



Thermoscreens

TX AIR CURTAIN INSTALLATION, OPERATION & MAINTAINANCE ORIGINAL INSTRUCTIONS

LANGUAGE: ENGLISH

Important Information

Electrical Supply and Wiring to the Air Curtain

All electrical wiring and connections **MUST** be carried out by a competent qualified electrician in accordance with the latest edition of wiring regulations and local statutory codes/regulations if applicable.

- A local isolator having a contact separation of at least 3mm on all poles must be fitted in the electrical supply to the air curtain and located in an accessible position adjacent to the unit.
- All supply cables, circuit breakers and other electrical installation equipment must be correctly sized for the air curtain model being installed – refer to Technical Specifications section.
- The air curtain must be earthed.

CAUTION – Some parts of this product can become hot and cause burns and has moving parts. Particular attention has to be given where children and vulnerable people are present

WARRANTY

This unit is covered by a one year warranty. Failure to adequately maintain the unit may void the warranty. If any problems are encountered, please contact your installer/supplier. Failing this please contact the Thermoscreens warranty department. Care has been taken in compiling these instructions to ensure they are correct. Thermoscreens Ltd. disclaims all liability for damage resulting from any inaccuracies and/or deficiencies in this documentation. Thermoscreens Ltd. retain the right to change the specifications stated in these instructions.

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Established in the 1960s, Thermoscreens is a leading air curtain manufacturer that exports to over 60 countries worldwide. As with all our products, the TX range of air curtains is designed with energy efficiency in mind. The units are designed to be surface mounted inside a building and located horizontally over a doorway. They must not be installed on the outside of a building or built into a cabinet or recessed in any way.

Please complete the following details for your reference:

Date of Purchase:
Place of Purchase:
Serial Number:

Proof of purchase is required to make a claim under warranty.

SIGN OFF

Complete the following once commissioning is completed:

Installer signature		Customer signature	
Installer name		Customer name	
Installer company		Customer company	
Date		Date	

Instruct customer and hand over

Before leaving site, hand over the installation to the customer/end user or their representative.

Explain that any person operating the air curtain must be given supervision and instruction by the person responsible for their safety, concerning the safe use of the unit and to understand any hazards involved. This appliance can be used by children aged from 8 years and above and persons with

reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall only be done by competent people.

Recommend that the doorway should be closed whenever possible but that during times of high pedestrian use it will become an 'open doorway'. The air curtain then serves an essential purpose by saving energy and providing comfort to occupants.

Explain that the inlet grilles must be cleaned regularly and the unit serviced at schedule intervals – see section 'Service & Maintenance'.

NOTE: Leave these instructions with the customer/end user or their representative

DELIVERY CONTENTS

The following items are supplied in the box at delivery. Any missing or damaged parts should be reported to the place of purchase:

- TX Surface Mounted Air Curtain
- Infrared Remote Control
- Mounting Brackets

TRANSPORT, STORAGE AND DISPOSAL

The product must be stored in a dark, dry, frost free and well ventilated place out of the reach of children. Storage temperatures should be within those specified in the Technical Specifications section. The original packaging should be used for long term storage.

Prior to transporting the product, it should be removed and stowed safely so as to not incur damage. The original packaging should be used wherever possible and the product should be protected from any significant temperatures, moisture or vibration.

This product will offer many years of service when used and maintained in line with these instructions. When the product does need to be disposed of please recycle the product where facilities exist. Waste electrical products should not be disposed of with household waste.

INSTALLATION

The air curtain is designed to be located horizontally over a doorway. It must not be installed outside of the building.

Location

Mount the air curtain above and as close to the doorway as possible, with:

- the discharge grille not more than 9' or less than 6' above floor level
- at least 3.5' clearance (air gap) above the air curtain, see Fig 1

Beware of doorway top edges, structural beams, door opening/closure devices, etc., which may interfere with the air stream and affect the location of the unit.

For the air curtain to work well the width of the open doorway should be less than the length 'A' of the air curtain, see the 'Mechanical Drawing' section. Where the doorway is wider multiple units should be placed side by side with a 1 inch gap as show in Fig 2.

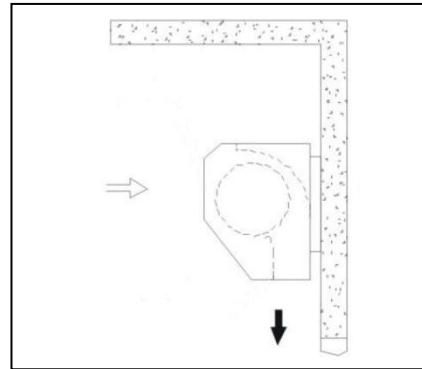


Fig 1

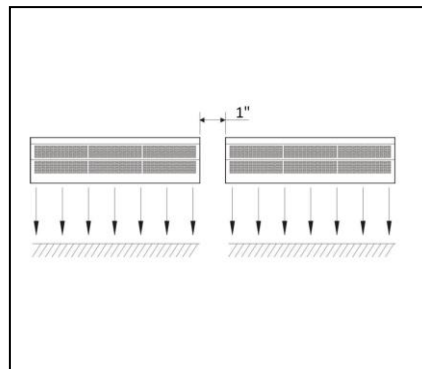


Fig 2

Wall Fixing (using included wall brackets)

NOTE: Use suitable wall fixings (not supplied) to fix the unit to the wall, taking into account the type of wall and the weight of the unit.

- Step 1** Remove the mounting bracket from the product by undoing the fixing bolts.

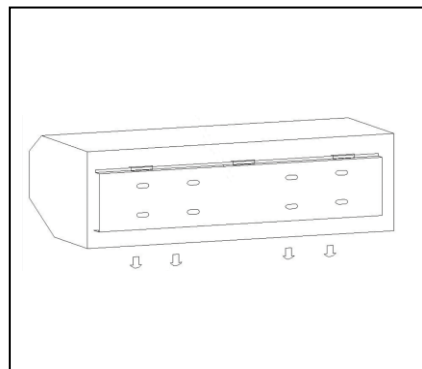


Fig 3

Step 2 Drill and bolt the wall bracket to the wall, using suitable fixings referring to the table below for correct position.

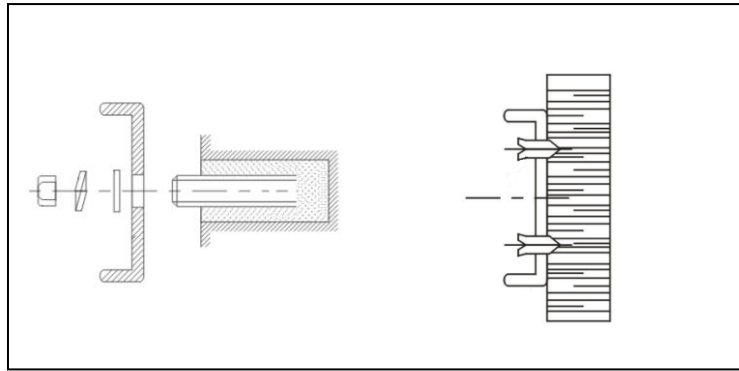


Fig 4

Step 3 Tighten all fixing bolts until the air curtain is safely secured to the wall.

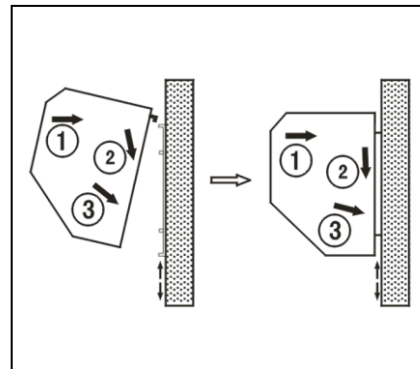


Fig 5

Step 4 Fix the magnetic door switch to the door and frame using the provided screws and wire into the air curtain unit

Step 5 Plug the product into the power receptacle

Ceiling Suspension

An angle bracket (supplied) should be used to suspend the unit from the ceiling.

Suspend the unit from the ceiling as follows:

Step 1 Fix the angle brackets to the ceilings using suitable fixings. The number of brackets should be chosen to match the number of holes in the air curtain mounting bracket.

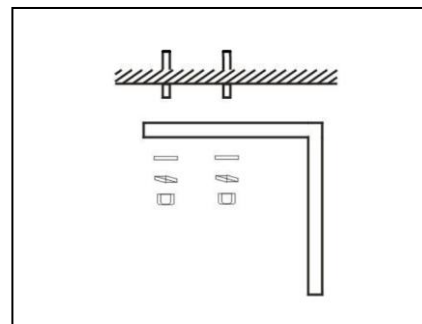


Fig 6.

Step 2 Fix the air curtain mounting bracket to the angle brackets. The height can be adjusted by up to 3.5 inches.

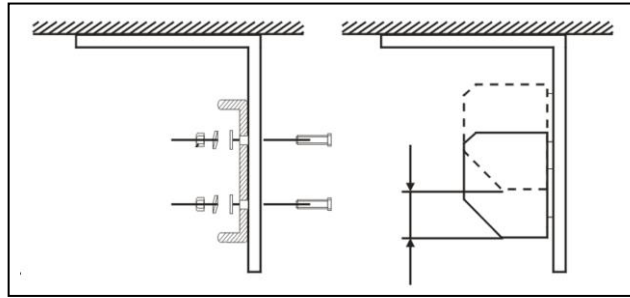


Fig 7.

Step 3 Hook the air curtain onto the mounting bracket as shown.

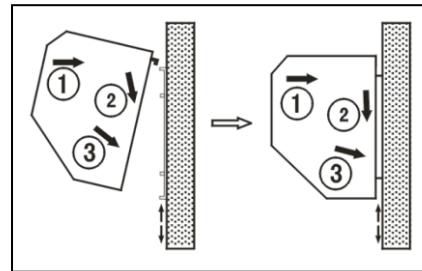


Fig 8.

Step 4 Fix the magnetic door switch to the door and frame using the provided screws and wire into the air curtain unit

Step 5 Plug the product into the power receptacle

WARNING: It is the sole responsibility of the installer to ensure that the fixing locations and suspension system used are suitable for the air curtain being installed.

COMMISSIONING THE SYSTEM

Verify system operation

To commission the system, verify the following conditions are met:

- The fans work when operated from the remote.
- Fans operate at low and high speeds.
- There is no excessive mechanical noise coming from the fans.
- The unit switches on when the door is opened and off when the door is closed

FAULT CONDITIONS

Overheat Safety cut-out

The air curtain is equipped with a thermal protective device that will trip if the unit over heats, causing the fan to stop turning. Should this activate, unplug the device and allow it to cool down for a minimum of 3 hours.

Investigate the cause of the overheating and reconnect the device when the cause has been fixed.

If the thermal protective device keeps overheating then contact Thermoscreens or an authorised reseller.

SERVICE & MAINTENANCE

WARNING: Failure to adequately maintain the unit and provide a suitable cleaning schedule will result in a loss of performance and reduced life expectancy of the air-curtain and possible overheating.

Every week

NOTE: Weekly maintenance can be carried out by the Cleaner or Janitor from floor level.

Turn off the air curtain to prevent entry of dust then clean the face of the air inlet grilles using a vacuum cleaner with an extension tube and brush.

Every 6 months

WARNING: Before servicing, and disconnect the air curtain from the electrical power outlet.

WARNING: The following servicing and maintenance must be carried out by a competent person or a Thermoscreens appointed technician.

Clean and inspect the inside of the air curtain as follows:

- Step 1** Unscrew the device from the mounting bracket above the door way.
- Step 2** Open the casing to gain access to the internals.
- Step 3** Clean and remove any build-up of dust and dirt within the air-curtain (inlet/outlet grilles, fan impellers, housings and motors) using a vacuum cleaner and soft brush.

NOTE: Build-up of dirt on fan impellers can cause vibration, noise and excessive wear on the motor bearings.

Step 4 Check within the unit to ensure all electrical connections and crimped terminals are tight and that all cables are in good condition.

Reinstall the air curtain and secure it to the mounting bracket after servicing. Reconnect electrical supply and test to ensure correct operation (Commissioning).

TECHNICAL SPECIFICATIONS

Electrical Data

Air Curtain Model No	Electrical Supply (V/ph/Hz)	Rated Electrical Power Input (W)	Heat Output [Low/High] (kW)	Weight (lb)
TX36AFAL006D	120/1/60	380	-	30
TX48AFAL006D	120/1/60	530	-	37
TX60AFAL006D	120/1/60	690	-	46

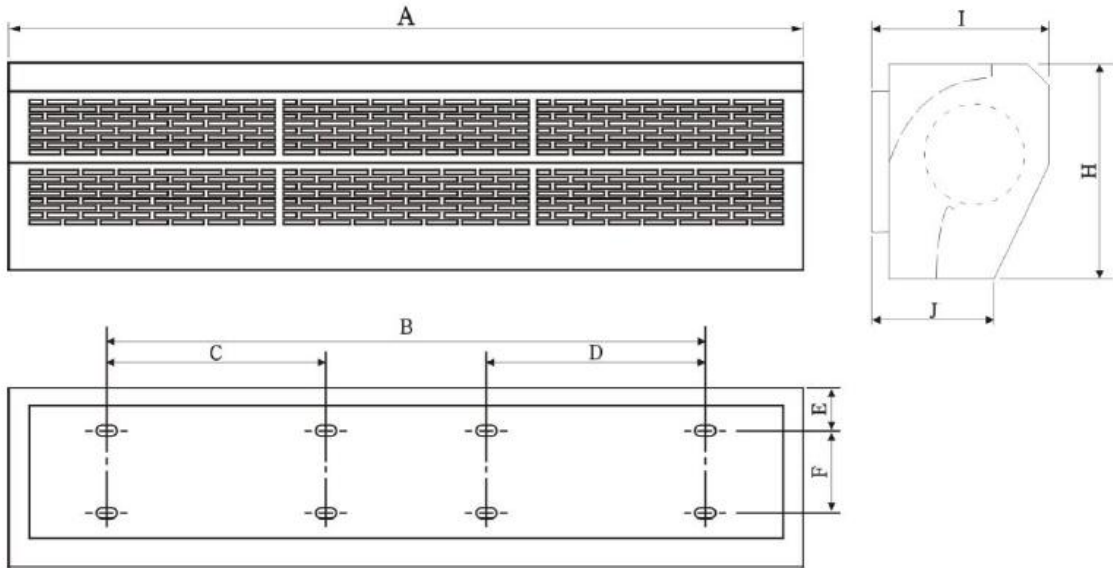
Product Performance

Air Curtain Model	Maximum air velocity at outlet grille (fpm)	Maximum air curtain mounting height (ft)	Sound Pressure Level of air curtain [dB(A) at 10ft]	Air Volume Flow Rate (cfm)
TX36AFAL006D	2560	9	67	1177
TX48AFAL006D	2560	9	69	1648
TX60AFAL006D	2560	9	71	2119

General Product Environment Information

IP Rating	IP20
Maximum Temperature (Storage)	14°F – 140°F
Maximum Temperature (Operating)	41°F – 104°F
Relative Humidity	95% Non Condensing

MECHANICAL DRAWING



Model	A	B	E	F	H	I	J
TX36AFAL006D	36	17.3	2	5.7	10.2	8.6	5.1
TX48AFAL006D	48	17.3	2	5.7	10.2	8.6	5.1
TX60AFAL006D	60	33	2	5.7	10.2	8.6	5.1

All dimensions shown are in inches