



IMPORTANT SAFETY INSTRUCTIONS READ AND SAVE THESE INSTRUCTIONS

<p>Proprietary Notice This manual pertains to proprietary devices manufactured by Terra Universal, Inc. Neither this document nor any portion of it may be reproduced in any way without prior written permission from Terra Universal.</p>	<p>Safety Notice A thorough familiarity with all operating guidelines is essential to safe operation of the product. Failure to observe safety precautions could result in poor performance, damage to the system or other property, or serious bodily injury or death. The following symbols are intended to call your attention to two levels of hazard involved in operation.</p>	
<p>Terra Universal makes no warranties applying to information contained in this manual or its suitability for any implied or inferred purpose. Terra Universal shall not be held liable for any errors this manual contains or for any damages that result from its use.</p>	 CAUTION	<p>Cautions are used when failure to observe instructions could result in significant damage to equipment.</p>
	 WARNING	<p>Warnings are used when failure to observe instructions or precautions could result in injury or death.</p>
<p>The information presented here is subject to change without notice.</p>		

1.0 Introduction

This manual provides information on installing and operating Terra Universal's Explosion-Proof Fan/Filter Unit. By studying this document carefully, you can be assured of a long, efficient service life from the unit.

The Fan/Filter unit provides a steady laminar flow stream of HEPA filtered air to the area below the mounted unit.

2.0 Operation

The unit consists of a 1/4 HP, explosion-proof motor driving a forward-curved centrifugal blower. Air is drawn into the unit through a pleated pre-filter and in turn to an insulated chamber where it is then directed to an exit HEPA filter with a built-in diffuser.

3.0 Installation

The Fan/Filter unit is designed to fit on top of a standard 2'x4' clean room ceiling grid. It includes a threaded fixture at each corner to accommodate four eye-bolts (not provided) that can be used to assist in positioning the unit.



WARNING:

To reduce the risk of fire, electric shock, or injury to persons, do not use this fan with any solid-state speed control device, and observe the following:

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switch on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- When the removal/disconnection of either filter is required due to service or component replacement, they are to be remounted as previously installed.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.

4.0 Start up



WARNING:

Keep unit disconnected from power supply during inspection

Prior to providing power to the unit, check that no damage has occurred during shipping. This can be accomplished via a visual check to make sure there are no visible dents or penetrations. If the unit is intact, remove the pre-filter and manually rotate the fan wheel to make sure it is not in contact with any stationary parts and that there are

no visible loose screws or bolts obstructing the wheel's rotation. Once visual inspection is completed, have a professional perform the installation who is familiar with Class I, Groups C & D and Class II, Groups F & G hazardous location requirements. After installation, with power applied, the fan will rotate, and filtered air will exit the HEPA filter.

5.0 Cleaning and Maintenance

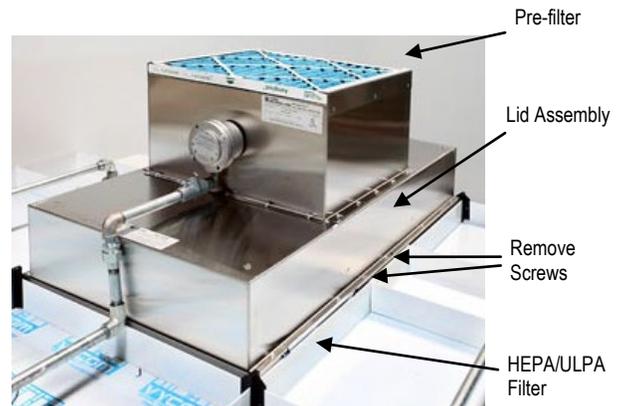


WARNING:

Disconnect from power supply before servicing unit. When servicing or replacing either filter, the new filter is to be installed in the same manner as the filter it replaces.

The scheduled maintenance of the unit depends on the installed location and consists of cleaning or changing the pre-filter and the HEPA filter. It is recommended that the pre-filter be inspected and cleaned every three months or sooner depending on the cleanliness of the external environment. The HEPA filter cannot be cleaned and must be replaced when the laminar flow rate falls below 70 feet/min.

Changing the HEPA filter requires removal of the unit to be removed from the ceiling grid. Place the unit on a flat work surface and remove the 10 sheet metal screws that hold the HEPA filter to the case. Replace the filter with a new one and secure it to the case with the same screws before placing it back onto the ceiling grid.



6.0 Specifications

Dimensions:	23.625"W x 47.625"L x 20.2"H (600 mm x 1210 mm x 513 mm)
Housing:	Stainless steel
HEPA Filter:	99.99% efficient on removal of particles 0.3 microns and larger
Pre-Filter:	20" x 20" x 1" - 30% efficient ASHRAE rated
Blower:	Forward-curved centrifugal type factory balanced. Entire motor/blower assembly is removable from top of housing for service
Motor:	1/4 HP Direct drive, Explosion-proof, 1 Phase
Electrical:	Motor wiring should only be connected to an appropriate control unit. All wiring should be housed by UL-listed rigid conduit
Power Cord:	None supplied
Face Grille:	Perforated anodized aluminum
Noise Level:	50 dBA (measured at 30" from filter face)
Weight:	76 lbs. (35.5 kg) shipping weight
Support:	Threaded screw receptacles provided for insertion of optional eyebolts
Power Options:	1/4 HP motor with voltage of 115/1/60Hz, 208-230/1/60Hz

Power Specifications: for 2 ft. x 4 ft. HEPA, 115VAC (Model No. 6601-24HE)

Full Load Amps	6.8
Watts	190

Specification Notes:

- All FFU data is based on a standalone unit using 1" prefilter and clean filters.
- Data will vary depending on filter media and configurations with other products/systems, such as ductwork or hoods.

7.0 Warranty

See next page.



Quick-Start Operating Guide Filter/Fan Unit

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Limited Warranty

Products Manufactured by Terra: Terra Universal, Inc., warrants products that it manufactures to be free from defects for a period of 12 months for parts and 90 days for labor, commencing from the date of shipment. Terra's sole responsibility is to repair or replace, at its option, any part of the product that proves defective or malfunctioning during this time limit. In some cases, components incorporated in Terra Universal products are covered by additional warranties from component manufacturers; obtain specific information from Terra sales representatives. This warranty is void if the equipment is abused or modified by the customer, is operated outside Terra's operating instructions or specifications, or is used in any application other than that for which it is specified. This warranty does not include routine maintenance or service procedures, breakage of quartz baths after 60 days, shipping damage, nor damage from misuse, intentional or unintentional abuse, neglect, natural disasters, or acts of God.

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Generally, customers can improve the chance of collecting on a freight claim by following these procedures: 1) formally requesting that the carrier inspect the shipment immediately upon suspecting damage or shortage to verify condition; 2) notifying the carrier upon discovery of concealed damage and requesting an inspection within 15 days of receipt, both in person or phone and following up via mail; 3) keeping the shipment as intact as possible, including retaining original packaging materials and keeping the product as close to the original receiving location as possible; 4) holding salvage for disposition by the carrier.

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