



Owners Manual Auto EMS

To The Owner

Dear Owner,

Congratulations on selecting a Brivis Heating System.

At Brivis we take pride in all aspects of servicing our customers. Our people are committed to upholding the ethics originally formulated by my father when he founded Brivis over 40 years ago. Our aims are to ensure your comfort and satisfaction by providing the best quality product and service, together with a genuine concern for our environment.

To all new customers buying a Brivis product for the first time, welcome!

If you are already an established Brivis customer, thank you for your continued support. I am sure you will be happy with the choice you have made.

Yours sincerely,

Tim O'Brien

**Managing Director
Brivis Australia Pty Ltd**

Understanding Central Heating.

To make the most of your central heating, you first need to be familiar with its basic operating principles.

Put simply, your Brivis system consists of three major components; a heater, a ductwork system and a wall control, which, in this case is the revolutionary Brivis Networker.

The heater draws air out of the house through a large, centrally located Return Air duct.

Once heated, the air is then re-distributed to every corner of the house via a network of smaller ducts and released into each room through floor or ceiling outlets.

The entire process is directed by the wall-mounted Networker which is usually positioned in the living area on an internal wall and away from windows and doors if possible.

For best performance, the following points should be borne in mind:

- * Ensure that your home is well insulated. Wall-to-wall floor coverings, drapes, pelmets and even wall insulation can all help reduce your energy consumption.
- * Turn the heating OFF at night and back on again when you wake in the morning.
- * Keep the temperature setting low if you are active in the house. The normal operating temperature in most average homes should be around 17^o C. to 21^o C.
- * Don't leave external doors and windows open.
- * Fumes from candles, fragrant oil burners, cooking or smoking may be drawn into the system, (especially if the Return Air inlet is in the ceiling) and can cause staining around the heating outlets. Installing an Electronic Air Filter in the Return Air will help avoid this problem.

Just follow these few guidelines and your Brivis Central Heating System is sure to provide you with many years of warmth and satisfaction.

Heater Operation.

- * Ensure your wall control is set at the OFF position.
- * Go to the Heater and turn ON the gas cock at the gas supply adjacent to the unit.
- * Turn ON the 240 V power supply at the power point, ensuring the plug is firmly located in the socket.
- * Now turn the Networker ON in heating mode.
- * If the unit has been shutdown for an extended period of time or after any interruption to the gas supply, it may take several attempts to start the heater as air may need to be purged from the gas pipe.
- * The unit will automatically shutdown if the pilot is not established within the safety period. To reset the unit simply press the reset key on the Networker.

The heater may now be operated from the Networker.

- * When the Networker calls for heat, the Heater must first establish correct ignition, then allow the burners time to generate heat before starting the fan. A small amount of warm air will then start to flow and this flow will reach its full potential within 1 to 2 minutes.
- * With an external heater, it is not abnormal to see vapour discharging from the flue terminal when the unit is operating.

Power supply interruption.

The heater will not operate without a 240 Volt power supply to the unit.

If the power supply is interrupted during the heater's operation, the unit has safety mechanisms to turn off the gas supply.

When the power is restored, the heater will resume normal operation automatically.

Outlet Guide

For all systems, a minimum number of outlets must remain fully open (this includes both the outlet grille and the damper in the duct) if the heater is to operate properly without overheating.

Similarly, ceiling systems have a maximum number of outlets that can remain fully open to ensure that the velocity through each outlet is sufficient.

These maximums only relate to fully open outlets, however, the system will operate effectively with more outlets open, if it has been properly balanced.

There is no maximum number for floor outlets so the chart below lists the usual number of floor outlets for each heater.

Brivis Auto-EMS Heaters**Minimum Ceiling Floor**

EMS 20e 5 8 12
EMS 20e XA 5 10 12

EMS 26e 8 11 16
EMS 26e XA 8 13 16

EMS 20i 6 8 13
EMS 20i XA 6 10 13

EMS 26i 8 11 16
EMS 26i XA 8 13 16

Wall Controller Operation

At first glance, an electronic wall control can look complicated, but it really is very simple. It can be as basic or as sophisticated as you need, or want it to be.

The Brivis Networker is at the heart of an amazingly sophisticated electronic system, but it can be as simple to use as any manual wall controller.

To learn more about its operation, you will find the three Networker booklets in your owners pack.

One is an Introduction to the Networker, which outlines its basic operation, then there is one on Central heating and another on Evaporative Cooling.

Heater Maintenance.

The frequency of cleaning will depend on local conditions so an inspection should be performed.

* Check that the power lead and gas pipe are in good condition. If they are damaged, call Brivis for service.

* The RETURN AIR FILTER which is fitted in the return air grille requires regular cleaning, and should be checked every fortnight. A blocked filter will seriously affect the heater's performance and economical operation.

If you wish to close the heater down for summer or holidays it is only necessary to turn off the external gas cock and switch off the power to the heater.

Heater Service.

To ensure that your Brivis Heater continues to operate at peak efficiency it is recommended that it be periodically serviced by a qualified Brivis technician.

For example, the burners should be removed and cleaned every two to three years, the fan blades should be checked every four to six years and the cabinet and heat exchanger panels should also be inspect and cleaned as required.

Warranty service must be carried out by authorised Brivis personnel.

Cautions

* Do not place articles on or against your heater.

* Do not use, or store, flammable materials near the heater.

* Do not spray aerosols in the vicinity of the heater while it is in operation.

* The front cover of the heater must be on when the unit is in operation.

* Do not hose the flue terminal on external heaters.

* Ensure that the flue terminal on external heaters is kept clear of plant growth or any other obstructions.

Brivis recommend that any service be carried out by authorised Brivis service personnel.

The Networker Heating

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Winter Warmth.

The only thing better than coming home to a warm house on a cold day, is waking up to a cosy bedroom and bathroom on a freezing winter's morning.

Now, your Brivis Networker puts this luxury at your fingertips.

If it's simplicity you want, the Networker allows you to operate your system manually, using just a couple of basic controls.

On the other hand, you can have a heating system that really does the thinking for you.

The Networker has Timer/Thermostat programs that allow you to direct the system to provide the temperature you want, when you want it, and where you want it.

Getting Started.

Once you have read "Introducing the Networker" operating the heater in Manual couldn't be simpler.

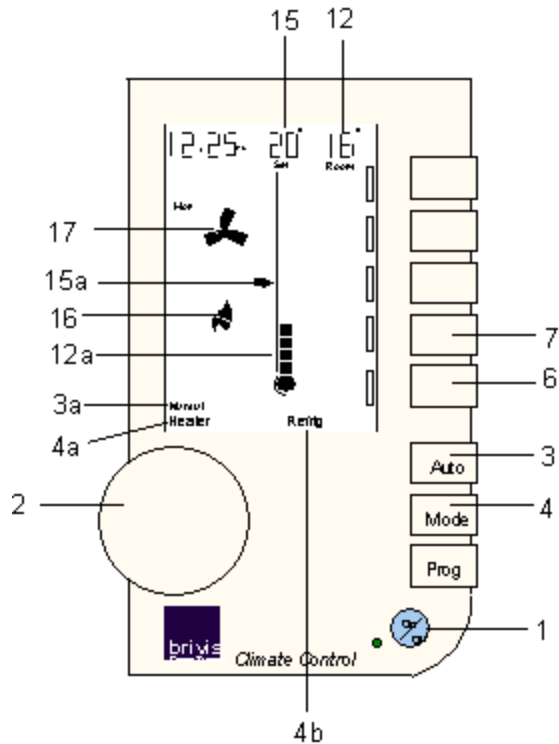
Start with the Networker turned OFF [1]. (If you have the Networker ON while switching between units you could start the wrong one inadvertently).

If you have other appliances on the network, then just press the MODE control key [4] until it selects "Heater" [4a].

Next, turn the Networker ON [1] and press the AUTO Control key [3] until the word "Manual" [3a] appears near the bottom left-hand corner of the screen.

At the same time, the heater's "Set" temperature [15] will appear at the top of the screen. (Note, the current "Room" temperature [12] is still visible in the top right of the screen).

This "Set" temperature [15], is the temperature the heater is set to maintain. To change it, use the ROTARY DIAL [2] to select the temperature you require.



That's it !! Now you have heating!

If the current "Room" temperature is lower than the "Set" temperature, the heater will operate to reach and maintain the "Set" temperature.

Of course, if the current "Room" temperature is higher than the "Set" temperature, the heater will not switch on until it falls below that "Set" temperature.

And when you no longer need heating, just press the ON/OFF button [1] to turn the system off.

On-Screen Information.

When the system is operating, the screen displays additional information that tells you exactly what is happening. If you want to know what it all means, then read on.

There is a Thermometer [12a] in the middle of the screen which displays the current "Room" temperature.

The "Room" temperature is also written in the top right corner of the screen [12].

There is a Marker [15a] beside the thermometer which shows the "Set" temperature [15] the heater is currently programmed to maintain.

A small Flame Symbol [16] appears on the screen whenever the heater is turned on by the Networker. (It also flashes at the end of the heating cycle when the fan pushes the last of the warmed air into the house).

A Fan Symbol [17] flashes as the system is preheating itself. It stops flashing and begins to rotate when warm air starts flowing through the ducts.

Both the Fan [17] and Flame [16] symbols disappear when the heater is not operating.

Note:

Even in "Manual" operation, the Networker makes life easy. Unlike other manual systems, you do not have to

go through all of these steps again every time you turn the system on.

The Networker remembers your last settings, and goes back to them the next time you select the manual operation.

Notes on Zoning.

Some systems may include multiple heaters or zone dampers for switching between different zones.

These will have been set up and explained by the installer of the system, and can be operated by either, or both, of the lower two control keys [6 & 7].

The Auto Program.

In Automatic, the Networker has a pre-set "Auto-Program" which is already entered into the Networker's memory.

This "Auto-Program" covers the entire week. It is based on average operation and has the following combination of pre-programmed time periods, temperatures and, if available, zone dampers:

Period

Wake

Leave

Return

Presleep

Sleep

The "Wake" setting is usually used to start the system and pre-warm the house before everyone gets up.

The "Leave" setting can turn it off, when the family has left for the day.

"Return" is then used to switch the system back on again just before everyone gets home.

"Sleep" can turn it off after everyone is asleep. It is recommended that the system be set to turn OFF (- -) overnight, to save energy and lower your gas bill.

The "Presleep" period is a new Brivis feature.

It can be used to slightly increase, or decrease the "Set" temperature, at the same time every night.

Or if you have zone dampers, "Presleep" can be used to switch them ON or OFF, e.g. to pre-warm the bedrooms before going to sleep.

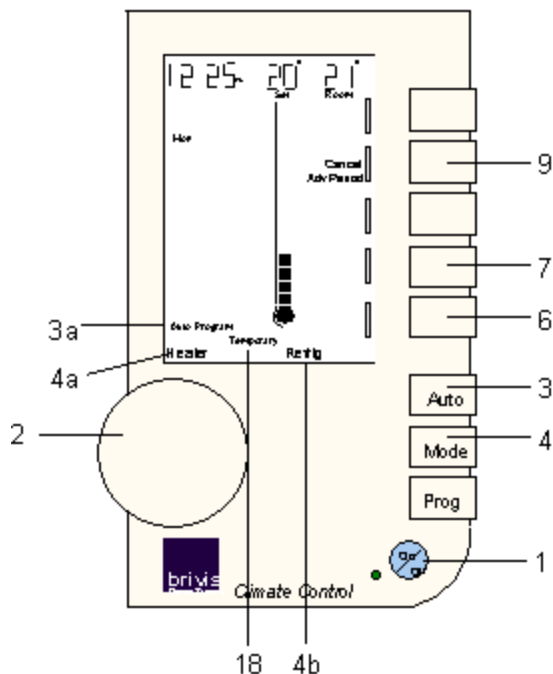
Operating the Auto Program.

Now, if you are happy with these pre-set "Auto-Program" [3b] settings, then all you need to do is to run the system in automatic by following these simple steps:

If you have more than one type of appliance, then with the Networker turned OFF [1], just press the MODE control key [4] until it selects "Heater" [4a].

Next, turn the Networker ON [1] and press the AUTO key [3] until "Auto-Program" [3b] appears near the bottom left-hand corner of the screen.

But, if these pre-set "Auto-Program" settings do not suit your immediate needs, you may want to temporarily override them. If you do, read on.



Overriding the Auto-Program Settings.

If you want to temporarily override the Auto-Program settings, the Networker provides two ways of doing this.

Both of these changes are temporary, so the word "Temporary" [18] will flash while they are operating.

The first method is to press the "Adv.Period" [9] control key and jump into the next "Auto-Program" period immediately. (e.g. if you come home earlier than usual, use this to move out of "Leave" and into "Return").

Whenever you do this, that key [9] changes to read "Cancel/Adv.Period" so pressing it will take you back to the period you were in.

The Networker will return to its Auto-Program as soon as it reaches the next period.

The second method is to use the ROTARY DIAL [2] and increase or decrease the current temperature setting.

With this method, the "Adv.Period" key has now become the "Cancel" key [9]. So pressing it will return you to the Auto-Program.

(For those with zone dampers, altering the zone setting will also result in a "Temporary" [18] change).

If the preset "Auto Program" settings do not suit your lifestyle, you may wish to change them. If so, read on.

Changing the Auto-Program Settings.

If your lifestyle doesn't match the pre-set AUTO-PROGRAM, those settings can be changed very easily.

If you wish, you can change the time or the temperature for any period in four simple steps.

The first will take you into programming mode.

(a) Entering a Program.

If you are not already in heating mode, press the MODE key [4] until the word "Heater" [4a] appears.

Then press the PROG key [3] and you'll notice the word "program" [5a] and the time [11] will begin to flash.

(b) Selecting the Days to be Changed.

For your convenience, the Networker combines all the weekdays into one block and both days of the weekend into another block.

The DAY key [10], is used to select which block you wish to program.

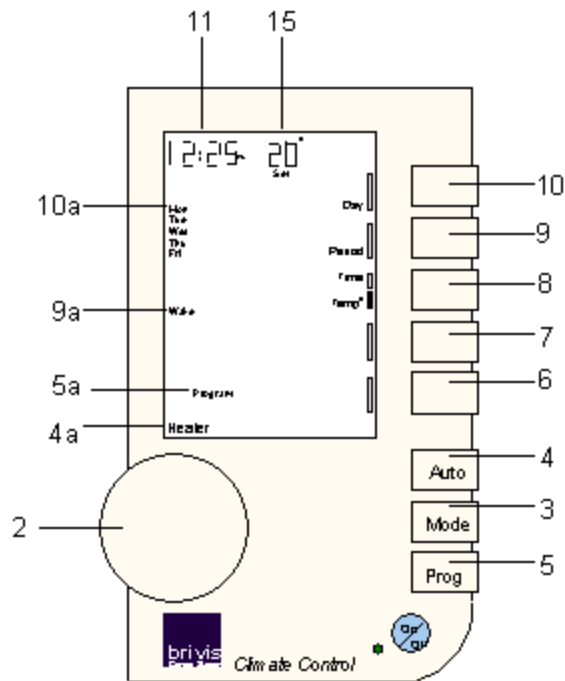
On the left of the screen, the weekdays are listed as a block [10a]. Just below them will be the weekend block.

(c) Selecting the Period to be Changed.

Press the PERIOD key [9] to select the period you wish to change.

It starts with the WAKE period so the word "Wake" [9a] appears on the left of the screen. Each time the key is pressed the program will move to the next period and it's title will appear in the same part of the screen.

From here, you can change either the Set Time or the Set Temperature, or the zone dampers for a particular period.



To change the Set Time, see section (d) and to change the Set Temperature go straight to section (e) and for those with zone dampers, see section (f).

(d) Changing the Set Times

Remember, before starting this, you should have completed (a), (b) and (c) above.

Press the TIME / TEMP key [8] to switch between Set Time and Set Temperature.

You'll know you have selected Time when the time [11] begins to flash.

Now just turn the ROTARY DIAL [2] until the digital clock is showing the time you require*.

When you have the settings you want, just press the PROG key [3], and your new settings will be locked into the program.

If you want to review your new settings, press PROG [3] again and select the "Period" and "Day" you have just changed, and the time flashing [11] should be the one you have just set. Then, press PROG [5] again to end your review.

* Remember, when it's very cold outside, the house will also be cold, so, for maximum comfort, allow time for the system to reach the target temperature.

(e) Changing the Set Temperature

Remember, before starting this, you should have completed (a), (b) and (c) above.

Start by pressing the TIME / TEMP key [8] to select "Temp^o".

You'll know you have selected it when the "Set" Temperature [15] starts to flash.

Now changing the temperature is easy. Just turn the ROTARY DIAL [2] until the "Set" temperature [15] displays the temperature you require.

Note that selecting a "Set" Temperature of (- -) will turn the heater OFF for that period.

Now, press the PROG key [5], your new setting will be locked into the program.

If you want to review your new settings, press PROG [5] again and select the "Period" and "Day" you have just changed and the time flashing [11] should be the one you have just set. Then press PROG again to end your review.

(f) Changing the Zone Damper Program.

Remember, before starting this, you should have completed (a), (b) and (c) above.

Again, the last two keys [6 & 7] are for zone dampers if you have them. Both keys will appear if you have three or four zone dampers, and only one will appear if you have two or one.

If you wish to change the zone damper settings for any program period, you simply use those keys to select the zone dampers you want to operate during that period.

Operating the Fan Only.

Another benefit of a central heating system is that its fan and ductwork system allows you to improve the quality of the air in your home.

In homes where there are asthma sufferers, air quality devices such as Electronic Air Filters can be fitted to clean the air.

To use them, or to simply circulate the air in the house, the fan can be made to run continuously.

If the Networker is OFF [1], use the MODE key [4] to select "Heater" [4a].

Next press the FAN control key [10] and a small rotating Fan [17] and a Column Display [17a], that indicates the fan's speed, appears.

Now use the ROTARY DIAL [2] to increase or decrease the fan speed.

If the Networker is ON [1], and is in "Heater" [4a] mode, the fan will operate continuously once you have pressed the Fan key [10], but its output will be directed by the heater.

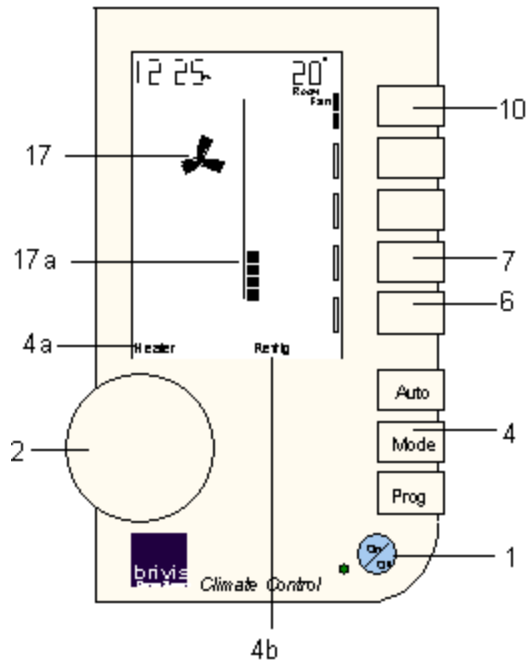
Note that in this set up the fan speed will be low and constant, and can only be adjusted by a Brivis service technician.

If you have zone dampers, they appear [6 & 7] and can be selected too. Then, to turn the fan OFF, just press the FAN control key [10] again.

Operating Add-on Air Conditioning.

If your Brivis central heating system has an add-on, refrigerated airconditioning unit attached, the Networker operates in exactly the same way for the airconditioning as it does for central heating.

Just follow these instructions and note these few points of difference:



On page 3, "Getting Started", note that you use the MODE key [4] to select "Refrig" [4b].

Of course, the relationship between "Room" Temperature [12] and the "Set" Temperature [15] is reversed. The airconditioner will operate to bring the "Room" temperature down to the "Set" Temperature not up to it.

On page 5, "On Screen Information", there is no Flame symbol [16], so the Fan symbol [17] is used to show the airconditioning is operating.

On page 6 "The Auto Program" instead of keeping the temperature up at 20°C in those ON periods, the Networker is programmed to keep it down to 25°C.

On page 7 "Operating the Auto Program", follow the same steps but use the MODE key [4] to select "Refrig" [4b].

Finally, on page 14, "Operating the Fan Only" follow the same steps but again use the MODE key [4] to select "Refrig" [4b].