HiTech AIR SOLUTIONS

# MODEL 101

## AIR REACTOR

## OWNER'S MANUAL

SET UP | OPERATION | MAINTENANCE | SUPPORT



**UV-C TECHNOLOGY**

**PROPRIETARY REACTOR PADS**

**SIMPLE UPKEEP**

**Active Air Protection**
*for Everyday Living*

Oklahoma-based · Real people, real support

hitechairsolutions.com

Hi-Tech Air Solutions

# Model 101 Air Reactor

## Owner's Manual

## Welcome

Thank you for choosing the Model 101 Air Reactor. Hi-Tech Air Solutions is an Oklahoma-based company built on a simple idea: clean, breathable air should be easy to understand and easy to look after. This manual walks you through setup, everyday use, routine care, and what to do if something doesn't seem right.

Questions? Email us anytime. It goes to the whole Hi-Tech support team, and a real person will get back to you within 48 hours.

| | |
|---|---|
| **Email (preferred)** | **customerservice@hitechairsolutions.com** |
| **Website** | hitechairsolutions.com |
| **Phone** | (405) 820-3762 |

## Table of Contents

Important Safety Information ..... 4
Before You Begin ..... 5
1. Meet Your Model 101 ..... 6
2. Inside Your Model 101 ..... 7
3. Setting Up Your Air Reactor ..... 8
4. How the Air Reactor Works ..... 9
5. Coverage & Sizing ..... 10
6. Routine Maintenance ..... 11
7. Troubleshooting ..... 14
8. Warranty / Returns / Service ..... 15
9. Replacement Parts ..... 17
Maintenance Log ..... 18
First-Time Setup Checklist ..... 19

# Important Safety Information

## IMPORTANT SAFETY INFORMATION

### PROTECT YOURSELF AND YOUR UNIT

Read before operating, opening, or servicing your Model 101.

#### UV-C LIGHT CAN INJURE EYES AND SKIN

Never look directly at an illuminated UVC-2 bulb or operate the Model 101 with the housing open.

Always turn the unit off and unplug it before opening the housing or replacing the bulbs.

UV-C light can injure eyes and skin when exposed directly. During normal maintenance, no special eye protection is required when the unit is unplugged and the UVC-2 bulbs are off.

Keep the housing closed whenever the unit is plugged in or operating.

#### NEVER RUN NEAR CHLORINE, FLUORINE, OR BLEACH FUMES

Do not run the machine around chlorine, fluorine, or bleach fumes.

The air reactor can produce hydrochloric or other acids that can be harmful to your health. Simple cleaning is fine — but if the fumes are too strong for you, they're too strong for the machine.

#### UNPLUG BEFORE OPENING OR SERVICING

Always turn the unit off and unplug it before cleaning, opening the housing, or performing any maintenance.

Never open the housing, or attempt to access the UVC-2 bulbs, while the unit is plugged in.

Do not operate with a damaged power cord. Do not immerse the unit or cord in water.

#### CHILDREN AND PETS

Keep the unit and cord out of reach of small children and pets during operation.

Do not allow fan intakes to be blocked or handled by children or pets.

#### MOISTURE AND WATER

Keep the unit away from sinks, tubs, and areas exposed to standing water.

#### DO NOT MODIFY

Do not modify, disassemble beyond described maintenance, or alter electrical components. Doing so voids the warranty.

**For routine maintenance only:** unplug first, service carefully, and keep the housing closed before restoring power.

# Before You Begin

## BEFORE YOU BEGIN

### A SAFE START FOR CLEANER AIR

Before operating your Model 101 Air Reactor, please review the important information below. Proper setup and placement help ensure safe, effective operation and the best possible air cleaning performance.

#### INDOOR USE ONLY

The Model 101 is designed for indoor use in dry, climate-controlled spaces. Do not operate the unit outdoors or in areas where it may be exposed to rain, standing water, or excessive moisture.

#### PLACEMENT & CLEARANCE

Place the Air Reactor on a stable, level surface with open space on all sides — away from walls, furniture, curtains, and tight corners — so air can circulate freely in every direction.

#### ELECTRICAL REQUIREMENTS

Plug the Model 101 directly into a properly grounded household electrical outlet (standard 110–120V). Avoid using damaged outlets, cords, or plugs. Do not operate the unit if the power cord appears damaged.

#### KEEP VENTS CLEAR

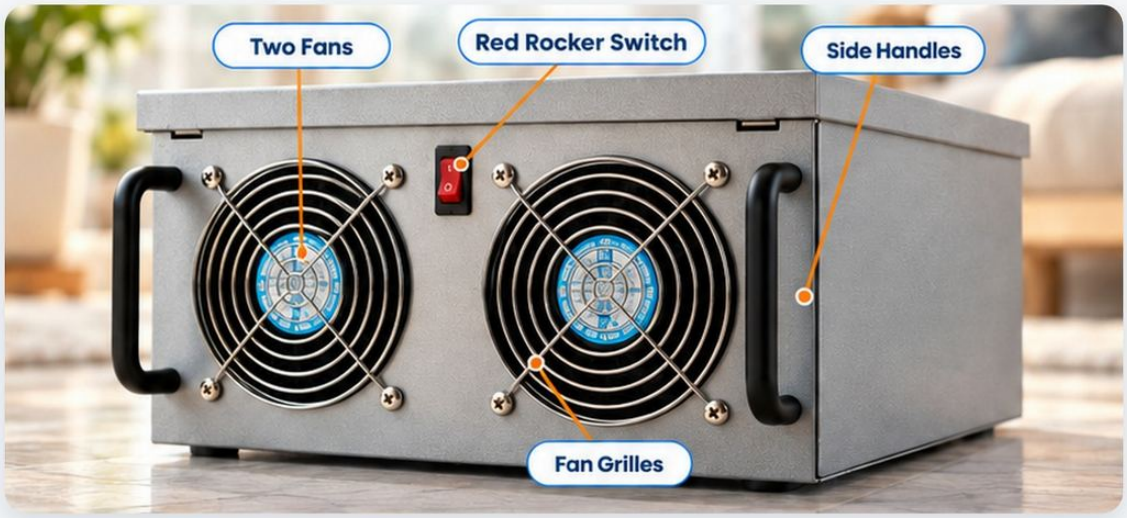
Never cover or block the fans, grilles, or intake vents while the unit is operating. Blocked airflow reduces performance and may cause the system to run improperly.



**IMPORTANT:** Blocking the unit's vents may reduce performance and could cause the system to operate improperly.

# 1. Meet Your Model 101

## A SIMPLE GUIDE TO YOUR MODEL 101




**UVC-2 LIGHT**
Two UV-C bulbs inside the closed housing power the reactor pads.

**REACTOR PADS**
Hi-Tech's proprietary treated pads, where the air is treated as it passes through.

**CONTINUOUS AIR CIRCULATION**
Draws in room air, treats it, and returns it to your space.

**SIMPLE UPKEEP**
Filter changes every 3 months with just a Phillips screwdriver, and one replacement kit a year.

| MODEL 101 SPECIFICATIONS | |
|---|---|
| Unit Dimensions | 14.5″ L × 14″ W × 7″ H |
| Unit Weight | 20 lbs. |
| Air Circulation | 142 CFM |
| Electrical Use | 79 watts |
| Sound Level | 45 dB |
| Recommended Coverage | Depends on ceiling height |
| Construction | Durable powder-coated finish |

**IDEAL FOR**

| | | |
|---|---|---|
| Homes | Home Offices | Bedrooms |
| Living Spaces | Pet Areas | Garages / Workshops |

*Construction: durable powder-coated finish. A clean, easy-to-maintain exterior designed to help minimize visible fingerprints and everyday handling marks.*

# 2. Inside Your Model 101

This view shows the unit with the housing lid removed, so you can find each part referred to in this manual. Always unplug the unit before opening the housing (see Important Safety Information at the front of this manual).

**A — Air Filter**
Back of the unit, cord side

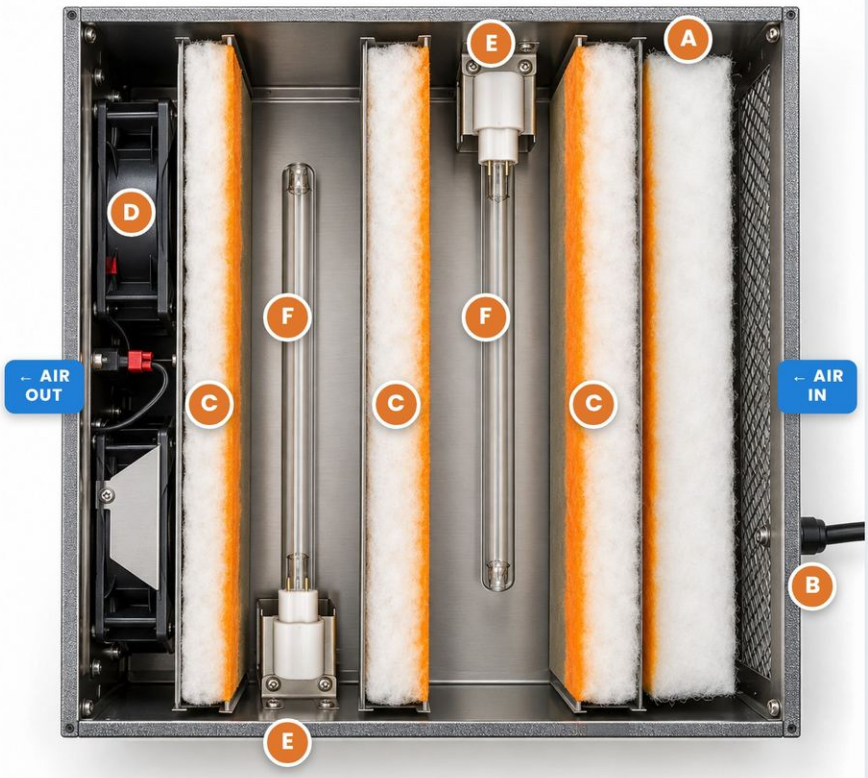
**B — Power Cord**

**C — Reactor Pads**
Three, orange side faces a bulb

**D — Fans & Motors**
Front of the unit

**E — UVC-2 Bulb Sockets**

**F — UVC-2 Bulbs**
Two, wired together







**Removing a bulb:** press the black release button on the bulb socket (E) to remove the UVC-2 bulb.

# 3. Setting Up Your Air Reactor

## 1. Unpack the Unit

- Remove the Model 101 from its packaging.
- Inspect the unit for visible shipping damage before plugging it in.

## 2. Install the UVC-2 Bulbs

- Open the housing lid with a Phillips screwdriver to access the bulb socket (see Section 2, “Inside Your Model 101,” for exactly where it sits).
- Make sure the unit is unplugged whenever you're working with the bulbs (see Important Safety Information).
- Remove the extra filters packed inside the housing. If you need more room to reach the sockets, lift out the reactor pads too, and put them back with the orange side facing a bulb.
- Handle each bulb only by its base — the base is the sturdiest part of the bulb and the safest place to grip it.
- Line the bulb up with the socket and slide it in from the side until it's fully seated. Don't push it straight in; forcing it can damage the socket.
- If a bulb ever breaks, unplug the unit and contact Hi-Tech before cleaning up or running it again.
- Replace the housing lid and its screws before plugging the unit in.

## 3. Choose a Location

- Follow the placement tips in Before You Begin: a flat, stable surface with open space on all sides, out of walkways.
- Don't sit, stand, or set heavy objects on the unit, and keep fingers and objects out of the fan grilles. Carry it by the side handles.

## 4. Check Electrical Requirements

- Plug directly into a grounded 110–120V outlet. Don't bypass the grounding prong or run the unit through daisy-chained extension cords.
- Don't use a damaged cord, a loose outlet, or a worn plug.

## 5. Plug It In and Turn It On

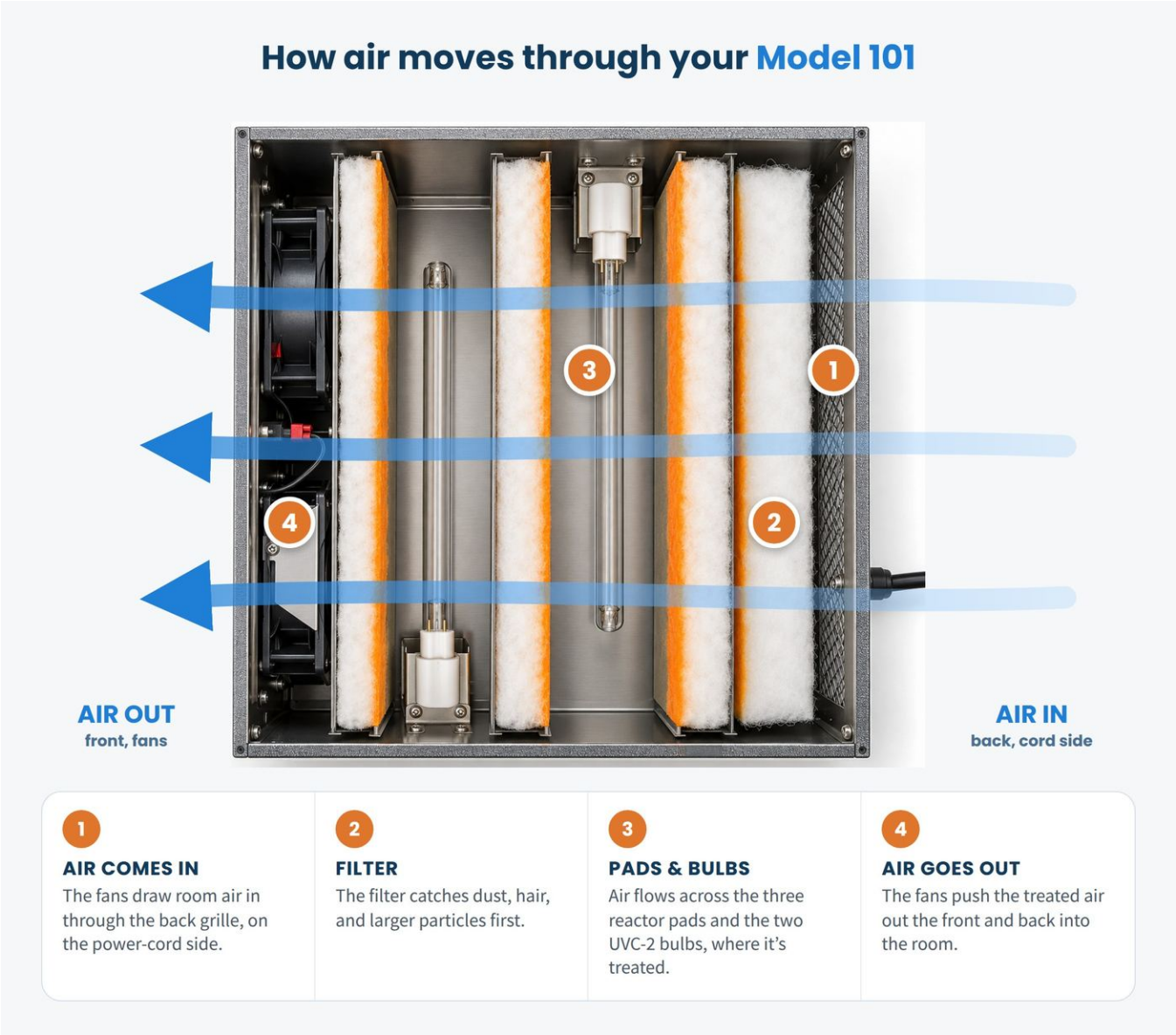
- Confirm the red rocker switch is in the OFF position before connecting power.
- Plug in the unit, then press the switch to the “I” (on) position.
- Both fans should begin running within a few seconds.

## 6. What to Expect

- A steady, low fan hum — similar to a household air purifier or box fan.
- A faint glow from the back of the unit. That means the UV-C bulbs are on.
- A faint smell during the first week of use. That's normal — much like the first time you turn on your home's heater for the season — and a good sign the unit is up and running. It fades on its own; if it's still noticeable after the first week, let us know.

# 4. How the Air Reactor Works

The short version: the Air Reactor pulls in room air, filters it, treats it as it passes Hi-Tech's reactor pads and UV-C light, and sends it back into the room. The treated air keeps circulating through your space, reaching not just the air you breathe but the surfaces it touches — walls, furniture, fabrics, and personal belongings — helping create a cleaner, healthier environment.




## The Technology

At the heart of the Model 101 are Hi-Tech's reactor pads. Each pad carries a proprietary treated surface, made with Hi-Tech's own formula and cured under UV light during manufacturing. Inside the closed housing, two UVC-2 bulbs activate the pads as air moves across them. The bulb light stays inside the housing (the faint glow at the back just tells you they're on), and the bulb glass is made to block the type of light that produces ozone.

# 5. Coverage & Sizing

## How much space does one unit cover?

Your Model 101 is rated to cover up to 1,500 square feet in rooms with standard 8–9 ft ceilings, which is about 12,000 cubic feet of air. In spaces with ceilings taller than 9 ft, the rating drops to 800 square feet.

| Ceiling height | Rated coverage per unit |
|---|---|
| **8–9 ft** | Up to 1,500 sq ft |
| **Over 9 ft** | Up to 800 sq ft |

Coverage is based on the volume of air in a space, not just the floor area. A room with tall ceilings holds more air, so one unit covers less floor space.

## Homes and buildings with more than one level

Size each floor on its own. Ceilings between floors keep air from moving freely from one level to the next, so one unit is not designed to cover more than one floor. A home with a main floor and a finished basement, for example, would typically need one unit on each level. Each level should be sized by its own square footage and ceiling height.

## Open floor plans and connected rooms

When rooms are open to each other, with no doors between them or a shared open living area, air moves between them. Size the unit to the whole connected area, not just the room it sits in. If rooms are closed off with doors, size each closed area separately.

## Where to place your unit

Place your unit where air moves freely, such as a central spot in the main living area of the space it's covering. Avoid these spots:

- Inside a closet or cabinet
- Behind furniture or against heavy drapes
- A closed-in corner or nook where the air barely moves

The unit can only treat the air that reaches it, so good placement matters as much as correct sizing.

## Not sure you have the right number of units?

For vaulted ceilings, multi-room commercial spaces, or any layout that doesn't fit these guidelines, contact your Hi-Tech representative or email customerservice@hitechairsolutions.com before setting up. We'll help you confirm the right number of units for your space.

# 6. Routine Maintenance

## Cleaning the Exterior

Unplug the unit before cleaning. Wipe the powder-coated housing with a soft, damp cloth. Avoid abrasive cleaners or scouring pads, and never spray liquid directly into the fan grilles or vents.

## Checking Filters

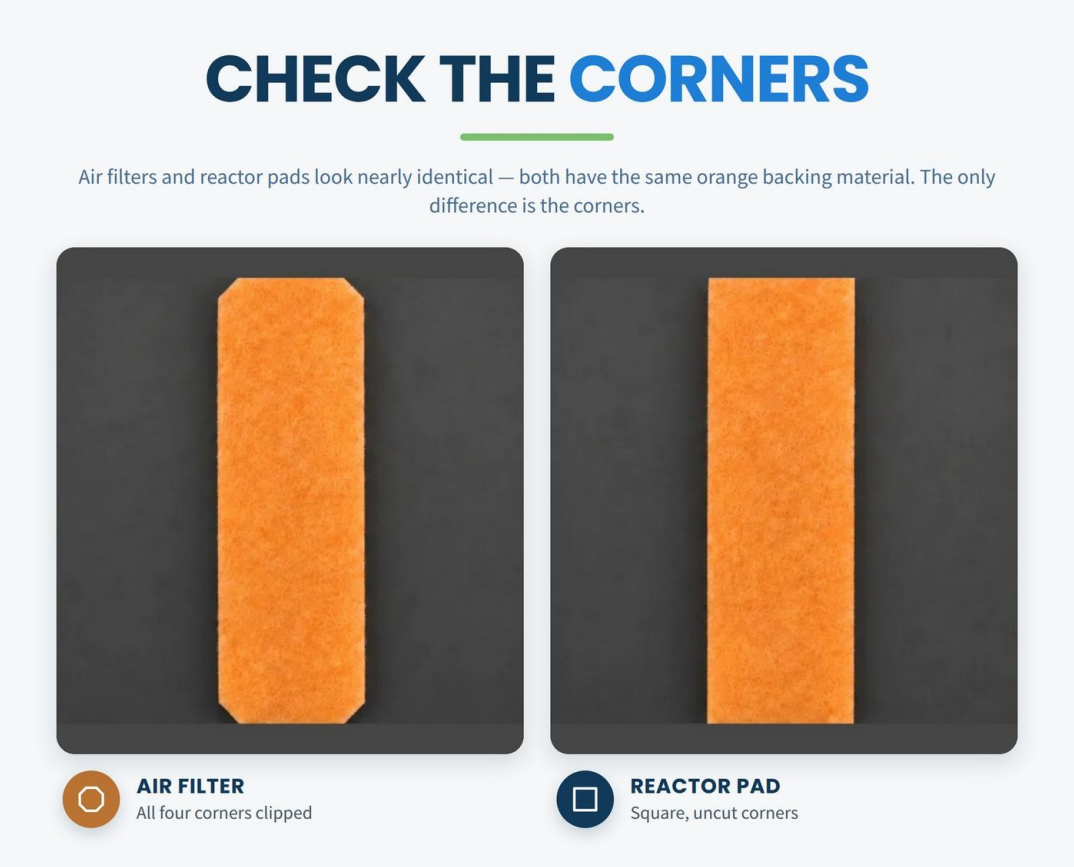
Check filters periodically for visible dust buildup. A visibly dirty or clogged filter restricts airflow and should be replaced.

## Replacement Schedule

- **Filters:** every 3 months, or sooner if visibly dirty.
- **Reactor pads:** rotate positions every 3 months, at the same time you change the filter (see rotation steps below). Rotated pads typically last 10–12 months; pads left in the same position wear out closer to 6.
- **UVC-2 bulbs:** replace both about every 11 months, with each annual replacement kit, even if they still light.

## Telling Filters and Reactor Pads Apart

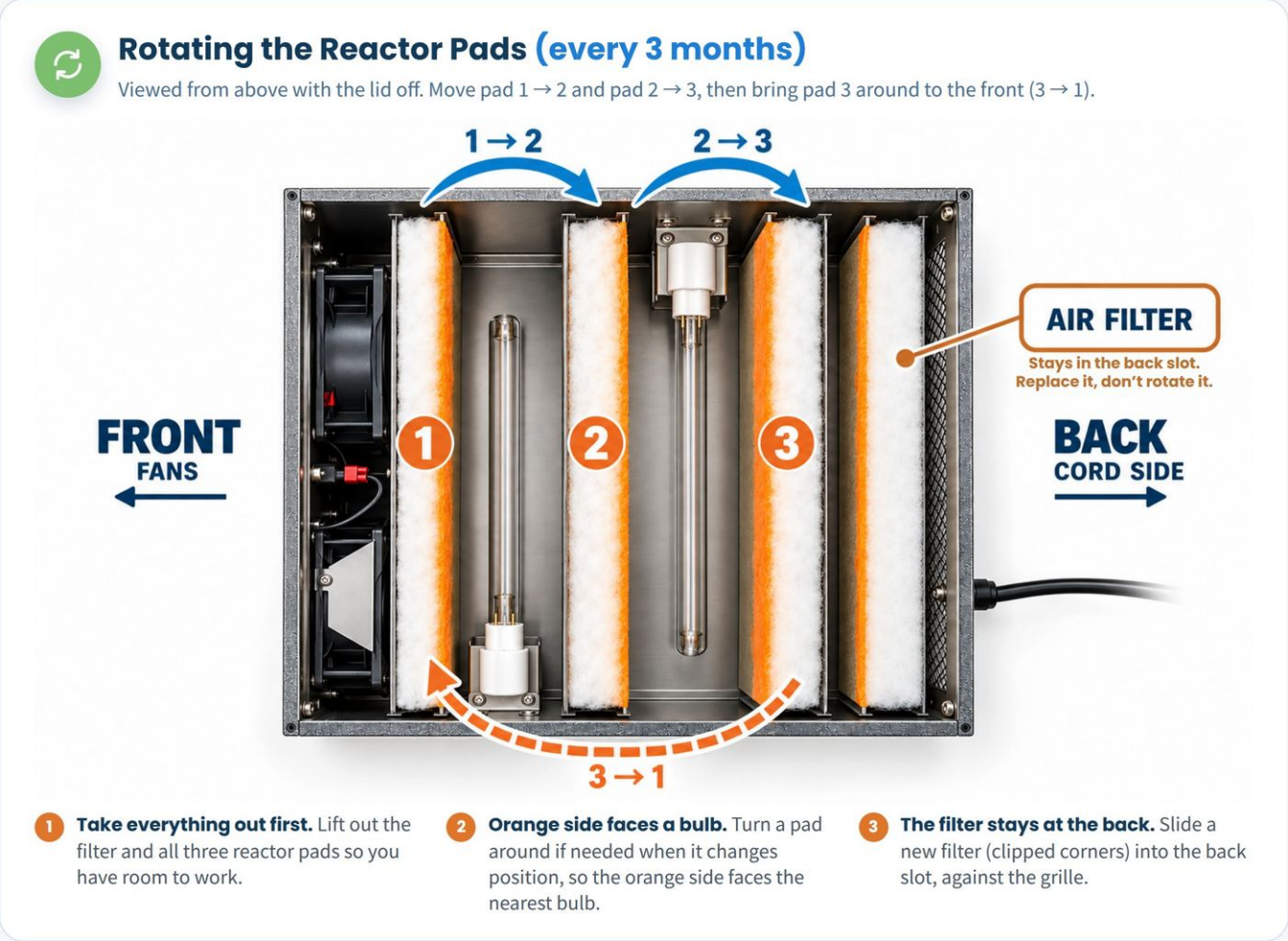
Filters and reactor pads look nearly identical. **Check the corners** before you install each piece:



## Rotating the Reactor Pads and Changing the Filter

Do this every 3 months. Unplug the unit and remove the lid with a Phillips screwdriver.

- **Filter:** it sits in the back slot, on the power-cord side (A in Section 2). Slide it out and put a new filter (clipped corners) in the same slot. The filter is replaced, never rotated.
- **Reactor pads:** move each pad one position over (1→2, 2→3, 3→1), keeping the orange side facing a bulb. Rotating spreads out UV wear, since the middle position gets light from both sides and wears fastest.
- After handling reactor pads, avoid touching your eyes or face, and wash your hands when you're done.



## The UVC-2 Bulbs

## Replacing the Bulbs — Step by Step

Unplug the unit before starting. See Section 2, “Inside Your Model 101,” for where the bulbs and sockets sit (E and F).

1. **Take out the filter and reactor pads.** Lifting them out first gives you much more room to reach the bulbs.
2. **Remove the old bulb.** Press the black release button on the bulb socket (E), then pull the bulb out.
3. **Install the new bulb.** Line it up with the socket, then slide it in from the side. Don't push it straight in; forcing it can damage the socket.
4. **Confirm it's fully seated.** The bulb should sit snugly in the socket with no gap.
5. **Replace the second bulb.** Always replace both bulbs together at each kit change, even if the old ones still light.
6. **Put the pads and filter back.** Bulbs are replaced with the annual kit, so put in the new reactor pads (orange side facing a bulb) and a new filter.
7. **Close up and test.** Replace the housing lid and screws, plug the unit back in, and turn it on. A faint glow at the back of the unit confirms the bulbs are working.

## Bulb Troubleshooting

The two UVC-2 bulbs are wired in series, like an old string of holiday lights. If one bulb works, both work; if one fails, both go dark. So when there's no glow at the back of the running unit, it usually means just one bulb needs attention:

- Unplug the unit, open the lid, and check that both bulbs are fully seated in their sockets.
- If they're seated and still dark, one bulb has likely failed. Email us and we'll help you find which one and get a replacement to you.

Replace both bulbs at every kit change (about every 11 months), even if they still light. UV-C bulbs gradually lose strength with use, well before they burn out, so a bulb that still glows may no longer be doing its full job.

**If a bulb breaks,** unplug the unit and contact Hi-Tech before cleaning up or running it again.

# 7. Troubleshooting

## QUICK FIXES

### COMMON ISSUES AND WHAT TO TRY FIRST

#### UNIT WON'T TURN ON

**TRY THIS**

1. Make sure it's plugged directly into a working, grounded outlet.
2. Press the red switch fully to the "I" (on) position.
3. Try a different outlet before contacting Hi-Tech.

#### FANS NOT RUNNING

**TRY THIS**

1. Confirm the unit is plugged in and switched on.
2. If one or both fans stay off, unplug the unit.
3. Email Hi-Tech. Don't open the housing to work on the fans or motors.

#### NO GLOW AT THE BACK

**TRY THIS**

1. The two bulbs are wired together: if one goes out, both go dark.
2. Unplug, open the lid, and make sure both bulbs are fully seated.
3. Still dark? One bulb has likely failed. See Bulb Troubleshooting in Section 6.

#### WEAKER AIRFLOW

**TRY THIS**

1. Check the filter. A dirty or clogged filter restricts airflow.
2. Replace it if it looks dirty, even before the 3-month mark.
3. Make sure nothing is blocking the fans, grilles, or back of the unit.

#### FILTER OR REACTOR PAD?

**TRY THIS**

1. Check the corners: clipped corners = filter.
2. Square corners = reactor pad.
3. The orange side of every pad faces the bulb.

#### TIME TO CHANGE PARTS?

**TRY THIS**

1. Filters: replace every 3 months.
2. Reactor pads: rotate every 3 months.
3. Bulbs: replace both every 11 months. See Routine Maintenance in Section 6.

**Still need help? Email us.**

**customerservice@hitechairsolutions.com**

A real person will get back to you within 48 hours.

**Leave repairs to Hi-Tech**

Don't attempt repairs to wiring, fans, or the UVC-2 assembly, and never service the unit while it's plugged in.

# 8. Warranty / Returns / Service

## Returns — New Units

- 30-day return window from the date of delivery.
- A 15% restocking fee applies to all approved returns.
- To start a return, email Hi-Tech at customerservice@hitechairsolutions.com within the 30-day window.
- Refunds are issued to the original payment method, less the 15% restocking fee.
- Return shipping is the customer's responsibility, except for confirmed year-one workmanship defects (see Warranty, below), which ship at no charge.
- The 30-day guarantee is void if the returned unit is damaged or shows signs of tampering.
- A return is declined if the customer was advised in advance that the unit was undersized for their space and proceeded with the purchase.

## Warranty — New Units (5-Year Limited Warranty)

- **Year 1:** parts and labor, no charge. The customer ships the unit to Hi-Tech at their own cost; Hi-Tech ships it back at no charge.
- **Years 2–5:** parts only, per the written warranty. Shipping both directions in years 2–5 is the customer's responsibility.
- If a new unit doesn't work when it arrives, email us. We'll send you a shipping label, and as soon as we receive the non-working unit, we'll ship your replacement.
- Hi-Tech warranties units shipped outside the continental US. The customer is responsible for round-trip shipping costs and any applicable duties or taxes.
- Interior discoloration or oxidation from normal humidity exposure is cosmetic and is not covered under warranty.

## What Voids the Warranty

- Lack of proper maintenance — for example, not changing filters on schedule, which can damage the reactor pads, fan blades, and fan motor.
- The batch/date code has been removed or defaced.
- The unit was purchased from an unauthorized dealer.
- Damage from misuse, accident, or improper installation.
- Modifying the unit, disassembling it beyond the maintenance described in Section 6, or altering its electrical components (see Important Safety Information).

## Used / Refurbished Units

- A used unit purchased secondhand from someone other than Hi-Tech does not carry a warranty. Hi-Tech offers a $250 flat-fee safety and function certification service, which includes a full new kit (filters, pads, bulbs); shipping both directions is the customer's responsibility. This service exists to protect the new owner, confirm the unit is safe to operate, and prevent cross-contamination between owners.
- Completing certification is also what brings a secondhand unit into Hi-Tech's customer system — see “Ordering Instructions” in Section 9 for why that step matters before ordering parts.
- Units Hi-Tech refurbishes and resells carry the full standard warranty. Refurbished sales are final — the standard 30-day return does not apply.

## Model / Serial Number Record

Your batch/date label is on the bottom of the unit. Current units carry this label rather than an individual serial number. Copy the batch code below with your purchase details for warranty and service reference.

| | |
|---|---|
| **Model** | Model 101 Air Reactor |
| **Batch Code (label on bottom of unit)** | |
| **Purchase Date** | |
| **Sales Consultant** | |
| **Installation / Location Notes** | |

# 9. Replacement Parts

| Part | What It Does |
|---|---|
| **Filter** | Captures larger dust and debris before air reaches the reactor pads. Identified by its clipped corners (see Section 6). |
| **Reactor pad** | Carries Hi-Tech's proprietary treated surface, where the air is treated. Identified by its square corners. |
| **UVC-2 bulb** | UV-C light that powers the reactor pads. Replace both bulbs at every kit change. |

## Ordering Instructions

Replacement kits are sold to customers in Hi-Tech's system — that's automatic if your unit was purchased new through Hi-Tech or an authorized rep. If your unit was purchased secondhand from someone other than Hi-Tech, complete the certification service described in Section 8 first; that's what enters your unit into the system so future kit orders go through.

Order genuine Hi-Tech filters, reactor pads, and UVC-2 bulbs through our website, **hitechairsolutions.com**, so every part fits and works as designed. Questions? Email customerservice@hitechairsolutions.com.

# Maintenance Log

Record each service below. Filters are changed and reactor pads rotated every 3 months, and both UVC-2 bulbs replaced about every 11 months (see Section 6). A complete log helps with any warranty claim, since skipped maintenance can void the warranty (see Section 8).

| Date | Filter replaced | Pads rotated | Bulbs replaced | Notes |
|---|---|---|---|---|
| | ☐ | ☐ | ☐ | |
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# First-Time Setup Checklist

## FIRST-TIME SETUP CHECKLIST

Check off each step before you turn on your Model 101 for the first time.

- [ ] **Unpack and inspect**
  Remove the unit from its packaging and check it for shipping damage.
- [ ] **Make sure it's unplugged, then open the lid**
  Remove the lid screws with a Phillips screwdriver.
- [ ] **Remove the extra filters**
  Take out the extra filters packed inside the housing.
- [ ] **Check the pads and filter**
  Three reactor pads (square corners) in their slots, orange side facing a bulb. One filter (clipped corners) in the back slot.
- [ ] **Install both UVC-2 bulbs**
  Slide each bulb into its socket from the side until it's fully seated. Don't force it straight in.
- [ ] **Replace the lid and screws**
  Never run the unit with the lid off.
- [ ] **Place the unit**
  Flat, stable surface with open space on all sides, out of walkways.
- [ ] **Plug in and switch on**
  Grounded outlet, no extension cords. Press the red switch to "I." Both fans should start.
- [ ] **Look for the glow**
  A faint glow at the back means both bulbs are on. No glow? See Bulb Troubleshooting in Section 6.
- [ ] **Write it down**
  Copy the batch code from the label on the bottom of the unit into Section 8, and start your Maintenance Log.

**Questions?** Email customerservice@hitechairsolutions.com. A real person will get back to you within 48 hours.




# READ THIS MANUAL

## BEFORE YOU START YOUR UNIT

Your Model 101 needs a few minutes of setup before its first use. This manual walks you through each step, so you can get your unit running safely and start actively protecting your home and belongings.

1 **Open the housing**
Unplug the unit, then remove the lid screws with a Phillips screwdriver.

2 **Remove the extra filters**
Take out the extra filters packed inside the housing.

3 **Install both UVC-2 bulbs**
Slide each bulb into its socket from the side, then replace the lid and screws.

! **Always unplug before opening the housing.** Never run the unit with the lid off — UV-C light can injure eyes and skin.

## Grab your Phillips screwdriver and open this book.