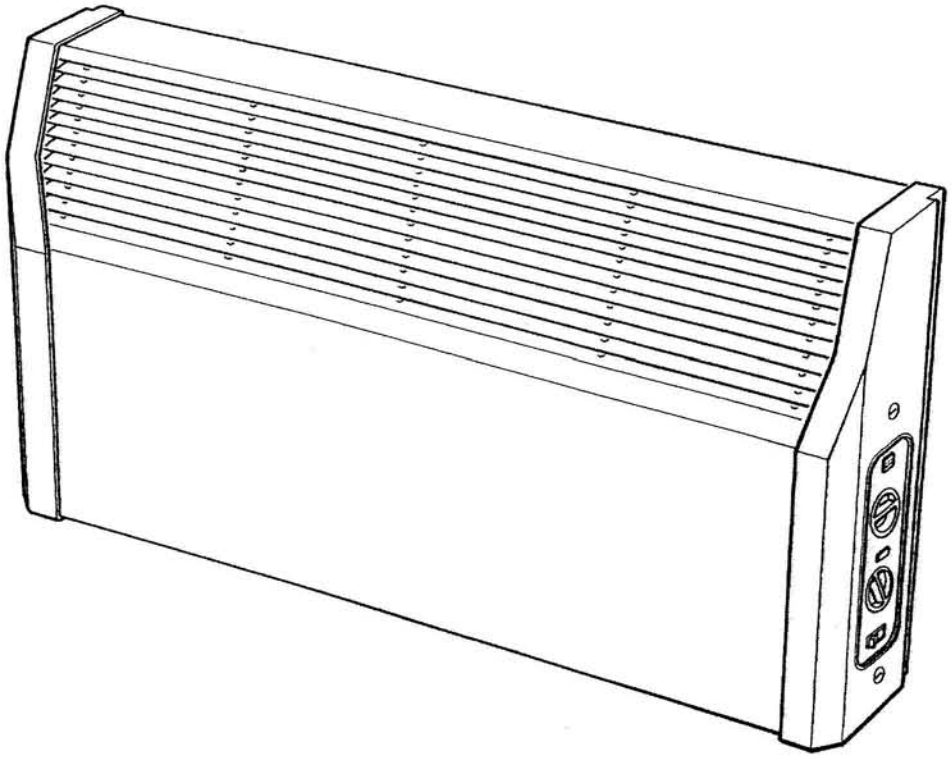
MYSON

Convectors

# LO-LINE
# FAN CONVECTOR

Models:- 19 - 15, 14 - 10, 9 - 6, 6 - 4



## INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

**PLEASE READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION**
**LEAVE THESE INSTRUCTIONS WITH THE USER**

ETL LISTED ® ETL LISTED ®

**Tested to UL and CSA Standards**

## LIST OF CONTENTS



## 1. SPECIFICATION PERFORMANCE DATA

| Model | Motor power (Watts) | Water content (pints) | Fan speed | Maximum heat output (Btu/h) with entering air temperature 65°F, and entering water temperature (°F) as below | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 110° | 120° | 130° | 140° | 150° | 160° | 170° | 180° | 190° | 200° |
| 19 - 15 | 60 | 1.16 | Boost | 8715 | 10560 | 12392 | 14212 | 16021 | 17821 | 19613 | 21398 | 23176 | 24948 |
| | | | Medium | 7026 | 8513 | 9989 | 11454 | 12912 | 14361 | 15805 | 17242 | 18674 | 20101 |
| | | | Low | 5647 | 6841 | 8027 | 9204 | 10374 | 11539 | 12698 | 13852 | 15002 | 16148 |
| 14 - 10 | 60 | 0.89 | Boost | 7118 | 8624 | 10118 | 11602 | 13077 | 14544 | 16004 | 17459 | 18908 | 20352 |
| | | | Medium | 5812 | 7041 | 8260 | 9471 | 10674 | 11872 | 13063 | 14250 | 15432 | 16610 |
| | | | Low | 4846 | 5870 | 6885 | 7893 | 8896 | 9893 | 10885 | 11873 | 12857 | 13838 |
| 9 - 6 | 40 | 0.58 | Boost | 4637 | 5617 | 6589 | 7554 | 8513 | 9468 | 10417 | 11363 | 12305 | 13244 |
| | | | Medium | 4196 | 5081 | 5959 | 6831 | 7698 | 8559 | 9417 | 10271 | 11122 | 11969 |
| | | | Low | 3642 | 4410 | 5173 | 5930 | 6682 | 7431 | 8175 | 8917 | 9656 | 10392 |
| 6 - 4 | 25 | 0.44 | Boost | 2815 | 3418 | 4017 | 4614 | 5207 | 5799 | 6388 | 6976 | 7562 | 8146 |
| | | | Medium | 2382 | 2885 | 3383 | 3878 | 4370 | 4859 | 5345 | 5830 | 6313 | 6793 |
| | | | Low | 2040 | 2470 | 2896 | 3319 | 3739 | 4157 | 4572 | 4986 | 5398 | 5809 |

**Note:** Performance figures based on a flow rate of 3 GPM. For a flow rate of 1 GPM multiply by a factor of 0.87.

**Approximate hydraulic resistance through fan convectors**

| Flow rate (GPM) | Model 6 - 4 (ft wg) | Model 9 - 6 (ft wg) | Model 14 - 10 (ft wg) | Model 19 - 15 (ft wg) |
|---|---|---|---|---|
| 1 | 0.9 | 1.1 | 1.3 | 1.4 |
| 3 | 5.91 | 7.05 | 7.95 | 8.41 |

Maximum working pressure: 145 psi
Water connections: $^5/_8$ in. compression
Electrical supply: 110V AC 60Hz

**Unpacked weight**

| Model | lb |
|---|---|
| 6 - 4 | 16.5 |
| 9 - 6 | 21.0 |
| 14 - 10 | 30.0 |
| 19 - 15 | 35.0 |

## 2. APPLICATION

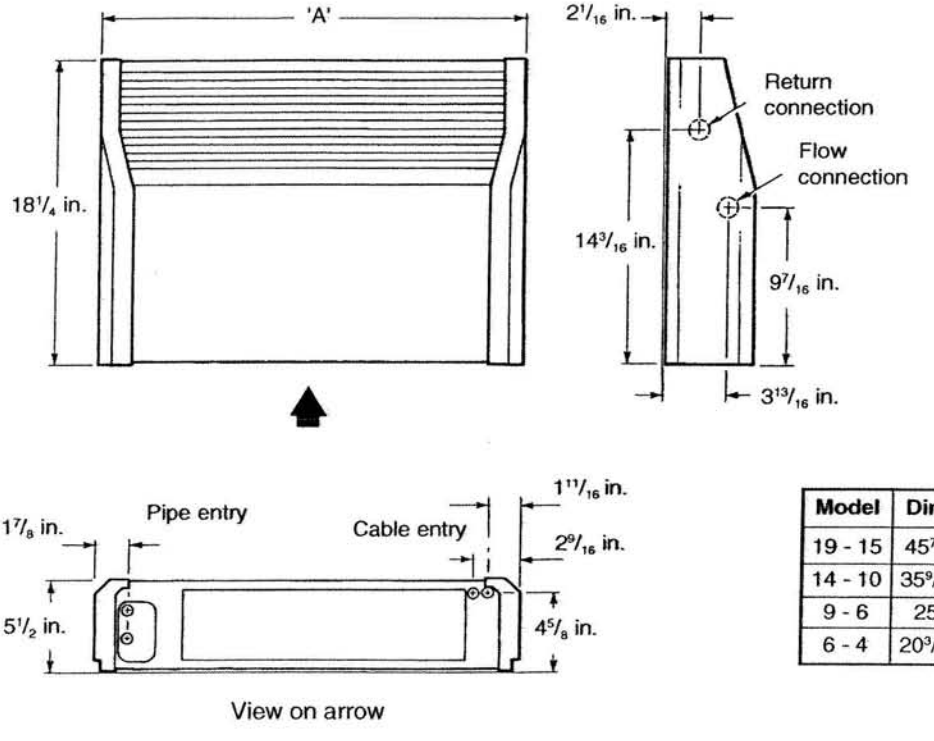
Myson Lo-Line fan convectors are designed to be used on a two pipe system or as a stand alone zone. Inadequate water flow will cause the unit to cycle excessively on its internal low limit thermistor. Check the hydraulic resistance table for pump selection information.

## 3. SELECTION

It is recommended that the system designer/installer choose a model with an output that is capable of maintaining the calculated heat loss of the room when operating at the 'Low' fan speed setting. Care should be taken to use the column with the appropriate system water temperature. Sizing based on the 'Low' fan speed setting will enable the 'Boost' speed to be used for increased performance during more extreme weather conditions.

**Note:** As all Lo-Line units are thermostatically controlled, oversizing will not lead to uneconomic running of the boiler or overheating of the room.

## 4. DIMENSIONS




| Model | Dim 'A' |
|---|---|
| 19 - 15 | 45 7/8 in. |
| 14 - 10 | 35 9/16 in. |
| 9 - 6 | 25 in. |
| 6 - 4 | 20 3/16 in. |

*Fig. 1*

## 5. LOCATION

Lo-Line units may be fixed to the most convenient wall. The minimum distance from the underside of the unit to the floor is 6 in. The most effective position is centrally on a long wall, but if a room is excessively long it may be preferable to fit a smaller model at either end rather than one large unit.

For the quietest fan operation, the wall to which the unit is fixed should be solid and robust. Flimsy partitions will promote vibration.

## 6. INSTALLATION

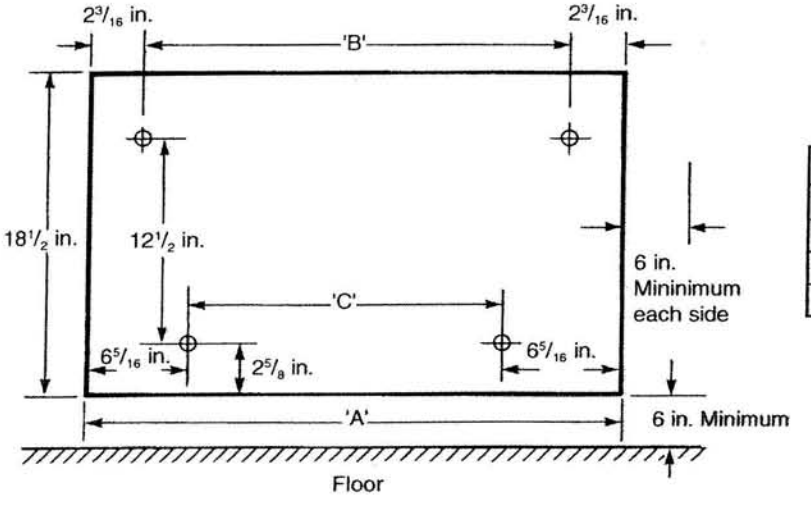
**Beware of sharp edges when carrying out installation and maintenance procedures.**

### 6.1. Unpack the unit

1. Unpack the unit and lay it carefully on its back, taking care not to damage the flooring. Do not discard or damage the carton.
2. The correct isolating valves are supplied loose with the unit. The valves are of the compression type and will accept $^{5}/_{8}$ in. copper tube.

### 6.2. Prepare the wall

1. Cut the mounting template from the rear of the cardboard carton (where provided), or refer to Fig. 2 for the position of the mounting holes.
2. Position the template on the wall in the desired position, ensuring there is a clearance of at least 6 in. from the floor to the solid line on the lower edge of the template. Ensure the template is level and mark the hole positions through the template.
3. Remove the template and drill and plug the four holes to accept No.8 x 1½ in. round head woodscrews. Insert the screws (not supplied) and leave approximately $^{3}/_{8}$ in. of the screw projecting from the wall.




| Model | Dim 'A' | Dim 'B' | Dim 'C' |
|---|---|---|---|
| 19 - 15 | 45 7/8 in. | 41 7/16 in. | 33 3/16 in. |
| 14 - 10 | 35 9/16 in. | 31 1/8 in. | 22 7/8 in. |
| 9 - 6 | 25 in. | 20 9/16 in. | 12 5/16 in. |
| 6 - 4 | 20 3/16 in. | 15 13/16 in. | 7 1/2 in. |

***Fig. 2***

### 6.3. Water connections

If the pipes are to be brought up from the floor ensure they are in the correct position, see Fig 1. Note that the dimensions shown are from the wall and **not** the skirting board. It may be necessary to notch exceptionally thick skirting boards. Pipe entry may, if desirable, be made through the back of the chassis panel by passing the flow and return pipes through the wall.

To ensure effective venting of the heat exchanger the flow pipe should be connected to the bottom connection of the heat exchanger, see Fig. 1.

### 6.4. Fit the unit to the wall and make water connections

1. Remove the screws from the plastic trim at both ends of the unit. Pull the trim off the ends of the unit then remove the screws securing the cover to the chassis and remove the cover, see Fig. 3.
2. Fit the isolating valves to the heat exchanger using a small amount of sealant, see Fig. 4.
3. Locate the chassis over the four fixing screws. Make the pipe connections and secure the unit to the wall by tightening the four fixing screws. If the mounting wall is uneven, it may be necessary to use some packing.

   When mounted on the wall the top of the chassis should be level. It is important that the right hand end is **not** lower than the left hand end.
4. Turn on the water supply to the system and fully open both isolating valves on the unit.

5. Vent air from the heat exchanger by unscrewing the air bleed valve positioned in the top angular surface of the chassis. Do not unscrew the valve more than two turns. Close the valve and check for leaks.

**Caution:** Under no circumstances exert pressure on the fan wheel and heat exchanger as this could cause permanent damage and impair the performance of the unit. Under no circumstances must any electrical components be tampered with.

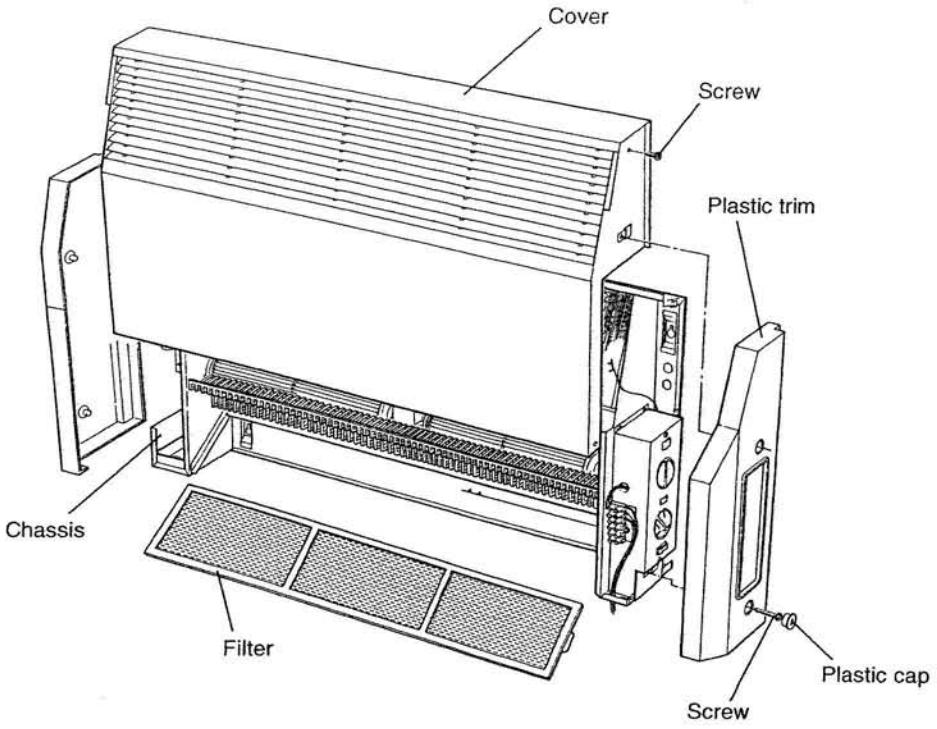



*Fig. 3*

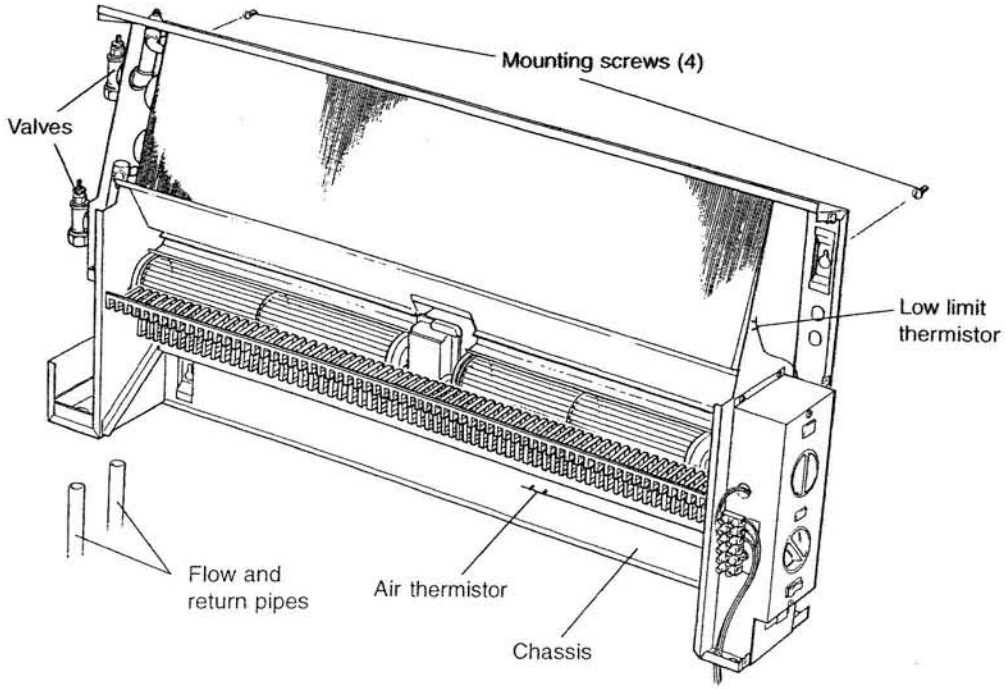



*Fig. 4*

## 7. ELECTRICAL CONNECTION

The electrical installation must comply with State and Local codes.
All models are factory fitted with 6 ft of 3-core cord and moulded plug.
A suitable outlet socket with isolating switch must be available or fitted to supply the Lo-Line.

### 7.1. Room thermostat

If it is required to control the fan convector by a remote room thermostat, remove the wire link between T1 and T2 on the terminal block and connect the thermostat across these two terminals. The thermostat cable entry is through the hole provided in the chassis. A cable gland should be used (not provided).
**The Lo-Line room thermostat must be set to Maximum when an external heating thermostat is used.**

**DO NOT ENERGIZE THE ELECTRICAL SUPPLY UNTIL THE COVER AND END TRIMS HAVE BEEN FITTED.**

## 8. COMPLETION

1. Replace the cover and secure in position using the fixing screws previously removed. Push the plastic end trims into position, securing them using the screws previously removed.
   Push the plastic caps (supplied) into the holes in the end trims to cover the screw heads.
2. The filter can now be fitted, see Fig. 5. Slide the filter up into the channel inside the back of the unit (1) then lift the front of the filter against the guides at each end of the chassis and slide the filter forwards to rest against the cover (2). A small handle is moulded into each end of the filter to assist removal/ replacement.
   To remove the filter, see Fig. 6. Slide it up towards the back of the unit (1) then slide the filter forwards and down out of the unit (2).

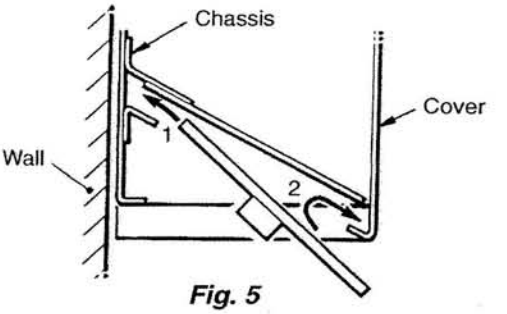


*Fig. 5*

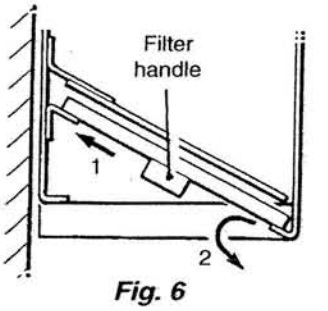


*Fig. 6*

## 9. OPERATING INSTRUCTIONS - See Fig. 7

### 9.1. Winter use - for heating

1. Switch on the electricity supply to the unit.
2. Set the Lo-Line room thermostat to its maximum setting.
3. Set the Summer/Winter switch to the Winter position (indicated by a red spot).
4. Set the fan speed control to the desired fan speed.
5. The fan will now commence running if hot water is circulating through the unit at 110°F or higher.
   If the system has not reached the operating temperature, there may be a few minutes delay before the fan starts.
6. Allow the room temperature to reach the required comfort level. Turn the setting of the Lo-Line room thermostat down slowly until the thermostat neon light goes off. The unit is now set to maintain this temperature. Further adjustments can be made as required.

The low limit thermistor will operate automatically when the boiler switches off and the hot water temperature at the unit drops below 110°F. On resumption of hot water circulating through the unit the fan will commence running.
If the required room temperature cannot be attained, this could indicate either incorrect water temperature or insufficient water flow. Raise the boiler temperature. If this fails to improve the situation, consult your installer as the system may need to be balanced or otherwise corrected.

### 9.2. Time switch control

It is normal for a heating system to be controlled by a programmer or time switch. Under such control the internal low temperature aquastat ensures that the fan will stop after the heating system is switched off and the water flow stops. It will automatically restart, if left in an operating position, when the heating system is reheated.

### 9.3. Summer use - for air circulation

If required, the Lo-line can be used in Summer for air circulation without heat. Set the Summer/Winter switch to the Summer position (indicated by a blue spot). In this position the integral low limit thermistor and room thermostat are overridden. The fan will now run at the speed selected by the fan speed switch.

## 10. TAMPER PROOF COVER

The tamper proof cover supplied with the unit is intended for use **after** the unit has been installed and commissioned. When the controls have been set to the desired position, the use of the cover will ensure the controls are not interfered with.

1. Remove the protective packaging from the cover.
2. When the unit is fully assembled and the controls set, fit the tamper proof cover using the screw provided, see Fig. 7.

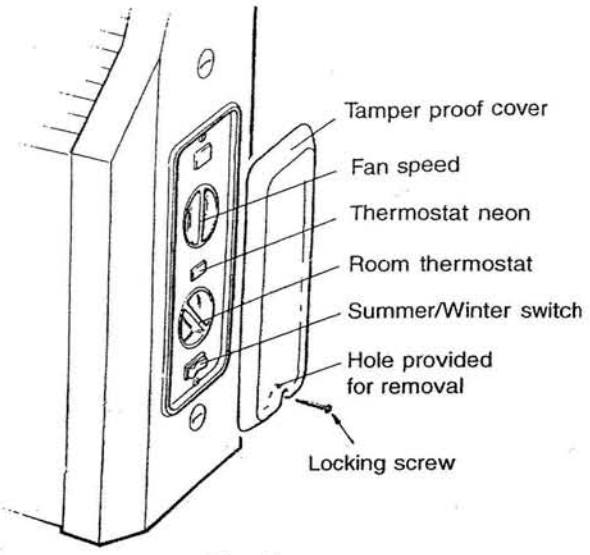



*Fig. 7*

## 11. MAINTENANCE

Routine user maintenance is limited to external cleaning of the unit and occasional cleaning of the filter. We do not recommend the user to undertake any further servicing.

### 11.1. External cleaning

With the electricity supply isolated, the outer case may be wiped over with warm water and mild detergent. Take care to avoid water entering the grilles and control panel. Ensure the case is dry before switching on.

### 11.2. Filter cleaning

The filter is positioned in the base of the unit and can be removed as follows:-

1. Isolate the electricity supply.
2. To remove the filter, see Fig. 6. Slide it up towards the back of the unit (1) then slide the filter forwards and down out of the unit (2). A small handle is moulded into each end of the filter to assist removal/replacement.
3. Gently tap out any loose dirt, then if required, the filter may be washed in warm water with a mild detergent. Shake gently after washing to remove excess water and allow to dry.
4. To replace the filter, see Fig. 5. Slide the filter up into the channel inside the back of the unit (1) then lift the front of the filter against the guides at each end of the chassis and slide the filter forwards to rest against the cover (2).

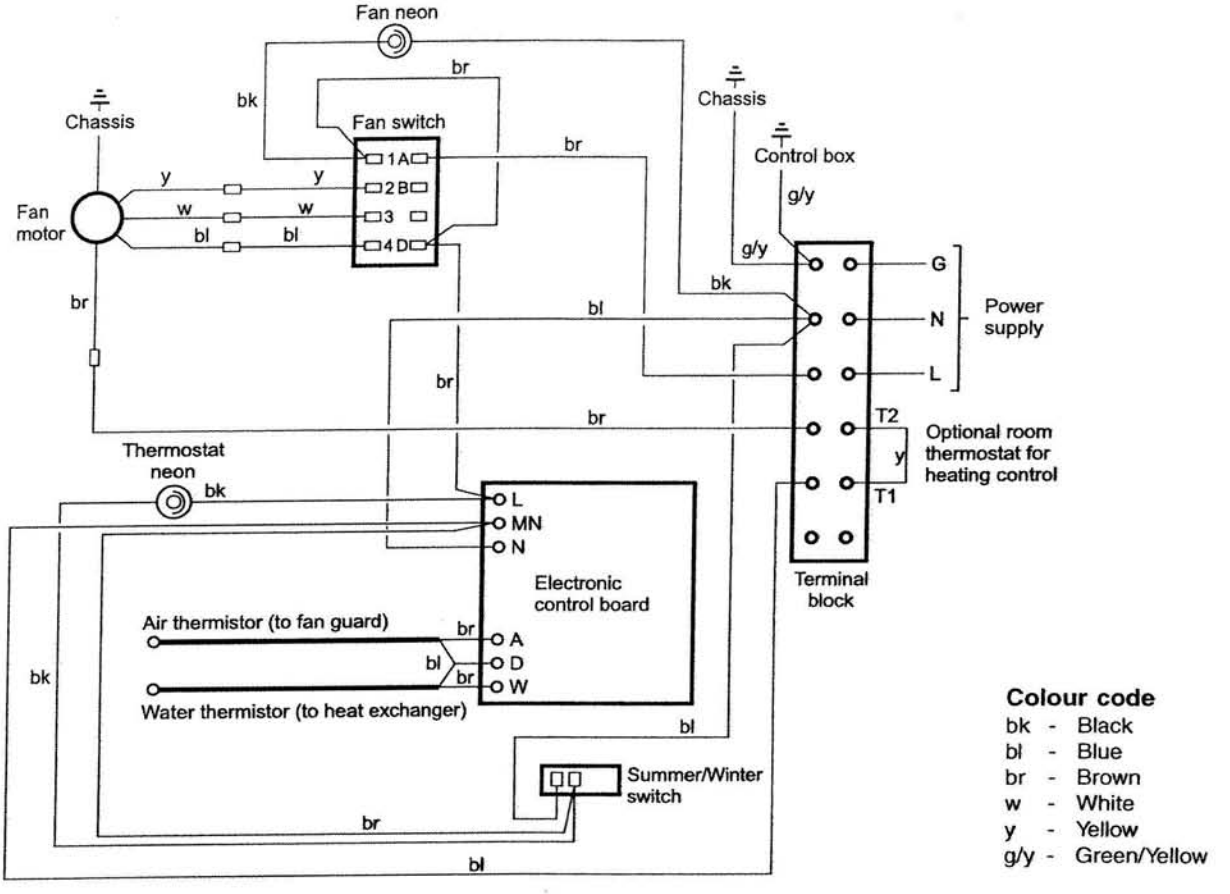
The regularity of cleaning the filter will depend on the particular conditions and it may be found that the filter requires more, or less frequent cleaning. This can only be ascertained after a few months of operating the unit.

**Note:** On no account must the filter be allowed to become heavily clogged with lint and dirt as this will impair the efficiency of the unit, and may cause damage to the fan motor.

### 11.3. Annual service

To obtain maximum efficiency from the unit it is recommended that it be serviced annually. Please contact Myson Inc. at the address given on the back page.

## 12. WIRING DIAGRAM




Myson LO-Line control panel Water Temperature Adjustment

To Reduce the water SET point turn the Potentiometer Anti Clockwise.

The normal set point is approx 43 C , with the arrow looking directly away from the board

Isolate the unit from the Electrical supply before Any Work is carried out.

IF IN DOUBT CONSULT A QUALIFIED ELECTRICAIN.

3 If it is required to control the fan convector by a remote room thermostat, remove the wire link between T1 and T2 on the terminal block and connect the thermostat across these two terminals. The thermostat cable entry is through the hole provided in the chassis. A cable gland should be used (not provided).

4 Fit cover on chassis and replace fixing screws then push plastic end trims onto the unit. Replace screws through trims into captive nuts in cover and tighten.

5 Push plastic caps into holes in end trims to cover screw heads.

6 The filter can now be fitted. Slide the filter up into the channel inside the back of the unit (1) then lift the front of the filter against the guides at each end of the chassis and slide the filter forwards to rest against the cover (2). A small handle is moulded into each end of the filter (see fig. 6).

7 To remove filter, slide it up towards the back of the unit (1) then slide the filter forwards and down out of the unit (see fig. 7).

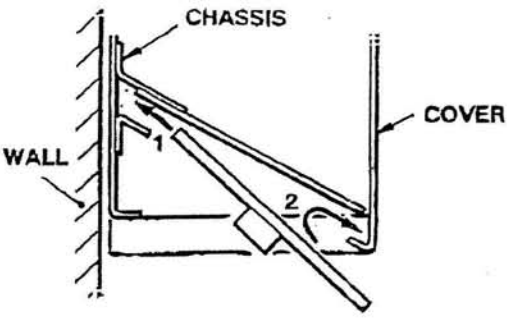



Figure 6

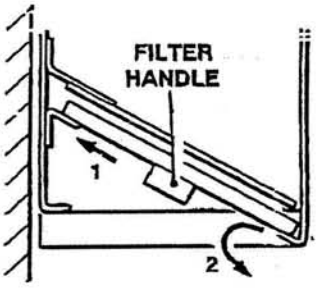



Figure 7

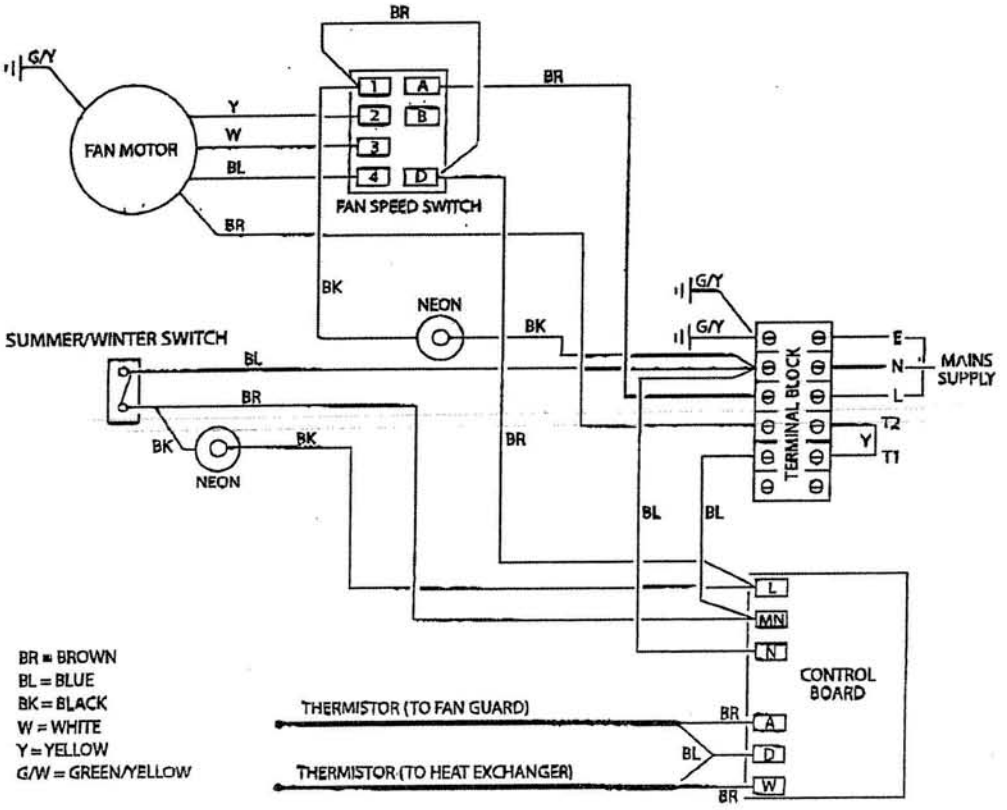



Figure 8

## LO-LINE

| Item No. | Description | LO-LINE 6 - 4 Part No. | Qty. | LO-LINE 9 - 6 Part No. | Qty. | LO-LINE 14 - 10 Part No. | Qty. | LO-LINE 19 - 15 Part No. | Qty. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Filter | 1290020 | 1 | 1290021 | 1 | 1290022 | 1 | 1290023 | 1 |
| 2 | Element | 8900050 | 1 | 8900051 | 1 | 8900052 | 1 | 8900053 | 1 |
| 3 | Motor/Fan Assembly | 7100051 | 1 | 7100052 | 1 | 7100053 | 1 | 7100054 | 1 |
| 4 | Knob Black | 1443096 | 1 | 1443096 | 1 | 1443096 | 1 | 1443096 | 1 |
| 5 | Gottak Rotary Switch | 1300006 | 1 | 1300006 | 1 | 1300006 | 1 | 1300006 | 1 |
| 6 | Knob Thermostat Black | 1443097 | 1 | 1443097 | 1 | 1443097 | 1 | 1443097 | 1 |
| 7 | Electronic Control Board | 1263007 | 1 | 1263007 | 1 | 1263007 | 1 | 1263007 | 1 |
| 8 | Harness | 3000019 | 1 | 3000019 | 1 | 3000019 | 1 | 3000019 | 1 |
| 13 | Switch, 2-way Black | 1300012 | 1 | 1300012 | 1 | 1300012 | 1 | 1300012 | 1 |
| 14 | Valve 15 mm WAB | 1250002 | 2 | 1250002 | 2 | 1250002 | 2 | 1250002 | 2 |
| 15 | Thermistor Assembly | 3000003 | 1 | 3000003 | 1 | 3000003 | 1 | 3000003 | 1 |
| 16 | RH End Cap | 1443160 | 1 | 1443160 | 1 | 1443160 | 1 | 1443160 | 1 |
| 17 | LH End Cap | 1443161 | 1 | 1443161 | 1 | 1443161 | 1 | 1443161 | 1 |
| 18 | End Cap Plug | 1443162 | 4 | 1443162 | 4 | 1443162 | 4 | 1443162 | 4 |
| 19 | Cable Clamp | 1440002 | 1 | 1440002 | 1 | 1440002 | 1 | 1440002 | 1 |
| 22 | Grille | 6200181 | 1 | 6200182 | 1 | 6200183 | 1 | 6200184 | 1 |
| 23 | Surround | 6200185 | 1 | 6200186 | 1 | 6200187 | 1 | 6200188 | 1 |
| 39 | Control Panel Assembly (Includes items 4 to 8 and 13) | 7200143 | 1 | 7200143 | 1 | 7200143 | 1 | 7200143 | 1 |

**Note:** Each carton contains an accessory pack (Part No. 7000012), comprising:
One tamper proof cover Part No. 1443000
One screw PHP 2 6 x 1 In. lg.
One cable clamp Part No. 1440002
Four end cap plugs Part No. 1443162
Installation/Maintenance/Operating instructions (Part No. 1370015)
Spare parts leaflet (Part No. 1370021)

**For details of your nearest spare parts stockist call 01482 713927**
**or email spares.convectors@myson.co.uk**

MYSON
CONVECTORS

MYSON RADIATORS LTD, REGISTERED IN ENGLAND No 653648
REGISTERED OFFICE: EASTERN AVE, TEAM VALLEY TRADING ESTATE, GATESHEAD, NE11 0PG.



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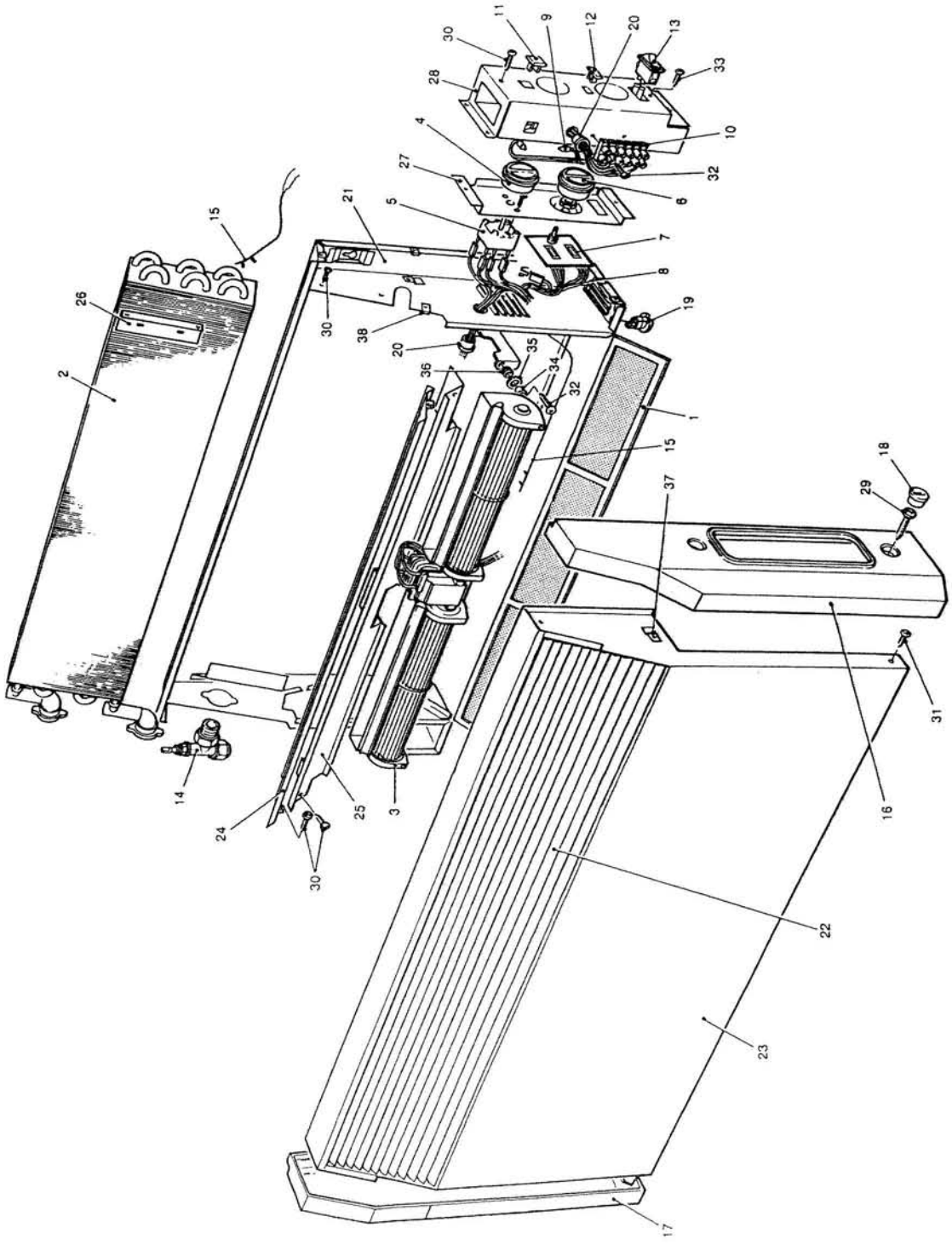
MYSON
Convectors

# LO-LINE FAN CONVECTOR

**Models:- 19-15, 14-10, 9-6, 6-4**



## LO-LINE STANDARD (USA)

| ITEM | DESCRIPTION | 6 - 4 | | 9 - 6 | | 14 - 10 | | 19 - 15 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Part No. | Qty. | Part No. | Qty. | Part No. | Qty. | Part No. | Qty. |
| 1 | Filter | 1290020 | 1 | 1290021 | 1 | 1290022 | 1 | 1290023 | 1 |
| 2 | Element | 8900050 | 1 | 8900051 | 1 | 8900052 | 1 | 8900053 | 1 |
| 3 | Motor/fan assembly | 7100061 | 1 | 7100062 | 1 | 7100063 | 1 | 7100064 | 1 |
| 4 | Control knob (fan speed) | 1443096 | 1 | 1443096 | 1 | 1443096 | 1 | 1443096 | 1 |
| 5 | Rotary switch | 1300006 | 1 | 1300006 | 1 | 1300006 | 1 | 1300006 | 1 |
| 6 | Control knob (thermostat) | 1443097 | 1 | 1443097 | 1 | 1443097 | 1 | 1443097 | 1 |
| 7 | Electronic board | 12630007 | 1 | 12630007 | 1 | 12630007 | 1 | 12630007 | 1 |
| 8 | Wiring harness | 3001025 | 1 | 3001025 | 1 | 3001025 | 1 | 3001025 | 1 |
| 9 | Neon | 1391002 | 2 | 1391002 | 2 | 1391002 | 2 | 1391002 | 2 |
| 10 | Terminal block | 1396000 | 1 | 1396000 | 1 | 1396000 | 1 | 1396000 | 1 |
| 11 | Large indicator lens | 140007 | 1 | 140007 | 1 | 140007 | 1 | 140007 | 1 |
| 12 | Small indicator lens | 1440008 | 1 | 1440008 | 1 | 1440008 | 1 | 1440008 | 1 |
| 13 | 2-way switch | 1300012 | 1 | 1300012 | 1 | 1300012 | 1 | 1300012 | 1 |
| 14 | 16 mm WAB valve | 1252002 | 2 | 1252002 | 2 | 1252002 | 2 | 1252002 | 2 |
| 15 | Thermistor - 350 mm | 12630008 | 2 | 12630008 | 2 | 12630008 | 2 | 12630008 | 2 |
| 16 | Right hand end cap | 1443160 | 1 | 1443160 | 1 | 1443160 | 1 | 1443160 | 1 |
| 17 | Left hand end cap | 1443161 | 1 | 1443161 | 1 | 1443161 | 1 | 1443161 | 1 |
| 18 | End cap plug | 1443162 | 4 | 1443162 | 4 | 1443162 | 4 | 1443162 | 4 |
| 19 | Cable clamp | 1440002 | 1 | 1440002 | 1 | 1440002 | 1 | 1440002 | 1 |
| 20 | Snap bush | 1440012 | 2 | 1440012 | 2 | 1440012 | 2 | 1440012 | 2 |
| 21 | Back chassis | 6100157 | 1 | 6100158 | 1 | 6100159 | 1 | 6100160 | 1 |
| 22 | Grille | 6200181 | 1 | 6200182 | 1 | 6200183 | 1 | 6200184 | 1 |
| 23 | Surround | 7000263 | 1 | 7000264 | 1 | 7000265 | 1 | 7000266 | 1 |
| 24 | Drip tray | 6000901 | 1 | 6000902 | 1 | 6000903 | 1 | 6000904 | 1 |
| 25 | Baffle | 6100167 | 1 | 6100168 | 1 | 6100169 | 1 | 6100170 | 1 |
| 26 | Retaining bracket | 6000913 | 1 | 6000913 | 1 | 6000913 | 1 | 6000913 | 1 |
| 27 | Inner control panel | 6000900 | 1 | 6000900 | 1 | 6000900 | 1 | 6000900 | 1 |
| 28 | Front control panel | 6000899 | 1 | 6000899 | 1 | 6000899 | 1 | 6000899 | 1 |
| 29 | 10 x 1 pan hd pozi screw | 1350057 | 4 | 1350057 | 4 | 1350057 | 4 | 1350057 | 4 |
| 30 | 6 x $^{3}/_{8}$ pan hd pozi screw | 1350021 | 10 | 1350021 | 10 | 1350021 | 10 | 1350021 | 10 |
| 31 | 6 x $^{1}/_{2}$ pan hd pozi screw | 1350022 | 11 | 1350022 | 12 | 1350022 | 13 | 1350022 | 15 |
| 32 | 6 x $^{5}/_{8}$ pan hd pozi screw | 1350025 | 4 | 1350025 | 4 | 1350025 | 5 | 1350025 | 5 |
| 33 | 6 x 1 pan hd pozi screw | 1350024 | 1 | 1350024 | 1 | 1350024 | 1 | 1350024 | 1 |
| 34 | 2 BA brass eyelet | 1450002 | 2 | 1450002 | 2 | 1450002 | 3 | 1450002 | 3 |
| 35 | Washer | 1353091 | 2 | 1353091 | 2 | 1353091 | 3 | 1353091 | 3 |
| 36 | PVC grommet | 1440000 | 2 | 1440000 | 2 | 1440000 | 3 | 1440000 | 3 |
| 37 | No. 10 captive nut | 1355006 | 4 | 1355006 | 4 | 1355006 | 4 | 1355006 | 4 |
| 38 | No. 6 captive nut | 1355004 | 7 | 1355004 | 7 | 1355004 | 7 | 1355004 | 7 |

**Note:** Each carton contains an accessory pack (Part No. 7000012) which contains:-

| | | |
|---|---|---|
| 1 | Tamper proof cover | 1443000 |
| 1 | 6 x 1 pan hd pozi screw | 1350024 |
| 1 | Lo-line fixing instruction book | 1371110 |
| 1 | Cable clamp | 1440002 |
| 4 | End cap plugs | 1443162 |

For further information and assistance please contact us at the address below.


*Marketing & Administration*
**MYSON, INC.**
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04/02/D67