



Energy Chain Systems[®] E4 Energy Chains Assembly Instructions





Series E4 Energy Tubes

Opening and Closing Series E4 Energy Tubes

To remove lids

Insert screwdriver into the slot and push down. Repeat this on the opposite side.

To hinge the lid

Remove one lid as shown then, release only one side to hinge the lid.



Installing the lids of Series E4 Energy Tubes

To assemble lids

Attach the lid to the connector at an angle. Snap into place by hand.



Series E4/100 Energy Chains®

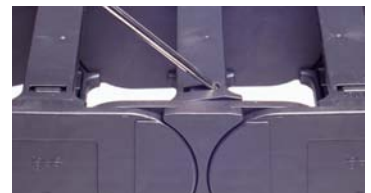
Opening and Closing Series E4/100 Energy Chains®

To remove snap-open crossbars

Insert screwdriver into slot on top of crossbar and push down on the screwdriver. Repeat this on the other side of the crossbar.

To remove clip (Energy Chains® with crossbars every other link)

Insert the screwdriver into the slot and push down on the screwdriver.



Assembling the side links of Series E4/100 Energy Chains®

Line up two inner side links, side by side. Attach an outer side link between the inner side links. Make sure the igus logo on the outer side links faces the same way.

NOTE: The exception to this rule is the Series 400 Energy Chain® in this instance the logos should alternate between right side up and upside down Attach crossbars, clips, and lids as described above.



Separating the Series E4/100 Energy Chains®

Remove crossbars, clips and lids.





Series E4/4 Energy Chains®

Opening and Closing Series E4/4 Energy Chains®

To remove snap-open crossbars

Insert screwdriver into slot on top of crossbar and push down on the screwdriver. Repeat this on the other side of the crossbar.



To remove clip

(Energy Chains® with crossbars every other link)

Insert the screwdriver into the slot and push down on the screwdriver.



To assemble two lengths of E4/4

Remove at least 3 of the snap-open crossbars at each connection point. Slide the side links into each other on one side leaving the Energy Chain® fitted at a slight angle. Press the mated side links together.



Join the side links together on the opposite side by applying pressure to the outer link. (When doing this, it may be necessary to move the Energy Chain® slightly along the bending radius).



If possible, it is helpful to place the chain on one side and join the second side link by pressing from the top.



Separating the Series E4/4 Energy Chains®

Remove crossbars, clips, and lids on two adjacent chain links. Guide the screwdriver into the slot between side links and release the side link by levering it out.





Series E4 & E4 Light Energy Chains®

Opening and Closing Series E4 & E4 Light Energy Chains®

iglus® Energy Chain System®

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Series E4

Series E4 Light

To remove snap-open crossbars

Insert screwdriver into slot on top of crossbar and push down. Repeat this on the other side of the crossbar.



To remove clip (Energy Chains® with crossbars every other link)

Insert the screwdriver into the slot and push down.



To install snap-open crossbars

Attach the snap-open crossbar by hand onto the connector, at an angle. Snap the crossbar in using a screwdriver. You may need to place screwdriver tip under the adjacent crossbar for leverage.



To install clip (Energy Chains® with crossbars every other link)

Attach the clip by hand onto the connector at an angle. Use a screwdriver to snap the clip into place. You may need to place the screwdriver tip under the adjacent crossbar for leverage.



Assembling the Series E4 Energy Chains®

Remove crossbars at the joint. Connect side links by slight tilting. Install crossbars, clips, bottoms and lids.



Separating the Series E4 Energy Chains®

Remove crossbars, clips and lids on a chain link. Position the Energy Chain at an angle and insert a screwdriver between links. Release the side link by levering it out.





Assembly of Shelving and Separation Components

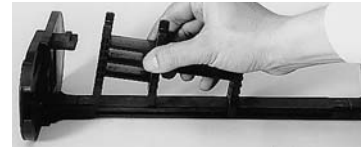
1. Assemble parts to desired layout.



2. Open chain – remove crossbar.



3. Snap assembly onto the crossbar.

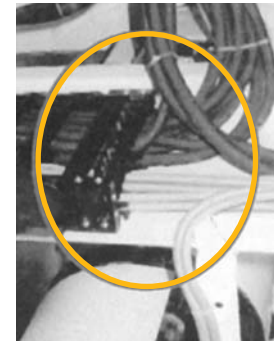


4. Close chain – secure crossbar.



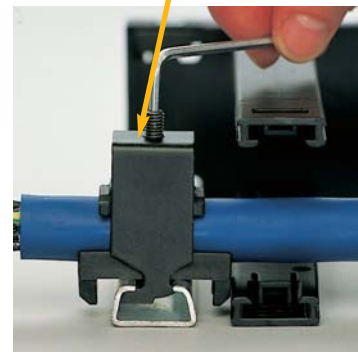
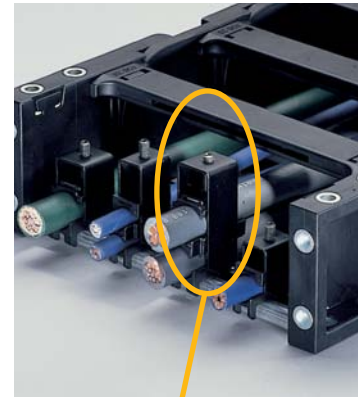
Mounting Brackets

1. Energy Chain mounting brackets should be attached and oriented to the Energy Chain® in a way that does not interfere or impinge with its movement along the traverse and back to the storage depot position
2. Energy Chain® mounting brackets should be fastened securely to the machines surface with the appropriate and designated amount of screws. As a rule, minimum two screws per bracket side.
3. Energy Chain® mounting brackets should fit closely and flush against the Energy Chain side links before they are fastened to the machine's mounting surface.
4. Energy Chain® mounting brackets should be fastened to the machine's mounting surface so that the Energy Chain® can move forward in the direction of the machines tow arm without interruption or jamming



Using Strain Relief Elements

1. All electrical cables should be anchored on both ends of the Energy Chain® using Chainfix strain relief elements
2. The position of the Chainfix Strain relief clamps, in relation to the cable feed-in point or the machine tow arm, is automatically specified by integration along with a profile C-Channel into the KMA style Energy Chain® mounting bracket. In cases where KMA style mounting brackets are not used, and the placement/position of Chainfix strain relief elements are located external to the Energy Chain® mounting brackets, the gap between strain relief elements and the mounting brackets should be as short as possible. Where these gaps between strain relief elements and mounting brackets are project specified and documented, strict adherence must be maintained.
3. When installing the Chainfix strain relief elements into the profile C-Channel, be certain that the "toe" of the Chainfix strain relief element points away from the Energy Chain®.
4. All electrical cables should first be anchored to the machines tow arm with Chainfix strain relief elements. Next move the machines tow arm to it's mechanical end position in the travel distance with the upper section of the Energy Chain® fully extended. At this point, proceed to anchor the electrical cables on the fixed end of the Energy Chain®. Make certain the cables have freedom of longitudinal movement and are not pulled tightly on the Energy Chain's inner radius crossbars. Also adhere to all project specified protocols and maintenance schedules.
5. Make certain all hardware used to fasten profile C-Channels and strain relief elements are tightened securely and cannot loosen during machine operation.
6. After cable installation according instruction 4 above, make certain a minimum of 2% or 250mm of cable "slack" exists to one side of the Energy Chain® for possible future adjustment purposes. The most accessible Energy Chain® side (moving or fixed) during machine operation is the preferred location for this electrical cable "slack" length.



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