



SCOPE OF WORKS

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APPLIANCE SERVICING AND BREAKDOWN

1. Critical to the following scope of works is that Origin's contractors on site have the required licenses or registrations to carry out all Plumbing, Refrigeration and Electrical works to Australian standards. Contractors must carry these licences or registrations with them at all times and be able to present them if they should be asked to by our clients or your field service supervisors.
2. All apprentices on Origin sites must be accompanied by a licensed or registered tradesperson and be appropriately supervised at all times or are able to work under General Supervision, the apprentice or trainee will have had their competence formally assessed (as with Direct Supervision). It is expected that they will also have gained enough experience to undertake a task to the same standard as staff qualified in that skill.
3. Before commencing any works to the water/gas supply line the client must be informed of the proceeding works to be completed so the client is prepared for the water/gas to be turned off. A lock out tag should be placed on the water/gas meter whilst working on the supply line.
4. Before commencing any electrical work the client must be informed of the proceeding works to be completed and a suitable lock out device must be fitted at the electrical circuit board. All personnel on site are required to carry their industry safety induction white or red cards at all times.
5. A harness must be worn at all times by anyone working on the roof with a suitable fall zone set up at ground level to prevent anyone entering this work zone. Ladders must be tied off to prevent harm to the contractors and our clients.
6. All contractors must adhere to Origins safety, site set up and customer service guide lines as presented during your Origin inductions.

1.0 Evaporative Cooling

- Safely set up ladders with a suitable ladder guard put in place to protect client's guttering, ladders to be tied off to prevent ladder slipping or falling. Set up fall zone area around ladder and below where the evaporative cooler will be serviced. Secure off harness anchor point to be able to work safely on roof top with a harness.

1.1 Visual inspection (Breakdown and Service)

- Disconnect appliance from power supply or mains switch and check for stray current.
- Inspect evaporative cooler for signs of damage, heat, or temperature stress.
- Remove cover of appliance.
- Inspect internal components for cracks or damage.

1.2 Breakdown Works (Breakdown Only)

- If appliance fails to operate, technician to conduct fault finding diagnosis of faulty parts and replace or repair faulty part to provide full repair.
- Completions of breakdown works are to be completed and charged to client additionally to servicing works.

1.3 Clean filter pads (Service Only)

- Carefully remove filter pads from the evaporative cooling unit, take filter pads from the roof top to be worked on safely at ground level. Flush, clean and sanitise filter pads as required.

1.4 Clean internal water tank (Service Only)

- Clean and disinfect the water tank to remove any settling debris and organic build up.

1.5 Clean internal system housing (Service Only)

- Give the evaporative cooling system a thorough clean. Remove all debris from around all internal components.

1.6 Check water distribution across filter pads to ensure complete saturation (Service Only)

- Whilst filter pads have been removed, turn the system on and check that water distributing evenly along the internal drip line.

1.7 Check roof flashing is waterproof and free from all foreign objects (Service Only)

- This is to ensure the flashing is in good working condition. Check to see that the flashing is free from all debris, that there are no rust spots and holes. Make sure all joints are properly and adequately sealed.

1.8 Check all air flows (Service Only)

- Check that the air flows properly through the unit and the ducts, also that there is adequate supply coming through the ceiling registers.

1.9 Check water line for drips and leaks (Service Only)

- Check water line is sound, not leaking or weeping. Visibly check to make sure that the water line will not fail in the near future.

1.10 Check drain pipe (Service Only)

- Check the evaporative cooling system is draining correctly and has also been terminated properly.

2.0 High Wall Split System

- Isolate power supply with the correct isolation lock out device installed at electrical meter board, if or when required.

2.1 Visual Inspection (Breakdown and Service)

- Check condition and age of both indoor head unit and outdoor compressor unit.
- Check the outdoor compressor unit to ensure that the fan is clear and free from any impeding vegetation or any other obstructions
- Check for refrigerant leaks on the outdoor compressor unit (look for signs of oil leaks around condenser coil as well as all joints.)
- Check refrigerant copper tube is correctly insulated and that it has been installed correctly.
- Calculate the room size and check that the unit has been correctly sized
- Check that the external compressor unit's drain has been correctly terminated and is free from any obstruction.
- Check all electrical connections are clean and well connected to all electrical terminal connection ports.

2.2 Operational check (Service Only)

- Turn system on, check indoor head unit and outdoor compressor unit is operating correctly in all modes.
- Check indoor head unit and outdoor compressor unit for any noise or smell that is outside of normal operation.
- Complete a condensation drain test by pouring water over the condensate drain to check drain is flowing correctly through to the external drain termination point.
- Check air flow and fan out put in all fan speed settings.
- Check ventilation louvers for correct mechanical operation.
- Perform temperature check on the indoor head unit (Only connect gauges to the external compressor to check gas pressure if you suspect low refrigerant levels after you have performed internal temperature check.)
- Check start capacitors and potential relays if applicable.

2.3 Physical Inspection (Service Only)

- Remove and clean internal head unit filters.
- Cleans of compressor and condenser coils.
- External clean of head unit.
- Cleanse of external compressor fan and electrical contact points.
- Cleanse of internal head unit fan.

3.0 Ducted Reverse Cycle Air-Conditioning

- Isolation of power supply with the correct isolation lock out device installed at electrical meter board, if or when required.

3.1 Visual Inspection (Breakdown and Service)

- Check condition and age of both indoor head unit and outdoor compressor unit.
- Check the outdoor compressor unit to ensure that the fan is clear and free from any impeding vegetation or any other obstructions
- Check for refrigerant leaks on the outdoor compressor unit (look for signs of oil leaks around condenser coil as well as all joints.)
- Check refrigerant copper tube is correctly insulated and that it has been installed correctly.
- Calculate the room size and check that the unit has been correctly sized
- Check that the external compressor unit's drain has been correctly terminated and is free from any obstruction.
- Check all electrical connections are clean and well connected to all electrical terminal connection ports.
- Visually inspect ductwork to ensure there are no open ducts and insulation is maintained.
- Visually inspect safe / drip tray under indoor unit to ensure there is no water present and the tray is in good condition. (Water present indicates a potential fault with the indoor unit drain).
- Visually inspect indoor unit mounting method to ensure it is adequate and secure.
- Record Model, Serial & Brand of Indoor unit, outdoor unit and zone controller.
- Check that the external compressor unit's drain has been correctly terminated and is free from any obstruction.
- Check all electrical connections are clean and well connected to all electrical terminal connection ports.

3.2 Operational check (Service Only)

- Turn system on, check indoor head unit and outdoor compressor unit is operating correctly in all modes.
- Check indoor head unit and outdoor compressor unit for any noise or smell that is outside of normal operation.
- Complete a condensation drain test by pouring water over the condensate drain to check drain is flowing correctly through to the external drain termination point. (If trap is accessible)
- Check air flow and fan out put in all fan speed settings.
- Check all zone motors and controls are operational by opening and closing zones
- Perform temperature check on the indoor head unit (Only connect gauges to the external compressor to check gas pressure if you suspect low refrigerant levels after you have performed internal temperature check.)
- Check indoor fan and outdoor compressor operational Amps if applicable. (High current draw on older units is an indicator of potential compressor or fan seize)

3.3 Physical Inspection (Service Only)

- Remove and clean return air filter and grill.
- Cleans of compressor and condenser coils.
- Cleanse of external compressor fan and electrical contact points..
- Any additional parts and repairs will be assessed and quoted on an individual basis.

4.0 Gas Space Heating or Ducted Heating

4.1 Visual inspection (Breakdown and Service)

- Disconnect appliance from power supply or mains switch and check for stray current.
- Inspect heater for signs of damage, heat, or temperature stress.
- Remove cover of appliance.
- Inspect heat exchanger for cracks or damage.
- If ducted heater – check return air duct filter.

4.2 Breakdown Works (Breakdown Only)

- If appliance fails to operate, technician to conduct fault finding diagnosis of faulty parts and replace or repair faulty part to provide full repair.
- Completions of breakdown works are to be completed and charged to client additionally to servicing works.

4.3 Cleaning Burners and Replacing Pilot Injectors and Consumables (Service Only)

- Clean burner tray and cabinet.
- Remove burners and pilot assembly.
- Clean burners and zip tube assemblies.
- Remove pilot injector.
- Clean pilot head (install new injector if required).
- Check thermocouple lead and inspect for deterioration. If thermocouple is considered unable to last 2 years continuing service without failure, thermocouple lead is to be replaced.
- Refit pilot assembly.
- Refit burners.
- Adjust burner pressures to required manufactures settings.
- Check for any leaks.

4.4 Fan Inspection (Service Only)

- Inspect fan.
- Check and clean fan.
- Remove dirt, lint, etc. from impellor, blower wheel and fan housing.

4.5 Final Checks (Service Only)

- Reassemble appliance.
- Ensure appliance is clean.
- Light and operate appliance.
- Check for correct operation including ignition, operation of pilot assembly and burner assembly.
- Check for correct ignition.
- Check operation of appliance thermostat.

- Check airflow from fan.
- Complete carbon monoxide test of heater including static test and negative pressure test.

4.6 Consumables

- Pilot injectors
- Thermocouple
- Fan capacitor

5.0 Conditions of Service

- Technician to have unhindered access to the site, with clear working access to and around the internal and external components of the system.
- Existing power supply, wiring and switch board will be inspected before servicing commences. To be able to work safely, all existing electrical connections and equipment must be assessed and in accordance with Australian standards before any service work commences.

6.0 Final Analysis

- Client to be informed of findings and advised of works to proceed if repairs are required.
- Client to be informed if system is unable to be repaired and advised on a solution for replacement.

7.0 Additional Works

- If recharging of refrigerant is required this will be charged out per kilogram of refrigerant added in to the system.
- Any additional parts and repairs will be assessed and quoted on an individual basis.