

MigmaBicycle™

for detecting and counting bicyclists at all traffic applications

Installation Instructions

General Description

MigmaBicycle™ is a product that is specifically designed for detecting and counting bicyclists at street crossings that are going forward or making a left turn. Upon the detection of bicyclists, it can send the relay signals to place bike calls, and save bicycle counts and/or associated bicyclist images both locally in an external USB drive and/or remotely to a data server.

Installation

A MigmaBicycle™ unit comprises of one Single Board Computer (SBC), two stereo cameras, two relay cables and one Ethernet splitter. The SBC needs to be placed inside a cabinet. The two stereo cameras should be mounted to the existing signal poles or pedestals at a desired height above ground, either around 15 ft or around 18 ft.

Camera Wiring

Unscrew the waterproof Ethernet connector at the back of the stereo camera, carefully push the Cat5e cable through the connector, and then crimp the RJ45 connector to the Cat5e cable. Now screw back the connector and tighten it.

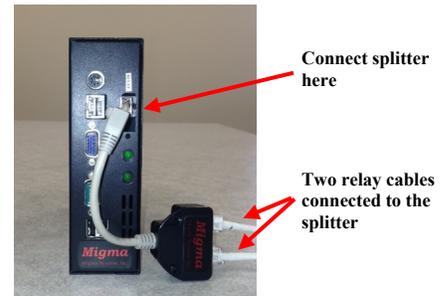


Mount the cameras on the signal poles. Mark the Cat5e cable connected to each camera as “System 1” or “System 2”. At the back of SBC, there are two RJ45 connectors. Connect Cat5e cable marked as “System 1” to RJ45 connector labeled as “System 1”. Similarly connect Cat5e cable marked as “System 2” to the connector labeled as “System 2”.



Relay Wiring

- (1) Connect the Ethernet splitter to RJ45 connector located at the front of SBC.

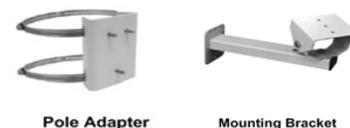


- (2) There are two relay cables, one labeled as “System 1” and the other “System 2”. They can be plugged into any connectors of the splitter.
- (3) Two systems, “System 1” and “System 2”, are associated with two cameras. In the cabinet, connect the relay wires labeled as “System 1” to the button terminals designated to the bike calls for the bicyclists who appear in the “System 1” camera view. Similarly connect the other relay wires marked as “System 2” to the button terminals for the bike calls of “System 2”.



Camera Mounting

- (1) Attach the pole adapter to the signal pole
- (2) Connect the mounting bracket to the pole adapter
- (3) Mount the stereo camera on the bracket



Power for Stereo Cameras

The stereo cameras are powered over Cat5e cable (PoE).