INSTALLER: Please leave these instructions, heater wiring diagram & access panel keys with the user.

INTRODUCTION
This booklet provides guidance to identify, handle, install, commission, operate and maintain Dunham-Bush Series AM fan convectors. The instructions apply to the standard range of 22 models shown on page 2. Please study the instructions carefully before commencing any installation work.

IDENTIFICATION
The fan convector serial number, model description, figure number (size) are displayed on a label found on the inside of the heater access panel. If specified, a stencil reference may also be marked on the heater on-site identification.

DESCRIPTION
Each Series AM fan convector comprises a sheet steel casing with a lockable access panel, fan/motor assemblies, air filter and hot water heating coil.

Single phase electric elements can be fitted instead of a hot water coil. Heaters can be supplied for one or two speed fan operation; single speed units are pre-set to low, medium or high speed, and two speed units are pre-set to low/medium, low/high or medium/high speeds, as ordered.

Fan control is by means of switches and/or thermostats, listed in Accessories.

Diagram 1: Series AM Model 13 Figure 04 with left hand coil connections - *items are optional accessories
Diagram 2: Range of standard models and accessories
RANGE
The standard range comprises 22 standard models, in 4 categories - floor standing, ducted floor standing, wall mounted and ceiling mounted. Refer to Diagram 2 on page 2 for model identification. All models are available in seven sizes (figure numbers), with the nominal output indicated by the figure number.

<table>
<thead>
<tr>
<th>Size</th>
<th>Nominal output (kW)</th>
<th>Casing width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig 03</td>
<td>2.6</td>
<td>695</td>
</tr>
<tr>
<td>Fig 04</td>
<td>4.7</td>
<td>895</td>
</tr>
<tr>
<td>Fig 06</td>
<td>6.0</td>
<td>895</td>
</tr>
<tr>
<td>Fig 08</td>
<td>8.2</td>
<td>1195</td>
</tr>
<tr>
<td>Fig 10</td>
<td>9.4</td>
<td>1195</td>
</tr>
<tr>
<td>Fig 12</td>
<td>11.4</td>
<td>1495</td>
</tr>
<tr>
<td>Fig 15</td>
<td>12.7</td>
<td>1495</td>
</tr>
</tbody>
</table>

Table 1: Nominal outputs and sizes

CONTROLS

Fan motors
Conventional synchronous AC motors or energy efficient EC motors can be provided. EC motors are available as one of two options:-
- ECS - speed control by an external 2-10VDC signal
- ECM - speed control by fitted speed interface

Air thermostats
Air thermostats can be provided to automatically switch the heater on/off and to change the fan speed/heat output, in response to a fall or rise in ambient air temperature. Thermostats can be fitted or remote as follows :-

Fitted air thermostats - Models 13, 15, 17, 20, 21, 23 and 25 only.
Capillary thermostats, or room thermostats with an accelerator heater, can be fitted for on/off and speed change.

Diagram 3: Fitted on/off & high/low thermostats

Remote thermostats - All models
Standard or tamper resistant room thermostats with an accelerator heater, can be provided for on/off and speed change.

Low temperature cut-out (LTC) thermostat
A low temperature cut-out thermostat may be provided to operate the heater when hot water is supplied to the coil. This will automatically stop the heater at the end of a normal operating period e.g. when the boiler plant shuts down: -
- Type 1 (fixed) make circuit at 50°C±3K
- Type 2 (adjustable) break circuit 38°C±3K

Switches
Fitted switches (external, or internal) or remote switches (flush or surface wall mounting) can be provided to switch the heater on/off, change fan speed and/or override any thermostats.

Diagram 4: Fitted man/off/auto & high/low switches

The man/off/auto switch allows the fans to circulate room air when the boiler plant is shutdown during the summer.

A FAI/recirc switch can also be provided to open or close fresh air inlet (FAI) dampers (models 19, 22, 53 and 88 with optional motorised damper).

- Switch types are:
  1. on/off
  2. high/off/low
  3. manual/off/auto
  4. manual/off/auto and high/low
  5. FAI/recirc
  6. FAI/recirculation and high/off/low
  7. FAI/recirculation and manual/off/auto
  8. FAI/recirculation, manual/off/auto and high/low

Special controls
If specified, the heater may incorporate special controls such as relays, thermal controls etc. These will be shown on the wiring diagram supplied with each heater.
ACCESSORIES

Electric heating (single stage up to 6kW) on sizes Fig 03, Fig 04 and Fig 06 on all models. Heaters are single speed and may be supplied with programmable thermostat/timeclock.

Manual damper for fresh air inlet or recirculating air on models 19, 22, 53 and 88.

Motorised damper with 230V actuator for fresh air inlet or recirculating air on models 19, 22, 53 and 88. (Use with FAI/recirc. switch)

100mm, 150mm or 200mm high plinth on floor mounted models

Remote pencil proof grille and fixing frame available on models 15, 16, 17, 41, 21, 23 and 92.

Isolating valves fitted on flow and return coil connections on most heaters as space permits, or supplied loose for fitting to pipework.

PREPARATION

Handling

The purchaser is responsible for off-loading. Heaters are individually packed and two/three persons can usually handle the heaviest heater. If a significant quantity is delivered, they may be palletised and shrink-wrapped, so a fork-lift or similar will be required for lifting. Heater must not be dropped or suffer impact in any circumstances.

Storage

Heaters should be stored in clean, dry conditions. Any packaging should not be removed until the heater is required for installation and should only be removed if damage is suspected at delivery.

Fixing & Connections

Make proper provision for fixings. The structure to which heaters are to be fixed must be fit for purpose and capable of accepting plugs and screws, anchor bolts or drop rods. Floor models require a level base. Floor and wall models require a sound flat wall surface. Heater casings are supplied with knockouts for pipework and conduit entry.

Piping and electrical conduit should, as far as possible, have been completed and any wall apertures for loose grilles and ductwork should be fully prepared.

WARNING: Some internal components may have sharp edges. Protective gloves should be worn.

INSTALLATION

General

1. Check the identity of the heater marked on the outside of the carton. The carton can be saved to protect the heater from damage by other trades after installation.
2. Unlock and remove the access panel with the key provided with the heater. On ceiling models, safety screws retain the access panel in a hinged position.
3. Re-check the identity of the heater, from the serial number on the nameplate.
4. The inner cover, fans/motors pipework cover plate, filter and grilles can all be removed to provide better access when making pipework connections and to allow easier lifting of wall and ceiling models. (See Diagram 6)
5. Disengage the line connector to disconnect the wiring harness to the fan platform. On ceiling models, remove the platform retaining brackets before removing the platform.
6. Remove the casing knockouts, to suit pipework and conduit entry.

Diagram 5: Mains inlet plug and fuse holder

Diagram 6: Fan and inner side plate removed
Floor models 13, 15, 16, 17, 19, 25, 37, 41 and 88

2. Note the position of the Ø5 fixing holes in the heater backplate; mark-out, drill and plug. 
3. Position and fix the heater; ensure that the foam strip around inlet and outlet apertures on models 15, 16, 17, 19, 25, 41 and 88 provides an adequate seal. 
4. If specified, fit loose grilles and fixing frames into wall apertures, models 15, 16, 17 and 41, as detailed on page 14. (If applicable, fit external weatherproof louvres for models 19 and 88). 
5. Pipe up as detail in Pipework Connections on page 6. 
6. Wire up as detailed in Electrical Connections and Controls on page 7. 
7. If supplied, fit the adjustable (type 2) low temperature cut-out thermostat to the LTHW flow pipe. 
8. After filling the system, check for leaks (see Commissioning on page 7). 
9. Replace all components previously removed. 
10. Where appropriate, cut the back out of the carton and tape into position over the heater. 
11. When ordered with the heater, a plinth will be fitted at our works; pipework can enter the plinth through knockouts provided (see Diagram 18 on page 14).

Fixed duct models 20, 21, 22 and 60

1. Model 21 - see Diagram 15 on page 12. Model 22 - see Diagram 14 on page 11. 
2. In addition to the main access panel, unlock the duct access panel, lift and remove. 
3. Note the positions of the Ø5 fixing holes in the heater backplate; mark-out, drill and plug. 
4. Position and fix the heater; ensure that the foam strip around apertures on models 21 and 22 provides an adequate seal. 
5. If specified, fit loose grilles and fixing frames into wall apertures, model 21, as detailed on page 14. (If applicable, fit external weatherproof louvres for model 22). 
6. Connect pipework to the coil as described in Pipework Connections on page 6. 
7. Wire up as detailed in Electrical Connections and Controls on page 7. 
8. If supplied, fit the adjustable (type 2) low temperature cut-out thermostat to the LTHW flow pipe. 
9. After filling the system, check for leaks (see Commissioning on page 7). 
10. Replace all components previously removed. 
11. Where appropriate, cut the back out of the carton and tape into position over the heater. 
12. When ordered with the heater, a plinth will be fitted at our works; pipework can enter the plinth through knockouts provided (see Diagram 18 on page 14).

Adjustable duct models 23 and 92

2. In addition to the main access panel, the adjustable top duct and duct access panel can be removed. 
3. Remove the main access panel and note the positions of the Ø5 fixing holes in the heater backplate; mark-out, drill and plug. 
4. Position and fix the heater into position; ensure that the foam strip around apertures provides an adequate seal, before securing the heater in position with suitable fixings, through the holes in the backplate. 
5. Raise the adjustable duct to suit the position of the wall aperture, previously prepared. 
6. Fix the adjustable duct into position, through the holes in the duct side flanges, ensuring there is a good seal between the heater and wall. 
7. If specified, fit loose grilles and fixing frames into wall apertures, as detailed on page 11. 
8. Connect pipework to the coil as described in Pipework Connections on page 6. 
9. Wire up as detailed in Electrical Connections and Controls on page 7. 
10. If supplied, fit the adjustable (type 2) low temperature cut-out thermostat to the LTHW flow pipe. 
11. After filling the system, check for leaks (see Commissioning on page 7). 
12. Replace all components previously removed. 
13. Where appropriate, cut the back out of the carton and tape into position over the heater. 
14. When ordered with the heater, a plinth will be fitted at our works; pipework can enter the plinth through knockouts provided (see Diagram 18 on page 12).
Ceiling/wall models 28, 30, 31, 34, 38, 52 and 53

1. Loosen the M8 screws which attach the suspension brackets to the heater casing and remove the brackets.
2. Position and fix the suspension brackets to the ceiling or wall; see Diagram 19 on page 15.
3. Lift the heater into position and secure the heater to the suspension brackets by the four M8 screws. (If applicable, fit external weatherproof louvres for model 53).
4. Connect pipework to the coil as described in Pipework Connections below.
5. Wire up as detailed in Electrical Connections and Controls on page 7.
6. If supplied, fit the adjustable (type 2) low temperature cut-out thermostat to the LTHW flow pipe.
7. After filling the system, check for leaks (see Commissioning on page 7).
8. Replace all components previously removed.
9. Where appropriate, cut the back out of the carton and tape into position over the heater.

Pipework connections

Coil connections are DN20 (3/4" BSP) female parallel. Local isolating and regulating valves are recommended. Observe the correct flow and return positions, to ensure the rated heat output, see Diagram 7 below. Fill the system and check for leaks.

<table>
<thead>
<tr>
<th>Coils fitted with</th>
<th>Cold test pressure (bar g)</th>
<th>Working pressure (bar g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type M air vent</td>
<td>10.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Type A air vent</td>
<td>9.0</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Table 2: Site test and working pressures

Diagram 7: Hot water coil connections, as viewed on the header/connection end of the coil.

NOTE: For correct operation, the back face of the Type 2 adjustable low temperature cut-off thermostat needs to be in contact with a straight length of pipe approx. 100mm.

Avant Garde & LST Heaters

Avant-Garde and LST heaters are supplied with controls valves which automatically shut off the water flow when the fan is not running.

Depending on the model and coil arrangement supplied, the valves may be supplied loose with special pipework for fitting on site (see Diagram 8).

Flow and return connections must be connected as shown in Diagram 8. The diagram shows 4 port valve arrangement (2 port valve similar), with the LTC position indicated.

Diagram 8: Control valve and LTC fitting locations
Electrical Connections and Controls
1. Connect a 230v/1ph/50Hz supply to the IEC mains inlet connector. (see Diagram 5 on page 4).
2. Fix any remote accessories-switches or thermostats in the appropriate locations and connected to the 12 way terminal block, as shown on the wiring diagram supplied with the unit (N.B. the 12 way terminal block is fitted only when remote accessories are ordered and shown on our wiring diagram). When supplied the terminal block is located behind the plate on which the mains inlet connector is fitted.

Loose Grille and Fixing frame
1. Check dimensions and position of the grille and frame in relation to the heater.
2. Prepare an opening to accept the frame.
3. Fit spire captive nuts into the slots in each corner of the frame, and fix to the opening with appropriate fixings (not supplied).
4. Fit the grille to the frame, aligning the holes in the grille with the spire nuts in the frame and fix using the black self-tapping screws provided.
5. An alternative fixing can be to omit the fixing frame and screw through the grille flanges directly onto a suitable surround.

COMMISSIONING
General
1. Purge air from the coil using the manual or automatic air vent, or through the mains above the coil if applicable. Balance the water flow rate through the system to accepted practice.
2. If LTC thermostat fitted, the fans will run when water in the flow pipe reaches the required temperature. For a type 1 (fixed setting) 54°C ± 3K or for type 2 (adjustable setting) 30-90°C. A setting of 20K less than the mean water temperature is recommended. In the absence of hot water, a temporary link can be used.
3. If fitted, adjust air thermostats to the specified temperatures. If no settings are specified, typical settings are:
   a) on/off thermostat - set to 20°C
   b) high/low thermostat - set to 16°C.
4. Check the operation of all thermostats by varying their settings to achieve the desired effect on the fan.
5. If switches are fitted check for satisfactory operation.
6. A manual/off/auto switch will bypass all thermostats when in the manual position. This allows the fan to circulate room air when no hot water is present.
7. If a manual damper is fitted, check the operation of the damper lever.
8. If a motorised damper is fitted, check for satisfactory operation. Damper control is provided by a FAI/recirc. switch, if fitted.
9. Leave this document and all wiring diagrams with the end user.

Fan Speed Adjustment (AC Motors)
1. Heaters fitted with AC motors are supplied with factory-set fan speeds, fed from tappings on the autotransformer.
2. In the unlikely event that fan speeds require adjustment, refer to the wiring diagram supplied with the heater. Contact Dunham Bush for guidance on selecting appropriate tappings on the autotransformer.
3. The autotransformer is located behind the plate on which the mains inlet connector is fitted (see Diagram 5 on page 4).
4. Cables should be disconnected from the autotransformer carefully; ensure that the male spade connectors not pulled from the autotransformer.

Fan Speed Adjustment (EC Motors)
1. Heaters fitted with EC motors are available as one of two standard options:-
   ECS - variable fan speed with speed control by an external 2-10VDC signal (e.g. from BMS)
   ECM - single or dual fan speed with speed control using switches or thermostats via a fitted speed interface.
2. In the unlikely event that fan speeds require adjustment, refer to the wiring diagram supplied with the heater. Contact Dunham Bush for guidance on adjusting fan speeds and selecting appropriate DC signal voltages.
3. The ECM speed controller is located underneath the fan/motor platform and comprises electronic controls with inputs from thermostats and/or switches and a single analogue 2-12VDC output signal to the motor(s).
4. Refer to Diagram 9 on page 8; three fan speeds are available. Single speed heaters will use one speed and dual speed heaters will use two speeds, which can be varied by adjusting the appropriate potentiometers; signal voltage can be measured across 0V and CTRL terminals.
5. Avoid setting fan speeds too low:
   a) low fan speeds can cause stratification of heated air within the room, reducing effective comfort
   b) low fan speeds with electric heating can cause false tripping of high-temperature safety cut-outs in the heater.

6. All connections to the EC fan controller shown in Diagram 9 are safe low voltage of 10VDC or less.

**Diagram 9: Fan speed interface with 3 speeds (ECM fan motor option only)**

<table>
<thead>
<tr>
<th>Size</th>
<th>Low speed</th>
<th>Medium speed</th>
<th>High speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fan voltage (VAC)</td>
<td>Airflow (l/s)</td>
<td>Running current (A)</td>
</tr>
<tr>
<td>Fig 3</td>
<td>100</td>
<td>50</td>
<td>0.20</td>
</tr>
<tr>
<td>Fig 4</td>
<td>100</td>
<td>75</td>
<td>0.25</td>
</tr>
<tr>
<td>Fig 6</td>
<td>130</td>
<td>105</td>
<td>0.38</td>
</tr>
<tr>
<td>Fig 8</td>
<td>100</td>
<td>130</td>
<td>0.39</td>
</tr>
<tr>
<td>Fig 10</td>
<td>130</td>
<td>205</td>
<td>0.46</td>
</tr>
<tr>
<td>Fig 12</td>
<td>140</td>
<td>210</td>
<td>0.52</td>
</tr>
<tr>
<td>Fig 15</td>
<td>180</td>
<td>280</td>
<td>0.60</td>
</tr>
</tbody>
</table>

**Table 3: Electrical data for AC motors**

<table>
<thead>
<tr>
<th>Size</th>
<th>Low speed</th>
<th>Medium speed</th>
<th>High speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fan voltage (VDC)</td>
<td>Airflow (l/s)</td>
<td>Running current (A)</td>
</tr>
<tr>
<td>Fig 3</td>
<td>3.4</td>
<td>50</td>
<td>0.08</td>
</tr>
<tr>
<td>Fig 4</td>
<td>3.5</td>
<td>75</td>
<td>0.10</td>
</tr>
<tr>
<td>Fig 6</td>
<td>5.2</td>
<td>105</td>
<td>0.18</td>
</tr>
<tr>
<td>Fig 8</td>
<td>3.4</td>
<td>130</td>
<td>0.16</td>
</tr>
<tr>
<td>Fig 10</td>
<td>5.4</td>
<td>205</td>
<td>0.35</td>
</tr>
<tr>
<td>Fig 12</td>
<td>4.4</td>
<td>210</td>
<td>0.30</td>
</tr>
<tr>
<td>Fig 15</td>
<td>5.8</td>
<td>280</td>
<td>0.54</td>
</tr>
</tbody>
</table>

**Table 4: Electrical data for EC motors (ECM motor options only; data for ECS motor option will vary)**

**Optional Panel Lock Indicators**

An optional feature on Series AM heaters are colour indicators which show whether the access panel is locked or unlocked. The lock position is shown through the 10mm viewing window next to the lock; green indicates the panel is safely locked and cannot be removed or fall out; red indicates that the access panel is unlocked and can be removed or fall out.

**Lock indicators can be retro-fitted to all Series AM models by replacing the standard access panel with a new one which includes the lock indicators. For panel lock indicators, refer to Dunham-Bush, stating part numbers reference 21-253-208. Price and delivery upon application.**
Diagram 12: Typical installation detail for Models 15 and 41

NOTES:
1. MODEL 15 SHOWN HAS INLET AND OUTLET APERTURES ON THE OPPOSITE SIDE OF THE HEATER TO THE ACCESS PANEL.
2. THE PLINTH AND LOOSE GRILLES/FIXING FRAMES ARE OPTIONAL ACCESSORIES.
3. APERTURE DIMENSIONS STATED (LENGTH AND HEIGHT) ARE TWO MILLIMETRES GREATER THAN THE MAXIMUM SIZE OF THE GRILLE FIXING FRAME.
4. IF GRILLE FIXING FRAME IS ADEQUATELY SECURED AT BOTH ENDS THROUGH THE FIXING SLOTS PROVIDED, IT SHOULD NOT BE NECESSARY TO FIX THROUGH THE TOP AND BOTTOM SLOTS EXCEPT TO PREVENT THE FRAME FROM SAGGING.
5. IF SUITABLE FIXINGS ARE USED, THE GRILLE FIXING FRAME MAY BE FIXED DIRECTLY TO THE WALL, ELIMINATING THE NEED FOR TRELLIS LINING AT EACH END OF THE APERTURE. IN THIS CASE IT WILL BE POSSIBLE TO REVERSE THE FIXING FRAME TAKING THE FIXING POINTS FURTHER INTO THE WALL.
Diagram 13: Typical installation detail for model 17

1. HEATER SHOWN, MODEL 17, FIXED TO A WALL THROUGH FIXING HOLES IN HEATER BACKPLATE
   HEATER MOUNTED ON OPTIONAL ACCESSORY 100mm OR 150mm FINISH
2. WALL APERTURE DIMENSIONS STATED (LENGTH AND HEIGHT) ARE 2mm GREATER THAN THE MAXIMUM SIZES OF THE GRILLE FIXING FRAME
3. If GRILLE FIXING FRAME IS ADEQUATELY FIXED AT BOTH ENDS
   THROUGH THE FIXING SLOTS PROVIDED, IT SHOULD NOT BE NECESSARY TO FIX
   THROUGH THE TOP AND BOTTOM SLOTS, EXCEPT TO PREVENT
   THE FRAME FROM SAGGING.
4. If suitable fixings are used, the grille fixing frame may be fixed
   directly to the wall, thus eliminating the need for fixings fixing at
   each end of the aperture. In this case, it will be possible to reverse
   the fixing frame, taking the fixing points further from the edge of
   the wall.
Diagram 14: Typical installation detail for models 19, 22, 53 and 88.

NOTES:
1. HEATERS SHOWN, MODEL 19, 22, 53 AND 88.
2. MODELS 19, 22 AND 88 MOUNTED ON OPTIONAL ACCESSORY 100mm OR 150mm PLINTH.
3. WALL APERTURE LENGTH AND HEIGHT TO SUIT WEATHERPROOF LOUVRE (BY OTHERS).
Diagram 15: Typical installation detail for model 21

Notes:
1. Heater shown, model 21, fixed to a wall through fixing holes in heater backplate.
2. Heater mounted on optional accessory 100mm or 150mm flush.
3. Wall aperture dimensions stated (length and height) are 200mm greater than the maximum width of the grille fixing frame.
4. If grille fixing frame is adequately fixed at both ends through the fixing slots provided, it should not be necessary to fix through the top and bottom slots except to prevent the frame from sagging.
5. If suitable fixings are used, the grille fixing frame may be fixed directly to the wall, thus eliminating the need for timber lining at each end of the aperture. In this case, it will be possible to reduce the fixing points further from the edge of the wall.
Diagram 16: Typical installation detail for models 23 and 92
Diagram 17: Fixing detail for loose grille and fixing frame

Diagram 18: Fixing detail for plinth
Diagram 19: Fixing detail for suspension brackets (wall and ceiling mounted units)
CLEANING AND MAINTENANCE

WARNING:
Prior to undertaking any cleaning or maintenance, ensure that all electrical supplies are disconnected from the heater via local isolators. Some internal components may have sharp edges. Protective gloves should be worn.

Inspection
Frequency of cleaning and inspection depend upon the operating conditions. Initially, it is suggested that the air filter is inspected after 6-8 weeks and cleaned as required at regular intervals. Cleaning the air filter ensures that the heater delivers the required air flow rate and heat output. The heater should not be operated without a filter, since the heater coil fins will become clogged with fluff and dust particles, resulting in reduced performance.

Filter access and removal
To gain access to the air filter, unlock and remove the access panel with the special key provided. Floor, wall and duct models, pull the access panel at the top and lift clear. Ceiling models, hinge the access panel down and allow it to hang from the safety screws (note: access panel can be removed by removing the safety screws).

Cleaning
1. Air filters can be cleaned by tapping out excess dust and washing in warm water (up to 40°C), using detergent if necessary. The filter must be rinsed and allow to dry naturally before replacing. Do not use a vacuum cleaner, as it can damage the filter media. Filters should be replaced after approximately 20 washes.
2. Because the air filter retains most of the dusty particles, it will only be necessary to clean the fan/motor assemblies and heater coil annually. An industrial vacuum cleaner can used to clean the inside of the heater, in particular the heater coil(or electric element) and fans, with the air being sucked through the heater coil in the opposite direction to normal air flow. All accessible surfaces can be wiped with a dry cloth.

Maintenance
1. Coil - Purge any air from the coil using the manual air vent (using a suitable key) or by turning the knurled thumbwheel on the automatic air vent if fitted. Automatic air vents have a built-in check valve which allows the head to be removed without draining the system.
2. Motors - The fan motor has ‘sealed for life’ bearings which do not require any maintenance, other than visual inspection.
3. Fuse - The mains inlet connector on the electrical connections box incorporates a 2A anti-surge fuse. A spare fuse is supplied in a slide out fuse holder next to the socket.
4. Controls - see accessories. A wiring diagram is supplied with each heater. Further copies are available on request, please quote the serial number from the nameplate, located inside the heater.

Please note:
1. If fitted, the LTC thermostat will switch power to the fan only when the thermostat reaches the required temperature. For a type 1 (fixed setting) approx. 50°C ± 3K or for type 2 (adjustable setting) 30-90°C (the recommended setting is 20K less than the mean water temperature)
2. If air thermostats are fitted (either to the heater or remote mounted on a wall), adjust to the specified temperatures. Typical settings are:
   a) on/off thermostat - set to 20°C
   b) high/low thermostat - set to 16°C.
3. If fitted or remote switches are being used, check that they operate correctly. Note : if manual/off/auto switch is provided, all thermostats are by-passed in the manual position, which allows the fans to circulate room air when the boiler plant is shutdown.

SPARES/SERVICE
PLEASE WRITE THE DETAILS OF THE UNIT HERE.
These details will be required when ordering spares for you Dunham-Bush Series AM Fan Convector.

UNIT TYPE AND MODEL INFORMATION

SERIAL NUMBER

DATE OF INSTALLATION

Spare parts/service - Please contact our office, contact information shown below.
Manufacturer reserves the right to change any product specification without notice.