DALZOTTO ELECTRICS

SPLIT-SYSTEM INSTALL

2019

General

Split systems are to be installed by an A-grade electrician and are to be completed professionally. We charge a premium price for our installs because they are done properly, with no shortcuts! A full install should take between 3-4 hours.

Check your run sheet

1. While apprentice is unpacking van:
   Depending on what size air con unit you are installing, figure out whether power can come from the nearest GPO or if you need to run a dedicated circuit:
   - Units above 5kw will need its own circuit
   - Power NEEDS to be on an RCD or a RCBO
2. Start with mounting indoor unit, confirm location with client or manager depending on job (if rental always ask manager)
3. Unpack indoor unit, take measurements on the bracket to determine:
   - The location of the centre of the unit
   - Where your hole needs to be for the pipes and cabling
4. Mount indoor unit bracket, check level and fix to wall.
5. Confirm there is enough fall for the drain and a suitable outlet for drain
6. Make hole for pipes and cabling (60-70m hole usually fits everything well)
7. With a long drill bit, drill through (preferably mortar line) to locate hole on the outside, then open up hole bit by bit making sure the capping will cover it
8. While pipe work is being installed for the indoor unit, ensure that if there is a second worker they start getting the interconnect cabling wired and installed at the same time
9. Place outdoor unit in the required position (normally on a wall bracket or on the ground depending on the job). If mounting on the ground a poly slab is needed, if on concrete plastic feet are needed (This should have been decided in the job)
10. Install the base/back of the capping for the desired path run of pipes and cabling
11. Install indoor pipes and run interconnect cables and pipes through the hole in wall to the outdoor unit
12. Mount indoor unit

13. Once indoor unit is up PLEASE CLEAN all indoor areas and finish inside the house
14. Install remote in required location from client (or manager if it's a rental)
15. Add filter into the indoor unit (comes the packaging)
16. Connect pipes to outdoor unit and place unit on vac. To put outdoor unit on vac don't touch valves in unit;
    a. Connect yellow hose from gauge to vac pump
    b. Connect blue hose from gauge to service valve on unit (service valve is below the pipes that have been connected)
    c. Make sure gauge is closed then turn vac pump on.
    d. Turn on micrometer, make sure it reads below 200 microns so you know that the connections are good.
    e. Then open up the valve on left-hand side of gauges, once you have a low reading under 200 microns turn the valve on the left off.
    f. With an Allen key open up one of the lines a little bit until gauge needle goes into a positive reading.
    g. Then close valve, disconnect gauges from unit then open up both valves with Allen key on unit all the way.
17. Install isolator in an easily accessible location near outdoor unit
18. Connect all wiring from interconnects between indoor and outdoor unit to 240v power from isolator to outdoor unit, ensure all wiring is ran in corrie, and also cables tied to pipes (BLACK CABLE TIES ONLY)
19. Connect drain, put cover on duct work and ensure all end caps are installed
    Drains must drain to earth not foot paths unless prior notice, drains must not exit onto tin roofs, if a drain must exit on a roof it must drain to the nearest down pipe
    Test the drain if there is any doubt by pouring at least 1 litre of water down the fan coil and check that water is coming out the drain
20. Power up unit, run air con on high speed and ensure it is on cooling
21. While all testing is completed and air con is operational, apprentice to clean up all the mess you have made including vacuuming and ensure all tools are packed up and accounted for.
22. Take photo of indoor and outdoor units.
23. Ensure you create a customer asset in Simpro with models, serial numbers and location which are required for the plumbing and elec certificate.
24. If customer is on site, show them how to use unit and remind them to clean the filter every 6 months or so depending on use.

CABLING:

1.5mm 4core and earth for interconnect (might also need single active) 1.5mm depending on unit- (Carriers need this)
2.5mm 2 core and earth for power to isolator and form isolator to outdoor unit
20amp single pole Isolator will generally be fine (depending on unit)