Australia's favourite climate systems

Brivis Service Manual

Networker

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Bulletins & Servicing Instructions

Networker turns on during OFF period

Background: A software bug has been found in which, if the Pre-sleep time is programmed after the Sleep time, the heater will turn on at 12.00am.

Action: Program Pre-sleep to be before Sleep period.

Bulletins & Servicing Instructions (cont)

Networker "Flashing" Display

When attempting to make adjustment to a Networker, the display screen may commence flashing, preventing or slowing the adjustment.

The most likely reason for this occurring is the voltage to the Networker exceeds the maximum threshold.

The normal Networker power operating range is 10 - 18 Volts **DC.**
Check the voltage using a Multimeter, and if the voltage exceeds these limits, refer to the following, otherwise replace the Networker.

If Voltage exceeding 18 VDC check

- Check the 24 Volt transformer output doesn't exceed 30 VAC.

- Check the 240 Volt power supply doesn't exceed 260 Volts.

- On MPS units, check the transformer output voltage is as follows:

    - Red/black = 13VAC (which = 16V**DC** at Networker)
    - Yellow/black = 16VAC (which = 19V**DC** at Networker)

MPS 2 Amp transformers have a slightly OFF CENTRE taping, therefore, if the voltage from the transformer is configured incorrectly,
Then, 19VDC would result at the Networker, and may increase even higher with power supply fluctuations.
(Measure with Multimeter as visually it can look correct)

- If transformer configuration faulty - Replace transformer

Bulletins & Servicing Instructions (cont)

Networker Appliance Parameter Default Resets

The installer set up parameters, service and factory default parameters of any appliance i.e. MPS, Auto EMS, Contour and Commercial (N-E1), may be accidentally re set, if the Networker installer and service mode/s is accessed.

Care should be taken when accessing the Networker installer and service parameters, to check all the service and installer settings are correct on completion. Where possible check the installer parameters before entering the Networker installer or service access mode.

The following products should have these corresponding service parameters checked on the completion of any Networker installer or service mode access.

Contour L10 and L30	- Parameter 5 model number
Contour All Models	- Parameter 1 ServoSealDelay
	- Parameter 15 FlushService
	- Parameter 7 Cooler ID number (multiple units)

MPS All Models - parameter 4 Combustion Fan Minimum Drive Level

MPS and Auto EMS - All Installer parameters

Bulletins & Servicing Instructions (cont)

Networker Temperature Calibration

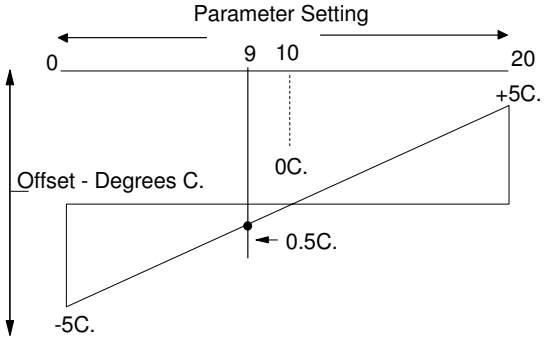
The Networker wall control temperature display sometimes varies from the average temperature experienced in the general heated area.

Some owners may also check the accuracy of the Networker for various reasons, but not always with a thermometer that is accurately calibrated, and therefore register a different temperature.
It's important to check the Networker with a calibrated thermometer (digitherm).

The Networker, like any other temperature registering control, may be effected by surrounding conditions and structures, and you should use your discretion as to whether to adjust the control.

If the Networker requires adjustment, then the service parameter number 48 should be accessed to offset the temperature displayed on the screen.

The default setting for the Networker service parameter 48 is 09 which is -0.5^{0}C. Offset (originally 07 with no dust cover).
The parameter 48 setting range of adjustment is 0 - 20 with each increment equal to 0.5^{0}C.
Setting 10 equals 0^{0}C. Offset.
Therefore the maximum offset variance is +/- 5^{0}C.



Bulletins & Servicing Instructions (cont)

Cooler to Networker Signal Communication

Tekelek, have recently introduced a Cooler type auto-detection system into the controls.
Originally the N-E1 design was of a unique type used for error reporting to the Networker.
Later, with the development of the MPS N-G1/lo controller, a universal type design was used, which not only dealt with heater errors, but could was also be used with Coolers.

When the N-E2 was designed for Contour, it had both the new and old system, but defaulted to N-E1 style for communication consistency to the Networker.

In March 1998 the Networker was changed to auto-detect, the "later to be released", N-E1 and the N-E2 controls.
The new N-E1 control introduced in October 1998, required a link configuration to be compatible with older Networkers.

The N-E2 also required configuring to suit older Networkers, by the introduction of a new parameter (# 21).

Cases where the components are not compatible result in the Networker reading normal operation signals as errors or the unit not operating. i.e. error 00 00 E1 or no PreWet indication.

Heaters (N-G1/lo) have not been affected, and are compatible with all Networker versions.

The following table should be used to configure the various component versions compatible.

It is also preferable to turn the power supply OFF, and reset the Cooler electronic controller after making any service parameter change.

Bulletins & Servicing Instructions (cont)

Cooler to Networker Signal Communication (cont)

	New Networker (issue 4-8) Post 1/3/98	**Old Networker** (issue 1-3) Pre 1/3/98
Old N-E1 (issue 1-5) Pre 28/10/98	*Compatible*	Set Networker parameter 49 to "0".
New N-E1 (issue 6) Post 287/10/98	Remove jumper on N-E1	*Should auto detect, if not, set Networker parameter 49 to* "0".
Old N-E2 (issue 1-5) Pre 13/10/98	*Compatible*	*Set Networker parameter 49* to "0".
New N-E2 (issue 6) Post 13/10/98	Set Cooler parameter 21 to "0".	*Should auto detect, if not,* set Cooler parameter 21 to "1" *and* set Networker parameter 49 to "1"

Parameter 49 - Default = 2.
This parameter is used to configure the Networker to the correct EAC cooler type for bus network message handling. The original N-E1 and N-E2 network cooler controls operated differently to the current N-E1 and N-E2 cooler controls, as did the way the Networker handled the signals.

To align the Networker to the correct bus network operating signal, the Networker will require parameter 49 to be set when retrofitting a Networker to a current or older model cooler as follows:

Setting = 0. This setting is for N-E1 and N-E2 cooler controls pre October 1998, and failure to set correctly will result in no bus network messages.
If a post October 1998 controls is used with this setting, then no error messages will be reported.

Setting = 1. This setting is for N-E2 cooler controls post October 1998.
The default setting should be 2 but if the Networker doesn't auto detect, set Cooler parameter 21 to "1"and set Networker parameter 49 to "1"

Setting = 2. This setting is for all cooler controls later than October 1998, this uses the Networkers auto detect feature.

Operating Instructions & Programs

Introduction

As soon as power is connected to a Brivis heater or cooler on the Network, the Networker screen comes on.

Its micro-processor will even hold the programmed memory when it is disconnected from the Network (e.g. during a power failure).
The clock, however, will need to be reset if the power stays off for more than a couple of hours.

The Networker can be divided up into five components.

- The On/Off Switch.
  Beside this switch is a small indicator light, which glows whenever the Networker is turned ON.

- The Rotary Dial.
  This is simple to use and operates many of the systems functions.

- The Display Screen.
  This provides you with a constant flow of information about the Operation of your system.
  A Digital Clock, the current Room Temperature, the Day of the Week, Auto or Manual operation mode, and the type of appliance selected at the bottom.

- The Variable Control Keys.
  The top five Control Keys can have different functions, or Sometimes, no function at all.

When they have a function, the name of that function appears on the screen beside them.
Beside each operating Control Key is an Indicator, a small rectangular box which changes to solid black, when the key is switched ON.

Operating Instructions & Programs (cont)

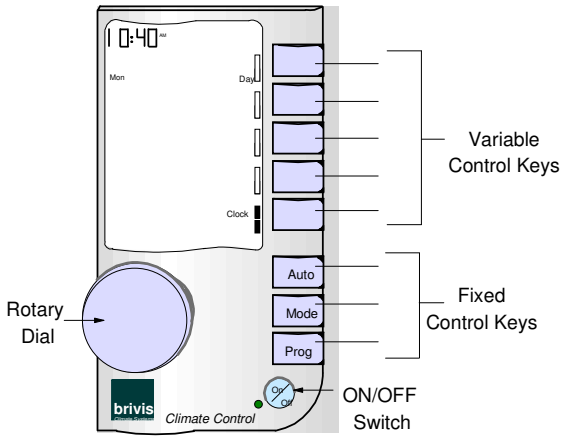
Introduction (cont)

- The Fixed Control Keys.
  These three lower keys have their permanent functions written on them.

Auto: This switches Automatic operation ON or OFF. When Automatic is switched off, the Networker reverts to Manual operation.

Mode: If there is more than one Brivis heating or cooling appliance connected to the Networker, this key allows you to switch between them. When an appliance is selected, its title will appear at the bottom of the screen.

Prog: This control key is used to program the Networker's various automatic functions.



Operating Instructions & Programs (cont)

Setting the Present Day & Time

If the Networker is to operate effectively, in a pre-programmed mode, it must be set to the correct time and day.

To do this, the Networker must be OFF so it is not operating the Heating and or cooling unit.

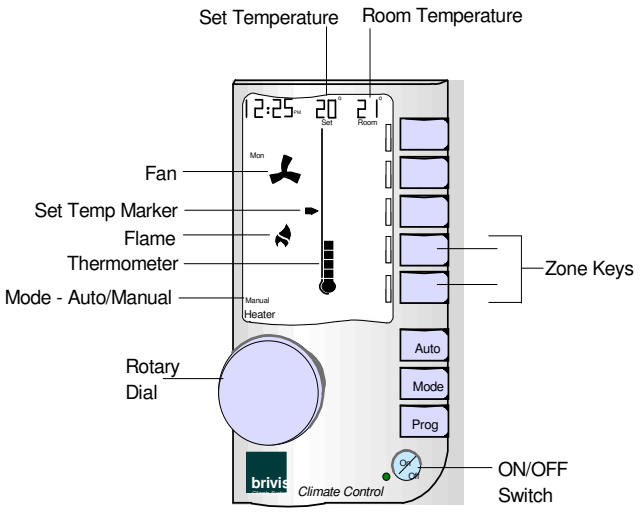
Step 1. Use the On/Off switch to turn the Networker OFF. The word "Clock" will appear when the system is OFF.

Step 2. Press the Clock key and the Digital Clock will flash.

Step 3. Then use the Rotary Dial to select the right time.

Step 4. Move to the Day control key and keep pressing it, until the correct day of the week appears on the left of the screen, e.g. "Mon".

Step 5. Now, press the Clock key again to save your new settings.



Operating Instructions & Programs (cont)

Using the Networker for Heating

On-Screen Heating Information

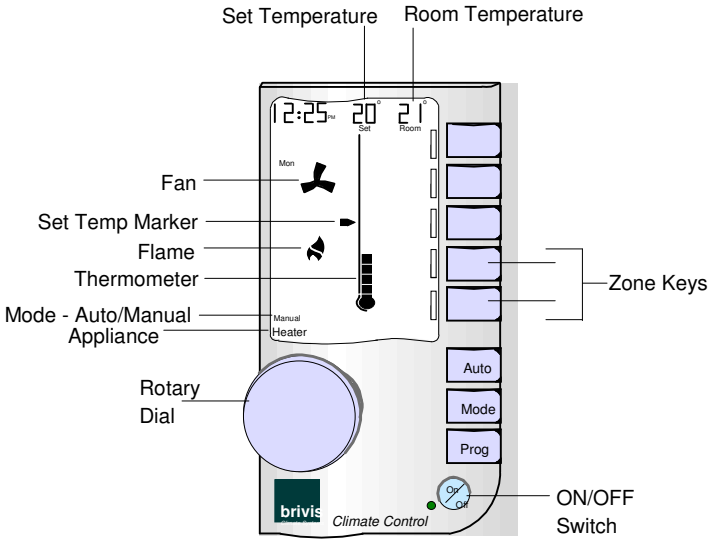
Thermometer:
This displays the current Room Temperature.

Room Temperature:
The actual room temperature is written in the top right corner of the screen.

Set Temp Marker:
Beside the thermometer is a small marker, which shows the temperature the heater is currently set to maintain.

Flame Symbol:
This 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).

Fan Symbol:
This flashes as the system is preheating itself. It stops flashing and begins to rotate, when warm air starts flowing through the ducts.



Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Operating in Manual Mode

Step 1. Use the On/Off switch to turn the Networker OFF.

Step 2. If you have other appliances (e.g. a Cooler or Add-on Refrigeration) on the network, press the Mode control key until the word “Heater” appears at the bottom of the screen. (If you have the Networker ON while switching between units you could start the wrong one inadvertently).

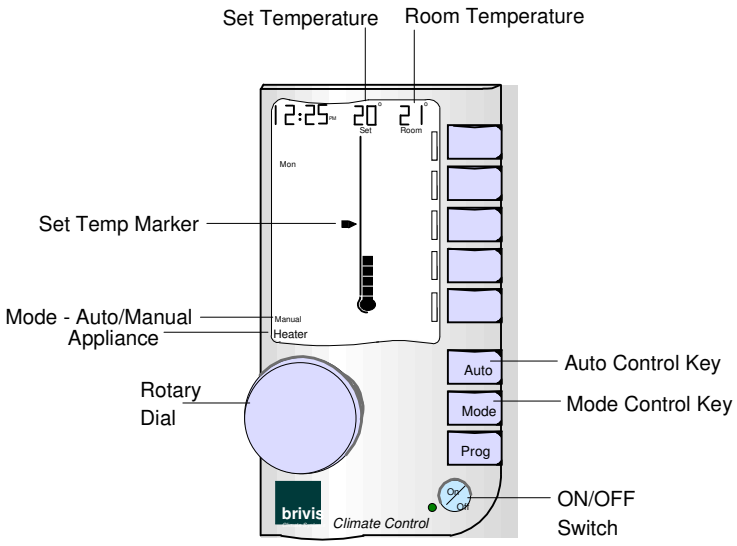
Step 3. Next, turn the Networker ON, and press the Auto control key until the word “Manual” appears, near the bottom left-hand corner of the screen.

Step 4. At the same time, the Heater’s Set Temperature will appear at the top of the screen. (Note, the current Room Temperature is still visible in the top right of the screen).

Step 5. This Set Temperature is the temperature the heater is set to maintain. To change it, use the Dial to select the temperature you require.

Then, when you no longer need the heater to operate, just press the On/Off switch to turn the system OFF.

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



Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Heating and Refrigerative Cooling Auto Programs

The Networker has a pre-set Auto-Program which is already entered into its memory.

The Networker's Auto-Program covers the entire week.

Period	Time	Temperature
Wake	6:00am	20
Leave	9:00am	- -
Return	4:00pm	20
Pre sleep	9:30pm	20
Sleep	10:00pm	- -

Wake Sets a time and temperature to start the system and pre-warm the house, before everyone gets up in the morning.

Leave Sets a time and temperature to turn the heater down or OFF (- -), when the family has left for the day.

Return Sets a time and temperature to switch the system back ON again, just before everyone gets home.

Presleep
This is a new Brivis feature that 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.

Sleep Sets a time and temperature for the night, when everyone is asleep. It is recommended that the system be set to turn OFF (- -) overnight, to save energy and lower your gas bill.

Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Changing the Heater/Refrig Auto-Program Settings

You can change the time or the temperature for any period by using the Prog key.

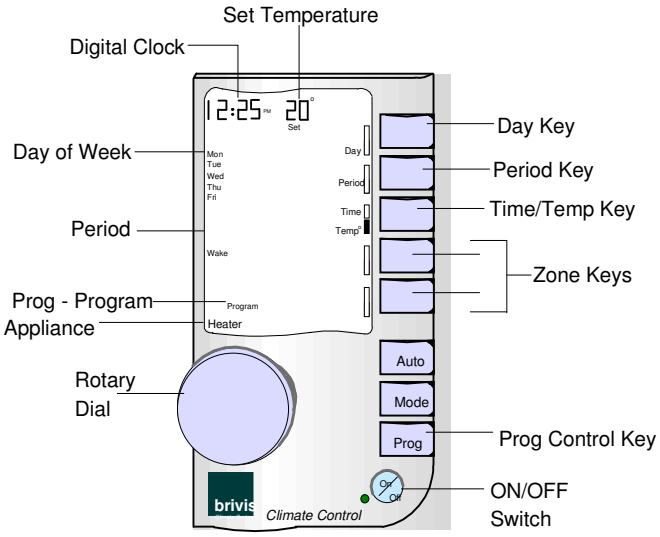
Step 1 Press the Mode key until the word “Heater” appears.

Step 2 Then press the Prog key and you will notice that the word “Program” displays, and the Digital Clock at the top of the screen will begin to flash.

Step 3 Use the Day key to select either the weekday block or the weekend block.
For your convenience, the Networker combines all the weekdays into one block, and both days of the weekend into another block. These are listed on the left of the screen.

Step 4 Press the Period key to select the period you wish to change. Initially, the word “Wake” 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.



Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Changing the Set Times

Remember, before starting this, you should have completed steps 1 to 4 above.

Step 5 Press the Time/Temp key to chose between setting the time and setting the temperature.
You will know you have selected the time, when the Digital Clock in the top left corner of the screen begins to flash.

Step 6 Now just turn the Dial until the digital clock is showing the set time you require.

Step 7 When you have the settings you want, just press the Prog key again, and your new settings will be locked into the program.

Changing the Set Temperature

Remember, before starting this, you should have completed Steps 1 to 4 above.

Step 5 Start by pressing the Time/Temp key to select “Temp”.
You will know you have selected it when the Set Temperature starts to flash.

Step 6 Now changing the temperature is easy. Just turn the Rotary Dial until the Set Temperature displays the temperature you require.

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

Step 7 Now, press the Prog key, your new setting will be locked into the program.

Changing the Zone Damper Program

Remember, before starting this, you should have completed Steps 1 to 4 above.

Again, the two Zone keys are for zone dampers if you have them. Only one key will appear if you have one or two zone dampers, and both keys will appear if you have three or four zone dampers.

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

Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Heater Operation in Auto Mode

Step 1 If you have more than one type of appliance, just press the Mode control key until the word Heater" appears at the bottom of the screen.

Step 2 Turn the Networker ON and press the Auto control key until "Auto-Program" appears near the bottom left-hand corner of the screen.

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

If you wish to return to Manual operation just press the Auto control key.

Temporarily Overriding the Auto-Program Settings

If you want to temporarily override the Auto-Program settings (e.g. if you come home earlier than usual), the Networker provides two ways of doing this.

Both of these methods are temporary, so the word "Temporary" will flash at the bottom of the screen while they are operating.

The first method is:

Step 1 Check that the Networker is in an Auto-Program, and that the words "Adv.Period" appear beside the second top key.

Step 2 Press this Advance Period control key to jump to 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").

Step 3 Check that the same control key has now changed to read "Cancel/Adv. Period".

Step 4 Press it again and it will take you back to the period you were in.

Note: This method is temporary and the Networker will return to its Auto-Program as soon as it reaches the next period.

Operating Instructions & Programs (cont)

Using the Networker for Heating (cont)

Temporarily Overriding the Auto-Program Settings

The second method is:

Step 1 Use the Rotary Dial to increase or decrease the current temperature setting. The Set Temp Marker will move to show this new setting.

Step 2 Check that the Advance Period key has now become the “Cancel” key.

Step 3 Press it to return to the Auto-Program.

For those with zone dampers, altering the zone setting will also result in a “Temporary” change.

Operating the Fan Only

Turn Networker OFF:

Step 1 Use the Mode key to select the “Heater”.

Step 2 Press the Fan key and a small rotating Fan Symbol and a Column Display, that indicates the fan's speed, appear.

Step 3 Now use the Dial to increase or decrease the fan speed.

Operating Instructions & Programs (cont)

Using the Networker for Add-on Airconditioning

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 the preceding heating instructions and note these few points of difference:

- Note that you use the Mode key to select “Refrig”.

- Of course, the relationship between Room Temperature and the Set Temperature is reversed. The airconditioner will operate to bring the room temperature down to the temperature you have set, not up to it.

- On the screen, the Fan Symbol is used to indicate that the airconditioning is operating.

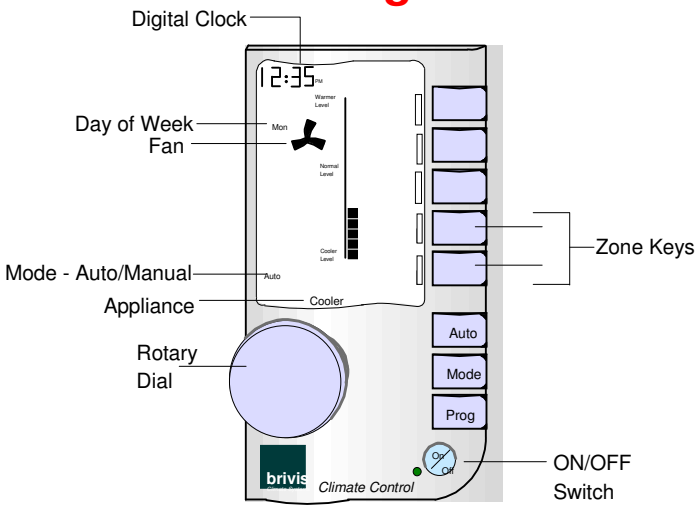
- In the Auto Program, instead of keeping the temperature up at 20^{o}C in those ON periods, the Networker is programmed to keep it down to 25^{o}C.

- To operate the Auto Program, again use the Mode key to select “Refrig” and follow the same steps.

- Again, to operate the Fan Only follow the same steps as for heating.

Operating Instructions & Programs
(cont)

Using the Networker for Cooling



Ducted evaporative cooling is a natural cooling system, based on fresh air, not reprocessed air.

As a result, it operates quite differently to other forms of air-conditioning.

[a] It operates to a Set Comfort Level for cooling, not a specific temperature.

[b] The term “automatic operation” refers to maintaining that Comfort Level automatically, and not to a set of fixed daily timing programs.

The Networker does have cooling Timer functions that are not restricted to automatic operation. They are available in both automatic and manual. (See the section entitled “Using the Timer” for more information).

Operating the Cooler in Auto Mode

If the Networker does not display “Auto”, press the Auto key until “Auto” appears on the screen.

Note that the Set Comfort Level Indicator in the middle of the screen now indicates the Cooler's current comfort level setting.

Now use the Rotary Dial to set the Comfort Level you desire.

Operating Instructions & Programs (cont)

Using the Networker for Cooling (cont)

Selecting a Comfort Level

The middle point on the Comfort scale (Normal Level) will operate the cooler at an average setting.

If you don't want to be quite that cool, it can be set on the Warmer Level. Or, if the normal level isn't cool enough, it can be set at the Cooler Level, if necessary.

Every location around Australia will have different requirements.

You should therefore experiment with various settings until you decide what is the appropriate Comfort Level for you.

The Networker will constantly calculate the comfort level in the room and, if it is warmer than the Set Comfort Level, the Networker will automatically switch on the Pump and operate the Fan at the required speed to bring it down to the set level.

The next time you return to Auto Operation, these steps will not be necessary because the Networker automatically returns to your previous settings.

Automatic Pre-Wet

In order to cool effectively, the pads need to be properly wet before the fan starts. The short time taken to do this is called the Pre-Wet.

This will take a few minutes if the cooler has been OFF for quite a while, or less if it has only been OFF for a short time.

If the tank is empty, on some models, allow an additional four minutes for it to fill before the Pre-Wet can begin.

On-Screen Information

While the cooler is going through its Pre-Wet (and fill if Dump Valve is fitted), the Networker will register the steps involved.

Step 1. On the screen the Fan Symbol and the word “Pump” will flash during Pre-wet.
Step 2. When the fan actually starts, the Fan symbol will begin to rotate.
Step 3. After Pre-Wet is complete, the word “Pump” will disappear from the screen.

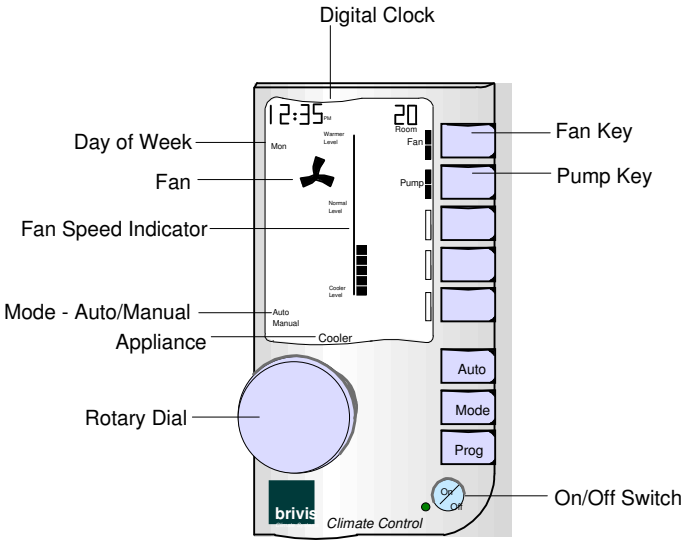
Operating Instructions & Programs (cont)

Using the Networker for Cooling (cont)

Operating the Cooler in Manual Mode

In Manual Operation, you control the Fan, its speed, and the Pump yourself.

The first time you go into “Manual” follow these steps.



Step 1. Use the On/Off switch to turn the Networker ON.

Step 2. Press the Mode key to select “Cooler” at the bottom of the screen.

Step 3. Press the Auto key to select “Manual”.

Step 4. Now press and switch ON the Fan, as indicated by the indicator Panel beside the key marked Fan, and the rotating fan symbol.

Step 7. The central column display is now a Fan Speed Indicator, and will show the selected fan speed.

Step 8. Use the dial to adjust the fan speed to the level you require.

Operating Instructions & Programs (cont)

Using the Networker for Cooling (cont)

Operating the Cooler in Manual Mode

Note:
As a Fan Speed Indicator, this column display moves up to increase fan speed and down to decrease it. This is different from automatic mode when the column is a Set Comfort Level Indicator, where the indicator moves up to select a warmer room comfort level and down for a cooler level.

If you only need the fan, just leave the pump turned OFF.

Step 9. Once you have set your new fan speed, press the Pump key to reactivate the pump. Please note that when the pump is activated and the Pre-Wet stage begins, the Fan will stop while the pads are being Pre-Wet.

The next time you return to “Manual” these steps will not be necessary because even in “Manual”, the Networker remembers your previous settings.

You should also remember that, if you had the Pump selected last time, the cooler will begin with a Pre-Wet.

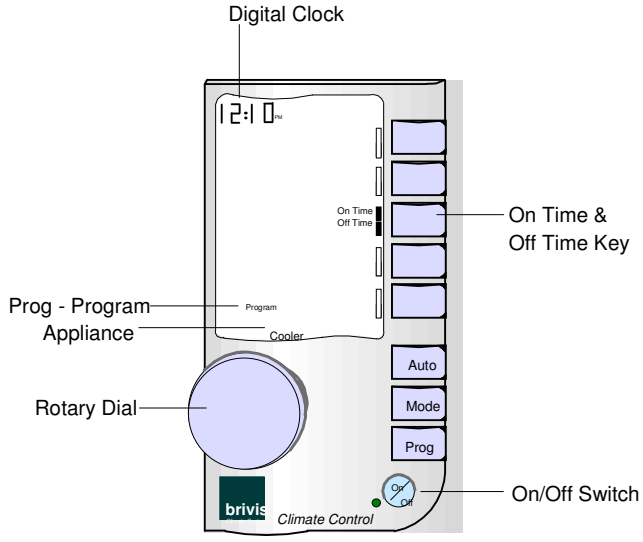
Operating Instructions & Programs (cont)

Using the Networker for Cooling (cont)

Using the Timer

When the Cooler is operating, you can pre-set a time for the Timer to turn it OFF.

Alternatively, when the Cooler is turned OFF, you can select a time for the Timer to turn it ON automatically.



Setting the Cooler to turn itself OFF

First, remember that when the Timer turns the Cooler ON, it will operate with the same settings it had the last time it was used.

If you want the settings to be different, just turn the cooler ON, change the settings and turn it OFF again.

Step 1. Press the Prog key and the Digital Clock and the word "Program" will flash.
Step 2. Note that one of the control keys is now the Off Time key.
Step 3. Now use the Rotary Dial to set the Off Time, i.e. the time you want the Cooler to turn OFF.
Step 4. Once you have selected your Off Time, press the Off time key to activate the function, as shown by the indicator panel beside the key.
Step 5. Now press the Prog key again, and return to the normal operation screen, however, you will notice the Off Time key remains displayed, confirming your selection.

Operating Instructions & Programs (cont)

Using the Networker for Cooling (cont)

Setting the Cooler to turn itself ON

If the Cooler is OFF and you want a time for it to turn ON, the steps are almost the same.

Now you can begin to program the Timer

Step 1. First use the Mode key to select “Cooler”.

Step 2. Press the Prog key and the Digital Clock and the word “Program” will flash.

Step 3. Now use the Rotary Dial to set the On Time, i.e. the time you want the Cooler to come on.

Step 4. Once you have selected your On Time, press the On Time key to activate the function, as shown by the indicator panel beside the key.

Step 5. Now press the Prog key again, and return to the normal operation screen, however, you will notice the On Time key remains displayed, confirming your selection.

Checking your Timer Settings

Once Timer settings are made you can review or cancel them in a number of ways:

Note 1. The small Indicators will change, and the words “On Time” or “Off Time” will remain on the screen, to show that the Networker is now holding your pre-set ON or OFF time.

Note 2. If you change your mind and want to cancel the setting, you can by pressing the On Time/Off Time key again.

Note 3. If you want to check what you've done, just press Prog again and the pre-set time will flash.

Note 4. Pressing the On/Off switch at any time during or after this process, will cancel the Timer program.

Note 5. Again, the Networker remembers the last setting and, the next time you select the Timer it will go to that same setting.

Now, with the Networker controlling your Brivis ducted evaporative cooling system, you'll keep your cool all summer.

Networker Heating Operation

Understanding Some Elements of General Thermostat Operation in Heating Mode

Thermostats generally experience a lag or delay in registering the actual temperature of the air, during the initial warm up phase of a heating system.

This is due to the design, construction and the thermal mass of the plastic body of a thermostat and other traits.

The amount the thermostat lags behind the room air temperature varies, depending on how fast the room air heats up.

The rate at which the room heats in turn depends upon the size of the house, the output capacity of the heater, the outside temperature and other factors.

This discrepancy, between the thermostat registered temperature and the actual room air temperature, could be up to 7^0C.

However, after the initial warm up period and the room conditions stabilise around the set point temperature, the thermostat is less affected by "lag" as the heating cycles ON and OFF to maintain the set temperature.

Unfortunately, we cannot simply "anticipate" the temperature difference by a fixed amount all the time, because of all those variables.

We therefore have 2 different stages of the heating systems and thermostat's operation.

(a) ***Low transient (temporary, short term) mode***, when the room air temperature is "temporarily" well below set point (e.g. at start-up in the morning).

(b) ***Steady state mode***, when the room air temperature is close to set point.

Networker Heating Operation (cont)

Heating Operation of the Networker in Low Transient Mode

Low transient mode works by using a form of "anticipating" the room air temperature during the warm up period.

The Networker turns the call for heat OFF at 3^0C. (Low Transient Target Offset) below the temperature set point, for a 5 minute period (Low Transient Off Time), to give the Networker a chance to "catch up" to the room air temperature.

Both the Low Transient Target Offset and Low Transient Off Time are adjustable parameters.

In most cases, the Networker will continue to **register an increasing temperature gain within the Low Transient Off Time**, as it catches up to the room temperature.

After the Low Transient Off Time, the call for heat returns (if required), the Networker will then switch to ***steady state mode***.

However, if the temperature registered on the Networker falls within the Low Transient Off Time, then the call for heat is turned ON immediately, and remains in the Low Transient mode.

The warm up process in Low Transient mode would then repeat itself, until the steady state can be achieved.

Heating Operation of the Networker in Steady State Mode

The operation of *Steady state mode* is *very* simple.

The Networker turns the heat ON, when it's registered temperature is less than set temperature. i.e. up to 3^0C. below set point.

The Networker turns the heat OFF, when it's registered temperature is equal to or greater than set temperature.

Additionally, to ensure that the call for heat does not cycle too fast, there is a minimum ON and OFF time of 3 minutes (this is an adjustable parameter in the Networker).

Should the registered temperature fall below 3^0C below set point, then the Networker will resume Low Transient mode.

Networker Cooler Operation

Cooler Auto Mode Operation

The following sequences are normal operation in Auto mode, with the Networker at a set comfort level, and the room temperature varying according to the Cooler's operation and load conditions.

When the Networker is turned ON in Cooler Auto mode, an immediate signal is sent to the cooler to indicate if the unit is required to operate or not.

If the **comfort level setting is adjusted** on the Networker when operating in Cooler Auto mode, an **immediate signal** is also sent to the cooler.

Whenever the Networker sends an **OFF** or **ON** signal to the N-E2, 3, 4 or 5 module, **both the pump and the fan will be turned OFF or ON**, however, their operation may be delayed by the fill and Pre-Wet functions.

The Cooler will be turned **ON**, if the room temperature is **0.5^{0}C. higher** than the set comfort level, and **OFF** if the room **temperature is lower.**

The ON fan signal from the Networker accompanies a fan speed signal, to determine the **speed required according to the temperature differential between the room temperature and set comfort level.**

The fan will operate at **minimum speed**, when the room temperature is up to **1^{0}C.** above the set comfort level, and is incremented to be at **maximum fan speed**, when the room temperature is **5^{0}C. or more** above the set comfort level.

During normal operation, at **5 minute intervals**, the **Networker updates** the N-E2 module on the temperature differential between room temperature and the set comfort level, and if the temperature has varied by **0.5^{0}C. or more** then the cooler is adjusted.

However, if the temperature changed rapidly by **2.5^{0}C.** or more within the 5 minute update interval, then the Networker will signal the N-E2 module to **adjust immediately.**

If the room temperature is higher than the set point when the Networker is turned ON, then the fan will immediately operate at the speed according to the set point, following the normal ServoSeal, water fill and Pre-Wet operations.

Networker Cooler Operation (cont)

Cooler Manual Mode Operation

When operating the Cooler in manual mode, the Networker screen changes to display a pump and fan button for manual selection.

The rotary dial is used to select the constant fan speed.

The Pre-Wet times apply to manual mode, in the same way described for Auto mode.

However in manual mode, the Pre-Wet period can be extended by simply operating the pump longer without the fan.

Fan only operation is available for air movement in high humidity climate conditions, or for ventilation and circulation.

NOTE:
Should the pump be turned ON whilst the fan is operating, then the fan will be forced OFF for the Pre-Wet period, then come back ON again automatically.

Network 506 (Optional Zoning & Add-on Cooling Module)

Installation Instructions

The Network 506 is 240 Volt power operated, and must be installed by an authorised trades person in accordance with these instructions and the electrical code AS 3000.

The Network 506 requires a separate 10 Amp power point, to accept the 3 pin power plug and lead, that is pre wired to the PCB module.

A pre wired loom is provided to connect to the heaters electronic control module (N-G1/lo), as well as a 25mm electrical conduit to accommodate the zone motor, and refrigeration compressor relay wiring.

Ensure the Network 506 mounting position, is within reach of the loom length (1metre) for the connection to the heater, as well as the power supply point (1.5 metre).

Use the screws provided to secure the module to the cabinet / structural member .

The conduit saddle provided should be used to secure the 25mm conduit to the cabinet back or structural member also, to protect the 240 Volt zone motor wiring.

Network 506 Mounting positions

Multi Plex Models

External models: Mount the Network 506 on the cabinet end as shown in diagram (b), and secure the conduit with the saddle at the back of the unit.

Trim and seal the unit's flashing strip around the 25mm conduit to protect the wiring from the weather.

Internal models: The cabinet end has been pre punched with mounting holes (See diagram (d)), alternatively, the Network 506 can be mounted on adjacent structural members.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

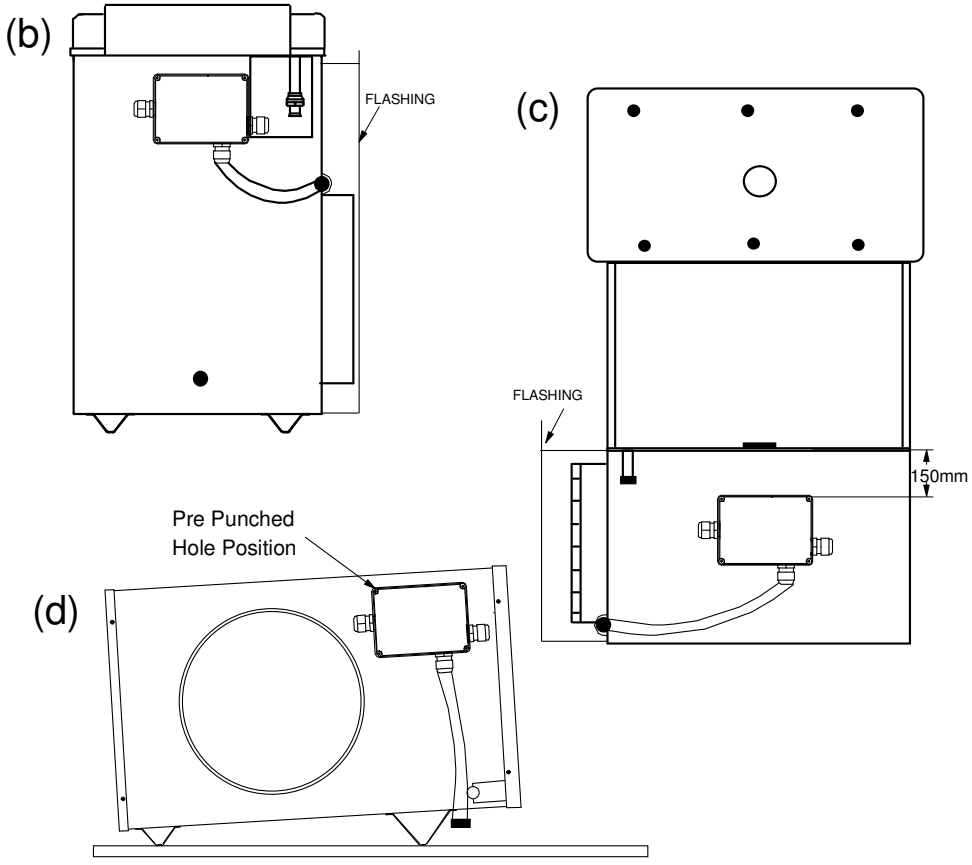
Network 506 Mounting positions (cont)

Auto EMS Models

External Models: The Network 506 should be fitted to the base box side, at the heaters control end, 150mm below the units burner compartment (clearance required for maintenance service). See diagram (c).

Use conduit saddle provided to secure the 25mm conduit to the back of the base box, then trim and seal the units flashing end plate around the conduit, to protect the wiring from the weather.

Internal Models: Auto EMS mounting is the same as Multi Plex internal units (except the cabinet is not pre punched).



Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Wiring the Network 506 to the Heater

Route the Network 506 loom to the heaters electronic control module (N-G1/lo), using the grommet on the loom, where the entry is made into the heaters cabinet.

Connect the 6 pin plug to the terminal marked "Option Board" at the N-G1/lo.

Connect the 2 accompanying stripped wires to the terminals marked 24 V. and GND on the N-G1/lo board (required for add on refrigeration relay). **Ensure the wiring link at terminals 24 V. and STAT remains connected on early model electronic control (N-G1/lo) units.**

Wire the zone damper motor, electronic air filter and/or humidifier power supply to the module (refer to the mode setting section for details).

A 24 Volt (0.5 Amp Max.) output terminal for add-on refrigeration cooling or a 4th zone motor, is provided at the terminal marked REFRIG, for direct 24 Volt switching.

Note: The 2 Amp fuse on the heaters electronic module (N-G1/lo) will blow if the 24 Volt wiring from the REFRIG terminal is shorted.

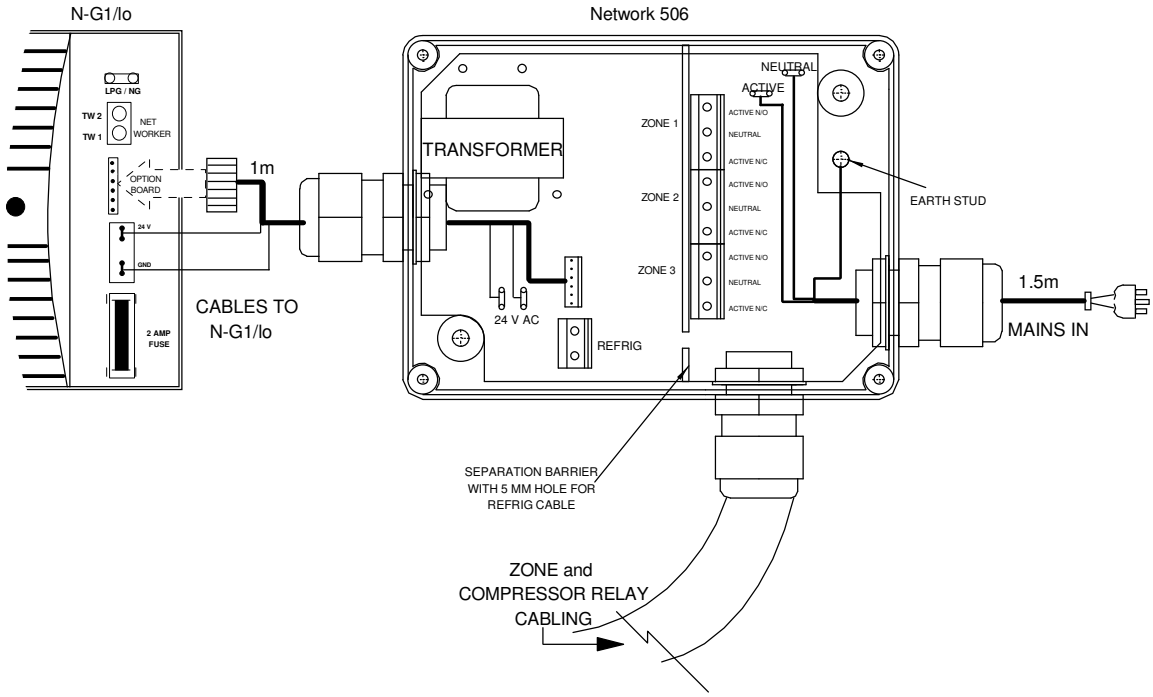
On Pre Version 7 Electronic Control (N-G1/lo) Models Only:

Wire the 240 Volt zone damper motor power supply to the terminal block marked for each zone as required. The terminals provide for a Normally Open, and Normally Closed terminals, for each relay. See wiring diagrams (e) & (f) on page 38. Note: If 24 Volt zone damper motors are to be used on the system, then additional transformers and/or relays will be required.

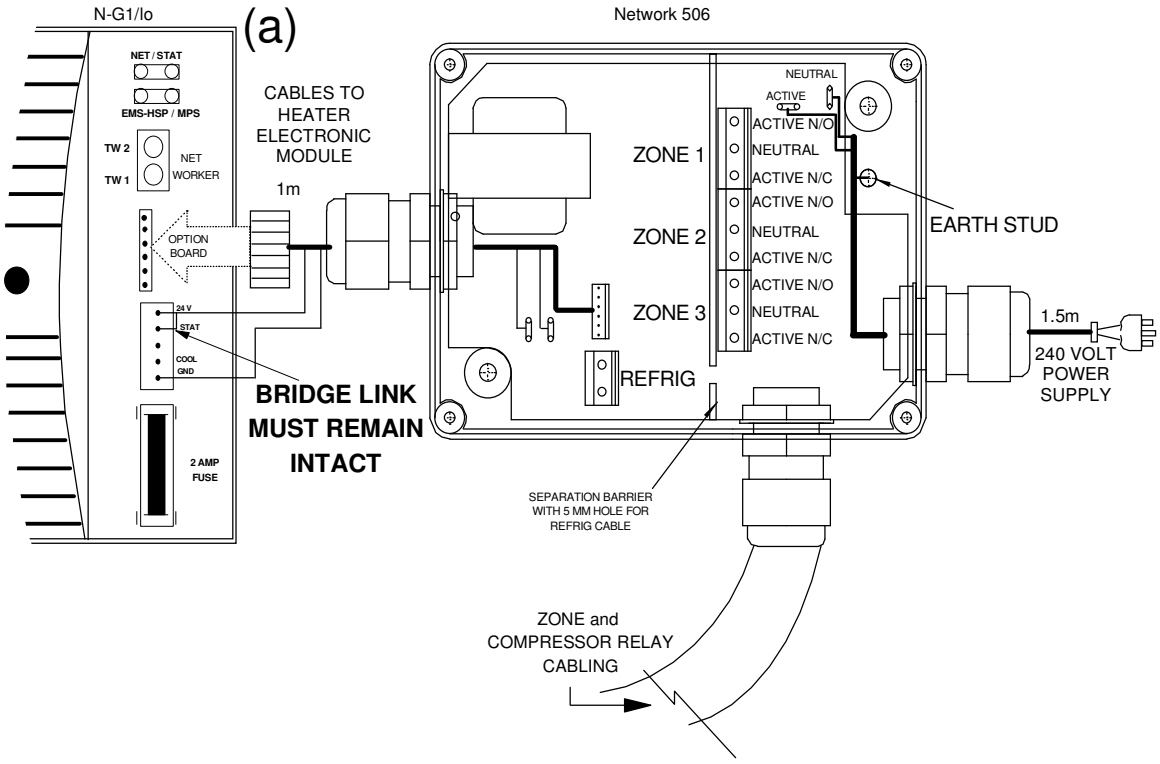
A 24 Volt (0.5 Amp Max.) output terminal for add-on refrigeration cooling is provided at the terminal marked REFRIG, for direct 24 Volt switching to a compressor contactor /relay.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Wiring the Network 506 to the Heater (cont)



Pre Version 7 N-G1/lo Models

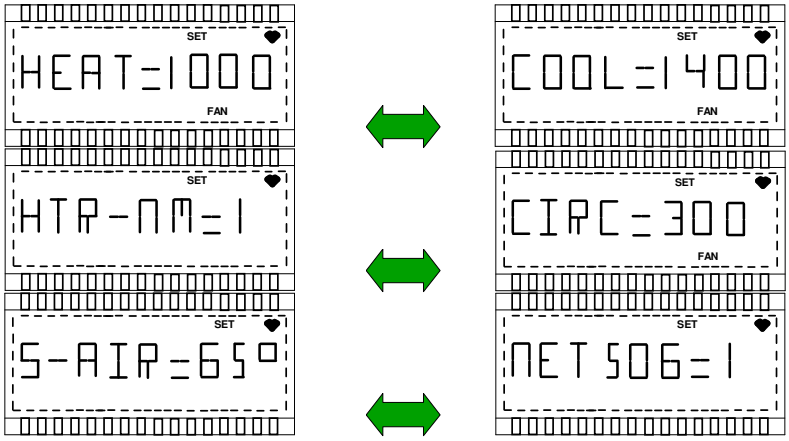


Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Programming Network 506 modes

The Network 506 setting is selected through the heaters Installer parameters, in the same way other heater adjustments are made.

Press the SET (round) button on the N-G1/lo module as described in the heaters installation instructions to display the following:



A new "nET506= 1" screen will prompt the installer to change the Network 506 mode from the default setting No.1 if needed.

Until now the Network 506 only had the facility for 3 zone motor relays, but now the REFRIG terminals may be used with the correct installer setting to switch a 4th zone motor.
The output from the REFRIG terminals is still only 24 Volt.

This could be connected directly to a 24 Volt, power open - spring return zone motor or wired through a 24 Volt relay to energise a 240 zone motor (power open - spring return or power open - power closed).

Another new function available on the Network 506, is the ability to switch other components, such as an electronic air cleaner or a humidifier, controlled from the fan operation of the heater.
Refer to the four (4) Network 506 modes to select the setting most suitable.

Note: With these new controls, the Networker wall control will not display REFRIG, or any refrigerative cooling program and operation, unless the Network 506 is selected for a mode that requires refrigerative cooling.
Pre Version 7 N-G1/lo modules did not have the Network 506 parameter, and automatically displayed REFRIG functions when the module is fitted.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Programming Network 506 modes (cont)

The 4 Network 506 mode functions are as follows:
(Refer to page 38 for circuit diagram details)

nET 506 =1 (4 zone relays only)

The Network 506 setting 1 will operate as a zone relay module only.
No refrigerative cooling is displayed or accessed at the Networker.

The 3 marked zone terminals switch 240 Volt zone motors, and should be wired as shown in diagram **(e)** and **(f)**:

The 4th zone motor if required, can be wired to the REFRIG 24 Volt terminals, to either a 24 Volt zone motor, or a 240 Volt motor via a relay, as shown in diagram **(g)** and **(h)**.

nET 506 =2 (Refrigerative cooling & up to 3 zones)

The Network 506 setting 2, will operate 3 zone motor relays (240Volt) as in setting 1, and add-on refrigeration cooling from the REFRIG (24 Volt) terminal.

Refrigerative cooling will be displayed on the Networker, and the REFRIG terminal will be activated to energise a compressor relay as required in refrigerative cooling operation.
Note: Both the Networker and the N-G1/lo module have a minimum cycle OFF period to protect the compressor. Allow at least 5 - 10 minutes between refrigerative cooling ON operations for the compressor to be energised.

nET 506 =3 (Electronic air filter/ humidifier & 3 zones)

The Network 506 setting 3, provides the 240 Volt output on the Zone 3 Active open and Neutral terminals, whenever the heater's fan is switched ON, to provide power for an electronic air filter, humidifier or both. See diagram **(i).**

Additionally, up to 3 zone motors may also be wired to **zone 1, zone 2 and REFRIG** (zone 3) terminals. See diagrams **(e), (f), (g) & (h).**

nET 506 =4 (Refrigerative cooling, electronic air filter/ humidifier & 2 zones)

This installer setting will provide switching for up to 2 zones, from Zone 1 & 2 terminals as per diagram **(e)** & **(f)**.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Programming Network 506 modes (cont)

Refrigerative add-on cooling is wired to the REFRIG terminals.

A humidifier and/or electronic air cleaner is wired to the Zone 3 Active open and Neutral terminals, and provide a 240 Volt output whenever the heater's fan is switched ON. See diagram **(i)**.

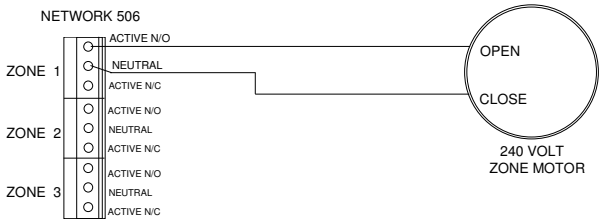
Note: Both the Networker and the N-G1/lo module have a minimum cycle OFF period to protect the compressor. Allow at least 5 - 10 minutes between refrigerative cooling ON operations for the compressor to be energised.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Wiring to the Network 506

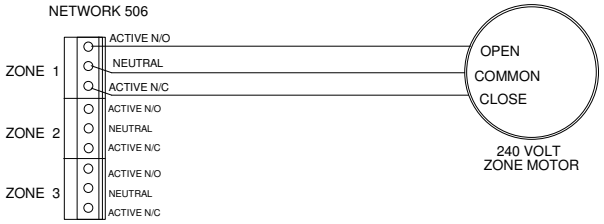
(e)

Wiring a 240 Volt Power Open / Spring Return Zone Damper Motor To a NETWORK 506 Zone



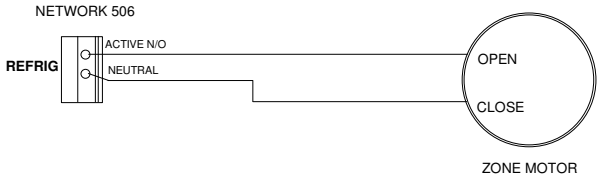
(f)

Wiring a 240 Volt Power Open / Power Close Zone Damper Motor To a NETWORK 506 Zone



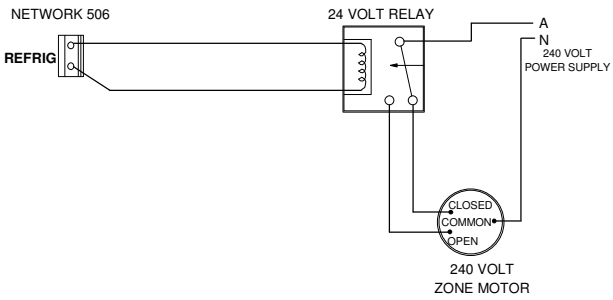
(g)

Wiring a 24 Volt Power Open / Spring Return Zone Damper Motor to a NETWORK 506 Zone



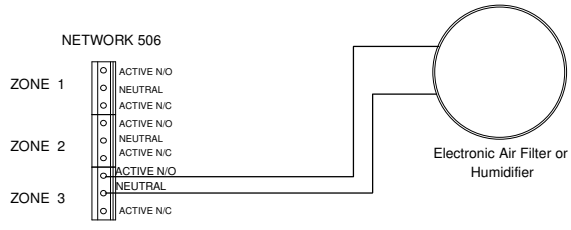
(h)

Wiring a 240 Volt Power Open / Power Close Zone Damper Motor To a NETWORK 506 Zone 4



(i)

Wiring a 240 Volt Electronic Air Filter or Humidifier To The NETWORK 506 Zone 3 Terminals



Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Check List for Network 506 Not Operating

Zone Motor, Electronic Air Filter or Humidifier not operating

- Check the zone motor, EA Filter or humidifier is the correct Voltage and type for the wiring configuration.
- Check the zone motor current draw is within the required rating
  - less then 0.5 Amp for 24 Volts on REFRIG terminal
  - less then 10 Amp total for 240 Volt Zone 1, 2 & 3 terminals

Zone motor wired to REFRIG terminal, refer to check list below.

Network 506 240 Volt Zone relay not operating

- Check the 240 Volt power supply at the Active and Neutral terminals
  No Power
  - Check 3 pin plug and lead
  - Check power supply at power point (refer to installer)

- Check the power supply polarity
- Check the 240 Volt supply at each zone relay on Active N/C and Neutral terminals.
  No Power to Active N/C
  - Check for power on Active N/O and Neutral terminals (relay already in switched position)
  - Check the Networker for current zone status

No Power to either Active N/C or N/O

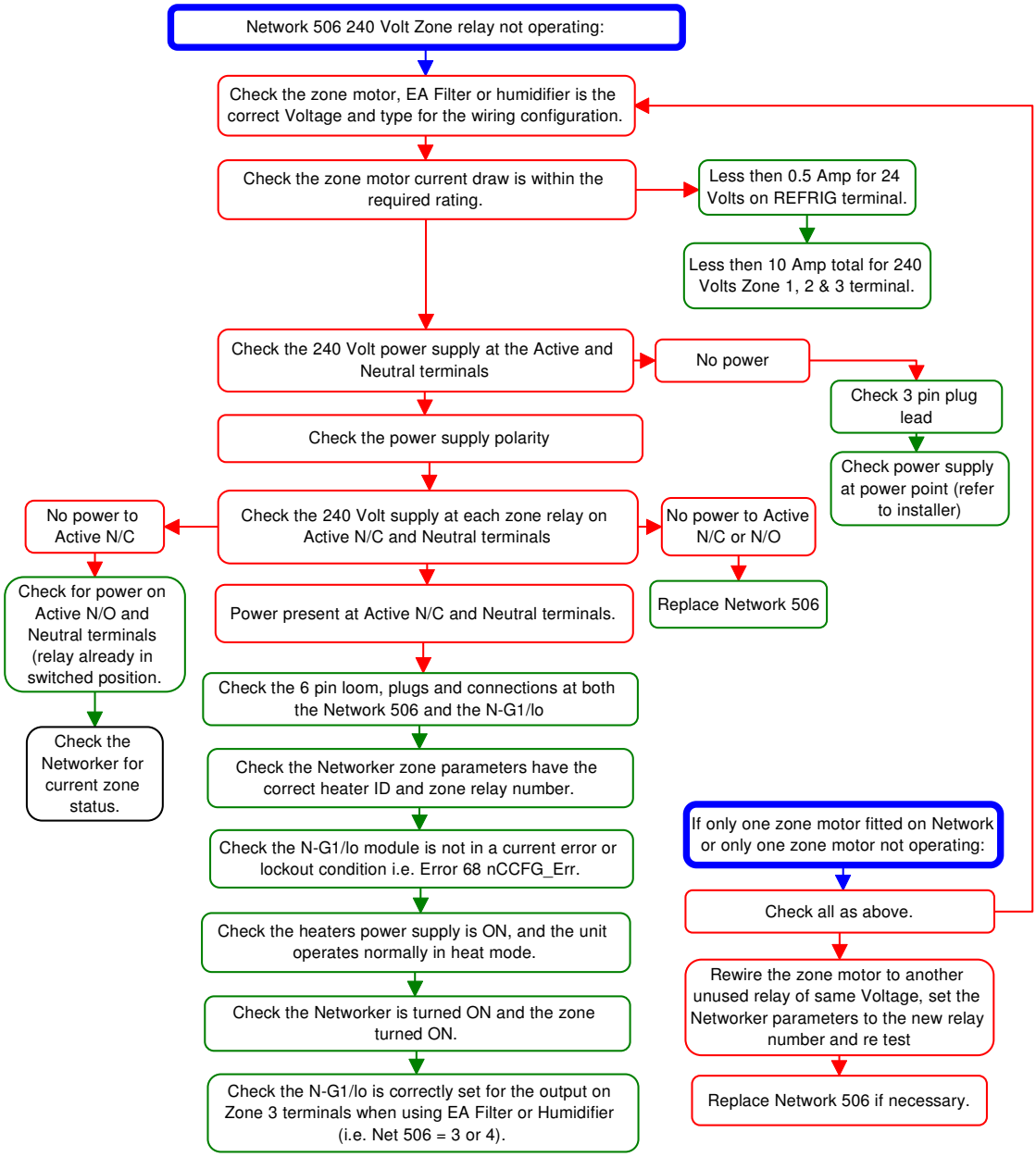
- Replace Network 506

Power Present at Active N/C and Neutral terminals

- Check the 6 pin loom, plugs and connections at both the Network 506 and the N-G1/lo
- Check the Networker zone parameters have the correct heater ID and zone relay number.
- Check the N-G1/lo module is not in a current error or lockout condition i.e. Error 68 nCCFG_Err.
- Check the heaters power supply is ON, and the unit operates normally in heat mode.
- Check the Networker is turned ON and the zone turned ON.
- Check the N-G1/lo is correctly set for the output on Zone 3 terminals when using EA Filter or humidifier i.e. Net 506 = 3 or 4).

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Flowchart - Network 506 Not Operating



Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Network 506 24 Volt Relay Not Operating

If only one zone motor fitted on Network or only one zone motor not operating

- Check all as above.
- Rewire the zone motor to another unused relay of same Voltage, set the Networker parameters to the new relay number and re test
- Replace Network 506 if necessary.

Refrigerative cooling compressor or Zone 4 not operating

Check the REFRIG terminal block for 24 Volt output

If 24 Volt present

- Check refrigerative cooling compressor relay or refer to installer.
- Check zone motor is correct Voltage and current for output (24 Volt 0.5 Amp max.)

If NO 24 Volt present

- Check 240 Volt power supply to heater is ON and for correct polarity
- Check 240 Volt power supply to the Network 506 is ON.
- Check that the heater operates in normal heating mode (no errors).
- Check the 6 pin plug loom connections at both the Network 506 and N-G1/lo
- Check for 24 Volt present at 24 Volt loom terminals (BLUE & WHITE) adjacent to REFRIG relay on Network 506.

If NO 24 Volt present

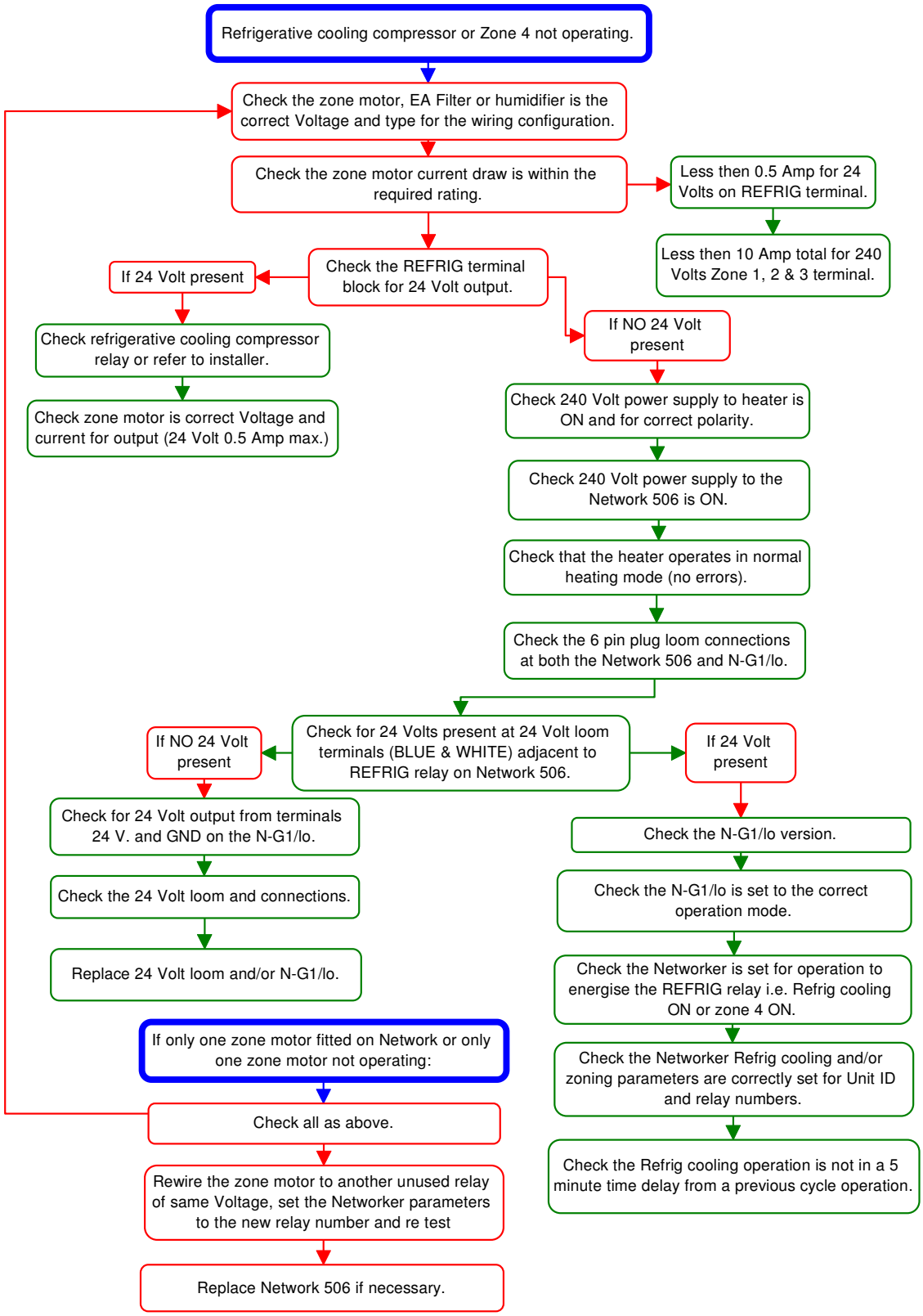
- Check for 24 Volt output from terminals 24 V. and GND on the N-G1/lo.
- Check the 24 Volt loom and connections.
- Replace 24 Volt loom and/or N-G1/lo.

If 24 Volt present

- Check the N-G1/lo version
- Check the N-G1/lo is set to the correct operation mode.
- Check the Networker is set for operation to energise the REFRIG relay i.e. Refrig cooling ON or zone 4 ON.
- Check the Networker Refrig cooling and/or zoning parameters are correctly set for Unit ID and relay numbers.
- Check the Refrig cooling operation is not in a 5 minute time delay from a previous cycle operation.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Flowchart - Network 506 24 Volt Relay Not Operating



Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Pre N-G1/lo Version 7 - Network 506 Not Operating

Zone Motor not operating

- Check the zone motor is the correct Voltage and type for the wiring configuration.
- Check the zone motor current draw is within the required rating less then 10 Amp total for 240 Volt Zone 1, 2 & 3 terminals

Network 506 Zone relay not operating check list

- Check the 240 Volt power supply at the Active and Neutral terminals
  No Power
  - Check 3 pin plug and lead
  - Check power supply at power point (refer to installer)

- Check the power supply polarity
- Check the 240 Volt supply at each zone relay on Active N/C and Neutral terminals.

No Power to Active N/C

- Check for power on Active N/O and Neutral terminals (relay already in switched position)
- Check the Networker for current zone status

No Power to either Active N/C or N/O

- Replace Network 506

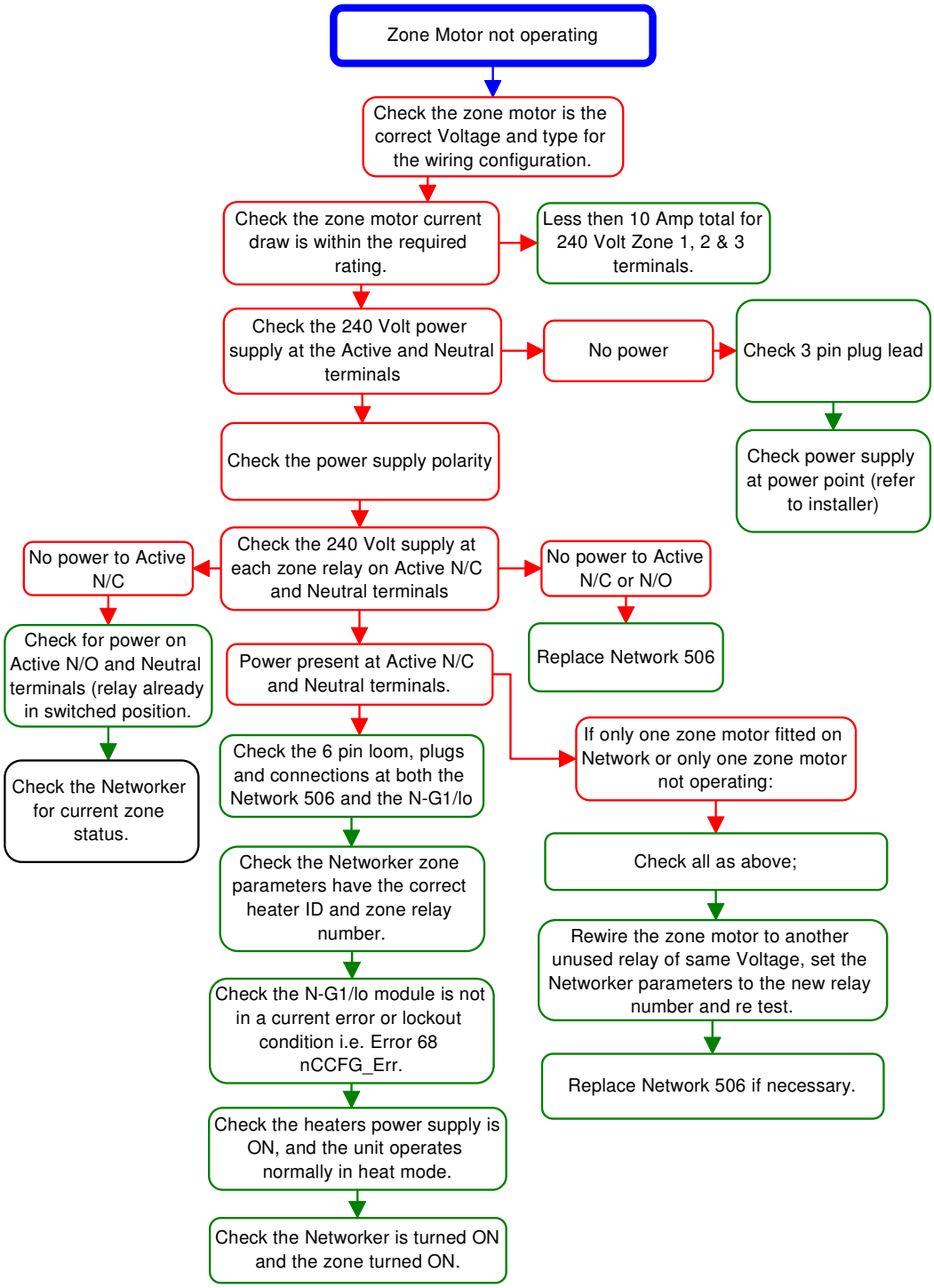
Power Present at Active N/C and Neutral terminals

- Check the 6 pin loom, plugs and connections at both the Network 506 and the N-G1/lo
- Check the Networker zone parameters have the correct heater ID and zone relay number.
- Check the N-G1/lo module is not in a current error or lockout condition i.e. Error 68 nCCFG_Err.
- Check the heaters power supply is ON, and the unit operates normally in heat mode.
- Check the Networker is turned ON and the zone turned ON.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Pre N-G1/lo Version 7

Flowchart - Network 506 Not Operating



Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Pre N-G1/lo Version 7 Network 506 Not Operating(cont)

If only one zone motor fitted on Network or only one zone motor not operating

- Check all as above.
- Rewire the zone motor to another unused relay of same Voltage, set the Networker parameters to the new relay number and re test
- Replace Network 506 if necessary.

Refrigerative cooling compressor not operating

- Check the REFRIG terminal block for 24 Volt output

If 24 Volt present

- Check refrigerative cooling compressor relay or refer to installer.
- Check refrigerative cooling compressor circuit current draw (0.5 A max.)

If NO 24 Volt present

- Check 240 Volt power supply to heater is ON and for correct polarity
- Check 240 Volt power supply to the Network 506 is ON.
- Check that the heater operates in normal heating mode (no errors).
- Check the 6 pin plug loom connections at both the Network 506 and N-G1/lo
- Check for 24 Volt present at 24 Volt loom terminals (BLUE & WHITE) adjacent to REFRIG relay on Network 506.

If NO 24 Volt present

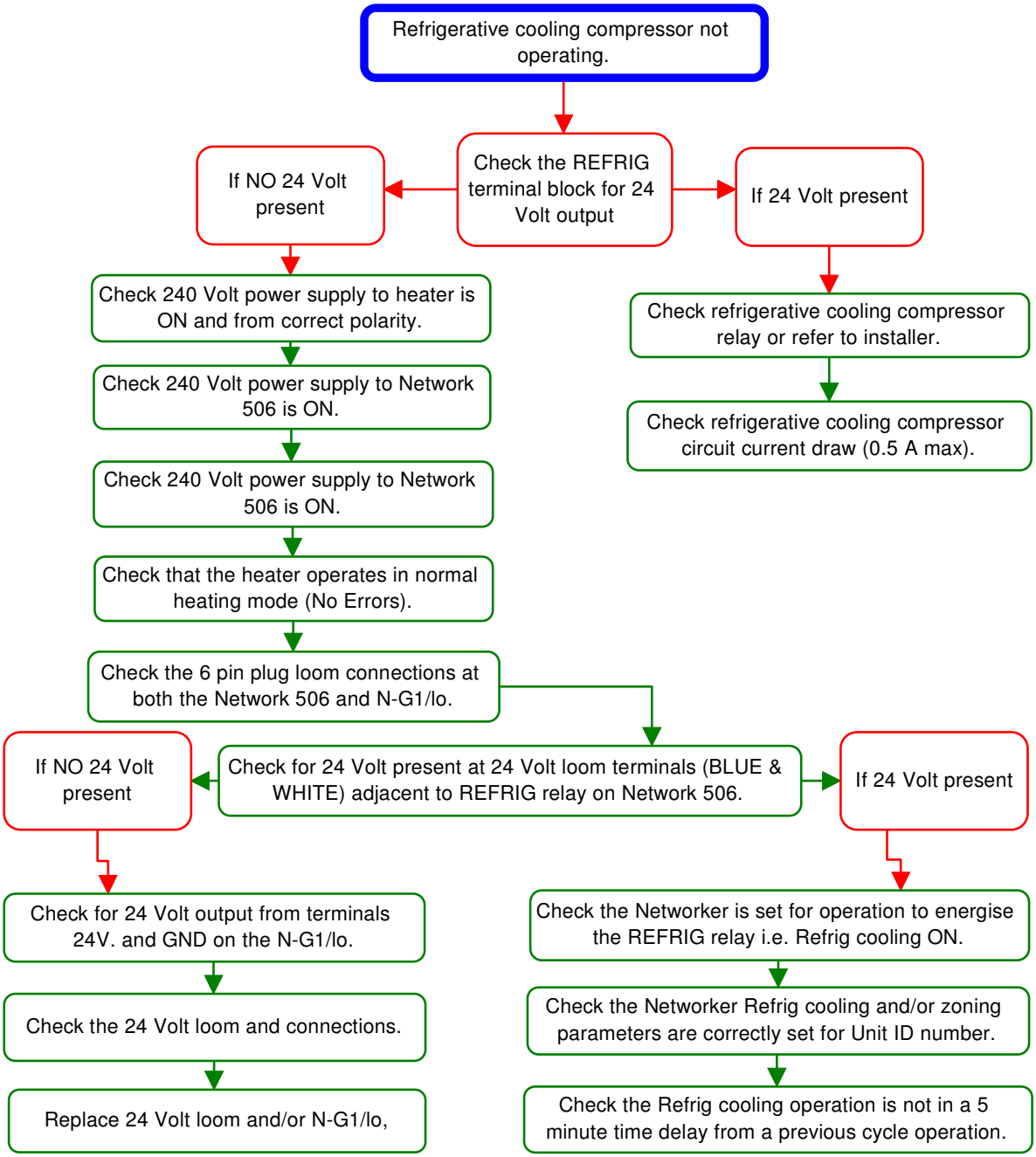
- Check for 24 Volt output from terminals 24 V. and GND on the N-G1/lo.
- Check the 24 Volt loom and connections.
- Replace 24 Volt loom and/or N-G1/lo.

If 24 Volt present

- Check the Networker is set for operation to energise the REFRIG relay i.e. Refrig cooling ON.
- Check the Networker Refrig cooling and/or zoning parameters are correctly set for Unit ID number.
- Check the Refrig cooling operation is not in a 5 minute time delay from a previous cycle operation.

Network 506 (Optional Zoning & Add-on Cooling Module) (cont)

Pre N-G1/lo Version 7 - Flowchart Network 506 Not Operating



Networker Advanced Programming

Changing the Screen Display

The Networker has the facility to change the **time displays, from 12 hour to 24 hour**, and all **temperature displays, from degrees Celsius to Fahrenheit.**

Additionally, the Networkers Auto Programming for heating and refrigerative cooling can also be changed to **omit the PRESLEEP** period, or change the programming from blocks of **week and weekend (grouped) days**, to programming **individual days**.

To access the **LCD screen display set-up:**

- First turn the Networker OFF.
- Next press the **CLOCK** key to enter the **"SET TIME AND DAY"** mode.
- Then press the 4th key (the one above the clock key), and hold in for 3 - 5 seconds until the LCD screen changes.
  The new screen will prompt you to change the DAY GROUP selection, and the DAY blocks will be flashing alternatively, to indicate the current setting, i.e. groups of week days and weekend days.

[a] To change the auto programming setting from "Grouped" to "Individual" DAYS (Heat & Refrig modes), press the key marked **DAY**, and the LCD display will indicate the new setting:-
Grouped Day Programming - Week & Weekend days "flashing".
Individual Day Programming - all days "solid" display.

[b] To change the auto program to include or exclude the PRESLEEP period (Heat & Refrig modes), press the **PERIOD** key to alternate between the selection ON and OFF, (when PRESLEEP is not displayed in this screen set -up, then the selection is OFF).

[c] To change the TEMPERATURE display between Celsius and Fahrenheit, press the **TEMP^{0}** key to alternate between the two settings displayed at the top of the screen.

[d] To change the CLOCK time between 12 hour and 24 hour display, press the **CLOCK** key to alternate between the two settings displayed at the top left of the screen.

When you have completed your changes press the ON/OFF button to save your changes.

Networker Advanced Programming (cont)

Operating the Networker with Multiple Units and Zones

The Networker is capable of controlling multiple heaters, evaporative coolers and add-on refrigerative air conditioners.

In order to communicate with the Networker each unit must have an identification number, therefore every unit is set to No. 1 ex factory.

Each additional unit within an appliance type, must be given **a different identification number (address)**, starting at No.1.
The change to the units ID is done by the installer using these installation instructions.

Every appliance, **must be designated to a Networker zone.**

An optional Brivis Network 506 module will be required to operate refrigerative add-on cooling, or zone dampers, through the Networker.
Refer to the Network 506 instructions for details of the number of available zone relays for each operation mode.

The Networker has no facility to operate zone dampers (relays) in Evaporative Cooling mode.

The maximum number of units for each appliance type is 15, however, each refrigerative add on cooling unit will require it's own Network 506 module, and will automatically be designated the same ID (address) to the "Refrig Cooling" unit as the heater it is connected to.

When there are more than 4 units of one type connected on the system, the Networker will apply a grouping system when allotting the units into zones (refer to the section on Multiple Unit Grouped Zoning).

Networker Advanced Programming (cont)

Understanding Zone Configurations

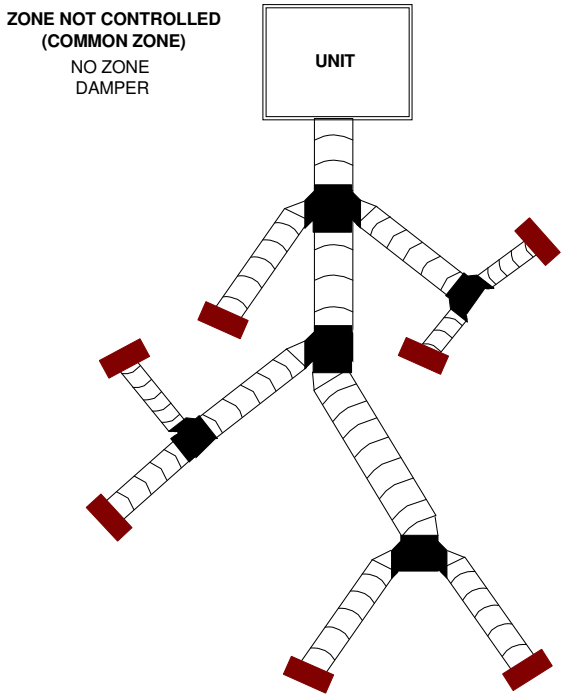
Common Zone

Every ducted heating, evaporative cooling and refrigerative cooling system delivers heating or cooling through the ductwork to a **Zone**.

In the majority of installations, the zone consists of the whole area where the heating or cooling outlets are provided.

In this instance, the duct system is usually balanced to provide the appropriate heating/cooling distribution, and because it is permanently set for the area, we don't often consider this to be a zone. **But it is !**

Where there is a section of ducting in a system that is permanently open, and not controlled by a zone damper, then this is regarded as a Common Zone.



Controlled (Switched) Zoning

Zones may also be set-up using a motorised damper in the ductwork, or multiple units which can be switch ON or OFF, to control the heating or cooling distribution in the following ways:

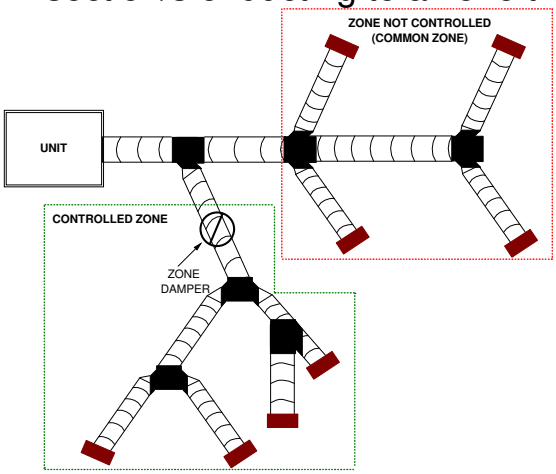
Networker Advanced Programming (cont)

Understanding Zone Configurations (cont)

Controlled (Switched) Zoning (cont)

(a) **One Unit with a Common Zone and a Controlled Zone**

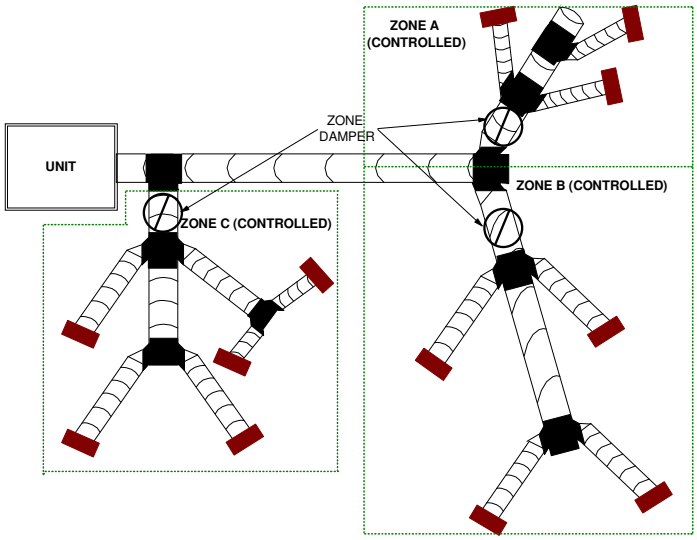
One area is served by a section of the duct system that is not controlled, and is therefore a permanently open Common Zone, in conjunction with another section/s of ducting to a zone that is controlled to turn ON and OFF as required.



i.e. Living area heated/cooled all the time and Bedroom area switched ON/OFF as required.

(b) **One Unit with all Switched (Controlled) Zones (no Common Zone)**

All areas are served by ducting which is sectioned (zoned), and each section can be turned ON or OFF individually as required.



i.e. Living area heated/cooled switched ON/OFF as required as well as the Bedroom area switched ON/OFF as required. Either, both or neither zones selected to operate.

Networker Advanced Programming (cont)

Understanding Zone Configurations (cont)

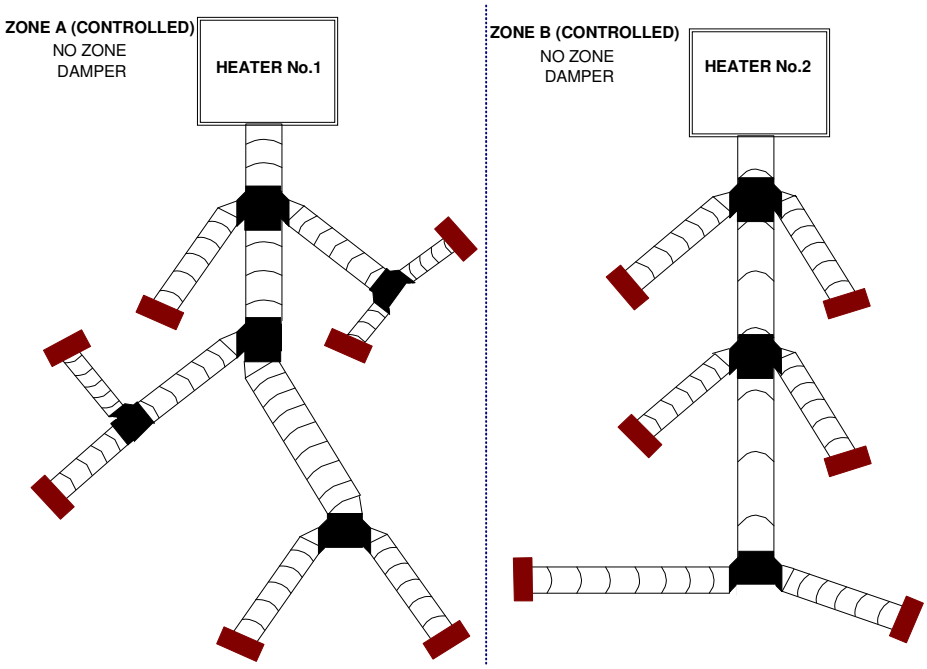
Controlled (Switched) Zoning (cont)

(c) **Multiple Units with Common Zones**

On larger installations, where more than one heater is installed on the Network system, each unit with its duct work is assigned to a zone.

Example:

Zone A = Heater No. 1 with no switched zone.
Zone B = Heater No. 2 with no switched zones.



There can be up to 4 zones used within each appliance type, i.e. Heaters can have 4 zones, Refrig can have 4 zones etc.

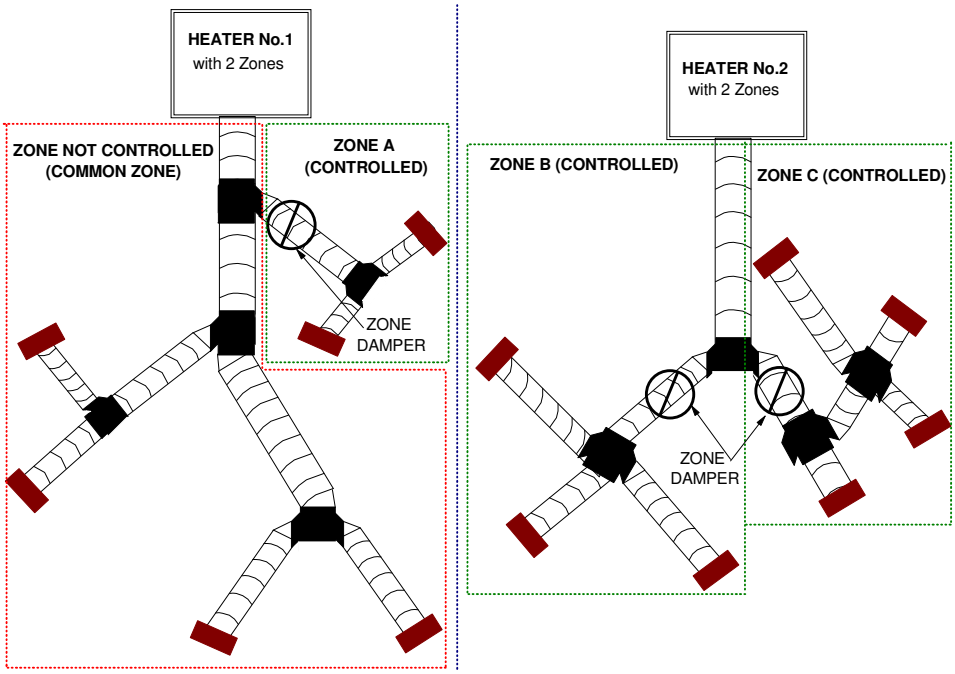
Networker Advanced Programming (cont)

Understanding Zone Configurations (cont)

Controlled (Switched) Zoning (cont)

(d) **Multiple Units with Common Zone and Controlled Zoning**

More complex zoning can be set-up by the combinations of the previous heating system (a), (b) and (c).



i.e. 2 heaters may be set-up and controlled on the Network as:

- Heater No.1 with a Common Zone and a switched (controlled) zone (A).

- Heater No. 2 with 2 switched (controlled) zones (B & C).

Networker Advanced Programming (cont)

Understanding Zone Configurations (cont)

Controlled (Switched) Zoning (cont)

As controlled zones can be turned ON and OFF as required at the Networker wall control, provision must be made to allow for when ALL the zones are turned OFF, otherwise appliances may be turned ON with their ducting systems closed OFF.

Therefore, the Networker must be programmed correctly, to acknowledge which unit has a Common Zone, or if a Common Zone for the type of units is present.

If the Networker is programmed not to have a Common Zone for a unit types, then it will not allow any unit to operate if **ALL the zones are turned OFF.**

The Networker will flash "Zone" to alert the user of the system request error.

When the Common Zone is to be used, then one (1), of the units that is capable of operating independent of zone dampers, must be assigned to the Common zone parameter.

All zone parameters are required to be entered into the wall control program in a sequential order.

The parameter reference for Zone B cannot be accessed unless Zone A entries have previously been made.

Nor can Zone D be entered before Zone C.

Deleting zone parameters must also be done in the reverse order to entering zones (as above). e.g. Zone D and it's zone relay must be deleted before Zone C can be deleted.

ALL ZONING is programmed into the Networker as described in the "Installer Set-Up Programming Instructions" for NETWORKER WALL CONTROL.

Networker Access to Installer Parameters

The Installer set-up Programming mode provides access to program zoning, to change the ID number for Evaporative Coolers, and view the installer settings for Heaters for those units connected on the Network system.

To access the program the following button sequence is required:

- Turn the Networker OFF.
- Press the CLOCK key to enter "Clock set-up" program.
- Now simultaneously press and HOLD the 2nd & 4th keys for 3 - 5 seconds until the screen display changes.
- Press the MODE key to select the appliance for the parameters you wish to access.

The letter and number in the screen top right corner indicates the appliance type, and the number refers to the unit number when multiple units are installed on the system.

i.e. H 1 = Heater No. 1 (Installers settings i.e. fan speed)
E 1 = Evaporative Cooler No.1 (ID settings)
n 1 = Network Wall Control (Zoning settings)
r 1 = Refrigeration Air Conditioning parameters (none available). "Add on Refrigerative Cooling" installer parameters are accessed and set on the heater's Electronic Control module.

- The 2 digits at the top centre of screen are the parameter numbers for the appliance selected.

Refer to the parameter chart of each appliance type for identification and explanation of the parameters.

- Press KEY 1 (top key) to select the next parameter number (if more than one available), or press KEY 2 to select the previous parameter number.
- Rotate the circular dial to change the parameter value displayed at the top left of screen.

On completion, press the ON/OFF button to save your changes and exit.

Networker Access to Installer Parameters (cont)

Heater and Refrigeration Cooling Installer Parameters

The Heater Installer parameters are set at the heater's Electronic Control module. Refer to the heater installation instructions for details.

The following table shows the Networkers display of a Heaters Settings:

1000 01 H1

!_____! !_____! !_____!

parameter value | parameter number | Heater type & Unit number No.1

1000 01 H1 **Heater Fan Operation.**
This is the RPM of the fan motor operating in normal heating.

1500 03 H1 **Cooling Fan Operation.**
This is the RPM of the fan motor operating in refrigerative cooling .

__1 04 H1 **Heater ID Number.**
This parameter is used to identify each heater in priority order, when more than one heater is connected on the system.

_500 05 H1 **Circulation Fan Operation.**
This is the RPM of the fan motor in circulation mode, in an OFF period between heating/refrigerative cooling cycles.
Note: This operation may be switched OFF if not required using the Networker Wall Control parameter No. 43.

__65 06 H1 **Supply Air Thermistor Auto EMS modulation Set Point Temperature.**
This is the temperature the heater's gas valve will vary the gas flow to modulate and maintain.

__1 07 H1 **Network 506 Module Mode.**
This is the setting for the Network 506 operation for zoning and or Refrigerative add on cooling - refer to the Network 506 Installation instructions.

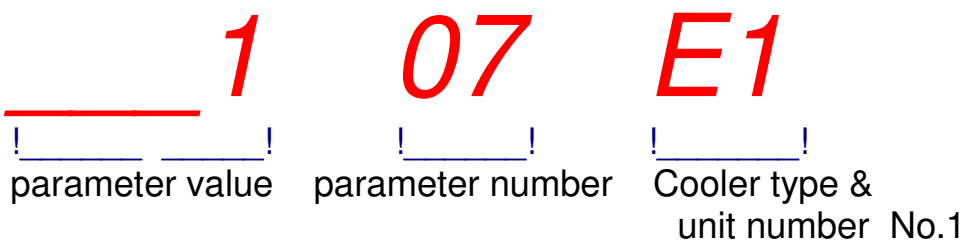
Networker Access to Installer Parameters (cont)

Evaporative Cooler Installer Parameters

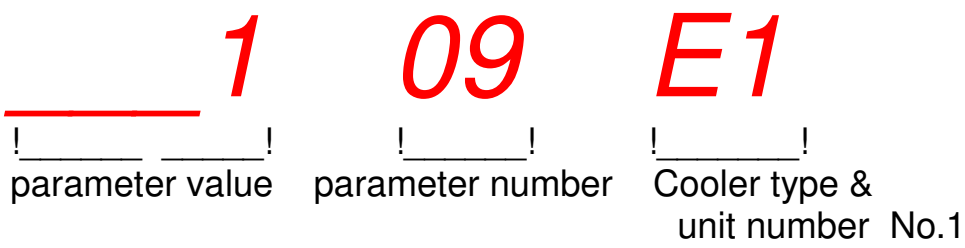
Evaporative Coolers have only one Installer parameter setting to access. This is the ID number for configuring multiple Coolers.

- Ensure that the power supply to all other units is turned OFF before making the change to the coolers ID No. parameter.
- Rotate the circular dial to change the parameter value displayed at top left of screen, to the unit number required for this Cooler.
- Press the ON/OFF button and exit the program.
- Turn the power supply at the Cooler OFF to save the new ID number.
- Repeat the sequence for each additional Cooler.
- Program each unit into the zoning parameters as described in the following Networker Wall Control section.

Contour Cooler Installer parameter display:



AD Cooler Installer parameter display:



Note: When zoning multiple Evaporative Coolers it is preferable to allot each Cooler to a switched zone, and not use the Common zone.

Networker Access to Installer Parameters (cont)
Networker Wall Control (Zoning) Set-Up Parameters

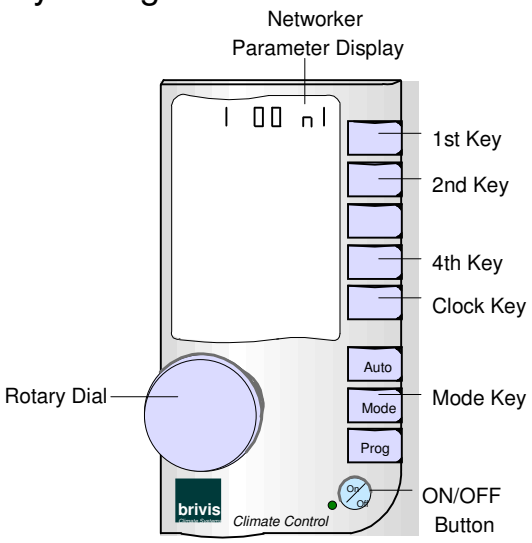
The Networker requires any and every unit to be programmed into a zone, and their associated zone motor relays (where applicable).

To program Zones:

- Turn the Networker OFF.

- Press the CLOCK key to enter "Clock set-up" program.

- Now press the 2nd & 4th keys simultaneously and HOLD for 3 - 5 seconds until the screen display changes.



- Press the MODE key to select - n 1 = Networker Wall Control.

The first of the Networker parameters will display as ***1 00 n1.***

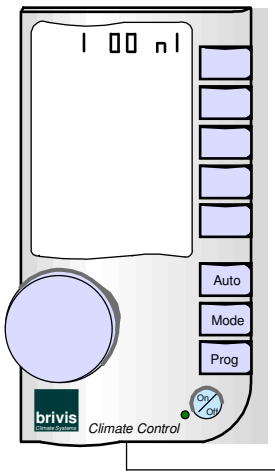
- Use the 1st (top) key to move to the next parameter selection, remembering the Networker will only display parameters for those appliances on the system.

- Turn the rotary dial to change the parameter value displayed at the top left of screen.

Networker Access to Installer Parameters (cont)

Networker Wall Control (Zoning) Set-Up Parameters (cont)

The diagram below shows the order in which parameters will appear in Networker (n1) mode, remembering the Networker will only display parameters for those appliances on the system.



Refrigerative Cooling
- Common Zone
- Zone A - Unit No. / Zone Relay No.
- Zone B - Unit No. / Zone Relay No.
- Zone C - Unit No. / Zone Relay No.
- Zone D - Unit No. / Zone Relay No.

Heating
- Common Zone
- Zone A - Unit No. / Zone Relay No.
- Zone B - Unit No. / Zone Relay No.
- Zone C - Unit No. / Zone Relay No.
- Zone D - Unit No. / Zone Relay No.

Evaporative Cooling
- Common Zone
- Zone A - Unit No.
- Zone B - Unit No.
- Zone C - Unit No.
- Zone D - Unit No.

Circulation Fan Operation (Heating)

- Press the MODE key to select - n 1 = Networker Wall Control.

The first Networker display will show:- *1 00 n1*

Networker Access to Installer Parameters (cont)

Networker Wall Control (Zoning) Set-Up Parameters (cont)

Within each appliance type zoning begins with the Common Zone.

The Networker comes pre-programmed with Unit No.1 in the Common Zone.
Therefore, no zone programming is necessary for single unit systems with no switched zones.

If there is a unit on the Networker system, that has a duct system with a section that is permanently open, then that units number is to be entered in the Common Zone parameter.

A zero should be entered in the Common Zone if all zones on the Networker are switched (controlled) zones.
Note: In this situation, none of the units will operate if all the zones are turned OFF.

Following the Common Zone parameter comes the Zone A parameter.

- Press the top button to move through the following parameter selections.
- At Zone A enter the number of the unit that is required to operate in this zone.
- When a unit number is entered in Zone A, the following parameter (Refrigerative and Heating units only) will give the option of entering a Network 506 Relay number (1 - 4), that can be switched when this zone is operated.
- If a unit number is entered in Zone A, following the Relay parameter, the next parameters are Zone B and its Relay. However, Zone B and subsequent Zones and Relays will not be displayed if no unit has been entered in the Zone A parameter.

This process may be repeated to enter Zones C & D, each with their Relays (where available) for each type of appliance.

The following page is a reference to the complete list of available parameters, depending on those units connected, and correctly configured through the Installer set-up procedures.

Networker Access to Installer Parameters (cont)

Networker Wall Control (Zoning) Set-Up Parameters (cont)

1 00 n1

!_____! !_____! !_____!

Parameter Value Parameter Number Networker Wall Control

- Press the top button to move through the following parameter selection.

Parameter Display	Parameter Description	Entry Reference
1 01 n1	**Refrig Common Zone**	Refrig/Heater **ID No.**
0 03 n1	**Refrig Zone A, Unit**	Refrig/Heater **ID No.**
0 04 n1	Refrig Zone A Relay	**Relay** No.
0 06 n1	**Refrig Zone B, Unit**	Refrig/Heater **ID No.**
0 07 n1	Refrig Zone B Relay	**Relay** No.
0 09 n1	**Refrig Zone C, Unit**	Refrig/Heater **ID No.**
0 10 n1	Refrig Zone C Relay	**Relay** No.
0 12 n1	**Refrig Zone D, Unit**	Refrig/Heater **ID No.**
0 13 n1	Refrig Zone D Relay	**Relay** No.
1 15 n1	**Heating Common Zone**	Heater **ID** No.
0 17 n1	**Heating Zone A, Unit**	Heater **ID** No.
0 18 n1	Heating Zone A Relay	**Relay** No.
0 20 n1	**Heating Zone B, Unit**	Heater **ID** No.
0 21 n1	Heating Zone B Relay	**Relay** No.
0 23 n1	**Heating Zone C, Unit**	Heater **ID** No.
0 24 n1	Heating Zone C Relay	**Relay** No.
0 26 n1	**Heating Zone D, Unit**	Heater **ID** No.
0 27 n1	Heating Zone D Relay	**Relay** No.
1 29 n1	**Evap Common Zone**	Evap **ID** No.
0 31 n1	**Evap Cooling Zone A, Unit**	Evap **ID** No.
0 34 n1	**Evap Cooling Zone B, Unit**	Evap **ID** No.
0 37 n1	**Evap Cooling Zone C, Unit**	Evap **ID** No.
0 40 n1	**Evap Cooling Zone D, Unit**	Evap **ID** No.
0 43 n1	Heating OFF cycle Circulation Fan Operation	0 = **OFF** 1 = **ON**

Networker Access to Installer Parameters (cont)
Multiple Unit Grouped Zoning

When there are more than 4 units (i.e. Evaporative Coolers) connected on the system, they will need to be assigned to a **zone by a grouping method.**

Make sure when setting the ID numbers in the Coolers, the numbers flow sequentially for allocating into zones.

A zone can have any number of coolers associated with it.

If for example, an installation has 8 coolers, which are to be grouped into 3 zones, as follows - Zone A has 2 coolers, Zone B & C have 3 coolers each, and no unit assigned to the Common Zone i.e.

Zone A = Units 1 & **2**	Zone B = Units 3, 4, & **5**	Zone C = Units 6, 7, & **8**

Because each Networker Zone parameter will only accept one number, to enter the parameters for grouped zones is as follows:

- Begin with the Common Zone A (parameter 29), and change the parameter value to **Zero**.
- Press the top button to move through the following parameter selection.
- At Zone A (parameter 31), enter the number of the unit with the greatest value (**2**), followed by Zone B (parameter 34), and Zone C (parameter 37), respectively with (**5**) & (**8**).

Each zone will consist of all Cooler numbers, in numeric order, **starting** with the number from the previous zone, **and ending** with the number entered for the zone.

Common Zone (0 units) = parameter setting ***0 29 n1***
Zone A = 2 (units 1 & **2**) = parameter setting ***2 31 n1***
Zone B = 5 (units 3,4 & **5**) = parameter setting ***5 34 n1***
Zone C = 8 (units 6,7 & **8**) = parameter setting ***8 37 n1***

Note: None of the coolers will operate if all the zones are turned OFF.

Networker Access to Installer Parameters (cont)

Multiple Unit Grouped Zoning (cont)

Alternatively, if all the coolers are to work at the same time as one Zone, then they can be grouped into the Common Zone (parameter 29).

This can only be done where there are more than 4 units on the system when group zoning applies.

All units assigned to the Common Zone would result in no zones appearing on the Networker Wall Control, and all the units would operate as one unit.

The program setting for this group zone would be as follows:

Common Zone = (units 1,2,3,4,5,6,7 & **8**)
= parameter ***setting 8 29 n1***

Networker Access to Service Parameters

To access the Cooler's service parameters, first enter installer mode as described earlier.

Turn the Networker OFF.

- Press Clock key to enter "Clock Set-Up" program.

- Now simultaneously press, and hold the 2nd & 4th keys for 3 - 5 seconds, until the screen changes to display:

- Next enter the special service access code on the Networker, and the screen will move onto the parameter numbers as detailed on the table that follows.

To change to the parameter number requiring adjustment, press the **top** button to select the **next** parameter number, and the **second** button to select the **previous** parameter number.

Rotate the dial when the appropriate parameter number is selected, to vary the value as displayed.

The values are presented in one of the following units:

- Time increment of seconds, minutes or hours.
- RPM.
- Numerical number where 0 = OFF & >0 = ON (i.e. 1 - 255).

Networker Access to Service Parameters

Heater Service Parameters

Default Display Value / Parameter No.	Adjustment Range	Description
70 01 H1	50 - 160	Auto EMS Natural Gas Minimum Rate (mAmp)
115 02 H1	100 - 160	Auto EMS Natural Gas Maximum Rate (mAmp)
70 03 H1	50 - 100	Auto EMS Natural Gas Start Rate (mAmp)
2 04 H1	1 - 15	MPS Combustion Fan Minimum Drive Level
15 05 H1	1 - 15	MPS Combustion Fan Maximum Drive Level
5 06 H1	1 - 15	MPS Combustion Fan Start Drive Level
45 07 H1	40 - 55	Heat up Outlet Cut Off Temperature
10 08 H1	5 - 20	Fan Cool Down Gradient
50 09 H1	40 - 55	Cool Down Outlet Cut Off Temperature
150 10 H1	30 - 150	Do Not Alter
100 11 H1	50 - 160	Auto EMS LP Gas Minimum Rate (mAmp)
140 12 H1	100 - 160	Auto EMS LP Gas Maximum Rate (mAmp)
70 13 H1	50 - 100	Auto EMS LP Gas Start Rate (mAmp)
10 17 H1	1 - 15	MPS Combustion Fan Intermediate Drive Level
5 18 H1	0 - 20	Do Not Alter
0 19 H1	0 - 20	Do Not Alter
0 20 H1	0 - 40	Do Not Alter

Networker Access to Service Parameters (cont)

Contour Coolers Service Parameters Descriptions

ServoCloseDelay - This is the time delay in minutes, from when both the fan and the pump stop operating, until the Servo Seal closes and the drain tube lowers to drain the tank water.

FillTime - This is the time in minutes, from when the water inlet solenoid opens, that water must be sensed on either of the water level probes, before a lockout will occur.

MinSpeed / **MaxSpeed** - These are the adjustment parameters, to vary the minimum and maximum fan RPM, from the default settings as per the N-E2 model selection. This may be required to reduce the Cooler's performance, due to cooler over/under sizing or inadequate duct sizing etc.
It is not possible to set the minimum speed higher than the maximum speed, and vice versa. The closer the minimum and maximum speeds are set, the less variation there will be in the Cooler's fan output.

Model Selection - The setting which defaults the fan speeds according to the unit type. See unit spec sheets for settings.

ShortDryPadTime - This is the time in minutes, the pump can be OFF and the filter pads not wetted, before a Pre-Wet will be required.

FlushService - This is the number of filling operations, between the high and low water sensors, due to the evaporation of water during operation, before the tank will be flushed to dilute the salt build up.

ShortPrewetTime - This is the Pre-Wet time in seconds that occurs if the pump has been OFF longer than the ShortDryPadTime, and less than the LongDryPadTime.

LongPrewetTime - This is the Pre-Wet time in seconds that occurs if the pump has been OFF longer than the LongDryPadTime.

ShortDryPadTime - This is the time in minutes, the pump can be OFF and the filter pads not wetted, before a Pre-Wet is required.

LongDryPadTime - This is the time in minutes, the pump can be OFF and the filter pads not wetted, before a LongPrewetTime Pre-Wet will be required.

Networker Access to Service Parameters (cont)
Contour Coolers Service Parameters (0,1 & 2 series)

Name	No.	Range	Units	Default	Description
ServoCloseDelay	1	1-255	Minutes	60**	Delay after pump and fan turn OFF, before ServoSeal closes
FillTime	2	1-255	Minutes	15	Maximum time for an empty tank to fill to a water sensor level
MinSpeed	3	*	RPM	*	Minimum fan speed.
MaxSpeed	4	*	RPM	*	Maximum fan speed.
ModelNum	5	1-7	Units	1	Model type number
Short DryPadTime	13	1-255	Minutes	2	Time pump can remain OFF before a pre-wet is required.
FlushService	15	1-255	Cycles	15**	Number of tank refills before a FlushService
ShortPrewetTime	18	1-255	seconds	60	Normal (short) Pre-Wet time
LongPrewetTime	19	0-255	seconds	240	Long Pre-Wet time
LongDryPadTime	20	0-255	Minutes	10	Time pump is OFF to force long pre-wet

*Defaults to RPM specified by model number selection

** Pre 1/2/98 ServoCloseDelay = 20
&
FlushService = 10

Networker Access to Service Parameters (cont)

Contour & Profiler Cooler Parameters

N-E5 controller

Parameter Name	Parameter Number	Range	Units	Default	Parameter Description
Installer Parameters					
Unit ID Number	7	1 - 15.		1	Changes the unit identification number for multiple unit installations.
Installer Flush Count	14	1 - 20.		20	Occurrence of fill valve opening before flushing
Dump Check	16	0 - 1	number	0	Used to check the dump operation. If set to 1, the unit will instantly perform a dump before resuming normal operation. This setting must be returned to 0, otherwise the unit will perform a dump every time the unit is powered up.
Service Parameters					
Riser close delay	1	1 - 255	minutes** See Servicing Instruction 21	60	Delay to close the Servoseal and Auto Refresh tube.**See Servicing Instruction 21 for the propper setting of this parameter.
Fill time	2	1 - 255	minutes	15	Time allowed for the trough water level to reach high level from empty.
Min speed	3	0 -125	RPM		Minimum fan speed (value x 10RPM)
Max speed	4	60 -135	RPM		Maximum fan speed (value x 10RPM)
Model Number	5	1 - 7.		1	Cooler model selection number. Sets the fan speed by selecting the unit number as per the Specifications
Short Dry Pad Time	13	1 - 255	minutes	2	Time the pump can be off before a normal Pre-Wet is necessary.
Service Flush Count	15	1 - 255	Number of Refils	See Notes	Nunmber of tank fills before flush. Profiler=20 / Contour=255 (never)
Short Pre-wet Time	18	1 - 255	seconds	60	Normal Pre-wet time.
Long Pre-wet Time	19	1 - 255	seconds	120	Extended Pre-wet time.
Long Dry Pad Time	20	1 - 255	minutes	10	Time the pump can be off before an extended Pre-Wet is required
Status Mode	21	0 - 2		2	Do not alter/ not used.
AquaSave	22	0 - 1	number	0 or 1	Is used when an Aquasave present on the cooler. Brivis Contour = 1 Brivis Profiler = 0
Flush time	43	1-255	seconds	200	Time soleniod is open during a flush service.

Additional N-E5 controller parameters.

Installer flush count - Setting for installers to reduce the flush count.

Dump Check - When set to 1, forces unit to perform instant dump operation check. Dump check will only occur once upon power up. Should always be set to 0, because it could cause possibly delayed start up if left on 1.

Aquasave - Set to 1 for Aquasave on, and 0 for no Aquasave. Default cooler settings are - Contours set to 1 and Profilers set to 0.

Flush Time - The time the solenoid is open during a flush service. This must be set properly according to unit type if retrofitting.

Contours 0 series = 100 seconds Contours 1 series = 60 seconds	Contours 2 series = 200 seconds Contours & Profiler 3 series = 200 seconds.

Networker Access to Service Parameters (cont)
AD, AC & CC Coolers Service Parameters Descriptions

DryDumpDelay - This is the time delay in minutes from when both the fan and the pump stop operating until the dump valve will open and drain the tank water. The default time is 45 minutes.

FillTime - This is the time in seconds the pump is delayed from operating on the first cooling cycle returning after the dump valve drained the tank. This delay is to allow sufficient time for the water to fill the tank, otherwise pump cavitation and noise will result. The default time is 120 seconds (4 minutes).

MinSpeed- / **MaxSpeed** - These are the adjustment parameters to vary the minimum and maximum fan RPM from the default settings as per the N-E1 lid potentiometer. This may be required to reduce the Cooler's performance due to Cooler over/under sizing or inadequate duct sizing etc.
It is not possible to set the minimum speed higher than the maximum speed and vice versa.
The closer the minimum and maximum speeds are set, the less variation there will be in the Cooler's fan output.

DumpService - This is the accumulated time in hours the pump has operated since the last draining operation of the dump valve. This parameter only applies if the WetDumpOpt (parameter No.6) is set to 1 allowing a Wet Dump.

PrewetTime - This is the short Pre-Wet that occurs in operation less than the Dry Pad Time setting.

ExtPrewetTime - This is the additional Pre-Wet time that occurs in manual modes when the DryPadTime has been exceeded.

DryPadTime - This is the time the filter pads have not been wetted and will determine if and how much Pre-Wetting should be applied to the pads before the fan operation can commence.

Networker Access to Service Parameters (cont)

AD, AC & CC Coolers Service Parameters

Display	Range	Units	Default	Description
45 01 E1	1-255	Minutes	120	Delay before dumping occurs after pump turned off.
240 02 E1	1-255	Seconds	240	Time for sump to fill when pump activity desired.
300 03 E1	Pre set for model, do not decrease	RPM	*	Minimum fan speed
1280 02 E1	Pre set for model, do not increase	RPM	*	Maximum fan speed
01 05 E1	0-1		*	Permits sump to be drained and left dry. 0 = OFF, 1 = ON
01 06 E1	0-1		*	Permits sump to be drained and refilled during cooling operation. 0 = OFF, 1 = ON
00 07 E1	0-1		0	No Option Available. Do Not Alter Setting
00 08 E1	0-1		0	No Option Available. Do Not Alter Setting
35 15 E1	1-255	Hours	35	Cumulative pump time if unit not turned OFF before dumping occurs.
40 16 E1	1-255	Hours	40	Cumulative pump time before a pad washing flush occurs
60 17 E1	1-255		60	No Option Available. Do Not Alter Setting
60 18 E1	1-255	Seconds	60	Normal (short) pre-wet time
180 19 E1	0-255	Seconds	180	Extra pre-wet time (for long pre wet
10 20 E1	0-255	Minutes	10	Time pads can remain dry before change in pre-wet time
60 21 E1	1-255		60	No Option Available. Do Not Alter Setting
60 22 E1	1-255		60	No Option Available. Do Not Alter Setting
90 23 E1	0-255	Seconds	90	Time to allow to empty sump when dumping

Networker Access to Service Parameters (cont.)

Networker Wall Control Service Parameters

N-C1 & N-C2

Example of the Networker parameter display in Network Wall Control mode

Parameter Value | **Parameter Number** | **Networker Wall Control**

Parameter Display and Description		Default
18 44 n1 **MIN_HEAT_ON_AND_OFF_TIME** This is the minimum time the call for heat will be on or off in *steady state mode*.	10sec per increment	18 X 10 sec = 180 sec = **3 minutes**
60 45 n1 **MIN_COOL_ON_AND_OFF_TIME** * For refrig cooling. This is the minimum time the call for cooling will be on or off in *steady state mode*.	10sec per increment	60 X 10 sec = 600 sec = **10 minutes**
30 46 n1 **LOW_TRANSIENT_OFF_TIME** This is the time for which the call for heat will remain off once the Networker temperature reaches the LOW TRANSIENT TARGET OFFSET. Reducing this will increase the start-up room air temperature overshoot.	10sec per increment	30 X 10 sec = 300 sec = **5 minutes**
06 47 n1 **LOW_TRANSIENT_TARGET_OFFSET** This is the amount below the set point at which the call for heat goes off in *Low Transient mode*. Decreasing this value will also increase the amount of start up room air temperature overshoot.	0.5^0C. per increment	6 X 0.5^0C. = **3^0C.**
09 48 n1 **NETWORKER_TEMPERATURE_OFFSET** This is the temperature offset the Networker display reads compared to the actual thermistor temperature registered.	0.5^0 C per increment. (0-20 range) 10 = 0^0C.	9 = **-0.5^0C.**
02 49 n1 **COOLER_CONTROL_TYPE** This is the setting for the Networker message handling type for Cooler Controls (see servicing instruction, Page 7-8) N-E1 & N-E2 pre Sept 1998 = 0. N-E1 & N-E2 post Sept 1998 = 2 using auto detect. N-E1 & N-E2 post Sept 1998 = 1 if auto detect fails.	0 - 2	**2**
0 50 n1 **COOLER_TEMPERATURE_DISPLAY** This parameter is to activate the temperature display in Cooler mode. OFF = 0 and ON = 1	0 - 1	**0**

Networker Version 3

Introduction.

The Networker version 3 was released in September 2003 to coincide with the new cooler range. The N-C3 operates the same as the two previous models (N-C1 & N-C2), but has a few extra features added which will be explained in the following chapter. All operational information provided in the front of this manual is still relevant for the N-C3 unless specified.

The N-C3 looks very similar to the N-C2 apart from the new "Function" ***(Fn)*** button that has been added to the controls, taking the place of the "Backlight" key. The Function button allows more functions to be added to the numbered keys, 1 & 2. The new functions are "message repeating" and "Networker locking". Since the Backlight key is no longer there, the backlight now comes on automatically whenever the user alters the Networker. The backlight will remain on for a period of 30 seconds before turning off.

The N-C3 display screen has also changed. It now features a new scrolling display that helps the customer to understand the different operating procedures of the appliance, such as ***"Pre-wetting cooler pads - Please Wait!"*** A message can also be repeated by using a function key combination (explained in detail later), unless the event has passed.

The new Networker can be installed with two controllers on the system allowing for individual temperature sensing in separate zones. This function has never been allowed in any of the previous versions due to the data communication problems. This has been resolved by giving the Networkers individual address numbers, which designate whether the Networker is a Master or a Slave. All new Networkers, come set as masters by default, and will need to be altered by the installer for Dual Networker operation. The reason for setting all new Networkers as Master by default is because the majority of installations will only require a single Networker. The system will not function if the two Networkers are both set as masters or both set as slaves. The installer will follow a simple Parameter adjustment to set the slave Networker. The Master Networker can be identified by the **Clock** key when the controller is in the off position.

Note: *All Parameters, Installer or Service can only be accessed by the Master Networker.*

Locking the controller is another function that has been added to the new Networker. This enables the user to prevent any alterations being made to the cooler or heater settings. This can be activated in the ON position, to prevent alterations, or the OFF position to prevent the unit from being turned on. This feature is activated by the use of pin numbers. There are three user pin numbers which can be altered by the user, and a Master pin number which cannot be altered. To enter the pin number, keys numbered 1-5 are used. If a customer forgets their password, all of the user pins can be reset by the use of the Master pin.

Bulletins & Servicing Instructions

Networker N-C3 Operation Faults.

The N-C3 Networker was introduced in August 2003, and some faults were found in the early production units.

The faults that were discovered are as follows -

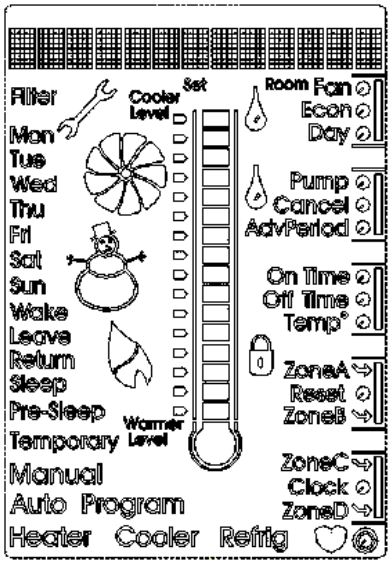
1. Manual fan venting: In heating mode, manual fan operation while the heater is in the off position, could not be used unless parameter 43 is set to 1. But by setting this to 1, the fan will continue to operate during heating thermostat off cycles. Parameter 43 is rarely used and could cause a nuisance for the customer with air constantly circulating between heating cycles. This problem will soon be addressed with the Manual fan operation to be included.

2. Zone control: The Networker was designed to operate automatically with two Networkers connected, opening and closing the zones according to the room temperature. The problem encountered is that manual selection of the zones could not be done while the zone was in an inactive state (e.g. room temperature has reached the set temperature level). This takes control of the zones away from the customer. The only way that the zones could be manually turned on or off, is when the Networker is calling for heating or cooling (cooler auto mode). In heating mode the only way you could manually open or close a zone, is if the room temperature is below the set temperature and the Networker was calling for heat. If the customer wishes to open or close a zone during stat off cycles (not calling for heat), the set temperature would have to be raised above the room temperature, to get the Networker calling for heat again. Then the zone can manually be turned on or off. The same problem occurs in cooler auto mode, apart from the set temperature having to be lowered under the room temperature.
This problem will soon be addressed and the normal operation of the zones is outlined in this manual.

3. Evap cooler Temperature display: It was found that all N-C3 Networkers went out with the Networker service parameter 50 set to 1. This means that all Networkers will have the room temperature showing while in evaporative cooling mode. Due to the operation of evaporative cooling (exhausting heat from a building), the temperature display doesn't always accurately portray the actual cooling benefit. In the past we have not done this as the customer could interpret higher temperatures as a result of poor cooler performance.
Our current stock of N-C3 Networkers will be altered to fix this problem, but there are still significant numbers out in the field.

Networker Version 3

Liquid Crystal Display.



The display uses different symbols to the previous networkers to show different operations.

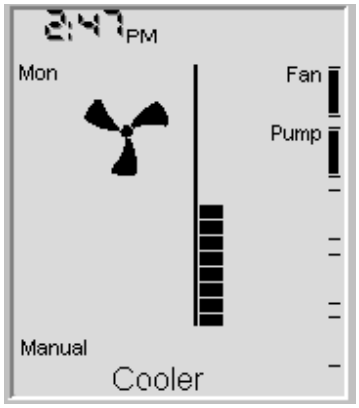
Symbols	Description
	*Snowman* icon indicates the refrigeration compressor is running. A flashing *Snowman* icon indicates the compressor is in a safeguard time off period.
	Rotating *Fan* icon indicates unit's fan is on. A flashing *Fan* icon indicates the fan is in a delay period e.g. Pre-wet.
	*Flame* icon indicates Gas burners are currently lit. A flashing *Flame* indicates the heater is preparing for ignition.
	The two alternating *drop* icons indicates that the cooler pump is on.
	Flashing *Padlock* icon indicates that the Networker is locked.
	Flashing *Spanner* icon indicates service attention is required on the unit.
	Flashing *Heart* icon indicates that the room temperature is being sensed from this Networker.

Networker Version 3

Liquid Crystal Display. (cont.)

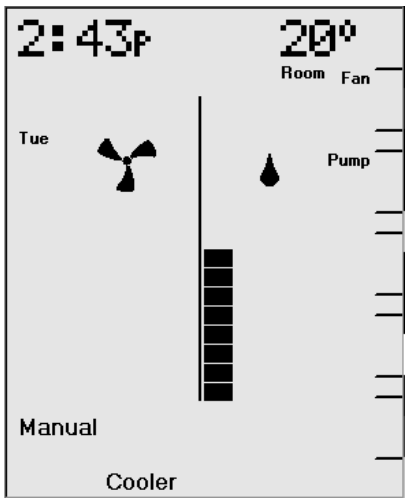
On Networkers N-C1 & N-C2, black bars beside the 5 variable control keys would show whether the button is on or off. The button would have text beside it showing the function/s available. For example in cooling manual mode a black bar would be beside keys 1 & 2 if the fan and pump were selected to be on.

Networker N-C1 & N-C2



Due to the change in symbols, these black bars have been replaced by other symbols better showing the unit's current state. For example, in cooling manual mode the pump operation is now portrayed by two alternating drips, and the fan operation is portrayed by either a flashing fan (during a pre-wet), or a spinning fan. These symbols are also combined with scrolling messages across the top of the screen informing the customer of the appliance's current operation. These messages only appear during certain stages, such as a pre-wet.

Networker N-C3

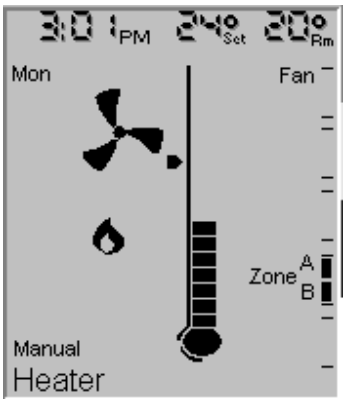


Networker Version 3
Liquid Crystal Display. (cont.)

Zone operation Display.

On networkers N-C1 & N-C2 zones were portrayed by the black bars beside the variable control keys along with the zone area name (see picture). A black bar next to a zone indicates that this zone is currently open.

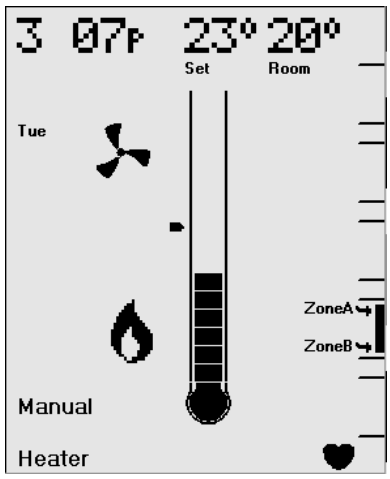
Networker N-C1 & N-C2



On Networker N-C3 the zone's symbols have been redesigned to effectively show the dual Networker zoning operation. The way to understand these symbols is explained below.

An arrow next to a zone means that the zone has been selected for use by the customer or as part of the auto program.
If there is no arrow present, the zone has been deselected either manually by the customer, or by the auto program in the Networker.
If the arrow is solid, this means the zone is currently open and receiving airflow from the unit.
In heating mode, if the arrow is flashing, this means that the room temperature registered on the Networker assigned to this zone, is at or above the set temperature. In cooling Auto mode, if the arrow is flashing, this means that the room temperature registered on the Networker assigned to this zone is at or below the set temperature.

Networker N-C3



Liquid Crystal Display. (cont.)

Parameter Display Change

Due to the display change, the way we view all parameters has also changed. This is how the parameters will be viewed on the N-C3, reading from left to right.

Example-

Unit Number - Parameter ID Number - Parameter Value Setting.

n01	ID15	:1
Networker Number	**Heater Common Zone**	**Heater ID number**

OR

Unit number - Parameter ID Number - Parameter Value Setting.

H01	ID01	:1150
Heater Number	**Heat Fan Speed**	**Setting - 1150 RPM**

Scrolling Message Display

With the new scrolling display incorporated into the LCD, this allows us to give more understandable explanations of the units current state. There are several applications for message displaying, including error reporting. Some of the messages that are shown are -

"Enter Your Pin number to lock the system"

"Pre-Wetting cooler pads – Please Wait!"

"Clock setting mode"

"Cooler Fault – E01 Code#30 for assistance call 1800 335 094"

Once a message has scrolled across the display, the user can then repeat the message by pressing the Function key then key number 1. The message will only repeat if the event is still current, and will not repeat if the event has passed.

To repeat a Message

- Press the Function key followed quickly by key 1. The message should now repeat.
- This function can be repeated if necessary.

Networker Version 3

Dual Networker Zoning Operation.

Note: Only the Master Networker can access the Installer or Service parameters.

The Networker allows the customer to have two Networkers installed on the one system. The main advantages of this are convenience of making alterations to the settings of the controller, and the ability to sense temperature for individual zones in heating mode. The two Networkers must be wired in parallel to the system, not in series. Cooler or Heater settings are common to both Networkers. Dual Networkers will only use the one temperature set point, which can be adjusted on either Networker. An adjustment that is made on one Networker is immediately reflected on the other Networker.

Cooling Operation:
With evaporative coolers, either Networker can be assigned to sense the room temperature, while the cooler is in auto mode. The Operation of the cooler in manual mode will not change, but does allow the cooler settings to be adjusted from either controller. On single Networker installations the temperature sensing will always be defaulted to the Master Networker. Dual Networkers can also be used in conjunction with multiple coolers, and again each Networker can be assigned to sense for the appropriate zone.

Heating Operation:
When dual Networkers are used in heating mode with a Network 506 module connected, they can individually sense the temperature in separate zones and control the zone dampers accordingly. It is also the same when using dual Networkers in conjunction with multiple heaters, they can individually sense the temperature in separate zones and control the individual heating units accordingly.

If a particular zoned area drops below the set point, the Networker will open that zone and allow heat to enter that area. Vice versa if a zoned area increases above the set temperature, the Networker will close that zone until heat is needed again.

The way the system can distinguish between the two Networkers is by giving them a specific ID address (Master or Slave), and then assigning them to a zone. A new parameter has been added to the zoning parameters to allow for this Networker assigning. All temperature sensing is assigned to the Master Networker by default, because the majority of these Networkers will be the single controller on the system.

n01 ID15:0	**Heating Common Zone**	Heater **ID** No.
n01 ID16:0	**Common Zone - Networker Temp. Sensing ID No.**	**Networker number 1 or 2**
n01 ID17:0	**Heating Zone A, Unit**	Heater **ID** No.
n01 ID18:0	Heating Zone A Relay	**Relay** No. 1 to 4
n01 ID19:0	**Heat Zone A - Networker Temp. Sensing ID No.**	**Networker number 1 or 2**

Each zone is assigned a Networker to sense from, so a single Networker can be used to sense for more than one zone. For example the ***Common Zone*** and ***Zone A*** can both be assigned to sense off the Master Networker, while ***Zone B*** and ***Zone C*** can both be assigned to sense off the Slave Networker.

Networker Version 3

Dual Networker Zoning Operation. (cont.)

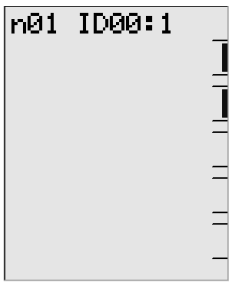
Master and Slave Addressing.
Before we can configure the Networker Zoning Parameters, the Networker addresses must be set. Two procedures can be used to configure the Master & Slave Networkers.

Method 1.

Because all Networkers come set as masters by default, only the Slave needs to be addressed. This method can only be used if both Networkers are Masters (e.g. new installation). Refer to method 2 if the Master and Slave Networkers are to be reversed, or if both Networkers have been set to Slave by mistake.

To configure the **Slave** Networker follow this procedure:

- Connect both Networkers to the appliance and power the system up. At this stage both Networkers will be set as Masters, so both Networkers should have the word "clock" next to **key 5** (while in the off position). The system should not be operated in this state as there will be communication errors.
- Determine which Networker you wish to be the Slave.
- On the Networker you wish to be slave, push the clock key. The message ***"Clock setting mode"***, should be displayed.
- After the message has finished, ensure the time on the display is flashing. Press **keys 2 & 4** for 5 seconds until the message ***"Installer parameter access."*** is displayed.
- By pushing the **Mode** key, this will move through the different appliances attached to the system (e.g. Cooler/Heater/Networker). Push the **Mode** key until the screen display looks like this.



Unit Number Parameter	*ID Number*	*Parameter Value Setting.*
n01	ID00	:1

Networker ID **Networker Address parameter** **Address setting 1=Master 2=Slave**

- Using the rotary dial, change the parameter value to 2 (2=Slave).
- Push the **On/Off** key to exit.
- The unit should then be ready for zone configuration.

Networker Version 3

Dual Networker Zoning Operation. (cont.)

Method 2.

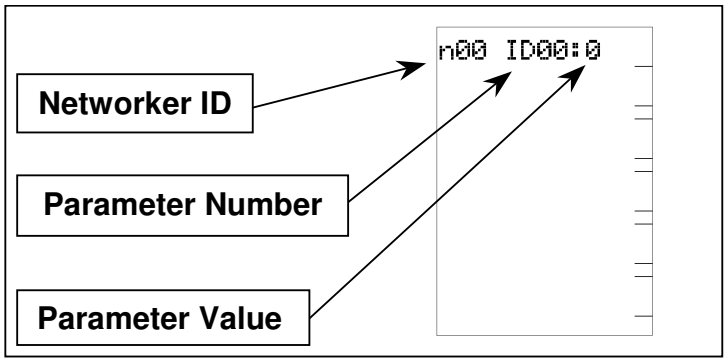
Use this method if altering a current installation or if both networkers have been set to slave by mistake. If this fails refer to the complete Networker reset procedure on page 87.

- Remove the Slave Networker off the backing plate so that the controller is powered down.

- Press and hold **keys 3 & 5**, then place the Networker on the backing plate ensuring **keys 3 & 5** are still depressed, continue holding **keys 3 & 5** for five seconds after the control is placed on the backing plate.

- After holding **keys 3 & 5** for five seconds, release the two keys. The screen should now scroll this message ***"Set this Networker's address!"*** If this message did not appear please repeat the resetting procedure.

- After the message has finished, the screen should look like this. Now the parameter value for setting Master and Slave addresses can be set.



- Rotate the circular dial to change the parameter value displayed at the top right of screen to the number required for Slave. Refer to the table for settings e.g. **Slave = 2.** The Master Networker can also be set if necessary.

Parameter ID Number and Value	Parameter Description	Parameter Value Settings
n01 ID00:0	**Networker Address or Number**	**1 = Master or 2 = Slave**

- Once this parameter value has been set, push the **ON/OFF** button to exit this Installer Set-up program.

Note: *All Networkers come configured as masters by default. Two masters cannot be connected to one system otherwise the system will not function properly. Vice versa if both Networkers are set as slaves, the Networkers will lock out and will not be accessible. If this has been done, the resetting procedure needs to be performed again to rectify this problem.*

Networker Version 3

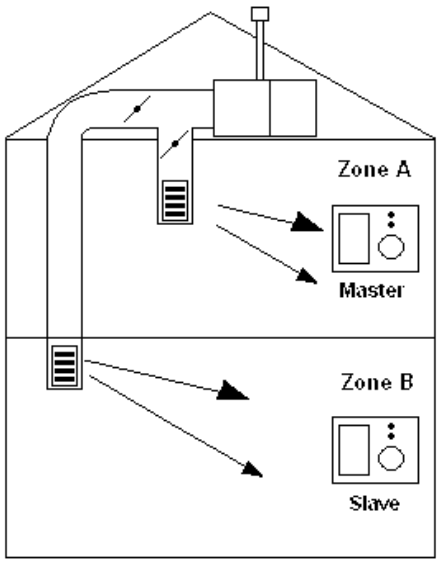
Dual Networker Zoning Operation. (cont.)

After the Master and Slave Networker addresses have been assigned, the zone temperature sensing needs to be configured (see example below).

Heater Zone Configuration.

To explain the zone configuration, please note the following example where dual Networker Temperature sensing would most likely be used.

The residence - A double storey house, which will be separated into two zones controlled by zone dampers operating of a Network 506 module. Upstairs will be Zone A, and downstairs will be Zone B. The system will have two networkers, the upstairs Networker will be the Master and the downstairs Networker will be set as the Slave. There will be no common zone on this installation.



The way this installation should be configured is on this Parameter table below.

n01 ID15:0	Heating Common Zone	**Set to Zero (no common zone)**
n01 ID16:0	Common Zone - Networker Temp. Sensing ID No.	**Will skip to next Parameter**
n01 ID17:0	Heating Zone A, Unit	**Set to 1 (Heater 1 Zone A)**
n01 ID18:0	Heating Zone A Relay	**Set to 1 (Relay 1)**
n01 ID19:0	Heat Zone A - Networker Temp. Sensing ID No.	**Set to 1 (Networker 1 Master)**
n01 ID20:0	Heating Zone B, Unit	**Set to 1 (Heater 1 Zone B)**
n01 ID21:0	Heating Zone B Relay	**Set to 2 (Relay 2)**
n01 ID22:0	Heat Zone B - Networker Temp. Sensing ID No.	**Set to 2 (Networker 2 Slave)**

Networker Version 3

Dual Networker Zoning Operation. (cont.)

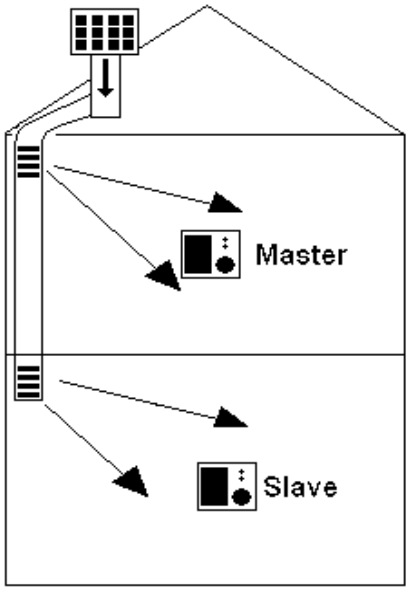
Cooling Zone Configuration

When installing dual networkers on evaporative cooler installations, both networkers must be configured as Master or Slave. Once that has been done the networkers can be assigned to an appropriate zone for temperature sensing (Auto mode only). Due to the lack of zone dampers on evaporative coolers, individual zones on single cooler installations cannot be controlled independently by the networkers. Instead the Cooler will run at the required speed to satisfy both the networkers' cooling requirements. This means that some areas of the house may fall below a Networker's cooling requirements if the cooler is still running to satisfy the other Networker in a different area of the house.

When dual networkers are installed in conjunction with multiple coolers, the networkers will individually control the coolers that are assigned to them according to the set comfort level (Auto mode only).

Zone Configuration Example.

The residence - A double storey house, which will be separated into two zones, upstairs will be Zone A, and downstairs will be Zone B. In both Zone A & B there will be two Networkers, Upstairs will be the Master and the downstairs Networker will be set as the Slave. There will be no common zone on this installation.



The zoning parameters for this installation should be like this.

n01 ID29:0	**Evap Common Zone**	Evap **ID** No. 0
n01 ID30:0	**Common Zone - Networker Temp. Sensing ID No.**	Skipped
n01 ID31:0	**Evap Cooling Zone A, Unit**	Evap **ID** No. 1
n01 ID32:0	**Not Used**	**Not Used**
n01 ID33:0	**Cooler Zone A - Networker Temp. Sensing ID No.**	Networker ID 1=Master
n01 ID34:0	**Evap Cooling Zone B, Unit**	Evap **ID** No. 1
n01 ID35:0	**Not Used**	**Not Used**
n01 ID36:0	**Cooler Zone B - Networker Temp. Sensing ID No.**	Networker ID 2=Slave

Networker Version 3

Installer Zoning Parameters

Parameter ID Number and Value	Parameter Description	Parameter Value Settings
n01 ID00:0	**Networker Address or Number**	**Master = 1 or Slave = 2**

n01 ID01:0	**Refrig Common Zone**	Refrig/Heater **ID No.**
n01 ID02:0	**Common Zone - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID03:0	**Refrig Zone A, Unit**	Refrig/Heater **ID No.**
n01 ID04:0	Refrig Zone A Relay	**Relay** No. 1 to 4
n01 ID05:0	**Refrig Zone A - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID06:0	**Refrig Zone B, Unit**	Refrig/Heater **ID No.**
n01 ID07:0	Refrig Zone B Relay	**Relay** No. 1 to 4
n01 ID08:0	**Refrig Zone B - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID09:0	**Refrig Zone C, Unit**	Refrig/Heater **ID No.**
n01 ID10:0	Refrig Zone C Relay	**Relay** No. 1 to 4
n01 ID11:0	**Refrig Zone C - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID12:0	**Refrig Zone D, Unit**	Refrig/Heater **ID No.**
n01 ID13:0	Refrig Zone D Relay	**Relay** No. 1 to 4
n01 ID14:0	**Refrig Zone D - Networker Temp. Sensing ID No.**	Networker number 1 or 2

n01 ID15:0	**Heating Common Zone**	Heater **ID** No.
n01 ID16:0	**Common Zone - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID17:0	**Heating Zone A, Unit**	Heater **ID** No.
n01 ID18:0	Heating Zone A Relay	**Relay** No. 1 to 4
n01 ID19:0	**Heat Zone A - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID20:0	**Heating Zone B, Unit**	Heater **ID** No.
n01 ID21:0	Heating Zone B Relay	**Relay** No. 1 to 4
n01 ID22:0	**Heat Zone B - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID23:0	**Heating Zone C, Unit**	Heater **ID** No.
n01 ID24:0	Heating Zone C Relay	**Relay** No. 1 to 4
n01 ID25:0	**Heat Zone C - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID26:0	**Heating Zone D, Unit**	Heater **ID** No.
n01 ID27:0	Heating Zone D Relay	**Relay** No. 1 to 4
n01 ID28:0	**Heat Zone D - Networker Temp. Sensing ID No.**	Networker number 1 or 2

n01 ID29:0	**Evap Common Zone**	Evap **ID** No.
n01 ID30:0	**Common Zone - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID31:0	**Evap Cooling Zone A, Unit**	Evap **ID** No.
n01 ID32:0	**Not Used**	**Not Used**
n01 ID33:0	**Cooler Zone A - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID34:0	**Evap Cooling Zone B, Unit**	Evap **ID** No.
n01 ID35:0	**Not Used**	**Not Used**
n01 ID36:0	**Cooler Zone B - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID37:0	**Evap Cooling Zone C, Unit**	Evap **ID** No.
n01 ID38:0	**Not Used**	**Not Used**
n01 ID39:0	**Cooler Zone C - Networker Temp. Sensing ID No.**	Networker number 1 or 2
n01 ID40:0	**Evap Cooling Zone D, Unit**	Evap **ID** No.
n01 ID41:0	**Not Used**	**Not Used**
n01 ID42:0	**Cooler Zone D - Networker Temp. Sensing ID No.**	Networker number 1 or 2

n01 ID43:0	Heating OFF cycle Circulation Fan Operation	**0 = OFF**
		1 = ON

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Networker Service Parameters

Parameter ID Number	Description	Range	Default	Units
ID 44	Heating Refrigerative Cooling Common Zone Steady State Min Off Time	0-240	18	10 seconds
ID 45	Evap Cooling common zone steady state min on/off time	0-240	60	10 seconds
ID 46	Common Zone Low Transient Offset Time Interval	0-240	30	10 seconds
ID 47	Common Zone Low Transient Offset Temperature	0-60	15	0.1°c
ID 48	Networker Temperature Display Offset	0-100	50	0.1°c
ID 50	Display Room Temperature When Cooling	0-1	0	on or off
ID 51	501 Appliance Minimum Reporting Error Level	0-7	3	Number
ID 52	503 Appliance Minimum Reporting Error Level	0-7	3	Number
ID 53	502 Appliance Minimum Reporting Error Level	0-7	3	Number
ID 56	Heating Refrigerative Cooling Zone A Steady State Min Off Time	0-240	18	10 seconds
ID 57	Evap Cooling zone A steady state min on/off time	0-240	60	10 seconds
ID 58	Zone A Low Transient Off Time Interval	0-240	30	10 seconds
ID 59	Zone A Low Transient Offset Temperature	0-60	15	0.1°c
ID 60	Heating Refrigerative Cooling Zone B Steady State Min Off Time	0-240	18	10 seconds
ID 61	Evap Cooling zone B steady state min on/off time	0-240	60	10 seconds
ID 62	Zone B Low Transient Off Time Interval	0-240	18	10 seconds
ID 63	Zone B Low Transient Offset Temperature	0-60	15	0.1°c
ID 64	Heating Refrigerative Cooling Zone C Steady State Min Off Time	0-240	18	10 seconds
ID 65	Evap Cooling zone C steady state min on/off time	0-240	60	10 seconds
ID 66	Zone C Low Transient Off Time Interval	0-240	18	10 seconds
ID 67	Zone C Low Transient Offset Temperature	0-60	15	0.1°c
ID 68	Heating Refrigerative Cooling Zone D Steady State Min Off Time	0-240	18	10 seconds
ID 69	Evap Cooling zone D steady state min on/off time	0-240	60	10 seconds
ID 70	Zone D Low Transient Off Time Interval	0-240	18	10 seconds
ID 71	Zone D Low Transient Offset Temperature	0-60	15	0.1°c
ID 72	Minimum Evaporative Cooling Temperature Difference	1-30.	5	0.1°c
ID 77	Do Not Adjust	N/A	30	N/A
ID 78	Do Not Adjust	N/A	5	N/A
ID 79	Do Not Adjust	N/A	90	N/A
ID 80	Do Not Adjust	N/A	5	N/A
ID 81	Do Not Adjust	N/A	75	N/A
ID 82	Do Not Adjust	N/A	25	N/A
ID 83	Do Not Adjust	N/A	60	N/A
ID 84	Do Not Adjust	N/A	2	N/A
ID 85	Do Not Adjust	N/A	5	N/A
ID 87	Do Not Adjust	N/A	10	N/A
ID 88	Do Not Adjust	N/A	20	N/A
ID 89	Do Not Adjust	N/A	50	N/A
ID 90	Do Not Adjust	N/A	10	N/A

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Networker Service Parameters (cont.)

Heating/Refrig cooling Steady State Min Off Time - This is the minimum time the call for heating/cooling will be on or off in *steady state mode* for each particular zone.
Default setting = 18 x 10 seconds = 3 minutes.

Evap Cooling steady state min on/off time - This is the minimum time the call for cooling will be on or off in *steady state mode* for each particular zone.
Default setting = 60 x 10 seconds = 10 minutes.

Low Transient Off Time Interval - This is the time for which the call for heat will remain off once the Networker temperature reaches the LOW TRANSIENT TARGET OFFSET in each particular zone. Reducing this will increase the start-up room air temperature overshoot.
Default setting = 30 x 10 seconds = 5 minutes.

Low Transient Offset Temperature - This is the amount below the set point at which the call for heat goes off in *Low Transient mode*. Decreasing this value will also increase the amount of start up room air temperature overshoot.
Default setting = 15 x 0.1^{o}c = 1.5^{o}c

Networker Temperature Display Offset - This is the temperature offset the Networker display reads compared to the actual thermistor temperature registered.
The range is 0-100, where default setting of 50 equals zero degrees offset.

Display Room Temperature When Cooling - This parameter is to activate the temperature display in Cooler mode.
Settings: OFF = 0 and ON = 1.

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Networker Locking.

To prevent any unwanted alterations being made to the settings, the user can lock the Networker via a 4-digit pin number. There can be up to 3 user pin numbers stored in the Master N-C3 Networker. These user pin numbers can be changed when required. The N-C3 Networker comes with all 3 pin numbers set to the factory default of ***"1111"***.
When locking one of the Networkers, the other one will also be locked, and either Networker can unlock the system with the user pin numbers.

Setting the Pin Numbers.
The user can alter the pin numbers to a familiar number that is easily recalled. The pin numbers can only be altered from the Master Networker; the Slave Networker can only lock and unlock the system and cannot access the pin numbers at all. Each pin number contains 4 digits and is entered by pressing **keys 1-5**.

- Push the **FUNCTION** button then **key 2** immediately after. The screen will then display ***"Enter Your Pin number to lock the system"***. Do not enter any numbers at this stage, please continue to next step.

- Push the **MODE** key once. The screen will now display ***"User pin number reset—Enter master pin number"***. Do not enter any numbers at this stage, please continue to next step.

- Push the **MODE** key once again. The screen will now say ***"User pin number 1 alteration—Enter current pin"***. If this is the first time for setting the pin numbers, the current pin will be ***"1111"***. If the pin number has already been altered previously then enter the current user pin. After entering the current pin the screen will then say, ***"Enter the new pin"***.

- Enter your new 4-digit pin number using a combination of **keys 1–5**. The screen will now say, ***"Repeat the entry of the new pin"***.

- Providing you re-enter your new pin correctly the screen will now say ***"Valid pin—Pin altered"***.

- Repeat this process to change the other pins if necessary. Remembering that all pins are set as ***"1111"*** by default. User pin numbers 2 & 3 can be set by pushing the **MODE** key, while you're at the user pin 1 alteration screen.
- If an incorrect number is entered press the **AUTO** key to clear all digits, then re-enter your pin number.

- To exit this area at any time, just push the **ON/OFF** key.

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Networker Locking. (cont.)

To Lock the Networker.

- Push the **FUNCTION** button then **key 2** immediately after. The screen will then display ***"Enter Your Pin number to lock the system"***.
- Enter your user pin number to lock the Networker. The screen will now say ***"System locked out!"***
- If an incorrect number is entered press the **AUTO** key to clear all, then re-enter the pin number.

To Unlock the Networker.

- Push the **FUNCTION** button then **key 2** immediately after. The screen will then display ***"Enter Your Pin number to unlock the system"***.
- Enter your user pin number to unlock the Networker. The screen will now say ***"System unlocked!"***
- If an incorrect number is entered press the **AUTO** key to clear all, then re-enter the pin number.

Note: If an invalid pin is entered, the message ***"Invalid pin entered—Try again"*** will scroll across the screen. The user has three attempts at entering a valid pin number. On the third failed attempt the message ***"Invalid pin entered!"*** will be displayed. At this point the Networker will abort the pin entry screen, and resume the state that it was in prior to attempting to enter the pin. Should this occur you can immediately retry entering your user pin numbers, or if you cannot remember the pin numbers at all follow this reset procedure below.

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Networker Locking. (cont.)

Resetting the Pin numbers.

If you have forgotten or misplaced your user pin numbers, you can reset all the pin numbers to the default setting of ***"1111"***. The user pin numbers can only be reset from the Master Networker, the Slave Networker can only lock and unlock the system and cannot access the pin numbers. Resetting the user pin numbers to the factory default of ***"1111"***, is done by entering the Master pin number ***"4919".*** This master pin number is only used to restore all of the user pin numbers to the factory default.

Note: *The* ***PROG*** *key represents the number 9 in the Pin number. So the key sequence is actually* ***- Key 4 – PROG – Key 1 – PROG***

- Push the **FUNCTION** button then **key 2** immediately after. The screen will then display ***"Enter Your Pin number to lock the system"***.
- Push the **MODE** key once. The screen will now display ***"User pin number reset—Enter master pin number"***.
- Enter the Master Pin number ***"4919"*** using the **keys 1-5** and the **PROG** key.
  The screen will now scroll, ***"Valid pin—User pin numbers reset!"***

  Note: This Master Pin number ***"4919"*** can also be used to unlock the Networker, but cannot be used to lock the Networker.

Networker Version 3

Complete Networker Resetting.

If the Networker has become inaccessible or has locked out for some reason, the networkers can be completely reset. This resetting this procedure will clear all of the customers daily programs, zoning parameters and the Master/Slave Networker addresses. All settings should be noted down so they can be reprogrammed after the reset. Only the Master Networker should need to be reset as this is where all the information is stored, although the Slave can also be reset if required.

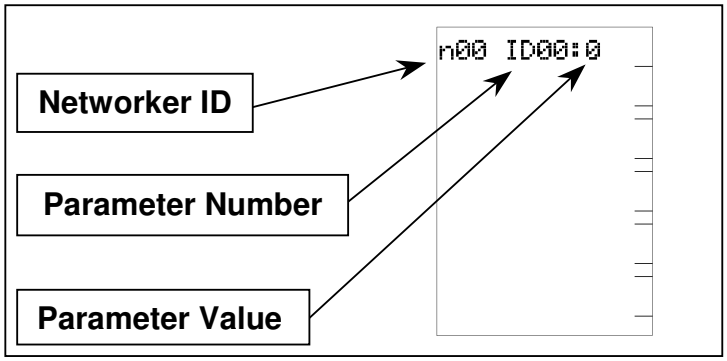
Networker Reset Procedure.

- Remove the Networker off the backing plate so that the controller is powered down.

- Press and hold **keys 1 & 3**, then place the Networker on the backing plate ensuring **keys 1 & 3** are still depressed, continue holding **keys 1 & 3** for five seconds after the control is placed on the backing plate.

- After holding **keys 1 & 3** for five seconds, release the two keys. The LCD should show all of the symbols followed by the message ***"Set this Networker's address!"*** If this message did not appear please repeat the resetting procedure.

- After the message has finished, the screen should look like this. Now the parameter value for setting Master and Slave addresses can be set.



- Rotate the circular dial to change the parameter value displayed at the top right of screen to the number required for Master or Slave. Refer to the table for settings.

Parameter ID Number and Value	Parameter Description	Parameter Value Settings
n01 ID00:0	**Networker Address or Number**	**1 = Master or 2 = Slave**

- Once this parameter value has been set, push the ON/OFF button to exit this Installer set-up program.

Complete the reset procedure by restoring the customers settings eg. daily programming and zoning.