

**Package Contents Model RHSR-DL 4860**

#Q	<u>Kee Klamp® fittings</u>	#Q	<u>Pipe</u>	<u>Size</u>	#Q	<u>Item</u>
2	14-7	4	Posts	40 1/8"	1	3/16" Chain & "S" Hook
4	45-7	4	Posts	42 3/4"	1	Quick Link
8	77-7	2	Rails	66"	16	3/8" x 2 1/2" Bolts
2	121-7				16	3/8" x 1 1/4" Bolts
2	178-7				16	Nuts
4	161-7				16	Fender washers
					16	SAE flat washers
					16	Lock Washers
					1	Product Label
					1	Warranty Card
					1	Fold Up Set Tools

61"

**Tools Needed Using RailingReady® Roof Hatches**

- 2 wrenches to tighten nuts
- torque wrench
- level
- hacksaw or sawzall to cut off bolts and excess pipe
- 5/16" hex key to tighten Kee Klamp® set screws
- exterior caulk and gun (roofing mfg. approved)
- bolt cutter to remove excess chain

**Tools Using Non-RailingReady® Roof Hatches**

- 2 wrenches to tighten nuts
- torque wrench
- marking device
- level
- drill or drill with 3/8" drill bit
- eye protection
- hacksaw or sawzall to cut off bolts and excess pipe
- file or grinder to remove burrs from bolt ends
- 5/16" hex key to tighten Kee Klamp® set screws
- exterior caulk and gun (roofing mfg. approved)
- bolt cutter to remove excess chain

## Introducing the RailHatch™ Combo

- Factory installed railing system
- RailHatch Combo is mounted on a skid for easy hoisting
- Install hatch as normal and flash under counter flashing



**RailHatch™**  
combo



CONTACT YOUR DISTRIBUTOR OR THE SAFETY RAIL SOURCE FOR DETAILS

## INSTALLATION INSTRUCTIONS Model RHSR-ALL SIZES

### Mounting On The Counter Flashing

We strongly recommend mounting all KeeHatch® Railing Systems on the counter flashing, if possible, to avoid penetration of the roof curb. Mounting on the counter flashing will not void any roof hatch manufacturer warranty. We have provided 1 ¼" bolts for this application. If you have purchased a RailingReady® roof hatch, please follow the instructions below "Using RailingReady® Roof Hatches".



### Certification

When mounting on the roof curb, the KeeHatch® Railing System must be supervised or performed by an individual holding a current and valid Certificate of Installation from The Safety Rail Source. Certification training takes 45 minutes and can be found on The Safety Rail Source web site: [www.thesafetyrailsources.com](http://www.thesafetyrailsources.com)

### IMPORTANT Packing on Roof Curb

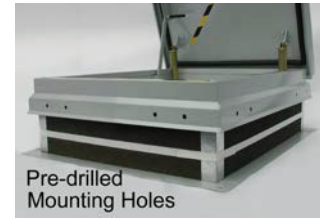
With existing & or non-RailingReady® roof hatches, the railing should be mounted on the counter flashing or if mounting on the roof curb, the roof curb must be packed out with at least ¾" plywood or material of similar density for strength and design considerations.

If the roof curb does not have packing or insulation, packing material can be applied directly to the surface of the curb and according to the roof manufacturer's approved sealing technique discussed in the certification training program.

If the roof curb is covered with insulation, a 2" (or wider) strip must be cut out under the mounting brackets of the KeeHatch® Railing System. The removed strips must extend the entire length of the roof curb sides. The insulation strips must be replaced with a non-compressible material and sealed according to the roof manufacturer's approved sealing technique.

**FOR ADDITIONAL INSTRUCTIONS OR ASSISTANCE  
CALL The Safety Rail Source AT (215) 256-7950**

### Using RailingReady® Roof Hatches



- STEP 1 Apply sealant around inside of bolt holes on 161-7 and 162-7 brackets. Attach brackets to hatch counter flashing at pre-drilled bolt holes. Leave bolts loose for adjustment.
- STEP 2 Assemble the balance of the system according to diagram.
- STEP 3 Cut off excess pipe to prevent snag points and install plastic pipe plugs in pipe ends.
- STEP 4 Tighten all Kee Klamp® fittings to 29 foot-pounds.
- STEP 5 Install fittings 178-7 with bevel facing down and positioned as per diagram. Install quick link through one of the 178-fittings and chain, tighten nut. Cut off excess chain links. Chain should not hang below 42" from roof surface and should be reasonably taut.
- STEP 6 Install yellow product label in an obvious spot on the railing system.
- STEP 7 Check roof hatch for proper unobstructed closing.
- STEP 8 Fill out warranty registration card and return to manufacturer.

### Using Non-RailingReady® Roof Hatches

**General:** Read instructions completely before proceeding. The KeeHatch® Railing System can be mounted either on the roof hatch curb or the counter flashing. There must be sufficient “step out” landing space on the roof at the hatch exit as per OSHA Standards or other safety guidelines. The KeeHatch Railing System meets OSHA Standards 1910.23 and 1910.27 by protecting the open hatchway and providing a substantial grab device for exiting and entering the hatchway.

**Notes:** (1) The Safety Rail Source is not responsible for the installation of the existing roof hatch or roof hatch curb, or for the integrity of the roof hatch curb. (2) We recommend that 2 people perform the installation.

#### Corner Post Installation

- STEP 1 Insert 42 3/4" posts into Kee Klamp® fittings 161-7. Torque set screws to 29 foot-pounds. Place corner post assembly snugly against the corner of the roof curb; plumb and position as in diagram, approximately 1/4" below cap flashing.
- STEP 2 Mark hole “A” onto roof curb, remove corner post assembly, drill hole at mark “A” through roof curb.
- STEP 3 Place fender washer over bolt and run bolt from inside roof curb through hole “A”.
- STEP 4 Apply approved sealant around holes on Kee Klamp fitting.
- STEP 5 Replace corner post assembly over bolt, plumb and tighten nut snugly with wrench.
- STEP 6 Drill hole “B” from outside to inside while keeping corner post assembly in place and plumb.
- STEP 7 Place fender washer over bolt and run bolt from inside roof curb through hole “B”. Tighten nut snugly.
- STEP 8 Move to the front of the roof hatch and plumb safety railing from side to side and mark hole “C”.
- STEP 9 Drill hole “C” through roof curb from outside to inside while keeping corner post assembly in place and plumb.

- STEP 10 Place fender washer over bolt and run bolt from inside roof curb through hole "C". Tighten nut snugly. NOTE: Your corner post assembly should now be plumb from side to side and front to back.
- STEP 11 Drill remaining bolt hole from outside to inside, install fender washer over bolt and run bolt from inside to outside. Tighten nut snugly.
- STEP 12 Now, go back and tighten all nuts with torque wrench to 30 foot-pounds.
- STEP 13 IMPORTANT: Cut off all bolt ends right up to the nuts. File or grind burrs on bolt ends. Caulk over nuts.
- STEP 14 Check roof hatch for proper unobstructed closing.

#### **Side Post Installation**

- STEP 1 Insert 40 1/8" posts into Kee Klamp fittings 162-7. Torque set screws to 29 foot-pounds. Place side post assembly snugly against the roof curb 4" from back edge of curb and approximately 1/4" below cap flashing. Plumb side post assembly and mark one of the holes.
- STEP 2 Remove side post assembly and drill hole through roof curb from outside to inside.
- STEP 3 Apply approved sealant around holes on Kee Klamp fitting 162-7 on the inside as in STEP 4 above.
- STEP 4 Place fender washers over bolt and run bolt from inside roof curb through hole. Place side post assembly over bolt and tighten nut snugly.
- STEP 5 Plumb side post assembly, drill remaining hole, place fender washer over bolt and run bolt from inside roof curb through hole, tighten nut snugly. Caulk over nuts.

#### **Top & Mid Rail Installation**

- STEP 1 Slide KeeKlump® fittings over corner post and side post assemblies as shown in diagram.
- STEP 2 Install top & mid rail as shown in diagram keeping top rail at least 42" above roof surface and positioning mid rail halfway between the top rail and the top of the hatch curb. Level rails.
- STEP 3 Cut off excess top and mid rails 1 1/2" from clamps. Install plastic pipe plugs 77-7 into tops of corner post assemblies and into top and mid rails.
- STEP 4 Tighten all Kee Klamp fittings to 29 foot-pounds.
- STEP 5 Install fittings 178-7 with bevel facing down and positioned as per diagram. Install quick link through one of the 178-fittings and chain, tighten nut. Cut off excess chain links. Chain should not hang below 42" from roof surface and should be reasonably taut.
- STEP 6 Install yellow product label in an obvious spot on the railing system.
- STEP 7 Check roof hatch for proper unobstructed closing.
- STEP 8 Fill out warranty registration card and return to manufacturer.

#### **Other Railing Components**

Install other railing components according to diagram. Tighten all KeeKlump set screws to 29 foot-pounds.