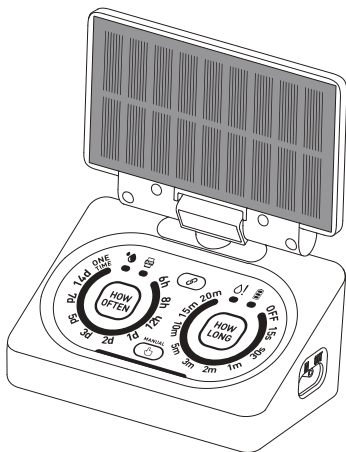


USER MANUAL

Auto Solar Irrigation System

Model No. HTP149FRF

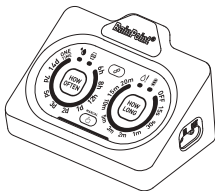


Welcome to the **RAINPOINT** family! Please read the manual before use to learn about the features and functions.

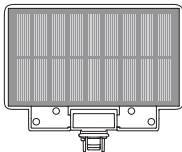
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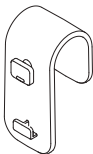
1. Box Contents



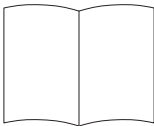
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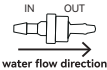


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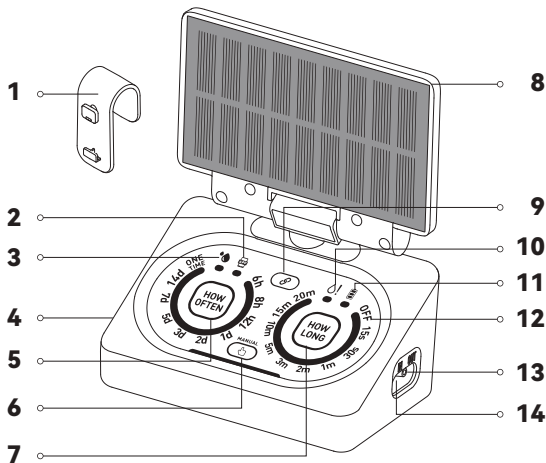
5

1. 1 X HTP149FRF Auto Watering Pump
2. 1 X Solar Panel
3. 1 X Detachable Back Mounting Hook
4. 1 X User Manual
5. 1 X Warranty Card
6. 1 X IK10 Accessories Pack (Please see next page)

Accessories Included	Name	PCS	Function
	Tubing	1	Tubing for Main Line Len: 10m/32.8 ft Inner diameter: 1/6 in. (4mm)
	Tubing	1	Tubing for Branch Line Len: 3m/9.8ft Inner diameter: 1/8 in. (3mm)
	Filter	1	Filter impurities from water
	Tubing End Plug	3	Stop water flow at the end of the tubings
	Micro Drip Emitter	10	Insert into soil to water the plant root directly
	T Barb Fitting	10	Split water flow and connect tubings
	Cross Barb Fitting	1	Split water flow and connect tubings
	Anti-Siphon Valve	1	Prevent siphoning and backflow
	Zip Tie	10	Secure and organize tubings

2. Introduction

2.1 Product Overview



1. Detachable Mounting Hook
2. Network Connection Status/
app Control Indicator
3. Pump Status Indicator
4. Type C charging port
5. How Often Setting Button
6. Manual Watering Button
7. How Long Setting Button

8. Detachable Solar Panel
9. Hub Pairing Button
10. Water Shortage Indicator
11. Battery Level Indicator
12. OFF
13. Water Outlet Port
14. Water Inlet Port

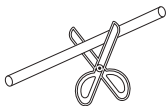
Note: THIS PUMP COULD BE USED ALONE AND SETUP ON THE PUMP ITSELF OR PAIRED WITH RAINPOINT HUB (2.4GHz only, model: HWG023, HWG023WBRF, HWG040) AND SETUP VIA MOBILE APP.

Icon	LED Indicator	Status
③ Pump Status Indicator	Flash green	Pump is working
② Network Connection Status /app Control Indicator	Flash red	Enter pairing hub mode
	Keep being green for 2s	Pair with hub successfully
	Keep being red for 2s	Fail to pair with hub. Please retry.
	Keep flashing red every 10s	Disconnection with hub. Please repair with hub.
	Solid green	Pump is under APP plan mode
⑩ Water shortage Indicator	Flash red	Short of water
⑪ Battery Level Indicator (activate after plug in solar panel)	Keep being green for 1 min	High battery level
	Flash yellow	Low battery level
⑪ Battery Level Indicator	Flash red twice upon press any button	Out of battery. Pump will not work.
⑫ OFF	Solid Red	Terminate irrigation plans set up on the pump

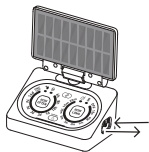
2.2 Specifications

- **Recommended Max. Pumping Head:** 8.2ft (2.5m)
- **Solar Panel Output:** 4.2V 1W
- **Flow Rate Range:** 7.93GAL/H (30L/H)
- **Watering Duration:** 15s~20min
- **Watering Frequency:** 6Hrs~30Days
- **Temperature Operating Range:** 37°F~122°F (3°C~50°C)
- **Battery Type:** 2000mAh built-in rechargeable lithium-ion battery in solar panel

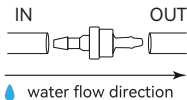
3. Installation



- ① Plan your drip watering layout and cut the hose (1/6 in Main Line Tubing) to desired length.



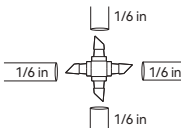
- ② Connect the hose to water inlet and outlet.



- ③ Connect anti-siphon valve to water outlet hose and close to pump. It will help prevent backflow and siphoning. (Note: The valve must be installed correctly in accordance with the flow direction.)

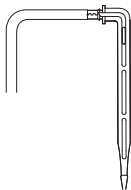


- ④ Insert filter to the other end of water inlet hose, and put into water container.



Connecting the suitable barb fitting:

- ⑤
- When you need to connect the hose (1/8 in Branch Line Tubing) while splitting to two ways, **you can use the "T" barb fitting.**
 - When you need to connect a hose (1/6 in Main Line Tubing) while splitting to other 3 ways, **you can use the cross barb fitting.**



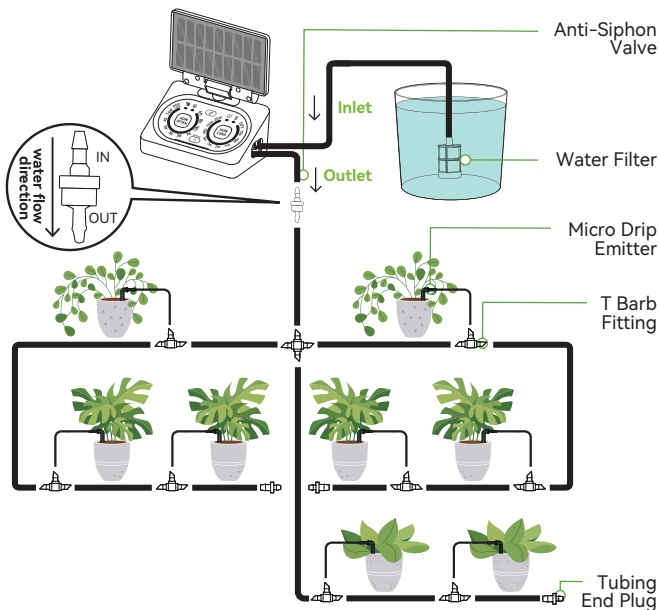
- ⑥ Connect micro drip emitter to the end of the pipe for each branch to provide targeted watering at the base of each plant.

Tips: Loosen the soil first, then insert emitters at least 3 inches deep, which will help water reach plant roots.



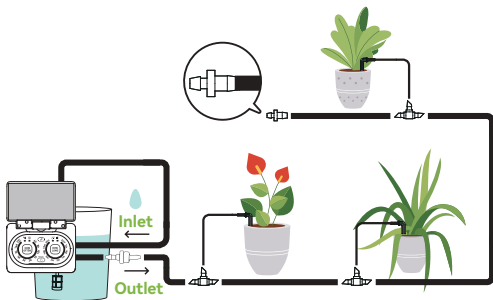
- ⑦ Install tubing end plug after water flows out from the end of the pipe to get rid of air left in the pipe.

Note: When the number of potted plants exceeds 7, it's recommended to use cross barb fitting for pipeline connection to ensure uniform water flow at each dripper.



- Main Line tubing (ID 4mm)
- Branch Line tubing (ID 3mm)

Tips: Install tubing end plug after water has flowed from the pipe end.



Please keep the whole system horizontal or above water container.



! Pump is higher than water container over 8.2ft (250cm).



! Pump is lower than water container.



! Plants are over 8.2ft (250cm) higher than the pump.

4. Standalone Mode Settings

4.1 Plan settings

STEP 1: HOW OFTEN SETTING

Short press the **How Often** button to your desired watering frequency. The green LED light will flash 4 times and turn solid green when the setting is confirmed.

STEP 2: HOW LONG SETTING

Short press the **How Long** button to your desired watering duration. The green LED light will flash 4 times and turn solid green when the setting is confirmed.

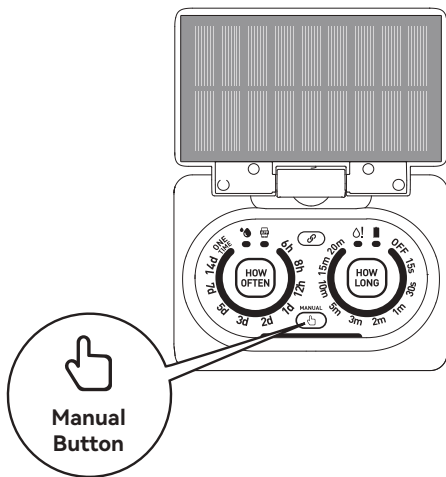
Tip:

- To start a single watering schedule, you can set **How Often** to **ONE TIME** and **How Long** to your desired duration.
- When all settings complete and plan confirm, the pump will immediately start the first-time watering.
- The pump will automatically shut off and the plan won't be executed if the battery level is too low.
- LED lights (except water shortage & low battery indicator) will automatically shut off after 1 min if the pump enters standby mode to save energy.

4.2 Manual/Stop Watering

If you want to manually start a temporary watering, just press the **Manual Button**. And the pump will start watering according to the duration you set.

To stop watering sooner, press the **Manual Button** to end the watering session.



5. App Mode Settings



Tips: Please scan the QR code or search the link to access the video to easily and quickly view the operational details of the device.

Video Address:

<https://bit.ly/4cOfDVa>

You could pair this pump with our hub to enable remote control and enjoy many other smart features.

Please refer to hub user manual to download app and connect the hub with wireless network(2.4GHz only) first.

1. After the hub is successfully connected with wireless network, select  button on app home page or click **"Add Device"** on hub home page.



2. Then select "HTP149FRF" or tap  icon on Add Device page, and scan QR code below.

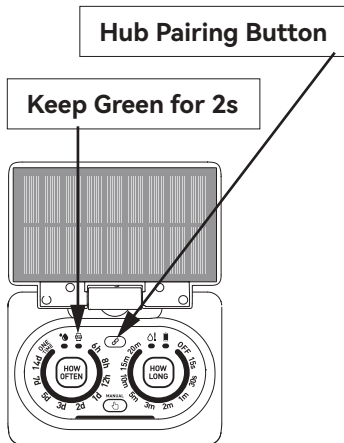


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3. Power up the pump through the Type-C port. Click **Next**, move onto Pairing page and follow the in-app instruction to complete the pairing.

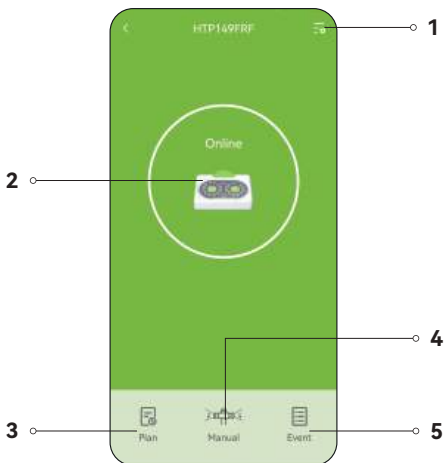


4. If the pairing is successful, the indicator keep being green for 2 seconds. You can move on to install the pump and set up your irrigation plans.



6. Online Mode app Features and Functions

6.1 Device Home Page



1. **Settings:** Click to check settings for the pump
2. **Pump Status Icon:** Show the pump working status
3. **Plan:** Click to manage and monitor your watering plans
4. **Manual:** Click to set watering duration of temporary irrigation
5. **Event:** Device work log

6.2 Pump Settings

Tap  on the top right corner of pump home page to see the settings.

Device Name

Edit the name of the pump

UI DIY

Choose front color background picture

Adjusting Sensitivity

Adjust the sensitivity level if water shortage alert is too sensitive or not sensitive enough



Device Information

Check Device ID, model #, battery level and firmware version

Default Duration Time

Set default watering duration from 10s to 60 mins per your desired

Water Shortage Calibration

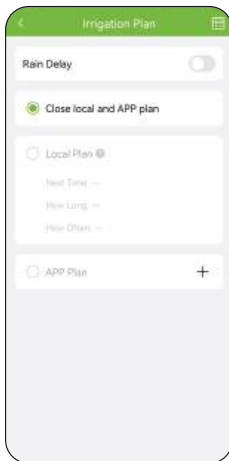
Calibrate the current water state of the pump as the water shortage level

Device Replacement

Replace the pump with a new one while keep the irrigation plans and sensor data record from the old pump

6.3 APP Plan Settings

Select Plan  and start to create a new auto-watering plan.

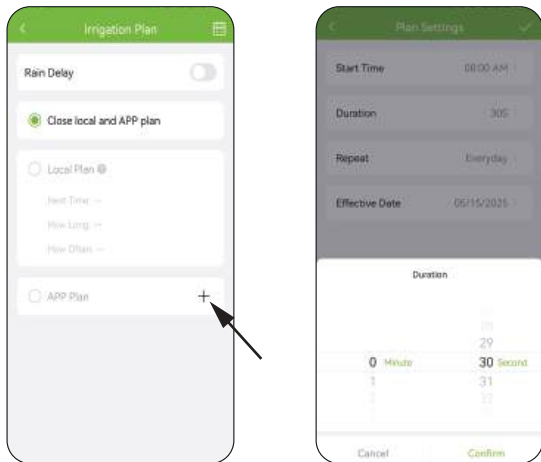


Press the icon **+** on the right side of the **"APP Plan"** option to set an irrigation plan.

Start Time: Set the time when to start the plan.

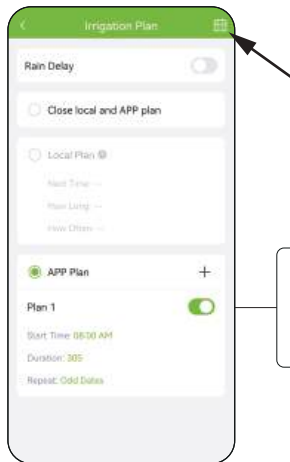
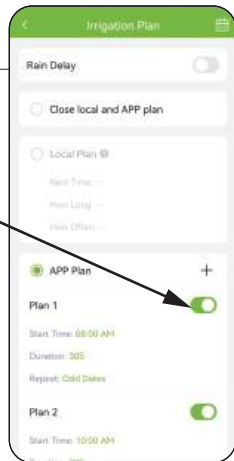
Duration: Set how long to water for the watering plan.

Repeat: Set the watering frequency for the plan.



Once you are done with the setup of APP plan, you will see a plan overview list. Use the button on the right to turn on or off the plan.

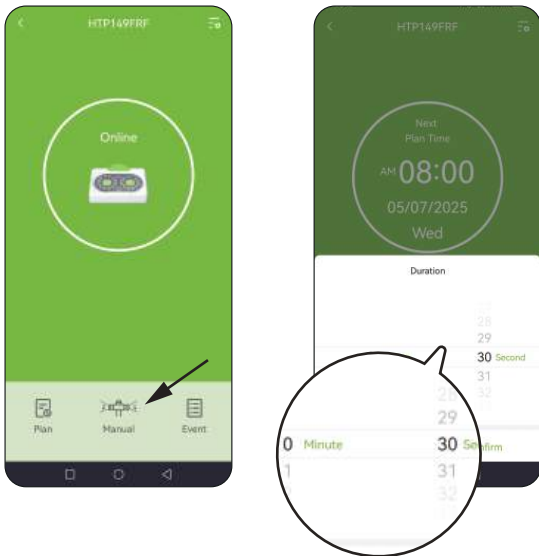
Plan On/Off Button



You can also tap  on the top right corner to access **Plan Calendar** for checking the overview of all the plans' schedule.

6.4 Manual Settings

Tap **Manual** on pump home page to manually turn on a temporary irrigation plan with a settable time.

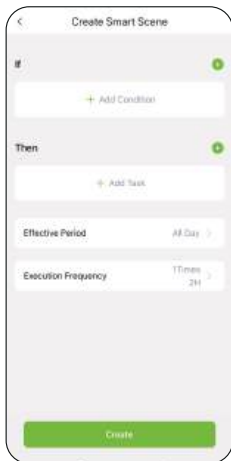


Note: When you turn on a temporary irrigation plan, if there is a pre-set plan running now or there will be a plan starting during temporary irrigation plan, the schedule pre-set plan will be skipped for this time.

6.5 Smart Page

Set up customized **Smart Scenes** according to your preferences and needs to build RainPoint's device IoT system. In this way, your drip irrigation pump will automatically adjust watering plans and send various notifications based on the plants' environment.

Follow the in-app instructions to complete **Smart Scene** settings.



Tips:

- **Smart Scene Operation logic:** "If" selected condition is triggered, "Then" execute the specified task.
- Up to **5 conditions** and **5 tasks** can be added.
- In **Time** condition pane, **Execution Time** can be set to the sunrise/sun-set time at your location (based on in-app weather forecast).
- **Conditions Trigger Relationship Setting:** Touch the icon ▼ below **If**. Here you can select the type of trigger relationship between multiple conditions.

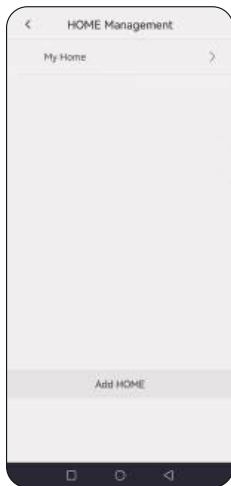
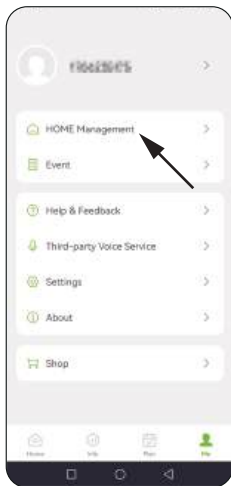


- Tap the icon ... on the upper right corner of **Smart Page**, and tap **Manage** to delete scenes.
- Tap the icon ... , tap **Logs** to view execution history.

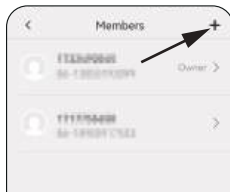
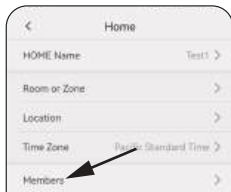
6.6 Share With Family Members

Tips: To achieve joint management of multiple mobile phones/multiple members, it is necessary to set up a separate account for each mobile phone/each member and log in on different mobile devices (tablets, cellphones).

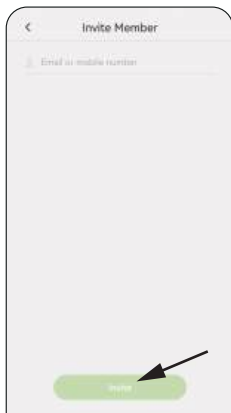
1. Select on the **"Me"** page at the bottom right, enter into **"HOME Management"** . And then Select the group you set up earlier.



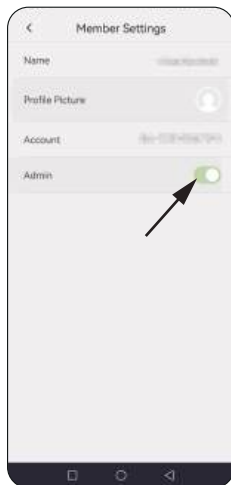
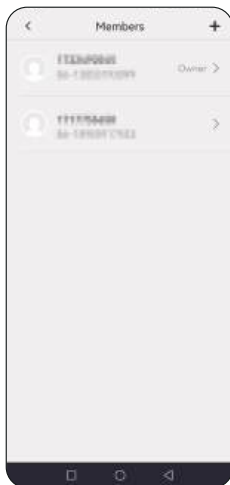
2. Tap on **"Members"** and press **+** on the top right corner.



3. Enter the email or mobile number of the invited member (the member need to complete the account registration in the APP on his mobile phone). Then select **"Invite"** and tap **"Accept"** in the invited phone app.



4. On the "**Members**" page of the owner APP, select the member you want to adjust, and then tap "**Admin**" to adjust the member's permission.



7. Troubleshooting

Problem	Possible Reason	Solution
Pump can't connect with hub	• Too far from the hub or too many obstructions between pump and hub. • Miss the searching time during connecting. • The hub firmware version is too low.	• Stay close with the hub when connecting the pump. • Try to reconnect the pump and press & hold the Hub Pairing Button after start pairing mode until red light blinking. • Go to pump's Settings Page, click "Device Information" to update firmware version.
Pump no working or can't pump water from container	• Impurities get into the pump and damage the pump. • Pump broken due to falling or during transportation.	If the pump can't work, or can't pumping water, please contact customer service from where you buy in the warranty time.
Water leakage from the pump inlet or outlet port	The pipe is not tightly inserted or not fully inserted.	Re-install the water pipe to make sure the pipe end is fully and tightly insert to the inlet and outlet port.

Problem	Possible Reason	Solution
Weak water flow comes out	• Too far away from pots and water container. • Air left in pipe.	• Move the pump closer to the plants and reduce the pipe length. • When set up the watering system, try to put on the tubing end plug after water has flowed from the pipe end.
Hub can't connect	• 2.4GHz Communication • Incorrect wireless network password. • Too far from the router or too many obstructions that blocks the signal.	• Check and use 2.4GHz or dual band network to connect. • Check again the password when connecting • Try to stay close with the router when connecting the hub.

8. FCC Statement (FCC ID:2AWDBHTP149FRF)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Warning: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

9. Warranty Policy

RAINPOINT provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship. You can get an extra two years of extended warranty by registering your product on our website www.rainpointonline.com

10. Customer Support

Still have trouble with setup , please search for "**RainPoint** " on Youtube for installation videos!

If the user manual doesn't have what you're looking for or you need other help, please contact us before returning the product to the store and let us know the LOT NO. of your device.

LOT NO.: XXXXXX (on the back of the irrigation pump)



**18650 Lithium Ion
Rechargeable Battery
(3.7V 2000mAh)**



**This paper
box is recyclable
and reusable**



**ÉLÉMENTS D'EMBALLAGE
À SÉPARER ET À DÉPOSER
DANS LE BAC DE TRI**



Made in China



FR
**Cet appareil
et sa batterie
se recyclent**



Points de collecte sur www.quefairemedesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

Need Help ?

Scan the QR code for more help



or Email:

support@rainpointonline.com