

INSTALLATION INSTRUCTIONS

PORTABLE, PERMANENT FLOORING AND SUBFLOOR SYSTEMS
FOR STUDIO, STAGE, FITNESS, SPORTS & TOURING



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Quick Reference Chart For Installation Of Sheet Vinyl Flooring

Flooring	Short Term		Long Term	
	Temporary	Semi-Permanent	Semi-Permanent	Permanent
Quietstep	O	O	O	G
Rave	O	O	G	X
Super Bravo B/ Super Bravo Classic	O	O	O	X
Super Timestep	O	O	O	O
Timestep	O	O	O	O
Timestep T	O	O	O	G
Woodstep	X	G	O	O
Woodstep Plus	X	G	O	O
Woodstep Ultra	X	G	O	O

Quick Reference Chart For Installation of Wood Flooring

Compass	O	O	O	O
Encore	O	O	O	G
Hardwood Flooring System	O*	O*	O*	O

O = Optimum G = Good X = Not recommended.
Circumstances and budget may dictate other options. *Hardwood portable system only.



Flooring Installation At A Glance

Four Ways to Install

Temporary Installation

Semi-permanent Installation

Long Term Semi-permanent Installation

Permanent Installation

CAUTION

All slabs must be covered with a vapor barrier. Use Stagestep's/Aeson's Vapor Barrier, Versa Shield, or 8 mil plastic sheeting. A water proofing concrete sealer, like Stagestep's/Aeson's Bone Dry may also be used in some circumstances. See product list on page 24.

Installing Wood Floors

Wood, like vinyl, needs time to acclimate to the space. Slabs need to have a vapor barrier and there needs to be a venting to the slab for air flow. Most wood floors require professional installation except our Encore flooring system.

FLOOR PREPARATION

DO: Make sure the smooth surface is up and foam or texture down when installing.

DO NOT: Flip flooring edge over edge. Flooring will tear or crack.

DO: Wash floor 2-3 times with lukewarm water before using. For special non-slip requirements or treatments, call our technical support.

DO NOT: Use rosin, solvents, abrasive cleaners, cola, vinegar, (concentrated) ammonia, bleach, or any product that says it will leave your floor shiny.

NOTE: All floors must be at room temperature or warmer before cutting. Shrinkage up to 1% may occur.

TEMPORARY INSTALLATION (WITH SEAM TAPE AND PERIMETER TAPE)

- 1) Before taping, unroll flooring and allow to sit on subfloor until flooring lies flat and acclimates to room temperature. Letting the floor sit overnight or longer would be ideal. Floor must lie flat before taping. Leave 1/16" gap at all seams and 1/2" gap at walls.
- 2) Tape all seams and circumference of the room using 1-1/2" or 2" vinyl or cloth tape.
- 3) Floor must be installed over a clean, smooth, level, and dry surface.

SEMI-PERMANENT INSTALLATION (WITH DOUBLE-FACED TAPE)

- 1) Subfloor surface must be clean, dry, level, and smooth, with all screw holes and seams filled or taped over.
- 2) Roll out flooring and let it acclimate to room temperature. When the floor arrives, it may be rolled inside out. Please make certain that the smooth side is up, and the foam or textured surface is down. Room temperature should be the highest temperature the room will reach when in use. (Remember, all those bodies working creates heat.) Acclimatizing the floor may take anywhere from a few hours to a few days.
- 3) Make certain floor is lying flat to the subfloor and that all seams are even. Make all appropriate cuts. Leave a 1/2" (12.70 mm) gap at all walls and a 1/16" (1.59 mm) gap between the seams.

- 4) Your floor should look like it is ready to be used.
- 5) Secure one end of each roll of flooring with weight so it will not move.
- 6) Roll the first roll closest to the furthest wall back onto its core and apply double face tape to the subfloor around the roll's perimeter and down the middle 3.25 ft. or .99 lm from the edge). Leave all other rolls in place and rolled out.
- 7) Re-roll out this roll to check the positioning over the tape.
- 8) If all is fine, roll up the floor, remove the protective paper from the double face tape and re-roll over the exposed double face tape.
- 9) Repeat procedures 6 through 9 for each roll.
- 10) If necessary, use 75lb. roller to further secure floor.

Caution: Change top tape every four months. Change double face tape a minimum of every two years. Failure to do so can cause flooring to crack and ripple.

PERMANENT INSTALLATION (WITH STAGESTEP/AESON ADHESIVE)

Professional installation recommended. Complete instructions are included with each container of Stagestep/Aeson adhesive. Seams should be double cut by a professional. Chemical welding is not recommended. Heat welding is not necessary. Stagestep/Aeson carries heat welding rod material in all colors if you wish a seamless floor.* If you have any questions, call us at 800-523-0960.

LONG TERM SEMI-PERMANENT INSTALLATION

(See ReUseIt Instructions for Long Term Semi-Permanent Instructions on Pages 4-5.)

STAGESTEP/AESON is not responsible for costs related to the delay, damage or installation of its flooring. Floors are insured in customer's name against shipping damage. All floors will be replaced free of charge if there is a manufacturer defect.

**Note: Seamless does not mean invisible. Heat welding prevents moisture from penetrating the seam and destroying the adhesive.*

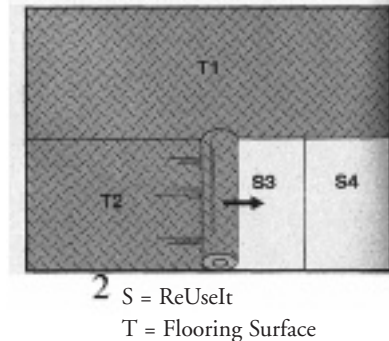
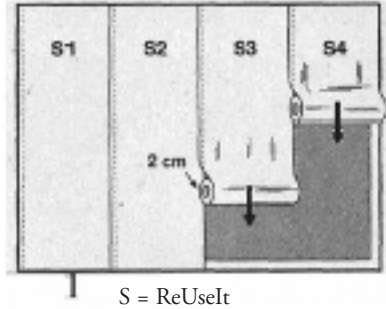
ReUseIt Installation Instructions

- 1) Make sure existing surface is smooth, dry, and clean
- 2) ReUseIt is applied perpendicular to the floor surface. If your floor runs north-south, the ReUseIt will run east-west.
- 3) ReUseIt covers the entire floor surface
- 4) As you roll out ReUseIt, you expose the adhesive on the bottom which will stick to your subfloor.
- 5) As one person slowly walks backwards unrolling ReUseIt, another person secures the adhesive to the subfloor by smoothing it out with a stiff bristle push broom or roller. See Ill A.
- 6) When you reach a wall, cut ReUseIt with a utility knife and start next run. It is good to line up seams as close as possible; however slight overlaps or gaps are ok. See Ill 1.
- 7) Roll out top flooring perpendicular to the ReUseIt; make all rough cuts along wall perimeter, and let acclimate for at least 24 hours. If floor edges are damaged or deformed, seam areas may be overlapped by up to 1 inch and double cut to realize two fresh edges.* (Do not make double cuts until step 12.) See Ill 2.

*Overlap and double cutting will reduce coverage of material in the floor width. Please make sure that there is enough material to complete the job.

NOTE: Do not overlap seams if doing so will compromise floor fit!

NOTE: Do not use ReUseIt to install Timestep T Black. Use double-faced tape and top tape.

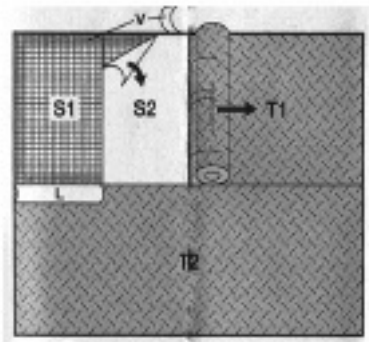


- 8) Roll flooring up half way using flooring tubes provided. Do this one section at a time. Peel off protective layer on ReUseIt exposing the top adhesive. See Ill 3,4,5.
- 9) Gently roll flooring back into adhesive, making sure not to shift or change alignment of the flooring. Smooth out flooring from the center to the edges.
- 10) Repeat procedure on each half of the remaining sheets of flooring. Do not cut any seams at this time.
- 11) Once all flooring has been affixed to the ReUseIt, roll each sheet one at a time from the center to the edges with a 75 to 100 pound floor roller. See Ill 6.
- 12) Once entire floor surface has been rolled, double cut or scribe all seams. Be careful not to cut the ReUseIt during this procedure. Cutting ReUseIt at seam areas will weaken its ability to properly hold the seams closed. Once all seams have been cut, roll seam area with 75 to 100 pound roller.

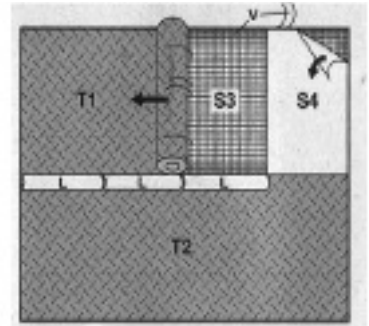
TIPS:

- 1) Room should be warm and dry. ReUseIt should not be used in damp areas or outside.
- 2) If a mistake is made and the floor gets tangled or misaligned, gently pull floor material up and try again. If ReUseIt gets dirty, damaged, or wet, cut damaged area out and lay in replacement piece.
- 3) Test ReUseIt to confirm it will stick to your subfloor prior to installation.

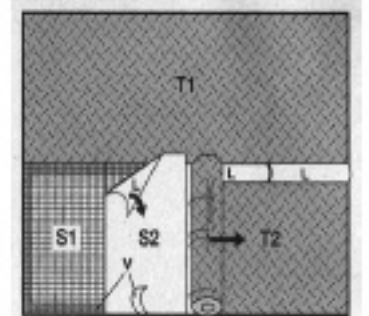
CAUTION: Extreme heat can damage ReUseIt resulting in its failure to bond flooring to subfloor. Call Stagestep/Aeson if this is likely to happen or is happening. There is a special 4" seam tape available to fix this.



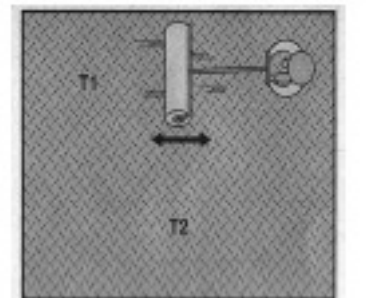
3 S = ReUseIt
T = Flooring Surface



4 S = ReUseIt
T = Flooring Surface



5 S = ReUseIt
T = Flooring Surface



6 T = Flooring Surface



MOISTURE TEST

It is essential that moisture tests be taken on **all** concrete and wood floors regardless of the age or grade level. Concrete should be tested in a minimum of three places for every 1,000 square ft. The test should be conducted according to ASTM F1869-98 using a calcium chloride test or digital meter. The test should be conducted around the perimeter of the room, at columns, and where moisture may be evident. The moisture emission from the concrete should not exceed 5.0 lbs. per 1,000 sq. ft. in 24 hrs. Wood should be tested with a digital moisture meter and should have a content not lower than 5% and not higher than 10%. If your results exceed these limits, please contact Stagestep/Aeson for more information. **It is not the floor installer's responsibility to conduct the test. However, the floor covering installer is responsible to make sure these tests have been conducted with proper results prior to installing the floor covering.**

When moisture tests are conducted, it only indicates the conditions at the time of the test. The flooring contractor cannot be held responsible if moisture is present in the future and causes a failure.

JOB CONDITIONS

The installation of flooring should not begin until the work of all other trades has been completed, especially overhead trades.

Areas to receive flooring should be clean, fully enclosed, weather-tight with the permanent HVAC set at a uniform temperature of at least 68°F. The flooring material should be conditioned in the same manner. Maximum temperature should not exceed 100°F after installation.

Areas to receive flooring shall be adequately lit to allow for proper inspection of the substrate, installation and seaming of the flooring, and final inspection.

NOTE: Conducting a moisture test prior to having a controlled environment may cause your results to change drastically once a controlled environment is established. This could result in an installation failure due to created temperature inversions in the interior environment.



MATERIAL STORAGE AND HANDLING INSPECTION OF MATERIAL

Material should be delivered to the job site in its original unopened packaging with all labels intact.

Store all rolls vertically.

Material should be stored in areas that are fully enclosed and weather-tight, with the permanent HVAC system set at a uniform temperature of at least 68°F for 72 hours prior to, during and after installation.

Material should always be stored and transported rolled on a 6-inch diameter heavy duty tube.

Material should always be visually inspected prior to installation. **No labor cost will be covered on claims based on visual defects that could have been seen prior to installation.**

COLOR MATCHING

When more than one roll of a color is being installed, all material should be from the same batch. If material from more than one batch is to be used, the job should be laid out so that different batches match as closely as possible.

When installing Stagestep/Aeson vinyl, all sheets must be installed running in the same direction.

ADDITIONAL INFORMATION

For more extensive guidelines and stances of the mentioned topics, Stagestep/Aeson would encourage you to contact the following associations:

- **APA** — The Engineered Wood Association — 253-565-6600 — www.apawood.org
- **ACI** — American Concrete Institute — 248-848-3700 — www.concrete.org
- **PCA** — Portland Cement Association — 800-868-6733 — www.cement.org
- **RFCI** — Resilient Floor Covering Institute — 301-340-8580 — www.rfci.com
- **ASTM** — American Society for Testing and Materials — 610-832-9500 — www.astm.org



Subfloors

No floor covering is better than the subfloor over which it is installed. The finished appearance and performance of the floor covering will be determined and affected, in part, by the condition of the subfloor. It is essential that all subfloors be structurally sound, finished smooth, flat, level, permanently dry, clean, and free of all foreign materials such as dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, asphalt, and old adhesive residue. Subfloor preparation should be done with the permanent HVAC set at a minimum of 68° F (20° C).

Vacuuming the subfloor with a commercial shop vac is a preferred method for removing dirt and dust. For concrete floors, damp mopping the subfloor is an excellent way to remove fine dust. A clean subfloor ensures proper bond between the subfloor and the floor covering.

Note: Wherever trade names, trademarks, product names, or company names are mentioned, they are used only as a reference to establish a comparative standard of quality. It should not be assumed that these products are the only products for the suggested or intended use. Also, it does not mean that other products of similar or equal quality may not be suitable.

GRADE LEVELS

- 1. On Grade** – A location for a finished floor with no portion below ground level, and with the floor and the ground in contact or separated by less than 18” of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
- 2. Above Grade** – A location for a finished floor where the floor is not in contact with the ground and which provides at least 18” of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
- 3. Below Grade** – A location for a floor structure which is in contact with the ground or with less than 18” of well-ventilated space between the bottom of the lowest horizontal structural member and the ground, at any point and if part or all of the floor is below ground level.

DEFINITIONS

- 1. Subfloor** – That structural layer intended to provide support for design loadings. The subfloor is the substrate for the underlayment.
- 2. Underlayment** – The layer of material installed on or over the subfloor to provide a smooth, clean surface to receive the resilient floor covering.
- 3. Subfloor / Underlayment Combination** – Designed to meet the structural requirements and provide a smooth surface to receive the floor covering.

While many types of subfloor construction are acceptable for use with Stagesep/Aeson products, Springstep subfloors and the Compass™ System are the ONLY acceptable preferred subfloor / underlayment combinations for Stagesep/Aeson flooring. Woodstep/Sportstep Plus and Ultra should be installed directly on your existing smooth surface, and do not require a sprung subfloor.

(For further information you may refer to ASTM F141)

WOODEN SUBFLOORS (Refer to ASTM F1482)



Existing floors must be structurally sound, free from excessive movement and have well-ventilated air space below. Stagestep/Aeson floor coverings should not be installed over wooden subfloors built on sleepers over, on grade, or below grade concrete floors without the use of a vapor barrier. Failure to use a vapor barrier will result in high rates of failure due to the excessive moisture vapor emissions from the concrete. See product list on page 27.

UNDERLAYMENTS

Underlayment panels are used to correct deficiencies in the subfloor and to provide a smooth, sound surface on which to adhere the resilient flooring.

APA Underlayment Grade plywood, minimum 1/2" thickness (3/4" preferred); with a fully sanded face is the preferred panel. The underlayment must be free of any foreign material that may cause staining, such as patching compounds, sealers, inks, solvents, etc.

The underlayment should be installed with divergent tip type staples or wood deck screws placed every 4" to 6" in the field and every 2" to 3" along the seams. Sanding is a preferred method for smoothing joints.

Other types of underlayment panels such as Tecply, Multiply, and Masonite Brand Underlayment should not be used with Stagestep/Aeson systems. **Always install and fasten underlayment panels according to the manufacturer's recommendations.**

There are certain types of subfloors and underlayment that through years of experience are known to be prone to failure and therefore are **NOT** recommended.

- Stagestep/Aeson floor coverings should not be installed over particle board/chip board, tempered hardboard, or pressure treated woods.
- Lauan board is not considered a suitable underlayment to install Stagestep/Aeson unless it is used for permanent glue down installations.

Regardless of which underlayment is used, any failures in the performance of the underlayment, or Stagestep/Aeson floor coverings due to the underlayment, is the responsibility of the underlayment manufacturer and not Stagestep/Aeson.

Strip Wood/Plank Flooring

Due to expansion and contraction of strip and plank subflooring during seasonal changes, Stagestep/Aeson recommends Springstep IV underlayment panels be installed over these types of floors. **NOTE:** The use of a skim coat of patching material over wooden subfloors may cause more problems than it resolves especially in the joint areas. The moisture from the patch is absorbed by the wood, swelling the wood fibers, causing telegraphing through the newly installed floor covering. Proper installation of a wooden subfloor is critical to the successful installation of your flooring surface. Installation of wooden subfloors should be given the same attention as far as job site conditions as when installing Stagestep/Aeson floor coverings.

Concrete Floors (Refer to ASTM F710-98)

Floors shall be smooth, rigid, flat, level, permanently dry, clean, and free of all foreign material such as dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, bond breakers, asphalt and old adhesive, residue.

Concrete shall have a minimum compressive strength of 3500 psi/150 pounds per cubic feet and be covered with a vapor barrier prior to construction of the subfloor.

The use of Stagestep/Aeson Vapor Barrier 8mil or better plastic barrier, is mandatory when installing Stagestep/Aeson products over, above, on, or below grade concrete. Failure to do so will void all warranties.



Telegraphing of patched joints and subfloor imperfections may often be accentuated if the flooring material is maintained with a high gloss finish.

Existing Resilient Floors

Most Stagesep/Aeson floor covering may be installed over a single layer of non-cushioned resilient flooring provided it meets certain conditions.

- The existing flooring must be fully adhered and well-bonded.
- The existing flooring must not be embossed or textured enough that it will telegraph through the new flooring.
- All waxes and finishes must be removed and rinsed with clean water and a pH test should be conducted to assure stripper residues have been removed. An adhesive bond test should be conducted to ensure proper bond between the adhesive and the existing flooring material.
- Cuts, gouges, dents, and other irregularities must be repaired or replaced.
- The current subfloor must be sprung and must meet the recommendations of the existing and the new floor covering.
- The use of embossing levelers is not recommended for commercial installations.

NOTE: Application of a skim coat of patching material over the existing resilient flooring may cause more problems than it resolves, such as bonding failures, cracking and indentations.

NOTE: The responsibility of determining if the existing flooring is suitable to be installed over rests solely with the installer and flooring contractor. If there is any doubt as to its suitability, it should be removed or an acceptable underlayment installed over it.

Installations over existing resilient flooring may be more susceptible to indentation, and there is always a possibility the existing flooring may telegraph* through. **Remember, you are no better than what you go over.**

* Telegraphing is when the conditions of the subfloor/underlayment show through or effect the conditions of the floor's surface layer.

Radiant Heated Floors

Stagesep/Aeson floor coverings may be installed over radiant heated floors provided the operating temperature does not exceed 85°F. To allow proper adherence of the adhesive to the subfloor, the radiant heating system should be lowered or turned off for at least 48 hours prior to installation of the Stagesep/Aeson flooring material. This is to ensure the surface temperature of the subfloor does not exceed 65°F during the installation of the flooring material. The room temperature must be maintained at a minimum of 65°F prior to, during, and after installation for 72 hours after which the temperature of the radiant heating system can be increased. When raising the floor temperature, do so gradually so that the substrate and flooring material can adapt to the temperature change together. A rapid change could result in bonding problems. For more information, contact Stagesep/Aeson Technical Support at 800-523-0960.

The use of Stagesep/Aeson Vapor Barrier 8mil or better plastic barrier, is mandatory when installing Stagesep/Aeson products over, above, on, or below grade concrete. Failure to do so will void all warranties.



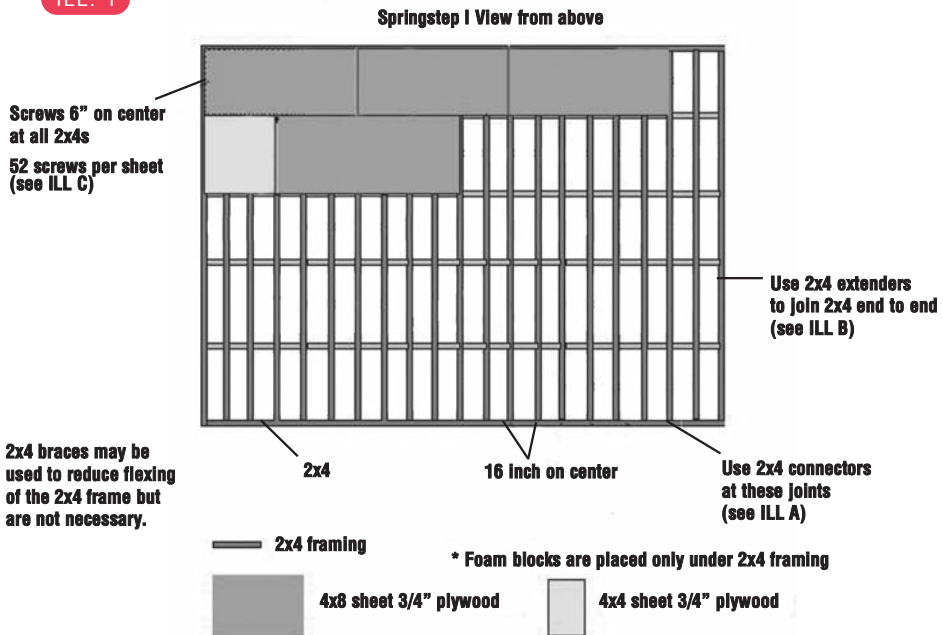
Springstep I

CONSTRUCTION

- 1) Seal concrete slab (moisture barrier) See product list on page 27.
- 2) Precut 2x4s
- 3) Glue foam blocks to 2x4
- 4) Screw together 2x4 frame using hardware
- 5) Level blocks
- 6) Cut plywood into sections to stagger seams
- 7) Screw plywood onto frame
- 8) Fill or tape all seams and holes

Note: It is extremely important that you water seal exposed concrete prior to building your subfloor.

ILL. 1



DIRECTIONS

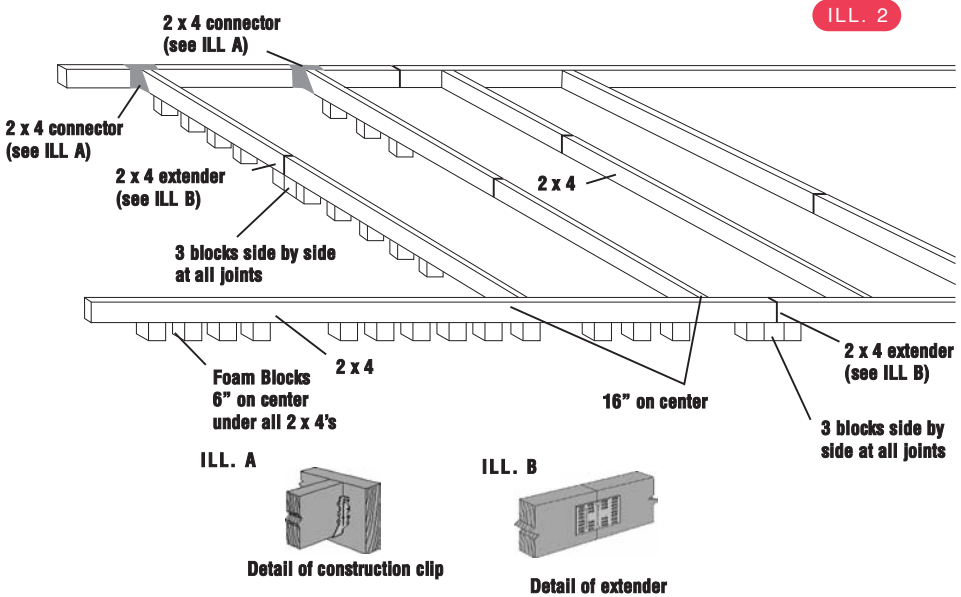
- 1) Build frame using standard 2x4 lumber set on the 2" edge. 2) The circumference of your subfloor should be measured 1/2" in from the walls. 3) Every 16" on center, (measured from the middle of a 2x4) a new 2x4 will run the width of the room. Precut the 2x4 that run across the width of room taking into consideration the width of the 2x4s that will be running along the lengths of your room (See illustration 1). 4) Join 2x4s together for needed length using extenders designed for this purpose. 5) Use contact cement or liquid nails to glue foam blocks every 6" on center and under every joint (from center of one foam block or just peel and stick our new 2" foam cubes, to center of next foam block – there will be a 4" space between the edge of one foam block to the edge of the next foam block [See illustration 2]). 6) Glue blocks on to the bottom of all 2x4s by applying glue to both the 2x4 and the foam block, or just peel and



stick our new 2" foam cubes. After the blocks have been secured, screw the 2x4 frame together using construction clips and 1-1/2" wood deck screws. If necessary, level the frame by trimming foam blocks or by wedging them where the slab dips. 7) Using 1-1/2" wood deck screws, attach your 4' x 8' sheets of plywood to the frame. Stagger the plywood seams by cutting different lengths. 8) Each 8' edge of plywood must line up in the middle of a 2x4. Plywood seams that are parallel to 2x4s must be directly over a 2x4. Tongue-in-groove plywood, meeting the same specifications, can also be used. Countersink screws and tape or fill all seams and screwholes to realize a smooth surface. Note: Door clearances and location of electrical outlets or cabinets may need to be adjusted.

Note: You must use underlayment grade plywood with no voids, finished one side. Not all subfloor surfaces (other than plywood) are compatible with adhesive. Discuss your options with Stagestep/Aeson Technical Support. Fill all screwholes with a latex base floor patch and sand all seams to ensure smooth surface for application of top flooring. (Sand all patching.) Caution: If you plan to remove and recycle your subflooring at a future date, do not fill screw holes. Tape over the screw holes for easy removal later.

Note: Do not patch seams.



CAUTION:

By using substandard wood and/or hardwood, you increase the risk of subfloor failure. Rough edges, defective or non-specified screws can result in damage to your wear surface. Double check that your subfloor is secure and sound.

Do not use any wood with moisture content exceeding 10%.



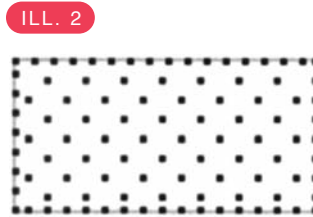
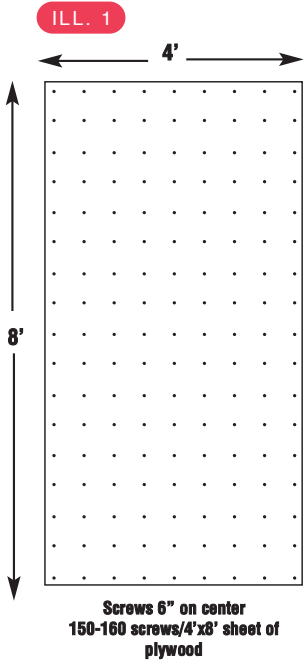
Springstep II

CONSTRUCTION

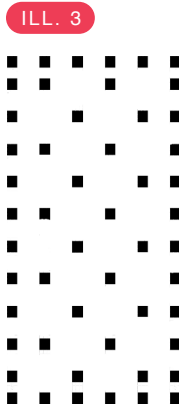
1) Two layers of 1/2" (12.70 mm) underlayment grade solid core no void plywood, one side finished. 2) Stagestep's/Aeson's 2" (50.80 mm) high density foam cubes or 3" x 3" x 3/4" foam blocks. 3) Contact cement or liquid nails, not necessary if using peel and stick cubes. 4) 1-1/2" (25.40 mm) continuous thread wood deck screws with counter sinking heads. 5) Tape floor patch to fill screw holes and realize a smooth surface. Do not use drywall screws or nails.

- Seal concrete slab against moisture
- Glue or peel and stick foam blocks to bottom layer of ply. See product list on page 27.
- Run top layer of ply perpendicular to bottom layer
- Tape or patch screw heads and sand seams

NOTE: Do not patch seams.



**Springstep II
Foam Cube Layout
(100 required)**



**Springstep II
Foam Block Layout
(52 required)**

CAUTION:

By using substandard wood and/or hardwood, you increase the risk of subfloor failure. Rough edges, defective or non-specified screws can result in damage to your wear surface. Double check that your subfloor is secure and sound.

Do not use any wood with moisture content exceeding 10%.

The use of Stagestep/Aeson Vapor Barrier 8mil or better plastic barrier, is mandatory when installing Stagestep/Aeson products over, above, on, or below grade concrete. Failure to do so will void all warranties.

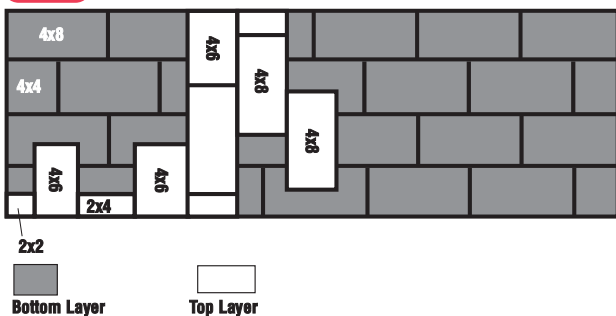


CONSTRUCTION

1) Seal concrete slab against moisture. 2) Roll out foam sheeting to conform to slab. 3) Tape seams of foam. 4) Loosely lay bottom layer of ply directly on foam. 5) Stagger seams. 6) Use 1" (25.40 mm) continuous thread wood deck screws with counter sinking heads. 7) Tape or patch screw heads and sand seams to realize smooth surface.

NOTE: Do not patch seams.

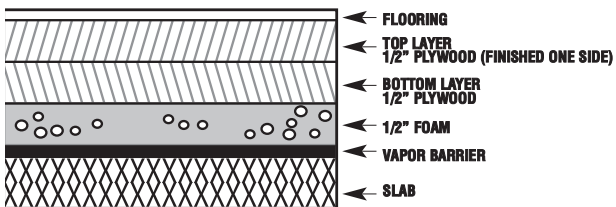
ILL. 2



ILL. 4

FOR SPRINGSTEP III ONLY

CROSS SECTION



Cross Section View (from bottom to top):

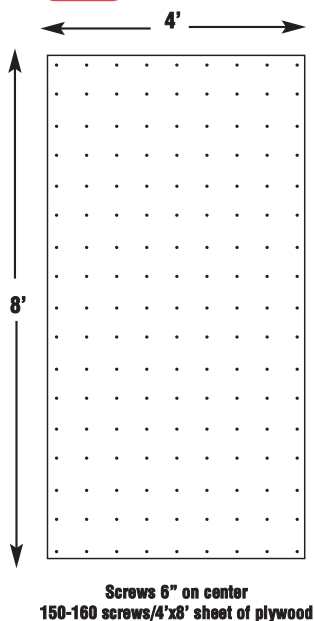
Slab, vapor barrier, foam blocks, bottom layer of plywood, top (finished one side) layer of plywood, adhesive or tape, and floor surface.

CAUTION:

By using substandard wood and/or hardwood, you increase the risk of subfloor failure. Rough edges, defective or non-specified screws can result in damage to your wear surface. Double check that your subfloor is secure and sound.

Do not use any wood with moisture content exceeding 10%.

ILL. 1



Springstep IV, A, B, C Installation Instructions

SPRINGSTEP IV, A, B, C Installation Instructions

Springstep IV has a hardwood veneered surface used only for permanent glue down projects. It is available with all foam applications, and installs exactly the same way as other Springstep IV configurations.

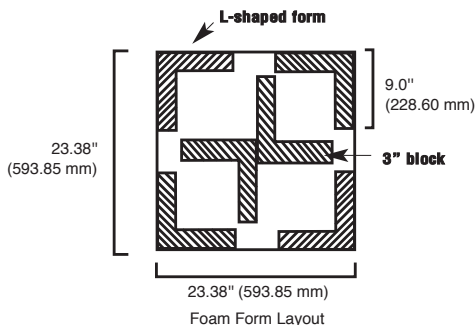


IMAGE 1

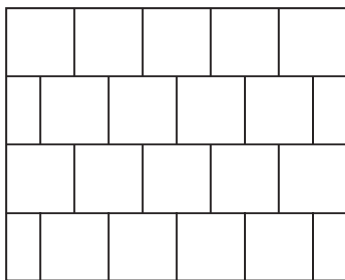


IMAGE 2

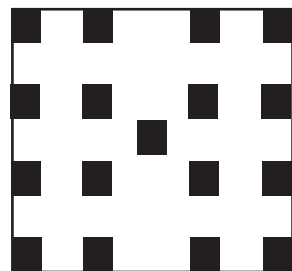


IMAGE 3 3" x 3" x 3/4" layout

Foam forms and Springstep IV panels may ship separately.

Pre-assembled Springstep IV is ready for installation.

- 1) Peel adhesive paper off of "L"s and square shaped foam forms and 3" blocks and apply in pattern and illustrated to the rough side of the board.
- 2) After affixing foam pieces, flip boards over so that the smooth side is facing up. Starting in one corner with a full board, work left to right across the room cutting the last board if necessary to fit your width.
- 3) Press boards into each other making sure to stagger seams. See image #2.
- 4) Every other row should begin with a full board. Rows should alternate starting with full boards and half boards as illustrated.
- 5) Leave 1/2" gap at walls to allow air to circulate and floor to move.
- 6) Floor is complete when you reach the walls or the desired size.
- 7) Transition pieces, corners and edging are available.

Note: A vapor barrier over your slab is required with all subfloors.

For increased absorption of energy and a bit less spring, use SSIV-C. Follow steps above using 3" blocks only in the pattern shown in image #3.

The use of Stagestep/Aeson Vapor Barrier 8mil or better plastic barrier, is mandatory when installing Stagestep/Aeson products over, above, on, or below grade concrete. Failure to do so will void all warranties. See product list on page 27.

Springstep IV, A, B, C Installation Instructions

Foam Cube Layout Springstep IV-B (for increased resiliency)*

2" foam cubes and Springstep IV panels may ship separately.

Foam cubes must be attached by customer using the following instructions.

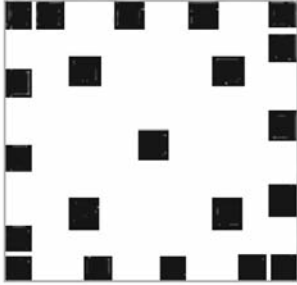


IMAGE 1 2" x 2" x 2" layout

1) Attach foam cubes in the pattern with liquid nail or contact adhesive, or use our new peel and stick design. (See image at left.)

TIP: Use spray contact adhesive to speed assembly, or use our new peel and stick design.

NOTE: 2" foam cubes will provide greater resiliency and more "spring" for high impact activities. It will also amplify sound better.

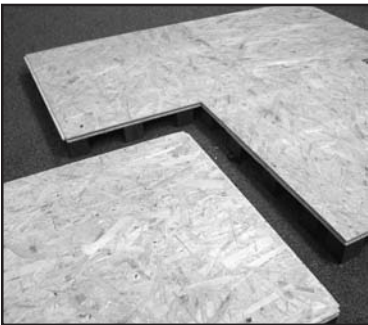


IMAGE 2

2) After affixing foam cubes, invert panel to look like photo to the left.

3) Press boards into each other making sure to stagger seams. See image 2 and 3 to the left.

The average two-person crew can complete 100-125 sq. ft. per hour, 800-1,000 sq. ft. per day.

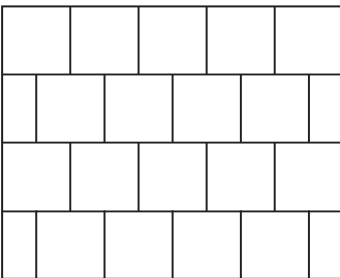


IMAGE 3

4) Leave 1/2" gap at walls for air circulation.

Floor is complete when you reach walls or your desired size.

Springstep IV-A (for firm floor and sound reduction)

Springstep is also available with 1/2" foam sheeting. Foam is loose laid over vapor barrier and Springstep IV panels are installed in the same pattern shown in image 2 and 3.

*Resiliency is the measurement of "spring". Increased resiliency = more "spring". Less resiliency = more firm. Shock absorption of all SSIV products is virtually the same and will help prevent dance and sport related impact injuries.

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Installing Sheet Vinyl Flooring Permanently

GENERAL

- Ensure that moisture tests have been conducted and meet requirements. The permanent HVAC system turned on and set to a minimum of 68°F (20°C) for a minimum of 72 hours prior to, during and after installation. After the installation, the maximum temperature should not exceed 100°F.
- Flooring material has been climatized to the installation area for a minimum of 24 hours prior to installation.
- Only Stagestep/Aeson adhesive should be used. (Using an unapproved adhesive may void warranty.) See page 24 for Stagestep/Aeson products.
- Use a 1/32" x 1/16" x 1/32" fine notch trowel **only**.
- Material should always be visually inspected prior to installation. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor cost.
- Some Stagestep/Aeson sheet vinyl has a fiberglass interlayer which gives them their dimensional stability. They will not shrink or compress. If cut too full or back rolled, it will result in a bubble.
- Install all cuts and rolls in consecutive sequence.
- Ensure that all recommendations for subfloor and jobsite conditions are met prior to beginning the installation. Once the installation is started, you have accepted those conditions.

CUTTING AND FITTING SHEETS

Stagestep/Aeson sheet vinyls are flexible and easy to handle when properly acclimated. In most cases, a qualified installer will be able to hand fit the material in areas where base or trim moldings will be installed after the installation is completed.

1. Cut the required length off the roll, including enough to run up the wall 2-3" at either end.
2. Push the length of the sheet as close to the starting wall as possible, letting the extra length run up the wall at each end.
3. Set the scribes to a minimum of 3/8" more than the greatest distance between the wall and the flooring material. Scribe the shape of the wall onto the flooring.
4. Next, cut the material along the scribe line using a utility blade knife. Place the fitted sheet approx 1/2" from the wall. There should be a 1/2" gap around entire perimeter of room.
5. Cut second sheet with proper extra length.
6. Position second sheet with a 1/2"-1" overlap over first sheet at the seam.
7. Repeat steps 6 and 7 for as many sheets as necessary to complete the area or those sheets that can be installed that day.
8. Lap back all overlapped sheets as one, half way back.
9. Snap chalk line along area where adhesive will be spread to assure an even and straight line of adhesive. Spread adhesive with proper notched trowel over entire area. Be very careful not to leave any adhesive ridges or puddles. **NOTE: The subfloor porosity and room atmosphere conditions (temperature, humidity, etc.) can affect the working time of the adhesive. Floor must be placed in adhesive while wet. Do not install into dry adhesive.**



10. Push lapped flooring from the fold onto adhesive, working toward the wall. **DO NOT FLOP MATERIAL IN** – air will be trapped causing bubbles.
11. Roll floor with 75 to 100 lb. roller in both directions. (Floor Rollers may be ordered at www.stagestep.com or www.aesonflooring.com.) Roll across with width first, then across the length. Using the top floor piece edge as a guide, cut bottom sheet with a sharp utility knife. **NOTE: To ensure proper bonding of the material, it is recommended to roll the material next to the walls with a hand seam roller.**
12. After material has been laid into the adhesive, underscribe the seams using the short scribes with either the scribe blade or scribe pin. **NOTE: Set scribes so that the seam will have a slight gap, about half the thickness of a razor blade. If cut too full, it will result in bubbles or ridges. Heat Welding Stagestep Vinyl Sheet Flooring is optional. (See page 19.) When installing Super Timestep, both seam edge must be trimmed as the factory edge is at 45° angle.**
13. Cut material along scribe line with utility knife.
14. Roll the seam with a hand roller.
15. Repeat the same procedure on the other half of the room. **TAKE CAUTION NOT TO OVERLAP ADHESIVE LINES OR LEAVE RIDGES OF ADHESIVE.**
16. Heat weld seams the following day if required. *See heat welding instructions on page 19.*

Note: The above instructions assume a permanent install with adhesive. Therefore, these instructions are for professional installers. Any questions, please call Stagestep/Aeson at 800-523-0960.



Heat Welding Vinyls

STAGESTEP/AESON RECOMMENDS HEAT WELDING BE DONE BY PROFESSIONALS ONLY.

Heat welding is the optional procedure for all seams, coving, and corner fill pieces of Stagestep/Aeson sheet vinyls. Heat welding provides for strong, watertight, and hygienic seams. They are not invisible. Heat welding should be only done by experienced professionals. Heat welding is not appropriate for temporary or semi-permanent installations.

The welding cord for Stagestep/Aeson vinyls is made of pure PVC which is designed to melt at the same temperature as the PVC of the sheet vinyl flooring. This is why you should never use welding rods other than those specified for the product you are installing.

Heat welding should be done after the flooring adhesive has set-up, usually a minimum of 24 hours after sheet vinyl installation.

It is always a good idea to practice on a scrap piece of material first to ensure proper temperature and speed.

PROCEDURE:

1. Seam edges should be tight. Gaps in the seam will deter a quality weld.
2. Groove seam using a vinyl groover. The depth of the groove should be about 2/3 the depth of the material. Be careful not to go too deep. This is very important to ensure proper strength and bonding of the welding rod.
3. The ends of the seam, where the groover cannot reach, must be completed using the hand groover.
4. Clean all grooves thoroughly.
5. Use only professional quality welding guns that will maintain the proper temperatures. Use 5mm speed tip.
6. Preheat welding gun for several minutes before beginning.
7. Cut length of welding rod long enough to weld over half the seam.
8. Insert rod through welding nozzle about 3-4", hold on to excess and immediately begin welding.
9. The welding tip should always be parallel to the flooring and directly over the groove.
10. Determine the correct welding speed by ensuring that the welding rod actually melts into the groove. A small bead should form on either side of the welding rod.
11. While the welding rod is still warm, trim the excess material with the crescent knife and trim plate in one continuous movement.
12. If the welding rod has not properly bonded, a new piece of rod can be fused in and trimmed.
13. Repeat the same procedure on the other half starting from the opposite wall working toward the center. Overlap the welding rod approximately 1" where they join.
14. After the rod has cooled to the touch, make the final trim using only the crescent knife.
15. Minor repairs and smoothing out of the rod may be done using the butane repair tool.



Installing Encore Floor

PREPARATIONS

Store the floor planks in the room of installation. Allow to acclimate 48 hours prior to install. Read the installation instructions carefully before installing. Encore flooring with Woodloc-joint is laid as a floating floor. In other words, it is joined together without being attached to the existing floor. Note that the planks are joined together without glue.

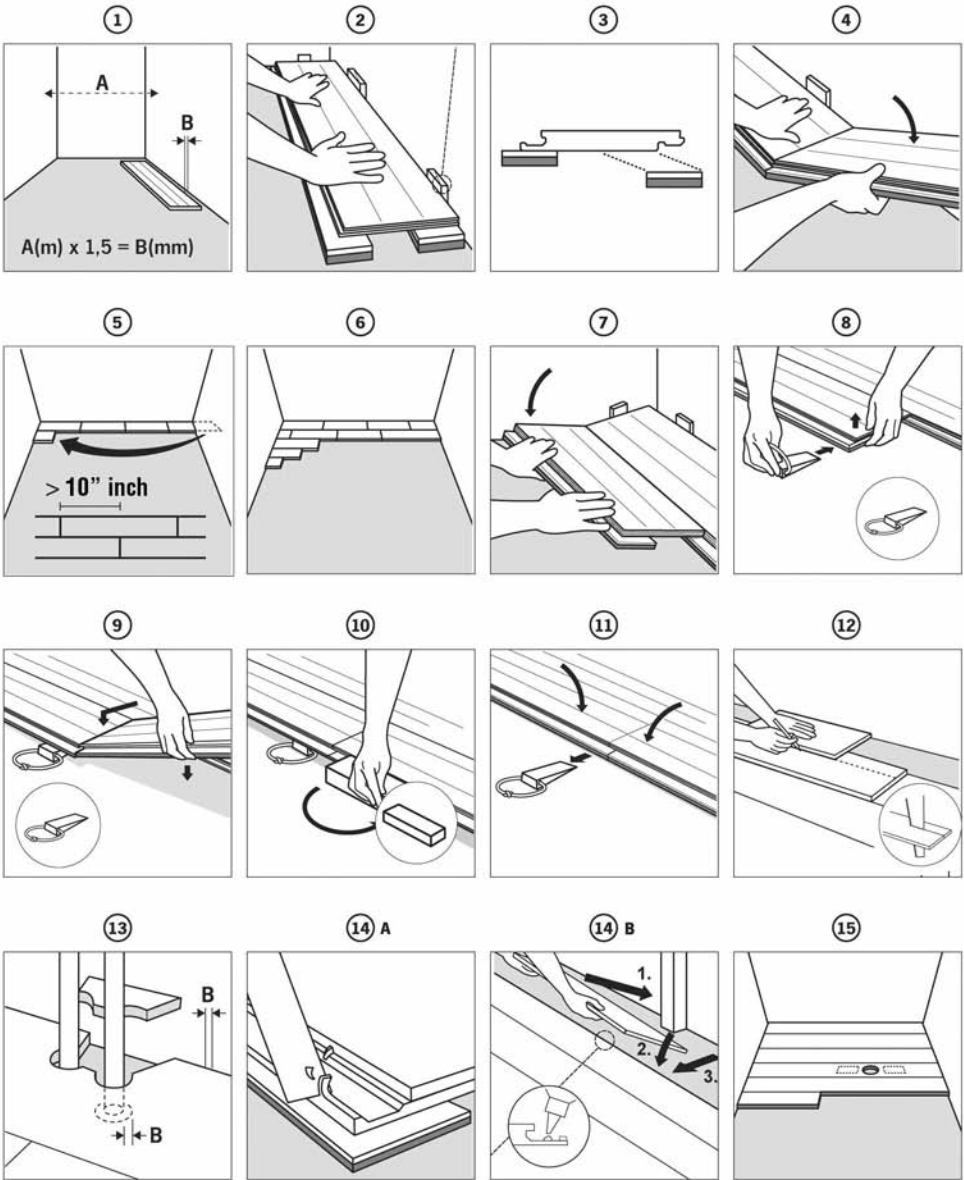
- The subfloor must be dry, level, and solid.
- Check the level of the subfloor over a measured length of 7 ft. and a measured length of 1 ft. If any unevenness is greater than $\pm 1/8$ in. over a measured length of 7 ft. or greater than $\pm 1/16$ in. over a measured length of 1 ft, the subfloor must be leveled first.
- The humidity in the room must not exceed 60% RH. This applies also after the floor has been laid and means that a special dehumidifying unit may be necessary. If the RH is less than 30%, there is an increased risk of the planks becoming concave. Both the room and the planks shall be warmed to normal room use temperature before the floor is laid. In most cases, the flooring needs to be protected against moisture from the surface below by using a vapor barrier. We recommend sheet that is laid with a Stagestep/Aeson Vapor Barrier 8 in. overlap. **NOTE:** Installing a vapor barrier is obligatory on any subfloors made of concrete or concrete joists, concrete flooring directly on the ground, crawl space foundation, or underfloor heating systems. See product list on page 24. The subfloor should be cleaned thoroughly to avoid mold. Flooring must not be installed if a wood moisture content in the subfloor is 10% or more.
- The planks shall be laid in the longitudinal direction of the room. The floor moves as the air humidity changes and therefore there must be a movement joint of at least 1/2" and up to 1" next to walls and fixed objects in the room. This movement joint shall be provided around the entire floor. The maximum floor width for Encore Floor is 50 ft and the length 95 ft.
- The cove base needs to be 50% wider than the movement joint. Example: If you have installed the floor with a movement joint of 3/4" in between the floor and wall, the cove base must be at least 1 1/2" otherwise there is a risk that the floor's shrinkage will mean that you will get a gap between the floor and the cove base when the floor shrinks during the dry part of the year.

INSTALLATION

1. Work out first how many planks you need. If the last plank is narrower than 2", you will need to saw the first plank as well. When installing flooring with Woodloc® joints, the work is made easier if you start with the long side that has most doors. If there are doors on the short side of the room, begin each plank row at these.
2. Start in a corner and work from left to right with the long underlip out towards the room. The distance of the long side to the wall can be adjusted later when three rows have been laid.
3. An additional element must be installed using double-sided tape on the underside of the plank on the wall side to stop the plank "sagging". This element is provided by cutting excess support material from the boards that will be installed in the last row. This support element will be approximately 1 3/8" wide x 42" long.

The use of Stagestep/Aeson Vapor Barrier 8mil or better plastic barrier, is mandatory when installing Stagestep/Aeson products over, above, on, or below grade concrete. Failure to do so will void all warranties. See product list on page 27.





4. Press the next floor plank at an angle against the first one and lay it down. Continue in the same way along the length of the first row. (A gap of 1/2" to 1" must be maintained around the perimeter of the floor.)
5. Cut the last plank in the first row to the correct length and begin the next row with the piece that is left over. Check using a piece of string that the starting planks lie in a straight line. The end joints of the planks must be staggered by at least 10 in. (in wall-to-wall installations). (See Ill. 5.)
6. The best thing is to make a staggered pattern of planks width-wise. (See Ill. 6.)
7. Press the floor plank at an angle against the plank in front. Tap lightly with a hand block while carefully pressing down the plank at the same time.



8. Press in a wedge at the short end under the plank already installed.
9. Press in the next plank's short end at an angle and lay down the long side.
10. Tap lightly with the hand block on the long side at the same time as you carefully press the plank down and it will be easier to position it. **Useful tip:** The work is easier if you screw together two blocks so that the hand block is higher.
11. The first floor row sometimes needs to be adjusted to a crooked wall. Draw the contour of the wall on the floor planks. Saw the last plank but remember that an additional resilient element may need to be installed using double-sided tape underneath on the wall side to prevent the plank from "sagging".
12. Holes are drilled in the plank for heater pipes. The holes shall be at least twice as large as the calculated movement joint plus the pipe's diameter. Example: If the floor is 32 feet wide, $32 \times .02 = .6$ in. This means that the hole must be 1.2 in. larger than the pipe. Saw. When the plank is fitted, the sawn-out piece is glued in place and the holes covered with pipe collars. If you need to cut a door architrave, use a floor plank as an underlay so you get exactly the right height. If you need to knock a plank lengthways, protect the plank joint with a cut-off from a short end. Skirting boards must not be nailed or pressed down so that the floor is locked. All connection rails must be anchored in the concrete to permit natural movement of the wooden floor. If you plan to carry out more building work in the room, remember to protect the floor with protective paper that allows moisture through. Stagestep/Aeson floors should not be installed until all other building work has been completed. Planks can be laid from all directions if necessary. Encore Floor is also easy to take up. This facilitates installation around doors, for example.
13. Proceed as follows if you cannot gain access to angle in a plank under a door architrave or low radiators, for example:
 - 14a - Cut away 2/3 of the locking edge.
 - 14b - Glue. Tap the plank into place using a cleat.

Ask the advice of our staff if you have any questions concerning building moisture, if you plan to install a floor on a structure that is different to what we have described here or if anything else is unclear.

If you find a damaged or faulty plank, put it to one side. It could be surplus or used for finishing off. Naturally, you can exchange a faulty plank.

COMPLETION WORK

FOR SPORTS SURFACES

Court Lines

Before marking out lines, the area to be finished must be thoroughly cleaned using Proclean. If the floor surface is very dirty, a single scouring machine can be used together with Proclean to make sure that the floor is free from dirt and grease. Line painting should be done by specially-trained people.

Color

Slip NoMor Color allows color to be applied to flooring within the context of a finish. Long-lasting and easy to apply, a key element and advantage is it is not necessary to sand the color off to remove it because the color resides within the first application of finish. For more information, contact your Stagestep/Aeson representative.



Finishing

Finishing can be done 24 hours after line painting has been completed. We recommend Slip NoMor Finish for wood. Remember that the floor may need to be cleaned once again to get rid of dust and dirt. If there are marks that cannot be removed using Pro Clean, contact Stagestep/Aeson. The temperature in the room and the finish must not be less than 68°F when applying the finish. Spread the finish using a roller applicator finish. A sign of when it is time to finish the floor is when the painted lines become worn. Repair the worn lines and apply once again. Follow the for renovation of finish.

Installing Fittings

Devices for attaching net posts and other equipment shall be securely anchored to the concrete floor and their upper edges shall be at the same height as the sub-floor or slightly below. Cut-outs for attaching equipment and installing the different fittings in the wood floor are best made with a hole-cutter. Reinforce with an additional resilient element on each side of the hole.

FOR SPORTS
SURFACES

Care and Maintenance

One of the major benefits with a Encore floor is that it is so easy to keep clean and tidy. Daily care is best done by vacuum-cleaning or using a dry mop and occasional moist wiping using a well-wrung cloth. Use Proclean or floor cleaner with a pH no higher than 8. If a cleaning machine is used, the amount of water should be as little as possible. The machine must not leave any watermarks when it turns or stops. Residual moisture shall have dried completely within a minute. Follow the instructions for the respective surface treatment during maintenance.

Spillage will not leave any traces on Encore flooring if wiped up immediately. Do not allow any water to remain, especially not in Beech flooring since this is extra sensitive to moisture. If the floor is subject to heavy wear, it is probably best to renovate it by machine sanding and applying a new surface treatment. Encore floors have a thick surface layer that can be sanded and lacquered time and time again. If you should get a mark on the floor you can try and remove it using a mild detergent (without ammonia) such as Proclean or floor cleaner diluted in warm water. If this does not help, following are a few hints on how to remove difficult marks. Take care when using strong stain removal materials since using too much and applying too much pressure could affect the lacquer.



Hardwood Sprung Floor System

1. Check that the subfloor is dry, even and dustless. Install the first component part of the subfloor parallel to the walls. Install subfloor following perimeter walls, and around the poles and pillars as well. Remember to leave a gap of at least 1/2 inch and up to 2 inches (large gaps will require special molding to visually cover the gap) between the wall/ pole/ pillars and the subfloor components. Wedges can be used to adjusted and maintain the gap. **SEE IMAGE 1**
2. Install the first component row at a 45° angle to the wall. Measure 16' 4" from the corner to each side. This is how you get a 45° angle. **SEE IMAGE 2**
3. Continue installing with the 45° angle. You can install several rows (e.g. 3 rows) at the same time. Check that the measurements between the elements are 14"(inches) center to center and the empty area between the elements is approx 12"(inch). An end joint in one row needs to be staggered at the minimum of 20"(inches) from an end joint in the next row. **SEE IMAGE 3**
4. Install the entire area. **SEE IMAGE 4**

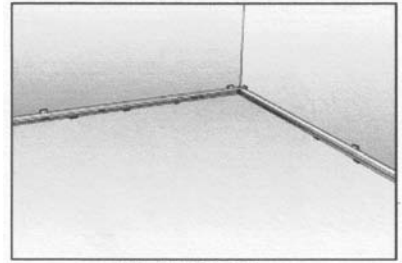


IMAGE 1

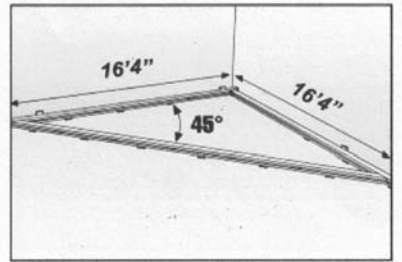


IMAGE 2

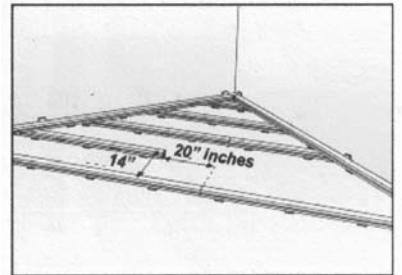


IMAGE 3

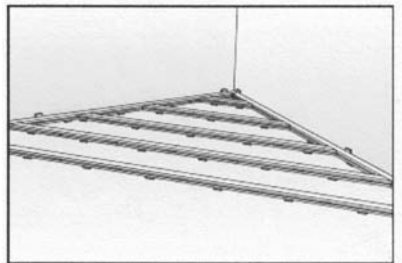


IMAGE 4



5. Install Stagestep Hardwood surface. Apply a bead of glue on the subfloor strip prior to placing each hardwood strip. Maintain same gap distance from the hardwood to wall as used during subfloor installation. Space can be adjusted and maintained by using wedges. **SEE IMAGE 5**
6. Nail the wood board to each subfloor strip using standard hardwood staples. Fasteners should be of the glue coated type. Do not use normal nails or screws. Follow standard hardwood nailing procedures using a hardwood floor nail gun and driving fasteners/staples through the tongue at 45° angle. **SEE IMAGE 6**
7. Apply glue to the groove of the short side of the hardwood board. Glue may also be applied to the length of the long side of the board. Also remember to apply glue between the hardwood board and the subfloor strips. Hardwood end joints in one row needs to be staggered at the minimum of 20 inches from an end joint in the next row. **SEE IMAGE 7**
8. Continue to lay the boards until the floor is finished, remove all wedges. Apply any additional coatings as instructed. If installing vented molding or other decorative trim pieces be sure to not install tightly against floor surface. **SEE IMAGE 8**

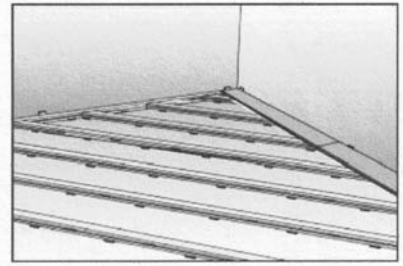


IMAGE 5

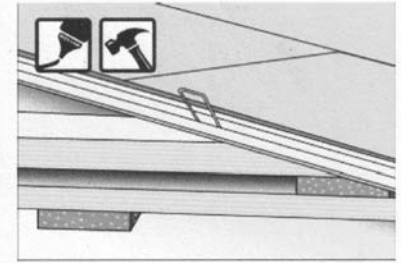


IMAGE 6

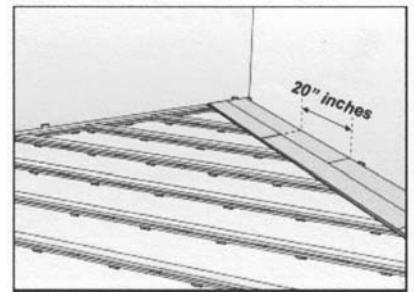


IMAGE 7

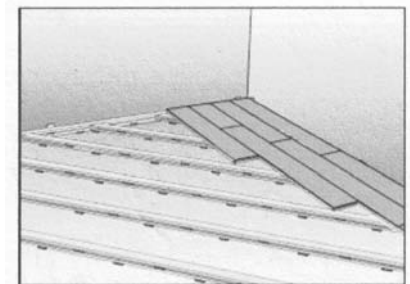


IMAGE 8

STIFFENING

The floor must be stiffened e.g. near the doorways, auditoriums, storages and other places, which carry heavy loads. Stiffen the sprung structure by using pieces of plywood. Use glue and nails to keep them in place. **SEE IMAGE 9**

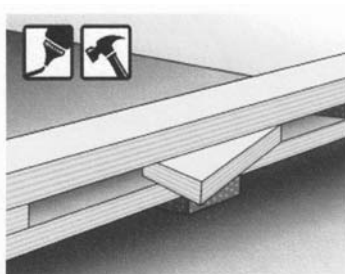


IMAGE 9



Compass Assembly

1. Determine starting point.
 - a) corner of room and proceed to step 2
 - b) center of floor area
2. Starting in the corner of the room position the first Compass panel so that both un-supported edges are facing the walls
- 3 Working left to right slide the next compass panels into place so that the mating surface fully engage and locking mechanism lowers into place (it may be necessary to move the locking mechanism into place during the first installation)
4. Continue pattern working one row at a time left to right across the room, trim any necessary pieces to fit room as best as possible
5. Once all panels are in place proceed to page 17 if your Compass requires surface installation.

CENTER PANEL INSTALLATION

6. Starting in the center of the floor or stage form a cross
7. With at least two teams begin working in the corners of the cross progressing outwards, as in step 3 make sure all mating surfaces are fully engaged and that the locking mechanism has fully dropped into place.
8. Repeat procedure in any remaining corners of the cross and work outward until desired size and shape of floor has been reached
9. Once all panels are in place proceed to page 17. If your compass system requires surface installation.



Install Vented Wall Base

1. Install SSIV, or other sub-floor system as required leaving half inch gap around perimeter of room. **See Illustrations 1 & 2.**
2. Starting in the corner of the room, affix vent backing to wall using double face tape or cove base adhesive so that the top of the vent backing is 4 inches above the surface of the sub-floor. Note some of the vent backing will be below the sub-floor surface in the gap that was made during installation of the sub-floor. **See Illustration 3.** Continue installing vent backing around the entire perimeter of the room making cuts as needed.
3. Install Dance/Sports surface as instructed. **See Illustration 4.** Trim floor surface flush to the edge of the sub floor, do not install surface tight to the vent backing, also use caution not to damage vent backing.
4. Install Vinyl Base by starting in corner of room and adhering base to the vent backing using double face tape or cove base adhesive, continue around perimeter of room trimming base where needed.

TIP: To create finished corners cut toe of base on a 45 degree angle using a standard utility knife. **See Illustration 5.**

Note: Base toe can be heat welded to floor surface using standard heat welding procedures, however this process should only be done by a trained professional.

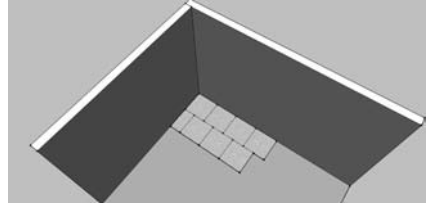


Illustration 1

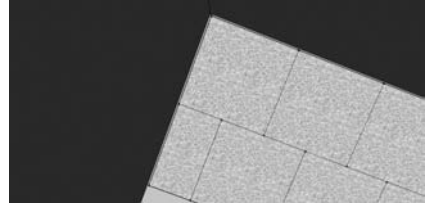


Illustration 2

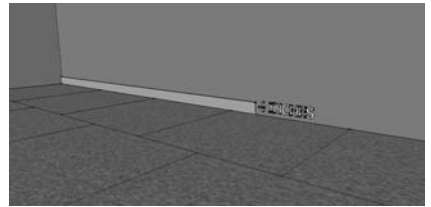


Illustration 3

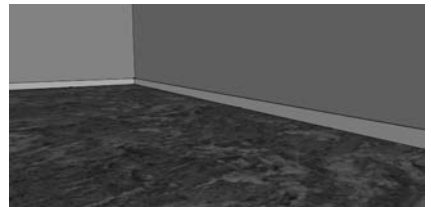


Illustration 4

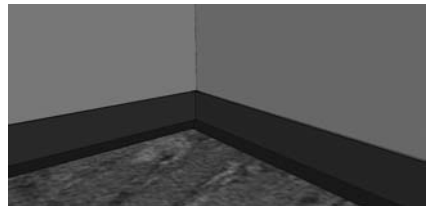


Illustration 5



PRODUCT LIST

Item	Each	Case
Vinyl Tape (1 1/2")	\$6.00	\$110.00 (24 rolls)
1 1/2" Clear Tape	\$8.50	\$160.00 (24 rolls)
2" Clear Tape	\$11.00	\$210.00 (24 rolls)
Cloth Tape (1 1/2")	\$16.00	\$400.00 (24 rolls)
Gaffers Tape (2")	\$21.00	\$400.00 (24 rolls)
Release Double Faced Tape (2")	\$21.00	\$400.00 (24 rolls)
Stagestep/Aeson Vinyl Adhesive (4 gal.)	\$140.00	
4" Double-Faced Seam Tape	\$30.00	
Welding Rod (300 feet)	\$70.00	
Glo-Tape (10 sq. yds.)	\$16.95	
ReUseIt (268 sq. ft.)	\$180.00 per roll	
ReUseIt (2 in.)	\$18.00	
Vapor Barrier	\$122.00	
Bone Dry Concrete Sealer (5 gal.)	\$260.00	
Vented Wall Base	\$28.00/each (\$4.27 per running foot)	
Slip NoMor Color Kits	Call for Pricing	
Slip NoMor Maintenance Kit* (wood or vinyl)		
500 sq. ft.	\$325.00	
1000 sq. ft.	\$528.00	
1500 sq. ft.	\$760.00	
2000 sq. ft.	\$1,000.00	
Tap Armor* (wood or vinyl)		
500 sq. ft.	\$250.00	
1000 sq. ft.	\$475.00	
1500 sq. ft.	\$675.00	
2000 sq. ft.	\$875.00	
Tap Armor Cleaner/Stripper* (vinyl)		
IMPORTANT: When buying Tap Armor – Vinyl, you MUST purchase the Tap Armor Cleaner/Stripper.		
500 sq. ft.	\$25.00	
1000 sq. ft.	\$50.00	
1500 sq. ft.	\$75.00	
2000 sq. ft.	\$100.00	
Tap Armor Primer* (wood)		
IMPORTANT: When buying Tap Armor – Wood, you MUST purchase the Tap Armor Primer.		
500 sq. ft.	\$40.00	
1000 sq. ft.	\$80.00	
1500 sq. ft.	\$120.00	
2000 sq. ft.	\$160.00	
2" Foam Cube	50¢ each	
2" Peel & Stick Foam Cube	60¢ each	
3" Foam Block	40¢ each	
1/2" Foam Sheeting	\$1.65/sq. ft.	
3' Transition Piece	\$60.00 each	

Prices subject to change without notice.



For Dance, Theatre and the Performing Arts



800-523-0960 (Toll Free in the U.S. and Canada) • **215-636-9000**

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All prices in USD and include shipping & handling in the Continental U.S.A.

For shipping outside of the Continental U.S.A., please contact a Stagestep/Aeson representative.

* To order this product, please call 800-523-0960 to talk to a sales representative for instructions and details.