

**MANUAL** - INSTALLATION

# Linear Plenum Terminal LPT Series



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#### **GENERAL OVERVIEW**

#### Introduction

In this manual, you will find technical descriptions and diagrams of underfloor system components along with their installation instructions. Practical guidelines and recommendations are also provided. If more information is required about this equipment, please contact an Price sales representative.

## **General Safety Guidelines**

This document is intended for use by owner-authorized operating/service personnel who are expected to possess the required training to enable them to perform their tasks properly and safely. This individual must have read and understood this document and any referenced materials prior to performing any task on this equipment. Also, it is essential that this individual be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question. This individual must also verify that installation and connections comply with local building codes. It is the obligation and responsibility of the operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in severe personal injury or death to themselves and people at the site, as well as serious damage to the equipment and the property in which it is situated.

The equipment discussed in this manual is relatively complicated apparatus and must be handled with the necessary precautions. Individuals may be exposed to certain components or conditions such as refrigerants, oils, materials under pressure, rotating components, and both high and low voltage during installation, operation, maintenance or service of this equipment. If misued or mishandled, each item has the potential to cause bodily injury or death.

#### **Safety Symbols**

The following symbols are used in this document to alert the reader to areas of potential hazard:



Failure to observe may result in personal injury, death or equipment damage.



Failure to observe may result in equipment damage.

**NOTE:** Used to highlight additional information helpful to the reader.

## SYSTEM OVERVIEW

#### **Perimeter Zone**

#### **DUCTED FAN HEATING AND PLENUM COOLING**

In areas where plenum cooling can be implemented the LPT-HC has a damper which modulates between cooling and heating positions. In this application, a fan terminal is only required in heating mode. Cooling is provided through the plenum while the fan is off, and heating is provided through the ducted fan terminal with a hot water coil or an electric heater. A thermostat monitors the room temperature, while the PCM onboard the fan terminal modulates the fan space and heating device to meet the space requirements.



## PRODUCT OVERVIEW

#### **Linear Plenum Terminal**

The Linear Plenum Terminal (LPT) is designed to deliver plenum air through a Linear Floor Grille (LFG) for cooling. Additionally, an inlet connection option can be added for supplying fan-forced heating air from an Underfloor Fan Terminal (FDU). The integral terminal damper allows for modulating of cooling air supply and changeover between heating and cooling.

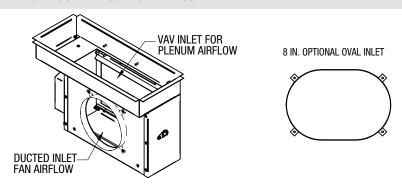
The integral terminal damper is controlled using a 90 second floating-point actuator and is designed to be used with a Power and Control Module (PCM) controller via plug-and-play RJ-12 connection.

To adjust the actuator set screw and damper follow these steps.

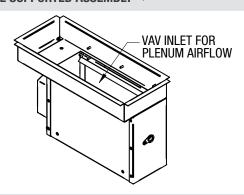
- 1. Move damper to open.
- Loosen minimum airflow set screw.
   Press clutch and turn set screw to min. open position.
- 3. Tighten set screw onto damper shaft.

**CAUTION:** Adjust set screw damper to minimum airflow for balancing.

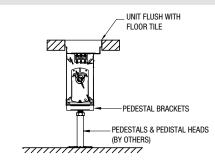
#### LPT-HC: FLOOR TILE SUPPORTED ASSEMBLY ▼



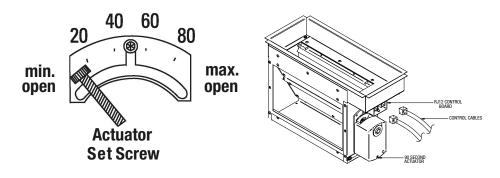
#### LPT-VC: FLOOR TILE SUPPORTED ASSEMBLY ▼



#### LPT-HC: PEDESTAL SUPPORTED ASSEMBLY ▼



#### **ACTUATOR** ▼



## INSTALLATION & MOUNTING INSTRUCTIONS

## Floor Tile Supported Installation

**STEP 1:** The floor opening should be the same size as the nominal size used to order the floor plenum.

**STEP 2:** Connect flexible ductwork to inlet on floor plenum (HC only).

**STEP 3:** Connect green C25 control cables to the control board on the plenum. These can be daisy chained with up to six in a chain. Control board ports are not directional, so cables can be connected without considering in/out direction along daisy chain.

**STEP 4:** Set floor plenum into floor opening so that the support flange rests above the tile.

**OPTIONAL:** For continuous applications, remove endcap and follow instructions in the UFB manual for blank-off installation.

STEP 5: Place floor grille into plenum.

**NOTE:** If the plenum is cooling only, the plenum opening should face the room side. If the heat/cool model is used, the heating inlet will be facing the room. In this configuration, the cooling inlet should have a minimum of 4 in. of clearance from any obstructions (i.e. the perimeter wall).

# **Pedestal Supported Installation**

**STEP 1:** The floor opening should be the same size as the nominal size used to order the floor plenum.

**STEP 2:** Connect flexible ductwork to inlet on floor plenum (HC only).

**STEP 3:** Connect green C25 control cables to the control board on the plenum. These can be daisy chained with up to six in a chain. Control board ports are not directional, so the in and out connections can be made in any orientation.

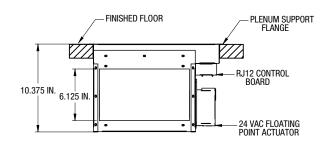
**STEP 4:** Slide pedestal heads through slot in pedestal brackets to attach to floor pedestals. Adjust pedestal height to achieve an even finish with the floor.

**OPTIONAL:** For continuous applications, remove endcap and follow instructions in the UFB manual for blank-off installation.

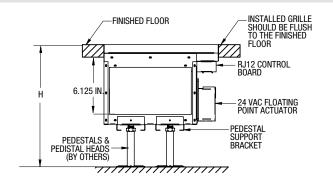
STEP 5: Place floor grille into plenum.

**NOTE:** If the plenum is cooling only, the plenum opening should face the room side. If the heat/cool model is used, the heating inlet will be facing the room. In this configuration, the cooling inlet should have a minimum of 4 in. of clearance from any obstructions (i.e. the perimeter wall).

#### FIGURE 1: FLOOR TILE SUPPORTED ASSEMBLY ▼



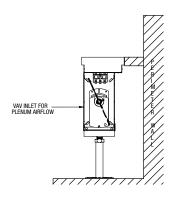
#### FIGURE 2: PEDESTAL SUPPORTED ASSEMBLY ▼

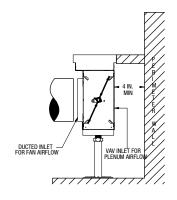


Assembly Height with LFG Installed		
Core Style	H (In.)	
Pressed Core	10.55	
Mandrel Core	10.375	

#### LPT-VC ▼







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