



Pre-Wire Guidelines

PRE-WORKS
All penetrations to be wrapped (20mm conduit for cable penetrations, 65mm pipe for A/C, 150mm rigid al-i duct for thru-wall extract fans and meterbox to be wrapped). Leave fan grill/s with builder for flashing and mounting.
Ducts to be installed prior to slab being poured for mains and main earthing
Heat pump penetration outdoor units approx 800-900mm wide. Bring pipe penetration through 450mm from centre of unit and 550mm above finished floor level. Isolator approximately 750mm above finished floor level directly above pipe penetrations (25mm flexible conduit)
All lighting penetrations to be 20mm flexible conduit at 2 metres high unless specified otherwise
Telecom mains penetration to be located below meter box and positioned 350mm above finished floor level (20mm flexible conduit)
PRE-CABLING WORKS
All cabling to be run at right angles along battens neatly secured by nails approx every 600mm, nails to be bent 90 degrees
POWER
Maximum of 8 outlets per circuit, Mounted 300mm to bottom - horizontal flush box
Bedroom power outlets to be positioned 1800mm apart to allow for standard Queen size bed unless specified otherwise
Kitchen - 2 general circuits (split between appliances and general outlets) Mounted 1000mm to bottom - horizontal flush box
Wall Oven (Fed from 6mm T+E shared with Hob feed if standard hob or 4mm T+E from switchboard if Induction Hob is going in)
Hob - (6mm T+E shared with oven feed) if not induction type
Induction Hob - Fed on own 6mm T+E feed from switchboard. 10mm T+E feed required if 6 hob model
Dishwasher outlet to be mounted under sink beside dishwasher. Not necessary to isolate if accessible.
Wastemaster outlet to be mounted under sink minimum 300mm high - horizontal or verticle mount flush box. Outlet to be switched from nearest power outlet above bench.
All isolators mounted at 1000mm to bottom horizontal flushbox located in appliance cupboard or pantry out of vision but accessible
Washing machine/ Dryer outlet mounted at 1100mm to bottom horizontal - flush box
Garage door outlet to be positioned 3.2 metres from garage door and slightly off-centred. Fully enclosed mounting block to be used if single storey and ceiling access above. White security cable or twin trurip to be used for door control cable from light switch in garage.
If smoke detectors are 240v. Smoke Alarms must be located in escape routes on all levels with the household unit. Within 3 metres of every sleeping space door and a minimum of 150mm from the corner of each wall if being mounted in a corner. Generally battery type are installed, plans will specify if 240v type.
Fridge power outlet to be mounted vertically and at 1800mm to bottom of box from floor height. Switched via isolator with hinge flapped switch mech
LIGHTING
Switching to be mounted at 1200mm to bottom - verticle flush box
Downlights to be securly positioned on nail - 3 folds and twist to ensure insulation installers don't move
All surface mounted lights to have knogs fitted and 16mm hole drilled through for cable
Vanity lights to be positioned at 1850mm high to centre unless specified otherwise
Exterior bulkhead lights to be positioned at 2 metres high unless specified otherwise
All downlight measurements to be clearly marked on plan (measure twice, cut once!!)

Pantry lights to be fed from isolator in pantry and cable to be positioned at 2.1m high (use white 3 core flex cable and clips above pantry to avoid having to use capping).
TOWEL RAILS
All towel rails to be concealed type cable entry unless customer supplying their own non-concealed type towel rail
Towel rails cabling to come through 13mm drilled hole at 550mm above floor (for goldair left or right hand entry type), switch mounted directly below cable entry point and mounted 350mm to bottom - verticle mounted flush box. Knogs to be fitted for all mounting points. Knog for cable entry point to be mounted face side towards wall to allow cabling to be drawn through easily on fit off. Fit 13mm conduit in hold for cable entry so that conduit can be removed and cable entry positioner mounted. Single 2.5mm cable draw wire to be fitted between switch and cable entry point.
LOW VOLTAGE
All low voltage cabling to be ran seperate to power, flush boxes to be mounted beside power outlets at 300mm to bottom - horizontal mounted flush box
Main phone line to be ran to below meterbox - 350mm above finished floor level
All data wiring to be numbered individually 1-100
For speakers rather than using banana plugs, exit cables through hole in 681VH (or 682VH if large quantity of cables) and spiral wrap to Amp for connection. Make sure you cover all speaker cabling with a bag before pre-wire complete to protect cables from paint marks etc as these will show up through the spiral wrapping
Door bell unit to be positioned behind fridge
ALARM
All PIR's to be wall mounted at 2.4 metres high - no higher. If unable to mount at 2.4 metres may need to ceiling mount with ceiling mount brackets
Internal siren to be recessed mounted above passage door high on wall - not on ceiling.
Telephone cabling to be ran to panel for future monitoring connection
Spare cabling to be ran to garage door control button for future control of garage door
Keypad cabling to be mounted 1300mm high centred above light switch coming through timber
TV
Main TV outlet - Run 3 x RG6 and 1 x cat 5 (when running double data throughout run 2 x cat 5 instead of one)
2x RG6 coax cables to be ran into ceiling near man hole for main aerial
For wall mounted TVs mount recessed box 1250mm from finished floor level to bottom of recessed box. Run 2x HDMI, 2x Cat 5, and 1x Coax from TV to location of amp, sky, DVD, etc
VENTILATION
When possible install 150mm in-line fan system if have access to ceiling cavity. Mount fan as far away from inlet as possible for optimum performance and lowest noise.
If unable to use in-line type, use 150mm wall or ceiling mount manrose low profile type (low voltage if located in shower)
Ducting not to be drilled through joists unless requested by owner / builder. If this is the case thru-joist brackets must be used and maximum of 125mm hole is allowed to be drilled through joist.
HEAT PUMPS
Piping and flexible drainage pipe to be brought to left side of indoor unit and cabling and rigid drain pipe to be brought to right hand side (See layout diagram). Refer to Heat Pump Guidelines
If piping is to go through structural top plate use top plate strengthener - (check with builder on site).
UNDERFLOOR HEATING
Thermostat to be mounted 1300mm to bottom - verticle flush box
2.5mm single draw wire to run through seperate 25mm holes through knogs and coming through bottom plate at lowest point
Element Alarm unit to be fitted to cabling
FINISHING
Create a gearlist of what will be required for the fit-off. This can be submitted to Josh (or Damien if applicable)
On completion of pre-wire all cabling to be taped and folded back neatly in flushboxes and pre-wire check sheet to be filled out. This checklist must be handed to the office completed and signed with your paperwork.