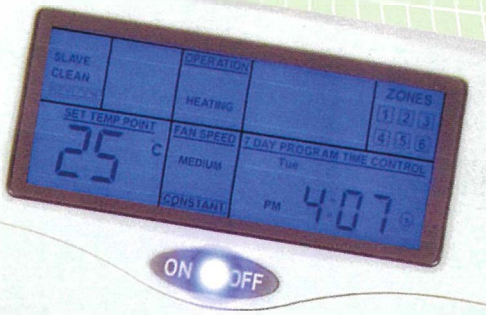
the HAN-L62

...the ultimate in comfort control

The 2009 HAN-L62 Controller - Providing the latest in control technology, and with its ease of operation allows you to control your environment to suit your needs.

- With its sleek and modern design, this controller will blend in with any style of decor.











ADVANCED
MULTIPURPOSE
MICROPROCESSOR
AIR CONDITIONING
CONTROLLER

HANWEST PTY LTD

SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION

100% Australian Owned

HAN-L62 SPECIFICATIONS

LCD DISPLAY

The HAN-L62 is equipped with the latest composite backlit display with all necessary operational information clearly displayed and is easy to read even in poorly lit areas. The display is illuminated when any control button is pressed and will switch OFF up to 30 seconds after the last button is pressed.

OPERATION MODES

At any time the HAN-L62 provides you with the choice of four operational modes at the touch of a button.

FAN — In this mode only the indoor will run to provide air circulation.

DRY — Dry mode is used on more temperate days to reduce the humidity.

COOL — During warm to hot weather the system will operate to provide comfort cooling.

HEAT — In cooler weather the control will operate on heating to maintain a cosy atmosphere.

AUTO — With AUTO mode selected during changeable weather the HAN-L62 will automatically switch the air conditioner to COOL or HEAT mode to maintain indoor conditions at a comfortable level.

KEYLOCK

This function is to prevent unauthorised persons tampering with control settings. It is enabled by pressing the SLEEP tab for 5 seconds. This will lock all user operations with the exception of the ON/OFF button to prevent tampering with the control settings. To disable the keylock function the SLEEP tab is pressed for a further 5 seconds. When the keylock is enabled the word KEYLOCK will be displayed in the top left hand segment of the LCD display.

TEMPERATURE CONTROL

The HAN-L62 allows you to select the control temperature in increments of 0.5° so that you can achieve a closer comfort level. The programmable time clock also allows you to set different temperatures for various times of day or night to reduce operating costs.

The HAN-L62 also has a SLEEP function and when set will automatically raise the set point temperature in summer or lower it in winter while you sleep for comfort and reduce air conditioning operating costs. The SLEEP mode can be terminated by two methods. The first is when you are going to bed set the countdown timer to the number of hours that you wish the sleep mode to operate. This method will not repeat automatically. The second method is to set a programme time off at the time you want the air conditioning to stop after you go to bed. This off function will repeat automatically for the days the programme is set.

FLEXIBILITY

For your added convenience the HAN-L62 allows a second wall control to be installed with one located in the living area and a second installed in the bedroom areas. With a second HAN-L62 even greater flexibility of operation is achieved as with 6 programmable ON/OFF times in each HAN-L62 control a total of 12 programmed ON /OFF periods can be set. Day time settings can be programmed in the living area control and night time settings set in the bedroom area control. The HAN-L62 can be set to automatically change control of the air conditioning from the living to the bedroom area control and back again at the desired times.

OPTIONAL ACCESSORIES

For your added comfort and convenience the following options are available:

Zone Control

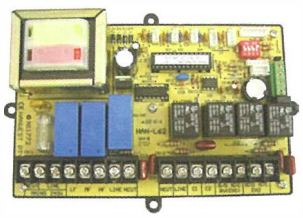
Where ON/OFF zone control is required, the addition of the PCB-086 zone relay board allows up to 6 zones to be switched from the HAN-L62 control.

Remote Temperature Sensors

In buildings where a single system serves several rooms or in large showroom areas multiple temperature sensors can be installed to sample the temperature at selected locations and average the temperature from these locations for more accurate system control.

Customised Operation and Colour

For projects with a quantity of controls customised software can be provided for specific control operation and IO functions. Some DDC or BMS interface functions are included. The HAN-L62 can also be supplied in almost any Pantone colour to suit specific interior design requirements.



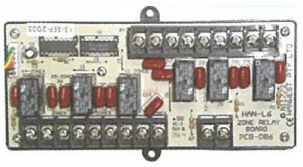
PCB-132



PBEC-6 Enclosure



SC4E



PCB-086 Zone Board OPTION

INSTALLED BY:

HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION

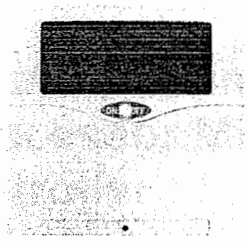
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HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION

ABN 49 003 452 551

Bulletin No: HAN-L62-ADVTXT-2
Issue Date: 04/06/2007
Supersedes: 02/09/2006

Product Bulletin: Introducing the 2007 Model HAN-L62 Dual Processor Microprocessor Air Conditioning Controller

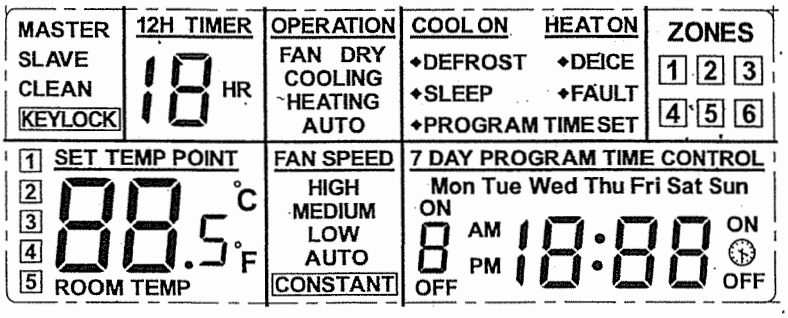


The HAN-L62 is the second generation of the HAN-L6 and incorporates many additional features and functions. The control remains easy to install and easy to use and required no onsite programming by the installer.

1. As with the HAN-L6 all of the control operating parameters can be set and the 6 program time clock can also be set with the controller turned off.

2. A new backlit display with additional operational information will include the following. (Note: The display graphic below shows all text available on the LCD panel. Not all items are displayed during control operation)

    a. With the control off "**SLAVE**" will be displayed.
    b. When the control is on "**MASTER**" will be displayed.
    c. The selected operation mode will be indicated.
    d. Selected fan operation will be displayed.
    e. When a programmed time period is active the program number will be displayed.
    f. When the keylock is enabled **"KEYLOCK"** will be displayed in the top LH segment.
    g. **"COOL ON"** will be indicated when the compressor is running in cool mode.
    h. **"HEAT ON"** will be indicated when the compressor is running in heat mode.
    i. When the time clock program mode is selected **"PROGRAM TIME SET"** will indicate the control time clock programming function is enabled. All parameters that can be set blink on & off when the program mode is selected.



3. The KEYLOCK function is enabled by the 3 seconds holding of the **SLEEP** control button and all control setting operations are disabled with the exception of the **ON/OFF.** This is to prevent unauthorised persons tampering with the control settings. To disable the Keylock function a second key is pressed for 4 seconds.

4. The 7day time clock is flexible to use as it can be used simply to start and/or stop the air conditioning system at certain times. Alternatively the various time periods can have specific functions and parameters programmed to operate during the program on times. Any or all of the following operations may now be set with any of the 6 ON/OFF time clock control periods.

    a. Operational mode.
    b. Fan operation.
    c. Set point temperature.
    d. Zone selection.

Another feature is the ability to suspend all time clock operations with a single button push. To recall previously set programs it will be necessary to select "program" mode and press each program and the recall tab to recall the individual settings.

5. In heat mode the indoor fan control has been changed and the control will operate with or without an indoor coil sensor. The required fan speed is user selectable however the control will override the selection to maintain the most efficient heating operation.

INDOOR FAN CONTROL

a. The fan operation is user selectable.
b. In heat mode when the compressor starts the fan will be held off until the indoor coil temperature reaches 33° or 5 seconds has elapsed then the fan will start on low speed.
c. **Auto Fan Mode**: The fan speed will be adjusted automatically in response to load conditions.
d. **Low Speed:** Fan will remain on low speed regardless of coil temperature.
e. **Medium Speed**: Fan will start on low speed and change to medium speed when the indoor coil temperature rises to 38°C.
f. **High Speed**: Fan will start on low speed and change to medium then high speed when the indoor coil temperature rises to 45°C.
g. Should the indoor coil temperature fall to 37°C the fan will change back to Medium speed and if the coil temperature falls to 32°C the fan will change to Low speed. The fan will stop if the indoor coil temperature falls to 27°C or the room set point is reached and the compressor stops.

If no indoor coil sensor is installed or the sensor fails when the system is in heat mode the system warm up will be based on time as follows.
After the compressor starts and a 5 second delay has passed the fan will start on "low". After a further 20 seconds has elapsed the fan will move to the selected speed.

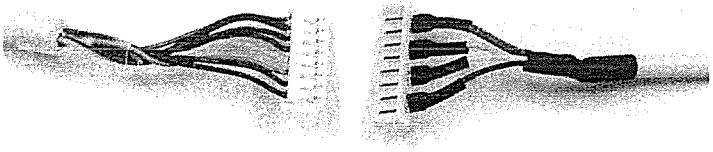
This fan control system allows the user to control the system to their particular requirements however the program will override the manual selection to maintain peak air conditioning system operating efficiency.

The control software has further enhancements to provide an even higher level of protection to the control operating system thereby providing an increase to the noise immunity of the controller while increasing the reliability of the control in areas where excessive interference occurs or power supply problems exist.

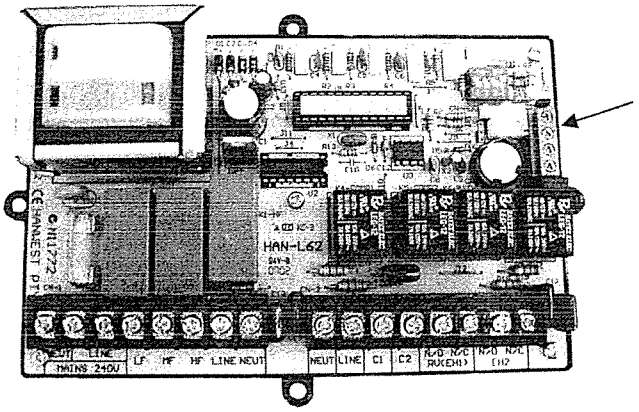
Upgrading from a HAN-*** to a HAN-L62

A HAN-L62 can replace any of the earlier "HAN" series controllers that have an 8 wire interface cable with plugs at each end. The upgrade kit includes 2 - HAN-L5 to HAN-L6 cable adaptors.
To install, simply plug the cable adaptor into the existing 8 wire interface cable and connect the 4 wires to the corresponding colour terminals on the back of the HAN-L62 wall control and the PCB-132 main board.

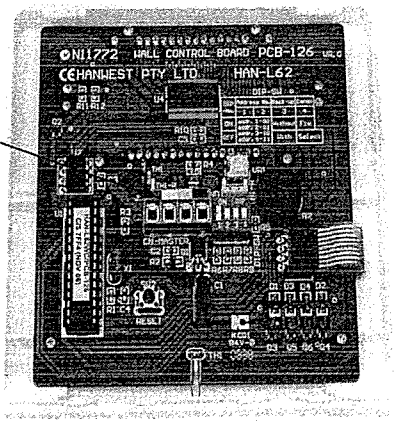
HAN-L5
IC-10/8
8 Wire
interface
cable



HAN-L5 to
HAN-L62
cable
adaptor



4 Colour coded wires correspond to the terminal colour coding on the HAN-L62 & PCB-132.



HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION

ABN 49 003 452 551

DATE : 10/06/09
BULLETIN NO : L62-132-INST-PBEC-REV-7
SUPERSEDES : 02/08/07

INSTALLATION INSTRUCTIONS
FOR MODEL HAN-L62 / PCB-132 WITH EARTH SHIELD CABLE MICROPROCESSOR AIR CONDITIONING SYSTEM CONTROLLER

APPLICATION

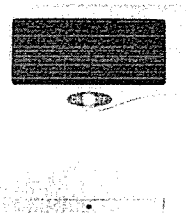
The HAN-L62 microprocessor air conditioning controller is suitable for installation with all split or one piece packaged air conditioning units. The HAN-L62 can be supplied to operate with reverse cycle, cool/electric element heat or add on cooling systems used with warm air furnaces and chilled water/hot water fan coil units.
There are two model HAN-L62 controllers.

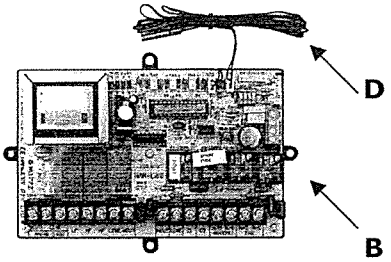
A) Model HAN-L62HP for reverse cycle (heat pump) air conditioners. This model is suitable for 1 stage cool / 1 stage heat with optional boost heat or 2 stage cool / 2 stage heat with optional boost electric heat. (Boost electric heat operation is dipswitch selectable.)
B) Model HAN-L62EH for cool only air conditioners with electric heat. This model is suitable for 1 stage cool / 1 stage heat or 2 stage cool / 2 stage heat operation.

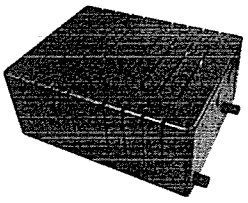
PACKING CHECKLIST – HAN-L62HP

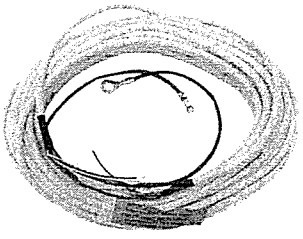
The HAN-L62/PCB-132 when supplied contains the following items:

A) HAN-L62 room wall control and mounting plate.
B) PCB-132 power relay board (already fitted inside PBEC-L62).
C) PBEC-L62 vented power board enclosure.
D) 1 off Indoor coil system warm up sensor (connected to PCB). For 2 Stage, order an additional sensor.
E) 10 metre interconnecting lead.
(20 metre extended interconnecting lead optionally available).
F) Installation instructions / Wiring diagram.


A




C

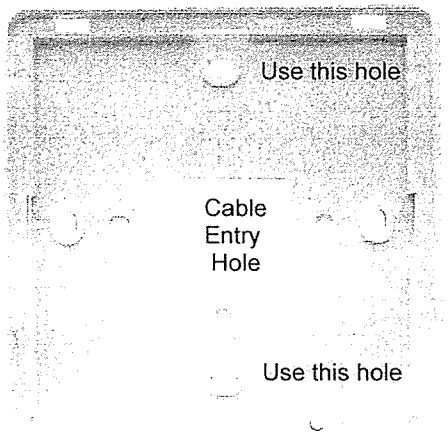

E

INSTALLATION PROCEDURE

A) HAN-L62 ROOM WALL CONTROL

The HAN-L62 is supplied with a separate wall mounting plate which is fastened to the wall and allows the control to be installed with all fastening screws concealed.

HAN-L62 MOUNTING PLATE



Check the wall where the HAN-L62 is to be located is flat and true before fastening the wall mounting plate. Fixing the mounting plate to a distorted surface may damage the control.

Fasten the wall mounting plate by the screw holes as indicated in photo. Always use the top and bottom holes as indicated. It is essential to use the lower hole to provide sufficient support to the mounting plate when removing the HAN-L62.

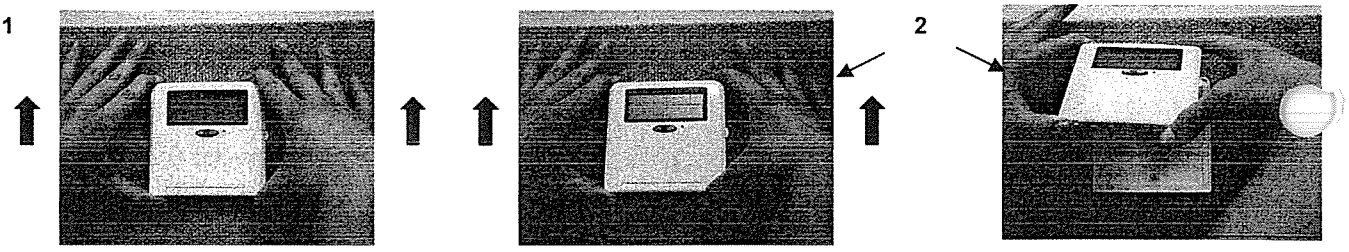
Drill hole in wall to allow cable entry.

Install interconnecting cable supplied. **Fill around cable with foam or cover hole with PVC tape to prevent draft from wall cavity affecting control operation. Do not use aluminium duct tape.**

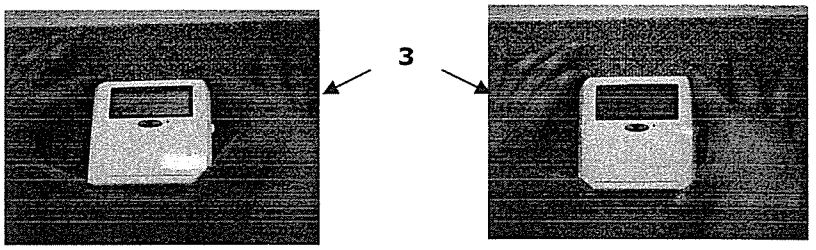
Important : The interface cable to connect the HAN-L62 wall control & the PCB-132 main board is a 4 core & shield (green). The 4 core wires are colour coded to correspond to the terminal colour coding on the HAN-L62 & PCB-132. The green shield wire should be cut off at the wall control end to prevent the shield wire coming into contact with circuit components in the back of the HAN-L62. Do not run the interface cable for more than 2 metres with line voltage cables. Do not fasten the interface cable to copper refrigerant lines, water pipes or any other metal objects that could act as an aerial to attract electrical noise or interference. Do not coil excess cable in a wall cavity or ceiling space – spread out.
To install HAN-L62 onto mounting plate, locate the pegs on the top of the control with the recesses in the mounting plate . Carefully press in the bottom of the control to engage the lower fasteners.

HAN-L62 REMOVAL (For service or adjustment)

1) To remove HAN-L62 from the wall mounting plate after installation, place two hands on the control and exert upward pressure.
2) Hold the control with 2 hands and force upwards while easing the bottom of the wall control away from the wall. When the bottom edge comes out lift the control from the top pegs.



3) To re-install the control place the control on the top pegs then gently press the bottom of the control in and the control will clip on to the mounting plate.



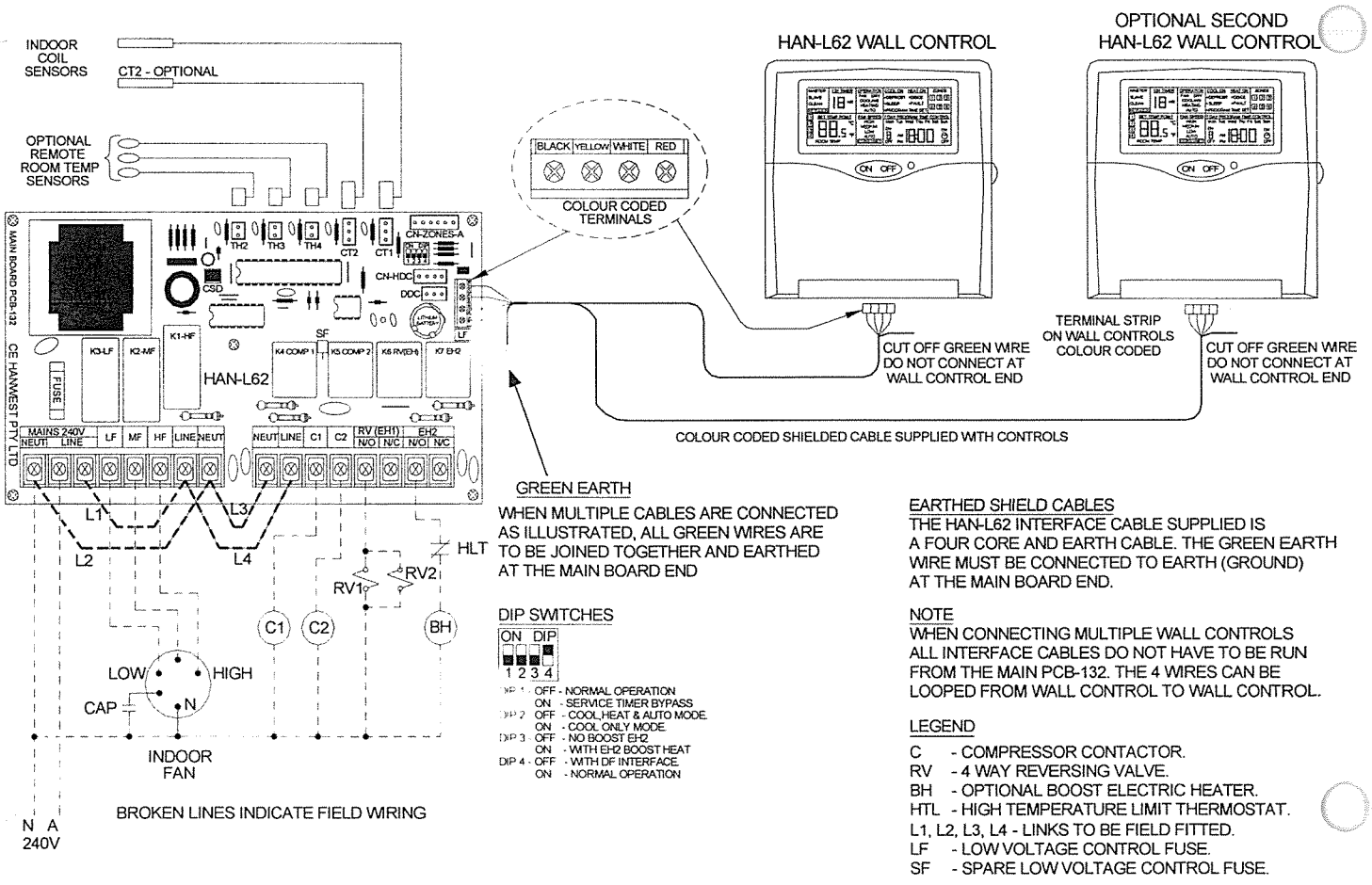
B) PCB-132 (PCB) POWER RELAY MODULE

The power relay module is generally installed at the indoor (fan coil) unit. Install the PCB in a well ventilated location where it will not be exposed to moisture or excessively high temperatures.

Indoor (fan coil) unit PCB main board installation

Locate the PCB in a suitable location for electrical control equipment. Do not install the PCB where it will be subject to the air leaving the indoor coil. On the cooling cycle, the leaving air can be at a near saturated condition and could cause condensation/moisture accumulation on the PCB resulting in damage to the PCB. During winter operation high temperatures in the fan coil can be experienced which could also affect control operation.

The wiring diagram below relates to output signals being 240 volt. For 24 volt or mixed outputs see 'Alternative Outputs' on page 3.



NOTE: For indoor coil installation instructions see note 5 "CT" on page 4 of this document.

ALTERNATIVE OUTPUT CONNECTIONS FOR PCB-132 POWER RELAY MODULE.

PART 1a: The wiring diagram on page 2 shows field supplied and installed links L1 & L2 supplying 240 Volts to Line & Neutral terminals on CN1. This in turn provides 240 volt outputs to operate a 3 speed indoor fan motor, or when LF, MF & HF are looped, a single 240 volt output to operate a single speed fan motor or a 240 volt fan relay.

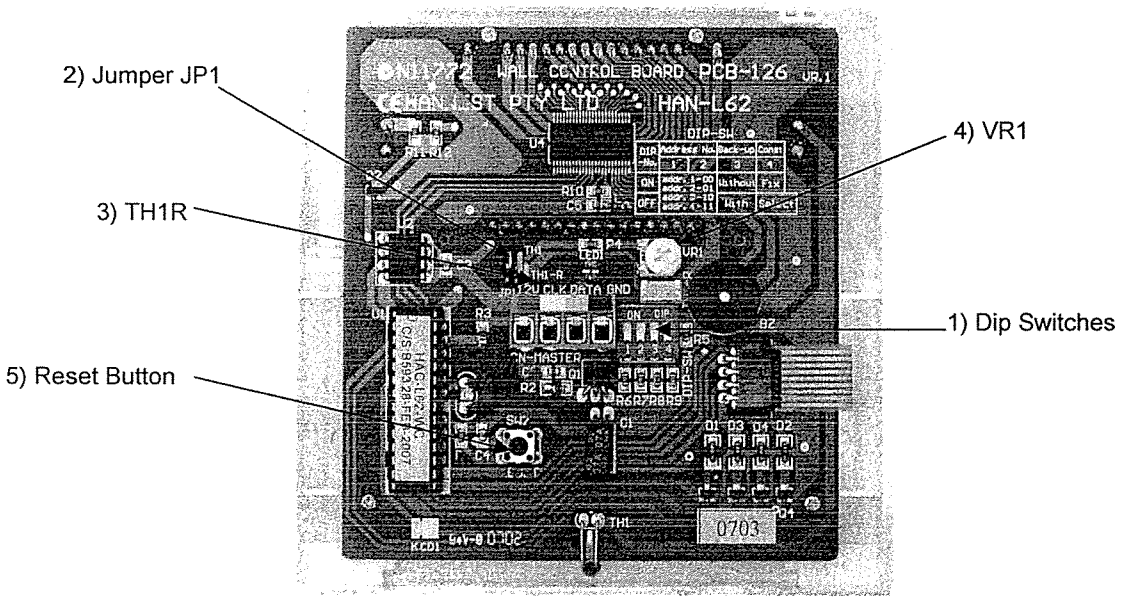
PART 1b: When links L3 & L4 are installed from CN1 to Line & Neutral terminals on CN2, both compressor outputs C1 & C2, RV (EH1) & EH2 will be 240 Volts.

. ART 2: 24 Volt Control circuits only.
For air conditioning units with 24 volt control circuits, DO NOT INSTALL LINKS L1,L2, L3 & L4. Instead, connect 24 volts (supplied by air conditioning unit) to 'Line ' terminal on the **right** hand side of CN1 and to 'Line' terminal on CN2. **All outputs will then be 24 Volts only.**

PART 3: 240 **Volt indoor fan output with 24 volt compressor and reversing valve output**
For 240 volt fan output, install links L1 & L2. This will give 240 volt fan output options as described in PART 1a. For 24 volt compressor and reversing valve outputs, DO NOT INSTALL LINKS L3 & L4. Instead, connect 24 volts (supplied by air conditioning unit) to 'Line ' terminal on CN2.
All outputs for C1,C2 & RV (EH1) plus EH2 will then be 24 Volts only.

ITEM "A" HAN-L62 WALL CONTROL

When the HAN-L62 is removed from the wall plate the following items are located on the rear of the PCB-126.



HAN-L62 REAR VIEW

1) **Dip Switches.**
A dip switch block with 4 dip switches is located beside the colour coded screw terminals for the interface cable connection. The function of the dip switches is as follows.

Dip No 1 & Dip No 2 - These are control address switches and are off for 1 control. When more than 1 control is used see Hanwest bulletin L62DCK-INST.

Dip No 3 - The control is supplied with this switch in OFF (down) and this enables all of the last control settings to be maintained in the eeprom memory. When this switch is in the "On" position (up) the eeprom memory for all last control settings is disabled. For normal operation Dip No 3 should be "Off" (down).

Dip No 4 - This switch is for locking the indoor fan operation to constant operation in Cool – Heat – Auto modes. The control is supplied with this switch "Off" (down) to allow constant or intermittent fan operation to be selected by pressing the Fan Speed tab on the membrane pad on the control when the front door is opened. If the control is installed in a commercial installation where constant air flow is required to comply with ventilation code requirements Dip No 4 should be switched "On" (up).

2) **TH1R** - TH1R is a 2 pin plug to enable an optional remote sensor to be installed from the HAN-L62 wall control. (There are also 3 remote sensor plugs located on the main PCB-132 located in the fan coil unit. Refer to main PCB section of these instructions.)

3) **Jumper JP1** - Is located beside the 2 pin plug to enable an optional remote sensor to be connected to the HAN-L62 control. The control is supplied with the jumper positioned for the on board sensor in the control to be in circuit. When an optional remote sensor is installed this jumper must be moved to bridge the centre and bottom pins to place the remote sensor in circuit and disable the on board sensor.

4) **VR1** - Is located above the dip switch block and is a control temperature calibration variable resistor. Temperature calibration may only be required where an optional remote sensor is installed from the HAN-L62 wall control and the cable length exceeds 10 metres.
To calibrate sensor press room temp display tab & select 1) on the left hand side of the temperature display sector in the display window. The sensor temperature will be shown.
Using a mercury thermometer as a reference adjust the sensor display temperature by gently rotating VRI.

5) **Reset Button** - The CPU in the HAN-L62 can be rebooted & the EEPROM memory cleared as follows. For this procedure the main power must be on.
   a) Remove HAN-L62 from wall plate.
   b) Change no. 3 dip switch to "On".
   c) Press reset button.
   d) After control display restarts change dip switch no. 3 to "off".
   Install HAN-L62 on to back plate.

ITEM "B" PCB-132 MAIN BOARD

Connections. There are 3 screwed terminal strips for the following external connections located on the PCB-132.

1) **CN1** with 8 screwed terminals.
   240V AC Line and Neutral.
   Line & neutral input for fan outputs LF - MF – HF.

2) **CN2** with 8 screwed terminals.
   Line & neutral input for control outputs C1 – C2 - RV (EH1) – EH2

3) **CN-SLV 4** colour coded screwed terminals for connection of the low voltage shieded serial interface cable to the HAN-L62 wall controls.

4) **TH2 – TH3 – TH4** are 2 pin plugs for optional remote sensors. Note: Used for averaging.

5) **CT** Is a 3 pin plug for connection of the indoor coil sensor. Indoor coil sensor (CT) must be installed in indoor coil in a copper pocket with thermal paste or fixed with a metal clip to ensure effective heat transfer. Do not use plastic cable ties or plastic clips of any type.

6) When the HAN-L62HP is installed on a 2 cool / 2 heat system a second indoor coil sensor can be connected to CT2 so both systems have an indoor coil sensor for system warm up in heat mode and indoor coil de-ice control in cool mode.

7) **CN-ZONES A** a 6 pin plug for connection of the optional PCB-086 zone relay board.

CN-HDC this plug is not assigned.

9) **CN-DDC** is located directly behind CN-SLV low voltage terminal block. This is for the connection to a DDC or BMS system or a remote Start/Stop station. An optional remote switch with a LED indicator is available.

10) **CR** back up battery for the real time clock.

11) **DIP-SW** is the dip switch with 4 dip switches. When the control leaves the factory dip switch no's 1 – 2 & 3 are "OFF" and no. 4 is "ON". The dip switch functions are as follows:
   DIP 1 OFF normal operation – ON service position (timer bypass) for testing the control only.
   DIP 2 OFF cool/heat operation. – ON cool only operation.
   DIP 3 OFF no boost heat - ON for boost heat.
   DIP 4 This dip switch is not assigned and should be left ON.

12) Fuse located between the transformer and CN-1 terminal strip is a 240V 2 amp control fuse for the transformer control circuit.

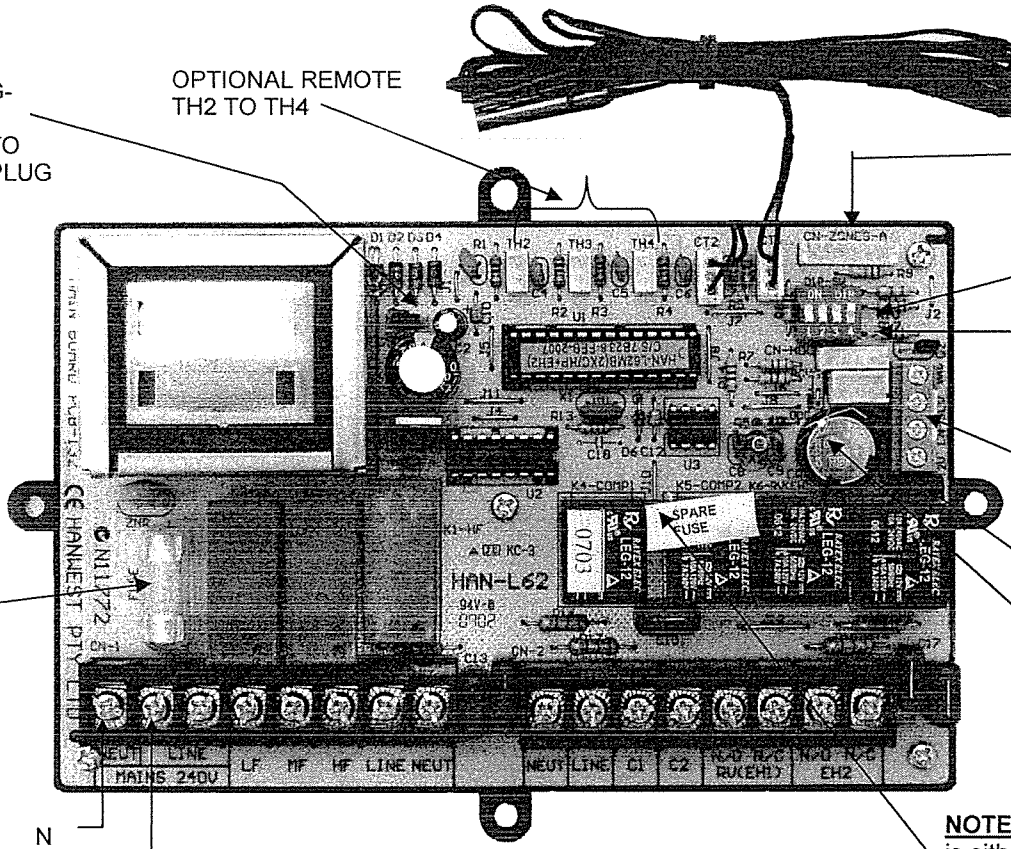
13) Replaceable Low Voltage Fuse for DC power to HAN-L62 Wall Control located between interface cable terminal strip & K7 (EH2) relay. The spare fuse is located between compressor relays
K4 & K5 or on the base of the ventilated enclosure.

14) CSD. 2 pin receptacle for control shut down. Eg. Fire trip relay.

IMPORTANT
If the HAN-L62 Wall Control has no power before replacing the fuse, check the interface cable connections at the HAN-L62 Wall Control & the PCB-132 Main Board. This fuse generally only ruptures if the wiring connections are incorrect or shorted.

LOCKING UNUSED ZONES
On installations where less than 6 zones are used, zones 3-4-5-6 can be locked off to prevent unused zones being turned on. To lock the zones off press the zone button and hold for 3 seconds. To unlock the zone press the zone button and hold for 3 seconds.

ITEM "B" PCB-132 MAIN BOARD.



PCB-132 MAIN BOARD

NOTE: A spare low voltage fuse is either located between K4 & K5 compressor relays or on base of ventilated enclosure.

The control should only be installed by a suitably qualified tradesman.

HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551

DATE : 22/09/09
BULLETIN NO : L62-132E-UPGRADE KIT-INSP-REV3
SUPERSEDES : 09/03/09

HAN-L5 TO HAN-L62E UPGRADE KIT INSTALLATION INSTRUCTIONS

MICROPROCESSOR AIR CONDITIONING SYSTEM CONTROLLER

APPLICATION

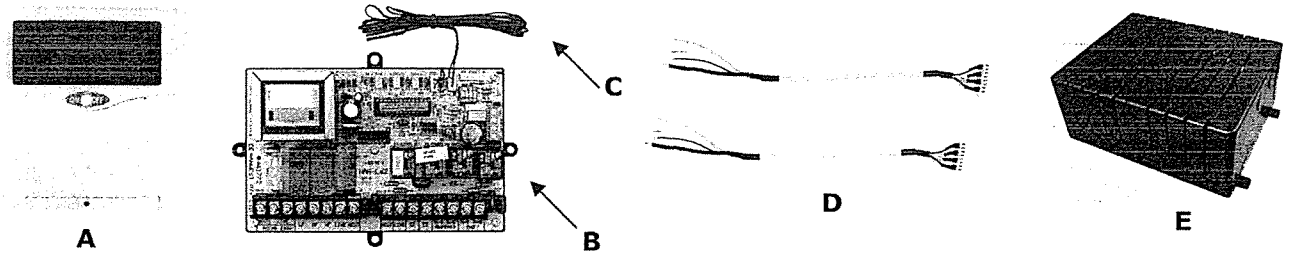
The HAN-L62 microprocessor air conditioning controller is suitable for installation with all split or one piece packaged air conditioning units. The HAN-L62 can be supplied to operate with reverse cycle, cool/electric element heat or add on cooling systems used with warm air furnaces and chilled water/hot water fan coil units.
There are two model HAN-L62 controllers.

- **A)** Model HAN-L62HP for reverse cycle (heat pump) air conditioners. This model is suitable for 1 stage cool / 1 stage heat with optional boost heat or 2 stage cool / 2 stage heat with optional boost electric heat. (Boost electric heat operation is dipswitch selectable.)
- **B)** Model HAN-L62EH for cool only air conditioners with electric heat. This model is suitable for 1 stage cool / 1 stage heat or 2 stage cool / 2 stage heat operation.

PACKING CHECKLIST – HAN-L62HP

The HAN-L62/PCB-132 Upgrade Kit when supplied contains the following items:

- **A)** HAN-L62 room wall control and mounting plate.
- **B)** PCB-132 power relay board.
- **C)** 1 off Indoor coil system warm up sensor (connected to PCB). For 2 Stage, order an additional sensor.
- **D)** 2 off L5 to L62 cable adaptors.
- **E)** PBEC-L6.
- **F)** Installation instructions/Wiring diagram.

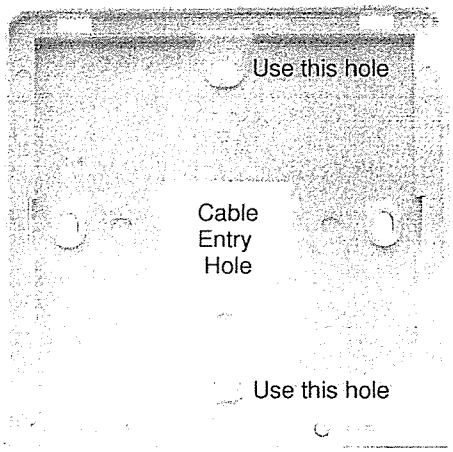


INSTALLATION PROCEDURE

A) HAN-L62 ROOM WALL CONTROL

The HAN-L62 is supplied with a separate wall mounting plate which is fastened to the wall and allows the control to be installed with all fastening screws concealed.

HAN-L62 MOUNTING PLATE



Check the wall where the HAN-L62 is to be located is flat and true before fastening the wall mounting plate. Fixing the mounting plate to a distorted surface may damage the control.

Fasten the wall mounting plate by the screw holes as indicated in photo. Always use the top and bottom holes as indicated. It is essential to use the lower hole to provide sufficient support to the mounting plate when removing the HAN-L62.

Drill hole in wall to allow cable entry.

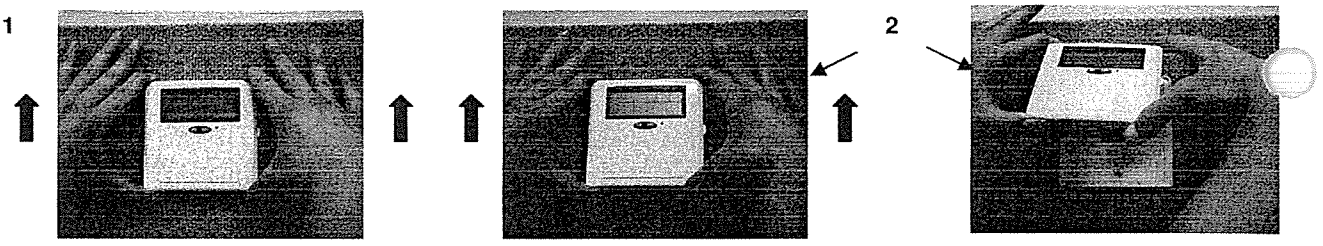
Install interconnecting cable supplied. **Fill around cable with foam or cover hole with PVC tape to prevent draft from wall cavity affecting control operation. Do not use aluminium duct tape.**

Important : The 4 core wires are colour coded to correspond to the terminal colour coding on the HAN-L62 & PCB-132. Do not run the interface cable for more than 2 metres with line voltage cables. Do not fasten the interface cable to copper refrigerant lines, water pipes or any other metal objects that could act as an aerial to attract electrical noise or interference.

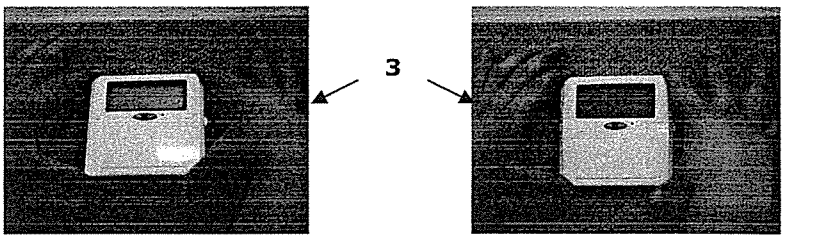
To install HAN-L62 onto mounting plate, locate the pegs on the top of the control with the recesses in the mounting plate . Carefully press in the bottom of the control to engage the lower fasteners.

HAN-L62 REMOVAL (For service or adjustment)

1) To remove HAN-L62 from the wall mounting plate after installation, place two hands on the control and exert upward pressure.
2) Hold the control with 2 hands and force upwards while easing the bottom of the wall control away from the wall. When the bottom edge comes out lift the control from the top pegs.



3) To re-install the control place the control on the top pegs then gently press the bottom of the control in and the control will clip on to the mounting plate.



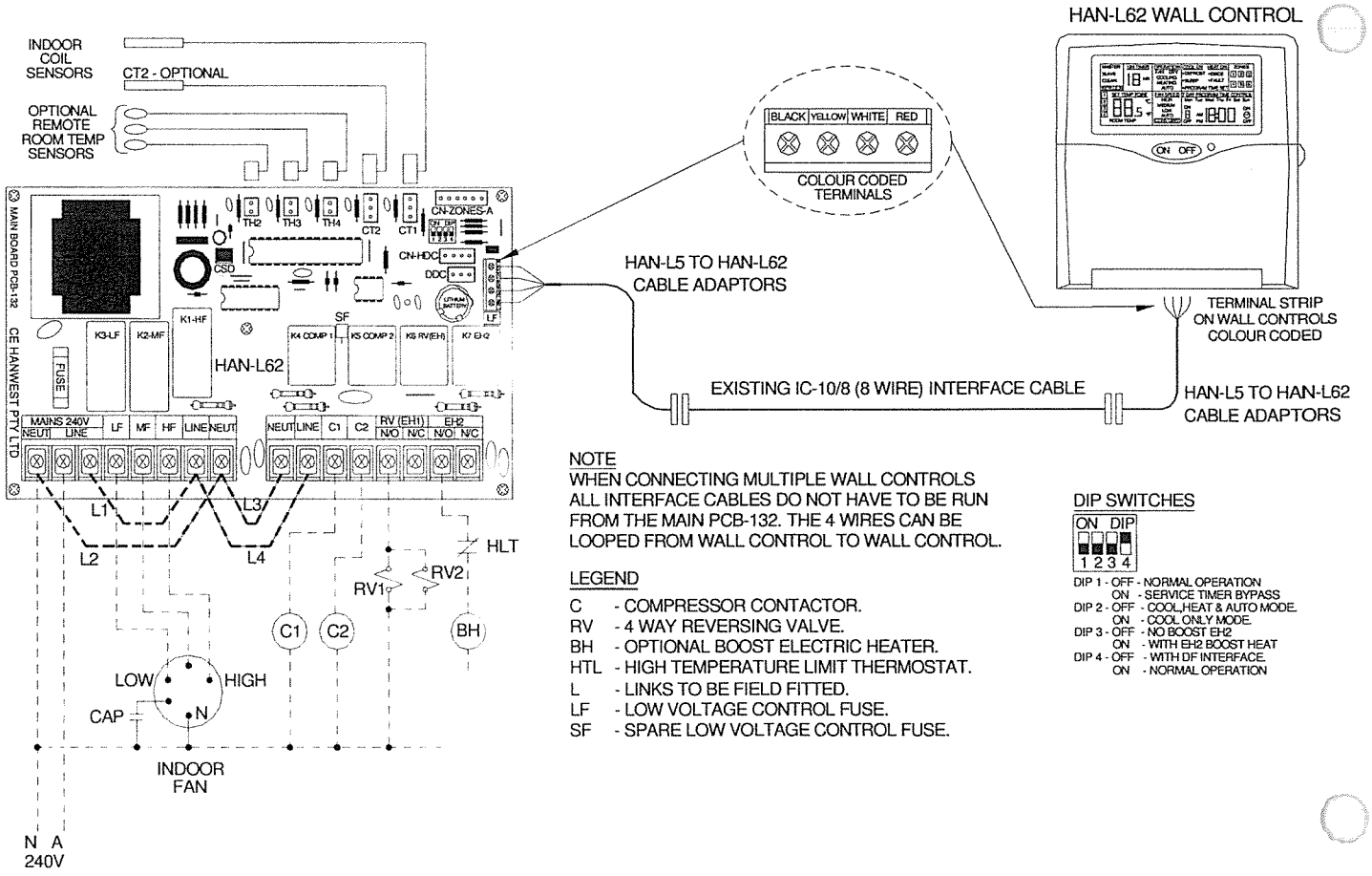
B) PCB-132 (PCB) POWER RELAY MODULE

The power relay module is generally installed at the indoor (fan coil) unit. Install the PCB in a well ventilated location where it will not be exposed to moisture or excessively high temperatures.

Indoor (fan coil) unit PCB main board installation

Locate the PCB in a suitable location for electrical control equipment. Do not install the PCB where it will be subject to the air leaving the indoor coil. On the cooling cycle, the leaving air can be at a near saturated condition and could cause condensation/moisture accumulation on the PCB resulting in damage to the PCB. During winter operation high temperatures in the fan coil can be experienced which could also affect control operation.

The wiring diagram below relates to output signals being 240 volt. For 24 volt or mixed outputs see "Alternative Outputs' on page 3.



NOTE
WHEN CONNECTING MULTIPLE WALL CONTROLS ALL INTERFACE CABLES DO NOT HAVE TO BE RUN FROM THE MAIN PCB-132. THE 4 WIRES CAN BE LOOPED FROM WALL CONTROL TO WALL CONTROL.

LEGEND

C	- COMPRESSOR CONTACTOR.
RV	- 4 WAY REVERSING VALVE.
BH	- OPTIONAL BOOST ELECTRIC HEATER.
HTL	- HIGH TEMPERATURE LIMIT THERMOSTAT.
L	- LINKS TO BE FIELD FITTED.
LF	- LOW VOLTAGE CONTROL FUSE.
SF	- SPARE LOW VOLTAGE CONTROL FUSE.

DIP SWITCHES

DIP 1 - OFF - NORMAL OPERATION
ON - SERVICE TIMER BYPASS
DIP 2 - OFF - COOL_HEAT & AUTO MODE.
ON - COOL ONLY MODE.
DIP 3 - OFF - NO BOOST EH2
ON - WITH EH2 BOOST HEAT
DIP 4 - OFF - WITH DF INTERFACE.
ON - NORMAL OPERATION

NOTE: For indoor coil installation instructions see note 5 "CT" on page 4 of this document.

ALTERNATIVE OUTPUT CONNECTIONS FOR PCB-132 POWER RELAY MODULE.

PART 1a: The wiring diagram on page 2 shows field supplied and installed links L1 & L2 supplying 240 Volts to Line & Neutral terminals on CN1. This in turn provides 240 volt outputs to operate a 3 speed indoor fan motor, or when LF, MF & HF are looped, a single 240 volt output to operate a single speed fan motor or a 240 volt fan relay.

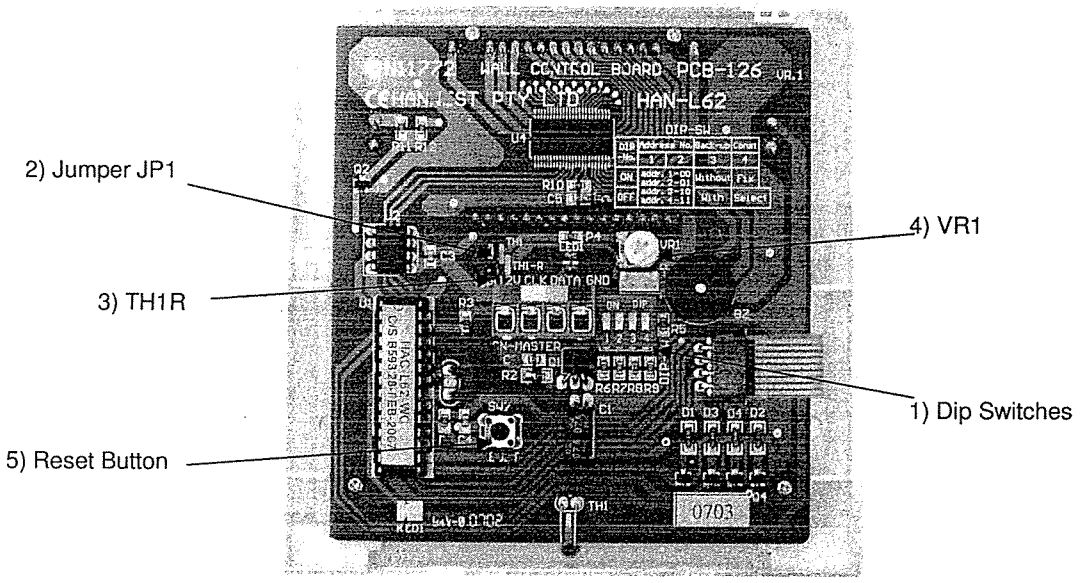
PART 1b: When links L3 & L4 are installed from CN1 to Line & Neutral terminals on CN2, both compressor outputs C1 & C2, RV (EH1) & EH2 will be 240 Volts.

PART 2: 24 Volt Control circuits only.
For air conditioning units with 24 volt control circuits, DO NOT INSTALL LINKS L1,L2, L3 & L4. Instead, connect 24 volts (supplied by air conditioning unit) to 'Line ' terminal on the **right** hand side of CN1 and to 'Line' terminal on CN2. **All outputs will then be 24 Volts only.**

PART 3: 240 **Volt indoor fan output with 24 volt compressor and reversing valve output**
For 240 volt fan output, install links L1 & L2. This will give 240 volt fan output options as described in PART 1a. For 24 volt compressor and reversing valve outputs, DO NOT INSTALL LINKS L3 & L4. Instead, connect 24 volts (supplied by air conditioning unit) to 'Line ' terminal on CN2. **All outputs for C1,C2 & RV (EH1) plus EH2 will then be 24 Volts only.**

ITEM "A" HAN-L62 WALL CONTROL.

When the HAN-L62 is removed from the wall plate the following items are located on the rear of the PCB-126.



HAN-L62 REAR VIEW

1) **Dip Switches.**
A dip switch block with 4 dip switches is located beside the colour coded screw terminals for the interface cable connection. The function of the dip switches is as follows.

Dip No 1 & Dip No 2 - These are control address switches and are off for 1 control. When more than 1 control is used see Hanwest bulletin L62DCK-INST.

Dip No 3 - The control is supplied with this switch in OFF (down) and this enables all of the last control settings to be maintained in the eeprom memory. When this switch is in the "On" position (up) the eeprom memory for all last control settings is disabled. For normal operation Dip No 3 should be "Off" (down).

Dip No 4 - This switch is for locking the indoor fan operation to constant operation in Cool – Heat – Auto modes. The control is supplied with this switch "Off" (down) to allow constant or intermittent fan operation to be selected by pressing the Fan Speed tab on the membrane pad on the control when the front door is opened. If the control is installed in a commercial installation where constant air flow is required to comply with ventilation code requirements Dip No 4 should be switched "On" (up).

2) **TH1R** - TH1R is a 2 pin plug to enable an optional remote sensor to be installed from the HAN-L62 wall control. (There are also 3 remote sensor plugs located on the main PCB-132 located in the fan coil unit. Refer to main PCB section of these instructions.)

3) **Jumper JP1** - Is located beside the 2 pin plug to enable an optional remote sensor to be connected to the HAN-L62 control. The control is supplied with the jumper positioned for the on board sensor in the control to be in circuit. When an optional remote sensor is installed this jumper must be moved to bridge the centre and top pins to place the remote sensor in circuit and disable the on board sensor.

4) **VR1** - Is located above the dip switch block and is a control temperature calibration variable resistor. Temperature calibration may only be required where an optional remote sensor is installed from the HAN-L62 wall control and the cable length exceeds 10 metres.
To calibrate sensor press room temp display tab & select 1) on the left hand side of the temperature display sector in the display window. The sensor temperature will be shown.
Using a mercury thermometer as a reference adjust the sensor display temperature by gently rotating VRI.

5) **Reset Button** - The CPU in the HAN-L6 can be rebooted & the EEPROM memory cleared as follows. For this procedure the main power must be on.
   a) Remove HAN-L62 from wall plate.
   b) Change no. 3 dip switch to "On".
   c) Press reset button.
   d) After control display restarts change dip switch no. 3 to "off".
   Install HAN-L62 on to back plate.

ITEM "B" PCB-132 MAIN BOARD.

Connections. There are 3 screwed terminal strips for the following external connections located on the PCB-132.

1) **CN1** with 8 screwed terminals.
240V AC Line and Neutral.
Line & neutral input for fan outputs LF - MF – HF.

2) **CN2** with 8 screwed terminals.
Line & neutral input for control outputs C1 – C2 - RV (EH1) – EH2

3) **CN-SLV 4** colour coded screwed terminals for connection of the low voltage shieded serial interface cable to the HAN-L62 wall controls.

4) **TH2 – TH3 – TH4** are 2 pin plugs for optional remote sensors. Note: Used for averaging.

5) **CT** Is a 3 pin plug for connection of the indoor coil sensor. Indoor coil sensor (CT) must be installed in indoor coil in a copper pocket with thermal paste or fixed with a metal clip to ensure effective heat transfer. Do not use plastic cable ties or plastic clips of any type.

6) When the HAN-L62HP is installed on a 2 cool / 2 heat system a second indoor coil sensor can be connected to CT2 so both systems have an indoor coil sensor for system warm up in heat mode and indoor coil de-ice control in cool mode.

7) **CN-ZONES A** a 6 pin plug for connection of the optional PCB-086 zone relay board.

8) **CN-HDC** this plug is not assigned.

9) **CN-DDC** is located directly behind CN-SLV low voltage terminal block. This is for the connection to a DDC or BMS system or a remote Start/Stop station. An optional remote switch with a LED indicator is available.

10) **CR** back up battery for the real time clock.

11) **DIP-SW** is the dip switch with 4 dip switches. When the control leaves the factory dip switch no's 1 – 2 & 3 are "OFF" and no. 4 is "ON". The dip switch functions are as follows:
   DIP 1 OFF normal operation – ON service position (timer bypass) for testing the control only.
   DIP 2 OFF cool/heat operation. – ON cool only operation.
   DIP 3 OFF no boost heat - ON for boost heat.
   DIP 4 This dip switch is not assigned and should be left ON.

12) Fuse located between the transformer and CN-1 terminal strip is a 240V 2 amp control fuse for the transformer control circuit.

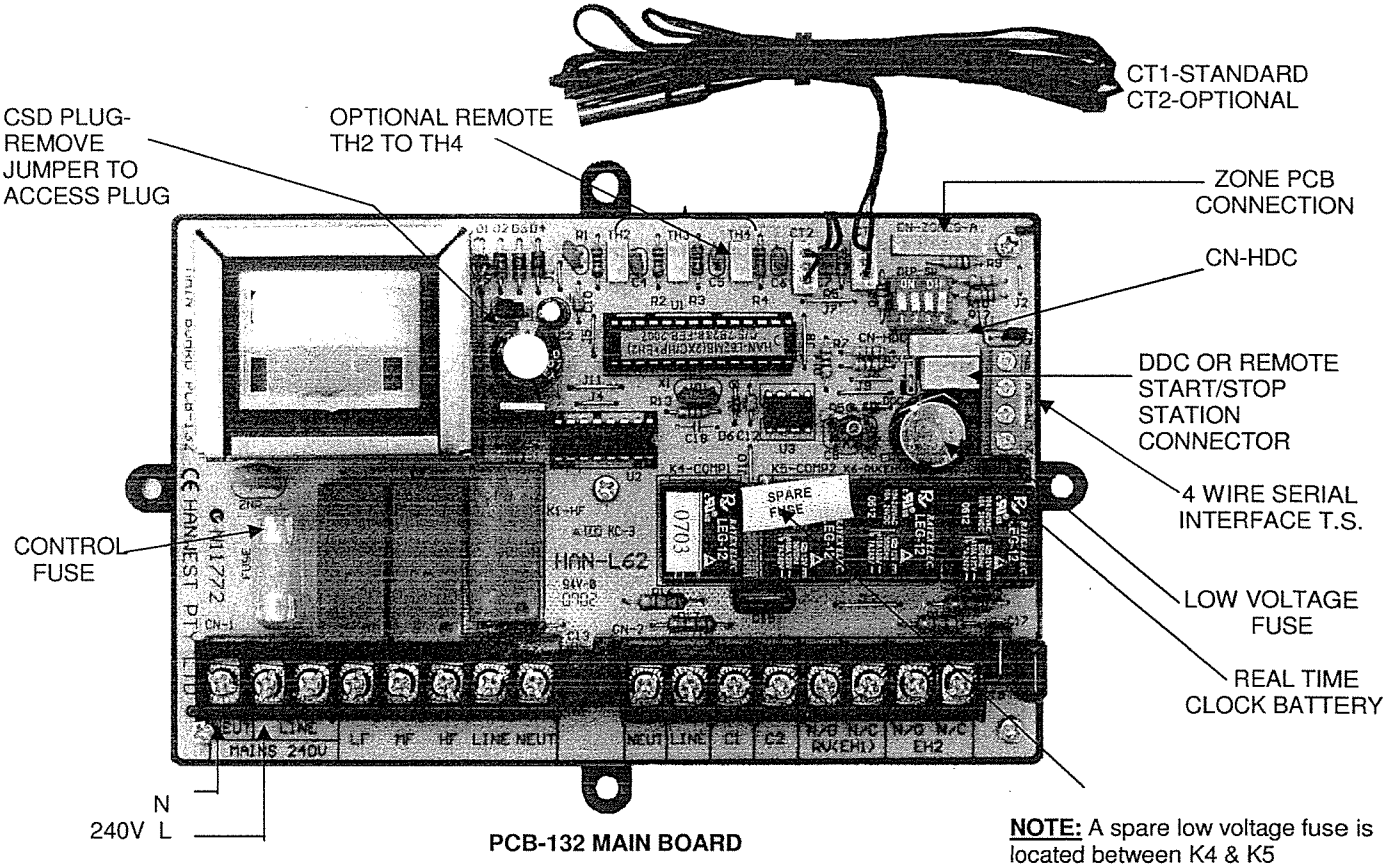
13) Replaceable Low Voltage Fuse for DC power to HAN-L62 Wall Control located between interface cable terminal strip & K7 (EH2) relay. The spare fuse is located between compressor relays K4 & K5 or on the base of the ventilated enclosure.

14) CSD. 2 pin receptacle for control shut down. Eg. Fire trip relay.

IMPORTANT
If the HAN-L62 Wall Control has no power before replacing the fuse, check the interface cable connections at the HAN-L62 Wall Control & the PCB-132 Main Board. This fuse generally only ruptures if the wiring connections are incorrect or shorted.

LOCKING UNUSED ZONES
On installations where less than 6 zones are used, zones 3-4-5-6 can be locked off to prevent unused zones being turned on. To lock the zones off press the zone button and hold for 3 seconds. To unlock the zone press the zone button and hold for 3 seconds.

ITEM "B" PCB-132 MAIN BOARD.



PCB-132 MAIN BOARD

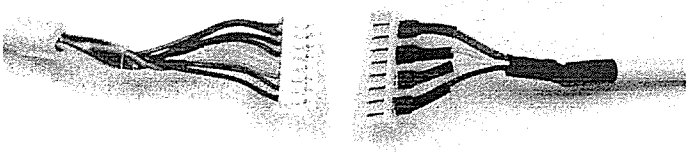
NOTE: A spare low voltage fuse is located between K4 & K5 compressor relays or on the base of the enclosure.

The control should only be installed by a suitably qualified tradesman.

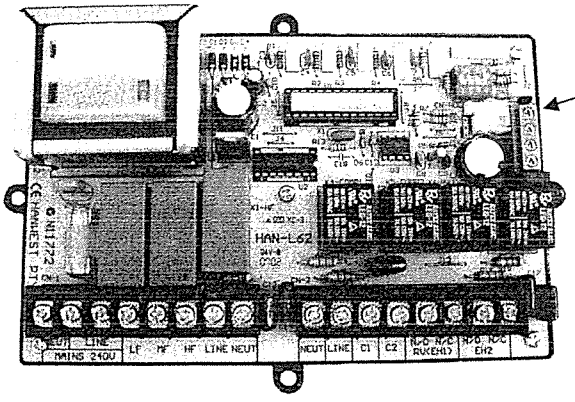
ITEM "D" HAN-L5 TO HAN-L62 CABLE ADAPTORS.

A HAN-L62 can replace any of the earlier "HAN" series controllers that have an 8 wire interface cable with plugs at each end. The upgrade kit includes 2 - HAN-L5 to HAN-L6 cable adaptors.
To install, plug the cable adaptor into the existing 8 wire interface cable and connect the 4 wires to the corresponding colour terminals on the back of the HAN-L62 wall control and the PCB-132 main board.

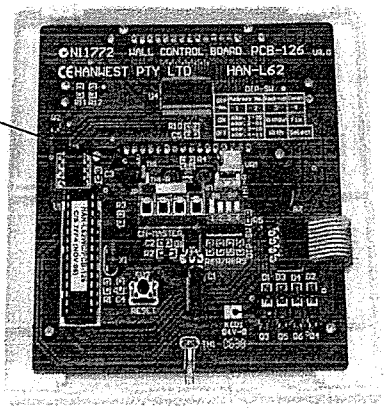
HAN-L5
IC-10/8
8 Wire
interface
cable



HAN-L5 to
HAN-L62
cable adaptor



4 Colour coded wires correspond to the terminal colour coding on the HAN-L62 & PCB-132.



HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551

DATE : 09/03/09
BULLETIN NO : L6 TO L62-UPGRADE KIT-INSP-REV2
SUPERSEDES : 02/08/07

MODEL HAN-L6 TO HAN-L62 UPGRADE KIT
INSTALLATION INSTRUCTIONS
MICROPROCESSOR AIR CONDITIONING SYSTEM CONTROLLER

APPLICATION

The HAN-L62 microprocessor air conditioning controller is suitable for installation with all split or one piece packaged air conditioning units. The HAN-L62 can be supplied to operate with reverse cycle, cool/electric element heat or add on cooling systems used with warm air furnaces and chilled water/hot water fan coil units. There are two model HAN-L62 controllers.

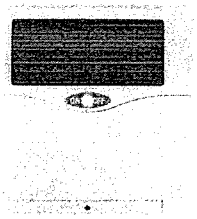
A) Model HAN-L62HP for reverse cycle (heat pump) air conditioners. This model is suitable for 1 stage cool / 1 stage heat with optional boost heat or 2 stage cool / 2 stage heat with optional boost electric heat. (Boost electric heat operation is dipswitch selectable.)

B) Model HAN-L62EH for cool only air conditioners with electric heat. This model is suitable for 1 stage cool / 1 stage heat or 2 stage cool / 2 stage heat operation.

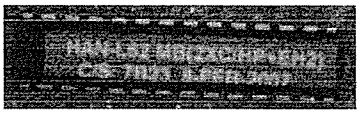
PACKING CHECKLIST – HAN-L62HP

The HAN-L62/PCB-132 Upgrade Kit when supplied contains the following items:

A) HAN-L62 room wall control and mounting plate.
B) Power Relay Board CPU
C) Chip Pullers
D) Installation instructions / Wiring diagram.



A



B



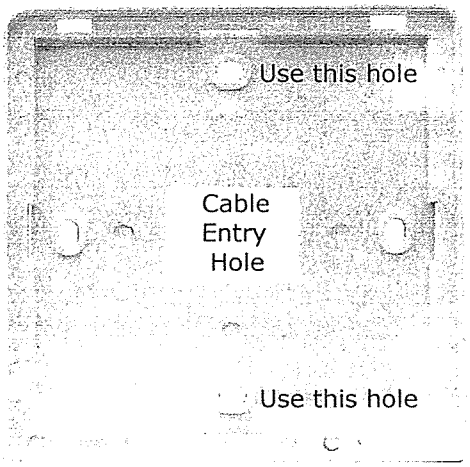
C

INSTALLATION PROCEDURE

A) HAN-L62 ROOM WALL CONTROL

The HAN-L62 is supplied with a separate wall mounting plate which is fastened to the wall and allows the control to be installed with all fastening screws concealed.

HAN-L62 MOUNTING PLATE



Check the wall where the HAN-L62 is to be located is flat and true before fastening the wall mounting plate. Fixing the mounting plate to a distorted surface may damage the control.

Fasten the wall mounting plate by the screw holes as indicated in photo. Always use the top and bottom holes as indicated. It is essential to use the lower hole to provide sufficient support to the mounting plate when removing the HAN-L62.

Drill hole in wall to allow cable entry.

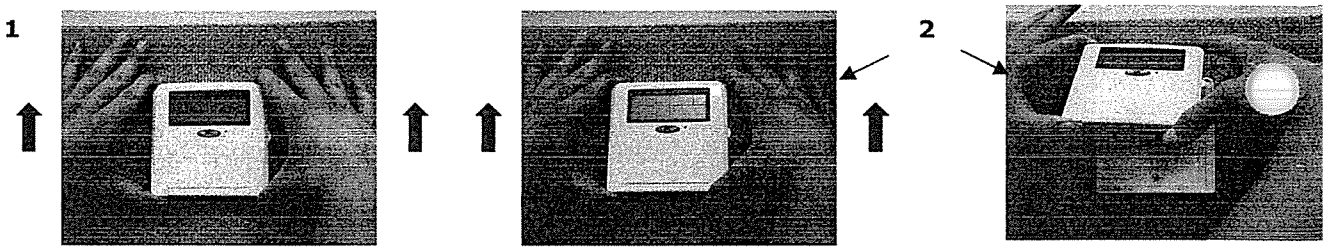
Install interconnecting cable supplied. **Fill around cable with foam or cover hole with PVC tape to prevent draft from wall cavity affecting control operation. Do not use aluminium duct tape.**

Important : The 4 core wires are colour coded to correspond to the terminal colour coding on the HAN-L62 & PCB-087. Do not run the interface cable for more than 2 metres with line voltage cables. Do not fasten the interface cable to copper refrigerant lines, water pipes or any other metal objects that could act as an aerial to attract electrical noise or interference.

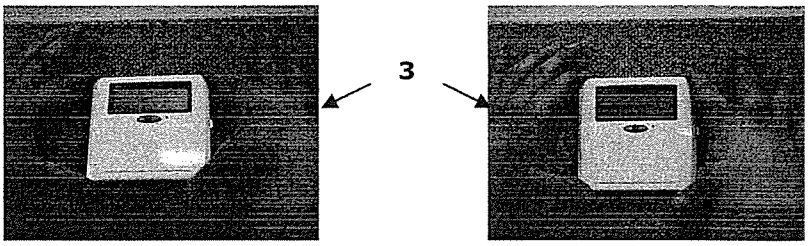
To install HAN-L62 onto mounting plate, locate the pegs on the top of the control with the recesses in the mounting plate. Carefully press in the bottom of the control to engage the lower fasteners.

HAN-L62 REMOVAL (For service or adjustment)

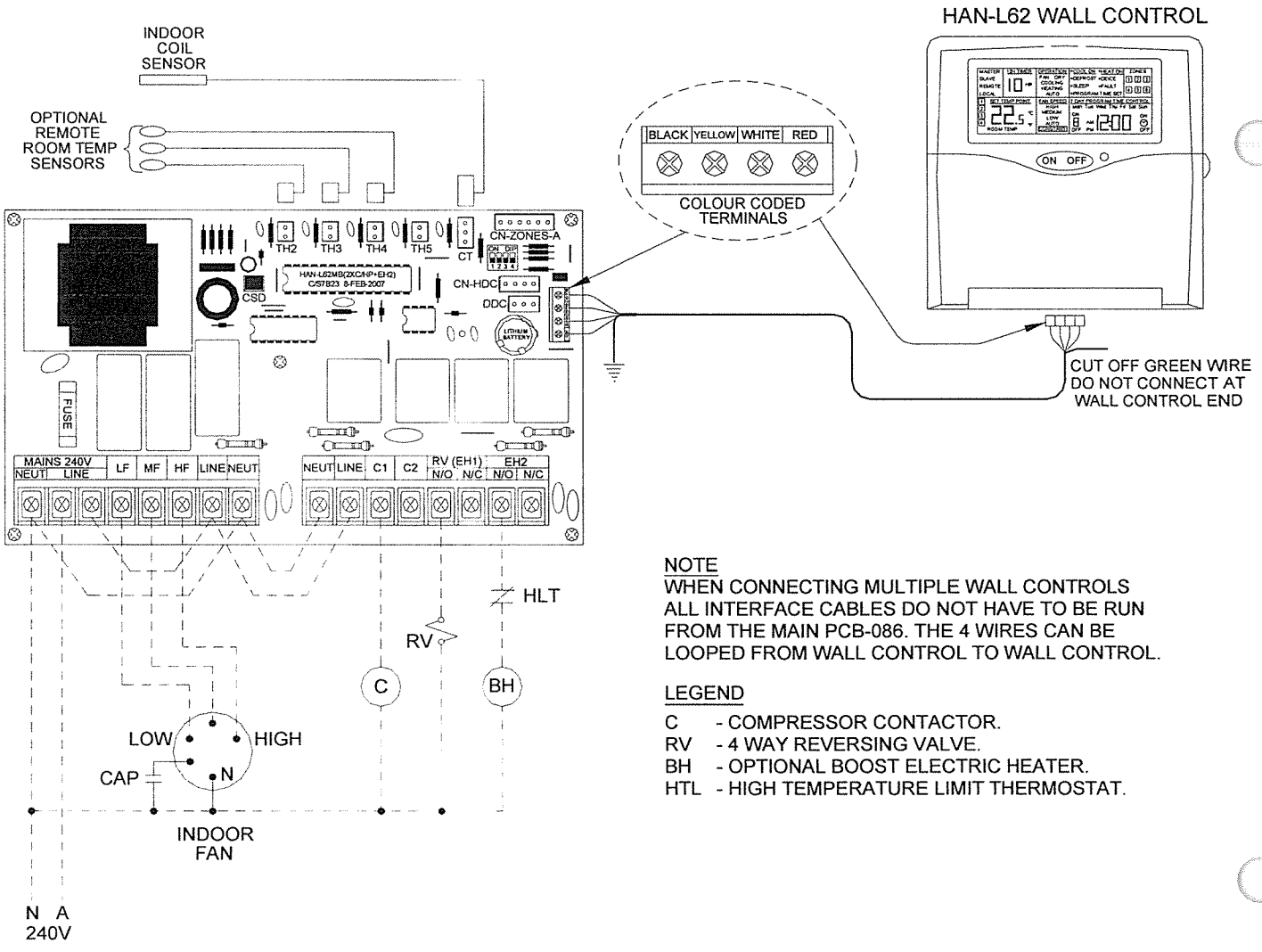
1) To remove HAN-L62 from the wall mounting plate after installation, place two hands on the control and exert upward pressure.
2) Hold the control with 2 hands and force upwards while easing the bottom of the wall control away from the wall. When the bottom edge comes out lift the control from the top pegs.



3) To re-install the control place the control on the top pegs then gently press the bottom of the control in and the control will clip on to the mounting plate.



WIRING DIAGRAM



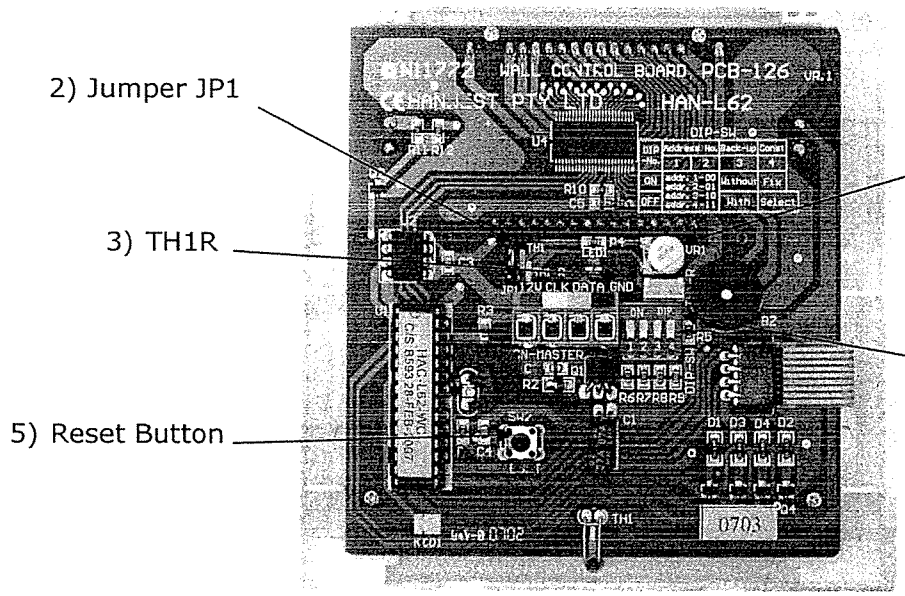
NOTE
WHEN CONNECTING MULTIPLE WALL CONTROLS ALL INTERFACE CABLES DO NOT HAVE TO BE RUN FROM THE MAIN PCB-086. THE 4 WIRES CAN BE LOOPED FROM WALL CONTROL TO WALL CONTROL.

LEGEND

C - COMPRESSOR CONTACTOR.
RV - 4 WAY REVERSING VALVE.
BH - OPTIONAL BOOST ELECTRIC HEATER.
HTL - HIGH TEMPERATURE LIMIT THERMOSTAT.

ITEM "A" HAN-L62 WALL CONTROL

When the HAN-L62 is removed from the wall plate the following items are located on the rear of the PCB-126.



HAN-L62 REAR VIEW

1) Dip Switches

A dip switch block with 4 dip switches is located beside the colour coded screw terminals for the interface cable connection. The function of the dip switches is as follows.

Dip No 1 & Dip No 2 - These are control address switches and are off for 1 control. When more than 1 control is used see Hanwest bulletin L62DCK-INST.

Dip No 3 - The control is supplied with this switch in OFF (down) and this enables all of the last control settings to be maintained in the eeprom memory. When this switch is in the "On" position (up) the eeprom memory for all last control settings is disabled. For normal operation Dip No 3 should be "Off" (down).

Dip No 4 - This switch is for locking the indoor fan operation to constant operation in Cool – Heat – Auto modes. The control is supplied with this switch "Off" (down) to allow constant or intermittent fan operation to be selected by pressing the Fan Speed tab on the membrane pad on the control when the front door is opened. If the control is installed in a commercial installation where constant air flow is required to comply with ventilation code requirements Dip No 4 should be switched "On" (up).

2) TH1R - TH1R is a 2 pin plug to enable an optional remote sensor to be installed from the HAN-L62 wall control. (There are also 3 remote sensor plugs located on the main PCB-132 located in the fan coil unit. Refer to main PCB section of these instructions.)

3) Jumper JP1 - Is located beside the 2 pin plug to enable an optional remote sensor to be connected to the HAN-L62 control. The control is supplied with the jumper positioned for the on board sensor in the control to be in circuit. When an optional remote sensor is installed this jumper must be moved to bridge the centre and bottom pins to place the remote sensor in circuit and disable the on board sensor.

4) VR1 - Is located above the dip switch block and is a control temperature calibration variable resistor. Temperature calibration may only be required where an optional remote sensor is installed from the HAN-L62 wall control and the cable length exceeds 10 metres.
To calibrate sensor press room temp display tab & select 1) on the left hand side of the temperature display sector in the display window. The sensor temperature will be shown.
Using a mercury thermometer as a reference adjust the sensor display temperature by gently rotating VRI.

5) Reset Button - The CPU in the HAN-L6 can be rebooted & the EEPROM memory cleared as follows. For this procedure the main power must be on.

- **a)** Remove HAN-L62 from wall plate.
- **b)** Change no. 3 dip switch to "On".
- **c)** Press reset button.
- **d)** After control display restarts change dip switch no. 3 to "off".

Install HAN-L62 on to back plate.

LOCKING UNUSED ZONES

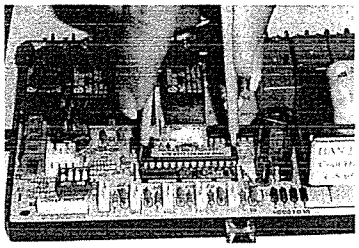
On installations where less than 6 zones are used, zones 3-4-5-6 can be locked off to prevent unused zones being turned on. To lock the zones off press the zone button and hold for 3 seconds. To unlock the zone press the zone button and hold for 3 seconds.

ITEM "B" POWER RELAY BOARD CPU & ITEM "C" CHIP PULLERS

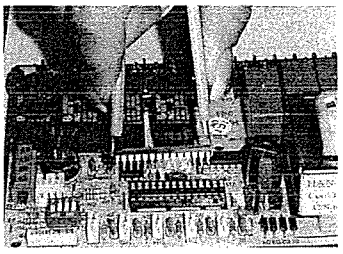
A PCB-087 can be upgraded by simply changing the Power Relay Board CPU.

1. Switch main supply power off to the PCB-087 main board.

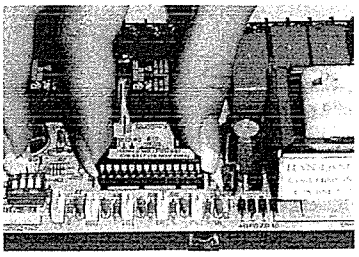
2. Using a chip puller carefully grasp under each end of the CPU and with a gentle rocking motion pull the CPU from the base.



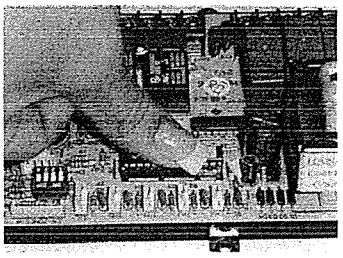
3. CPU removed from the base.



4. Carefully remove the upgraded CPU from the plastic sleeve & check to make sure that all pins on the CPU are straight. Carefully insert the CPU (making sure the indent in the end of the CPU lines up with the indent in the CPU base) into the base being careful not to bend any of the pins.

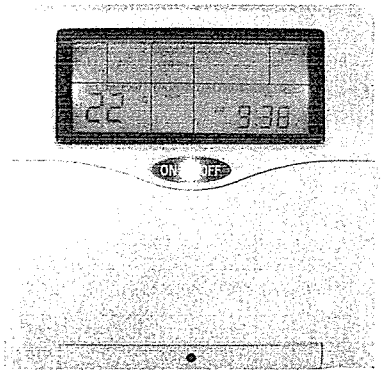


5. When the CPU is located in the base press the CPU down firmly to ensure it is fully in position.



6. When the CPU change is complete, restore power to the control. All wall controls should be reset to save changes. Set Dip 3 on the wall control to on (up). Press reset button. When normal control display resumes, set dip 3 to off (down)

HAN-L62 MICROPROCESSOR CONTROLLER



USER'S OPERATING INSTRUCTIONS

Your air conditioner is supplied with the latest advanced process Model HAN-L62 Microprocessor Controller.

The adjustment details for this easy to use control are described in this booklet.

All control settings for the HAN-L62 can be changed whether the control is turned off or on.

When adjusting the control the backlight in the display panel is turned on and switches off after the last adjustment is made.

If the power to the unit is turned off or a power failure occurs all last settings are maintained in EEPROM memory. The real time clock operation is backed up by a long life battery.

SWITCH ON

To turn the air conditioning unit on, simply press the ON/OFF button. The LED display will then be illuminated and the ON/OFF button light will turn on.



SWITCH OFF (Standby Mode)

To turn the air conditioning unit off, simply depress the ON/OFF button. This will place the unit into "standby mode". The current set-point and fan speed selection will be stored in the controller's memory. Do not restart for several minutes to allow the air conditioning equipment to stabilise before re-starting.

SYSTEM MEMORY

Whether the unit is switched on by means of the ON/OFF key or automatically by the built in 7 day 6 function timer, the control's set-point and fan speed settings will be the last settings at the time the unit was switched off.

If the HAN-L62 has been disconnected from the supply voltage, when the control is switched on the control's set-point and fan speed settings will be the last settings at the time the unit was switched off.

MODE SELECTION

BUTTON [MODE]

Press the "MODE" button to select FAN/DRY/COOLING/HEATING or AUTO. Each mode of operation is described below.

LCD DISPLAY



The digital LCD display will indicate the mode while the adjustment is being carried out.

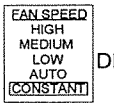
FAN – With "FAN" selected only, the indoor air circulating fan will run.
DRY – "DRY" operation is used to reduce the humidity without cooling the room too much. In this mode the fan operates on low speed and the compressor automatically cycles on and off to reduce the humidity.
COOLING – The system will operate automatically to provide comfort cooling.
HEATING – The system will operate automatically to provide comfort heating.
AUTO – The system will operate automatically on cooling or heating to maintain the set temperature.
After selecting the mode press the ON/OFF button to start the fan. It is preferable to switch the control off before changing the mode switch. If the control is switched on when the MODE button is altered, the air conditioner will not change cycle for 4 minutes to allow the system to stabilise. After this time delay the air conditioner will operate in the mode selected. (FAN/DRY/COOL/AUTO/HEAT)

FAN SPEED ADJUSTMENT

Select the desired fan speed by pressing the "FAN SPEED" button.



BUTTON

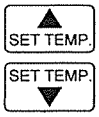


LCD DISPLAY

- In FAN mode, you can only select HIGH – MEDIUM or LOW fan speed.
- In DRY mode, the fan operates on low fan speed only.
- In COOLING or the cooling cycle of AUTO mode, you can select from HIGH – MEDIUM – LOW – AUTO – HIGH CONSTANT – MEDIUM CONSTANT – LOW CONSTANT – AUTO CONSTANT with each press.
- In HEATING operation (AUTO or HEAT mode) the indoor fan speed is automatically controlled to ensure the air conditioner operates to its maximum efficiency.
- CONSTANT means continuous operation of the fan speed while the control is in operation even when the compressor has turned off. When CONSTANT is off, when the set temperature is reached and the compressor stops, the indoor fan also stops.

SET POINT TEMPERATURE ADJUSTMENT

Press the "SET TEMP" UP ▲ or DOWN ▼ button to increase or decrease the temperature set-point as desired. Temperature is selectable in ½ °C increments.



BUTTON

The digital LCD display will indicate the set-point temperature while the adjustment is being carried out.



LCD DISPLAY

You can adjust the set-point temperature to different temperatures for Heating or Cooling mode. Just change the mode selection to "HEATING" or "COOLING" and adjust temperature as required.

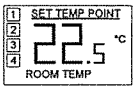
ROOM TEMP DISPLAY

Press "ROOM TEMP." to display the room temperature of each zone if optional remote sensors are installed



BUTTON

The LCD will display "ROOM TEMP" at the bottom left hand corner and every time you press the "ROOM TEMP." button the zone number will light up (left hand side) with the room temperature of that zone.



LCD DISPLAY

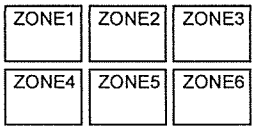
To get back to the set-point temp press either the "SET TEMP" UP ▲ or DOWN ▼ button.

12 HOUR TIMER

The 12 hour timer will only work on the master control. With unit operating press "12H OFF TIMER" button. Select the number of hours until the control is to switch off. Unit will be placed into Standby mode after the set number of hours has passed.

ZONES (OPTIONAL)

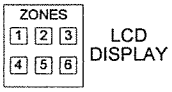
If the air conditioning installation has zones installed with the auxiliary zone board connected select the zones to be turned on.
Press ZONE1 for zone 1, ZONE2 for zone 2 etc.



BUTTONS

LOCKING UNUSED ZONES

On installations where less than 6 zones are used, zones 3-4-5-6 can be locked off to prevent unused zones being turned on. To lock the zones off, press the zone button and hold for 3 seconds. To unlock the zone, press the zone button and hold for 3 seconds.



LCD DISPLAY

SLEEP

SLEEP mode is designed to provide a more comfortable environment whilst the occupants of the air-conditioned area are sleeping. SLEEP mode does not work in AUTO mode. With the air conditioner operating the following temperature adjustment will automatically occur.

- SLEEP button pressed, start sleep timer.

	Cooling	Heating
• After 30 min. temp. set point	up 0.5°C	down 0.5°C.
• After further 30 min. temp. set point	up 0.5°C	down 0.5°C.
• After further 60 min. temp. set point	up 1.0°C	down 1.0°C.
• Total set back temperature	up 2.0°C	down 2.0°C.

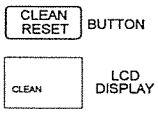
Sleep can be cancelled at any time by any of the following methods.

a. Pressing the SLEEP button.
b. Setting the required number of hours on the "12 hour TIMER".
c. Setting a program off time to repeat daily.
d. Setting a control start "ON" time to repeat daily.

KEYLOCK

The KEYLOCK function prevents unauthorised persons tampering with the control settings. To activate press and hold "SLEEP" button for 4 seconds. When activated all control setting operations are disabled with the exception of the ON/OFF key. To disable the keylock function press and hold "SLEEP" button again for 4 seconds.

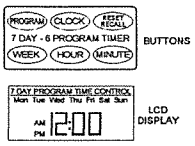
CLEAN RESET



The LCD displays "CLEAN" every 250 hours to tell you that the filter needs cleaning. After cleaning filter, press "CLEAN RESET" button to reset timer. Filter "CLEAN" display will be turned off.

7 DAY AUTO TIME CLOCK

Clock setting



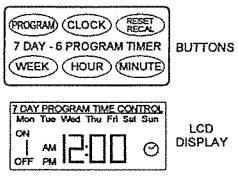
To set the clock time simply press the "HOUR" button to set the hour & "MINUTE" button to set the minute.

To set the day of the week press the "WEEK" button. Each time you press the week button different days will be displayed.

DE-ICE DISPLAY

Should "DE-ICE" be displayed this indicates the indoor coil has formed a layer of ice on the indoor coil that will affect the units operation. The "DE-ICE" function will melt the ice that has formed. It is recommended to check the return air filter as if it is blocked with dust, the air flow will be reduced causing the indoor coil to form ice.

7 DAY PROGRAM TIME CONTROL



1) Press "PROGRAM" and 1^{ON} will appear to indicate the 1st power on time is ready to be set. You will notice "OPERATION" – "ZONES" – "SET TEMP POINT" – "FAN SPEED" and "7 DAY PROGRAM TIME CONTROL" all flash.

2) Press "MODE" to select desired mode (page 3).

3) Press zone buttons to select zones to be turned on (page 6).

4) Press "SET TEMP ▲" (up) or "SET TEMP ▼" (down) to select desired temperature (page 5).

5) Press "FAN SPEED" to select desired speed (page 4).

6) Press "WEEK" to select the desired day/s that you want your power-on time.

7) Press "HOUR", then "MINUTE" to enter the first desired power-on time. (Note: To reset times, press "RESET/RECALL").

8) When desired power on (1^{ON}) details are entered, press "PROGRAM". 1^{OFF} will now appear to indicate the 1st power off time is ready to be set.

9) Repeat steps 6-8. (Note: For every power-on time, there must be a power-off time).

10) Repeat steps 1-10 until the 6th power-off timer is set. (Note: There is a max of 6 ON/OFF times).

11) You may press "PROGRAM" to double check the days and times.

12) Press "CLOCK" to resume present time.

OPTIONAL MULTIPLE CONTROL

If more than 1 control is installed, you can select any control to be the "MASTER" by simply pressing the ON/OFF button. All other controls will change to "SLAVE" mode automatically.

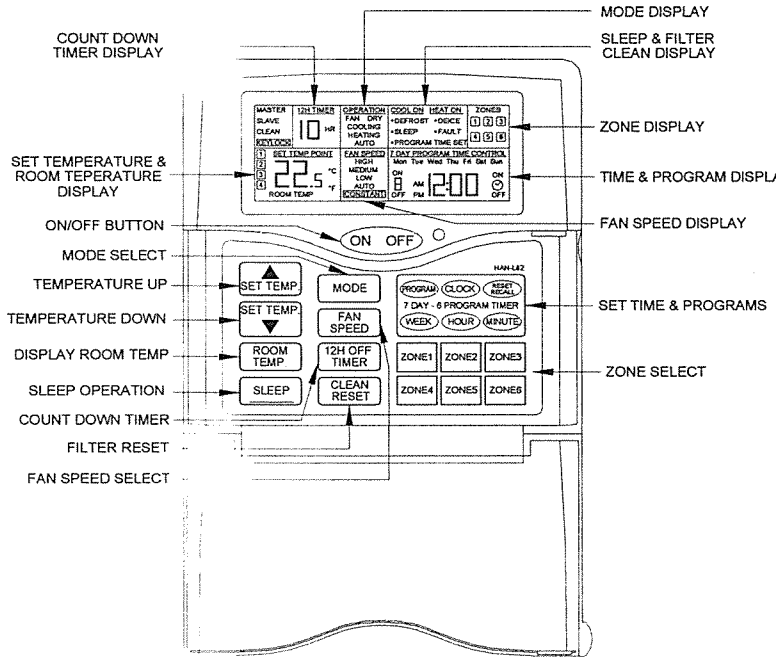
To adjust each control to desired settings, simply follow instructions from the previous pages.

In the event of a power failure, the master control will be the one prior to the power failure that will resume operation.

MULTIPLE SENSORS (AVERAGING)

If optional multiple sensors are connected (up to 4 in total) they are activated by pressing the relevant ZONE buttons (1 to 4).

DIAGRAM OF HAN-L62 WITH FRONT DOOR OPEN



HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551

DATE : Nov 2007
BULLETIN NO : L62-086-INSP
SUPERSEDES : Nil

HAN-L62 ZONE ACCESSORY KIT

The zone accessory kit is an add on option to allow up to 6 zone dampers to be switched from the HAN-L62 wall control. Standard damper motors 240 volt or 24 volt can be used with drive open drive close or drive open spring closed.

The zone kit includes the following items.

- **A)** PCB-086 zone relay board (ZRB)
- **B)** IC-6/03 interface cable
- **C)** DS-6 door sticker for zone labels x 2
- **E)** ZL-1 pack of zone identifying labels x 2

INSTALLATION

1) Locate the ZRB, PCB-086 adjacent to the HAN-L62 main PCB-132.

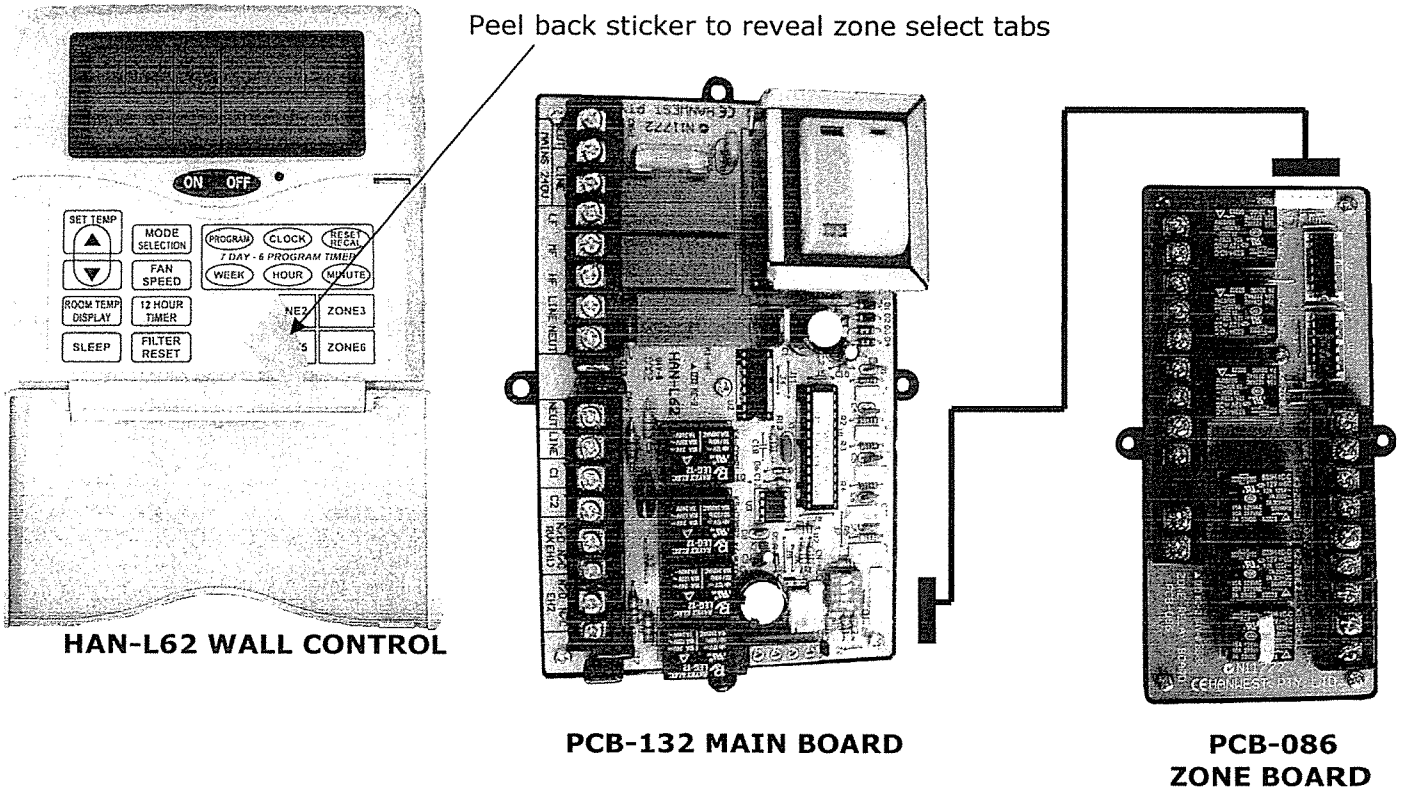
2) Connect the IC-6/03 interface cable to the CN-ZONES-B on the PCB-086 ZRB and to the CN-ZONES-A plug connection on the PCB-132 (HAN-L62 main board).

3) If 240VAC damper motors are to be used connect 240V active and neutral to terminals "Line" & "Neut".

If 24VAC damper motors are to be used connect 24V+ & 24V- active and neutral to terminals "Line" & "Neut".

4) For each zone damper motor there is a "NO" and "NC" terminal for drive open drive close motors as well as neutral terminal for each neutral.

5) The HAN-L62 wall control is equipped as standard with the zone select tabs. Open the door on the HAN-L62 and on the lower right hand side is a blank panel. Peel off the sticker to reveal the zone press tabs.

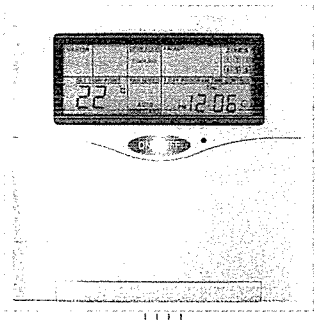


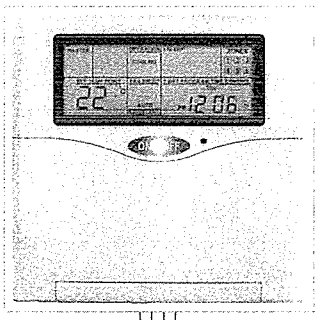
HAN-L62 WALL CONTROL

PCB-132 MAIN BOARD

PCB-086 ZONE BOARD

HAN-L62
NO. 1





HAN-L62
NO. 2
(Optional)

WALL CONTROL DIP SWITCH



DIP NO. 1 ADDR 1
DIP NO. 2 ADDR 0
DIP NO. 3 SET OFF
DIP NO. 4 SET OFF

4 WIRE SHIELDED CABLE

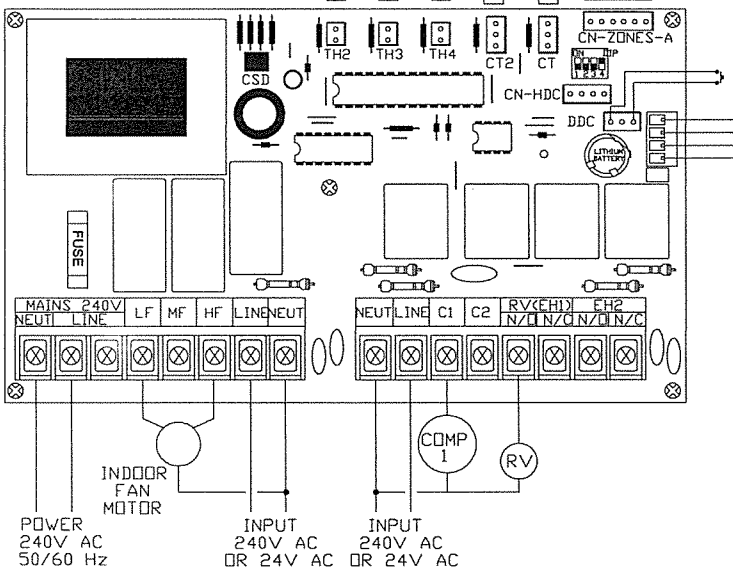
INDOOR COIL SENSOR
(CT2 OPTIONAL)
OPTIONAL REMOTE
ROOM SENSORS

PCB-132

MAIN PCB DIP SWITCH



DIP NO. 1 ON SERVICE
DIP NO. 1 OFF NORMAL
DIP NO. 2 ON COOL ONLY
DIP NO. 2 OFF HEAT PUMP
DIP NO. 3 SET OFF
DIP NO. 4 SET ON

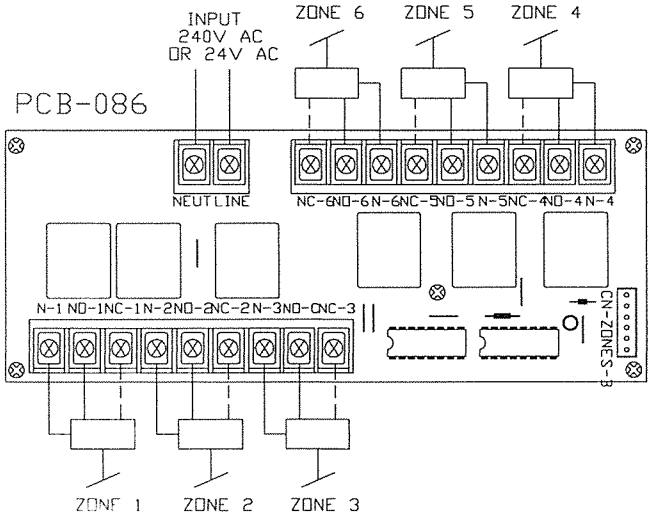


POWER
240V AC
50/60 Hz

INPUT
240V AC
OR 24V AC

INPUT
240V AC
OR 24V AC

6 WIRE
INTERFACE
CABLE



ZONE 1
ZONE 2
ZONE 3

NOTE:
FOR EACH ZONE DAMPER THERE IS A NC - NO & NEUTRAL TERMINAL. ALL NEUTRAL TERMINALS ARE COMMON WITH THE MAIN NEUTRAL CONNECTION.

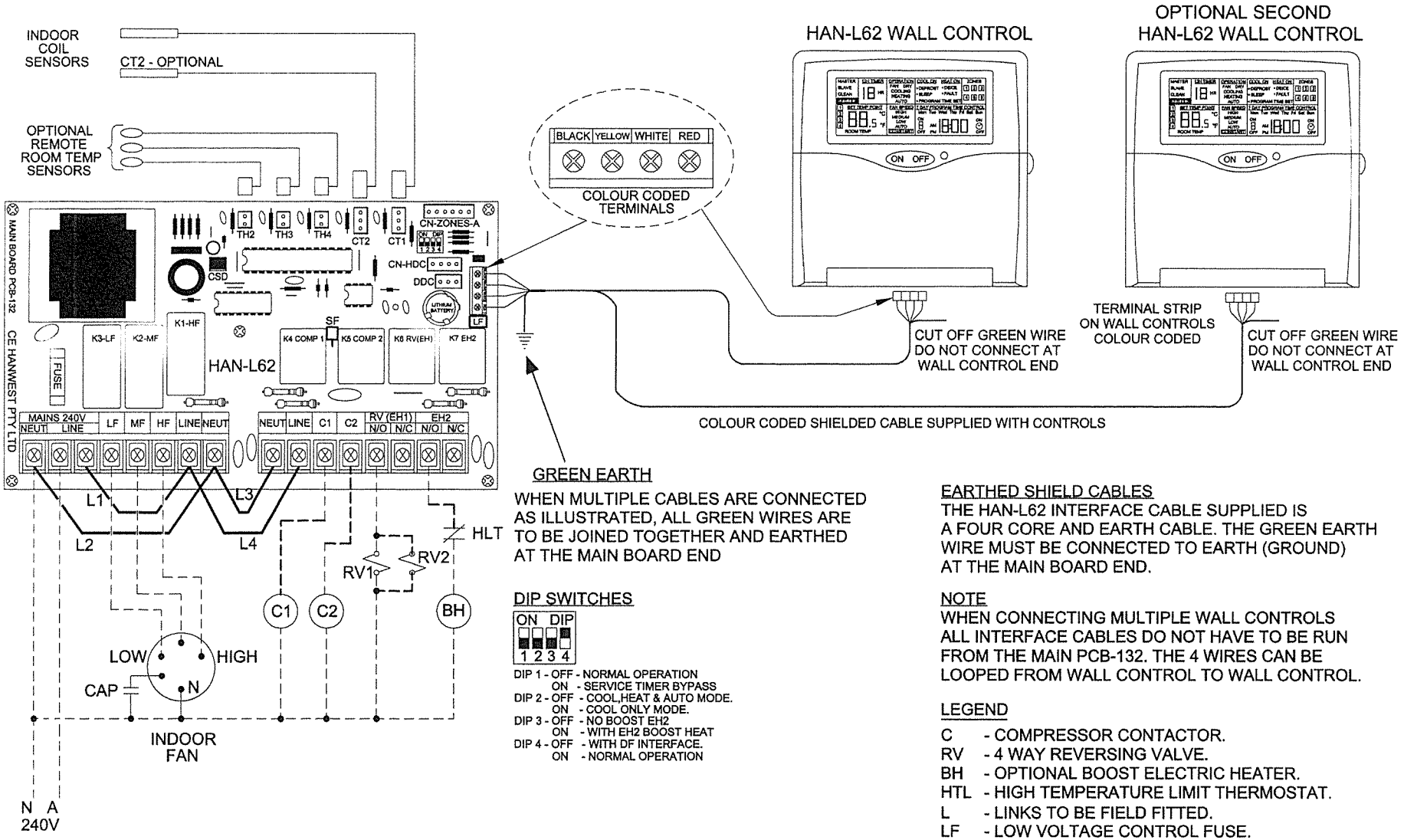
APP BY	DESCRIPTION	DATE

HANWEST PTY LTD
ABN 49 003 452 551
94-98 JARDINE STREET FAIRY MEADOW NSW 2519
PHONE: (02) 4283 5377 FAX: (02) 4283 5467

SCHEMATIC WIRING DIAGRAM FOR HAN-L62 WITH OPTIONAL ZONE PCB FOR 1 STAGE HEAT/COOL HEAT PUMP SYSTEM.

DRAWN	
CHKD	ECJ
SCALE	NTS
REV	0
DATE	OCTOBER 2007
DWG NO.	HAN-L62-132-086

CE



GREEN EARTH

WHEN MULTIPLE CABLES ARE CONNECTED AS ILLUSTRATED, ALL GREEN WIRES ARE TO BE JOINED TOGETHER AND EARTHED AT THE MAIN BOARD END

DIP SWITCHES

ON DIP
1 2 3 4

DIP 1 - OFF - NORMAL OPERATION
ON - SERVICE TIMER BYPASS
DIP 2 - OFF - COOL,HEAT & AUTO MODE.
ON - COOL ONLY MODE.
DIP 3 - OFF - NO BOOST EH2
ON - WITH EH2 BOOST HEAT
DIP 4 - OFF - WITH DF INTERFACE.
ON - NORMAL OPERATION

EARTHED SHIELD CABLES

THE HAN-L62 INTERFACE CABLE SUPPLIED IS A FOUR CORE AND EARTH CABLE. THE GREEN EARTH WIRE MUST BE CONNECTED TO EARTH (GROUND) AT THE MAIN BOARD END.

NOTE

WHEN CONNECTING MULTIPLE WALL CONTROLS ALL INTERFACE CABLES DO NOT HAVE TO BE RUN FROM THE MAIN PCB-132. THE 4 WIRES CAN BE LOOPED FROM WALL CONTROL TO WALL CONTROL.

LEGEND

C - COMPRESSOR CONTACTOR.
RV - 4 WAY REVERSING VALVE.
BH - OPTIONAL BOOST ELECTRIC HEATER.
HTL - HIGH TEMPERATURE LIMIT THERMOSTAT.
L - LINKS TO BE FIELD FITTED.
LF - LOW VOLTAGE CONTROL FUSE.
SF - SPARE LOW VOLTAGE CONTROL FUSE.

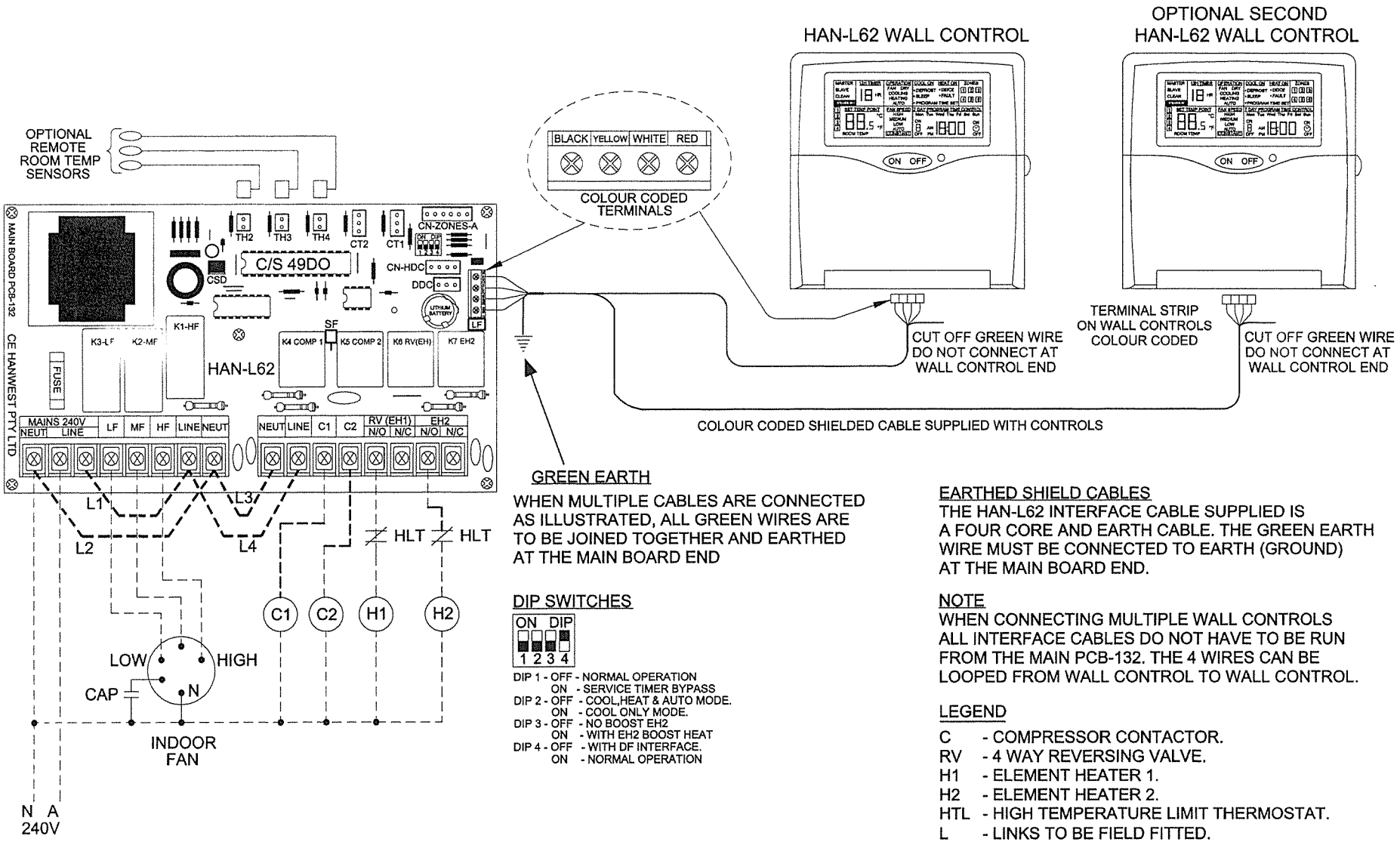
APP BY	DESCRIPTION	DATE

HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551
94 - 98 JARDINE ST
FAIRY MEADOW NSW 2519
PHONE: (02) 4283 5377 FAX: (02) 4283 5467

TYPICAL WIRING DIAGRAM FOR HAN-L62 DUAL MICROPROCESSOR AIR CONDITIONING CONTROLLER FOR 1 OR 2 STAGE HEAT/COOL REVERSE CYCLE AIR CONDITIONING UNITS

DRAWN	ECJ
CHKD	
SCALE	NTS
REV	NIL
DATE	JAN 2007
DWG. NO.	HAN-L62/PCB-132-INST

CE



GREEN EARTH

WHEN MULTIPLE CABLES ARE CONNECTED AS ILLUSTRATED, ALL GREEN WIRES ARE TO BE JOINED TOGETHER AND EARTHED AT THE MAIN BOARD END

DIP SWITCHES

ON DIP
1 2 3 4

DIP 1 - OFF - NORMAL OPERATION
ON - SERVICE TIMER BYPASS
DIP 2 - OFF - COOL,HEAT & AUTO MODE.
ON - COOL ONLY MODE.
DIP 3 - OFF - NO BOOST EH2
ON - WITH EH2 BOOST HEAT
DIP 4 - OFF - WITH DF INTERFACE.
ON - NORMAL OPERATION

EARTHED SHIELD CABLES

THE HAN-L62 INTERFACE CABLE SUPPLIED IS A FOUR CORE AND EARTH CABLE. THE GREEN EARTH WIRE MUST BE CONNECTED TO EARTH (GROUND) AT THE MAIN BOARD END.

NOTE

WHEN CONNECTING MULTIPLE WALL CONTROLS ALL INTERFACE CABLES DO NOT HAVE TO BE RUN FROM THE MAIN PCB-132. THE 4 WIRES CAN BE LOOPED FROM WALL CONTROL TO WALL CONTROL.

LEGEND

C - COMPRESSOR CONTACTOR.
RV - 4 WAY REVERSING VALVE.
H1 - ELEMENT HEATER 1.
H2 - ELEMENT HEATER 2.
HTL - HIGH TEMPERATURE LIMIT THERMOSTAT.
L - LINKS TO BE FIELD FITTED.
LF - LOW VOLTAGE CONTROL FUSE.
SF - SPARE LOW VOLTAGE CONTROL FUSE.

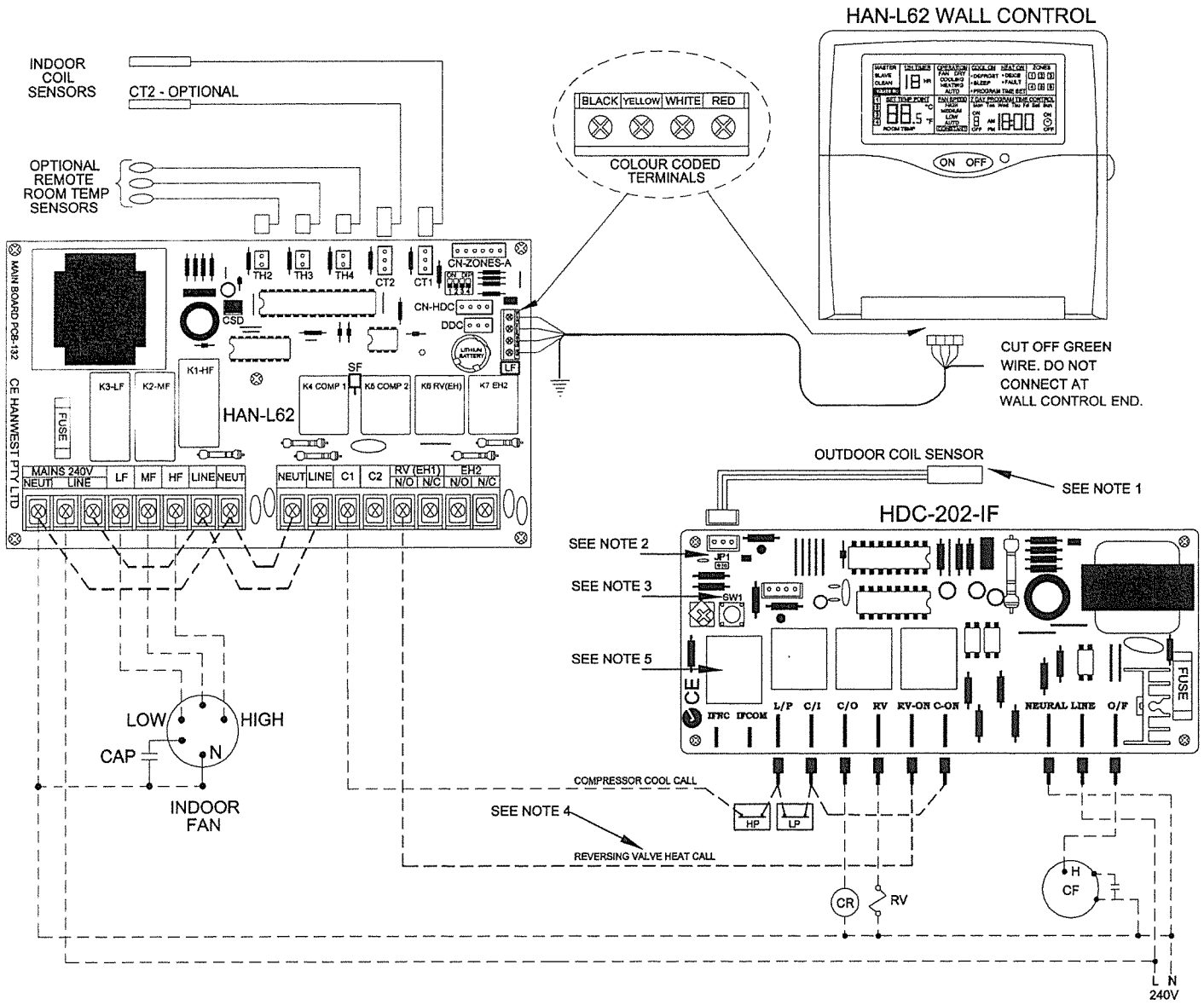
APP BY	DESCRIPTION	DATE

HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551
94 - 98 JARDINE ST
FAIRY MEADOW NSW 2519
PHONE: (02) 4283 5377 FAX: (02) 4283 5467

TYPICAL WIRING DIAGRAM FOR HAN-L62 DUAL MICROPROCESSOR AIR CONDITIONING CONTROLLER FOR 1 OR 2 STAGE COOL 1 OR 2 STAGE ELEMENT HEAT AIR CONDITIONING UNITS

DRAWN	DS
CHKD	
SCALE	NTS
REV	REV1
DATE	OCTOBER 2008
DWG. NO.	HAN-L[illegible]B-132EH-INST-REV1

CE



EARTHED SHIELD CABLES

FROM MID 2006 THE HAN-L6 CABLE SUPPLIED IS A FOUR CORE AND EARTH CABLE. THE GREEN EARTH WIRE MUST BE CONNECTED TO EARTH (GROUND) AT THE MAIN BOARD END.

NOTE 1

THE OUTDOOR COIL SENSOR BULB SHOULD BE LOCATED IN A COPPER WELL SILVER SOLDERED TO A COIL RETURN BEND. WHEN ATTACHING THE SENSOR, USE A THERMAL CONDUCTING PASTE TO ENSURE GOOD HEAT TRANSFER. LOCATE THE SENSOR IN A POSITION APPROXIMATELY MID CIRCUIT OF ONE OF THE COIL CIRCUITS. FOR FURTHER INFORMATION CONTACT HANWEST PTY LTD

NOTE 2

- JP1.

FOR NORMAL OPERATION THE TEST JUMPER PINS MUST NOT BE SHORTED.

NOTE 3

- "TEST" SWITCH.

TO INITIATE OR TERMINATE DEFROST.

NOTE 4

- SHOWN AS REVERSING VALVE ON IN HEAT MODE.

NOTE 5

- RELAY OPENS DURING DEFROST.

LEGEND

RV - 4 WAY REVERSING VALVE.
CR - COMPRESSOR RELAY.
CF - CONDENSER FAN MOTOR.

APP BY	DESCRIPTION	DATE
DS	HDC-202 WIRING	17/09/08
CD	ADDED 'IF' TO HDC-202, 'IFNC' & 'IFCOM' TERMINALS, EXTRA RELAY, NOTE 5.	20/01/10

HANWEST PTY LTD
SPECIALISED COMPONENTS FOR AIR CONDITIONING & REFRIGERATION
ABN 49 003 452 551
94 - 98 JARDINE ST
FAIRY MEADOW NSW 2519
PHONE: (02) 4283 5377 FAX: (02) 4283 5467

CONNECTION DIAGRAM FOR HAN-L62/PCB-132 MICROPROCESSOR CONTROLLER WITH HDC-202-IF CONDENSER UNIT CONTROLLER

DRAWN	CD
CHKD	DS
SCALE	NTS
REV	2
DATE	20 HAN 2010
DWG. NO.	L62-132-202IF-REV2