



**PACLOCK**

**PAC-BLU**  
ENTERPRISE KEYLESS SECURITY

Instruction Guide

# ACCESS Controller

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The Access controller comes assembled with a base and a lid. The base of the controller contains the control board with two 13-pin terminals. The lid has a sticker that shows the function for each post on the terminals.



Access Base



Access Lid

# ACCESS-Mini Controller

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The Access-Mini controller comes assembled with a box and a cover. The box of the controller contains the control board with a 26-pin JST connector.



Access Base



Access Lid



PB-CBL-1

# Pin Assignments

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<b>Pin Assignments for Access</b>		
<b><i>Access &amp; Access – Mini Pin #</i></b>	<b><i>Function</i></b>	<b><i>Pos/Neg</i></b>
1	6V - 24V Input	+
2	6V - 24V Input	-
3	9V Emergency Power Input	+
4	9V Emergency Power Input	-
5	Solenoid Output	+/-
6	Solenoid Output	+/-
7	DC Motor Output	+/-
8	DC Motor Output	+/-
9	Servo Motor Signal Output	Signaling
10	Servo Motor Output	-
11	Servo Motor Output	+
12	TFB LED RED	-
13	TFB LED GREEN	-
14	TFB LED BLUE	-
15	TFB LED COMMON	+
16	LED BLUE (NOT USED)	-
17	LED BLUE (NOT USED)	+
18	TFB Wake/Quick-Click Button	-
19	TFB Wake/Quick-Click Button	+
20	Manual Unlock Button	-
21	Manual Unlock Button	+
22	Sensor Input	-
23	Sensor Input	+
24	GPIO (NOT USED)	+
25	GPIO (NOT USED)	-
26	Ground (NOT USED)	GND

# Installing Access

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Step 1: Determine which endpoint you are using.

Access is compatible with any electro-mechanical lock pulling up to 3A of power.

- Pins 5 & 6 should be used for solenoids, drop bolts, electric strikes, or electromagnetic locks.
- Pins 7 & 8 should be used for DC Motors.
- Pins 9, 10, & 11 should be used for Servo motors.

Step 2: Attach wires from end point to the correct pins for the end point type on the Access board.

Step 3: Attach the TFB wires to pins 12-15 and 18-19 according to the Pin Assignments on the previous page or the sticker on the Access lid. The TFB button will “wake up” the board when the Access has power running to it. The TFB also has color light indicators and will be used to activate the “Quick Click” sequence.

Step 4: Attach the manual unlock button wires to pins 20 & 21. The manual unlock button will automatically unlock the Access unit when triggered. (If necessary)

Step 5: Attach any sensor wires to Pins 22 & 23. (If necessary)

Step 6: Attach main power wires to pins 1 & 2.

Step 7: Attach secondary power wires to pins 3 & 4.

**Note:** Secondary power wires run from the TFB, if using, and are attached to 9V backup terminals on the TFB.

# Functions

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Main Power: The main power powers the board when in use. The Access can accept from 6V to 24V DC. The polarity of the wires on the power input is very important and must be in the correct positions. If the wires are switched, the board will not function properly.

Secondary Power: The secondary power is used as back-up power when the main power is not working. Secondary power can accept from 6V to 24V DC. The polarity of the wires on the power input is very important and must be in the correct positions. If the wires are switched, the board will not function properly.

Note: Both the main power and secondary power can have current running to the at the same time. It will not affect the Access. The Access will only run on one power input at a time.

Solenoid Output: The solenoid output is for use with solenoids, drop bolts, electric strikes, and other electromechanical locks. The type of end point used in this position may not exceed 3A. The end point is configured using the “Lock Settings” in the PAC-BLU app. The functions that are configurable in the app are:

- Re-Lock Trigger: Relock based on a timer or sensor.
  - Re-Lock Timer: The amount of time the end point will lock or unlock for.
  - Sensor 1 Trigger On: Low or High.
- Solenoid Default State: On or Off. The “off” option is for end point that are fail secure locks meaning that the lock is locked when power is not running to it. The “on” option is for locks which are fail safe locks and are locked with power running to it.
- Manual Unlock: When selected the board will allow a manual unlock button or switch to be used inside of the door.
- Sleep: When selected the board will go to sleep when not in use to conserve power. It must be woken up using a button or switch to function. When not selected, the board will never go to sleep when power is running to it and will always be bluetoothing.
- Wake Up Action: None or Lock. When “None” is chosen, the board will do nothing when woken up. When “Lock” is chosen, the board will perform the lock function each time it is woken up.

# Functions

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Electromagnetic Option: The solenoid output is also used with electromagnetic locks. The type of end point used in this position may not exceed 3A. The end point is configured using the “Lock Settings” in the PAC-BLU app. The functions that are configurable in the app are:

- Re-Lock Trigger: Relock based on a timer or sensor.
  - Re-Lock Timer: The amount of time the end point will lock or unlock for.
  - Sensor 1 Trigger On: Low or High.
- Manual Unlock: When selected the board will allow a manual unlock button or switch to be used inside of the door.
- Sleep: When selected the board will go to sleep when not in use to conserve power. It must be woken up using a button or switch to function. When not selected, the board will never go to sleep when power is running to it and will always be bluetoothing.
- Wake Up Action: None or Lock. When “None” is chosen, the board will do nothing when woken up. When “Lock” is chosen, the board will perform the lock function each time it is woken up.

DC Motor Output: The DC output is for use with DC motors. The DC motor used in this position may not exceed 3A. The DC motor is configured using the “Lock Settings” in the PAC-BLU app. The functions that are configurable in the app are:

- Re-Lock Trigger: Relock based on a timer or sensor.
  - Re-Lock Timer: The amount of time the end point will lock or unlock for.
  - Sensor 1 Trigger On: Low or High.
- Motor run time: The amount of time the motor will run for before running in the opposite direction to re-lock.
- Motor Unlock Direction: Configurable to run clockwise or counter clockwise.
- Motor Voltage: 3.3V or 5.0V. A high voltage motor may be used with the Access. The motor will only run at the specified voltage of 3.3V or 5.0V and will not run at the full capacity.
- Manual Unlock: When selected the board will allow a manual unlock button or switch to be used inside of the door.
- Sleep: When selected the board will go to sleep when not in use to conserve power. It must be woken up using a button or switch to function. When not selected, the board will never go to sleep when power is running to it and will always be bluetoothing.
- Wake Up Action: None or Lock. When “None” is chosen, the board will do nothing when woken up. When “Lock” is chosen, the board will perform the lock function each time it is woken up.

# Functions

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**Servo Motor Output:** The Servo output is for use with Servo motors. The Servo motor used in this position may not exceed 3A. The Servo motor is configured using the “Lock Settings” in the PAC-BLU app. The functions that are configurable in the app are:

- Re-Lock Trigger: Relock based on a timer or sensor.
  - Re-Lock Timer: The amount of time the end point will lock or unlock for.
  - Sensor 1 Trigger On: Low or High.
- Servo Unlock Position: The position that the servo servo is in when unlocked.
- Servo Lock Position: The position that the servo motor is in when locked.
- Motor run time: The amount of time the motor will run for before running in the opposite direction to re-lock.
- Motor Unlock Direction: Configurable to run clockwise or counter clockwise.
- Motor Voltage: 3.3V or 5.0V. A high voltage motor may be used with the Access. The motor will only run at the specified voltage of 3.3V or 5.0V and will not run at the full capacity.
- Manual Unlock: When selected the board will allow a manual unlock button or switch to be used inside of the door.
- Sleep: When selected the board will go to sleep when not in use to conserve power. It must be woken up using a button or switch to function. When not selected, the board will never go to sleep when power is running to it and will always be bluetoothing.
- Wake Up Action: None or Lock. When “None” is chosen, the board will do nothing when woken up. When “Lock” is chosen, the board will perform the lock function each time it is woken up.

**TFB LED Light Color Inputs:** The three TFB color inputs are for the indicator lights on the TFB. The lights indicate the current status of the board.

- Red: The board has power and is awake.
- Green: The current function is running.
- Blue: The board is updating to the new settings indicated in the app.

**TFB Wake/Quick Click Button:** These two inputs serve two functions.

- Wake: The button will wake the Access up to begin bluetoothing when pushed.
- Quick Click: The patented Quick Click opens the lock using Morse Code type sequences with button clicks.

**Manual Unlock Button:** The manual unlock button input is for a manual unlock switch, button, or sensor. The manual unlock is used to unlock the end point from inside of the room or enclosure. When using the manual unlock, the lock will open without the use of eKeys.

**Sensor Input:** The sensor input allows for a sensor that functions as a relock trigger when selected.



# Disclaimer

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Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

A large blue trapezoidal shape, wider at the top and narrower at the bottom, serving as a background for the logo.

**PACLOCK**

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