INSTALLATION GUIDE

How to Install and Use HALEX Electrical Fittings and Accessories
Halex offers a complete assortment of EMT fittings for connecting, coupling and securing EMT conduit.

1. Zinc and steel connectors come in both set screw and compression, connect EMT conduit to a metal box or enclosure. Connectors with an insulated throat, for wire protection, are available. All available in 1/2" through 4".

2. Offsets connect EMT conduit to a box, where an offset is needed. Available in 1/2" and 3/4", in set screw and compression.

3. EMT elbows come in a wide range of styles. They include EMT to Box in set screw and compression, as well as EMT to EMT.


RainTight fittings have a blue compression nut, showing inspectors that these parts are UL listed for rain tight applications. These are available in steel compression connectors and compression couplings.

5. Combination couplings bring two different types of conduit/cable together. EMT to NM, EMT to FLEX compression and EMT to FLEX set screw. EMT bushings protect wire being pulled through EMT conduit from sharp cut edges.
Flexible conduit (AC and MC) comes pre-wired and (FMC) hollow.

Halex offers Flex fittings, from 3/8" (1/2" knockouts) up to 4" in select parts.

Labor saving fittings are also available in MC Snap-In (single and duplex) as well as AC/MC Snap Connectors.

Insulated throat fittings are available in the Screw In Connector, Set Screw Connector, Saddle Connector, Squeeze Connector and 90 Degree Connector.

<table>
<thead>
<tr>
<th>Part Type</th>
<th>FMC</th>
<th>Steel AC</th>
<th>Aluminum MC</th>
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<tbody>
<tr>
<td>Screw In Coupling</td>
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<tr>
<td>Screw In Connector</td>
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<td>Squeeze Connector</td>
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<td>90º Connector</td>
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<td>AC Connector</td>
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<td>Set Screw Connector</td>
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<td>Clamp Combination Connector</td>
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<tr>
<td>Snap-In Connector</td>
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<tr>
<td>Saddle Connector</td>
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<td>MC Snap-In Duplex</td>
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<td>Cut In Snap Lock Connector</td>
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<tr>
<td>Double Snap Connector</td>
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Specific sizes within each part type may have more specific detail with regard to the size/cable type being used. Please see halexco.com for further details.
The Halex Non-Metallic category offers different options to connect Non-Metallic sheathed cable to a metal box or enclosure.

1. Most common is the Clamp Connector, available in 3/8" (1/2" knockout) up to 2". Also available is a Snap-In version that comes in 3/8" (1/2" knockout) and 3/4". This serves as a labor savings option that allows you to snap the connector into the box, versus using the standard locknut on the inside of the box.

2. The Two Piece Connector is another option that is inserted into the knockout and clamped down onto the NM sheathed cable. This comes in 1/2" thru 1½" sizes.

3. Two other options are plastic connectors that snap into the box. The Push In Connector is available in 3/8" (1/2" knockout) and 3/4". Push the NM sheathed cable through the connector from the outside of the box and secure it. The Plastic Cable Connectors also snap into the box, but require an extra step. Place the separate piece of the fitting into the slot, located in the center of the fitting, then clamp down onto the cable with pliers.
Connecting PVC and metallic liquid tight conduit to a box or enclosure can be done with a series of PVC, Zinc or Malleable Iron fittings. They come in straight, 45 degree and 90 degree connectors. Available in 1/2" through 4" in select parts.

1. Halex also offers labor savings one piece zinc fittings (1/2" and 3/4") and two piece PVC fittings in 3/8" (1/2" knockout) through 2".

2. Also available is a PVC coupling, to connect two pieces of PVC liquid tight conduit, in 1/2" and 3/4".

**Grounding Fittings (GND)**

1. Halex offers a series of Ground Clamps for 1/2" to 1" pipe, as well as 1 1/4" through 2". Select zinc and copper, items are listed for direct ground burial.

2. Also available are HALEX Ground Rod Clamps 1/2", 5/8", and 3/4" UL listed for direct burial.

3. Ground screws, ground clips, and ground wires for the proper grounding of metal boxes are part of the grounding category.
The RIGID category contains a full assortment of fittings, elbows and conduit bodies that can be used with RIGID and IMC (Intermediate Metal Conduit – a slightly thinner wall version of RIGID conduit).

There are many options to connect RIGID conduit to a box. Compression Connectors are used to connect a threadless end of conduit to a box. A pair of Locknuts (one inside and one outside of the box), a Chase Nipple (on the inside of the box) with a Threaded Coupling connects a threaded piece of RIGID conduit.

A RIGID Offset, a Box Spacer and a Conduit Nipple can be used to connect two boxes together.

RIGID Elbows form a 90 degree angle with two pieces of conduit. RGD to Box connects RGD conduit to a box at a 90 degree angle. 45 Degree and 90 Degree sweep elbows create a desired turn with RIGID conduit.

Reducing Bushings can be used to allow a transition to a smaller size conduit, 3/4" to 1/2", for example. Reducing Washers can be used to connect a smaller sized piece of RIGID conduit into a larger sized knockout in a box.

RIGID Conduit Bodies are available in multiple outlet configurations in 1/2" through 4" in select types. Conduit Bodies serve as a junction box and allow for a 90 Degree turn from outside a home or structure, to the inside.
Service Entrance Fittings (SE)

The Service Entrance category offers everything needed to bring electrical service from outside, into a home or structure.

1. Use wireholders in overhead services to secure the incoming service entrance wires. Mount the adjustable wireholder below the service entrance cap.

2. Watertight connectors connect various types of SE/SEU wire to an outlet box or enclosure. Available in zinc from 1/2" through 2".

3. A full offering of straps, one hole and two hole, are available for the wide range of service entrance wire types and sizes.

4. Mount Service Entrance caps onto a piece of RIGID conduit to bring outside service into a home or structure. Use the Oval Cable Cap in overhead service that utilize SEU cable.

Accessories (ACC)

1. Knockout seals close any unused knockouts in metal boxes. Nail plates protect wires that pass through wood studs.

2. Zinc strain relief cord connectors come in 1/2", 3/4" and 1" in various wire ranges. The non-metallic version come in 1/2" and 3/4".

3. Use conduit hangers to secure EMT and RGD/IMC conduit.

<table>
<thead>
<tr>
<th>Trade Size</th>
<th>EMT Conduit Size</th>
<th>RIGID Conduit Size</th>
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Weatherproof Boxes and Covers (WPF)

The Halex Weatherproof offering includes 106 SKUs of boxes, covers, lighting and gaskets. Most of which comes in 3 colors; Gray, White, and Bronze.

1. Weatherproof boxes come in one gang and two gang. They vary in the number and size of outlet holes on the top, sides, bottom and back of each box. Round boxes are also available.

Covers also come in various sizes and colors. Available in single outlet, duplex outlet or GFCI. Universal covers can be configured in multiple ways using the supplied inserts for a single outlet, a duplex outlet or a GFCI.

2. HALEX offers lampholders in the 3 colors mentioned above. They are sold individually as an outdoor lighting option.

3. Gaskets help seal a box and cover combination from moisture.

4. Closure plugs come in 1/2", 3/4", and 1". They close any unused outlets in a weatherproof box.
Halex offers 3 different AC Disconnects

- HF30R – 30 AMP Fused
- HF60R – 60 AMP Fused
- HNF60R – 60 AMP Non-Fused

AC Disconnects stop the power going to an air conditioner unit and allow for safe working conditions.

1. OPEN DOOR
   Lift door lid and slide into retaining slot to keep open.

2. REMOVE THE PULLOUT MECHANISM
   Pull on the handle to remove the pullout mechanism.

3. PREPARE BOX FOR WIRING
   Wiring enters and exits through the round knockouts provided on the sides, bottom and back of the box. The knockouts can accommodate 1/2", 3/4", and 1" conduit and cable. Use a screwdriver and hammer to remove the exact number of knockouts needed for the installation. Secure the wiring to the box and protect it from sharp edges using appropriately rated electrical connector fittings.

4. MOUNT THE BOX
   Use the pre-drilled holes on the back of the box to mount the unit. Ensure the box is securely fastened and fasteners do not pull through the mounting holes and substrate.

5. TERMINATE WIRES INTO LUGS
   Incoming wires from the branch circuit feeder terminate into the LINE lugs. Outgoing wires to the air conditioner unit terminate into the LOAD lugs. The ground wire terminates into the GROUND lug mounted on the box below the LINE and LOAD lugs.

6. FINISH INSTALLATION
   ENSURE ALL COMPONENTS ARE PROPERLY SECURED IN PLACE BEFORE ENERGIZING THE UNIT. Replace the deadfront barrier and the pullout mechanism. The ON marking on the pullout mechanism in the top position indicates correct orientation for power. Ensure that the pullout is pushed in as far as possible for full engagement. Close and secure the door.
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