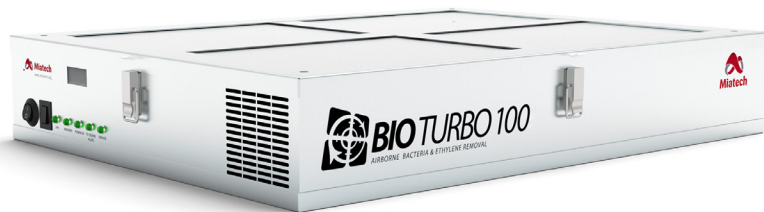


TECHNICAL INSTRUCTIONS

# Bio Turbo 100 User Guide

**AIRBORNE BACTERIA & ETHYLENE REMOVAL**

Specification Sheet .....2  
Installation Guide.....3  
Layout Diagram.....4  
Maintenance Guide .....5  
Wiring Diagram.....6  
Pull Sheet .....8



# Bio Turbo 100

## Specification Sheet

### Features

- Smart LED's for easier service
- Easy service
- Easy changing of ozone plates and filters
- Four models for proper coverage
- Aluminum and Stainless Steel generation chamber
- Easy to install and operate
- Low maintenance

Model	BIO TURBO 100
Maximum volume up to	3300 ft <sup>3</sup> (100 m <sup>3</sup> ) per 24 hours
Airflow	3 CFM (0.1 CMM)
<b>Location Requirements</b>	
Electrical Source	100-240 V AC
Circuit Breaker	10 A
<b>Maintenance</b>	
Air Filter	Change every 12 months
Ozone Plate(s)	Change every 12 months
Number of Ozone Plates	1
<b>Specifications</b>	
Size:	
Height	4 inches (10 cm)
Width	18 inches (45 cm)
Depth	24 inches (60 cm)
Weight	24 lb (11 kg)
<b>Construction</b>	
Materials:	
Unit Cabinet	Aluminum
Perforated Generator Plate	Stainless Steel
<b>Controls</b>	
Remote Control:	N/A
	Power Switch

# Bio Turbo 100

## Installation Guide

---

### DESCRIPTION

The BT 100 was designed to remove ethylene from cold rooms and storage areas where fruits and vegetables are stored, extending the life of the stored produce.

System can cover up to 100 m<sup>3</sup> per 24 hours. It is designed to operate continuously.



Picture 1

### SYSTEM PLACEMENT

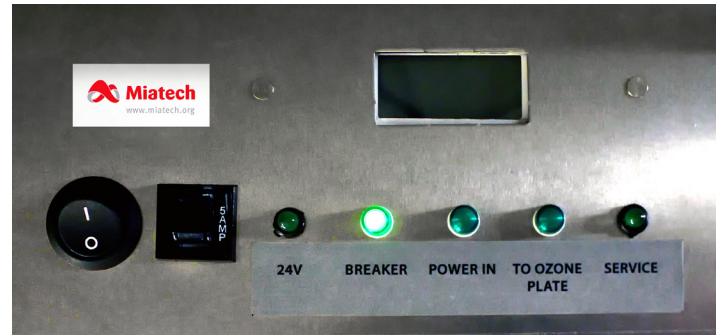
The Bio Turbo 100 is constructed to be mounted to the ceiling or on the wall as high as possible. Since ethylene is lighter than air it will rise toward the ceiling.

There are four snap clips on the sides for securing the system to its holding frame that can be easily installed to the ceiling (see picture 1).

Before drilling inspect the area where the system will be mounted for any obstructions that could be damaged. Use the supplied screws to attach the holding frame to the ceiling. After the holding frame is installed you can easily secure the system to its frame.

---

### OPERATION



Picture 2

After supplying the power in to the system, “Breaker” LED should be glowing green. This shows that power is to the system and the circuit breaker is good.

Turn on the power switch. Three more LED’s should come “ON”. These indicate there is power to the transformer, power to the fan and to the ozone generator plate (a low hum should be detected after the unit is plugged in) (see picture 2).

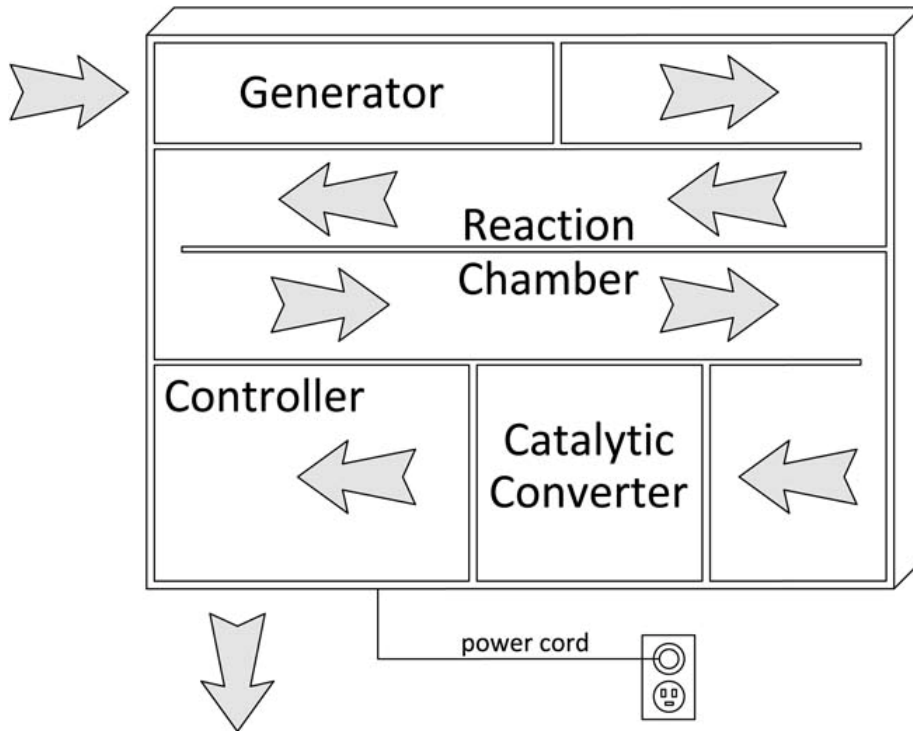
---

### COUNTDOWN SERVICE TIMER

System is equipped with the Service Timer which is counting down days to the next maintenance when system is operating. Timer is set to 360 days and when it gets down below 10 days it starts beeping and Service LED light on the system will flash, signaling maintenance is due. Service Timer has to be reset back to 360 days after maintenance is completed.

# Bio Turbo 100

## Layout Diagram



# Bio Turbo 100

## Maintenance Guide

**CAUTION:**

**ALWAYS UNPLUG POWER BEFORE SERVICE!**

### Maintenance Requirements

Annual service requires the replacement of Air Filter (more often if environment is very dusty) and the replacement of the Ozone Generation Plates.

To replace the Air filter and the Ozone Generator Plates:

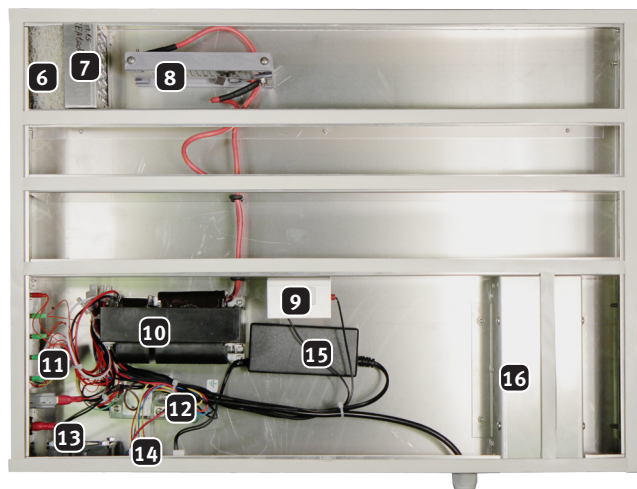
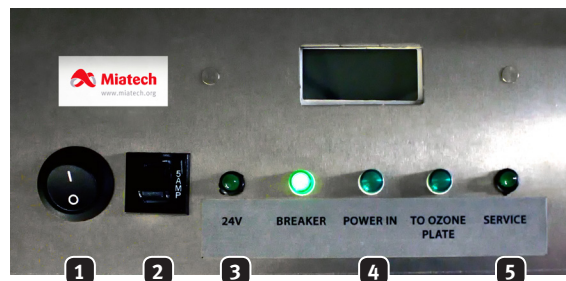
- Disconnect the unit’s power cable.
- Unscrew the system lid.
- Remove and replace the air filter (#6).
- To replace the Generator Plate (#8) disconnect the power cables from plates, release from the holder, remove and replace with new one.

System is equipped with the Service Timer (#11) which is counting down days to the next maintenance when system is operating. Timer is set to 360 days and when it gets down below 10 days it starts beeping and Service LED light on the controller box will flash, signaling maintenance is due. Service Timer has to be reset back to 360 days after maintenance is completed.

To reset the Service Timer:

- Unscrew two nuts that are holding the timer (from the inside of the controller box). Remove the timer, press and hold the reset button until numbers start flashing. By pressing the same button select 360 and wait until it defines (numbers will stop flashing). Place the timer back and secure with nuts.

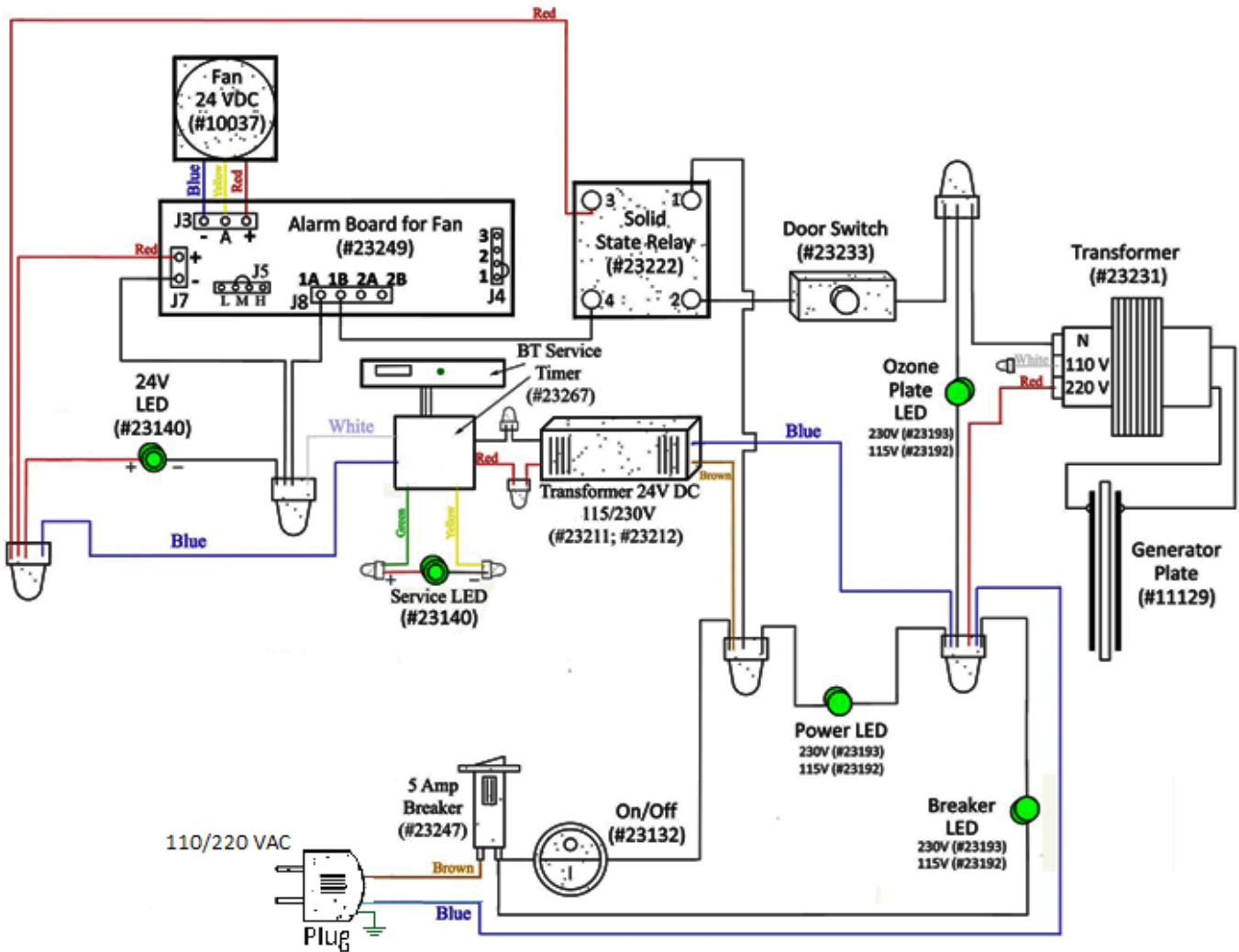
Diagnostic LED’s Name	Description
“Breaker” (on the Controller Chamber)	Power to the Unit
“Power IN” (on the Controller Chamber)	Power to the Power Supply
“24 V” (on the Controller Chamber)	Power to the Fan
“To the Generation Chamber” (on the Controller Chamber)	Power to the Generation Chamber
“Service” (on the Controller Chamber)	When the service is needed



- |  |                                  |
|--|----------------------------------|
| 1. Power switch (#23132)                 | 10. Ozone transformer (#23231)   |
| 2. 5 amp breaker (#23247)                | 11. BT service timer (#23267)    |
| 3. 24 V LED (#23140)                     | 12. Solid state relay (#23222)   |
| 4. 3 LEDs 230 V (#23193), 115 V (#23192) | 13. Fan 24 V DC (#10037)         |
| 5. Service 24 V LED (#23140)             | 14. Alarm board for fan (#23249) |
| 6. Air filter (#11130)                   | 15. Transformer                  |
| 7. Lifetime filter pad (#11131)          | 115 V / 230 V (#23211)           |
| 8. Generator plate (#11129)              | 16. Catalyst container           |
| 9. Door switch (#23233)                  |                                  |

# Bio Turbo 100

## Wiring Diagram





# Bio Turbo 100

## Pull Sheet Pack

PART NO.	PART NAME	AMOUNT	Insp.
24034	#14 x 2 1/2" Screw	5	
24035	#14 Plastic Anchor	5	

DATE \_\_\_\_\_

PULLER \_\_\_\_\_

CHECKER \_\_\_\_\_



Miatech Inc.  
9480 SE Lawnfield Road  
Clackamas, OR 97015  
[www.miatech.org](http://www.miatech.org)

For further technical support in North America call 1-800-933-6478  
If outside North America call to the USA at 1-503-659-5680