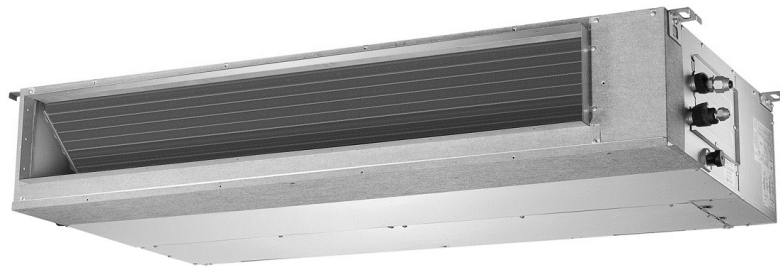


Bulkhead 2

Multi Split System Air Conditioner

Installation and Commissioning Guide



Model Numbers

BRE-026CS
BRE-035CS
BRE-050CS
BRE-070CS



IMPORTANT NOTE:

Please read this manual carefully before installing or operating your air conditioning unit. Make sure to save this manual for future reference.



CAUTION:

The system is charged with flammable refrigerant, safety checks are necessary to ensure that the risk of ignition is minimised.



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This manual is a controlled document which contains confidential and proprietary information. Distribution, modification, copying and/or reproduction are prohibited without written consent from ActronAir. Product design and specifications are subject to change without prior notice for product improvement.

READ SAFETY PRECAUTIONS BEFORE INSTALLATION

Incorrect installation due to ignoring instructions can cause serious damage or injury. The seriousness of potential damage or injuries is classified as either a **WARNING** or **CAUTION**.



CAUTION

Failure to observe a caution may result in injury or equipment damage.



WARNING

Failure to observe a warning may result death or serious injury.





FOR COMPLIANCE WITH QUEENSLAND
ELECTRICAL SAFETY REGULATIONS 2013
This refers to electrical works only



MUST BE INSTALLED BY A LICENSED
ELECTRICIAN

01. Symbols

Explanation of symbols displayed on the air conditioner. Information About This Guide

	This symbol shows that this appliance uses a flammable refrigerant. If the refrigerant leaks and exposed to an external ignition source, there is a risk of fire.
	This symbol shows that the Operation Manual should be read carefully.
	This symbol shows that a service person should be handling this equipment with reference to the Installation Manual.
	This symbol shows that there is information included in the Operation Manual and Installation Manual.

02. Inspection

02.01. Product Inspections

Check your air conditioning unit and all items against the invoice upon receiving your shipment. Inspect the unit, components and accessories for any sign of damage. If there is any damage to the unit, contact ActronAir Customer Care Department immediately on: **1300 522 722** to obtain a Goods Return Number.

Check the unit nameplate to verify the model, serial number, electrical rated specifications are correct.

02.02. Codes, Regulations and Standards

The installer and/or contractor assumes responsibility to ensure that unit installation complies with the relevant council, state / federal codes, regulations and building code standards. All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided with the unit.

03. General Information

The ActronAir air conditioning units are designed for applications where superior performance, high efficiency, reliability, supply air quality and quiet operation are the prime priorities.

For optimum efficiency, your air conditioning unit will deliver just the right amount of cooling or heating capacity you demand. Even in extreme conditions, the unit will still supply the required demand at peak performance.

Energy Efficient Refrigeration Circuits

The ActronAir system is designed with a split ducted refrigeration circuit that delivers only the amount of cooling or heating actually required to maintain your desired comfort at the most optimum efficiency.

Each refrigeration circuit consists of:

- High efficiency inverter scroll compressor.
- Gold hydrophilic coat coil protected condenser designed for optimum performance and efficiency with corrugated fins and ruffled tubing.
- Gold hydrophilic coat coil protected evaporator coil designed for optimum performance and efficiency with lanced fins and ruffled tubing.

Evaporator Section

The evaporator section has DC fans which deliver just the right amount of airflow, depending on requirements. The fans provide superior performance for your comfort at optimum efficiency:

- Highly efficient variable speed DC motor that uses less energy.
- Easy variable indoor fan commissioning via intelligent controllers.
- Low noise operation.

Condenser Section

Single DC inverter fan motor, with the following features:

- Low noise operation.
- Inverter rotary compressor.

Electrical Section

The electrical section is composed of a separate panel for controls, protecting the components from the elements.

Durable Design and Construction

ActronAir is an Australian manufacturer with proven high quality air conditioning products. Known for their durability and reliable performance, these products are designed and built to withstand the extreme weather conditions.

The galvanized steel cabinet, with powder coated epoxy enamel finish, resists the toughest conditions.

Gold Hydrophillic Coat Coil Protection heat exchangers ensures an enhanced heat transfer with increased performance efficiency.

System Flexibility

The ActronAir air conditioning units are the first choice for residential, office, schools and other air conditioning facilities applications, both for new construction or retrofitting projects.

Refrigerant Handling and Accountability

ActronAir strongly urges that all service technicians make every effort to eliminate the emission of refrigerants to the atmosphere. Everyone must act in a responsible manner to conserve refrigerants.

Sustainability and Environmentally Friendly

The air conditioning system is supplied with a zero ozone depleting low GWP R-32 refrigerant, which has no phase out or replacement concern.

With cooling and heating performance capacity that are among the best in the market, the ActronAir air conditioning units provide the solution for the reduction of energy consumption, CO₂ emission, high fuel dependency and high network grid demand.

04. Safety Instructions

- Only licensed HVAC technicians* should install and service this air conditioning equipment. Improper service or alteration by an unqualified technician could result in significant and major damage to the product or property which may render your warranty null and void. Such unqualified service could also lead to severe physical injury or death. Follow all safety instructions in this literature and all warning labels that are attached to the equipment.
- Prevailing WH&S regulations must be observed and will take precedence to the safety instructions contained on this manual. Safe work practices and environment must be the paramount importance in the performance of all the service procedures.
- Ensure that unit installation complies with relevant council regulations and building code standards.
- All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided.
- Secure the fans against accidental contact. Beware of pinch point and sharp edges which can cause cutting injury.
- Always wear appropriate PPE, remove any dangling jewellery and protect long hair by wearing a cap.
- Make sure that safety guards and panel covers are always firmly secured and not damaged.
- This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.
- Installer must incorporate a means of electrical disconnection (isolator) in the sub mains fixed wiring in accordance with the latest version of the AS/NZS 3000 (also known as Australian Wiring Rules).
- Secure the power cords and control cables that goes in/out the unit.
*Qualifications required will be appropriate Electrical, Refrigeration and Refrigerant Handling License and Training dependent on local State/Territory regulations.

 **DANGER****Hazardous Voltage - Risk of Electrocution.**

Turn Off the power from main isolator before proceeding with any service work of the unit. Observe proper LOCK-OUT/TAG-OUT (LOTO) procedures for electrical appliances in order to prevent accidental switching-on of the power supply. Extreme care and caution must be observed should there be a need to work on live circuit.

 **WARNING**

This air conditioning unit contains R-32 refrigerant (CLASS A2L) which is mildly flammable.

Thoroughly read and understand the accompanying **R-32 Safety Guide** for installation and maintenance instructions.

Installation, service, maintenance, repairs and decommissioning of this unit must be performed by a licensed HVAC technician; qualified to handle R-32 refrigerant.

R-32 refrigerant is odorless if the refrigerant gas comes into contact with fire, it may emit a poisonous gas.

Appliance shall be installed, operated and stored in a well ventilated area:

- where the room size corresponds to the room area as specific for operation.
- without continuously operating open flames (for example an operating gas appliance) and ignition sources (for example an operating electric heater).
- away from other potential continuously operating sources that known to cause ignition of R-32 refrigerant.

 **CAUTION****Beware of Rotating Fans!**

Ensure that indoor and outdoor fans are isolated and have come to a complete stand still before servicing the equipment.

Beware of pinch point and sharp edges which can cause cutting injury. Secure the fans against accidental contact.

Always wear appropriate PPE and remove any dangling jewellery and protect long hair by wearing a cap. Ensure that no loose clothing can be caught / entangled in moving parts.

VISUAL INSPECTION AND WORK ASSESSMENT

Work areas and conditions must first be assessed and evaluated for any potential hazardous conditions. It is also important to be familiar with the unit parts and components before proceeding with any service task.

NOTE**Fuse Specifications**

The air conditioner's circuit board (PCB) is designed with a fuse to provide over current protection. The fuse specifications, T5A/250VAC is printed on the circuit board

For the units with R-32 refrigerant , only the blast-proof ceramic fuse can be used.

05. Installation Information

All service technicians handling this unit must be licensed to handle R-32 refrigerant.

Recover and Recycle Refrigerants

Never release refrigerant to the atmosphere! It is an offence in Australia to do so. Always recover, recycle and reuse refrigerants. When removing from the system, properly contain and identify refrigerants in its dedicated container for proper disposal and/or storage. Always consider the recycle or reclaim requirements of the refrigerant before beginning the recovery procedures. Obtain a chemical analysis of the refrigerant if necessary. For the recovered refrigerant and acceptable refrigerant quality refer to the existing standards and regulations.

Refrigerant Handling and Safety

Consult the refrigerant manufacturer's Material Safety Data Sheet (MSDS) for information on proper handling and to fully understand health, safety, storage and disposal requirements. Use the approved containment vessels and refer to appropriate safety standards. Comply with all applicable transportation standards when shipping refrigerant containers.

Service Equipment and Recovery Procedures

Always use refrigerant reclaiming equipment in order to minimise refrigerant emissions. Use equipment and methods which will pull the lowest possible system vacuum while recovering and condensing refrigerant. Equipment capable of pulling a vacuum of less than 500 microns is required.

Do not open the system to the atmosphere for service work until refrigerant is fully removed and/or recovered. Perform refrigeration system evacuation, prior to charging, in accordance with AIRAH / IRHACE Refrigerant handling code of practice.

Let the unit stand for 1 hour and with the vacuum not rising above 500 microns. A rise above 500 microns indicates a leak from the system and a leak test is required to locate and repair any leak.

Charge refrigerant into the system only after the equipment does not leak or contain moisture. Take into consideration the correct amount of refrigerant charge specified for the system to ensure efficient unit operations. When charging is complete, reclaim refrigerant from charging lines into an approved refrigerant container. Seal all used refrigerant containers with approved closure devices to prevent unused refrigerant from escaping to the atmosphere. Take extra care to maintain all service equipment directly supporting refrigerant service work such as gauges, hoses, vacuum pumps and recycling equipment.

INSTALLATION PREPARATION (Pre-Installation considerations)

The following items must be considered before beginning the unit installation:

- Verify the unit capacities and ratings with the unit nameplate.
- Make certain the floor or foundation is level, solid and has sufficient structural strength to support the unit and accessories weight.
- Install anti-vibration rubber (installer to supply) under **all of the unit's feet** to help reduce noise and minimize vibration transfer through the foundation. Ensure that all anti-vibration rubbers are rated to provide stable support without impairing the unit's structural integrity.
- Diameter or width of anti-vibration rubber's must be at least equal to the width of the actual feet to prevent deformation overtime.
- Allow minimum recommended clearances for periodic maintenance and service access.
- Allow sufficient space beside the unit for the outdoor air discharge. Condenser air inlet, located on the coil side of the unit, requires sufficient airflow clearance for the optimum unit performance.
- Note the conditioned supply air and return air location. Ensure sufficient spaces are allocated for these purposes.
- For the connection and location of condensate drain in the unit, refer to the drawings and dimensions section of this manual.
- Wiring connections must be in accordance with the wiring diagram provided with the unit.
- Make sure all wirings are in accordance with local electricity authority regulations and standards.
- Do not install the unit close to an area where there is a danger of fire due to volatile, explosive, flammable and/ or hazardous materials.
- Ensure that spaces around the unit are free from any obstructions for optimum unit performance.



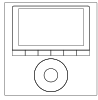



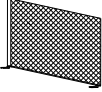



- Installer to ensure correct size/type that main circuit breaker and cable is installed in unit sub-mains to protect the sub-mains and unit wiring.
- Installer to ensure correctly rated residual current device (RCD) is installed as per the latest version of the AS/NZS 3000 (also known as Australian Wiring Rules).

NOTE

This indoor unit is designed to match only with the ActronAir outdoor unit as specified in the Technical Selection Catalogue. This unit is designed for use with R-32 refrigerant only. The unit is supplied with factory charged R-32 refrigerant. Be aware of all the relevant regulations concerning the handling of refrigerant.

06. Components

The air conditioning system comes with the following components. Use all of the installation parts and accessories to install the air conditioner. Improper installation may result in water leakage, electrical shock and fire, or cause the equipment to fail. The items are not included with the air conditioner must be purchased separately.

	Name	Quantity	Illustration
Tubing & Fittings	Soundproof / Insulation Sheath	2	
	Seal Sponge	1	
Wired Controller	Wired Controller	1	
	Wired Controller Screws	2	
Refrigeration Fittings	Nut	2	
Filters	Magnetic Ring	1	
	Air Filter	1	
Manuals	Wired Controller Manual	1	
	Owner's Manual	1	
	Installation Manual	1	

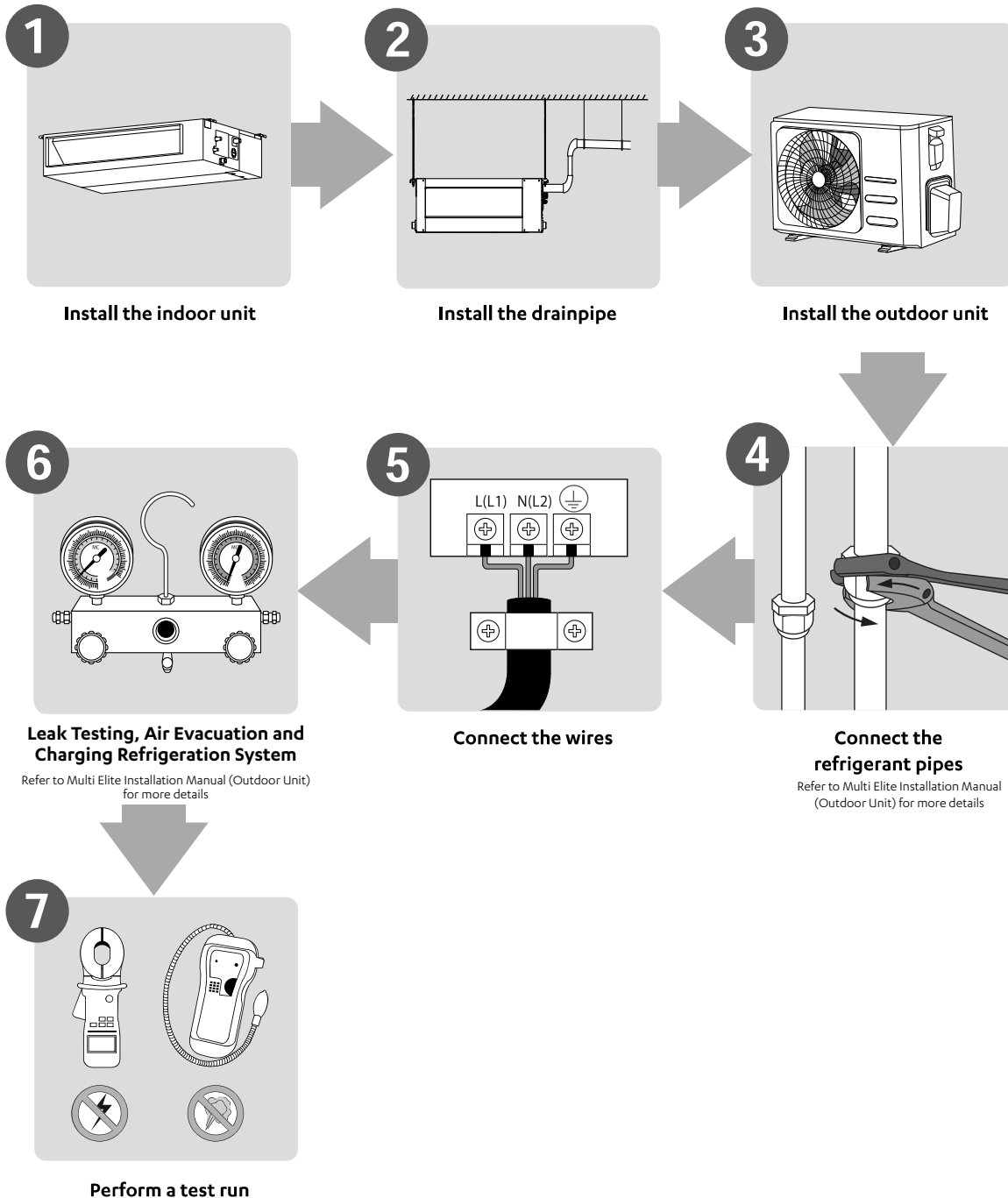
Optional accessories

There are two types of remote controls: wired and wireless. Select a remote controller based on customer preferences and requirements and install in an appropriate place.

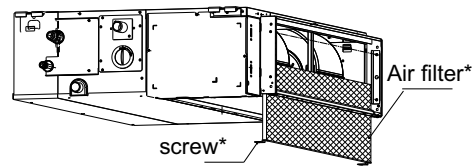
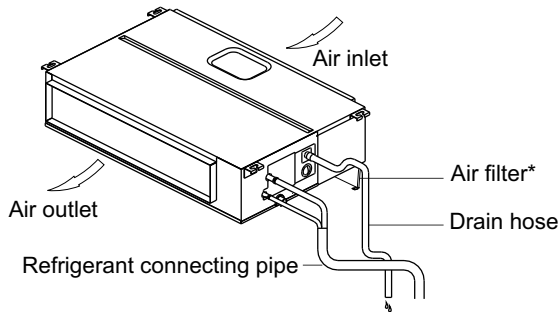
Refer to catalogues and technical literature for guidance on selecting a suitable remote controller

07. Installation Overview

Installation Order



08. Indoor Units Parts



NOTE

*Filter is inserted into the flange subassembly through the bottom side and locked by screw on both sides.

WARNING

- Securely install the indoor unit on a structure that can sustain its weight. If the structure is too weak the unit may fall causing personal injury, unit and property damage or death.
- DO NOT** install the indoor unit in the bathroom or laundry room as excessive moisture can short the unit and corrode the wiring.

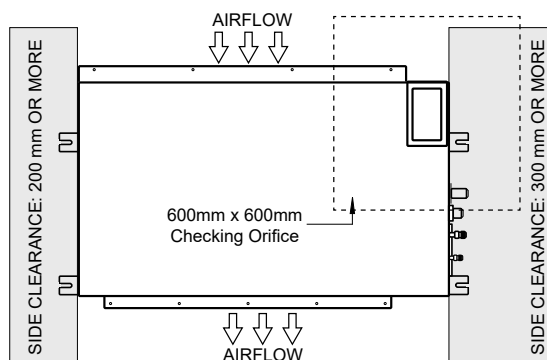
CAUTION

- Install the equipment's cables and wires at least 1m from televisions or radios to prevent static or image distortion.
- DO NOT** install the unit in the following locations:
 - In areas with oil drilling or fracking
 - In areas with caustic gases in the air, such as near hot spring
 - In enclosed spaces, such as cabinets
 - In areas with strong electromagnetic waves
 - In areas that store flammable materials or gas
 - In rooms with high humidity, such as bathrooms or laundry rooms

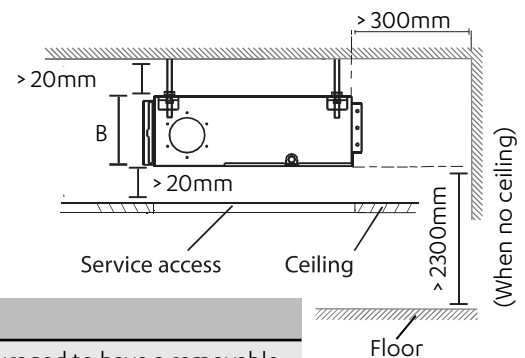
Select Installation Location

The indoor unit should be installed in the location that meets the following requirements:

- There is enough room for installation and maintenance.
- There is enough room for the connecting pipe and drainpipe.
- The ceiling is horizontal and its structure can sustain the weight of the indoor unit.
- The air inlet and outlet are not impeded.
- The airflow can fill the entire room.
- There is no direct radiation from heaters.



SERVICE ACCESS AREAS



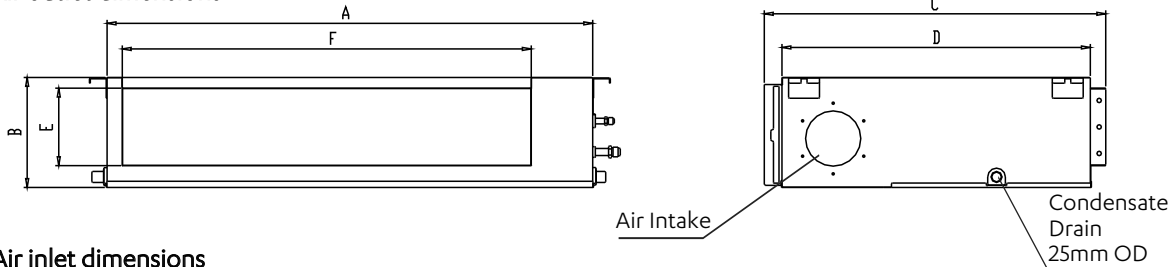
NOTE

It is strongly encouraged to have a removable service access panel underneath the indoor unit to carry out maintenance and repair.

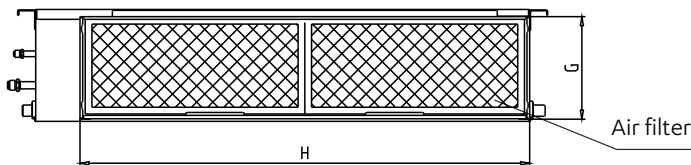
09. Indoor Unit Dimensions

Please refer to the following data to locate the four positioning screw bolt holes on the ceiling. Be sure to mark the areas where ceiling hook holes will be drilled.

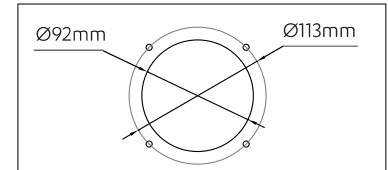
Air outlet dimensions



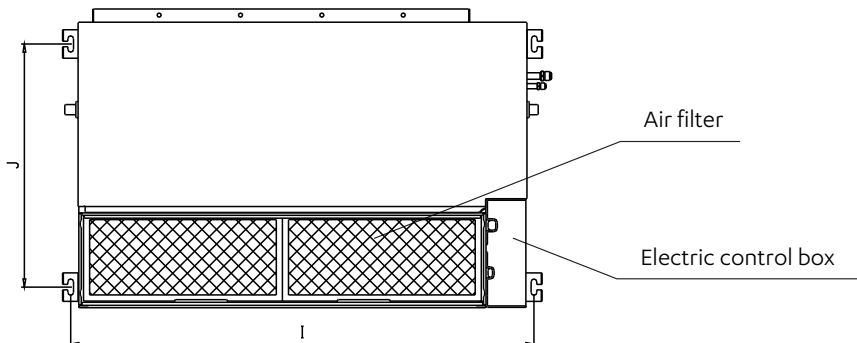
Air inlet dimensions



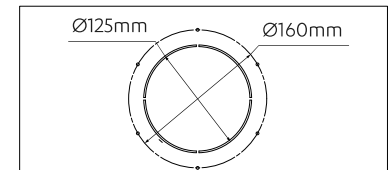
Air Intake BRE-026CS / BRE-035CS



Descending ventilation opening and mounted hook



Air Intake BRE-050CS / BRE-070CS



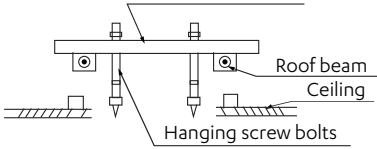
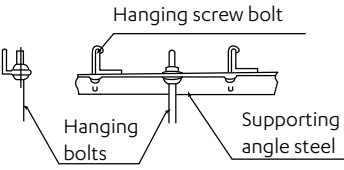
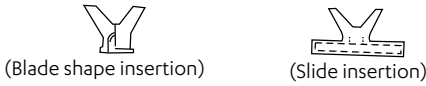
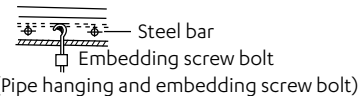
Model	Outline Dimensions				Supply Air		Return Air		Mounting	
	Width	Height	Total Depth	Unit Depth	Height	Width	Height	Width	Width	Depth
	A	B	C	D	E	F	G	H	I	J
BRE-026CS	700	200	506	450	152	537	186	599	741	360
BRE-035CS										
BRE-050CS	880	210	674	600	136	706	190	782	920	508
BRE-070CS	1100	249	774	700	175	926	228	1001	1140	598

CAUTION

This indoor unit is designed to match only with the ActronAir outdoor unit as specified in the Technical Selection Catalogue. This unit is designed for use with R-32 refrigerant only. The unit is supplied with factory charged R-32 refrigerant. Be aware of all the relevant regulations concerning the handling of refrigerant.

10. Indoor Unit Installation

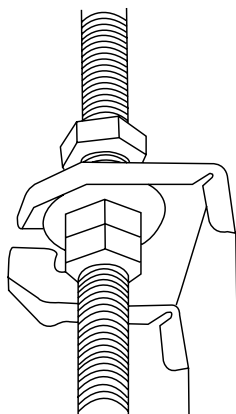
10.01. Hang Unit

<p>Wooden Construction Place the wood mounting across the roof beam, then install the hanging screw bolts.</p>  <p>Labels: Roof beam, Ceiling, Hanging screw bolts</p>	<p>Steel Roof Beam Structure Install and use the supporting steel angle.</p>  <p>Labels: Hanging screw bolt, Hanging bolts, Supporting angle steel</p>
<p>New Concrete Bricks Inlay or embed the screw bolts.</p>  <p>Labels: (Blade shape insertion), (Slide insertion)</p>	<p>Original Concrete Bricks Use an embedding screw bolt, crock, and stick harness.</p>  <p>Labels: Steel bar, Embedding screw bolt, (Pipe hanging and embedding screw bolt)</p>

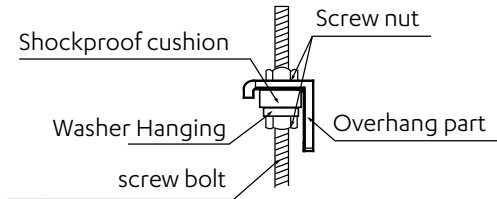
CAUTION

The unit body must be completely aligned with the hole. Ensure that the unit and the hole are the same size before moving on.

1. Install hanging screw bolts.
2. After selecting the installation location, position the refrigerant pipes, drain pipes, indoor & outdoor wires to the connection places before hanging up the system.
3. Drill 4 holes 10cm deep at the ceiling hook positions in the internal ceiling. Be sure to hold the drill at a 90° angle to the ceiling.
4. Secure the bolt using the washers and nuts provided.
5. Install the four suspension bolts.
6. Mount the indoor unit. Ensure an adequate lifting device is used. Insert suspension bolts into the unit's hanging holes. Fasten them using the included washers and nuts, see below.



- Overhang the indoor unit onto the hanging screw bolts with block. If the drain pump is being used, position the indoor unit on a flat level by using the level indicator. If a gravity fed drain is being used, ensure there is adequate fall.

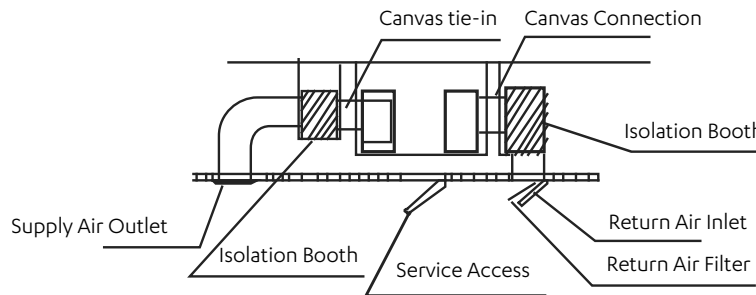


NOTE

Confirm the minimum drain tilt is 2.5% of the length and 2.5% of the width of the indoor unit.

10.02. Duct and Accessories Installation

- Install a filter according to air inlet size.
- Install the canvas tie-in between the body and duct.
- Air inlet and air outlet duct should be apart far enough to avoid air passage short-cycling.



NOTE

The min. length of the duct should be more than 1m, and fixed on the air inlet by screws (applicable to the unit that the air inlet filter is not fasten by screws).

- Please refer to the following static pressure to install.

Model	Static Pressure (Pa)
BRE-026CS	0~40
BRE-035CS	0~40
BRE-050CS	0~60
BRE-070CS	0~100

Change the fan motor static pressure according to external duct static pressure.

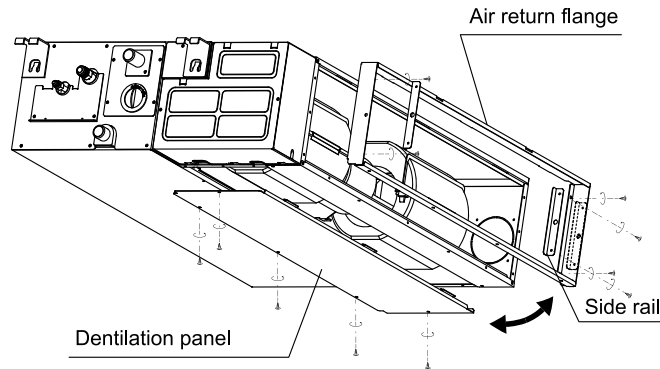
NOTE

- Do not place the connecting duct weight on the indoor unit.
- When connecting the duct, use a nonflammable canvas tie-in to prevent vibrating.
- Insulation foam must be wrapped outside the duct to avoid condensate. An internal duct under layer can be added to reduce noise, if the end-user requires.

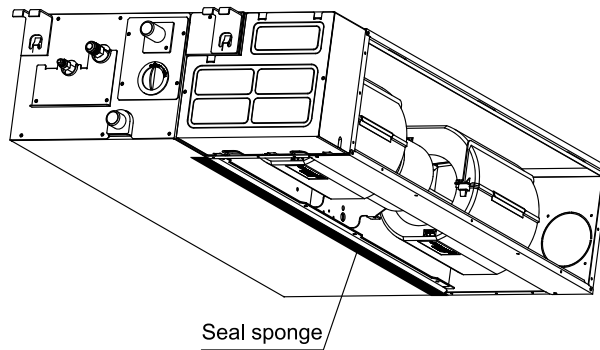
10.03. Adjust The Air Inlet Direction

When required the air inlet direction can be adjusted from rear-side to under-side using the following steps:

1. Take off ventilation panel and flange, cut off the staples at the side rail.



2. Stick the attached seal sponge as per the indicating place (see below), and then change the mounting positions of air return panel and air return flange.

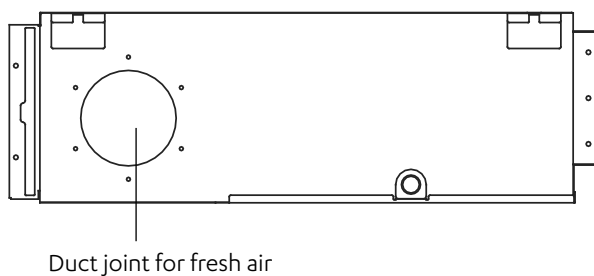


NOTE

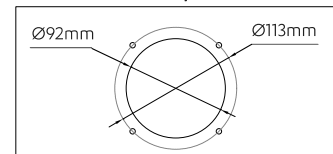
All the figures in this manual are for demonstration purposes only. They may be slightly different from the air conditioner you purchased.

10.04. Fresh Air Duct Installation

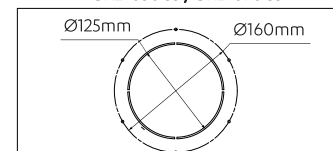
Dimension:



BRE-026CS / BRE-035CS



BRE-050CS / BRE-070CS



10.05. Motor and Drainpipe Maintenance



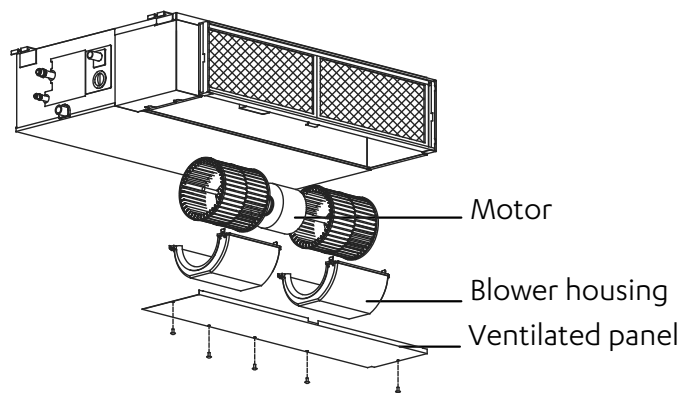
CAUTION

Ensure correct electrical tag out procedures are followed before commencing work.

(Take rear ventilated as example)

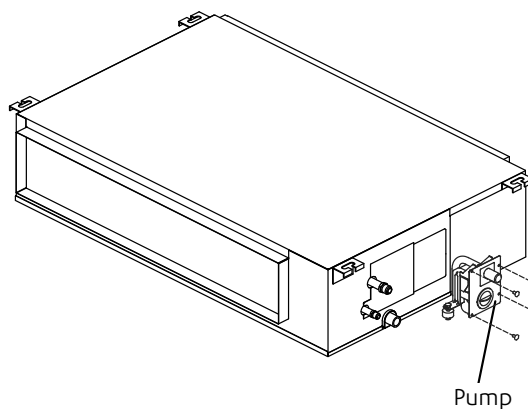
Motor Maintenance:

1. Remove the ventilated panel.
2. Remove the blower housing.
3. Remove the motor.



Drain Pump Maintenance:

1. Unplug pump power supply and water level switch cable.
2. Remove four screws from drain pump..
3. Take off pump.



11. Drainpipe Installation

The drainpipe is used to drain water from the unit. Improper installation may cause unit and property damage.

⚠ CAUTION

- Insulate all piping to prevent condensation, which could lead to water damage.
- If the drainpipe is bent or installed incorrectly, water may leak and cause a malfunction of the water-level switch.
- In **HEAT** mode, the outdoor unit will discharge water. Ensure that the drain hose is placed in an appropriate area to avoid water damage and slippage due to frozen drain water.
- **DO NOT** pull the drainpipe forcefully as this could cause it to disconnect.

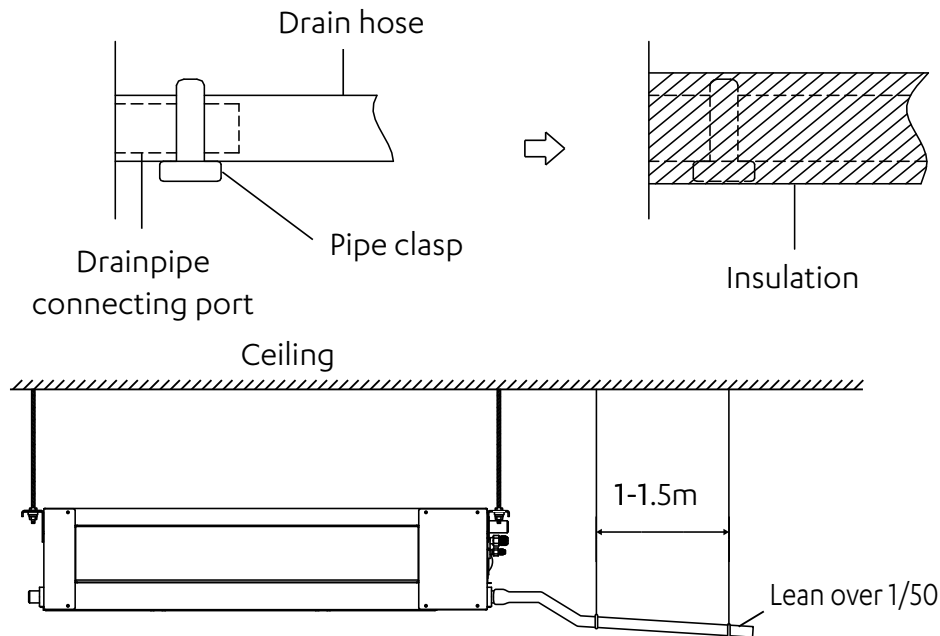
Indoor Drainpipe Installation

NOTE

ActronAir recommend a safety tray to be installed under the indoor unit

Install the drainpipe as illustrated below.

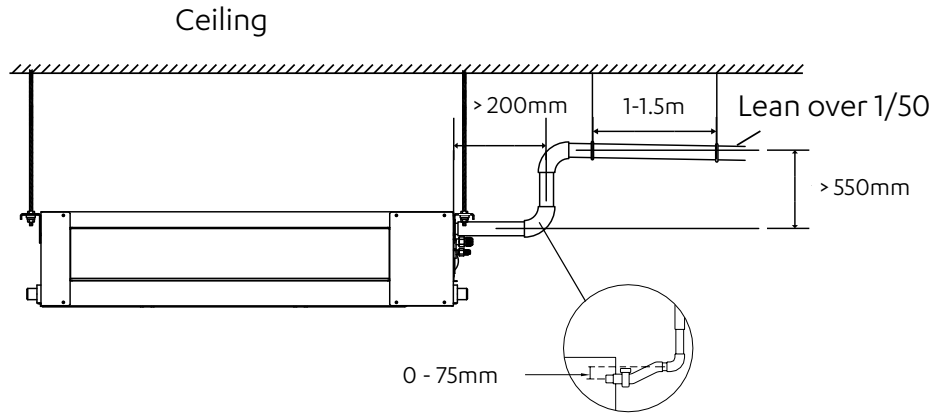
1. Cover the drainpipe with heat insulation to prevent condensation and leakage.
2. Attach the mouth of the drain hose to the unit's outlet pipe. Sheath the mouth of the hose and clip it firmly with a pipe clasp.
3. Ensure the drain pipe has flex by installing clear tube or similar to prevent drain breakage or cracking.



NOTE

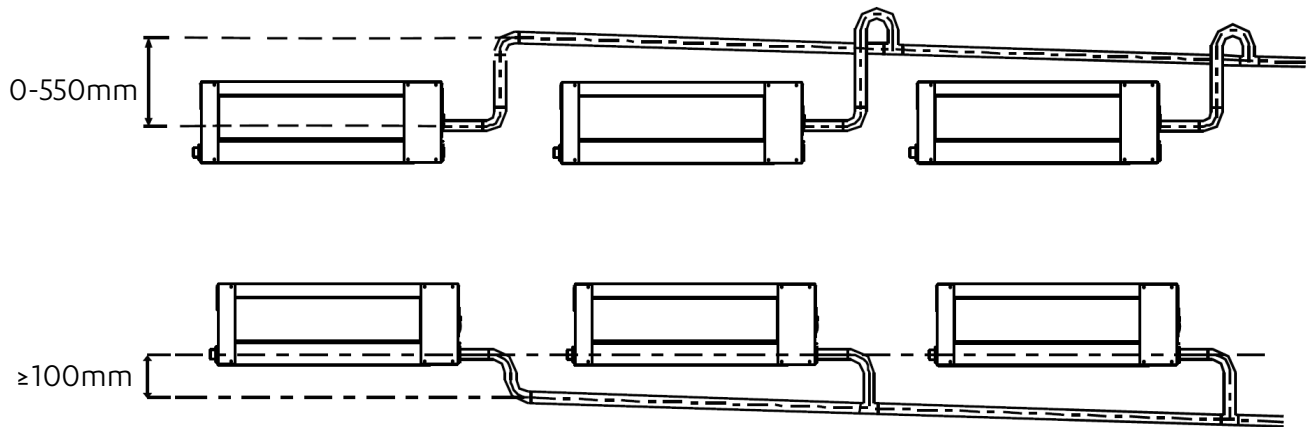
- When using an extended drainpipe, tighten the indoor connection with an additional protection tube to prevent it from pulling loose.
- The drainpipe should slope downward to prevent water from flowing back into the air conditioner.
- To prevent the pipe from sagging, space hanging wires every 1-1.5m.
- If the outlet of the drainpipe is higher than the body's pump joint, provide a lift pipe for the exhaust outlet of the indoor unit. The lift pipe must be installed no higher than 55cm and the distance between the unit and the lift pipe must be less than 20cm.
- Incorrect installation could cause water to flow back into the unit and flood.
- To prevent air bubbles, keep the drain hose level or slightly tilted (< 75mm).

The drain pipe installation for the unit with a drain pump.

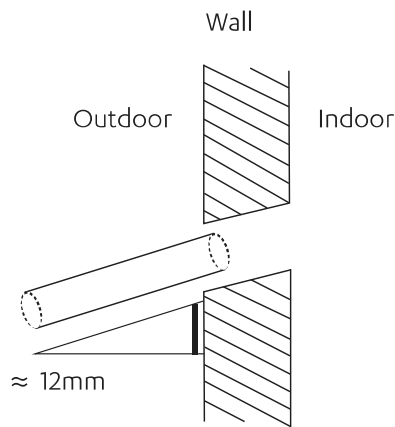


NOTE

When connecting multiple drainpipes, install the pipes as shown below.



- Using a 65-mm core drill, drill a hole in the wall. Make sure that the hole is drilled at a slight downward angle, so that the outdoor end of the hole is lower than the indoor end by about 12mm. This will ensure proper water drainage (See below). Place the protective wall cuff in the hole. This protects the edges of the hole and will help seal it when you finish the installation process.



NOTE

When drilling the wall hole, make sure to avoid wires, plumbing, and other sensitive components.

- Pass the drain hose through the wall hole. Make sure the water drains to a safe location where it will not cause water damage or a slipping hazard.

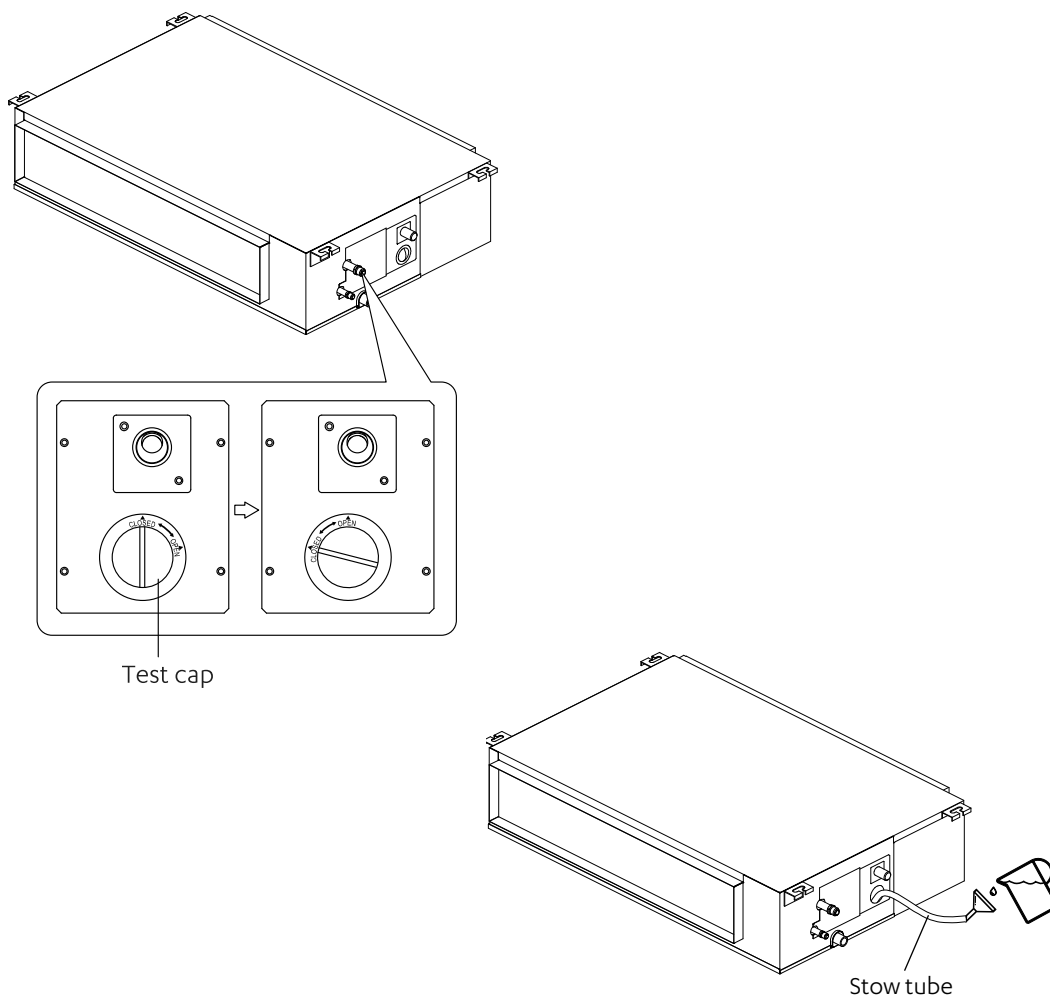
NOTE

The drainpipe outlet should be at least 5cm above the ground. If it touches the ground, the unit may become blocked and malfunction. If you discharge the water directly into a sewer, make sure that the drain has a U or S pipe to catch odour that might otherwise come back into the house.

Drainage Test

Check whether the drainpipe is unhindered.

- Remove the test cover. Add 2000ml water to the tank through the attached tube.



- Operate the air conditioner in **COOL** Mode. The sound of the drain pump shall be heard. Check whether the water is discharged (1 min lag is possible, according to the length of the drain pipe), and check whether the water leaks from any of the connection points.
- Power off the air conditioner and reinstall the cap.

12. Wiring

Safety Precautions

 **DANGER**

- Be sure to disconnect the power supply before working on the unit.
- All electrical wiring must be done according to local and national regulations.
- Electrical wiring must be done by a qualified technician. Improper connections may cause electrical malfunction, injury and fire.
- Connect the power cable to the terminals and fasten it with the clamp.
- Make sure that all wiring is done correctly and the control board cover is properly installed. Failure to do so can cause overheating at the connection points, fire, and electrical shock. Connect the outdoor wires before connecting the indoor wires.
- Make sure you earth the unit. Improper earthing may cause electrical shock.
- **DO NOT** connect the unit with the power source until all wiring and piping is completed.
- Make sure that you do not cross your electrical wiring with your signal wiring, as this can cause distortion and interference.

Follow these instructions to prevent distortion when the compressor starts:

- The unit must be connected to its individual sub-circuit. Ensure sub-circuit mains are of recommended size to ensure minimal voltage drop at supply terminals.
- No other equipment should be connected to the same sub-circuit as the A/C unit.
- The unit's power information can be found on the rating sticker on the product.

NOTE**Fuse Specifications**

The air conditioner's circuit board (PCB) is designed with a fuse to provide over current protection. The fuse specifications, T5A/250VAC is printed on the circuit board

For the units with R-32 refrigerant , only the blast-proof ceramic fuse can be used.

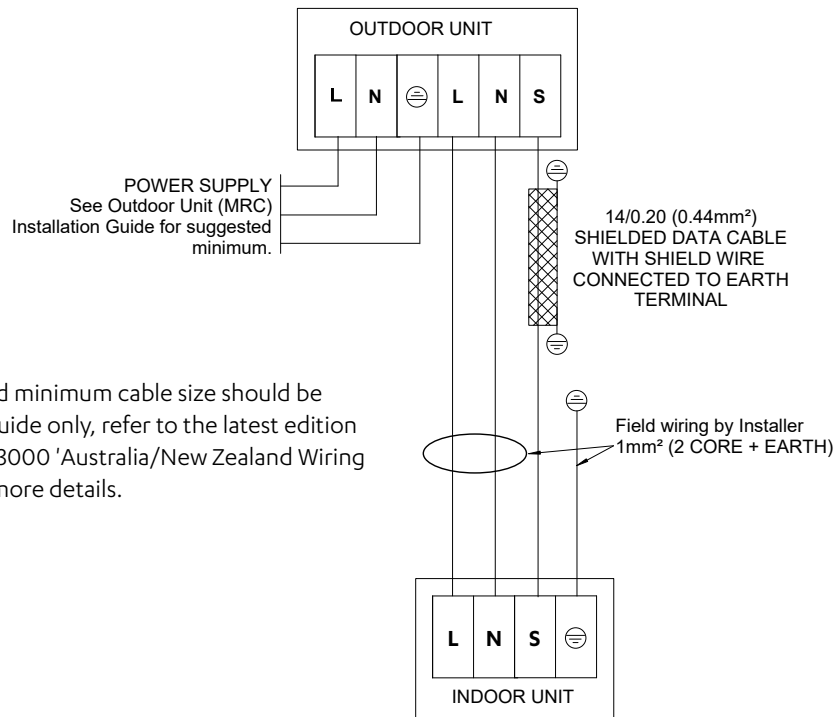
Indoor Unit Wiring

1. Prepare the cable for connection
 - a. Using wire strippers, strip the outer insulation from both ends of signal cable.
 - b. strip the insulation from the ends of the internal wires.
 - c. Using a wire crimper, crimp fork-lugs on the ends of the wires.
2. Remove the cover of the electric control box on your indoor unit.
3. Connect the fork-lugs to the terminals. Match the wire colours/labels with the labels on the terminal block, and firmly screw the lug of each wire to its corresponding terminal. Refer to the Serial Number and Wiring Diagram located on the cover of the electric control box.
4. Clamp down cable with the designated cable clamp to secure it in place. The cable should not be loose, and should not pull on the lugs.
5. Reinstall the electric box cover.

 **CAUTION**

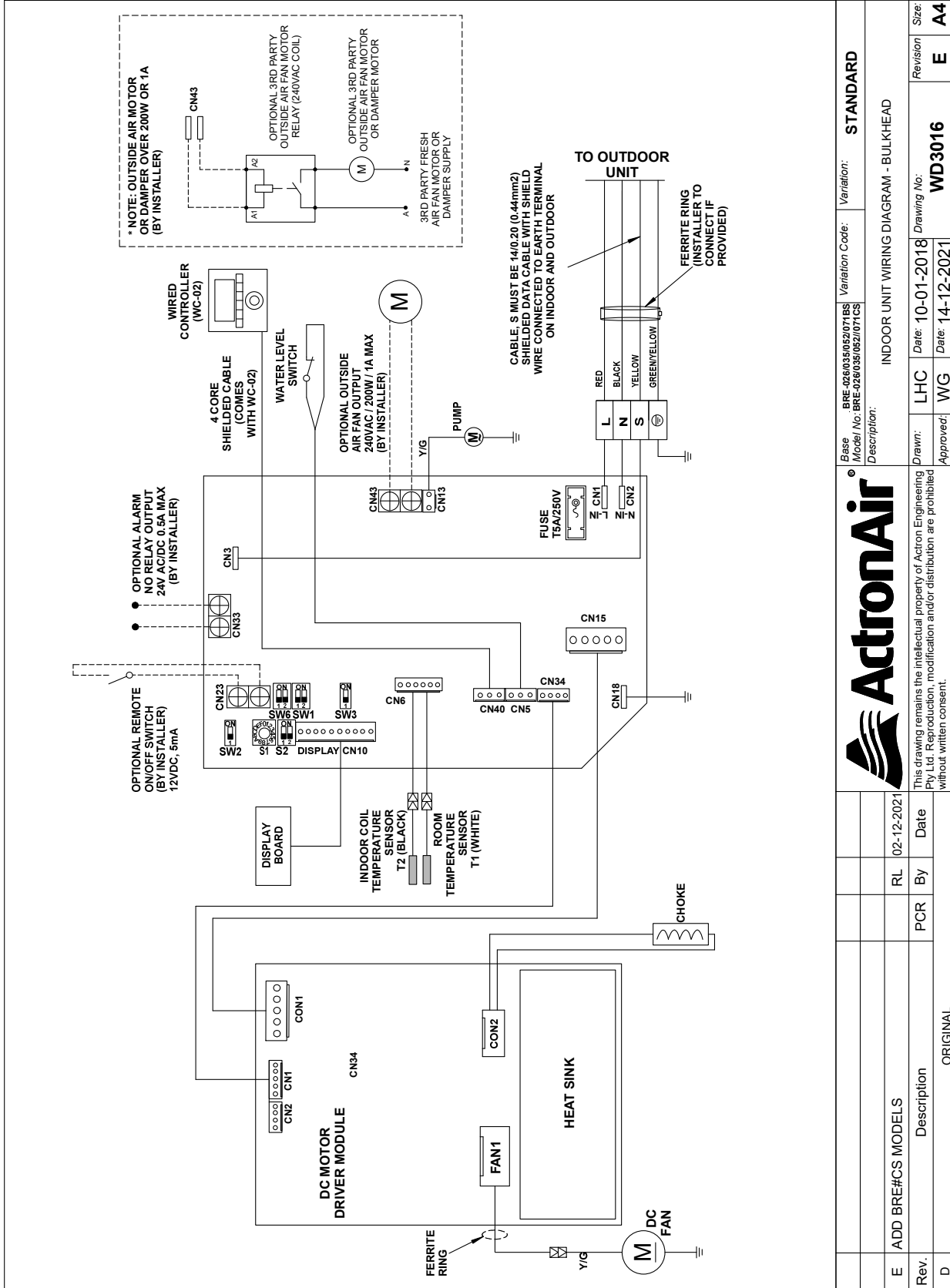
- While connecting the wires, please strictly follow the wiring diagram.
- The refrigerant circuit can become very hot. Keep the interconnection cable away from the copper tube.

Connecting Diagram



* Suggested minimum cable size should be used as a guide only, refer to the latest edition of AS/NZS 3000 'Australia/New Zealand Wiring Rules' for more details.

13. Wiring Diagram



ActronAir		Base Model No. BRE-02#03#05#07#18# Variation Code: BRE-02#03#05#07#18#	Variation: STANDARD
Description: INDOOR UNIT WIRING DIAGRAM - BULKHEAD		Drawn: LHC	Date: 10-01-2018
This drawing remains the intellectual property of Actron Engineering Pty Ltd. Reproduction, modification and/or distribution are prohibited without written consent.		Approved: WG	Date: 14-12-2021
Rev. D	Description	Rev. E	Size: A4
PCR	By	Rev. E	Size: A4
RL	Date	Rev. E	Size: A4
ORIGINAL			

14. Test Run

Before Commissioning

A test run must be performed after the entire system has been completely installed. Confirm the following points before performing the test:

- a. The indoor and outdoor units are properly installed.
- b. Piping and wiring are properly connected.
- c. Ensure that there are no obstacles near the inlet and outlet of the unit that might cause poor performance or product malfunction.
- d. The refrigeration system does not leak.
- e. The drainage system is unimpeded and draining to a safe location.
- f. The heating insulation is properly installed.
- g. The earth wires are properly connected.
- h. The length of the piping and the added refrigerant stow capacity have been recorded.
- i. The supply voltage is the correct voltage for the air conditioner.



CAUTION

Failure to perform commissioning may result in unit damage, property damage or personal injury and may void warranty.

Commissioning Instructions

1. Set the air conditioner to **COOL** mode.
2. For the Indoor Unit
 - a. Ensure the wall control and its buttons work properly.
 - b. Check to see if the room temperature is being registered correctly.
 - c. Ensure the indicators on the wall control and the display panel on the indoor unit work properly.
 - d. Check the airflow supplied matches the design conditions specified.
3. Outdoor Unit
 - a. Check to see if the refrigeration system is leaking.
 - b. Make sure there is no vibration or abnormal noise during operation.
 - c. Ensure the wind, noise, and water generated by the unit do not disturb neighbors or pose a safety hazard.
 - d. Check the refrigeration pressures to ensure they operating correctly.
 - e. Check the voltage and current drawn from the unit is correct.
 - f. Ensure anti vibration rubbers have been fitted under the outdoor unit feet.

Drainage Test

1. Ensure the drainpipe flows smoothly. Remove the test cover. Add 2,000ml of water to the tank through the attached tube.
2. Turn on the main power switch and run the air conditioner in **COOL** mode.
3. Listen to the sound of the drain pump to see if it makes any unusual noises.
4. Check to see that the water is discharged. It may take up to one minute before the unit begins to drain depending on the drainpipe.
5. Make sure that there are no leaks in any of the piping.
6. Stop the air conditioner. Turn off the main power switch and reinstall the test cover.

NOTE

If the unit malfunctions or does not operate according to your expectations, please refer to the Troubleshooting section of the Owner's Manual before calling customer service.

A series of horizontal dotted lines for taking notes.

A series of horizontal dotted lines for taking notes.



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