PHOTO EYES INSTALLATION OVERVIEW FOR SINGLE AND DUAL GATES

IMPORTANT

Two (2) pairs of photo eyes are required for a single gate and three (3) pairs for a dual gate.

PHOTO EYES INSTALLATION OVERVIEW FOR SINGLE AND DUAL GATES

GATE DIAGRAM 1

DUAL GATE DIAGRAM 2
PREPARING THE CONTROL BOARD AND CONTROL BOX FOR PHOTO EYE WIRING

■ ON THE CONTROL BOARD FIND THE DIP SWITCHES. POSITION DIP #3 TO THE RIGHT FOR SAFETY MODE.

■ NOW TURN THE POWER OFF TO THE CONTROL BOARD AND BATTERY IS DISCONNECTED BEFORE WIRING.

■ On the bottom of the control box there is a built-in knock-out for wires. Drill a hole and knock it out and install a strain relief. This is where your wires will feed up into the control box and connect to the control board.

PAIR 1 PHOTO EYE INSTALLATION AND WIRING

PAIR 1 Photo Eye RECEIVER needs to be installed on the Control Box side of the gate opener. The TRANSMITTER needs to be installed facing and across from the RECEIVER. You will also need to dig a trench for the two (2) TRANSMITTER wires to go across and connect the TRANSMITTER TO THE RECEIVER. The RECEIVER wires will then connect to the control box. Use 20-22 AWG gauge stranded wire. (see CLOSING -REVERSE CONNECTION DIAGRAM next page).

CONNECTIONS FOR CLOSING-REVERSE (PAIR 1)

<table>
<thead>
<tr>
<th>Transmitter</th>
<th>Receiver</th>
<th>Ghost Control Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>PWR</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>4</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>5</td>
<td>MS_CL1</td>
</tr>
</tbody>
</table>

(see CLOSING -REVERSE CONNECTION DIAGRAM on next page).
Two (2) power wires feed through trench to connect to receiver and transmitter.

JUMPER WIRE between terminal 2 & 4

Wire to COM on Control Board

Wire to PWR on Control Board

Wire to MS-CL1 on Control Board

Wire to TRANSMITTER PHOTO BEAMPAIR 1

Trench for power wires

Control Box

Gate swings into property

Outside property

CLOSING - REVERSE CONNECTION DIAGRAM – PAIR 1
PAIR 2 PHOTO EYE INSTALLATION AND WIRING

PAIR 2 Photo Eye RECEIVER needs to be installed on the Control Box side of the gate opener. The TRANSMITTER needs to be installed facing and across from the RECEIVER. You will also need to dig a trench for the two (2) TRANSMITTER wires to go across and connect the TRANSMITTER TO THE RECEIVER. The RECEIVER wires will then connect to the control box. Use 20-22 AWG gauge stranded wire. (see OPENING - REVERSE CONNECTION DIAGRAM next page).

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<tr>
<td>2</td>
<td>2</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>4</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>5</td>
<td>MS_OP1</td>
</tr>
</tbody>
</table>

(see OPENING - REVERSE CONNECTION DIAGRAM on next page).

DUAL GATES: PAIR 3 PHOTO EYE INSTALLATION AND WIRING

PAIR 3 Photo Eye RECEIVER needs to be installed on the Control Box side of the gate opener. The TRANSMITTER needs to be installed facing and across from the RECEIVER. You will also need to dig a trench for the two (2) TRANSMITTER wires to go across and connect the TRANSMITTER TO THE RECEIVER. The RECEIVER wires will then connect to the control box. Use 20-22 AWG gauge stranded wire. (see OPENING - REVERSE CONNECTION DIAGRAM).

DUAL ONLY: CONNECTIONS FOR OPENING-REVERSE (PAIR 3)

<table>
<thead>
<tr>
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<th>Receiver</th>
<th>Ghost Control Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>PWR</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>4</td>
<td>COM</td>
</tr>
<tr>
<td>N/A</td>
<td>5</td>
<td>MS_OP2</td>
</tr>
</tbody>
</table>

(see OPENING - REVERSE CONNECTION DIAGRAM).
Control Box

Gate swings into property

Trench for power wires

Two (2) power wires feed through trench to connect to receiver and transmitter

RECEIVER PHOTO BEAM PAIR 2

Wire to MS-OPT1 on Control Board

Wire to COM on Control Board

Wire to PWR on Control Board

JUMPER WIRE between terminal 2 & 4

TRANSMITTER PHOTO BEAM PAIR 1

STREET VIEW

RECEIVER PHOTO BEAM PAIR 2

RECEIVER PHOTO BEAM PAIR 1

Trench for power wires
FOR DUAL GATE APPLICATIONS (PAIR 3)
OPENING - REVERSE CONNECTION DIAGRAM – PAIR 3

Two (2) power wires feed through trench to connect to receiver and transmitter.

JUMPER WIRE between terminal 2 & 4
SETTING UP THE DIP SWITCHES.
ALL UNITS COME FROM THE FACTORY PAIRED AS PAIR 1. When using more than 1 pair of photo eyes you will need to reset switches for Pair 2 and 3 during installation with the below instructions.

PAIR 1 PHOTO EYES (FACTORY SETTING)

PAIRING YOUR 2ND PHOTO EYES:
STEP 1: Remove + power on main control board for 2nd pair of photo eyes.
STEP 2: Place the dip switches in the positions shown in diagrams A1 and B1 above.
STEP 3: Restore + power on pair 2. Both unit’s displays will show the number 2. Leave on for 10 seconds.
STEP 4: Remove + power and reposition the dips as shown in diagrams A2 and B2.
STEP 5: Restore + power to pair 2. You are now ready to test beams to ensure proper response from the gate opener.

PAIR 2 PHOTO EYES

PAIRING YOUR 3RD PHOTO EYES:
STEP 1: Remove + power on main control board for 3rd pair of photo eyes.
STEP 2: Place the dip switches in the positions shown in diagrams C1 and D1 above.
STEP 3: Restore + power on pair 3. Both unit’s displays will show the number 3. Leave on for 10 seconds.
STEP 4: Remove + power and reposition the dips as shown in diagrams C2 and D2.
STEP 5: Restore + power to pair 3. You are now ready to test beams to ensure proper response from the gate opener.
WARNING
Extreme caution must be exercised when automatic gate opener system is in operation, regardless of which safety systems are installed and in use.

MOUNTING PRECAUTIONS
Never mount your detector where plants, direct sunlight, headlights could obstruct the beam between the transmitter and receiver. **ALSO, MAKE SURE SURFACE IS EVEN AND NOT UNSTABLE.** See diagrams below.

MOUNTING YOUR PHOTO EYES ON A POLE (FOLLOW DIAGRAMS BELOW)
■ Loosen screw on underside of Photo Eye and back out approximately 1/4 inch.
■ Gently lift the cover from the bottom side and angle slightly outwards (as shown).
■ Slide the cover upwards and then forwards to remove the cover from the housing.
■ USE METAL PIPE TO PREVENT MOVEMENT

MOUNTING YOUR PHOTO EYES ON A WALL (FOLLOW DIAGRAMS NEXT PAGE)
■ Loosen screw on underside of Photo Eye and back out approximately 1/4 inch.
■ Gently lift the cover from the bottom side and angle slightly outwards (as shown).
■ Slide the cover upwards and then forwards to remove the cover from the housing.
MOUNTING DISTANCE AND ADJUSTMENTS

- The unit will turn off the display and the buzzer after 1 minute of power up. The unit is still fully functional only the display is turned off.

ADJUSTING RESPONSE TIME ON THE RECEIVER

- When set all the way clockwise means faster response time (50 msec).
- When set all the way counter clockwise means slower response time (240 msec).
- Factory setting response time is set approximately in the middle.
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.