-	_____ ▲
4	_____	-	_____ ▼
5	_____	-	_____
6	_____	-	_____

SPECIFICATIONS

Dimensions

39.5" H x 23.5" W x 17.4" D (100 cm H x 60 cm W x 44 cm D)

Weight: 70 lbs. (32 kg)

Electrical

Power Supply Input

Supply wires must be 14 AWG (1.85mm²) or larger

120/230 VAC at 60/50 Hz

5 amps maximum at 120 VAC

2½ amps maximum at 230 VAC

Power Supply Output

Station output: 0.45 amps at 40 VAC

Decoder capacity: Two standard 24 VAC Hunter® golf valve-in-head rotor solenoids per output, 120 maximum simultaneous solenoids per 999-station decoder hub.

Features and General Specifications

- Five languages
- Up to 999 decoder stations outputs in 250-station increments
- Up to two Hunter® golf valve-in-head rotor solenoids per decoder
- Up to 120 simultaneous Hunter® golf valve-in-head rotor solenoids per 999-station decoder hub
- 32 automatic schedules with up to 64 stations each
- Eight start times per schedule
- Station runtimes one minute to 6 hours in one minute intervals
- One to 31 day skip-day scheduling
- 64 blocks with ten stations per block
- One-touch rain shutdown up to 30 days or indefinitely
- One-touch pause with 30 minute safety timer
- One to 300%: Runtime seasonal adjustment
- ±30 minutes: Start time seasonal adjustment

FCC NOT

This controller generates radio frequency energy and may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Move the controller away from the receiver.
- Plug the controller into a different outlet so that controller and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., Stock No. 004-000-00345-4 (price – \$2.00 postpaid).

Hunter®

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