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CNT ELECTRICAL

ESSENTIA BY MORRIS



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# Electrical Services Handover Manual

Essentia Apartments,  
18 Remembrance Drive Surfers Paradise, QLD

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## 1. Operation & Maintenance Particulars

### 1.1.1 Overview

This Operation and Maintenance Manual is intended to provide the user with sufficient information to enable them to perform any tasks necessary to maintain or repair any of the systems installed. Covered within this manual is the work carried out as the contract between the contractor and the electrical sub-contractor.CNT electrical completed the electrical aspect of the Kensington apartment complex in Toowong. These works include, but not limited to the following.

- Temporary power
- Lighting  
Power
- Communications
- Security

### 1.2 Warranties, Test Sheets & Inspection of Installation Compliance Statement

The electrical installation is covered by a defects and liability warranty until 12 months from PC provided by:

Service	Electrical & Communications
Company Name	CNT Electrical Pty Ltd
Address	Unit 11 / 197 Murarrie Road, Murarrie
Phone	0412 677 164
Contact	Cameron Richards

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Email	cam@cntelectrical.com.au

Service	Security
Company Name	Supatech
Address	32/17 Cairns Street, Loganholme, QLD 4129
Phone	1300 761 390
Contact	Will Miranda
Email	serviceqld@epsilonsecurity.com.au

Once the defects and liability warranty has expired the electrical services maintenance and service company details in the following table:

Service	All electrical services covered within this manual.
Company Name	CNT Electrical Pty Ltd
Address	Unit 11 / 197 Murarrie Road, Murarrie
Phone	0412 677 164
Contact	Cameron Richards
Email	cam@cntelectrical.com.au

Service	Security
Company Name	Supatech
Address	32/17 Cairns Street, Loganholme, QLD 4129
Phone	1300 761 390
Contact	Will Miranda
Mobile	serviceqld@epsilonsecurity.com.au

The following are the contact details for the various suppliers to the electrical installation.

It is common that the manufacturer of a specific item is not the local supplier for the project. As such the manufacturer may not have any record of the project.

Service	Electrical Sub Contractor
Company Name	CNT Electrical Pty Ltd
Address	11 / 197 Murarrie Rd, Murarrie, QLD 4172
Phone Fax	
Contact	Cameron Richards
Mobile	0412 677 164

Service	Lighting
Company Name	JD Lighting
Address	18 Commerce Drive, Browns Plains, QLD 4118
Email	Brownsplains@jdlighting.com.au
Contact	(07) 3809 2011
Mobile	

Service	Power/Communications Outlets
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Company Name	Haymans Electrical Brisbane Airport
Address	Litsea St, Brisbane Airport QLD 4008
Email	
Contact	(07) 3370 0333
Mobile	

Service	Security
Company Name	Supatech
Address	32/17 Cairns Street, Loganholme, QLD 4129
Phone	1300 761 390
Contact	Will Miranda
Mobile	serviceqld@epsilonsecurity.com.au

### 1.3 Operating Instructions

If for any reason a fault does arise, a qualified electrician must be obtained for investigation into the fault and correction. During the warranty period the electrical sub-contractor identified in section 1.3 should be contacted immediately if a fault condition exists.

A qualified electrician must be used for all electrical problems. Their knowledge would be adequate for the isolation of power, diagnoses of fault and to permit repair work to be carried out safely.

Only suitably qualified personnel should carry out inspections and work. Safety rules (as published by the supply and authority, plant manufacturer etc) should be understood and followed. First aid notices giving instructions for the treatment of persons suffering from the effects of electric shock should be on prominent display. First aid equipment should be readily available. Safety lockouts and or tagging systems to isolate circuits must be used.

The Community power is fed from the local switchboard along with all lighting circuits controlled via switches, motion sensors, timeclocks and PE cell. All circuitry is identified the switchboards schedules located in the corresponding distribution boards and also located in section 1.6 of this handover manual.

Each unit has it own power supply feeding the distribution board located in the units service cupboard. Each circuit is labelled on the distribution board as to what it is controlling ( oven, power, lighting, Aircon, ETC ). All unit lighting is individually controlled via the local switches.

### 1.4 Maintenance Instructions & Schedule

Electricity is inherently dangerous, and all maintenance and rectification work must be undertaken by suitably qualified personnel.

To complete the maintenance of the electrical installation it is necessary to shut down the various electrical systems including shutting the power supply and communications systems. As such maintenance must be planned for in advance with all necessary occupiers of the premises being appropriately informed of the shutdowns and interruptions.

Audible humming within the electrical installation represents a potential faulty component and must be rectified by a qualified electrician.

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A qualified electrician must be used for all electrical problems. Their knowledge would be adequate for the isolation of power, diagnoses of fault and to permit repair work to be carried out safely.

The table below is a general guide to the intervals between inspection/maintenance functions.

<u>FUNCTION</u>	<u>APPROX FREQUENCY</u>
CLEANING –     EXTERNAL  INTERNAL	On a regular basis depending on the environment  Every partial or complete shut-down
TIGHTNESS OR CONNECTIONS	Checked at least 12 months. (This can be done by a ~thermographic survey).
CONTACTS -     CONTACTORS  SWITCHGEAR  PLUG-IN CONTACTS	Examined at intervals of 5 years or less depending on use and contactor manufacturer recommendations  Examined as per manufacturers recommendations  Examined at intervals of 5 years and when removed as in the case of ~demountable or withdrawable function units
EARTH LEAKAGE RELAYS	Tripped as often as possible by primary or <u>secondary injection</u>
MECH. INTERLOCKS ETC	Every partial or complete shut-down
PROTECTIVE DEVICES	Once a month using the trip button on the device

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## 1.5 Product Data Sheets



# ICONIC<sup>®</sup>

Range overview

[clipsal.com/iconic](https://clipsal.com/iconic)

Life Is On

**CLIPSAL<sup>®</sup>**  
by Schneider Electric



# Iconic® Collection

The Iconic collection from Clipsal by Schneider Electric is complemented by two different looks with the sophisticated Styl and fresh Essence ranges of skins.



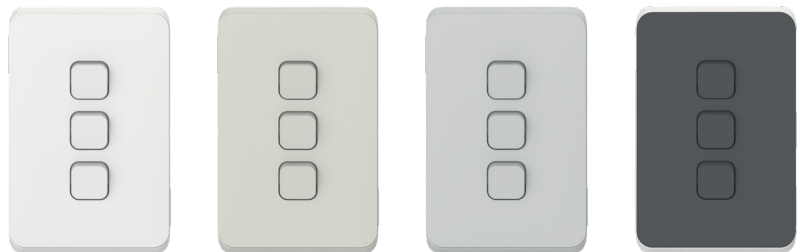


# Upgrade to 'Skinability'

Iconic® is based around a unique grid design, with a choice of three different ranges of skins that simply clip on. Once the grids have been installed by an electrician, it's easy for anyone to change the skins at any time. You simply clip off the existing skin and clip on the new design.

## Iconic

The standard Iconic range of skins offers flexibility with standard white skins, and subtle colour variants that blend with interior décors. They are available with translucent edges that infuse with wall colours, and a solid edge vivid white option.



## Iconic Styl skins

Iconic Styl is an irresistibly beautiful design made from durable anodised aluminium for a quality look in every home. Iconic Styl adds elegance, colour and modern simplicity with three metallic finishes to offer flexibility to a broad range of décor styles.



## Iconic Essence skins

With smooth round wooden edges, Iconic Essence has an unmistakably luxurious look and feel. Setting a new benchmark for quality and style in residential products, the natural finish of Essence will enhance your living space.



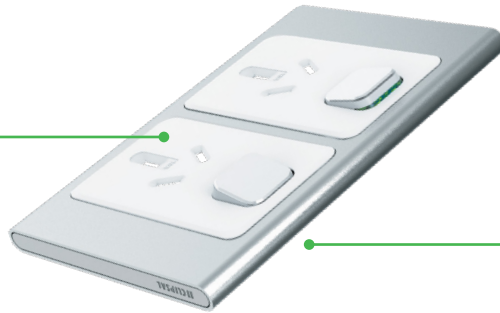
## Future-proof 'skinability'

Being able to change skins makes it easy for your customers to upgrade to a fresh new look in the future as new skin colours and designs become available.

# Iconic Styl design features

## Anodised aluminium

Real aluminium material with high quality anodised finishes Sandblasted surface for a modern 'satin' appearance



## Unique oval shape

Extruded aluminium provides this curved shape that reflects the light in interesting ways

## Green ON indicator

Subtle green ON indicator



## Electrically safe

Although metal is used on these electrical products, the plastic surfaces provide insulation

## Pictogram rockers

Optional pictogram rockers designed specifically for this range can be used. Simply pop-out the existing rockers (supplied with the skin) and replace them with the new pictogram rockers



## Network options

Iconic Styl supports the full range of network connectivity and AV connectors as part of the Iconic range.



# Iconic Essence design features

## Durable

White ABS plastic surface.  
Colourfast and UV stabilised

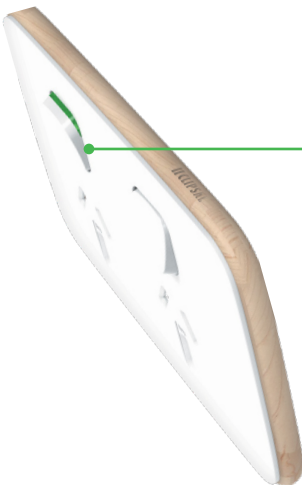


## Real timber

Pale 'birch' real timber coated with matt lacquer for protection

## Strength

'Tongue-and-groove' joins in the timber at each corner, help prevent splitting and provide a consistent timber grain direction



## Green ON indicator

Subtle green ON indicator

## Pictogram rockers

'Tongue-and-groove' joins in the timber at each corner, help prevent splitting and provide a consistent timber grain direction



## Network options

Iconic Essence supports the full range of network connectivity and AV connectors as part of the Iconic range



Iconic Styl skin



Iconic Essence skin

Iconic is a modern electrical accessories range based on a slim, sleek, clean design that is easy to customise and blends in with your décor.

### Loaded with clever features

**Game changing modular** mechanisms and grids with changeable skins and rockers for unrivalled customisation now and in the future.

**With ControlLink**, lights can be switched or dimmed from multiple locations.

**Locking bar** allows simple mechanism reorientation and sturdy locking for a quick and easy install, limiting the chance of mechanism pushbacks.

**Iconic's translucent edges** allow the skins to pick-up background colours for a design that blends in with any wall colour.

**Iconic's solid edge Vivid White skins** are available in selected switches and sockets for a sleek, clean look.

### Customisable and future-ready

**Interchangeable standard, Styl and Essence skins** provide great customisable options to suit specific décor and lifestyle.

**Innovative screw covers** help limit screw access after installation, allowing skins to be changed easily at any time.

**Iconic switches** are quick and easy to personalise with pictogram rockers that even your customers can change.

**Clever Functionality** with a range of smart, connected products and innovative technology, the platform is designed for future applications.



# Clever functionality



Night Walk sensor light



3-socket USB charger with shelf



Modular design

## Iconic® features changeable skins, innovative features and enhanced connectivity.

In this platform, we've thought of everything including sockets, switches, dimmers, timers, USB chargers, new safety features, Bluetooth Low Energy connectivity and more. We've also designed Iconic with features that greatly simplify installation and developed new products for smarter homes.

### 40 mechanisms

Iconic switches and electronic accessories feature the 40 mechanisms designed for flexibility in up to 6-gang grids. The grids make changing from vertical to horizontal orientation simple, and locking bars reduce the chance of mechanism pushbacks.

### Great innovations

Iconic includes a 3-gang USB charger with shelf. A Night Walk skin, which replaces the standard double socket skin, features an integrated motion sensor that switches on when it detects movement. LEDs illuminate the way when someone gets up at night, without disturbing others.

### Clever efficiency

Iconic electronic accessories deliver clever efficiency to the home. Bluetooth Low Energy connectivity and our own ControlLink technology offers simple configuration and multi-way control. The Wiser Room app lets you configure it all exactly to your customer's taste.

### Enhanced connectivity

Iconic includes a comprehensive range of options for network connectivity requirements. With mechanisms for RJ45 networking, HDMI sockets and audio cable entry plates, you have what you need for complete home networking.

# Sockets with a difference

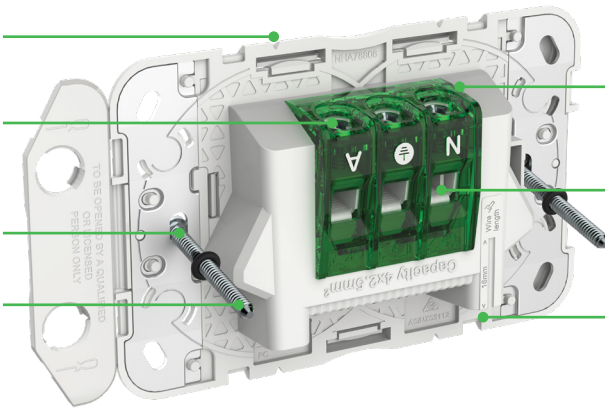
Iconic® features innovations like pre-mounted screws, screw covers and in-line terminals.

Hole centre indicators for using a 57mm hole-saw for installations

Captive terminal screws to prevent them from coming out

84mm mounting centres fit standard mounting accessories

Pre-mounted screws for faster fit off covers



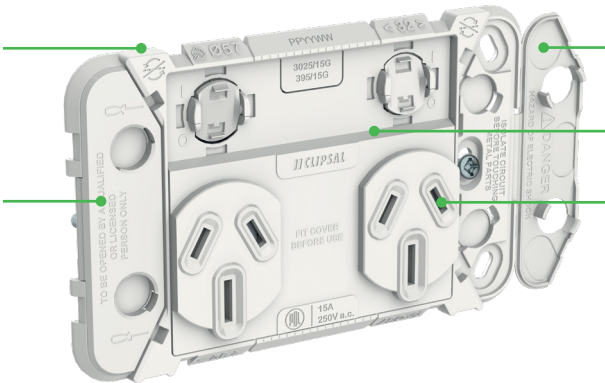
In-line terminals for easy screw access and faster termination

Large terminals accommodating up to 4 x 2.5mm cables

Strip length indicator

Tapping pad for spirit level

Safety messages on the screw covers



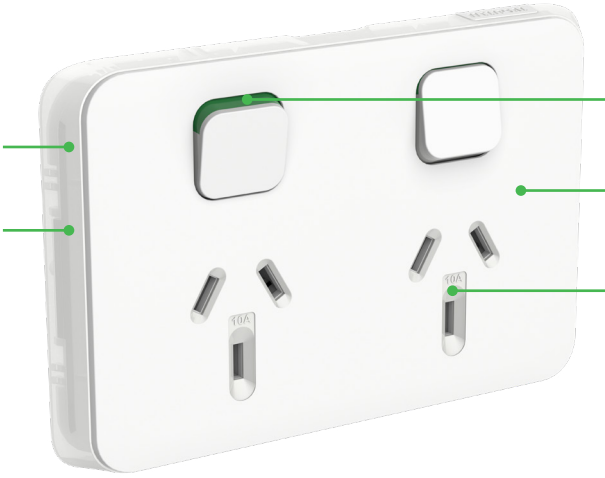
Screw covers help prevent direct access to the screws after installation

Socket grids are safe when installed

All sockets come with internal shutters providing additional protection

Standard translucent edges allow the skin to infuse with the wall colour

Slim 9mm profile blends in with the décor



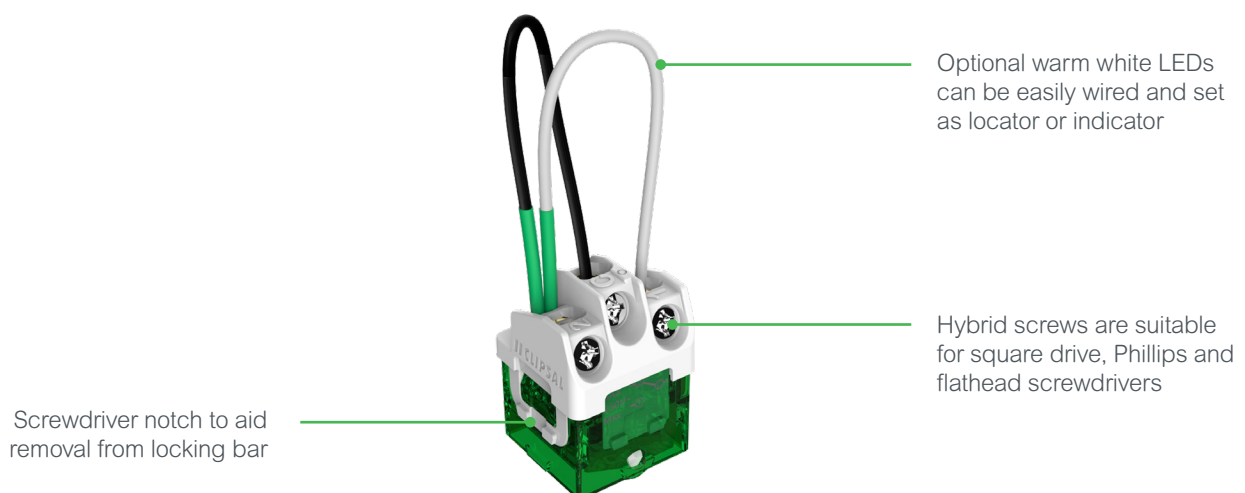
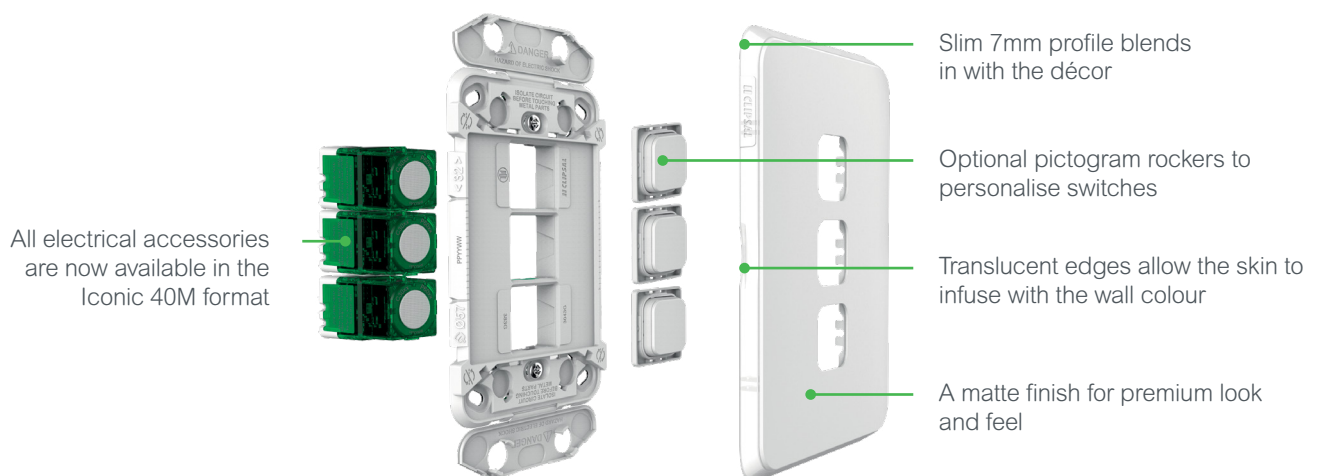
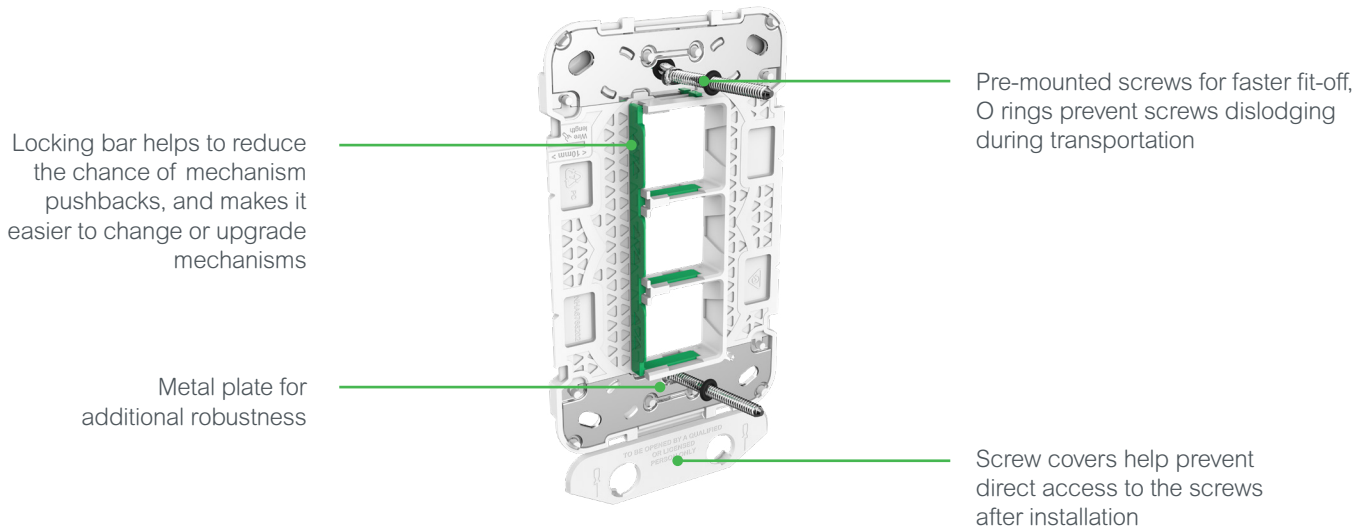
Green indicator so you know when it is switched on

Matte finish for a premium look and feel

Clear markings for easy amperage identification

# Clever switch innovation

Iconic® grids feature screw covers, drill guides and 40 series mechanisms for easy installs and customisation.



# 40 Series electronic modules



Rotary dimmers



Push button dimmers and switches



USB mechanism with built-in current management and rotating head



PIR motion sensor mechanism

## 40 Series electronic accessories are designed for clever functionality.

Electronic accessories fit Iconic switch grids. Secured in place with the mechanism locking bar, they can be easily changed to suit vertical or horizontal orientation. The range includes standard electronic accessories such as rotary and push-button dimmers, PIR sensors and USB chargers.

### Rotary and push-button dimmers

40 Series electronic products include both push-button and rotary dimmers. Push-button dimmers offer multi-way dimming over standard wiring using ControlLink. The dimmers offer adjustable brightness limit settings and have built in resettable protection. They are optimised for performance with the Clipsal TPDL series LEDs.

### ControlLink connectivity for Multiway Control

ControlLink provides multiway control and linking of groups of lights with standard wiring.

### USB chargers

USB chargers, now including a USB C option, have a patented rotatable head for easy reorientation. They also include patented current management technology, which reduces the output current to help prevent overheating and minimising charge times.

### PIR motion sensor

The 40 Series PIR motion sensor mechanism is simple to install and configure with front light level and timer adjustment. It is ideal for hands free lighting control in entry ways, hallways or stairs.

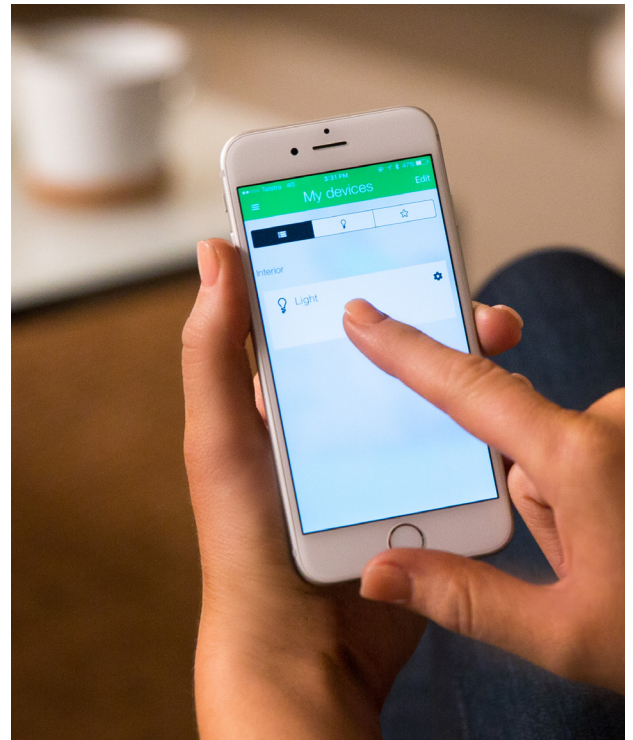
# Iconic Connected solutions



Connected dimmers and switches



Controllink remote switches



Configure and control from the Wisor Room app

## Start your smart home journey with simple connectivity

### Connected switch

The Connected Switch offers in-room smart device app control via the Wisor Room app. It is a push button switch, 1s-24hr timer, 24/7 scheduler and digital sunset switch all in one. Also featuring Controllink for multiway switching. Ideal for control of external lighting.

### Connected dimmer

The Connected Dimmer offers in-room smart device app control via the Wisor Room app. Its superior LED dimming performance provides a premium dimming experience. It also has built in 1s-24hr time delay and 24/7 scheduling and digital sunset switch functions. Includes Controllink for multiway dimming.

### Connected socket

The Connected Socket offers simple control of each socket outlet via the Wisor Room app. Including 1s-24hr timer, 24/7 scheduler and digital sunset switch functions, it provides convenience and peace of mind to automatically turn on/off appliances. Also reducing standby power wastage.

### Wisor Room app

Iconic connected products can be configured and controlled via the Wisor Room app on most tablets or phones to perform programmed tasks like:

- Switch and dim lights with a configurable timer
- Operate lights or appliances on 24hr/7day schedules
- Automatic seasonal sunrise and sunset tracking
- It's also easy to copy and paste settings to save time or reset everything to your original set point.

QR codes for  
Wisor Room app





# C-Bus®

## 40 Series modules for C-Bus® Home Automation system



5041NMML  
C-Bus® 40 Series master module



5041NMS  
C-Bus® 40 Series slave module

## Home automation and energy management made simple

C-Bus® building automation system is a powerful, fully integrated system that can control and automate lighting and many other electrical systems and products. Designed for commercial and residential building automation, it brings control, comfort, efficiency and ease of use to its occupants.

## C-Bus® integrations

C-Bus® 40 Series modules can be mounted to Iconic to create wall plates for C-Bus®. It is possible to create up to a 6 gang wall plate with two master and 4 slave modules. The wallplate is programmable as ON/OFF toggle, dimmer, timer, scene control, bell press, shutter/blind control, fan speed and custom functions. Selectable blue and red LED indicator can be configured through C-Bus® configuration software. The 40 Series modules can be programmed via Learn mode or the C-Bus® configuration software and draw 18mA from the C-Bus network.



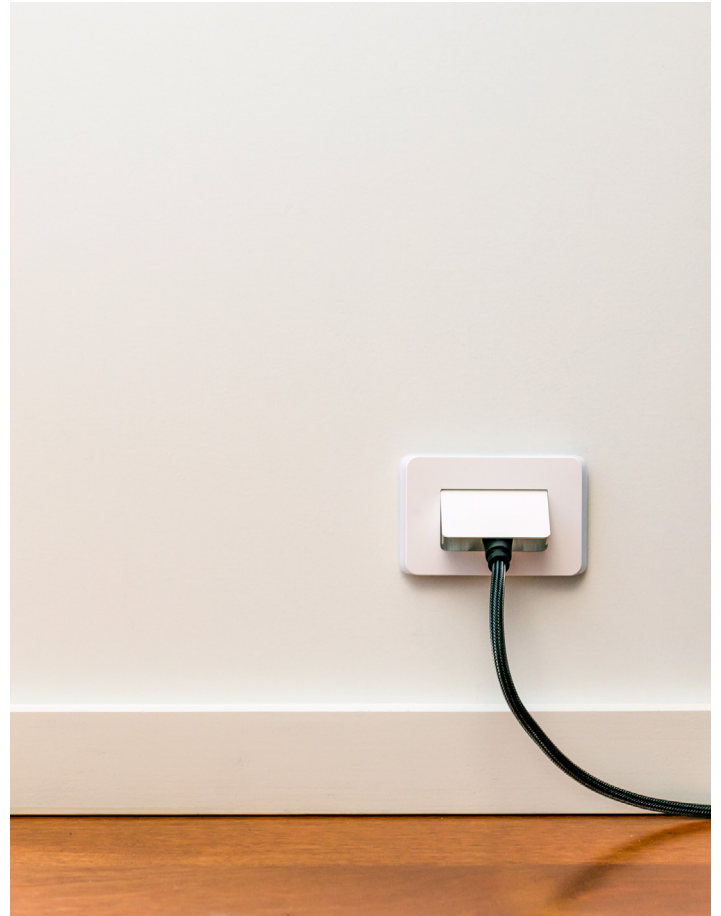
# Network connectivity



Simplified network connector combinations



Cable entry plate



Aesthetically appealing cable management

Iconic® includes a wide range of network connectivity products for a professional home network.

Iconic has a broad offer for home data, TV and audio connections, allowing you to easily meet customer requirements for networking, audio and video installations.

## Audio, video and networking

Iconic includes a wide range of audio, visual and networking mechanisms to suit home applications. TV's can be connected to gaming consoles, IPTV and Pay TV boxes through F-Type, PAL and HDMI mechanisms. Sound systems can be connected via RCA mechanisms and RJ45. RJ45 mechanisms can be used for connecting all the smart devices to the home network.

## Flexibility of 40 mechanism grids

No two home networks are the same, which is where the range of audio, video and networking mechanisms make every setup simple and easy. You can use combinations of mechanisms in up to 6-gang grids, ensuring that a broad range of end user requirements are met with the Iconic range.

## Actassi data networking

Our Actassi data range is a complete networking solution including Cat5e, Cat6 and high performing Cat 6A mechanisms. Cat5e is ideal as a start for most home networking solutions, while Cat6 provides peace of mind with more reliable speed and bandwidth. Cat6A is our high-end solution for large and demanding applications.

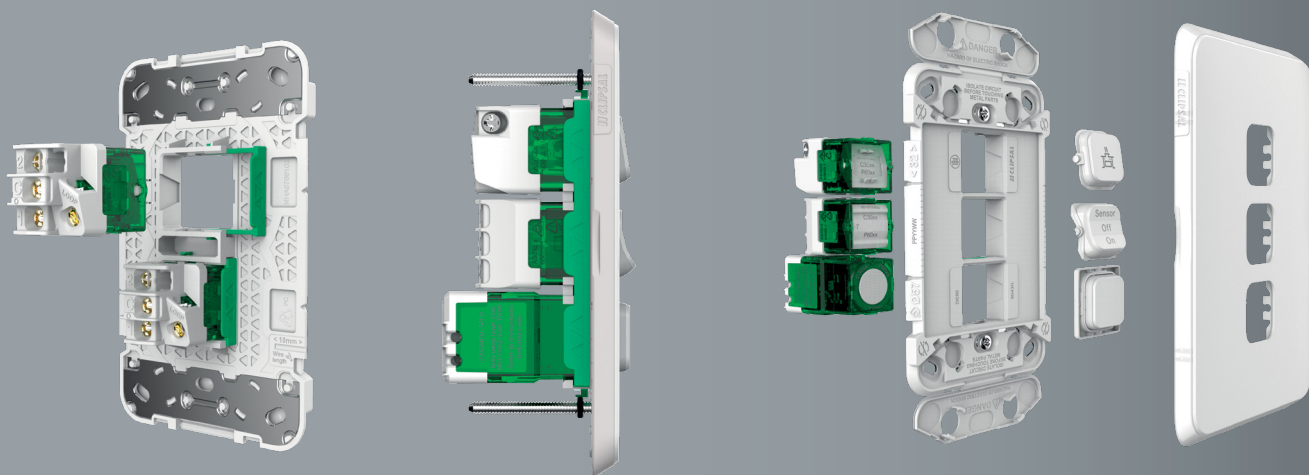
## Cable Entry Plate

The Iconic Cable Entry Plate is a cost-effective way to allow cables to pass through cleanly and easily and are ideal for placing behind TVs to ensure the cables are kept secure and hidden.





# Product references





# Switches, sockets and mechanisms

Iconic® offers one to six-gang metal reinforced grids with mechanism locking bars for multiple combinations of 40 mechanism products.

## Switches

Iconic grids feature innovative screw covers, which help prevent screw access after installation, allowing skins to be changed easily at any time.

### Architrave switches



3041AL-VW  
Architrave Switch, 1 Gang,  
250VAC, 10AX, LED


3041AC\*  
Architrave Switch Skin, 1 Gang




3042AL-VW  
Architrave Switch, 2 Gang,  
250VAC, 10AX, LED

3042AC\*  
Architrave Switch Skin, 2 Gang


### Switch plates




3040-VW  
Blank Plate,  
Vertical/Horizontal




3041VA-VW  
Switch, Vertical, 1 Gang,  
250VAC, 10AX




3042VA-VW  
Switch, Vertical, 2 Gang,  
250VAC, 10AX




3043VA-VW  
Switch, Vertical,  
3 Gang,  
250VAC, 10AX



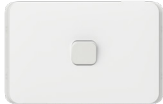
3044VA-VW  
Switch, Vertical,  
4 Gang,  
250VAC, 10AX




3045VA-VW  
Switch, Vertical,  
5 Gang,  
250VAC, 10AX




3046VA-VW  
Switch, Vertical,  
6 Gang,  
250VAC, 10AX




3041HA-VW  
Switch, Horizontal, 1 Gang,  
250VAC, 10AX




3042HA-VW  
Switch, Horizontal, 2 Gang,  
250VAC, 10AX




3043HA-VW  
Switch, Horizontal,  
3 Gang,  
250VAC, 10AX



3044HA-VW  
Switch, Horizontal,  
4 Gang,  
250VAC, 10AX



3045HA-VW  
Switch, Horizontal,  
5 Gang,  
250VAC, 10AX



3046HA-VW  
Switch, Horizontal,  
6 Gang,  
250VAC, 10AX

### Fan controller




3041VF3CSF-VW  
Fan Speed Controller, 3  
Speed, 250VAC, 75VA




40CSFM  
Fan Speed Controller  
Mechanism, 3 Speed,  
250VAC, 75VA

### Cooker switches



3041/45-VW  
Cooker Switch, Single Pole  
250VAC, 45A



3041D45-VW  
Cooker Switch, Double Pole,  
250VAC, 45A



# Switches, sockets and mechanisms (cont'd)

## IP rated switches



3041V44-VW  
Switch, IP44 Rated,  
1 Gang, 250VAC, 10AX



3042V44-VW  
Switch, IP44 Rated,  
2 Gang, 250VAC, 10AX



3043V44-VW  
Switch, IP44 Rated,  
3 Gang, 250VAC, 10AX



3044V44-VW  
Switch, IP44 Rated,  
4 Gang, 250VAC, 10AX

## Sockets

Iconic® GPO sockets feature grids with innovative screw covers, which help prevent screw access after installation, allowing skins to be changed easily at any time.



3015-VW  
Power Outlet, Single,  
250VAC, 10A



3015/15-VW  
Power Outlet, Single,  
250VAC, 15A



3015/20-VW  
Power Outlet, Single,  
250VAC, 20A



3015XA-VW  
Power Outlet, Single,  
250VAC, 10A, extra switch



3015XUA-VW  
Power Outlet, Single,  
250VAC, 10A,  
extra switch, less mechanism



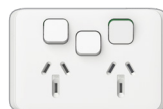
3025-VW  
Power Outlet, Twin,  
250VAC, 10A



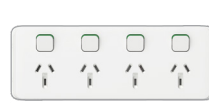
3025/15-VW  
Power Outlet, Twin,  
250VAC, 15A



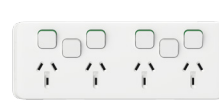
3025XA-VW  
Power Outlet, Twin, 250VAC,  
10A, extra switch



3025XUA-VW  
Power Outlet, Twin, 250VAC,  
10A, extra switch, less  
mechanism



3015/4-VW  
Power Outlet, Quad,  
250VAC, 10A



3015/4XXUA-VW  
Power Outlet, Quad,  
250VAC, 10A,  
2 x extra switches, less  
mechanisms



3015V-VW  
Power Outlet, Single,  
Vertical, 250VAC, 10A

## RCD

## USB chargers



3025V-VW  
Power Outlet, Twin,  
Vertical, 250VAC, 10A



3025VXA-VW  
Power Outlet, Twin, Vertical,  
250VAC, 10A, extra switch



3025RCD30-VW  
Power Outlet, Twin,  
30mA RCD Protected,  
250VAC, 10A



3025USB2-VW  
Power Outlet, Twin,  
250VAC, 10A,  
with Twin USB Charger



3025USBAC-VW  
Power Outlet, Twin,  
250VAC, 10A,  
with Type A+C  
USB Charger



3043HSUSB - VW  
3 Gang USB charging  
station with shelf,  
3x2.1A (4.5A max)



3043USBG  
3 Gang USB charger  
module (without skin)

# Switch and sockets grids

## Switch grids

Iconic grids are only suitable for 40 series mechanisms.



**3040G**  
Blank Grid,  
Vertical/Horizontal



**3041G**  
Switch Grid,  
Vertical/Horizontal,  
1 Gang



**3042G**  
Switch Grid,  
Vertical/Horizontal,  
2 Gang



**3043G**  
Switch Grid,  
Vertical/Horizontal,  
3 Gang



**3044G**  
Switch Grid,  
Vertical/Horizontal,  
4 Gang



**3045G**  
Switch Grid,  
Vertical/Horizontal,  
5 Gang



**3046G**  
Switch Grid,  
Vertical/Horizontal,  
6 Gang

## Assembled grids and mechs



**3041VAG**  
Assembled Switch Grid,  
Vertical  
1 Gang



**3042VAG**  
Assembled Switch Grid,  
Vertical  
2 Gang



**3043VAG**  
Assembled Switch Grid,  
Vertical  
3 Gang



**3044VAG**  
Assembled Switch Grid,  
Vertical  
4 Gang

## Switch grids and skins



**3041VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
1 Gang



**3042VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
2 Gang



**3043VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
3 Gang



**3044VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
4 Gang



**3045VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
5 Gang



**3046VH-VW**  
Switch Grid and Skin  
Vertical/Horizontal  
6 Gang

## Socket grids



**3015G**  
Power Outlet Grid, Single,  
250VAC, 10A



**3015/15G**  
Power Outlet Grid, Single,  
250VAC, 15A



**3015/20G**  
Power Outlet Grid, Single,  
250VAC, 20A



**3015XUAG**  
Power Outlet Grid, Single,  
250VAC, 10A,  
extra switch less mechanism



**3025G**  
Power Outlet Grid, Twin,  
250VAC, 10A



**3025XAG**  
Power Outlet Grid, Twin,  
250VAC, 10A, extra switch



**3025/15G**  
Power Outlet Grid, Twin,  
250VAC, 15A



**3025RCD30G**  
Power Outlet Grid, Twin, 30mA  
RCD Protected, 250VAC, 10A



**3015/4XXUAG**  
Power Outlet Grid, Quad,  
250VAC, 10A,  
2 x extra switches less  
mechanisms



**3015VG**  
Power Outlet Grid, Single,  
Vertical, 250VAC, 10A



**3025VXUAG**  
Power Outlet Grid, Twin,  
Vertical, 250VAC, 10A,  
extra switch less mechanism



**3025CSG**  
Connected Power Outlet Grid,  
Wisser, Twin, 250VAC, 10A

# Switches, sockets and mechanisms (cont'd)

## Skins – including colours



3040C\*  
Blank Skin,  
Vertical/Horizontal



3041C\*  
Switch Skin,  
Vertical/Horizontal,  
1 Gang



3042C\*  
Switch Skin,  
Vertical/Horizontal,  
2 Gang



3043C\*  
Switch Skin,  
Vertical/Horizontal,  
3 Gang



3044C\*  
Switch Skin,  
Vertical/Horizontal,  
4 Gang



3045C\*  
Switch Skin,  
Vertical/Horizontal,  
5 Gang



3046C\*  
Switch Skin,  
Vertical/Horizontal,  
6 Gang



3041/45C\*  
Cooker Switch Skin,  
marked Cooker

\* Available in

 Vivid White (VW)


 Vivid White – Solid Edge (XW) *Not available in all products*

 Warm Grey (WY)


 Cool Grey (CY)

 Anthracite (AN)


## Socket skins – including colours




3015C\*  
Power Outlet Skin,  
Single, 250VAC, 10A




3015/15C\*  
Power Outlet Skin,  
Single, 250VAC, 15A




3015/20C\*  
Power Outlet Skin,  
Single, 250VAC, 20A




3015XC\*  
Power Outlet Skin, Single,  
250VAC, 10A, extra switch




3025C\*  
Power Outlet Skin,  
Twin 250VAC, 10A




3025/15C\*  
Power Outlet Skin,  
Twin 250VAC, 15A




3025XC\*  
Power Outlet Skin,  
Twin, 250VAC, 10A,  
extra switch




3025RCD30C\*  
Power Outlet Skin, Twin,  
30mA RCD Protected,  
250VAC, 10A




3015/4C\*  
Power Outlet Skin,  
Quad, 250VAC, 10A




3015/4XXC\*  
Power Outlet Skin,  
Quad, 250VAC, 10A,  
2 x extra switches




3015VC\*  
Power Outlet Skin,  
Single, Vertical,  
250VAC, 10A




3025VC\*  
Power Outlet Skin,  
Twin, Vertical,  
250VAC, 10A




3025VXC\*  
Power Outlet Skin,  
Twin, Vertical, 250VAC,  
10A, extra switch



3025CSC\*  
Connected Power Outlet Skin,  
Wiser, Twin, 250VAC, 10A





3043HS\*  
3 Gang Horizontal Shelf  
suits 3043HSUSB Charger





3025NW\*  
Night walk sensor light,  
plug-in skin, suits twin  
socket outlet grid


\* Available in

 Vivid White (VW)

 Vivid White –  
Solid Edge (XW)  
*Not available in all products*

 Warm Grey (WY)

 Cool Grey (CY)

 Anthracite (AN)

## Mechanisms




40M  
Switch Mechanism,  
1/2 way, 250VAC,  
10AX



40USM  
Switch Mechanism,  
1/2 way, 250VAC,  
20A/16AX



40MBPRL-VW  
Switch Mechanism,  
Bell Press Return,  
250VAC, 10A, LED



40M32-VW  
Switch Mechanism,  
1 way, 250VAC, 32A



40MD20  
Switch Mechanism,  
Double Pole, 250VAC, 20AX



40MIL  
Switch Mechanism,  
Intermediate, 250VAC,  
10AX, LED



40M32COOK-VW  
Switch Mechanism, 1 way,  
250VAC, 32A, marked Cooker



40MD20COOK-VW  
Switch Mechanism,  
Double Pole, 250VAC, 20AX,  
marked Cooker



40RSM3  
Switch Mechanism, Rotary, 4  
Position, 250VAC,  
10A, OFF-1-2-3



40RSM2  
Switch Mechanism, Rotary,  
4 Position, 250VAC,  
10A, OFF-1-OFF-2



49M-VW  
Switch Mechanism,  
3 Position, 250VAC, 10A



40MLEDW  
LED Module, 250VAC,  
Warm White (Pack 10)

# Iconic Essence skins

With smooth round wooden edges, Iconic Essence has an unmistakably luxurious look and feel. Setting a new benchmark for quality and style in residential products, the natural finish of Essence will enhance your living space.

The Essence skins simply clip onto Iconic switch and socket grids, and use their own dedicated accessories such as push button caps, pictogram rockers and dimmer knobs.



## Essence switch skins – including colours



E3041C\*  
Switch Skin,  
Vertical/Horizontal,  
1 Gang



E3042C\*  
Switch Skin,  
Vertical/Horizontal,  
2 Gang



E3043C\*  
Switch Skin,  
Vertical/Horizontal,  
3 Gang



E3044C\*  
Switch Skin,  
Vertical/Horizontal,  
4 Gang



E3045C\*  
Switch Skin,  
Vertical/Horizontal,  
5 Gang



E3046C\*  
Switch Skin,  
Vertical/Horizontal,  
6 Gang



E3041/45C\*  
Cooker Switch Skin,  
marked Cooker

\* Available in

 Arctic White (AW)

 Ash Grey (AG)

## Essence socket skins – including colours



E3015C\*  
Power Outlet Skin,  
Single, 250VAC, 10A



E3015XC\*  
Power Outlet Skin, Single,  
250VAC, 10A, extra switch



E3025C\*  
Power Outlet Skin,  
Twin 250VAC, 10A



E3025XC\*  
Power Outlet Skin,  
Twin, 250VAC, 10A,  
extra switch



E3015/4C\*  
Power Outlet Skin,  
Quad, 250VAC, 10A



E3015/4XXUAC\*  
Power Outlet Skin,  
Quad, 250VAC, 10A,  
2 x extra switches



E3043USBC\*  
3 Gang Horizontal  
suits 3043HSUSB Charger



E3025CSC  
Connected Power Outlet Skin,  
Wiser, Twin, 250VAC, 10A

\* Available in

 Arctic White (AW)

 Ash Grey (AG)



# Iconic Styl skins

Iconic Styl is an irresistibly beautiful design made from durable anodised aluminium for a quality look in every home. Iconic Styl adds elegance, colour and modern simplicity with three metallic finishes to offer flexibility to a broad range of décor styles.

The Essence skins simply clip onto Iconic switch and socket grids, and use their own dedicated accessories such as push button caps, pictogram rockers and dimmer knobs.



## Styl switch skins – including colours



S3041C\*  
Switch Skin,  
Vertical/Horizontal,  
1 Gang



S3042C\*  
Switch Skin,  
Vertical/Horizontal,  
2 Gang



S3043C\*  
Switch Skin,  
Vertical/Horizontal,  
3 Gang



S3044C\*  
Switch Skin,  
Vertical/Horizontal,  
4 Gang



S3045C\*  
Switch Skin,  
Vertical/Horizontal,  
5 Gang



S3046C\*  
Switch Skin,  
Vertical/Horizontal,  
6 Gang



S3041/45C\*  
Cooker Switch Skin,  
marked Cooker

\* Available in



## Styl socket skins – including colours



S3015C\*  
Power Outlet Skin,  
Single, 250VAC, 10A



S3015XC\*  
Power Outlet Skin, Single,  
250VAC, 10A, extra switch



S3025C\*  
Power Outlet Skin,  
Twin 250VAC, 10A



S3025XC\*  
Power Outlet Skin,  
Twin, 250VAC, 10A,  
extra switch



S3015/4C\*  
Power Outlet Skin,  
Quad, 250VAC, 10A



S3015/4XXUAC\*  
Power Outlet Skin,  
Quad, 250VAC, 10A,  
2 x extra switches



S3043USBC\*  
3 Gang Horizontal  
suits 3043HSUSB Charger





















S3025CSC\*  
Connected Power Outlet Skin,  
Wiser, Twin, 250VAC, 10A

\* Available in



# Pictogram rockers

Iconic® switches come standard with plain rockers, which you can customise with optional pictogram rockers.

Description	Pictogram	Iconic	Styl	Essence
FAN		40FR-VW	S40RF-SV S40RF-CE S40RF-SH	E40RF-AW E40RF-AG
LIGHT		40LR-VW	S40RL-SV S40RL-CE S40RL-SH	E40RL-AW E40RL-AG
HEAT		40HR-VW	S40RH-SV S40RH-CE S40RH-SH	E40RH-AW E40RH-AG
FRIDGE		40FRR-VW	x	x
SENSOR		40SR-VW	x	x
MICROWAVE		40MR-VW	x	x
AUTO/MANUAL	Auto Manual	40AMR-VW	x	x
AIRCOND		40ACR-VW	x	x
ALARM		40ALR-VW	x	x
BED 1		40BD1R-VW	S40BD1R-SV S40BD1R-CE S40BD1R-SH	E40BD1R-AW E40BD1R-AG
BED 2		40BD2R-VW	S40BD2R-SV S40BD2R-CE S40BD2R-SH	E40BD2R-AW E40BD2R-AG
BED 3		40BD3R-VW	S40BD3R-SV S40BD3R-CE S40BD3R-SH	E40BD3R-AW E40BD3R-AG
BED 4		40BD4R-VW	S40BD4R-SV S40BD4R-CE S40BD4R-SH	E40BD4R-AW E40BD4R-AG
BED		40BDR-VW	S40BDR-SV S40BDR-CE S40BDR-SH	E40BDR-AW E40BDR-AG
KITCHEN		40KR-VW	S40RK-SV S40RK-CE S40RK-SH	E40RK-AW E40RK-AG
DINING		40DR-VW	S40RD-SV S40RD-CE S40RD-SH	E40RD-AW E40RD-AG
STUDY		40STR-VW	S40STR-SV S40STR-CE S40STR-SH	E40STR-AW E40STR-AG
FAMILY		40FAR-VW	S40FAR-SV S40FAR-CE S40FAR-SH	E40FAR-AW E40FAR-AG
ZONE 1	Zone 1	40ZR1-VW	x	x
ZONE 2	Zone 2	40ZR2-VW	x	x
ZONE 3	Zone 3	40ZR3-VW	x	x
LOUNGE		40LOR-VW	S40RLO-SV S40LRLO-CE S40RLO-SH	E40RLO-AW E40RLO-AG
BLANK		40AR-VW	S40AR-SV S40AR-CE S40AR-SH	E40AR-AW E40AR-AG
32A	32A	40R32-VW	S40R32-SV S40R32-CE S40R32-SH	E40R32-AW E40R32-AG
SON-AOM-UOD	Sensor Off On      Auto Off Manual      Up Off Down	49MLBL	x	x
BLANK		49T-VW	x	49T-VW 49T-AG
COOKER	Cooker	x	S40R32C-SV S40R32C-CE S40R32C-SH S40CR-SV S40CR-CE S40CR-SH	E40R32C-AW E40R32C-AG E40CR-AW E40CR-AG

# Electronic accessories

Iconic® electronic accessories offer clever functionality to the home.

## Connected dimmer

Offers simple app control and configuration and superior multiway LED dimming control.



41EPBDWCLM-VW  
Connected Dimmer, Wiser, BLE,  
300W, 3-wire, ControlLink

## Connected switch

Offers app controlled electronic switching, timer and scheduling functions.



41E10PBSWM-VW  
Connected Switch, Wiser, BLE,  
10AX, 3-wire, ControlLink

## Connected socket

Provides simple app control of each power outlet with timer and scheduling functions



3025CSG  
Connected Power Outlet  
Grid, Wiser, Twin,  
250VAC, 10A

## Rotary dimmer

Available in LED and universal models, offering adjustable minimum brightness to suit LED and many other loads.



42E350RLD2M-VW  
Rotary LED Dimmer  
350W, 2-wire



42E350RUD2M-VW  
Rotary Universal Dimmer  
350W, 2-wire

## 2 wire switch and dimmer

Push button electronic switch and dimmer with ControlLink for multiway control.



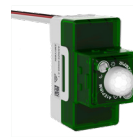
41E300PBUD2SM-VW  
Push-button Universal  
Dimmer 300W 2-wire,  
with ControlLink



41E350PBES2SM-VW  
Push-button Electronic  
Switch 350W, 2-wire,  
with ControlLink

## PIR motion sensor

PIR motion activated sensor mechanism for hands free lighting control.



41EPIRM-TN  
PIR motion sensor,  
150W LED, 3-wire,  
5m range

## ControlLink mechanisms

Remote mechanism uses standard wiring to provide multi-way dimming and switching control for compatible ControlLink electronic mechanisms.



41EPBM-VW  
ControlLink Remote  
Push-button momentary  
switch



41EPBCLM-VW  
Smart remote Push-button  
ControlLink mechanism with  
LED indicator

# Electronic accessories (cont'd)

## USB chargers

Single and double USB charger mechanisms.



**40E1USBM-VW**  
Single USB charging  
mechanism 1.5A

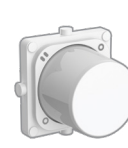


**40E2USBM-VW**  
Dual USB  
charging mechanism,  
2x2.1A (3.1A max)



**40E2USBACM**  
Dual USB Charging  
Mechanism,  
1 x 2.4A Type A +  
1 x 3.0A Type C

## Caps and accessories



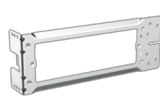
Description	40APB Push-button parts pack assembly, blank	40EDIMKB Rotary Dimmer knob parts pack	40E1USBCAP Mechanism Cap to suit single USB charger	40E2USBACCAP Mechanism Cap to suit dual Type A+C USB charger	40E2USBCAP Mechanism Cap to suit dual USB charger	40RSM2KB / S40RSM2KB Dolly Rotary marked OFF-1 – OFF-2	40RSM3KB / S40RSM3KB Dolly Rotary marked OFF-1-2-3
Iconic References	40APB-VW Vivid White 40APB-WY Warm Grey 40APB-CY Cool Grey 40APB-AN Anthracite	40EDIMKB-VW Vivid White 40EDIMKB-WY Warm Grey 40EDIMKB-CY Cool Grey 40EDIMKB-AN Anthracite	Vivid White (VW) Warm Grey (WY) Cool Grey (CY) Anthracite (AN)	Vivid White (VW) Warm Grey (WY) Cool Grey (CY) Anthracite (AN)	Vivid White (VW) Warm Grey (WY) Cool Grey (CY) Anthracite (AN)	40RSM2KB Supplied in a pack of 5 with one each of VW, CY, WY, AN and AG colours	40RSM3KB Supplied in a pack of 5 with one each of VW, CY, WY, AN and AG colours
Styl References	S40APB-SV Silver S40APB-SH Silver Shadow S40APB-CE Crowne	S40EDIMKB-SV Silver S40EDIMKB-SH Silver Shadow S40EDIMKB-CE Crowne	To match Styl Silver - use Cool Grey (CY) To match Styl Crowne - use Warm Grey (WY) To match Styl Silver Shadow - use Anthracite (AN)	To match Styl Silver - use Cool Grey (CY) To match Styl Crowne - use Warm Grey (WY) To match Styl Silver Shadow - use Anthracite (AN)	To match Styl Silver - use Cool Grey (CY) To match Styl w - use Warm Grey (WY) To match Styl Silver Shadow - use Anthracite (AN)	S40RSM2KB-SV S40RSM2KB-SH S40RSM2KB-CE	S40RSM3KB-SV S40RSM3KB-SH S40RSM3KB-CE
Essence References	E40APB-AW Arctic White E40APB-AG Ash Grey	To match Arctic White - use Vivid White (VW) E40EDIMKB-AG Ash Grey	To match Arctic White - use Vivid White (VW) Ash Grey (AG)	To match Arctic White - use Vivid White (VW) Ash Grey (AG)	To match Arctic White - use Vivid White (VW) Ash Grey (AG)	To match Arctic White - use Vivid White (VW) Ash Grey (AG) rotary is in the standard pack	To match Arctic White - use Vivid White (VW) Ash Grey (AG) rotary is in the standard pack

## Accessories

Clipsal Iconic range suits existing mounting accessories with the addition of the new 4-gang socket wall bracket (3155H4), wall box (3157/4PRM) and mounting block. We have also developed a new range of mounting blocks for single gang switches and sockets. Like the shallow optimum mounting block (3000SM-VW), the deep optimum mounting block (3000DM-VW) and the standard mounting block (449AB-VW).



**3000PP/100**  
Paint Protector



**3155H4**  
Quad Socket Mounting  
Bracket



**3157/4PRM**  
Quad Socket Plastic  
Wall Box (54mm depth)



**3004M-VW**  
Quad Socket Mounting  
Block (38mm depth)



**449AB-VW**  
Standard Mounting  
Block (34mm depth)



**3000SM-VW**  
Shallow Iconic Mounting  
Block (32mm depth)



**3000DM-VW**  
Deep Iconic Mounting  
Block (40mm depth)



# Network connectivity

The Iconic® network connectivity offer includes all common connector options for the modern networked home.

## Audio connectors

RCA sockets for stereo speaker cables.



40BC/2-TN  
Banana Audio  
Connectors RD + BK



40SPK/2-TN  
RCA Audio  
Sockets RD+BK

## TV sockets and plates

F-series sockets and plates for television broadcast coaxial cables.



40FFPMS-TN  
TV Socket PAL Front,  
F-Type Rear



40PFM-TN  
TV Socket F-Type Front,  
F-Type Rear



3041VTV75F-VW TV  
Socket PAL Front,  
F-Type Rear, 1G Plate

## HDMI sockets

Ideal for organising HDMI communications cables.



40HDMIA-TN  
HDMI Socket  
Angled Rear



40HDMIS-TN  
HDMI Socket  
Straight Rear

## Telephone sockets

For organising telephone cables.



40RJ64SMT-TN  
Cat 3 Telephone  
Connector RJ12

## Cable entry plates

Iconic Cable Entry Plates keep cable connections tidy.



3040CEP-VW  
Cable Entry Plate

## Clipsal 40 mechanism adaptors



40ADPKS-TN  
Adaptor RJ Tyco  
Krone Siemon, 10Pk



40ADPSY-TN  
Adaptor RJ Systemax  
AT&T, 10Pk

## Actassi RJ45 sockets

High performing RJ45 sockets for connecting your home network.



40RJ45SMA5C-TN  
Cat 5E Connector  
RJ45 Unshielded



40RJ45SMA5SHC-TN/PK  
Cat 5E Connector RJ45,  
Shuttered, Unshielded



40RJ45SMA6C-TN  
Cat 6 Connector  
RJ45 Unshielded

## Actassi RJ45 sockets (cont'd)



40RJ45SMA6SHC-TN  
Cat 6 Connector RJ45  
Shuttered, Unshielded



40RJ45SMA6AC-TN  
Cat 6A Connector RJ45  
Unshielded



40RJ45SMA6ASC-TN  
Cat 6A Connector RJ45  
Shuttered Unshielded



VDIB177AXU10TN  
Cat 6A Connector RJ45  
Unshielded DPM 10Pk



VDIB177AXB10TN  
Cat 6A Connector RJ45  
Shielded DPM 10 Pk

# How to order

With set prefixes, part numbers, skin codes and colour initials, ordering the Iconic® range is simple. For example:

Iconic		3025	C	**
Iconic Styl	S	3025	C	**
Iconic Essence	E	3025	C	**
Prefix = Design		C = Skin		** = Finish

## New colour codes and finishes

There are five new finishes for Iconic. Styl is available in silver, crowne and silver shadow anodised aluminium. Essence is available in arctic white and ash grey matt finish skins, with real birch timber edges.

Iconic Styl	SV	Silver	Silver anodised aluminium, plus cool grey gloss plastics.
	CE	Crowne	Gold anodised aluminium, plus warm grey gloss plastics.
	SH	Silver Shadow	Anthracite anodised aluminium, plus anthracite gloss plastics.
Iconic Essence	AW	Arctic White	Real birch timber trim, plus vivid white matt plastics.
	AG	Ash Grey	Real birch timber (stained dark), plus new ash grey coloured matt plastics.

## Corresponding grids and skins

Each skin design carries the part number that corresponds to the grid with which it is compatible. For example:

### Iconic Essence double socket in arctic white

3025	G	«	E	3025	C	AW
Part number	G = Grid		E = Iconic Essence	Same as grid part number	C = Skin	** = Finish

### Standard Iconic 3 gang switch in anthracite

3043VAG	«	3043	C	AN
Part number		Same as grid part number	C = Skin	** = Finish

### Iconic Styl 3 gang switch in silver

3043VAG	«	S	3043	C	SV
Part number		S = Iconic Styl	Same as grid part number	C = Skin	** = Finish

### Iconic Essence 3 gang switch in arctic white

3043VAG	«	E	3043	C	AW
Part number		E = Iconic® Essence	Same as grid part number	C = Skin	** = Finish

## Select a DGPO grid plate and choose a decorative skin

Grid plate	Skin Choices		
Iconic platform	Iconic Styl	Iconic Essence	Iconic
3025G	S3025C-SV	E3025C-AW	3025C-VW
	S3025C-CE	E3025C-AG	3025C-WY
	S3025C-SH		3025C-CY
			3025C-AN
			3025C-XW
G = Grid Plate	S = Styl	E = Essence	C = Skin

## Ordering a DGPO with USB in anthracite

Grid plate	USB Mechanism	Adaptor	Skin
3025XUA-VW	40E2USBM-VW	40E2USBCAP- AN	3025XC-AN
G = Grid Plate			AN - Anthracite

## Order process

Grid plate	Mechanisms	Skin	Rockers / Knobs
Select grid. Grids end in a G suffix.	Select one or more mechanisms to load into the grid if the grid is unloaded.  Mechanisms with a VW extension, come with a Vivid White rocker or knob included with the product.	All skins come pre-loaded with plain rockers of the same colour / finish of the skin.	Choose pictogram rocker, special rocker, dimmer knob in required colour. Non-standard pictogram rockers can be ordered as special items.

## Ordering a 2-gang switch with dimmer and pictogram rocker in silver shadow

Grid plate	Mechanisms	Skin	Rockers / Knobs
Iconic platform	42E350RLD2M-VW	S3042C-SH	S40EDIMKB
3042G	40M		S40RL-SH

## Ordering a switch with a pre-loaded mechanism

Grid plate	Skin choices		
Iconic platform	Iconic Styl	Iconic Essence	Iconic
3041VAG	S3041C-SV	E3042C-AW	3041C-VW
	S3041C-CE	E3042C-AG	3041C-WY
	S3041C-SH		3041C-CY
			3041C-AN
			3041C-XW



For more information about the Iconic® range, contact your local Clipsal and Schneider Electric Partner Business Representative, electrical wholesaler, or visit [clipsal.com/iconic](https://clipsal.com/iconic)

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**Consumer Support Enquiries**  
Phone: 1300 669 925  
Website: [clipsal.com/contactus](https://clipsal.com/contactus)

**National Customer Care (trade only)**  
Phone: 1300 369 233  
Email: [plugin@clipsal.com.au](mailto:plugin@clipsal.com.au)

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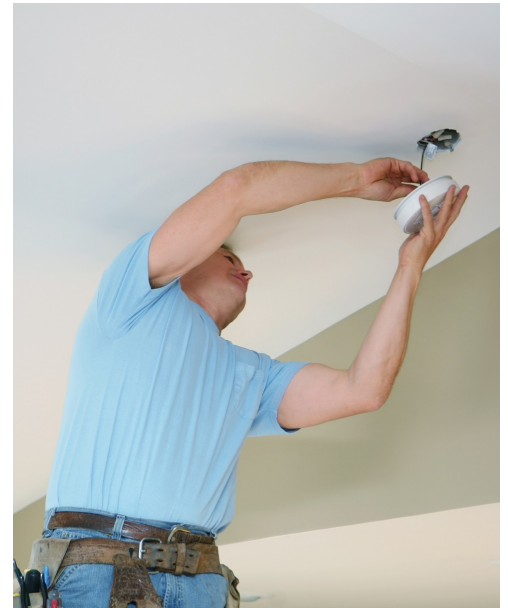
Life Is On

**CLIPSAL**  
by Schneider Electric



# SMOKE ALARMS

## 240V MAINS POWERED



## VULCAN SERIES

### 240V WITH OPTIONAL RF MODULE

The Vulcan Smoke Alarm is powered by 240V mains power and supported by either a 9V 1-yr or 10-yr replaceable battery back-up.

The alarm is fitted with a test/hush/silence button to facilitate testing of the alarm. The silence function also allows the alarm and alarm system to be silenced in the case of a false alarm.

Once fitted with the RF module, the alarm connects with up to 40 alarms on one wireless network. RF compatibility with the Ranger Battery Powered RF Smoke Alarm.

RF module sold separately.

## FEATURES

- 1yr or 10yr replaceable battery back-up
- Optional RF module
- Indicator lights for test/hush/silence and fault warnings
- Loud alarm: 85dB(A) @ 3m
- CSIRO ActivFire listed
- Meets Australian smoke alarm standards (AS3786:2014)
- 7 year warranty



## SPECIFICATIONS

MODEL NUMBERS	240V 1yr: EP-VC-240-10
	240V 1yr: EP-VC-240-1
	RF Module: EP-VC-RF-MOD
NORMAL OPERATING & STORAGE TEMPERATURE	0° to 40°
DIMENSIONS	140mm x 44.9mm
WEIGHT	281g
WARRANTY	7 Years

POWER	240V with 1yr 9V Alkaline or 10yr 9V lithium replaceable battery
SENSOR	Photoelectric optical chamber
ALARM VOLUME	>85dB(A) @ 3m
INTERCONNECT	Radio Frequency (RF) enabling connection with up to 40 alarms on one wireless network
NORMAL OPERATING & STORAGE HUMIDITY	15% to 95% relative humidity (non-condensing)

## VENUS RC

LED Recessed Spitfire Downlight

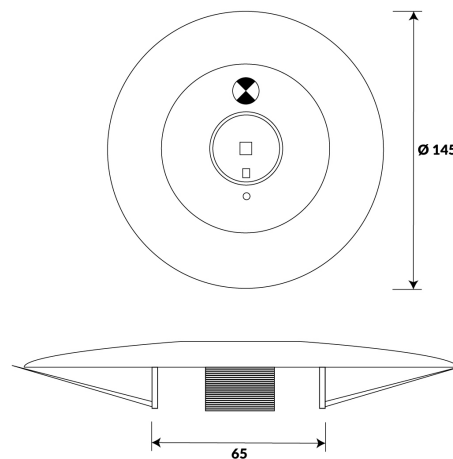
The Venus is a professional, versatile non-maintained LED emergency luminaire for use at doorways, starways, corridors and intersections on emergency escape routes.

### Specifications

Input Voltage	220-240VAC @ 50/60Hz
Emergency Classification	C0:D40, C90:D40
Cutout	70mm - 135mm
LED Power	3W
Dimmable	No
Ingress Rating	IP20
Operation Mode	Non-Maintained
Driver	External
Warranty	3 Year Warranty



### Dimensions



### Options & Accessories



Black Variant

### Order Code

#### Frame Colour

LA42



007 White

008 Black



Read more

## IP65 SURFACE MOUNTED SPITFIRE

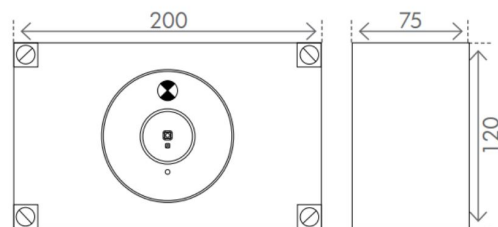
### Specifications

Emergency Rating	C0 D40 C90 D40
Wattage	6W
Beam Angle	120 Degree
Colour Temperature	5000K
Lifetime	> 50,000hrs
CRI Rating	> 80
Dimensions	L: 200mm H: 75mm D:120mm
Optical	Clear Diffuser
Ingress Rating	IP65
Warranty	3 Years

Order Code LA42003IP65



### Dimensions



## DEFENDER

Surface Mounted Emergency Exit Sign

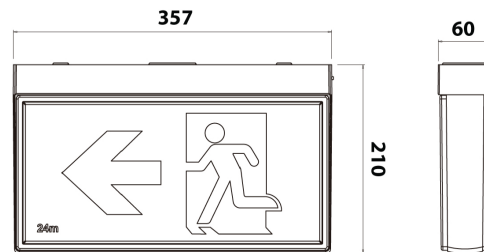
The Defender LED Emergency Exit Sign is a general purpose, double-sided interior wall or ceiling mounted sign for use at doorways, stairways, corridors and intersections on an emergency escape route.

### Specifications

Input Voltage	220-240VAC @ 50/60Hz
Emergency Classification	C0:D2.5, C90:D2
Viewing Distance	24 Metres
Mounting Location	Wall / Ceiling
Charge Duration	16 Hours
Discharge Duration	2 Hours
System Power	1W
Dimmable	No
Operation Mode	Maintained
Warranty	3 Year Warranty
Battery Type	LiFePO4



### Dimensions



### Order Code

#### Frame Colour

LA42



002 White

003 Black



Read more



## PROTECTOR

Surface Mounted Emergency Exit Sign

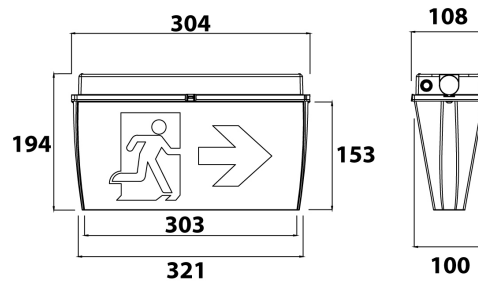
The Protector LED Emergency Exit Sign is a general purpose, double-sided interior ceiling or wall mounted sign for use at doorway, stairways and corridors and intersection on an emergency escape route.

### Specifications

Input Voltage	220-240VAC @ 50/60Hz
Emergency Classification	C0:D40, C90:D40
Viewing Distance	24 Metres
Mounting Location	Wall / Ceiling
LED Power	3W
System Power	3W
Operation mode	Maintained
Dimmable	No
Warranty	3 Year Warranty
Ingress Rating	IP65



### Dimensions



### Order Code

#### Ingress Rating

LA4200

0 White

1 Black



Read more

## HIGLOW 150

LED Highbay Light

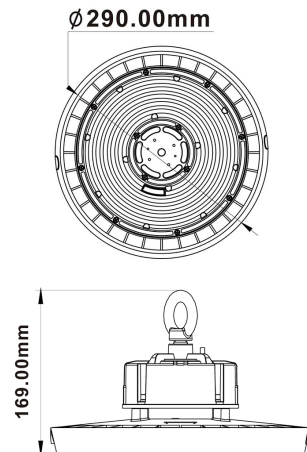
The Higlow 150W is an Industrial Quality Highbay. Installation is quick and effortless with the Lampada 3m height adjustable wire suspension kit included with every Highbay.

### Specifications

Wattage	150W
IP Rating	IP65
CRI Rating	80+
IK Rating	IK10
Optical	Anti-Glare Lense
Lighting Source	SMD LED
Lumen Output	19,500lm
Input Voltage	240v
Warranty	5 Years



### Dimensions



### Order Code

### Colour Temperature

LA9010

9	3000k
5	4000k
1	5000k



Read more

## AQUILLO 40

LED Weatherproof Batten

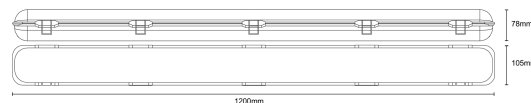
The Aquillo LED Weatherproof Batten series is a direct replacement to traditional Fluorescent and LED T8 battens. Custom designed to colour match concrete ceilings, and incorporating a built-in LED Panel for maximum efficiency.

### Specifications

Wattage	40W
Ingress Protection	IP65
Temperature	3000K   4200K   6000K
Lumen Output	2900lm   3000lm   3200lm
Beam Angle	90°
CRI Rating	> 80
IK Rating	IK08
Light Source	SMD LED
Dimmable	No
Input Voltage	200-240VAC @ 50Hz
Warranty	3 Years



### Dimensions



### Order Code

#### Sensor

LA8020



2 No Sensor

6 Sensor



Read more

## AQUILLO 40EM

LED Emergency Weatherproof Batten

The Aquillo LED Weatherproof Batten series is a direct replacement to traditional Fluorescent and LED T8 battens. Custom designed to colour match concrete ceilings, and incorporating a built-in LED Panel for maximum efficiency.

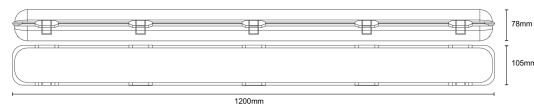
### Specifications

Wattage	40W
Emergency Wattage	6W
Emergency Classification	C0:D25, C90:D63
Battery Type	Li-Ion 3.7VDC 5000mAh
Recharge Time	24 Hours
Ingress Protection	IP65
Temperature	3000K   4200K   6000K
Lumen Output	2900lm   3000lm   3200lm
Beam Angle	90°
CRI Rating	> 80
IK Rating	IK08
Light Source	SMD LED
Dimmable	No
Input Voltage	200-240VAC @ 50Hz
Warranty	3 Years**

\*\*12 month warranty for battery



### Dimensions



### Order Code

Sensor

LA8020



3 No Sensor

7 Sensor



Read more



# The complete residential solution

## Circuit Protection

Resi MAX



**CLIPSAL**<sup>®</sup>  
by Schneider Electric

# Resi MAX gives you the entire solution

With products to protect Australian homes from top-to-bottom, the Resi MAX™ range has expanded. Now including a comprehensive range of consumer switchboards and surge arrestors along with residential circuit protection, Resi MAX is the only name you need to remember for a whole suite of products that won't let you down, when the going gets tough.

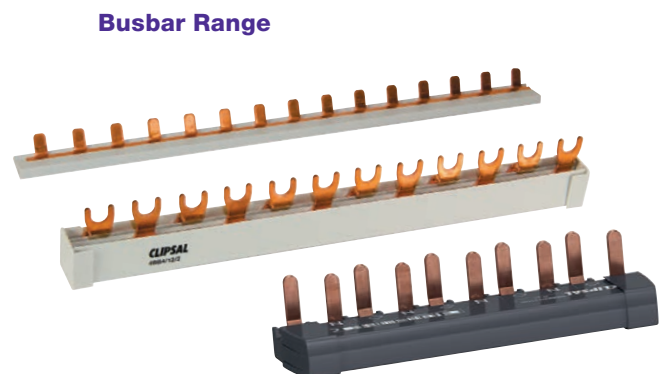
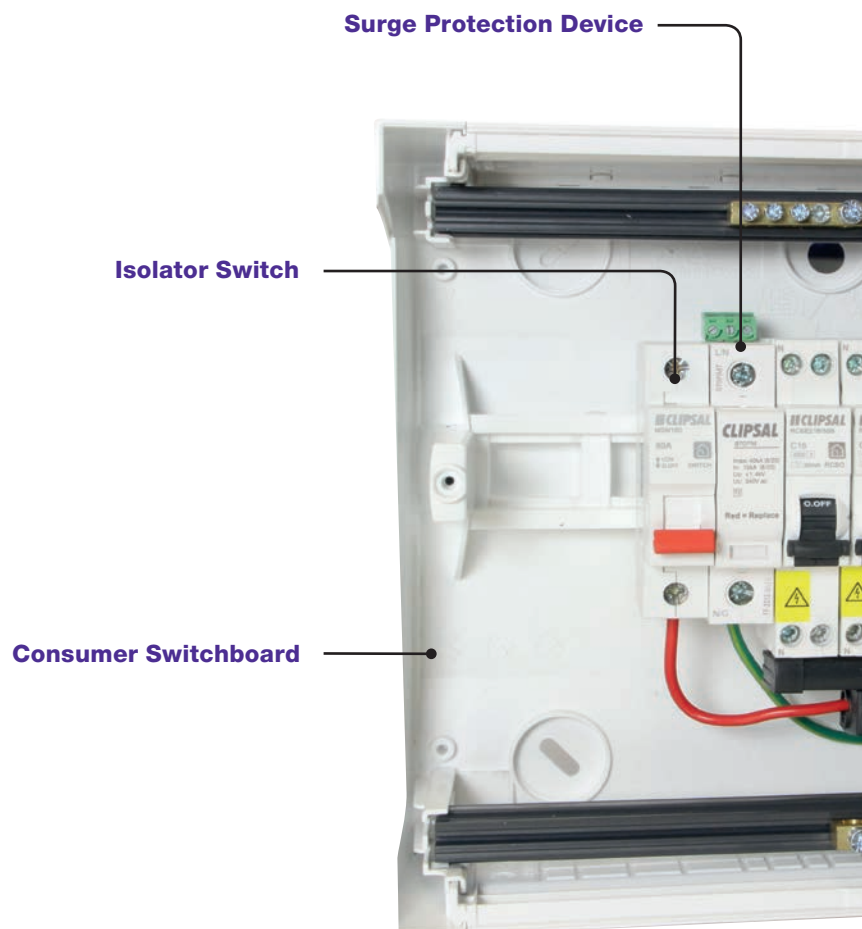
## Resi MAX range

From miniature circuit breakers and isolator switches, to RCDs and RCBOs, Clipsal's Resi MAX range offers unrivalled flexibility.

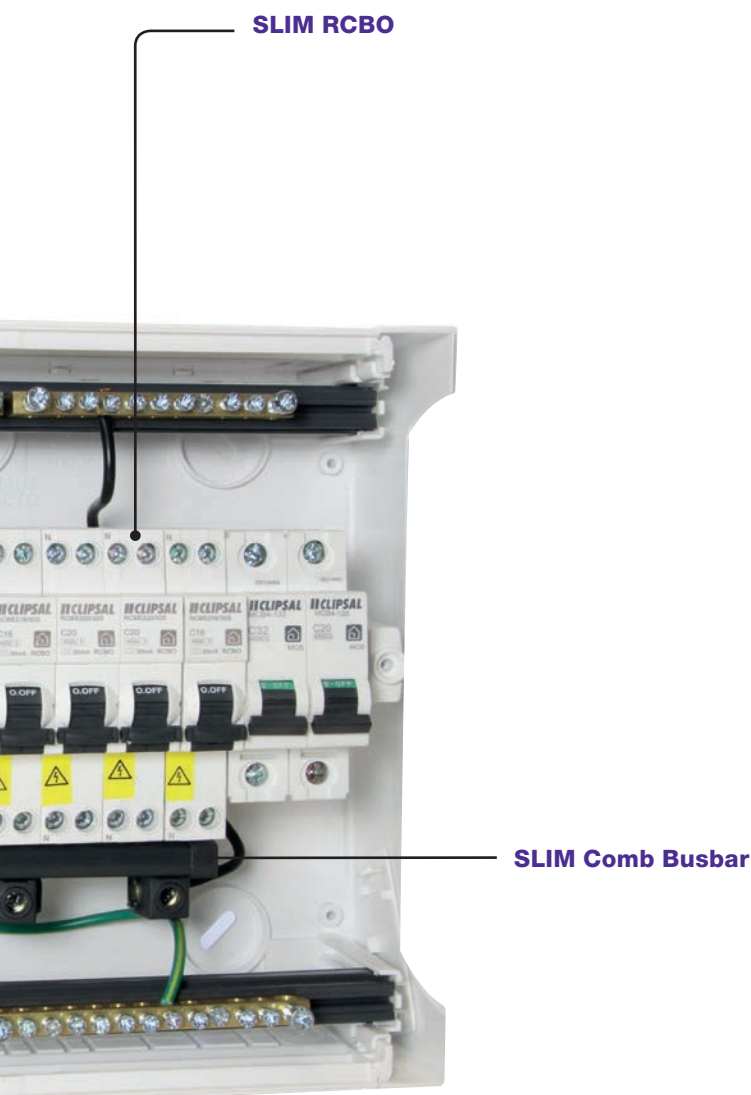
All Resi MAX products fit easily into Clipsal's quality range of consumer switchboards, and meter boxes. Comb busbars and accessories are also available to simplify the installation.

## A complete product range of electrical solutions for Australian homes

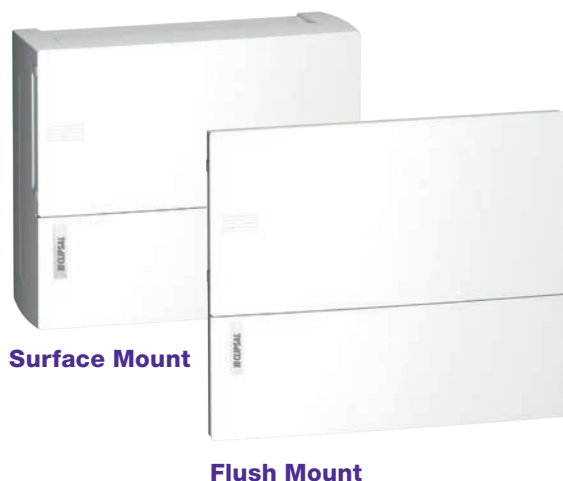
- Electrical distribution consumer switchboard (flush-mounted or surface-mounted).
- Protection and control switchgear.
- Switches and connectors.



**Resi MAX™**  
**SAFE AS**  
**HOUSES**



**Resi MAX Consumer Switchboard**



## Consumer switchboards

Optimised to complement the Resi MAX range, these attractive, economical consumer switchboards are designed with the electrical contractor in mind.

Available in flush- and surface-mounted versions, our switchboards are easy to install and offer generous wiring room, making connecting and running cables a breeze.

## SLIM RCBO

Resi MAX range also offers a SLIM RCBO. Rated at 4.5kA, it achieves a 6kA rating when combined with the HRC service fuse, which every residence on the grid is provided with. This feature provides peace of mind when using the SLIM RCBO on any residential application.

## Surge protection devices

When lightning strikes, there are no second chances. The Resi MAX range of surge protection devices won't let you down.



# Making your installation easier

## Essential safety for every home

- **Flexible Installation**

The Resi MAX RCBO range provides top and bottom, line load compatibility.

- **Standards**

The Resi MAX range of MCBs, RCDs, RCBOs and isolators complies with the latest Standards - AS/NZS60898, AS/NZS61008, AS/NZS61009 and AS/NZS 60947-3 respectively.

- **Reliable Material**

Housing for all devices is made of sturdy, self-extinguishing material. Each circuit protection device has lift-up terminals with combination head screws. Additional safety is provided with 'ON' and 'OFF' marking in contrasting colours on toggle mechanisms.

- **Time Saving**

The Resi MAX range provides the complete solution for circuit protection. Busbar compatible RCBOs are equipped with insulated slots and deep bottom cog-rail terminals, allowing for a quick fit-off. This, along with many other features ensures Resi MAX saves you time on installation.



**MSW180**  
Isolator Switch



### Compatibility

Optimised for SLIM RCBO, the SLIM comb busbar ensures that wiring effort is reduced, making your installation tidy and time/cost effective.

### Convenience

- Two in one system
- New design for easier installation
- Ease of wiring
- Compact and light





**RCBM220/30**

#### Resi MAX Symbol

The new identification symbol on all Resi MAX products provides peace of mind. The Resi MAX range is 100% suitable for residential applications.



(as seen on product)



(as seen on packaging)

#### Trip Indication

The two-module RCBO includes individual trip indication for both RCD and MCB faults.



**RCBE232/30S**

Combination Residual  
Current Device  
SLIM (RCBO)

#### Top and bottom line load compatible

SLIM RCBO available to save valuable switchboard space, by combining the functionalities of an RCD and MCB within 18mm.



**Resi MAX™**  
**SAFE AS**  
**HOUSES**

# Circuit protection

## Resi MAX consumer switchboard

Cat. No.	Description
<b>RMXE108S</b>	Resi MAX switchboard 1 row 8 modules surface-mount
<b>RMXE112S</b>	Resi MAX switchboard 1 row 12 modules surface-mount
<b>RMXE118S</b>	Resi MAX switchboard 1 row 18 modules surface-mount
<b>RMXE108F</b>	Resi MAX switchboard 1 row 8 modules flush-mount
<b>RMXE112F</b>	Resi MAX switchboard 1 row 12 modules flush-mount
<b>RMXE118F</b>	Resi MAX switchboard 1 row 18 modules flush-mount



**RMXE108S**



**RMXE112F**

## Main switches

Cat. No.	Description
<b>MSW140</b>	1P 40A 240V AC
<b>MSW180</b>	1P 80A 240V AC
<b>SW1100</b>	1P 100A 240V AC
<b>MSW240</b>	2P 40A 415V AC
<b>MSW280</b>	2P 80A 415V AC
<b>SW2100</b>	2P 100A 415V AC
<b>MSW340</b>	3P 40A 415V AC
<b>MSW380</b>	3P 80A 415V AC
<b>SW3100</b>	3P 100A 415V AC



**MSW180**



**MSW280**



**MSW380**

## Surge protection devices (SPDs)

Cat. No.	Description
<b>920RM/1</b>	ResiMax Surge arrestor   1P   I <sub>max</sub> =20kA
<b>920PM</b>	Cartridge I <sub>max</sub> =20kA (ResiMAX)



**920RM/1**



**920PM**  
Cartridge

## SLIM one module MCB/RCD combinations (RCBO)

Cat. No.	Description
<b>RCBE206/30S</b>	6A 1P+N 30mA C A 4500A (6kA with fuse)
<b>RCBE210/30S</b>	10A 1P+N 30mA C A 4500A (6kA with fuse)
<b>RCBE216/30S</b>	16A 1P+N 30mA C A 4500A (6kA with fuse)
<b>RCBE220/30S</b>	20A 1P+N 30mA C A 4500A (6kA with fuse)
<b>RCBE225/30S</b>	25A 1P+N 30mA C A 4500A (6kA with fuse)
<b>RCBE232/30S</b>	32A 1P+N 30mA C A 4500A (6kA with fuse)



**RCBE206/30S**

## Two module MCB/RCD combinations (RCBO)

Cat. No.	Description
<b>RCBM206/30</b>	6A 1P+N 30mA C AC 6000A
<b>RCBM210/30</b>	10A 1P+N 30mA C AC 6000A
<b>RCBM216/30</b>	16A 1P+N 30mA C AC 6000A
<b>RCBM220/30</b>	20A 1P+N 30mA C AC 6000A
<b>RCBM225/30</b>	25A 1P+N 30mA C AC 6000A
<b>RCBM232/30</b>	32A 1P+N 30mA C AC 6000A



**RCBM220/30**

## Residual current devices (RCCB)

Cat. No.	Description
<b>RCD240/30</b>	2P 40A 30mA AC
<b>RCD263/30</b>	2P 63A 30mA AC
<b>RCD440/30</b>	4P 40A 30mA AC
<b>RCD463/30</b>	4P 63A 30mA AC



**RCD240/30**



**RCD440/30**

## Miniature circuit breakers (MCB)

Cat. No.	Description
<b>MCB4-106</b>	1P 6A C 240V 4500A (6kA with fuse)
<b>MCB4-108</b>	1P 8A C 240V 4500A (6kA with fuse)
<b>MCB4-110</b>	1P 10A C 240V 4500A (6kA with fuse)
<b>MCB4-116</b>	1P 16A C 240V 4500A (6kA with fuse)
<b>MCB4-120</b>	1P 20A C 240V 4500A (6kA with fuse)
<b>MCB4-125</b>	1P 25A C 240V 4500A (6kA with fuse)
<b>MCB4-132</b>	1P 32A C 240V 4500A (6kA with fuse)
<b>MCB4-140</b>	1P 40A C 240V 4500A (6kA with fuse)
<b>MCB4-150</b>	1P 50A C 240V 4500A (6kA with fuse)
<b>MCB4-163</b>	1P 63A C 240V 4500A (6kA with fuse)



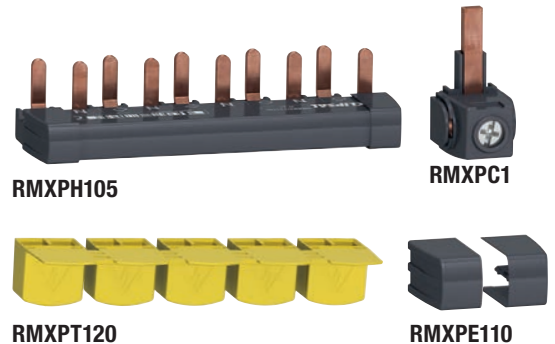
**MCB4-106**

# Busbar and accessories

## SLIM comb-busbars for SLIM RCBO

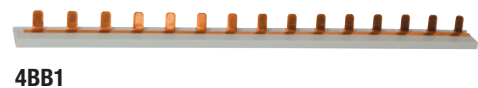
Cat. No.	Poles	Phase Modules
<b>RMXPH105</b>	1P+N	5 modules
<b>RMXPH112</b>	1P+N	12 modules
<b>RMXPH124</b>	1P+N	24 modules
<b>RMXPH312</b>	3P+N	12 modules
<b>RMXPH324</b>	3P+N	24 modules
<b>RMXPE110</b>	1P+N	End Cap (set of 10)
<b>RMXPE310</b>	3P+N	End Cap (set of 10)
<b>RMXPT120</b>		Teeth cover (set of 20)
<b>RMXPC1</b>	1P+N	Cable Connector (set of 4)
<b>RMXPC3</b>	3P+N	Cable Connector (set of 4)

Note: Connectors are not supplied with the Comb busbar - need to be ordered separately.



## Insulated comb-type busbars

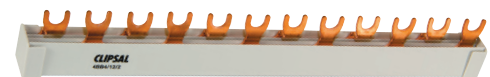
Cat. No.	Poles	Phase	Current Rating
<b>4BB1/24</b>	24	1	80A
<b>4BB1</b>	56	1	80A
<b>4BB2</b>	56	2	80A
<b>4BB3</b>	56	3	80A
<b>4BB5/26</b>	26	1	100A



**4BB1**

## Cog rail busbars

Cat. No.	Poles	Phase	Current Rating
<b>4BB4/12</b>	12	1	80A
<b>4BB4/18</b>	18	1	80A
<b>4BB4/57</b>	57	1	80A
<b>4BB4/12/2</b>	12	2/1+N	80A
<b>4BB4/18/2</b>	18	2/1+N	80A
<b>4BB4/57/2</b>	57	2/1+N	80A
<b>4BB4/12/3</b>	12	3	80A
<b>4BB4/18/3</b>	18	3	80A
<b>4BB4/57/3</b>	57	3	80A



**4BB4/12/2**

# Accessories

## Cog rail busbar end caps

Cat. No.	Phase
4BBTC1	Busbar 1-phase end cap
4BBTC3	Busbar 2-phase - 3-phase end cap



4BBTC1

## Insulated comb-type busbar connector

cat. No.	Phase
4BB5	Busbar connector to suit up to 25mm conductors



4BB5

## Terminals

Cat. No.	Description
27060	Expanding 35mm terminal to suit one module MCBs and switches
4XT3	3 x 16mm Neutral link to suit termination of RCD Neutrals.



27060



4XT3

For information on the full range of Resi MAX circuit protection equipment, speak to a Clipsal and Schneider Electric Partner Business Representative or visit [clipsal.com](http://clipsal.com) to obtain a technical catalogue.

### Schneider Electric (Australia) Pty Ltd

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National Customer Care  
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## Product data sheet

### Characteristics

# RMXE118S

Clipsal Resi MAX Consumer switchboard 1 row  
18 modules Surface Mounted



### Main

Range	Resi MAX
Product brand	Clipsal
Product or component type	Enclosure
Enclosure type	Mini enclosure for modular device
Device application	Distribution
Number of 18 mm modules per row	18
Provided equipment	DIN rail Earth terminal block Neutral terminal block
Type of front cover	Plain
Colour	White (RAL 9003)
Door type	Plain door

### Complementary

Enclosure mounting	Surface
Number of horizontal rows	1
[In] rated current	63 A
Number of ways	18 ways
Cable entry	Knock-out top and bottom Knock-out rear
Type of rail	35 mm asymmetrical rail
Number of terminal blocks	18 earth (screw connection) 22 neutral (screw connection)
Enclosure material	Technoplastic
Width	376 mm external
Height	228 mm external
Depth	101.5 mm external

### Environment

Fire resistance	650 °C
IP degree of protection	IP40
IK degree of protection	IK07

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.2 cm
Package 1 Width	39.0 cm
Package 1 Length	25.0 cm
Package 1 Weight	1.25 kg
Unit Type of Package 2	P12
Number of Units in Package 2	72
Package 2 Height	80.0 cm
Package 2 Width	80.0 cm

Package 2 Length	120.0 cm
Package 2 Weight	102.0 kg

Offer Sustainability

EU RoHS Directive	Not applicable, out of EU RoHS legal scope
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## For 2 wire readers

## Part Number

## 2 wire readers - 13.56Mhz

## Part number

IPassan 4 door base controller  
Ethernet connection 12V

**FD-125-001**



Mullion reader

**FD-020-081**



IPassan 4 door base controller  
RS485 connection

**FD-125-002**



Mullion reader VR

**FD-020-086**



IPassan 2 door expansion card  
for base controller

**FD-125-010**



Panel mount reader 40x40mm

**FD-020-007**



## For Wiegand readers

IPassan 2 door base controller  
Ethernet connection

**FD-125-003**



P60 single gang box reader - black  
P60 single gang box reader - white

**FD-020-139**

**FD-020-156**



IPassan 2 door base controller  
RS485 connection

**FD-125-004**



Sinthesi S2 reader

**FD-020-176**



IPassan 4 door expansion card  
for base controller

**FD-125-011**



Sinthesi Steel reader

**FD-020-132**



## I/O options

10 input base module  
RS485 connection

**FD-125-015**



12 input expansion card

**FD-125-020**



10 output base module  
RS485 connection

**FD-125-016**



12 output expansion card

**FD-125-021**



## RF Receivers - Encoder

2 wire RF receiver 433Mhz

2 wire RF receiver 868Mhz

USB Encoder 13.56Mhz

**GB-500-045**



P60 single gang box reader - black  
P60 single gang box reader - white

**FD-020-137**

**FD-020-154**



Sinthesi S2 reader

**FD-020-171**



Sinthesi Steel reader

**FD-020-160**



## Key fobs - Cards - Transmitters

Proximity key 13.56Mhz

**FD-010-010**



Pack of 10 ISO cards 125Khz  
Pack of 10 ISO cards 13.56Mhz

**FD-010-070**

**FD-010-051**



Remote control 13.56MHz/RF433MHz  
Remote control 13.56MHz/RF868MHz

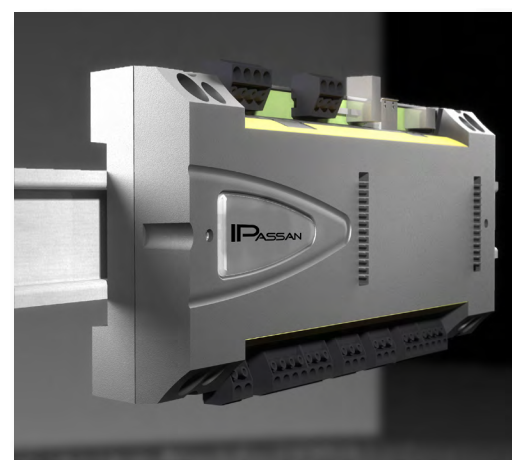
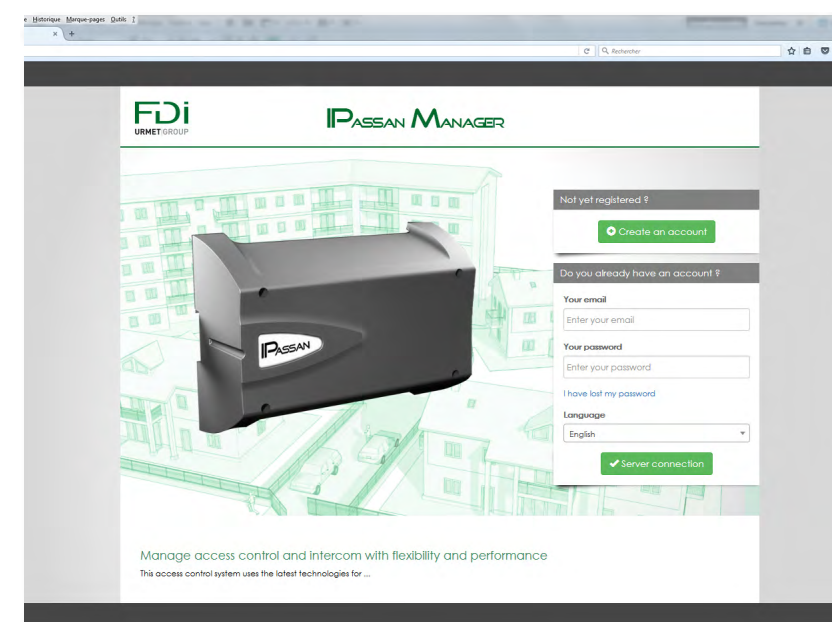
**FD-010-155**

**FD-010-148**



# IP-BASED ONLINE SOLUTION

# IPASSAN



**FDi**  
URMET GROUP



## Contactez-nous:

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France  
Tel : +33 2 51 61 69 69

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[www.fdimatelec.com](http://www.fdimatelec.com)

IPASSAN001GB - Imprimé sur papier issu de forêts gérées durablement et écocertifiées.



ACCESS CONTROL SPECIALIST





**FDI**  
URMET GROUP

**IPassan** is an IP-based access control system designed for medium to large commercial and residential projects. It is the result of continuous improvement of the access control expertise of our engineers involved in this project at FDI. Our long experience with the famous predecessor system Passan has led to the development of this simple but powerful system.

The **IPassan** system is set-up via the **IPassan Management Suite**, a very intuitive software which can be installed on a computer or on a server to enable remote and multiple access. IPassan Management Suite is an architectural real client server, offering the best possible flexibility.

### Smart

Decisions are made locally as our new **IPassan** controller is smart and stores all necessary information. Your access control system is safe in case of a server crash or network failure. Whichever controller version you have (Ethernet or RS485), the **IPassan** controller always embeds the system intelligence. At reconnection, the data is updated in the controllers and saved events are sent up to the server.

### Simple

The **IPassan** controllers and the Management Suite have been made simple to understand and to commission. No need for tremendous IT knowledge when it comes to installation or set-up. Every step goes quickly and smoothly.

### Cutting edge technology

Unlike some systems for which the software has to be installed locally on the user computer and requires inconvenient updates, **IPassan Management Suite** can be installed on a server and the whole system can easily be upgraded by the wire: software, controllers, expanders and readers. No need to worry about how updated your software is, your system will always look for software updates when connected to the Internet.



### Hardware, software, peripherals : one single source

FDI is not only a controller producer and a software developer, we also manufacture our own readers and credentials. Be sure to have 100% compatibility and reliability by choosing in the FDI range below. If you still haven't found what you are looking for, feel free to send us your specifications and we should be able to find a solution for you.



### More performance with our FDI 2-SMART readers

**IPassan** is compatible with third party Wiegand readers to offer as much flexibility as possible. However, the controller accepts FDI 2-SMART readers. As these are based on our own protocol, they offer unique security and features via two wires only.

Not only are they compatible with Mifare but they can also be setup by the access control itself. This FDI 2-SMART bus also enables to update on site readers via the controller. Finally, keep in mind that they obviously make your life easier by simplifying the wiring compared to standard Wiegand readers which use more wires.

### Scalable

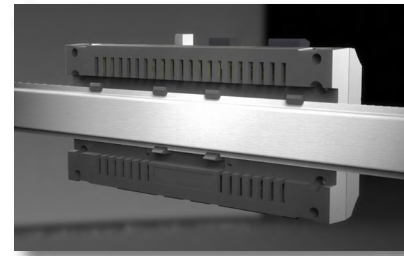
The **IPassan** modular design means that it is adaptable to small and large sites. Whether you start small or big, from a site size or feature point of view, **IPassan** is always ready to become more and more powerful whenever you want it or need it.

Because it is an IP based solution, you may use existing IT infrastructure without any expensive extra wiring. This way you will speed up communication. However, if the network is not available all over the project, you can also use the RS 485 bus to expand the network of controllers.



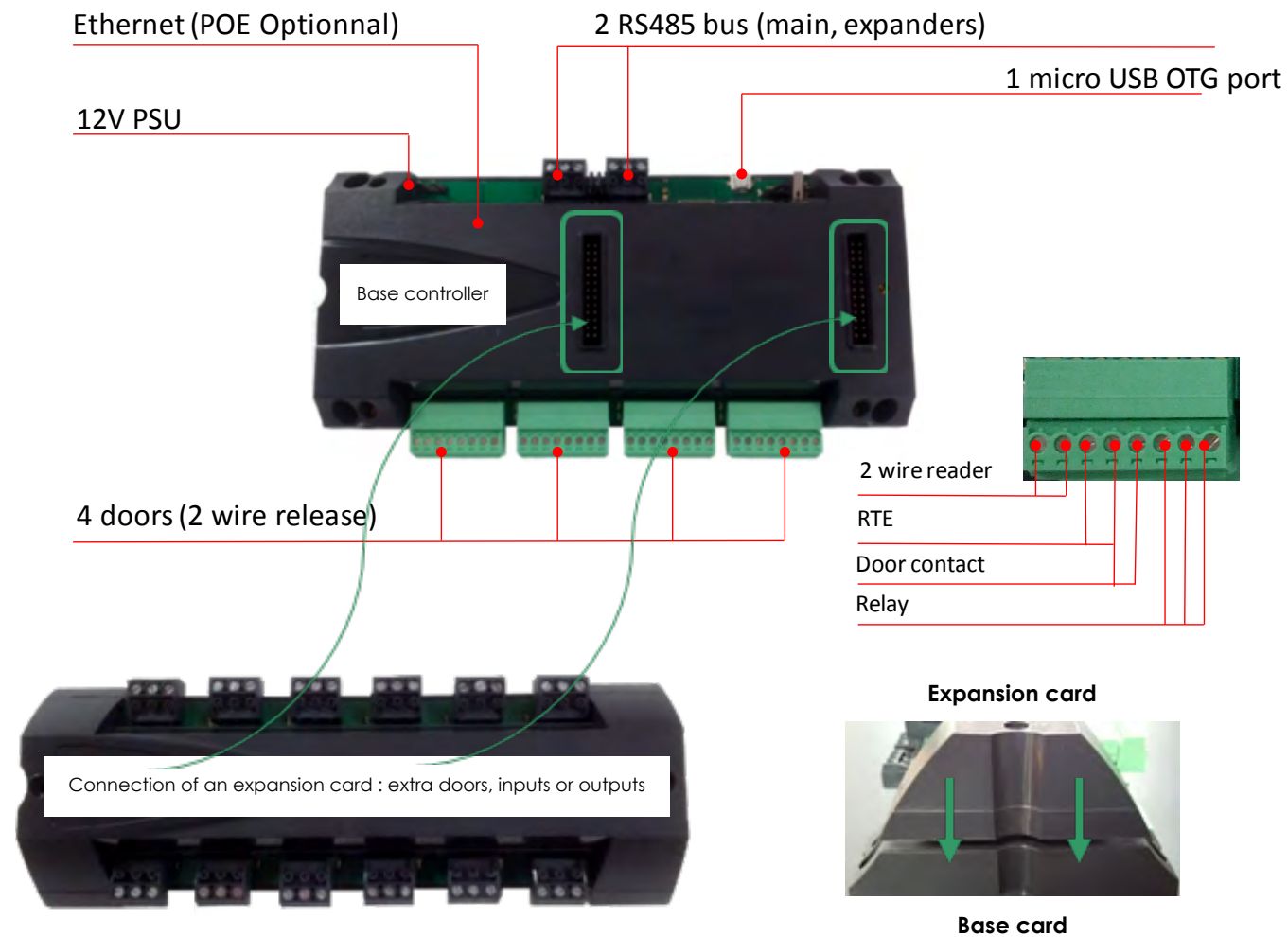
## Hardware features

Controllers and expanders are both DIN Rail mounted but can also be screwed on the wall if no DIN Rail is available.



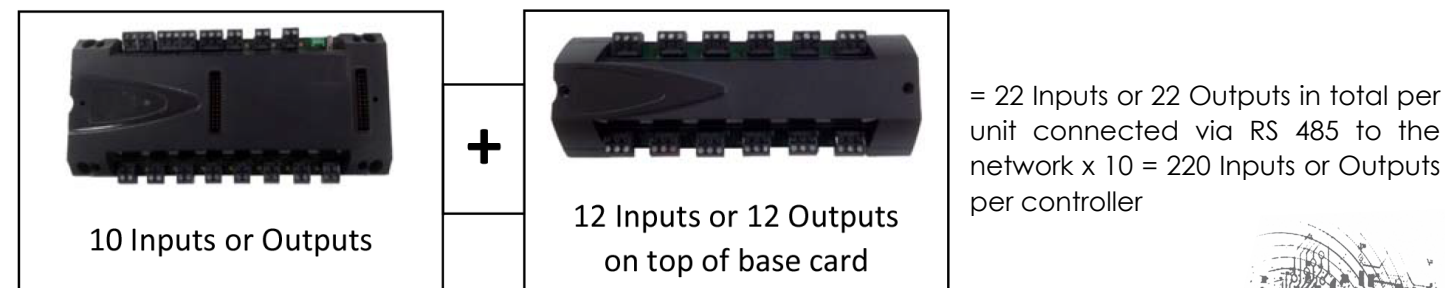
### Controller

The **IPassan** system is always composed of at least a controller smart base card for door inputs as shown below. One controller can manage up to 6 doors when an extra door input is plugged onto the base card. 12 Input or 12 Output cards may also be plugged onto controller base cards for more flexibility.



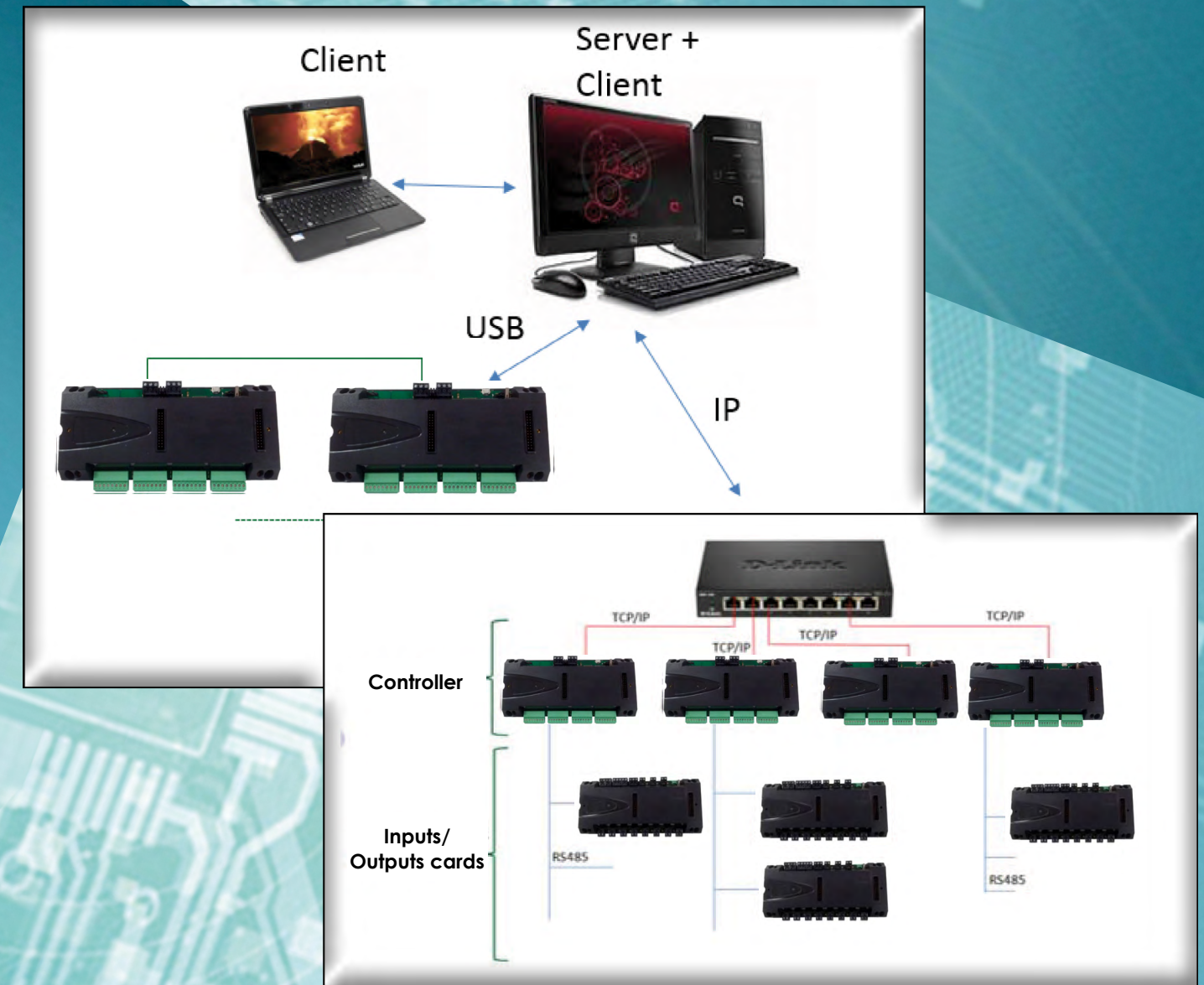
### Expander

When the controller base card is complete, extra I/O base cards are also available and are connected together via RS485 to the smart controller. These I/O base cards can be for 10 Inputs or 10 Outputs. Expansion cards can also be plugged on top to increase the I/O capacity (22 possible Inputs or Outputs in total).



## System architecture

Two solutions are available for the connection of the first controller to the server/computer on which the **IPassan Management Suite** is installed: by USB or Ethernet. USB is very universal. Ethernet has a main advantage which is remote management.



**IPassan** can be adapted to any building. Two communication technologies are offered :  
 The FDI **RS485** encrypted bus has all advantages of a field bus : ease of installation, reliability and comfort of use. Only 3 wires are used to connect a peripheral to the bus. A LED on the controller or on the expander shows the correct communication.  
 For more performance also, controllers are full TCP/IP which enables high transfer speeds and makes the communication with third party systems (lifts, hvac, etc.) easier. It also offers more interconnectivity (optical fiber, Internet, etc.)



## Software features



Client / Server architecture

Automatic controller discovery

Intuitive design

Up to 100.000 credentials per site

Unlimited number of doors per site / 384 doors per network

Lift management up to 110 floors

Multiple reader and credential possibilities

Anti-passback

20.000 events per controller

Email or SMS alert messages

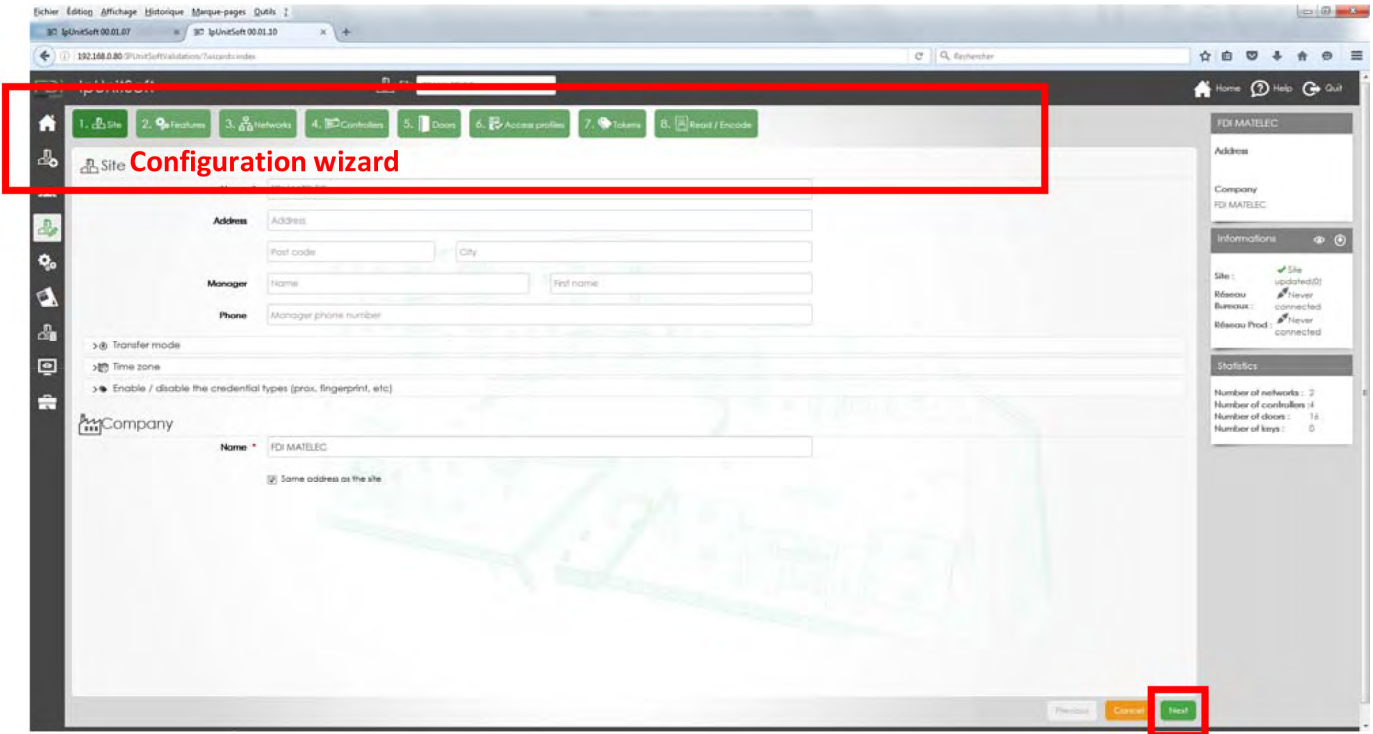
Firmware upgrade of the controllers over-the-wire

Operator authorisation

Data importation

## Visual

**IPassan Management Suite** has been designed to be as intuitive as possible. The software simply uses a web browser and offers a user-friendly interface to the system manager. The suite is composed of several softwares : IPassan Manager to manage access rights and doors, IP Search to find all controllers on your network, 4 types of access levels are available on the software. Administrators, managers, users and guests have different rights. An extra security can also be achieved via a specific fob on the encoder. In this case, the login and password are not sufficient to log on to the system and make modifications. Only the owner of the fob has the full power to open the software and its associated sites.



The step by step configuration wizard will guide you smoothly whichever management level you need. Create your site in 8 steps and start opening doors with the enrolled credentials.

## Powerful

The **IPassan Manager** includes everything you need to secure and manage your premises. The very flexible user authorisation provides an easy-to-use way of assigning access rights to credential holders. This way, you may create groups and decide which doors can be accessed, on what days of the week, during what times. On top of that, access rights can be changed during scheduled holidays. **IPassan Manager** includes all usual necessary features such as anti-passback which prevents a credential holder from passing his credential back to a second person to enter the same controller area, for example a car park. It also includes live events : IPassan automatically keeps an event log and produces management reports (track card usage and door activity). **IPassan Manager** gives you the opportunity to check the status of the controllers, readers or any other hardware to prevent any unusual behaviors of the system. The system also offers the possibility to control doors, floors or inputs manually. Finally, after all these powerful features, IPassan offers lift management as well. It allows users the access to designated floors. If the user has access to the lift, then he has to also present a credential to the reader inside the lift before any of the restricted floor buttons are available.





# DHI-NVR4208-8P-4KS2

8 Channel 1U 8PoE 4K 2HDDs & H.265 Lite Network Video Recorder



- 8-channel IP video access
- Smart H.265+/Smart H.264+/H.265/H.264; H.265 auto switch
- Max 200 Mbps incoming bandwidth
- Up to 8MP resolution for preview and playback
- 8-channel decoding@1080p (30 fps)
- AI by Camera: Perimeter protection; SMD Plus; people counting; heat map
- Support IPC UPnP, 8 PoE ports



Dahua's new NVR4000-4KS2 network video recorder delivers excellent performance and high recording quality that is ideally suitable for IP video surveillance applications. This professional NVR adopts powerful processor, providing the capability of 4K resolution processing for applications where image details are highly required. Additionally, the NVR can be served as edge storage, central storage or backup storage with an intuitive shortcut operation menu for remote management and control.

## Series Overview

The NVR is compatible with numerous third-party devices, which make it the perfect solution for surveillance systems that work independently of video management system (VMS). It features an open architecture that supports multi-user access and is compatible with ONVIF 2.4 protocol, enabling interoperability with 4K cameras.

## Functions

### Perimeter Protection by Camera

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

### SMD Plus by Camera

With intelligent algorithm, Dahua smart motion detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

### People Counting by Camera

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

## Smart Codec

With advanced scene-adaptive rate control algorithm, Dahua smart codec technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

## ANR (Automatic Network Replenishment Technology)

Video record in SD card in IP cameras when the network breaks down, and after the network recovered, the video will be transferred to device and then recorded in it.

## DMSS

The DMSS app is available on the iOS App Store and Google Play. It makes surveillance easy and simple, allowing you to remotely access back-end devices, view live video, receive event push notifications, and search for recorded videos from an iPhone, iPad, or Android phone at anytime from virtually anywhere.

## Technical Specification

### System

Main Processor	Industrial embedded micro-processor
Operating System	Embedded Linux
Operation Interface	Web; local GUI

### Perimeter Protection by Camera

Performance	8 channels
AI Search	Search for pictures by channel, time and event type

### SMD Plus by Camera

Performance	8 channels
AI Search	Search by target classification (human, vehicle)

### Video

Access Channel	8
Network Bandwidth	200 Mbps for access, 200 Mbps for storage and 96 Mbps for forwarding
Resolution	8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 1.3MP, 720p, D1, and more
Decoding Capability	8 channels@1080p (30 fps)
Video Output	HDMI: 3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720 VGA: 1920 × 1080; 1280 × 1024; 1280 × 720
Multi-screen Display	1/4/8/9
Third Party Camera Access	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF, Canon and more

### Compression

Video	Smart H.265+; Smart H.264+; H.265; H.264
Audio	PCM; G.711A; G.711U; G.726

### Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search (supports Dahua IP camera, DVR, NVS, and more); P2P
Mobile Phone Access	Android; iOS
Interoperability	ONVIF (profile T/S/G); CGI; SDK
Browser	Chrome; IE9 or later; Firefox

### Record Playback

Multi-channel Playback	1/4/9
Record Mode	Manual; schedule (general; MD; alarm; MD & alarm; intelligent)
Storage Method	Local HDD and network
Backup	USB device
Playback Function	1. Play; pause; stop; fast forward; fast backward; rewind; play by frame 2. Full screen; backup (cut/file) ; partially enlarge; audio on/off

### Storage

Disk Group	Yes
------------	-----

### Alarm

General Alarm	Motion detection; privacy masking; video loss; PIR alarm; IPC alarm
Anomaly Alarm	Camera offline; storage error; full storage; IP conflict; MAC conflict; login lock; network security anomaly
Intelligent Alarm	Perimeter protection; SMD; people counting; heat map
Alarm Linkage	Record; snapshot; IPC external alarm output; buzzer; log; preset; email

### External Port

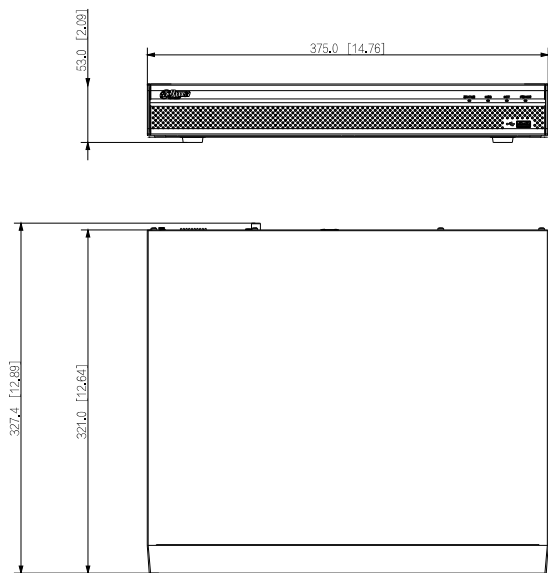
Audio Input	1 channel, RCA connector
Audio Output	1 channel, RCA connector, which support voice intercom output
HDD	2 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature
Alarm Input	4 channels
Alarm Output	2 channels
USB	1 front USB 2.0 port, 1 rear USB 3.0 port
HDMI	1
VGA	1
Network	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet port
PoE	8 ports (IEEE802.3at/af)

### General Parameter

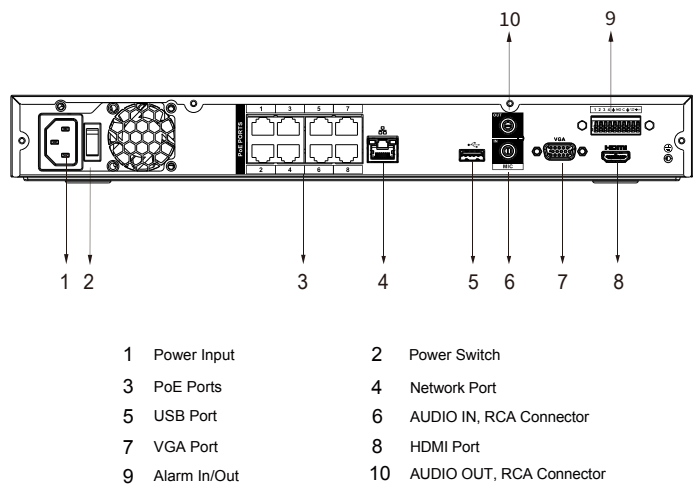
Power Supply	Single, 100V–240V AC, 50 Hz–60 Hz
Power Consumption	NVR: < 9.6W (without HDD) PoE: Max 25.5W for single port, 130W in total
Net Weight	2.6 kg (5.7 lb) (without HDD)
Gross Weight	4 kg (8.8 lb) (without HDD)
Product Dimensions	375.0 mm × 327.4 mm × 53.0 mm (14.8" × 12.9" × 2.1")
Package Dimensions	429 mm × 360 mm × 137 mm (16.9" × 14.2" × 5.4")
Operating Temperature	-10°C to +55°C (+14°F to +131°F)
Storage Temperature	0°C to +40°C (+32°F to +104°F)
Operating Humidity	10%–93% (RH)
Storage Humidity	30%–85% (RH)
Operating Altitude	3,000 m (9,843 ft)
Certifications	CE: EN55032; EN55024; EN50130-4; EN60950-1 FCC: Part 15 Subpart B; ANSI C63.4-2014 UL: UL 60950-1

Ordering Information		
Type	Model	Description
8 Channel NVR	DHI-NVR4208-8P-4KS2	8 Channel 1U 8PoE 4K & H.265 Lite Network Video Recorder

Dimensions (mm[inch])



Panels





# Network Video Recorder

## Quick Start Guide



V1.0.0






# Foreword

## General

This quick start guide (hereinafter referred to as "the Manual") introduces the functions and operations of the NVR device (hereinafter referred to as "the NVR").

## Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
 <b>DANGER</b>	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 <b>CAUTION</b>	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 <b>TIPS</b>	Provides methods to help you solve a problem or save you time.
 <b>NOTE</b>	Provides additional information as the emphasis and supplement to the text.

## Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	July 2020

## Privacy Protection Notice

As the NVR user or data controller, you might collect personal data of others such as face, fingerprints, car plate number, Email address, phone number, GPS. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures including but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

## About the Manual

- The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the Manual.
- The Manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Contact the

customer service for the latest program and supplementary documentation.

- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the Manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the Manual are the properties of their respective owners.
- Visit our website, contact the supplier or customer service if there is any problem occurred when using the NVR.
- If there is any uncertainty or controversy, refer to our final explanation.

# Important Safeguards and Warnings

The following description is the correct application method of the NVR. Read the Manual carefully before use to prevent danger and property loss. Strictly conform to the Manual during application and keep it properly after reading.

## Operating Requirements

- Install the PoE cameras indoors.
- Do not place and install the NVR in an area exposed to direct sunlight or near heat generating device.
- Do not install the NVR in a humid, dusty or fuliginous area.
- Keep its horizontal installation, or install it at stable places, and prevent it from falling.
- Do not drip or splash liquids onto the NVR; do not put on the NVR anything filled with liquids, in order to prevent liquids from flowing into the NVR.
- Install the NVR at well-ventilated places; do not block its ventilation opening.
- Use the NVR only within rated input and output range.
- Do not dismantle the NVR arbitrarily.
- Transport, use and store the NVR within allowed humidity and temperature range.

## Power Requirements

- Use batteries according to requirements. Otherwise, it may result in fire, explosion or burning risks of batteries!
- To replace batteries, only the same type of batteries can be used.
- Dispose the exhausted batteries according to the instructions.
- Use electric wires within rated specifications recommended by local regulations.
- Use standard power adapter matched with this NVR. Otherwise, the user shall undertake resulting personnel injuries or NVR damages.
- Use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, refer to device labels.
- Products with category I structure shall be connected to grid power output socket, which is equipped with protective grounding.
- Appliance coupler is a disconnecting device. During normal use, keep an angle that facilitates operation.

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# 1 Local Operations



Slight difference might be found on the interfaces of different models. Following figures are for reference only. The actual product shall prevail.

## 1.1 Starting the NVR

Before starting the NVR, make sure that:

- The rated input voltage matches the NVR's power requirements.
- The power wire connection is ready.
- For device security, connect the NVR to the power adapter first and then connect it to the power socket.
- Always use stable current. It is recommended to use UPS as the power source.

## 1.2 Initializing the NVR

This topic shows how to initialize the NVR before use.

### Background Information

When booting up for the first time, you need to configure the password information for **admin** (by default). To guarantee device security, we strongly recommend you properly keep the login password and regularly modify it.

### Procedure

- Step 1 Turn on the NVR.  
The system enters device initialization interface.
- Step 2 From the drop-down lists, select region, language and video standard as needed.



You can change these settings on setting pages of the NVR after initialization.

Figure 1-1 Set location, language and video standard

The screenshot shows the 'Device Initialization' window. A red box labeled '1' highlights the settings for Region, Language, and Video Standard. The Region dropdown is set to 'Please select an item.', Language is set to 'English', and Video Standard is set to 'PAL'. A 'Next' button is visible at the bottom right, labeled '2'.

Step 3 Click **Next**.

Step 4 Read the Software License Agreement and select **I have read and agree to all terms**, and then click **Next**.

Step 5 Select time zone and configure system time, and then click **Next**.




Figure 1-2 Configure time zone and system time

The screenshot shows the 'Device Initialization' window. A red box labeled '1' highlights the settings for Time Zone and System Time. The Time Zone dropdown is set to '(UTC+04:00) Yerevan'. The System Time is set to '2020 -01 -08 13 : 11 : 35'. A 'Next' button is visible at the bottom right, labeled '2'.

Step 6 Configure the password information for device administrator, and then click **Next**.

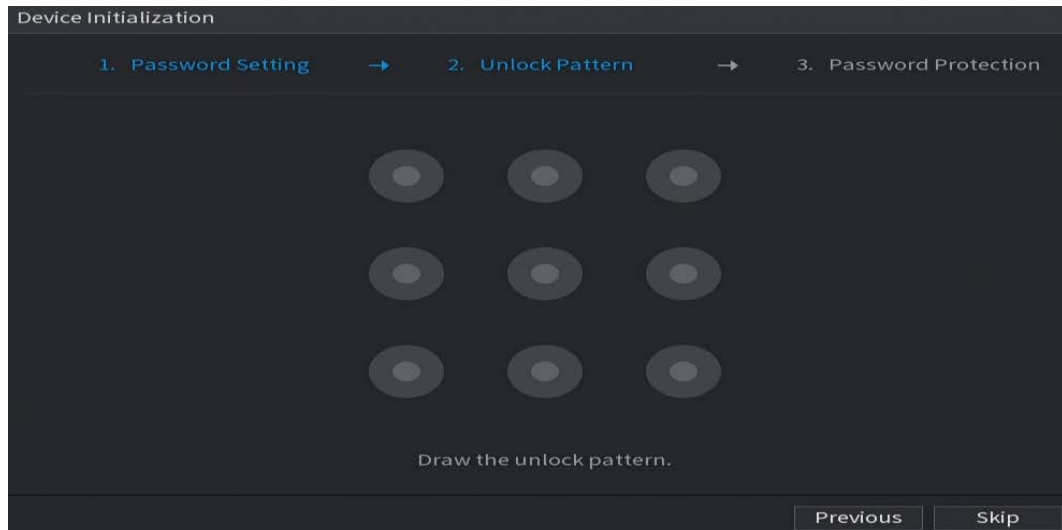
Figure 1-3 Configure password information

Table 1-1 Password information

Parameter	Description
Username	By default, the user is <b>admin</b> and you cannot change it.
Password	Enter a new password for device administrator in <b>Password</b> field, and confirm the password in the next field.
Confirm Password	 <p>The new password can be set from 8 characters to 32 characters and contains at least two types from numbers, letters and special characters (excluding "", "", ", ":", "." and "&amp;").</p>
Password Hint	<p>Enter a prompt question that will help you recall the password for your device.</p>  <p>On the login interface, click  and the prompt will be displayed to help you reset the password.</p>

Step 7 (Optional) Use mouse to draw an unlock pattern, and then draw it again for confirmation.

Figure 1-4 Draw an unlock pattern

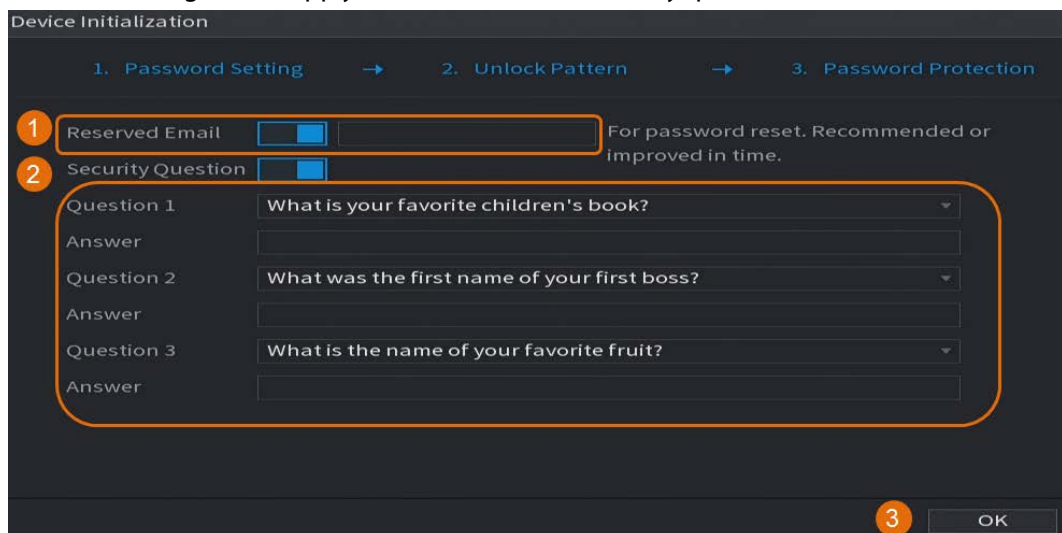


- The pattern that you want to set must cross at least four points.
- If you do not want to configure the unlock pattern, click **Skip**.
- Once you have configured the unlock pattern, it will be used as the default authentication method. If you skip this setting, enter the password for login.

**Step 8** (Optional) Apply reserved email and security questions to the NVR.

- Enable **Reserved Email** and enter the email address.
- Enable **Security Question** and select questions from the drop-down lists for **Question 1**, **Question 2**, and **Question 3**, and then enter the answers to those questions.

Figure 1-5 Apply reserved email and security questions



**Step 9** Click **OK**.

## 1.3 Configuring Network

You can configure the basic network settings such as net mode, IP version, and IP address for the NVR.

**Step 1** Select **Main Menu > NETWORK > TCP/IP**.

**Step 2** Configure parameters.



You can also configure network parameters in the Startup Wizard.

Figure 1-6 TCP/IP

The screenshot shows a network configuration window titled 'NETWORK'. On the left is a sidebar with various network settings: TCP/IP (selected), Port, Wi-Fi, 3G/4G, DDNS, UPnP, Email, SNMP, Multicast, Alarm Center, Register, Switch, and P2P. The main area displays the 'TCP/IP' configuration. At the top, there's a table with columns: NIC Name, IP Address, Network..., NIC Member, Modify, and Unbind. The table contains one entry: NIC1, 192.168.1.100, Single NIC, 1. Below the table, the configuration fields are: IP Address (192.168.1.100), Default Gateway (192.168.1.1), MTU: 1500, MAC Address (00:00:00:00:00:00), Subnet Mask (255.255.255.0), and Mode: Static. There are also fields for IP Version (set to IPv4), Preferred DNS, Alternate DNS, Default Card (NIC1), and a Virtual Host checkbox (checked). At the bottom, there are buttons for 'Test', 'Apply', and 'Back'.

Table 1-2 TCP/IP parameters

Parameter	Description
IP Version	In the <b>IP Version</b> list, you can select <b>IPv4</b> or <b>IPv6</b> . Both versions are supported for access.
MAC Address	Displays the MAC address of the NVR.
DHCP	Enable the DHCP function. The IP address, subnet mask and default gateway are not available for configuration once DHCP is enabled. <ul style="list-style-type: none"><li>• If DHCP is effective, the obtained information will be displayed in the <b>IP Address</b>, <b>Subnet Mask</b> and <b>Default Gateway</b>. If not, all values show 0.0.0.0.</li><li>• If PPPoE connection is successful, the IP address, subnet mask, default gateway, and DHCP are not available for configuration.</li></ul>
IP Address	Enter the IP address and configure the corresponding subnet mask and default gateway.  IP address and default gateway must be in the same network segment.
Subnet Mask	
Default Gateway	
Preferred DNS	Enter the IP address of DNS.
Alternate DNS	Enter the IP address of alternate DNS.



Parameter	Description
MTU	<p>Enter a value for network card. The value ranges from 1280 byte to 1500 byte. The default is 1500.</p> <p>The suggested MTU values are as below.</p> <ul style="list-style-type: none"> <li>• 1500: The biggest value of Ethernet information package. This value is typically selected if there is no PPPoE or VPN connection, and it is also the default value of some routers, network adapters and switches.</li> <li>• 1492: Optimized value for PPPoE.</li> <li>• 1468: Optimized value for DHCP.</li> <li>• 1450: Optimized value for VPN.</li> </ul>
Test	Click <b>Test</b> to test if the entered IP address and gateway are interworking.

Step 3 Click **OK**.

## 1.4 Adding IP Camera

You can add an IP camera by search result or by manually entering IP information.



Cameras you want to add must be in the same network with the NVR.

### 1.4.1 Initializing IP Camera

The topic shows how to initialize new cameras or the cameras after restoring factory defaults.

#### Background Information

The IP camera shall be initialized before connecting to an NVR, otherwise the connection will fail. The initialization will change IP camera's login password and IP address.



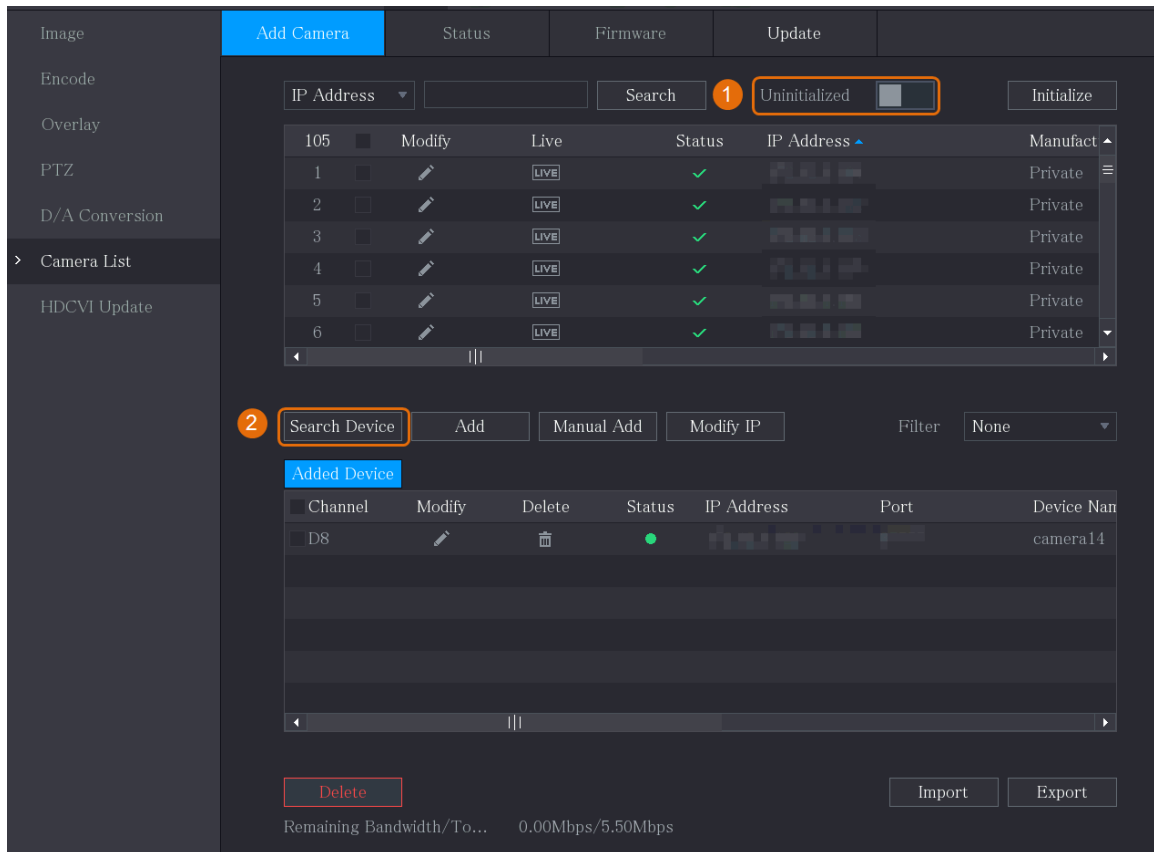
When connect a camera to the NVR through PoE port, the NVR will automatically initialize the camera. And the camera adopts the password and email information of the NVR by default.

#### Procedure

Step 1 Select **Main Menu > Camera > Camera List > Add Camera**.

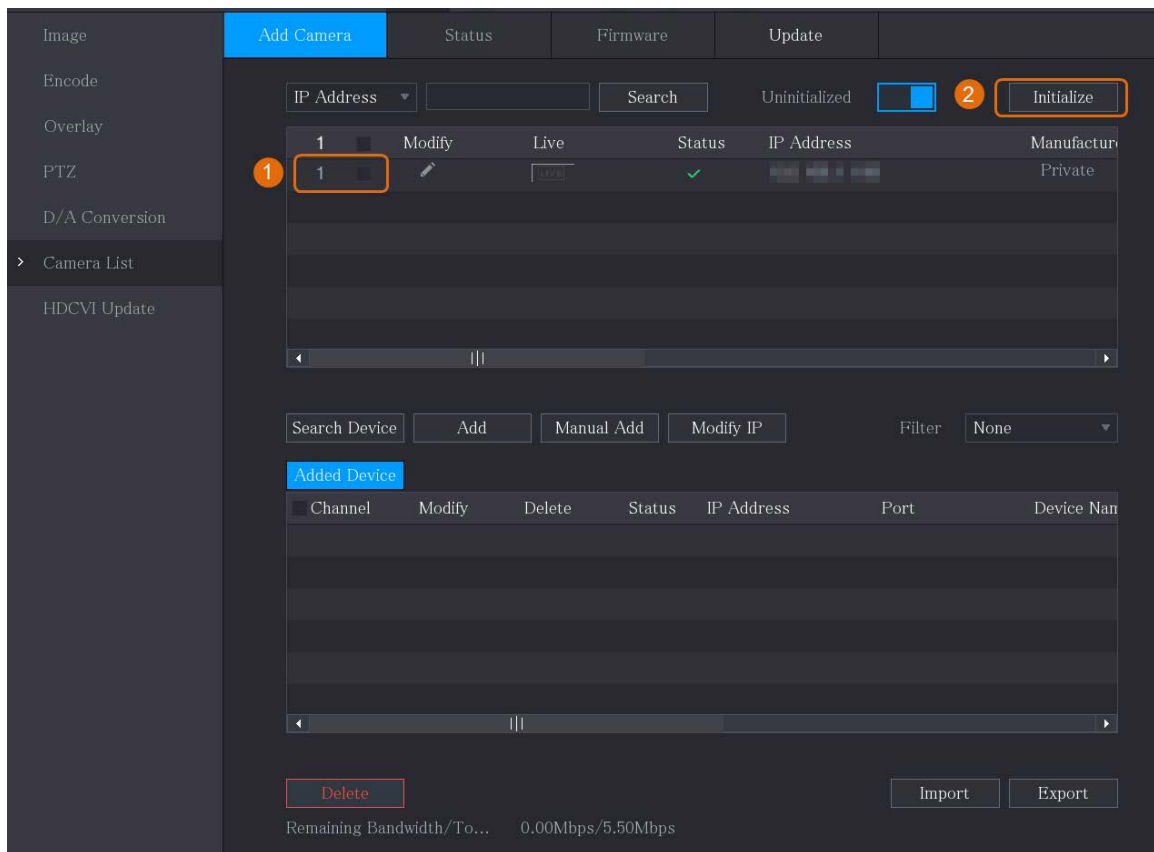
Step 2 Enable **Uninitialized**, and then click **Search Device**.

Figure 1-7 Search uninitialized device



**Step 3** Select the camera to be initialized and then click **Initialize**.

Figure 1-8 Initialize the camera



**Step 4** Apply password and email information to the IP camera.

- Use the NVR's settings.

1. Select **Using current device password and email info..**



This check box is selected by default.

Figure 1-9 Apply device settings

2. Click **Next**.

- Manually set password and email information.
  1. Cancel **Using current device password and email info..**

Figure 1-10 Set password

2. Set password.

Table 1-3 Password

Parameter	Description
User	The default value is <b>admin</b> that cannot be changed.
Password	The new password can be set from 8 characters to 32 characters and contains at least two types from numbers, letters and special characters (excluding "'", '"', ";", ":" and "&").  Enter a strong password according to the password strength bar indication.
Confirm Password	

3. Click **Next**.
4. Enter an email address and click **Next**.

Figure 1-11 Set email information

Step 5 Configure camera IP address.

- Select **DHCP** if there is a DHCP server deployed.
- Select **Static**, and then input IP address, subnet mask, default gateway and incremental value.



Set the incremental value when you need to change IP addresses of multiple cameras at one time. The NVR will incrementally add the value on to the fourth section of the IP address when allocate IP addresses for those cameras.

Figure 1-12 Configure IP address

The screenshot shows a 'NETWORK' configuration window. At the top, it says 'Checked Device No.: 1'. Below this, there are two radio buttons: 'DHCP' (unselected) and 'STATIC' (selected). Under the 'STATIC' option, there are three input fields for 'IP Address', 'Subnet Mask', and 'Default Gateway'. To the right of these fields is an 'Incremental Value' field set to '1'. Below the input fields is a table with one row and one column, containing the value '1'. At the bottom of the window, there are three buttons: 'Back', 'Next', and 'Skip'.

1	IP Address
1	

- Step 6 Click **Next**.  
Wait 1–2 minutes for the initialization to complete.
- Step 7 Click **Finished**.

## 1.4.2 Adding IP Camera by Search Result

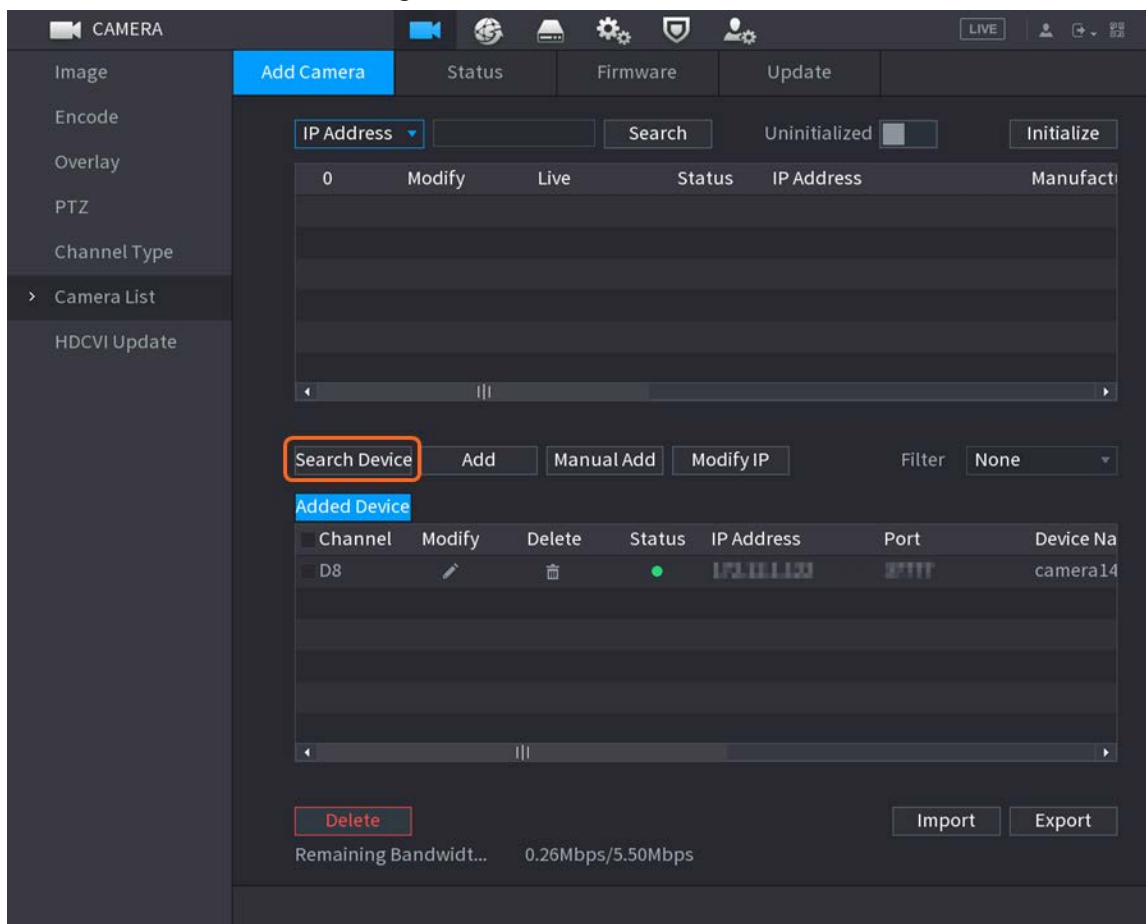
### Prerequisites

Make sure that the cameras you want to add have already been initialized and connected to the right network.

### Procedure

- Step 1 Select **Main Menu > CAMERA > Camera List > Add Camera**.
- Step 2 Click **Search Device**.

Figure 1-13 Search device



**Step 3** Add IP cameras.

- Add by double-click: Double-click the target camera to add it to **Added Device** list.



You can add only one camera by search result at one time.

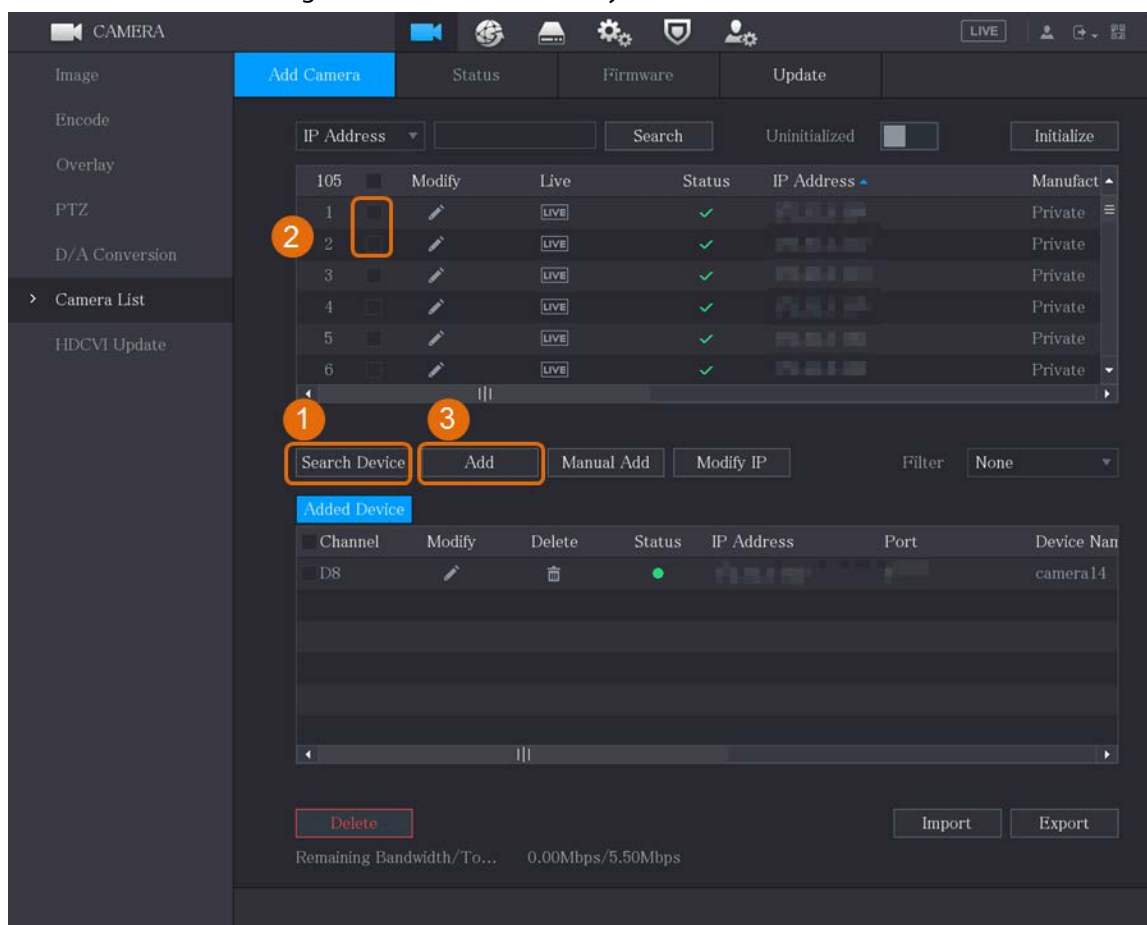
- Add by check box: Select the check box of the target camera, and then click **Add** to add it to **Added Device** list.





You can select more than one check box and add cameras in batches.

Figure 1-14 Add IP camera by search result



## Result

- If the status of the added camera is green (●), it indicates the camera is properly added to the NVR.
- If the status of the added camera is red (●), it indicates connection failure between the camera and the NVR. Check the parameters of the camera such as password, protocol and channel number, and then try adding it again.

## 1.4.3 Manually Adding IP Camera

You can add an IP camera by IP information at one time.

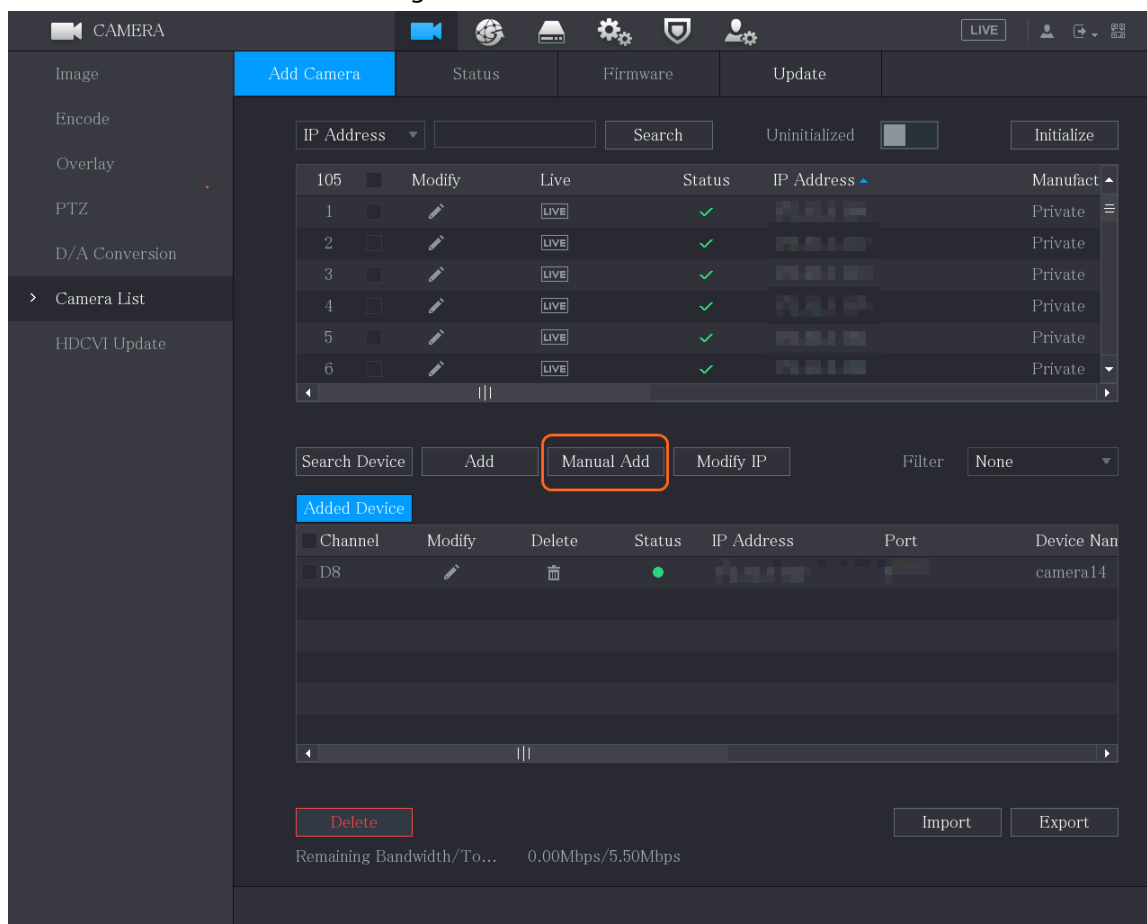
### Prerequisites

Make sure that the cameras you want to add have already been initialized and connected to the right network.

### Procedure

- Step 1 Select **Main Menu > CAMERA > Camera List > Add Camera**.
- Step 2 Click **Manual Add**.

Figure 1-15 Manual add



Step 3 In the **Manual Add** dialog box, configure parameters.

Figure 1-16 Configure manual add parameters

Manual Add

Channel: D8

Manufacturer: ONVIF

IP Address:

RTSP Port: Self-adaptive

HTTP Port: 80

Username: admin

Password:

Connect

Total Channels: 1

Setting

Remote CH No.: D1



Decode Strategy: General


Encryption: ☒

☒ Auto ☐ TCP ☐ UDP ☐ MULTICAST

OK Cancel

Table 1-4 Manual add parameters

Parameter	Description
Channel	From the <b>Channel</b> drop-down list, select the channel that you want use on the NVR to connect the remote device.
Manufacturer	From the <b>Manufacturer</b> drop-down list, select the manufacturer of the remote device.
IP Address	In the <b>IP Address</b> field, enter the IP address of the IP camera.  Change the default value (192.168.0.0) which the system cannot connect to.
RTSP Port	The default value is 554. You can change the value as needed.
HTTP Port	The default value is 80. You can change the value as needed.  If you enter another value, for example, 70, and then you should enter 70 after the IP address when logging in to the NVR by browser.
TCP Port	The default value is 37777. You can change the value as needed.
Username	Enter the username of the remote device.
Password	Enter the password of the user for the remote device.
Remote CH No.	Enter the remote channel number of the remote device that you want to add.
Decoder Strategy	In the <b>Decoder Strategy</b> list, select <b>Default</b> , <b>Realtime</b> , or <b>Fluent</b> as needed.

Parameter	Description
Protocol Type	<ul style="list-style-type: none"> <li>• If the IP camera is added through private protocol, select <b>TCP</b>.</li> <li>• If the IP camera is added through ONVIF protocol, the select <b>Auto</b>, <b>TCP</b>, <b>UDP</b>, or <b>MULTICAST</b>.</li> <li>• If the IP camera is added through other manufacturers, select <b>TCP</b> or <b>UDP</b>.</li> </ul>
Encryption	<p>If the IP camera is added through ONVIF protocol, enabling the <b>Encryption</b> check box will provide encryption protection to the data being transmitted.</p> <p></p> <p>To use this function, the HTTPS function must be enabled for the remote IP camera.</p>

Step 4 Click OK.

## 1.5 Configuring Recorded Video Storage Schedule

By default, all cameras continuously record videos 24 hours a day. You can modify the settings as needed.



You can also configure storage schedule in the Startup Wizard.

### Procedure


Step 1 Select **Main Menu > STORAGE > Schedule > Record**.

Figure 1-17 Record schedule




Step 2 Configure parameters.

Table 1-5 Record parameters

Parameter	Description
Channel	From the <b>Channel</b> drop-down list, select the channel to change video recording settings for.
Pre-record	In the <b>Pre-record</b> field, set the time for capturing extra video that occurs before an event to provide context to a recording. Value range: 0 to 30 s.
Redundancy	<p>Allows users to set one of the HDDs as the redundant HDD to save the recorded files into different HDDs. In case of HDD failure, you can find the backup recording in the redundant HDD.</p> <ul style="list-style-type: none"> <li>• Select <b>Main Menu &gt; STORAGE &gt; Disk Manager</b>, and then set a HDD as the redundant HDD.</li> <li>• Select <b>Main Menu &gt; STORAGE &gt; Schedule &gt; Record</b>, and then select the <b>Redundancy</b> check box. <ul style="list-style-type: none"> <li>◇ If the selected channel is not recording, the redundancy function takes effect next time you record no matter you select the check box or not.</li> <li>◇ If the selected channel is recording, the current recorded files will be packed, and then start recording according to the new schedule.</li> </ul> </li> </ul> <p></p> <ul style="list-style-type: none"> <li>• This function is available on select models.</li> <li>• The redundant HDD only backs up the recorded videos but not snapshots.</li> </ul>
Event type	<p>Select the check box of the event types.</p> <ul style="list-style-type: none"> <li>• <b>General</b>: General recording means that the NVR records all videos for the specified time frame. General recording is represented by the color green.</li> <li>• <b>Motion</b>: Motion recording means that the NVR records video only when the motion detection is triggered. Motion recording is represented by the color yellow.</li> <li>• <b>Alarm</b>: Alarm recording means that the NVR records video when an alarm is triggered. Alarm recording is represented by the color red.</li> <li>• <b>M&amp;A</b>: M&amp;A recording combines motion recording and alarm recording. The device records video when the motion detection or any alarm is triggered. M&amp;A recording is represented by the color orange.</li> <li>• <b>Intelligent</b>: Intelligent recording means that the NVR records video when the smart detection is triggered. Intelligent recording is represented by the color blue.</li> <li>• <b>POS</b>: POS recording means that the NVR records video when the POS machine is used to make a payment. POS recording is represented by the color purple.</li> </ul>
Period	<p>Defines a period during which the configured recording setting is active. The system only activates the alarm in the defined period.</p>

Parameter	Description
Copy to	Click <b>Copy to</b> to copy the settings to other channels.

**Step 3** Set the schedule by drawing or editing.

- Drawing: Press and hold the left button of the mouse and drag the mouse to draw the period.
- Editing: Click  to configure the period and then click **OK**.

**Step 4** Click **Apply**.



The configured record schedule can come into effect only when the auto record function is enabled. For details to enable auto record, see User's Manual.

## 1.6 Configuring P2P Settings

You can use the QR code to connect a smart phone to the NVR for management.



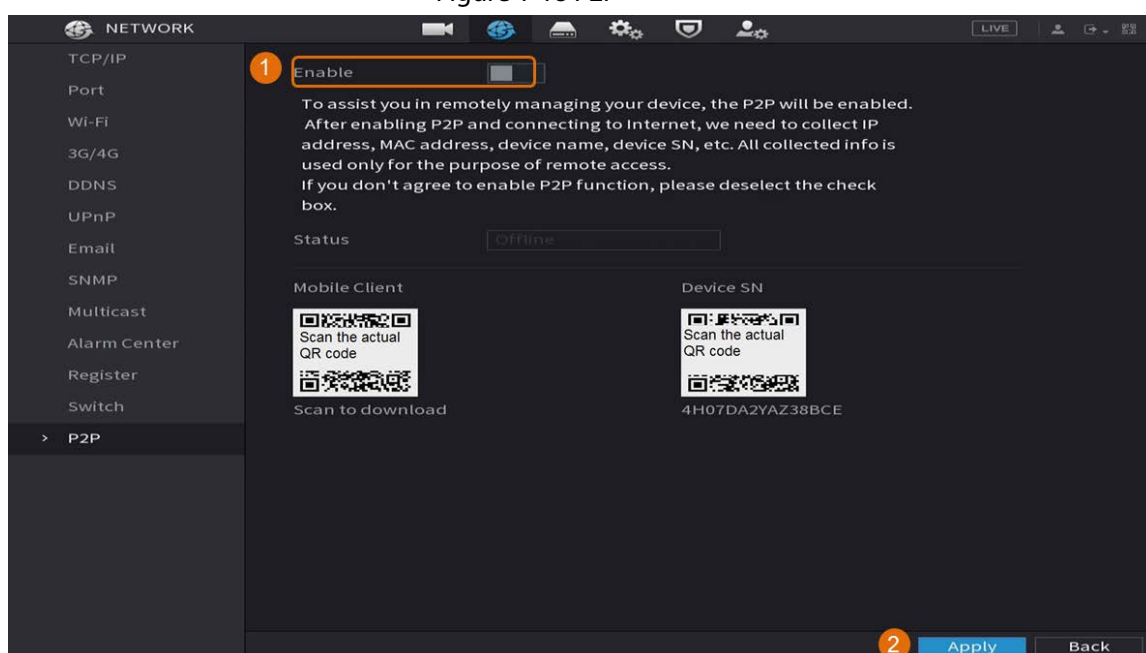
Make sure that the NVR has been connected to the Internet, and if yes, in the **Status** box of the P2P interface, it shows **Online**.

### 1.6.1 Enabling P2P Function

You need to enter P2P interface to enable P2P function and scan the QR code to download the smart phone application.

**Step 1** Select **Main Menu > NETWORK > P2P**.

Figure 1-18 P2P



**Step 2** Click **Enable** to enable P2P function.

**Step 3** Click **Apply**



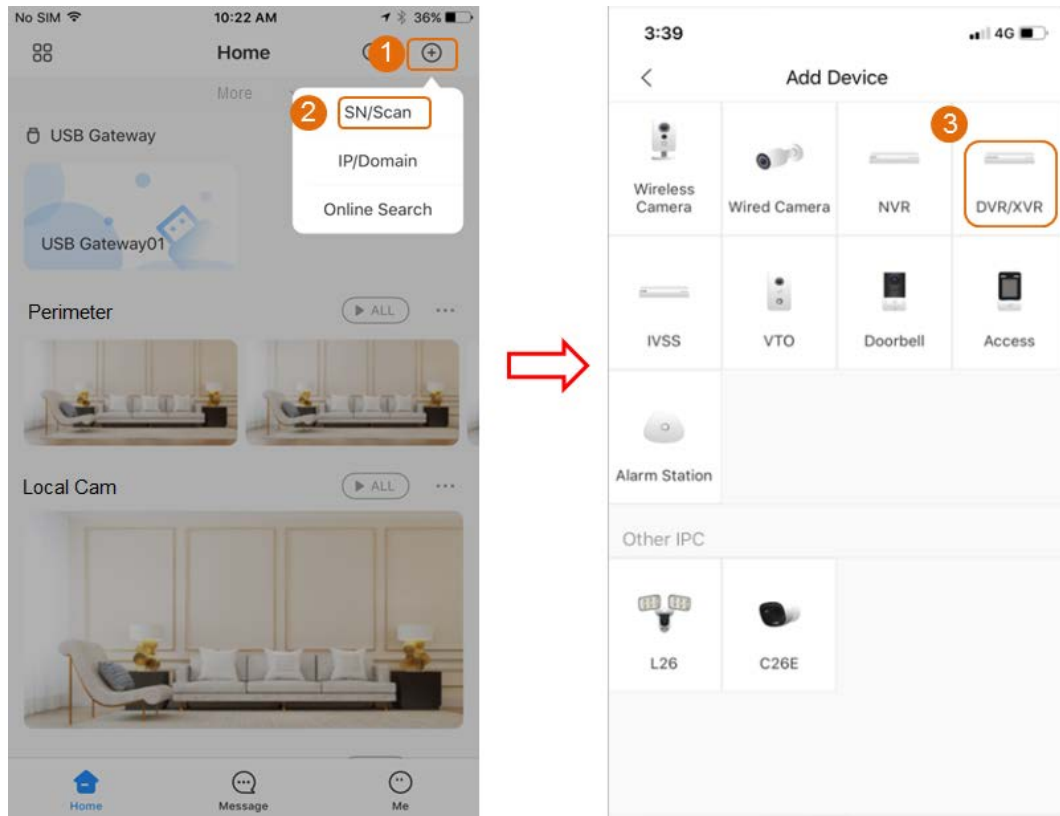
## 1.6.2 Adding the NVR to Smart Phone Client

This topic takes adding the NVR to smart phone client as an example for smart phone management.

Step 1 Open the application and tap .

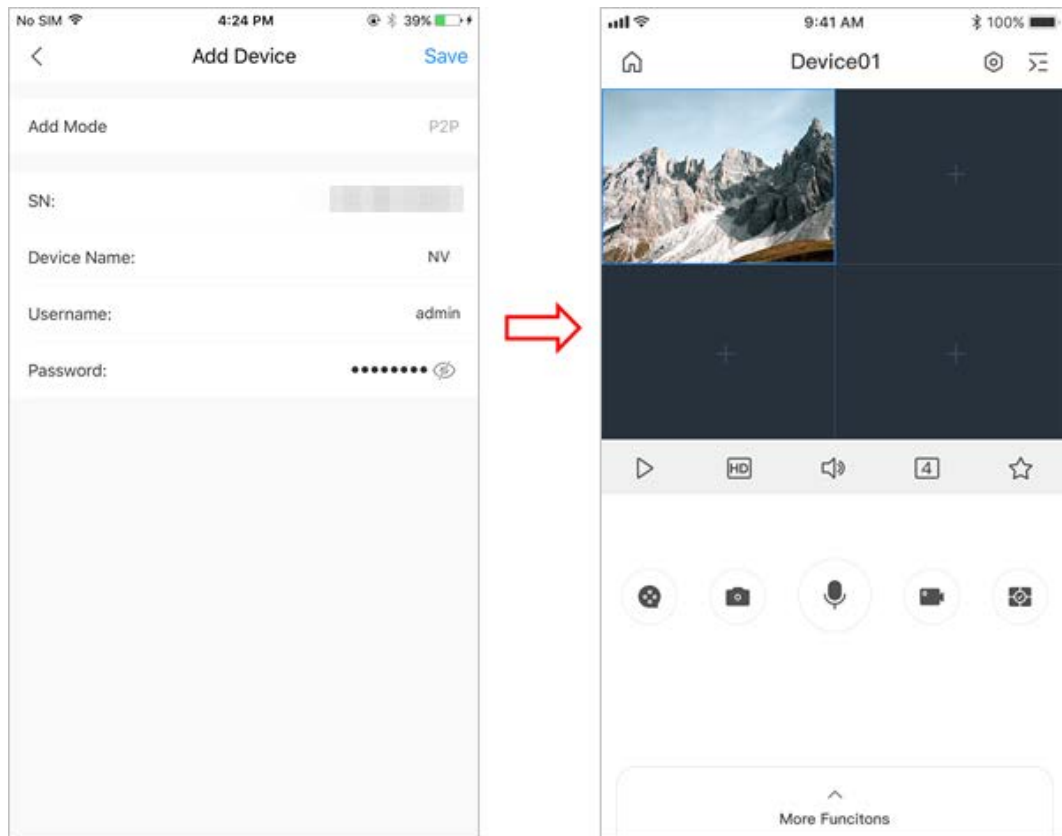
Step 2 Select **SN/Scan**.

Figure 1-19 Add device



Step 3 Select , enter a name and password for the NVR, and then tap **Save**.

Figure 1-20 Start live view



## 1.7 Smart Motion Detection

This topic shows how to configure Smart Motion Detection (SMD).

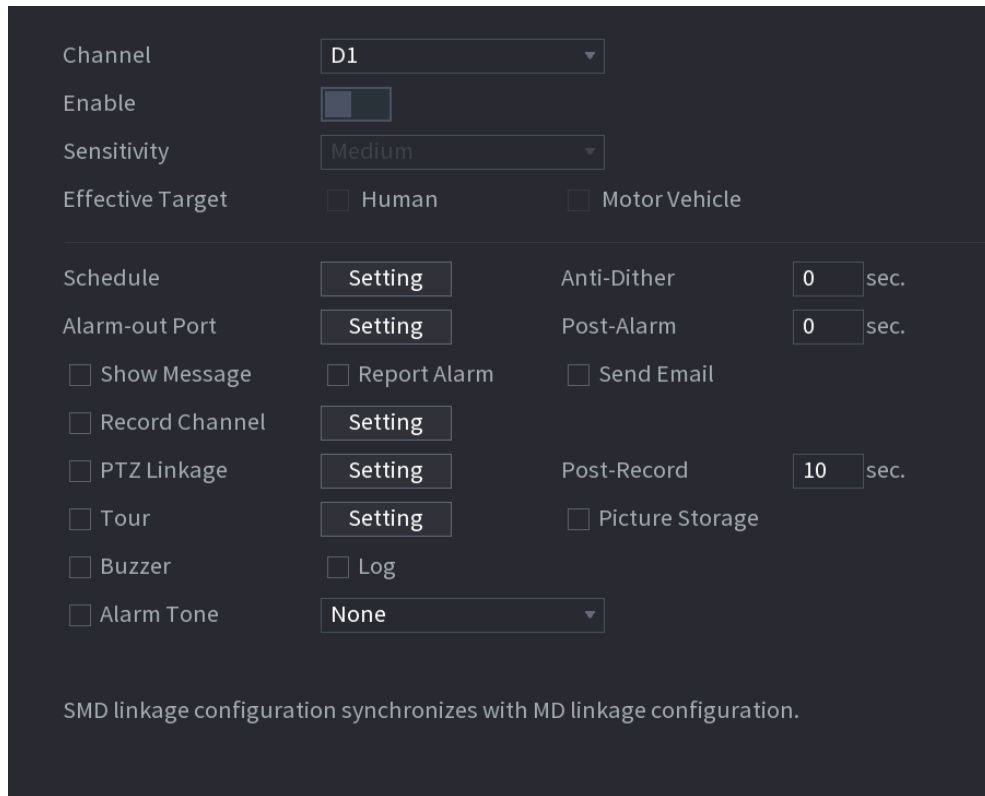
### Background Information

The Smart Motion Detection (SMD) is an ideal monitoring feature for low populated areas where you want an alert for human or vehicles anywhere in the scene without having to set rules and draw lines.

### Procedure

Step 1 Select **Main Menu > AI > Parameter > SMD**.

Figure 1-21 SMD



Channel: D1

Enable: ☒

Sensitivity: Medium

Effective Target: ☐ Human ☐ Motor Vehicle

Schedule: Setting

Anti-Dither: 0 sec.

Alarm-out Port: Setting

Post-Alarm: 0 sec.

☐ Show Message ☐ Report Alarm ☐ Send Email

☐ Record Channel: Setting

☐ PTZ Linkage: Setting

Post-Record: 10 sec.

☐ Tour: Setting

☐ Picture Storage


☐ Buzzer ☐ Log







☐ Alarm Tone: None

SMD linkage configuration synchronizes with MD linkage configuration.

**Step 2** Select and enable a channel, and then configure parameters.

Table 1-6

Parameter	Description
Sensitivity	The higher the value is, the easier it is to trigger an alarm. But at the same time, the false alarm may occur. The default value is recommended.
Effective Target	Choose human or motor vehicle or both.
Schedule	Configure the period and in the set time range, the corresponding configuration item will be linked to start the alarm.
Anti-Dither	Indicates the time taken from the end of motion detection to the end of alarm linkage action. The range is 0 to 600 seconds.
Alarm-out Port	The alarm device (such as lights, sirens, etc.) is connected to the alarm output port. When an alarm occurs, the NVR device transmits the alarm information to the alarm device.
Post-Alarm	When the alarm ends, the alarm extended for a period of time. The time range is from 0 seconds to 300 seconds.
Show Message	Check box to enable a pop-up message in your local host PC.
Report Alarm	<p>Select the check box. When an alarm occurs, the NVR device uploads an alarm signal to the network (including the alarm center).</p> <p></p> <ul style="list-style-type: none"> <li>This function is available on select models.</li> <li>You need to set the alarm center first.</li> </ul>

Parameter	Description
Send Email	<p>Select the check box. When an alarm occurs, the NVR device sends an email to the set mailbox to notify the user.</p>  <p>You need to set the email first.</p>
Record Channel	<p>Select the check box and select the needed recording channel (support multiple choices). When an alarm occurs, the NVR device activates the channel for recording.</p>  <p>You need to enable intelligent recording and auto recording first.</p>
Post-Record	<p>At the end of the alarm, the recording extends for a period of time. The time range is from 10 seconds to 300 seconds.</p>
PTZ Linkage	<p>Select the check box and click Setting to select the channel and PTZ action. When an alarm occurs, the NVR device associates the channel to perform the corresponding PTZ action. For example, activate the PTZ in channel one to turn to the preset point X.</p>  <ul style="list-style-type: none"> <li>• Tripwire alarm supports to activate PTZ preset point only.</li> <li>• You need to set the corresponding PTZ actions first.</li> </ul>
Tour	<p>Select the check box and select the channel for tour. When an alarm occurs, the local interface of the NVR device displays the selected channel screen.</p>  <ul style="list-style-type: none"> <li>• You need to set the time interval and mode for tour first.</li> <li>• After the tour is over, the preview interface is restored to the screen split mode before the tour.</li> </ul>
Picture Storage	<p>Select the Snapshot check box to take a snapshot of the selected channel.</p>  <p>To use this function, select <b>Main Menu &gt; CAMERA &gt; Encode &gt; Snapshot</b>, select <b>Event</b> in <b>Type</b> list.</p>
Buzzer	<p>Select the check box to activate the buzzer when an alarm occurs.</p>
Alarm Tone	<p>Check the box and then select the corresponding audio file from the drop-down list. System plays the audio file when the alarm occurs.</p>  <p>You need to add audio file first.</p>

Step 3 Click **Apply**.

## 1.8 Live View

After you logged in, the system goes to multiple-channel live view mode by default. You can view the monitoring video of each channel. Note that the number of displayed window may vary model

to model.

To enter the live view screen from other interfaces, click  at the upper-right of the screen.

Figure 1-22 Live view







## Live View Screen

You can view the live video from the connected cameras through each channel on the screen.

- By default, the system time, channel name and channel number are displayed on each channel window. This setting can be configured by selecting **Main Menu > CAMERA > Overlay > Overlay**.
- The figure at the lower-right corner represents channel number. If the channel position is changed or the channel name is modified, you can recognize the channel number by this figure and then perform the operations such as record query and playback.

For the icons displayed on each channel, see Table 1-7.

Table 1-7 Icon description

Icon	Description
	Video is being recorded.
	Motion detection occurs in the scene.
	Video loss is detected.
	Channel monitoring is locked.

## 1.9 Recording Playback

To play back a recording, you can select **Main Menu > Playback** or right-click on the live view interface and select **Search**.


Figure 1-23 Playback main interface



For details about the instructions on playback main interface, see *User's Manual*.

### Instant Playback

You can play back the previous 5 minutes to 60 minutes of the recorded video.

By clicking , the instant playback interface is displayed. The instant playback has the following features:

- Move the slider to choose the time you want to start playing.
- Play, pause and close playback.
- The information such as channel name and recording status icon are shielded during instant playback and will not display until exited.
- During playback, screen split layout switch is not allowed.

To change the playback time, select **Main Menu > SYSTEM > General > Basic**, in the **Instant Play** box, enter the time you want to play back.



Figure 1-24 Set instant playback time

The screenshot shows a web-based configuration interface for a system. The top navigation bar includes a 'SYSTEM' menu and several icons. Below the navigation bar, there are tabs for 'General', 'Basic', 'Date&Time', and 'Holiday'. The 'Basic' tab is currently selected. The main content area lists various configuration items with their corresponding values or controls:

- Device Name: XVR
- Device No.: 8
- Language: English (dropdown)
- Video Standard: PAL (dropdown)
- Sync Remote Device: ☒ (Include language, format and time zone)
- Instant Playback: 5 min. (highlighted with an orange box)
- Logout Time: 10 min. Non-login User Permission
- CAM Time Sync: ☒
- Interval: 24 hr.
- Navigation Bar: ☒
- Mouse Pointer Speed: A slider between Slow and Fast.

At the bottom right, there are 'Apply' and 'Back' buttons.

## Smart Search Playback

During playback, you can analyze a certain area to find if there was any motion detection event occurred. The system will display the images with motion events of the recorded video.



This function is for some series product only.

To use the Smart Search function, you need to enable the motion detection for the channel by selecting **Main Menu > ALARM > Video Detection > Motion Detection**.

## 2 Logging in to Web

The web provides most of the functions on local GUI. You can log in to web to manage the NVR as needed.



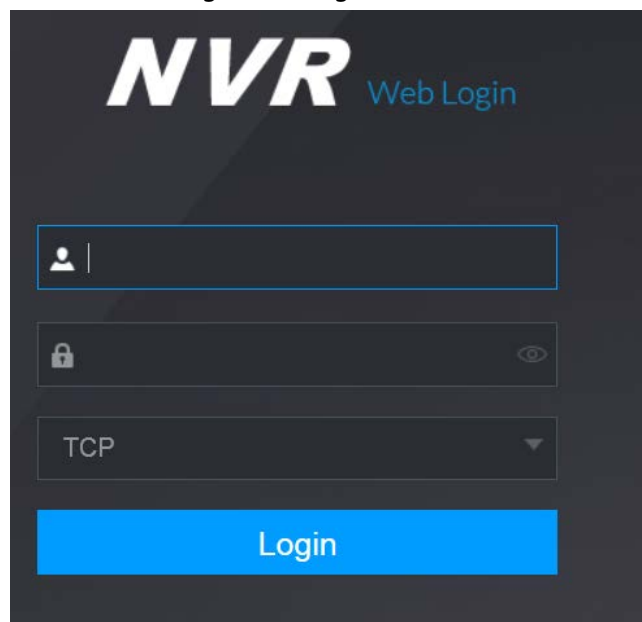
Slight difference might be found on the interfaces of different models. Following figures are for reference only. The actual product shall govern.


### Procedure

Step 1 Open the browser and enter the IP address of the NVR, and then press Enter key.

Step 2 Enter the username and password.

Figure 2-1 Login



- The default administrator account is **admin**. The password is the one that was configured during initial settings. To security your account, it is recommended to keep the password properly and change it regularly.
- Click  to display the password.

Step 3 Click **Login**.

# Appendix 1 Cybersecurity Recommendations

Cybersecurity is more than just a buzzword: it's something that pertains to every device that is connected to the internet. IP video surveillance is not immune to cyber risks, but taking basic steps toward protecting and strengthening networks and networked appliances will make them less susceptible to attacks. Below are some tips and recommendations on how to create a more secured security system.

## **Mandatory actions to be taken for basic equipment network security:**

### 1. Use Strong Passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters; character types include upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use overlapped characters, such as 111, aaa, etc.;

### 2. Update Firmware and Client Software in Time

- According to the standard procedure in Tech-industry, we recommend to keep your equipment (such as NVR, DVR, IP camera, etc.) firmware up-to-date to ensure the system is equipped with the latest security patches and fixes. When the equipment is connected to the public network, it is recommended to enable the **auto-check for updates** function to obtain timely information of firmware updates released by the manufacturer.
- We suggest that you download and use the latest version of client software.

## **"Nice to have" recommendations to improve your equipment network security:**

### 1. Physical Protection

We suggest that you perform physical protection to equipment, especially storage devices. For example, place the equipment in a special computer room and cabinet, and implement well-done access control permission and key management to prevent unauthorized personnel from carrying out physical contacts such as damaging hardware, unauthorized connection of removable equipment (such as USB flash disk, serial port), etc.

### 2. Change Passwords Regularly

We suggest that you change passwords regularly to reduce the risk of being guessed or cracked.

### 3. Set and Update Passwords Reset Information Timely

The equipment supports password reset function. Please set up related information for password reset in time, including the end user's mailbox and password protection questions. If the information changes, please modify it in time. When setting password protection questions, it is suggested not to use those that can be easily guessed.

### 4. Enable Account Lock

The account lock feature is enabled by default, and we recommend you to keep it on to guarantee the account security. If an attacker attempts to log in with the wrong password several times, the corresponding account and the source IP address will be locked.

### 5. Change Default HTTP and Other Service Ports

We suggest you to change default HTTP and other service ports into any set of numbers between 1024~65535, reducing the risk of outsiders being able to guess which ports you are using.

#### 6. Enable HTTPS

We suggest you to enable HTTPS, so that you visit Web service through a secure communication channel.

#### 7. Enable Allowlist

We suggest you to enable allowlist function to prevent everyone, except those with specified IP addresses, from accessing the system. Therefore, please be sure to add your computer's IP address and the accompanying equipment's IP address to the allowlist.

#### 8. MAC Address Binding

We recommend you to bind the IP and MAC address of the gateway to the equipment, thus reducing the risk of ARP spoofing.

#### 9. Assign Accounts and Privileges Reasonably

According to business and management requirements, reasonably add users and assign a minimum set of permissions to them.

#### 10. Disable Unnecessary Services and Choose Secure Modes

If not needed, it is recommended to turn off some services such as SNMP, SMTP, UPnP, etc., to reduce risks.

If necessary, it is highly recommended that you use safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption passwords and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up strong passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up strong passwords.

#### 11. Audio and Video Encrypted Transmission

If your audio and video data contents are very important or sensitive, we recommend that you use encrypted transmission function, to reduce the risk of audio and video data being stolen during transmission.

Reminder: encrypted transmission will cause some loss in transmission efficiency.

#### 12. Secure Auditing

- Check online users: we suggest that you check online users regularly to see if the NVR is logged in without authorization.
- Check equipment log: By viewing the logs, you can know the IP addresses that were used to log in to your devices and their key operations.

#### 13. Network Log

Due to the limited storage capacity of the equipment, the stored log is limited. If you need to save the log for a long time, it is recommended that you enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

#### 14. Construct a Safe Network Environment

In order to better ensure the safety of equipment and reduce potential cyber risks, we recommend:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network.
- The network should be partitioned and isolated according to the actual network needs. If there are no communication requirements between two sub networks, it is suggested to use VLAN, network GAP and other technologies to partition the network, so as to achieve the

network isolation effect.

- Establish the 802.1x access authentication system to reduce the risk of unauthorized access to private networks.

15. It is recommended that you enable your device's firewall or blocklist and allowlist feature to reduce the risk that your device might be attacked.

---

## 1.6 As-Built Drawings/Switchboard Schedules



DB-C2-LEVEL 3

SWITCHGEAR MIN RATING: 6kA	MAIN SWITCH:
CHASSIS SIZE: 32 POLE	SUPPLIED FROM: MSB Ground Floor
CHASSIS RATING:	SUPPLY CABLE: 25mm 4C & Earth
PHASES: 3	IP Rating: IP42


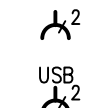







## DISTRIBUTION

[illegible]

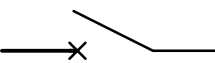
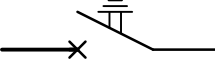
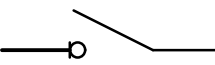
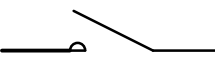

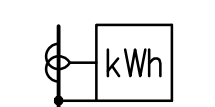
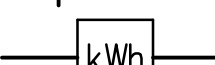
DB-C1-Ground					
SWITCHGEAR MIN RATING: 6kA			MAIN SWITCH:		
CHASSIS SIZE: 18/60 POLE			SUPPLIED FROM: MSB		
CHASSIS RATING:			SUPPLY CABLE: Internal		
PHASES: 3			IP Rating:		
LIGHTING DISTRIBUTION BOARD					
Pole No	CIRCUIT LOCATION	CIRCUIT PROTECTION	Pole No	CIRCUIT LOCATION	CIRCUIT PROTECTION
1	Lighting /Emergency - Basement 2 Driveway	16Amp RCBO	2	Lighting /Emergency - Basement 1 Driveway	16Amp RCBO
3	Lighting /Emergency - Basement 2 Carpark	16Amp RCBO	4	Lighting /Emergency - Basement 1 Carpark	16Amp RCBO
5	Lighting /Emergency - Ground Driveway	16Amp RCBO	6	Lighting /Emergency - BBQ Area, External LTS, Fire Pump Room	16Amp RCBO
7	Lighting/Emergency - Ground Carpark, MSB Room, Cooms Room	16Amp RCBO	8	Lighting - Ground Driveway Transition, Ext Garden Bed Lights	16Amp RCBO
9	Lighting/Emergency - Residents Lounge Area 1 Ground	16Amp RCBO	10	Lighting - Reception LED Strip & Sign	16Amp RCBO
11	Lighting/Emergency - Residents Lounge Area 2, Managers Office	16Amp RCBO	12	Lighting - Reception & Pendants	16Amp RCBO
13	Lighting/Emergency - Fire Stairs Ground, Basement 1 & 2	16Amp RCBO	14	Lighting - Pool Lighting	16Amp RCBO
15			16		
17			18	Control - Emerg Test, PE Cell, Time Clock	10Amp RCBO
POWER DISTRIBUTION BOARD					
Pole No	CIRCUIT LOCATION	CIRCUIT PROTECTION	Pole No	CIRCUIT LOCATION	CIRCUIT PROTECTION
1	Power- General Carpark B1, B2 & Fire Hyderant Room Ground	20Amp RCBO	2		
3	Power- General Carpark Ground, Bin Room & MSB Room, Irrigation	20Amp RCBO	4	Storm Water Pumps	20Amp MCB
5			6	Basement #2	
7			8		
9	Power - Air Conditioner	20Amp RCBO	10	Domestic Water Pumps	20Amp RCBO
11	Power - Swimming Pool, Cleaners Room, Fire Pump Room	20Amp RCBO	12	Basement #1	
13	Power - Air Conditioner	20Amp RCBO	14	Power - Hot Water PWD Bathroom	40A MCB
15	Power - Air Conditioner	20Amp RCBO	16	Power - Hot Water Cleaners Room	40A MCB
17	Power - Air Conditioner	32Amp RCBO	18	Power - Hot Water BBQ	32A MCB
19	Power - Mangers Office, Reception Desk, Auto Door	20Amp RCBO	20	Power - AMR, Irrigation at Side Entry	20Amp RCBO
21	Power - PWD Hand Dryer. Not used in ceiling	20Amp RCBO	22	Spare	20Amp RCBO
23	Power - Parcel Locker. Not used in ceiling	20Amp RCBO	24	Power - Fire Pump Battery Charger No. 1	20Amp RCBO
25	Power - Gym	20Amp RCBO	26	Power - Fire Pump Battery Charger No. 2	20Amp RCBO
27	Power - Gym	20Amp RCBO	28	Power - Jacking Pump Fire Pump Room	20Amp RCBO
29			30	Power - BBQ No.1 Right side	20Amp RCBO
31			32	Power - BBQ No.2 Left side	20Amp RCBO
33			34		
35			36		
37	Power - Security Panel in Comms Room	20Amp RCBO	38		
39	Power - Server Room Comms Rack Ground Non RCD	20A MCB	40	Power - Roller Door Carpark Ground	20Amp MCB
41	Power - Server Room Comms Rack Ground Non RCD	20A MCB	42	Power - Fire Indication Panel Ground Floor	20Amp MCB
43			44		
45			46		
47			48		
49			50		
51			52		
53			54		
55			56		
57			58	SEL Water Pumps	20A MCB
59			60	Basemnt #1	

ELECTRICAL LEGEND OF SYMBOLS







POWER

	GENERAL PURPOSE OUTLET – 10A SWITCHED SINGLE FLUSH MOUNTED 300 ABOVE FFL UNLESS NOTED OTHERWISE
	GENERAL PURPOSE OUTLET – 10A SWITCHED DOUBLE FLUSH MOUNTED 300 ABOVE FFL UNLESS NOTED OTHERWISE 10A SWITCHED GPO WITH USB SOCKET
	SINGLE PHASE PERMANENT CONNECTION – TERMINATED VIA ISOLATOR LOCATED ADJACENT EQUIPMENT LABELLED ACCORDINGLY
	THREE PHASE PERMANENT CONNECTION – TERMINATED VIA ISOLATOR LOCATED ADJACENT EQUIPMENT LABELLED ACCORDINGLY
	HARD WIRED CONNECTION – PROVIDE FIT-OFF TO EQUIPMENT OR J-BOX
	MAIN SWITCHBOARD
	DISTRIBUTION SWITCHBOARD
	SWITCHBOARD OR CONTROL PANEL BY OTHER TRADES COORDINATE ELECTRICAL CONNECTIONS WITH RESPECTIVE TRADE
	ELECTRICAL CABLE LADDER (MIN SIZE AS NOTED)






SINGLE LINE DIAGRAMS

	AUTO CIRCUIT BREAKER WITH ELECTRONIC TRIPPING
	EARTH LEAKAGE CIRCUIT BREAKER (THERMAL & MAGNETIC) 30mA TRIP UNLESS OTHERWISE STATED
	ISOLATOR – LOAD BREAK, FAULT MAKE
	CONTACTOR, MAKE CONTACT, NORMALLY OPEN
	CONTACTOR, BREAK CONTACT, NORMALLY CLOSED
	KILOWATT HOUR METER – WITH CURRENT TRANSFORMER
	KILOWATT HOUR METER – DIRECT CONNECTION

COMMUNICATIONS

	SINGLE DATA OUTLET
	DOUBLE DATA OUTLET
	APARTMENT NETWORK TERMINATION DEVICE
	APARTMENT MATV HUB
	PAY TV & FREE TO AIR TV OUTLETS
	COMMUNICATIONS CABLE TRAY (MIN SIZE AS NOTED)









SWITCHES & SENSORS

	10A LIGHT SWITCH *
	10A 2-WAY / 2-WAY INTERMEDIATE LIGHT SWITCH *
	10A LIGHT SWITCH C/W LED DIMMER MODULE *
	3-SPEED FAN CONTROLLER (PACKAGED WITH FANS – REFER FANS SECTION BELOW) *
	iAUTOMATION B.E.G 10m RANGE 360° MOTION SENSOR SURFACE MOUNTED OR RECESSED DEPENDANT ON CEILING TYPE
	* SWITCHES TO BE MOUNTED AT 1200 AFFL


FANS

	1200mmø 4-BLADE REVERSIBLE CEILING FAN MANUFACTURER: EGLO BONDI S2 (203624)
--	--











SECURITY & ACCESS CONTROL

	ACCESS CONTROL PANEL
	CARD/FOB READER
	CAR-PARK DOOR REMOTE RECEIVER
	CCTV MONITOR
	CEILING MOUNTED DOME TYPE CCTV CAMERA
	ELECTRIC DOOR STRIKE
	VISITOR'S ENTRY KEYPAD
	VISITOR INTERCOM (VIDEO TYPE)







FIRE DETECTION AND ALARMS

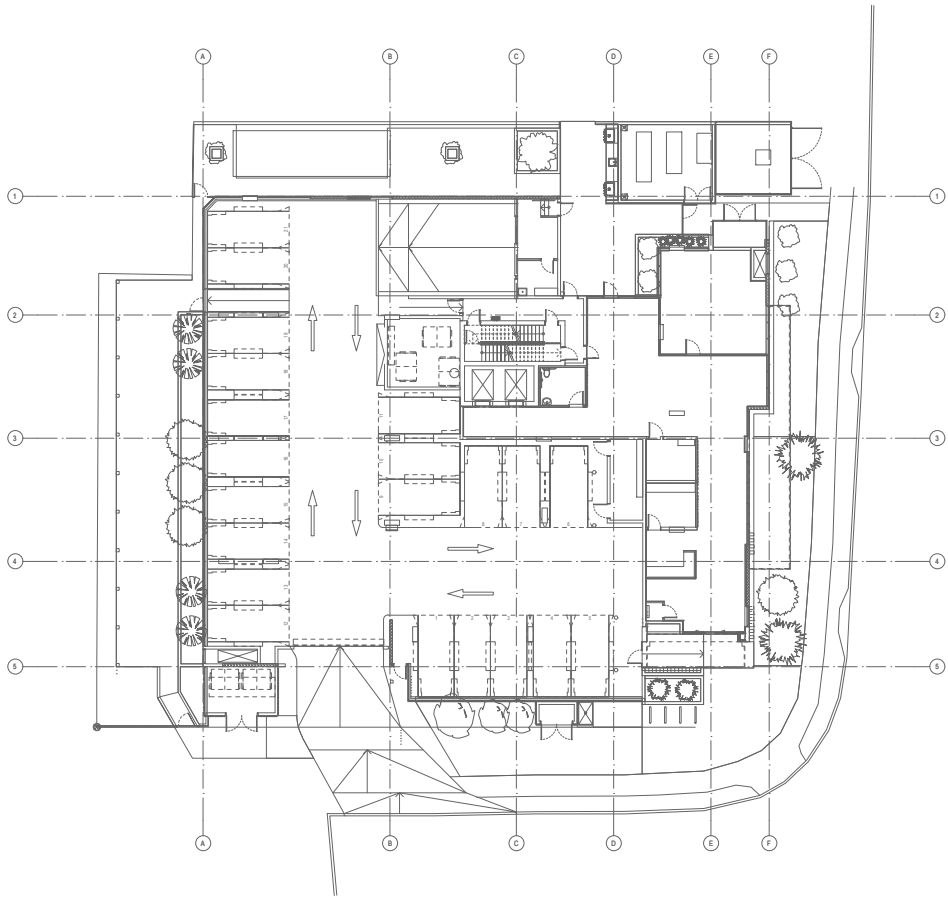
	240V PHOTOELECTRIC SMOKE ALARM TO AS/NZS 3768 (INTERLINKED WHEN MORE THAN ONE)
--	--

LIGHTING SCHEDULE

	D1	RECESSED LED DOWNLIGHT – 8W – 4000K – IP54 – 90° BEAM ANGLE LAMPADA DESTRO 8W
	D2	RECESSED LED DOWNLIGHT – 8W – 4000K – IP54 – 90° BEAM ANGLE LAMPADA DESTRO 8W
	D3	RECESSED LED DOWNLIGHT – 9W – 4000K – IP54 LAMPADA PREMIA 9W
	D4	SURFACE MOUNTED LED DOWNLIGHT – 10W – 4000K – IP44 LAMPADA LUNA 10W
	F1	SURFACE MOUNT 40W LED WEATHERPROOF BATTEN – 4000K – IP65 LAMPADA AQUILLO 40
	C1	SURFACE MOUNTED LED HIGH BAY – 150W – IP65 LAMPADA HIGLOW 150
	G1	OUTDOOR GARDEN SPIKE LED LIGHT – 35W MR16 – IP65 LAMPADA CANTINO S1
	P1	SUSPENDENT LED PENDANT – 140W LAMPADA SQUILLARE 140W GOLD
	P2	SUSPENDENT LED PENDANT – 140W EGLO INDOOR VINTAGE PENDANT LIGHT 49449
	SL1	SURFACE OR RECESSED 24V LED STRIP LIGHT – 9.6W/m LAMPADA NANO II 9.6W

EMERGENCY LIGHTING

	EM1	RECESSED LED NON MAINTAINED EMERGENCY LIGHT (C0:D40, C90:D40) LAMPADA VENUS RC
	EM2	SURFACE MOUNTED LED NON MAINTAINED EMERGENCY LIGHT (C0:D63, C90:D63) LAMPADA VENUS SM
	EM3	SURFACE MOUNTED LED NON MAINTAINED EMERGENCY LIGHT (C0:D40, C90:D40) LAMPADA IP35 SURFACE MOUNTED SPITFIRE
	F2E	SURFACE MOUNT 40W LED MAINTAINED EMERGENCY BATTEN – 4000K – IP65 (C0:D25, C90:D63) LAMPADA AQUILLO 40EM
	EX1	SURFACE MOUNTED 1W MAINTAINED LED EMERGENCY EXIT LIGHT (C0:D2.5, C90:D2) LAMPADA DEFENDER
	EX3	SURFACE MOUNTED 1W MAINTAINED LED EMERGENCY EXIT LIGHT – IP65 (C0:D2.5, C90:D2) LAMPADA PROTECTOR



SITE PLAN

SCALE 1:500

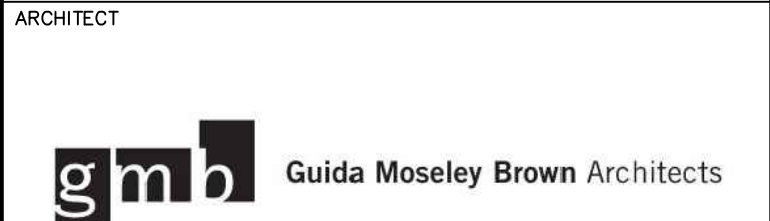
DRAWING SCHEDULE		
E000	SITE PLAN, LEGEND AND DRAWING SCHEDULE	
E100	BASEMENT 2 – LIGHTING AND POWER LAYOUT	
E101	BASEMENT 1 – LIGHTING AND POWER LAYOUT	
E102	GROUND – LIGHTING LAYOUT	
E103	LEVELS 2-4 – LIGHTING LAYOUT	
E104	LEVELS 5-9 – LIGHTING LAYOUT	
E105	ROOF – LIGHTING AND POWER LAYOUT	
E110	GROUND – POWER LAYOUT	
E111	LEVELS 2-4 – POWER LAYOUT	
E112	LEVELS 5-9 – POWER LAYOUT	
E200	SINGLE LINE SCHEMATICS – SHEET 1	
E201	SINGLE LINE SCHEMATICS – SHEET 2	
E202	NOT USED	
E203	SINGLE LINE SCHEMATICS – SHEET 4	
E400	APARTMENT 1A – LIGHTING AND POWER LAYOUT	
E401	APARTMENT 1B – LIGHTING AND POWER LAYOUT	
E402	APARTMENT 1C – LIGHTING AND POWER LAYOUT	
E403	APARTMENT 1D – LIGHTING AND POWER LAYOUT	
E404	APARTMENT 2A – LIGHTING AND POWER LAYOUT	
E405	APARTMENT 2B – LIGHTING AND POWER LAYOUT	
E406	APARTMENT 2E – LIGHTING AND POWER LAYOUT	
E407	APARTMENT 2F – LIGHTING AND POWER LAYOUT	
E408	APARTMENT 2G – LIGHTING AND POWER LAYOUT	


ABBREVIATIONS

A	AMP
AB	ABOVE BENCH
AD	AUTO DOOR
AFFL	ABOVE FINISHED FLOOR LEVEL
BWU	BOILING WATER UNIT
COMM	COMMUNICATIONS
CL	CLEANERS
CM	CEILING MOUNT
CT	GAS COOKTOP IGNITION OR ELEC COOKTOP SUPPLY
DB	DISTRIBUTION BOARD
DF	DRINKS REFRIGERATOR (UNDER-BENCH)
DS	DOUBLE SIDED (EXIT LIGHTS)
DW	DISHWASHER
EF	EXHAUST FAN
ELV	EXTRA LOW VOLTAGE
FB	FLOOR BOX
FFL	FINISHED FLOOR LEVEL
FS	FIRE SHUTTER
GD	GARAGE DOOR
GPO	GENERAL POWER OUTLET
HWU	HOT WATER UNIT
INS	INSINKERATOR
J	JOINERY MOUNTED EQUIPMENT
kWh	KILOWATT HOUR
LV	LOW VOLTAGE
L	LOCKABLE
MATV	MATV
MCB	MINIATURE CIRCUIT BREAKER
MCCB	MOULDED CASE CIRCUIT BREAKER
MBH	MAIN DISTRIBUTION FRAME
MCSB	MAIN SWITCHBOARD
MW	MICROWAVE
OV	OVEN / WALL OVEN
P	PENDANT
PH	PHASE
RF	REFRIGERATOR
RB	ROLLER BLINDS (POWERED)
RD	ROLLER DOOR
RCD	RESIDUAL CURRENT DEVICE
RH	RANGEHOOD
SO	SPEED OVEN
STO	STEAM OVEN
SWP	STORM WATER PUMP
TBC	TO BE CONFIRMED
TV	TELEVISION OUTLETS INSTALLED AT NOMINATED HEIGHT AFFL
UB	UNDER BENCH
U/S	UNDER-SIDE
V	VOLTS
WD	WASHER/DRYER
WP	WEATHERPROOF (IP56 RATED)
WM	WALL MOUNTED
ZIP	ZIP BOILING/CHILLED WATER UNIT
+000	DENOTES MOUNTING HEIGHT ABOVE FINISHED FLOOR LEVEL

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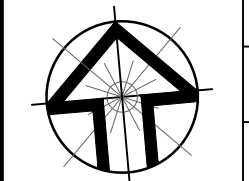
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REV.	DATE	DESCRIPTION	DRN	CHKD	



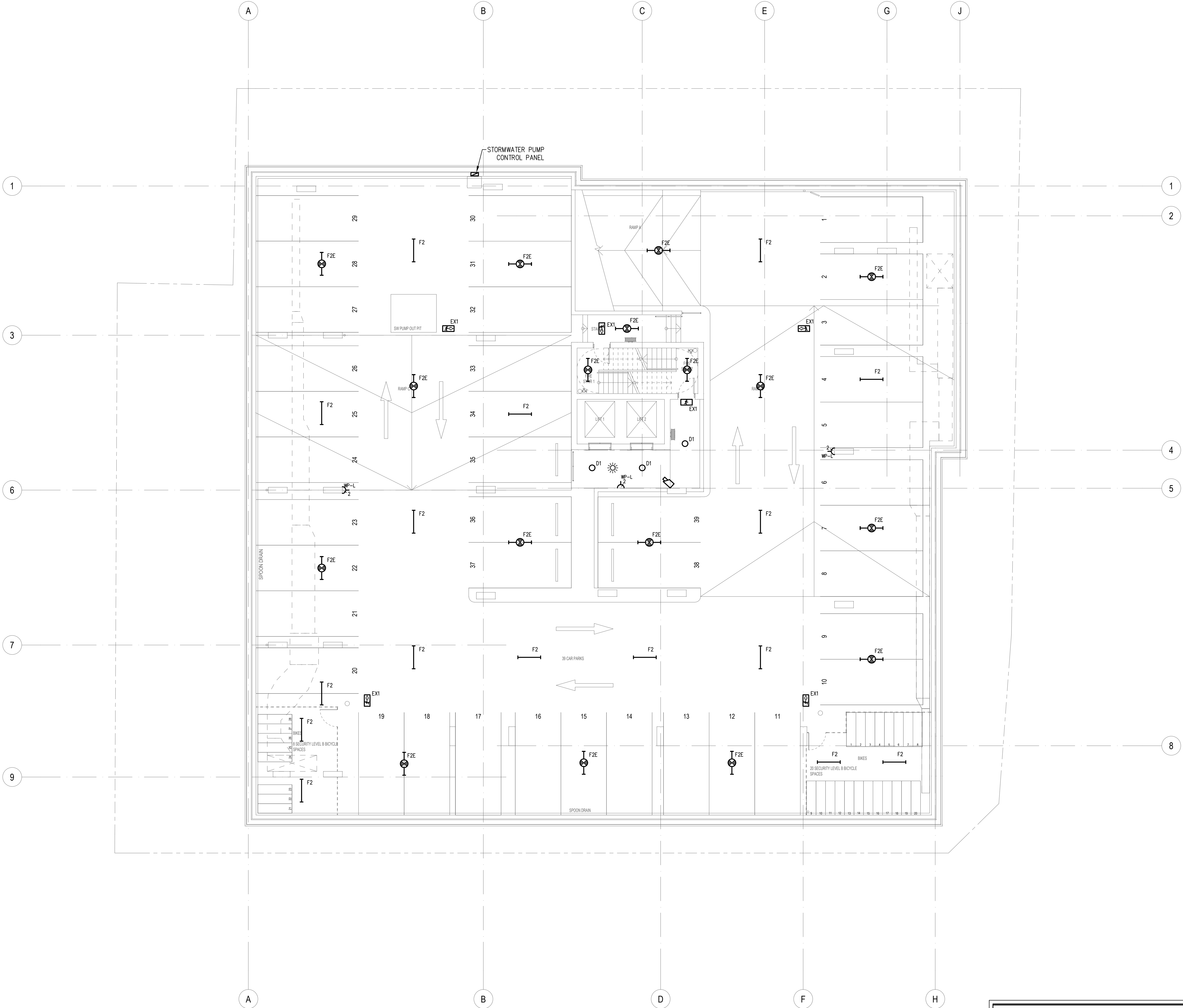
CONSULTANTS	
	CONSULTING ENGINEERS : MECHANICAL ELECTRICAL FIRE LIFTS HYDRAULICS LEVEL 1, 20 CAMBRIDGE ST, (PO BOX 288) COORPAROO QUEENSLAND 4151 Tel: (617)3240 3200 Fax: (617)3240 3299 Email : bca@bcaconsultants.com.au ACN No. 070 353 249

PROJECT  
MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING ELECTRICAL SERVICES  
SITE PLAN, LEGEND AND  
NOTES

NORTH POINT	CHECKED DE	DRG SCALE n.t.s
	DESIGNED DE	SHEET SIZE A1
	DRAWN SW	No IN SET 1 of 23
PROJECT No. 8655	DATE 21/12/2022	FILE NAME 8655-E000.dwg
JOB No. 8655	DRAWING No. E000	REV. 2

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PROJECT

MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING ELECTRICAL SERVICES  
BASEMENT LEVEL 2  
LIGHTING AND POWER  
LAYOUT

NORTH POINT

CHECKED DE

DESIGNED DE

DRAWN SW

DRG SCALE 1:100

SHEET SIZE A1

No IN SET 2 of 23

PROJECT No. 8655

DATE 29/11/2021

FILE NAME 8655-E100.dwg

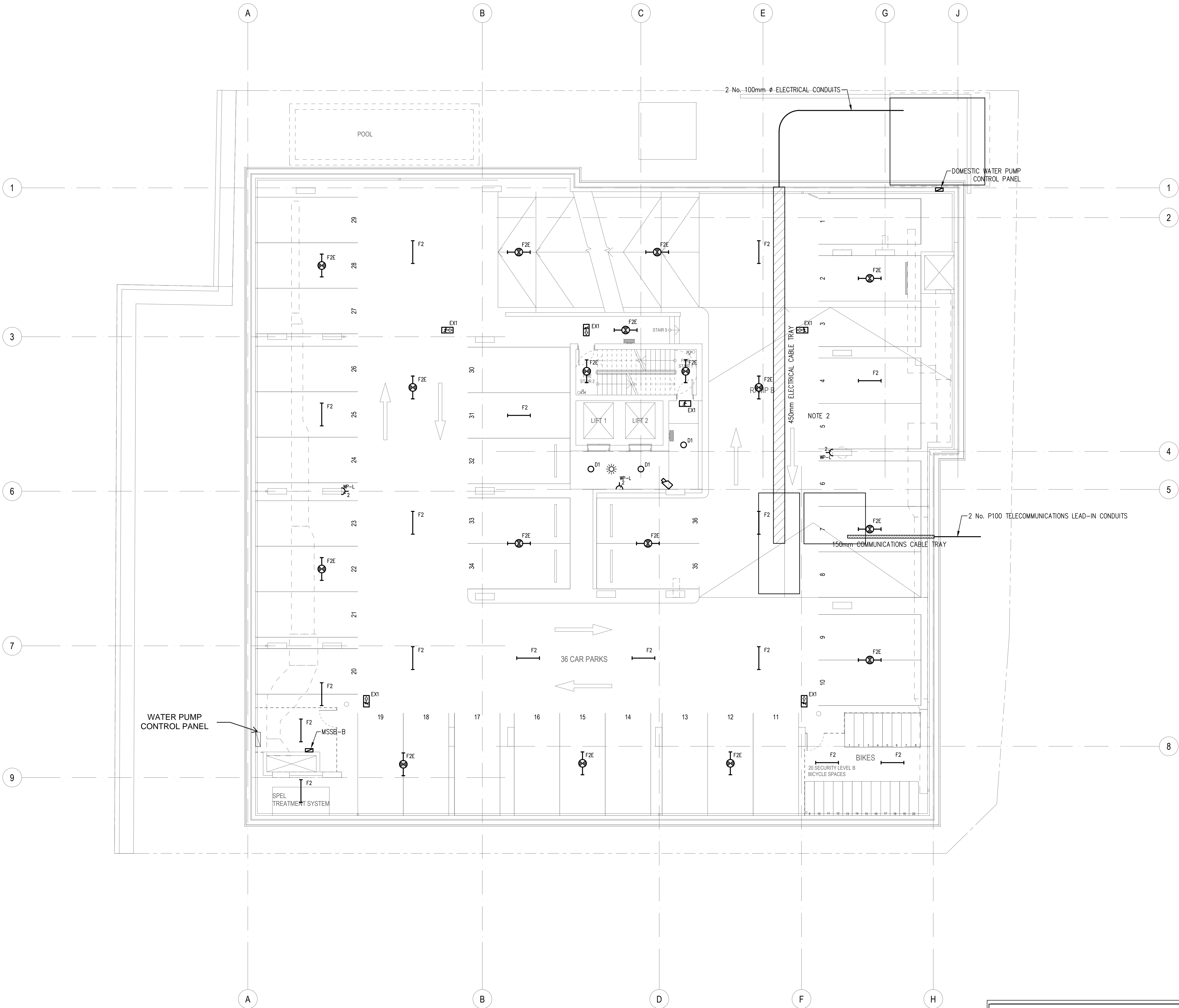
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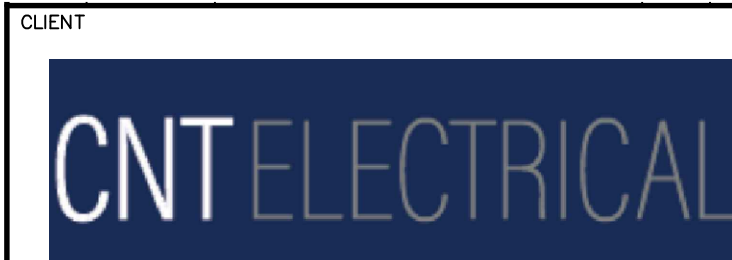
REV. 1

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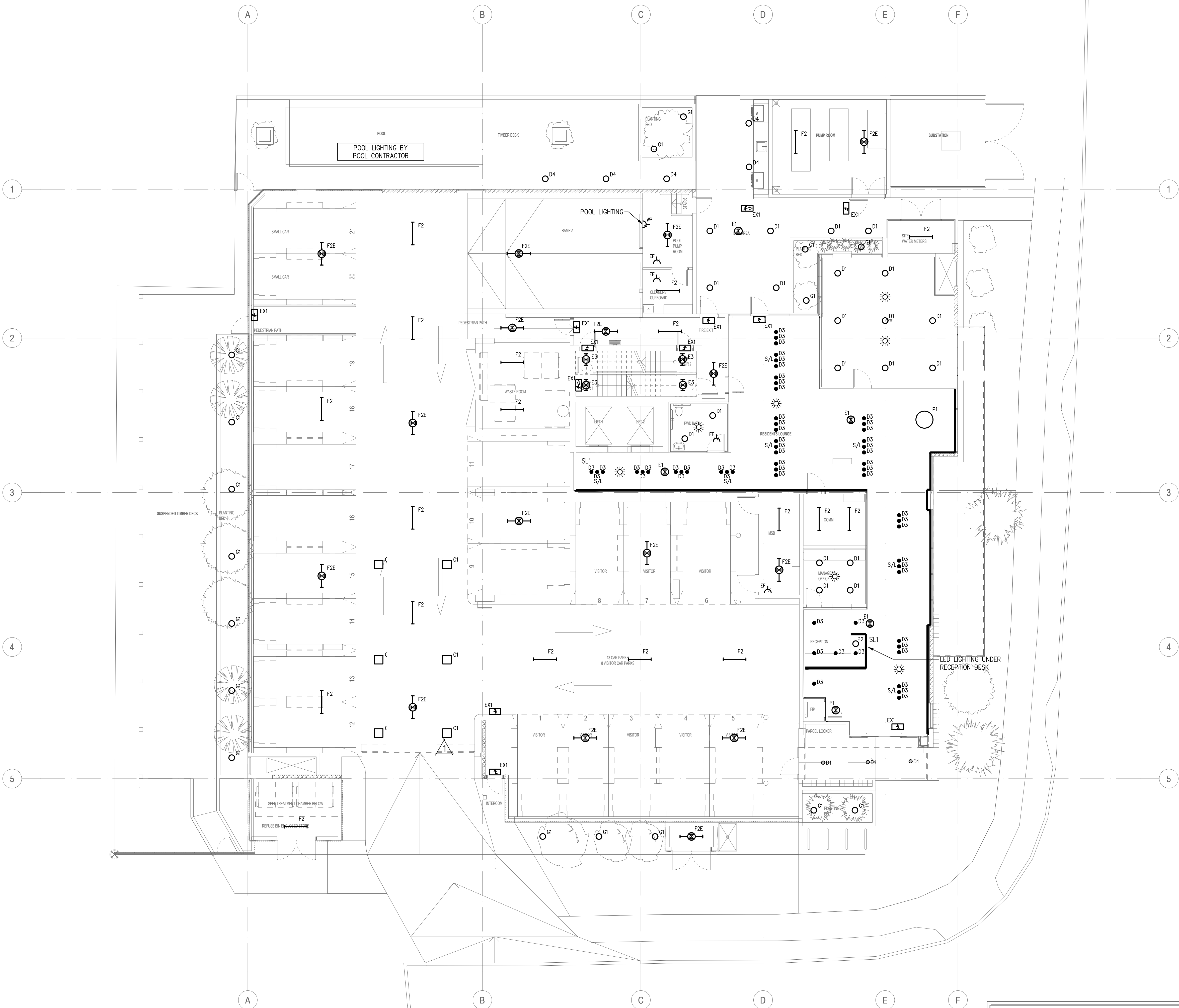


PROJECT  
MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING  
ELECTRICAL SERVICES  
BASEMENT LEVEL 1  
LIGHTING AND POWER  
LAYOUT

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		PROJECT No.	8655	DATE	29/11/2021
		JOB No.	8655	DRAWING No.	E101
				REV.	1

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ACN No. 070 353 249

PROJECT  
**MPG ESSENCE QLD**  
**18 REMEMBRANCE DRIVE,**  
**SURFERS PARADISE QLD**

DRAWING **ELECTRICAL SERVICES**  
**GROUND FLOOR**  
**LIGHTING LAYOUT**

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JOB No.	8655	DRAWING No.	E102	REV.	1

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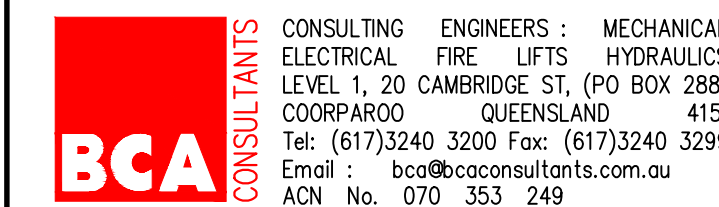
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PROJECT

MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING ELECTRICAL SERVICES  
LEVELS 2-4  
LIGHTING LAYOUT

	NORTH POINT	CHECKED	DE	DRG SCALE	1:100
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		DRAWN	SW	No IN SET	5 of 23
		PROJECT No.	8655	DATE	29/11/2021
		JOB No.	8655	DRAWING No.	E103
				REV.	1

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Email : bca@bcaconsultants.com.au  
ACN No. 070 353 249

PROJECT

MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING ELECTRICAL SERVICES  
LEVELS 5-9  
LIGHTING LAYOUT

NORTH POINT

CHECKED DE

DESIGNED DE

DRAWN SW

DRG SCALE 1:100

SHEET SIZE A1

No IN SET 6 of 23

PROJECT No. 8655

DATE 29/11/2021

FILE NAME 8655-E104.dwg

JOB No. 8655

DRAWING No. E104

REV. 1

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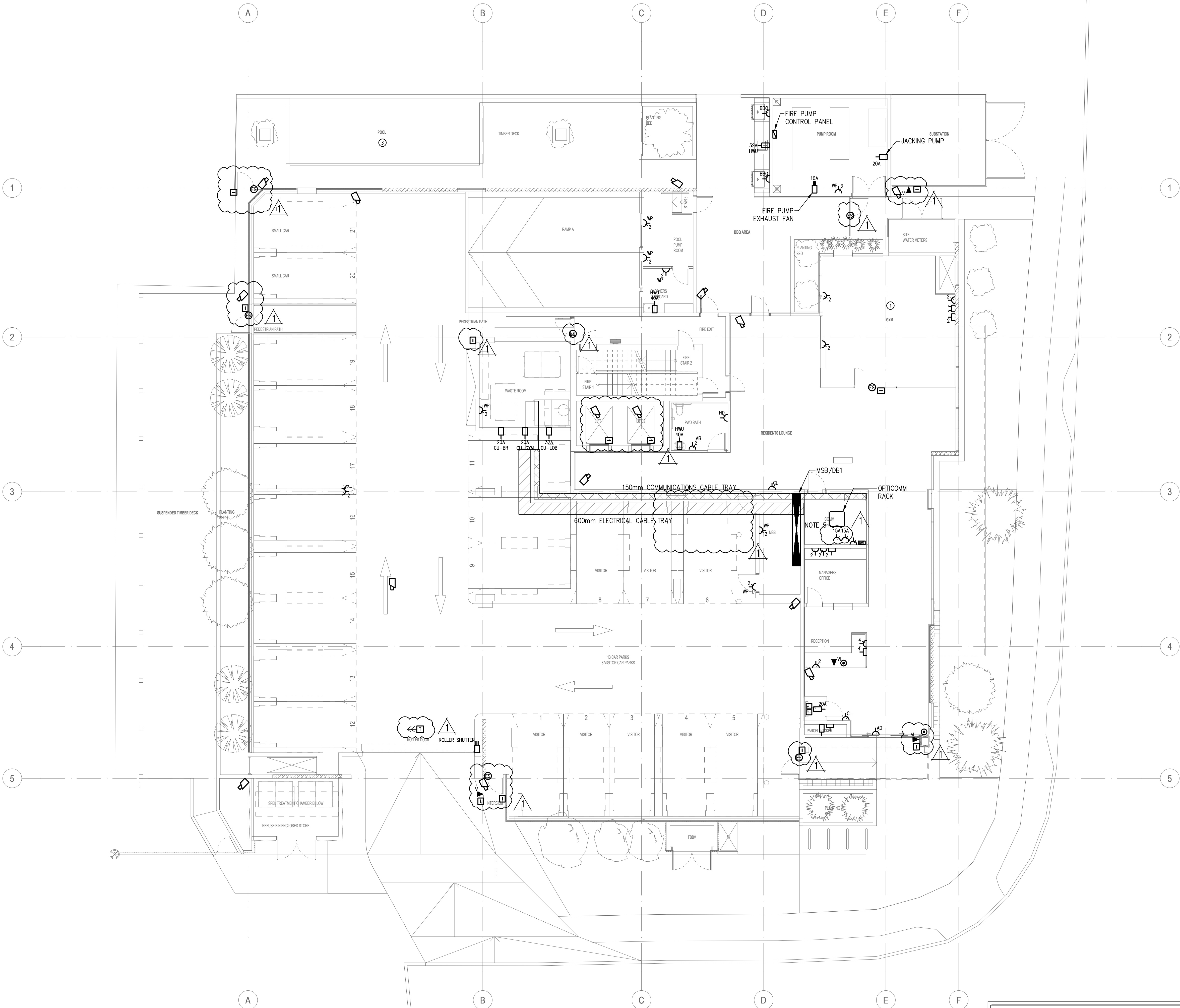
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# ROOF LIGHTING AND POWER LAYOUT

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Email : bca@bcaconsultants.com.au  
ACN No. 070 353 249

PROJECT  
**MPG ESSENCE QLD**  
**18 REMEMBRANCE DRIVE,**  
**SURFERS PARADISE QLD**

DRAWING  
**MECHANICAL SERVICES**  
**GROUND FLOOR**  
**POWER LAYOUT**

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JOB No.	8655	DRAWING No.	E110	REV.	1

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PROJECT

MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
SURFERS PARADISE QLD

DRAWING ELECTRICAL SERVICES  
LEVELS 2-4  
POWER LAYOUT

	NORTH POINT	CHECKED	DE	DRG SCALE	1:100
		DESIGNED	DE	SHEET SIZE	A1
		DRAWN	SW	No IN SET	9 of 23
		PROJECT No.	8655	DATE	29/11/2021
		JOB No.	8655	DRAWING No.	E111
				REV.	1

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PROJECT

MPG ESSENCE QLD  
18 REMEMBRANCE DRIVE,  
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DRAWING ELECTRICAL SERVICES  
LEVELS 5-9  
POWER LAYOUT

NORTH POINT

CHECKED DE

DESIGNED DE

DRAWN SW

DRG SCALE 1:100

SHEET SIZE A1

No IN SET 10 of 23

PROJECT No. 8655

DATE 29/11/2021

FILE NAME 8655-E112.dwg

JOB No. 8655

DRAWING No. E112

REV. 1

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## 1.7 Other

The following licenses and registrations are those of the electrical services sub-contractor and all respective sub-contractors who have completed works on the project and are included in this manual:

Licence description	Number	Holders Name
Electrical contractors' Licence	72197	CNT Electrical
Security Contractors Licence		

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