Installation, Configuration & User Manual

for

MACZONE3 400 to 435
Air Conditioning Control Systems

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Congratulations on the purchase of your MACZONE3 air conditioning control system.

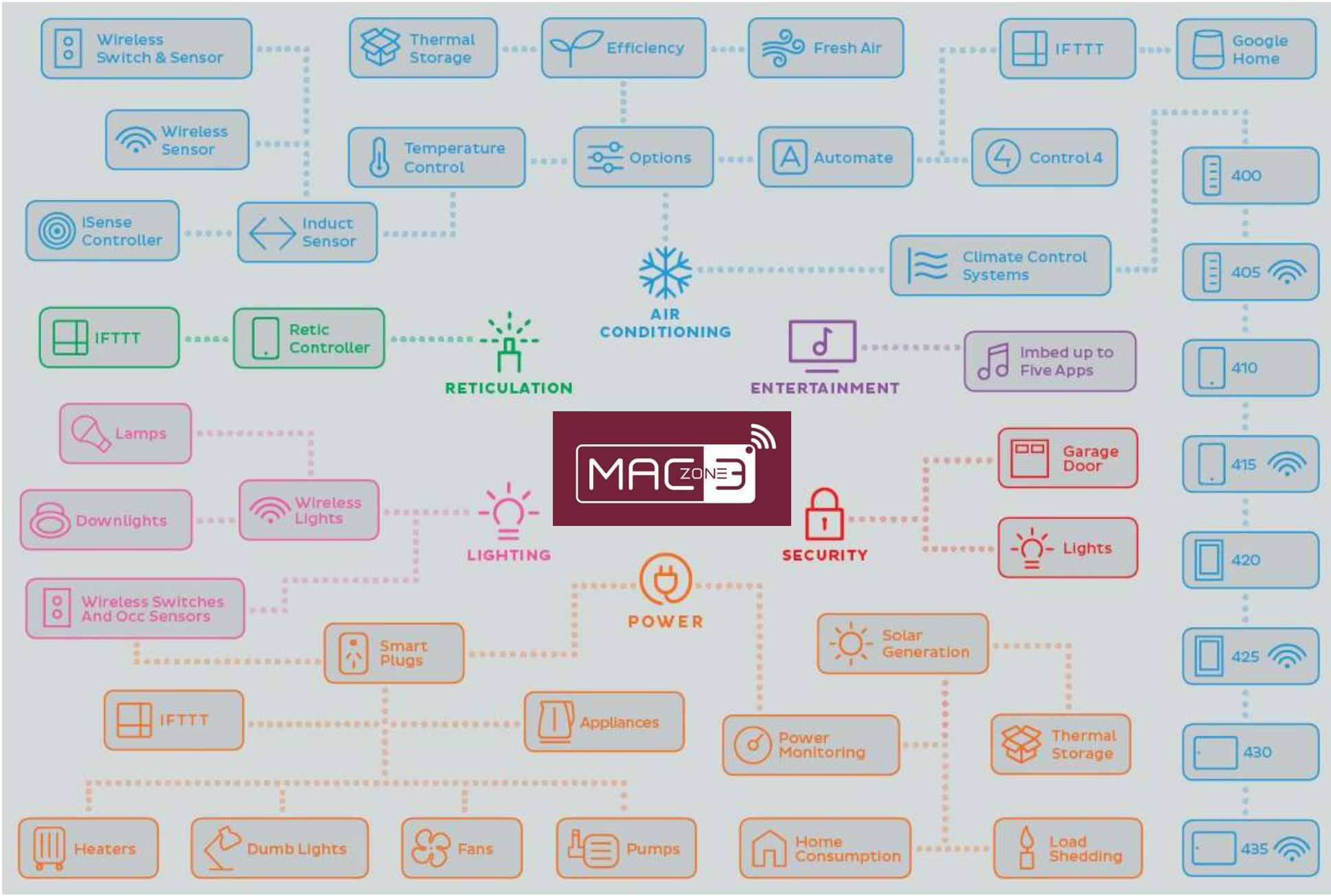
MACZONE3 has been developed in Australia to provide affordable, reliable, automated control of your home or office air conditioning.

MACZONE3 is a scalable control system that can provide basic air-side zoning all the way up to fully integrated air conditioning unit control with individual room temperature control, occupancy sensing, lighting control, security, garden reticulation and power management.

You can begin your MACZONE3 journey with a basic system then add to it as funds become available without the need to replace what you have already purchased.

The MACZONE3 family is shown on the diagram below. Please check with your contractor which parts are available in your area.

Forward


Wireless Switch & Sensor
Thermal Storage
Efficiency
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1.0 Design consideration

1.1 Designing the correct constant zone

All ducted air conditioning systems should have a percentage of air passing over the indoor coil at all times. This is a safety mechanism to protect the ductwork and the AC unit. If all the zone dampers in a system are closed then flexible duct could split or be blown off the spigots, or the indoor coil could ice up. It is much less likely for the coils to ice up on modern AC units as they have in-built safety controls to prevent this occurring, but it is still good practice to ensure airflow across the coil.

There are several ways of achieving this when designing a ducted air conditioning system.

i. Fixed ducted constant zone

This is a relatively old fashioned way of achieving constant airflow across the coil. It requires the system to be designed with one zone that has no zone damper fitted to it. This is normally the main living area in the home or a common area in an office building. The downside with this configuration is that air will always be delivered to this area regardless of whether it is occupied or not. This reduces the diversity of the system and may necessitate a larger AC unit to be installed, thereby increasing both the capital and running costs of the system. In addition to this noise to this constant zone may increase when all other zones are closed. (See Fig C01 below)

ii. Electronic constant zone

This option requires the system to be designed with one zone that has a zone motor fitted to it, which will automatically open if all other zones are closed. With electronic constants there are two options available as follows:

a. Standard electronic constant zone

Typically a zone damper would be fitted to the main living area in the home or a common area in an office building. This zone can be used like any other zone but will be automatically overridden open if required by the system to maintain the minimum airflow over the indoor coil. With an MACZONE3 system you can select as many zones as you need to be electronic constants and they will activate and deactivate progressively as required. While superior to i. (Fixed ducted constant zone), it does have a number of short comings. Most of the time the conditions in the standard electronic zone will be satisfactory however when required to operate to relieve pressure, conditions (temperature) in this zone will drift and may become uncomfortable. Individual room temperature control cannot be fitted to a standard electronic zone. Noise from the outlet may be higher when the electronic constant is operating (See Fig C02

1.1 Designing the correct constant zone (cont)

below)

b. Dedicated electronic constant zone

In this option an additional zone is installed into the system serving an unoccupied area such as a stairwell, passage or entry. This zone is left in the closed position and will only open if required by the system. With an MACZONE3 system you can select as many dedicated zones as you need. The benefit of the dedicated electronic constant zone is that all habitable areas can have individual temperature control and if the electronic constant is required to operate it will not affect the comfort of the occupants. The downside of this type of electronic constant is that conditions in the corridor or stairwell may feel mildly uncomfortable while transiting through them and the outlet in this area may generate some noise. (See Fig C03 below)

iii. Bypass electronic constant zone

In this option an additional zone is installed into the system looping from the supply air side of the A/C fan coil unit to the return air side of the A/C fan coil unit. This bypass zone is left in the closed position and will only open if required by the system. The benefit of the Bypass electronic constant zone is that all habitable areas can have individual temperature control and if the electronic constant is required to operate it will not affect the comfort of the occupants. No common areas are affected by the operation of the bypass constant and there is no increase in noise when the bypass is operating. In addition to this, the use of the bypass option increases the system efficiency as any conditioned air is kept within the system reducing the load on the AC unit and assisting to cycle the AC unit off earlier. (If set up to control from the units return air sensor).

We recommend that all systems with individual zone temperature control are designed and configured with a bypass electronic constant zone and where possible control the A/C unit from “Zones”. (See Fig C04 below).

1.2 Fixed ducted constant and standard electronic constant

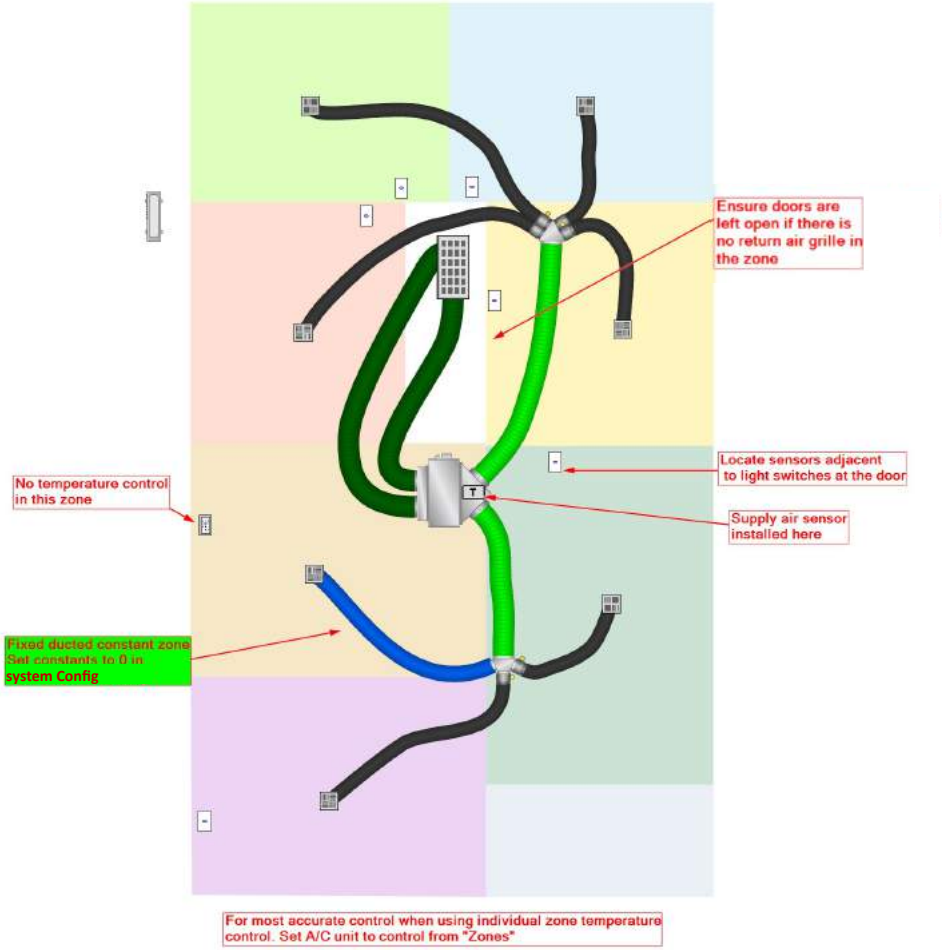


Fig C01—Fixed Ducted Constant

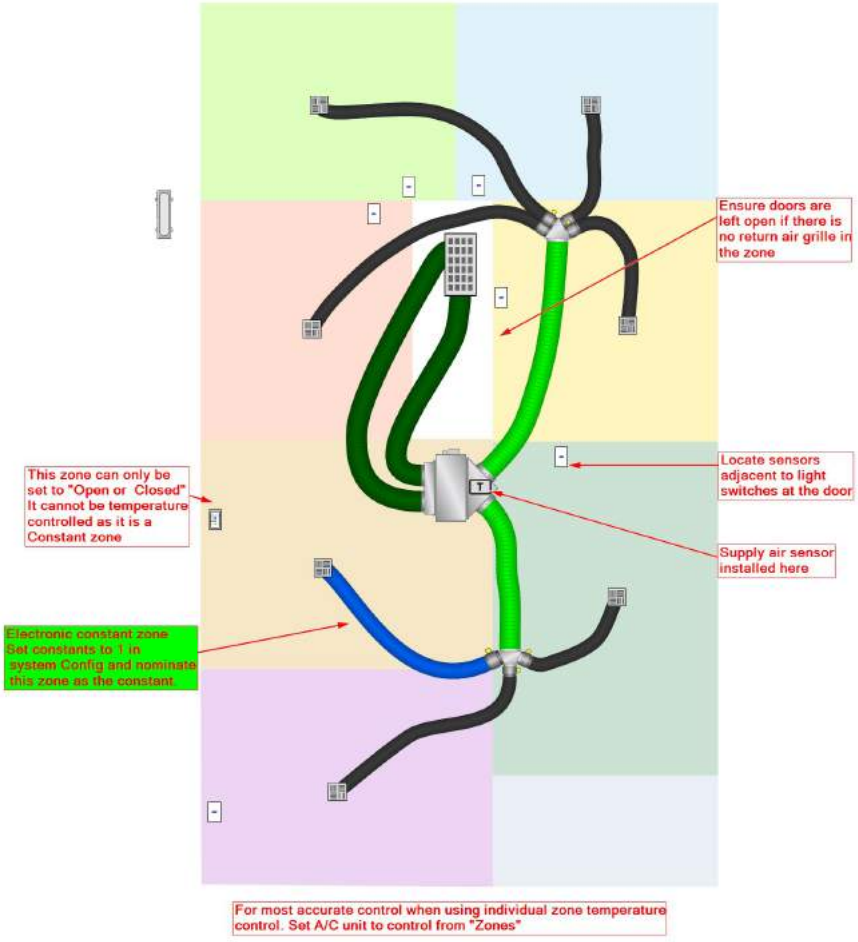


Fig C02—Standard Electronic Constant

1.3 Dedicated electronic constant & bypass electronic constant

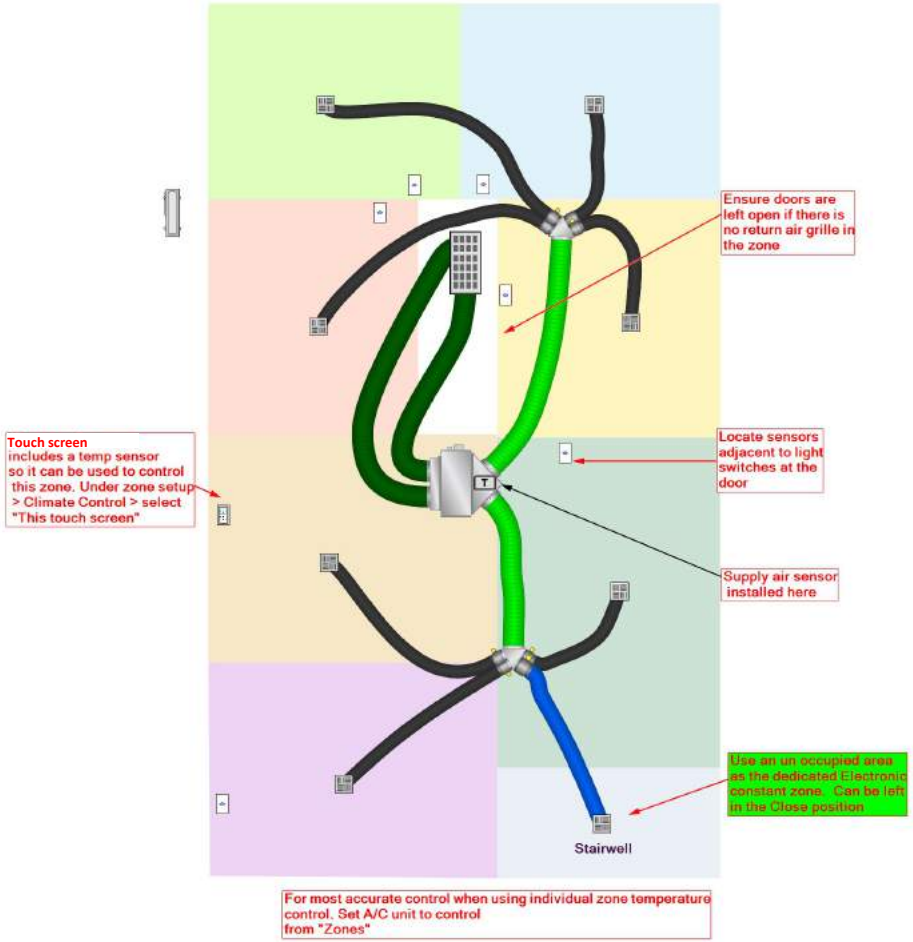


Fig C03—Dedicated Electronic Constant

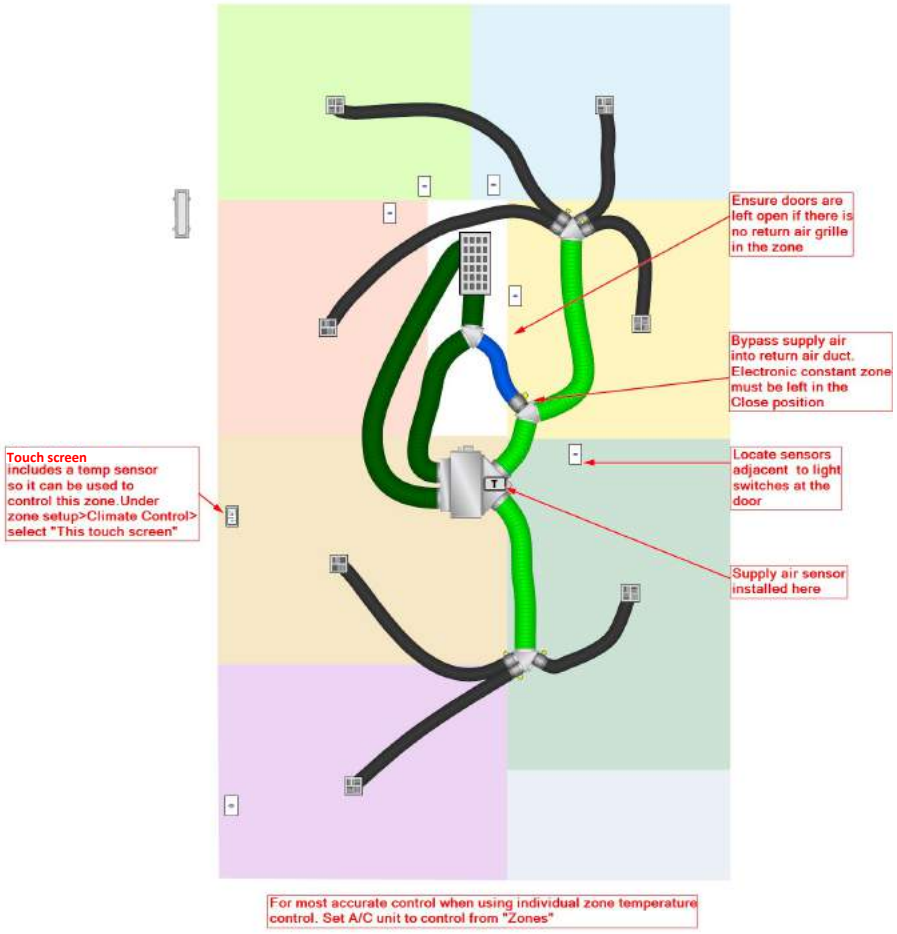
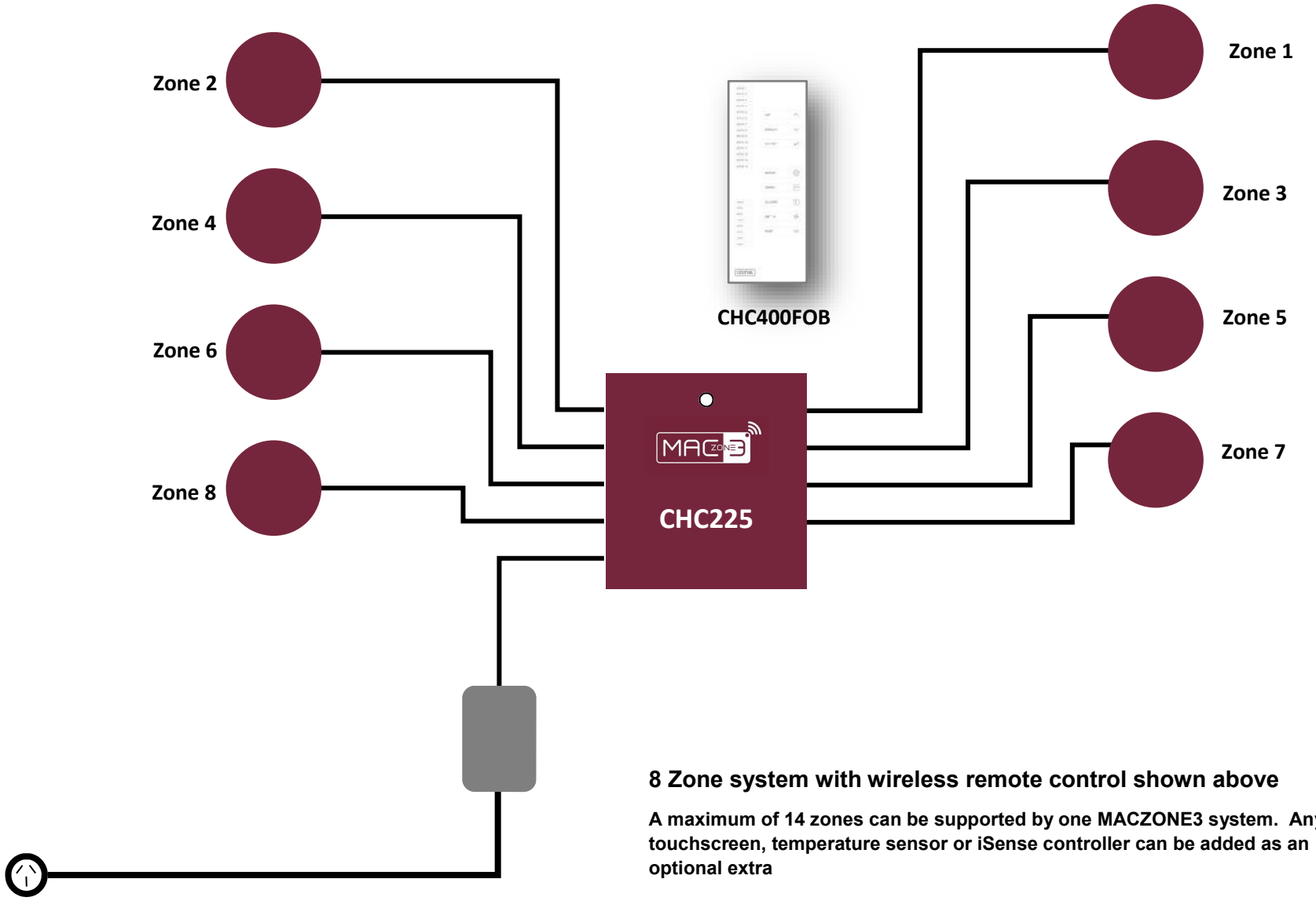


Fig C04—Bypass Electronic Constant

2.0 Installation

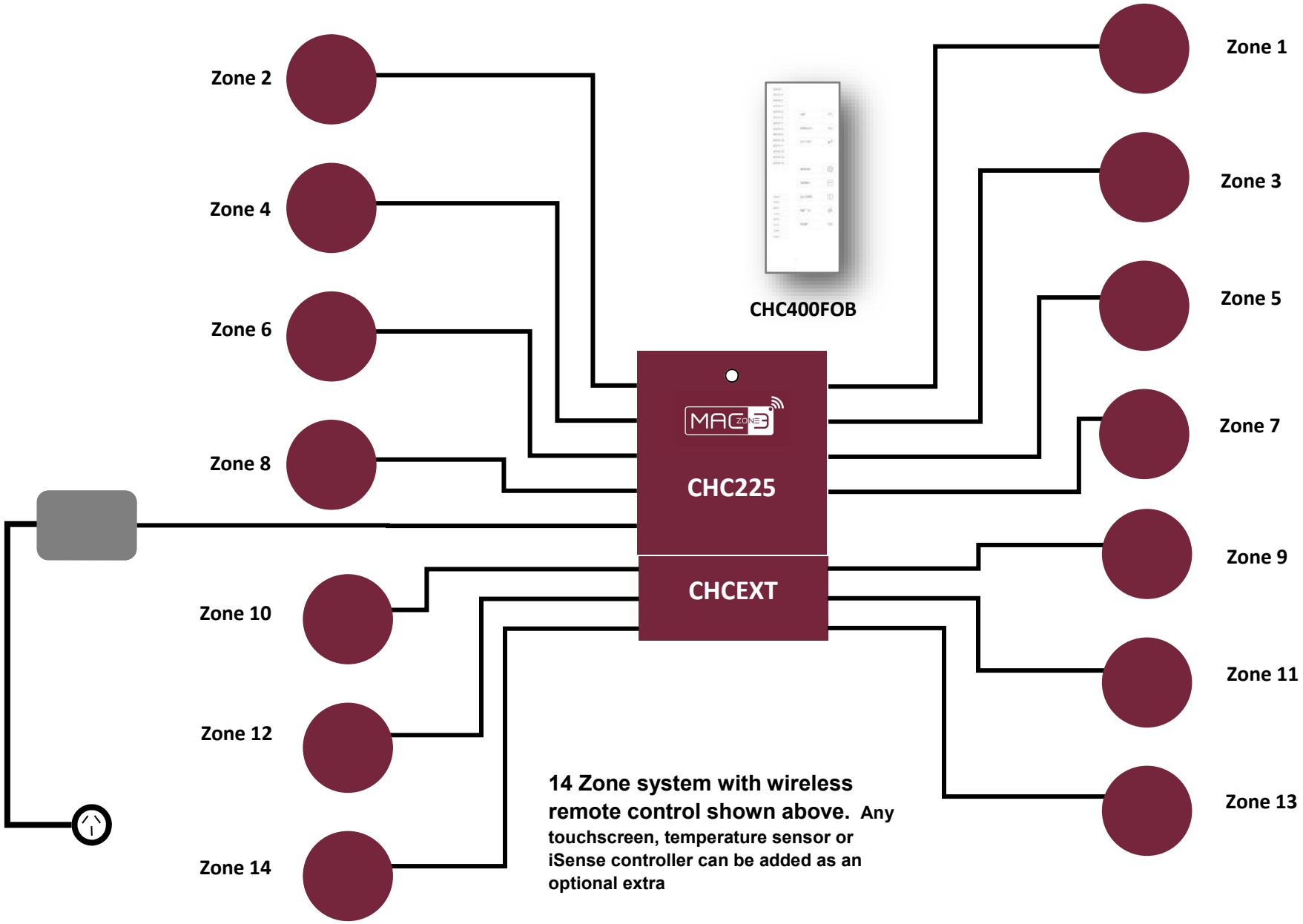
2.1 MACZONE3 Naked 400 - Wiring layout for up to 8 zones



8 Zone system with wireless remote control shown above

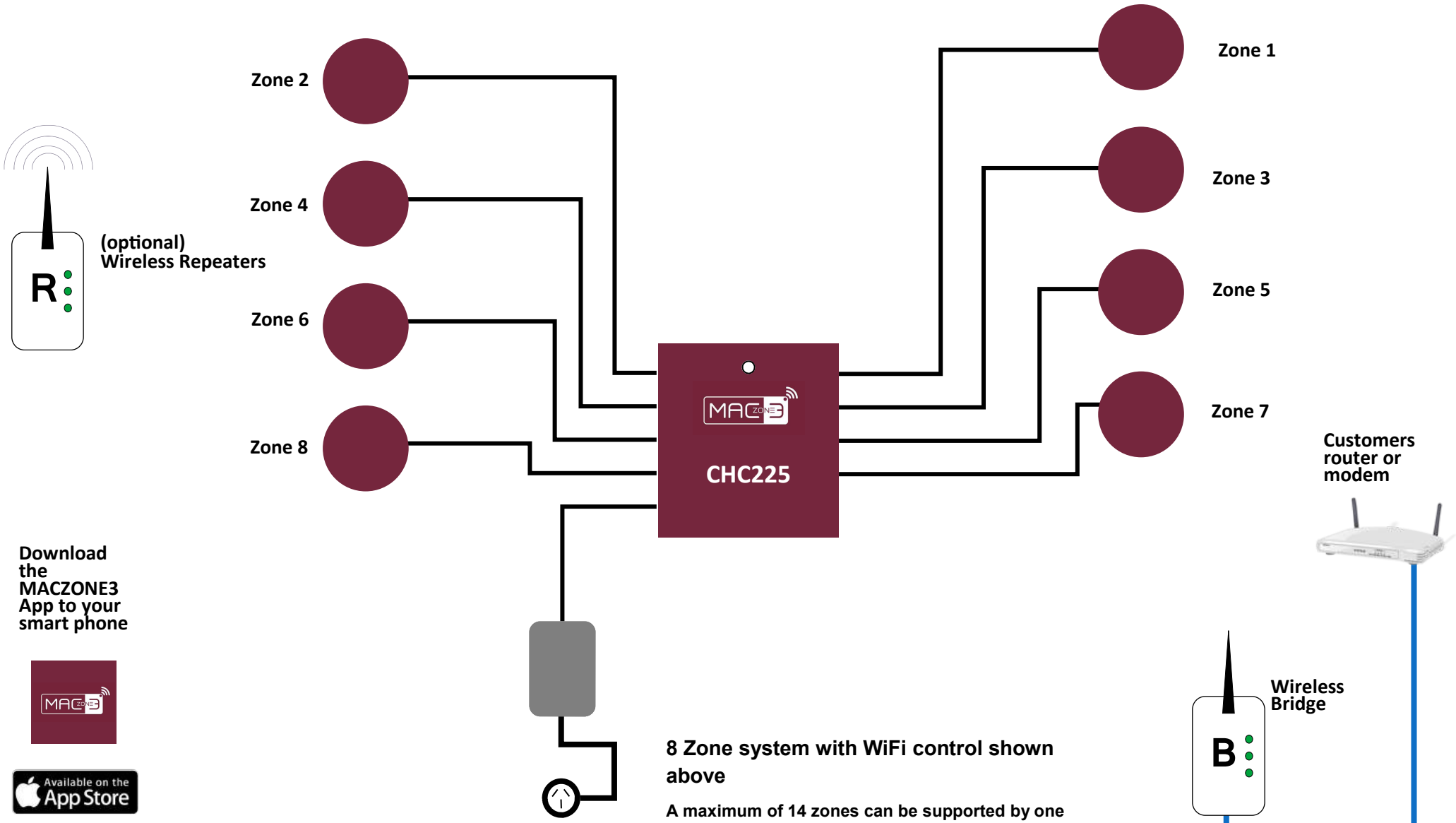
A maximum of 14 zones can be supported by one MACZONE3 system. Any touchscreen, temperature sensor or iSense controller can be added as an optional extra

2.2 MACZONE3 Naked 400 - Wiring layout for up to 14 zones



14 Zone system with wireless remote control shown above. Any touchscreen, temperature sensor or iSense controller can be added as an optional extra

2.3 MACZONE3 Naked 405 - Wiring layout for up to 8 zones



Download the MACZONE3 App to your smart phone

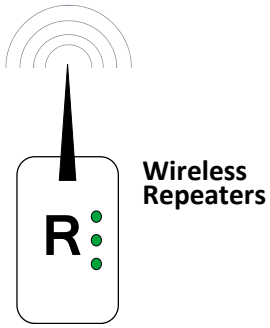
Available on the App Store

ANDROID APP ON Google play

8 Zone system with WiFi control shown above

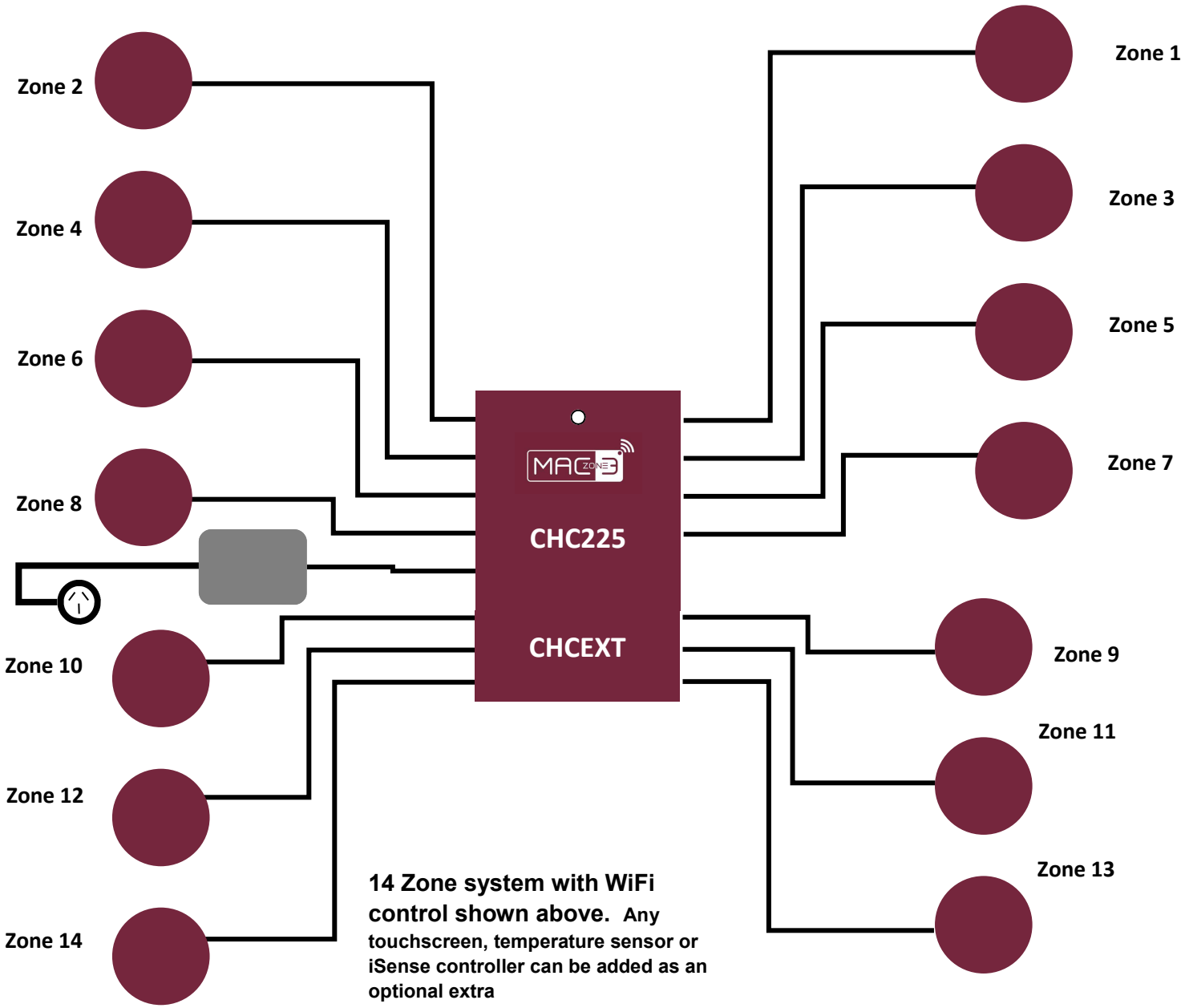
A maximum of 14 zones can be supported by one MACZONE3 system. Any touchscreen, temperature sensor or iSense controller can be added as an optional

2.4 MACZONE3 Naked 405 - Wiring layout for up to 14 zones



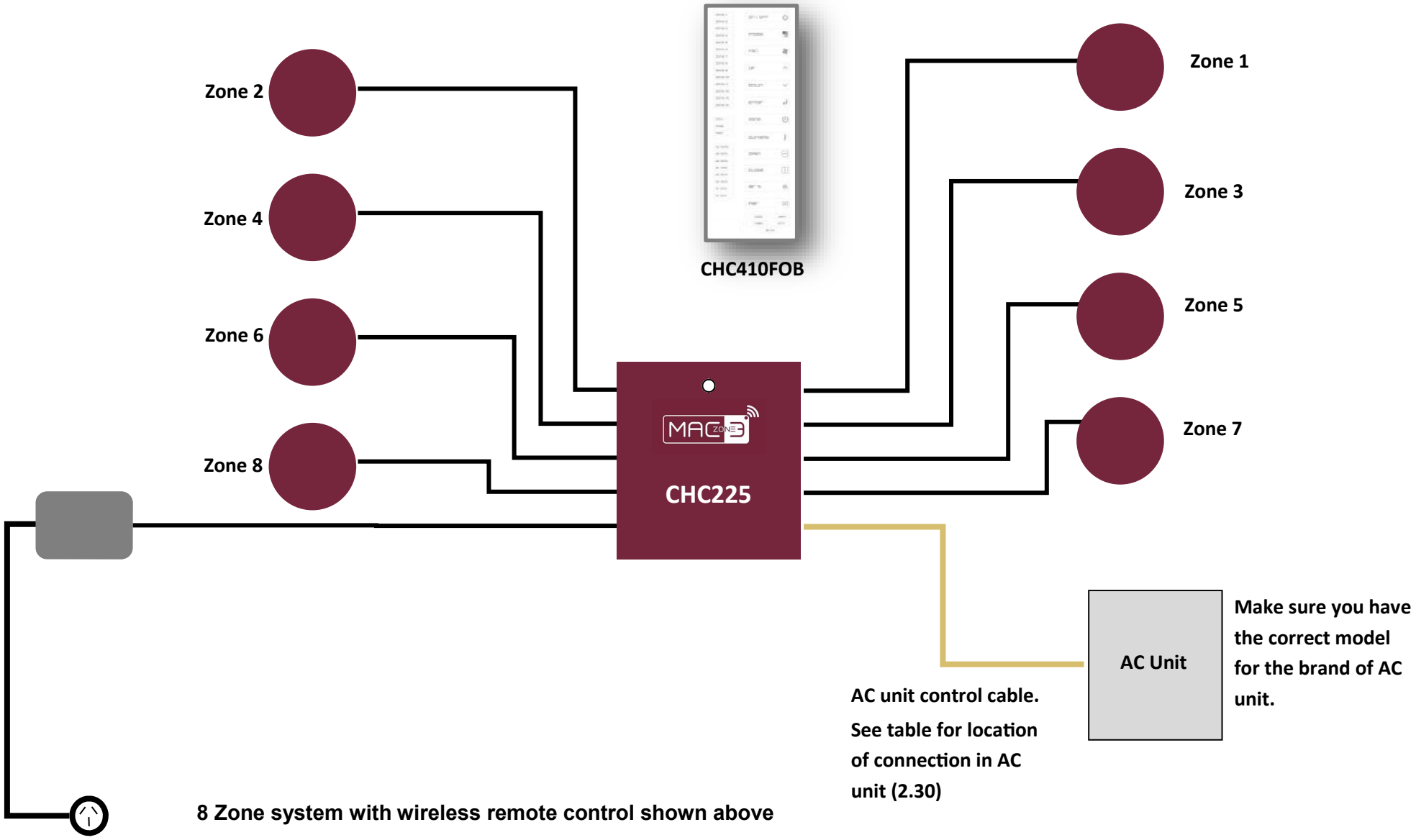
Wireless Repeaters

Download the MACZONE3 App to your smart phone or



14 Zone system with WiFi control shown above. Any touchscreen, temperature sensor or iSense controller can be added as an optional extra

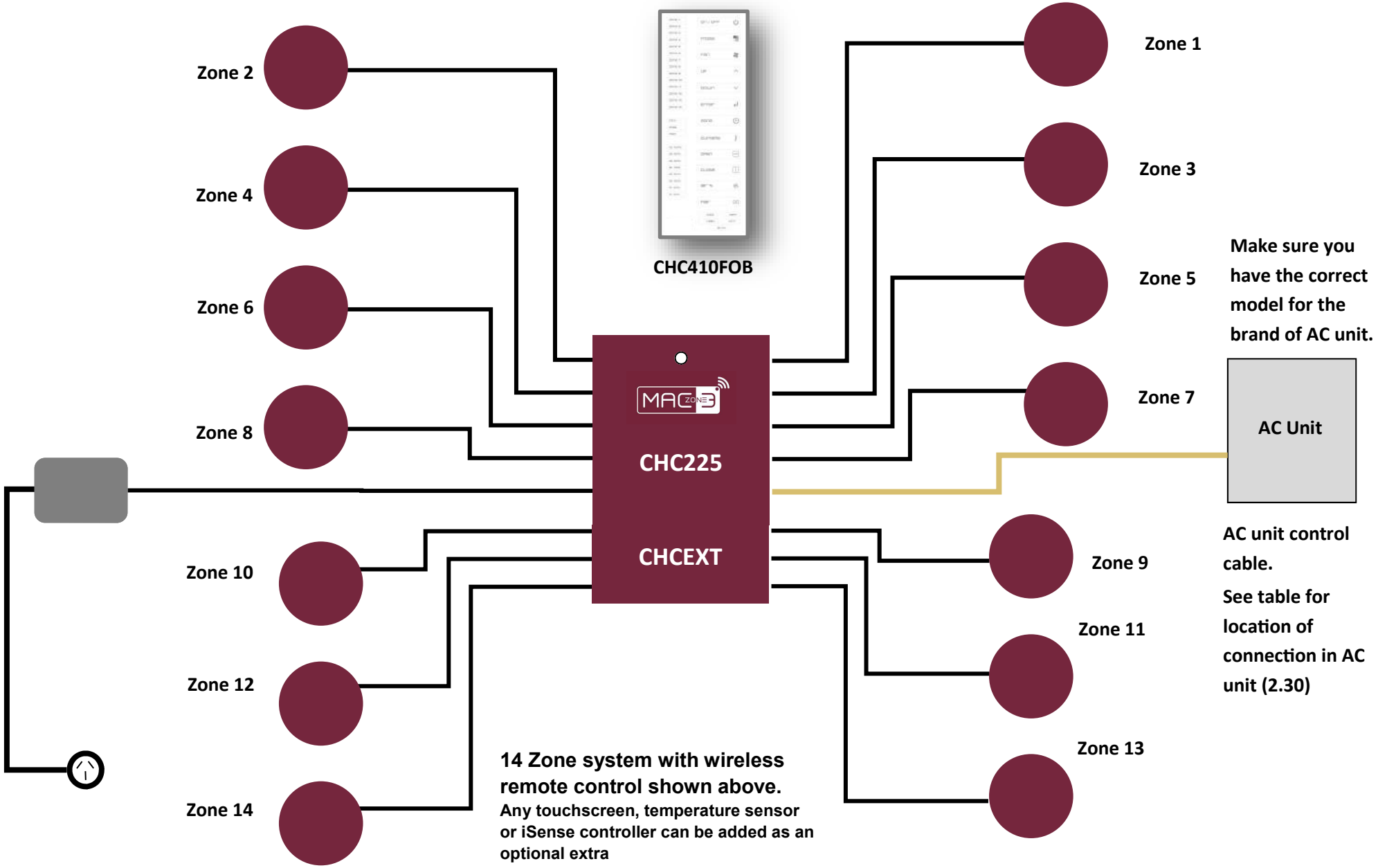
2.5 MACZONE3 Naked 410 - Wiring layout for up to 8 zones



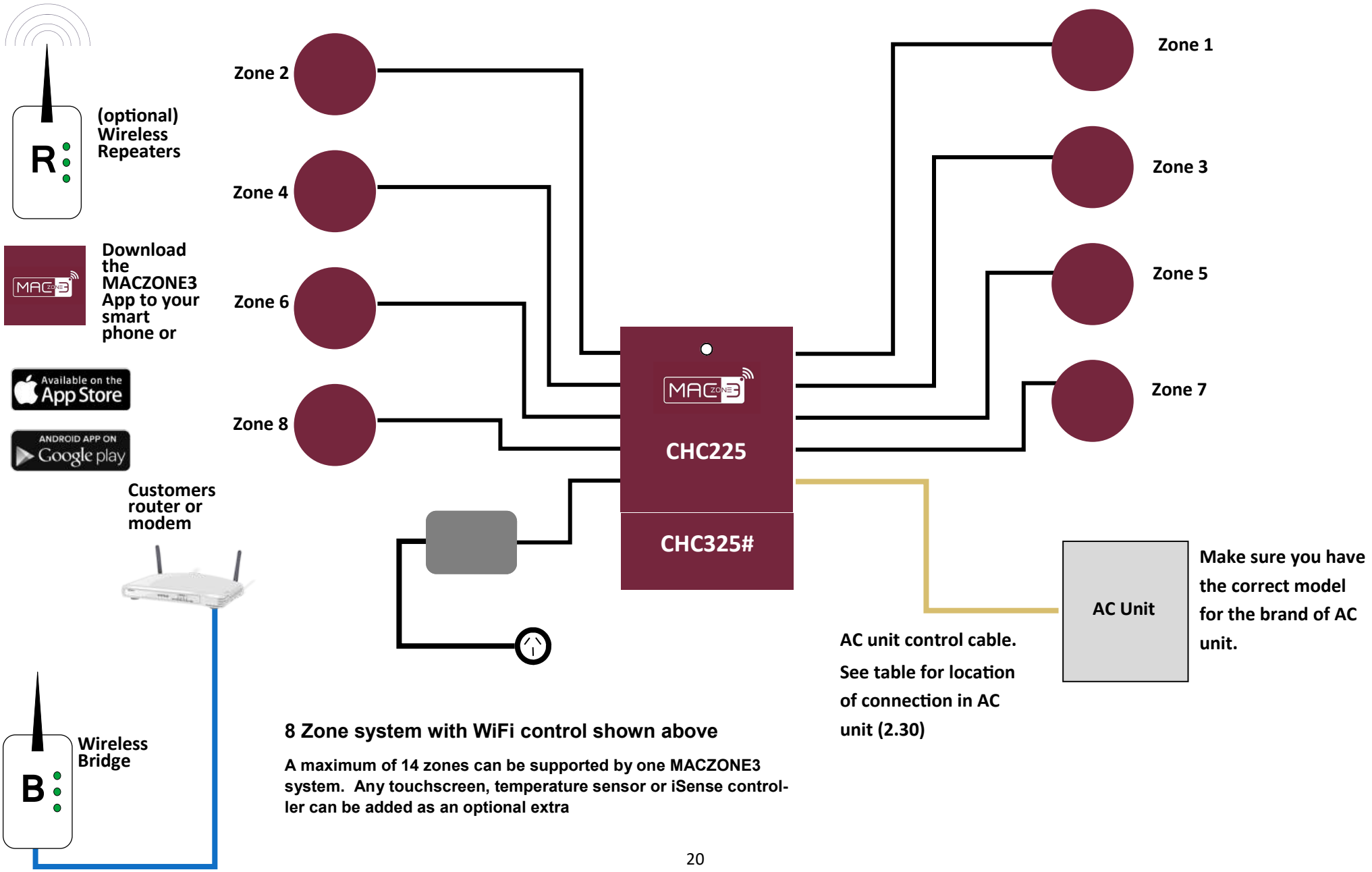
8 Zone system with wireless remote control shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any touchscreen, temperature sensor or iSense controller can be added as an optional extra

2.6 MACZONE3 Naked 410 - Wiring layout for up to 14 zones



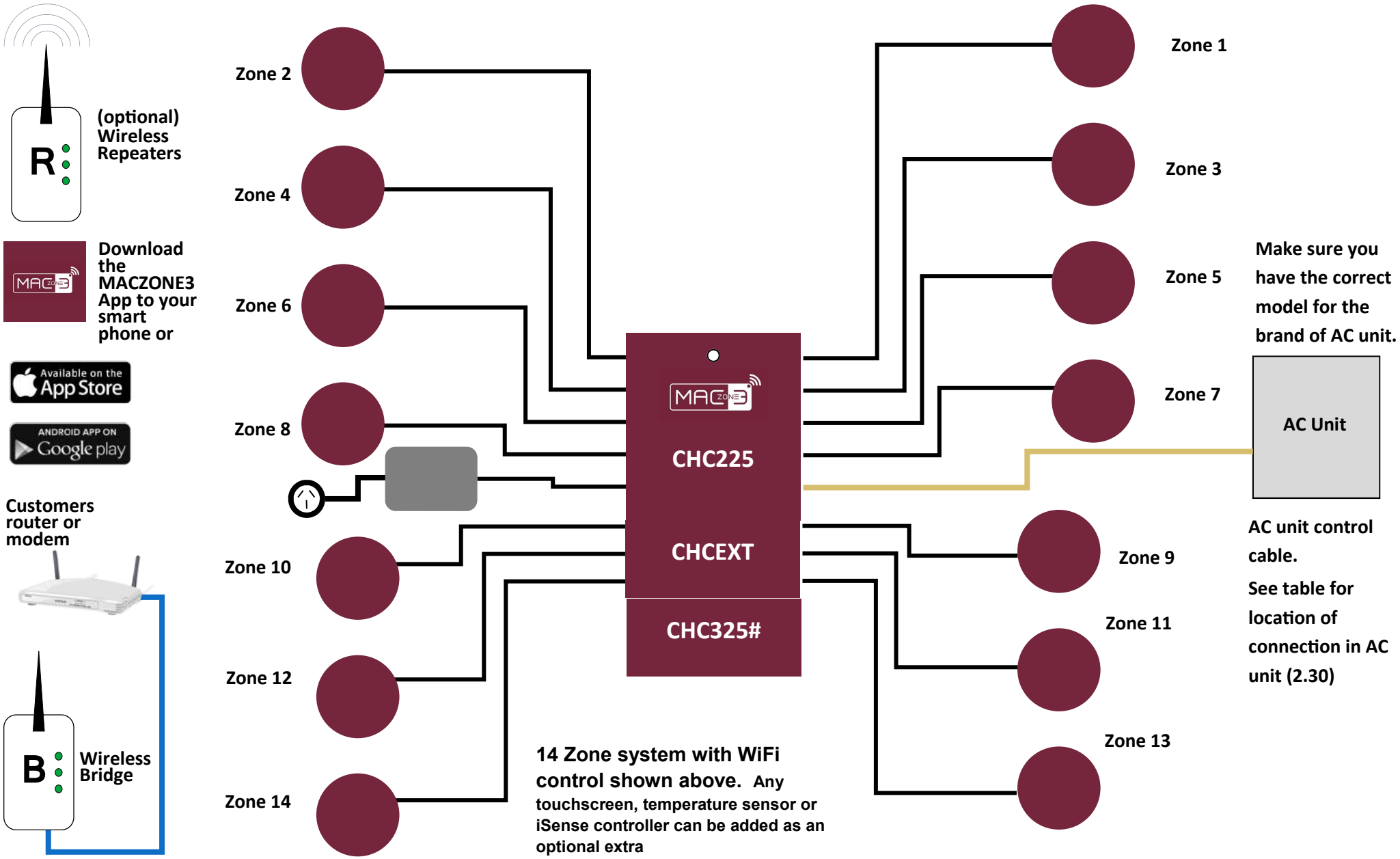
2.7 MACZONE3 Naked 415 - Wiring layout for up to 8 zones



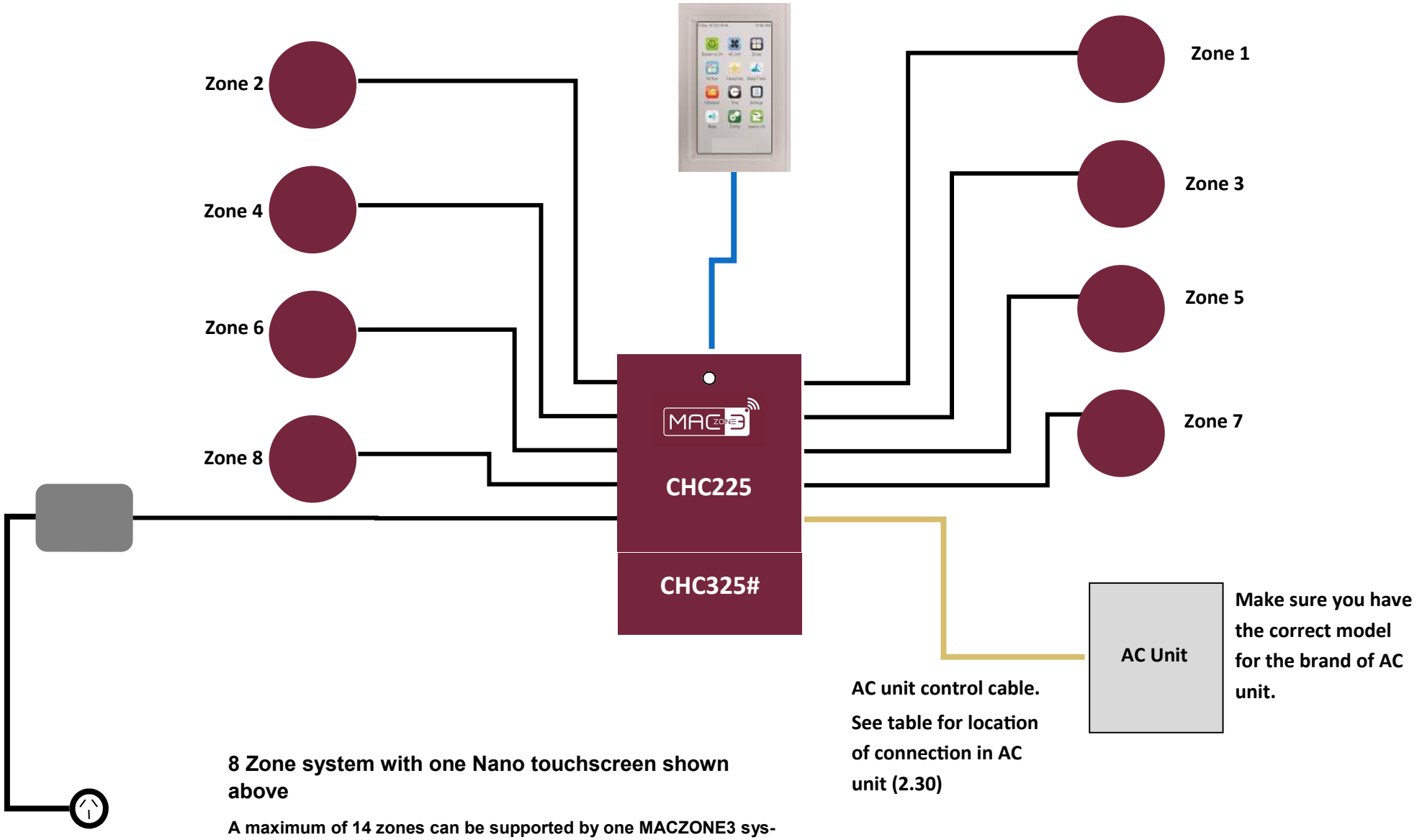
8 Zone system with WiFi control shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any touchscreen, temperature sensor or iSense controller can be added as an optional extra

2.8 MACZONE3 Naked 415 - Wiring layout for up to 14 zones



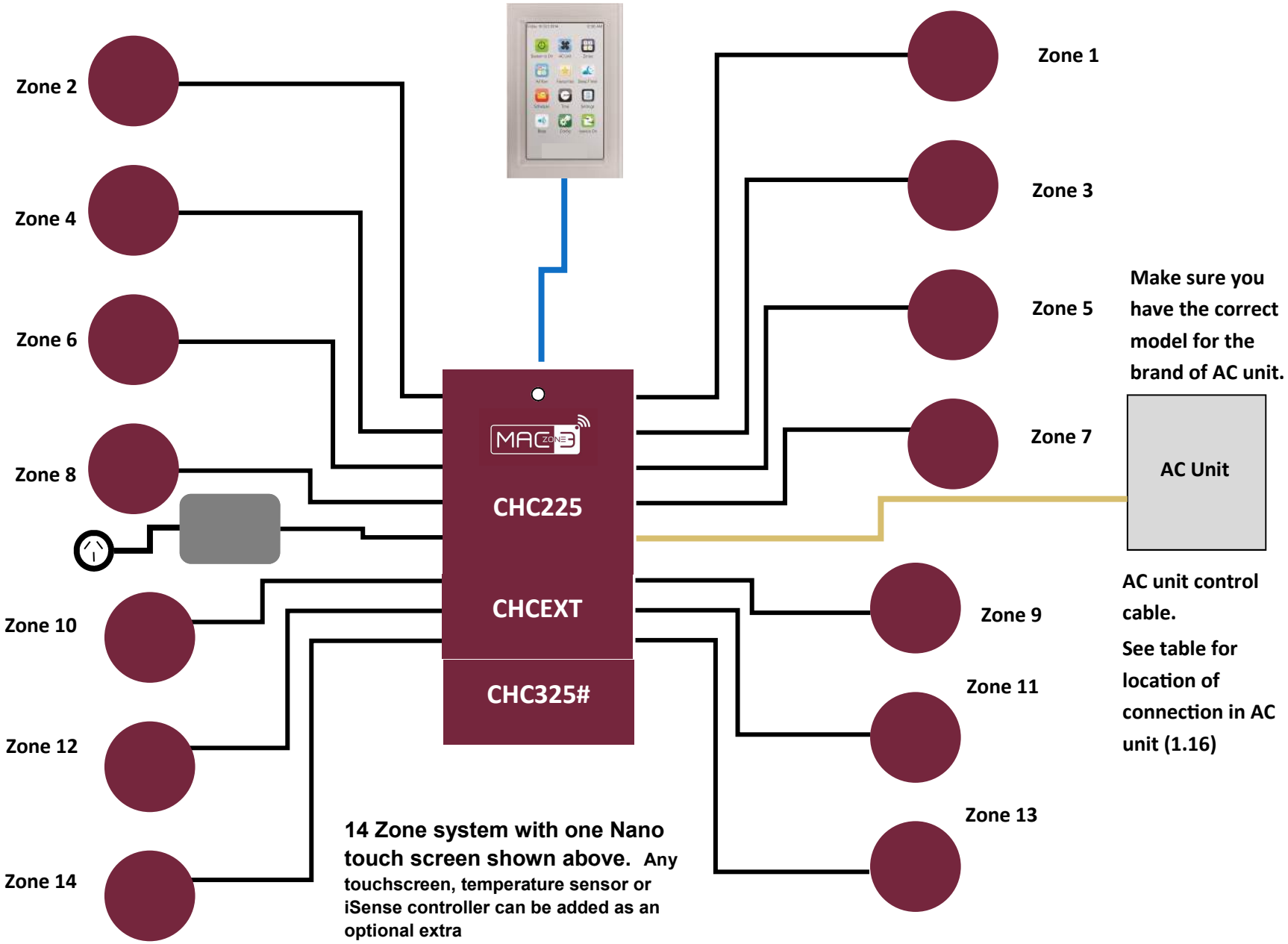
2.9 MACZONE3 Nano 420 - Wiring layout for up to 8 zones



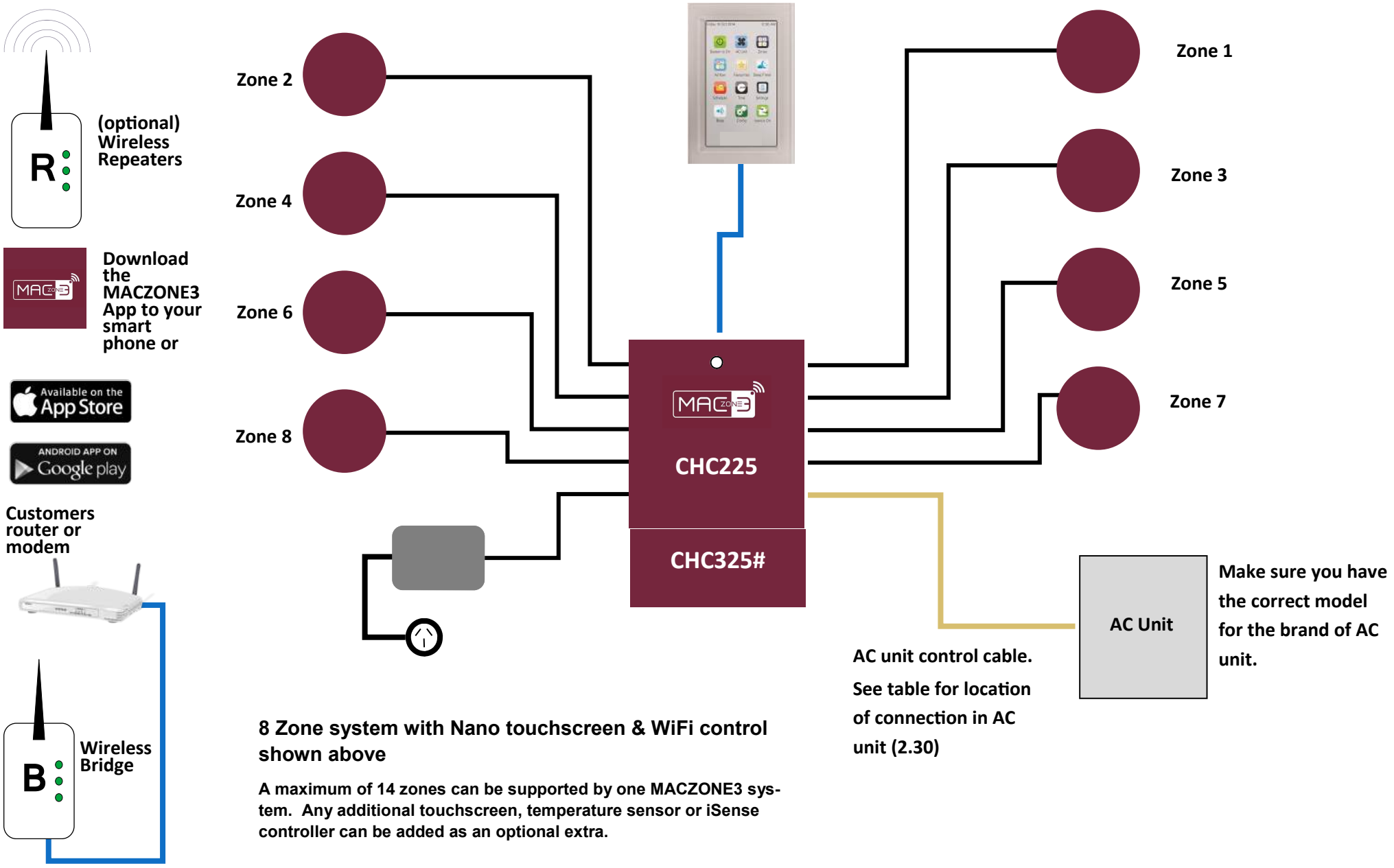
8 Zone system with one Nano touchscreen shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any additional touchscreen, temperature sensor or iSense controller can be added as an optional extra.

2.10 MACZONE3 Nano 420 - Wiring layout for up to 14 zones



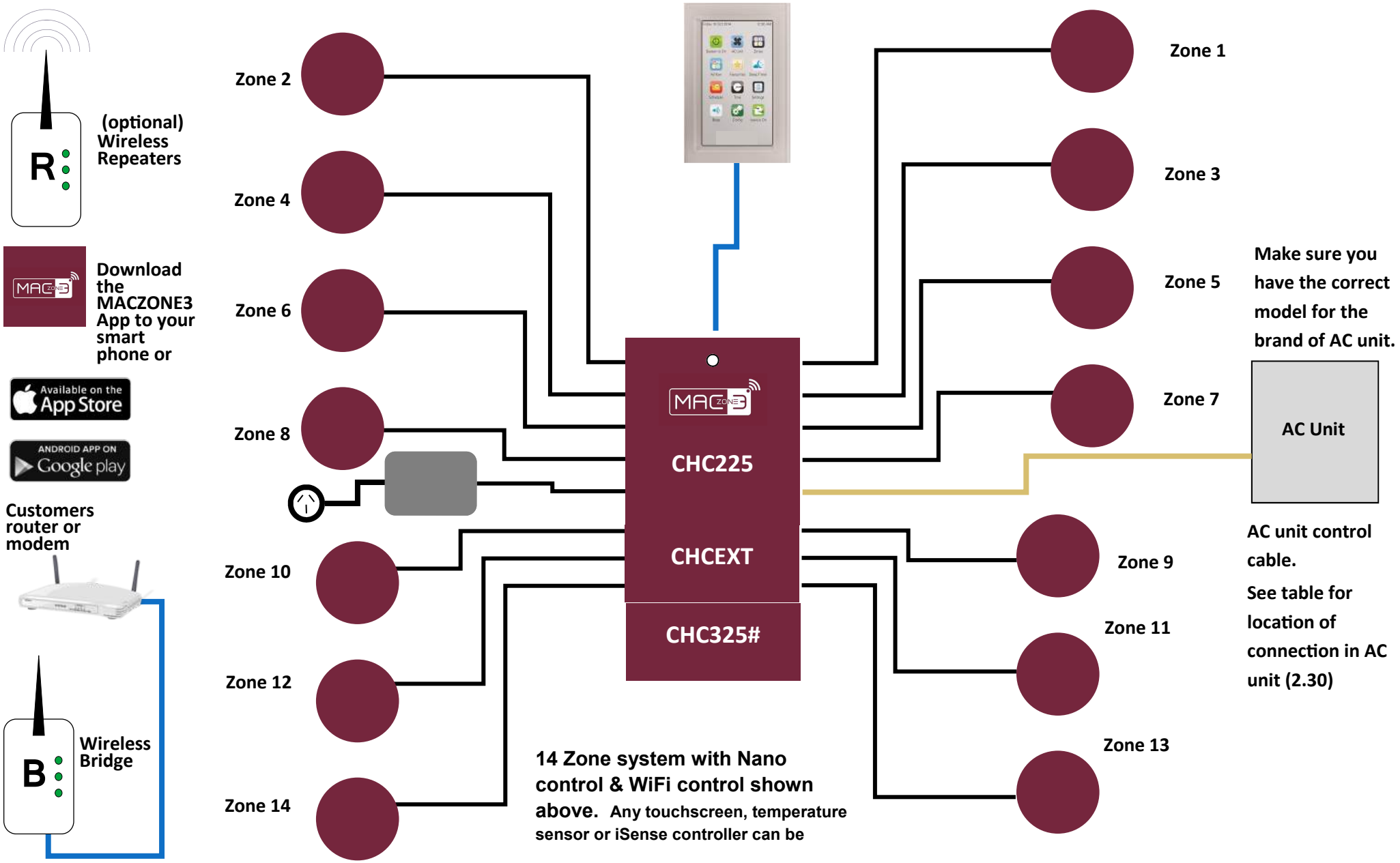
2.11 MACZONE3 Nano 425 - Wiring layout up to 8 zones



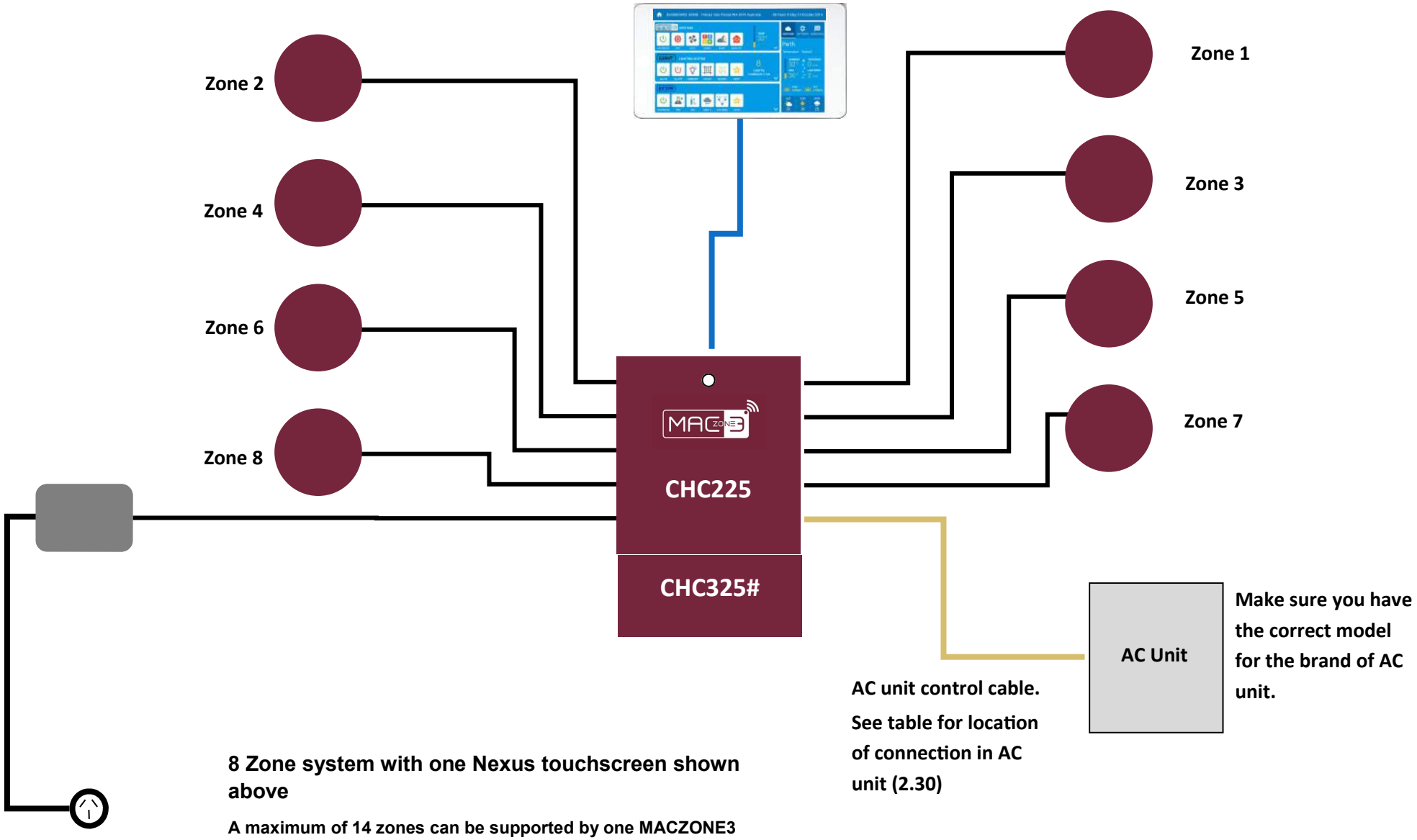
8 Zone system with Nano touchscreen & WiFi control shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any additional touchscreen, temperature sensor or iSense controller can be added as an optional extra.

2.12 MACZONE3 Nano 425 - Wiring layout for up to 14 zones



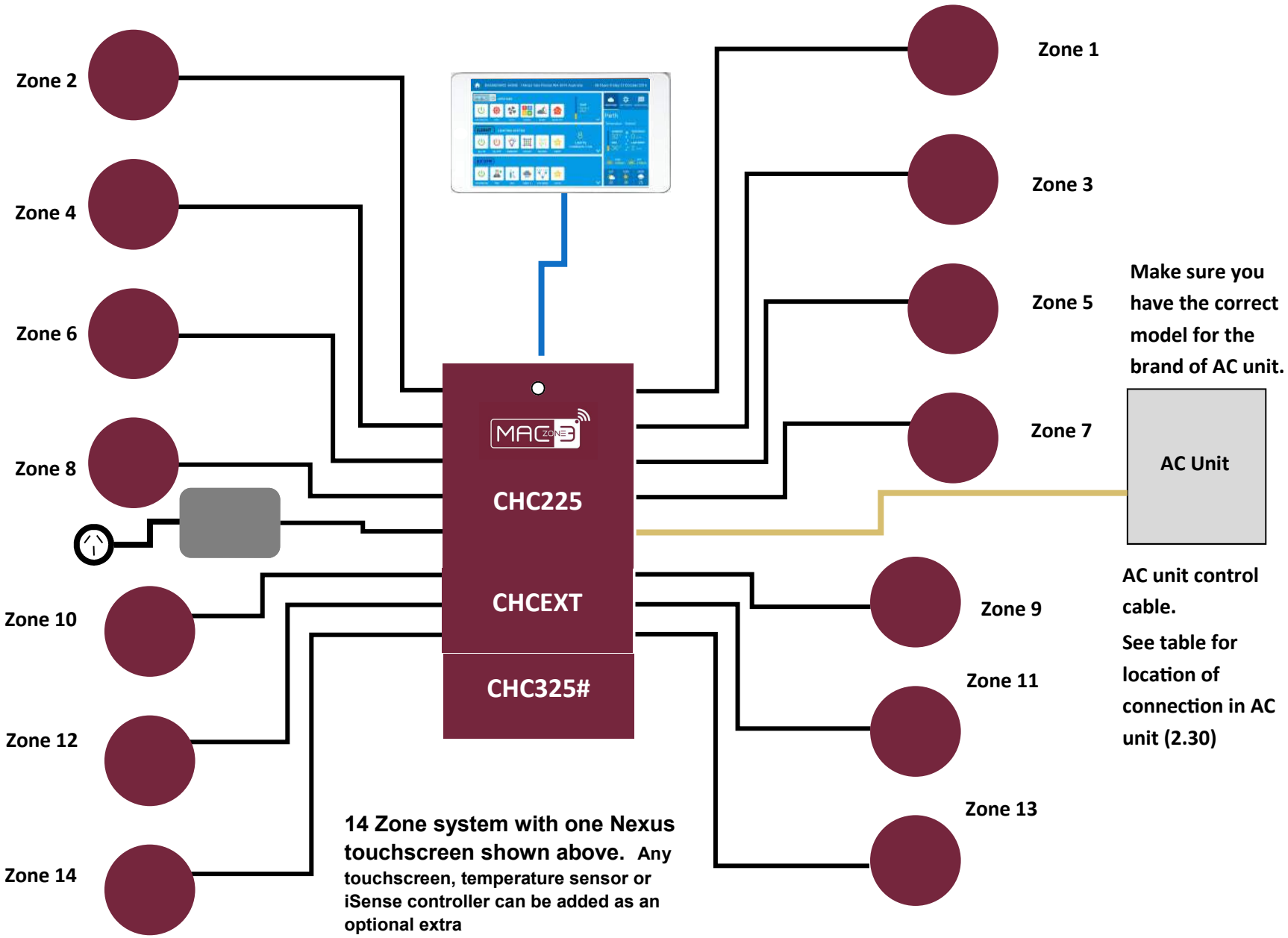
2.13 MACZONE3 Nexus 430 - Wiring layout up to 8 zones



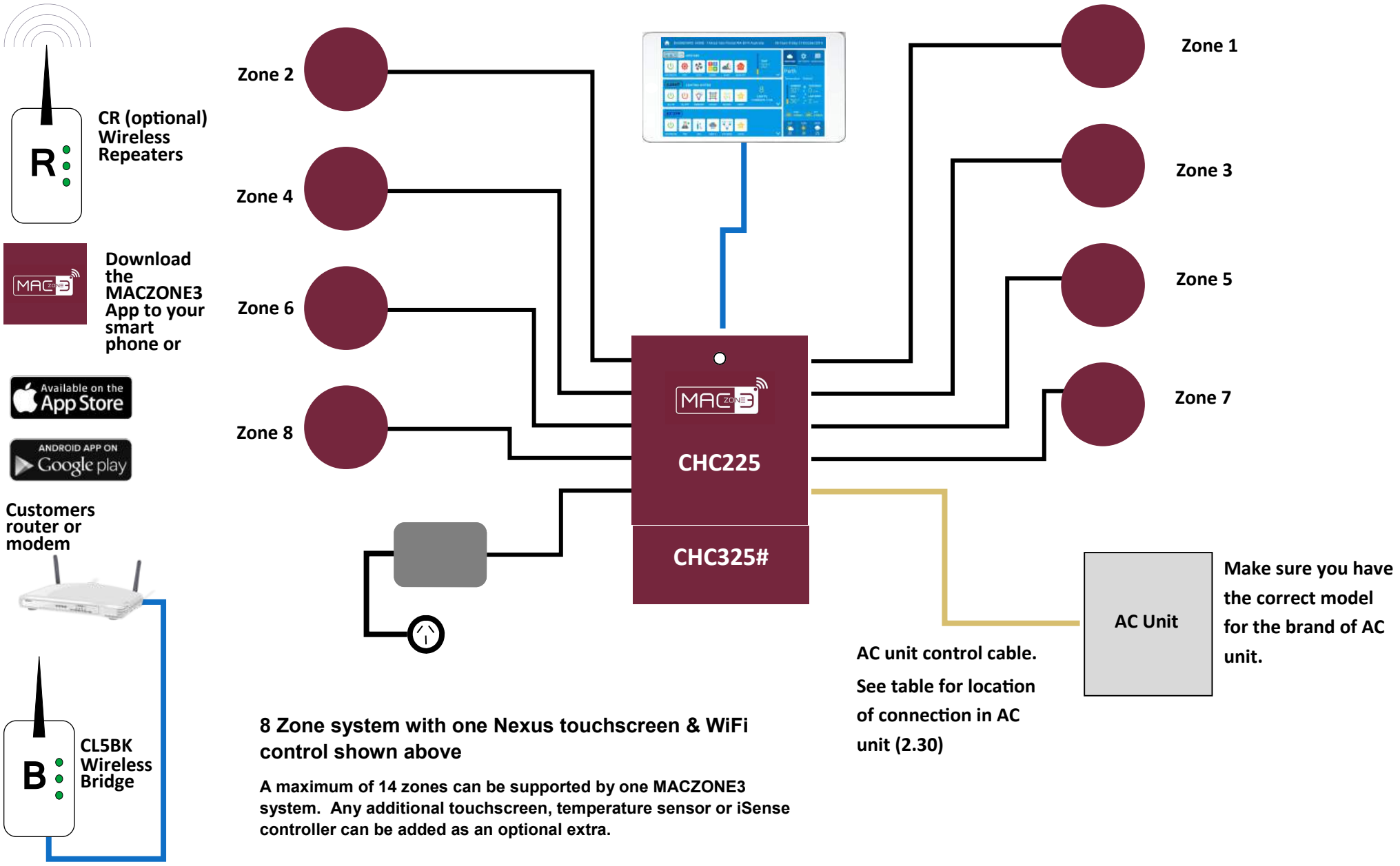
8 Zone system with one Nexus touchscreen shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any additional touchscreen, temperature sensor or iSense controller can be added as an optional extra.

2.14 MACZONE3 Nexus 430 - Wiring layout for up to 14 zones



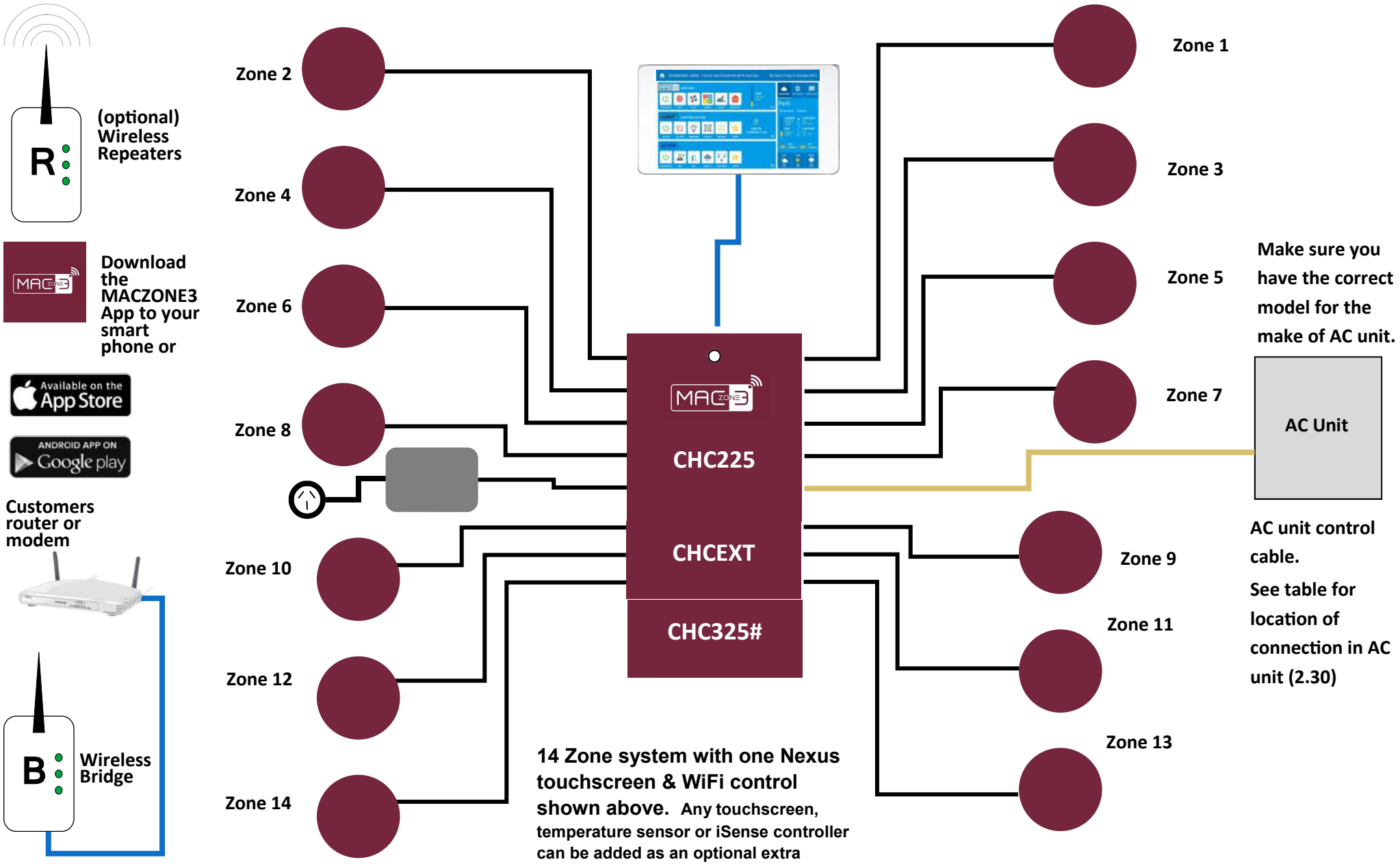
2.15 MACZONE3 Nexus 435 - Wiring layout up to 8 zones



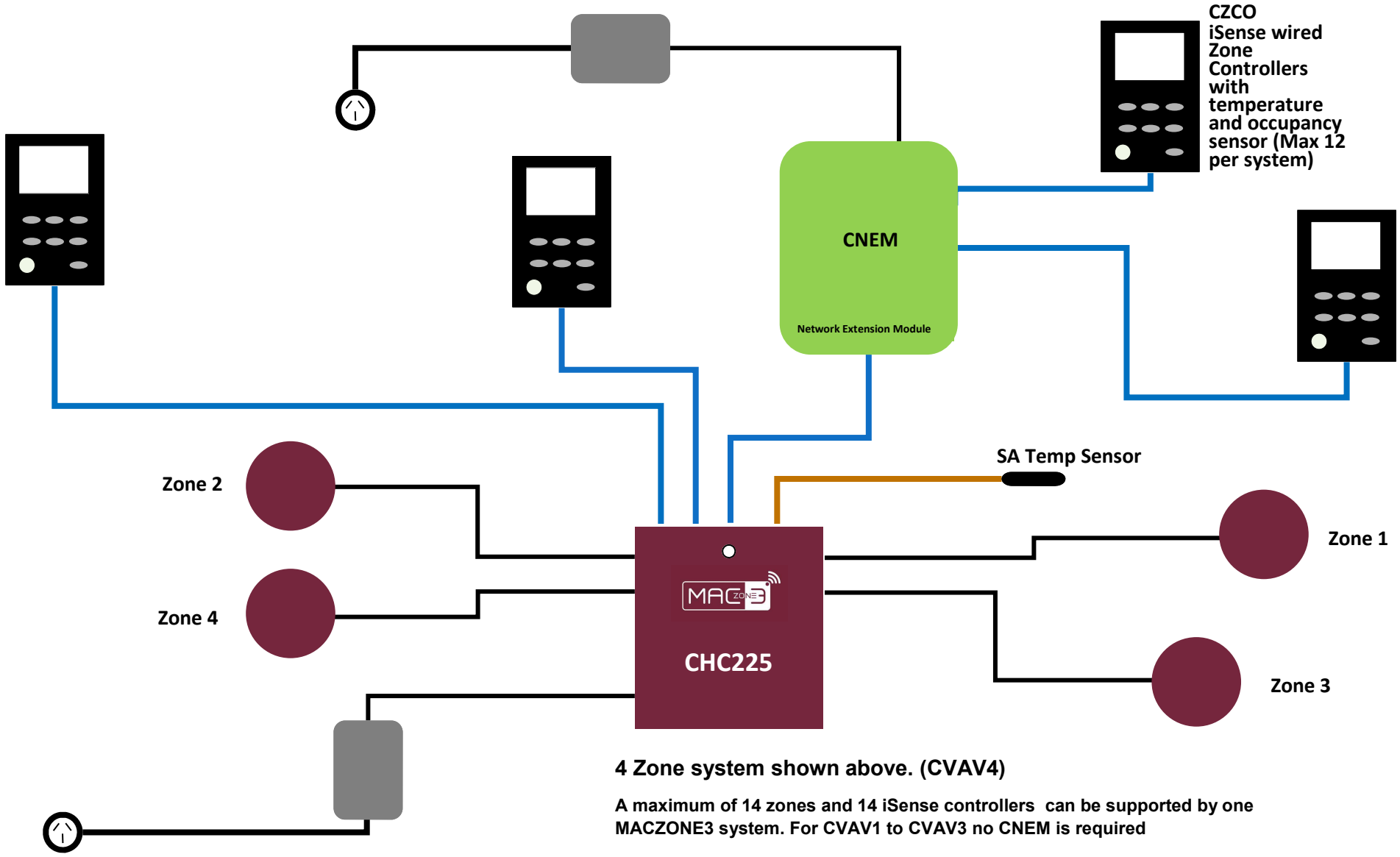
8 Zone system with one Nexus touchscreen & WiFi control shown above

A maximum of 14 zones can be supported by one MACZONE3 system. Any additional touchscreen, temperature sensor or iSense controller can be added as an optional extra.

2.16 MACZONE3 Nexus 435 - Wiring layout for up to 14 zones



2.17 Stand alone VAV systems - Wiring layout for typical 4 zone system

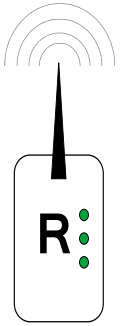


4 Zone system shown above. (CVAV4)

A maximum of 14 zones and 14 iSense controllers can be supported by one MACZONE3 system. For CVAV1 to CVAV3 no CNEM is required

2.18 Optional equipment for wireless temperature controlled zones

CRFS (optional)
Wireless Temperature Sensors (Max 14 per system)

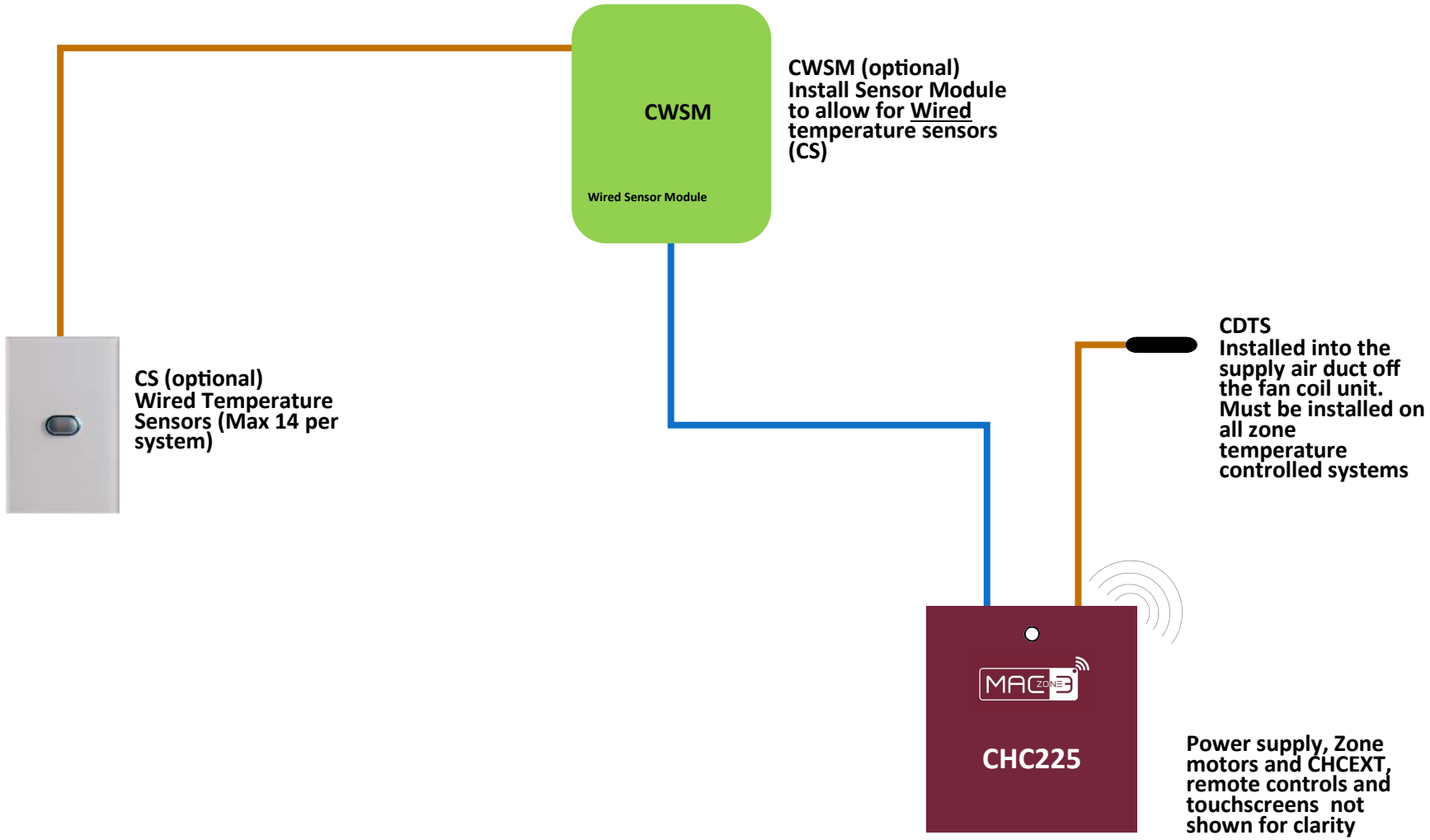


(optional)
Wireless Repeaters
To extend wireless range

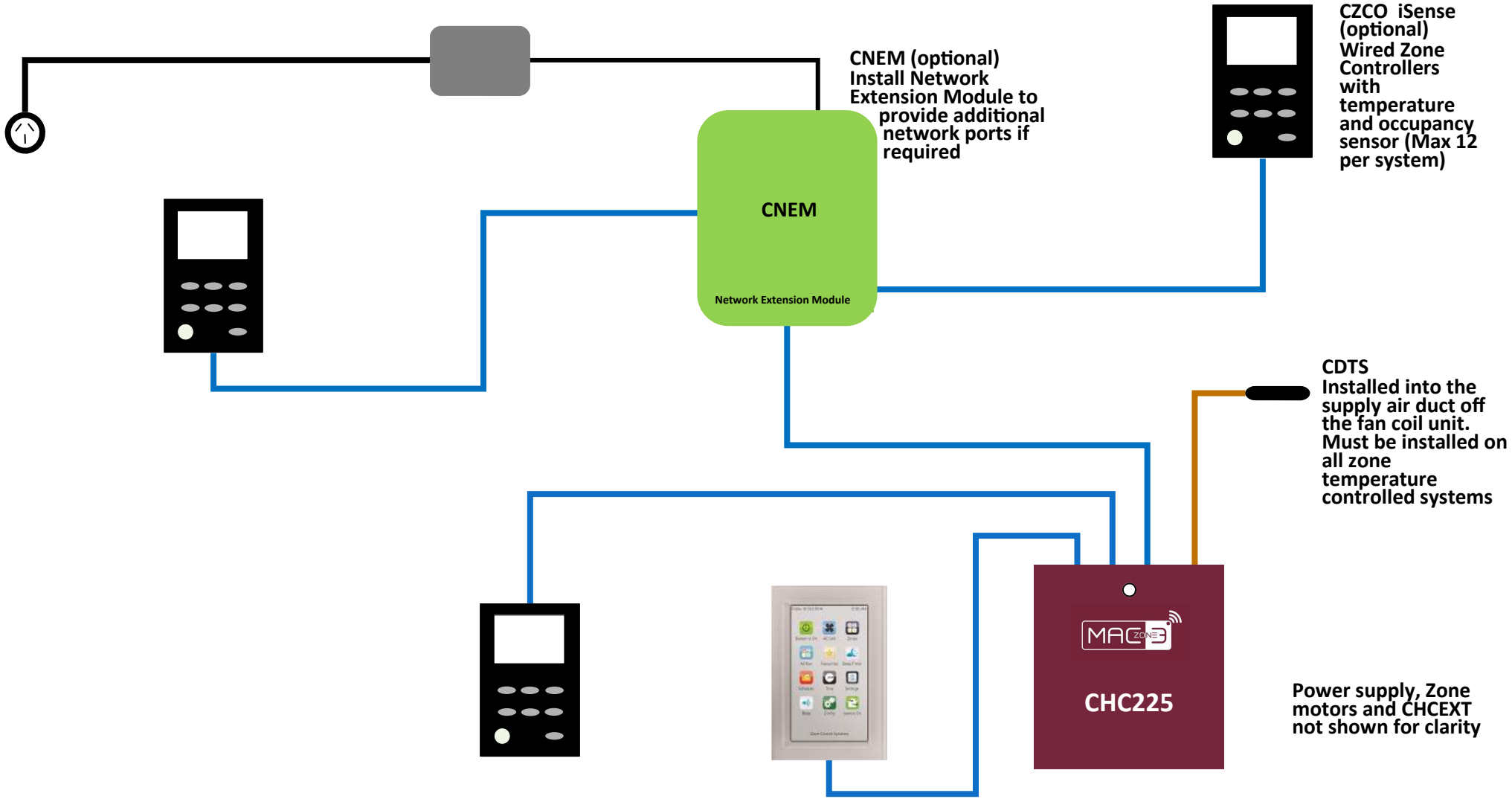
CDTS
Installed into the supply air duct off the fan coil unit.
Must be installed on all zone temperature controlled systems

Power supply, Zone motors and CHCEXT, remote controls and touchscreens not shown for clarity

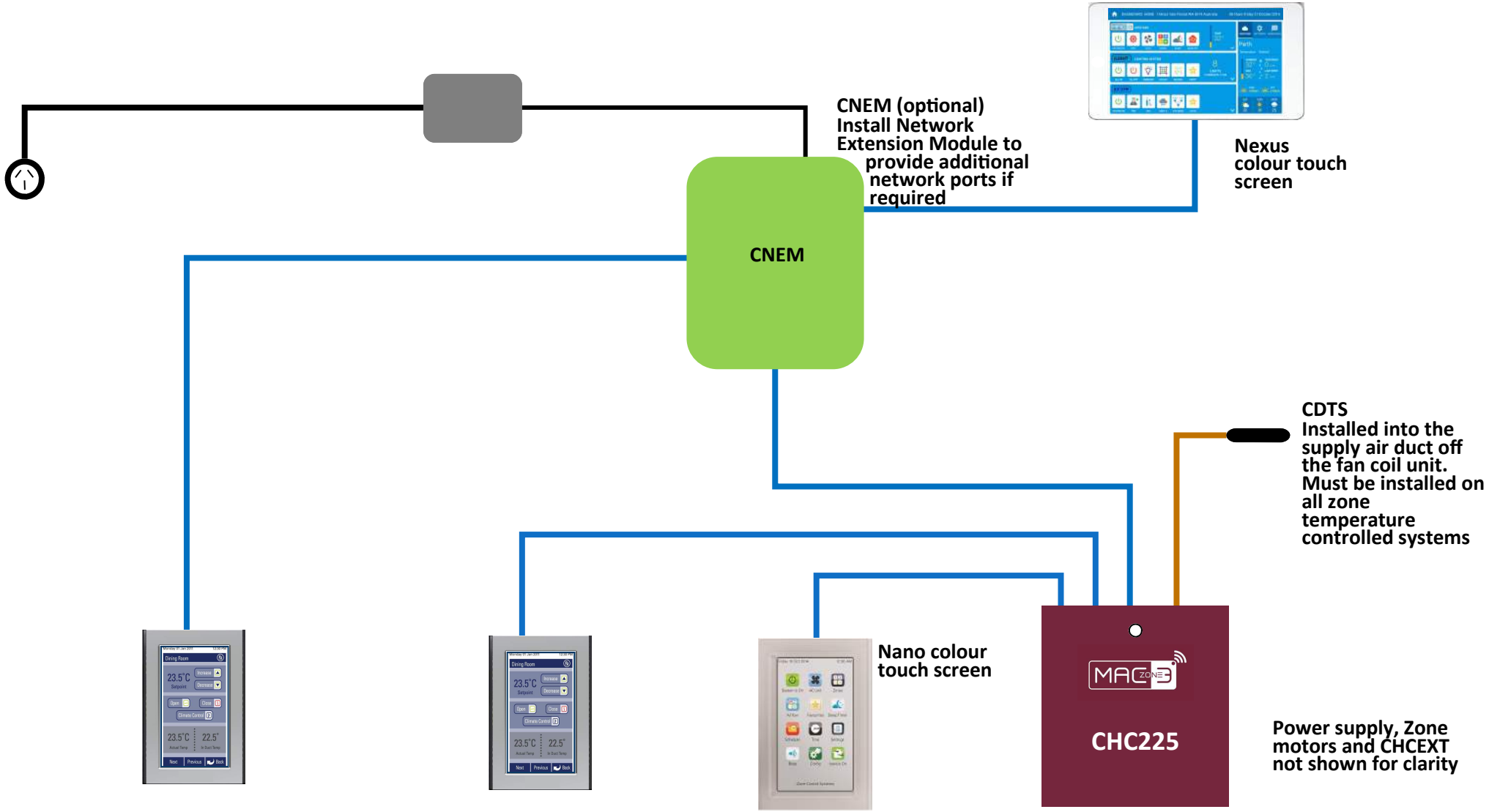
2.19 Optional equipment for wired temperature sensors



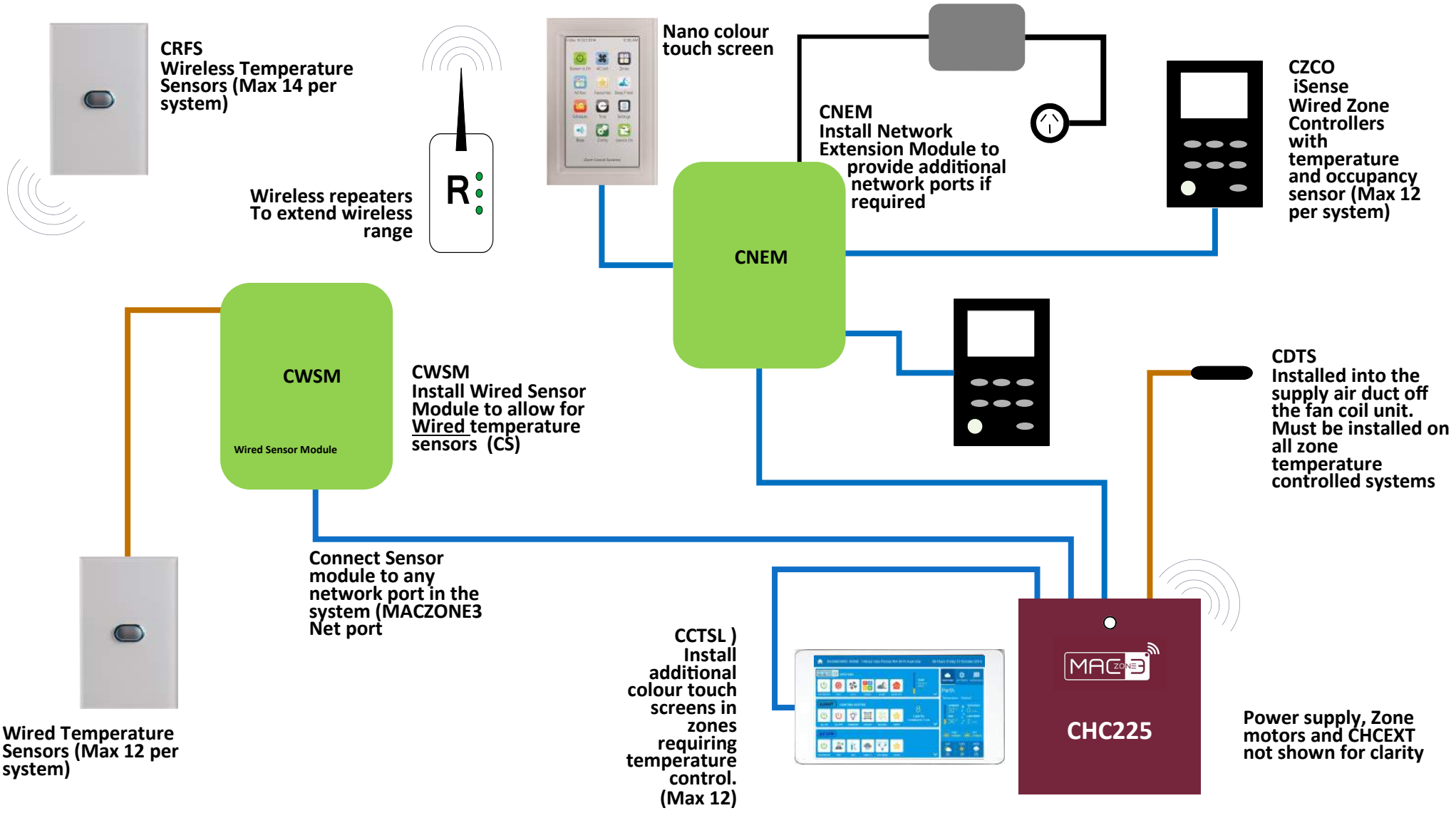
2.20 Optional equipment for iSense temperature and occupancy controlled zones



2.21 Optional equipment for colour touch screen temperature controlled zones



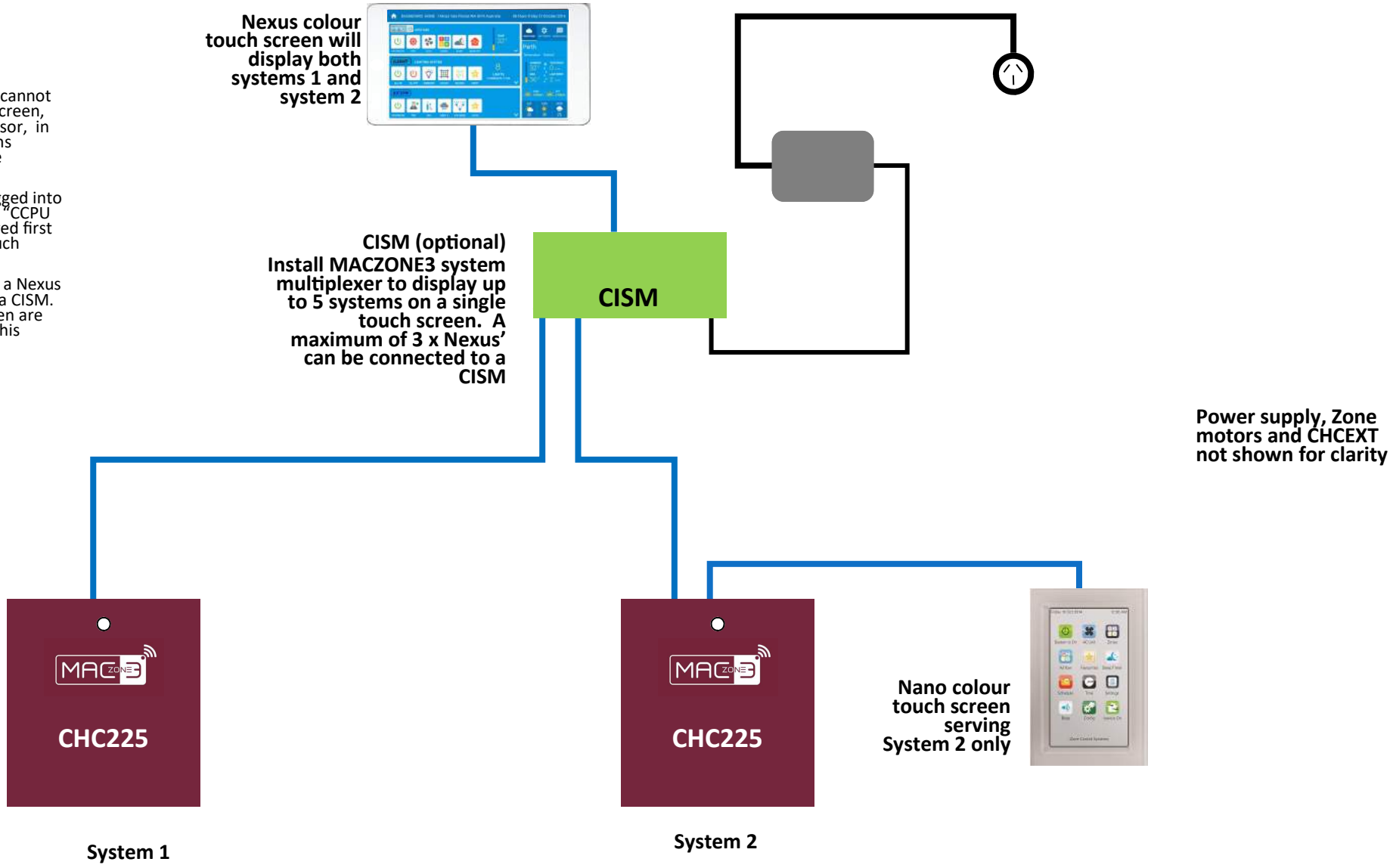
2.22 Example of different types of temperature sensors on a single system



2.23 Optional equipment for running multiple systems from a single MACZONE3 Nexus screen

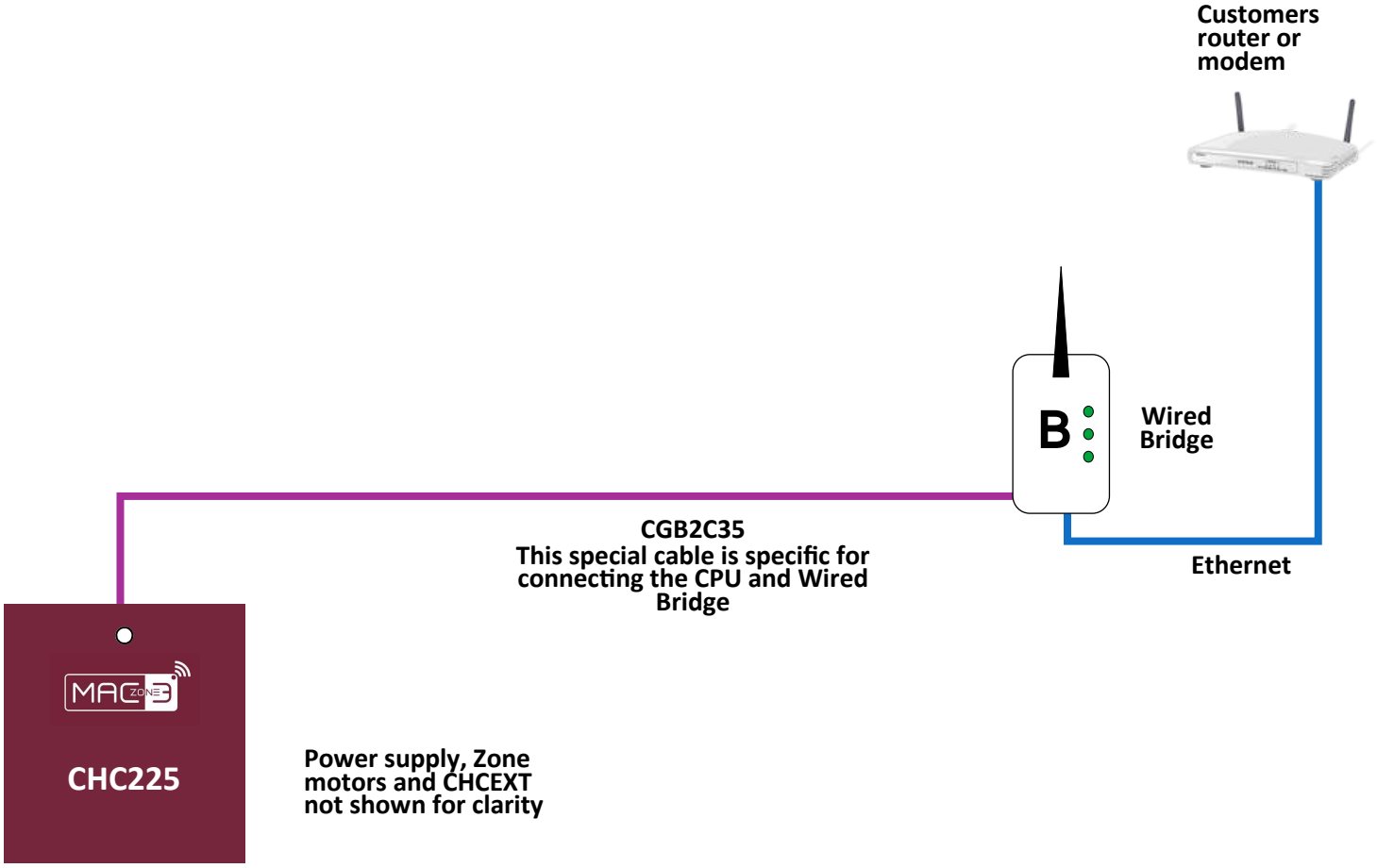
Notes:

1. When using the multiplexer, you cannot use the in-built screen, temperature sensor, in any Nexus screens connected to the multiplexer.
2. The CHC225 plugged into the port labelled "CCPU 1" will be displayed first on the Nexus touch screen.
3. You can only use a Nexus touch screen on a CISM. Nano touch screen are not suitable for this purpose.



2.24 Optional equipment for wired WiFi Control of system

Download the MACZONE3 App to your smart phone or tablet.



2.25 Optional equipment for wireless WiFi control of system

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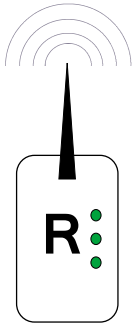
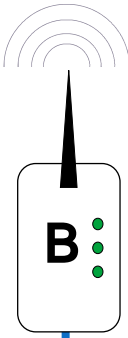
Available on the App Store

ANDROID APP ON Google play



CR (optional) Wireless Repeaters

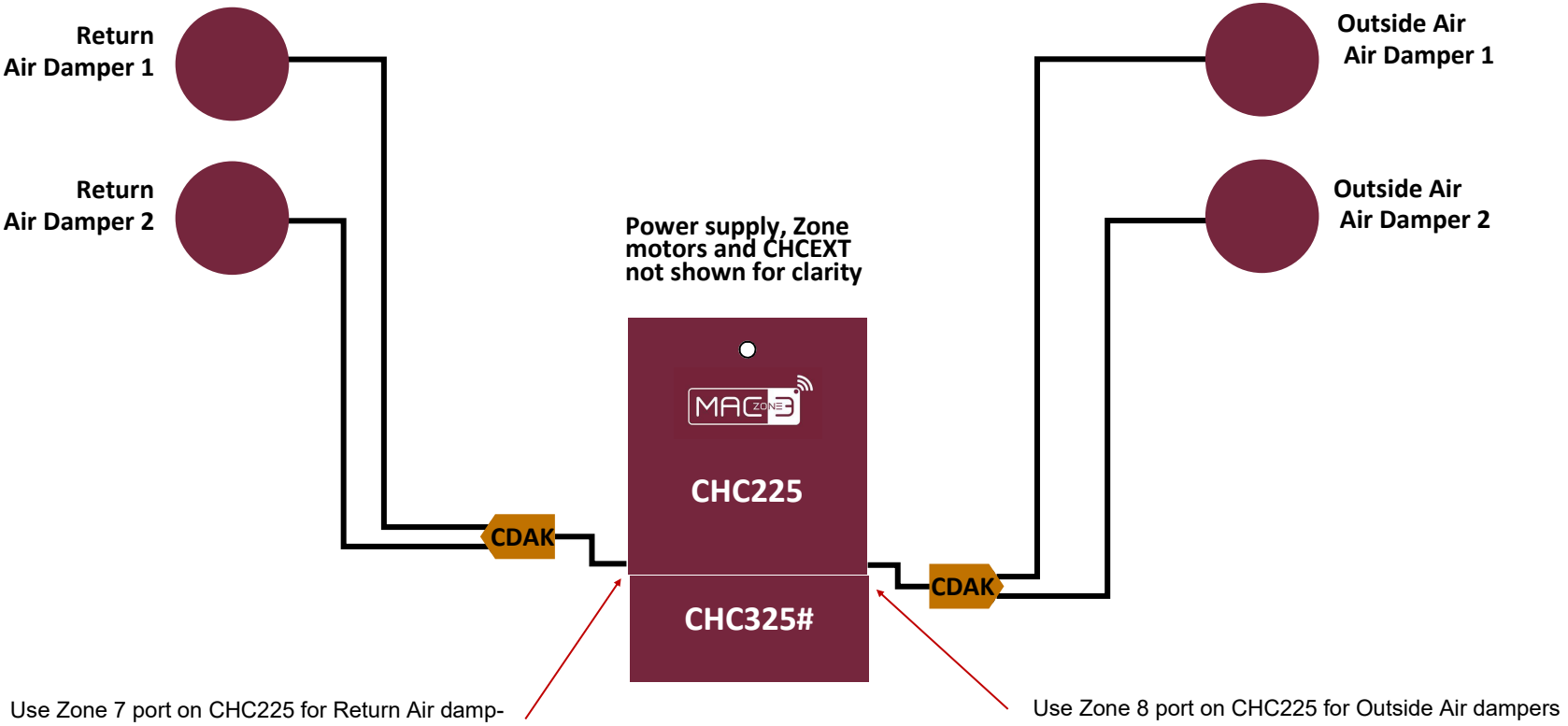
Customers router or modem



BRIDGE Wireless Bridge

Power supply, Zone motors and CHCEXT not shown for clarity

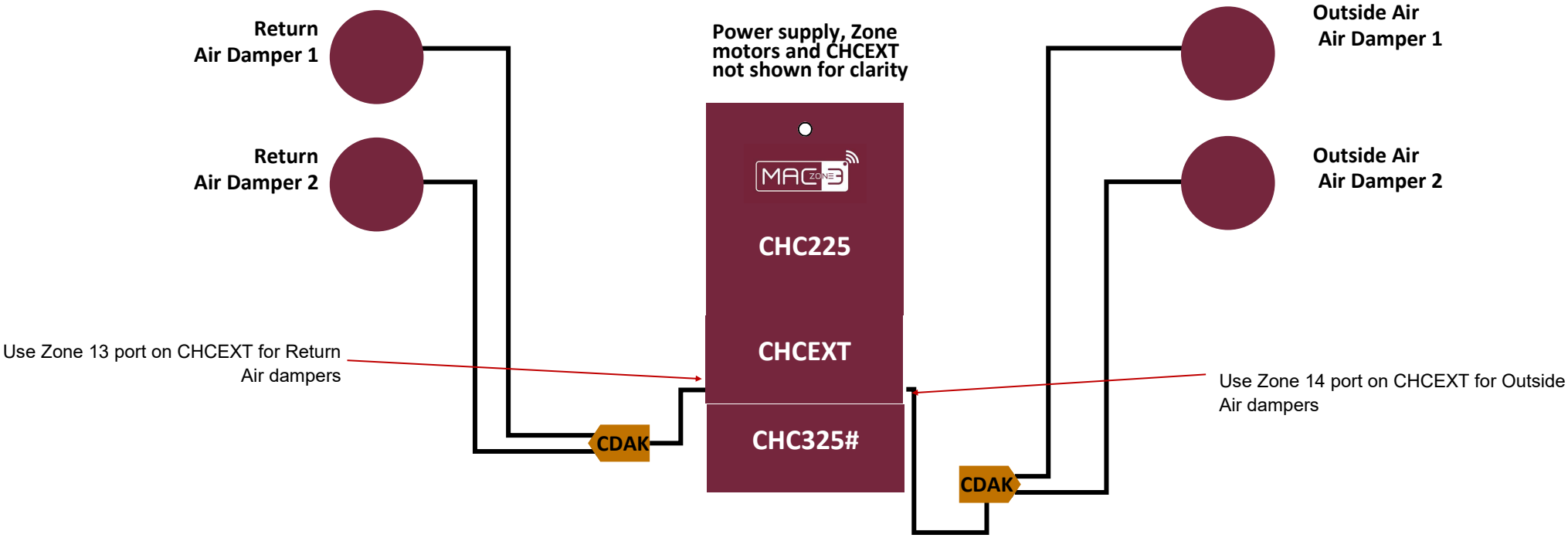
2.26 MACZONE3 415 to 435 - Optional equipment for iSave addition up to 6 zones



Note:

When the iSave option is used with an 8 zone system it is limited to a maximum of 6 Zones

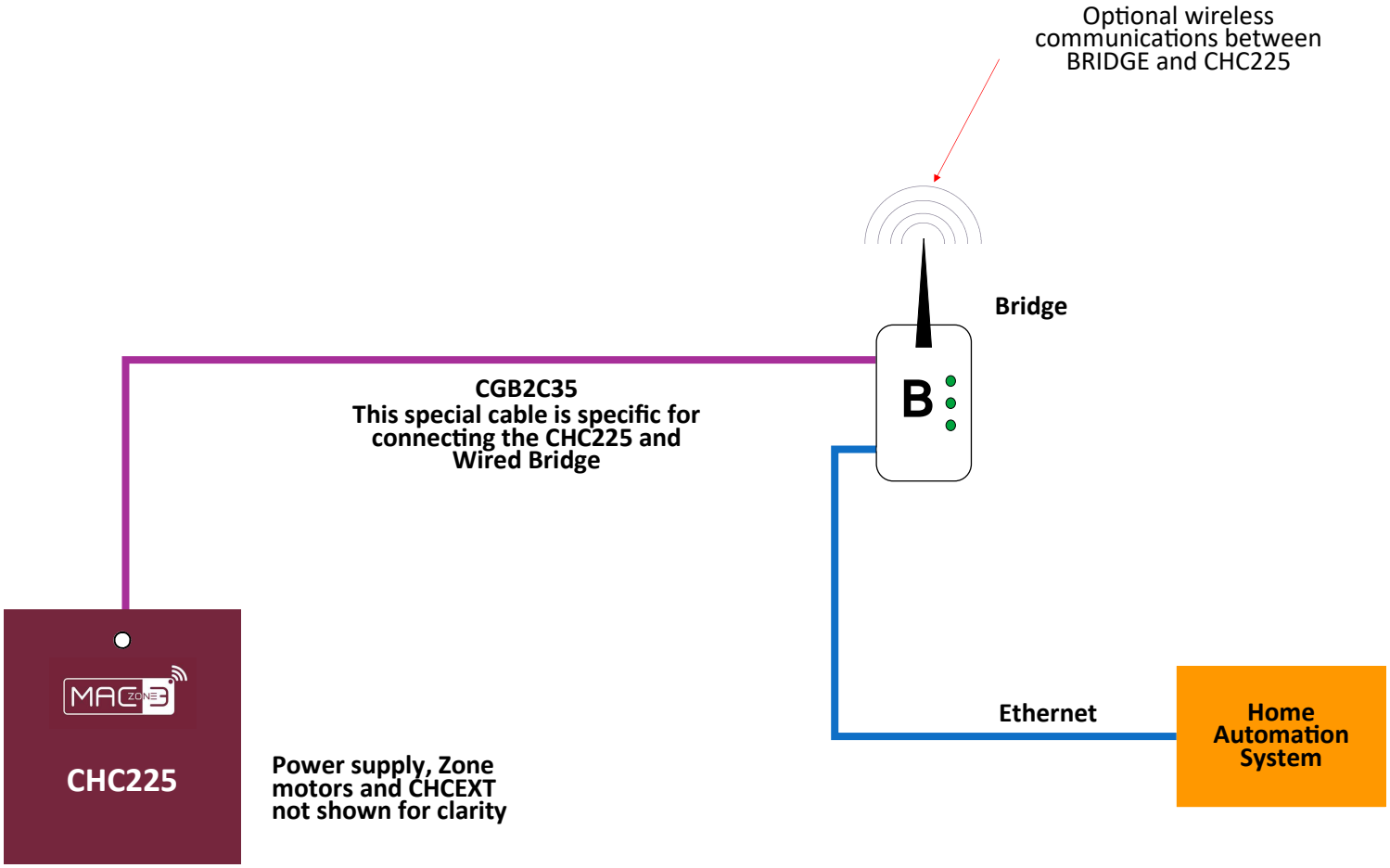
2.27 MACZONE3 415 to 435 - Optional equipment for iSave addition up to 12 zones



Note:

When the iSave option is used with the CHCEXT the MACZONE3 system is limited to a maximum of 12 Zones

2.28 Optional equipment for Ethernet Home Automation connection

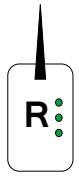


2.29 Integrated MACZONE3 A/C, Lights, Garden Irrigation & Security

3 Button Wireless iLight switch with occupancy light intensity & AC temp sensor

Smart phone

tablet



(optional) Wireless Repeaters

Customers router or modem

CT24AC

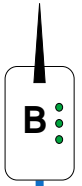
MACZONE3 AC control (Max 14 Zones)

CHC225

CHC325#

CRFS (optional) Wireless Temperature Sensors

Apple Watch

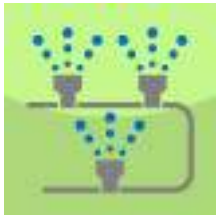


Wireless Bridge

Lights (Max 128)

AC Unit

(optional) Wireless AC remote control



Wireless garden irrigation (Max 24 stations)

Wireless power points

Garage door control

IFTTT

Google Home

A maximum of 24 Reticulation stations, 14 AC zones, 128 lights / power points / garage doors and 12 colour touch screens can be supported by one MACZONE3 system

2.30 MACZONE3 - Wiring connection to AC units

Unit Make	Connection
Actron*	See detailed instructions on 2.30.1 page 44
Braemar	See detailed instructions on 2.30.2 page 45
Daikin	Take the P1 / P2 control wire from the fan coil unit and connect it to the MACZONE3 CHC225 / CHC325D
Fujitsu*	Do **not** connect the 12V wire to the MACZONE3 (Usually Red). Connect the black and white wires from the fan coil unit to MACZONE3 CHC225 / CHC325F
Haier	See detailed instructions on 2.30.3 page 46
Hitachi	Take the A / B control wire from the fan coil unit and connect it to the MACZONE3 CHC225 / CHC325H See detailed instructions on 2.30.4 page 47
Kaden	See detailed instructions on 2.30.5 page 48
Kelvinator	See detailed instructions on 2.30.5 page 49
LG	See detailed instructions on 2.30.6 page 50
Midea	See detailed instructions on 2.30.7 page 51
Mitsubishi Electric	Take the Remote Controller (A / B) control wire from the fan coil unit and connect it to the AC Unit Control Cable on the CHC225 / CHC325M

Unit Make	Connection
MHI	Take the Remote Controller wire from the fan coil unit and connect it to the AC Unit Control Cable on the CHC225 / CHC325MHI
Panasonic	Take the A / B control wire from the fan coil unit and connect it to the AC Unit Control Cable on the CHC225 / CHC325P
Rinnai	See detailed instructions on 2.30.9 page 52
Samsung*	Take the F3 / F4 control wire from the fan coil unit and connect it to the AC Unit Control Cable on the CHC225 / CHC325S. This connection requires the correct polarity. See detailed instructions on 2.30.10 page 53
Temperzone	See detailed instructions on 2.30.11 page 54
Toshiba	Take the A / B control wire from the fan coil unit and connect it to the AC Unit Control Cable on the CHC225 / CHC325T
York*	See detailed instructions on 2.30.12 page 55
Universal Control Module	The universal control module covers units with standard 24V control. See detailed instructions on 2.31 to 2.31.9 pages 56-65

*** Certain models only. Check with HVAC Consolidated for compatibility prior to ordering**

2.30.1 MACZONE3 - Wiring connection to Actron units

Unit Make

Actron (Ultra Slim low profile series only)

Indoor Model / Outdoor model

LRE-071AS / URC-071AS (7kw)

LRE-100AS / URC-100AS (10kw)

LRE-130AS / URC-140AS (14kw)

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325A to the X / Y in the fan coil unit. (This cable and connector is supplied by Actron). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.

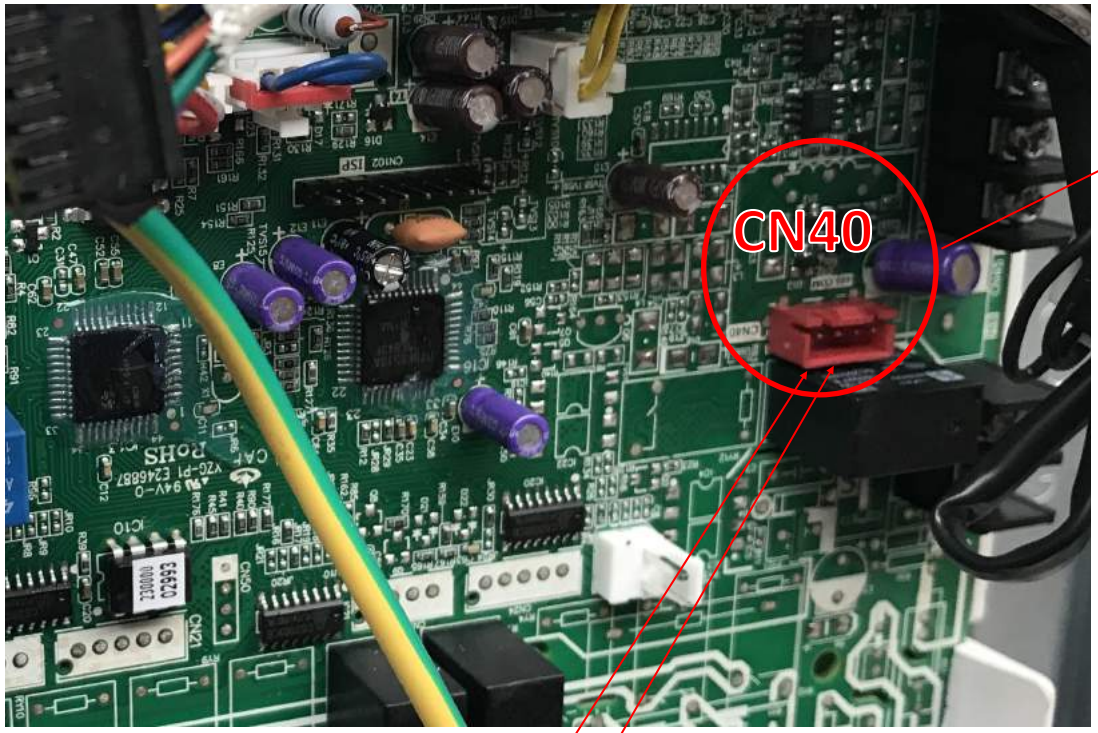


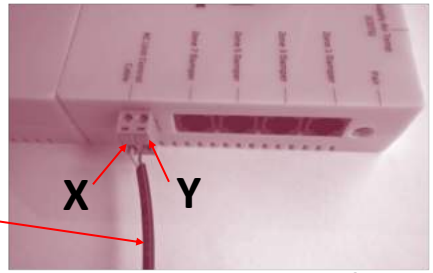
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325A

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.30.2 MACZONE3 - Wiring connection to Braemar units

At the time of printing the Braemar unit interface had not been approved for production and has therefore not been included in this manual

2.30.2 MACZONE3 - Wiring connection to Haier units

Unit Make

Haier

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325HI to the A / B terminals on the Haier Interface board YCJ-A002. Connect the interconnecting cable supplied by Haier to CN24 in the fan coil unit of the Haier Interface board YCJ-A002. Set the dipswitches as shown below. Polarity is critical. Haier YR-E17 wired RC must be connected and set to run on return air

Fig (L) Haier Interface board
Model: YCJ-A002 (Fisher & Paykel part no. 51102)

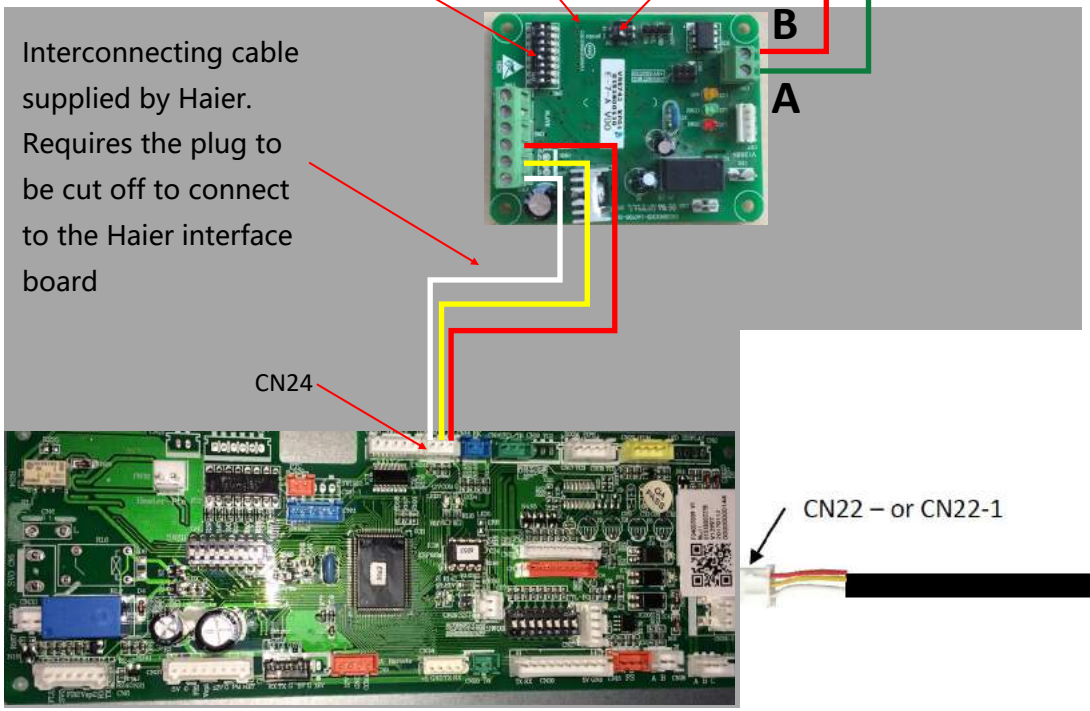
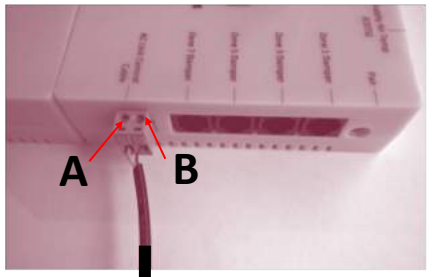


Fig (M) Haier FCU board

Fig (N) - MACZONE3 CHC225 / CHC325HI



Correct polarity

Dip Switch Setting for YR-E17 Wired Controller
- SW03 OFF (default) for sensing inside the wired RC
- SW03 ON for sensing from return air

Haier YR-E17 Wired RC

2.30.3 MACZONE3 - Wiring connection to Hitachi units

Unit Make

Hitachi

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325H to the A / B terminals and earth in the in the fan coil unit. (This cable is supplied by the installer). Polarity is not critical see Fig (H) for correct connection.

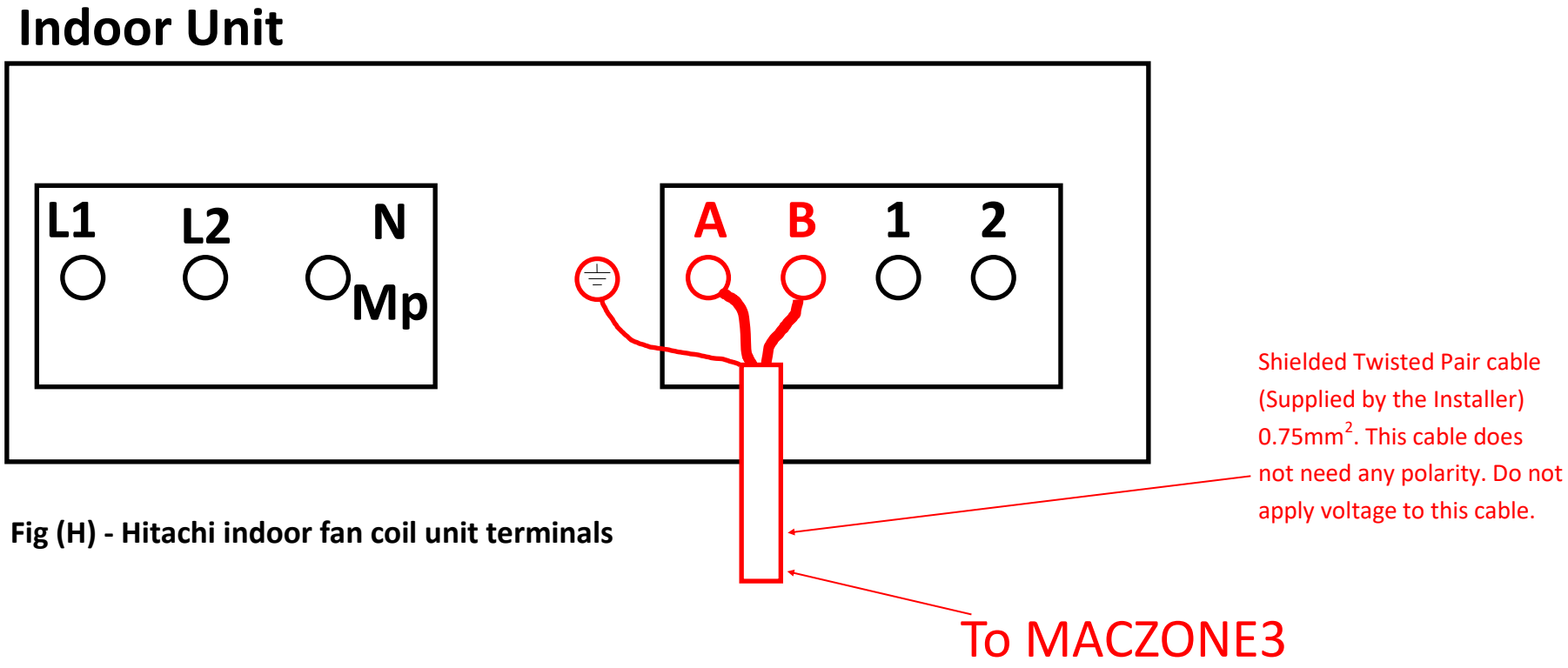


Fig (H) - Hitachi indoor fan coil unit terminals

2.30.4 MACZONE3 - Wiring connection to Kaden units

Unit Make

Kaden (Metalflex)

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325KAD to the X / Y in the fan coil unit. (This cable and connector is supplied by Kaden). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.

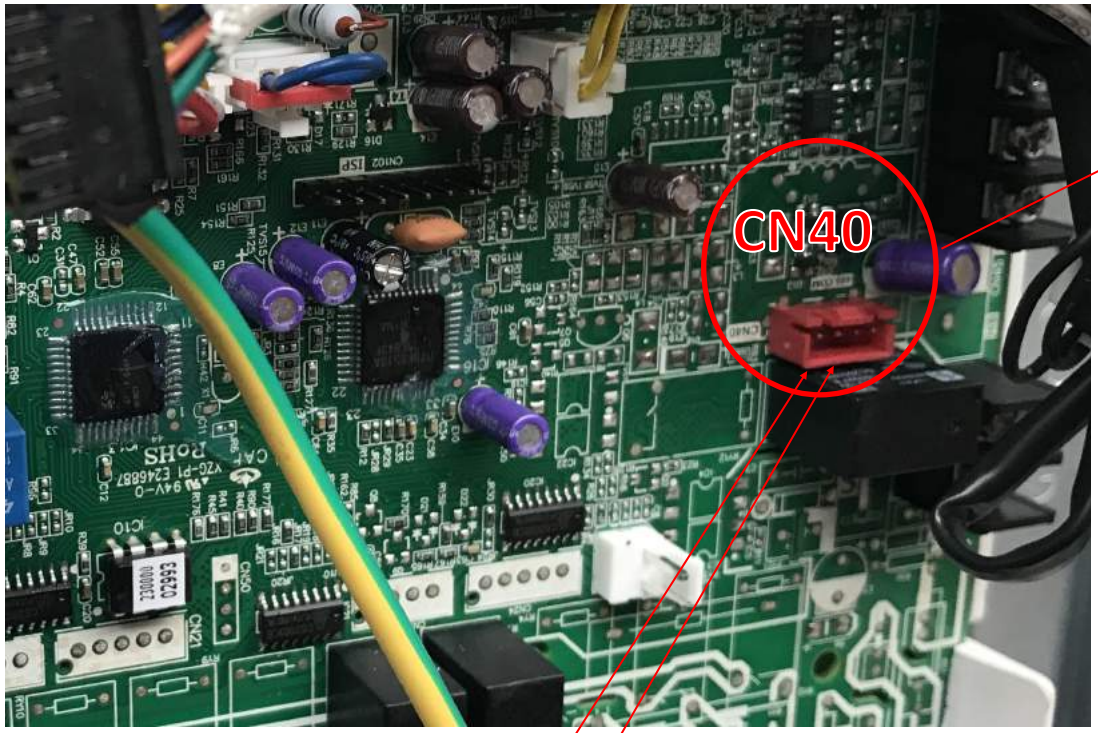


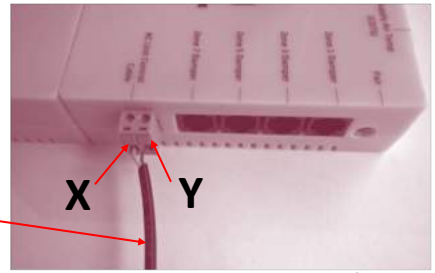
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325KAD

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.30.5 MACZONE3 - Wiring connection to Kelvinator units

Unit Make

Kelvinator

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325KEL to the X / Y in the fan coil unit. (This cable and connector is supplied by Kelvinator). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.

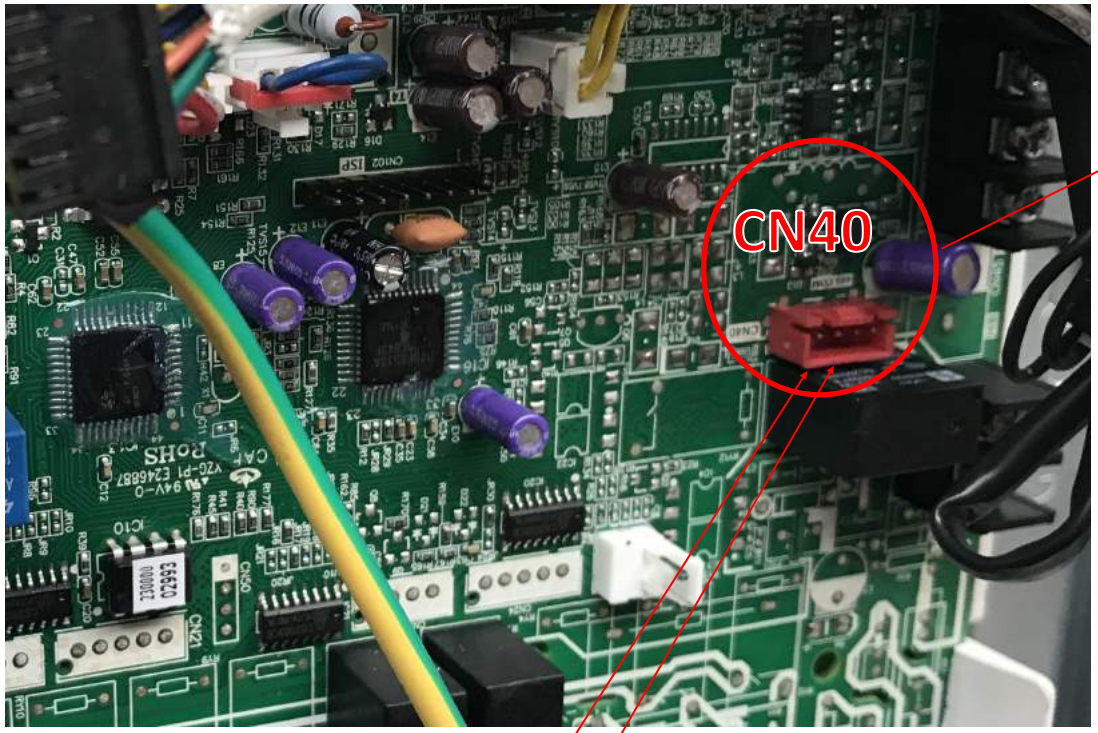


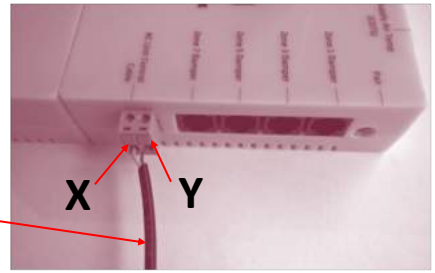
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325KEL

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.30.6 MACZONE3 - Wiring connection to LG units

Unit Make

LG

LG condensing unit must be supplied with an optional PI485 Gateway (M) board in the condensing unit. LG dipswitch settings are as follows:

⇒ Dip switches 1 and 4 **ON**

⇒ All others are **OFF**

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325L to the PI485 Gateway (M) board in the condensing unit. (This cable is supplied by the installer). Polarity is critical see Fig (C) & (D) for correct connection.

Shielded, 2 core, twisted pair control cable (not supplied)

B

A

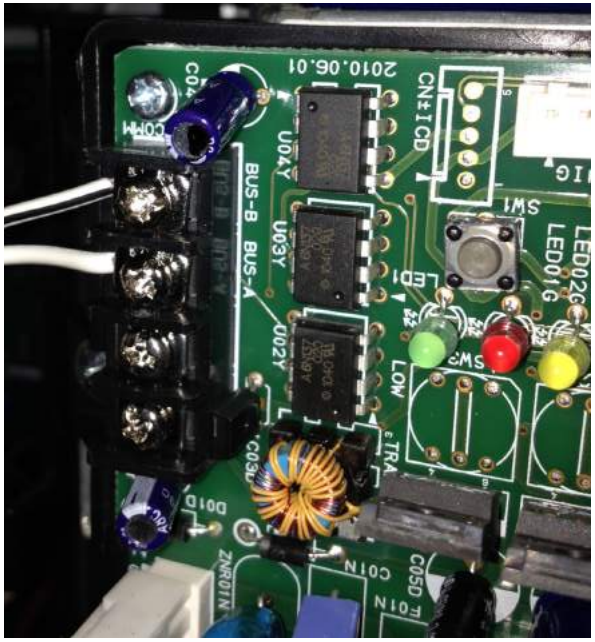
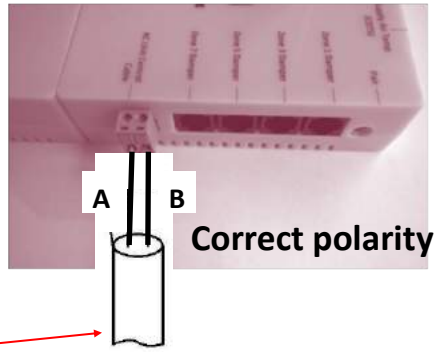


Fig (C) - LG PI485 Gateway (M) board in condensing unit



Shielded, 2 core, twisted pair control cable (not supplied)

Fig (D) - MACZONE3 CHC225 / CHC325L

2.30.7 MACZONE3 - Wiring connection to Midea units

Unit Make

Midea

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325MID to the X / Y in the fan coil unit. (This cable and connector is supplied by Midea). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.

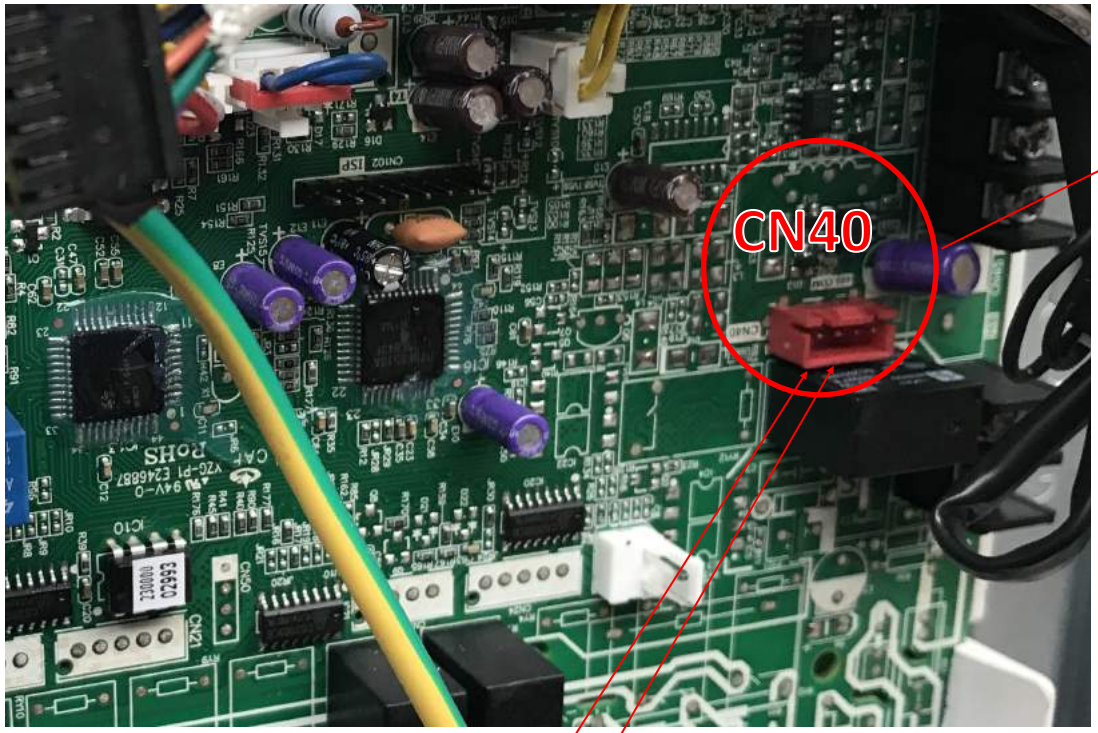


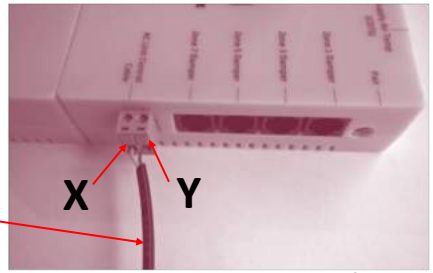
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325MID

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.30.8 MACZONE3 - Wiring connection to Rinnai units

Unit Make

Rinnai

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325R to the X / Y in the fan coil unit. (This cable and connector is supplied by Rinnai). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.
2. .

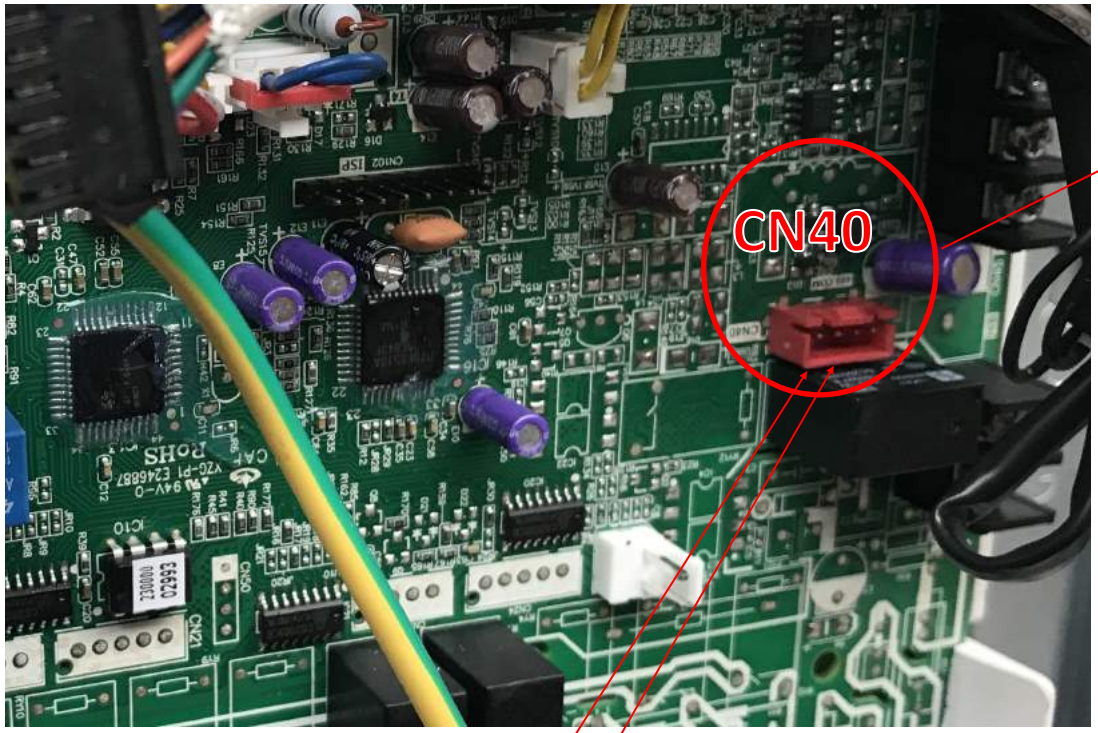


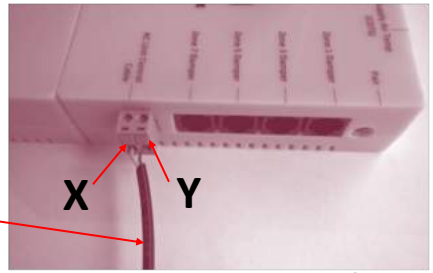
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325R

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.30.9 MACZONE3 - Wiring connection to Samsung units

Unit Make

Samsung

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325S to the F3 / F4 in the fan coil unit. (This cable is supplied by the installer). Polarity is critical see Fig (F) & (G) below for correct connection.

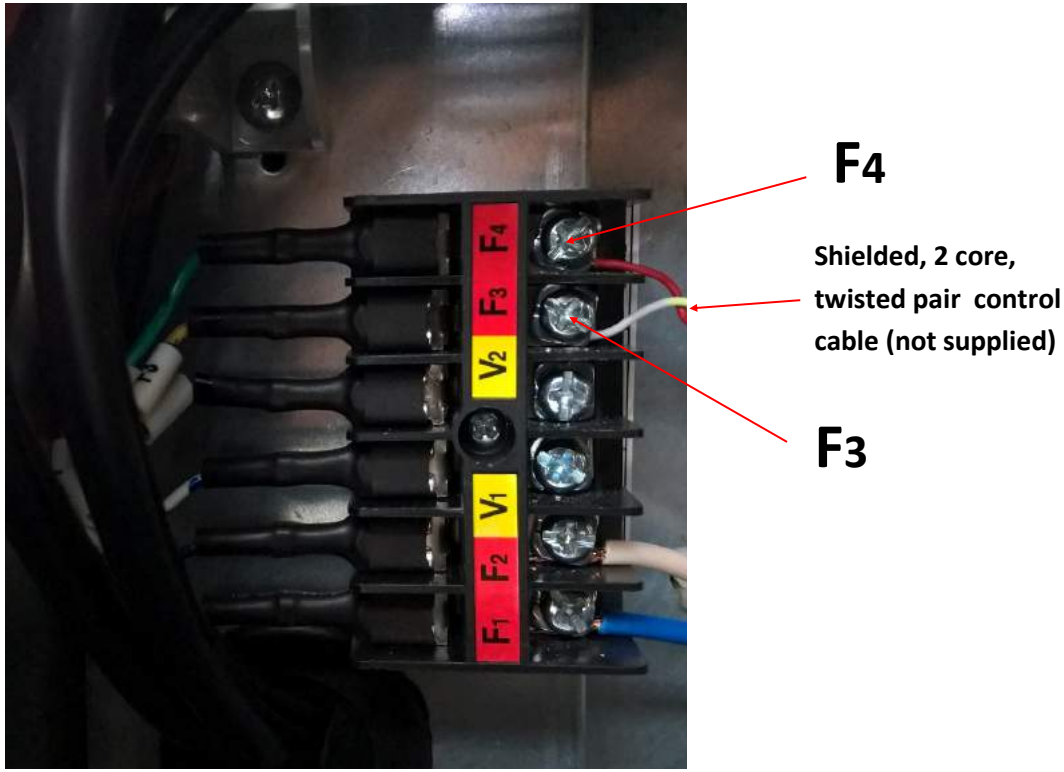


Fig (F) - Samsung indoor fan coil unit terminals

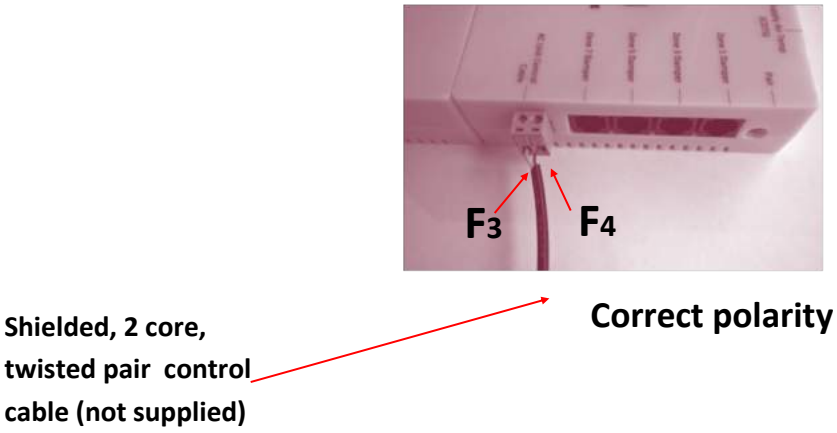


Fig (G) - MACZONE3 CHC225 / CHC325S

2.30.10 MACZONE3 - Wiring connection to Temperzone units

Unit Make	Connection
Temperzone	1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 to the UC8 board in the condensing unit. (This cable is supplied by the installer). Polarity is critical see Fig A & B for correct connection. 2. Ensure the dip switches in the condensing unit are set correctly for the installed compressor type (digital / fixed speed) and fan speed control. Refer to the Temperzone service manual.

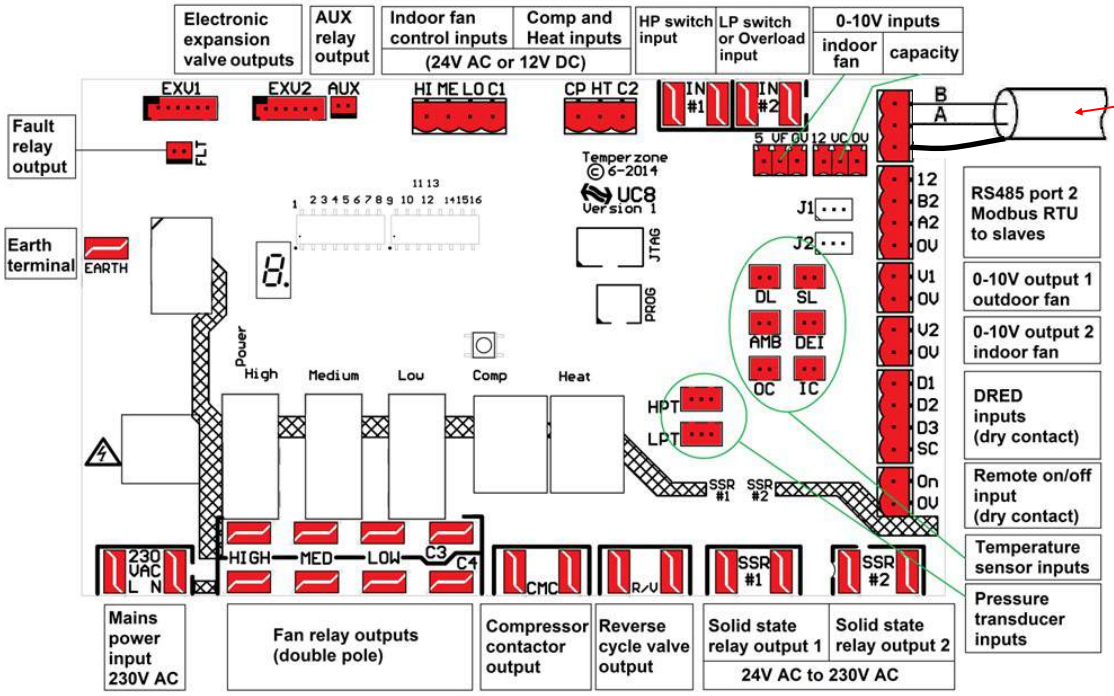
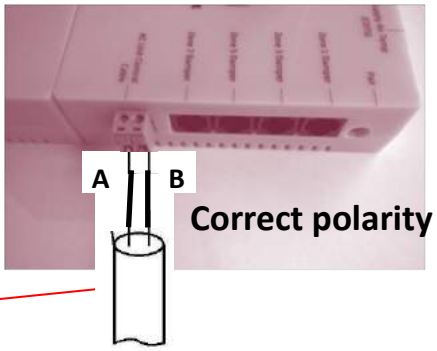


Fig (A) - Temperzone UC8 outdoor board

Shielded, 2 core, twisted pair control cable (not supplied)



Shielded, 2 core, twisted pair control cable (not supplied)

Fig (B) - MACZONE3 CHC225 / CHC325TZ

2.30.11 MACZONE3 - Wiring connection to York units

Unit Make

York

Connection

1. Connect a shielded, 2 core, twisted pair control cable from the CHC225 / CHC325Y to the X / Y in the fan coil unit. (This cable and connector is supplied by York). Polarity is critical see Fig (i) (J) & (K) below, for correct connection.

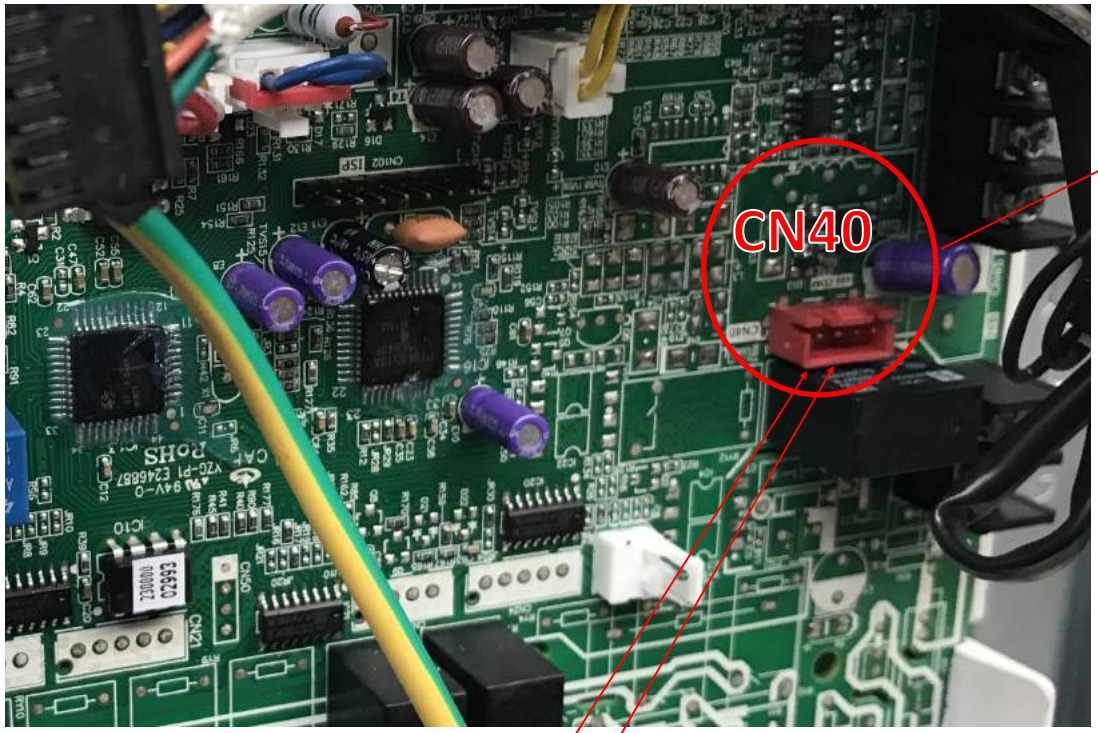


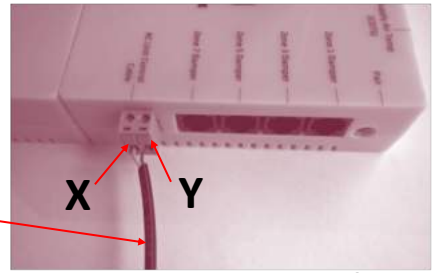
Fig (i) - Indoor fan coil unit terminals

CN40 Connector Pin out

Fig (J)

Fig (K) - MACZONE3 CHC225 / CHC325Y

Shielded, 2 core, twisted pair control cable (not supplied)



Correct polarity

2.31 MACZONE3 - Wiring connection to Universal Control Module

Unit Make

Units that accept 24V control signals:

Gas Heating Options

- Gas Heating thermostat only
- 1 Stage Gas Heat + 1 x Fan Speed
- 1 Stage Gas Heat + 1 Stage Cool + 1 x Fan Speed
- 2 Stage Gas Heat + 1 Stage Cool + 1 x Fan Speed
- 2 Stage Gas Heat + 2 Stage Cool + 1 x Fan Speed

Reverse Cycle Options

- 1 Stage R/C + 1 x Fan Speed
- 1 Stage R/C + 3 x Fan Speed
- 1 Stage R/C + Aux Heating + 1 x Fan Speed
- 2 Stage R/C + Aux Heating + 1 x Fan Speed

Connection

1. Connect cables as shown on the wiring diagram for the respective option. (24V maximum)
2. Configure the correct system type on the touch screen.
3. Configure the Run on timer, anti-cycle timer, 2nd stage offset, 2nd stage delay and fan control on the touch screen, as applicable
4. Test for correct operation.

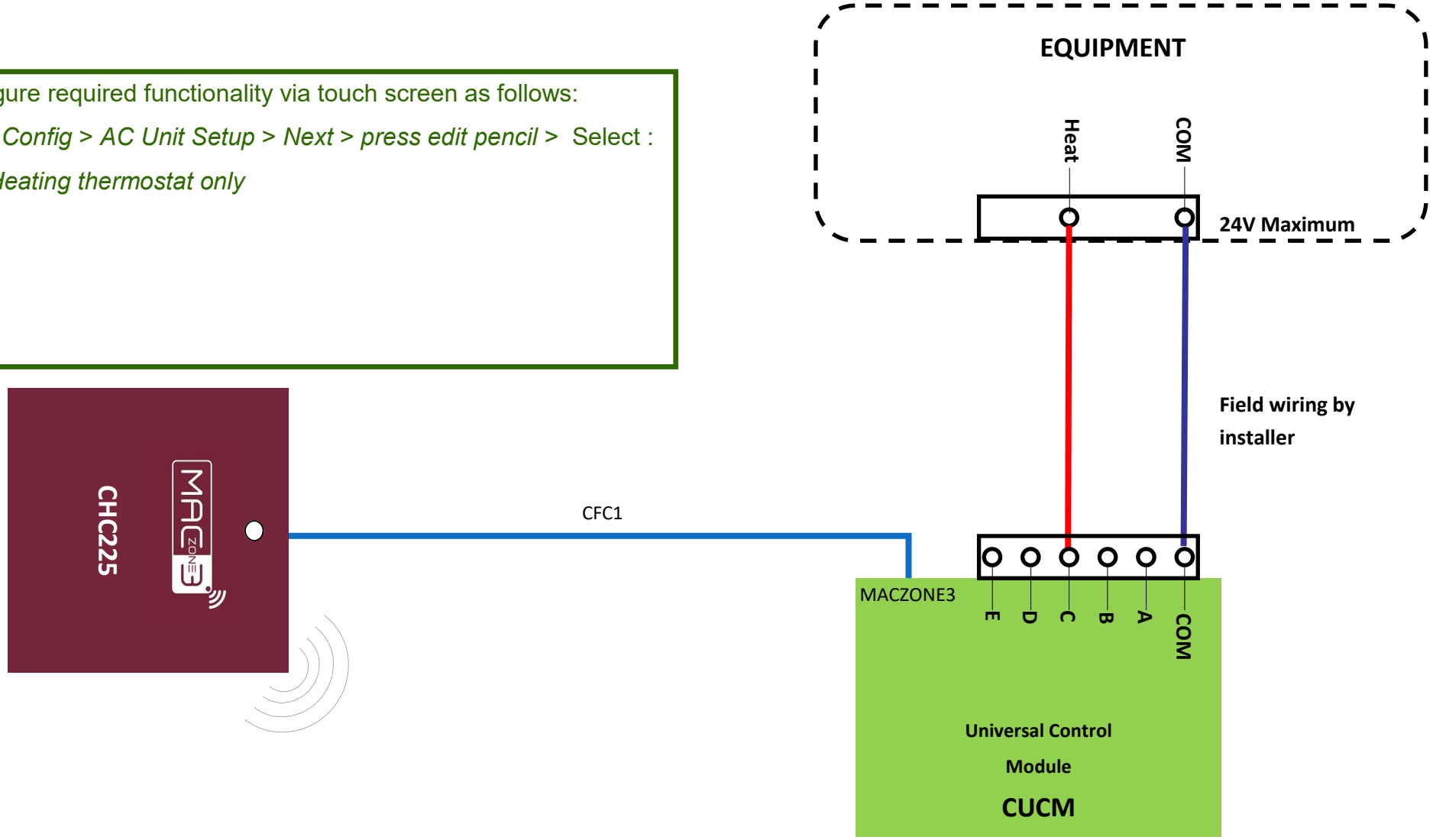
2.31.1 MACZONE3 - Wiring connection to Universal Control Module

Gas heating thermostat only

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

Gas Heating thermostat only



2.31.2 MACZONE3 - Wiring connection to Universal Control Module

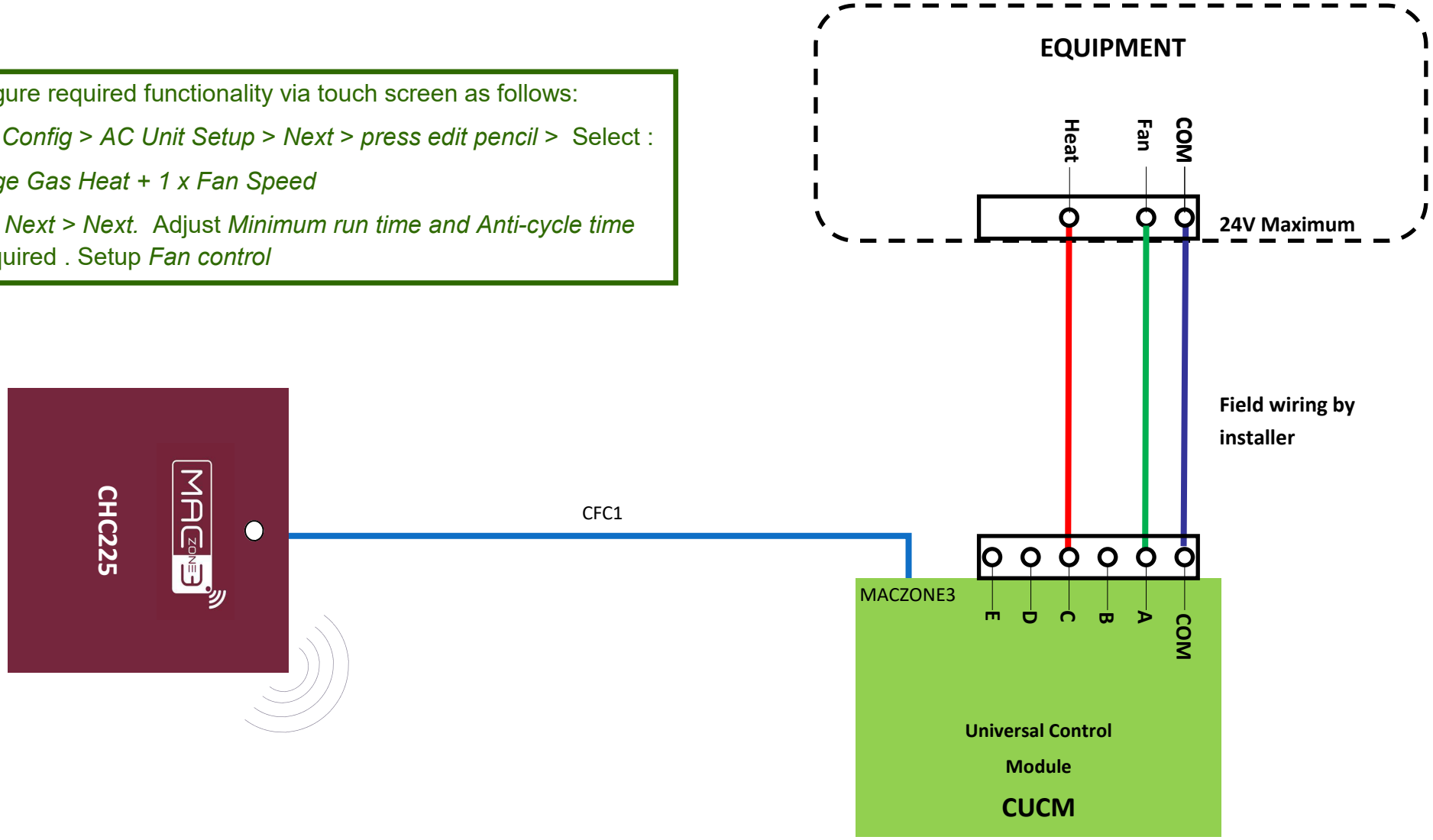
1 Stage Gas Heating + 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config* > *AC Unit Setup* > *Next* > *press edit pencil* > Select :

1 Stage Gas Heat + 1 x Fan Speed

Press *Next* > *Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.3 MACZONE3 - Wiring connection to Universal Control Module

1 Stage Gas Heating + 1 Stage Cooling

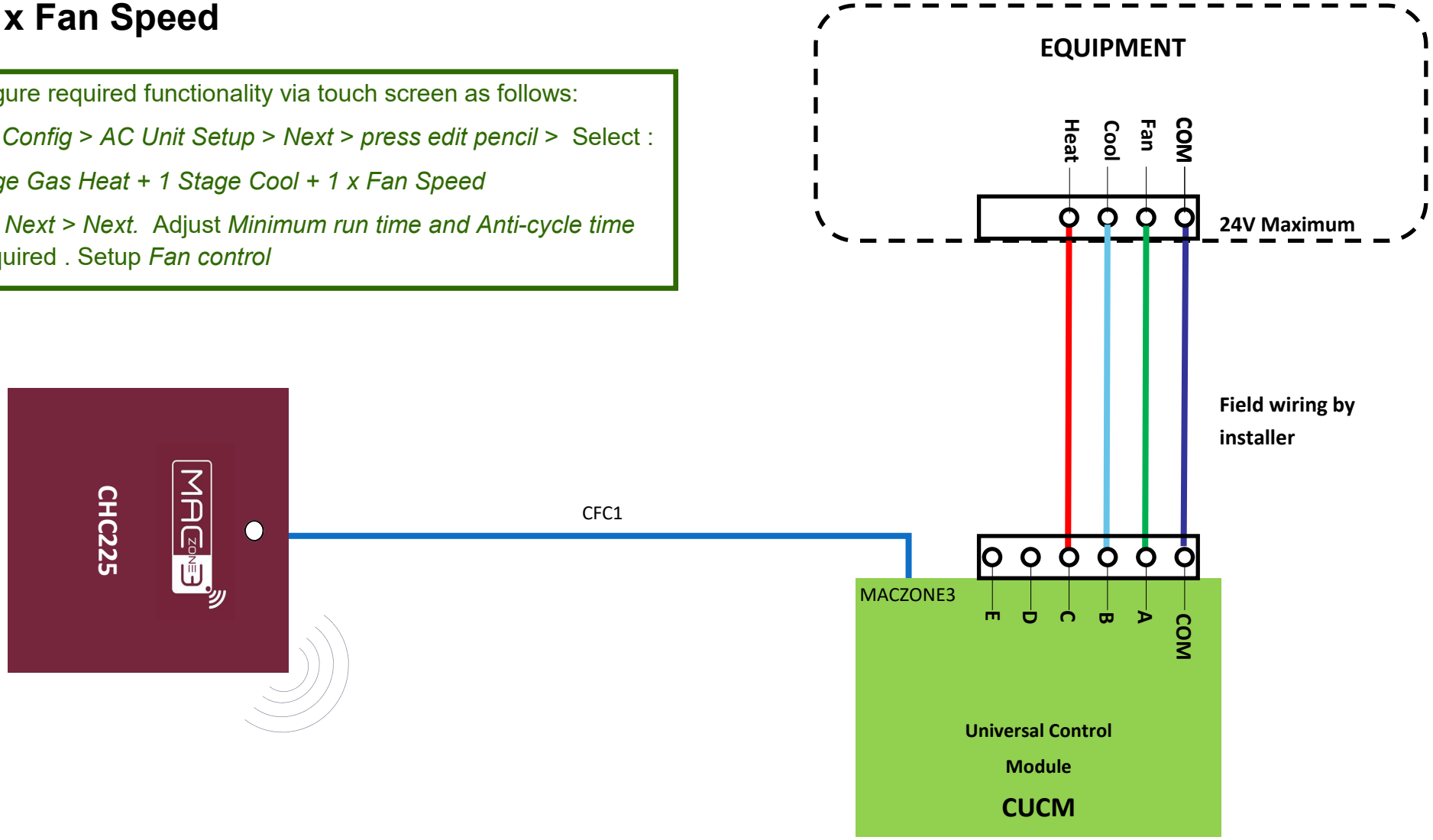
+ 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

1 Stage Gas Heat + 1 Stage Cool + 1 x Fan Speed

Press *Next > Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.4 MACZONE3 - Wiring connection to Universal Control Module

2 Stage Gas Heating + 1 Stage Cooling

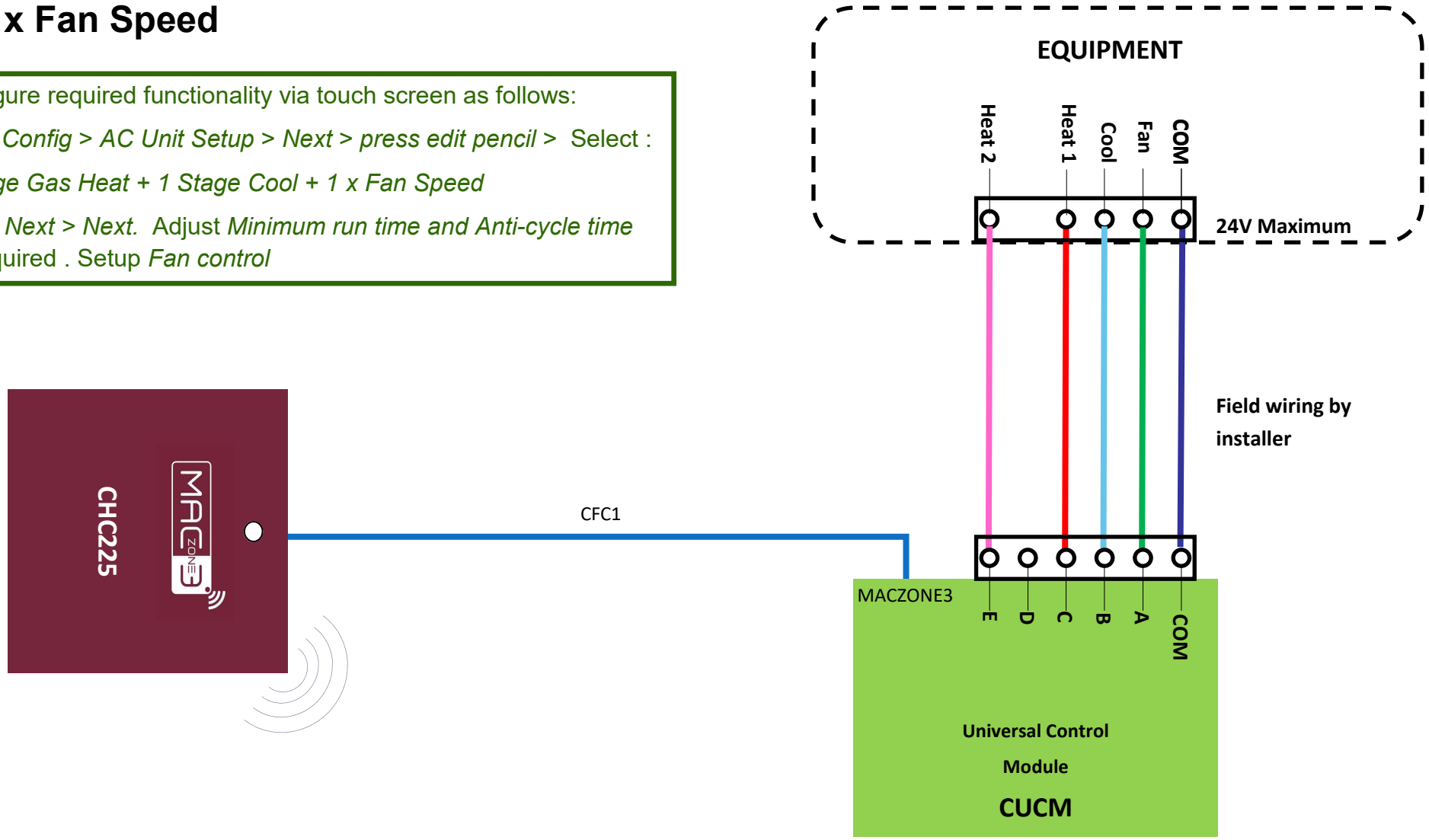
+ 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config* > *AC Unit Setup* > *Next* > *press edit pencil* > Select :

2 Stage Gas Heat + 1 Stage Cool + 1 x Fan Speed

Press *Next* > *Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.5 MACZONE3 - Wiring connection to Universal Control Module

2 Stage Gas Heating + 2 Stage Cooling

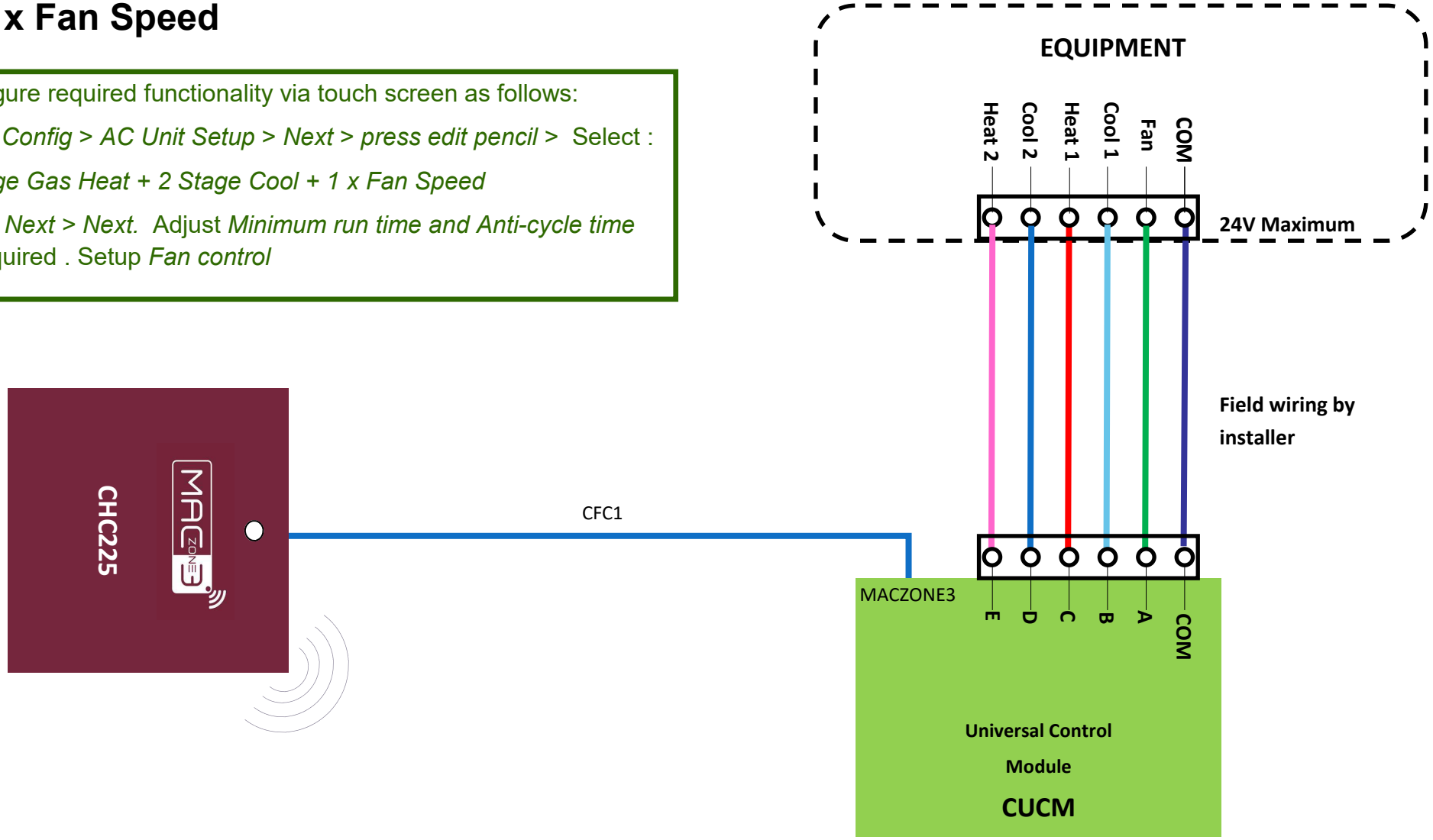
+ 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

2 Stage Gas Heat + 2 Stage Cool + 1 x Fan Speed

Press *Next > Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.6 MACZONE3 - Wiring connection to Universal Control Module

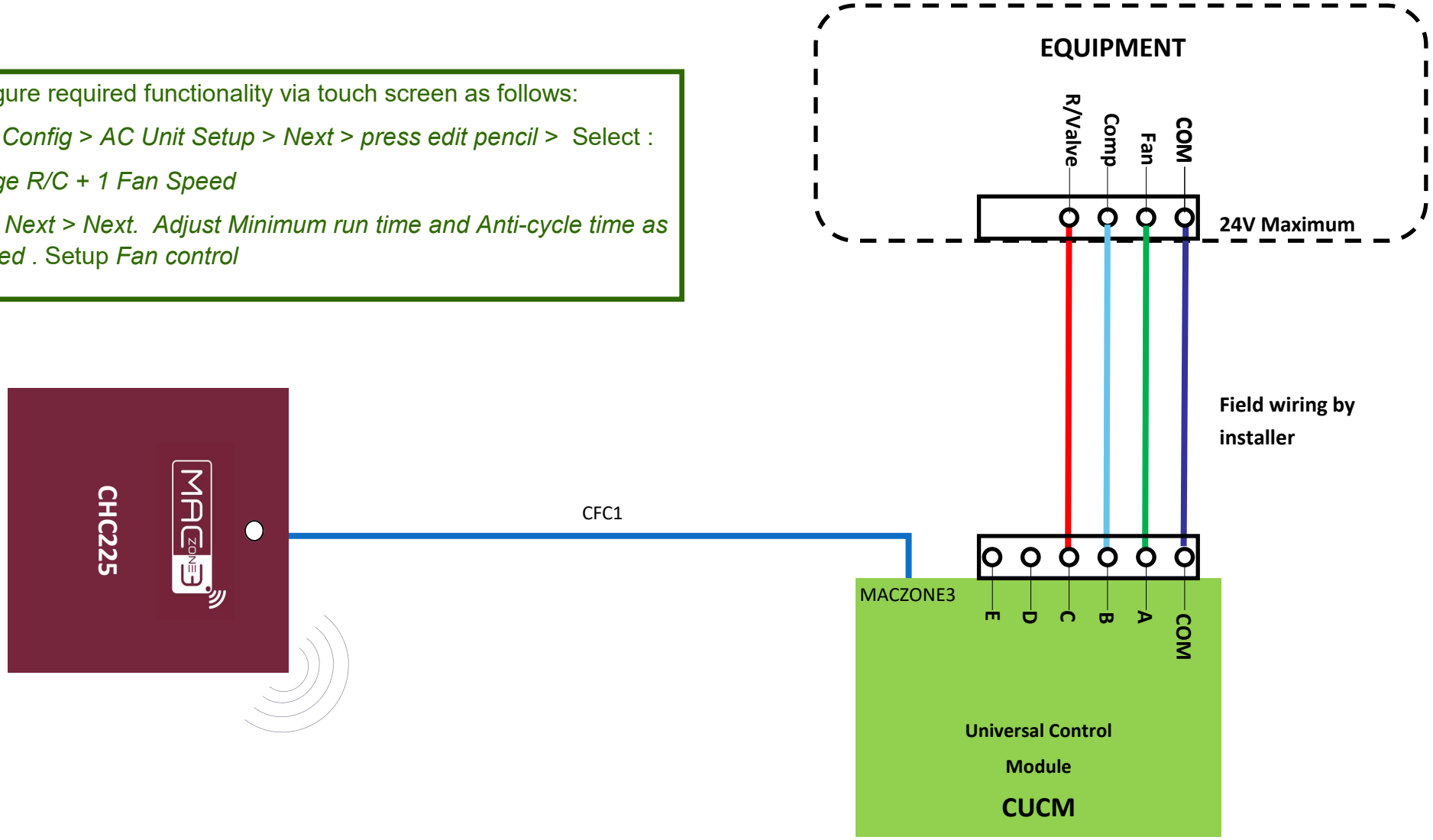
1 Stage Reverse Cycle Heat Pump + 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

1 Stage R/C + 1 Fan Speed

Press Next > Next. Adjust Minimum run time and Anti-cycle time as required . Setup *Fan control*



2.31.7 MACZONE3 - Wiring connection to Universal Control Module

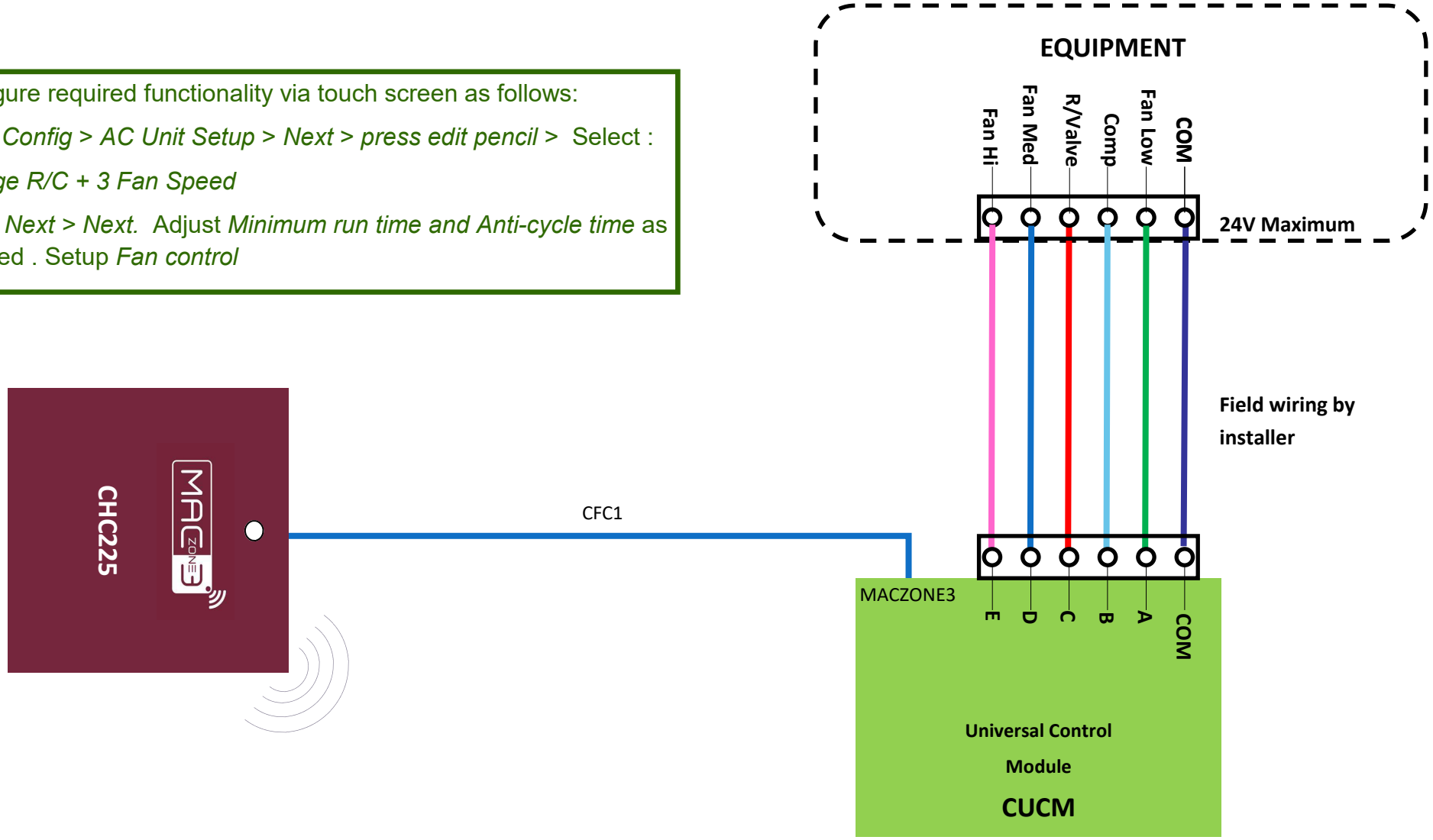
1 Stage Reverse Cycle Heat Pump + 3 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

1 Stage R/C + 3 Fan Speed

Press *Next > Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.8 MACZONE3 - Wiring connection to Universal Control Module

1 Stage Reverse Cycle Heat Pump +

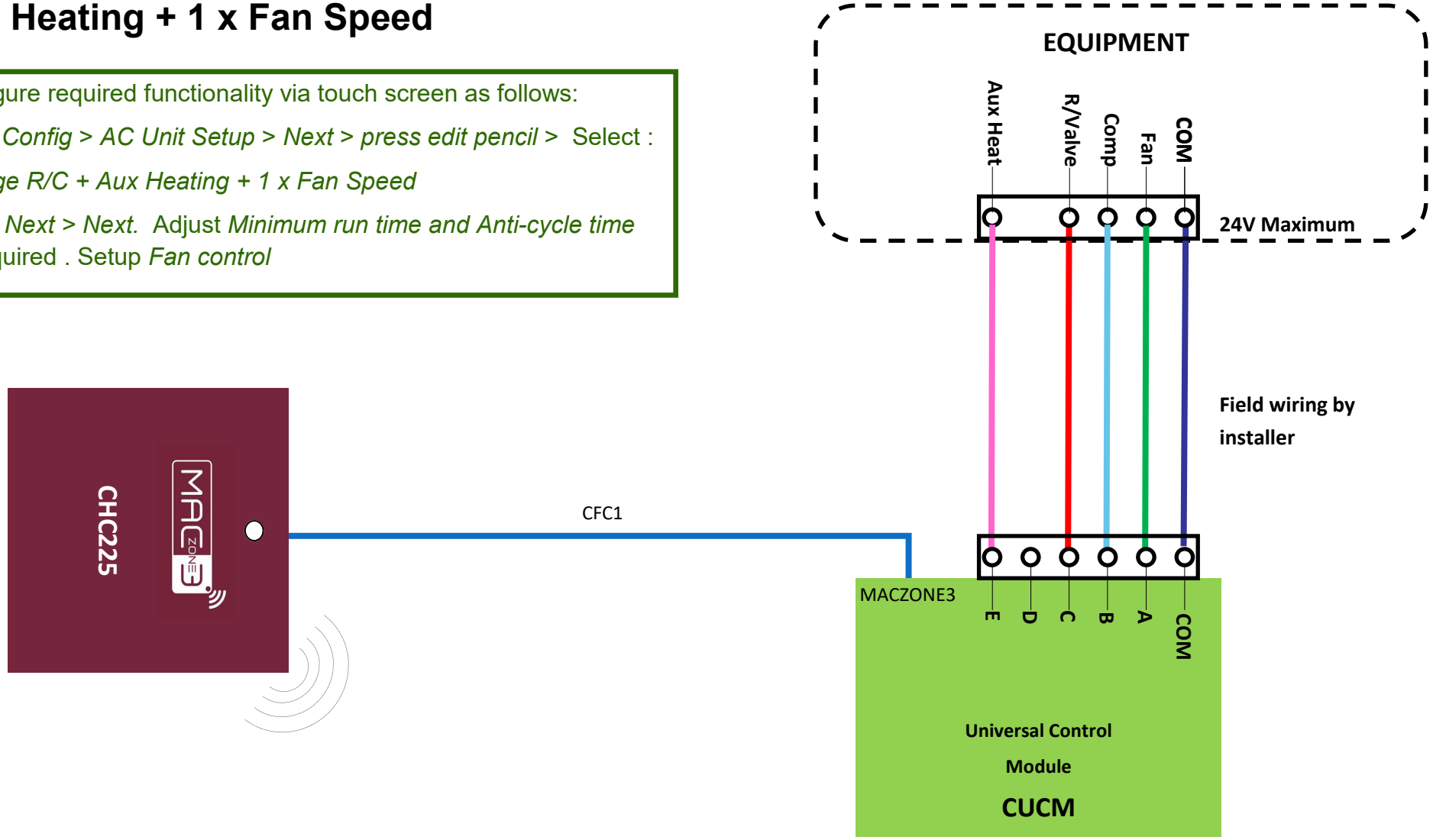
Aux Heating + 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config > AC Unit Setup > Next > press edit pencil >* Select :

1 Stage R/C + Aux Heating + 1 x Fan Speed

Press *Next > Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.31.9 MACZONE3 - Wiring connection to Universal Control Module

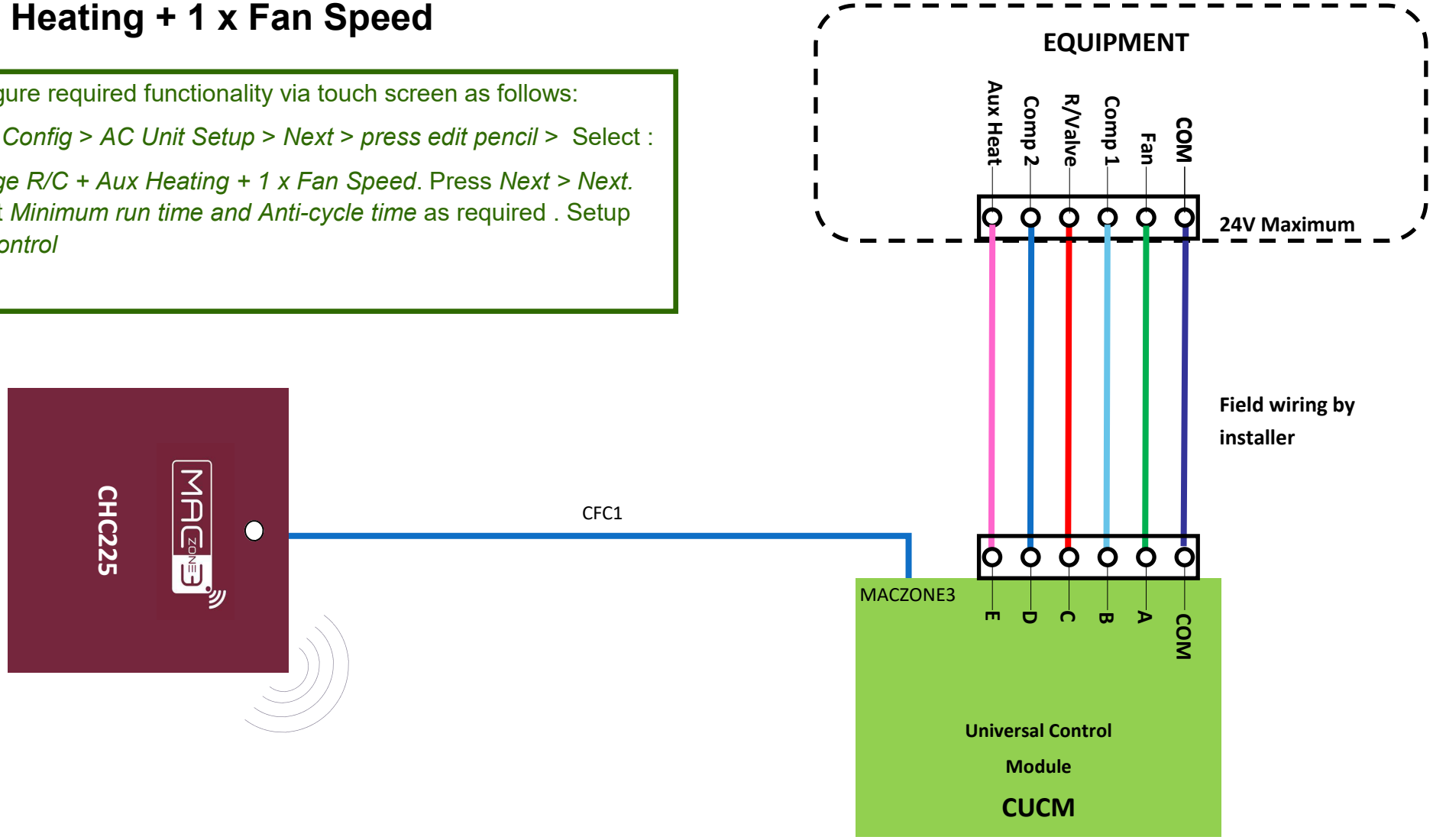
2 Stage Reverse Cycle Heat Pump +

Aux Heating + 1 x Fan Speed

Configure required functionality via touch screen as follows:

Go to *Config* > *AC Unit Setup* > *Next* > *press edit pencil* > Select :

2 Stage R/C + Aux Heating + 1 x Fan Speed. Press *Next* > *Next.* Adjust *Minimum run time and Anti-cycle time* as required . Setup *Fan control*



2.32 General installation instructions

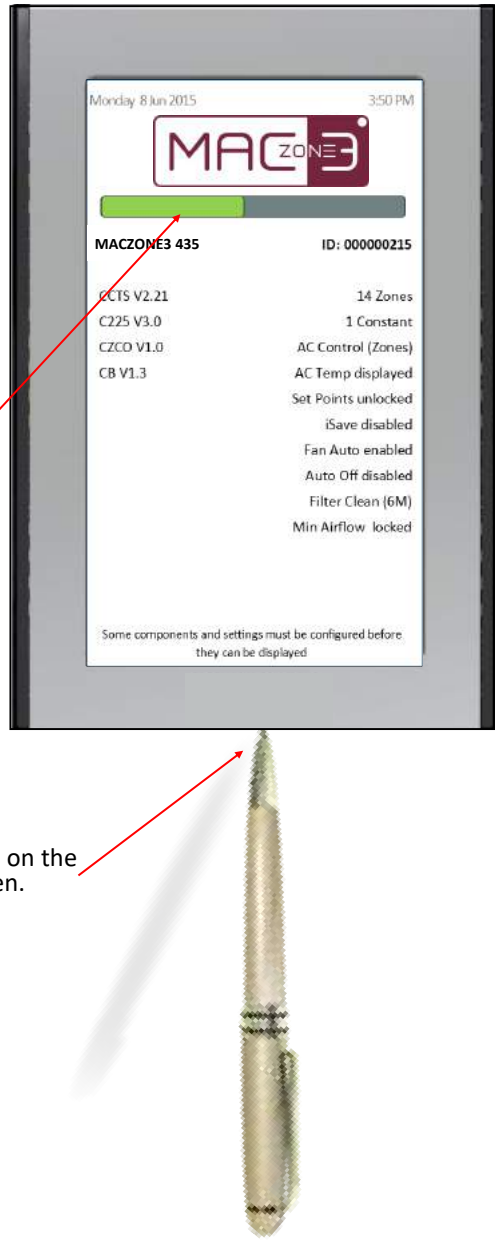
1. The CHC225, CHC325# and CHCEXT can be installed close to the indoor fan coil unit.
2. If any wireless sensor (CRFS) or wireless bridge (CHCL5B) is not within the range of the CHC225 then additional repeaters (CR) should be added to help relay the signal from the field device to the CHC225 and the CHCL5B.
3. Do **not** run the network cables alongside 240 Volt wiring.
4. When installing network cables down wall cavities or chasing network cables into walls, tape up and protect the RJ45 connector to avoid damage to the connectors. Installation damage to cables **is not** covered under warranty.
5. Always install zones in consecutive ports starting at Zone 1. The CHC225 and CHCEXT are marked with the zone port numbers.
6. Do not directly hardwire the CT24V into the AC unit's power supply. This may void the warranty as it will require an electrician in the event that a repair of the MACZONE3 power supply is required.
7. Connect Zone Damper Actuators to the zone ports using the RJ11 cables as shown.
8. Connect the Colour Touch Screens (CHCCTS) to the MACZONE3 Net ports using the RJ45 cables. If you are connecting more than 3 components requiring MACZONE3 Net ports to the system you will need to connect a Network Extension Module Kit (CNEMK) to one of the MACZONE3 Net ports on the CHC225 using a short RJ45 cable.
9. If any zone is temperature controlled, connect an in Duct Temperature Sensor (CDTS) to the CDTS port. Install the sensor into the **supply air** duct upstream of all dampers. Secure the sensor in place by using reinforced aluminium tape.
10. When installing temperature controlled zones ensure the CHCCTS or sensor for the associated zone is installed in a location that is representative of the temperature in the room / zone . The sensor should be installed at approximately 1600mm above the floor and should not be subject to draughts, direct sunlight or heat from equipment such as computers, TV screens etc. The supply air outlets to this room must **not** blow conditioned air directly onto the sensors or touch screens.
11. Connect the AC unit control cable to the CHC225 / CHC325#. See table 2.30 for details. (This control cable must be a shielded cable and is not supplied by HVAC Consolidated.)
12. The building must be fitted with a compatible WiFi modem. Contact HVAC Consolidated for a list of approved and recommended modems.
13. If connecting the MACZONE3 system to a Home Automation system use the Ethernet connection on the bridge.
14. Only connect the power supply to the CHCT24VACE port after all components have been connected.
15. Any existing or new air conditioning units that require modification or additional boards to facilitate the correct operation of the MACZONE3 system, is the responsibility of the installing contractor.

3.0 System initialisation

All new or modified systems must be initialised prior to system configuration.

To initialise the system press the reset button on any colour touch screen. The time to initialise the system will vary depending on the number of motors connected.

The system will also initialise when power is restored after a power failure.

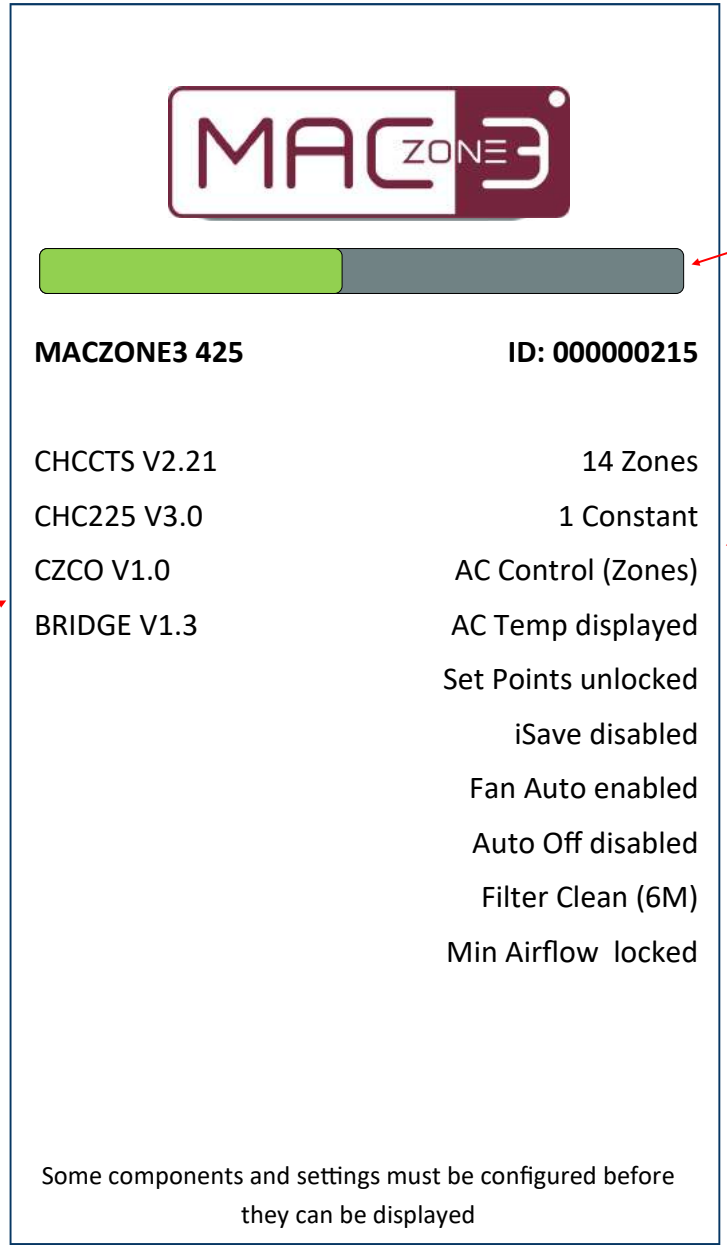


Progress bar will scroll while system initialises and tests all zone dampers

Using a pen, press the button on the underside or side of the screen.

3.1 During initialisation

This screen will be displayed whenever the system is reset or when power is restored after a power failure. None of the previous settings or parameters are lost.



Progress bar

System type

Current system configuration settings

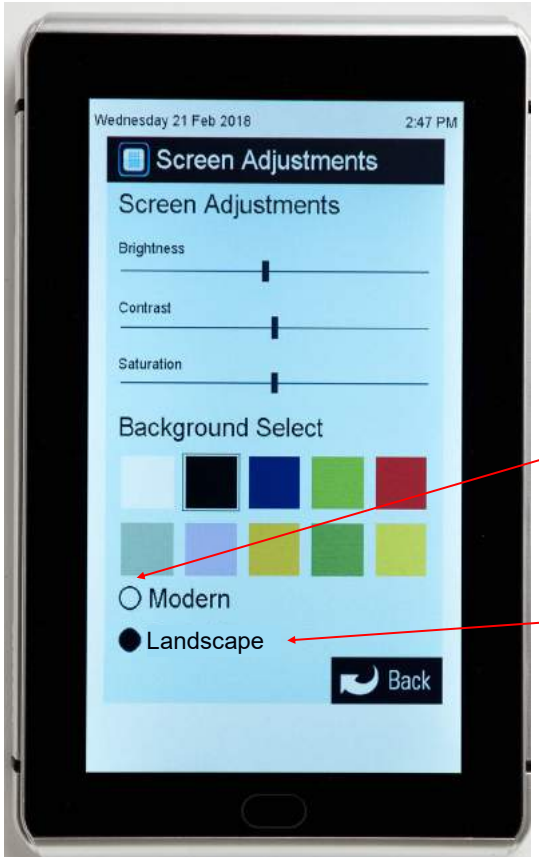
Components detected and software versions

This image is an example only. Your screen may display differently depending on the system type, what options are selected and the configuration settings entered by your installing contractor.

3.2 Changing the orientation and type of graphic

Classic / Portrait

Press
"Settings"



Press Modern if you want to change to "Modern" style of graphics.

Press Landscape if you want to remain in "Classic" style but change to landscape format

This image is an example only. Your screen may display differently depending on the system type, what options are selected and the configuration settings entered by your installing contractor.

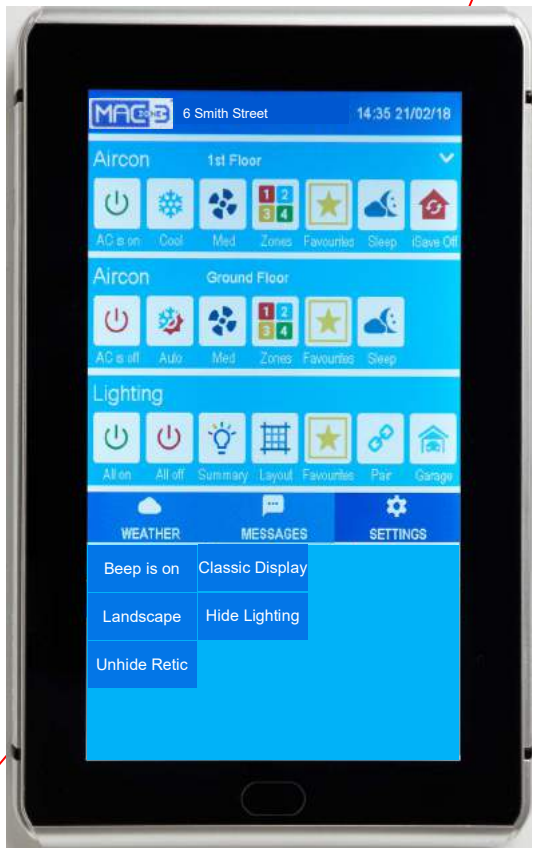
3.3 Changing the orientation and type of graphic

Modern / Portrait

Press "Settings"

Press "Screen"

Press Classic Display if you want to change to "Classic" style of graphics.



Press Landscape if you want to stay in "Modern" style but change to landscape format

This image is an example only. Your screen may display differently depending on the system type, what options are selected and the configuration settings entered by your installing contractor.

4.0 System configuration

WARNING ! Only qualified MACZONE3 installers should configure the MACZONE3 System. Incorrect configuration could result in damage to your air conditioning unit and system.

To configure your system click on the System Config icon on the home page. 

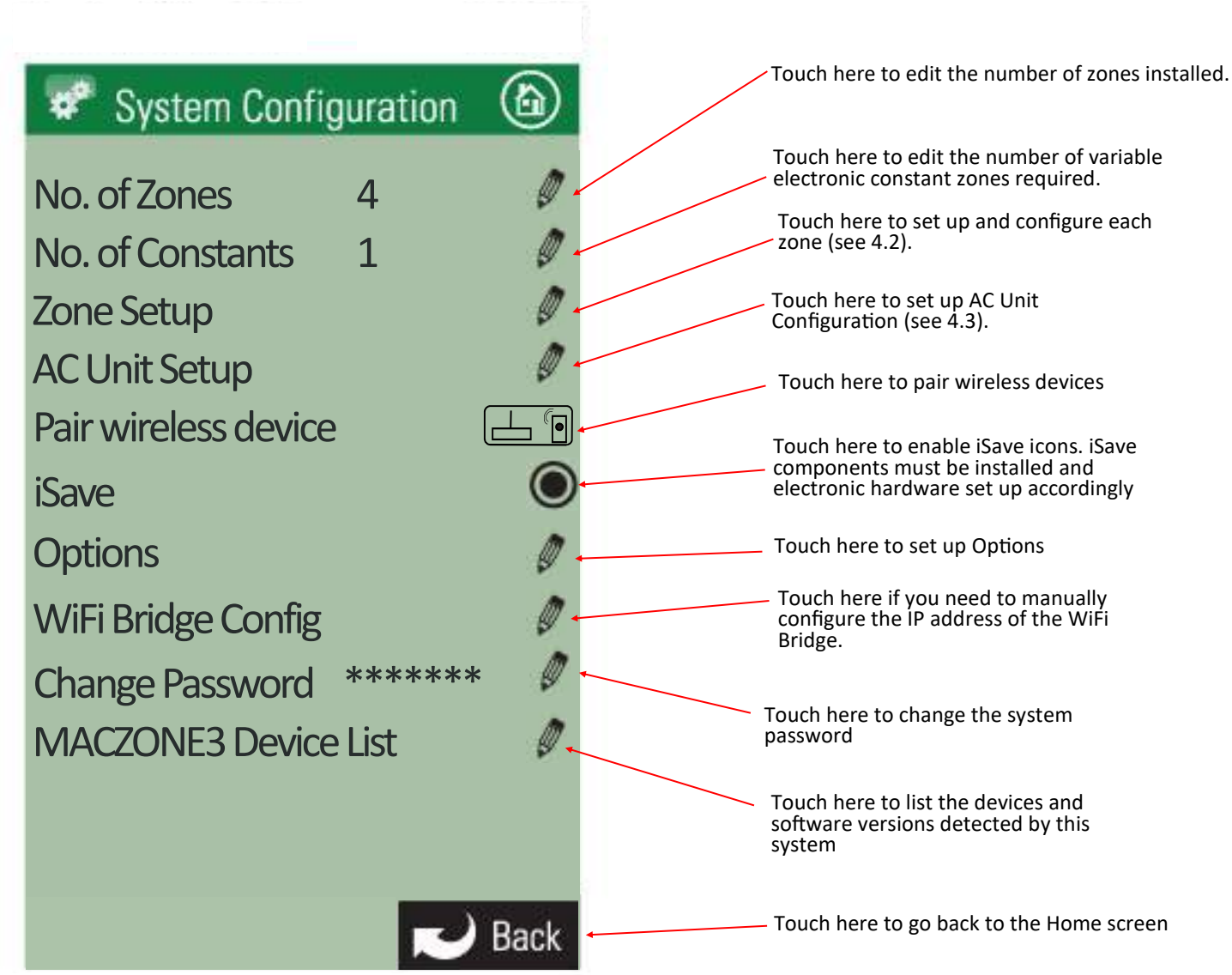
Enter the system password “**wamfud**” and press the enter button. The enter  button must always be touched to save changes.

You will now be in the System Configuration area.

4.1 Configuration main menu

Note:

Information on the configuration screen may vary depending which devices are connected to the system and which model of MACZONE3 you have



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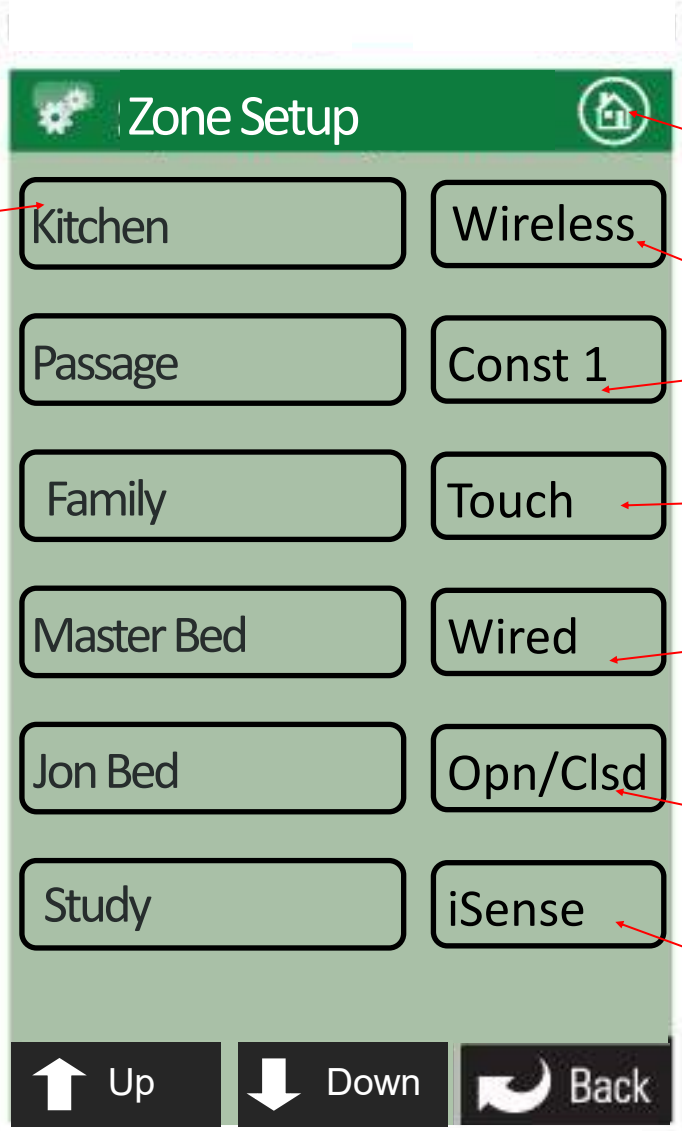
4.2 Zone set up



If the zone has been named its name will show here

Touch here to go to the home screen

Indicates this zone is fitted with a wireless sensor. Touch here to change.

Indicates this zone is designated to be the first electronic constant zone.

Indicates this zone temperature is controlled via the sensor in a touch screen. Press here to change.

Indicates this zone is fitted with a wired sensor. Touch here to change.

Indicates this zone has been set up for Open / Close control only

Indicates this zone is set up for temperature control via an iSense controller

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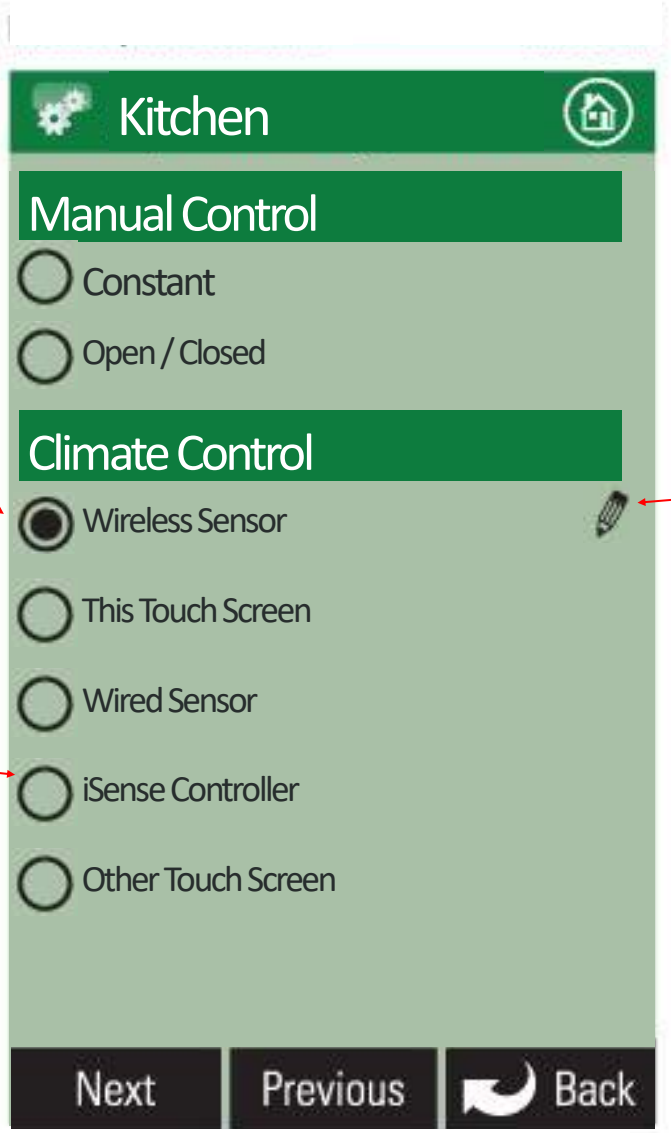
4.2 Zone set up (cont)

Indicates this zone has been configured to be climate controlled via a Wireless Sensor

The configuration of this zone can be changed by simply selecting the appropriate button. Please note the correct hardware must be fitted for the zone to work correctly



Press here to view or make changes to the wireless sensor status and configuration

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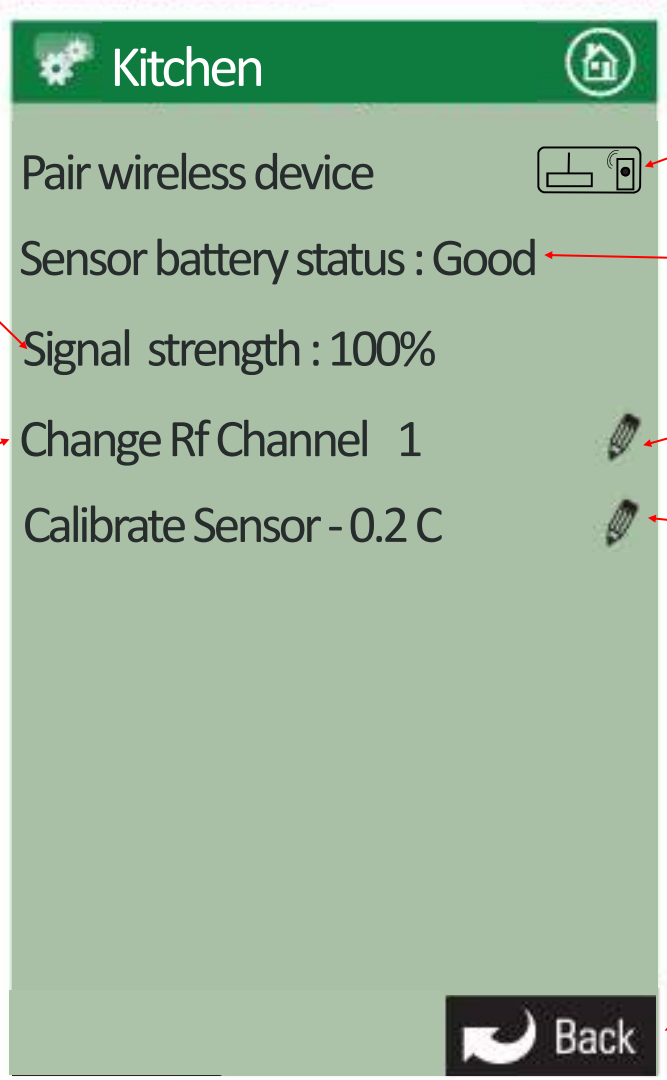
4.2.1 Sensor configuration



Indicates the status of the wireless signal strength from the sensor in this zone. It can take up to 10 minutes of normal operation to get an accurate reading. To speed up the process press the Off / Auto button on the sensor 5 times.

Displays the Radio frequency channel the system has been configured to. This channel can be changed if RF interference is being experienced.

If the channel is changed all wireless devices need to be paired

Hold down the "Pairing Button" on the MACZONE3 wireless device. (see 4.2.2).

Then press here to pair the device to your MACZONE3 system

Indicates the status of the battery in the sensor in this zone

Press here to change the Rf Channel

Press here to adjust the calibration of this sensor (See 4.2.3)

Touch here to go back and save any changes.

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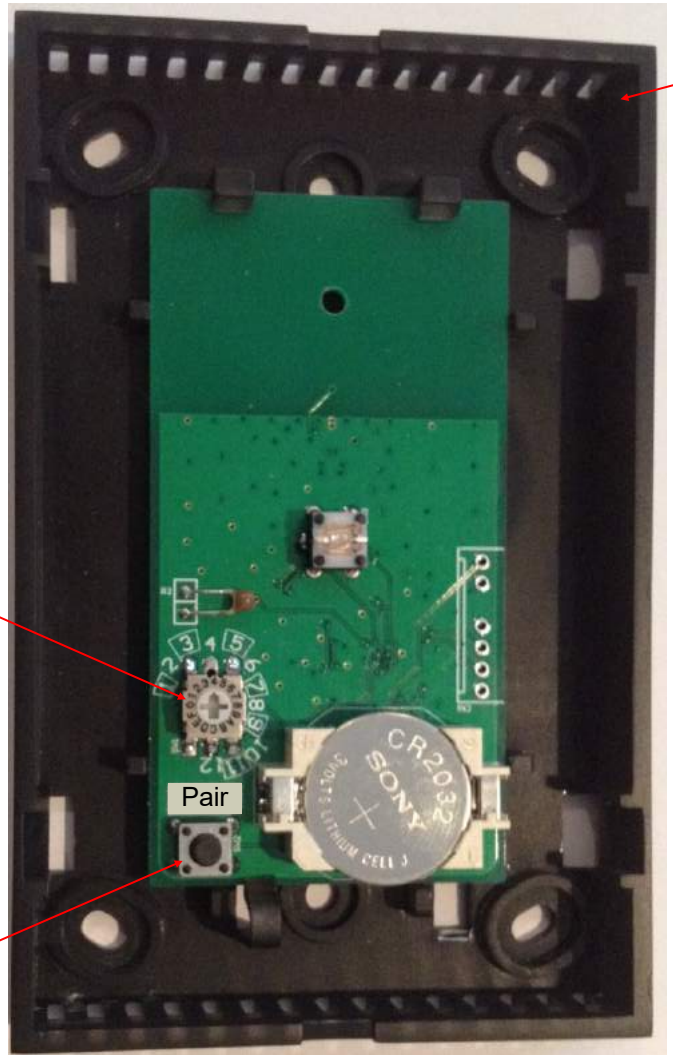
4.2.2 Pairing and configuring MACZONE3 RF Sensors

Remove front cover from sensor



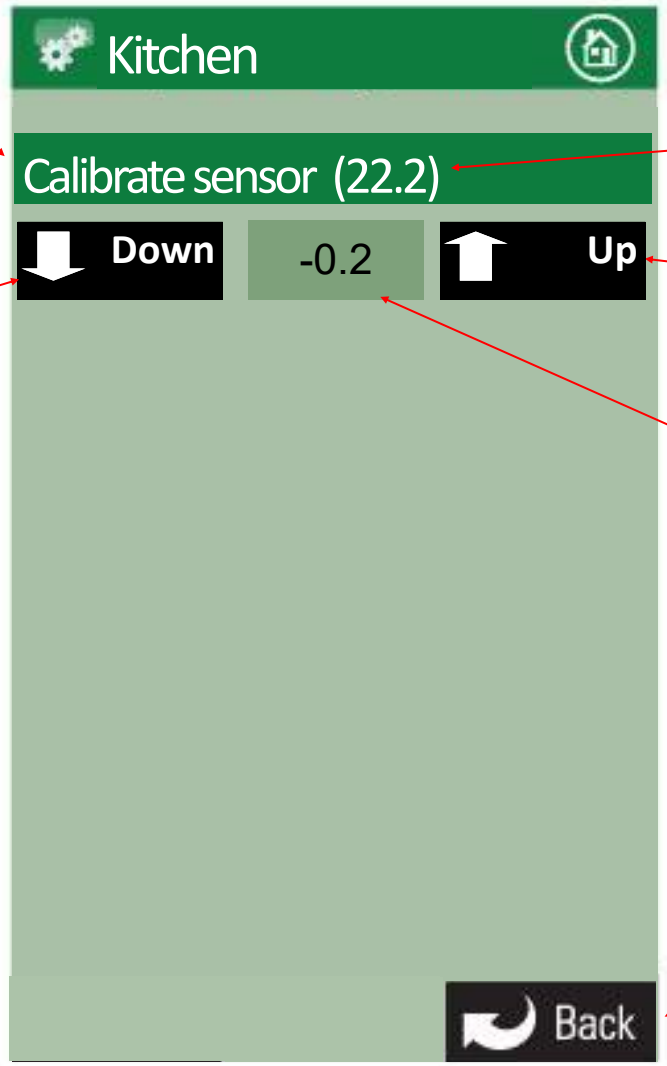
Set the zone selector switch to the correct zone number

Press and hold Pairing button on the wireless device . At the same time press the Pairing Button on the touch screen (see 4.2.1) and wait until the update is complete

Note:

To pair other devices such as an MACZONE3 bridge or repeater simply press the pairing button on the device and at the same time press the paring button on the touch screen and wait for the update to complete.

4.2.3 Sensor Calibration



Re-calibrated temperature for this zone

Current reading with calibration offset included

Touch here to adjust the calibration down by -0.1 deg. C

Touch here to adjust the calibration up by +0.1 deg. C

Total calibration offset from manufactured setting

Note:

Re-calibration of the temperature sensor in the touch screens can only be done from the touch screen you want to re-calibrate.

Touch here to go back and save the changes.

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4.2.4 iSense controller configuration

Indicates the iSense has been activated on this controller.

Press and hold the “iSense” button to enter the Occupancy Strategy configuration menu. Follow the prompts to select the most appropriate strategy for your room or use the Custom Setup option to design your own strategy

Press and hold the “Airflow” button to configure the controller. Here you can configure the correct Zone to control and you can calibrate the sensor if required

Note:

When iSense has been activated movement is required in the range of the occupancy sensor to keep the zone operating. The use of the iSense feature in bedrooms, when the occupants are asleep, is not recommended.

System reset button under here

4.3 AC unit configuration

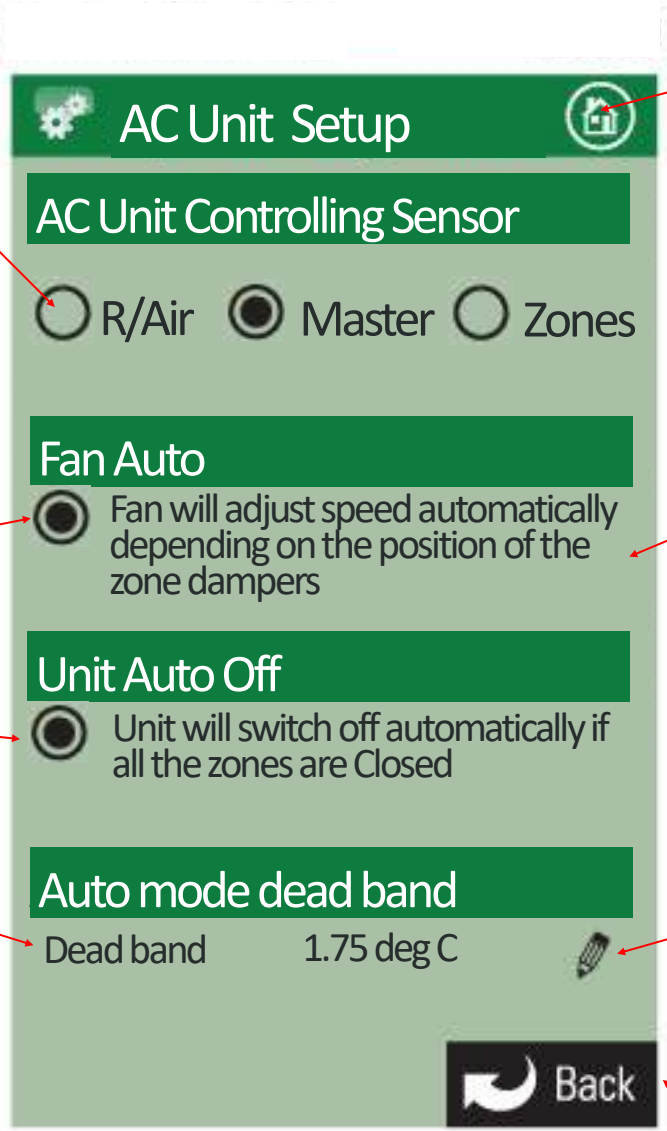
Select method of controlling the AC unit.

- R/Air will control using the unit's return air sensor.
- Master will control the AC unit from the colour touch screen or zone sensor that has been selected as the Master.
- Zones will automatically control the AC unit from the temperature controlled zones (high select).

Touch here to enable / disable this feature

Touch here to enable / disable this feature

Indicates the current dead band required to automatically switch from Cooling to Heating. This dead band +/- 1.75°C from the controlling sensor's setpoint.



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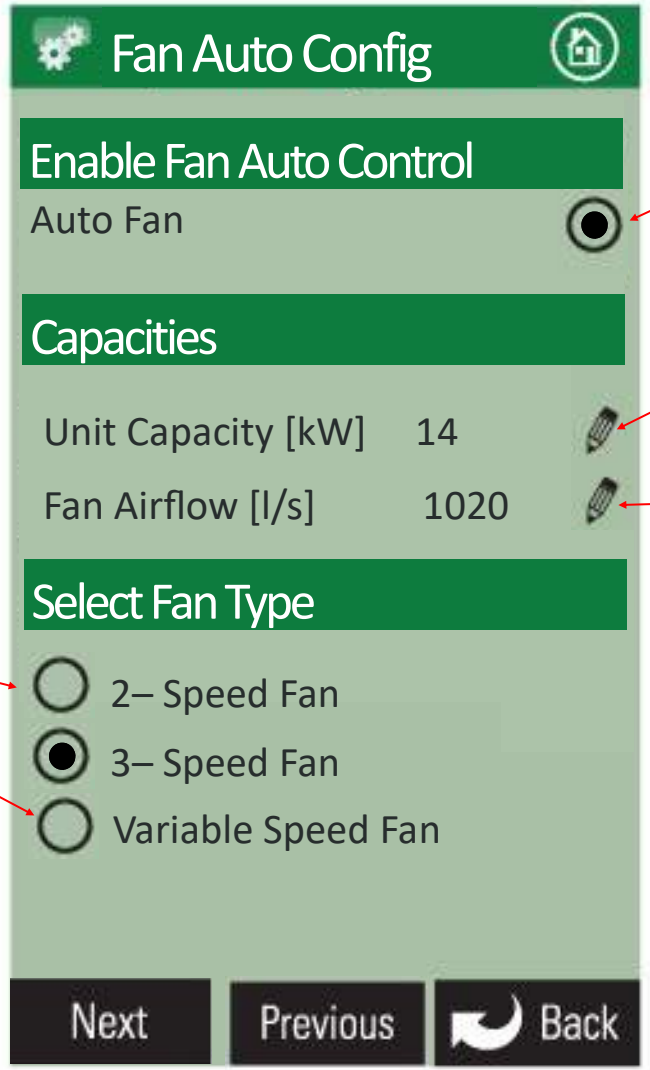
Touch here to go to the home screen.

To configure Fan Auto see (4.3.1)

Touch here to adjust the deadband

Touch here to go back and save the changes.

4.3.1 Fan auto configuration



Touch here to enable Fan Auto control and to proceed with Fan Auto set up

Touch here to set the AC Unit capacity for this system. The capacity selection will provide an approximate airflow capacity for the AC Unit.

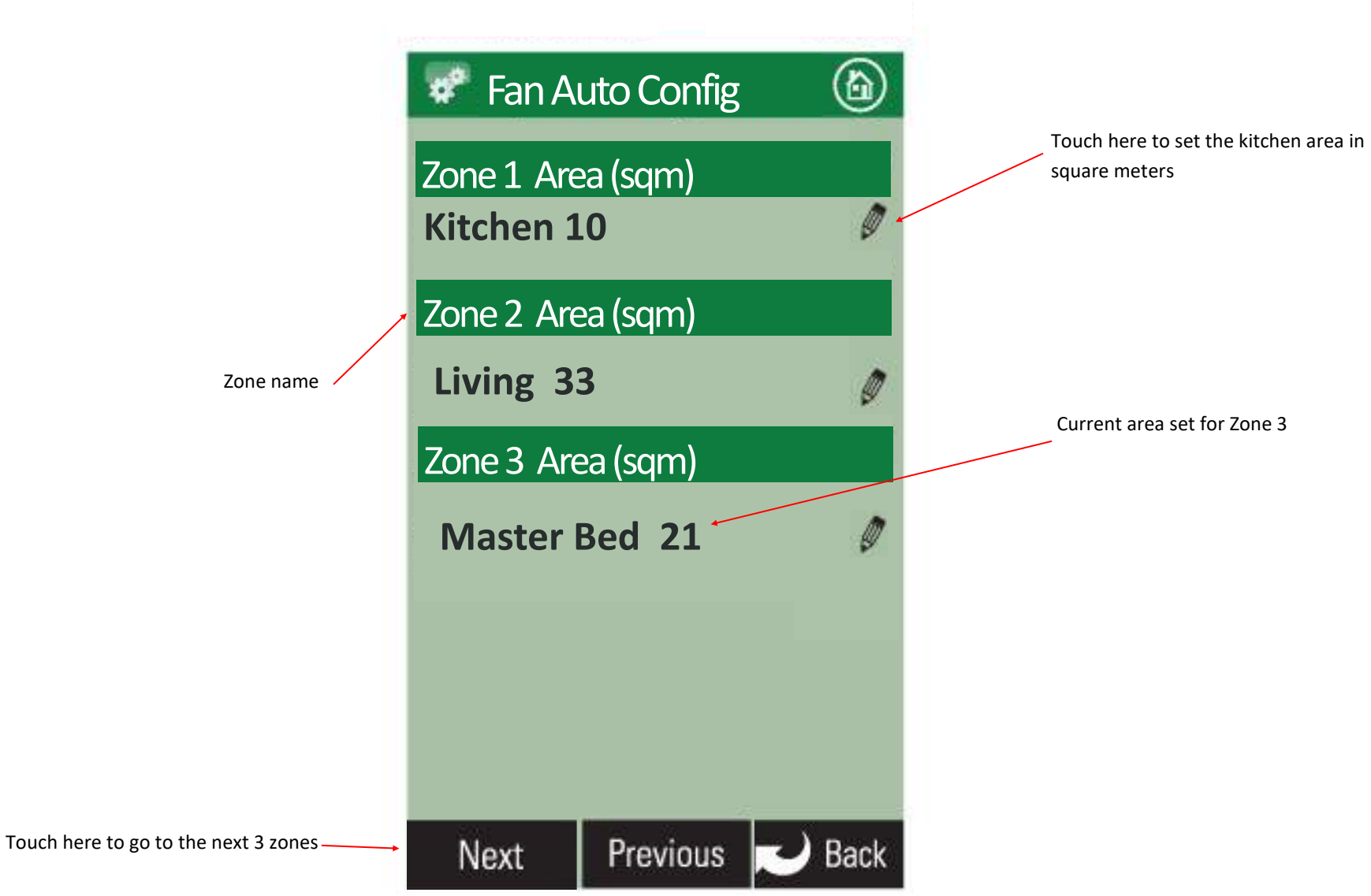
Touch here to fine tune the airflow capacity. You can set the exact airflow in litres per second. This is available from the AC Unit manufacturer

Select the correct fan speed type for the system installed. Refer to AC Unit Manufacturer manual

Only available on certain AC unit makes

Touch here to configure the zone areas (4.3.2)

4.3.2 Fan auto zone area setup



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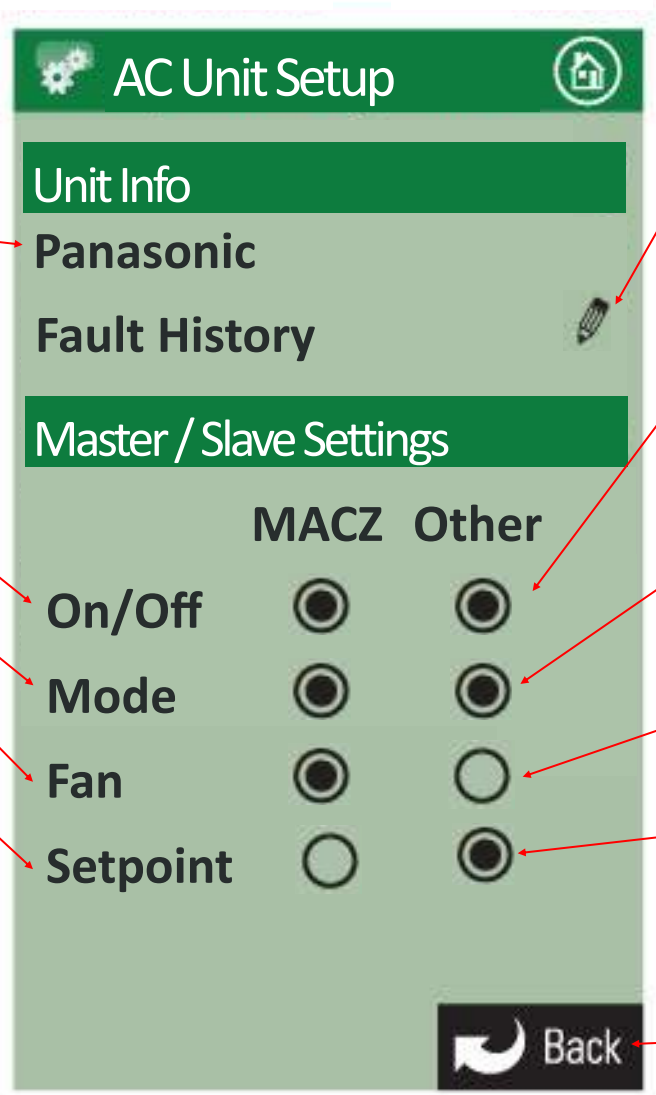
4.3.3 Master Slave Setup



Indicates a Panasonic AC unit module is connected to this system

Touch here to view the fault history for this AC unit.

System can be turned On and Off via the MACZONE3 controller and another non MACZONE3 controller connected to the Panasonic unit

System On/Off control

System mode control

System mode can be changed by the MACZONE3 controller and another non MACZONE3 controller connected to the Panasonic unit

System fan speed control

System fan speed can only be controlled by the MACZONE3

System setpoint adjustment

System setpoint can only be controlled by a non MACZONE3 controller connected to the Panasonic unit

Touch here to go back and save the changes.

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Important Notes:

This is an Advanced setting and should only be attempted by suitably qualified MACZONE3 technicians.

These setting will only work with certain makes and models of AC units. Contact HVAC Consolidated to check if your system is suitable.

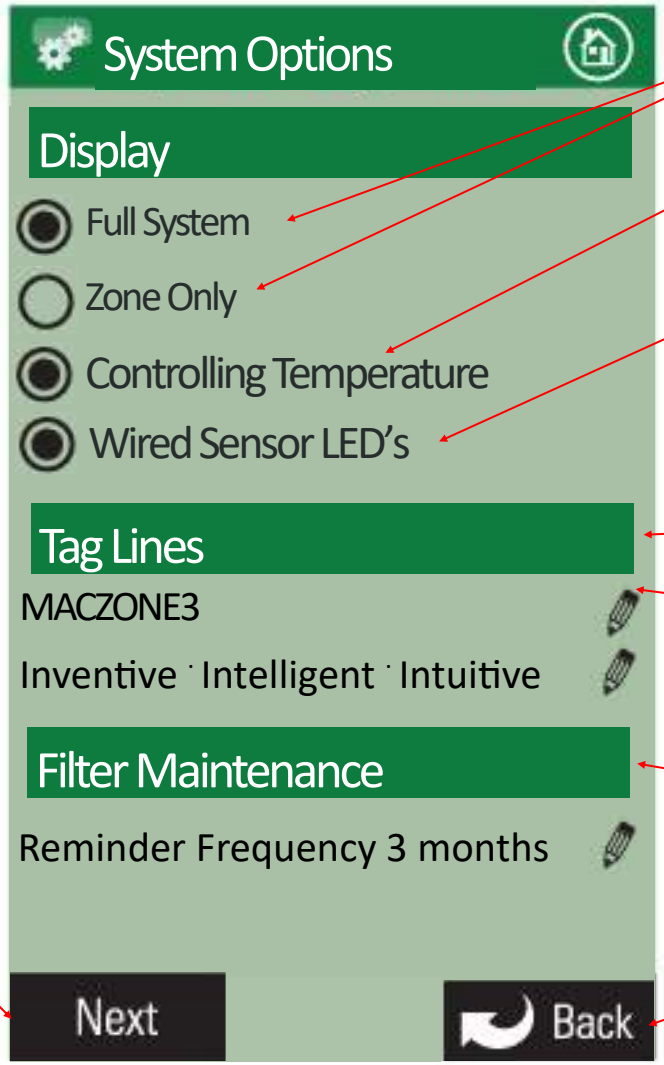
The AC system controls may require additional PBRIDGEs, master / slave adjustments or controller addressing for these functions to operate.

HVAC Consolidated does not accept responsibility if these setting do not work correctly on your particular system

4.4 System Options (Display, Taglines & Filter Maintenance)

Note:

Information on the configuration screen may vary depending which devices are connected to the system and which model of MACZONE3 you have



Select either Full System or Zone Only

Select if you want the AC units controlling temperature to be displayed

Select if you want the LED on the wired sensors to be permanently on when the zone is in Auto mode. Disable if you only want the LED to display for a short period of time when set to Auto mode.

Touch here to change line 1 of the tag line

Touch here to change line 2 of the tag line

Touch here to change the filter clean reminder frequency

Touch here to go back to the next page of options

Touch here to go back to the previous configuration page

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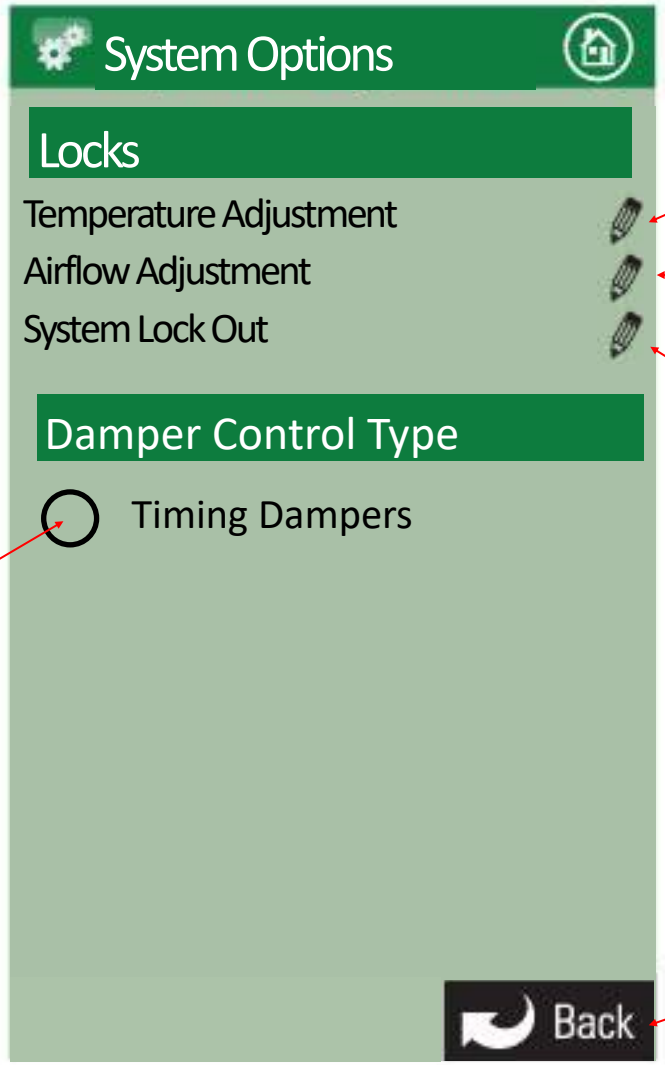
4.4 System Options (Locks & Non Standard Damper Motors)

Note:

Information on the configuration screen may vary depending which devices are connected to the system and which model of MACZONE3 you have



Touch here to set limits for set point adjustment and to lock this setting

Touch here to lock airflow adjustment. You can lock minimum airflow only or both minimum and maximum air flow adjustments

Touch to lock the AC Unit. You will need to enter a PIN number and then the number of days you want the system to operate for, until it is automatically locked off. Do not forget your PIN. Service charges will apply for a technician to attend site to unlock your system.

Select here for non standard dampers such as Belimo.

You will need to type in the drive time in seconds from fully closed to fully open.

Please note this will change the timing for all motors in the system so you cannot have a mix of different motors on the same system when using this feature.

The damper fault detection is ignored when this mode is used.

Touch here to go back to the previous configuration page

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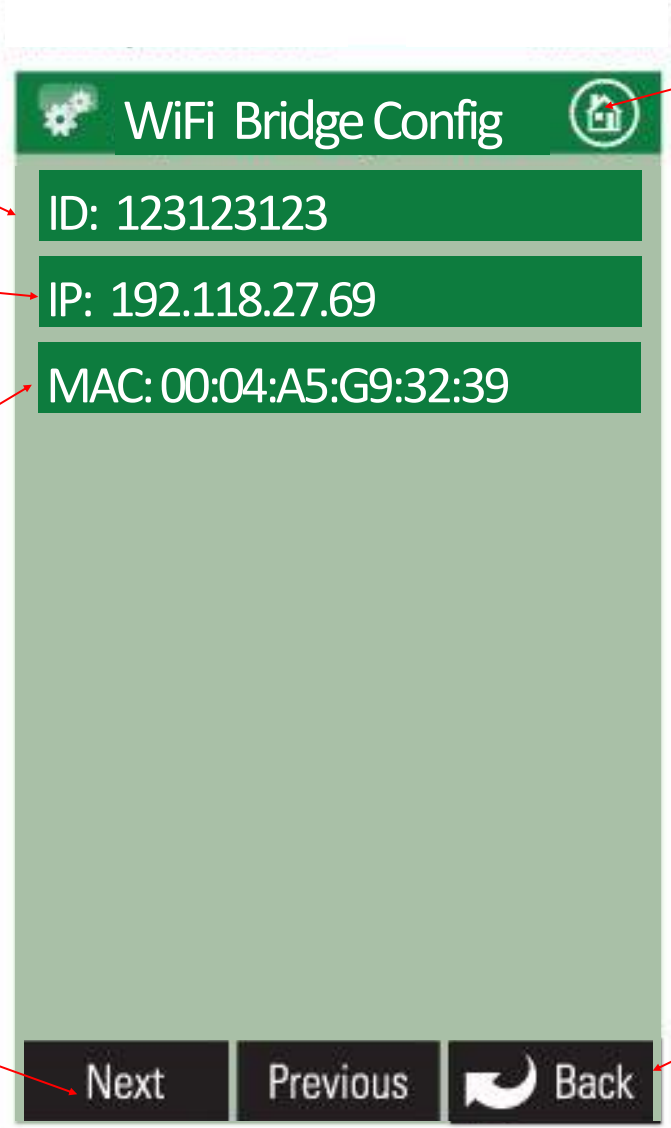
4.5 Wifi bridge configuration



Displays the MACZONE3 system identification number

Displays the Bridge IP address allocated by the DHCP

Displays MACZONE3 Ethernet controller MAC address

Touch here to go to the home screen.

Touch here to go to the manual WiFi configuration

Touch here to go back and save the changes.

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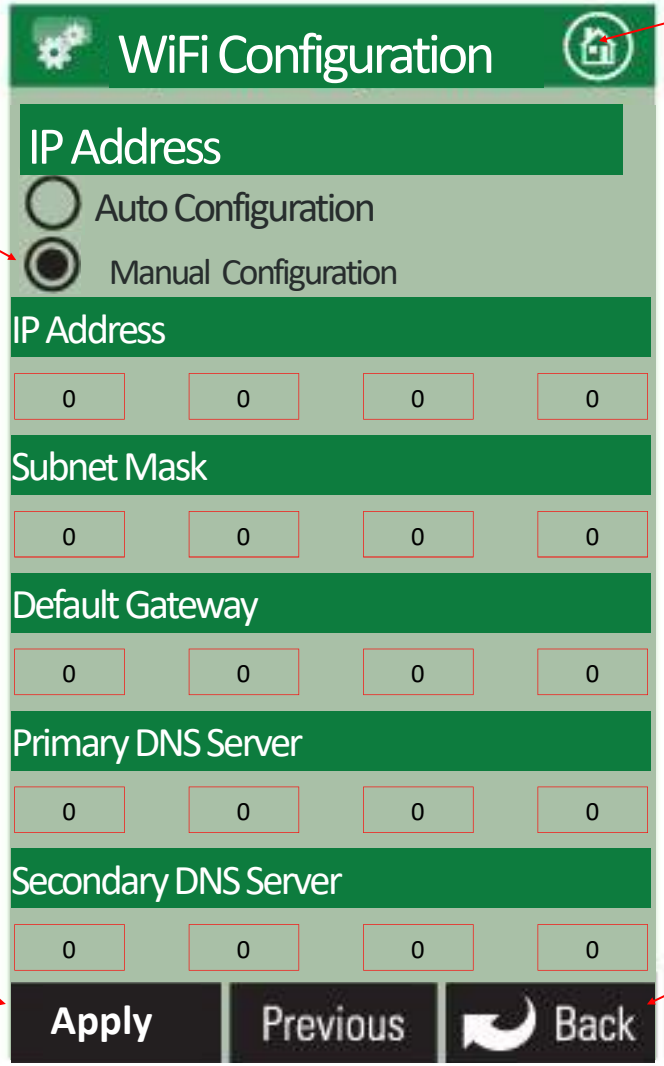
4.5.1 Manual IP Configuration



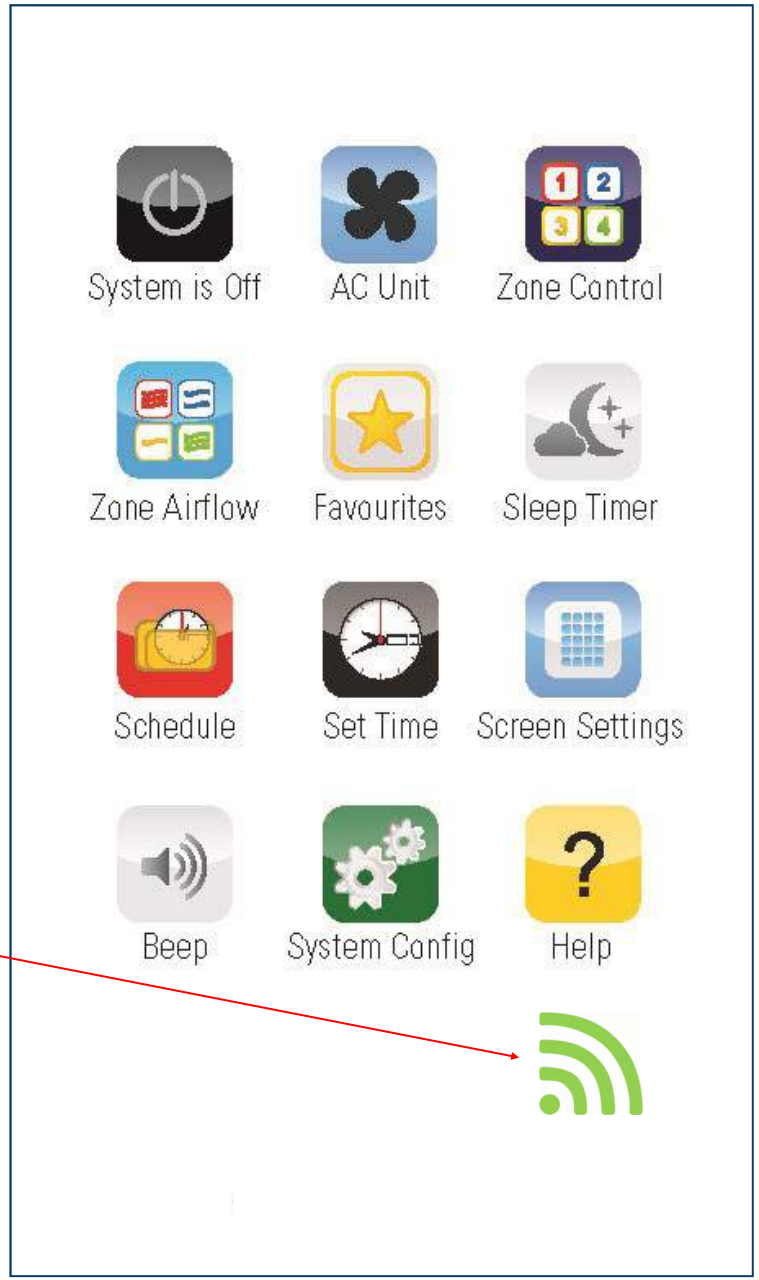
Touch here to go to the home screen.

Select either Auto or Manual Configuration. If manual is selected you will need to know the IP, Subnet Mask, Default Gateway, Primary DNS Server and Secondary DNS Server addresses if applicable. If you require manual configuration please contact your IT specialist to assist you.

Touch here to apply the changes to the configuration

Touch here to go back without saving the changes.

4.5.2 WiFi connection



A green symbol indicates the MACZONE3 system is now connected to WiFi and ready to use

A grey symbol indicates the Bridge is connected to the MACZONE3 system but is not connected to the local computer network

4.5.3 Smart Phone or Tablet - System Requirements

Smartphone or Tablet

- You will need a smartphone or tablet. The following platforms are supported: Apple & Android.

System Requirements

iOS SOFTWARE REQUIREMENTS

- Compatible with iPhone, iPod touch, and iPad. iOS 6.0 and higher.

ANDROID SOFTWARE REQUIREMENTS

- Requires Android: 2.1 and higher.

WiFi modem or network switch

- You will also need a compatible WiFi modem or network switch with a spare RJ 45 access port. Some WiFi modems, firewalls and security settings are not compatible with the MACZONE3 bridge and will need to be changed or replaced to enable the MACZONE3 app to run.

Download the MACZONE3 App

- You will need an account with the manufacturer of your phone to enable you to down load Apps from their respective store.
- Apple—Apple App Store
- Android—Google Play Store
- Login to the respective store.
- To search for the MACZONE3 App type “MACZONE3 Controller” into the stores search menu.
- Select MACZONE3 Controller and download the MACZONE3 App.

4.5.4 Smart Phone or Tablet - Equipment Required and Configuration

Equipment

- See 2.24 & 2.25 For details of equipment required and wiring diagram.

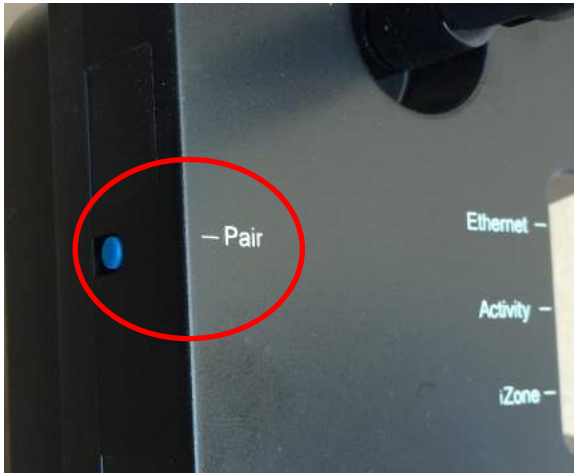
Configuration

- Power up the WiFi Bridge
- Press the System Config button on the touchscreen

- Enter the system password “wamfud”

Pair the wireless bridge to the MACZONE3 system

- Press and hold the blue button on the side of the Bridge. At the same time press the “Pair Wireless Device” button on the touchscreen



- Wait a few seconds. Press the home button on the touch screen.

- The grey WiFi symbol should appear at the bottom of the home screen.

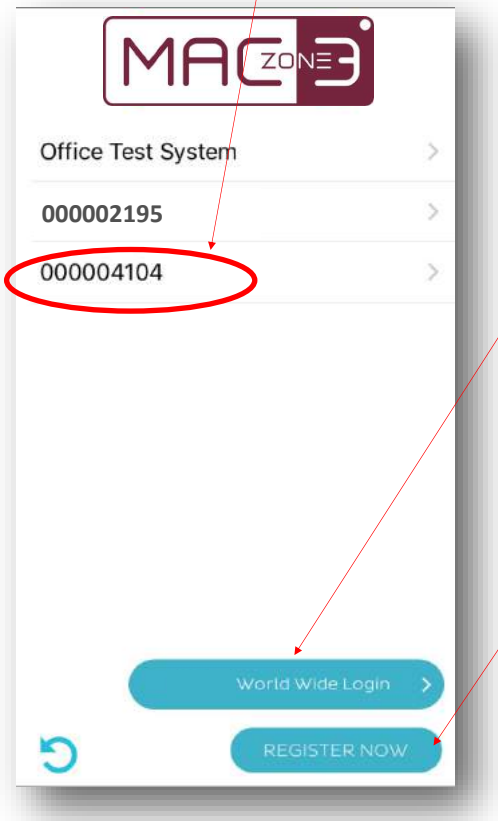
- Connect the RJ 45 cable from the Bridge to the modem / router. The symbol will change to 100% green.

4.5.5 Smart Phone or Tablet configuration - Using your App

Using your MACZONE3 App in your local WiFi area

- Press the MACZONE3 button on your phone or tablet.

- A nine digit number will appear on at the top of the screen. This is you system ID number. Press on the nine digit number and you will go into the App. Now you can name your system using the “Rename” button.



Once you are registered for World Wide access you can press here to access your system

To register your system for use outside your local WiFi area press here. You must be inside the WiFi area that your system is connected to in order register your system .

Follow the prompts and complete all the fields. You must get the address correct to enable the correct weather data to be displayed on the Nexus screen

- You can only have access to the system from outside your local WiFi range after you have successfully registered your system on World Wide.
- To register your system you must :
- Be inside the WiFi area your system is connected to.
- On the App press Register Now.
- Complete all the fields making sure you get the Suburb, State and Postcode 100% correct to ensure the correct weather data is displayed on your Nexus screen (if fitted)
- You must agree to the Worldwide Terms.
- The App will display all the systems it finds on in this WiFi area and will simultaneously register all devices displayed.
- Make sure you remember your password as you will need it when you login via World Wide
- When you login to World Wide there is an option to save your username and password (Login and Remember Me). We recommend you select this option to make it faster and easier to login to your system remotely.
- To reduce the data usage there may be a slight delay between changing a setting on your phone, and the system updating, when using World Wide.
- Do not use MACZONE3 World Wide when you are in your WiFi zone unless you have turned off the WiFi on your smart phone or tablet.

4.6 Home automation integration

MACZONE3 systems can be integrated into any home automation system that has an Ethernet interface. The WiFi bridge is fitted with an Ethernet connection .

For interface specifications please contact HVAC Consolidated

Your home automation integrator will need to write suitable code to control your AC system. This service is not provided by HVAC Consolidated or MACZONE3.

4.7 MACZONE3 Naked 400 remote - Configuration

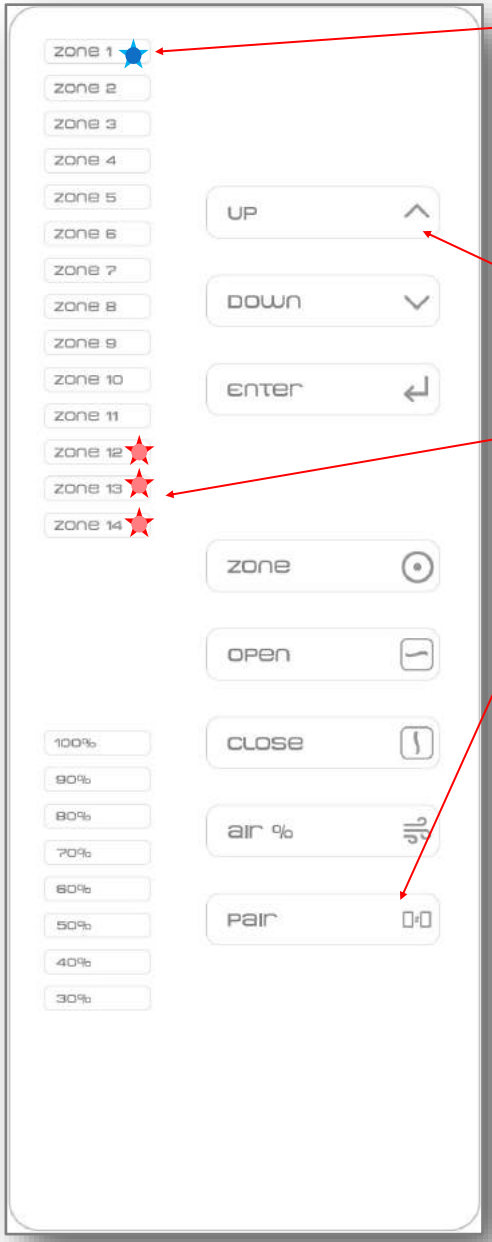
Note:

Zone 1 will be set as the default constant zone when Auto configured.

Hint:

Configure in this order:

1. **Pair the remote to the CPU first.**
2. **Force Auto configuration**
3. **Test air flows to each zone and fit zone labels onto the back of the remote**.



1. To pair the remote to the system . Press and hold the pair button on the remote and at the same time press the pair button on the CHC225 module. Zone 1 will flash blue rapidly. You can also press the AC pair button on a touch screen if one is fitted to the system.

4. To force the system to Auto configure:

a) Press and hold the Up button then press and release the pair button.

b) Zones 12, 13, & 14 will flash rapidly indicating the system is Auto configuring.

a) It will take around 5 minutes to complete Auto configuration. If you press any button and Zones 12, 13, & 14 are still flashing rapidly this indicates the system is still configuring.

4.8 MACZONE3 Naked 410 remote - Configuration

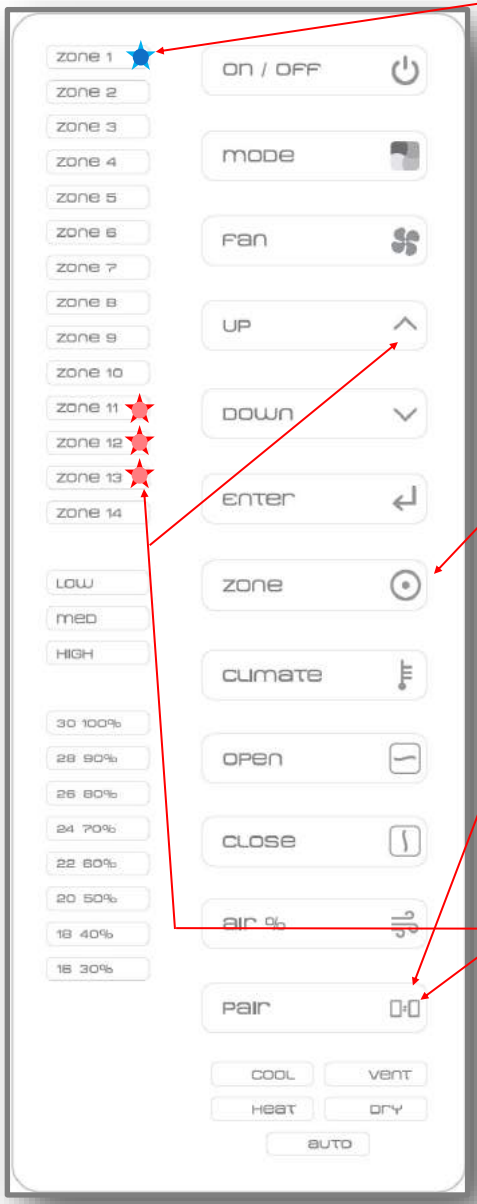
Note:

Zone 1 will be set as the default constant zone when Auto configured.

Hint:

Configure in this order:

1. **Pair the remote to the CPU first.**
2. **Then set the dial in the zone sensors to the correct zone number.**
3. **Pair each sensor to the system.**
4. **Force Auto configuration**
5. **Test air flows to each zone and fit zone labels onto the back of the remote.**
6. **Test sensors by pressing the sensor button to ensure the correct zone is set to Climate control.**



1. To pair the remote to the system . Press and hold the pair button on the remote and at the same time press the pair button on the CHC225 module . Zone 1 will flash blue rapidly. You can also press the AC pair button on a touch screen if one is fitted to the system.

3. To pair a wireless sensor to the system:

a) Set the dial inside the sensor to the correct zone number. Press and hold the pair button in the sensor

b) On the remote—Press and hold the zone button then press the pair button. The blue LED on the sensor will flash rapidly to indicate it is pairing.

4. To force the system to Auto configure:

a) Press and hold the up button then press and release the pair button.

b) Zones 12, 13, & 14 will flash rapidly indicating the system is Auto configuring.

c) It will take around 5 minutes to complete Auto configuration as it needs to receive data from each of the zone sensors

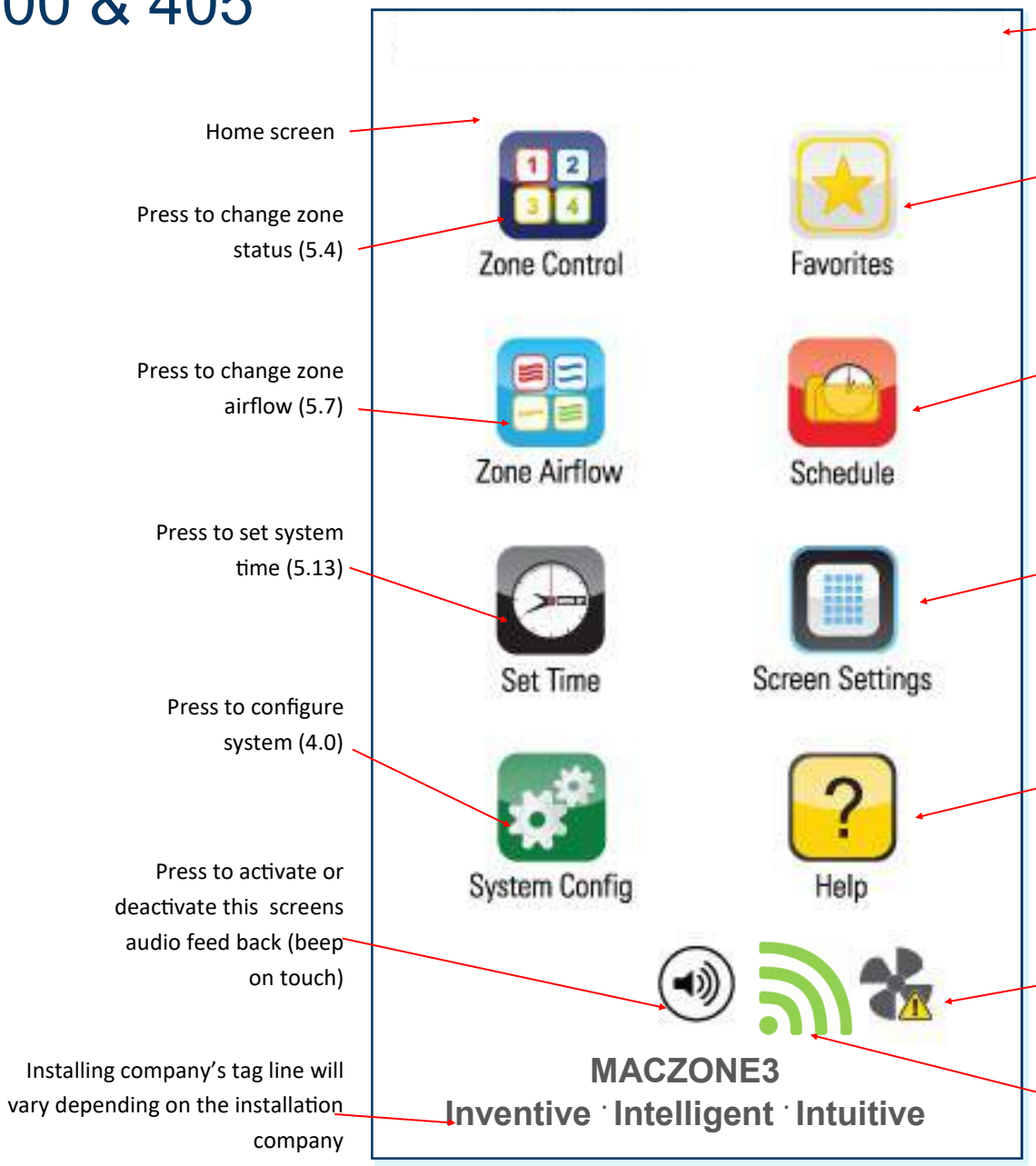
5.0 User manual home screen (shown in Classic style)

5.1 MACZONE3 400 & 405

- To get back to the Home screen at any time press.

- When entering names or values using the keyboard it is easier to use a thin object such as a toothpick. Do not use sharp, hard objects as they may damage the screen. The enter button must always be pressed to save the changes you have made.

- Some functions may have been locked by your installer to ensure the commissioned values are not changed. To make changes to these values contact your installation company.

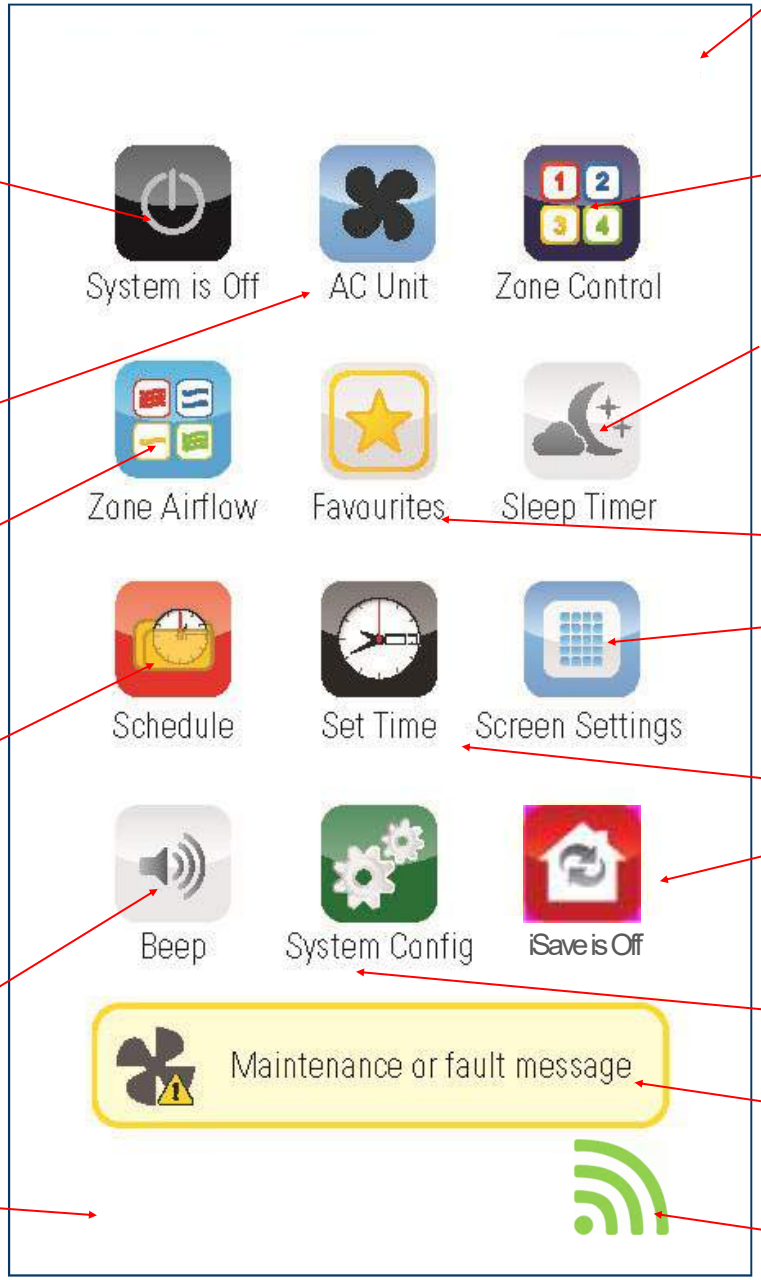


5.2 MACZONE3 410 - 435 home screen

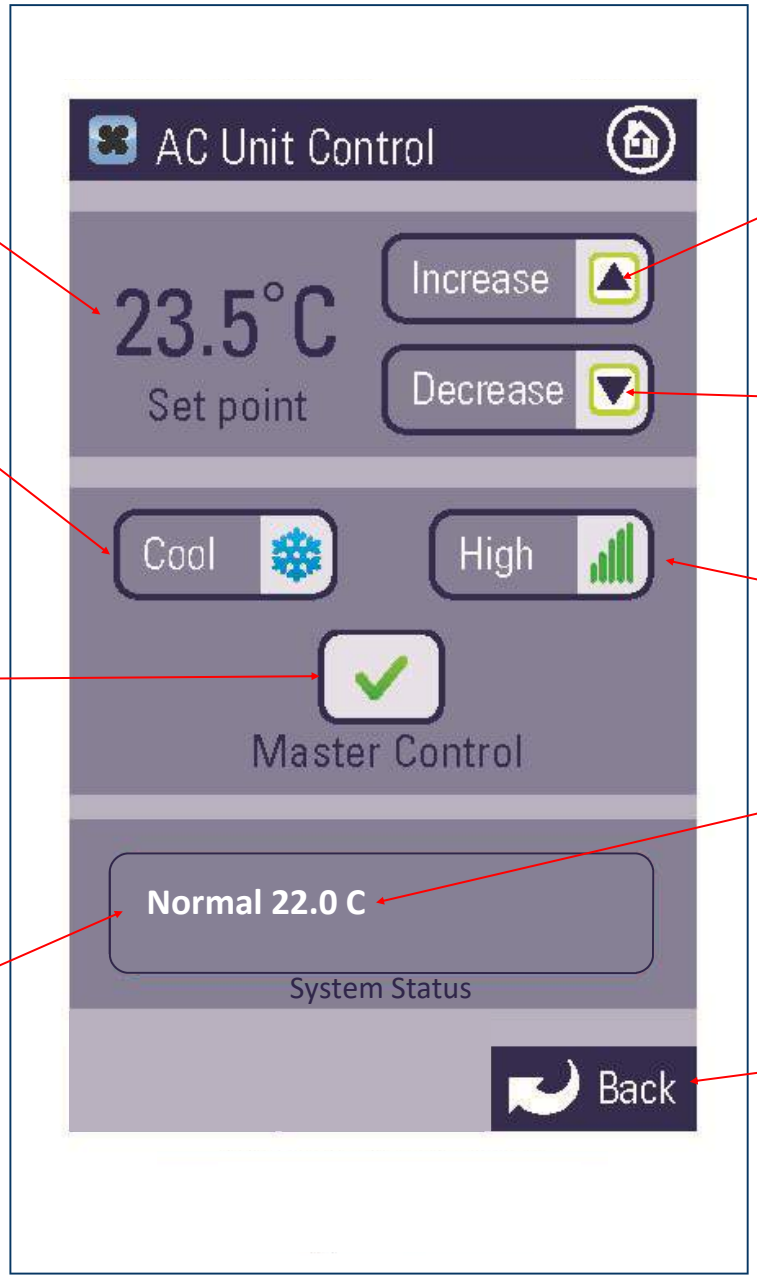
- To get back to the Home screen at any time press. 

- When entering names or values using the keyboard it is easier to use a thin object such as a toothpick. Do not use sharp, hard objects as they may damage the screen. The enter button must always be pressed to save the changes you have made. 

- Some functions may have been locked by your installer to ensure the commissioned values are not changed. To make changes to these values contact your installation company.



5.3 AC unit control



Current AC unit set point.

Press here to change the mode.

Indicates the temperature measured by this panel is currently controlling the AC unit (Only applicable if systems configured for “AC unit controlling sensor—Master” option. (See 4.3).

Indicates the current status of the AC unit. If a fault code appears here please contact your installer.

Press here to increase the AC unit set point. (Not applicable if “AC unit controlling sensor—Zones” option selected. See 4.3).

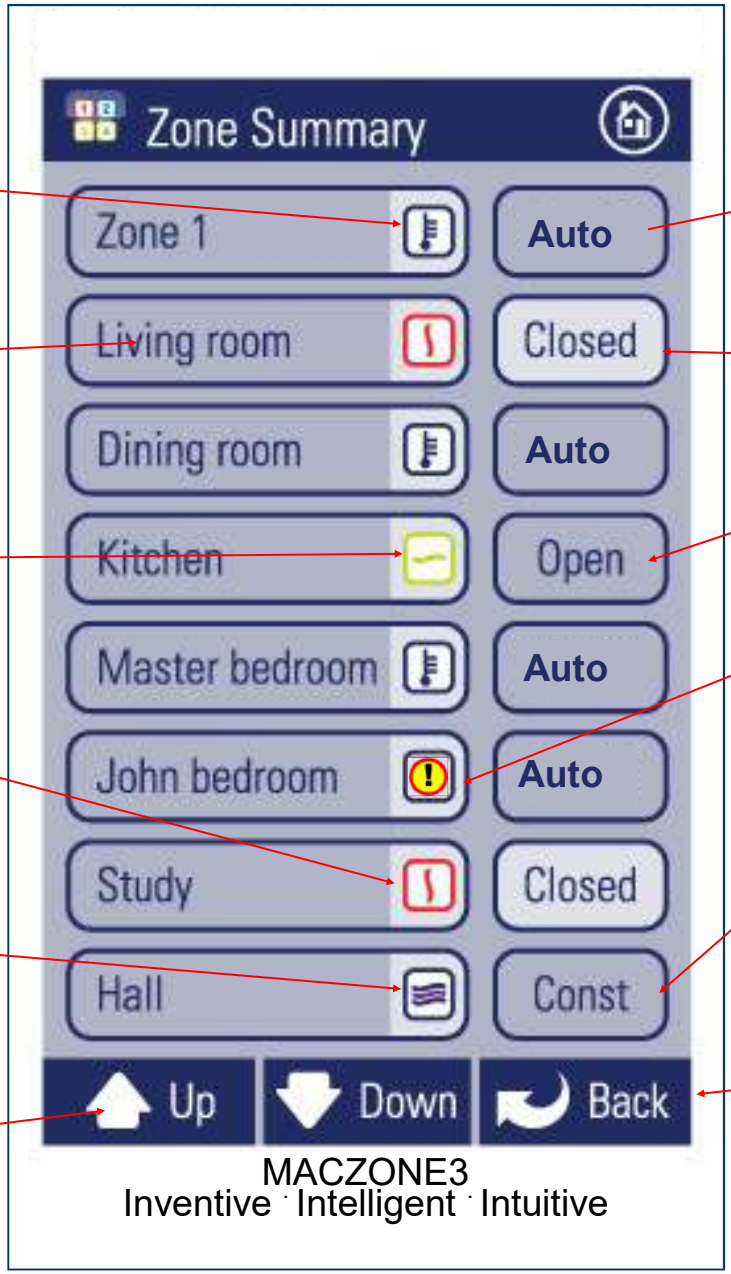
Press here to decrease the AC unit set point (Not applicable if “AC unit controlling sensor—Zones” option selected. See 4.3).

Press here to change the fan speed.

AC unit actual temperature (RA, sensor or touch screen)

Press here to go back to the home page.

5.4 Zone control



Indicates this zone is currently in climate control mode.

Zone Name. Press to edit zone name and other zone settings (5.5).

Indicates this zone is currently fully open.

Indicates this zone is currently closed.

Indicates the hall is an electronic constant and it is currently active.

Scroll up or down to see more zones.

Indicates Zone 1 is in climate control mode Press here to change the Set point. (5.6).

Indicates this zone is closed. Press here to open the zone.

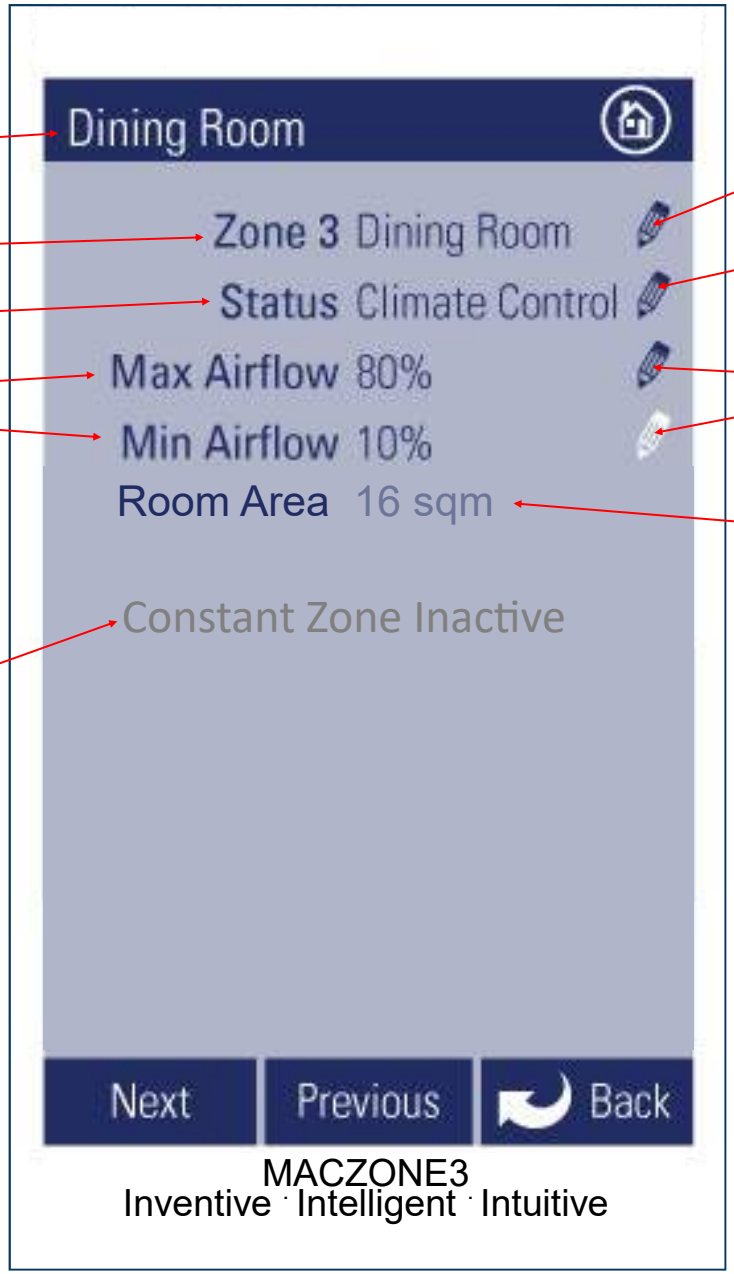
Indicates this zone is open. Press here to close the zone.

Indicates there could be a fault with this damper. Contact your installer.

Indicates this zone is currently being overridden by the system and is being used as a constant because too many zones are closed.

Press here to go back to the home page

5.5 Edit zone names & settings



Current zone being edited.

System zone number and display name.

Current zone status.

Zone maximum and minimum air flow set points.

Status of this zone if it has been selected as an electronic constant.

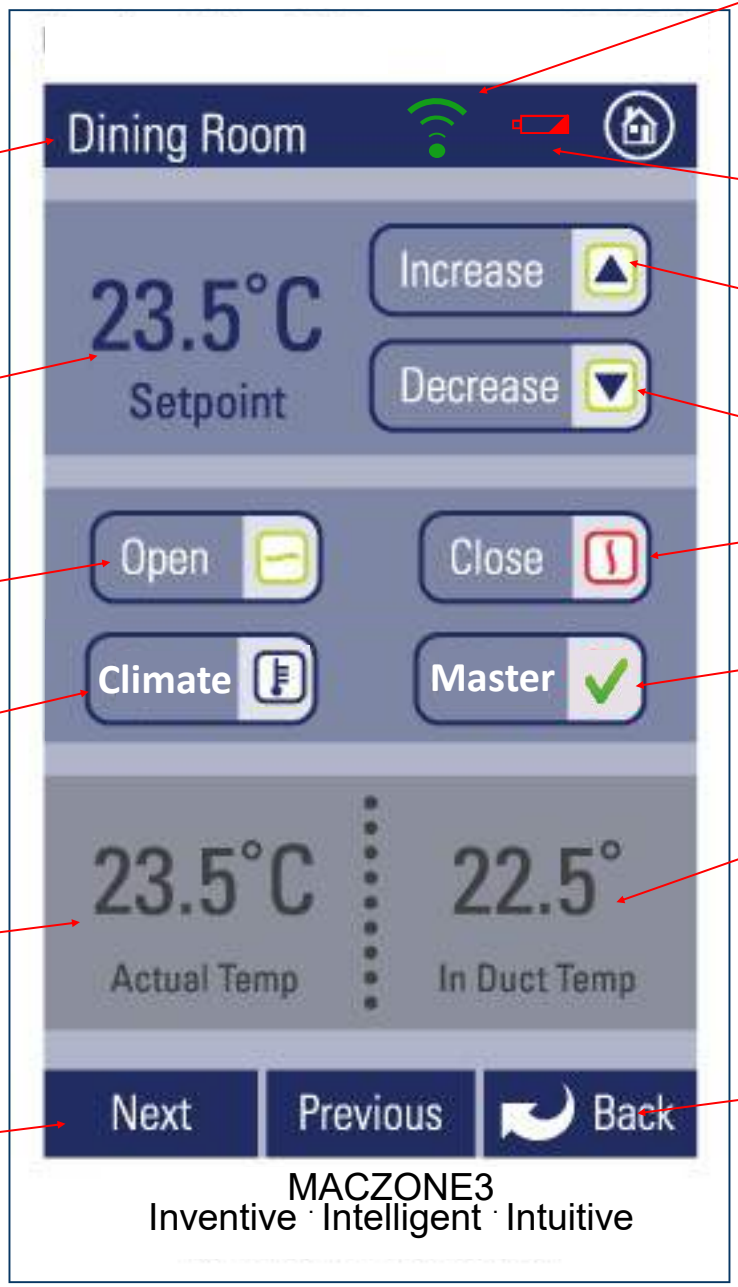
Press to edit zone name.

Press to edit current zone status.

Press to change maximum and minimum airflow set points.

Room area (if Fan Auto function has been configured).

5.6 Adjusting temperature controlled zones



Indicates RF strength from sensor serving this zone is acceptable (only if RF sensor is installed.)

Indicates current zone being adjusted.

Indicates battery in the sensor serving this zone requires replacement. (only if RF sensor is installed)

Press here to increase the current zone set point temperature.

Indicates current temperature set point required for this zone.

Press here to decrease the current zone set point temperature.

Press here to close this zone.

Press here to fully open this zone.

Press here to select this zone as the master (only available if configured for Master AC unit control).

Press here to allow MACZONE3 to automatically control the temperature in this zone.

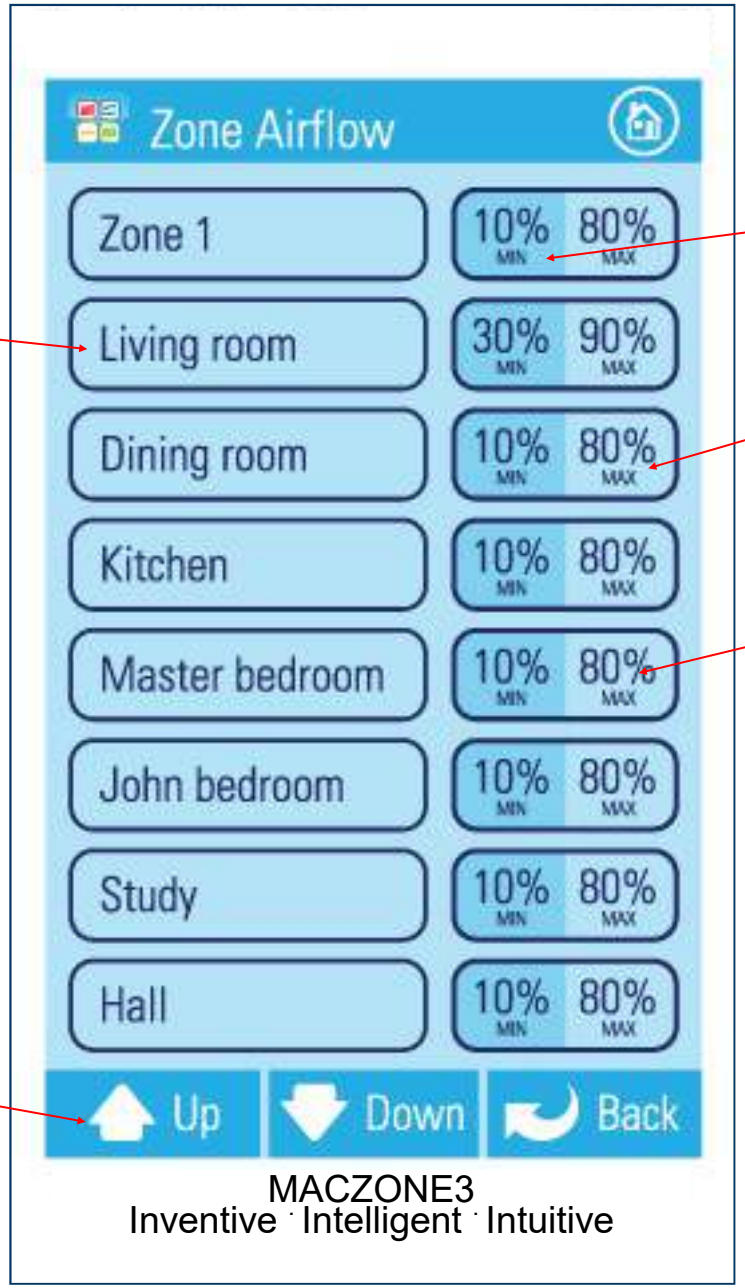
Indicates the current temperature of the air inside the air conditioning system ductwork.

Indicates the actual temperature in this zone (as measured by MACZONE3).

Press here to go back to the zone summary.

Scroll up or down to see more zones.

5.7 Zone airflow summary



Zone name.

Indicates current minimum air flow setting to this zone.

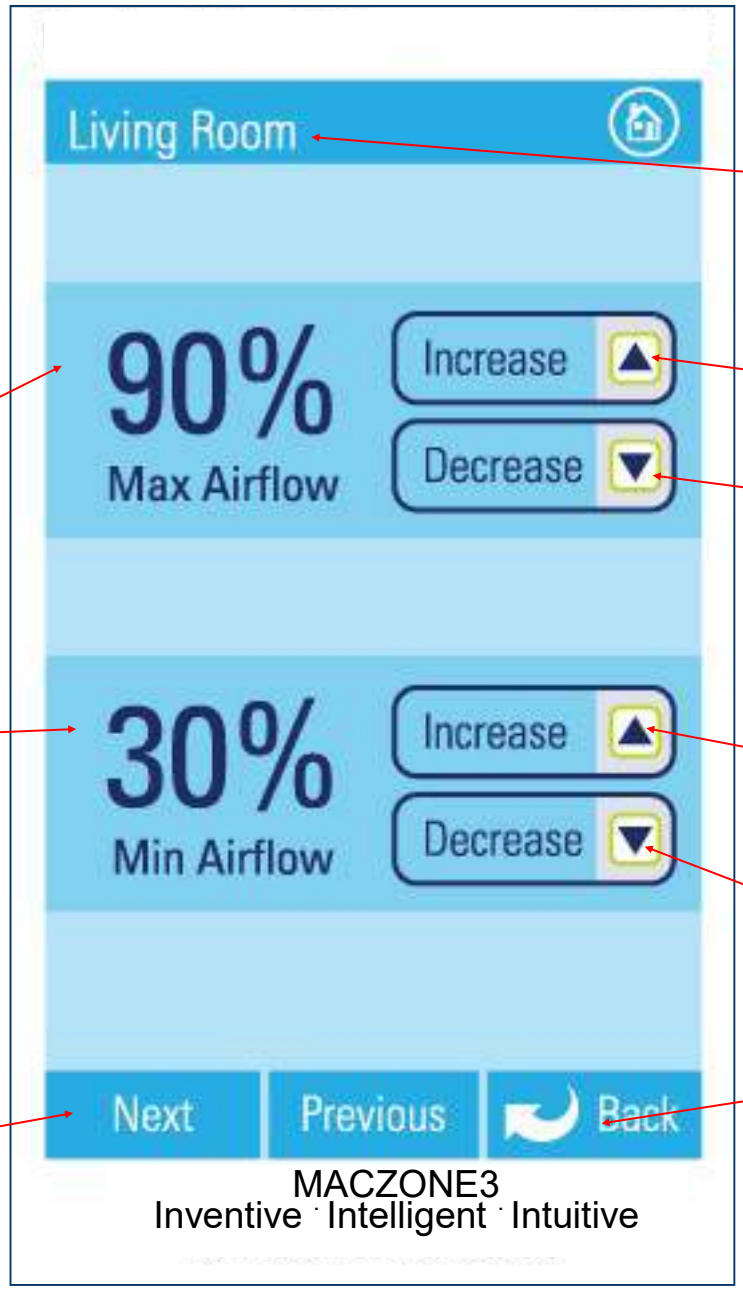
Indicates current maximum air flow setting to this zone.

Press here to change the zone air flow settings.

Scroll up or down to see more zones.

5.8 Changing zone airflows

Please note: It is possible to lock the maximum and minimum airflow settings in the configuration menus. If you screen does not display as indicated here and you require to make changes to airflows please contact your installer to activate your display.



Indicates current zone that you are changing the airflow to.

Press here to increase the maximum airflow to this zone.

Indicates the current maximum airflow setting for this zone.

Press here to decrease the maximum airflow to this zone.

Indicates the current minimum airflow setting for this zone.

(This is usually set at 0%).

Min Airflow will not display if this adjustment has been locked.

Press here to increase the minimum airflow to this zone.

Press here to decrease the minimum airflow to this zone.

Press here to go back to the airflow summary.

Scroll up or down to see more zones.

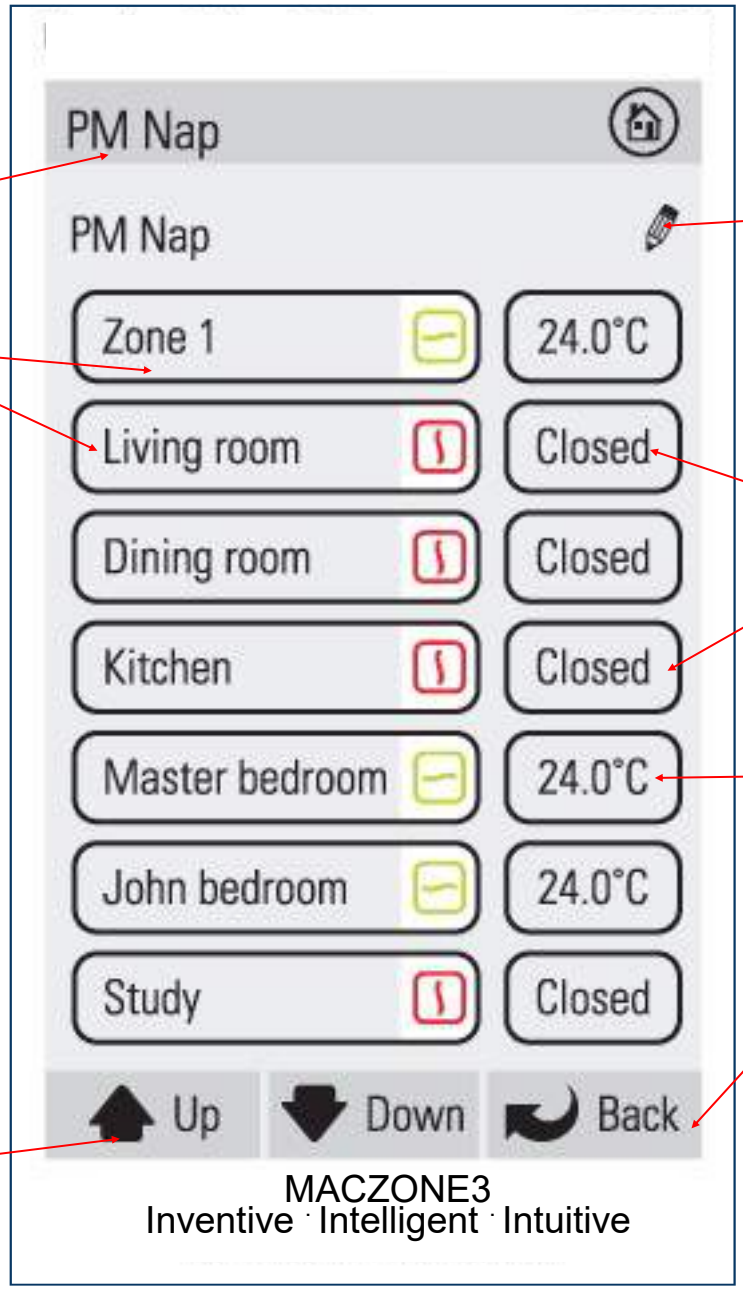
5.9 Favourites

Press the favourite you would like and MACZONE3 will automatically change all the zones settings for this favourite.

Indicates this favourite has not been used.

Press here to setup and edit favourites

5.10 Assigning and editing favourites



Indicates current favourite being changed.

Press here to change the name of this favourite.

Zone names.

Indicates what mode you want each zone to operate in when this favourite is used. Change each zone setting to suit your requirements for this favourite.

If you require a different temperature to that indicated, go to your zone and change it first

Press here to go back to the favourites summary. Pressing the back button will save the favourite setting selected.

Scroll up or down to see more zones.

5.11 Schedules

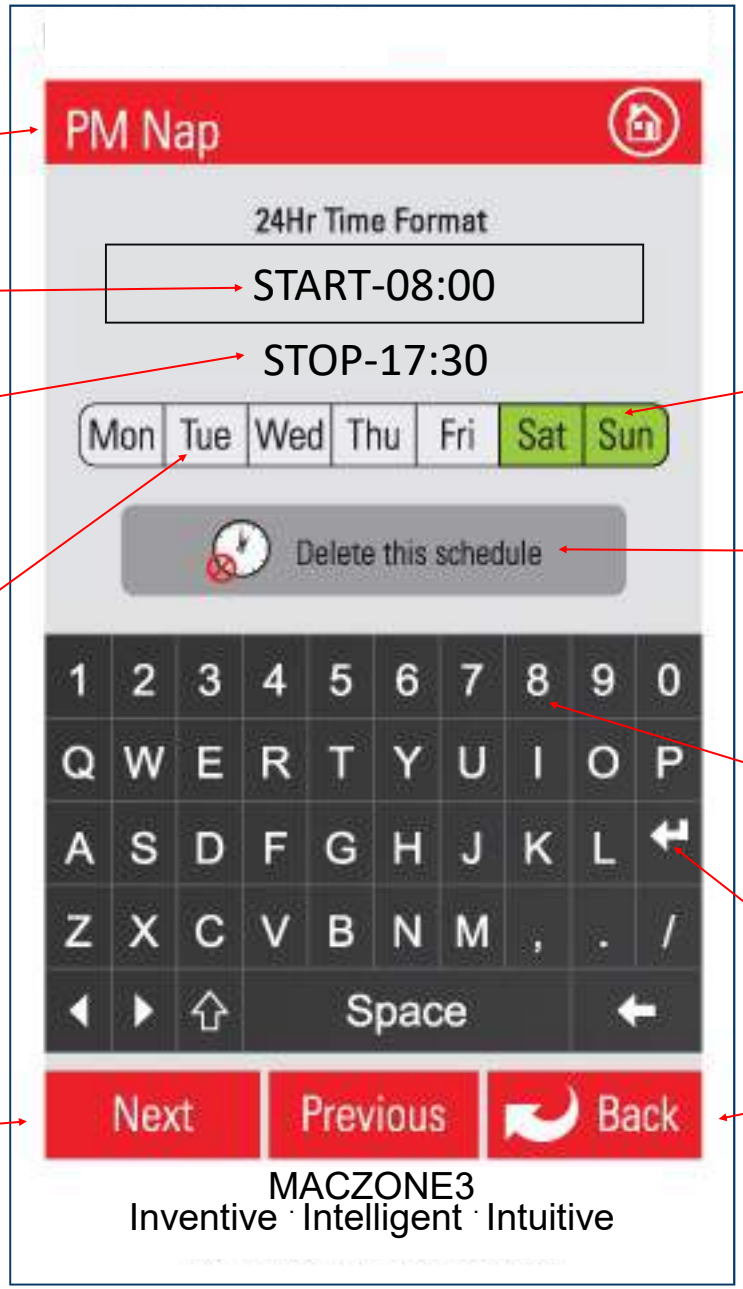
Any of your favourites can be set to automatically start at any time of your choosing. Press here to enable the time based schedule for favourite (PM Nap).

Indicates an automatic time schedule has been enabled for this favourite.

Indicates no automatic time schedule has been enabled for this favourite.

Press here to set up or edit a schedule on any favourite

5.12 Setting and editing a schedule



Indicates current schedule that you are changing or setting.

Indicates the start time for this schedule.

Indicates the stop time for this schedule.

Indicates the days this schedule will not run. Press the day you want the schedule to apply to.

Press next to see the next schedule.

Indicates the days this schedule will apply. Press to stop the schedule running on this day.

Press here to clear this schedule.

Press the key pad to change the time. Remember it is in 24 hour format so for 2:30 am type in 0230.

Press the enter button to save your new setting.

Press here to go back to the schedule summary.

5.13 Setting the time

Current time.

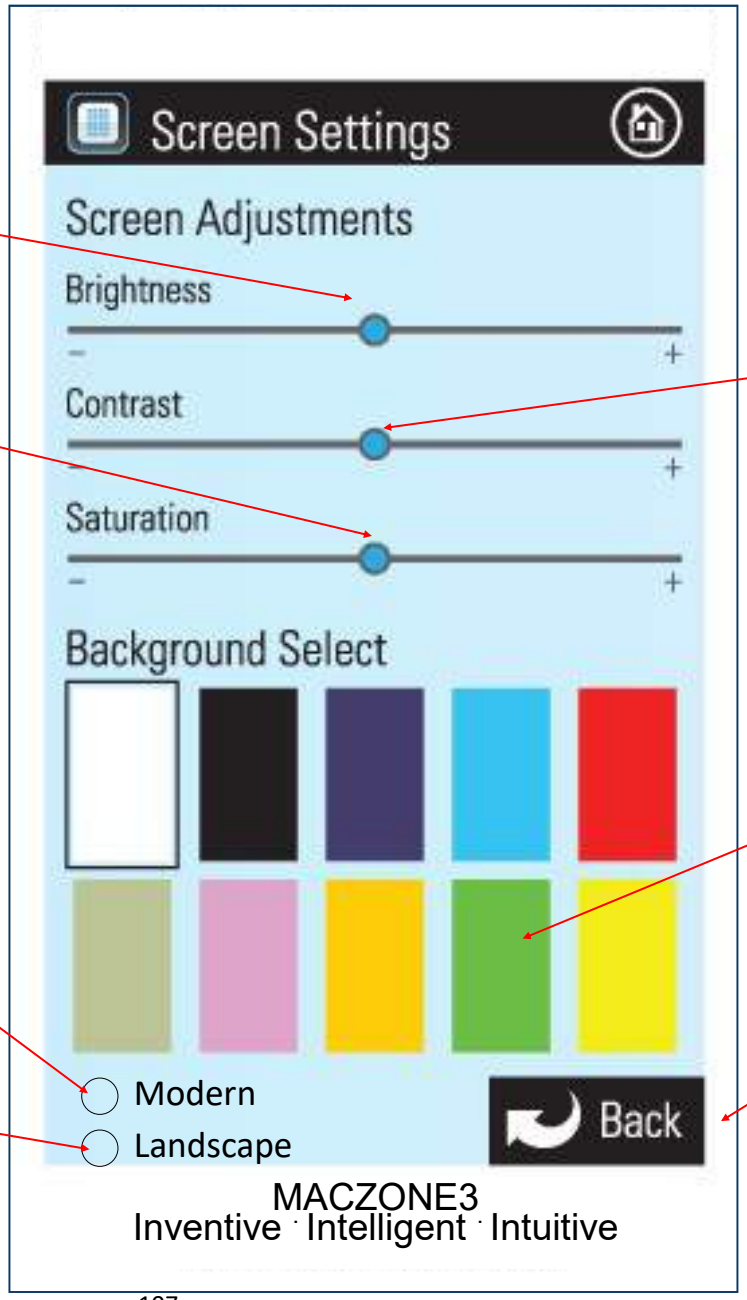
Current date.

Press the left or right arrows to move to the value you want to change.

Indicates the minutes are be changed.

You must press the enter button to save the changes you have made.

5.14 Changing the home screen colour



Slide left / right to adjust the screen brightness.

Slide left / right to adjust the screen saturation.

Slide left / right to adjust the screen contrast.

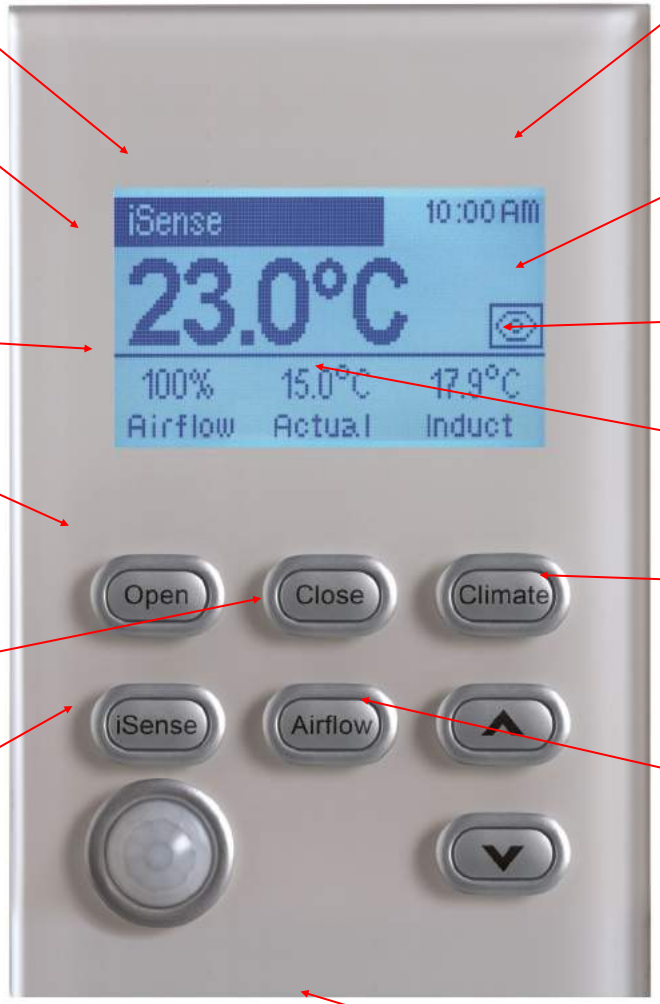
Press the colour you would like for your home screen. Fine adjustments to the shade, tone, hue can be made using the brightness, contrast and saturation slides.

Press here to change the graphics from Classic to Modern style.

Press here to change the graphics from Classic Portrait to Classic Landscape.

Press here to go back to the home screen.

5.15 iSense controller



Indicates zone name this unit is controlling

Indicates zone setpoint temperature

Indicates the maximum airflow set for this zone

Press to Open this zone fully

Press to Close this zone fully

Press to activate or de-activate the iSense occupancy sensor

Indicates system time

Indicates the iSense has been activated on this controller.

Indicates the air temperature inside the supply air duct

Indicates the current zone temperature

Press to Climate control this zone. Adjust required set-point temperature using the up and down arrows

Press to adjust the maximum airflow to this zone. Use the up and down arrows to adjust the maximum airflow required to this zone

System reset button under here

Note:

When iSense has been activated movement is required in the range of the occupancy sensor to keep the zone operating. The use of the iSense feature in bedrooms, when occupants are sleeping, is not recommended.

5.16 MACZONE3 Naked 400 remote control (Zone only)

- User manual

Flashing red indicates this zone is faulty

Solid green indicates this zone is currently open

Solid red indicates this zone is currently closed

Solid blue indicates this zone is currently in climate control mode. You are not able to change the zone setpoint temperature with this remote control. If you change this zone you can only toggle between open and closed

If two LED's are illuminated the setting is in the middle (eg.95%)

Indicates maximum air flow that the zone has been set to

Press here to move up to the next zone or if pressed after the air% button it will increase the maximum airflow %

Press here to move down to the next zone or if pressed after the air% button it will decrease the maximum airflow %

Press the enter button to send the changes. If the enter button is not pressed the changes will be sent after approximately 10 seconds

Press here to toggle through the zones

Press to open the current zone

Press to close the current zone

Press to toggle the maximum airflow in the current zone

Pair button only to be used for configuration

5.17 MACZONE3 Naked 410 remote control - User manual

Flashing red indicates this zone is faulty

Solid green indicates this zone is currently open

Solid red indicates this zone is currently closed

Solid blue indicates this zone is currently in climate control mode.

Indicates fan speed is currently medium.

If two LED's are illuminated the setting is In the middle (29°C or 95%)

Indicates maximum air flow that the zone has been set to

Indicates setpoint temperature for AC unit or for zone

Press here turn the system on or off.

All connected zones will display red if the system is off. If the system is currently on all connected zones will display green.

Press here to change the system mode. When pressed the system setpoint temperature and fan speed will also be displayed

Press here to toggle the system fan speed. When pressed the system setpoint temperature and mode will also be displayed

Press Mode or Fan then the up / down buttons to change the system setpoint temperature. (only applicable in running on RA)

Press Zone then the up / down buttons to change the zone number.

Press Air% then the up / down buttons to change the maximum air flow percentage in the selected zone

Press the enter button to transmit your changes. If the enter button is not pressed the changes will be sent after approximately 10 seconds

Press here to toggle through the zones or use the up down arrows

Press to set the current zone to climate control. (Only applicable if a zone sensor has been installed and set up.) After setting to Climate control you can adjust the zone setpoint temperature by using the up down arrows or just toggle the climate button.

Press to open the current zone

Press to close the current zone

Press to toggle the maximum airflow in the current zone

Pair button only to be used for configuration

Indicates the mode is currently set to heating. Press the Mode button to change the mode

6.0 Warranty registration

Your system is supplied with a limited 2 year warranty.
You are required to complete this warranty registration form and post it to HVAC Consolidated along with a copy of your invoice.

Full Name:

Contact Phone number including area code:

Email address :

MACZONE3 System ID number (if applicable):

If you have more than one MACZONE3 system, please include additional registration forms.

Address where the system is installed:

Date of purchase: / /

Installation Company:

Proof of Purchase attached:

Yes / No

Signature

Date

Post your registration to :

HVAC Consolidated Pty Ltd

P.O.Box 392 Springvale

Victoria 3071

6.1 HVAC Consolidated product warranty policy

This document sets out the warranties that are provided by HVAC Consolidated Pty Ltd ACN 162 828 971 ("**HVAC** ") in relation to each Product.

Definitions

In this document:

"**Australian Consumer Law**" means the law set out in Schedule 2 of the *Competition and Consumer Act 2010* (Cth) and any corresponding provisions of state or territory fair trading legislation.

"**Customer**" means the party that acquired the Product from HVAC for that party's use or, if the party who acquired the Product from HVAC was an authorised distributor, reseller or dealer, the party who acquired the Product from the distributor, reseller or dealer.

"**MACZONE3 Tablet**" means the product known as the "MACZONE3 Tablet".

"**Product**" means:

an MACZONE3 touch screen; or

other MACZONE3 product.

"**Site**" means the place at which the Product is located.

"**Third Party Goods**" means a product (including batteries) or item of equipment manufactured by a third party which is supplied with, or fitted to, a Product.

"**Warranty**" has the meaning given in clause 2.1.

"**Warranty Period**" means:

for an MACZONE3 touch screen, one (1) year;

for a Product (excluding an MACZONE3 touch screen) that has been registered in accordance with clause 3, two (2) years; or

from the date of purchase by the Customer.

Warranty

Subject to clauses 4 and 5, HVAC expressly warrants that each Product is free from operational defects in workmanship and materials for the Warranty Period ("**Warranty**").

The benefits of the Warranty are in addition to all other rights and remedies which the Customer may have under Australian Consumer Law and any other law in relation to the Product to which the Warranty relates.

Each Product comes with guarantees that cannot be excluded under Australian Consumer Law.

Extended Warranty

In order to receive an extended eight (2) year Warranty for a Product ("**Extended Warranty**") the Customer must register the Product by completing, and providing to HVAC, the registration form supplied in the Product user manual ("**Registration**").

Registration must be completed within sixty (60) days of the Product being purchased by the Customer.

Exclusions to Warranty

The Warranty does not cover Third Party Goods.

Subject to any statutory provisions to the contrary, the Warranty does not extend to cover damage to furniture, carpets, walls, ceilings, foundations, vehicles, or any other consequential loss arising either directly or indirectly due to the malfunction of the Product.

If a third party installer knowingly installs a defective Product, the Warranty will be strictly limited to the resupply of that Product and shall not include any labour costs.

Repair or Replace

During the Warranty Period, HVAC will, subject to clause 6, replace or repair any defective Product or defective component of a Product without, subject to clause 8, charge provided that the defect does not constitute damage that has arisen from:

faulty, improper, incorrect or incomplete adjustment, operation or installation of the Product;

any modification of the Product, without the written approval of HVAC, including tampering with or any attempt to disassemble the Product;

inadequate or improper maintenance of the Product;

misuse or abuse;

normal wear and tear;

failure for any reason to follow the instructions for use given in any user manual applicable to the Product;

act of God;

fire, flood, collision or other trauma; or

insects or animals.

Warranty Claim Procedure

To obtain the benefit of the Warranty the Customer must:

contact HVAC within the Warranty Period or within seven (7) days of the discovery of the defect, whichever is the earlier;

Provide proof of purchase of the Product.

HVAC will determine the extent of the issue or defect with the Product.

If there is an issue or defect with the Product that is covered by the Warranty then HVAC will at its sole option:

require the Customer, at the Customer's expense, to have the defective Product, or defective component part, delivered to HVAC; or

provided the Site is located in the Melbourne metropolitan area, send an HVAC service technician to the Site to effect repairs to or replacement of the Product, save that the reasonable travel expenses (including travelling time) of the technician must be paid by the Customer.

In order to complete repairs or replacement of a Product in accordance with clause 6.3(b), HVAC requires safe and ready access to the Site and each Product including where required via scaffolding and access panels. If HVAC considers access to the Site or Product to be unsafe or not readily available, HVAC will not commence or will cease all work to repair or replace the Product. All costs incurred in the obtaining of safe and ready access to the Site and Product shall be payable by the Customer.

Any services requested by the Customer outside of the scope of the Warranty will be charged to the Customer in accordance with the following schedule of charges ("**Charges**"):

Description	Charges
Call out fee plus first hour on Site	$165.00 plus GST
Hourly labour rate after first hour on Site	$100.00 plus GST
Replacement parts for Product and deliveries	As per HVAC's current price list

The Charges are subject to variation by HVAC from time to time.

HVAC will replace, or conduct repairs to, a Product as soon as practicable but will not be liable for any loss or damage caused by any delay.

Assignment

The Customer may not assign or otherwise transfer the Warranty.

HVAC may at its sole discretion transfer or assign the Warranty.

Transportation Costs and Risk During Transit

All transportation charges incurred in returning a defective Product, or any defective component parts of a Product, to HVAC for repair or inspection, and the cost of returning them to the Customer must be paid by the Customer.

The Customer assumes the risk of, and shall be responsible for, any loss of or damage to any Product during transit. For this reason, HVAC recommends that the Customer take out shipment/postage insurance.

Third Party Warranties

Third Party Goods may be covered by independent manufacturer warranties. It is the Customer's responsibility to familiarize itself, himself or herself with these warranties. No additional warranty is provided by HVAC for Third Party Goods.

7.0 Further assistance

1. If you require warranty or maintenance on your air conditioning system or MACZONE3 system you should first contact your installation company.

2. If you want to add more zones or temperature control to any zone you should contact your installation company.

3. If you require assistance from the manufacturer contact:

   HVAC Consolidated Components Pty Ltd
   P.O.Box 392 Springvale
   Victoria 3071