



BODYGUARD

VEHICLE DAMAGE DEFENDER

Repair Manual

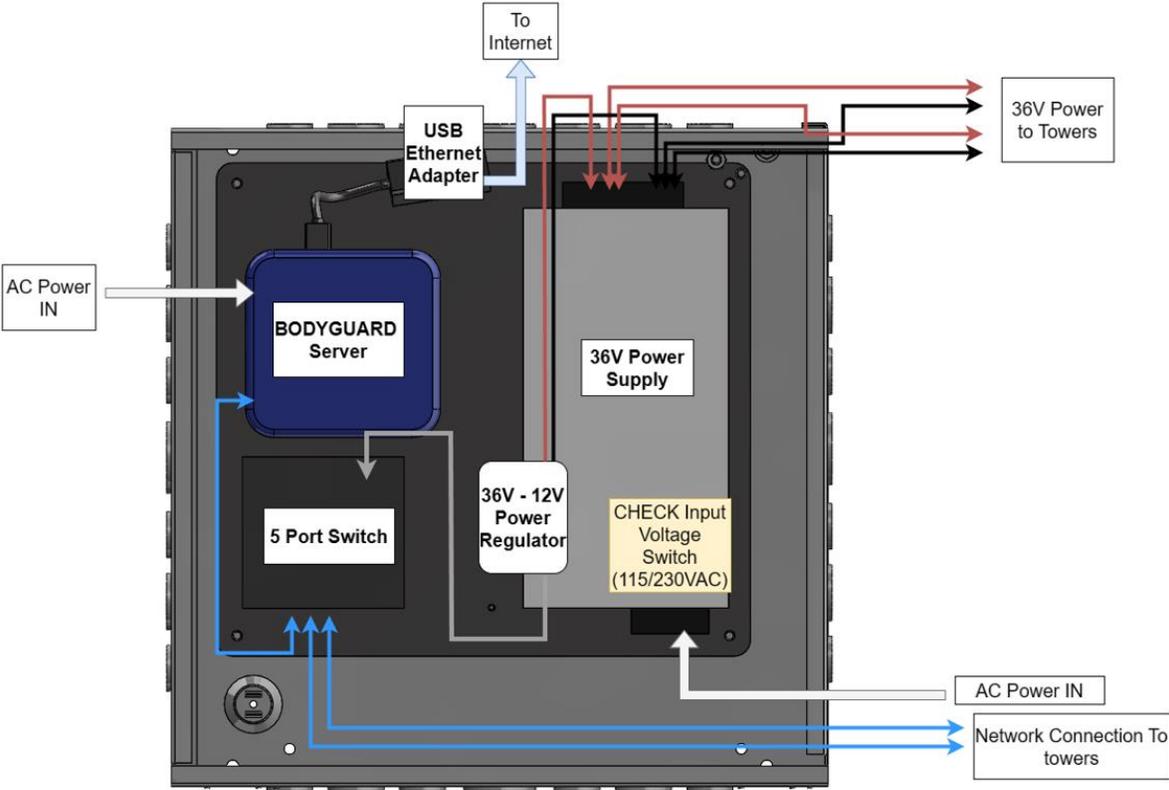
BODYGUARD Versions 1.0 | 1.1 | 1.2

BG 1.0 Part Replacement Manual.....	2
Server	2
Tower Board	3
5-Port Network Switch.....	4
Cameras	5
Power Distribution Board	6
BG 1.1/1.2 Part Replacement manual.....	7
Master Board	8
Server	9
AI Embedded Computer.....	10
USB Ethernet Adapter.....	11
5-Port Network Switch.....	12
BODYGUARD 1.1/1.2 Tower Board.....	13
Cameras	14
1.2 Light Panel.....	15

BG 1.0 Part Replacement Manual

Server

The wiring for the BODYGUARD 1.0 server box is shown in the diagram below:

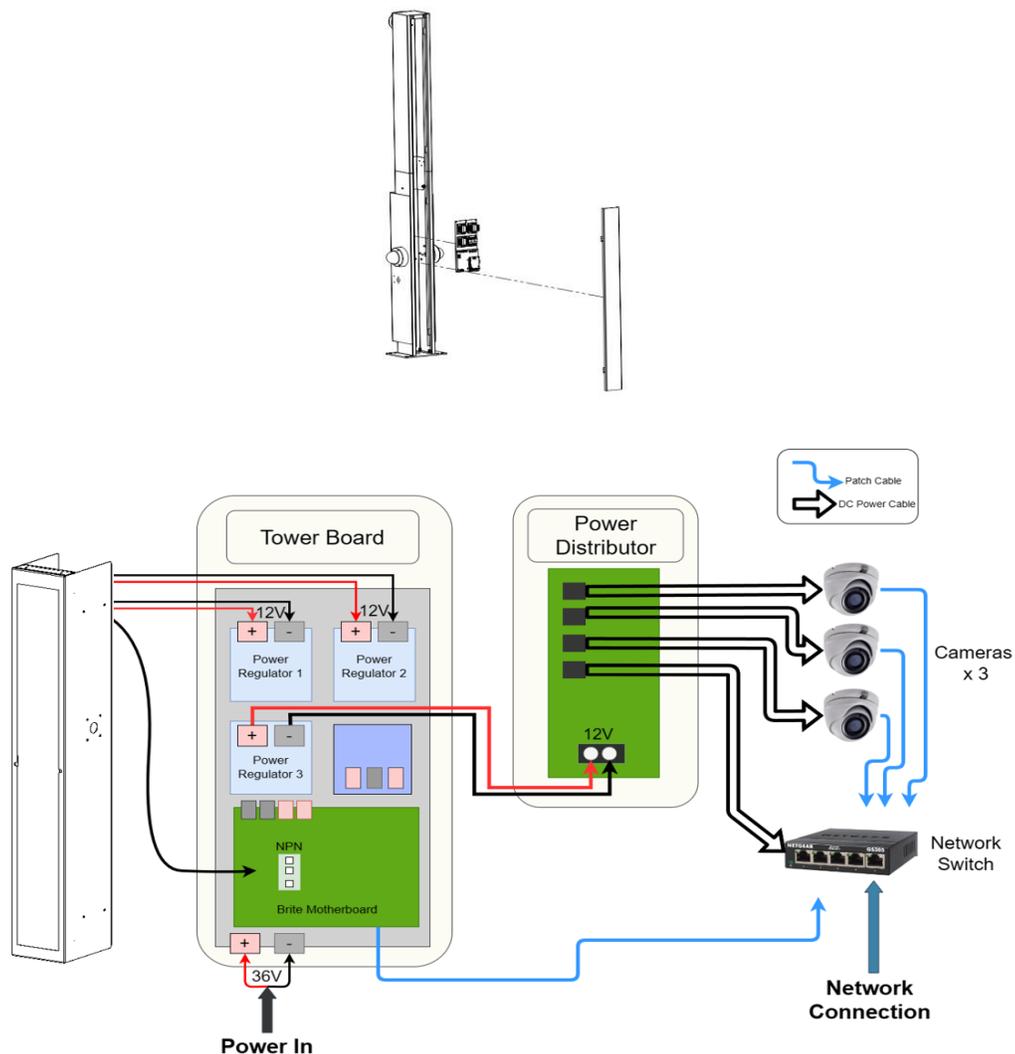


Tower Board

To replace the tower board, it is crucial to ensure the system is completely powered down. Prior to proceeding, use a Phillips screwdriver and a small flathead screwdriver to disconnect all wires into the tower board.

To replace the tower board with a new one, reconnect:

- Two pairs of red/black 12V cables from the LEDs into the power regulators at the top of the board
- One pair of red/black cables from the power distribution board into the middle power regulator
- The green connector into the NPN slot on the main circuit board
- The 36V power input
- The network cable connects the tower board to the tower network switch.

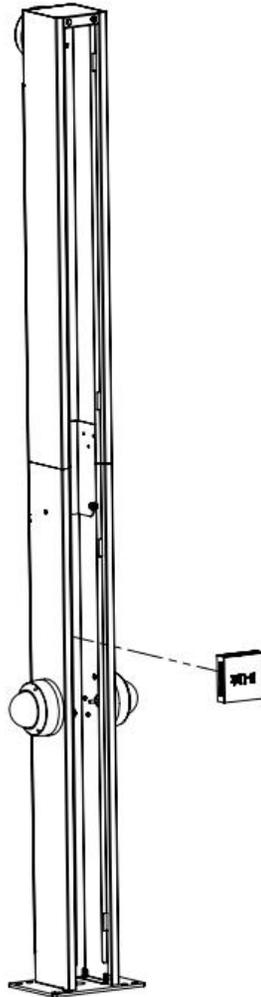


5- Port Network Switch

The 5-port switch rests inside the BODYGUARD tower on keyhole supports. Power is supplied to the switch at 12V through a 5.5x2.1mm dc cable, from the tower circuit board.

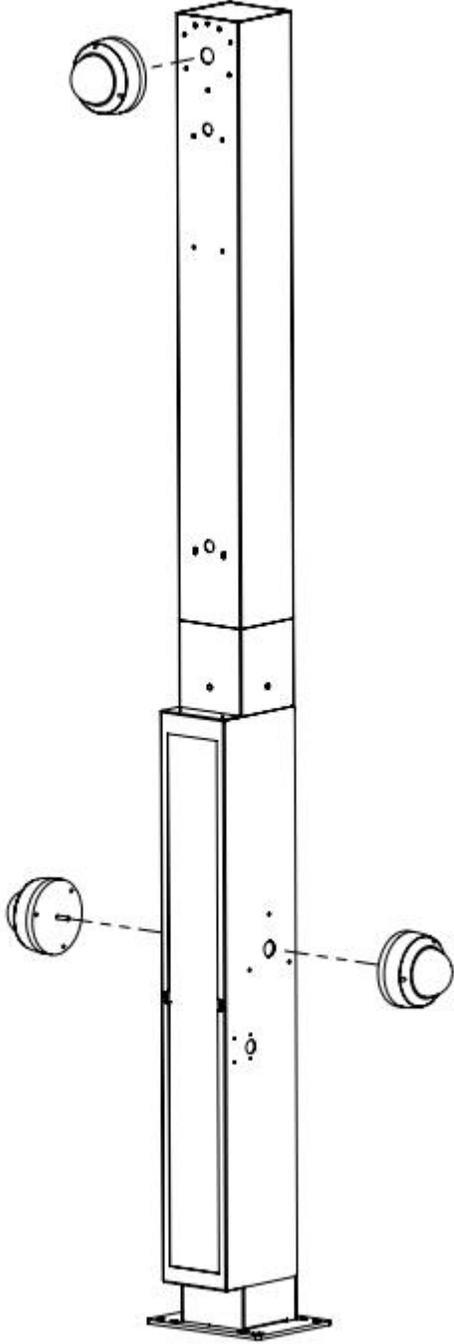
The switch connects ethernet to each camera, and the tower board.

To replace the switch, open the back of the BODYGUARD tower by unscrewing the top cap and lifting out the back panels. Unplug all the network and power cables from the switch and replace it with the new one.



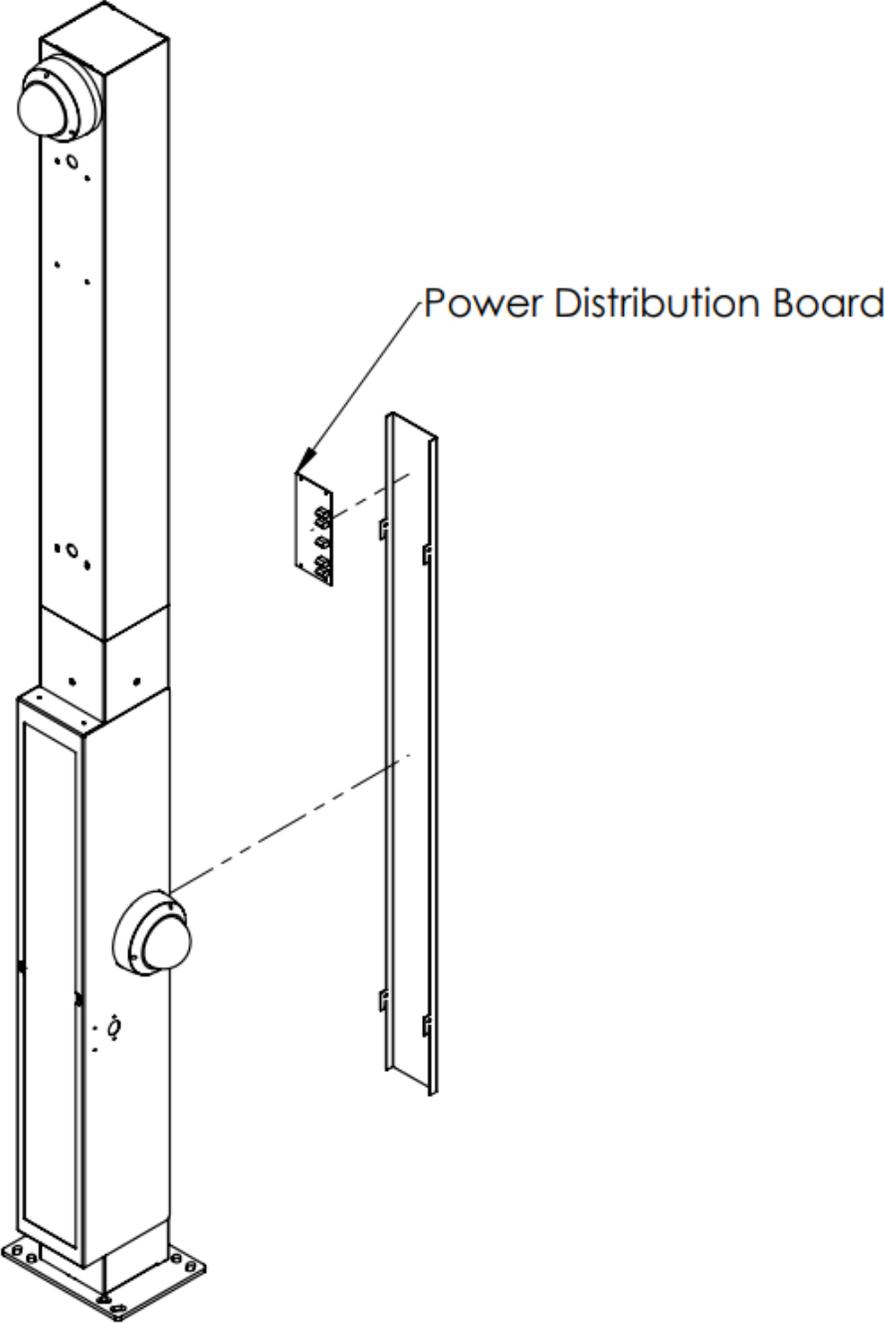
Cameras

The cameras are mounted using M4 Phillips head screws. They are connected with a 12V DC power cable and a network cable. Refer to the "Tower Board" on page 3 for the wiring diagram.



Power Distribution Board

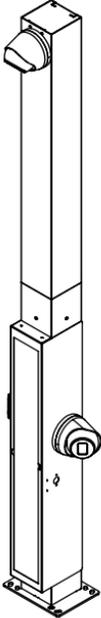
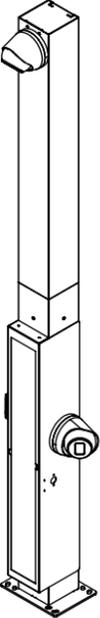
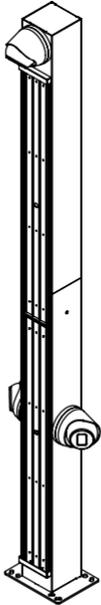
The Power Distribution Board provides 12V power to the cameras and network switch. It is fastened to the lower rear access panel by 4 x M3 Phillips head screws. It receives power from the tower board. Refer to the wiring diagram in the "Tower Board" section on page 3.



BG 1.1/1.2 Part Replacement manual

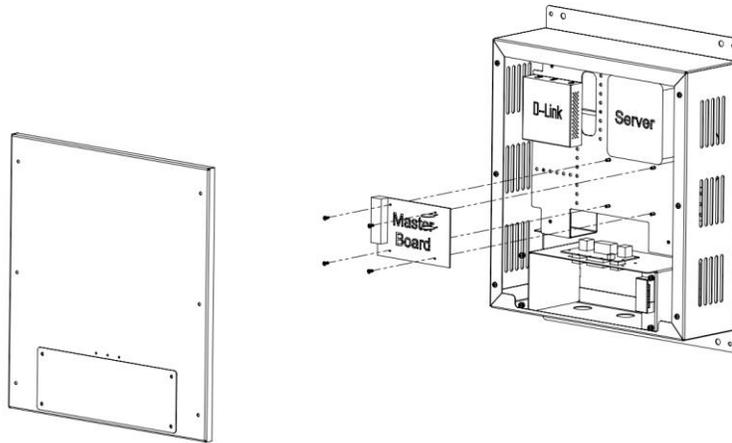
This document details the replacement of common parts for the BODYGUARD 1.1/1.2 System. BODYGUARDS 1.1/1.2 use a 48V power supply instead of the 36V power supply in a 1.0 system. The 1.1/1.2 circuit boards differ from the 1.0 circuit boards.

The difference between a 1.1 and 1.2 BODYGUARD is the LED panel shape, a 1.1 has a solid LED like the 1.0, and the 1.2 has a striped LED that spans the whole height of the tower.

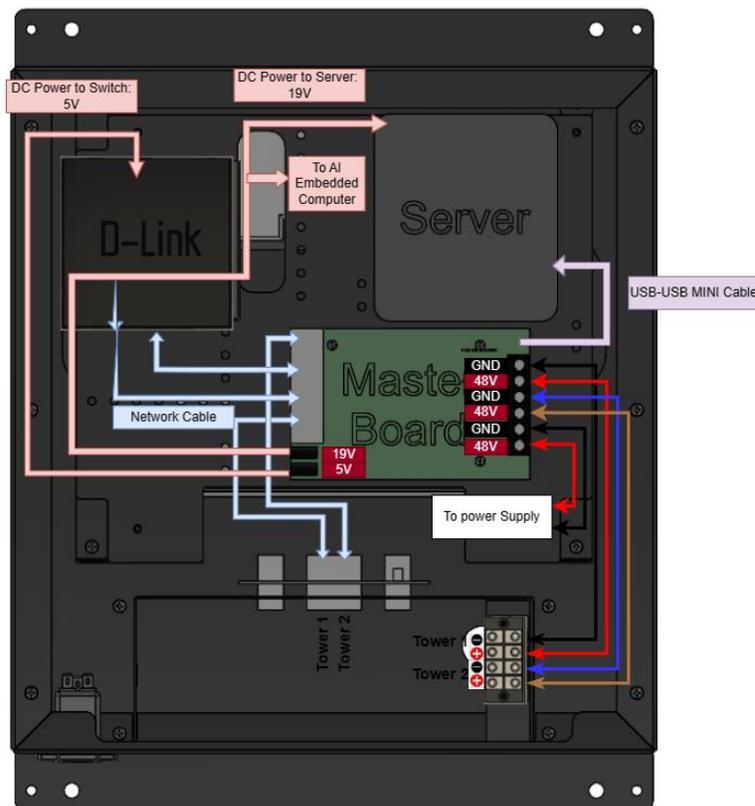
Model	BG 1.0	BG 1.1	BG 1.2
Power supply	36V	48V	48V
Shape			

Master Board

1. Unplug the server box power and remove the front cover.

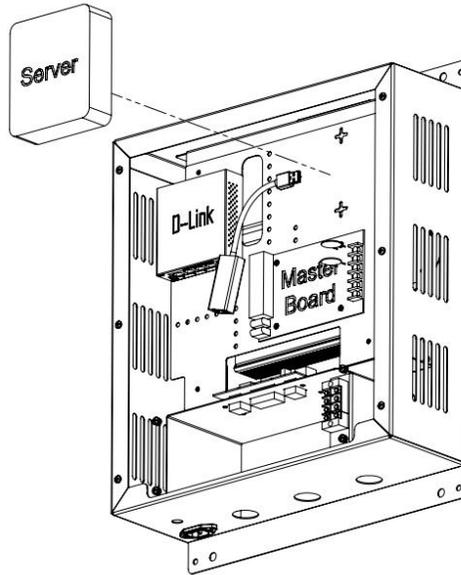


2. Unplug all cables going into the master board.
3. Using the graphic below, remove 4 Phillips screws and take out the old Master Board.
4. Install the new Master Board using the same 4 Phillips screws and wire it following the graphic.

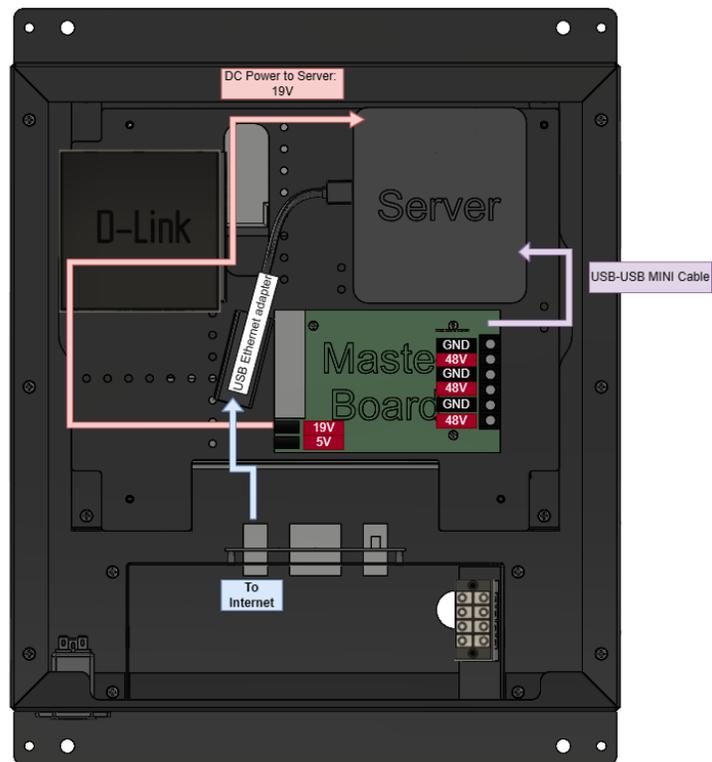


Server

The server is mounted via two keyhole supports. To remove the server, shift it up and then lift it out of position.



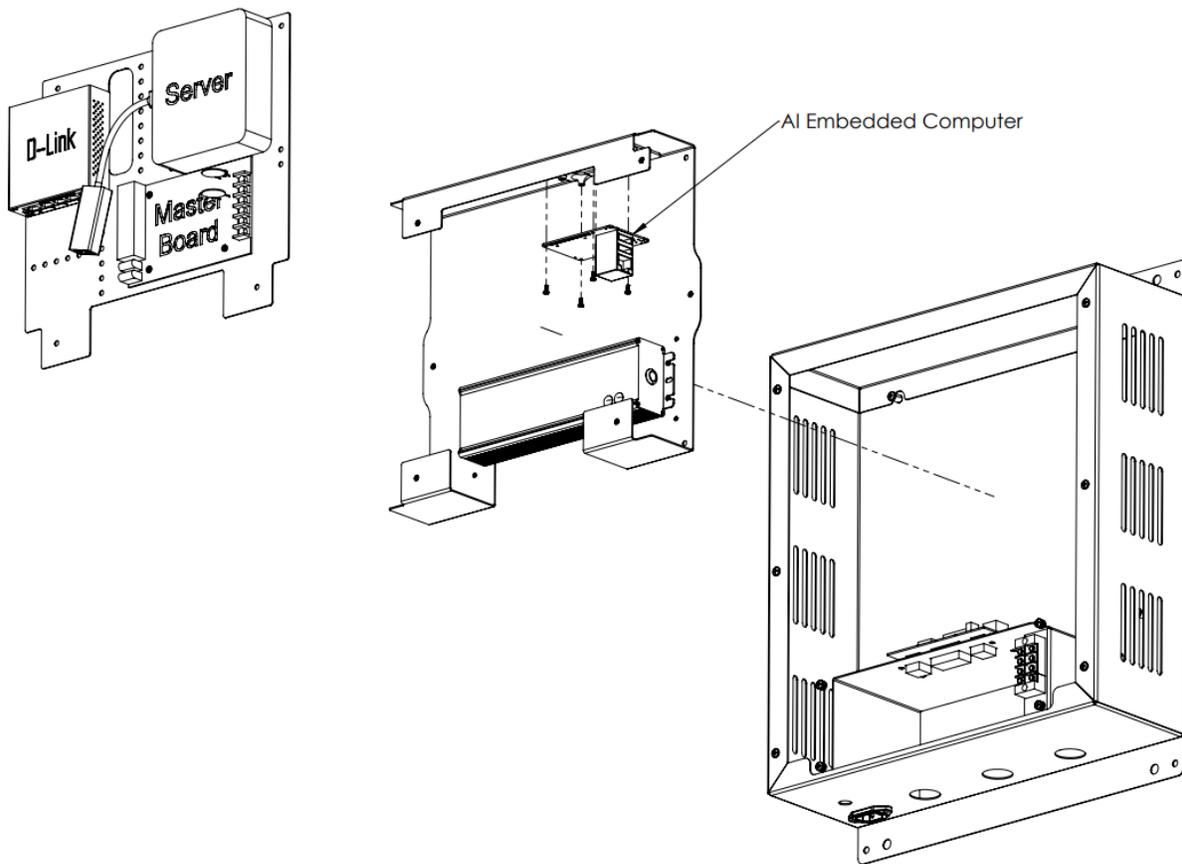
Server Wiring Diagram:



AI Embedded Computer

The AI Embedded Computer is on the lower level of the server box held by 4 small Phillips head screws.

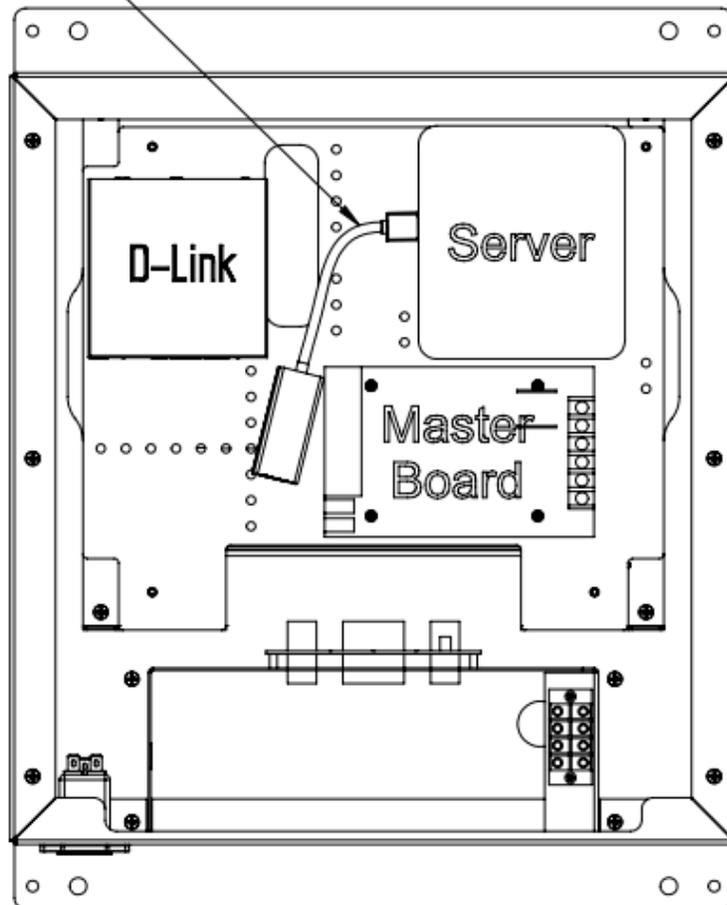
It is powered by a 19V DC cable which plugs into the Master Board and is connected via ethernet to the 5-port switch. To replace it, unscrew the computer from the mount and unplug the cables, then replace it with the new one.



USB Ethernet Adapter

The USB Ethernet Adapter is connected to the server, the ethernet end is connected to the 5-port switch. The ethernet adapter connects to the internet so when replacing the cable make sure the correct cord is plugged in to the adapter.

USB Ethernet Adapter

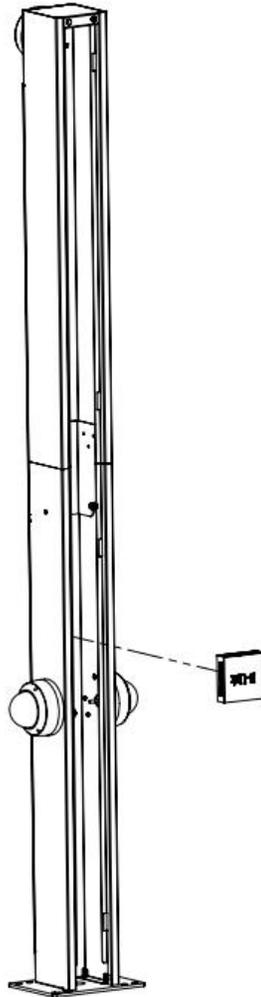


5- Port Network Switch

The 5-port switch rests inside the BODYGUARD tower on keyhole supports. Power is supplied to the switch at 12V through a 5.5x2.1mm dc cable, from the tower circuit board.

The switch connects ethernet to each camera, and the tower board.

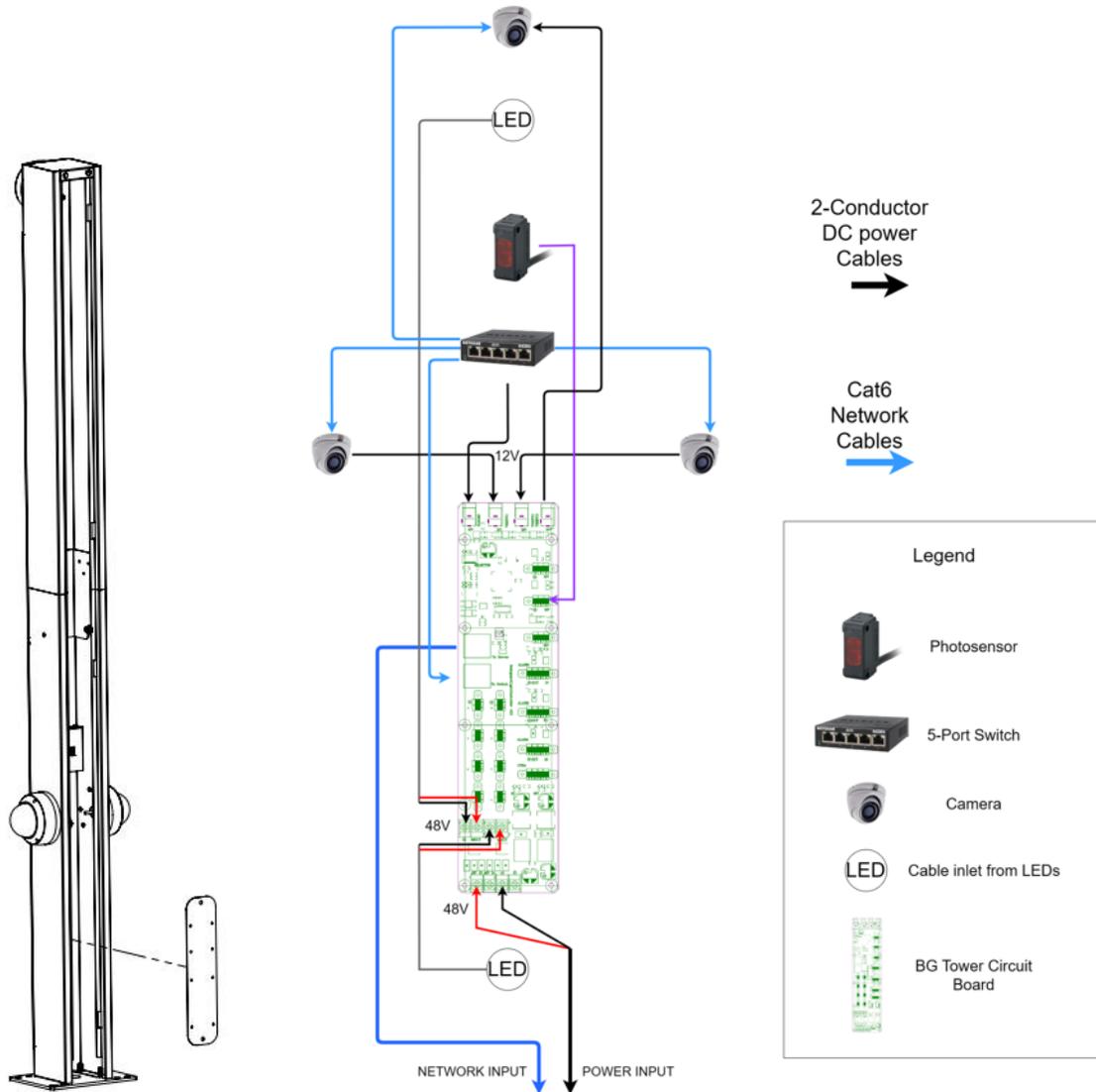
To replace the switch, open the back of the BODYGUARD tower by unscrewing the top cap and lifting out the back panels. Unplug all the network and power cables from the switch and replace it with a new one.



BODYGUARD 1.1/1.2 Tower Board

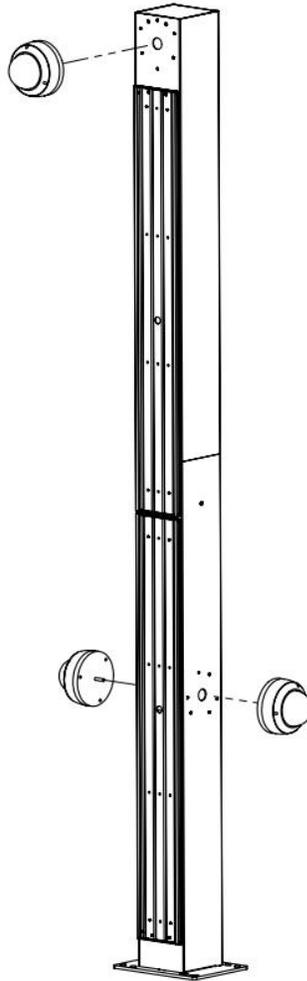
Remove the Tower Board by unplugging all connections and loosening the 2 x ¼" nuts at the top and bottom of the metal plate that holds the Tower Board.

The wiring diagram for the Tower Board is shown below. A Phillips head screwdriver and a small flat head screwdriver are required to remove all the wired connections.



Cameras

The cameras are mounted using M4 Phillips head screws. They are connected with a 12V DC power cable and a network cable. To replace the cameras, refer to the BODYGUARD 1.1/1.2 "Tower Board" section on page 13 for the wiring diagram.



WATERPROOFING TIP

For all BODYGUARD Outdoor systems, it is imperative that the network connection for each camera is covered with an appropriate waterproof casing. This step is crucial for ensuring the system's longevity and optimal performance in outdoor conditions.

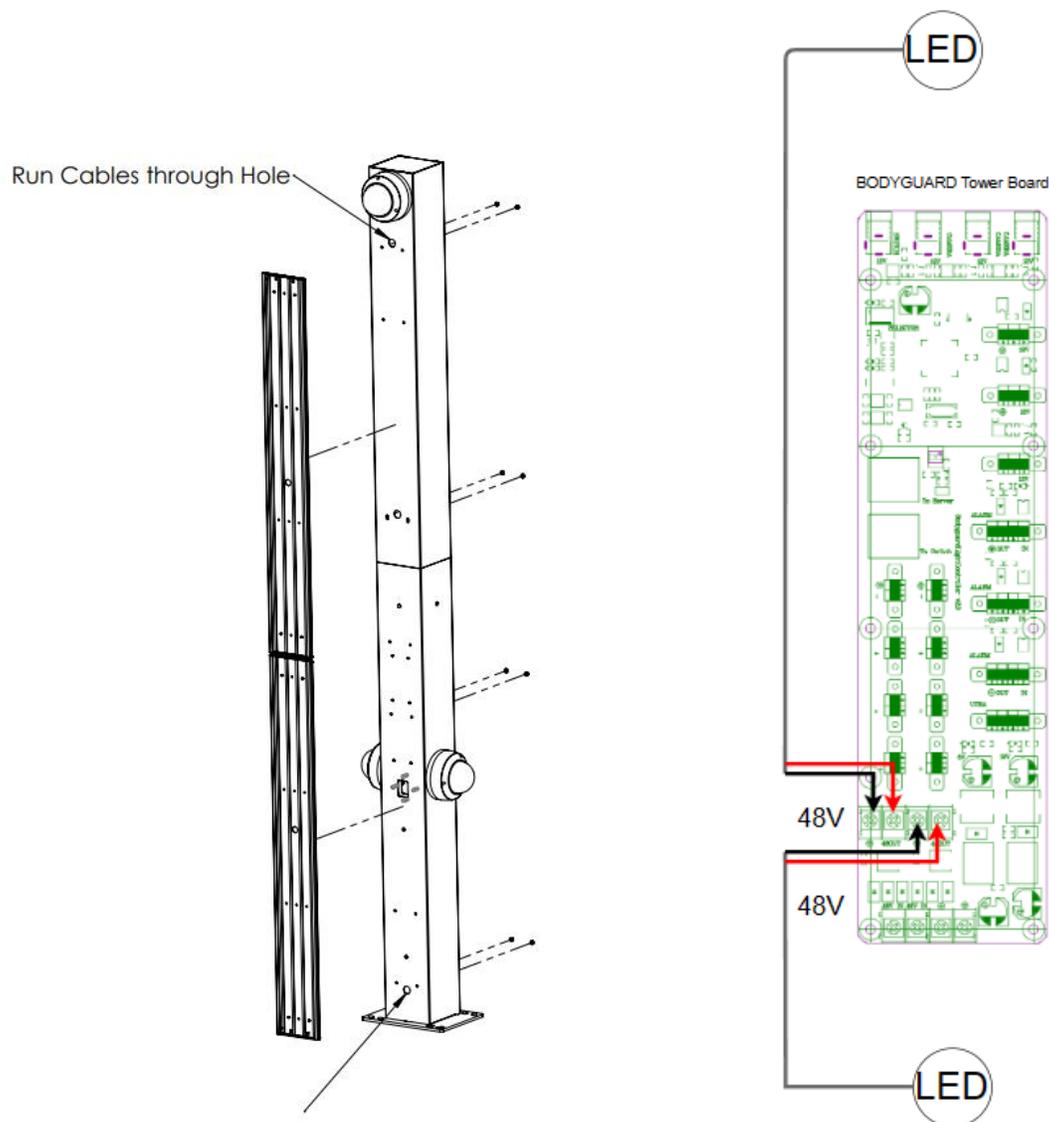


1.2 Light Panel

To replace the light panel, power down the BODYGUARD and disconnect the LED power cables from the tower board. Each LED panel has one red and one black cable.

Remove the light panel by removing the M5 nuts from inside the tower using an 8mm or 5/16" wrench.

When connecting the new LED wires to the tower board, pay close attention to the positive/negative order, as clearly indicated by the wire colors in the figure. Incorrectly matching the positive and negative leads can result in malfunctions or damage to the equipment.





Hi. We are here to help.

support@bl-innovare.com
855.233.8632 ext. 5

[Online Multi Language Installation Manuals](#)

Request Remote Support Appointment
<https://zfrmz.com/EOKBVG0wZp6kpYdFLUjd>