How to configure B901 Door Controller for card reader use

The B901 Door Controller is an SDI/SDI2 bus device which allows communication between card readers and a Bosch control panel. This guide outlines how to connect and configure the B901 with a Bosch 4000 control panel.

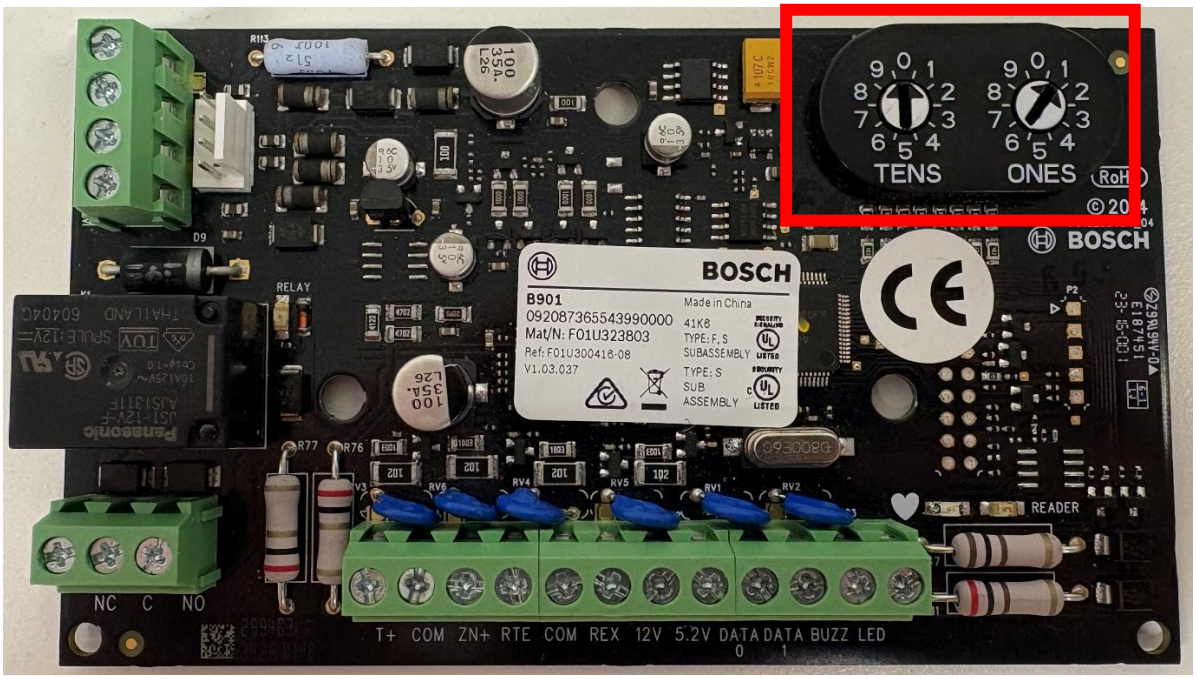
Each B901 unit can control only 1 door. Up to 4 x B901 units can be used with the Bosch 4000, to control up to 4 doors. Multiple readers can be connected to a single B901 unit, but they will all be connected to the same door.

Note: The 2000 and 3000 panels do not support the B901 reader or access control in general, so this guide is for the 4000 only.

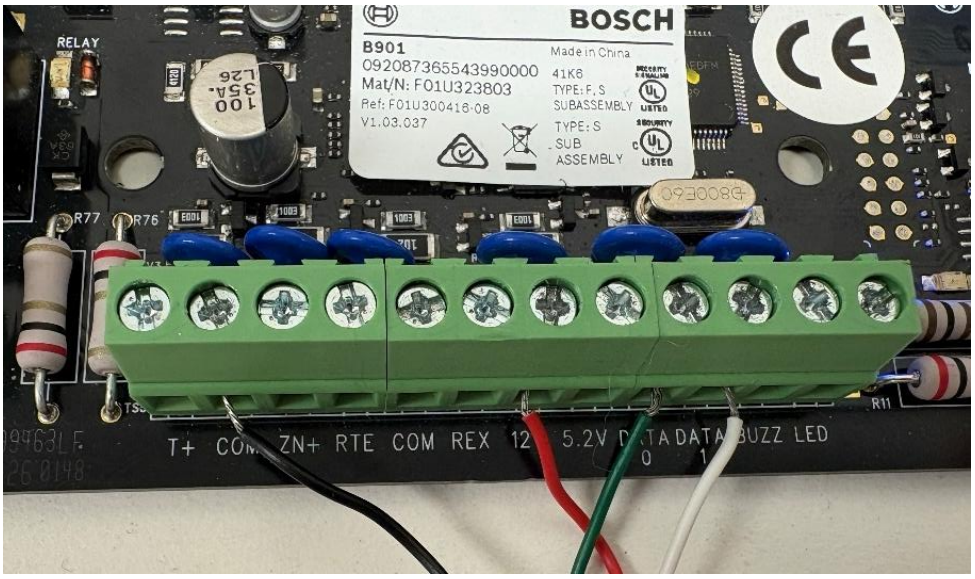
Wiring the B901:

Disconnect the MAINS AC power supply and backup battery from the 4000 control panel.

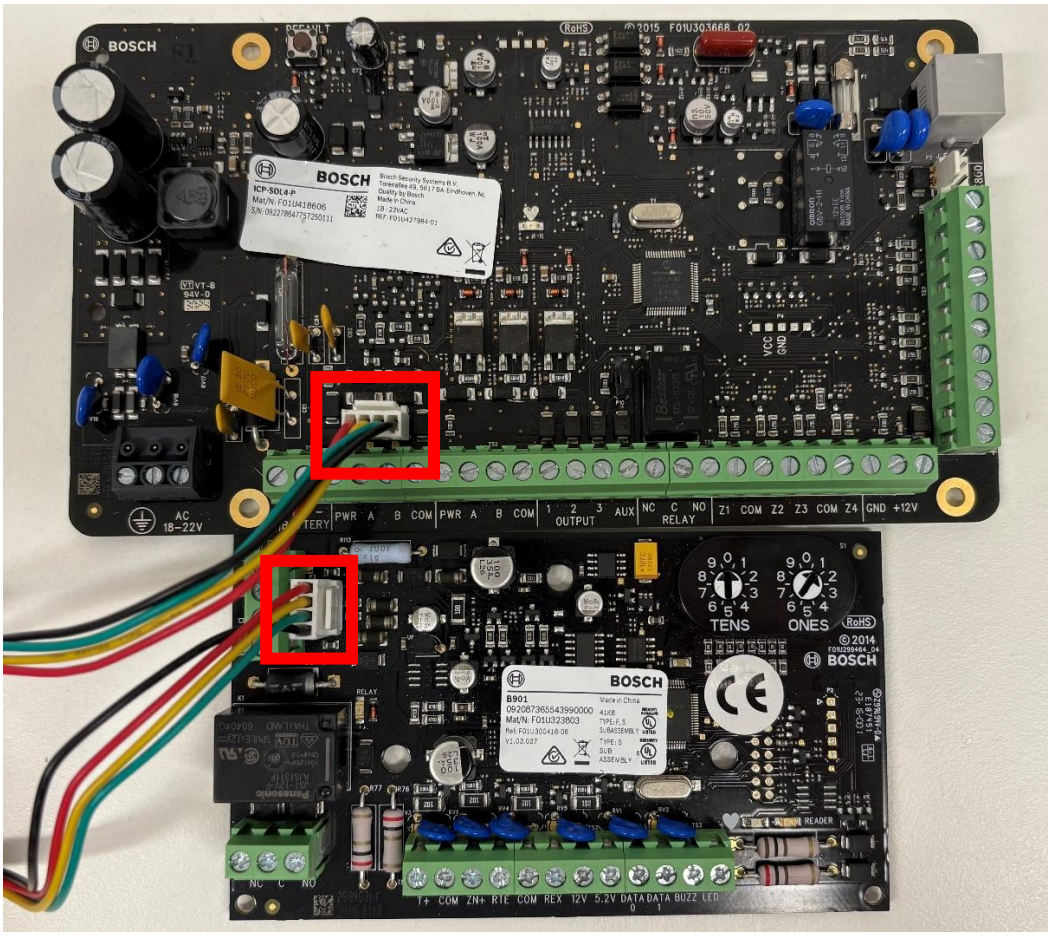
The B901 has two rotary address switches. Ensure that the TENS switch is set to 0, and the ONES switch is set to 1, 2, 3 or 4, relating to doors 1, 2, 3 and 4.



To connect a reader to the B901, connect the reader's Positive, Ground, Data0 and Data1 wires to their respective terminals on the B901.



To connect the B901 to the 4000 control panel, either connect the provided interconnect wire to both panels (as pictured), OR connect the PWR, A, B and COM terminals on each panel together. Use either of these methods, but not both at once!



You may now power on the control panel. After an initialisation period, the heartbeat on the B901 will perform a rapid 3-blink sequence, indicating an error. This is because we still need to configure the B901 within the control panel.

Configure the B901 using a text keypad IUI-SOL-TEXT:

Enter the Installer code (default is 1234) then # to enter the installer menu.

Press 9 (*Door*), then 1 (*Enable Doors*). Tick the door/s which have been installed (as per the B901 rotary address/es) and press confirm.

Now back in the *Door* menu, select the door you wish to configure (eg "Door 1"), then hit 3 (*Door x Param)*. Assign the Entry Area, and either leave the rest of the parameters default or select them based off the following:

Param	Description	Options
Entry Area	The area which this door provides access to.	Area 1 (default) Area 2
Disarm on Open	Select Yes if the door needs to be *physically opened* to disarm the area. Select No if simply unlocking the door will disarm the area, regardless of whether the door is actually opened.	No (default) Yes
Auto Door	Select Yes if disarming the area automatically unlocks the door. Select No otherwise.	No (default) Yes
Deactivate on Open	Select Yes to deactivate the door strike as soon as the door opens. Select No to deactivate the door strike after the door is opened then closed.	Yes (default) No
Fire Unlock	Select Yes to unlock the door in the event of a fire in any area. Select No otherwise.	No (default) Yes
RTE Shunt only	Select Yes if RTE button should shunt the alarm, but doesn't require strike activation (eg push bar exit door). Select No if RTE button requires strike activation (eg RTE button wired to a strike).	No (default) Yes

REX Shunt only	Select Yes if REX button should shunt the alarm, but doesn't require strike activation (eg push bar exit door). Select No if REX button requires strike activation (eg REX button wired to a strike).	No (default) Yes
Failure Mode	Fail Secure: The door remains locked in the event of a failure. Fail Safe: The door unlocks in the event of a failure.	Fail Secure (default) Fail Safe
Door Zone Debounce	Sets the length of time the B901 scans a door zone before initiating an alarm	300ms, 600ms (default), 900ms, 1200ms, 1500ms, 1800ms, 2100ms, 2400ms, 2700ms, 3000ms, 3300ms, 3600ms, 3900ms, 4200ms, 4500ms
RTE Input Debounce	Sets the length of time the B901 scans the RTE input before initiating a request to enter (RTE) event.	
REX Input Debounce	Sets the length of time the B901 scans the REX input before initiating a request to enter (REX) event.	

Finally, it is recommended to link a codepad to a door. This allows us to set up new credentials on the codepad, and scan keycards in using the door reader.

Again back in the *Door* menu, select 8 (*Codepad's Door*), and choose the desired codepad, then the desired door. The door reader can now be used to assign keycard credentials to users via the codepad.

When leaving the installer menu, make sure to press # to *Confirm to Save Parameter Changes*.

The B901 heartbeat should now be a consistent 1 second blink, indicating functionality.

Configure the B901 using an icon keypad IUI-SOL-ICON:

Enter the Installer code (default is 1234) then # to enter the installer menu. The STAY and AWAY icons will flash to indicate Installer mode.

Enter 13098# to enter the Door Enable settings location. By default, this location is set to 0 (no doors enabled).

0-4 doors are enabled by assigning a binary power value to each door: 1 for door 1, 2 for door 2, 4 for door 3, and 8 for door 4. Sum together the values of the required doors to enable multiple doors. Refer to the table below:

Value entered	Door(s) enabled	Value entered	Door(s) enabled
0	None	8	4
1	1	9	1, 4
2	2	10	2, 4
3	1, 2	11	1, 2, 4
4	3	12	3, 4
5	1, 3	13	1, 3, 4
6	2, 3	14	2, 3, 4
7	1, 2, 3	15	All doors

Enter a number based on the table above and press * (STAY). This number should now appear on screen (except 0 which does not appear).

Enter 960# to save changes and reset the system.

Note: The Icon codepad *cannot* assign the door to area 2, it is on area 1 by default. To change the entry area, the text keypad or A-Link Plus is required.

Finally, it is recommended to link a codepad to a door. This allows us to set up new credentials on the codepad, and scan keycards in using the door reader.

Enter the Installer code (default is 1234) then # to enter the installer menu. The STAY and AWAY icons will flash to indicate Installer mode.

Enter 0522# to enter codepad 1's door assignment menu (0523#, 0524# and 0525# for codepad's 2-4 respectively).

Enter 0 to assign the codepad to door 1, 1 for door 2, 2 for door 3, 3 for door 4, or 15 for no door assignment, then hit * (STAY).

Enter 960# to save changes and reset the system.

The B901 heartbeat should now be a consistent 1 second blink, indicating functionality.