



**INSTALLATION, OPERATION
AND MAINTENANCE MANUAL
FOR
AIRTEX
LINEAR RADIANT PANELS**

UNIT MODEL NO. _____
UNIT SERIAL NO. _____
SERVICED BY: _____
TEL. NO: _____

North America Toll-free Technical Service
1-888-796-1359

Canadian Head Office
1401 Hasting Cres. SE
Calgary, Alberta, Canada
T2G 4C8
(403) 287-2590

North American Toll-free Parts
1-888-796-1332

USA Head Office
32050 W 83rd Street
De Soto, Kansas, USA
66018
(913) 583-3181

Retain instructions with unit and maintain in a legible condition.
Please give model number and serial number when contacting
Engineered Air for information and/or parts.

www.engineeredair.com

OPERATION AND MAINTENANCE

START UP

Each zone of Airtex radiant panels should be pressure tested for leaks as required in the specifications. All system piping should be thoroughly cleaned, flushed, drained and refilled before the radiant panels are connected into the system.

With boiler in operation and circulators on, set control valves to full flow position. Flow in excess of 0.5 USGPM (0.032 l/s) per circuit is required to remove air from tubing and interconnects on the panel. Gradually bring the system to design temperature. The actual temperature drop through the panel will only be achieved when building is under design load. Balancing the radiant ceiling system without calibrated balancing valves (CBV's) should be done during a cloudy day in the wintertime. After balancing, return the control valves to automatic operation.

MAINTENANCE

Maintenance is normally limited to cleaning of the Airtex panel face. Since there are no moving parts nothing else is required.

Loose dirt such as ordinary dust, should be removed from the surface of the panel with a soft brush or vacuum cleaner. The panel may be washed using a mild detergent cleaner applied with a cellulose sponge. The sponge should hold just enough solution to adequately wet the surface. The edge of the sponge can be used to clean out grooves. Rinse the panel with a damp sponge using clean rinse water.

Do not use an abrasive cleaner on the painted surface. Do not use excessive water on the radiant panels as it may go into panel joints and cause discoloration or loosening of paint finish.

Removing small scratches, abrasions and stains may be accomplished by use of a solvent such as trichloroethylene on a soft white cloth. Use caution not to remove the paint. Use only a small amount and be sure to follow label directions when using solvents.

REPAINTING

Airtex panel surfaces may be repainted, but only with a high temperature non-yellowing paint. Vinyl latex, oil or aluminum based paints may discolor and should not be used.

All surfaces should be thoroughly cleaned prior to repainting. Metallic finishes should not be applied to the Airtex radiant ceiling because they may have a low emissivity and therefore will reduce the radiant performance. The painter should test a sample of the paint in an inconspicuous place to assure compatibility of the new and old surfaces.



AIRTEX LINEAR RADIANT PANEL ASSEMBLY AND INSTALLATION

To ensure fast and efficient installation, it is important to read the following instructions in conjunction with the **ENGINEERED AIR** Shop Drawings provided.

Remove appropriate lengths and widths radiant extrusions from carton and place on a clean workbench. Assemble panels by setting male / female edges together.

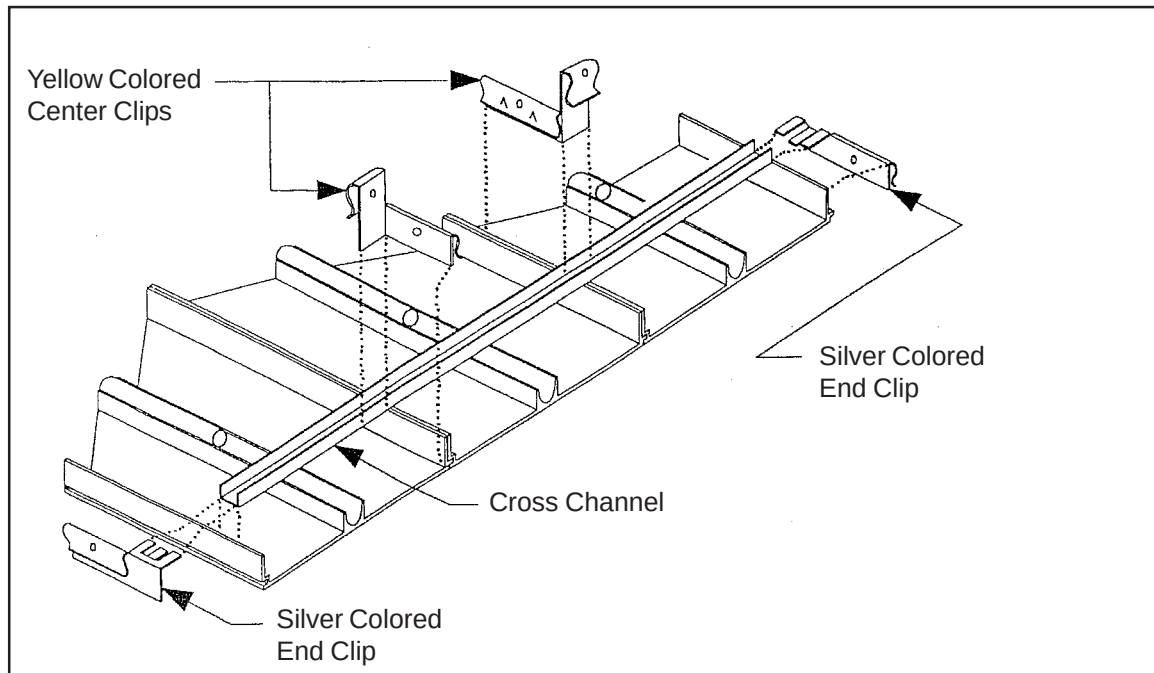


Fig. 1



Fig. 2

Install correct number of cross channel braces as per radiant extrusion schedule provided on shop drawings. Place one channel within 2" of each end of panel. Slip end clips onto channel. Hammer clips onto edge of panel (as illustrated in Fig. 1). Then install center clips to secure channel and male / female joint. Alternate direction of center clips (Fig. 2).

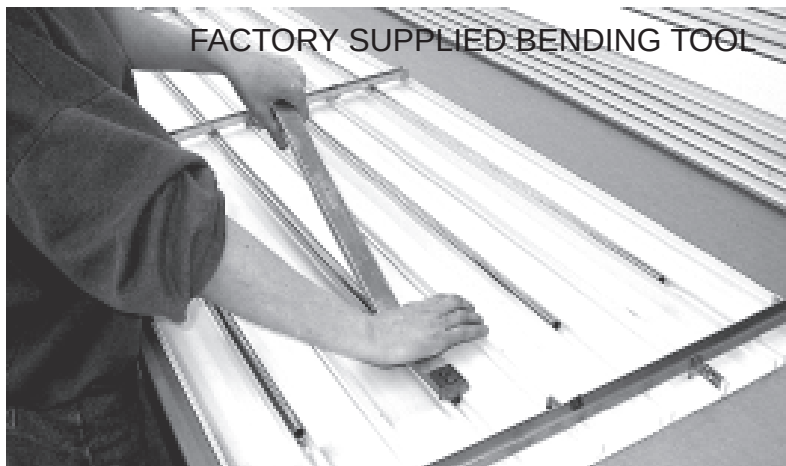


Fig. 3

Before making solder connections, raise ends of tubing using the Airtex bending tool. Place mandrel fully into end of panel tube and bend up tube as shown (Fig. 3). Do not attempt to bend or raise the panel tubing without the use of the factory supplied bending tool.

Trim panel to length allowing for expansion as per shop drawings provided. To cut panels, use a blade designed for non-ferrous metal only. For circular saws use carbide tip blade with approximately 40 teeth on 7 1/4" diameter. For jigsaws use blades with 8 to 12 teeth per inch.

Install and solder in place, factory supplied return bends as illustrated. No fittings are required (Fig. 4).

Place panel in ceiling grid with male edge toward perimeter wall.

Connect panel to supply and return pipes using 1/2" O.D. soft copper tubing. No fittings are required (Fig. 4).

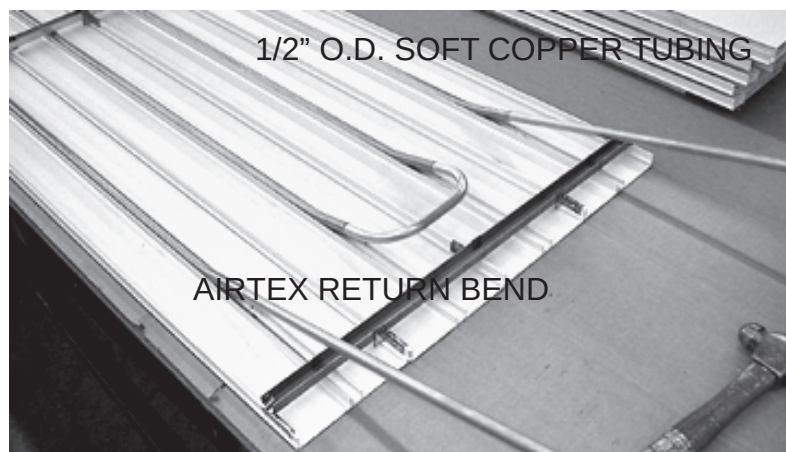


Fig. 4

When panels are to be connected in series, factory supplied 360° interconnects are to be installed as illustrated. No fittings are required. (Fig. 5)

Panel tubing is set back from extrusion ends. When field modification of tubing is required, raise the copper tubing from panel. Cut tubing with 32 tooth per inch reverse installed hacksaw blade as required.



Fig. 5

