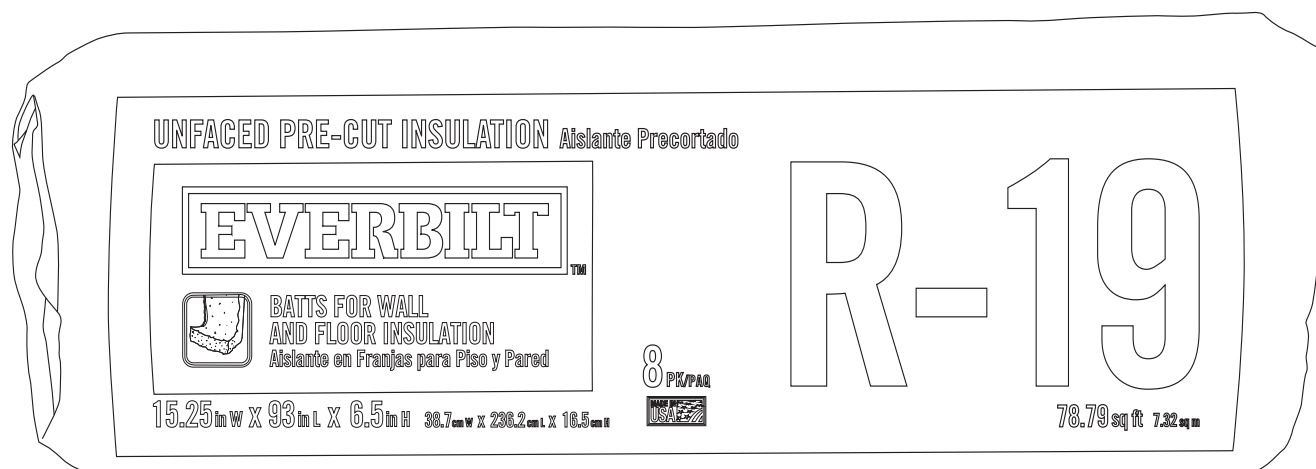




# INSTALLATION GUIDE

## EVERBILT R-19 UNFACED PRE-CUT INSULATION



Questions, problems, missing parts? Before returning to the store,  
call Everbilt Customer Service  
8 a.m. - 6 p.m., EST, Monday - Friday

**1-800-305-1726**

**HOMEDEPOT.COM**

### THANK YOU

*We appreciate the trust and confidence you have placed in Everbilt through the purchase of this unfaced pre-cut insulation. We strive to continually create quality products designed to enhance your home. Visit us online to see our full line of products available for your home improvement needs. Thank you for choosing Everbilt!*





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# Safety Information

## SPECIFICATIONS/COMPLIANCES

- ASTM C 665 (includes ASTM C 518)
- Unfaced insulation complies with ASTM E 136 - noncombustibility
- ASTM E 84 Fire Hazard Classification (FHC) 25/50 (unfaced)
- California Quality Standards, Registry No. CA-T275

 **WARNING:** Eye, skin and respiratory tract irritant.

## HAZARD STATEMENT

Inhalation: Fiberglass wool may cause mechanical irritation of the upper respiratory tract.

Skin Contact: Direct contact with the skin may cause mechanical irritation.


Eye Contact: Direct contact with the eyes may cause mechanical irritation.

## FOLLOW THESE PRECAUTIONARY WORK PRACTICES:

Exposure Limits: Inhalation. Fiberglass wool may cause mechanical irritation of the upper respiratory tract. Use of a 2-strap NIOSH-Approved N-95 Filtering Facepiece respirator, such as a 3M model 8210 or equivalent is recommended when handling loose-fill, when exposure is unknown or when fibers exceed the TLV of 1 f/cc. Operations which generate high airborne fiber concentrations (over 10 times the TLV) require additional respiratory protection.

Skin Contact: Direct contact with the skin may cause mechanical irritation. Long sleeves, loose fitting clothing, gloves, and


eye protection are recommended. If irritation occurs, wash exposed areas with soap and water after handling. Wash clothes separately and rinse out washer after each use. Following a thorough review of all the medical data available, the International Agency for Research on Cancer (IARC) has classified glass wool insulation as Group #3, "not classifiable as to carcinogenicity to humans". IARC has stated there is "no evidence of increased risks of lung cancer or of mesothelioma... from occupational exposures during the manufacture of these materials, and inadequate evidence overall of any cancer risk."

 **WARNING:** Fiberglass Wool. See this product's Safety Data Sheet (SDS) for further information. This product is Nota Q compliant.

## FIRST AID MEASURES:

Skin Contact: Do not rub. Wash with soap and water. Use skin cream to sooth irritation. Wash clothes separately. A shower after work is recommended. Irritation typically will not persist if good personal hygiene habits are followed.

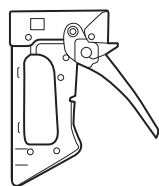
Eye Contact: Flush with running water for at least 15 minutes. Using sterile eye wash, flush foreign bodies from eyes. Inhalation: Remove from exposure. If irritation persists in any of these situations, a physician should be consulted.

 **CAUTION:** Allow heat-source clearance. Insulation must not be installed within 3 in of electrical lights, fans or heat generating sources, such as flues, chimneys or other sources of heat. Failure to adhere to these recommendations may cause damage to these devices and violate local building codes.

# Pre-Installation

## GETTING STARTED: TOOLS AND WORK PRACTICES

Working with fiberglass insulation is relatively easy and only these basic tools are required:



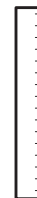
Heavy duty stapler



Safety glasses



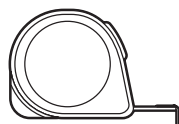
Sharp knife



Straightedge



Gloves



Tape Measure



Mask

When installing insulation follow these work practices:

- Wear long-sleeved, loose-fitting clothing, gloves and eye protection.
- Best practices recommend wearing a NIOSH approved N95 dust mask respirator whenever working with loose-fill insulation.
- Wash exposed areas with soap and warm water after handling.
- Wash clothes separately from other clothing; rinse washer thoroughly.
- Operations (over 10 fibers per cc) require additional respiratory protection.

## HELPFUL HINTS FOR AN EASIER, MORE PROFESSIONAL JOB:

- Do not remove insulation from packages until you are ready to install. Before installation, fluff the product to reverse the effects of compression while packaged.
- Place boards over joists for a safe walkway.
- Nails can be dangerous – watch for nails protruding through roof sheathing.
- Insulation should not be installed over eave vents – ventilation helps prevent condensation.
- Fill cracks around windows and doors.
- Fit insulation firmly but do not over-compress.



## Pre-Installation (continued)

### HOW MUCH MORE INSULATION DO YOU NEED?

Once you know your home's R-values, it is easy to figure how much additional insulation you will need to meet the DOE recommended minimums. Subtract the existing R-value from the recommended R-value. The difference is the R-value you will need to add. If the difference falls between standard R-values, choose the next highest.

It is easy to figure how many square feet of insulation you will need to buy for any space to be insulated. When insulation is to be placed between studs, joists or rafters, simply multiply the total area (length x width = sq. ft.) by .90 if framing members are 16" on center, or .94 if they are 24" on center.

For example: 1,000 square feet of ceiling are with joists spaced 16" on center would require 900 sq. ft. (1,000 x .90 = 900 square feet) of insulation.

If you are still unsure of how much insulation you will need, sketch the area to be insulated, with dimensions, and take to your nearest Home Depot.

### WHAT ABOUT R-VALUES?

"R" means resistance to heat flow. The higher the R-value the greater the insulating power. Proper installation is required to get the marked R-value. Refer to the insulation zone map and chart for the proper R-value insulation for your locale and need.

(A) R-18, R-22, and R-28 exterior wall systems can be achieved by either cavity insulation or cavity insulation with insulating sheathing.

For 2" x 4" walls, use either R-15 or R-13 fiberglass with insulating sheathing.

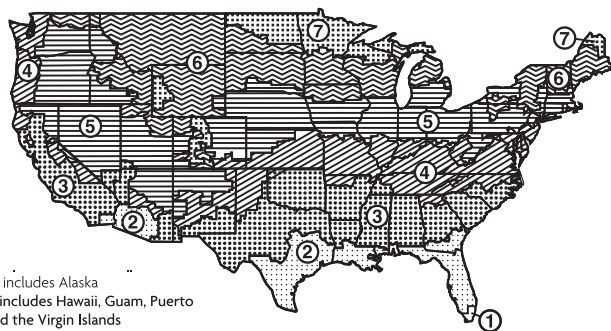
For 2" x 6" walls, use either R-21 or R-19 fiberglass insulation. R-19 insulation installed in a 5½" cavity will be compressed to the equivalent of R-17 to R-18.

(B) Insulate crawlspace walls only if the crawlspace is dry all year, the floor above is not insulated, and all ventilation to the crawlspace is blocked. A vapor retarder (e.g., 4 - or 6 - mil polyethylene film) should be installed on the ground to reduce moisture migration into the crawlspace.

NOTE: For more information see: DOE Insulation Fact Sheet(DOE/CE-0180).

Energy Efficiency and Renewable Energy Clearinghouse, P.O. Box 3048, Merrifield, VA 22116, [www.ornl.gov](http://www.ornl.gov)

#### U.S. DEPT. OF ENERGY RECOMMENDATIONS FOR NEW HOMES



Insulation Zone	Heating System				Attic	Cathedral Ceiling	Wall	Floor
	Gas	Heat Pump	Fuel Oil	Electric Furnace				
①	✓	✓	✓	✓	R-30 to R-49	R-22 to R-28	R-13 to R-15	R-13
②	✓	✓	✓	✓	R-30 to R-60	R-22 to R-38	R-13 to R-15	R-13 R-19 to R-25
③	✓	✓	✓	✓	R-30 to R-60	R-22 to R-38	R-13 to R-15	R-25
④	✓	✓	✓	✓	R-38 to R-60	R-30 to R-38	R-13 to R-15	R-25 to R-30
⑤	✓	✓	✓	✓	R-38 to R-60	R-30 to R-38 R-30 to R-60	R-20 R-20	R-25 to R-30
⑥	✓	✓	✓	✓	R-49 to R-60	R-30 to R-60	R-20	R-25 to R-30
⑦ ⑧	✓	✓	✓	✓	R-49 to R-60	R-30 to R-60	R-21	R-38

NOTE: For more information see: DOE Insulation Fact Sheet (DOE/CE-0180). [www.ornl.gov](http://www.ornl.gov)

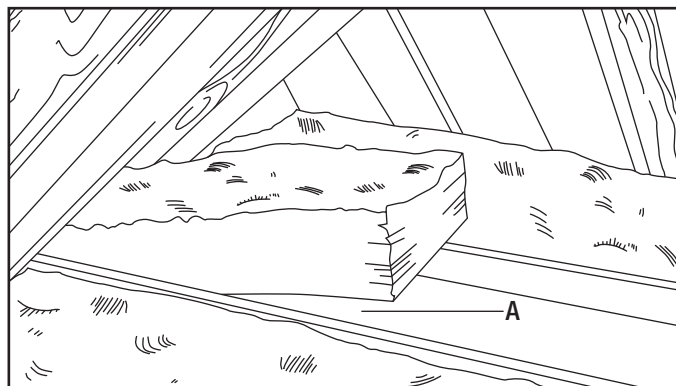




## Installation - Attics

### 1

If there is no insulation in the attic, use kraft or foil faced insulation with the facing (vapor retarder) against the heated area of the home. (A) When adding to existing insulation, unfaced insulation is recommended.



In an un-floored attic, place boards or plywood over the joists to walk on and hang a temporary work light.

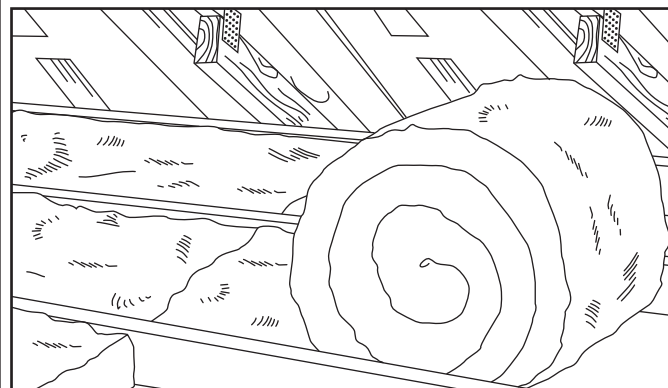
Start installation on one side of attic and work towards the center. Working toward the center will allow for more headroom when cutting or fitting the final pieces of insulation.

### 2

Extend insulation over and across the top plate of exterior walls but do not block the flow of air from the eave vents. For best results, install flexible attic vents inside at the eaves. Proper insulation must be combined with proper ventilation.

- For attics with no vapor retarder, provide one sq. ft. of clear vent area for each 150 sq. ft. of attic floor area.
- For attics with a vapor retarder, provide one sq. ft. of clear vent area for each 300 sq. ft. of attic floor area.

If you are using roll insulation, place it between the joists and unroll it until you reach the center. If you are using batts, place them tightly together, end-to-end, until you reach the center.



If your attic has cross-bracing, cut the insulation to fit tightly around the cross-bracing or use scraps to fill the small spaces.



**CAUTION:** In attic spaces, watch for nails sticking through the underside of the roof.

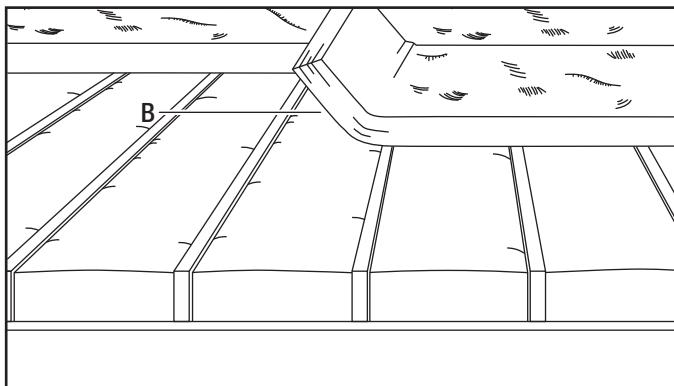




## Installation (continued) - Upgrading Existing Insulation

# 1

If the area between the joists is already filled with insulation, simply lay additional insulation at right angles to the joists. (B)

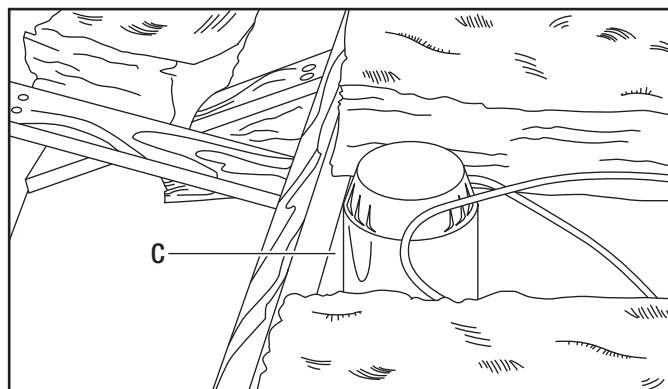


# 2



**CAUTION:** DO NOT cover lighting fixtures, exhaust fan motors or vents protruding into the attic.

Insulation must be kept 3" away from these fixtures unless marked "I.C. (insulated ceiling fixture)" designed for direct insulation contact. (C)

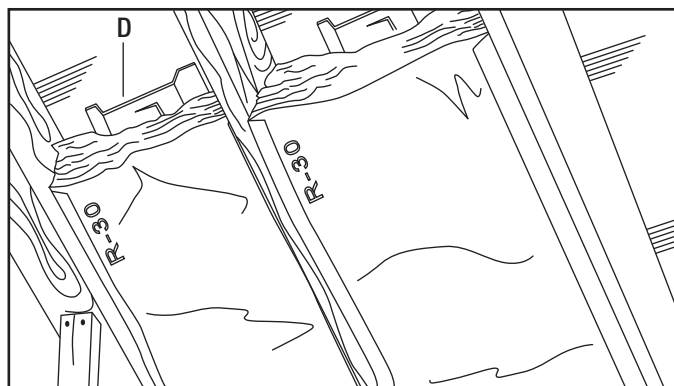


# 3

Proper insulation must be combined with proper ventilation.

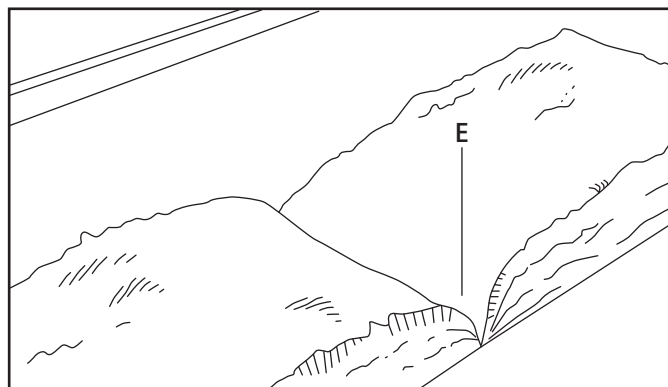
- For attics with no vapor retarder, provide one sq. ft. of clear vent area for each 150 sq. ft. of attic floor area.
- For attics with a vapor retarder, provide one sq. ft. of clear vent area for each 300 sq. ft. of attic floor area.

When insulating cathedral ceilings, it is important to allow for at least a one inch air space between the insulation and the roof sheathing for proper ventilation of the attic space. This can be accomplished by using either baffles or cathedral batts specifically designed for this application. (D)



# 4

Cutting insulation is quite easy. Set the insulation on scrap plywood or boards. Compress the batt by putting a 2" x 4" or straight edge along the line of cut. If kraft or foil faced insulation is being used, place the insulation with the facing down to reduce tearing. (E)





## Installation (continued) - Walls, New Construction/Remodeling

# 1

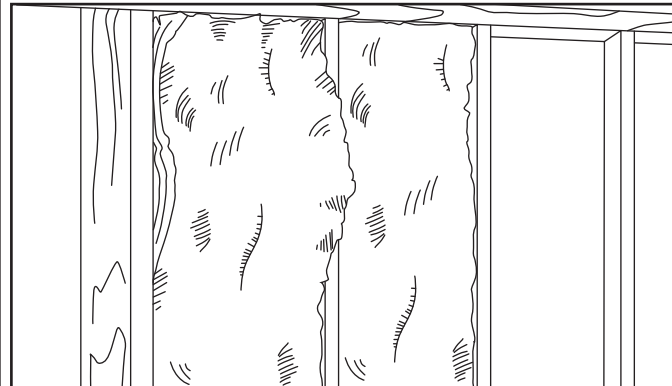
Use kraft faced or foil faced insulation with a 1" stapling flange on both sides of the vapor retarder facing material or unfaced insulation with a separate vapor barrier. (F)



Start at the top of the wall cavity by pressing the insulation snugly into place against the top plate. Working down, with the facing toward the heated area of the home, staple the flange every 4" to 6" to the studs until you reach the bottom. Fit the insulation tightly to the bottom plate. For wall cavities with some type of backing, i.e., OSB, Staple Optional® friction fit faced batts can be used that do not require using the stapling flange.

# 2

Unfaced insulation is installed by pressing it into place as outlined. A separate vapor retarder such as a 4 or 6 mil polyethylene film is applied over the insulation next to the heated area of the home.



**CAUTION:** DO NOT leave faced insulation or polyethylene exposed.

The facings on standard kraft or foil faced insulations and polyethylene will burn and should be covered with an approved interior finish as required by local codes as soon as the insulation has been installed.



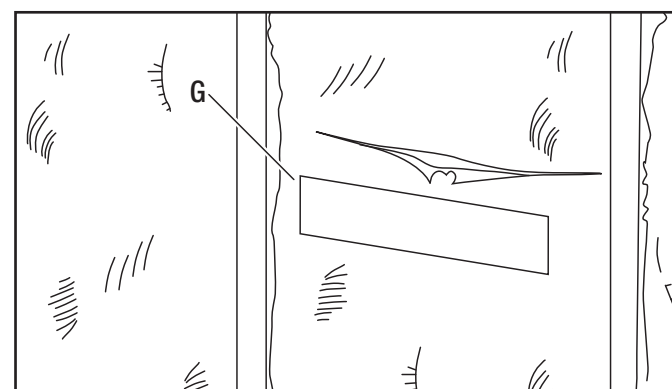
**CAUTION:** DO NOT roll or over-compress the insulation and avoid leaving any gaps or voids around electrical outlets or pipes.

# 3

Gaps and voids will reduce the effective R-value of the insulation and can lead to drafts or cold spots. Packing insulation in small cracks around doors and window frames can help eliminate drafts and cold spots.

Insulation installed behind pipes and electrical outlets can help eliminate frozen pipes and reduce noise.

Moisture control is a major concern associated with installing thermal insulation. The warm air inside your house contains water vapor. Any rips or tears in the vapor retarder should be patched (G). Patching reduces the possibility of water vapor passing into the insulation where it could condense, causing significant loss of insulation value.

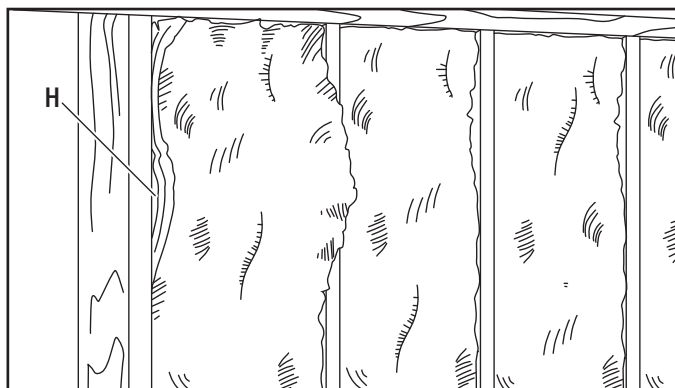




## Installation (continued) - Garage and Basement Walls

# 1

Kraft or foil faced insulation is recommended for insulating walls between heated and unheated areas. The insulation should be installed with the vapor retarder facing toward the heated area of the home. (H)

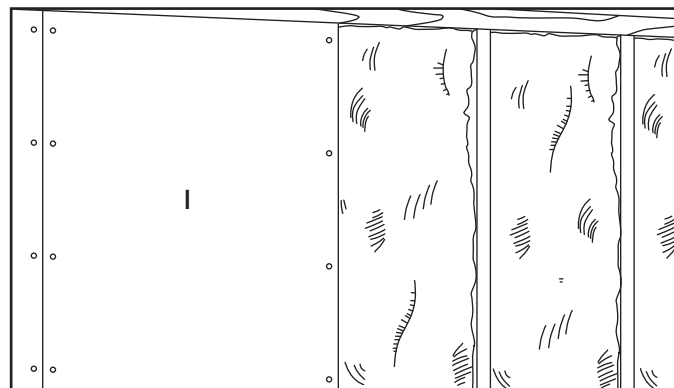


# 2



**CAUTION: DO NOT** leave the insulation exposed.

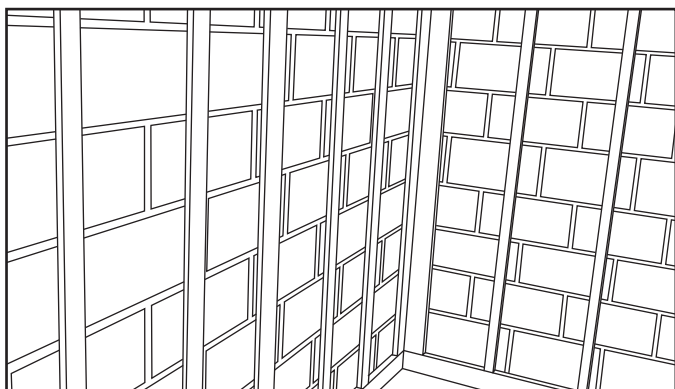
Cover with an approved wall finish, such as gypsum board. (I)



# 3

Before insulating, check to make sure that your basement walls have been properly sealed and that no moisture is getting through from the outside.

Install framework of furring strips to masonry walls. Nail bottom plate directly to floor and top plate to joists above. Place studs either 16" or 24" on center.



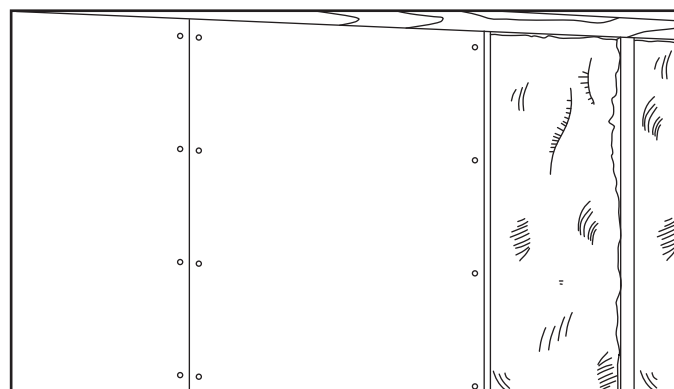
Install kraft or foil faced insulation between furring strips or studs and staple flange to framing members every 4" to 6" top-to-bottom.

# 4

Cut pieces of unfaced insulation to fit in the band joint snugly against the top plate and sub-floor. Once the insulation and vapor retarder are installed, the wall finish would be applied directly to furring strips or studs.



**CAUTION: DO NOT** leave faced insulation exposed.





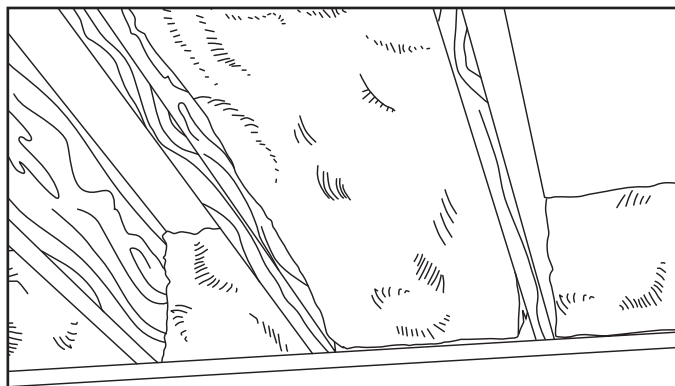


## Installation (continued) - Floors

# 1

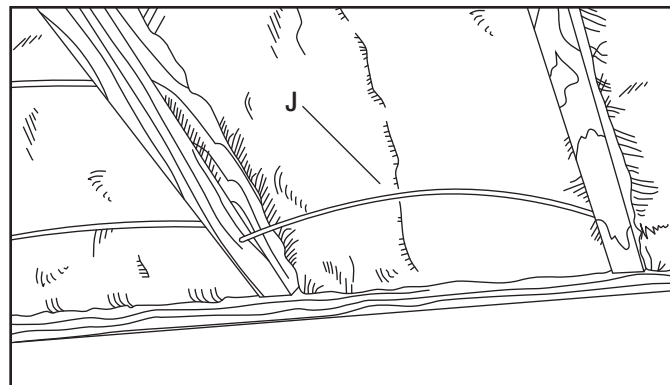
If cold floors are a familiar complaint, chances are your floors are under-insulated and are wasting energy. Start insulating at the header wall.

Push kraft or foil faced 6-1/2" R-19 insulation, vapor retarder side up, into the spaces between the joists, snugly against the band joists. The vapor retarder should just touch the sub-flooring. This will prevent heat loss.



# 2

To support the insulation, either staple chicken wire or nylon screening to the bottom of the joists. Drive galvanized nails at intervals along joists and lace rust proof wire, or use wire supports so that they barely touch the insulation. (J)





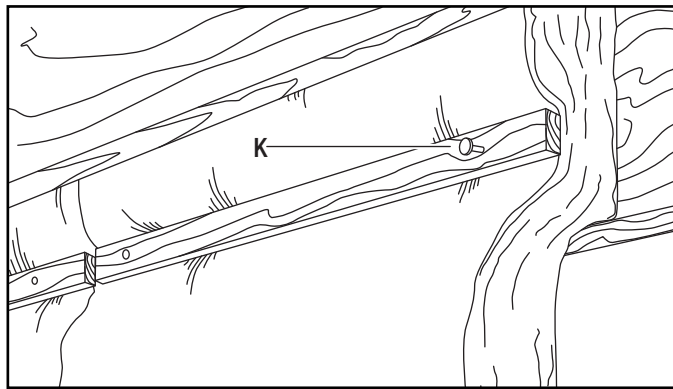
## Installation (continued) - Crawlspace

# 1

On masonry walls in unheated crawlspaces, measure and cut small pieces (header strips) of unfaced insulation to fit snugly against the band joist on the header wall.

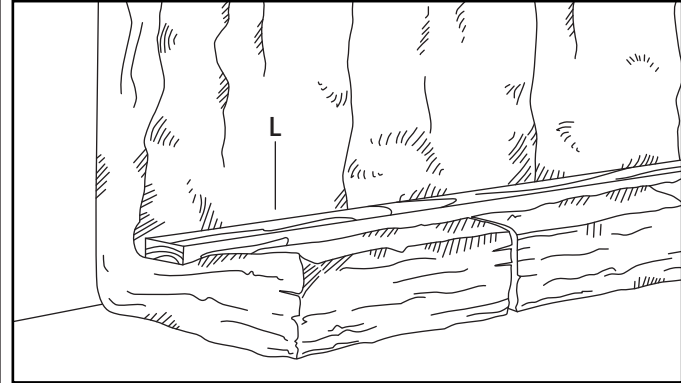
Trim insulation to fit snugly around joists. Using long furring strips, nail longer lengths of unfaced insulation to sill. Insulation should be cut long enough to hang down to the bottom of the wall and extend approximately 2' along the ground into the crawlspace.

When nailing furring strips, only drive nails far enough to compress insulation to about half of its original thickness. (K)



# 2

On box joists walls that run parallel to joists it is not necessary to cut separate header strips. Simply use longer lengths of insulation and nail (with furring strip) directly to the band joist. (L)



After insulation has been installed, lay a 4 or 6 mil polyethylene vapor retarder film under the insulation and over the entire floor area. Use weights (2" x 4" studs, bricks, etc.) to help hold the insulation in place.







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Retain this manual for future use.

