

Mizzler

INSTALLATION AND OPERATIONS MANUAL

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IMPORTANT!

Please record the serial number of this unit in the space below.

Serial No .:

The serial number is located on the side of the internal control box.

Retain this Owner's Manual in a safe place for future reference.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE INTERNAL ELECTRONICS TO RAIN OR CHEMICALS. Contains a Lithium-Ion battery power source.

Avoid prolonged and direct exposure to UVC Lights.

Applies to Type 1 Residential Model:

TDZR0005.0 (2 to 5 Ton)

Product may appear different from image.

SAFETY INSTRUCTIONS

- Read Instructions All the safety and operating instructions should be read before the unit is installed or operated.
- **2** Retain Instructions The safety and operating instructions should be retained for future reference.
- **3** Heed Warnings All warnings on the unit and in the operating instructions should be adhered to.
- **4** Follow Instructions All operating and other instructions should be followed.
- 5 Water and Moisture The control unit is water resistant. However, please take care to avoid installing areas that may submerge or are in direct line with spray irrigation.
- **6** Wall Mounting The control unit should be anchored to a wall or only as recommended by the manufacturer.
- 7 Heat The unit should be situated away from heat sources such as radiators, exhaust pipes, or other appliances that produce intensive heat.
- 8 Power Sources The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the unit.

- **9** Cleaning The unit should be cleaned only as recommended by the manufacturer.
- 10 Object and Liquid Entry Care should be taken so that objects do not fall into, and liquids are not spilled into the inside of the unit.
- **11** Damage Requiring Service The unit should be serviced by qualified service personnel when:
 - a) The power-supply wiring has been damaged; or
 - **b)** Objects have fallen, or liquid has been spilled into the unit; or
 - **c)** The unit does not appear to operate normally or exhibits a marked change in performance; or
 - **d)** The unit has been dropped, or a pump has failed.
- 12 Servicing The user should not attempt to service the unit beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.
- **13** The Mizzler is not to be used as a temperature limit control device.

CAUTION: READ THIS BEFORE OPERATING UNIT

- 1 Do not make power connections, or attempt to power the unit, until instructed to do so. Failure to follow instructions may cause damage.
- 2 Install this unit in a place away from threat of vandalism, accidental damage, or forceful water intrusion. To prevent damage to electronics, avoid exposing the interior of the unit to rain or chemicals.
- **3** Do not use force on switches, controls or connection wires. When moving the unit, first disconnect the power wires or pipework connected to other equipment. Never pull the unit itself to disconnect for removal or relocation.
- 4 Be sure to read the "TROUBLESHOOTING" section located in this guide regarding common operating errors before concluding that the unit is faulty.
- 5 The internal components of this unit operate on low voltages. Caution should still be taken to avoid personal harm.
- 6 The Mizzler Unit will not function properly, and power should not be applied until unit is fully installed.
- 7 This unit has been preprogrammed. There is no user input required.

SUPPLIED CONTENTS

Main Control Components

- 1x Housing unit with pumps
- 1x Water recycling pan
- 1x Water tank
- 1x External ambient temp sensor
- 1x Temp sensor mount
- 1x External water intake filter
- 1x Water Level Sensor (external)
- 2x Water level Sensor (internal)
- 4x 1/4" x 1-3/4" wall anchor screws
- 1x 3/16" Masonry drill bit

Power Supply

- 1x 30-watt solar panel
- 1x Pc Lithium-Ion battery
- 1x 12 ft. solar power cable.
- 1x Solar panel mounting assembly
- 1x Solar charge controller
- 1x External Air Float sensor switch

Water Distribution Components

1x 10 ft. Water collection pipe - 3/8" 1x 14 ft. Water supply pipe - 1/4" 1x Push-to-Connect release tool 6x each: 6" & 3" Zip ties 4x 1.5" epdm washer/screws 4x 2.5" edpm washer/screws 4x Mizzler spray head units 2x Mizzling nozzles (for spare) 2x Termination plugs (1/4" & 3/8") 4x Magnetic condenser mounts

FEATURES

• The Mizzler is designed to be the most environmentally friendly and water conservative, HVAC energy reduction device on the market.

• The Mizzler makes your condenser operate more efficiently, reducing runtime and lowers energy consumption. It recovers and recirculates already Mizzled water, collects wasted condensate water and rainwater, filters it, then uses it to cool your refrigerant down—the most energy intensive part of the air-conditioning process. All this, powered by the sun!

- Meters the returned gas temperature to control and optimize operation.
- Operates on solar supplied, 12v DC power. No high voltage No electrician required.
- Is compatible with all common HFC & HCFC & HFO refrigerant based systems.
- Will not damage condenser coils and in fact, helps to keep them clean and better functioning.
- Pipe work is installed with simple, push-to-connect fittings. No plumber required.

PRE-INSTALLATION CONSIDERATIONS

Inspect for damage. Open box and look for any visible exterior damages. In the event of a broken unit, please contact distributor for replacement parts if necessary.

Inspect air conditioning unit for any problems that should be identified and corrected prior or alongside the installation of The Mizzler. The Mizzler should not be understood to be a corrective measure for pre-existing mechanical conditions. Primarily, condensing coils that are not in good condition will significantly impair The Mizzler's performance. The HVAC unit that this unit is being installed on should be in good working order and properly sized. The performance and benefits of The Mizzler may be impacted by systems that are significantly undersized or oversized. Xero Technologies is not responsible for determining these circumstances. The Mizzler operates effectively when systems are properly sized, in good condition, and are mechanically within proper operating standards.

Xero Technologies makes no suggestion or guarantee (expressed or implied) that this unit will or can resolve any pre-existing component inadequacy or failure.



Tools required, depending on installation:

Drill / Driver, 3/16" Masonary bit, Hammer, Razor Knife, 1/4" Hex-head Driver, #2 Philips Screwdriver.

INSTALLATION INSTRUCTIONS

In preparation of installation, selecting the right location will greatly simplify the process and ensure proper functionality. As there are several components within The Mizzler kit, each one will have its own considerations.

Step 1. **Mounting Solar Panel.** Locate area on roof, side of house above condenser, or roof fascia, with best sun exposure. Panel wire length is <u>12 ft.</u> If needed, an extension wire of 12 ft. is available from the manufacturer.

A. Route the wire down to where you plan to place the Main Control Unit. Do not plug in until instructed!

B. Mount the solar panel, once you have confirmed the wire length will reach your intended Main Control Unit location, as per Diagram 1.

Diagram 1



Step 2. Locating the Main Control Unit (MCU):

The Main Control Unit contains the controls and pumps in the upper section, and water storage in the lower. Therefore, the MCU must be oriented with the label's lettering is in the natural orientation (with lid on top.) Do not install in any other orientation.

As depicted, the Main Control Unit should be installed within 6 feet left or right of the outside condenser unit. The right side is <u>preferred</u> for shortest pipe run. (12 ft. of water supply tubing is included in the kit, to account for routing and/or vertical distance losses.)

The Main Control Unit should <u>not</u> be installed within 18" of the condensing unit's main power disconnect, or directly above it. The MCU should <u>not</u> be elevated more than 3 feet above or below the height of the condensing unit.

If placing Main Control Unit on ground, proceed directly to step 3.

- A. Mark anchor locations and drill pilot holes with 3/16" masonry bit.
- B. Drive provided masonry anchors to affix shelf brackets to wall.
- C. Secure Main Control Unit to wall (anti-tip measure).

Step 3. Placing Water Recycling Pan (WRP): RESIDENTIAL



The Water Recycling Pan is designed to effectively recapture as much of the Mizzled water as possible. To do that, the pan should be placed evenly, centered underneath the condensing unit.

The pan is designed with a cleverly angled tray. This allows for water to be directed towards the outlet, while keeping the condenser level. You will likely need a second set of hands to assist you with installing this component. When possible, the Exit Drain Port of the pan should exit towards the Main Unit. This keeps the piping shortest and least exposed.

- A. Disconnect any existing wind straps between condenser pad and condenser.
- B. Carefully lift condensing unit approximately 3", ensuring adequate flexibility in copper refrigerant lines.
- C. (See Diagram 2) to familiarize yourself with the various aspects of the pan.

Diagram 2



D. Before placing pan underneath, examine Diagram 3

1. If the pad is generally level, or leaning slightly backward towards the building (see 'A' below), orient pan so that the "front" is positioned to face the building.

2. If the pad is slightly sloped down, leaning the condenser away from the building (see 'B' below), turn the pan either left or right 90°, positioning the drain connector closest to the Main Control Unit.

3. If the pad/condenser is slightly leaning right (see 'C' below), turn the pan clockwise 90°, so the front of the pan is facing left.

4. If the pad/condenser is slightly leaning left (see 'D' below), turn the pan counterclockwise 90°, so the front of the pan is facing right.



E. When possible, pouring a little water into the pan at this point will verify proper water flow towards drain and filter.

If no anchoring straps, proceed to step 4.

F. Reattach anchoring straps. Screws can be drilled through bottom of pan if necessary. Use provided gasketed washers to seal screws, being careful to anchor into pad underneath. 2 sets of screws provided. Use the shorter 1.5" length if screwing through lower basin areas of pan. Use the longer 2.5" length if screwing through the higher platform areas of pan. (**Do not over tighten. Damage to Pan may be incurred.**)

Step 4. Mizzler Head Assembly

A. Locate and gather the (4x) Mizzling heads sets with magnetic mounts, and the 1/4" flexible water pipe.



PIPE WORK INSTALLATION



NOTE: It is important that any cut ends on pipe work are square and clean. Do not insert pipes into fittings if the pipe end has an angular cut or are dirty, as this may fail to create a complete seal. Use razor knife or hose cutter.

Step 5. Mounting the Mizzler Heads

As shown in diagram 5, there are two common condenser shapes. For our purposes, Type 1 includes standard split units. Type 2 represents mini and multi splits, and mini VRF type systems. The first will typically have 4x sides where the condenser coil is located (Condenser Type 1). The second will typically have one large and one small (Condenser Type 2).



For **Condenser Type 1**, please proceed directly to **step 6**.

For Condenser Type 2, please proceed directly to step 6-2.

Step 6. Mounting Mizzlers onto Condenser Type 1

Before commencing to install the Mizzler head units:

A. First, determine if your condenser has a smooth coil guard or a louvered coil guard, as exampled in the next illustration. This will determine the position and spray direction of the Mizzlers.



1/4" Pipe



Spraying toward upper half





B. **Second**, determine which section and location to begin with. This should be determined by which side of the condenser your Main Control Unit (MCU) is located, **Diagram 6** below portrays the preferred arrangements.



C. Mount the 4x Mizzler Head Sets, centered onto each side of the condenser, as shown in the overhead diagram 6.

Slide the magnetic mounts away from each other and toward the Mizzler heads, adjusting the location of the mounts near to the Mizzlers, while making good contact with the condenser guard. Use your best judgment for now, as adjustments can be made later.

D. Locate and insert the provided (smaller 1/4") black end plug into what will become the end of the pipe run, as shown in diagram 6.



Important: As shown in diagram 5:

If your condenser has **smooth guards** - Position the Mizzler assemblies at the top, pointing the nozzles downward. If your condenser has **louvered guards** - Position the Mizzler assemblies at about mid-way, pointing the nozzles upward.

Connecting the Mizzler heads

E. In the Mizzler kit, you are provided with (3x) 18" sections of 1/4" tubing. These will likely be oversized for use and requiring trimming to meet your specific condenser size.

Working back from the Mizzler head with the end plug, hold up the 18" black water pipe around the bend and over to the next Mizzler spray head set. Mark the distance needed to reach between and add 1" to account for the portions of black pipe that will be inserted into the quick connect Mizzler head mount. **Avoid kinking the pipe.**

- F. Cut the pipe at the measured point.
- **G**. Insert pipe into both spray heads to bridge the corner. Use a magnetic mount for the pipe if you feel it is required.
- **H**. Repeat this process, working around the condenser corners.

Step 6-2. Mounting Mizzlers onto Condenser Type 2

Firstly, determine which section and location to begin with. Depending on which side of the condenser your Main Control Unit is located, **Diagram 7** portrays the preferred arrangements.

Mounting the Mizzler Heads

A. Mount the Mizzler head sets, positioned onto each side of the condenser as shown in Diagram 7.

B. Slide the magnetic mounts away from each other and toward the Mizzler heads, adjusting the location of the mounts near to the Mizzlers, while making good contact with the condenser guard. Use your best judgment for now, as further adjustments can be made later.

C. Locate and insert the provided (smaller 1/4") black end plug into what will become the end of the pipe run, as shown in diagram 7.



Connecting the Mizzler heads

D. In the Mizzler kit, you are provided with (3x) 18" sections of 1/4" tubing. These will likely be oversized for use and requiring trimming to meet your specific condenser size.

Working forward from the exit point of the first Mizzler head set, hold up the 18" black water pipe around the bend and over to the next Mizzler spray head set. Mark the distance needed to reach between and **add 1**" to account for the portions of black pipe that will be inserted into the quick connect Mizzler head mount. **Avoid kinking the pipe**.

E. Cut the pipe at the measured point.

F. Insert pipe into both spray heads to bridge the corner. Use a magnetic mount for the pipe if you feel it is required.

G. Repeat this process as appropriate for your condenser size. Use a magnetic mount for the pipe if you feel it is required.



Step 7. Connecting Mizzlers to Main Control Unit.

In the Mizzler kit, you have been provided with 10 ft. black 1/4" black pipe. Insert one end into the Main Control Unit water outlet. Maneuver pipe as desired to appropriate remaining spray head opening. Cut any unrequired excess pipe and Push-to-Connect.



Step 8. Installing the Air Float Switch (AFS):

(Diagram 8.) For traditional condensing units that have the fan on the top (ejecting air toward the sky), the Air Float Switch is mounted on the top, on the outer perimeter surrounding the fan grate, with the wind catching flap positioned over the fan grate, to react to the upward wind flow. This switch is responsible for telling The Mizzler that the condenser has turned on, and that if other parameters are met, to start Mizzling!

For condensing unit design types that eject wind out the side, the Air Float switch must be installed on the outer trim of the face that ejects the wind, with the flap hanging downward.

Note: Before permanently attaching the flap switch, move the switch around while the condenser fan is blowing to ensure the flap responds adequately to engage. The switch is engaged when you can hear a click.



A. Connect Air Float Switch wire to Main Control Unit as per image. **Note: Do not overtighten –** A lightly snug fit is all that's necessary.



Step 9. Installing the Ambient Temperature Sensor (ATS):

The Ambient Temp Sensor should be mounted in the shade, away from artificial heat sources. This sensor tells the Main Control Unit that your condenser should not be Mizzled when it gets too cold to be effective. Conservation is the goal.



A. Locate Ambient Temp Sensor wire bundled inside the upper section of the Main Control Unit. Extend wire out (8 ft. max) to properly protected location. (Be careful to avoid running wire where landscaping maintenance may cause damage.)

B. Locate Sensor Clamp. Use adhesive tape on base (on clean, dry surface). Zip tie also provided if helpful.

C. Excess wire length can be wrapped and stowed onto the cleat conveniently located on the Main Control Unit.

Tip: A good location for the temp sensor is on the outside of the Water Recycling Pan wall, behind the condenser.

Step 11. Installing the 3/8" Water Collection Pipe

a. Locate the provided 10 ft. of 3/8" pipe. Push-to-Connect one end of the pipe into the Main Connection Unit's "waterin filter", located on outside of the unit.

b. Route pipe over to the 3/8" push-to-connect drain fitting on the Water Recycling Pan.

c. Cut pipe to proper length and insert into pan drain fitting.

Step 12. Optional Condensate Water Recovery (PVC pipework not provided.)

To be able to use this feature, the WRP must be at or below the height of the building's condensate line out. (Diagram 9)

a. The industry common size for a condensate pipe is 3/4" OD. Check to ensure.

b. Attach appropriate pipe connector to building's condensate pipe, to enable extending pipework over to the Water Recycling Pan.

c. Run PVC pipe work as needed to reach to and slightly over the pan's edge. Finish pipe work with 90°elbow turned downward into collector pan.

d. Support pipework as needed. Avoid wrong slope angle or water will back up and not flow freely. A zero-slope level will also work.



Diagram 9

START UP COMMISSIONING

The Mizzler will fail to operate properly if all wiring ports are not plugged in and connected.

Note: Please **strictly follow the below sequence** for connection order, otherwise the controller may be damaged. Disassembly sequence is opposite to the wiring one.

Step 13. Fill bottom Water Collection Tank with 5 gallons minimum, purified water.

The Collection Tank stores recovered Mizzled water, collected condensate water, as well as natural rainwater to be used for Mizzling water onto your condenser's coils. It holds 15 gallons of water when full. The tank is equipped with 2x sensors that informs the Main Control Unit if it has run dry, and when it's full, keeping the pumps from running unnecessarily.

Note: When lifting, placing on ground, or restacking the upper control portion of the Mizzler Control Unit, please be careful avoid damaging all protruding components.

Step 14. Connecting Power.

a. Open Mizzler top cover to access internal components.

b. Identify and connect single, black, labelled "**Battery**" wire exiting from internal Control Box, to open **neg**. "**Battery**" terminal in Charge Controller.

c. Connect Solar Panel cable to exterior Main Control Unit port (per previous illustrations).

d. Connect single, red, labelled "Load" wire exiting from Control Box to open **pos**. "Load" terminal in Charge Controller.

e. Push main power switch to turn on and confirm power. Displays should light. Once power is confirmed, depress power again to turn back off. If power is not confirmed, it is possible that a wire has become loose during transport. See Troubleshooting (1b).

Red LED on when spray

pump active

Step 15. Turn on air-conditioning system (if off), or lower thermostat to force on. The Mizzler's Air Float Switch should react once condenser fan begins to blow.

Step 16. Cycle Mizzler power switch back on.

-You will see two numbers displayed on Internal Mizzler Controller:

-Top red line is temperature probe reading.

-Bottom blue line is pre-programmed - Do not attempt to change.



a. Check pipe work for leaks. Over-forced or under-inserted piping may leak. To fix, switch Mizzler off. Release and reseat piping if necessary, using the provided 1/4" & 3/8" double-ended, Push-to-Connect tool.

Step 18. Adjust Spray Heads

Condenser type 1: units should have all spray heads focused on the upper half of the coil area.Condenser type 2: units should have narrow side spray heads off-center, aimed sideways and backward towards the other sprayers.

(Revert to previous diagrams 6 or 7.)

All spray heads should be aimed slightly inward, minimizing loss of water into the environment.

Step 19. Turn off the AC or readjust thermostat back to normal temperature. Check to ensure that Mizzling ceases once condenser fan turns off.

Congratulations! You have successfully installed your Mizzler. Frogs are celebrating everywhere!

VALIDATION CHECKS

Water Control Process

1. The main water tank has two internal switches that communicate to the Main Control Unit whether the tank has run dry, or it has reached full capacity.

2. The first switch tells the Main Control Unit if the tank runs out of water. The Mizzling pump should then cease to operate.

This can only be tested by draining the tank while the Mizzler is in operation. A test is not necessary to perform as it may be evidenced naturally.

3. The second switch controls the secondary pump that draws water from the Water Recycling Pan. If the tank is full, the pump should cease drawing in water from the WRP. This process can be easily observed as the Mizzler operates.

4. As the Mizzler utilizes water from the storage tank, it collects in the Water Recycling Pan. The Water Recycling Pan then has a sensor that tells the Main Control Unit when it is full enough to engage the secondary pump. Once the Water Recycling Pan has approximately 3/4" of water level, the secondary pump will activate, recycling the water back into storage.

5. This process can also be observed during natural operation. If the secondary pump fails to operate, when there is still available space in the tank for water, see troubleshooting section.

6. When the storage tank is full, excess water in the Water Recycling Pan may begin to overflow out. This is normal and to be expected.

TROUBLESHOOTING

The Mizzler has been design-built to provide years of trouble-free operation, with limited maintenance. Additional support and tutorials are available on our website.

During a regular cycle, the controller will operate the system in this order:



I. No Power During Initial Start Up

- A. Recheck Main Power wire connections at External Solar Charge Controller.
- B. Remove Lid from the Main Control Unit and re-check all terminals for loosened connections during transport.
- **C.** Contact Customer Support.

II. Failure to Mizzle

- Check to see if both displays are powered (LED showing temperatures).

 a. If yes, proceed to check water level in collection tank.
 If water level is good See display of External Solar Charge Controller. If on, proceed to (2). off, proceed to II. Filter / Screen Maintenance
 If water level is too low add water. Check main drain out at base of Mizzler tank for leak.
- 2. Check to see that pump power is active. Bulb symbol will display as shown in image 1.b. If bulb symbol not shown, quick push enter button to engage pump.



Image 1

c. If bulb symbol is now showing, proceed to 3.

d. If LED is blank - see III. Power Failure - After Properly Operating

3. If Spray pump appears active (hear / feel) -

e. Examine water tubing for kink or break - repair as necessary.

f. Examine Mizzler nozzles:

<u>No water</u> from any nozzle – check internal water feed pipe and filter screen for obstruction. Clean screen. Clear obstruction.

<u>Reduced water or intermittent spray</u> – Nozzles may be blocked. Insert provided cleaning tool to nozzles to clear obstruction.

4. If Spray pump inactive -

- g. Examine Mizzler Air Float Switch for visible damage.
- h. Check to ensure location is proper for Air Float switch activation.
- i. Examine wire connection point for proper connection.
- j. Check wiring to and from pumps for damage.

k. With condenser fan on, or Air Float Switch manually lifted, use voltage meter to determine power connectivity related issue, as described in Power Failure section below.

III. Power Failure - After Properly Operating

Note: When performing tests, ensure voltage probes are positive to positive and negative to negative. Be careful to not cross contact probes while simultaneously contacting equipment connections, as this may cause damage.

1. If No power illuminating temperature display of Internal Mizzler Controller (Image 3)

- a. Examine to see if display on External Solar Charge Controller (Image 2) is on.
- **b.** If External Solar Charge Controller is ON Check for Error messages on display. (Error Codes begin with letter "E".) Contact Customer Service with error code.
- c. No Error Check to see if red LED is illuminated on Internal Mizzler Controller.
- d. If Red LED Illuminated Quick press "SET" button on Internal Mizzler Controller to 'wake' display.
- e. If display fails to display temps Controller Screen has failed. Contact Support.
- f. If External Solar Charge Controller Display OFF- Press enter button to attempt to 'wake' display. If failed...
- **g.** Check voltage coming from solar panel, via left two inputs of External Solar Charge Controller with solar panel symbol. If no voltage detected
 - 1. Check all wire terminals for loose connections.
 - 2. Check solar panel for receiving direct sunlight.
- h. If solar panel is in direct sun and voltage improper at terminal input of External Solar Charge Controller, check voltage at wire connector on end of solar panel wire. (Disconnect **positive** "load" wire <u>first</u>.) It is extremely rare that the solar panel itself would fail, but this will help to determine that. If no voltage detected at connector Contact Support.
- i. If voltage input proper at solar terminal, test battery terminal output of External Solar Charge Controller.
- j. If power confirmed at both External Solar Charge Controller has failed. Switch main power off. Contact Support.
- **k**. If no power reading from battery Contact Support.



Image 2

Internal Mizzler Controller (IMC)



Image 3

IV. Tank Empty – Water Recycling Pan Full

- 1. Check for water flow obstructions
 - a. Check water line between Water Recycling Pan and Mizzler unit.
 - **b.** Check Water Recycling Pan for clogging at exit tube screen. Clean pan and screen debris as needed.
 - c. Check Water Recycling Pan sensor and wiring for disconnect.
- 2. Check Pump Operation
 - d. Listen/feel for pump activity

If pump **active** - but not draining Water Recycling Pan, check external filter. Clean screen and reattempt. If pump **inactive** - contact customer support.

V. Water Exiting Water Storage Tank Overflow Port

Your Mizzler has been installed with an emergency overflow port. Should the internal "tank full" sensor fail, this ensures that water will not rise into the upper control zone.

1. Remove Main Control Unit lid. Switch off Main Power.

- **a.** Disconnect primary 8-pin wiring harness. Depress locking clasp. (Image 4)
- b. Disconnect both internal water pipes from the Push-to-Connect fittings by pressing against the black ring, using the provided tool and gently tug on pipe. No other components need to be disconnected to free the pump/component shelf.
- **c.** Carefully lift the shelf up and out, being careful not to bend or break the bulb sensor rod below. Examine that the bulbs are able to move freely up and down. Clean as warranted.





d. Reinstall shelf. Reconnect. Power back on. Unit should begin operating properly. If not, contact customer support.

MAINTENANCE SCHEDULE

I. Weatherization

Upon discontinuance of use of seasonal air-conditioning, a few easy steps need to be taken to ensure a smooth start up for the next season.

- **a**. Drain main tank. Locate bulkhead cap on bottom of water storage tank. Slowly remove cap in counterclockwise direction until water begins to drain. Allow water to flow until empty. Reseal drain cap.
- **b**. Remove nozzle from lowest-to-ground spray head. Allow water to drain. Reinstall.
- **c**. Disconnect 3/8" hose between the Water Recycling Pan and Main Control Unit. Stow away for next season. Plug the Main Control Unit's port w/ provided 3/8" plug.
- d. Keep solar panel connected, as battery maintenance should continue year-round for maximum lifespan.

II. Filter / Screen Maintenance

a. Check water collection pan for debris and blockage around pan filter, intermittently during yard maintenance.

- b. Visually check MCU intake filter. Suggest removing internal screen and rinsing off every 3 months (or as needed). Twist off outer, clear container (turn counterclockwise). Be careful to not over-tighten when replacing. Spray water into interior of filter, cleaning screen from inside to out.
- c. If deep cleaning required, use white vinegar or mild dish soap and rinse thoroughly. Do not scrub mesh with abrasive materials.

III. UVC Light Bulbs

a. The LED UVC lights are rated for over 10,000 hours. With normal expected usage, this exceeds 5 years. There is no maintenance requirement. However, for optimum performance, it is recommended to replace them at the 5-year mark. Replacements can be ordered through the product website.

SPECIFICATIONS

Mizzler Control System 12V <25 mA

L x W x H Weight when full

Spray Pump 12V .8A Recovery Pump 12V .8A

30W 12V Monocrystalline Solar Panel kit

CN (Origin) Maximum Power: 30W Nominal voltage: (Vmp) 18V Nominal current: (Imp) 1.4A Open-circuit voltage: (Voc) 21.8V Short-circuit current: (Isc) 1.6A Cell efficiency: 19.5% Dimension: 23.6 x 13.4 x 1 inch Weight: 8 lbs.

Battery

Lithium Battery Warning SAFETY HAZARD WARNINGS FOR LITHIUM-ION BATTERIES

Rechargeable Lithium-Ion batteries are potentially hazardous and can present a serious FIRE HAZARD if damaged, defective or improperly used.



CN (Origin) 270-280nm UVC LED Certification: CE Voltage: 12V Current: 120mA Forward Voltage: DC12 Forward Current: 100mA Max Forward Current: 120mA Peak Wavelength: 270-280nm



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