

# Bosch Solution Installation and Usage Guide



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## Overview

The Solution 2000 & 3000 alarm panel series from Bosch Security Systems offers you the perfect solution. They've created a security system that has all the technology it needs to identify intruders to your home or small business, without being hard to use. It helps you protect the things you love, providing you with reliable security at your fingertips.

Supporting up to 8 fully programmable zones on the Solution 2000 / 16 fully programmable zones on the Solution 3000 and up to 20 Outputs, these intrusion alarm panels are suitable for any home, and even small commercial premises

With support for up to 4 keypads on both panels and the ability to split into two separate areas, you have the flexibility of one security system that can act as two. Both the house and garage, granny flat, shop, office or warehouse can be covered by the one system at one cost. Each area can even report separately if desired – the perfect arrangement for shared premises such as duplex houses or commercial properties, where more than one business occupies the unit space.

# Features

The VERSA Solution 2000/3000 driver is compatible with both Solution 2000 and Solution 3000 panels (requires optional B426-M Ethernet Module)

## End User Alarm Interface Features

- Full support for Areas 1 and 2
- Supports Disarm, Arming, Stay 1, and Stay 2
- Both detailed and simple Zone feedback options, with zone list
- Visual feedback of Warnings and Trouble in Alarm UI
- Output Control and Feedback for all outputs (requires configuration by Installer)
- Instantaneous panel feedback for alarms and states
- Custom Alarm Log Interface

## Installer Features

- Events for Trouble Start, Trouble Clear, alarm and arming stages
- Access to Variables for advanced programming
- Programming Commands to arm and disarm panel.
- Display Full Panel History
- Display Panel Protocol Versions
- Automatically show maximum capacities of panel.
- Output Support
- Advanced Programming for via Event Variables

## Frequently Asked Questions

### What are the requirements to use this driver

- A network module must be setup and operational with A-Link for the panel. The recommended IP module for this panel is Bosch's B426-M module. This panel does not support serial control.
- B-426M Ethernet Module Minimum Firmware is 3.13.222 or later. Other versions may experience intermittent control from Control4
- The Bosch Panel must be setup with a static IP
- Panel Firmware 2.1.2.3 or later is required for full functionality. 2.1.0.2 is the minimum firmware supported. An installer is required to install the firmware.
- Panel must be configured and operational before C4 driver installation. Refer to the panel documentation for details.
- Control4 OS 3.3.0 or later is required. Earlier versions may operate but remain untested and unsupported.
- Please refer to the Setup section of this document for Control4 Setup.

### Where can I purchase a Bosch panel?

Name	Link
Australia	<a href="#">Open Dealer Locator</a>
Bangladesh	<a href="#">Show contacts</a>
Brunei	<a href="#">Show contacts</a>
Cambodia	<a href="#">Show contacts</a>
India	<a href="#">Open Dealer Locator</a>
Indonesia	<a href="#">Open Dealer Locator</a>
Laos	<a href="#">Show contacts</a>
Malaysia	<a href="#">Open Dealer Locator</a>
Maldives	<a href="#">Show contacts</a>
Myanmar	<a href="#">Show contacts</a>
Nepal	<a href="#">Show contacts</a>
New Zealand	<a href="#">Open Dealer Locator</a>
Philippines	<a href="#">Open Dealer Locator</a>

Name	Link
Singapore	<a href="#">Open Dealer Locator</a>
Sri Lanka	<a href="#">Show contacts</a>
Thailand	<a href="#">Open Dealer Locator</a>
Vietnam	<a href="#">Open Dealer Locator</a>

## **I want to try this driver out before buying it?**

- All VERSA drivers for Control4 come with a 90 day trial to test

## Setup

1. Ensure Control4 is running OS 3.3.0 or later. Previous versions may operate, but are unsupported.
2. B426-M Ethernet module firmware must be V3.13.222 or later. Previous versions may disconnect from Control4 and require panel power cycle.
3. Ensure Bosch Solution 2000/3000 panel is upgraded to Firmware 2.1.2.3 or later for full functionality.
4. "Alarm Reset On Disarm" must be enabled on the panel. This can be configured in 2 different ways:
  1. Via ALink. This option is available under System, System Option, Alarm Memory Reset On Disarm: Set To Enable
  2. Via the panel keypad. Using Keypad Menu: Installer Menu, System (3), System Option 1 (6), Alarm Memory Reset On Disarm (3). Set to Enabled
5. Ensure IP Adapter on Solution Panel and set Static IP. Refer to Bosch documentation for configuration.
6. Set A-Link/RSC Password as required. The default is: "0000000000"
7. Add Dedicated Default User Code for Control4 with full privileges in A-Link using "Access, User Code" and "Access, User Code, User X - X Property". Alternatively, you can use Keypad for configuration.
8. Ensure all output channels which require two way control are allocated a Remote Control Event Code in A-Link
9. DriverCentral Cloud Driver must be installed and operating correctly:  
<https://drivercentral.io/platforms/control4-drivers/utility/drivercentral-cloud-driver/>
10. Add VERSA Bosch Solution 2000/3000 driver to Control4 project
11. Under Connections, set driver to IP address of panel.
12. Driver will connect to panel and perform configuration sequence
13. For Outputs:
  1. Bind each output to the device required in Connections.
  2. For two way control, set the Output Remote Control Binding property to the Remote Control Event allocated in A-Link.
14. (Optional) To show Panel logs to clients. We provide a custom Bosch Solution Interface driver
  1. Add Bosch Solution Interface driver to project
  2. In Connections, connect BOSCH\_PANEL\_UI to alarm panel driver
  3. Rename driver and add to appropriate navigator categories and areas
15. Reload navigators

## Troubleshooting

When clearing an alarm, panel disarms, however, Control4 continues to show Alarm as active

- Ensure Alarm Memory Reset On Disarm is enabled (as per Setup)

24 Hour Alarms remain in alarm mode, and cannot be disarmed by Control4



- You must use Firmware 2.1.2.3 or later and driver version 20240109 or later. Earlier versions of Firmware may have problems.
- If silencing the alarm via keypad, you may need to arm and disarm the alarm on the keypad afterwards to remove the alarm system-wide

#### Control4 loses control of Bosch Solution Panel

- Power Cycle Bosch panel. If control is returned, ensure B-426M ethernet module firmware is V3.13.222 or later (released 18-OCT-2024)
- Ensure that Bosch panel that can pinged and is online. If not, check network settings, network infrastructure and cables. Ensure panel has power.

## Solution Panel Driver [`bosch_solution_panel.c4z`]

### Actions

- Display Diagnostics: Display Internal Diagnostics of Driver to assist with troubleshooting
- Display History: Displays History in Lua Output
- Display Output States: Displays the state of all output states in Lua Output
- Force Reconnect: Forcefully disconnects and reconnects network connection to panel
- Remote Control Output: Change the state of a Remote Control output manually

### Properties

- Cloud Status: Licencing Status of the Driver
- Driver Version: Version of the Driver
- Automatic Setup: Whether or not the driver will automatically update the driver
- Control4 MAC Address: MAC Address of the C4 Controller
- Debug Mode: Enable different types of debugging modes for driver.
- Debug Level: Verbosity of debugging. ERROR is the least verbose

#### Driver Information

- A-Link/RSC Password: Password required for A-Link / RSC connection. The default is: "0000000000"
- User Code: User Code which has been set up for Control4 use to perform actions
- Automatically Update Time: Configures Control4 to automatically synchronise Bosch Panel's time on connection and a regular basis. Most users should keep this option enabled.
- Display Zone Number in Zones Interface: Display Zone Numbers in the Zones Interface. This is useful for installers to identify zones easily, or are used to the zone numbers on their keypad.

#### Panel Details

- Status: Shows Connection Status Information
- Panel Model: Detected Model of the Bosch panel. This should be "Solution 2000" or "Solution 3000" (other models are not supported)

- Panel Firmware: Detected firmware on the bosch panel. This must be a minimum of 2.1.0.2
- RPS Protocol: Detected RPS Protocol on the Bosch panel. This should be a minimum of 5.2.0.0
- Intrusion Protocol: Detected Intrusion Protocol on the Bosch panel. This should be a minimum of 5.22.0.0
- Execute Protocol: Detected Execute Protocol on the Bosch panel. This should be a minimum of 5.2.0.0
- Max Areas: Maximum number of areas supported by the panel.
- Max Doors: Maximum number of doors supported by the panel. Please note, Solution 2000/3000 does not support Doors (Support for Doors is not included with this driver)
- Max Event Records: Maximum Event Log Records supported by the panel.
- Max Keypads: Maximum Keypads enabled by panel.
- Max Outputs: Maximum Outputs supported by the panel. Please note: This does not include optional output boards
- Max Points: Maximum Zones / Points supported by panel
- Max Users: Maximum User Codes supported by panel

#### Output Names

- Name - #: Name of the output as provided by the installer

#### Output States

- State - #: Current state of the output (Off / On)

#### Output Remote Control Event Code Bindings

- Code - Output #: Allocated Remote Control Event Code as allocated by the installer. This may not be the same number as the output.

### Commands

- Remote Control: Set On / Off Remote Control ID. This may not correspond to a specific output.
- Turn Output On: Turn Output On
- Turn Output Off: Turn Output Off
- Toggle Output: Toggle Output On / Off
- Trigger Output: Trigger Output for custom time period

### Events

- Area 1 Exit Delay Started: Area 1 Exit Delay has started
- Area 1 Exit Delay Ended: Area 1 Exit Delay has ended or been cancelled
- Area 1 Entry Delay Started: Area 1 Entry Delay has started
- Area 1 Entry Delay Ended: Area 1 Entry Delay has ended or been cancelled
- Area 2 Exit Delay Started: Area 2 Exit Delay has started
- Area 2 Exit Delay Ended: Area 2 Exit Delay has ended or been cancelled

- Area 2 Entry Delay Started: Area 2 Entry Delay has started
- Area 2 Entry Delay Ended: Area 2 Entry Delay has ended or been cancelled
- Log Entry Received: Generally used in conjunction with the EVENT\_LOG variables for advanced Programming. Identifies that a new log entry has been received

## Variables

- AREA1\_LAST\_ARM\_USER: UserName who last armed Area 1
- AREA1\_LAST\_ARM\_USER\_ID: User ID who last armed Area 1
- AREA1\_LAST\_ARM\_TIME: Time when Area 1 was last armed. This uses the Panel Time.
- AREA1\_LAST\_ARM\_TYPE: Type of arming for Area 1. Generally Away, Stay 1 or Stay 2
- AREA1\_LAST\_DISARM\_USER: UserName who last disarmed Area 1
- AREA1\_LAST\_DISARM\_USER\_ID: User ID who last disarmed Area 1
- AREA1\_LAST\_DISARM\_TIME: Time when Area 1 was last disarmed. This uses the Panel Time.
- AREA2\_LAST\_ARM\_USER\_ID: User ID who last armed Area 2
- AREA2\_LAST\_ARM\_USER: UserName who last armed Area 2
- AREA2\_LAST\_ARM\_TIME: Time when Area 2 was last armed. This uses the Panel Time.
- AREA2\_LAST\_ARM\_TYPE: Type of arming for Area 2. Generally Away, Stay 1 or Stay 2
- AREA2\_LAST\_DISARM\_USER: UserName who last disarmed Area 2
- AREA2\_LAST\_DISARM\_USER\_ID: User ID who last disarmed Area 2
- AREA2\_LAST\_DISARM\_TIME: Time when Area 2 was last disarmed. This uses the Panel Time.
- EVENT\_LOG\_AREA: Area of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_CONTACT\_ID: Contact ID of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_ID: ID of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_PARAM1: Parameter 1 of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_PARAM2: Parameter 2 of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_PARAM3: Parameter 3 of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- EVENT\_LOG\_TIME: Last Time (based on panel time) of last received Event. Used for Advanced Programming
- EVENT\_LOG\_TEXT: Text of last received Event. Used for Advanced Programming. Refer to Bosch Solution API (Solution Panel Event Log Data) for more info.
- PANEL\_LAST\_ARM\_AREA: Area which was last armed
- PANEL\_LAST\_ARM\_AREA\_ID: Area ID which was last armed
- PANEL\_LAST\_ARM\_USER: UserName who last armed the panel
- PANEL\_LAST\_ARM\_USER\_ID: User ID who last armed the panel
- PANEL\_LAST\_ARM\_TIME: Time when the panel was last armed. This uses the Panel Time.
- PANEL\_LAST\_ARM\_TYPE: Type of arming for the panel. Generally Away, Stay 1 or Stay 2

- PANEL\_LAST\_DISARM\_AREA: Area which was last disarmed
- PANEL\_LAST\_DISARM\_AREA\_ID: Area ID which was last disarmed
- PANEL\_LAST\_DISARM\_USER\_ID: User ID who last disarmed the panel
- PANEL\_LAST\_DISARM\_USER: UserName who last disarmed the panel

## **Solution Interface Driver [bosch\_solution\_ui.c4z]**

### **Actions**

- Display Diagnostics

### **Properties**

- Cloud Status: Licencing Status of the Driver
- Driver Version: Version of the Driver
- Automatic Setup: Whether or not the driver will automatically update the driver
- Control4 MAC Address: MAC Address of the C4 Controller
- Debug Mode: Enable different types of debugging modes for driver.
- Debug Level: Verbosity of debugging. ERROR is the least verbose

### **Driver Information**

- Panel Status: Whether the interface driver is correctly bound to panel driver

### **Commands**

- None available or required

# Licensing

- How does the trial period work?

This driver is free to use for a set trial period. When the trial expires the driver will cease to function until you purchase a licence and apply it to the driverCentral project.

- Where do I buy a Licence from?

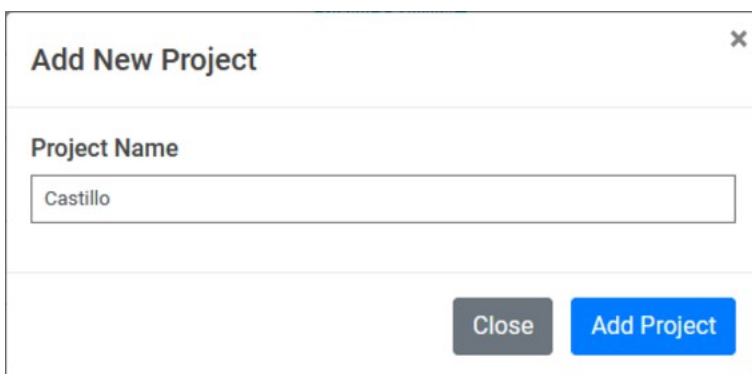
This driver available from driverCentral, Inc <https://www.drivercentral.io/>

To purchase a driver:

1. On driverCentral, purchase a license and register it to your project
2. If the driver is not already installed in your project, download it and install it
3. If necessary, use the cloud driver's Action: "Check Drivers" to force the licence to download into the project

# Creating a Project on Driver Central

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **New Project**
5. Enter the project name




**Add New Project** [X]

Project Name

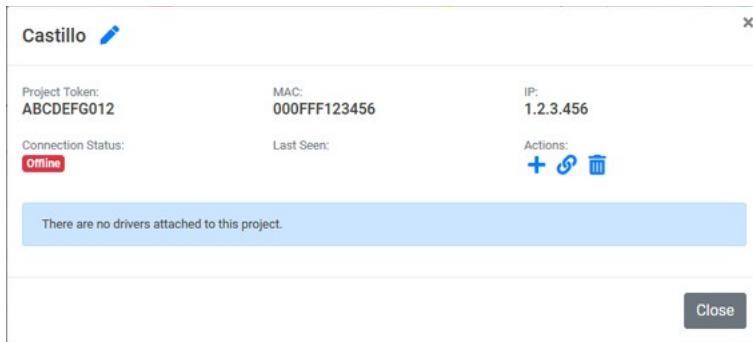
Castillo

Close Add Project

6. Click **Add Project**
7. Click on the project we just created

Project	Status	Created
 Castillo	Unassigned Project	1999-12-31 23:59:56

8. Take note of the **Project Token** as this will be used later when we install the Cloud Driver

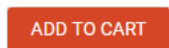


9. Click **Close**

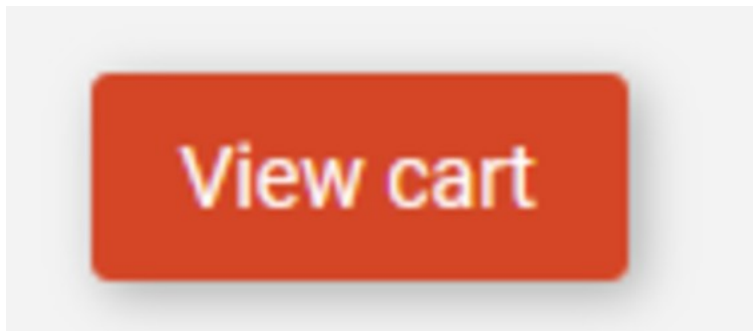
## Purchasing a Driver Licence

1. Visit <https://www.drivercentral.io> and find the product/driver you want to purchase a licence for

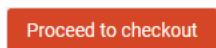
2. Click on **Add to Cart**



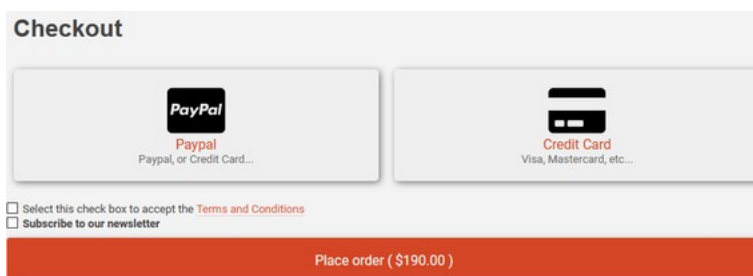
3. Now click the shopping cart icon (top right) and click **View cart**



4. Confirm that your order is correct and click on **Proceed to checkout**



5. Choose your payment option, provide the relevant details and click **Place order**



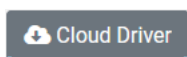
6. You will now be at a page where you can see your purchased licence

License Name	License Key	Project Assigned	Action
[REDACTED]	[REDACTED]	[REDACTED]	Assign to Project

7. From here assign the licence to the project we created or if you did not follow that step create a new project

## Install the driverCentral cloud driver

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **Cloud Driver**



5. Copy the C4Z driver to My Documents\Control4\Drivers directory
6. Add the driver to your project
7. Click on the driver to view it's properties

Cloud Status	Please enter cloud project token below...
Project Information	(1) Total, (0) Licensed, (0) Trials, (1) Expired, (0) Updates.
Driver Version	1001
Project Token	<input type="text"/>
	Project token from driverCentral.io project portal
Driver Actions	<input type="button" value="v"/>
Debug Mode	Off <input type="button" value="v"/>

8. Type in the project token we took note of earlier

9. Click **Actions** tab

10. Click **Check Drivers**

## Install Control4 driver

1. Install the Control4 driver

2. You will notice that the Activation Status reflects a Licence Activated state

3. Any driver that does not have a purchased licence will have a trial licence activated via the marketplace

*Note that there is no way to reactivate the trial so please use wisely*

4. If you do not then press the Check Drivers action in the driverCentral Cloud driver again

Activation Status	Update Available!!! License Activated
Driver Version	1002
Driver Information	Navigate to connections tab and make serial binding
Automatic Updates	Off <input type="button" value="v"/>



# Change Log

## 20241029 - 29-OCT-2024

- B426-M Minimum Required Firmware is now 3.13.222
- More protection against internal faults
- Change Keep Alive mechanism to recommended command

## 20240513 - 13-MAY-2024

- Timeout commands will now prompt connection restart. Add Diagnostics
- Better feedback for bad RSC Login

## 20240110 - 10-JAN-2024

- Add Support for 24-Hr Alarm Zones. This requires F/W 2.1.2.3 or later (Panel)
- Massive Backend Performance Improvements. Reduce Memory Usage (All)
- Further Code Safeguards to avoid potential issues (All)
- Miscellaneous fixes (All)
- Additional Diagnostics (Panel)

## 20230919 - 19-SEP-2023

- Exit Timers were incorrectly resetting on state changes. Fixed
- Performance improvements
- Improve handling of keep alive
- Minor Backend improvements

## 20230725 - 25-JUL-2023

- Update Documentation

## 20230714 - 13-JUL-2023

- Initial Release