COGENT SYSTEMS

Cogent BioGate Product Line Installation Guide

Smart-Gate

Mag-Gate

Search-Gate

SC-Gate

Hardware Installation

Accessory List

Before installing the **BioGate** terminal, ensure that the following accessories are included in the box:

- **BioGate** Terminal
- Security Screws (2)
- Security Screw Tool
- Admin Cable (black)
- DB-15 Cable (grey)
- Installation CD (including the **SecurSetup** installation software and an electronic version of this User Guide)
- Installation Guide

Mounting BioGate Terminals (with Plastic Housing) onto the Wall

To mount a **BioGate** terminal (with plastic housing) onto the wall, follow these steps:

1. Ensure that the cables (e.g., power supply, DB-15, and/or Ethernet) are disconnected from the **BioGate** terminal.
2. Mark the location of the terminal on the wall at approximately 50 inches (1,250 mm) above the ground.

NOTE

Make sure that there are no obstructions 12 inches (300 mm) above the mounting location.

3. Remove the protective cover from the bottom of the terminal, an example of which is shown in **Figure C-1**.

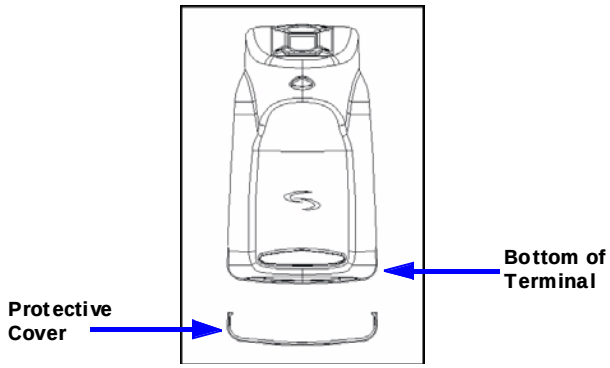


Figure C-1 Remove the Protective Cover from the Bottom of the Terminal

4. Remove the two security screws located on the bottom of the terminal, an example of which is shown in **Figure C-2**.

Figure C-2 Bottom View - Security Screws

5. Remove the mounting plate from the back of the terminal.

6. Drill mounting holes in the wall corresponding to the hole locations of the terminal's mounting plate. A diagram of the mounting plate's dimensions (values are shown in Metric units) is shown in **Figure C-3**.

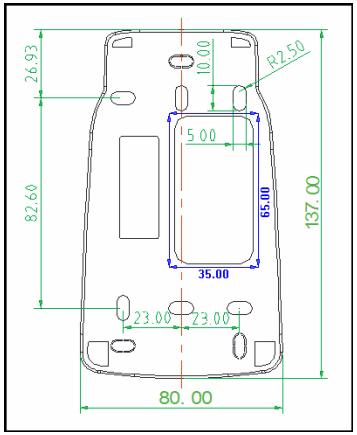


Figure C-3 Diagram of the Hole Locations in the Mounting Plate

NOTE

There are a total of six holes in the mounting plate. The mounting plate has three tabs that can be removed to provide three extra holes, an example of which is shown in **Figure C-4**.

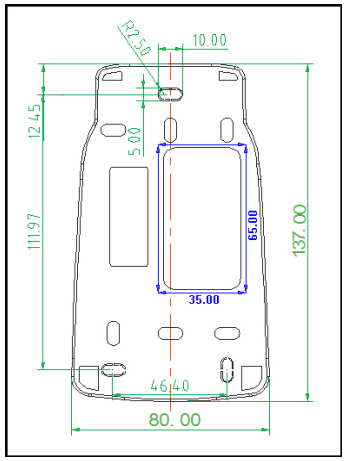


Figure C-4 Diagram of the Three Removable Tabs in the Mounting Plate

7. Align the holes in the mounting plate with the holes in the wall.

8. Screw the mounting plate onto the wall using screws with C4 thread.

NOTE

Be sure that the mounting plate is firmly anchored on the wall. Remember that downward pressure is often applied to the fingerprint sensor on the front of the terminal.

9. Thread the cables (e.g., power supply, DB-15, and/or Ethernet) from the wall through the mounting plate.

10. Connect the cables (e.g., power supply, DB-15, and/or Ethernet) to the appropriate ports at the rear of the terminal.

11. After the mounting plate is anchored to wall, hold the terminal upright at a 45 degree angle and push downward onto the clasps at the top of the mounting plate, an example of which is shown in **Figure C-5**.

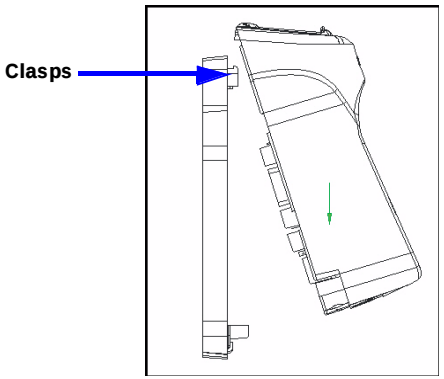


Figure C-5 Lower the Terminal onto the Mounting Plate

12. Gently press the terminal and the mounting plate together until they snap completely in place.

13. Secure the terminal to the mounting plate by screwing the two security screws to the bottom of the terminal, an example of which is shown in **Figure C-6**.

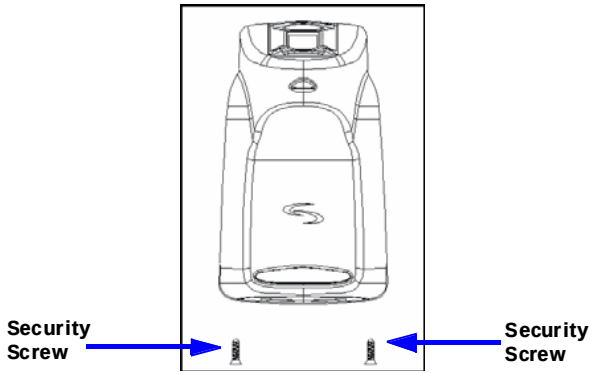


Figure C-6 Secure the Terminal to the Mounting Plate

14. Attach the protective cover to the bottom of the terminal.

Mounting BioGate Terminals (with Aluminum Housing) onto the Wall

To mount a **BioGate** terminal (with aluminum housing) onto the wall, follow these steps:

1. Ensure that the cables (e.g., power supply, DB-15, and/or Ethernet) are disconnected from the **BioGate** terminal.
2. Mark the location of the terminal on the wall at approximately 50 inches (1,250 mm) above the ground.

NOTE

Make sure that there are no obstructions 12 inches (300 mm) above the mounting location.

3. Remove the two security screws located on the bottom of the terminal, an example of which is shown in **Figure C-7**.

Figure C-7 Bottom View - Security Screws

4. Remove the mounting plate from the back of the terminal.

5. Drill mounting holes in the wall corresponding to the hole locations of the terminal's mounting plate. A diagram of the mounting plate's dimensions (values are shown in Metric units) is shown in **Figure C-8**.

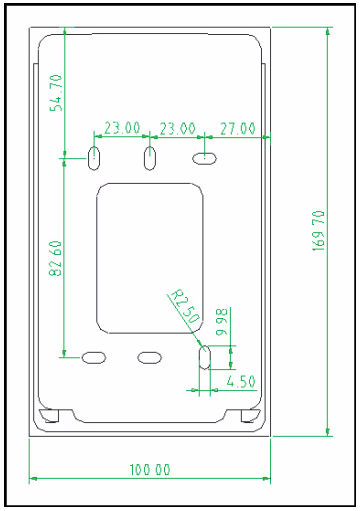


Figure C-8 Diagram of the Hole Locations in the Mounting Plate

6. Align the holes in the mounting plate with the holes in the wall.

7. Screw the mounting plate onto the wall using screws with C4 thread.

NOTE

Be sure that the mounting plate is firmly anchored on the wall. Remember that downward pressure is often applied to the fingerprint sensor on the front of the terminal.

8. Thread the cables (e.g., power supply, DB-15, and/or Ethernet) from the wall through the mounting plate.

9. Connect the cables (e.g., power supply, DB-15, and/or Ethernet) to the appropriate ports at the rear of the terminal.

10. After the mounting plate is anchored to wall, hold the terminal upright at a 45 degree angle and push the clasps downward onto the top of the mounting plate, an example of which is shown in **Figure C-9**.

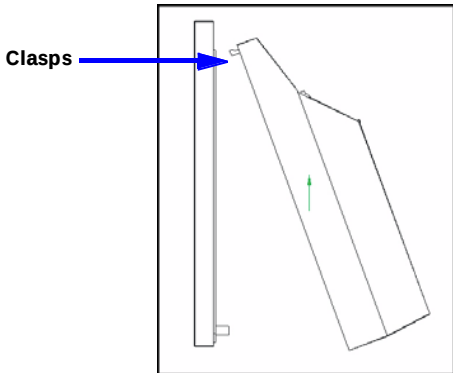


Figure C-9 Lower the Terminal onto the Mounting Plate

11. Gently press the terminal and the mounting plate together until they snap completely in place.

12. Secure the terminal to the mounting plate by screwing the two security screws to the bottom of the terminal, an example of which is shown in **Figure C-10**.

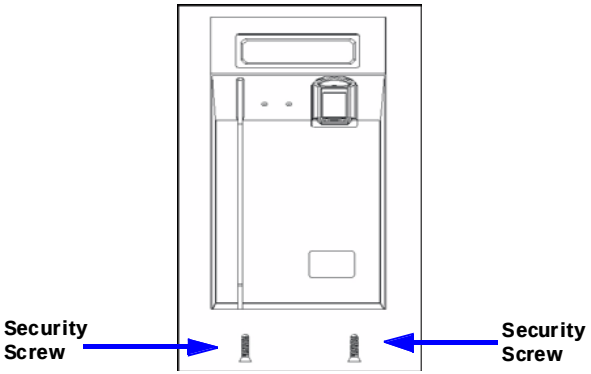


Figure C-10 Secure the Terminal to the Mounting Plate

Appendix: Wiring Installation

Connecting the Power Supply to the BioGate

The power supply can be connected either through an AC/DC power adapter to the DB-15 port or to an Ethernet port. The wiring diagram is shown in **Figure A-1**.

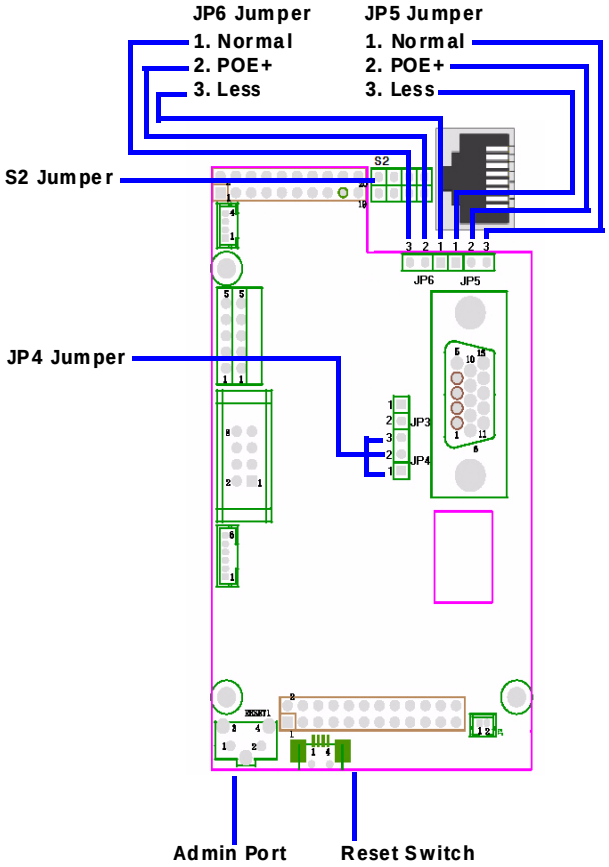


Figure A-1 Wiring Diagram

Connecting the Power Supply to the DB-15 Port

Cogent's custom 15-pin D-type connector cable can be connected between the DB-15 port of the **BioGate** terminal and an AC/DC power adapter in order to provide the power supply to the device.

All the BioGate terminals provide fifteen (15) input and output connectors, as shown in the following table.

Pin Number	Cable Wire Color	Description
1	White/Orange	Wiegand Output Data
2	Orange	Wiegand Input Data
3	White/Green	Wiegand Output Data1
4	Green	Wiegand Input Data1
5	White/Blue	Line Trigger (DRV_Out)
6	Blue	Wiegand GND
7	White/Brown	RS-485 (-)
8	Brown	RS-485 (+)
9	Red/Orange	RS-232 (TX)
10	Orange	RS-232 (RX)
11	Red/Green	Power GND
12	Green	Relay-2
13	Red/Blue	Power (6-24 V DC)
14	Blue	Relay-1
15	Red/Brown	Safety GND

To connect the power supply to the DB-15 port, follow these steps:

1. Take one of the following actions:
   - If the power range of the power supply is between 6 and 12 volts, attach a jumper on pin 1 and pin 2 of **JP4**.
   - If the power range of the power supply is between 12 and 48 volts, attach a jumper on pint 2 and pin 3 of **JP4**.
2. Connect pins 11 and 13 of a D-type connector cable between the DB-15 port of the **BioGate** terminal and an AC/DC power adapter of the power supply.

Connecting the Power Supply to the Ethernet Port

Category 5 (CAT-5) Ethernet cables can be connected to the Ethernet port of the BioGate terminal in order to provide the power supply to the device. To connect the power supply to the Ethernet port, follow these steps:

1. Take one of the following actions:
   - If the **BioGate** terminal meets the 802.3 af Power over Ethernet (PoE) specification and the power range of the power supply is between 40 and 60 volts, attach a jumper on pin 1 and pin 2 of **JP5** and a jumper on pin 1 and pin 2 of **JP6**.
   - If the **BioGate** terminal does not meet the 802.3 af Power over Ethernet (PoE) specification and the power range of the power supply is between

12 and 40 volts, attach a jumper on pin 2 and pin 3 of **JP5** and a jumper on pin 2 and pin 3 of **JP6**.

2. Take one of the following actions:
   - Connect a CAT-5 Ethernet cable between the Ethernet port of the **BioGate** terminal and an 802.3 af PoE-enabled hub. An example of the connection is displayed in **Figure A-2**.

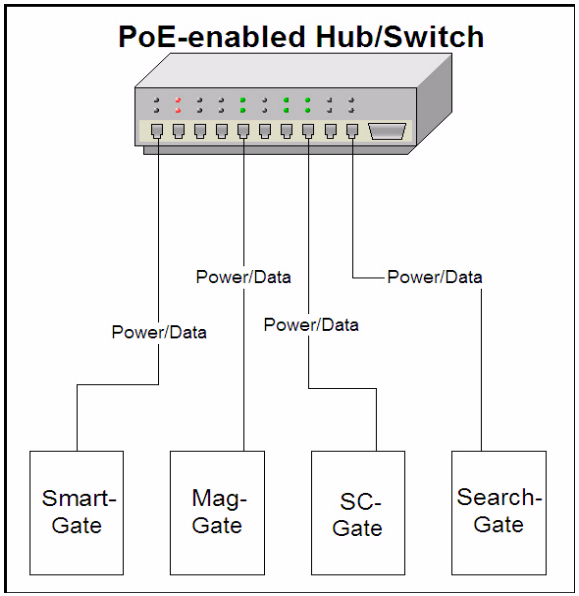


Figure A-2 PoE-enabled Hub Connected Directly to BioGate Terminals

   - Connect a CAT-5 Ethernet cable between the Ethernet port of the **BioGate** terminal and a midspan power injector unit. An example of the connection is displayed in Figure **A-3**.

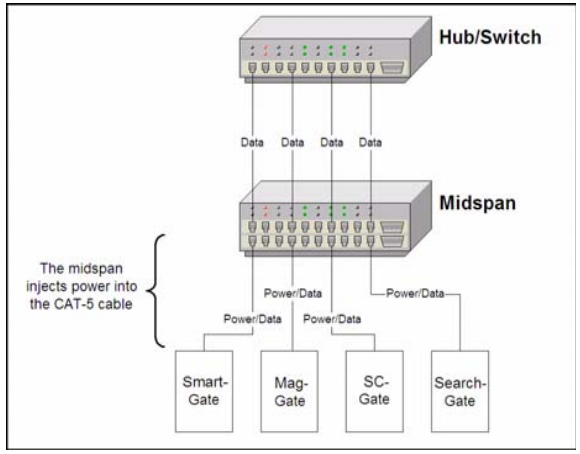
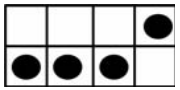
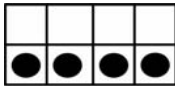
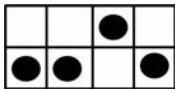


Figure A-3 Hub Connected to BioGate Terminals via a Midspan

Setting the User Input Methods for the BioGate Terminals

The terminals can be set to operate either with user cards and fingerprints or with fingerprints only. The following table describes the **S2** jumper settings corresponding to the user input and operation mode options.

User Input(s)	Operation Mode(s)	S2 Jumper Settings
User Card + Fingerprint(s)	**Default Setting: Enroll, Verify, and Delete operation modes**	
User Card + Fingerprint(s)	**Verify operation mode only**	

User Input(s)	Operation Mode(s)	S2 Jumper Settings
Fingerprint(s) only	**Enroll operation mode only**	
Fingerprint(s) only	**Verify operation mode only**