

# Acoustic Sleeper Installation Instructions: Wood and Concrete

August 3, 2020

## ***INSTALLATION WITH WOOD FRAMING: OPTION A***

Fasten Acoustic Sleeper pads to underside of panel, flip and set in place over deck.

1. Sheathing (Base Layer): Install square-edged sheathing panels on structural members. Install panels in accordance with panel and structural member manufacturer's instructions, including application of construction adhesives and proper panel thickness as required for composite action between structural members and sheathing. Maintain 1/8" gap at all edges to allow for panel expansion and for wicking and evaporation of any moisture by vapor pressure differential.
2. Subfloor Panels (Upper Layer): Refer to table for quantity of pads.
  - a. Structural T&G panels of OSB or plywood, 23/32" thick, with minimum 24 o.c. span rating, for spacing of Acoustic Sleeper pads along strong axis at 24" o.c. max., and along weak axis at 12" o.c. max.
  - b. Structural T&G panels of OSB or plywood, 7/8" thick, with a minimum 32 o.c. span rating, for spacing of Acoustic Sleeper pads along strong axis at 24" o.c. max., and along weak axis at 16" o.c. max.
  - c. Premium T&G panels of OSB or plywood, 23/32" thick, with minimum strong-axis stiffness of 360,000 in<sup>2</sup>-lb/ft and cross-panel stiffness of 150,000 in<sup>2</sup>-lb/ft per panel manufacturer's code evaluation report for spacing of support pads along strong axis at 24" o.c. max., and along weak axis at 16" o.c. max.

Area per 100 Pads		
Spacing along Panel Length	Spacing across Panel	
	12"	16"
16"	114	133
19.2"	133	160
24"	160	188

3. Preplan layout of panels with staggered joints along T&G edges.
4. Plan pad locations to occur over structural members.
  - a. Where load-bearing walls, shear walls, and fire-resistance-rated walls are to be installed on subfloor panels use 1/4"-thick continuous plywood or OSB strips minimum full width of partitions as bearing plates.
  - b. Install perimeter plywood or OSB nailing strips where load-bearing walls are in place.
5. Lay subfloor panels upside down and staple pads to underside:
  - a. Place pads along trailing square edge at 8" oc max.
  - b. Overlap pads with ribs perpendicular to edge. *Omit pads at leading edges.*
6. Flip panels into position with leading edge down so overlapping pads do not dislodge.



## STC SOUND CONTROL

7. Install in sequence so leading edge of panel sits on pads installed in trailing edges of previously set panel. Leave ¼" distance from edge of panels to walls. Set T&G edge with block and mallet.
8. At fire-rated wood construction, fasten through pads to structural members. *Only fasten through pads.*
  - a. Location of pads at leading edges will be evident next to nails or screws at previously-laid trailing edges.
  - b. Pads in field are located at grid lines over structural members.
  - c. Pads at trailing edges are exposed.
  - d. Fastening is not required for non-fire-rated construction.
9. Prepare subfloor and Install finish floor per manufacturer's instructions.



### ***INSTALLATION WITH WOOD FRAMING: OPTION B***

#### **Install Acoustic Sleeper pads on sheathing coincident with subfloor panels.**

1. Sheathing, subfloor, and preplanning are identical to Option A (paragraphs 1,2,3 and 4)
2. Install STC Acoustic Sleeper™ pads **on sheathing** along the line of structural supports.
  - a. Staple pads to sheathing in field locations.
  - b. Place panel tongue-in-groove on overlapping pads at trailing edges of previously-laid panels.
  - c. Set panel with block and mallet.
3. Nail panel through pads to sheathing at *leading panel edges* and *field*.
  - a. Location of pads will be evident at leading edges next to nails at trailing edges of previously-laid panels.
  - b. Pads in field are located at grid lines over structural members.
  - c. *Do not fasten except through pads or strips.*
4. Install pads to overlap joint at *trailing* edges by slipping in after the subfloor panel is placed.
  - a. Overlap pads with ribs perpendicular to edge.
  - b. Space pads along trailing *square edge* at 8" oc max.
  - c. *Option:* Rout tongue and groove in opposite square edges.
  - d. Nail panel through pads to sheathing.
5. Non-load-bearing partitions may be installed directly on the subfloor panel with no supplemental support.
6. Prepare subfloor and install finish floor per manufacturer's instructions.



### ***INSTALLATION WITH WOOD FRAMING: OPTION C***

#### **Install Acoustic Sleeper pads on wood lattice strips.**

1. Sheathing and subfloor are identical to Option A (paragraphs 1 and 2).
2. Where load-bearing walls, shear walls, and fire-resistance-rated walls are to be installed on subfloor panels use 9/16"-thick continuous plywood or OSB strips minimum full width of partitions as bearing plates.
  - a. Install perimeter nailing strips where load-bearing walls are in place.
3. Staple STC Acoustic Sleeper™ pads on 5/16" thick by 1-1/2" wide wood lattice strips at 16" o.c. minimum.
  - a. Install pad at leading and trailing edges of strip flush to edge where strip butts against nailing strips.
  - b. Omit pad at leading edge of strip where strip bears on projected pad at trailing edge of adjacent strip.
  - c. Overlap pad on trailing end.
4. Place wood lattice strips over structural member locations with pads down. *Nail through strips at pads only*, through pads and sheathing panel into structural member.
5. Glue subfloor tongue-in-groove panels onto wood lattice strips.
  - a. Stagger panels along T&G edges, in running bond pattern.
6. Non-load-bearing partitions may be installed directly on the subfloor panel with no supplemental support.
7. Prepare subfloor and install finish floor per manufacturer's instructions.

### ***INSTALLATION ON CONCRETE AND OTHER DECKS***

#### **Install Acoustic Sleeper pads on lower panel, add top panel crosswise.**

1. Staple pads at 24" o.c. maximum to underside of square-edged sheathing panels and lay in running bond pattern on concrete slab. Use 1/4" wood strips at perimeters and around columns and other obstructions.
2. Adhere top layer of square-edged sheathing panels on lower panels perpendicular to strong axis, with joints offset.
3. Lower panel may be nailed to deck, but minimally for flatness and stability, and only through pads.

