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Critical Environment Solutions

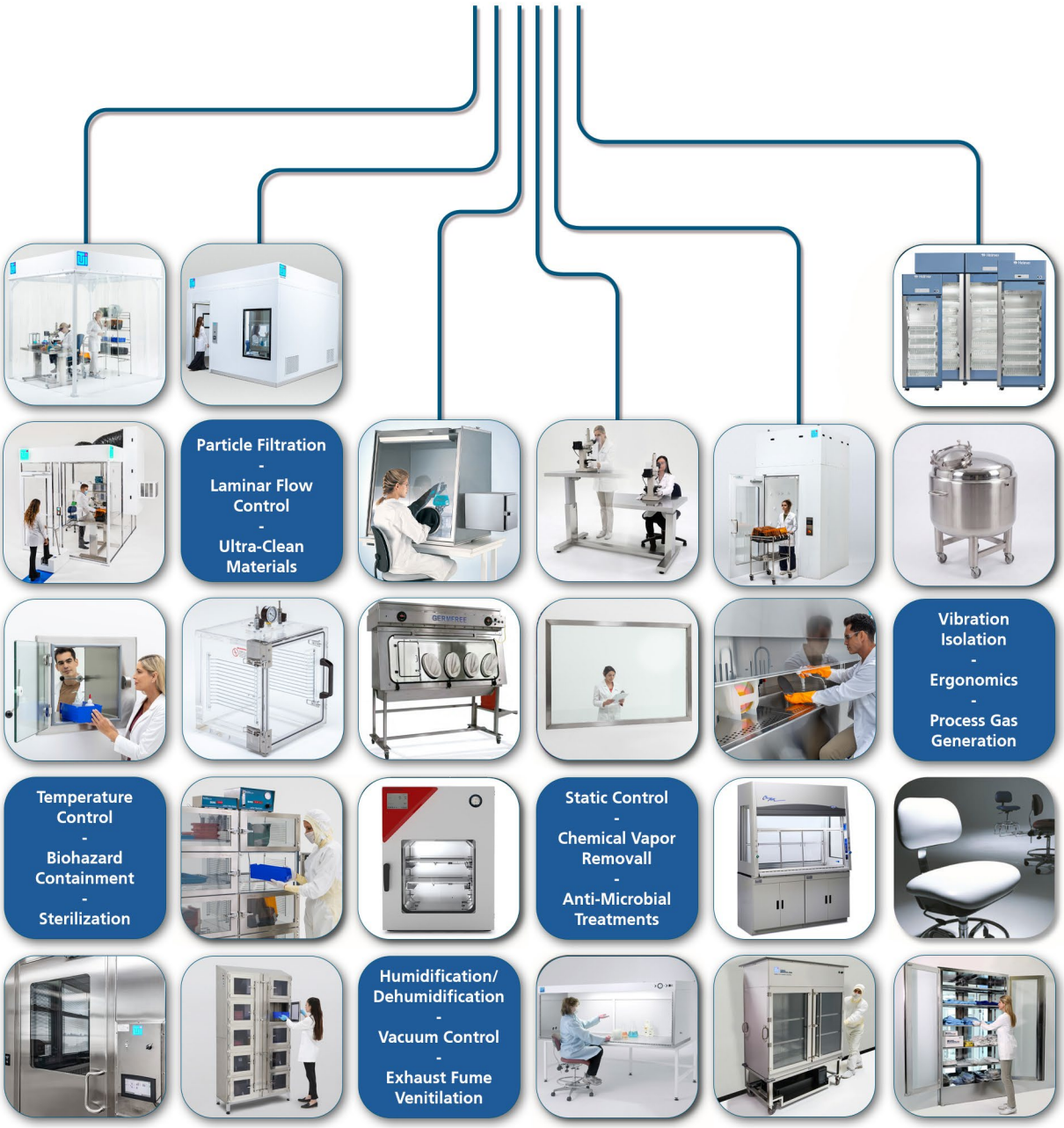


Quick-Start Operating Guide *Document No. 1788-02*

Explosion-Proof Hood

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Quick-Start Operating Guide

Explosion-Proof Hood

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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:

CAUTION

Cautions are used when failure to observe instructions could result in significant damage to equipment.

DANGER

Dangers are used when failure to observe instructions or precautions could result in injury or death on top of significant damage to equipment.

The information presented here is subject to change without notice.

1.0 Introduction

This manual provides information on installing and operating your Terra Universal Explosion-Proof Hood (Class I and Class II, Division I Hazardous Locations). The Explosion-Proof Fan Filter Unit (FFU) and Light are both UL-Listed.

Study this document carefully to ensure a safe, long, and efficient service life from the unit.



Picture 1. Terra Universal's Explosion-Proof Hood

2.0 Description

Terra Universal's Explosion-Proof Hood is ideal for particle-free processing facilities where solvent vapors, dust, and other flammable hazards may be present.

The 99.99%-efficient HEPA filter (rated at 0.3 µm particles) creates ISO 5 cleanliness conditions for contamination-sensitive work.

Terra Universal manufactures hoods out of several materials to meet a broad range of chemical cleanliness requirements. All hood materials are housed in a durable powder-coated steel or stainless steel frame for strength and easy cleaning. All hoods include a hinged front access shield that restricts the exiting air and enhances laminar flow.

An Explosion-Proof Fan Filter Unit (FFU) with HEPA filter is included with the hood and is UL-listed for safe operation in a Class I or Class II, Division I, work environment as specified by NEC Code. The non-sparking motor is enclosed inside a cast-iron, explosion-proof housing and provides uniform flow of filtered air. Its direct-drive, 1/4-HP fan-cooled motor and non-sparking impeller are designed for continuous-duty use. All system wiring is enclosed in filled rigid conduit. The FFU provides an average air flow rate of 650+ CFM (1095 m^3/hr) and speed of 90 ft/min (0.458 m/sec) of HEPA-filtered air through the enclosure.

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The 40W Explosion-Proof Low Profile Linear LED Light is both UL-listed and rated for Class 1, Divisions 1 and 2 applications. The unit provides bright illumination (3,600 lumens) to the hood and operates from 100-277VAC, 50/60Hz. The life expectancy of 100,000+ hours offers the user an extremely long service life. For more information, see appended specifications and manual at the end of this Quick-Start Operating Guide.

3.0 Installation

The Explosion-Proof Hood ships fully assembled. However, the unit will need to be electrically hardwired.

1. Uncrate your Explosion-Proof Hood while checking to make sure that it has no visible damage incurred during shipment. If damage is found, contact the freight company to immediately file a damage claim.

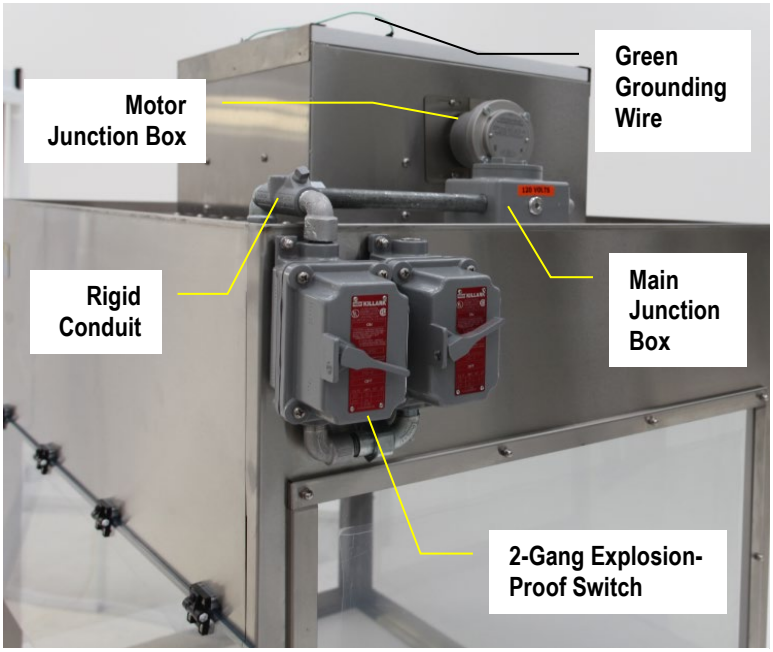
2. To hardwire your Explosion-Proof Hood, place the unit where you want it installed. Using an appropriate hex key, unscrew and remove the hex screw on the main junction box (see Picture 2). Hardwire the unit to your building's power source per local codes and regulations. (Terra Universal strongly recommends hiring a licensed electrician to perform the work.) Additional rigid conduit (not included) is required to hook up the unit to a power source.

3. The unit is now ready for use.

DANGER: Make sure that the Explosion-Proof Hood is grounded prior to turning on the unit.

DANGER: Only rigid conduit may be used to hardwire this unit. Do not use thread tape or liquid-thread coat.

DANGER: The green wire on top of the Explosion-Proof FFU (see Picture 2) is used to ground the wire mesh of the pre-filter. Make sure the pre-filter wire mesh is grounded prior to turning on the unit.

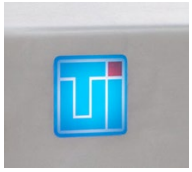


Picture 2. Explosion-Proof Unit shown with close-up of the 2-gang explosion-proof switch, main junction box, motor junction box, rigid conduit, and green grounding wire that grounds the wire mesh of the FFU pre-filter.

4.0 Operation

The Explosion-Proof Hood has two (2) ON/OFF explosion-proof switches that are used to independently operate the motor and light.

The TUI light emits a solid glow while the unit is in operation (with the Explosion-Proof Fan Filter Unit ON) and a continuous flash while the unit is on standby (with the Explosion-Proof Fan Filter Unit OFF).



Picture 3. TUI light

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5.0 Maintenance

Terra Universal's Explosion-Proof Hoods should be cleaned with a mild, nonabrasive detergent and water. Special care should be taken not to damage the surface coatings of hoods made of Static Dissipative PVC; surface scratches can reduce the static dissipative properties of this material.

Note: Acrylic is damaged by alcohol and other cleaning agents.

6.0 Filter Replacement

Contact any sales associate at Terra Universal to help you place an order for replacement pre-filters (Merv 7, UL-listed) and HEPA filters. Please remember to have either your Order Reference Number or Model & Serial number of your Explosion-Proof Hood so that the sales associate can best assist you.

Replacement HEPA Filter Cat. No.: **6601-24-HE**
Replacement Pre-Filter Cat. No.: **PA04599**

DANGER: Make sure that the power is OFF at the circuit breaker prior to servicing the Explosion-Proof Hood.

DANGER: All electrical connection and disconnection work needs to comply with local codes and be conducted by a licensed electrician.

1. To replace the FFU pre-filter and/or HEPA filter, disconnect the power line and remove the rigid conduit and main junction box from the Explosion-Proof Hood.
2. For more information and specific instructions on replacing the pre-filter and HEPA filter, see Section 5.0, Cleaning and Maintenance, in the appended Explosion-Proof Fan/Filter Unit Quick-Start Operating Guide at the end of this manual.
3. Reposition the FFU back into the Explosion-Proof Hood and secure with provided fasteners.
4. Re-hardwire the power connections and reinstall the rigid conduit and main junction box.

WARNING: Use care to support the filters, which may fall loose once the cover is open. Carefully remove the Pre-Filter and HEPA Filter, and reinstall replacement filters in the same orientation.

7.0 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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Freight Shortage or Damage: Upon receipt of any equipment from Terra Universal, Inc., customer shall immediately unpack and inspect for damage or shortage. The customer shall not accept a damaged package or a short shipment until the carrier makes a "damage or shortage" notation on both the carrier's and customer's copy of the freight bill or delivery receipt. Service title passes when the shipment is loaded, so customer is responsible for filing and collecting a freight claim. Any replacement products must be ordered and paid for separately. For Terra's "Policy and Procedures for Returning Goods," see Terra's Internet site: www.TerraUniversal.com.

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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Warranty Returns: All warranty returns must be authorized in advance by Terra Universal and approved under an RMA. Unless approved in advance for good reason, all returns must be in original condition, including all manuals, and must be packaged in original packaging materials. All returned goods are to be shipped to Terra Universal, freight prepaid at customer's expense. See Terra's "Policy and Procedure for Returned Goods."

Thank you for ordering from
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