INSTALLATION INSTRUCTIONS

Sensing Edge

MODEL: MC110

WARNING

Read and understand all instructions before beginning installation. Disconnect power to motor and test upon completion. Sensing edges should be installed by qualified personnel to ensure the requirements herein have been met. Keep these instructions with the installation. Always abide by local and national electrical code specifications when wiring accessories to motor controls.

The MC110 sensing edge is designed for rolling counter shutter and grille applications, prioritizing both performance and aesthetics. When touched lightly, or at an angle, MC110 sends an immediate signal to stop and/or reverse operation. This slide-in style sensing edge integrates a unique guide cap design that efficiently blocks light along the ends of the sensing edge. Additionally, the design contributes to enhancing building efficiency by minimizing air gaps. It further acts as a barrier to pests in food service areas. MC110 contributes to an integrated appearance that seamlessly complements the overall look of a counter shutter or grille.

CONTENTS
- (1) Sensing edge
- (2) Guide caps
- (1) ME110-C Mounting channel

REQUIRED
- 18-22 gauge wire
- Heavy duty scissors
- Pen or masking tape for marking

OPTIONAL
- Connection methods:
  - Miller Edge wireless edge system
  - Coil cord
  - Retracting reel
  - Junction boxes
- SM-102: Signature Module (for 10K monitored edges)

SUGGESTED
- Operator installation manual
- Miller Edge Tester (MET-101)
- Multimeter (capable of measuring 10K ohms)

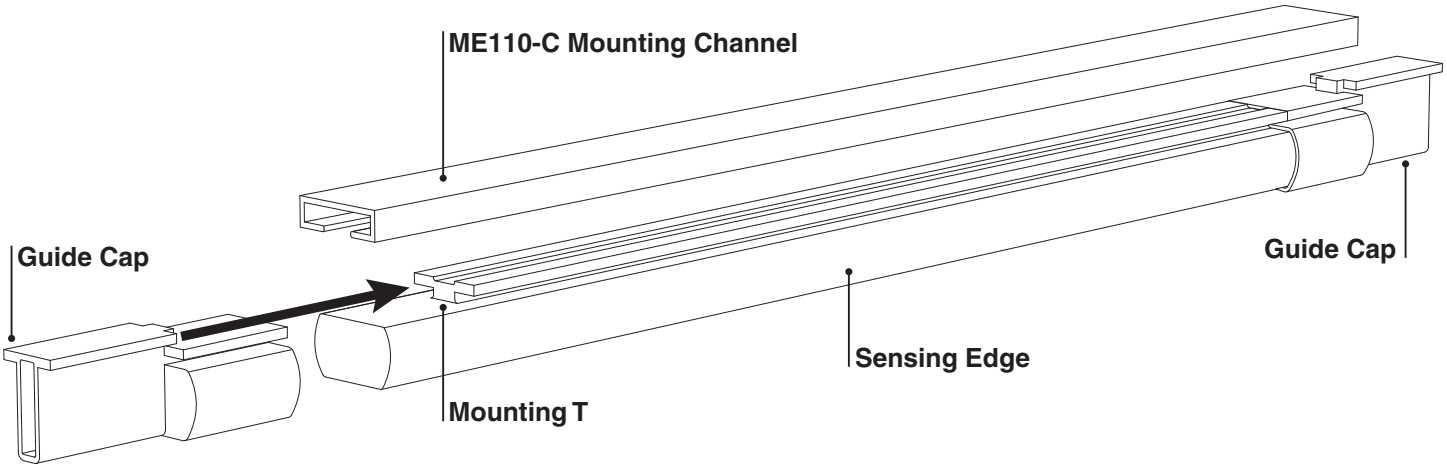

IMAGE 1: MC110 Sensing edge, guide cap, and mounting channel assembly

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I. SETUP

1. All Miller Edge sensing edges are inspected and tested prior to shipment to ensure quality. Upon opening the shipping box, inspect your sensing edge and wiring for shipping damage. If the shipping container appears to be damaged, please notify carrier immediately.
2. Un-box and lay the sensing edge out straight. This will allow the edge to relax and return to its original shape.
3. Remove any existing bottom seal from the leading edge of the door, counter, or shutter.

II. INSTALLATION

1. Viewing the coil side of the door, note the handing of the operator.
2. Attach the mounting channel to the leading edge using #6-8 self-drilling screws (not provided). **IMAGE 2**
   Note: Channel is shipped in 5-foot sections. Install sections closely together, avoiding gaps.
3. Start at the non-wired end of the edge and feed the edge into the bottom bar channel. When complete, the wire should be facing the operator side.
4. After the sensing edge is installed, slide the (2) guide caps onto the ends of the sensing edge. **IMAGE 1**
5. Adjust the close limits on the motor for a maximum compression of .25” (6 mm).
   Note: Sensing edge over compression may cause permanent damage to the sensor and will void the manufacturer's warranty.

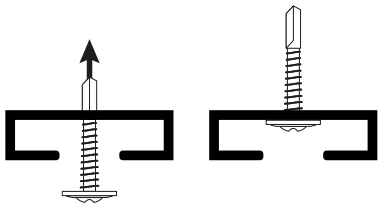
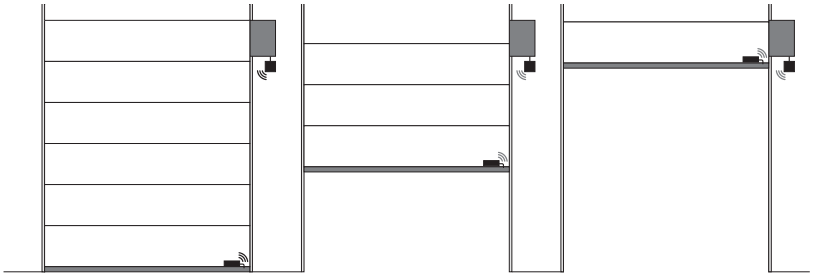


IMAGE 2:
Attaching the ME110-C mounting channel

III. OPERATOR CONNECTION

OPTION 1: WIRELESS METHOD



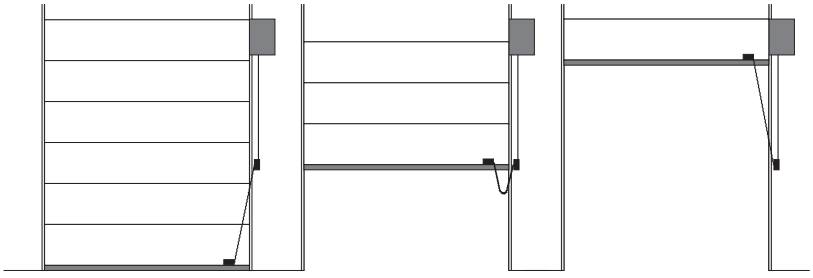
Required

- Miller Edge wireless edge transmitter/receiver system

Installation

1. Consult the Miller Edge transmitter/receiver installation instructions for wiring of the sensing edge.
2. For proper connection to operator inputs, please consult the operator manual.

OPTION 3: COIL CORD METHOD



Required

- Junction boxes (2)
- Mounting screws
- Wire end caps
- 18-22 gauge wire

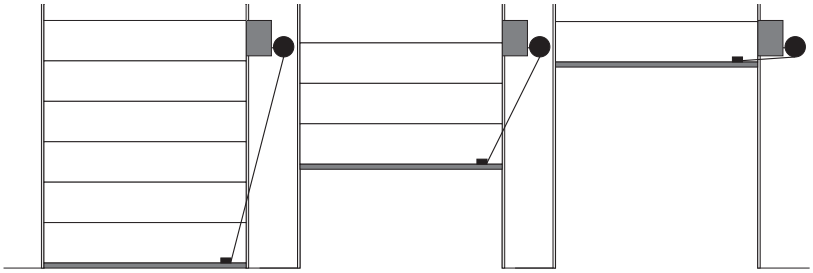
Note: For specific operator input connection diagrams and instructions, please consult your operator manual.

OPTION 3: COIL CORD METHOD (continued)

Installation

1. Mount the first junction box on the bottom bar of the door.
2. Run the sensing edge lead wire into the junction box.
3. Mount the second junction box on an adjoining wall, midway between the floor and the operator.
4. With the door in the closed position, secure the coil cord to the first junction box.
5. Then run it, fully stretched, to the second wall mounted junction box so the stretched length is equal to one-half of the door opening.
6. Secure the coil cord into the wall junction box and trim the coil cord. This assures the excess coil cord will not get caught or hang in the opening of the door.
7. Secure 18-22 gauge wire into the second wall-mounted junction box and hard wire to the operator sensing edge terminals.

OPTION 3: RETRACTING REEL METHOD



Required

- Junction box
- (1) Mounting screws
- Wire end caps
- 18-22 gauge wire

Note: For specific operator input connection diagrams and instructions, please consult your operator manual.

Installation

Caution: Not Suitable for Monitored Sensing Edges

1. Mount the junction box on the end stile or bottom bar of the door.
2. Run the sensing edge lead wire into the junction box.
3. Mount the retracting reel on an adjoining wall, near the operator.
4. With the door in the closed position, secure the retracting reel cable to the junction box. The cable should freely extend, without rubbing, in and out of the retracting reel for the duration of the open/close cycle.
5. Using the 18-22 gauge wire, hardwire the retracting reel to the sensing edge terminals of the operator.

IV. TROUBLESHOOTING

Suggested

- Edge Tester (MET-101)
- Multimeter (capable of measuring 10K)

Test

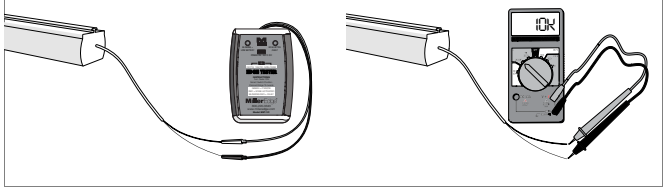
Test the sensing edge for function:

1. To verify the termination of a 10K ohm (T2) sensing edge, use a Miller Edge Tester (MET-101) or a multimeter; the edge resistance should be ~10K ohms (9.5-10.5K).
2. To verify the termination of a diode capacitor (T3) sensing edge, use a Miller Edge Tester (MET-101); this is the only method to test a T3 sensing edge.
3. Press the Sensing Edge to confirm the resistance is less than 5 ohms.

TechTip

To determine sensing edge termination, note the colored band on the sensing edge cable:

BAND COLOR	TERMINATION	TYPE
Green	8.2K ohm resistor	T1
Blue	10K ohm resistor	T2
Red	Diode capacitor	T3
White	Capacitor	T4
Orange	5.8K ohm resistor	T5
Purple	270K ohm resistor	T6
None	Non-terminator	–



V. TECH SUPPORT

For additional assistance, contact Miller Edge Tech Support: 800-220-3343

VI. GENERAL SPECIFICATIONS [INSERT GENERAL SPECIFICATIONS:

Color	Black
Length	Order in 1/4 in. increments (manufacturing tolerance ±1/4 in.)
Maximum Length	Electric : 50 ft., Air-Wave: 30 ft.
Electrical Maximum	Nominal 4-7 lbf
Lead Wire	SJTO, 22 gauge, 2 ft. length
Wire Outlet Location	Left, right, or top
Electrical Maximum	24 volts AC/DC, 1/2 amp
Electrical Configuration	Normally open
Operating Temperature	Meets or exceeds UL requirement
Exterior Materials	Flexible PVC
Contact Element	Alumaglas™
Agency Approvals	UL 325 Recognized Component

VII. CONFIGURATOIN OPTIONS

- 2-Wire 8.2K ohm resistive (T1/green band)
- 2-Wire 10K ohm resistive (T2/blue band)
- 2-Wire diode capacitor (T3/red band)
- 2-Wire non-monitored
- 4-Wire monitored
- Bumper (no sensor)

Note: Other 2-wire options available upon request.

VIII. MAINTENANCE

It is strongly recommended that users test sensing edges at least once per month. Check the sensing edge for cuts, loss of sensitivity, or water damage. Also check for signs of damage to cables or connection points. Compress the sensing edge 2” from both ends and in the center and observe that it sends an electric signal to the controls. Refer to your operator manual for detailed instructions about motor connections.

IX. REPLACEMENT

To replace your Miller Edge sensing edge, contact your sales representative. Attempting to repair your Miller Edge Sensing Edge is not recommended and will void the manufacturer warranty.

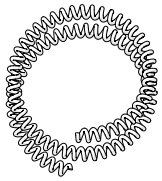
X. WARRANTY

The **MC110** sensing edge carries a **3-year warranty** from date of shipment from Miller Edge for credit or replacement. This warranty applies to normal use, which is found to have defective materials or workmanship, as determined solely by an authorized factory representative. This warranty is void where evidence of misuse or abuse is present. This warranty covers repair or replacement of the purchased product only; product installation/labor charges are not covered. Miller Edge manufactures its products to meet stringent specifications and cannot assume responsibility for those consequences arising from improper installation or misuse. Installation instructions and testing procedures provided by Miller Edge must be followed for proper operation and maintenance.

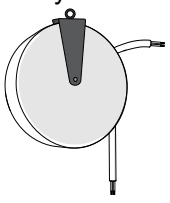
XI. ACCESSORIES

Contact your sales representative about accessories for your installation:

JUNCTION BOXES



COIL CORDS



RETRACTING REELS

TRANSMITTERS/ RECEIVERS

MODULES