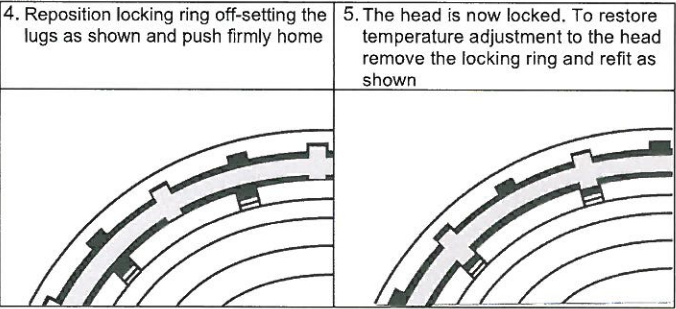
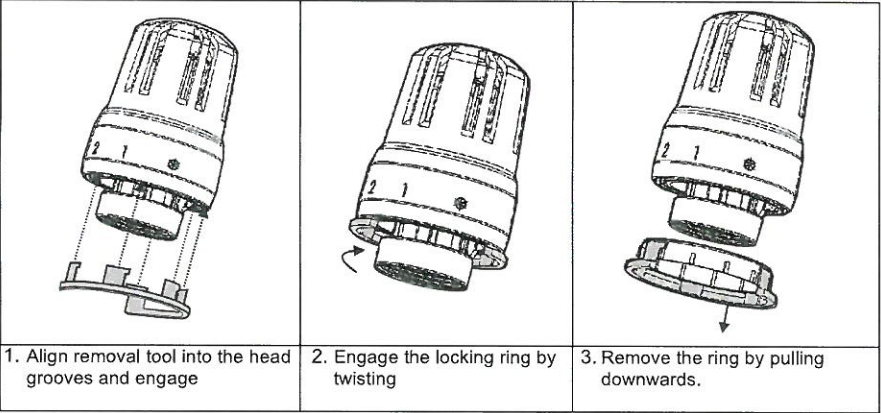


Tamper proof temperature setting

Initially remove the thermal head from the valve body and lock the setting in desired position.



Presetting characteristics flow

	1/2" angle/reverse angle pattern forward flow	1/2" angle/reverse angle pattern reverse flow	1/2" straight pattern forward & reverse flow
Setting	Kg/hr	Kg/hr	Kg/hr (S-2K)
0	44	45	40
1	151	164	130
2	206	220	195
3	206	220	195
4	206	220	195
5	206	220	195
6	206	220	195
7	206	220	195
8	206	220	195
9	206	220	195

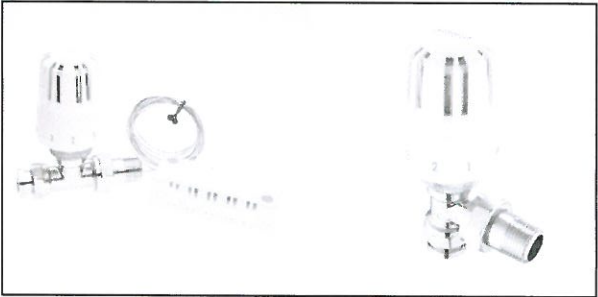
Maintaining a policy of continual product development the Manufacturer reserves the right to change specifications, design and materials of products listed in this leaflet without prior notice



The BSS Group plc, Fleet house, Lee Circle  
Leicester LE1 3QQ, England



THERMOSTATIC RADIATOR VALVES  
INSTALLATION AND USER GUIDE



General

This guide is intended for use with the following products:

Product Code	Description
49341048	BOSS 1/2-15MMX1/2 HORIZONTAL TRV
49341059	BOSS 1/2-15MMX1/2 VERTICAL TRV
49341070	BOSS THERMAL HEAD WITH 0 POS'N
49341081	BOSS THERMAL HEAD WITH 0 POS'N C/W 2M REMOTE SENSOR

Items 49341070 and 49341081 can be used with any of the following valve bodies:

Product Code	Description
49341111	BOSS 1/2-15MMX1/2 CP VVE BODY ANG HORIZONTAL
49341122	BOSS 1/2-15MMX1/2 CP VVE BODY ANG VERTICAL
49341133	BOSS 1/2-15MMX1/2 CP VVE BODY STRAIGHT
49341144	BOSS 1/2-15MMX1/2 VB1290/4 ANG VERTICAL PRESET
49341155	BOSS 1/2-15MMX1/2 VB1490/4 STR PRESET
49341166	BOSS 1/2-15MMX1/2 VB1390/4 ANG HORIZONTAL PRESET

BOSS thermostatic radiator valves are approved to EN 215 and manufactured to a strict quality assurance system complying with ISO 9001:2000

Technical Data

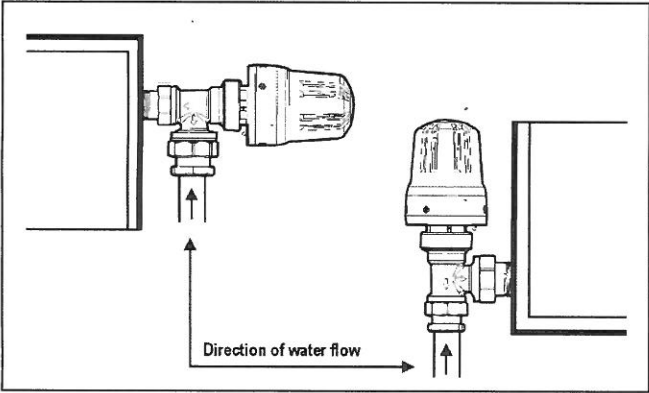
Maximum Operating Pressure	10 bar
Maximum Differential Pressure	0.6 bar
Maximum Water Temperature	120°C
Temperature Range	11°C – 29°C
Frost Setting	7°C
Positive Shut-off Function	Setting '0'

For presetting characteristics flow see back cover

For technical advice please call: 08701 200285 from 09.30 to 16.30 Monday to Friday (except Christmas day and Bank holidays)

INSTALLATION

Location



It is important that the sensing head is not exposed to direct sunlight, covered by curtains or subjected to direct heating from radiators, pipes or equipment such as television sets. If this occurs it will prevent the thermostatic head from sensing the room temperature properly. In such cases a remote sensor or remote adjuster should be used to achieve correct temperature control. (See 'Remote Sensor' below)

To avoid premature closing of the valve thermostatic sensing heads should not be mounted vertically at the top connection to a radiator. If space does not permit horizontal mounting then a thermal head with a remote sensor should be used to achieve the best performance

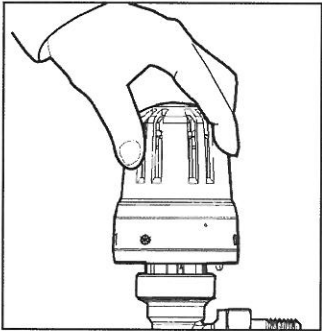
To avoid the problem of hydronic (water flow) noise it is recommended that the differential pressure does not exceed 0.2 bar. It is strongly recommended that an automatic bypass valve is fitted to any system with a high proportion of TRV's

Fitting the Valve Body

- 1. Using a suitable jointing material, screw the radiator adaptor tail into the flow side of the radiator; the valve is approved for two-way (reverse flow) operation if it is not possible to identify the flow pipe. The inlet connection is designed for both copper and iron pipe
- 2. If using screwed tube first ensure threads are clean and de-burred. Using a suitable jointing material, screw the valve body onto the tube aligning the valve body with the radiator tail.
- 3. Connect the valve body to the radiator tail and tighten the nut.
- 4. For copper tube cut, de-burr and fit tube to the valve body using the nipple and olive supplied.

Fitting the thermostatic head

- 1. Unscrew the protective cap from the valve body of the thermostatic valve.
- 2. Adjust the head setting to maximum by pulling the handle upwards and then rotating it to setting 5
- 3. Push handle down to ensure that it is in the locked position and then place the head on the valve body so that the display pointer is visible to the user.
- 4. Engage the securing ring on the valve body carefully then tighten it without using excessive force
- 5. Test operation by lifting the handle and rotating it between setting 0 and 5.
- 6. Adjust the setting of the sensing head to the customer's requirements and push down to lock the setting.



Use of TRV valve Protection cap

The protection cap may be used to keep the valve closed during fitting or removal of the radiator. Prior to draining the radiator the thermal head should be removed and the protection cap screwed fully clockwise. Once the lockshield valve has been closed, the radiator may then be drained; Pegler recommends the use of a drain-off pattern Lockshield for this purpose. After connecting or reconnecting the radiator, it should be refilled and the protection cap replaced by the thermal head once more.

Remote sensor

The remote sensor comes complete with a 2 meter capillary, sensing phial and phial housing. The adjustable head is fitted to the valve body in exactly the same way as above. The capillary should be carefully uncoiled and run to the intended phial location free from direct sunlight, extraneous sources of heat or other obstructions. Using the phial housing as a template, mark the position of the fixing holes and prepare the hole with a suitable wall plug. Clip the phial into the

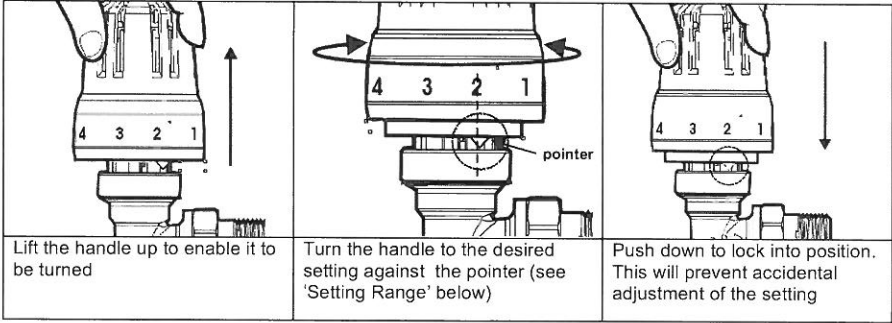
housing and then secure to the wall using the screws supplied. The capillary can be clipped to the wall using BOSS product code 49341199.

OPERATION

General

The Belmont thermostatic radiator valve provides automatic temperature control of a room or space by regulating the opening and closing of the radiator valve dependent on the surrounding air temperature. The desired comfort temperature is pre selected by turning the hand wheel.

Temperature Range Adjustment



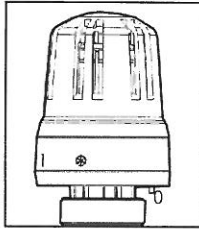
Temperature Setting Range

0	*	1	2	3	4	5
Shut Off	7°C	11-13°C	15-17°C	19-21°C	23-25°C	27-29°C

Deviations of a few degrees are possible depending on the particular installation and design of the heating system. If the approximate temperature values specified in the above table cannot be reached please contact your heating engineer,

Frost Setting

In the \* position. The valve opens automatically at a surrounding temperature of approximately 7°C thus preventing the system from freezing.



Shut Off Function 0

The thermostatic valve is shut off and will not respond to changes in temperature. This may be used when disconnecting the radiator.

Limiting the operating temperature Range.

Two limit pins are supplied with each thermal head which may be used to limit the temperature range.

Procedure – range limitation

To limit range between a minimum and maximum setting:

- 1. Set to the desired position and insert pins into the holes in the base surrounding setting 3.
- 2. Check that head movement is limited to the desired range.

For setting to a maximum only

- 1. Turn handle to the desired maximum position.
- 2. Insert pin into first orifice lower than setting 3

For setting to minimum only

- 1. Set to desired minimum position.
- 2. Insert pin into first orifice higher than setting 3

