skydrop™
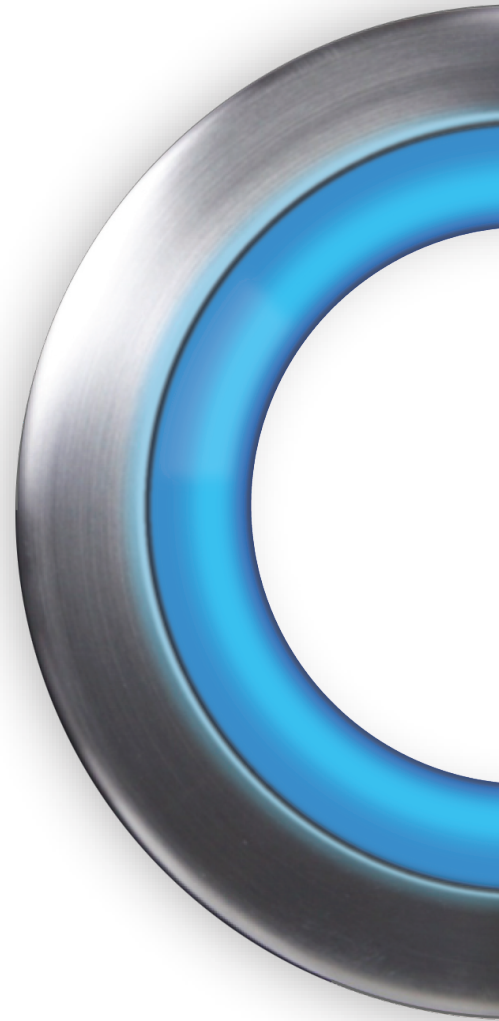
Skydrop Installation
and Setup Instructions

Contents

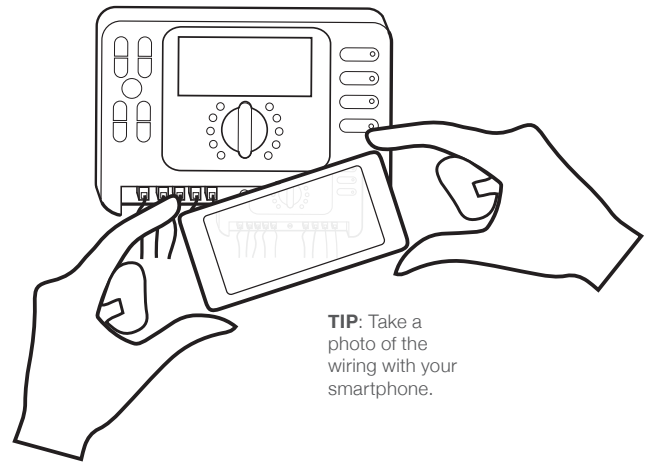## Installation items to consider prior to install:

- Location of controller is near an electrical outlet
- Location of controller within range of Wi-Fi

The following tools will be needed as you prepare to install your skydrop controller:

- Phillips Screw Driver
- Wire Strippers / Cutters
- Flat head screwdriver (small, only for removing some brands of controllers)

STEP 1: REMOVE OLD CONTROLLER

1. **First**, unplug your existing controller from the wall electrical outlet.

2. **Access** the wiring compartment of the controller and locate the zone wires. You have been provided with adhesive stickers to mark each of the zone wires.

3. **Mark** each of the zone wires as you remove them one at a time. Your existing controller is either equipped with terminal blocks with screws to fix wire to terminal block, or with quick release buttons.

4. **Choose** either your Phillips screwdriver or flat head depending on the type of terminal block that you have. Using your screwdriver loosen each screw or push button to remove each wire one at a time. Apply the adhesive sticker to the top part of the wire on the insulation just under the part that has been stripped off.

5. **Number** them in the order that you have them in your existing controller unless you want to reorder them. Continue until you have removed and numbered each wire. Remember to identify and mark the common wire(s), master valve/pump relay wire, or flow meter wire using this process as well.

6. **Straighten** your wires as much as you can and bunch them into a tight bundle of wire. This will help in removing the wire from the controller. If you wrap the group of wire together with electrical tape on the end it will help with insertion into the skydrop controller.

7. **Locate** mounting screws in existing controller. Remove existing screws and separate existing controller from the wall. If your controller seems to be attached to the wall still with no additional screws in sight there is an additional mounting screw in a slot behind the controller. Remove this by holding your existing controller with two hands, one on each side of the housing. Wiggle the controller upward and then pull toward you. There is a hidden screw that is located in a slot on the backside of the controller.

TIP: Take a photo of the wiring with your smartphone.

8. **One last thing**, you may have pvc pipe as a conduit that shields your sprinkler wires. If the conduit is secure with a locking nut you will first have to remove the nut to allow the controller to slide free of it. This nut would be right at the very bottom of the inside cavity of the controller where the pipe enters the controller. If there is no nut, or the pipe that enters the controller is free of any fastening device, there is no need to worry about this.

Remove old controller from wall. Skydrop has provided the fastening screws you will need for installing your skydrop controller.

At this point you have the option of making any repairs to the wall that you would like. Your skydrop controller will more than likely have a smaller foot print than your old controller and won't hide all of the blemishes to your wall that were caused by the installation of your previous controller.

STEP 2: MOUNT WALL PLATE

1. **Locate** the Wall Plate in the packaging. The wall plate will be placed in the general location of the old controller. You need to first determine the type of install you will be doing:

   A. Are your control wires for your sprinkler zones exposed and coming up the wall? (whether in conduit or a multi strand sheathed wire)

   B. Or are they hidden, coming out of the wall? **Skydrop provides two ways to install.**

      • If your wire is coming UP the wall, there is a provision for bottom entry.

      • If your wire is coming OUT OF the wall, there is likewise a provision for back entry.

2. **Choose** which location of entry you will use for your controller.

3. Insert zone control wires, along with the skydrop AC power supply through the provisioned channels. (Note: if your control wires are coming from within your wall you will want to insert wires through the back channel, and your AC power supply through the bottom channel, allowing it to be strung to the nearby power supply).

4. Once the wires have been inserted into the provisioned channels and an appropriate length of wire (when mounted, the wires reach above the wall plate by an inch or so) is available in the wall plate cavity, **locate** wall plate in desired location on wall.

5. **Straighten** wall plate with provided level and insert fastening screws and with Phillips screwdriver tighten screws and wall plate to wall.

   A. **Fasten** to the wall (using the fastening screws provided).

   B. For a professional install make sure to use the level (included).

STEP 3: INSERT POWER SUPPLY

1. **Insert** power supply cord through the same entry as control wires OR Insert power supply into receptacle just below the level.

2. **Plug the AC power supply** into provided plug in the wall plate located directly beneath bubble level. Then plug the power supply into the wall outlet (AC 110v) located near your controller location.

   A. By plugging your controller in at this time you will have access to 24 v AC to a "hot post" inside the wall plate.

STEP 4: RUN CONTROL WIRES

1. **Run** control wires to the wall plate.

2. **Measure** wire to the top edge of the wall plate and cut.

If using multi strand wire with a protective sheath, remove enough of the sheath so that the protective sheath ends just barely entering the wiring cavity and so that each wire has its maximum flexibility.

STEP 5: IDENTIFY ORDER OF ZONES / INSERT

The hot post is provided for you in the event that you're unsure which wire is associated with which valve or zone in your yard.

1. By **stripping about 3/8" to 1/2" of insulated plastic** off of the end of each wire, you can now insert zone wires according to how you want to order your zones. Generally the white wire will be your common wire and you will insert that into terminal block labeled "C".

Important: When you insert each wire, you should push the wire all the way in and then pull back slightly to make sure the wire is secure.

2. If you want to test each zone wire, you can connect each wire to the hot post (labeled "H") one at a time. The attached valve will activate allowing you to view the location of each valve and order them in the sequence that is desired and easiest to remember.

3. If you need to reorder the zone wires, simply press the zone button and pull the wire out of the indicated terminal block.

STEP 6: POWER THE CONTROLLER

Once all zones are connected as desired, and the connected wire and any extra wires are tucked neatly within the cavity of the wall board, you can mount the controller.

1. To mount the controller to the wall plate, **align the 4 snap pegs** on the backside of the controller with the 4 mounting holes on the wall plate.

2. Once aligned, **press evenly on both sides** of the front of the controller inserting the 4 pegs with a confirming snap, connecting the controller to the wall plate. You will know you are connected when the skydrop logo illuminates.

3. our **skydrop controller is a computer** and will require about **90 seconds to fully boot.** You will know that it has fully booted and is ready to go when the ring illuminates green.

The first screen will show the setup beginning with your the zip code.

Follow onscreen guide to complete the setup of your skydrop device

STEP 7: COMPLETE SETUP

Before setting up your skydrop controller, you should login to my.skydrop.com and register your account. Once you have registered you are ready to setup your skydrop controller. Here is a step-by-step detail of what you will experience.

1. Zip Code / Postal Code

    A. The first thing you will see when the skydrop controller powers on is a prompt to **enter your zip code**.

    B. Enter each of the 5 numbers and press continue

2. WiFi Connection

    A. Next, you will be prompted to select a WiFi network, or to skip this.

    B. Choose WiFi source:

    • You will be prompted to **select your personal WiFi.** Once you select your router off of the populated list of routers, you will enter your password. When you enter the password skydrop will go through the connection process and then display a "security code" which is a 6 digit number needed for your computer, app and controller to sync.

    • **Pairing Code**

        1. Once the security code is displayed, go to your computer and login to your skydrop account at "my.skydrop.com". This is your access to controlling your skydrop controller. If you haven't registered your account controller, take the time to do so now. Once completed you can login to your skydrop controller. You will be asked for a 6 digit security code.

        2. Enter the number that is displayed on your controller. Now, you should be paired, securely connected to your controller. Skydrop wizard will take you directly to "Skydrop Setup"

on your browser where you are able to finish setting up your controller using either your computer browser or the app on your smart phone for most convenient and easy setup.

C. Choose to Skip WiFi:

- **If you do not have a WiFi** connection and want to setup skydrop to water like a basic sprinkler controller select "Skip WiFi Setup".

- You will be prompted to set the controller **Date & Time**.

- Next you will be asked to set the watering **start time**.

- You are now given a choice on **frequency of watering**. You have the choice of **interval watering** or **specific day watering**.

- **Interval watering** is where you select a specific number of days between watering and that doesn't change. This means that if you select 3, your controller will water on the day you tell it to start then skip 2 full days and water on the third day at the time you designated

- **Specific Day watering** is where you will have a choice to select the days of the week that you want to water. If you select Monday, Wednesday, Friday – it will water these days only.

- Now you will be prompted to fill in the duration of each zone.

- Now you are finished setting up your controller. It will not water in the smart mode and will not use any of the weather information to optimize your sprinkler performance.

D. Browser / App Setup

- Basic Schedule Information: This initial setup will affect the entire site.

  1. **Water Time**: This is the hour in which you would like skydrop to start watering on the days that it waters.

2. **Soil Type**: Select your soil type and press next. (if you have questions on how to determine your soil type, read the section "soil type" below.

3. **Skydrop Setup** – zone by zone setup:
   - ❖ Plant Type
   - ❖ Sprinkler Type
   - ❖ Shady Y/N
   - ❖ Slope Grade
   - ❖ Water duration

4. **Finished** – once you have finished you can go back into controller or zone settings and input additional information. (Location information is next. Make sure the zip code you entered upon start up is populated in the space provided.)

- **Soil Type Test**:

5. Next you will be asked to **select your soil type**. If you have questions as to what your soil type is go to your yard and get a good sampling of soil. You can do this by selecting earth from three or 4 locations, mixing it all up, and gathering a sample size of about 1 cup. Put the cup of soil in a quart, see through container. Now add about 3 or 4 cups of water and shake it up so that the soil is all suspended in the water.

6. Let the container **settle until the water on top is clear**. What you will see is your soil profile. Look at the profile and determine which type of soil has the most concentration. The bottom layer will be what you call sand, the middle layer is loam, and the top layer or the layer with the smallest particles of soil will be on the top. Your soil will be determined by the layer that is the thickest in the container.

- **Watering Restrictions**:

  1. Select this setting when you have **specific municipal restrictions** and are required to limit the days or hours that you are permitted to water your landscape. When you water you will first come to "Run On" which indicates which days of the week you are allowed to water. By default all days are selected so that skydrop can water on any day depending on when it determines it is needed. With restrictions simply select each of the days you cannot water and as you select it, the circle will turn white indicating that it is not allowed to water on those days. Skydrop will continue collecting information and will still determine the best days to water. However, with the restrictions skydrop will sometimes have to water more frequent than it otherwise might to accommodate the restrictions placed. If it is a cool, rainy time skydrop will still suspend watering, however, if it is hot, skydrop will have to take care of the watering by modifying it's smart cycle to accommodate these restrictions.

  2. Next you will **select the hours of the day** in which you do not want skydrop to water. With the same technique as before, select the days that you cannot water (turning white).

  3. **Odd/even Day** are used in event that you are given a restriction of watering on the odd or even days of the month. In that case, leave "Run On" as defaulted, and select odd or even calendar days. This will select the odd or even number days per calendar and allow you to water as such

- **Zone Settings**: After entering all the information requested in "controller

settings" you will be taken to "zone settings". You will be prompted to enter information for each zone, starting with zone 1.

1. **Water Duration**: The first thing that you will be prompted for is "Water Duration". Based on the soil type that you enter, and the sprinkler type that you select, skydrop will know about how many minutes your sprinklers need to run. Skydrop will suggest a range of minutes to help you determine how much water needs to be applied for each zone. The key to great looking plant material is knowing how much water each zone can take. For best results on plant material you should water deep and as infrequent as your plants will allow. Select the number of minutes that best suites your soil profile

2. **Zone Name**: For easy distinction you should name your zones so that you have no doubt as to where you are watering

3. **Zone Enabled**: As before this button allows you to enable or disable a zone, however, this time it is only a single zone. Only use this button when you do not want the zone to come on at all.

4. **Exclude from Restrictions**: If you have a zone that does not need to follow the municipal restrictions, select this slider and skydrop will water when it is needed.

5. **View Zone Conditions & Information**: Each zone has some specific parameters that determine the pattern of watering. You will be asked to determine to your best knowledge what parameters apply to each zone in your yard.

   ❖ **Plants**: By selecting the plant type you are telling skydrop how deep the root zone is and

thus how much water the soil will hold in the area of the plant root zone. Select the plant type that best describes the zone that is watering. If there is a combination of two or more plant types, select them all. Skydrop will use the plant that requires the most water (deepest root zone) and the duration suggested will be based off of this info.

❖ **Sprinklers**: By selecting sprinkler type, you are indicating to skydrop how quickly your sprinkler system can apply water. Each sprinkler type has a precipitation value that skydrop uses to determine run time or zone duration.

❖ **Slope**: Skydrop will water differently if your zone is on a slope. If you have a sloped area, and so the water is given the necessary time to soak into the soil, skydrop will automatically run a "Cycle / Soak" pattern. This means that skydrop will cut your run time based on the soil type that you have. Skydrop will apply the amount of water that your soil can accept before run off occurs. Then it will wait for a period of time and once again run the zone. Depending on how severe the slope and how tight the soil, skydrop may cycle and soak a number of times.

❖ **Shade**: The shade selection that you choose should reflect the designation for the entire zone. If part of your zone, (for example) is full sun and another part is full shade, you should select full sun to meet the needs of the most demanding part of the zone.

skydrop™