

Air Medic Air Filtration/ Sterilization Unit

TIF 06 Installation, Operation & Maintenance Manual



Contents

List of Tables	i
1 Safety Warnings	- 1 -
2 Product Overview	- 2 -
2.1 Model Number	- 2 -
3 Operation	- 2 -
3.1 On/Off switch	- 2 -
3.2 Filter Clogged Indicator Light	- 2 -
3.3 Fan Control	- 2 -
3.3.1 Variable Speed	- 2 -
3.3.2 Constant Speed	- 2 -
4 Unit Entry	- 3 -
4.1 Lower Access Panel Lock	- 3 -
4.2 Lower Access Panel	- 3 -
4.3 Upper Access Panel	- 3 -
4.4 Motor Access Panel	- 4 -
5 Air Medic Component Installation, Maintenance and Replacement Instructions	- 4 -
5.1 Filters	- 4 -
5.1.1 Prefilter	- 4 -
5.1.2 HEPA Filter	- 5 -
5.1.3 Activated Carbon Filter (Optional Accessory)	- 5 -
5.2 Casters (Optional Accessory)	- 6 -
5.3 UVC Light (Optional Accessory)	- 6 -
5.4 Ionizer (Optional Accessory)	- 7 -
5.5 Fan Assembly	- 8 -
5.6 Differential Pressure Switch (Optional Accessory)	- 8 -
6 Warranty Information	- 9 -
7 Parts List	- 10 -

List of Tables

Table 1: Component Replacement Frequency	- 9 -
Table 2: Unit Specifications	- 9 -

1 Safety Warnings

When operating electrical appliances, basic precautions should be followed.

WARNING

To reduce risk of fire, electrical shock, or injury:

- Do not use outdoor or on wet surfaces.
- Use only as described in this manual.
- Do not use with damaged cord or plug.
- Do not unplug by pulling on cord. To unplug, grasp the plug.
- Do not handle plug with wet hands.
- Do not put any object into opening.
- Turn off all controls before unplugging.

CAUTION

If the UV lamp is broken do not touch the cell or glass with your hands

UV lamp may be hot and could cause serious burns if not handled properly. Please wait until the lamp has cooled to room temperature to remove from the unit.

WARNING: UV Light Hazard. Harmful to skin and eyes. Can cause temporary or permanent loss of vision. Never look at the lamp while illuminated. To prevent exposure to ultraviolet light, be sure the power is disconnected before servicing.

CAUTION: Ionizer generates high voltage. Make sure the cord is unplugged before cleaning the ionizer brush heads.

CAUTION: Remove any accumulated dirt on the ionizer brush heads to prevent risk of flashover or fire.

WARNING: RISK OF ELECTRICAL SHOCK. CAN CAUSE INJURY OR DEATH: UNPLUG OR DISCONNECT UNIT FROM POWER BEFORE SERVICING.

2 Product Overview

The Air Medic unit is designed to enhance the air filtration of your primary HVAC system. It does not have the ability to heat or cool and provides filtration and sterilization only. This unit is not a substitute for other virus spread measures such as frequent hand sanitization, face masks or 6ft (2m) physical distancing.

2.1 Model Number

For the full model numbers available and product selection options please visit our website at www.temspec.com.

3 Operation

The Air Medic Unit has a few different control options depending on the configuration chosen. For all units, the Air Medic must be plugged into a standard 120V receptacle with ground pin.

3.1 On/Off switch

If the on/ off switch is chosen it will control the power to the unit once plugged in. The switch will light up when in the “on” position to indicate power to the unit.

If no switch is selected all devices will have power as soon as the unit plugged in.

3.2 Filter Clogged Indicator Light

An optional filter clogged indicator light is available. This light is connected to the differential pressure switched. This pressure switch measures the air pressure around the HEPA filter and when it is too high the indicator light will come on to warn the user it should be changed.

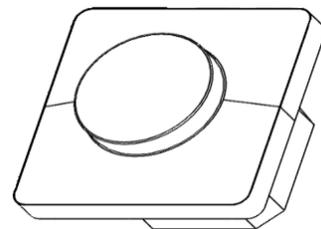
This is only a warning indicator. The unit will continue to work with it on, but the airflow will be decreased due to the dirty filter.

3.3 Fan Control

The fan control is available in either variable speed or constant speed configurations. The speed of the fan directly relates to the amount of airflow.

3.3.1 Variable Speed

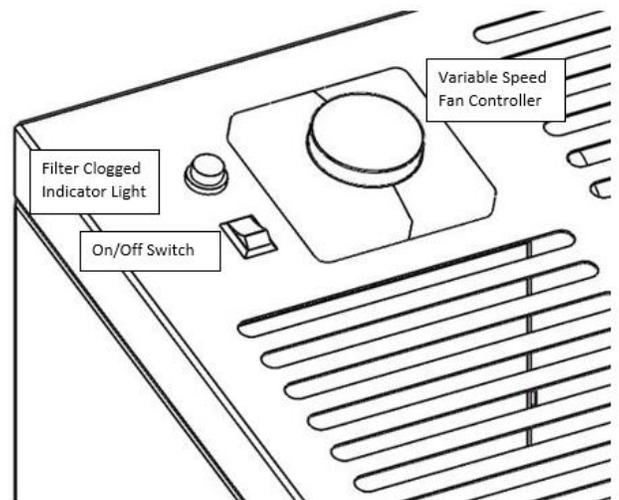
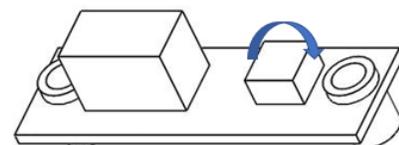
Variable speed motor control allows the user to directly control the fan speed from the face of the unit. Turning the dial clockwise increases the speed, and counterclockwise slows the fan down. Turning the dial all the way counterclockwise you will hear a click, which will turn the fan off, as well as the UVC light and Ionizer (if applicable).



3.3.2 Constant Speed

Constant speed control allows the unit to run at a single speed when it is turned on, with no outside adjustment.

Inside of the electrical chamber, there is a speed board which will allow the user to turn up or down the fan speed to the desired set point. The speed board is controlled by turning the dial clockwise to increase and counterclockwise to decrease. The adjustment can be done with a small slot terminal screwdriver.



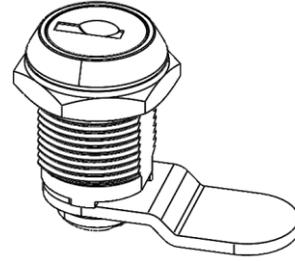
4 Unit Entry

There are two separate access panels located at the back of the unit

4.1 Lower Access Panel Lock

The Air Medic have a Keyed Cam Lock as an optional accessory.

This lock is located on the upper middle of the lower access panel. The key allows the unit to be locked to avoid any unwanted entry and tampering of the unit.

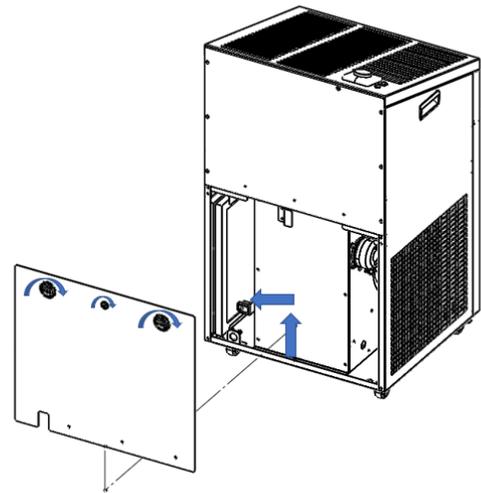


4.2 Lower Access Panel

The lower access panel is the main access into the unit. This is the panel that allows the user to access the Prefilter and the Activated Carbon Filter. This panel is equipped with a door microswitch. This switch stops both fans, UVC light, and Ionizer.

This panel is equipped with two cam latches that turn to lock in place to secure the panel, and the optional lock mentioned above.

To open the lower access panel, unlock the cam lock, turn the cam latches to the unlocked position and then pull up and out. When replacing the panel, align the panel with the width of the unit and slide it down onto the hook at the bottom. Make sure not to damage the power cable.

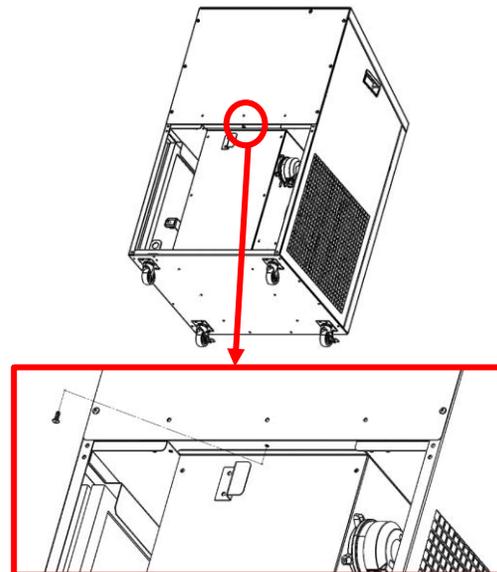
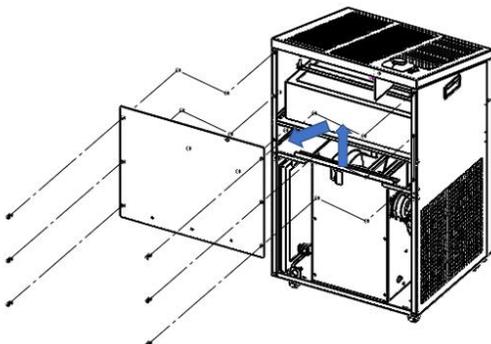


4.3 Upper Access Panel

The upper access panel allows access to the HEPA filter, UVC light, and Ionizer.

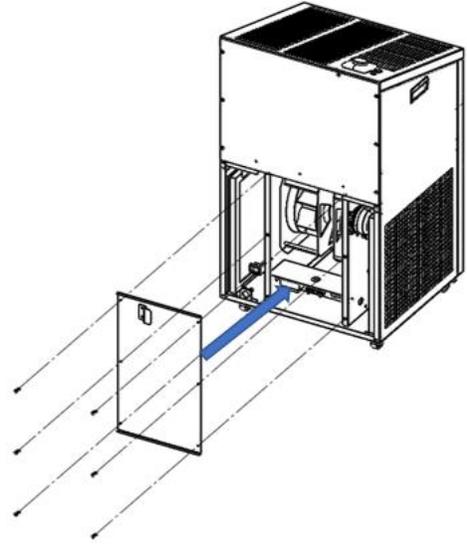
This panel is removed by undoing the screws located on the back panel. There is one screw located on the bottom of the panel only accessible with the lower panel removed. This is to ensure all electrical devices in the unit are stopped while it is open.

Remove the panel by lifting off the guide hook and pulling towards you.



4.4 Motor Access Panel

This panel is located behind the lower access panel and contains the latch for the cam lock. This panel can be removed simply by removing the screws that hold it to the fan bulkheads.



5 Air Medic Component Installation, Maintenance and Replacement Instructions

CAUTION: Before attempting to service the unit, be sure the power is off and unplugged

5.1 Filters

5.1.1 Prefilter

5.1.1.1 Description

The Air Medic comes standard with two 1-inch Prefilters installed on the air intakes of the units. They are standard MERV 10 filters designed to catch the initial dust and dirt particles before they can get inside of the Air Medic, similar to your HVAC equipment.

5.1.1.2 Replacement Frequency

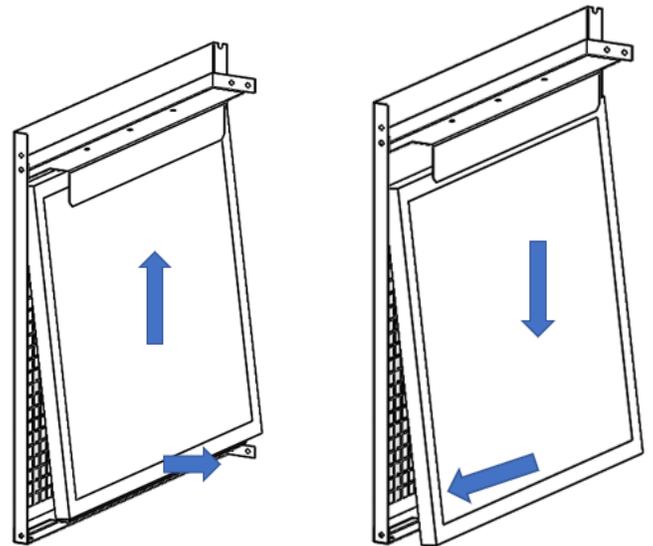
The replacement frequency for the Prefilters can be found in Table 1.

5.1.1.3 Replacement Instructions

To replace the Prefilters when they are dirty, they need to be removed. To remove the Prefilters, the lower access panel must be removed. Lift out of the lower guide, pull in to clear the guides, push down to clear the upper guides and then pull out of the unit.

To install the new filter, first ensure that the airflow arrow on the filter is pointing towards the middle of the unit.

Note: if the unit has Activated Carbon filters installed, they must be removed first before removing the Prefilter. See below for Activated Carbon filter removal



5.1.2 HEPA Filter

5.1.2.1 Description

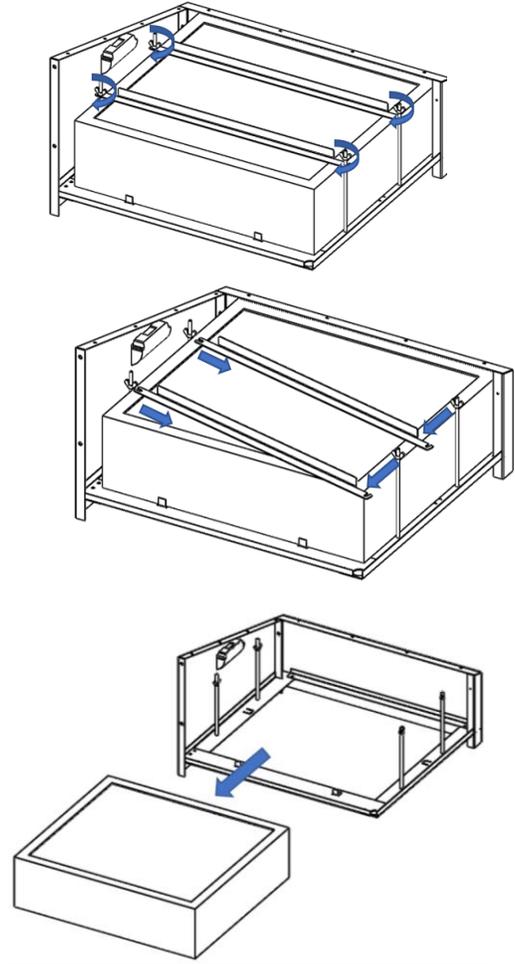
The Air Medic comes standard with a 6-inch HEPA (High Efficiency Particulate Air) filter. This filter is designed to stop at least 95% of all particles 0.3µm or larger. This is same level of filtration as N95 masks.

5.1.2.2 Maintenance Interval

The unit is equipped with a filter change light that will indicated when the HEPA filter should be changed. The standard replacement frequency for the HEPA filter can be found in Table 1.

5.1.2.3 Replacement Instructions

To access the HEPA filter, remove the upper and lower access panels. The HEPA filter is held to the bulkhead by two brackets. These brackets can be removed by loosening the wingnuts and turning the brackets so that they come free of the threaded rods. The HEPA can then be lifted and removed. When inserting the new HEPA make sure the airflow arrow is pointing up, and the HEPA is sitting flat on the bulkhead. Put the brackets back in place on the threaded rods and then tighten the wingnuts.



5.1.3 Activated Carbon Filter (Optional Accessory)

5.1.3.1 Description

An optional accessory for the Air Medic is two 1-inch Activated Carbon Filters. These filters make use of Activated Carbon to adsorb airborne particles to help with allergens and odours.

5.1.3.2 Installation Instructions

The Activated Carbon filters are installed on the intakes behind the Prefilters. To install the new filter, first ensure that the airflow arrow on the filter is pointing towards the middle of the unit. Slide the filter in lower into the upper and lower guides, ensure it is pushed all the way to the bottom. The Activated Carbon filter should be installed in the inner most filter slot.

Note: the Prefilter should be installed before the Activated Carbon filter.

5.1.3.3 Maintenance interval

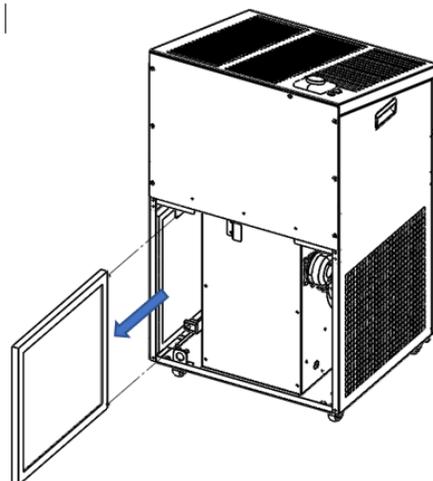
The replacement frequency for the Activated Carbon filter can be found in Table 1.

5.1.3.4 Replacement Instructions

To replace the Activated Carbon filters when they are dirty, they need to be removed. To remove the Carbon filters,

remove the lower. Pull the Carbon filter toward you and out of the unit.

The installation of new filters is the same as listed above.



5.2 Casters (Optional Accessory)

5.2.1.1 Description

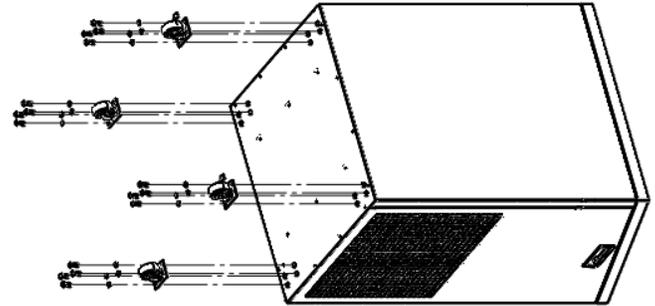
The standard option for the Air Medic is rubber foot pads for stability. An optional accessory for the Air Medic is four swivel casters, two are locking. These casters add increased portability and allow the unit to roll around in any direction.

5.2.1.2 Installation Instructions

To install the casters, first place the unit on its side, be careful not to scratch the unit. Remove the rubber foot pads by unscrewing them from the threaded holes on the bottom of the unit.

Take the supplied casters and align them with the holes in the corners on the bottom. Ensure the lockable casters are at the front of the unit for easy access. Screw the base of the caster

to the base of the unit, with the spring washer placed between the screw head and the caster base.



5.3 UVC Light (Optional Accessory)

5.3.1.1 Description

An optional accessory is the UVC light. This is a fluorescent style bulb that emits what is known as UVC-GI light wavelength (UVC-Germicidal Irradiation, 254nm). This light is a very small wavelength which allows it to penetrate pathogens and destroy the DNA rendering it inert.

The light is positioned so that it shines on the full face of the HEPA filter, allowing it to clean filter of anything that gets caught to it and to lengthen the filter life.

Direct exposure should be avoided as it may cause damage to skin and eyes.

The UVC light is also supplied with a reflector to ensure that the UVC light does not have any direct exposure on the fan assemblies.

5.3.1.2 Installation Instructions

First remove the lower and upper access panel and then remove the HEPA filter.

Take the light ballast and align the tabs with the holes on the right fan bulkhead, closest to the wall of the unit, and screw them down with the provided Philips head screws.

Take supplied UVC mount assembly and align it with the four holes (two on each bulkhead) and with the end with the Bulb mounting bolts on the same side as the ballast. Screw assembly down with the provided Philips head screws.

Mount the UVC bulb, by inserting the cable through the mounting bracket. Align the bulb base with the mounting bolts and tighten the supplied nuts. Do not over tighten the nuts.

Connect the bulb to the ballast, and the ballast to the power supply using the supplied quick connects. Ensure they have a firm and properly sealed connection, and that the locks have fully engaged.

5.3.1.3 Maintenance Interval

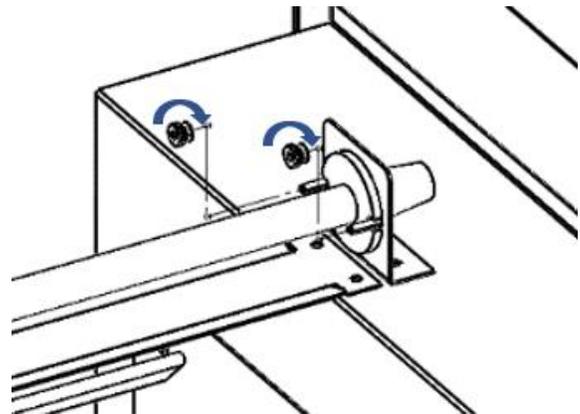
The replacement frequency for the UVC bulb can be found in Table 1.

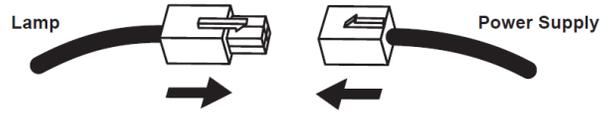
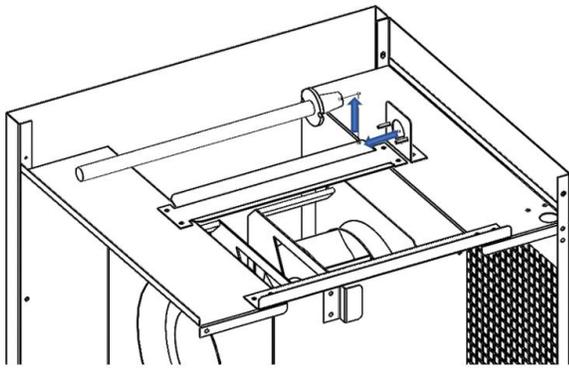
5.3.1.4 Replacement Instructions

To replace the UVC light, only the bulb needs to be replaced. To do this, first remove the lower and upper access panel and then remove the HEPA filter.

Disconnect the quick connect between the bulb and the ballast, remove the nuts holding the bulb to the mounting bracket and remove the bulb and wire from the mounting bracket.

To reinstall the new bulb, insert the cable through the mounting bracket. Align the bulb base with the mounting bolts and tighten the supplied nuts. Do not over tighten the nuts. Reconnect the wiring quick connect between the bulb and the ballast. Ensure they have a firm and properly sealed connection, and that the locks have fully engaged.





5.4 Ionizer (Optional Accessory)

5.4.1.1 Description

An optional accessory is the Ionizer. This is a small device that creates both negative and positive ions into the airstream. These ions attract and stick to airborne pollutants and harmful particles. This creates larger clusters in the air which allow them to be trapped by filters more efficiently. The transfer of ions between the air and the pollutants in the air also help to render them inert.

The ionizer is supplied with a cover assembly. This cover is used to help protect the ionizing brushes from any debris or cleaning solution falling through the top panel.

5.4.1.2 Installation Instructions

To install the ionizer, first attach the ionizer to the cover assembly with the provided nuts and bolts. Ensure the brushes are facing away from the back of the cover assembly, and not to over tighten the nuts.

Then, remove the lower and upper access panels. Align the cover assembly with the holes on the outside of the electrical cover, and mount using the provided Philips head screws. Attach the ionizer quick connect to the 2-pin quick connect to the unit quick connect below the electrical cover. Ensure they have a firm and properly sealed connection, and that the locks have fully engaged.

5.4.1.3 Maintenance Interval

It is recommended that every six (6) months the ionizer being inspected for dust or dirt buildup on the brushes or indicator light.

If there is dust or dirt, it should be removed with compressed air or small alcohol towelette. Let the alcohol dry before turning on the unit.

Cleaning sprays should not be used.

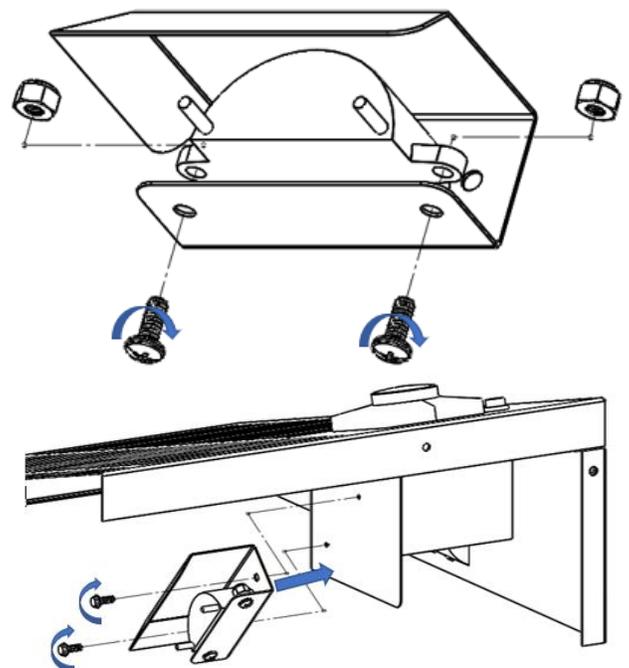
If there is any moisture on the brushes when the unit is turned on, it may cause failure of the ionizer.

5.4.1.4 Replacement Instructions

To replace the Ionizer, first remove the lower and upper access panel.

Disconnect the quick connect. Undo the nut and bolt holding the ionizer to cover and remove the device out of the upper access.

Align the new ionizer with the mounting holes on the cover assembly with the brushes facing out. Secure the ionizer to the cover with the nuts and bolts. Attach the ionizer quick connect to the 2-pin quick connect to the unit quick connect below the electrical cover. Ensure they have a firm and properly sealed connection, and that the locks have fully engaged.



5.5 Fan Assembly

5.5.1.1 Description

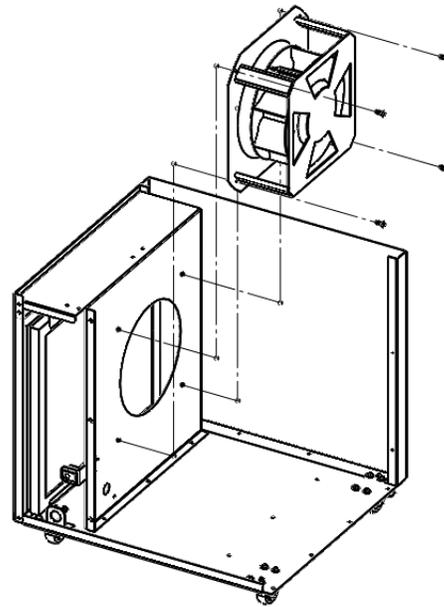
The air medic comes with two high efficiency backward inclined fans. These fans modulate their speed based on the input control signal which varies from 0-10VDC, based on the controls selected in the Fan Control section.

All controls within the fans are internally sealed and do not need any maintenance.

5.5.1.2 Replacement Instructions

To replace a fan, first open the lower access panel and then remove the fan cover. Disconnect the quick connect to the desired fan. Remove the screws holding the fan to the bulkhead and then remove the fan through the opening.

To install the new fan, insert into the opening and align the fan with the holes on the bulkhead. Ensure the fan is oriented in a way that the fan quick connect will reach the unit quick connect. Tighten all screws on the fan and then reconnect the quick connect. Ensure they have a firm and properly sealed connection, and that the locks have fully engaged.



5.6 Differential Pressure Switch (Optional Accessory)

5.6.1.1 Description

An optional accessory is the differential pressure switch. This switch measures the pressure around the HEPA filter with the use of 1/4" tubing to let the operator know when the HEPA needs to be replaced. When the pressure differential around the HEPA rises above the recommended level the switch will close and it will light the amber indicator light on the unit face.

5.6.1.2 Maintenance Interval

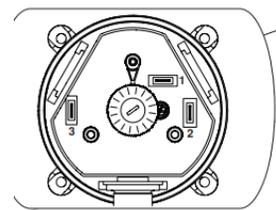
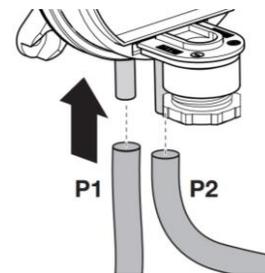
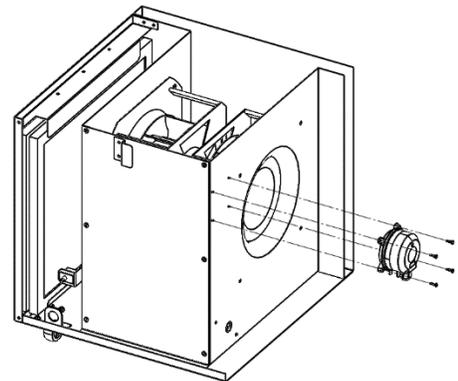
The switch is fully sealed and does not need any maintenance itself.

Every year it is recommended to inspect pressure switch tubing to ensure they are not kinked or clogged.

5.6.1.3 Replacement instructions

To replace the Differential Pressure Switch, first remove the lower access panel, and then disconnect the tubing attached to switch. Unscrew the switch from the bulkhead, removing the Prefilter and Activated Carbon Filter on that side may allow for easier access. Once the device is loose, open the cap and disconnect the wiring inside, then remove them from the switch.

Open the remove the cap from the new switch, adjust the dial to 2-inch WC, feed the wires into the switch and attach them to terminals 2&3. Attach the cap and mount the switch to the bulkhead, ensure the tube ports are pointed down. Reattach the tubes, with the tube going below the HEPA on port 1, and the tube going above the filter onto port 2.



6 Warranty Information

All Air Medic units carry a parts only warranty for a period of 1 year from date of shipment.

For all Warranty and Part Sales queries please visit Temspec.com or call 888-836-7732.

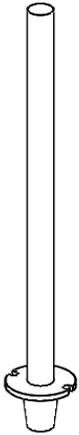
Table 1: Component Replacement Frequency

	Size	Part No.	Change Frequency
Prefilter	16" x 18" x 1" MERV 8	FPY 16118	3-6 months
H.E.P.A 95 Filter	18" x 20" x 6" MERV 16	FPH 18620	2 years or when indicator is lit
Activated Carbon Filter	16" x 18" x 1" MERV 7	FPC 16118	1 year
UVC Light	16 Watt	EUL 01516	1 year

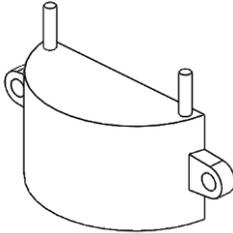
Table 2: Unit Specifications

	TIF- 06	TIF-08
Performance	450 CFM 600 CFM Purge Mode	450 CFM 800 CFM Purge Mode
Electrical	120 VAC 2.6 FLA 6ft, 2m Power cord	120 VAC 3.4 FLA 6ft, 2m Power cord
Fan & Motor	250mm Backward Inclined Impeller fan with ECM 20 – 100% fan modulation 600C FM @ 1.2" TSP 285/s @ 300pa	280mm Backward Inclined Impeller fa with ECM 20-100% fan modulation 800 CFM @ 1.2" TSP 375/s @ 300pa
Physical Data	36"H x 20" W x 22" D 915mm x 510mm x 560mm Weight: 95lbs, 43kg	52"H x 20" W x 26" D 1320mm x 510mm x 660mm Weight: 95lbs, 43kg

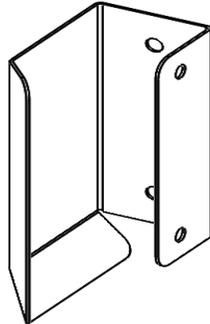
7 Parts List



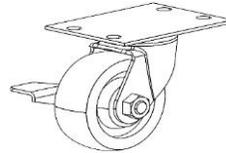
UVC Bulb
EUL 01516



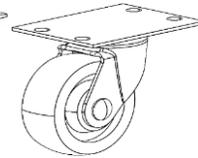
IONIZER
EIN 02400



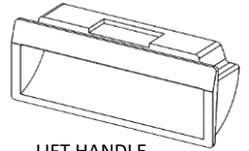
IONIZER COVER
FUM 9060



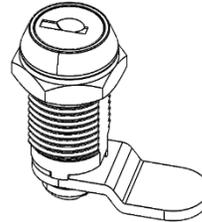
CASTER WHEELS
LOCKING
WCX 51608



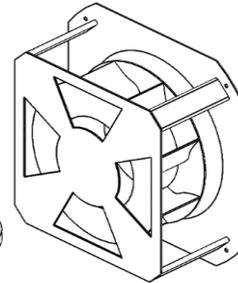
CASTER WHEELS
WCX 51608



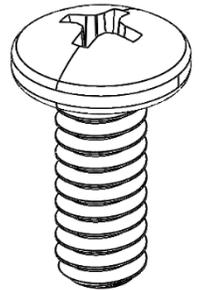
LIFT HANDLE
VHX 01004



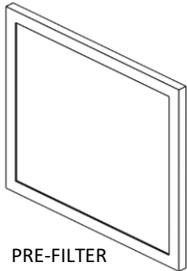
KEYED CAM
LOCK
NXL 01008



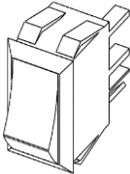
FAN
BFE 025017



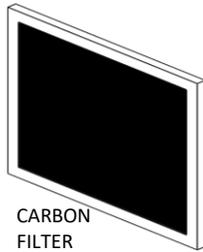
3/4IN FAN SCREW
NSL 00306



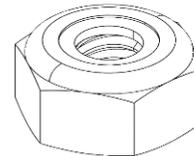
PRE-FILTER
FPY 16118



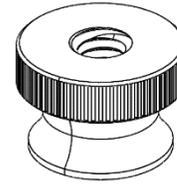
ON/OFF
SWITCH
ESX 10012



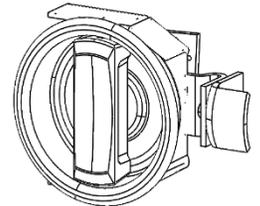
CARBON
FILTER
FPC 16118



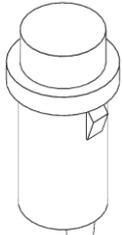
IONIZER NUT
NNX 21024A



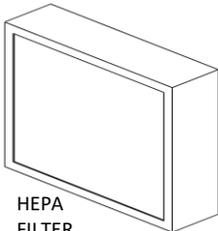
UVC THUMB
NUT
NNT 00202



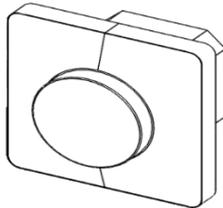
CAM LOCK
NXL 01010



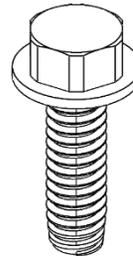
INDICATOR
LIGHT
EIL 12003



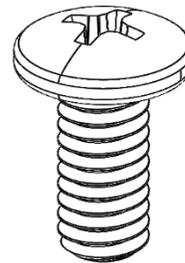
HEPA
FILTER
FPH 18620



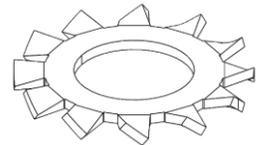
VARIABLE SPEED
FAN CONTROLLER
EMC 09004



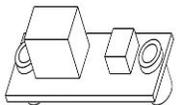
3/4IN SCREW
NSH 10206



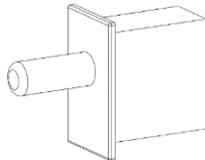
1/2IN SCREW
NSL 00304



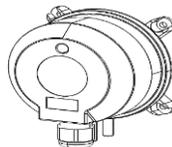
CASTER LOCK WASHER
NWX 21008



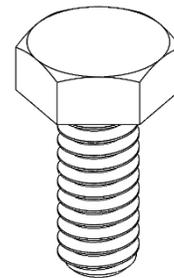
CONSTANT SPEED
FAN CONTROLLER
EMC 09003



DOOR INTERLOCK
SWITCH
ESX 08000



DIFFERENTIAL
PRESSURE
SWITCH



CASTER BOLT
NBH 00405