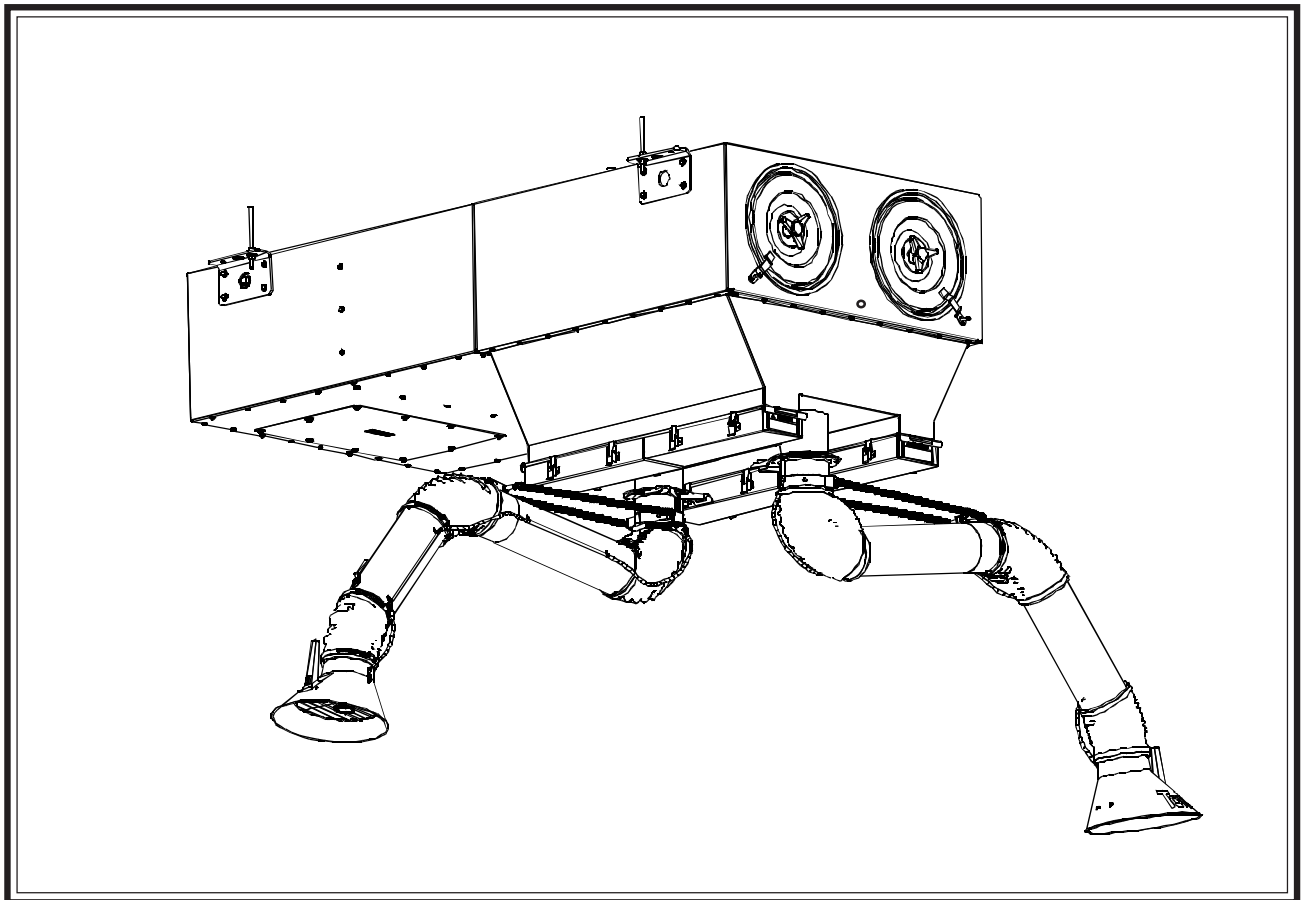


Torit® Installation and Operation Manual

Trunk 2000™
Model T-2000

Includes Installation, Operation, and Service Instructions



IMPORTANT

This manual contains specific precautionary statements relative to worker safety in appropriate sections. Read this manual thoroughly and comply as directed. It is impossible to list all of the potential hazards of dust control equipment. It is imperative that use of the equipment be discussed with a Torit representative. Personnel involved with the equipment or systems should be instructed to conduct themselves in a safe manner.

NOTE

Statements indicate precautions necessary to avoid potential equipment failure.

CAUTION

Statements indicate potential safety hazards that could result in personal injury and product or property damage.

CAUTION

APPLICATION OF DUST CONTROL EQUIPMENT:

- **WARNING**—Improper operation of a dust control system may contribute to conditions in the work area or facility that could result in severe personal injury and product or property damage. Make certain that any dust or fume collection system is properly designed for the intended use.
- A prudent user of Torit equipment should consult and comply with all national and local fire codes and/or other appropriate codes when determining the location, configuration, and operation of a dust control system.
- Special care must be exercised in the installation, operation, and use of all dust collection equipment where combustible and/or explosive materials, such as buffing lint, paper, wood, aluminum, or magnesium dust or weld fume are present. These materials may present a fire and/or explosion hazard. Torit equipment does **NOT** contain fire or explosion prevention equipment except as noted in this manual.
- Under no circumstance should anyone, including the operator, allow burning objects or lit cigarettes to enter the hood or ducting of any dust control system.
- Avoid mixing combustible materials with sparks, such as those generated from the grinding of ferrous metals, due to the potential fire hazard created by sparks being pulled into dust collection equipment.
- To ensure proper operation of this Torit equipment, read and follow the instructions contained in the Torit Installation and Operation Manual. Under no circumstances should Torit equipment be modified. To ensure optimum collector performance, always use Torit-Built® replacement filters and parts.

Torit is the leading designer and manufacturer of dust collector systems for the control of industrial air pollution. Its systems are designed to help reduce occupational hazards, lengthen machine life, reduce in-plant maintenance requirements, and improve product quality.

Table of Contents

Notes and Cautions	2
Data Sheet	3
1.0 Introduction	5
1.1 Operational Explanation	5
1.1.1 Normal Operation	5
1.1.2 Filter Cleaning	6
2.0 Installation	6
2.1 Inspection	6
2.2 Ship Loose Items	6
2.3 Equipment/Tools Required	6
2.4 Preinstallation	6
2.5 Assembly of Standard Equipment	7
2.6 Assembly of Optional Equipment	8
2.6.1 Hopper Assembly	8
2.6.2 Magnehelic®* Gage	8
2.6.3 Photohelic®* Gage	10
2.6.4 Solenoid Mufflers	12
2.6.5 Sprinkler Head	12
2.7 Electrical Installation	12
2.7.1 Electrical Operation	13
2.7.2 Solid-State Control Timer Specifications	14
2.8 Compressed Air Supply Installation	15
3.0 Prestart-Up Check	16
4.0 Start-Up	16
5.0 Operating Adjustments	16
6.0 Service	17
6.1 Filter Element Removal	17
6.2 Filter Element Replacement	17
6.3 Dust Removal	18
6.3.1 Standard Bottom Pack	18
6.3.2 Hopper Bottom Pack	19
6.4 Original Equipment Filter Element	19
7.0 Troubleshooting Guide	20
Parts Ordering Information	28
Warranty	28

Figures

Figure 1 - Typical Trunk 2000 Installation	4
Figure 2 - Operational Schematic	5
Figure 3 - Collector Suspension	7
Figure 4 - Extraction Arm Installation	7
Figure 5 - Installation of Hopper Assembly	8
Figure 6 - Installation of Magnehelic Gage	9
Figure 7 - Installation of Photohelic Gage	10
Figure 8 - Photohelic Gage Wiring Diagram	11
Figure 9 - Wiring Diagram	13
Figure 10 - Solenoid Valve Location	14
Figure 11 - Operating Logic Diagram	14
Figure 12 - Filter Element Replacement	18

* Magnehelic and Photohelic are registered trademarks of Dwyer® Instruments, Inc.

Data Sheet

Customer Name	_____
Address	_____ _____
Shipping Date	_____
Installation Date	_____
Model Number	_____
Serial Number	_____
Filter Medium	_____
Accessories	_____
Other	_____

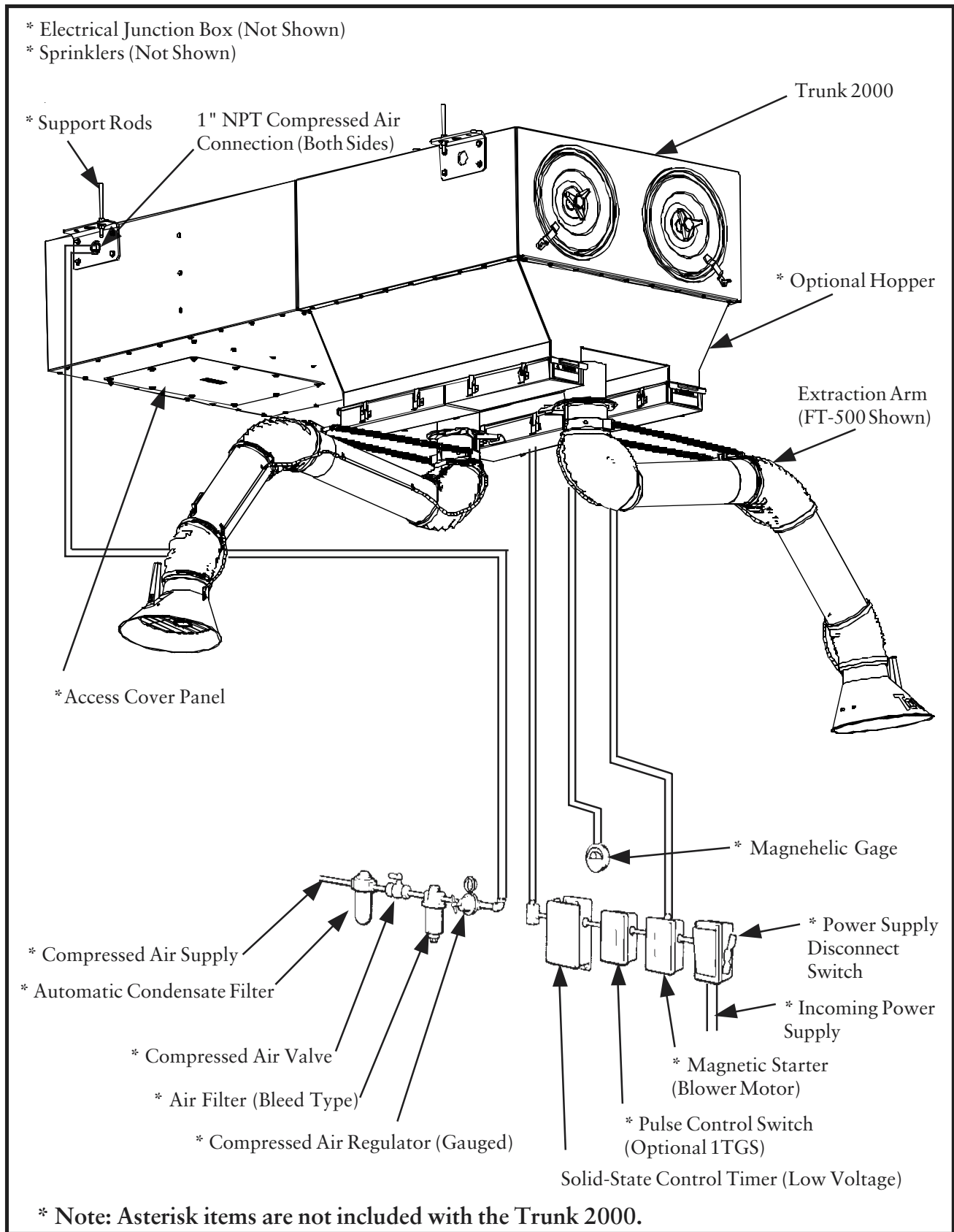


Figure 1
Typical Trunk 2000 Installation

1.0 Introduction

CAUTION

Misuse or modification of the equipment may result in personal injury. Do not misuse or modify.

The Torit Trunk 2000 is used to filter weld fume, dust, and particulate from plant sources and to recirculate clean air back to the workplace. Ceiling-hung or wall-supported, the compact size, coupled with large volume air handling capabilities allow this unit to be placed in a wide variety of sites previously inaccessible to high efficiency dust collectors.

Torit Ultra-Web® II FR flame retardant filter cartridges are the heart of the Torit T-2000. These elements, which are an example of Donaldson Company's state-of-the-art filtration technology, help ensure that only clean air is returned to the plant environment.

Technical and field support are always available from your local Torit representative and distributors.

CAUTION

OSHA may have requirements regarding recirculating filtered air back into your facility. Consult with the appropriate local authorities to ensure compliance with all applicable codes.

1.1 Operational Explanation (See Figure 2)

1.1.1 Normal Operation

Dust or fume enters through the extraction arm(s), and is collected on the outside surfaces of the filter elements. The clean, filtered air passes through the center of the filter elements, into the blower, through the silencer sections of the cabinet, and exits through the clean-air outlet.

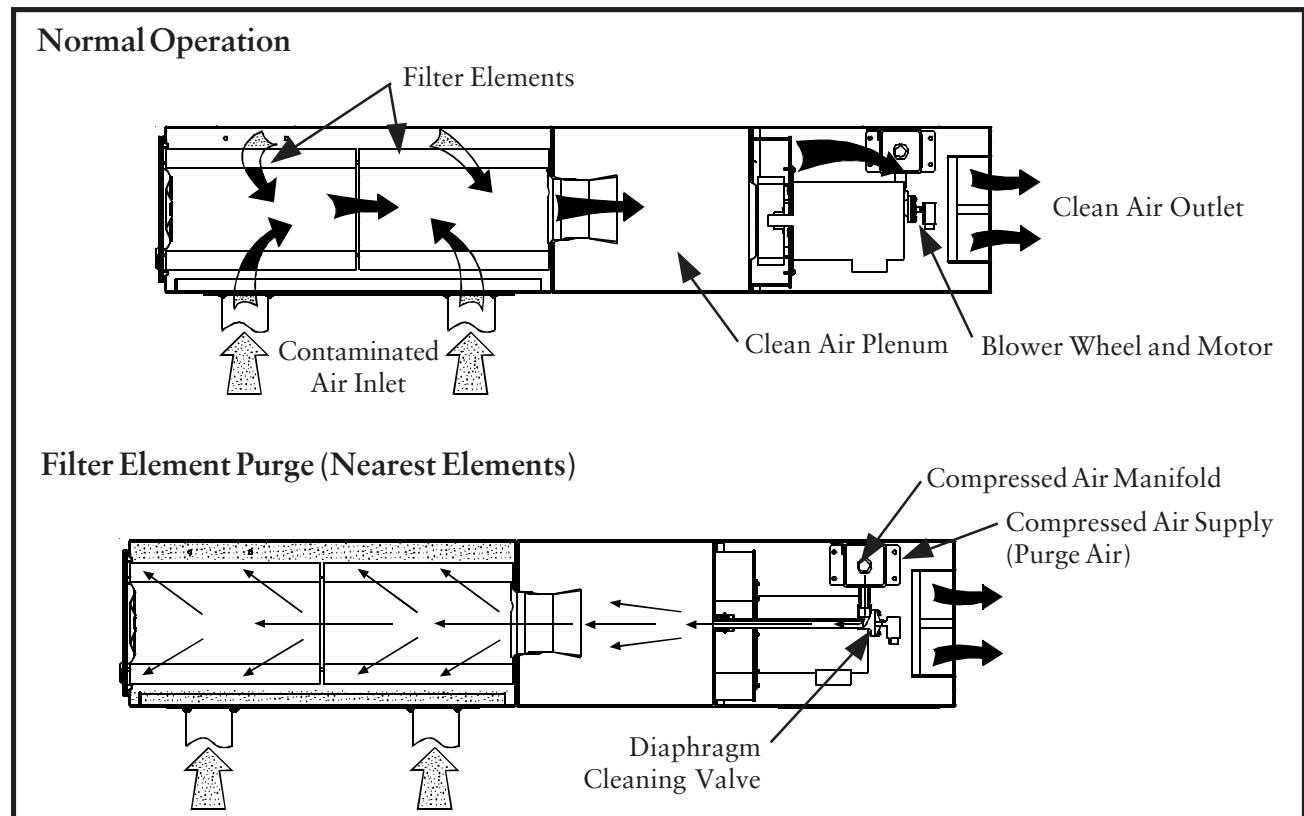


Figure 2
Operational Schematic

1.1.2 Filter Cleaning

Filter cleaning starts when the blower is turned on. A solid-state control timer energizes a solenoid valve, causing the corresponding diaphragm valve to send a pulse of compressed air through the filter elements (from the inside outward), removing the dust from the outside of the filter elements. The dust then falls into the hopper.

At the end of the pulse, the diaphragm valve closes and the elements are back in normal operation. After a preset time interval elapses, the timer sequences to the next valve in the system. This cycle will continue until the blower fan is turned OFF.

2.0 Installation

2.1 Inspection

The Trunk 2000 collector and extraction arms are normally shipped by common carrier and should be carefully inspected for damage that may have occurred en route. Any damage should be noted, and the carrier notified immediately.

2.2 Ship Loose Items

Items shipped loose with the Trunk 2000 may include:

- Flex-Trunk™ Installation and Operation Manual (IOM-40779-00) or AEX Plus/Flex-Trunk Plus Extraction Arms Installation and Operation Manual (IOM-75366-01)
- Electrical Controls
- Extraction Arm(s)

2.3 Equipment/Tools Required

The following is a list of typical tools and equipment required to install and assemble a Trunk 2000:

- Extraction Arm(s)
- Screwdrivers
- Socket Wrenches
- Torque Wrench - inch/lbs. (9/16" Socket)
- Adjustable Wrench
- Hand Drill and Drill Bits
- Lithium Grease (For FT-500 Arm Only)
- Pneumatic Wrench (For Hopper Assembly Only)
- Lifting equipment appropriate to position the collector in the desired location.

CAUTION

Use appropriate lifting equipment and adopt all the safety precautions needed for moving and handling the equipment.

2.4 Preinstallation (See Figure 3)

The weight of the dust collector and any auxiliary equipment must be considered when planning installation. See the Specification Control Drawing for weight and mounting bolt locations.

Locate the Trunk 2000 as near to the source as possible, and allow for the optimum extraction arm movement. Also consider electrical and compressed air supply, and water supply, if needed.

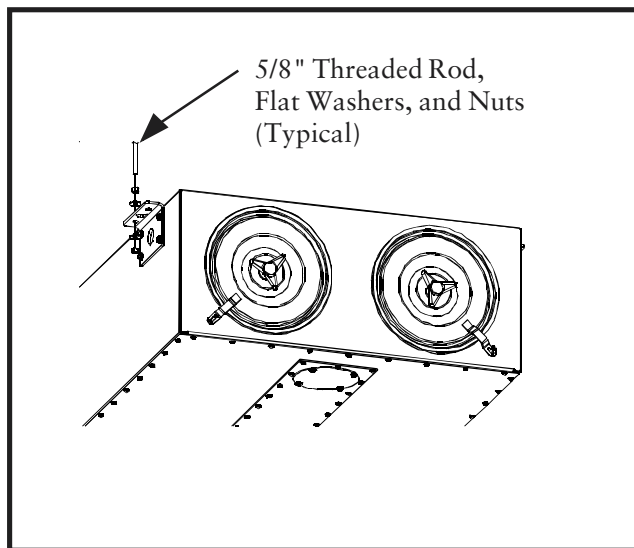


Figure 3
Collector Suspension

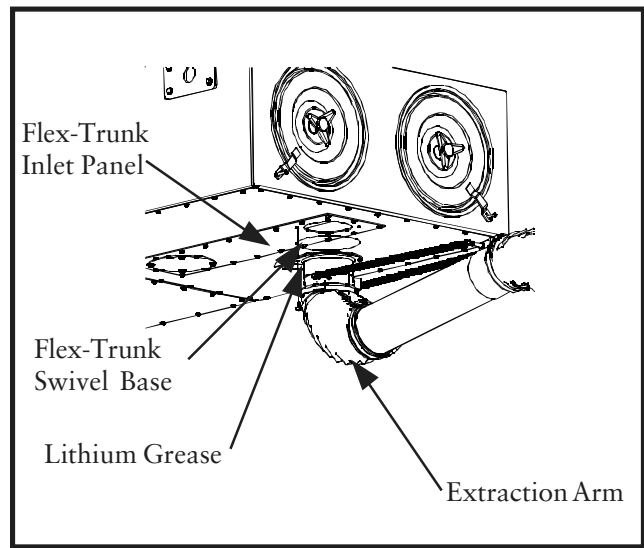


Figure 4
Extraction Arm Installation

2.5 Assembly of Standard Equipment (See Figure 4)

1. Each T-2000 unit is shipped fully assembled from the factory, except for the trunks, which are attached after the dust collector has been placed. Typically the Trunk 2000 is suspended from the ceiling; however, it can be supported by other means, as long as they are appropriate for the alternate location. Figure 3, Collector Suspension shows the recommended method of suspending the Trunk 2000.

CAUTION

The support structure must be capable of bearing the weight of the T-2000 with its heaviest load of dust. Consult with local authorities for building code restrictions.

2. After the collector has been placed, level by adjusting the hangers at each corner.

3. Apply a thick film of lithium grease to the mounting flange of the extraction-arm swivel base before mounting. This will create a seal when the extraction arm is installed to the Trunk 2000. See Figure 4, Extraction Arm Installation.
Note: This only applies to the Flex-Trunk, not the Flex-Trunk Plus.
4. Fasten the extraction arms as shown in Figure 4, Extraction Arm Installation and see either the installation instructions in the Flex-Trunk Installation and Operation Manual IOM-40779-00 or AEX Plus/Flex-Trunk Plus Extraction Arms Installation and Operation Manual IOM-75366-01.

CAUTION

Failure to properly mount the extraction arm could result in the collapse of the arm, resulting in personal injury.

2.6 Assembly of Optional Equipment

2.6.1 Hopper Assembly

The T-2000 hopper assembly weighs approximately 150 pounds. The hopper assembly is shipped separate from the unit.

1. Install the T-2000 unit to the ceiling and secure it as directed in Section 2.5, Assembly of Standard Equipment. See also Figure 3, Collector Suspension.
2. Remove the shipping cover from the bottom of the T-2000 unit.
3. Remove the hopper from the packaging.
4. Add sealant to the hopper flange. See Figure 5, Installation of Hopper Assembly.

CAUTION

Use appropriate lifting equipment and adopt all safety precautions needed for moving and handling the equipment.

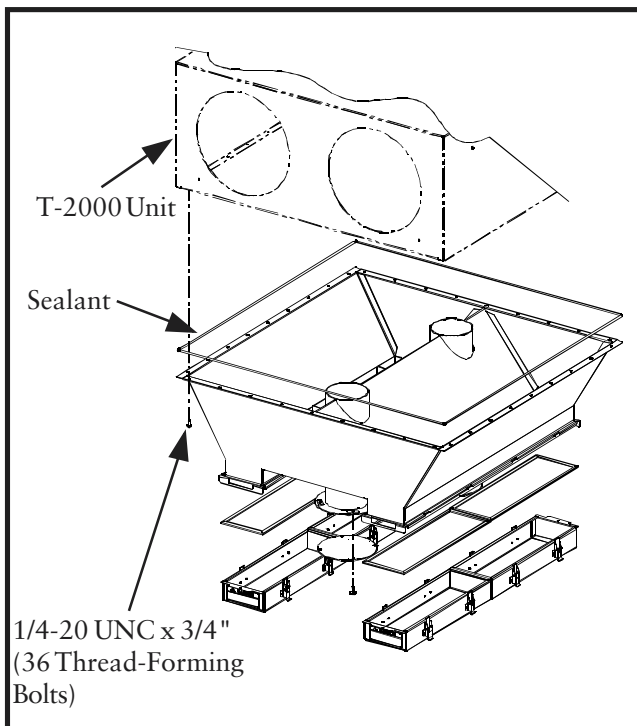


Figure 5
Installation of Hopper Assembly

5. Use the supplied thirty-six (36) 1/4-20 UNC x 3/4" thread-forming bolts to join the hopper to the T-2000 unit. See Figure 5, Installation of Hopper Assembly. Remove the two round covers to install the Flex-Trunk arms to the unit. See the installation instructions in the Flex-Trunk Installation and Operation Manual IOM-40779-00 and AEX Plus/Flex-Trunk Plus Extraction Arms Installation and Operation Manual IOM-75366-01.

CAUTION

Do not overtighten the thread-forming bolts.

2.6.2 Magnehelic Gage (See Figure 6)

The Magnehelic gage is an optional feature on the Trunk 2000. The gauge pressure taps have been preinstalled in our factory.

1. After unpacking the Magnehelic parts, choose a convenient, visible, and accessible location on or near the unit for mounting the gage.
2. Prior to mounting, plug the pressure ports on the back of the Magnehelic gage using the two (2) 1/8" NPT pipe plugs (supplied with the gage). Next, install the two (2) 1/8" NPT tubing male adapters (supplied with the gage) into the openings on the side of the gage marked high and low pressure. Next, mount the gage to the mounting bracket with three (3) # 6 - 32 X 1/4" long screws (supplied with the gage), as shown in Figure 6, Installation of Magnehelic Gage.
3. Locate the Magnehelic gage and mounting bracket assembly for the best visual advantage. The plastic tubing will determine the maximum distance away from the collector that the mounting bracket and gage can be located (35 ft. is supplied).

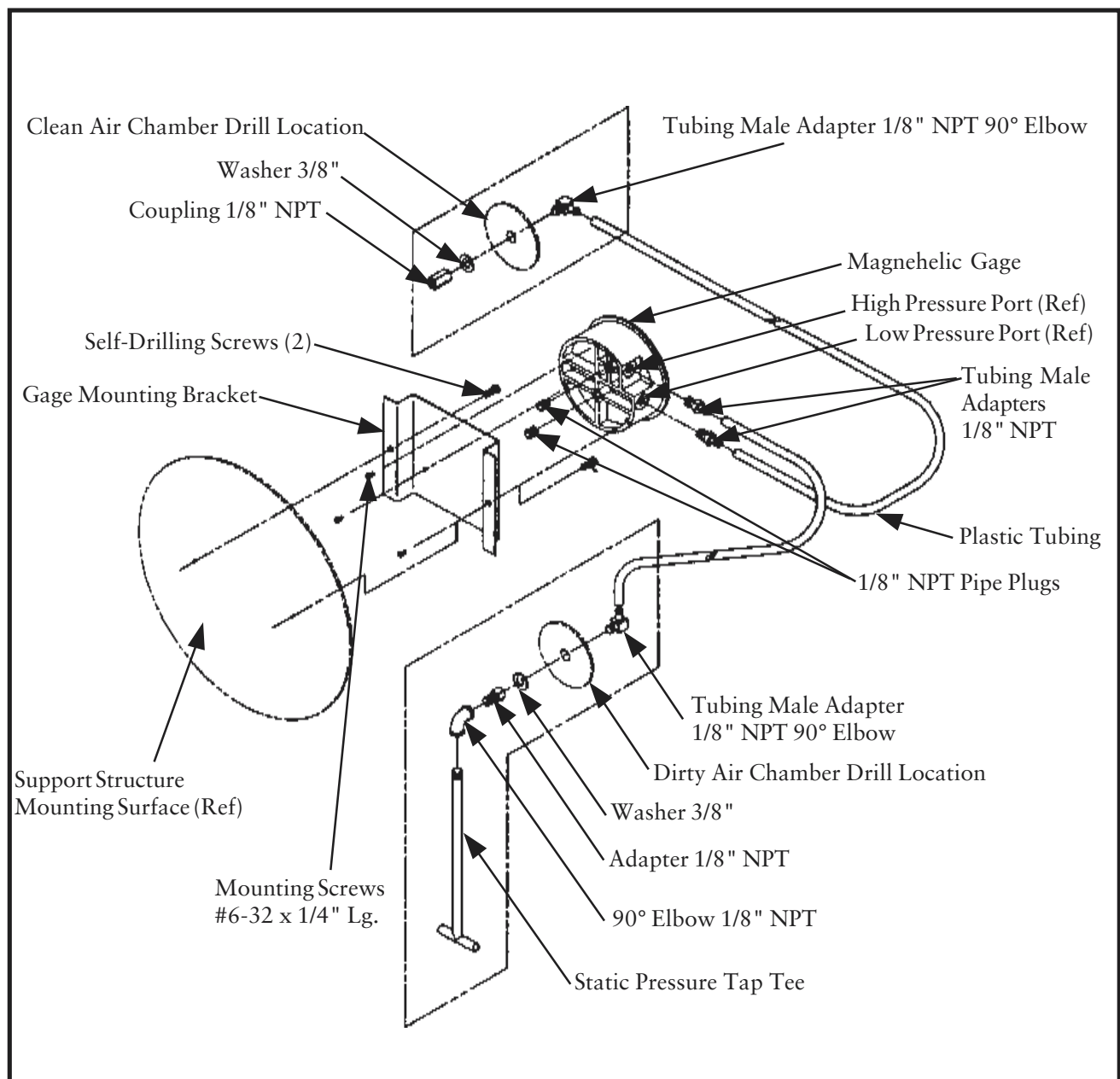


Figure 6
Installation of Magnehelic Gage

Remember that the tubing will have to be cut and that one piece may be longer than the other. If more tubing is required, please contact your local Torit representative. Once the mounting bracket assembly position is determined, mount this assembly to the supporting structure using the two self-drilling screws.

4. Connect the tubing to the high pressure and low pressure port fittings located on the

Magnehelic gage. The high pressure port tubing is attached to the pressure fitting mounted in the dirty air chamber (filter section). The low pressure port is attached to the fitting in the clean air chamber. See Figure 6, Installation of Magnehelic Gage.

5. Zero and maintain Magnehelic gage per operating and maintenance instructions provided by the manufacturer of the Magnehelic gage.

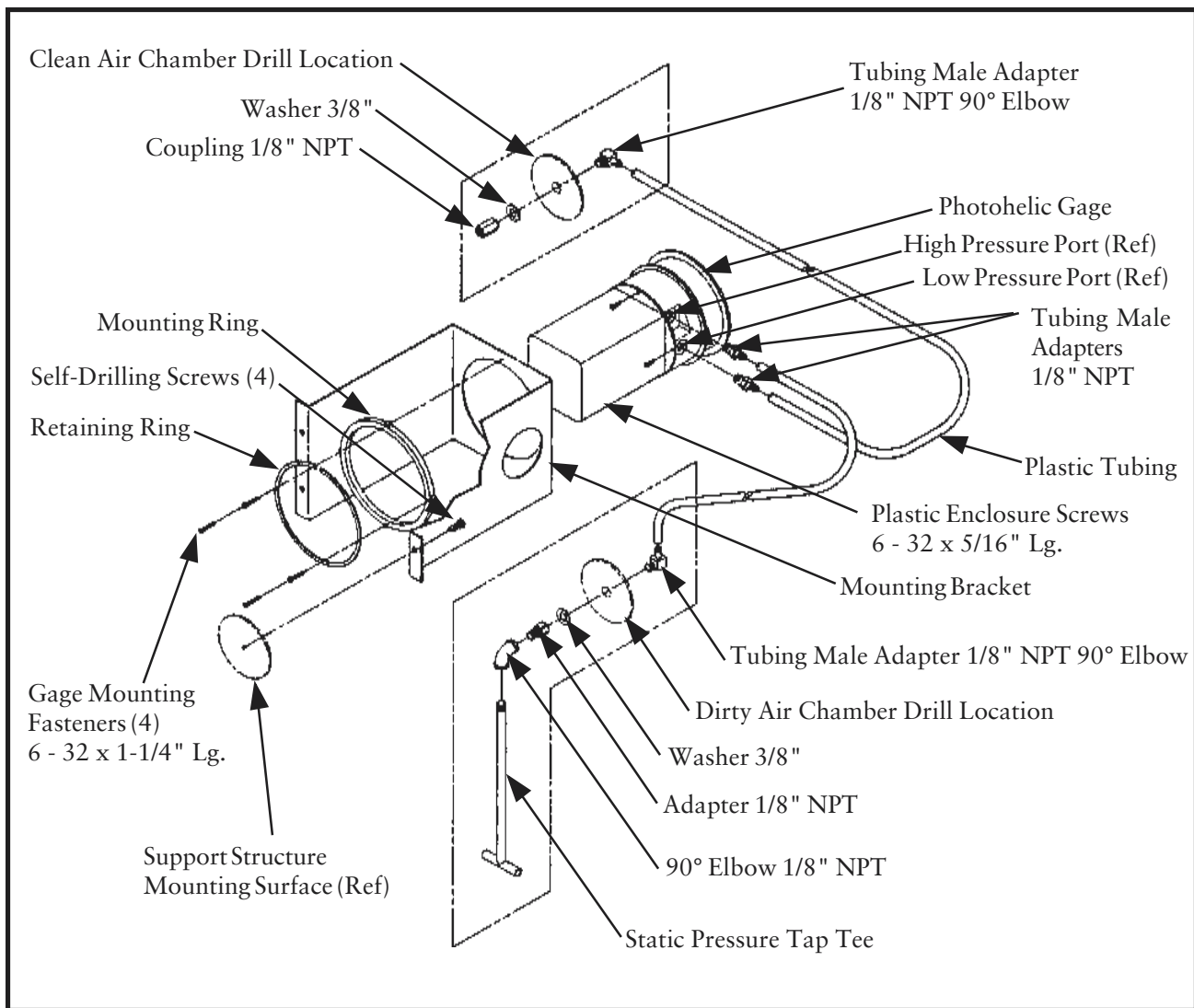


Figure 7
Installation of Photohelic Gage

2.6.3 Photohelic Gage (See Figures 1, 7, and 8)

The Photohelic gage is an optional feature on the Trunk 2000 collector. However, the pressure taps on the Trunk 2000 have been preinstalled in our factory.

1. After unpacking the Photohelic parts, choose a convenient, visible, and accessible location on or near the unit for mounting the gage.
2. Mount the gage to the panel with mounting ring, retaining ring, and four (4) #6 - 32 x 1-1/4" long screws. Before tightening the screws, assemble the two (2) 1/8" NPT x 1/4" OD. male tube adapters supplied with the gage into the openings on the side of the gage marked high or low pressure. Align gage so that the two (2) 1/8" NPT male tube adapters and the 2.375" hole diameter in the mounting bracket are in line and then tighten the four (4) #6 - 32 x 1-1/4" long screws.

- Remove the four (4) #6 - 32 x 5/16" long screws and the plastic enclosure on back of the Photohelic gage and set aside. Add the two jumper wires (not supplied by Torit) and wire gage as shown in Figure 8, Photohelic Gage Wiring Diagram using 3/4" conduit opening. Reassemble plastic enclosure and fasten securely using the #6-32 x 5/16" long screws previously removed.

CAUTION

Lock out all electrical power sources before working on the electrical controls of this equipment.

- Locate the Photohelic gage and mounting bracket assembly for the best visual advantage. The plastic tubing will determine the maximum distance away from the collector that the mounting bracket and gage can be located (35 ft. is supplied). Remember that the tubing will have to be cut and that one piece may be longer than

the other. If more tubing is required, please contact your local Torit representative. Once the mounting bracket assembly position is determined, mount this assembly to the supporting structure using the two self-drilling screws.

- Connect the tubing to the high pressure and low pressure port fittings located on the Photohelic gage. The high pressure port tubing is attached to the pressure fitting mounted in the dirty air chamber. The low pressure port is attached to the fitting in the clean air chamber. See Figure 7, Installation of Photohelic Gage.
- Zero and maintain Photohelic gage per operating and maintenance instructions provided by the manufacturer of the Photohelic gage.
- Refer to Figure 8, Photohelic Gage Wiring Diagram for the proper wiring of the Photohelic gage.

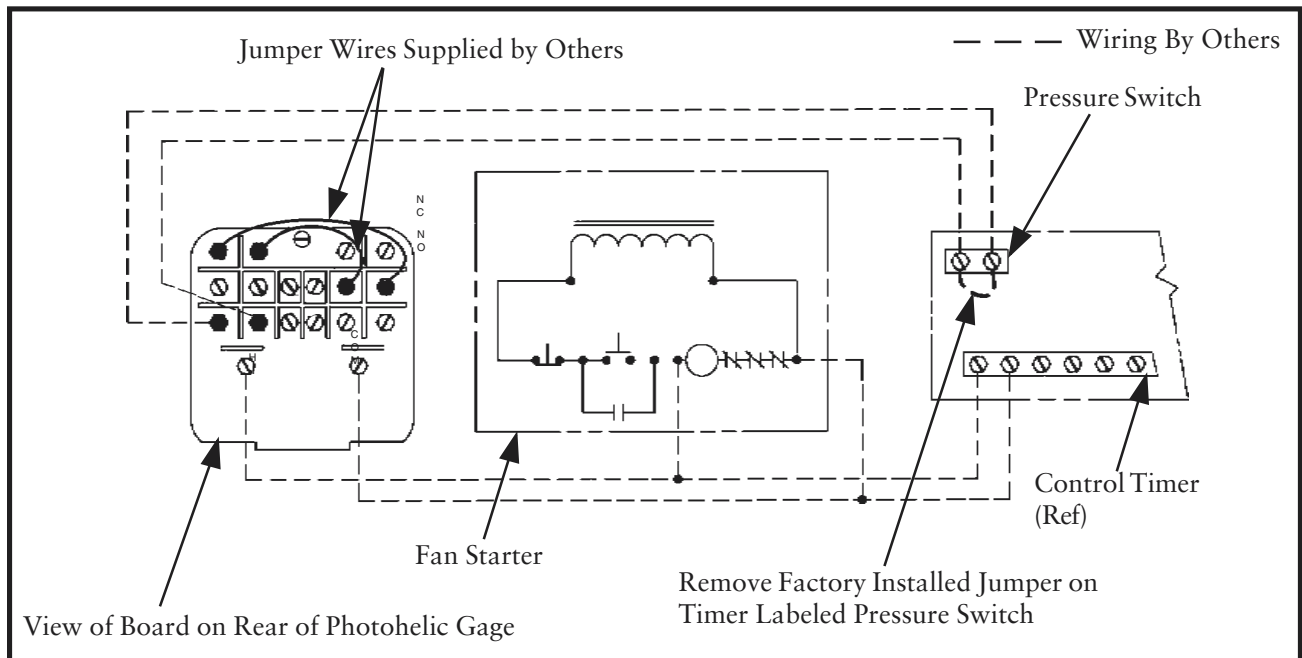


Figure 8
Photohelic Gage Wiring Diagram

2.6.4 Solenoid Mufflers

The solenoid mufflers are used to help decrease the noise created by pulse cleaning and are available as optional equipment.

2.6.5 Sprinkler Head

One 3/4" NPT horizontal sprinkler head comes factory installed on the T-2000. The sprinkler head is located on the dirty air side section of the unit. Fume contamination may accumulate on the sprinkler head, therefore, monthly inspection is recommended to prevent malfunction in case of a fire. The sprinkler head should be changed annually per the manufacturer's recommendations. The shut-off valve is supplied and installed by others to control the water supply.

CAUTION

- When collecting combustible materials such as buffing lint, paper, wood, aluminum or magnesium dust, or weld fume, a fire risk may exist.
- Use care in selecting the installation location for dust collection equipment and follow all appropriate national and local fire codes.
- Torit equipment does NOT include fire prevention equipment.
- Provide fire protection water supply before operating per local building code.

2.7 Electrical Installation (See Figures 1 and 9)

CAUTION

All electrical work must be done by a qualified electrician in accordance with local codes.

Mount the Trunk 2000 control box(es) and fan starter switch(es) in a safe, convenient location. Install conduit and wire up to the collector(s). The disconnect fuses, magnetic fan starter, and optional control switch 1TGS are to be supplied by others. All electrical apparatus should be properly sized for the required voltage. The fan starter should contain a low voltage control circuit.

Use the wiring diagrams in Figure 9, Wiring Diagram (and inside the control box) to connect the blower motor, motor starter, lights, solid-state control timer, solenoid valves, and the control switch (or optional Photohelic gage if used). In grounded systems, neutral to control box must be connected to L₂ of control box terminal board.

CAUTION

Lock out all electrical power sources before working on the electrical controls of this equipment.

2.7.1 Electrical Operation (See Figures 1 and 9)

Each Trunk 2000 collector is equipped with two 115 VAC solenoid valves that control the pulse cleaning valves. The DIN connector of the solenoid valve has two power leads and a ground connection.

The 7- and 14-foot Flex-Trunks have a 12V, 65-watt halogen light located in each hood.

Both the 12V and 115V power to the collector are supplied from the Torit control box. The control box can be mounted where it is convenient to the user.

NOTE

When final light wiring connections are made at the collector, allow enough slack for free rotation and motion of the trunk.

The 115 VAC timer in the control box controls the solenoid valves. Total power requirement of the control box is 130 watts, including the two 65-watt halogen lights, one in each Flex-Trunk hood.

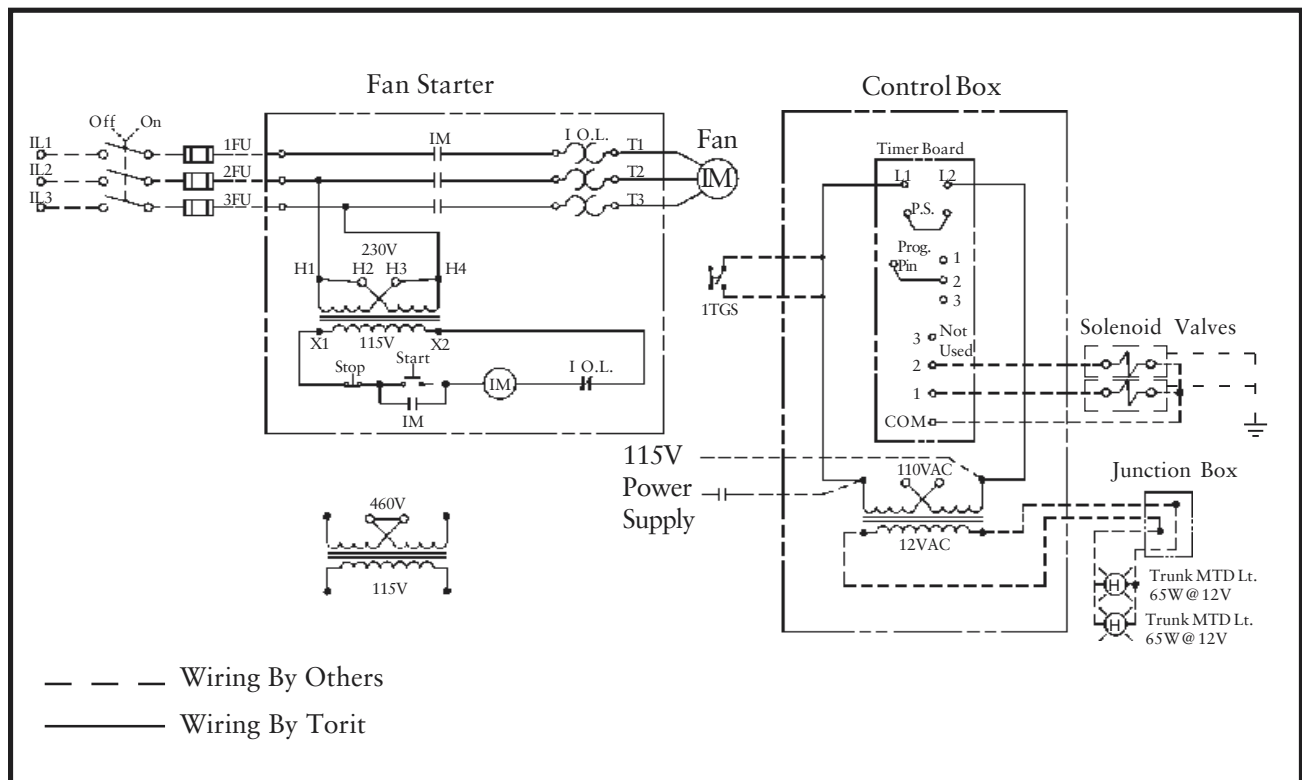


Figure 9
Wiring Diagram

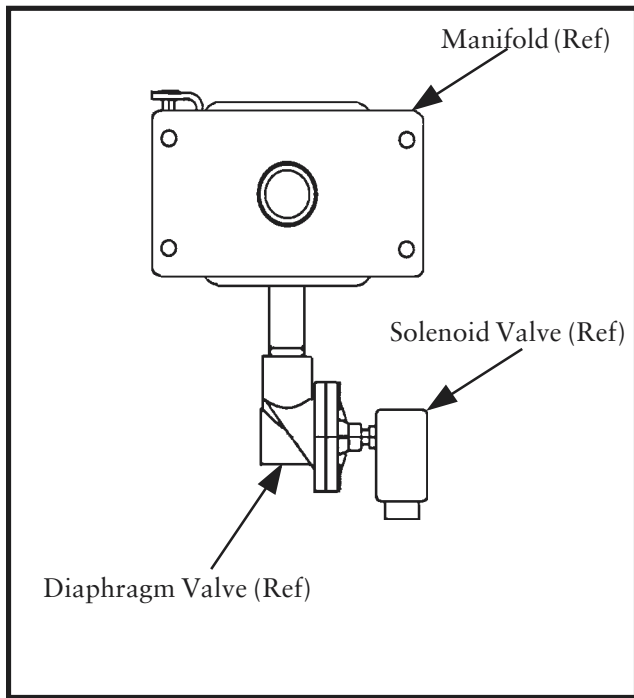


Figure 10
Solenoid Valve Location

2.7.2 Solid-State Control Timer Specifications (See Figures 1 and 11)

Optional Switch 1TGS: Closure of switch 1TGS applies power to the timer control circuit board, which is in parallel with the low voltage coil of the fan magnetic starter. Supplying power initiates the control board's preset OFF time. At the end of the OFF time, the control will energize a solenoid to provide the cleaning pulse for one segment of filter elements, and then step to the next segment. This cycle continues until the T-2000 fan starter is turned off or an auxiliary switch (not supplied) opens, unless an auxiliary control such as a Photohelic pressure switch is used to control the timer pressure switch circuit. Make sure that the programming pin on the control board is located on the correct number of solenoid valves being used. See Figure 9, Wiring Diagram.

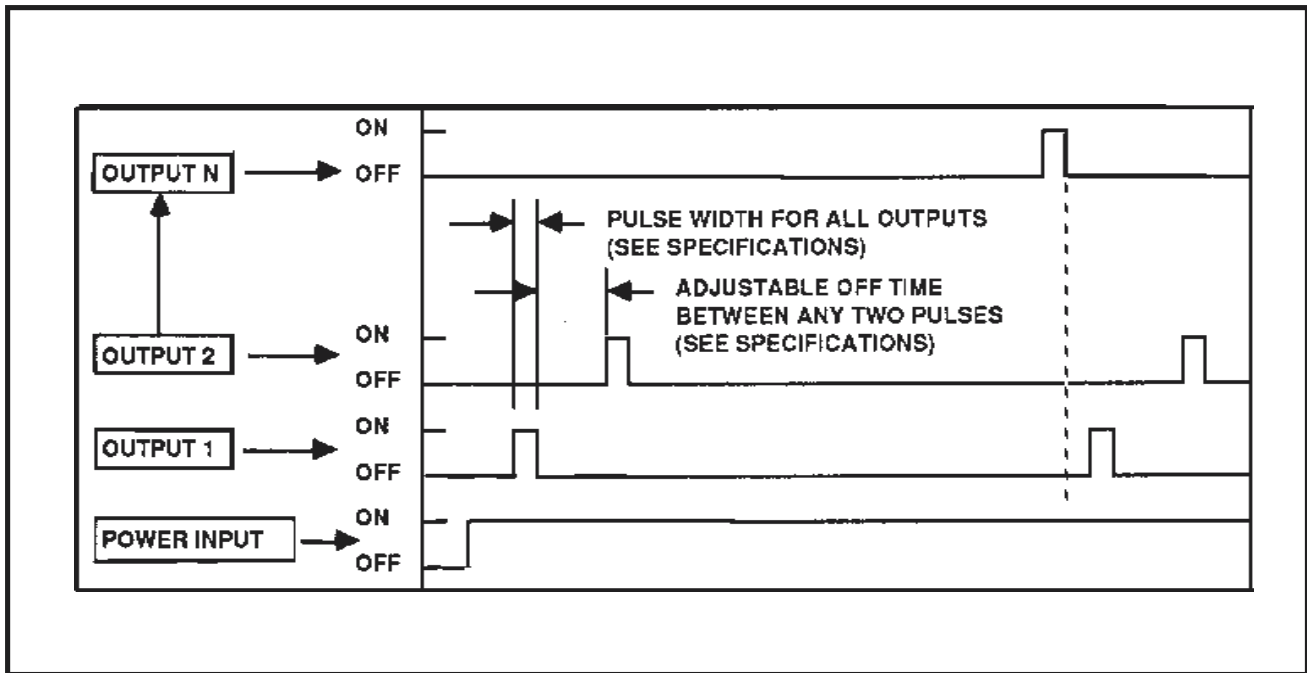


Figure 11
Operating Logic Diagram

Input: 105 - 135 VAC/50 - 60 Hz

Output: Solid-state switch (Triac). The load is carried by and turned on and off by the Triac. 200 watts maximum load per output.

Pulse Width (ON Time): Factory set at 100 milliseconds (1/10 second).

OFF Time: Adjustable from 1 to 1.5 seconds minimum, 60 to 66 seconds maximum, factory set at 10 seconds.

NOTE

- Do not adjust ON time unless the proper test equipment is used. Too much or too little ON time can cause shortened filter element life.
- Too short of an OFF time may cause loss of manifold pressure, resulting in shortened filter life.

Operating Temperature Range: -20° to +130°F.

Transient Voltage Protection: 50 kW transient volts for 20-millisecond duration once every 20 seconds, 1% duty cycle.

Solenoid Valves: 120 VAC coil with a NEMA 4 rated DIN socket with 1/2 conduit fitting. It is rated at 15 watts. The solenoid valve is part of an integral 3/4" diaphragm valve assembly. See Figure 10, Solenoid Valve Location.

2.8 Compressed Air Supply Installation (See Figure 1)

NOTE

- It is important that the compressed air supply be both oil and moisture free. Contamination in the compressed air that is used to clean filter elements will result in poor cleaning or cleaning valve failure and a loss in collector performance.
- Before connecting air lines to air manifold, purge air lines to remove debris.

CAUTION

Shut off and bleed off compressed air supply before doing any service work.

Remove the plastic pipe plug from the end of the dust collector compressed air manifold and connect the compressed air supply line. Use thread-sealing tape or pipe sealant on all compressed air connections. An appropriate compressed air shut off valve, bleed type regulator and gauge, filter, and automatic condensate valve (supplied by others) should be installed in the air supply line. Locate these components for convenient service, start-up and shut down of the Trunk 2000. See Figure 1, Typical Installation.

Be sure that all compressed air components are adequately sized to meet the maximum system requirements of 1.1 scfm per pulse at 90 psig supply pressure.

3.0 Prestart-Up Check (See Figure 1)

CAUTION

Check to be sure air exhaust plenum is free of tools, debris, etc., while checking fan rotation. Stand clear of exhaust.

4.0 Start-Up

1. Start, then stop, the blower motor and visually check rotation. Rotation should be clockwise when viewed from the end panel location (top of motor). If rotation is counterclockwise, reverse by changing any two wire leads to motor (3-phase only). See Section 2.7, Electrical Installation.
2. Turn on air supply to the air manifold and adjust pressure to 60 psig. See Section 5.0, Operating Adjustments.
3. Start blower motor and check operation of the solenoid valves. With the Pulse Control switch (1TGS, if used) ON, the valves should open and close continuously with a factory set ON and OFF time between each pulse.
4. Periodically check the pressure drop. For longest element life, they should be cleaned before the pressure drop reaches 5-inches wg on the gauge. Equilibrium pressure drop is generally 3 to 5-inches wg.

5.0 Operating Adjustments

To minimize air consumption, higher compressed air pressure is allowable only if equilibrium pressure drop exceeds 5-inches. Increase compressed air pressure in 10 psig increments. Allow time for pressure drop to stabilize after each 10 psig increase.

NOTE

- **DO NOT** increase the air pressure above 100 psig. Filter damage may result.
- **Less than 3 seconds between pulses will cause lack of compressed-air supply to manifold and a loss of cleaning pressure.**
- **DO NOT** increase or decrease the on-time length of pulses. Longer pulses *do not* aid cleaning, they simply waste compressed air and shorten filter life. Shorter pulses will not deliver enough energy to clean the filters.

The control timer is factory set to clean a pair of elements every 10 seconds. Pressure drop can often be lowered by increasing the frequency of cleaning. The minimum time between pulses is 3 seconds.

Torit recommends pulse cleaning the collector during work hours and with the fan operating. However, if the user prefers to control when the unit will pulse, the control switch 1TGS provides a means of doing this. See Figure 8, Wiring Diagram and reference Section 2.7.2, Solid-State Control Timer Specifications. The control box receives power only when the fan is operating. Control switch 1TGS is operated manually. Contact your Torit representative if you have questions on this type of operation.

6.0 Service

6.1 Filter Element Removal (See Figure 12)

CAUTION

Disconnect and lock out the electrical power and shut off and bleed the compressed air supply before servicing any portion of the collector.

1. Remove access covers by unscrewing the knobs counterclockwise by hand. Covers are hinged and will swing out of the way without falling.
2. Move the filters to break the gasket seals between the filters and the tubesheet sealing surfaces. Rotate the element slowly 1/2 turn to dump any loose dust off the top of the filter element. Slide the filter element along the suspension yoke and out the front of the collector access port.

CAUTION

- Dirty filters may be heavier than they appear. Use care when removing to avoid personal injury.
- DO NOT DROP FILTERS.

NOTE

- Do not drop or rap element on the floor or other hard surface, as damage to the filter element will occur, resulting in leakage.
- It is necessary to clean the dust off the gasket sealing area to ensure a positive seal of filter gasket.

3. Inspect tubesheet to make sure the gasket sealing area is free of dust.
4. Check if there is an accumulation of dust in storage area. If cleaning is required, see Section 6.3, Dust Removal.

6.2 Filter Element Replacement (See Figure 12)

NOTE

Place filter part number label (supplied with each replacement filter) over the filter part number listed on the unit's rating plate.

NOTE

- Filter element gasket end on all the filters must be inserted first, facing inward toward the clean air section or severe leakage will occur.
- Check to make sure that the access cover knobs are securely tightened, as lack of compression of the filter gaskets can cause leakage.

1. Slide two new Torit Ultra-Web II FR, flame retardant filter elements onto each suspension yoke.
2. Wipe off access cover gaskets and reinstall the access covers by turning knob clockwise onto suspension yoke threads until tightened securely by hand.
4. Clean out the dust storage area, see Section 6.3, Dust Removal.
3. The Trunk 2000 is now ready to start. Turn the electrical power ON and open the compressed-air supply before starting the Trunk 2000.

6.3 Dust Removal

CAUTION

Disconnect and lock out electrical power and shut off and bleed the compressed air supply before servicing any portion of the collector.

6.3.1 Standard Bottom Pack

1. Remove the access covers and the filter elements as detailed in Section 6.1, Filter Element Removal.
2. Remove the dust with a dry sweeper or brush and dispose of dust in an outside container.
3. Replace filters as detailed in Section 6.2, Filter Element Replacement.
4. The Trunk 2000 is now ready to start. Turn electrical power ON and open compressed-air supply before starting the Trunk 2000.

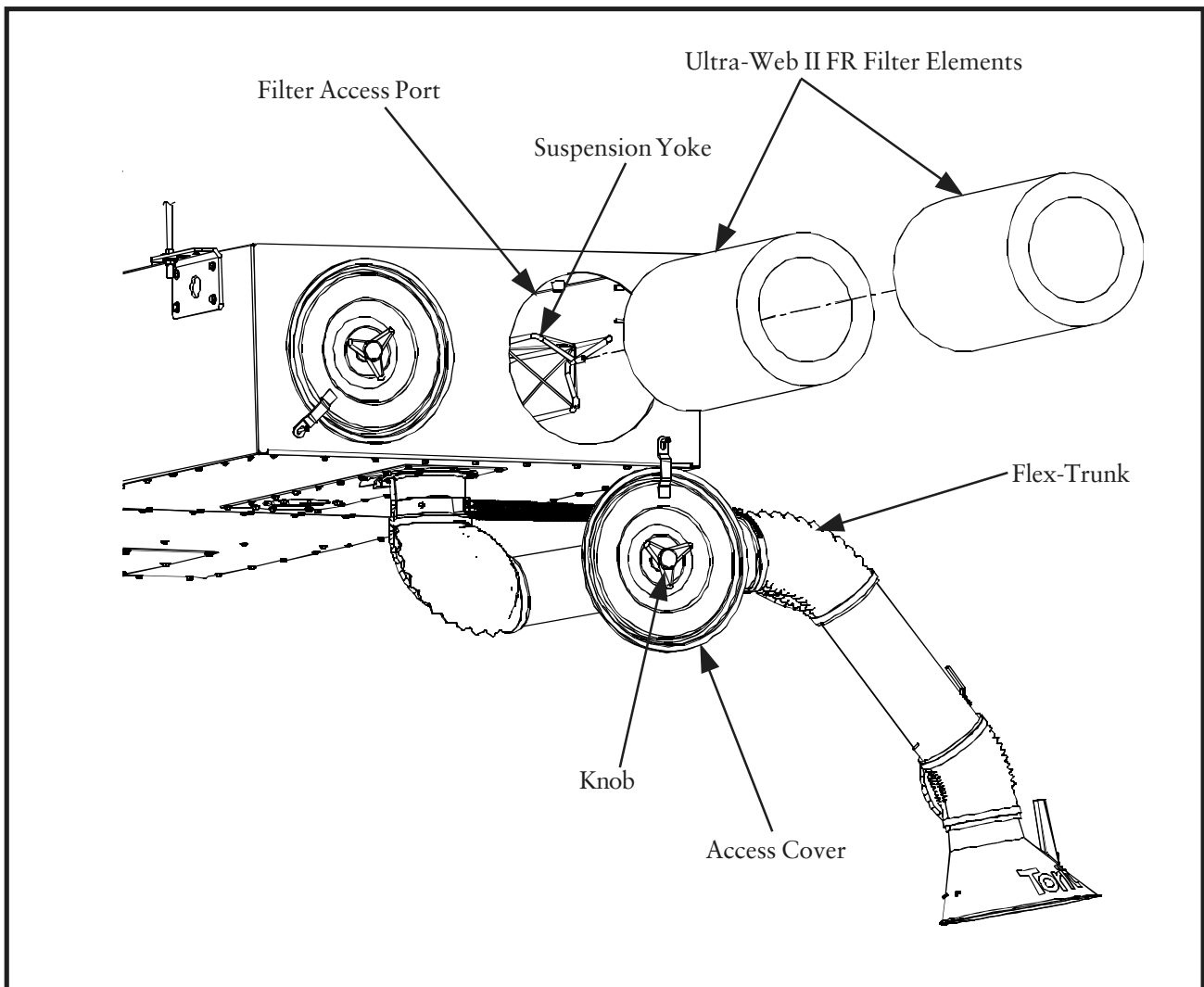


Figure 12
Filter Element Replacement

6.3.2 Hopper Bottom Pack

CAUTION

Disconnect and lock out electrical power and shut off and bleed the compressed air supply before servicing any portion of the collector.

1. Follow Step 1 through Step 3 in Section 6.3.1, Standard Bottom Pack.
2. Remove the four (4) dust pans and empty them. The dust pans should be emptied and cleaned either every week for light-to-medium applications or every other day for heavy applications.

CAUTION

The full dust pan may weigh up to 45 pounds. Use care when removing.

3. Inspect the fold-out gasket for any wear that would cause a leak during operation.
4. Clean the baffle re-entrainment with a dry brush or dry putty knife, depending on the fume or dust properties.
5. Inspect the draw latches for any breakage, deformities, or wear and replace if necessary.
6. Reinstall the dust pans.
7. The Trunk 2000 is now ready to start. Turn electrical power ON and open compressed-air supply before starting the Trunk 2000.

6.4 Original Equipment Filter Element (See Replacement Parts List)

The Torit Ultra-Web FR, flame retardant filter element is the only replacement filter that will provide the high level of performance that you expect from your investment in the Torit Trunk 2000 collector.

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
<p>A. Blower wheel and motor do not start.</p>	<p>1. Wiring.</p> <p style="padding-left: 20px;">a. Proper wire size not used for motor.</p> <p style="padding-left: 20px;">b. Not wired correctly.</p> <p style="padding-left: 20px;">c. Unit not wired for available voltage.</p> <p style="padding-left: 20px;">d. Input circuit down.</p>	<p>1a. Rewire per local and national codes for proper wire size.</p> <p>1b. Check and correct internal motor wiring for proper connections for your voltage. Reference Motor Manufacturing diagram on motor.</p> <p>1c. Correct wiring for proper input voltage.</p> <p>1d. Check input to motor circuits for voltage on all leads.</p>
<p>B. Blower wheel and motor start, but do not keep running.</p>	<p>1. Starter kicks out.</p> <p style="padding-left: 20px;">a. Incorrect starter heater elements are installed.</p> <p style="padding-left: 20px;">b. Collector access covers are off or not closed tight.</p> <p style="padding-left: 20px;">c. Flex-Trunks are not installed onto the Trunk 2000.</p>	<p>1a. Check for proper motor starter heater elements. Replace with proper value heater elements if needed.</p> <p>1b. Tighten access cover(s) by hand securely. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement.</p> <p>1c. Install the Flex-Trunks onto the T-2000 inlet panel. Reference either the Flex-Trunk Installation and Operation Manual (IOM-40779-00) or the AEX Plus/Flex-Trunk Plus Extraction Arm Installation and Operation Manual (IOM-75366-01).</p>

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
<p>C. Dust discharge out of clean air outlet.</p>	<ol style="list-style-type: none"> 1. Filter elements installed improperly. 2. Filter element damage, dents in the end caps, gasket damage, or holes in pleated media. 3. Access cover(s) loose. 	<ol style="list-style-type: none"> 1. Check that gaskets on the filter element(s) are facing into the cabinet first. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement. 2. Replace the filter elements. Use only Torit Ultra-Web II FR filter elements. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement. 3. Tighten access cover knob(s) securely. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement.
<p>D. Insufficient airflow.</p>	<ol style="list-style-type: none"> 1. Motor and fan rotation are backwards. 2. Collector openings not tight or closed. 	<ol style="list-style-type: none"> 1. Check fan rotation by removing the clean air plenum access panel. The fan rotation should be clockwise, looking at the top of the motor. See Section 1.1, Operational Explanation and Figure 2, Operational Schematic. 2. Check access covers to make sure they are in place and tightened securely. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement.

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
D. Insufficient airflow (contd).	3. Fan exhaust area is restricted.	3. Check fan exhaust area for blockage. Remove material or debris that is blocking the fan exhaust area.
	4. Filter elements plugged with particulate.	4a. Remove and replace using only Torit Ultra-Web FR filter elements. See Section 6.2, Filter Element Replacement, Figure 12, Filter Element Replacement, and Replacement Parts List.
	a. Filter elements need to be replaced.	
	b. Lack of compressed air.	4b. Check compressed air supply for 60 psig minimum. Increase pressure as described in Section 5.0, Operating Adjustments and see Figure 2, Operational Schematic.
	c. Pulse cleaning not energized.	4c. Check that voltage to solid-state timer is on. See Figure 9, Wiring Diagram.
d. Dust storage area is overflowing.	4d. Clean out dust storage area as described in Section 6.3, Dust Removal. See Section 6.2, Filter Element Replacement and Figure 12, Filter Element Replacement.	

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
D. Insufficient airflow (contd).	5. Flex-Trunks are blocked.	5a. Check that the damper control(s) are open. The damper handle should be located in line with the Flex-Trunk rigid tubing. This is the wide open position.
	a. Damper control in Flex-Trunk(s) is closed.	5b. Remove the flexible tubing on joint(s) and inspect the tubing passages for debris. Remove debris and reinstall flexible tubing. For Flex-Trunk, see IOM-40779-00, Flex-Trunk Installation and Operation Manual and RPL-40780-00 Flex-Trunk Replacement Parts List. For Flex-Trunk Plus, see IOM-75366-01, AEX Plus/ Flex-Trunk Plus Extraction Arm Installation and Operation Manual.
	b. Debris is blocking airflow in the Flex-Trunk.	6. Check and replace any tubing that is collapsed or damaged.
6. Flex-Trunk rigid ducting and/or flexible joint tubing is damaged.		

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
D. Insufficient airflow (contd).	<p>7. Pulse valves are not functioning.</p> <p>a. Pulse valves are leaking compressed air.</p> <p>b. Pulse control timer board has failed.</p> <p>c. Pulse control timer board is out of adjustment.</p>	<p>7a. Lock out all electrical power to the T-2000, and bleed off the compressed air supply. Remove the clean air access panel. Check for debris, valve wear, or diaphragm failure by removing the diaphragm cover on the pulse valve and inspect. Also check for solenoid leakage and/or damage. If pulse valves or solenoid valves are damaged, replace part(s). Refer to Replacement Parts List.</p> <p>7b. Check with a volt ohm meter that the timer board has supply voltage and that the fuse on the control board is okay. If the fuse is blown, replace it with one of equal value. If the fuse and input power to the control board are okay, but there is not any output voltage to the solenoid pulse control valves, replace the pulse control timer board. See Section 2.7.2, Solid-State Control Timer Specifications, Figure 11, Operating Logic Diagram and the Replacement Parts List.</p> <p>7c. Refer to the Section 2.7.2, Solid-State Control Timer Specifications.</p>

7.0 TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
<p>E. Flex-Trunk will not remain in desired set position or is difficult to move.</p>	<p>1. Friction joints too loose or too tight.</p>	<p>1. Reference either the Flex-Trunk Installation and Operation Manual (IOM-40779-00) or the AEX Plus/Flex-Trunk Plus Extraction Arm Installation and Operation Manual (IOM-75366-01).</p>
<p>F. Flex-Trunk light does not light.</p>	<p>1. Light bulb has burned out or loose wire connections.</p>	<p>1. Reference either the Flex-Trunk Installation and Operation Manual (IOM-40779-00) or the AEX Plus/Flex-Trunk Plus Extraction Arm Installation and Operation Manual (IOM-75366-01).</p>
<p>G. Flex-Trunk is difficult to rotate from side to side or binding, causing joint failure.</p>	<p>1. Swivel collar mount lacks lubrication or is binding because of particulate in moving parts.</p>	<p>1. Reference either the Flex-Trunk Installation and Operation Manual (IOM-40779-00) or the AEX Plus/Flex-Trunk Plus Extraction Arm Installation and Operation Manual (IOM-75366-01).</p>

Notes

The Donaldson Torit Warranty

Donaldson Company, Inc. warrants to the original purchaser that for a period of ten (10) years from the date of shipment, the product described herein shall be free from defects in materials and workmanship if properly installed, maintained and operated under normal conditions. Donaldson Company makes no warranty against damage due to corrosion, abrasion, normal wear and tear, modification or misapplication and makes no warranty whatsoever as to any goods manufactured or supplied by others. After Donaldson Company has been given adequate opportunity to remedy any defects in material or workmanship, Donaldson Company retains the option to accept the return of the product, with return freight paid by the purchaser, and to refund the purchase price for the product after confirming the product is returned undamaged and in usable condition. Such a refund will be the full extent of Donaldson Company's liability and Donaldson Company shall not be liable for any other costs, expenses or damages whether direct, indirect, consequential or otherwise. The terms of this warranty may be modified only by a special warranty document signed by a Director, General Manager or Vice President of Donaldson Company. Failure to use genuine Donaldson replacement parts will cancel this warranty. THERE EXIST NO OTHER REPRESENTATIONS, WARRANTIES OR GUARANTEES EXCEPT AS STATED IN THIS PARAGRAPH AND ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.

Parts and Service

For genuine Donaldson Torit replacement filters
and parts, call the Parts Express Line

800-365-1331 USA

800-343-3639 within Mexico

www.donaldsontorit.com

For faster service, have unit's model and serial number,
part number, description, and quantity available.



Donaldson
Filtration Solutions

Donaldson Company, Inc.
Industrial Air Filtration
P.O. Box 1299
Minneapolis, MN 55440-1299
dustmktg@mail.donaldson.com

Donaldson Company, Inc. is the leading designer and manufacturer of dust, mist, and fume collection equipment used to control industrial-air pollutants. Our equipment is designed to help reduce occupational hazards, lengthen machine life, reduce in-plant maintenance requirements, and improve product quality.