## Electrical Solutions Guide



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With so many exciting decisions to be made, designing the electrical system for your home is often the last thing on the mind of the new homeowner or renovator. While you can be assured that your electrical contractor will provide all the essential services, they may not include your lifestyle requirements in their plan. With a little foresight and this 'Electrical Solutions Guide', you and your electrical contractor can provide for all your electrical requirements today and into the future.

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## > Introduction

#### Welcome

The process of building or renovating can be a stressful time for any homeowner. Planning ahead to make sure the end result will work well with both your lifestyle and your pocket means making many upfront choices in areas you may be unfamiliar with.

This 'Electrical Solutions Guide' from Schneider Electric is designed to help you make informed decisions about your electrical needs in each and every room of your home. The requirements for today's homes are far more complicated than those of times gone by. We need to consider energy efficiency in all areas to keep our running costs under control, we must include comfort and convenience wherever possible to ease the demands on our busier lifestyles, and with an eye on future resale value, we have to build in flexibility wherever possible for tomorrow's technologies.

This guide is intended to give you an overview of all these different facets of your electrical wiring and more – explaining the sometimes complex systems in broad terms to show you the options available. Your electrical contractor is the expert in wiring today's homes and we encourage you to work closely with them.



With a little planning you can provide for all your electrical requirements now and in the future.

#### Considering the future

- Consider multiple furniture layouts in living areas and bedrooms. As an example you may want to rearrange the furniture in your lounge, but discover that the wiring for your TV or stereo system is on the other side of the room from its new position. To avoid unsightly extension leads, use structured cabling and plan for outlets in several locations.
- If members of your family have disabilities or are becoming less mobile, consider styles of switches and socket outlets that are easy to use, and place them in positions that best cater for their requirements.
- You may not own them now, but think of what electrical appliances you may want in the future and where they would be located.

#### Starting out

When first approaching your electrical plan, consider these basic tips:

- Utilising different colours and plate finishes can change the whole look of your home's electrical fitout.
- When selecting your socket outlets, try to be consistent with their orientation (i.e. vertical or horizontal) throughout your home.
- Position light switches conveniently for when you're entering or leaving rooms, and when locating light switches beside doorways take care to note which way the door swings so your switch is not obstructed when the door is open.
- Light dimmers are great additions to those areas of the home where it's desirable to create different moods with lower light level settings – and they'll save power!
- Switches don't always have to be next to the appliance they're controlling and may be better placed in the most conveniently accessible location.



Your electrical contractor will also offer advice and suggestions to further customise your installation. You should discuss your particular needs with whoever is overseeing the electrical installation.

## > The safe home

#### Protect yourself against electrocution - Safety switches / RCDs

From time to time we're all unconsciously careless around electricity. Nobody plans on being electrocuted but accidents can happen. Frayed cords, faulty wiring, dampness and other hazards can contribute to a potentially lethal situation.

Fortunately, Residual Current Devices (commonly known as RCDs or safety switches) offer personal protection against electrocution from "phase to earth" faults by cutting off the power in such cases within just a few thousandths of a second.

Various models suit different applications – from switchboard mounted products for home protection, outdoor extension leads for power tools, and RCD power points for bathrooms and laundries.

#### Protect your electronic devices - Surge arrestors

Power surges of various degrees are unavoidable in the delivery of electricity to your home. Depending on the type, duration, and size of these surges irreparable damage can be done to unprotected electronic equipment such as computers, televisions, and stereos. Insurance policies often exclude any such damage in their policies.

It is recommended to have coarse or medium surge protection on all circuits in the distribution board, with additional fine surge protection provided at the power point on selected circuits. Our homes are now full of electrical and electronic devices, so electrical safety should be one of the prime considerations for your new home or renovation. Schneider Electric offers a comprehensive range of products to safeguard both your family and your belongings.

Safety tip: All RCD's have a test button, please test them regularly to ensure they are working correctly.





#### Innovative safety products and features

#### Peace of mind for parents - Shuttered sockets

All PDL sockets feature inbuilt shutters which effectively close off the socket pinholes when a plug is removed. This additional protection provides peace of mind for parents with toddlers who may try inserting a foreign object into the socket. Shuttered sockets are also available in the Clipsal range.

#### Further protection from electric shock - Waterproof switches

Waterproof switches provide further protection from electric shock in case a family member touches a switch using wet hands. These products are ideally suited for light and appliance switches in kitchens, bathrooms, ensuites and laundries.

#### Convenience and safety - Light sensors

Sensor controlled lights add convenience and safety to your home. Outside, they light up paths and driveways and are an excellent deterrent to criminal activities. Inside, they are great for stairwells and bathrooms, turning lights on as and when required.

#### More light to move safely – Emergency lights

Blackouts are all too common and can leave you fumbling for candles or a torch. The Clipsal Lifesaver Emergency Light automatically switches on should the power fail giving you light to move safely. It is kept charged by the mains when not in use and is great for high traffic areas and by the distribution board.



#### Smoke Alarms

Smoke alarms are essential warning devices in every home, providing early indication of fire and minimising the chance of property damage or loss of life.

Whilst any smoke detector is better than none, interconnected dual power supply alarms give superior protection as when fire is detected by one alarm, all the connected alarms in the house will sound.

## > The efficient home environment

Your home is where you have the greatest control over your environmental impact – in the home's construction, fittings that go into it, and also in your actions – how you use and maintain it.

Schneider Electric has a firm belief in environmental responsibility and offers a wide range of solutions for lessening your running costs and carbon footprint.

#### Create warmth and comfort – Heating and cooling

Heating your living spaces is one of the biggest costs in any home, particularly during those cold winter months.

Heating rooms individually is an excellent way of increasing your energy efficiency overall – why waste power heating unoccupied areas such as guest rooms or rumpus rooms?

Ceiling fans assist with heating and cooling by improving the efficiency of heaters and air conditioning.

An inline exhaust fan can be installed for venting heated air from one room to another. This heats an additional room with the warm air that rises and becomes trapped near the ceiling of another. In the reverse situation, they can also be used to draw cold air into a room.

#### Set the mood – Dimmers

Dimmers are a great way of creating a mood or atmosphere, and lower light settings will reduce your energy consumption. This is an easy place to start making savings.

## Save power – Lighting control and motion sensors

Save power by installing motion sensors in key locations which will automatically turn the lights on when someone approaches, and switch them off again if nobody remains in the area for a period of time. Both ceiling and wall mount versions are available.

#### Lighting control – Timers

Consider timers which restrict energy use for underfloor heating, towel rails, spas and other high load applications where considerable savings can be made. A timer will allow you to schedule these to run during low tariff rate periods, or when your family is normally home.

#### Adjust your lighting for seasonal changes – Sunset switches

By using a light sensor, sunset switches will turn lights on once the natural illumination drops below a certain level. Ideal for bulkhead lights, paths and driveways, they automatically adjust for changes in season or daylight savings. Some also feature inbuilt timers for even greater savings potential.



Modena Series Dimmer Switch



InfraScan Ceiling Mounted Motion Sensor



Modena Series Timer Switch



WP Series Daylight Sensor With Timer

#### Improve your electrical savings with an integrated approach

You can greatly improve your electrical savings by attending to your lighting, heating, and ventilation separately, or an integrated approach through C-Bus Home Automation.

With C-Bus, all of the controlled lights and electrical devices in a home are networked together. This allows them to interact with each other and operate within preset parameters or schedules based on time of day, natural light level, occupancy, or temperature.

See pages 14 to 17 for further information on C-Bus Home Automation.



continuously uses 525kWh of power per year. Using a timer to turn the towel rail on for 2 hours per day drops the consumption to only 44kWh per year – saving you \$106 per year.



**Outdoor sensor lights** 

300W of outdoor lights left on all night will use around 1000kWh per year. An outdoor sensor turns these lights on only when required. Even if triggered 10 times a night for six minutes each time, you'll save over 930kWh for a saving of \$204 per year.



saving of over \$53 per year.

Sunset switches

Sunset switches will automatically adjust to daylight saving and gradual seasonal changes. Misjudgments in turning outside lights on or off in the morning or evening totalling two hours per day would increase your power consumption by 218kWh per year (based on 300W of lighting). Use a sunset switch to make the right call for you and that's \$48 per year you'll save.

If for just 50% of that time a dimmer is used to

reduce the illumination to half brightness, you'll

save 24kWh per year. This makes for a saving

of \$5.30 per light bulb per year. Multiplying this out across just ten lamps in a house gives you a

#### Savings examples...

All savings are estimates only and are based on an electricity tariff rate of 22c per kilowatt hour. Actual energy and cost savings will depend on individual usage patterns and local conditions.

## > The smart home

## > LexCom Multi-Room Audio

#### What is multi-room entertainment?

Enjoy and control your favourite music, in any room throughout the home. A LexCom Multi-room Entertainment System gives the freedom and flexibility to access and control audio and video equipment independently in every room.

### > LexCom Home Network

#### What is a VDI system? (Voice, Data & Image)

A VDI System provides the infrastructure to support and share this media.

- > Voice as in telephony
- > Data as in computer interconnectivity (networking)
- > Image as in video, whether it's terrestrial TV, pay TV or DVD

Transform your new home into an entertainer's dream.

#### > StarServe

#### Smart home solutions to fit every budget

StarServe enables you to network your internet, telephone, free-to-air TV and pay TV. So now everyone can watch what they want, when they want, where they want.

#### > C-Bus Home Automation

#### Intelligent lighting control at your fingertips.

The C-Bus Home Automation system can set the brightness of every light circuit in the home, monitor and keep the temperature in every room at the ideal level for absolute comfort and energy efficiency, and much more.



For more information, please refer to page 9

## For more information,

please refer to page 10-11

For more information, please refer to page 12-13

For more information, please refer to page 14-17



## > LexCom Multi-Room Audio



## > A Multi-Room Entertainment System

The way home entertainment should be, listening to your favourite music or enjoying a movie in any room you choose.

All of this is achieved in a very discreet and space efficient way – no need for big unsightly black boxes, LexCom Home Audio is a built-in solution. Just plug in your hi-fi or home theatre system and go! It's as simple as that.

## > Why choose LexCom Home Audio?

LexCom Home Audio offers true high performance, with a power efficient design.

Modular by nature, LexCom Home Audio can be exactly tailored to your home, lifestyle and budget. There are single-source and multi-source audio and video systems that can play music and movies in up to eight rooms. Options include discreet mono, stereo or even 5.1 cinema surround sound configurations.

- Plug your hi-fi, MP3 player, TV, home theatre system or even your PC into the wall sockets and listen to high quality sound. Listen to and control up to six different music or video sources – in any room of your home.
- Unique in-ceiling or wall mounted amplified speakers deliver outstanding high fidelity sound, without intruding into your living space.
- The system is wired back to a compact hub which is installed in a hidden enclosure alongside other home services.

Using LexCom Home Audio is so simple, just press a button on the wall keypad or remote control... and enjoy!







## > LexCom Home Network

#### In the living room

Your living room is your entertainment hub, and LexCom Home® Network enhances the usability of the A/V and entertainment equipment it contains. You can distribute your DVDs or satellite TV channels to each TV outlet in the home and have control from wherever you watch.

LexCom lets you connect your game consoles to the internet, your home theatre PC to your media server, and your Sky decoder to your phone line. The flexibility that LexCom provides doesn't tie you to one particular room layout either – outlets can be changed from one signal type to another in seconds.





#### In the home office

The ability to maintain your productivity and privacy in your home office is seamless, thanks to dedicated internet access, phone lines and a local area network.

Whether you use your home office full-time, or simply need a place to track your household finances, LexCom Home<sup>®</sup> Network gives you the infrastructure you need to take care of your business, with the same performance levels that you would expect from an office.





#### LexCom

The heart of the LexCom Home Network is its unique structured cabling system. Its primary objective: to provide high bandwidth, quality video, voice and high speed data all within the comfort of your home. Pre-wiring your home for converging technologies with LexCom structured cabling is the first step to enhancing your entertainment and communications experience. It will transform your home into a multimedia haven and due to its unique construction and a specification that meets and exceeds the Cat6 standard it will increase the resale value of your home, providing a convincing edge when it comes time to sell. It's time to introduce your family to smart living with the simplicity of LexCom – just connect and go.



#### In the kids' rooms

For complete peace of mind you can comfortably monitor your baby's nap from a TV in another room.

In her room, your daughter watches a movie that is playing on the lounge room DVD player. Meanwhile, your son is in his bedroom researching his homework assignment on the internet.



#### ... even in the kitchen

With LexCom Home<sup>®</sup> Network you'll have the infrastructure to check your email while you wait for the microwave, search the Web for a recipe that can be printed on the home office printer, watch the DVD movie playing in the lounge room, or just catch the evening news.

#### Flexibility

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Because the principles of the LexCom Home system are founded on the single network cable used to distribute all signals around the home, LexCom Home promises amazing flexibility as it is simple to change any outlet in any room to receive whichever incoming signal you require. A telephone outlet can easily be switched to receive TV or broadband within seconds.





A Clipsal StarServe Home Network expands on basic home wiring to deliver a dynamic entertainment and communications system.

Whereas traditionally you have been restricted to the living room to watch a video, DVD or pay TV, now with StarServe you can independently watch any of these devices, and free-to-air TV from any room connected to StarServe. You can even keep an eye on children from another room or see who is at the door using your TV.

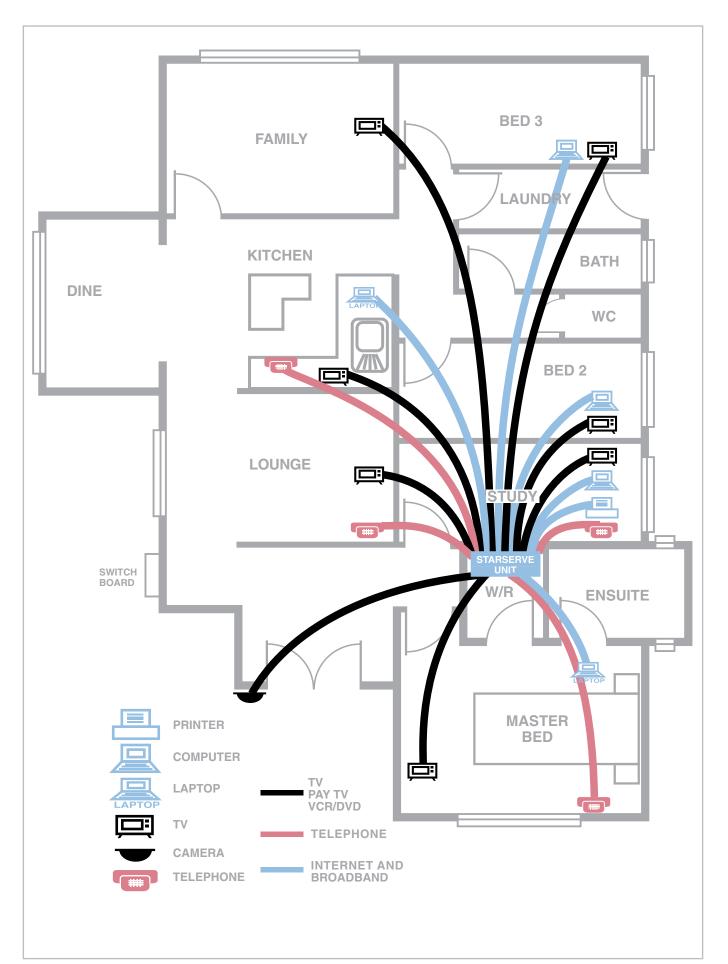
All this is possible thanks to cutting-edge electronics that StarServe has adapted for everyday use in your home. It's easy, convenient and now available at a surprisingly affordable price.

The system will continue to save you money, too. For instance, the ability to network Pay TV, a DVD player and a satellite receiver throughout your home can be done at a fraction of the cost of purchasing components for each television.

If you are buying or building a new house, it's worth keeping in mind that you can ask your builder to pre-wire for the StarServe Home Network, too. That way it can always be installed at a later date, budget permitting.

#### The benefits of StarServe

- No unsightly telephone cables, computer or TV leads running along skirting boards, under carpets or around the corners of rooms.
- Access pay TV or DVD in other rooms even if the kids are watching a video in the family room.
- > Pay TV to any TV set in the home.
- Monitor baby from the TV in the master bedroom.
- See visitors at the front door by changing to a channel on any TV in the house.
- Play DVD or VCR on any TV throughout the home.
- Remotely control any connected devices from any TV in the house.
- Print a document on a printer connected to a PC in the home office whilst working on a laptop in the living room.
- Move about the house and watch a movie from any TV.
- > No ugly internal antennas.
- > Increase the re-sale value of your home.



## > C-Bus Home Automation

#### The energy efficient building

By utilising the advanced features of Clipsal C-Bus<sup>®</sup> Control and Management system, energy savings can be made by switching off lights automatically when you are not in a room. C-Bus can control the heating or ventilation in any area independently by the use of room thermostats to keep a constant, healthy, energy efficient climate in the home.

C-Bus can save thousands of dollars on annual energy bills in commercial buildings by measuring the light level in work areas and dimming down overhead fluorescent lighting in areas near natural light sources, yet maintaining a constant minimum required light level for a safe working environment.

#### Security and fire

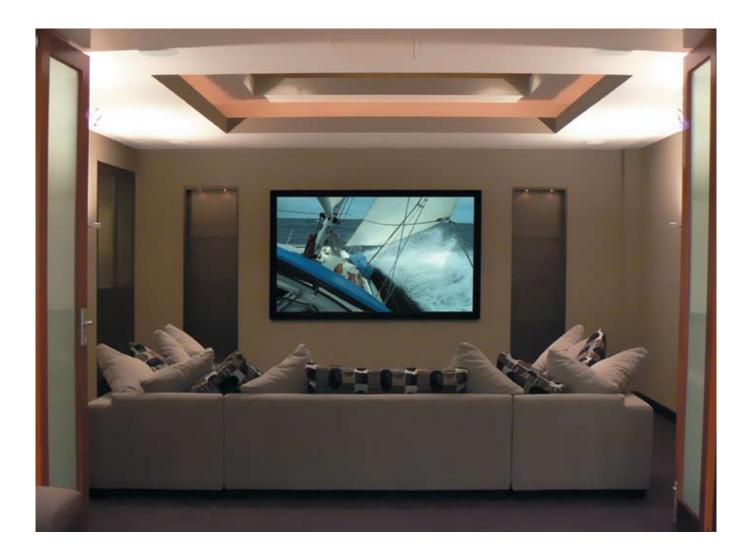
C-Bus Control and Management system also has the flexibility to communicate messages to your home or business security and fire systems. So in the unlikely event of a fire, C-Bus can provide escape lighting to illuminate your exit from the home. C-Bus can also turn every light in the home on, or flash all of the lights in the event of an intruder triggering the alarm.

#### What is lighting control?

With life becoming ever more busy and complex, the modern home is required to think for itself. Why come home to a dark, cold, unwelcoming home, when you have the ability to communicate with your home automation system from your cellphone via voice commands or text messages – to turn on the heating, open blinds or play a 'welcome home' scene as you are coming up the driveway.

The future proofing advantages of C-Bus means that any controlled electrical circuit can be switched from any location in the home. As your lifestyle changes, you can alter how the lighting is switched without the need for any re-wiring work to be carried out.





#### Heating and ventilation

Let C-Bus control the climate in your home. With the addition of C-Bus thermostats, the automation system can keep a constant healthy temperature in the home. C-Bus can heat the home in the winter and cool in summer all with seamless control and temperature readings at your fingertips.

#### Home theatre and multi-room audio systems

C-Bus also has the added advantage of an optional Multi-Room Audio system that can be seamlessly controlled via C-Bus switches and touch screens. Play your favourite music in any area of your home or independently play different music sources in separate areas at the same time, i.e. the kids can listen to a radio or DVD in the rumpus room while at the same time the adults can listen to a CD or another audio source in the living/dining area.

C-Bus also has the flexibility to intelligently 'talk' to almost any third-party home theatre or multi-room audio system on the market.

Imagine with one touch of a wall switch or touch screen, the lights dim to your desired levels, the TV is turned on and the DVD is played automatically. This is all possible with a C-Bus Home Automation System.

#### Set the scene

Imagine the power at your fingertips to set the level of every lighting circuit in the home by the press of only one button. Alternatively, a 'good night' button beside the bed can be programmed to switch off the whole house at the end of a day. With the advanced power of C-Bus the home will always be illuminated exactly how you like it.

## > C-Bus Home Automation





#### Red, blue and green with envy

The C-Bus C-Touch<sup>™</sup> Colour Touch Screen is the latest in wall mounted, touch sensitive LCD screens. The stylish touch screen can display pages of graphical items. Buttons,

sliders and images on the screen all perform programmable functions, simply at the touch of your finger. Control your entire home's lighting, home theatre, air-conditioning, security, watering system and almost anything else you can imagine.

Available in: White glass, black glass and stainless steel finish.



#### **Total control**

Clipsal's MKII Black and White Touch Screen provides total control of your entire automation system, making it perfect for main living areas,

entrance halls or home cinemas. The large graphical interface can be customised to suit your needs. In fact it will control anything you decide to include as part of your smart home environment.

Available in: White glass, black glass and stainless steel finish.

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#### The ultimate smart switch

One of the biggest problems people find with home automation is the difficulty in remembering which buttons do what. Clipsal has now solved that problem with user-friendly Dynamic Labelling Technology<sup>™</sup> (DLT).

Clipsal's DLT is available in the

C-Bus Saturn<sup>™</sup> and wall switches and allows the buttons to be electronically labelled according to your needs. The units have eight function buttons over two pages, a backlight for easy viewing, and support up to eight languages, making DLT wall switches simple for anyone to use.



#### A beautifully crafted switch – in pure glass

The Saturn range boasts a luxurious glass face and distinctive illuminated round buttons. It is arguably the most beautiful switch range available. The pure glass finish is not only stylish but makes it durable and easy to clean.

But the Saturn is not just a pretty face. It is fully programmable and can go beyond simple on/off functions, delivering unlimited dimming, switching and other control functions as part of a C-Bus smart home system. Saturn switches and C-Touch touch screens are exclusive to Clipsal C-Bus. For more information, visit www.saturn.clipsal.com

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#### Reflection<sup>™</sup> – expression without words

Reflection<sup>™</sup> is the sleek, contemporary design that is constructed from smooth stainless steel and boasts a flat rectangular switch plate without unsightly screws. The metal-look switch buttons can also be removed for engraving if needed. The switches feature an inbuilt 'cool blue' LED status indicator.

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#### Modena – European style



Modena C-Bus is the latest in design from Schneider Electric. This new range of C-Bus enabled switches has all the functionality of the C-Bus Saturn range but will match the rest of the PDL Modena 800 range of wall plates within the home. With nine interchangeable picture frame surround colours combined with two module colours to give 18 possible colour combinations. This huge palette allows you to select the perfect match for your décor in each and every room.

Available in: White or Black plus nine cover plate surround colours. (As per PDL Modena on page 22).



#### Total control from the comfort of your armchair

Take control of your Clipsal C-Bus Wireless System with this sleek remote. Control 10 different lights or scenes, dim them, and hit the 'All off' button when you go to bed. The blue LCD display and button labels show what you're controlling. Each remote is supplied with a wall cradle so you always know where to find it.

# Match your décor

- Choose the colour and finish to match the décor of your home.
- Architects and builders know that when it comes to décor, it's the detail that sets the best homes apart.
- From heritage to modern, or something that shows your individuality, switches and powerpoints form an important part of your overall look.

## > Pushbutton Switching







Houses aren't often decorated in single shades and aren't all built in the same style. What is matched perfectly to one home may not necessarily suit the design of another.

Schneider Electric provides electrical solutions for each and every interior, from the old style charm of Clipsal Heritage, to the modern chic of pushbutton switching as available in every PDL range plus the Clipsal Saturn range.

Pushbutton switches have many benefits for the modern home owner.

- Visual appeal their attractive appearance blends with the increasing number of electronic gadgets and appliances found in today's living spaces.
- Improved functionality pushbutton switches produce a consistently quick switching action, reducing the chance of prolonged arcing inside the switch.
- Ease of use the integral blue LED indicators can be set to show when power is switched on (great when the light being controlled is in another room such as a garage); or as an aid to finding the switch in the dark when it's turned off (entranceways and bathrooms are good examples of where this comes in handy). If not required they can be left disconnected.

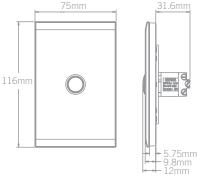








Available



#### Desire the look. Have it all. Your sense of style defines who you are.

The perfect style the perfect finish. The Unique Clipsal 250V Saturn collection offers a range of electrical accessories that are perfectly matched to the Clipsal Saturn Home Automation range, making it easy to achieve a seamless look and enviable style.

Manufactured from quality material, you'd be forgiven for thinking that Saturn was pure glass. The elegant glass look in espresso black or ocean mist colour options complements modern surfaces in kitchens, bathrooms and family areas.

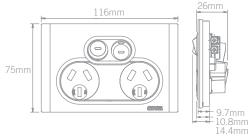
Saturn also offers optional LED indication, replacing the red indicator found on the more traditional mechanisms with a soft blue halo effect. Saturn dimmers help you to set the perfect mood from full light to a soft ambience, giving you the advantage of energy efficiency, helping you save money on your power bills and save the environment.











#### Stands out from the crowd, blends in with the home

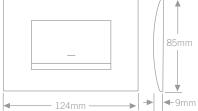
The Clipsal Saturn Switched Socket is a 250V power outlet that allows the operation of all 250V electrical devices, the same as a standard power outlet. These complement Clipsal Saturn Wall Switch's extending the 250V family to create the perfect match in switches and sockets.

Saturn Data Inputs are the perfect option for anywhere you require data connectivity around the home, in areas such as bedrooms, family rooms, lounge rooms and the home office, without compromising your home's great looks.

## > Modena 800 Series







#### Modena 800 Series

Drawing on Latin and European inspiration and constructed with proven PDL quality, the Modena range represents the next leap forward in residential switchgear.

Nine interchangeable picture frame surround colours combine with two module colours to give you 18 possible colour combinations. This huge palette allows you to select the perfect match for your décor in each and every room.

The modular nature of the range frees you to create your own layouts if required – from oversized modules that make switching a breeze, through to customised A/V plates for the home theatre enthusiast.

## > Modena 800 Series Vertical



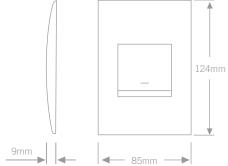


#### Modena 800 Series - Vertical

Available in the same colour palette as the standard PDL Modena range, these vertical switch plate options are ideal for retrofitting into existing homes, or combining with regular Modena in new installations.

The subtle curves and designer shades of Modena Vertical bring a splash of colour and modern appeal to your renovation project.

Clever construction means that Modena Vertical is a simple swap-in replacement for your existing switches in most homes.



## > Strato 800 Series

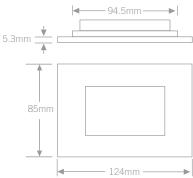












#### Strato 800 Series

The sleek profile of PDL Strato lends an element of sophistication to any room. Slim flat metal picture frame surrounds combine with European style modules to create a highly flexible system that can be tailored to your needs in any location.

The finger mark resistant brushed aluminium finish tops a wall plate only 5mm thick, lending a durable face to a modern design.

The modular nature of the range lets you simply add the functions you need, in the layout that suits you best – you're no longer tied in to the 'out of the box' arrangement of what should go where.







# 4mm

#### A classic, sliced extra thin

At first glance, Clipsal Slimline<sup>®</sup> looks exactly like our Classic switches and sockets. Viewed from the side, however, it's a completely different story. Clipsal has taken the Classic and sliced it extra thin! The result is Slimline, a range of switches and sockets that are only 4mm thick (or should we say thin), making them one of the thinnest switch plates in the world.

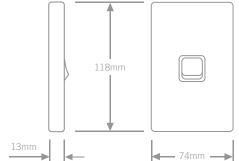
With Slimline, you have a comprehensive range that is unique, but still looks at home when used with the Classic range. A range of metal plate covers and the outstanding Chrome Shadow finish are available in the Slimline range too. Featuring a full metal look and fingerprint resistant finish, they are sure to add a touch of class at a fraction of what you'd expect to pay.

Sockets available in horizontal only.

## > 600 Series







#### 600 Series

Locally designed specifically for New Zealand conditions from tough, durable plastic that won't discolour in our harsh sunlight, PDL 600 Series has been New Zealand's most popular range of switches for more than a decade.

A proven track record for reliability and safety, coupled with a huge range of available options, has made 600 Series an almost automatic choice for homes and offices across the country.

Interchangeable removable metal or plastic cover plates make painting easy, and let you create combinations that fit with any style of building.

## Classic (C2000)



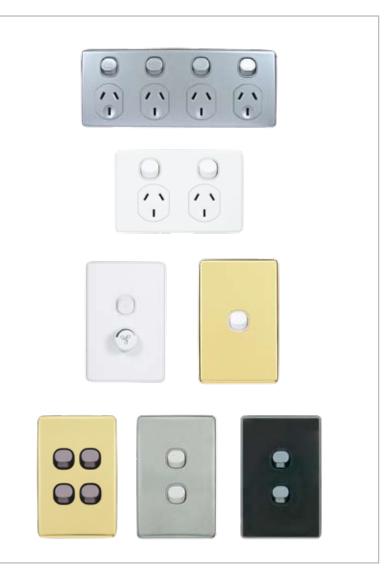
116mm

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#### Nothing outclasses a classic

The smooth curves and sleek lines of the Clipsal Classic range reflect the latest interior design trends. Remarkable and affordable, the Classic Range features a level of quality and elegance that you would expect from electrical switches and powerpoints costing much more.

As covers and gridplates are interchangeable, you can create combinations to match the particular décor theme you are trying to achieve.

## > Metal Plate

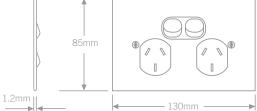




#### Elements of a beautiful design

The Clipsal Metal Plate range offers almost unlimited possibilities. The stainless steel switches and power outlets look superb in today's stainless steel kitchens, while brass models beautifully complement a more traditional décor.

The BSL and BBSL style metal plate ranges, available in stainless steel or brass finishes, are the lowest profile switches at only 1.2mm, which means they blend in perfectly.









#### Golden oldies in tune with today

The Clipsal Heritage range brings together old world charm with the benefits of today's technology. These switches and sockets are the perfect solution for those wishing to renovate an older style home or to complement the décor of a new Federation style dwelling.

Unlike toggle switches of the past, Heritage offers the safety standards and reliability of modern materials. They are even adaptable to suit TV antennas, faxes and computers.

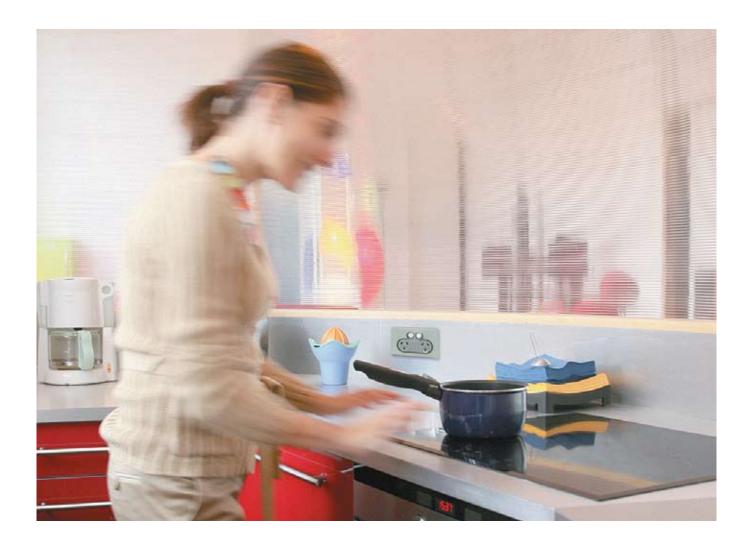
All metal features have been lacquered to withstand moisture and maintain their lustre. Heritage covers are available in exquisite Polished Brass, Antique Brass, Florentine Bronze, and the art deco chic of classic Chrome. All models are available with smooth or ribbed covers, with porcelain or metal shallow base versions and can be complemented by using pre-drilled cedar, pine or undercoated (ready-to-paint) mounting blocks if required.

# Your checklist

- > You are now ready to apply this advice to planning the electrical system for your new home or renovation.
  - The following section will take you through your home, room by room, giving you inspiration and advice to help you devise an electrical system that will fulfil your family's needs, now and into the future.



## > Kitchen



#### **Recommendations:**

Consider stainless steel, brushed bronze or polished brass cover plates to match your appliances

Utilise printed switches to identify individual circuits or appliances

Waterproof switches in 'wet' areas or where wet hands could come into contact with switches

Install an extra switch for the fridge in an accessible location so the fridge can be turned off without accessing the point where it is plugged in

Place the oven/stove isolation switch in an easily accessible location, i.e. pantry

4 way socket outlets ensure plenty of power outlets in the kitchen area, great for all those benchtop appliances

For areas with limited mounting space, slim worktop switched sockets are an ideal solution

Use double unswitched sockets where appliances such as dishwashers and waste disposals need to be controlled on different circuits



#### THINGS TO CONSIDER:

- Espresso machine
- Sandwich maker
- Electric wok
- Rice cooker
- Toaster
- Jug
- Blender
- Oven
- Rangehood
- Microwave
- Phone
- TV or stereo

kitchens as smoke or fumes from cooking can

smoke alarm.

TIPS:

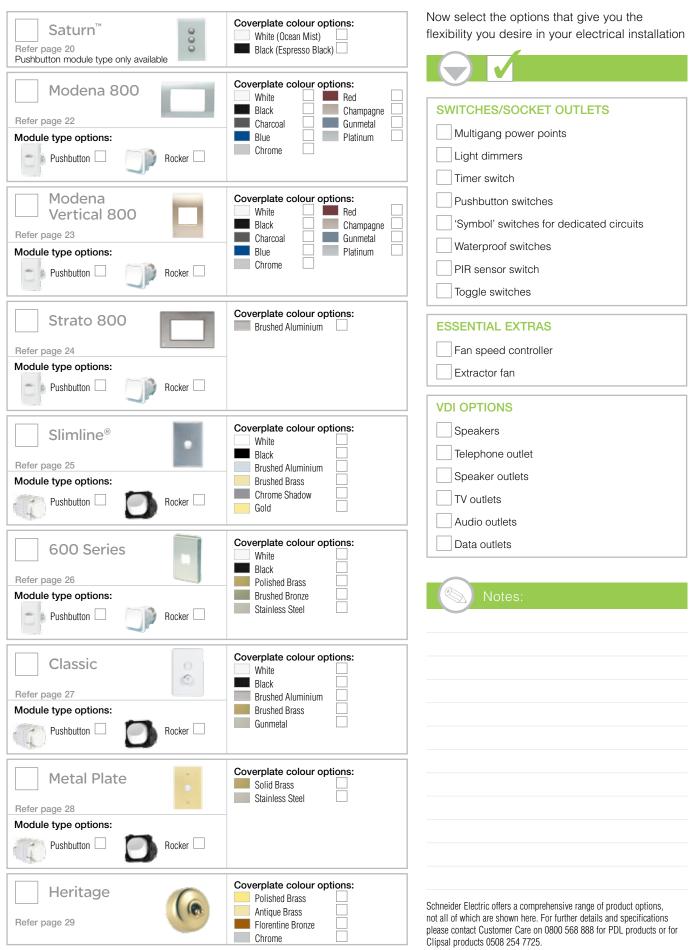
Be careful when placing

unnecessarily trigger the

smoke detectors in

## Choose your OWN style 🗸

Make your selection by ticking one of the nine style options, then tick your preferred colour option



## > Bathroom/en suite



#### **Recommendations:**

Waterproof switches in 'wet' areas or where wet hands could come into contact with switches

Exhaust fans to extract steam and reduce condensation and dampness

Heat bathrooms and en suites quickly and efficiently with a bathroom heater

Heated towel rails provide comfort, convenience and warm, dry towels

Timers to automatically control fans and lights

RCD sockets provide protection against electric shocks in retrofit installations. NB: It is now mandatory for all power outlets in a new home to have RCD protection



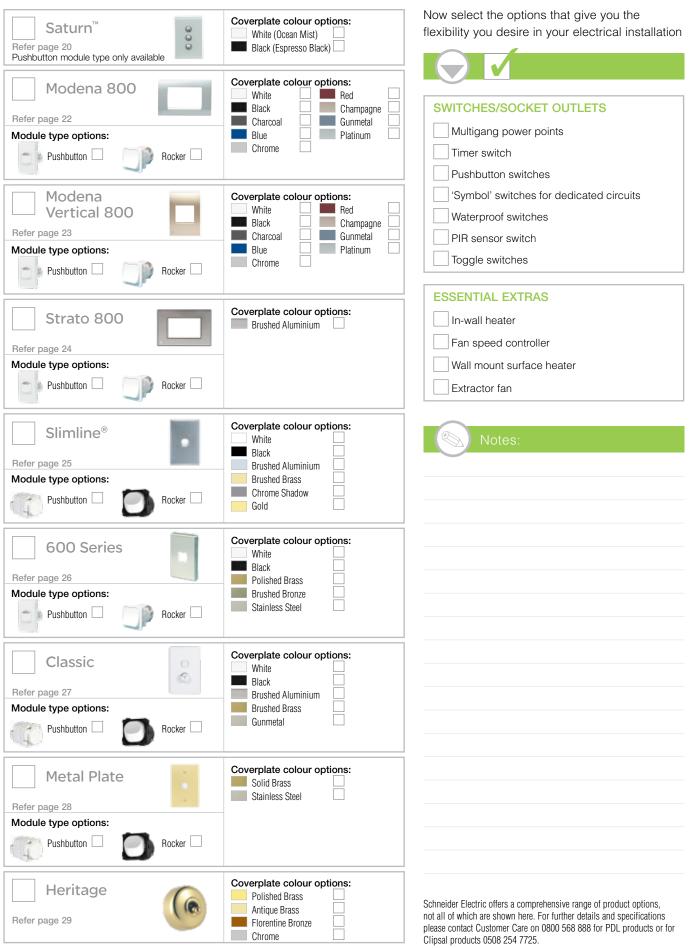
#### THINGS TO CONSIDER:

- Electric shaver
- Hairdryer
- Electric toothbrush
- Heated towel rail
- Heater



#### TIPS:

If possible place heated towel rails on timers to take advantage of reduced electricity rates during off-peak times.



# > Living room



### **Recommendations:**

Dimmers to adjust the light levels to suit different situations

Speaker wallplates for home theatre systems

Thermosafe heaters for localised temperature control

Printed switch modules for easy identification

Wall lighting with dimmer control is an excellent way to highlight pictures and paintings

Smoke detectors for early fire warning

Surge protected sockets for computers and other electronic appliances



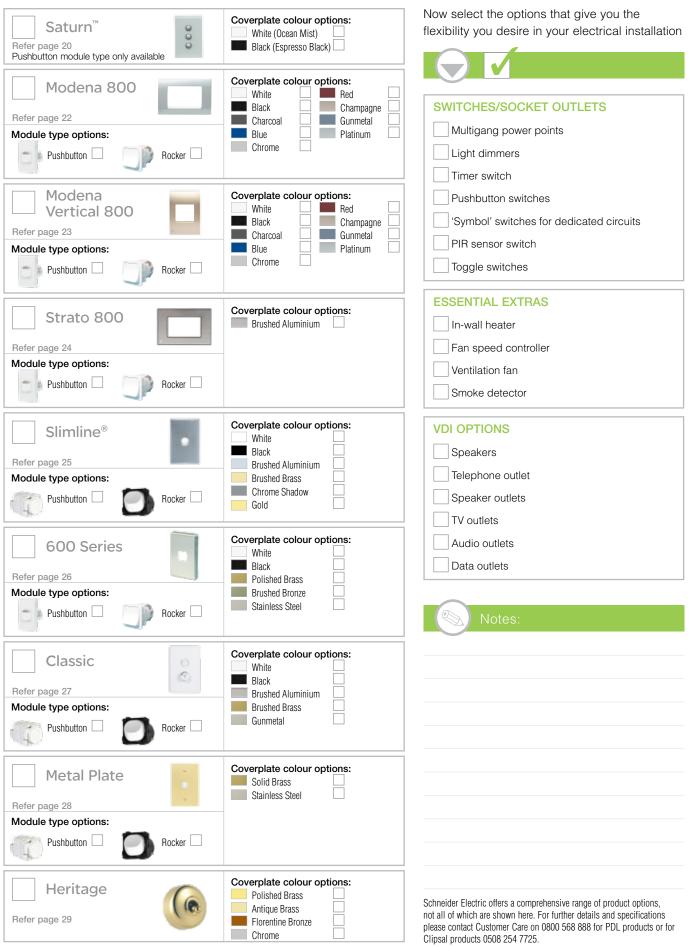
### THINGS TO CONSIDER:

- Phone
- TV and home theatre
- Stereo
- Heating
- Computer
- Ceiling fans



# TIPS:

Place socket, TV and stereo outlets so that furniture and appliances can be rearranged at a later date.



# > Dining room



### **Recommendations:**

Dimmers to adjust the light levels to suit different situations

Speaker wallplates for home theatre systems

Heaters for localised temperature control

Printed switch modules for easy identification

Wall lighting with dimmer control is an excellent way to highlight pictures and paintings

Smoke detectors for early fire warning

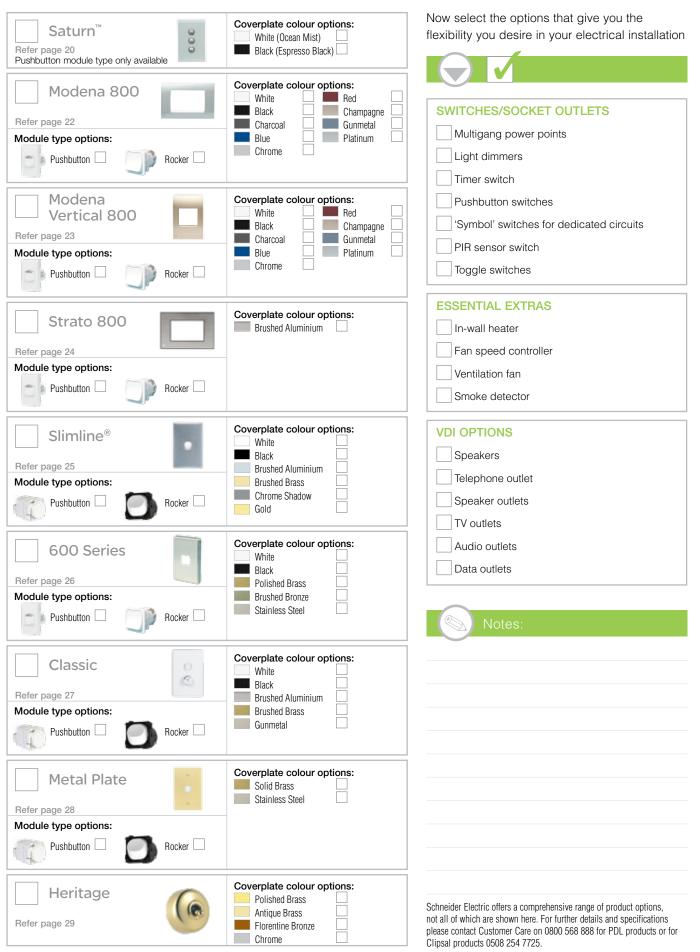
Surge protected sockets for computers and other electronic appliances

# THINGS TO CONSIDER:

- Light dimmers
- Phone
- Sockets



TIPS: Utilise dimmers to create the right mood.







### **Recommendations:**

Place light switches above the bed for ease of access

Install phone outlets close to the bed

Consider 2 way switching to turn the lights on and off from different locations

Place multiple socket outlets beside the bed for bedside lamps, clocks, radios and electric blankets

Strategically place light switches so dark areas can be lit before entering them

Use a sensor for your walk-in wardrobe so the light is not inadvertently left on

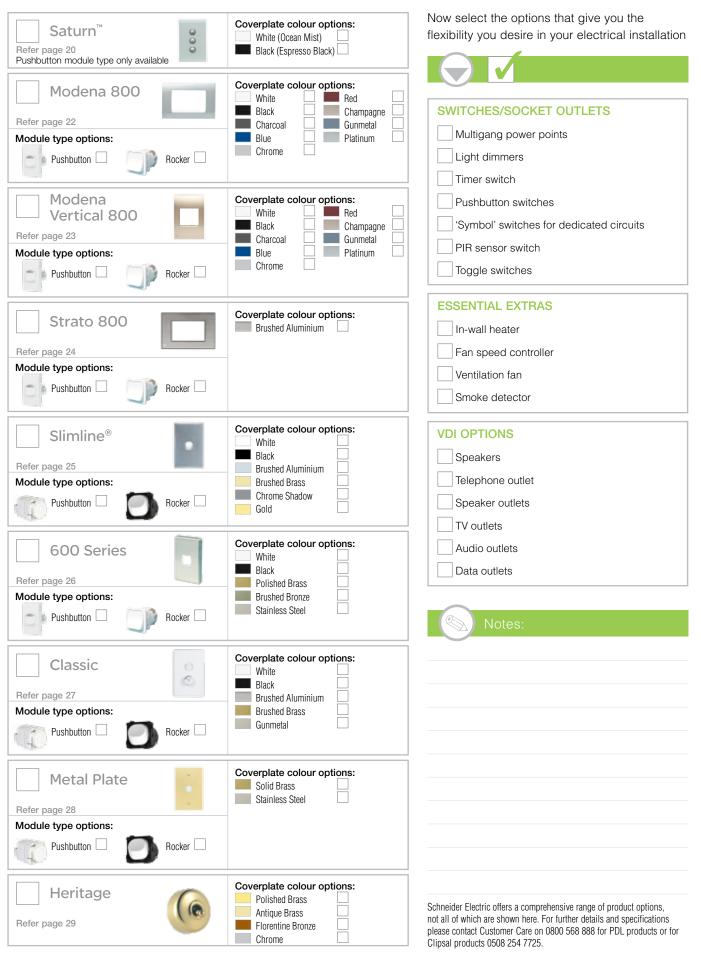
# TIPS:

Dimmers are excellent for creating the right mood in your bedroom. Smoke detectors are essential as a pre-warning of potential fires

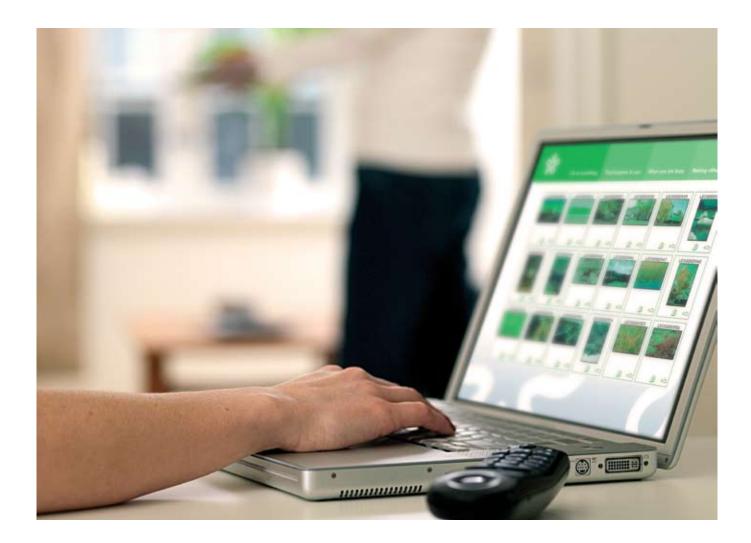


### THINGS TO CONSIDER:

- Phone
- Electric blanket
- Alarm clock
  - Radio
  - Wardrobe light



# Office/Study



### **Recommendations:**

Carefully consider the positioning of phone and computer outlets. Consider 2 or 4 way outlets where your workstation is to be located

Voltage or power fluctuations can damage your electronic equipment. Minimise the risk by using surge protected power outlets

Don't overload your socket outlets with extension boxes. Use 4 way power points to accommodate printers, faxes, scanners and other electrical office equipment

Install sensors in locations where you require the convenience of lights turning on and off automatically

A wall/ceiling mounted sensor will further increase your home's

electrical efficiency

Install RCA or speaker outlets in a position that allows you to mount speakers away from your desk to reduce clutter

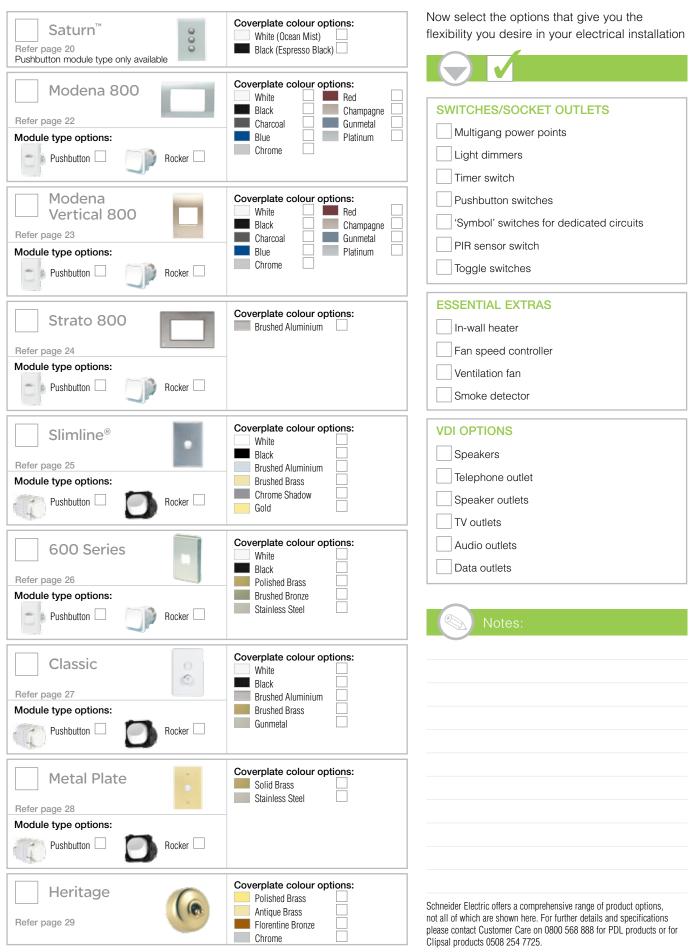
### THINGS TO CONSIDER:

- Computer
- Printer
- Mobile phone charger
- Hi-fi speakers
- Desk lamp
- Kids' electronic games
- Phone/fax machine

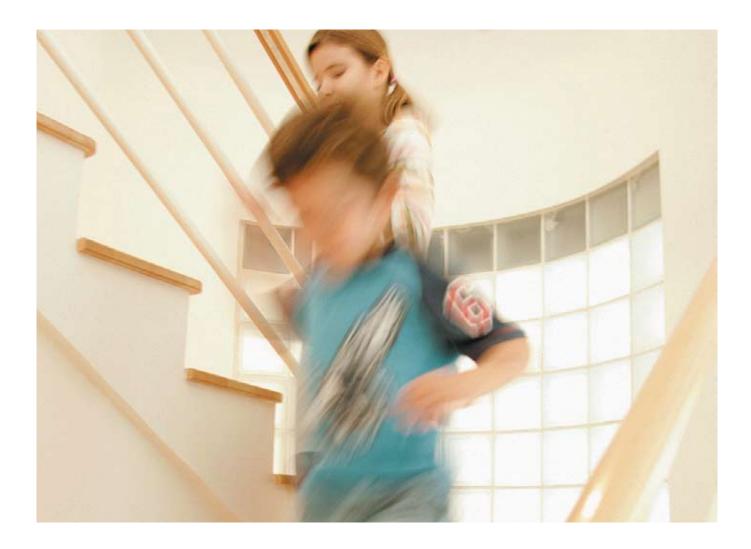


### TIPS:

Install dual phone outlets to enable a connection to both your phone and computer at the same work station.







### **Recommendations:**

If you have underfloor heating, the installation of a 24 hour timer can ensure the most energy efficient operation

To avoid accidentally switching off outside sensor lights, install hinged lid modules

Illuminated modules are great for determining if electrical circuits are on or off

Low wattage stair lights to illuminate stairs make them safer for children and the elderly at night

Position socket outlets conveniently for your vacuum cleaner



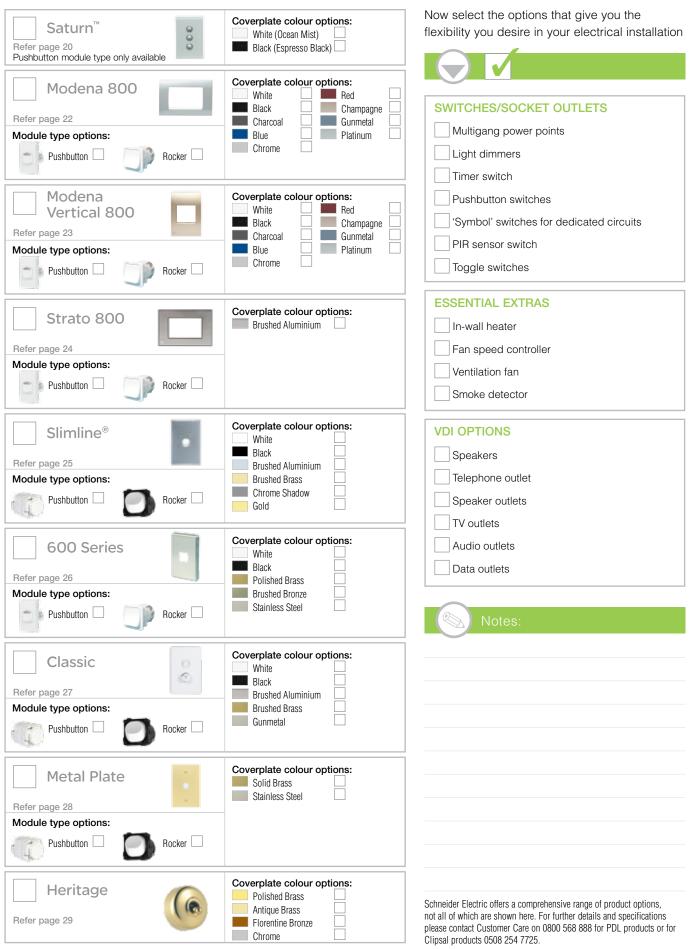
### THINGS TO CONSIDER:

- Stair lights
- Phone
- Door bell
- Smoke detectors
- Vacuum cleaner



### TIPS:

Installing a PIR sensor can turn the lights on automatically when you enter – very convenient when you have your hands full.



# > Outside



### **Recommendations:**

Install PIR sensors in entrances and to light up other access areas at night

Consider weatherproof sockets and switches for the convenience of switching on lights or plugging in appliances outside

Garden lights are a great way to show off your garden and light an area at night

Be sure to choose appropriate lighting. Halogen lights, floodlights and spotlights all offer different features and looks

Ensure sockets for power tool use outside are RCD protected



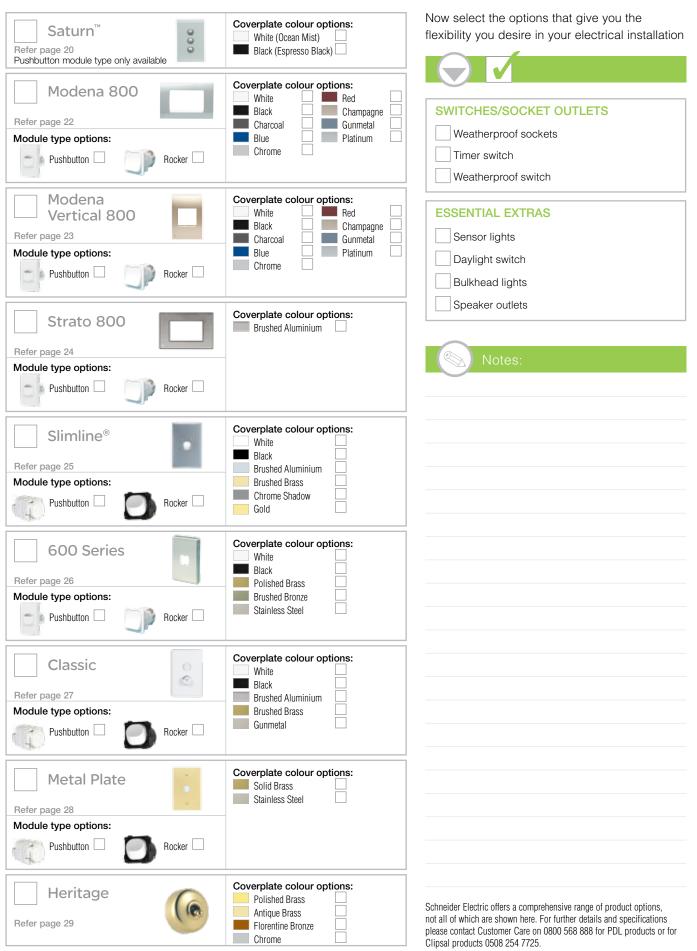
### THINGS TO CONSIDER:

- Electric garden tools
- Electric power tools
- Spa/swimming pool
- Garden lighting
- Barbecues



### TIPS:

A daylight or sunset switch will ensure that outside lights are not left on during the day so you don't waste power.



# > Laundry



### **Recommendations:**

Waterproof light switches where wet hands could come into contact with switches

4 way socket outlets to provide multiple plug points for laundry appliances

RCD protected outlets in renovation situations. RCD protection of outlets are mandatory in new installations

Mount socket outlet for a dryer higher up the wall if wall mounting

Architrave switches and outlets are ideal in areas with limited space, i.e. between windows and benchtops



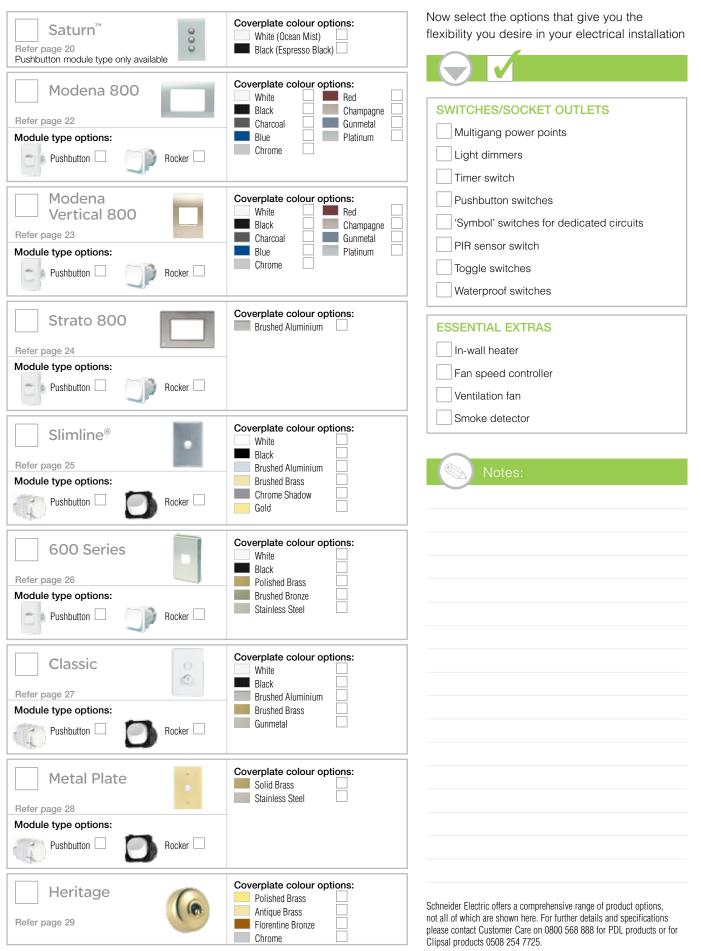
### THINGS TO CONSIDER:

- Washing machine
- Clothes dryer
- Iron



### TIPS:

If the dryer is ventilated into the room, use an in-line or wall/ceiling fan to disperse humid air and heat.



# > Garage/Workshop



### **Recommendations:**

Remember that if you have an electronic garage door, you will need to have a single power socket installed in the ceiling next to the control unit

Consider the 4 way switched socket outlets. These are excellent for those situations where multiple appliances need to be plugged into the same outlet

15A socket outlets are ideal for controlling larger load electrical machines, i.e. large saw benches, blast heaters, welders etc

Use a pushbutton tactile switch that matches the other switches in your home for controlling your automatic garage door

Multiple RCDs in your distribution board will minimise the risk of having all of your lighting and power circuits disabled in the event of tripping

Consider installing a PIR sensor to activate a welcoming light at night



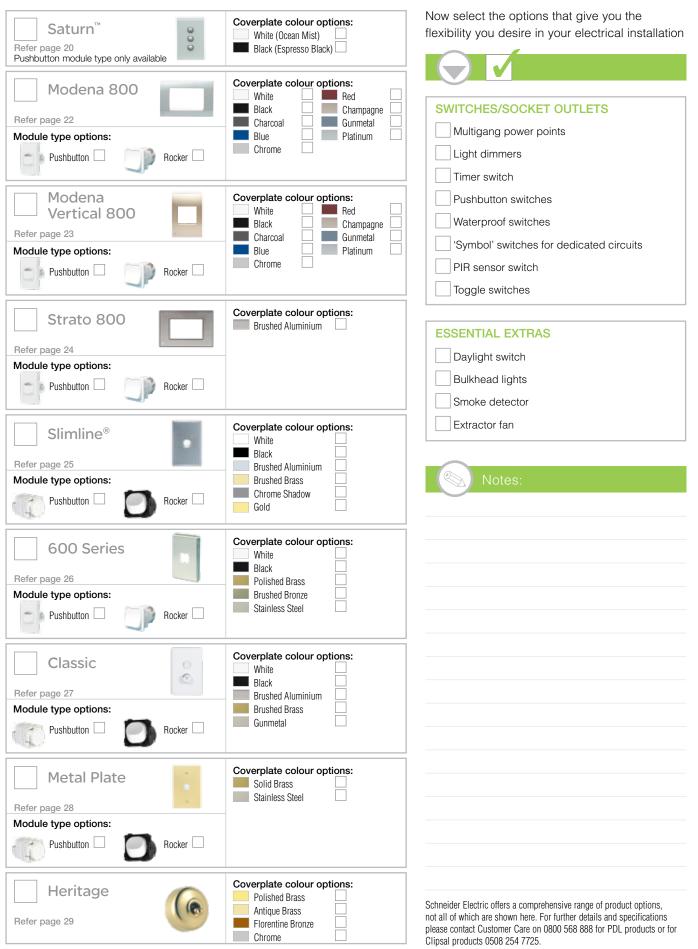
### THINGS TO CONSIDER:

- Work lights
- Multiple bench tools
- Radio
- TV
- Freezers
- Beer fridge



### TIPS:

Consider the garage as a location for your home's main distribution board, as it provides for easy access



# > How to make it happen

# > 1

# You've contracted a builder to build or renovate your home

You've planned your dream home and have contracted the builder. The builder may already have a licensed electrical contractor to do their electrical work. If not, you will need to find a licensed electrical contractor.

# The basic wiring plan

In most cases, the builder will have a standard electrical plan of your home.

# Expanding the wiring plan to meet your needs

Having worked through the 'Electrical Solutions Guide', you'll have ideas on how you want to tailor your home's electrical plan.

The next step is to speak to your builder; they may handle the process in one of three ways.

- 1 They might refer you to a licensed electrical contractor who will walk you through the plan and tailor it to suit your lifestyle and needs.
- 2 They might have a selection centre where you can see lots of different electrical products and solutions. Ask to go through the 'Electrical Solutions Guide' with the selection centre consultant.
- 3 They might not encourage changes to the plan. If you'd like changes, you can ask to speak to their licensed electrical contractor to find out the costs of a tailored plan.

# > 2

# You've engaged a design professional to design and build your home

A design professional will design, and may supervise the building of your home or renovation. They'll talk with you about your lifestyle and the location of your rooms. They will provide your licensed electrical contractor with a plan. The contractor will complete the wiring installation that best suits your new home or renovation.

# Design professionals with excellent electrical knowledge

They'll discuss the options with you (room by room), including items you've selected from the 'Electrical Solutions Guide'. You may find it useful to include your licensed electrical contractor in the discussions. Your licensed electrical contractor will then draw up the electrical plan based on your needs and preferences.

# Design professionals with limited electrical knowledge

If your design professional is not familiar with what's available, ask to get a licensed electrical contractor involved. This can really save you time in the long run.

# > 3

# You're taking on the challenging role of owner/builder

So you've decided to supervise your building project yourself. If this is the case you will need to find a licensed electrical contractor. Now that you've worked through the 'Electrical Solutions Guide' and have some great ideas on how to make your electrical installation work for you, you'll need to know who to talk to in order to make it happen.

Your next step depends on how you have arranged to build or renovate your home. There are three possible scenarios.

# You may have:

- > 1 contracted a builder,
- 2 engaged a design professional,
- > 3 taken on the role of owner/builder

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# Make the most of your energy

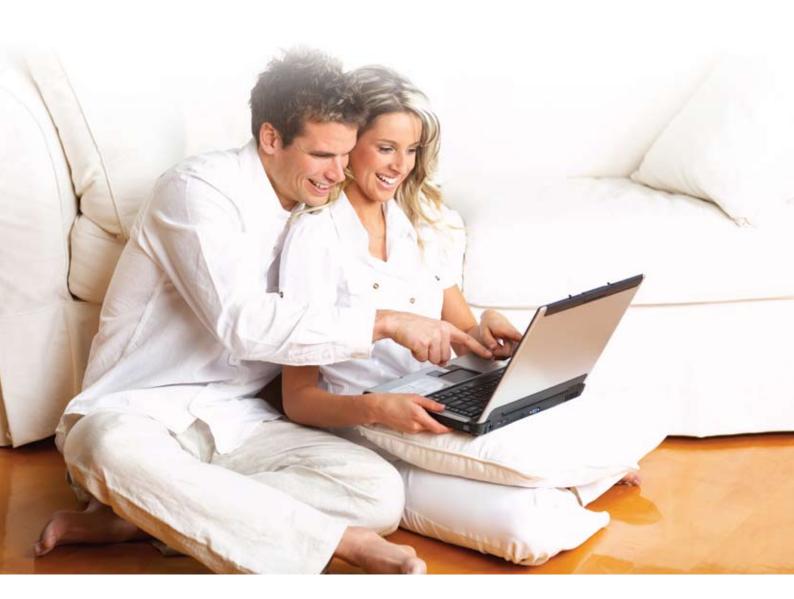
World energy consumption has risen 45% since 1980 and it is projected to be 70% higher by 2030. To limit energy cost and its impact on the environment, we must learn to adapt and manage energy consumption, costs and pollutants. Schneider Electric is committed to reducing the energy cost and CO<sub>2</sub> emission of its customers.

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