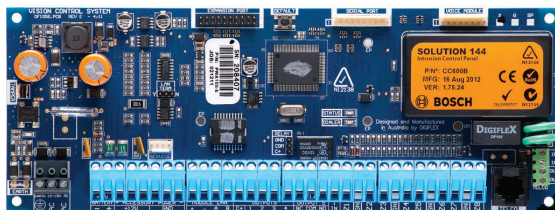


# CC600PB Solution 144 Control Panel

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**BOSCH**  
Invented for life



- ▶ 16 on-board zones (expandable to 144 wired or wireless), partitionable to 8 areas with 256 PIN, token, keyfob and fingerprint users
- ▶ Integrated access control for up to 16 doors
- ▶ Proximity key pads, Weather-proof external metal keypads, Internal & External LAN readers & Fingerprint LAN readers available
- ▶ 5 on-board outputs (expandable to 37)
- ▶ GSM/GPRS and Ethernet options

Designed and manufactured in Australia to meet local and international requirements the Solution 144 panel offers an extensive feature list.

## System overview

The Solution 144 Access and Intrusion alarm panel offers an extensive feature list including integrated proximity, numerous wire free options, high speed windows programming software and the simplest user / installer interface on the market today.

## Functions

### Graphic User Interface

The Graphic User Interface incorporates a text driven menu. Colour coded, illuminated keys allow for easy identification and operation in all ambient light conditions and provide a positive feel to the user. Red and green indicators provide easy identification of Armed and Disarmed modes and the in-built sounder provides audible feedback via polyphonic like signalling tones during system operation. The sounder emits a siren sound during alarm condition providing early warning and the volume level is individually programmable for each key pad connected to the system.

An enhanced version of the Graphic Key Pad incorporates a built-in proximity reader allowing users to simply present their token to the key pad to arm / disarm and / or unlock a door. Children and the elderly will find this feature extremely easy to use as no PIN codes are required for operation.

### 16 On-board Zones (expandable to 144 wired or wireless)

The Solution 144 can be expanded up to 144 wired or wireless zones using zone expanders and / or serial radio receivers. Zone programming determines the panel's response to open / short and tamper conditions on the zone loop. Zones may be programmed individually to monitor all types of security alarms, fire alarms and supervision devices. The panel supports multi-vendor wireless devices allowing you to select the most appropriate products for each installation.

### Sensor Watch

Sensor Watch monitors each zones activity while its corresponding area is disarmed. If the zone fails to operate at least once during the sensor watch time period, a system trouble will be initiated.

**Chime Mode**

Chime mode allows monitoring a zone or group of zones by sounding the keypad buzzer or activating a programmable output. This feature is ideal to monitor business entry doors for customer entry during business hours.

**Separate Tamper Inputs**

Both the Solution 144 Control Panel and most panel modules feature a separate tamper input making remote locating devices in a secure enclosure easy.

**Walk test**

Enables a user to test all zones within an area at the same time. When the walk test feature is activated, the code pad will display a list of areas available to walk test. Once the area to test is selected all zones within the area will be displayed. The user then walks the area and zones successfully tested will be removed from display leaving only those that failed to be activated on the code pad screen.

**Partitioning up to 8 Areas**

The control panel supports up to 8 separate areas with no restriction on the number of individual zones that can belong in an area. You can arm and disarm the control panel by area, alternatively, you can arm and disarm several areas at the same time.

Multiple areas can be linked to a shared area which is automatically controlled (hallway or lobby). Area arming may be conditional on other areas (master or associate).

**Programmable Outputs**

The Solution 144 Control panel supports 5 on board outputs and is expandable to 37 outputs in total. All outputs are protected and will shut down individually under an overload condition. Output conditions are displayed on the code pad and may be reported externally if required. Outputs may be triggered via an event and or manually and may be programmed for polarity, pulsing or one shot operation.

**Integrated Access Control**

Access control is no longer reserved only for larger more expensive systems. Proximity technology from Bosch provides an affordable and effective solution for up to 16 access doors. The new LAN readers include egress and lock control built in, which reduces cost and simplifies installation.

**Time Zones**

Up to 16 time zones may be implemented. Each time zone can have up to 4 time periods including day of the week and holidays. Time zones may be used to automatically arm / disarm the system at specific times as well control user access to doors or to automatically control outputs.

**256 Users with flexible credentials and devices**

Up to 256 individual users may be included in the system. Each user can be given a unique PIN code, RF key fob, Proximity token, and fingerprint credential if required. The Solution 144 supports variable length PIN codes up to 8 digits.

**Variable PIN configuration**

Users can be given free choice of PIN length or alternately an exact PIN length requirement may be enforced for higher security applications. PIN codes can be set to expire at a pre-programmed time per user.

**Flexible Communications Options**

CID, SIA, DOMESTIC and SMS Text Reporting formats are all standard out of the box and the dual reporting feature allows you to select which reports are sent to which route and in what format. Open / Close reporting can be selected individually for each user and area on the panel allowing the owner to monitor cleaner access, children returning home from school or access to a particular restricted area all via their mobile phone. Interactive voice reporting is also available as an option.

**Multi Tennant**

When enabled the Multi tenant feature locks the first 128 users on the system to the first 128 zones on the system. Each time a user enters their PIN the corresponding zone is automatically bypassed allowing the user to access the zone. The Multi Tennant feature is ideal for applications such as self storage centres or schools etc.

**Delay Trouble Beeps**

Setting this option will prevent any system trouble events from sounding the code pad speaker between the hours of 10pm until 7am. During this time, any new trouble event will be shown in the code pad display. If trouble events are still in effect after 7am the code pad will begin to sound the trouble alert to notify the user. This function is ideal for all residential applications.

**Event Log**

The control panel stores up to 1000 events from all areas. All events are recorded in the log regardless of the reporting setting. The event log may be viewed via the code pad or via a direct or remote connection from the Solution Link programming software.

**Advanced RS485 LAN**

The control panel communicates with other system module devices via the built in RS485 LAN or Local Area Network.

For increased security, the system uses anti-substitution technology and a proprietary data encryption algorithm to communicate with all LAN modules.

When using the recommended cable types, the LAN can be up to 1200 metres in length, or even greater when LAN isolators are used.

### Certifications and approvals

C-tick Supplier Code:	N12138
CE:	EN 55022:2010, EN60950-1:2001
Telepermit:	PTC 211/12/017

### Installation/configuration notes

#### Code pads and LAN Readers

The Solution 144 supports up to 16 key pad/reader style devices. Any combination of the following components can be connected; CP700B, CP701B, CP710B, CP711B, CM150B, CP151B, CM728B, CM729B, PR109B, PR110B, PR111B and PR112B.

#### Input Expansion

Wired or wireless zones may be configured in any quantity per area up to 144 zones. Input zone expansion options include CM704B - 8/16 zone expanders, CM705B – 8/16 universal zone expanders and CM707B - 8 zone piggy back expanders. Up to 8 modules of any type can be used.

Zone Assignment Table

Module	Single EOL	Alarm+ Tamper	Split EOL	Single or Alarm+ Tamper using CM705B + CM707B
Control Panel	1 to 8	1 to 8	1 to 16	1 to 8
1 =	17 to 24	17 to 24	17 to 32	17 to 24 25 to 32 on the CM707B
2 =	33 to 40	33 to 40	33 to 48	33 to 40 41 to 48 on the CM707B
3 =	49 to 56	49 to 56	49 to 64	49 to 56 57 to 64 on the CM707B
4 =	65 to 72	65 to 72	65 to 80	65 to 72 73 to 80 on the CM707B
5 =	81 to 88	81 to 88	81 to 96	81 to 88 89 to 96 on the CM707B
6 =	97 to 104	97 to 104	97 to 112	97 to 104 105 to 112 on the CM707B
7 =	113 to 120	113 to 120	113 to 128	113 to 120 121 to 128 on the CM707B

8 =	129 to 136	129 to 136	129 to 144	129 to 136 137 to 144 on the CM707B
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The CM705B Universal expander includes zone inputs, 4 high current protected outputs and a 1 amp power supply with battery charger making it extremely useful in multi-area installations.

#### Wireless Receivers – non Bosch

Support for non Bosch wireless equipment is also enabled via inclusion of the CM195. Up to 3 receivers of the same make and model may be installed.

#### Output Expansion

Up to 8 x CM710B 4 way relay output expanders may be included in the system to achieve a total of 37 programmable outputs. Outputs can be programmed to any one of more than 60 different event types.

Output Assignments

Module Number	Output Number
Control Panel	1 to 5
Virtual Outputs	6 to 8
1 =	9 to 12
2 =	13 to 16
3 =	17 to 20
4 =	21 to 24
5 =	25 to 28
6 =	29 to 32
7 =	33 to 36
8 =	37 to 40

#### Access Control Capacity

Up to 16 doors of access control can be configured on the Solution 144 using LAN proximity readers, LAN fingerprint readers or proximity enabled code pads. Various credential types are available including card, keyring tokens or adhesive tags. Most reader modules include lock outputs and egress inputs to simplify wiring and reduce cost.

#### Power Supply

The Solution 144 includes an on board 1 Amp power supply and battery charger. For larger installations, up to 8 additional LAN power supplies can be connected. The CM720B provides 1 amp of additional current with battery charger and the CM723B provides 5 amps with dual battery chargers. The CM723B can be configured to charge batteries up to 18Ah for extended standby time.

#### Wireless Receivers - Bosch

One Bosch DSRF receiver RF3212E may be connected directly to the receiver / key switch input. Up to 3 x wireless receivers may be connected using the CM195.

## Technical specifications

### Power Requirements

Voltage Input	16-18V A.C 50-60Hz – 24VA External Power Adaptor or 220-240V A.C. to 18V A.C 50-60Hz – 24VA Internal Transformer (Primary Power Source)
Continuous Power	1 Amp MAX (Combined power drawn from Accessory Power (+12V) LAN Power (Module LAN +) and Output Power (C+) terminals must not exceed 1 Amp.
Alarm Power	4 Amp (Total with primary and secondary power sources fitted)
Stand-by Battery	12 VDC, 7.2AH sealed rechargeable battery – Panasonic LC-P127R2P or equivalent. (Secondary Power Source). Dispose of used batteries according to instructions.
Min Operating Voltage	10.2 VDC
Battery Charger	Pulse by pulse charger. (Note: Charge voltage cannot be measured unless battery is fitted.)

### Connections

Module Connection (RS485 LAN)	Max. total LAN length using multi strand security cable = 300m Max. total LAN length using 2 pair twisted shielded data cable (Belden 8723) = 1200m. See the product installation manual for complete wiring instructions.
Telephone Connections	RJ-12 Socket or 4-way terminal

### Communications

Communications	CID, SIA, SMS, Email, Voice, Domestic Dialling, GSM-CID, GSM-SMS, Connetix IP, CSV-IP
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### Environmental Considerations

Temperature	0° to 55°C
Relative Humidity	5 to 85% non-condensing

### Enclosure

Enclosure Fixing Method	<i>CM720B – Small Enclosure</i> Using appropriate fasteners capable of handling a minimum of 6kgs to fix the cabinet against a sturdy surface using the mounting holes provided. <i>CM730B – Large Enclosure</i> Using appropriate fasteners capable of handling a minimum of 12kgs to fix the cabinet against a sturdy surface using the mounting holes provided.
Enclosure Dimensions	MW720B: 385(W), 260(H), 90(D)mm MW730B: 385(W), 520(H), 90(D)mm
PWA Dimensions	235(W), 85(H), 40(D)mm
Warranty	3 years

## Ordering information

### CC600PB Solution 144 PCB

Includes control panel PCB only  
Order number **CC600PB**

### Accessories

#### CP700B Solution 144 Graphic Keypad - White

Order number **CP700B**

#### CP710B Solution 144 Graphic Keypad - Black

Order number **CC710B**

#### CP701B Solution 144 Graphic Keypad with Proximity - White

Order number **CP701B**

#### CP711B Solution 144 Graphic Keypad with Proximity - Black

Order number **CP711B**

#### CP150B Vandal and Weather Resistant Keypad

Order number **CP150B**

#### CP151B Slimline Vandal and Weather Resistant Keypad

Order number **CP151B**

#### CM195 Multi Receiver Interface

Order number **CM195**

#### CM704B 8/16 Zone Expansion Module

Order number **CM704B**

#### CM101B Voice Message Module

Order number **CM101B**

#### CM707B Plug On Zone Expander

Order number **CM707B**

#### CM710B Output Expansion Module

Order number **CM710B**

#### CM720B 1-Amp LAN Power Supply

Order number **CM720B**

#### CM723B 5 Amp LAN Power Supply Module

Order number **CM723B**

#### CM743B 2G GSM Interface Module

Order number **CM743B**

#### CM751B Solution Conetix IP Ethernet Module

Order number **CM751B**

#### CM760B Real Time Clock Module

Order number **CM760**

#### CM797B RS485 LAN Isolator Module

Order number **CM797B**

#### CM900 Direct Link Interface

Order number **CM900**

#### MW730B Large Enclosure

Order number **MW730B**

**MW720B Metal Enclosure**

Order number **MW720BP**

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**PR200 Prox Token - Grey**

Order number **PR200**

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**PR250 Prox Iso Card**

Order number **PR250**

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**PR260 Prox Clam-Shell Card**

Order number **PR260**

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**PR201B Prox Token - Black Key**

Order number **PR201B**

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**Software Options**

**SW500 SolutionLink (RAS) Software**

Order number **SW500**

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