Securitron® B100 Secondary Voltage Module

Quick Start Guide

ASSA ABLOY

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Overview

1 **DC IN Connectors (J1 & J4) –** These fastons are the input to the Securitron B100. Either faston may be used as the input. Two connections are provided to allow this voltage to pass through to other accessory boards in the system. This input voltage must always be at least 3 volts above the output voltage setting for the Securitron B100 to maintain its output.

2 **DC OUT Connectors (J2 & J5) –** These fastons are the output of the Securitron B100 for connection to other accessories in the system. This output may be considered as an equivalent to the main output of an Securitron AQL power supply. Either or both DC OUT fastons may be used in the system.

⚠ Ensure there are no other voltage sources connected to the buss before powering the system or damage WILL occur.

3 **BR Connectors (J3 & J6) –** The DC Common buss in the system. All boards in the system must have their BR fastons wired together for proper operation.

4 **DC IN LED (D1)** (BLUE/GREEN) **–** This LED indicates the availability of voltage on the DC IN Buss. When voltage is available on the buss, the LED is lit. This LED is bi-color and indicates the input voltage as follows: GREEN – 12 V Input | BLUE – 24 V Input

⚠ **NOTE** LED colors are range based. Voltage Less than 13 V will show Green. Voltage above 20V will show Blue. Voltage between 13 and 20 may show either voltage or a combination Green & Blue. Always verify voltage with a voltmeter

5 **FAULT LED (D7)** (YELLOW) **–** This LED lights when the Securitron B100 detects a fault condition. This fault condition also transmits to the Securitron AQL power supply. Fault conditions detected include ruptured output fuse, no output, output overload, or output voltage out of regulation.

6 **FlexIO Connectors (JP1 & JP2) –** These connectors allow the fault status of the Securitron B100 to be transmitted to the Securitron AQL power supply and pass the FlexIO buss on to other accessory boards in the system.

7 **Output Voltage Selection (JP3 & VR1) –** This jumper selects the output voltage for the Securitron B100 and the potentiometer sets the output voltage when in the adjustable range. In adjustable range, voltage may be set from 5 to 18 VDC.

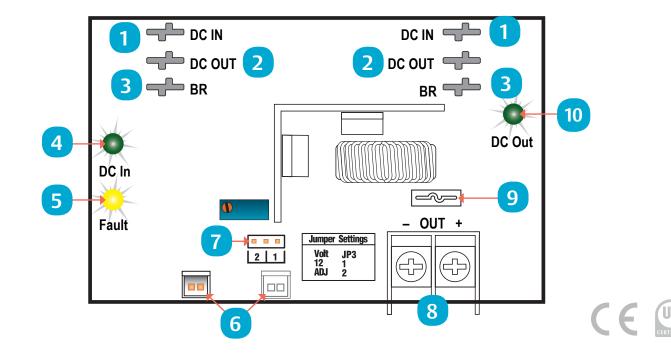**Possible jumper settings are as follows:**
- 12 V Out JP3 Position 1
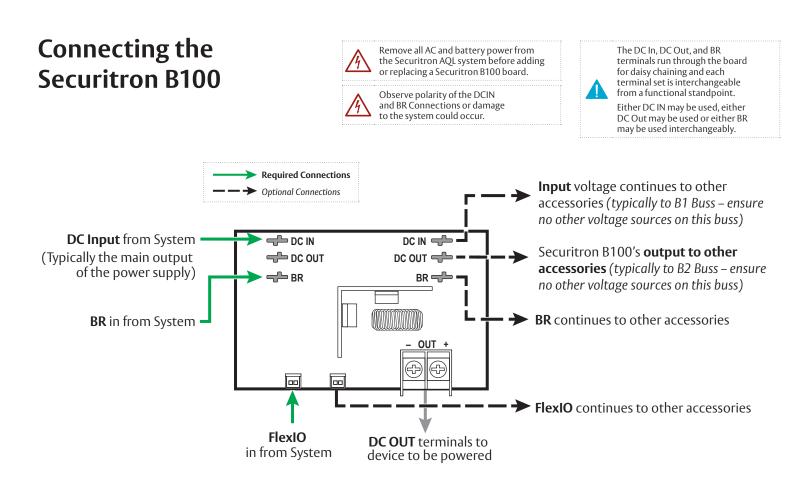- Adjustable Output JP3 Position 2

⚠ The VR1 potentiometer will have no effect unless the jumper is set for the adjustable range

NOTE that the input must be at least 3 V above the output voltage setting or the Securitron B100 will display a fault condition. It may be helpful to temporarily set the input power supply to 24 V (Remove load devices first) before setting the Securitron B100 output voltage.

8 **DC Output –** This is the output terminal strip. This terminal strip is nonremovable and accepts wire sizes from AWG 12 – AWG 22. The terminals are labeled on the PC board by the terminal strip.

9 **Output Fuse (F1) –** This fuse protects the DC Output terminals. It does not protect the DC OUT faston.

10 **DC OUT LED (D4) (GREEN) –** This LED indicates the availability of voltage on the DC OUT Buss. When voltage is available on the buss, the LED is lit.

Jumper Settings		
Volt	JP3	
12	1	
ADJ	2	

Connecting the Securitron B100

→ **Required Connections**
⇢ *Optional Connections*

DC Input from System
(Typically the main output of the power supply)

DC IN
DC OUT
BR

BR in from System

DC IN
DC OUT
BR

− OUT +

FlexIO
in from System

DC OUT terminals to device to be powered

Input voltage continues to other accessories *(typically to B1 Buss – ensure no other voltage sources on this buss)*

Securitron B100's **output to other accessories** *(typically to B2 Buss – ensure no other voltage sources on this buss)*

BR continues to other accessories

FlexIO continues to other accessories

Specifications

Certifications
- UL 294 Listed
- UL 603 Listed
- UL 1076 Listed
- ULC-S318 Listed
- ULC-S319 Listed
- CSA C22.2 #107.1
- CSA 22.2 #60950
- RoHS Compliant
- CSFM Approved
- FCC Part 15, Subpart B

Electrical
- Input Voltage (from AQL power supply): 12 or 24 VDC
- Output Voltage* (jumper select): 12 VDC or 5-18 VDC (user adjustable)
- Output Current (Class 2 power limited): 4 Amps
- 91% efficiency
- Output Ripple (12 V at 4 A): 82 mVp-p
- Line Regulation (12 V at 4 A): $< \pm$ .1%
- Load Regulation: $\pm$ .56%

  Input voltage must be a minimum of 3 V higher than output voltage

Shipping Weight
- .5 lbs

Dimensions
- 4" x 2.5" x 1.5" [101.6mm x 63.5mm x 38.1mm]