

Introduction

Thank you for purchasing DIG LEITLINK series controller.

This manual describes how to get the LEITLINK controller up and running quickly. After reading this manual and having been familiarized with the basic functionality of the controller, the manual can be used as a reference for less common tasks in the future.

Please take the time to read through the enclosed instructions and follow them step-by-step.

About the LEITLINK Controller

The LEITLINK Series Controller is an advanced, ambient light powered, LTE-M capable, central irrigation controller. It uses a time tested photovoltaic module which harnesses light energy to generate electricity that is stored internally and used to power the controller day and night and in any weather condition.

The LEITLINK uses an LCD and 5 button combo with a straightforward menu system that can be used to setup the controller for a wide range of irrigation programs. Or, once connected to an account on www.LEITLINK.com, can be completely setup and monitored remotely through the website. Features include 4 programs with 8 start times, manual runs, historical reports, flow sensing capabilities, LTE-M communication, and more.

IMPORTANT: In order to retain as close to 100% uptime on the LTE-M communications as possible, the LEITLINK requires daily exposure to light levels at a minimum of 10,000 lux (equivalent to daylight on a cloudy day at around 8:00 – 10:00 AM). In order to retain sufficient energy to maintain and control valves, the controller will automatically turn the LTE-M capabilities off when at lower power levels. To maximize the energy available, the LEITLINK should be installed in an open, unshaded area.

Technical Assistance

Should you encounter any problem(s) with this product or if you do not understand its many features, please refer to this operating manual first. If further assistance is required DIG offers the following customer support:

Technical Service USA

- DIG's Technical Service Team is available to answer questions from 8:00 AM to 5:00 PM (PST) Monday-Friday (except holidays) at 800-322-9146
- Questions can be e-mailed to questions@digcorp.com or faxed to 760-727-0282
- Specification documents and manuals are available for download at www.digcorp.com/leit_control_system

Customer Assistance outside the USA

Contact your local distributor

Copyright and Compliance

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Patent #: 5,229,649 and 5,661,349

FCC, EC, Canada and Australia compliance

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1) L'appareil ne doit pas produire de brouillage;

2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

Warning: The user should make no field changes or modifications to the LEITLINK controller.

All adjustments and changes must be made at DIG's facility under the specific guidelines set forth in our manufacturing process. Any change or modification to the equipment will void the users authority to operate the unit, and render the equipment in violation of FCC, EC, Canada, or Australia's compliance directives.

Features

- Operates 8-32 stations and a master valve or pump start without AC power hookup, batteries, or conventional solar panels

- 4 programs with 8 start times per program
- Budgeting feature for a yearly watering schedule can be set by month from 0-200%
- Historical reports for valve runs, alerts, water saving through ET, and sensor information
- Solenoid integrity detection
- Built to the highest quality control standard
 - 100% tested function and operation
 - 100% tested waterproofing
- Non-volatile memory holds programs indefinitely without battery
- 2-way LTE-M-based MQTT communication with a LEITLINK and www.LEITLINK.com
- Power provided by an internal photovoltaic module and microelectronic energy management system fueled by ambient light
- 365-day calendar with leap year
- Sensor port for rain, freeze, and other normally closed sensors
- Manual run capabilities by program or station
- Flow sensor capabilities inline with valve using DIG FLOWLINK flow sensors
- Environmentally friendly – uses clean power. No batteries or AC power needed

System

This section explains the components and installation of the LEITLINK. The LEITLINK must be installed according to the manufacturer's recommendations; failure to do so will void the manufacturer's warranty. Please see the installation guide for installation instructions.

Models Available

8, 16, 24, and 32 stations plus 2 MV/P stations

Parts Identification (missing accompanying images)

1. PVM – Photovoltaic module for ambient light collection and harnessing
2. Door and key – Blocks entry of the controller
3. Camlock – Used to open the LEITLINK to gain access to LCD module and terminal module for installation and maintenance
4. LCD Module – Can be disconnected and removed if necessary
 - a. LCD display – Displays the application, used for programming
 - b. Buttons – Used for controlling the application shown in the LCD display
 - c. USB-B port to insert the LEITLINK key – Used to activate the LCD display. The LEITLINK key is not included
 - d. PVM power port – Used to plug in the PVM, can be unplugged if LCD module needs to be removed
 - e. Antenna port – Used to plug in the antenna. Can be unplugged if LCD module needs to be removed or if antenna needs to be changed
 - f. Terminals port – Used to plug in the Terminal module. Can be unplugged if LCD module needs to be removed or if terminal module needs to be changed/upgraded
5. Terminal Module – Can be disconnected and removed if necessary
 - a. Stations and MV/P Terminals – Up to 32 stations are available, model dependent.

Programming (missing accompanying images)

This section explains how to use the LCD and buttons to review, modify, and program the controller, or perform a manual run. For remote programming, please see the remote programming guide. To turn the LCD on, the user needs a LEITLINK key. Insert the LEITLINK key in to the LEITLINK USB-B port and follow the steps below.

This guide often uses the word “Cursor”. Moving the cursor determines what will be selected or

modified when the  button is pressed. There are 2 different cursors.

- On screens using icon-based navigation, the cursor is the dark blue highlight of a box on the menu.
- On all other screens, the cursor is the yellow box around a box on the menu.

The controller is programmed through the use of the below buttons:



Use to move the cursor left



Use to move the cursor up



Use to select what the cursor is hovering over



Use to move the cursor down



Use to move the cursor right

To program the controller, use the buttons to move the cursor to select the desired program setting, push the target button to edit, modify, or enter the value, push the cursor buttons to make the desired changes, and then press the target button again to finish your modification.

Note: The LEITLINK has extensive programming options. The guide explains how to navigate the controller and then treats each programming option individually so that this guide may be referred back to more easily.

Insert the LEITLINK key into the USB-B port to illuminate the display (if the unit is low power, it may take 30-60 seconds for it to turn on). The unit will run through some startup screens that show status of the controller and version information before settling on the Main Menu. Occasionally, the display may flash, this is not an issue with the controller, it is just the radio using some power in the background and it can safely be ignored.

Menu Navigation

Please see the below hierarchy to determine where settings are located. The instructions for each process assume the user is starting from the first screen each time but if the hierarchy of the controller is understood, users can skip going all the way back and proceed on to the next option as needed.

(missing image)

Setting up a Wireless Connection

If you would like to program the controller through the use of www.LEITLINK.com, follow this step and then switch to the LEITLINK website user manual found [here](#).

1. Move the cursor to “General” and select it.
2. Move the cursor to “System” and select it.
3. Move the cursor to “Wireless” and select it.
4. The screen will now show information regarding the unit’s wireless information. Find the 6-digit code and note it down. This code will be used to register the controller to your account.
5. Follow the www.LEITLINK.com guide found [here](#).
6. Navigate to and select “Back” using the  button to return to the System options
7. Select “Back” again to return to the Settings option.
8. Select “Back” again to return to the Main Menu.

Setting the Time and Date

If you are using a wireless connection, the unit will automatically obtain and update the time and date from the nearest cell tower and this step can be skipped.

1. Move the cursor to “General” and select it.
2. Move the cursor to “System” and select it.
3. Move the cursor to “Date & Time” and select it.
4. By default, the unit will be on 12-Hr time, you can use the cursor to highlight 24-hr and press the  button to select and change to that method.
5. Move the cursor to select the time.
6. Press the  button to make the hours digit flash. You can now change the time, use the  and  buttons to navigate between hours and minutes and the  and  buttons to change the digits. When finished, press the  button to save your changes (the digits will stop flashing).
7. Move the cursor to select the date.
8. Press the  button to make the month digit flash. You can now change the date, use the  and  buttons to navigate between month, day, and year and the  and  buttons to change them. When finished, press the  button to save your changes (the digits will stop flashing).
9. Navigate to and select “Back” using the  button to return to the System options
10. Select “Back” again to return to the Settings option.

11. Select “Back” again to return to the Main Menu.

Setting up a Program

The LEITLINK contains 4 programs available, A, B, C, and D. Each program has its own individual schedule, start times, and durations.

Note: If using 1 or more flow sensors and planning to run by flow (gallons/liters instead of a duration), skip this section (Setting up a Program) and go to Setting up a Flow Sensor first to prevent doing this step twice.

Selecting a Program

1. Move the cursor to “Program” and select it.
2. This screen shows the 4 programs available and whether they are active or not. To activate or deactivate a program, use the cursor to highlight “Active” or “Inactive” underneath a program and press the  button to switch it.
3. Move the cursor to the program you wish to modify (A, B, C, or D) and press the  button to select it.
4. The Scheduled Program summary screen will appear. This screen shows a brief summary of the current program. Review the program if necessary and if no changes are needed, “Back” in the bottom left of the screen can be used to return to the previous screen.
5. Navigate to the “Edit” button in the bottom right of the screen and press  to move to the schedule screen.

Setting a Frequency

This setting determines which days the LEITLINK controller will operate. The controller has the ability to water on specific days of the week, even or odd days of the month, or cyclical daily (from 1 to 99 days). Each program has its own schedule. At all times, the controller displays which program is being modified for ease of operation.

Option 1 – Watering on specific days of the week (by default, this is selected):

1. Move the cursor to “MTWTFSS” and press  to highlight it in dark blue. This means that this mode is selected.
2. Press  and use the  and  buttons to move through each day of the week.
3. Press  to turn watering on or off for that day. Days highlighted in dark blue are scheduled to water.
4. Navigate to “Next” in the bottom right of the screen and press  to move to Start Times.

Option 2 – Watering on Even or Odd days:

1. Move the cursor to “Even/Odd” and press  to highlight it in dark blue. This means that this mode is selected.
2. Move the cursor to “Even” or “Odd” and press  to highlight it in dark blue. This means that this mode is selected.
3. Navigate to “Next” in the bottom right of the screen and press  to move to Start Times.

Option 3 – Watering once every X days (Cyclical watering):

1. Move the cursor to “Cyclical” and press  to highlight it in dark blue. This means that this mode is selected.
2. Move the cursor to the days box and press  to modify this setting (the number will flash to indicate it is being modified).
3. Use the  and  buttons to change the frequency (from 1 to 99 days)
4. Press  to confirm.
5. Move the cursor to the date and press  to modify this setting (the months digit will flash).
6. You can now change the date. Use the  and  buttons to navigate between month, day, and year and the  and  buttons to change them.
7. Press  button to confirm your changes (the digits will stop flashing). If a date in the past is set, the controller will calculate every X days from that date to determine the next start date.
8. Navigate to “Next” in the bottom right of the screen and press  to move to Start Times.

Setting start times

This setting determines how many times this program will run on each of its watering days. 8 start times are available per program.

1. OFF means that the start time is not in use. Move the cursor to any start times that need to be used.
2. Press  to make it flash.
3. Use the  and  buttons to select a start time. OFF is located between 11:00 PM and 12:00 AM.
4. Press  again to confirm it.
5. Move the cursor to the next start time and repeat this process as many times as wished.

6. When all start times desired have been added, navigate to Next and press  to select it and move to Durations.

Setting durations

This setting determines the length of time each valve will run for during each of the start times.

For example, setting a run time of 10 minutes on valve 1 will allow the controller to run valve 1 for 10 minutes on each start time during each day the program is active. 8 valves are shown per page. Depending on which model obtained, multiple pages of valves will be needed.

Each valve also has the option to add it to a group (16 groups available). By default, a group is off and appears as a “-“ on the screen.

Note: If a flow sensor has been set up and run by-flow has been selected. Valves affected by this setting will appear in gallons or liters instead of by time. The number shown is the number of gallons or liters the valve will run before the valve shuts off instead of using a duration.

Note: If a valve has an alert, it will appear next to the duration with red coloration. If all is fine, a green “OK” will appear.

Optional – Setting up a group

1. Move the cursor to the “-“ next to whichever valve needs to be added to a group.
2. Press  to make it flash.
3. Use the the  and  buttons to select a group (16 groups are available).
4. Press  again to confirm it. If there are any previous valves in the group, the duration will automatically update to the same time as the other valves in the group.

Note: Updating the duration for a valve in a group will update ALL the valves in the group to that duration.

Setting a duration

1. Move the cursor to the duration or flow of a valve
5. Press  to make it flash.
6. Use the  and  buttons to set the duration. Or, if in gallons/liters, the flow.
7. Press  again to confirm it.
8. Navigate to the next valve to be set and repeat this process.
9. If setting up a LEITLINK with more than 8 valves, navigate to the “Next” in the bottom right of the screen and press  to select it and continue to the next 8 valves. Repeat this process until all valves are set.

10. Navigate to the “Next” in the bottom right of the screen and press  to select it and finish setting up the program. The program summary will show the updated program for 3 seconds before the controller returns to the Programs screen.
11. From here, repeat the entirety of the programming process for each program. Or, if finished, navigate to the “Back” at the bottom left of the screen and press  to select it and return to the Main Menu.

The unit is now set up to run a program. Continue to the next section for a full breakdown of all settings.

Running Screen

The running screen shows the currently running program. It will appear whenever a valve is running and the user selects Manual Run so that users cannot start a simultaneous Manual Run. It also gives the user some options on how to control the current run. See a breakdown of the screen below. (missing image)

Option 1 – Skip to Next Valve – Allows the user to skip to the next valve in the list of valves remaining.

1. Move the cursor to “SKIP”
2. Press  to select it.
3. Allow some time for the unit to process the command and the screen will update to show the changes.

Option 2 – Pause – Allows the user to pause the run. The current valve will close, the time will begin blinking with the remaining duration, and the controller will remain in this state until resume is selected.

1. Move the cursor to “PAUSE”
2. Press  to select it.
3. The “Pause” will change to “RESUME”
4. When ready to resume the run, move the cursor to “RESUME”
5. Press  to select it.

Option 3 – Stop – Allows the user to stop the run. The current valve will close. All further valves in the valves remaining list will be removed and the program will end.

1. Move the cursor to “Stop”
2. Press  to select it.

3. Allow some time for the unit to process the command and the Running Screen will close and return the user to the Main Menu

Manual Run

The Manual Run option can be used to test the system functionality and ensure that it is operational. At the end of any manual run, the controller will automatically close all valves at the end of the defined irrigation period.

There are 3 options for manual runs:

- Stored that runs a program that has been already set up
- Temp that runs a program where each valve has a manually entered duration
- Valve that allows for multiple runs of the same valve.

To select a Manual Run, simply move the cursor to Manual Run from the Main Menu and press .

Option 1 – Stored – This option is only available if a Program has been previously set up. If programs do not have any valves with duration on them, they will appear in grey and are not selectable.

1. Move the cursor to highlight Stored.
2. Press  to select it.
3. Available programs will appear in blue and unavailable programs will appear in grey. Move the cursor to the program to be run.
4. Press  to select it.
5. Durations are not modifiable in Stored Program. For reviewing purposes only, the display will show what valves will be run and their durations using a dark grey color.
6. Press  to select “next” in the bottom right of the screen to review the next 8 valves, or if all valves have been reviewed, to move to the Start screen.
7. The start screen will show the program to be run as well as give the ability to modify when the program should start. To modify when the program should start, move the cursor to the box next to “Start In” and press . Use  and  to change between hours and minutes and  and  to modify the time. If left at 00:00, the program will start immediately.
8. When done, press  to save changes.
9. Navigate to the “Start” in the bottom.
10. Press  to start the program.
11. See the “Running Screen” section for further options.

Option 2 – Temp – This option will allow the user to set durations for each valve and run it.

1. Move the cursor to highlight “Temp”.

2. Press  to select it.

2. Move the cursor to the duration or flow of a valve

3. Press  to make it flash.

4. Use the  and  buttons to set the duration.

5. Press  again to confirm it.

6. Navigate to the next valve to be set and repeat this process.

7. If setting up a LEITLINK with more than 8 valves, navigate to the “Next” in the bottom right of

the screen and press  to select it and continue to the next 8 valves. Repeat this process until all valves are set.

8. The start screen will show the program to be run as well as give the ability to modify when the program should start. To modify when the program should start, move the cursor to the

box next to “Start In” and press . Use  and  to change between hours and minutes and  and  to modify the time. If left at 00:00, the program will start immediately.

9. When done, press  to save changes.

10. Navigate to the “Start” in the bottom.

11. Press  to start the program.

12. See the “Running Screen” section for further options.

Option 3 – Valve Test – This option will allow the user to run a single valve multiple times

1. Move the cursor to highlight “Valve”

2. Press  to select it.

3. Move the cursor to the box next to Valve #. This is which valve will run.

4. Press  to select it.

5. Use the  and  buttons to set the duration to choose which valve

6. Press  to save your changes.

7. Move the cursor to highlight the box next to Duration. This is how long the valve will run each time.

8. Press  to select it.

9. Use  and  to change between hours and minutes and  and  to modify the time

10. Press  to save your changes.

11. (Optional) Move the cursor to the box next to Repeat Tests. This is how many times this valve should run.

12. Press  to select it.

13. Use the  and  buttons to set the quantity.

14. Press  to save your changes.

15. (Optional) Move the cursor to the box next to “Delay Repeat By”. This is how long of a delay should be between each run of the valve.

16. Press  to select it.

17. Use  and  to change between hours and minutes and  and  to modify the time

18. Press  to save your changes.

19. Move the cursor to the bottom right to highlight “Next”

20. Press  to select it.

21. The start screen will show the program to be run as well as give the ability to modify when the program should start. To modify when the program should start, move the cursor to the

box next to “Start In” and press . Use  and  to change between hours and minutes and  and  to modify the time. If left at 00:00, the program will start immediately.

22. When done, press  to save changes.

23. Navigate to the “Start” in the bottom.

24. Press  to start the program.

25. See the “Running Screen” section for further options.

System Options

The following sections deal with features of the LEITLINK that are not necessary for basic programming but allow further control and monitoring of the controller.

Check Status

This option shows a general overview of the controller including any outstanding alerts such as issues that the unit has detected with the valves. Nothing can be modified from these screens, it is for review only. These are also the same startup screens that a user sees when first inserting the LEITLINK key.

1. Navigate to General

2. Press  to select it

3. Navigate to System

4. Press  to select it

5. Navigate to “Check Status”

6. Press  to select it

7. Observe information available and select either “Next” or “Back” in the bottom right and left respectively to either continue reviewing or finish reviewing data.

Note: If a wiring fault or flow issue has been fixed in the field, nothing has to be done on the LEITLINK. The next time the unit runs, it will recheck the valve and if it finds that the issue has indeed been fixed, it will clear the issue.

Reports

This option allows users to review historical data of the controller. Options include reviewing Daily, Monthly, and Yearly run time, Manual Run history, average monthly ET, ET savings, Daily Flow by valve, Monthly and Yearly Flow, and Fertilizer application by month (Mon. Applicators). Nothing can be modified from these screens, it is for review only.

1. Navigate to General

2. Press  to select it

3. Navigate to System

4. Press  to select it

5. Navigate to “Reports”

6. Press  to select it

7. Navigate to whichever option desired

8. Press  to select it

9. Observe information available and select either “Next” or “Back” in the bottom right and left respectively to either continue reviewing or finish reviewing data.

Delay Start

This option can be used to add a delay between each valve opening and between the master valve and a valve opening.

1. Navigate to General

2. Press  to select it

3. Navigate to System

4. Press  to select it

5. Navigate to “Delay Start”

6. Press  to select it

7. Navigate to either the box next to “MV/P to Valve Delay” or “Valve to Valve Delay”

8. Press  to modify it

9. Use  and  to modify the time

10. Press  to finish your modification

11. Navigate to “Back” in the bottom left with finished and select it

Brightness

This option is used to change the brightness of the screen.

1. Navigate to General

2. Press  to select it

3. Navigate to System

4. Press  to select it

5. Navigate to “Brightness”

6. Press  to select it

7. Navigate to the box next to brightness

8. Press  to modify it

9. Use  and  to modify the brightness

10. Press  to finish your modification

11. Navigate to “Back” in the bottom left when finished and select it

Wireless

This option was discussed in Setting up a Wireless Connection. It is for setting up a wireless connection or reviewing a wireless connection.

1. Navigate to General

2. Press  to select it

3. Navigate to System

4. Press  to select it

5. Navigate to “Brightness”

6. Press  to select it

7. Navigate to “Back” in the bottom left when finished and select it

Active CCT Test

This option is used to activate and deactivate open and short circuit monitoring on the LEITLINK.

1. Navigate to General
2. Press  to select it
3. Navigate to System
4. Press  to select it
5. Navigate to “Active CCT Test”
6. Press  to select it
7. Navigate to either the box next to “Short Circuit” or “Open Circuit”
8. Press  to switch between active or inactive (both can be active at once)
9. Navigate to “Back” in the bottom left when finished and select it

Format

This option is used to switch between imperial and metric units.

1. Navigate to General
2. Press  to select it
3. Navigate to System
4. Press  to select it
5. Navigate to “Format”
6. Press  to select it
7. Navigate to either Imperial or Metric
8. Press  to highlight it in dark blue (indicating it is selected)
9. Navigate to “Back” in the bottom left when finished and select it

Language

This option is used to select the language of the controller. English and Spanish are available by default. Other languages may be made available through download in the future.

1. Navigate to General
2. Press  to select it
3. Navigate to System
4. Press  to select it
5. Navigate to “Language”

6. Press  to select it
7. Navigate to the language of choice
8. Press  to highlight it in dark blue (indicating it is selected)
9. Navigate to “Back” in the bottom left when finished and select it

Password

This option is used to create a password to enter the controller. If this option is used, the controller will require each user that inserts a LEITLINK key to enter a password before given access to the controller.

1. Navigate to General
2. Press  to select it
3. Navigate to System
4. Press  to select it
5. Navigate to “Password”
6. Press  to select it
7. Navigate to either Active or Inactive
8. Press  to modify it (chosen option will be highlighted in dark blue)
9. If active is selected, navigate to the box next to “Password”
10. Press  to modify it
11. Use  and  to change between the digits and  and  to modify the digits
12. Press  to finish your modification
13. Do not forget this password as the unit will require a full reset if it is lost in order to clear it
14. Navigate to “Back” in the bottom left when finished and select it

System Setup Options

The following options are also optional but will modify how the LEITLINK executes programming and will require further attention to detail to make sure the unit is running as expected.

Rain Delay

Entering a rain delay will prevent the controller from watering for the amount of days entered. Normal watering will resume afterward.

1. Navigate to General
2. Press  to select it

3. Navigate to S. System

4. Press  to select it

5. Navigate to “Rain Delay”

6. Press  to select it

7. Navigate to the box next to “Rain Stop”

8. Press  to modify it

9. Use  and  to modify the number of days

10. Press  to finish your modification

11. Navigate to “Back” in the bottom left when finished and select it

Monthly Budget

Entering a budget for a month will modify the durations of each valve by the percentage entered for the month. This allows the user to modify the run times for different seasons without modifying run times each month. Percentages from 0 % to 200% are allowed.

1. Navigate to General

2. Press  to select it

3. Navigate to S. System

4. Press  to select it

5. Navigate to “Monthly Budget”

6. Press  to select it

7. Navigate to the box next to the month to be modified

8. Press  to modify it

9. Use  and  to modify the percentage (changed values will appear in dark blue to indicate they have been changed from 100%)

10. Press  to finish your modification

11. Navigate to “Back” in the bottom left when finished and select it

Schedule Off

Scheduled off dates are date in which the controller will prevent watering. Up to 8 dates can be entered.

1. Navigate to General

2. Press  to select it

3. Navigate to S. System

4. Press  to select it
5. Navigate to "Schedule Off"
6. Press  to select it
7. Navigate to any of the boxes that need modification ("—" indicates no date has been set and is located between Dec and Jan)
8. Press  to modify it
9. Use  and  to change between the day and month and  and  to modify the date
10. Press  to finish your modification
11. Navigate to "Back" in the bottom left when finished and select it

Sensor

The LEITLINK allows for the connection of multiple different sensors. Currently, Flow, Temp/Humidity, and Rain are available with more to be made available in the future. Set up options for each of the sensors are available here.

Flow

The LEITLINK can use the FLOWLINK flow sensor to detect leaks or run by gallons instead of time. Flow sensors can be connected inline with a valve on the same wires. Installation instructions are shown in the Installation Instructions manual. Once installed, this setting can be used to set up programming. Flow sensors can be installed on a master valve or on each individual valve.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to "Sensor"
6. Press  to select it
7. Navigate to "Flow"
8. Press  to select it
9. Navigate to the option where the sensor will be located (MV/P1, MV/P2, Applicator 1, Applicator 2, or Valves)
10. Press  to select it (see Option 1 for MV/P or Applicators and Option 2 for Valves)

- a. If Valves is selected, there will be an additional screen showing all the valves and indicating whether they are Active or Inactive. Navigate to the Active/Inactive box

next to the valve that is desired to be changed and Press  to select it.

11. Upon selection, a screen showing a summary of what is currently programmed as well as the average flow rate. If this is the first time entering this screen, there will be some defaults shown and the sensor will be inactive.

12. Navigate to “Edit” in the bottom right

13. Press  to select it

14. Navigate to either Active or Inactive

15. Press  to select it

16. Navigate to the box next to “Sensor Size”

17. Press  to modify it

18. Use  and  to modify which flow sensor is attached based on the model that is installed

Note: This must be correct in order for the flow sensor to function properly so please verify your installed sensor.

19. Press  to finish your modification

20. Navigate to the box next to “Minimum Flow”. This is the range where the flow sensor will set an alert. For example, if 20% is selected, the LEITILNK will indicate an alert and shut down the valve if the current flow of the valve is lower than 20% below the nominal flow.

21. Press  to modify it

22. Use  and  to modify the percentage (from 0% to 20%).

23. Press  to finish your modification

24. Navigate to the box next to “Maximum Flow”. This is the range where the flow sensor will set an alert. For example, if 20% is selected, the LEITILNK will indicate an alert and shut down the valve if the current flow of the valve is higher than 20% above the nominal flow.

25. Press  to modify it

26. Use  and  to modify the percentage (from 0% to 20%).

27. Press  to finish your modification

28. Navigate to either “Time” or “Flow” below Programming Method. This will determine in the program if the valve is set to run by a duration or by a flow. The selected method will be highlighted in dark blue.

Note: If “Flow” is selected, you will need to return to Setting up a Program to enter gallons/liters instead of a duration for the valves that run by flow in each program(not necessary for Applicator).

29. Navigate to “Back” in the bottom left when finished and select it

Temp/Humidity

The temperature and humidity sensors are used to either gather weather data for the controller to use for ET programs, to initiate a short cycling program to cool off areas in too-high temperatures, or to stop watering at too-low temperatures.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to “Sensor”
6. Press  to select it
7. Navigate to “Flow”
8. Press  to select it
9. Navigate to the option where the sensor will be located (MV/P1, MV/P2 Valves)
10. ||UNFINISHED||

Rain

Most “normally closed” rain or soil moisture sensors can be connected to the LEITLINK controllers. The function of the sensor is to prevent automatic watering by the set program due to excessive rainfall or when the soil is too moist.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to “Sensor”
6. Press  to select it
7. Navigate to “Rain”
8. Press  to select it
9. Navigate to the box next to “Rain Sensor”
10. Press  to change between active and inactive.
11. ||unfinished||

Environment/ET

Water usage can be optimized through the use of this setting. Daily weather conditions are downloaded from the net and used to estimate crop ET based on user entered values of the conditions of the plant growth. Currently, this option is only available once the unit has been registered on www.LEITLINK.com. It may be possible in the future to connect sensors for each requirement of the system. Up to 32 ET programs can be set up.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to "Environment/ET"
6. Press  to select it
7. A list of ET programs will appear. If any have been set-up previously, they will indicate how many valves are in the program and be highlighted in dark blue. Navigate to the box next to the ET program you wish to modify.
8. Press  to select it
9. A short summary of the ET program will appear
10. Navigate to "Edit" in the bottom right
11. Press  to select it
12. This page allows you to change the name of the program and set the program to Active/Inactive. Selecting "Cancel" in the bottom right will cancel all changes. Navigate to the box next to "Name"
13. Press  to modify it
14. Use  and  to change between the character and  and  to change the character
15. Press  to finish your modification
16. Navigate to either Active or Inactive
17. Press  to select it (selected option will be highlighted in dark blue)
18. Navigate to Next to the bottom right and select it.
19. The list of valves will be shown. Valves can only be included in 1 ET program. Any valves that are already included in another ET program will be greyed out and the name of the program they are in will be shown. Navigate to the box next to any valves that are to be present in this program.
20. Press  to change Inactive to Active or vice-versa
21. Repeat for each valve

22. Navigate to “Next” in the bottom right of the screen and select it.
 - a. Repeat steps 19-21 for valves 9-32 in 16, 24, and 32 station units
23. Now the ET settings must be entered
24. Navigate to the box by each of the options
25. Press  to modify it
26. Use  and  to change the value to match real world conditions
27. Press  to finish your modification
28. Navigate to “Next” in the bottom right and select it.
29. Repeat steps 24-27.
30. Navigate to “Save” in the bottom right when finished and select it. The unit will return to the menu options.

MV/P

This setting is used for setting up a master valve or pump and indicating which valves that master valve or pump controls.

Note: If installing a pump, an RKIT8810S or equivalent is needed.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to “MV/P”
6. Press  to select it
7. Navigate to “MV/P 1” or “MV/P 2”
8. Press  to select it
9. Navigate to Active/Inactive or Master Valve/Pump
10. Press  to select it (currently selected option will be highlighted in dark blue)
11. Navigate to “Next” in the bottom right and select it.
12. Select the valves that the MV/P controls. Navigate to the box next to each valve desired.
13. Press  to select it (selected valves will be highlighted in dark blue and indicated as “ON”)
14. Navigate to “Next” in the bottom right
 - a. Repeat for valves 9-32 in 16, 24, and 32 station units

Applicators

If a fertilizer applicator is installed, this setting is used to modify when the applicator will dispense fertilizer. Applicators will run once per selected month per selected program. The LEITLINK uses percentages to determine how long the applicator will run for. If a valve is set to run by time, then the fertilizer will run for a percentage of that time, and if a valve is set to run by-flow, then the fertilizer will run for a percentage of that flow.

1. Navigate to General
2. Press  to select it
3. Navigate to S. System
4. Press  to select it
5. Navigate to “Applicators”
6. Press  to select it
7. This screen shows the 2 applicators available and whether they are active or not. To activate or deactivate an applicator, use the cursor to highlight “Active” or “Inactive” underneath the applicator press the  button to switch it.
8. Move the cursor to the applicator you wish to modify and press the  button to select it.
9. Navigate to the box next to each month you wish the applicator to apply fertilizer
10. Press  to select it (selected months will be highlighted in dark blue and “YES” will be shown)
11. Navigate to “Next” in the bottom right and select it.
12. Select the programs that the applicator should run for by navigating to a program and pressing  to select them (selected programs will be highlighted in dark blue)
13. Navigate to “Next” in the bottom right and select it.
14. Navigate to the box next to “Percentage”
15. Press  to modify it
31. Select how much fertilizer should be applied as a percentage of the run time (or if the valve is by-flow, as a percentage of the flow) from 0-90%. Use  and  to change the value.
16. Press  to finish your modification.
17. Navigate to “Next” in the bottom right and select it to finish setting up the fertilizer, you will be returned to the System Setup menu.

