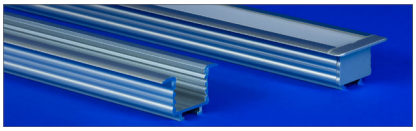
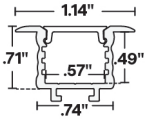
EMBD

Field Assembled Extrusion - Recessed

SEE THIS EXTRUSION AS A FACTORY BUILT FIXTURE ▶





- Flanged LED profile for recessing in walls and millwork
- Offered with a standard lens as well as an optical lens option
- Creates several different beam patterns when paired with an adjustable tray (12°, 14°, 20°, 30°, 45°, and 60°)
- Can be mounted with a recessed spring clip for new or remodel applications, or available with a magnetic mounting clip for easy installation

1 PRODUCT	2 FINISH	3 MOUNTING	4 LENS	5 WIRE INPUT/OUTPUT	6 EXTRUSION LENGTH (IN)
EMBD				NI	

Sample Part Number: **EMBD-ST-MG-12DEG-NI-48"**

1 PRODUCT

EMBD

2 FINISH

ST	Satin
CU	Custom Color

Custom finishes require a longer lead time, consult factory

3 MOUNTING

SP	Spring Clip
MG	Magnet

Refer to following pages for mounting clip option details and provided quantities.

4 LENS

DF	Diffused
PR	Polar
FR	Frosted
12DEG	Optical 12°
14DEG	Optical 14°
20DEG	Optical 20°
30DEG	Optical 30°
45DEG	Optical 45°
60DEG	Optical 60°

For representation of LED visibility, see Diode Visibility section on following pages.
For beam angles, see Photometric Performance section on following pages.
30DEG, 45DEG, & 60DEG lens is only compatible with DRY and DMP rated LEDs.

5 WIRE INPUT/OUTPUT

NI	Not Installed

6 EXTRUSION LENGTH (IN)

1" increments from 1" - 98.43"
Tolerance +0.0"/-0.5"

COMPATIBLE LED STRIPS

	STATIC WHITE (SW)	STATIC WHITE STANDARD (SW-SD)	STATIC WHITE HIGH EFFICACY (SW-HE)	STATIC WHITE HIGH EFFICACY PLUS (SW-HE+)	STATIC WHITE EXTREME TEMP (SW-XT)	SHIELD STATIC WHITE (SHLD-SW)	SHIELD STATIC WHITE HIGH EFFICACY (SHLD-SW-HE)	DYNAMIC WHITE HIGH EFFICACY (DW-HE)	WARM DIM (WD)	STATIC COLOR (SC)	RGB	RGBW	RGBW HIGH EFFICACY (RGBW-HE)
DRY	✓ W/FT: 1.5, 3.0, 4.0, 5.0	✓ W/FT: 1.0, 2.0, 4.0, 6.0	✓ W/FT: 1.5, 3.0, 6.0	✓ W/FT: 3.0, 6.0		✓ W/FT: 1.5, 3.0, 5.0	✓ W/FT: 1.5, 3.0, 6.0	✓ W/FT: 1.5, 2.5	✓ W/FT: 6.0	✓ W/FT: 5.0	✓ W/FT: 6.0	✓ W/FT: 6.0	✓ W/FT: 4.0 **NO OPTICAL LENS**
DMP	✓ W/FT: 1.5, 3.0, 4.0, 5.0		✓ W/FT: 1.5, 3.0, 6.0					✓ W/FT: 1.5, 2.5	✓ W/FT: 6.0	✓ W/FT: 5.0	✓ W/FT: 6.0	✓ W/FT: 6.0	✓ W/FT: 4.0 **NO OPTICAL LENS**
ENC	✓ W/FT: 1.5, 3.0, 4.0, 5.0		✓ W/FT: 1.5, 3.0, 6.0					✓ W/FT: 1.5, 2.5		✓ W/FT: 5.0	✓ W/FT: 6.0	✓ W/FT: 6.0	✓ W/FT: 4.0
WET	✓ W/FT: 1.5, 3.0, 4.0, 5.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 1.0, 2.0, 4.0 **EXCLUDES 30°, 45°, 60° LENS**		✓ W/FT: 3.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 3.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 1.5, 3.0, 5.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 1.5, 3.0, 6.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 1.5, 2.5 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 6.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 5.0 **EXCLUDES 30°, 45°, 60° LENS**	✓ W/FT: 6.0 **EXCLUDES 30°, 45°, 60° LENS**		✓ W/FT: 4.0 **NO OPTICAL LENS**

Field modifications must comply with QTL's installation methods otherwise warranty is null & void | Spring clip technology | Optical lens option | Suitable for installation in drywall | Painted end caps match the extrusion finish and have a white painted interior. Satin end caps utilize a metallic paint.

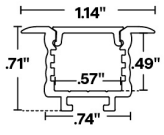
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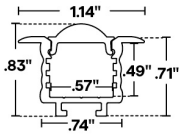
Field Assembled Extrusion - Recessed

SEE THIS EXTRUSION AS A FACTORY BUILT FIXTURE ▶

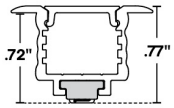
1 PRODUCT - DIMENSIONS



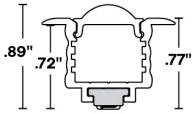
Profile with flat lens



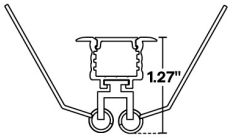
Profile with optical lens



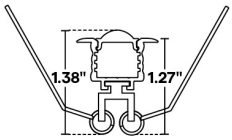
Profile with flat lens and magnet mounting clip



Profile with optical lens and magnet mounting clip



Profile with flat lens and spring mounting clip

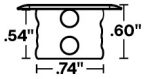


Profile with optical lens and spring mounting clip

END CAPS

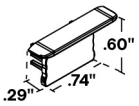
One pair of end caps is provided with each length of extrusion ordered.

Flat end caps



Feed

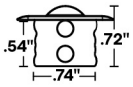
To order separately, use EMBD-EC



No feed

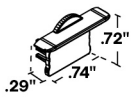
To order separately, use EMBD-EC

Optical end caps



Feed

To order separately, use EMBD-EC-OPT



No Feed

To order separately, use EMBD-EC-OPT

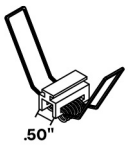
2 FINISH

Satin

Custom finishes require a longer lead time, consult factory

3 MOUNTING

SP



Spring Clip

2 clips provided for 4' or less. 4 clips provided for greater than 4'.

To order separately use SP-01

MG

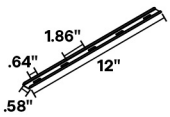


Magnet Clip

One MG provided per foot.

To order separately use MG-02

MMA-02



Magnet Mount
Accessory for MG-02

Sold separately, to order use MMA-02

Each bracket comes with 2 #6 x 5/8 Flat Head SS

Required when mounting to a non-magnetic surface

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Field Assembled Extrusion - Recessed

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4 DIODE VISIBILITY



DF - Diffused lens

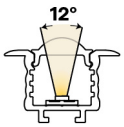
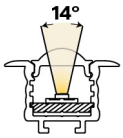
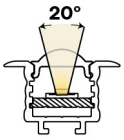
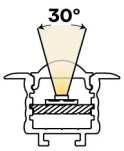
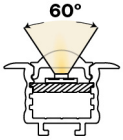
PR - Polar lens

FR - Frosted lens

Optical lens

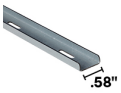
PHOTOMETRIC PERFORMANCE

Nominal beam spread shown, beam spread varies based on light engine. For more detailed information, see factory built fixture photometric data.

12DEG	14DEG	20DEG	30DEG	45DEG	60DEG
					
Optical 12°	Optical 14°	Optical 20°	Optical 30° DRY and DMP LEDs only	Optical 45° DRY and DMP LEDs only	Optical 60° DRY and DMP LEDs only

COMPATIBLE ACCESSORIES

MMA-02



Magnet Mount Accessory of MG-02

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EMBD LUMEN MULTIPLIER

LUMEN MULTIPLIER FORMULA

Bare LED Lumens x Extrusion Finish/Lens Value = Delivered Lumens

Example: **172 lm/ft x 0.71 = 122 lm/ft**

SW24/1.5 at 3000K x EMBD Extrusion in Satin with FR Lens

Diode free or near Diode free

SW			
LENS	Finish		
	Satin	Black	Bronze
	(ST)	(BK)	(BZ)
FR	0.71	N/A	N/A
PR	0.62	N/A	N/A
DF	0.53	N/A	N/A
12°	0.70	N/A	N/A
14°	0.80	N/A	N/A
20°	0.82	N/A	N/A
30°	0.91	N/A	N/A
45°	0.93	N/A	N/A
60°	0.93	N/A	N/A
ENC/CL	0.49	N/A	N/A
ENC/TL	0.39	N/A	N/A

SW-HE			
LENS	Finish		
	Satin	Black	Bronze
	(ST)	(BK)	(BZ)
FR	0.71	N/A	N/A
PR	0.64	N/A	N/A
DF	0.55	N/A	N/A
12°	0.73	N/A	N/A
14°	0.79	N/A	N/A
20°	0.83	N/A	N/A
30°	0.85	N/A	N/A
45°	0.96	N/A	N/A
60°	0.94	N/A	N/A
ENC/CL	0.51	N/A	N/A
ENC/TL	0.43	N/A	N/A

Data is subject to change | All data has +/- 5% tolerance

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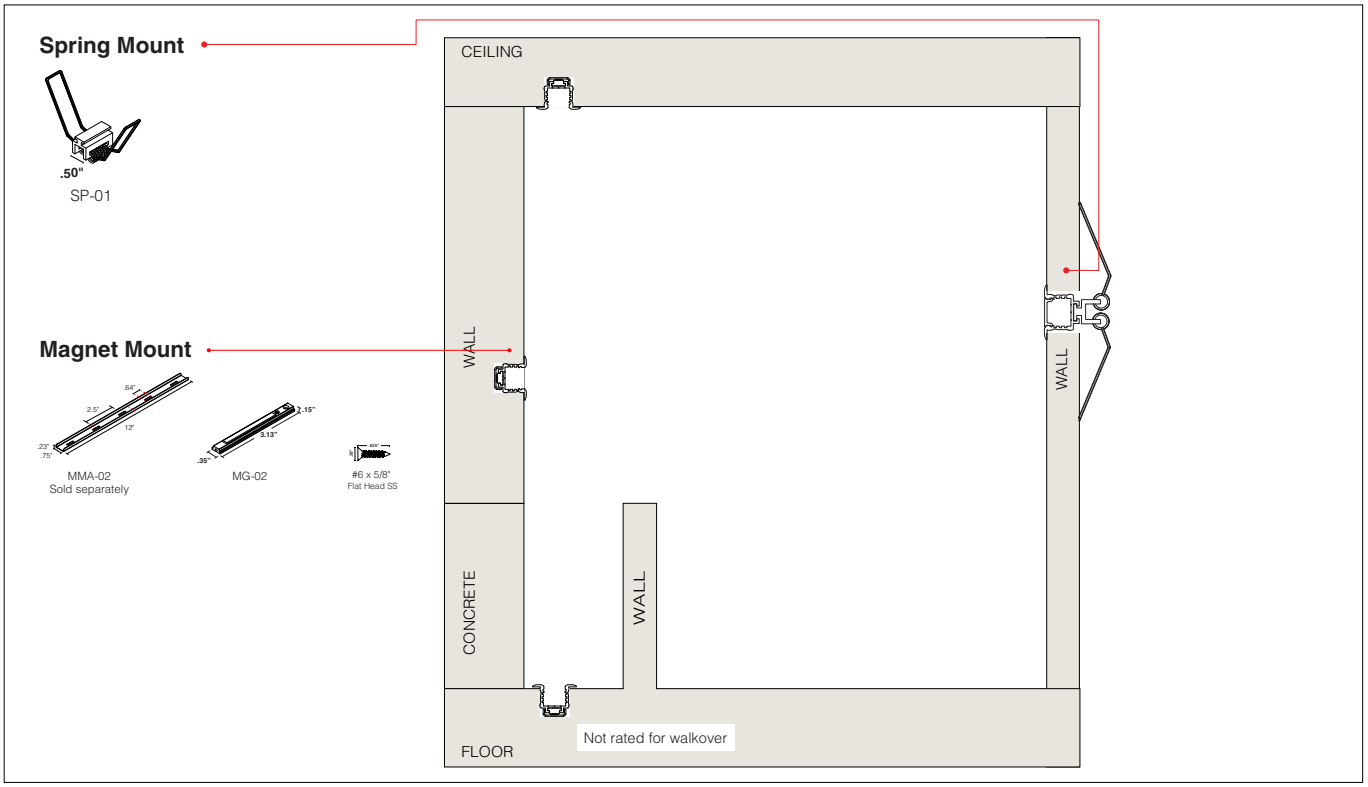
EMBD

Field Assembled Extrusion Installation Instructions

ATTENTION: Please read all instructions BEFORE installation

- Product to be installed by a licensed electrician
- Always ensure power supply connection to electrical circuit is disconnected before working on it
- Follow diagram to connect Secondary Voltage wires to power supply. Refer to QTL power supply instructions for wiring
- Use only with Class 2 power supply unit — Warranty only valid with QTL power supplies
- Surface mount or recessed in millwork
- Suitable for DRY, DAMP, and WET locations
- Suitable for installation in storage area of a clothes closet when assembled as a finished extrusion up to 4W/ft at QTL facility
- Not rated for walkover
- Input Voltage: 24VDC
- Diagrams for representation only and not to scale.
- Once a wet strip or a damp strip is cut, it cannot be reconnected.

METHODS OF INSTALLATION:



Recessed Mounting Method

- Spring Mount : Millwork (page 4)
- Magnet Mount : Millwork (page 5)

NOTES:

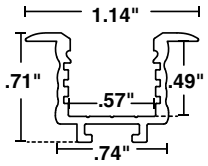
- *Avoid bending in sharp angles which may damage the LED.*
- *Always test LED operation before installing in extrusion. Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure.*
- *Diagrams for representation only and not to scale.*

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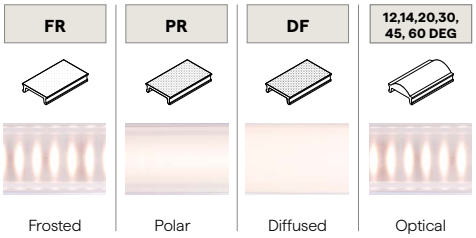
Specification subject to change. Rev-04-20-26

EMBD

Field Assembled Extrusion Installation Instructions

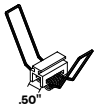


EMBD Profile



COMPONENTS & HARDWARE

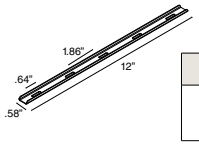
Alternate screw lengths can be used in installation as long as the screw diameter size is consistent with the included screw diameter size

SPRING CLIP	MAGNET CLIP
 SP-01	 MG-02
• 2 clips provided for 4' or less; 4 clips provided for greater than 4'	• One magnet clip per foot

Included: Flat Head Screw #6x5/8"

ACCESSORIES SOLD SEPARATELY

MAGNET MOUNT ACCESSORY; sold individually



Included: Flat Head Screw #6x5/8"

MMA-02

- MMA-02 comes in 12" pieces; use at least one clip per MMA-02 accessory
- MMA-02 can be cut into smaller pieces, if desired

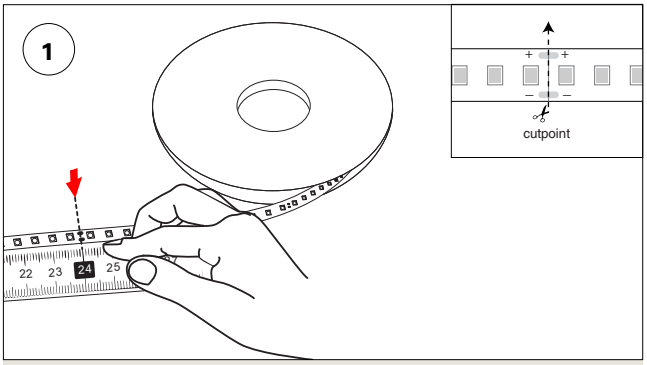
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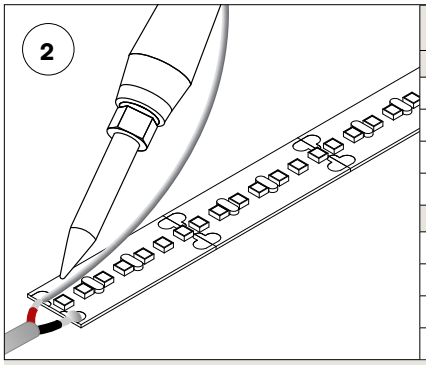
Field Assembled Extrusion Installation Instructions

LED STRIP LEAD WIRE & JUMPER INSTRUCTIONS: **DRY IP20**

If LED wires are pre-soldered from the factory, skip to page 6.



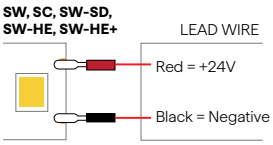
Measure and cut LED strip to desired length with scissors along the cut point.

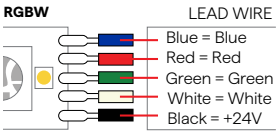


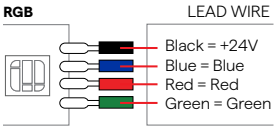
ITEMS INCLUDED
iQ-LED-24-KIT
(1) 24" Lead wire
(1) 6" Solder
(1) 1" Shrink Tube
(1) 1/2" Shrink Tube
iQ-JUMP-6-KIT
(1) 6" Lead wire
(1) 6" Solder
(2) 1" Shrink Tube
(2) 1/2" Shrink Tube

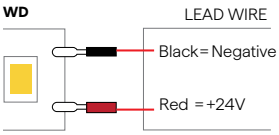
Solder lead wire onto solder pad. Confirm wires are matched up correctly before soldering. See wiring diagrams below for specific light engine details.

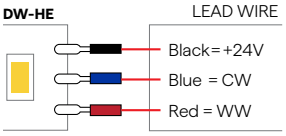
NOTE: Recommended soldering iron temperature of 650˚ – 700˚F for lead-free solder.

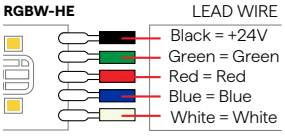


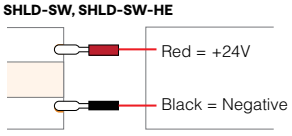






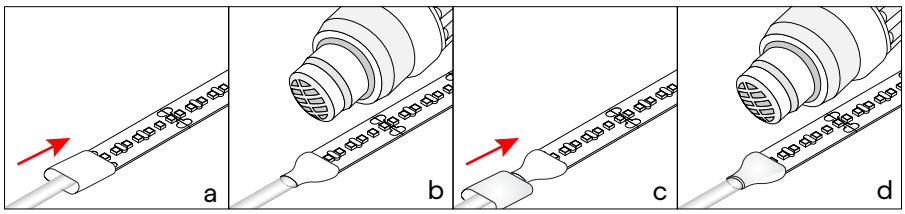






3

NOTE:
Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure before proceeding with step #3.



ONCE ALL CONNECTIONS ARE FUNCTIONING PROPERLY, DISCONNECT POWER AND BEGIN HEAT SHRINKING INSTRUCTIONS BELOW:

a: Place 1st sleeve (1/2" Shrink Tube) on lead wire.

b: Shrink the tube with heat gun.

c: Place 2nd sleeve (1" Shrink Tube) on lead wire.

d: Shrink the tube with heat gun.

NOTES:

- *Avoid bending in sharp angles which may damage the LED.*
- *Always test LED operation before installing in extrusion. Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure.*
- *Diagrams for representation only and not to scale.*

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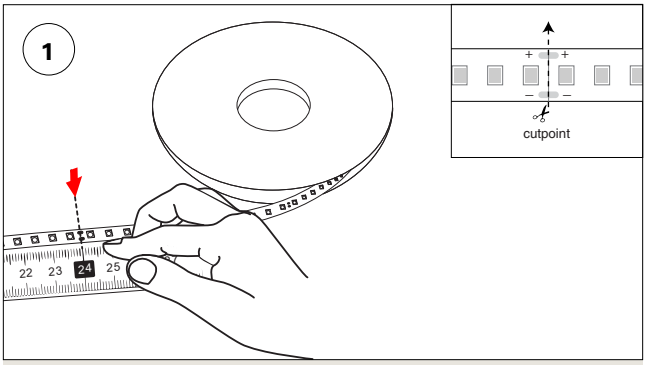
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EMBD

Field Assembled Extrusion Installation Instructions

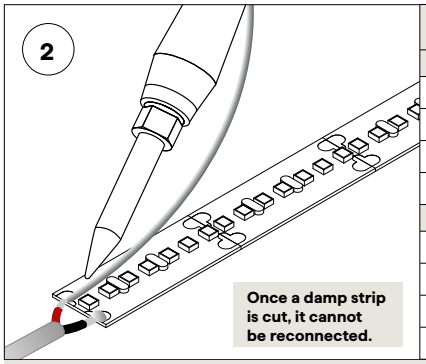
LED STRIP LEAD WIRE & JUMPER INSTRUCTIONS: **DMP IP54**

If LED wires are pre-soldered from the factory, skip to page 6.



Measure and cut LED strip to desired length with scissors along the cut point.

- Carefully peel polyurethane back to expose the solder pads.



ITEMS INCLUDED
iQ-LED-24-KIT
(1) 24" Lead wire
(1) 6" Solder
(1) 1" Shrink Tube
(1) 1/2" Shrink Tube
iQ-JUMP-6-KIT
(1) 6" Lead wire
(1) 6" Solder
(2) 1" Shrink Tube
(2) 1/2" Shrink Tube

Solder lead wire onto solder pad. Confirm wires are matched up correctly before soldering. See wiring diagrams below for specific light engine details.

NOTE: Recommended soldering iron temperature of 650˚ – 700˚F for lead-free solder.

SW, SC, SW-HE — LEAD WIRE
- Red = +24V
- Black = Negative

RGBW — LEAD WIRE
- Blue = Blue
- Red = Red
- Green = Green
- White = White
- Black = +24V

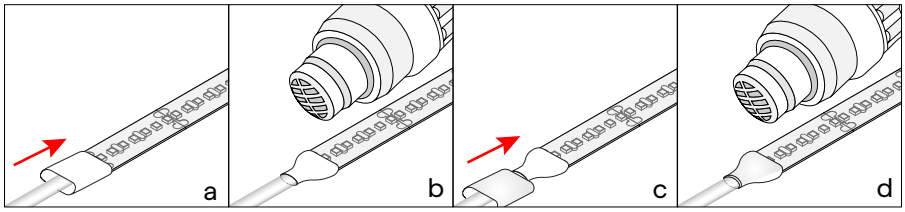
RGB — LEAD WIRE
- Black = +24V
- Blue = Blue
- Red = Red
- Green = Green

DW-HE — LEAD WIRE
- Black = +24V
- Blue = CW
- Red = WW

RGBW-HE — LEAD WIRE
- Black = +24V
- Green = Green
- Red = Red
- Blue = Blue
- White = White

3

NOTE:
Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure before proceeding with step #3.



ONCE ALL CONNECTIONS ARE FUNCTIONING PROPERLY, DISCONNECT POWER AND BEGIN HEAT SHRINKING INSTRUCTIONS BELOW:

a: Place 1st sleeve (1/2" Shrink Tube) on lead wire.

b: Shrink the tube with heat gun.

c: Place 2nd sleeve (1" Shrink Tube) on lead wire.

d: Shrink the tube with heat gun.

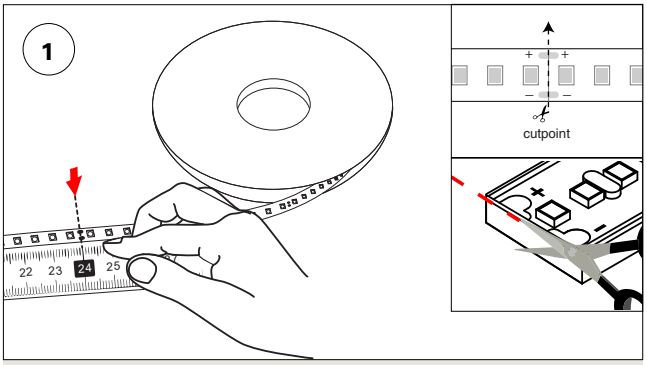
NOTES:

- *Avoid bending in sharp angles which may damage the LED.*
- *Always test LED operation before installing in extrusion. Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure.*
- *Diagrams for representation only and not to scale.*

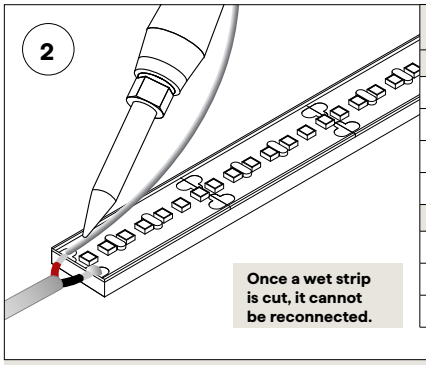
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LED STRIP LEAD WIRE & JUMPER INSTRUCTIONS: **WET IP67**

If LED wires are pre-soldered from the factory, skip to page 6.



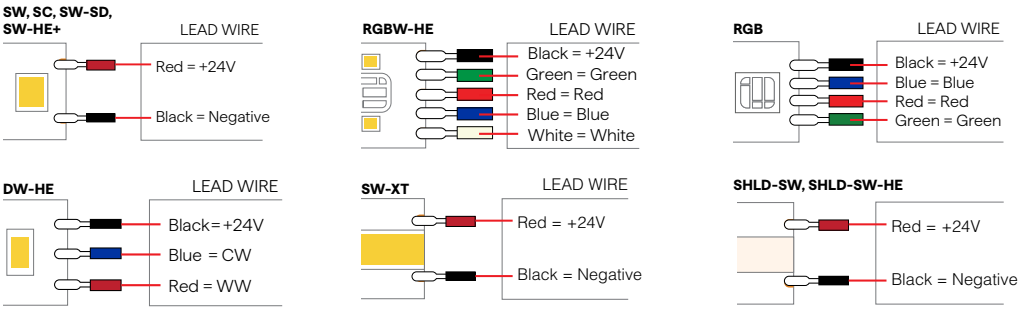
Measure and cut LED strip to desired length with scissors along the cut point.



ITEMS INCLUDED
iQ-LED-67-KIT
(1) 24" Lead wire
(1) 6" Solder
(1) Lead wire cap
(1) End Cap
iQ-JUMP-67-KIT
(1) 6" Lead wire
(1) 6" Solder
(2) Lead wire Caps

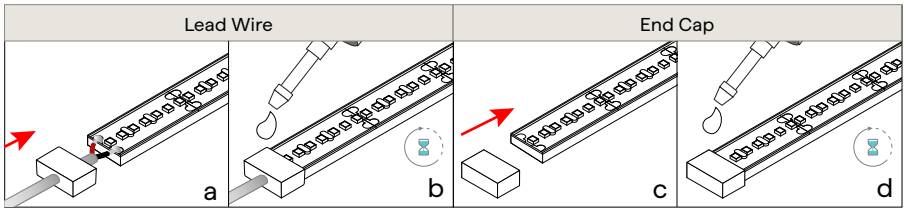
Solder lead wire onto solder pad. Confirm wires are matched up correctly before soldering. See wiring diagrams below for specific light engine details.

NOTE: Recommended soldering iron temperature of 650˚ – 700˚F for lead-free solder.



3

NOTE:
Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure before proceeding with step #3.



ONCE ALL CONNECTIONS ARE FUNCTIONING PROPERLY, DISCONNECT POWER AND BEGIN HEAT SHRINKING INSTRUCTIONS BELOW:

a: Place lead wire cap over wire

b: Add silicone inside connector and glue around the edge to secure gap; allow time for glue to dry.

c: Place end cap over the end of LED

d: Add silicone inside connector and glue around the edge to secure gap; allow time for glue to dry.

NOTES:

- *Avoid bending in sharp angles which may damage the LED.*
- *Always test LED operation before installing in extrusion. Connect LED to power supply to ensure it is working properly and all non-factory soldered connections are secure.*
- *Diagrams for representation only and not to scale.*

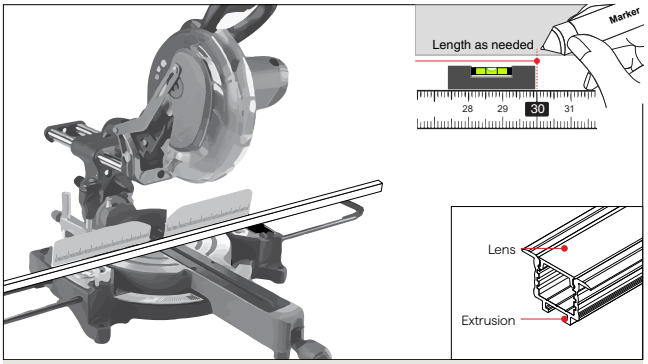
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EMBD

Field Assembled Extrusion Installation Instructions

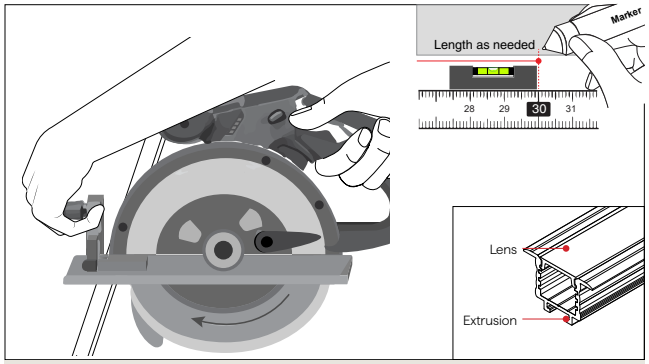
CUTTING EXTRUSIONS FOR IN-FIELD ASSEMBLY INSTALLATION

QTL strongly recommends cutting the extrusion and lens together to achieve a clean cut.



To achieve corners or angles, measure the LED extrusion to desired length and cut with a miter saw.

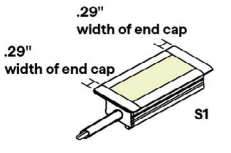
OR



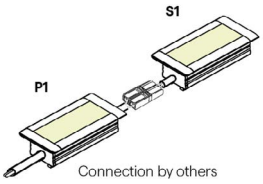
For straight runs, measure LED extrusion to desired length and cut it with a circular saw.

NOTE: Using the proper blade for aluminum, cut to the desired length. Recommend using a 10 in.x 80 tooth medium aluminum saw blade.

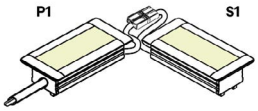
CONFIGURATION OPTIONS



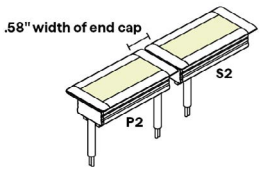
Single End Feed



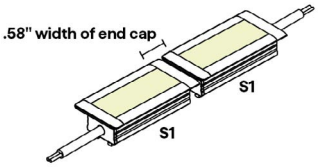
Non-Continuous End Feed



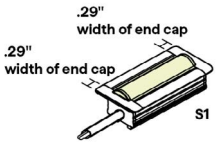
Non-Continuous Corner Feed



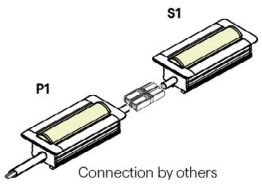
Non-Continuous Bottom Feed



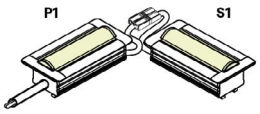
Non-Continuous End to End Feed



Single End Feed

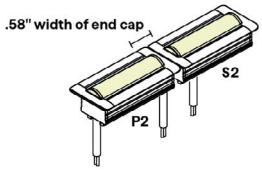


Non-Continuous End Feed

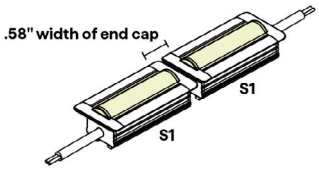


Connection by others

Non-Continuous Corner Feed



Non-Continuous Bottom Feed



Non-Continuous End to End Feed

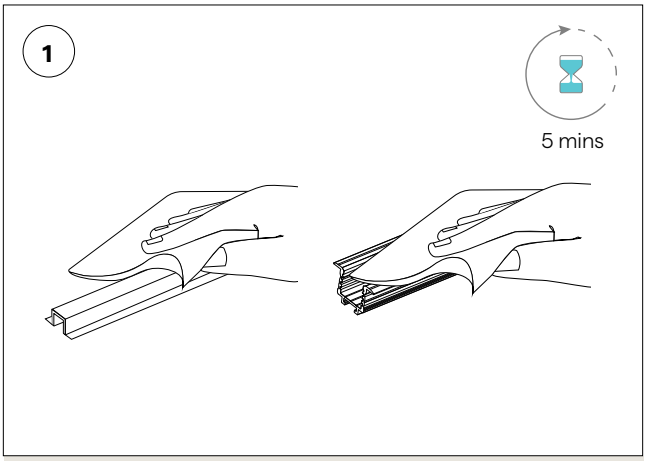
Review wire method to ensure clean installation prior to mounting finished Fixture.

NOTE: Additional wire methods include:
S1 & S2: Connector/Wire Input only
P1 & P2: Connector/Wire Input and Output

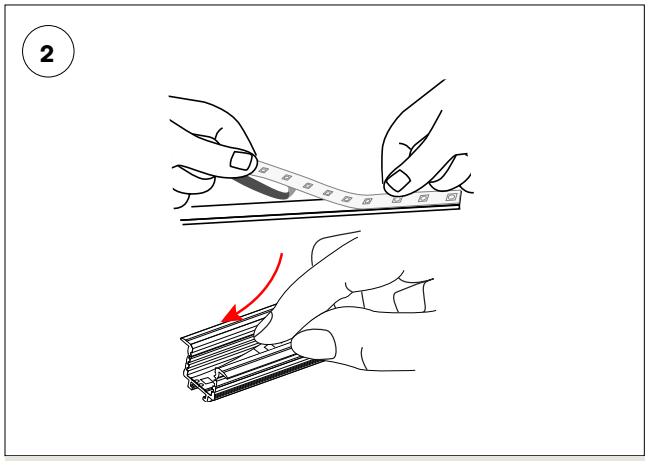
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LED INSERTION FOR IN-FIELD ASSEMBLY INSTALLATION

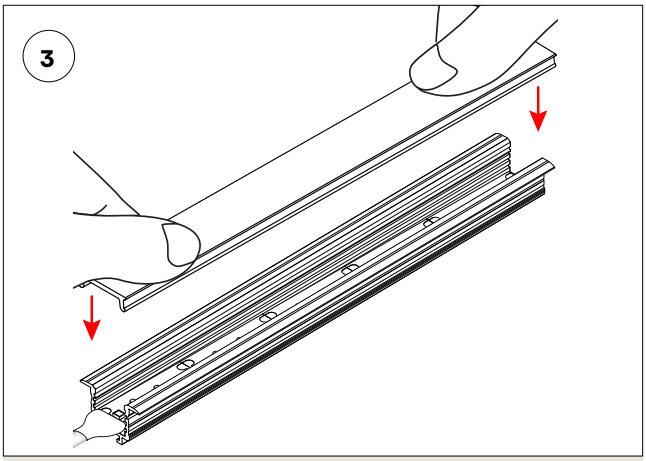
STRIP IN EXTRUSION



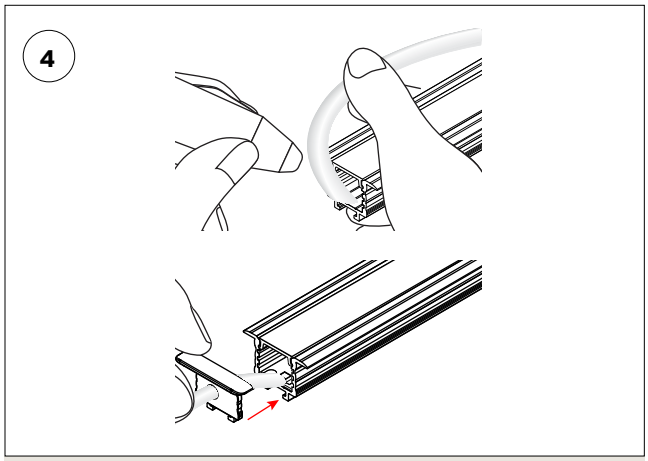
Using a 50/50 alcohol mix throughly clean, the surface of the extrusion and the multi-tray surface. Allow time to dry (about 5 minutes).



Gently place LED in extrusion/tray. Apply firm pressure to the bonding surface. This will reduce the chances of dust and debris from contaminate adhesive. The smallest amount of exposed adhesive is the best case.



Flat Lenses: Apply uniform pressure until the extrusion and lens snap securely together.



Add glue inside the end cap and glue around edges to secure end cap in place. Do not allow glue to come in contact with LED.

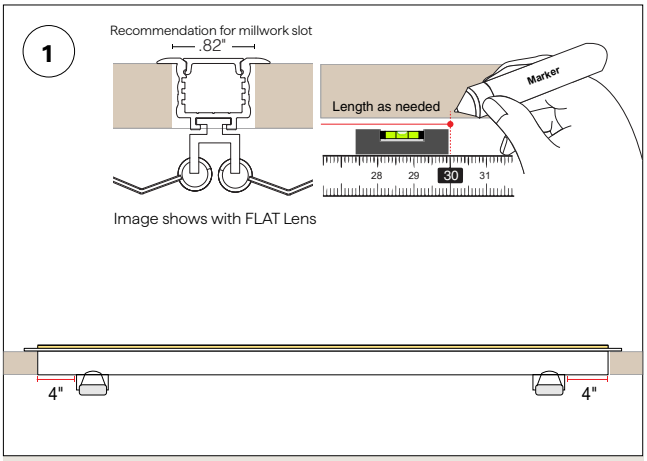
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EMBD

Field Assembled Extrusion Installation Instructions

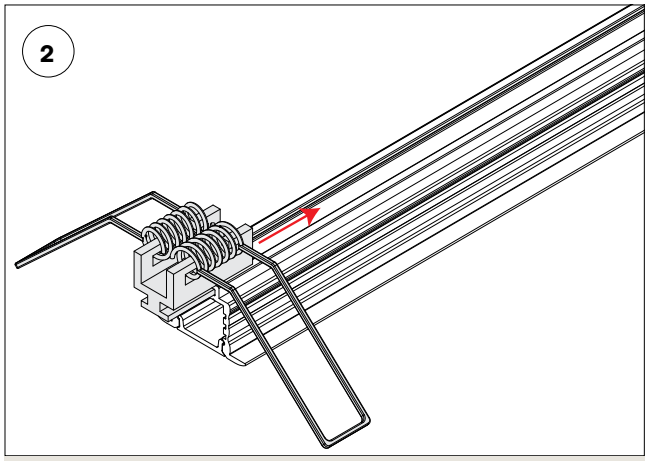
SURFACE MOUNTING METHOD: **SPRING MOUNT**

- 2 clips provided for 4' or less; 4 clips provided for greater than 4'

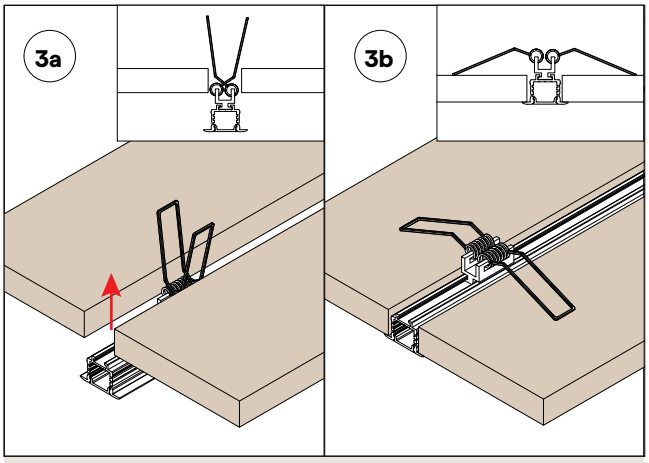


Determine the EMBD fixture(s) location and positioning on desired surface; evenly distribute clips. Make any necessary reference markings to indicate where each clip is to be secured in place. Recommended every 24" - 30".

NOTE: the drywall cut out should be 0.82 wide.

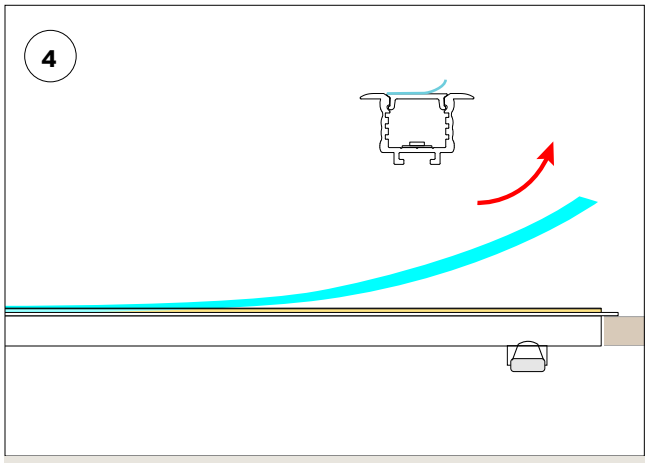


Slide in the spring clip from each end of the fixture.



a. Squeeze the spring clip's arms together and push it through the drywall cut out.

b. Once the spring arms have cleared the top of the drywall, they will snap back and secure the extrusion in place.



Remove protective film from the surface of the fixture's lens.

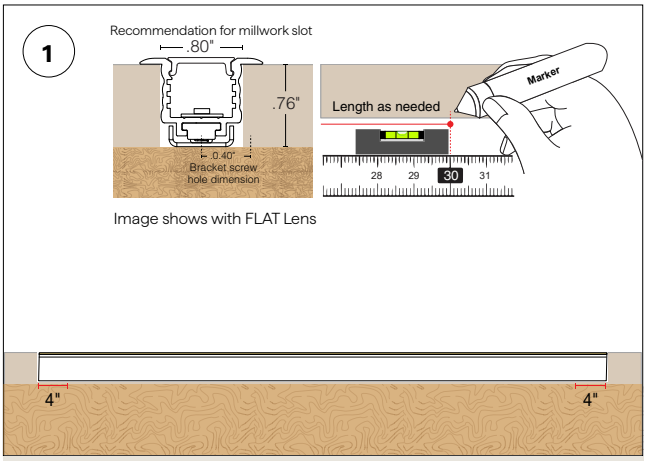
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EMBD

Field Assembled Extrusion Installation Instructions

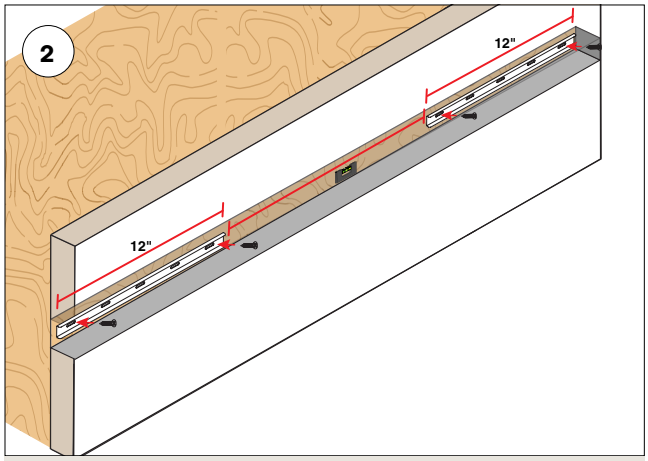
RECESSED MOUNTING METHOD: **MAGNET MILLWORK**

- One magnet clip per foot
- MMA-02 comes in 12" pieces; use at least one clip per MMA-02 accessory
- MMA-02 can be cut into smaller pieces, if desired



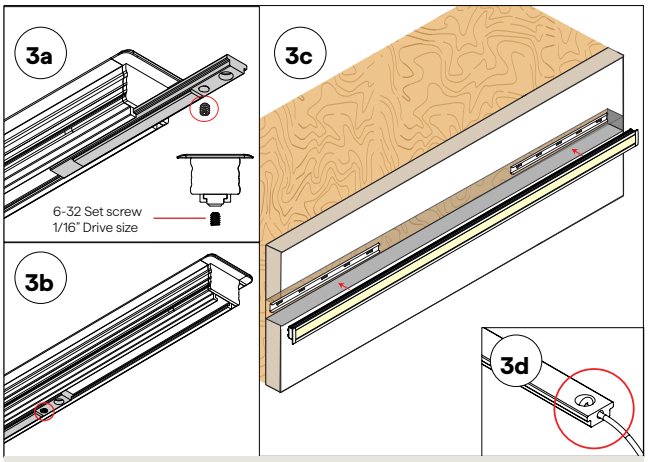
Determine the EMBD fixture(s) location and positioning on desired surface. Make any necessary reference markings to indicate where the magnet mount accessory bracket is to be secured in place.

NOTE: Depth of the channel in the millwork is dependent on overall height with the magnet clip and Magnet Mount Accessory.



Mount the two #6 flat head screws into the 12" magnet mount accessory brackets through the slotted holes at each end. Ensure the screw head is flush with the magnet mount bracket.

NOTE: If surface application requires a longer screw, the screw size must be a #6 Flat Head.



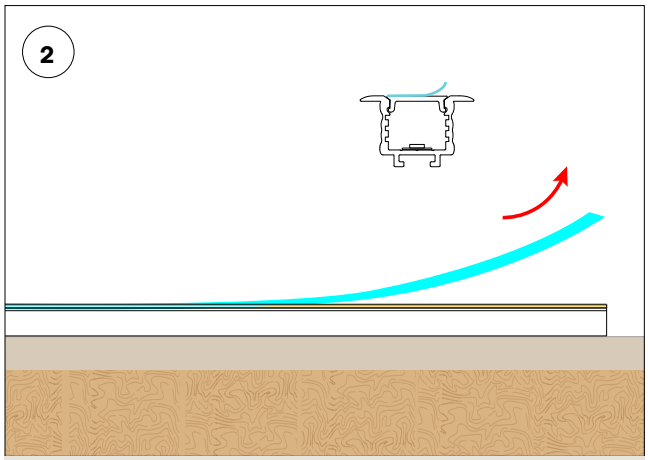
a. Slide magnet into the mounting track

b. Using the supplied set screw fasten the Non-Feed endcap that was removed, and secure the magnet clips into your desired location.

c. Place the assembled fixture onto the magnet mount bracket.

d. For installations requiring seismic precautions, monofiliment may be used with magnet clips as pictured.

NOTE: The magnet clips should be offset to the flat heads used to secure the bracket, to maximize magnetic connection.



Remove protective film from the surface of the fixture's lens.

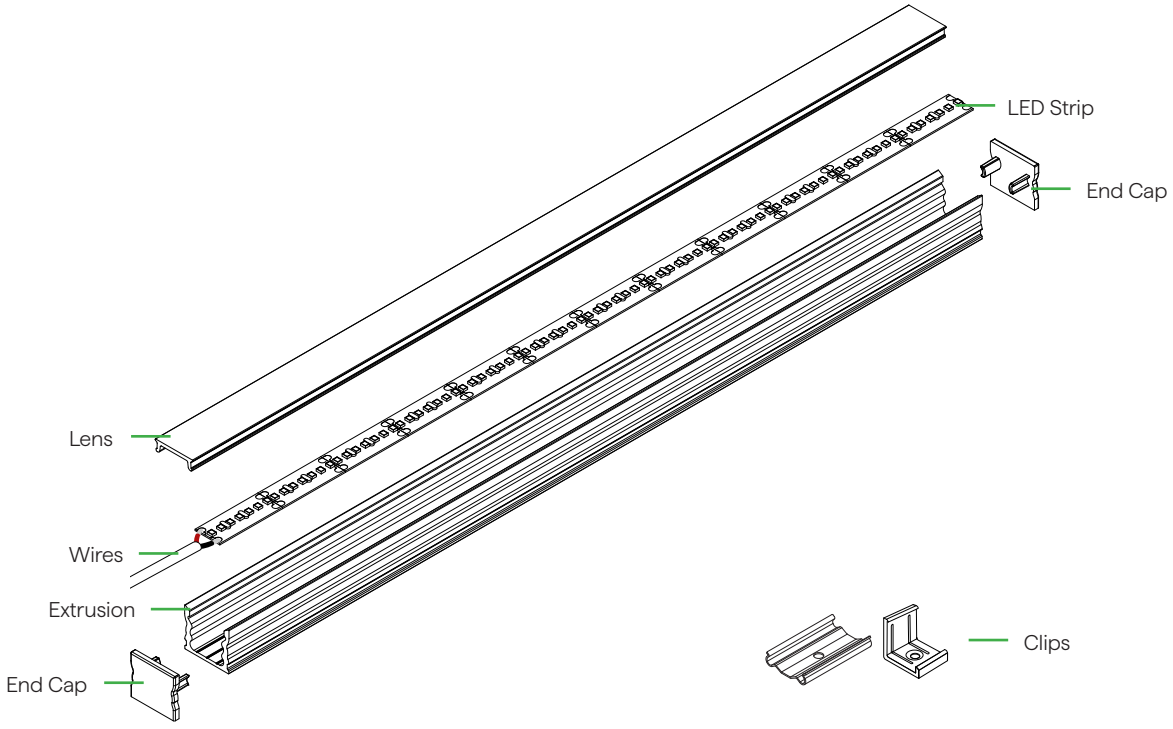
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MATERIAL RECYCLING

LINEAR FIXTURES/EXTRUSIONS

You may be done with your products, but chances are they still have more to give. Follow these instructions to break down and sort recyclable components. Check with local recycling collection to ensure they accept the materials listed below.

Additionally, Q-Tran offers a Takeback Program. Contact factory for information.



7	E	41	40
Lens Plastic End Caps Plastic Clips	LED Strip Wires	Extrusion Metal End Caps	Stainless Steel Clips

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