

Engineered Installation

Installation Guide for CFS Engineered Hardwood Flooring

Owner/Installer Responsibility

Hardwood flooring is a beautiful and unique product of nature, which is characterized by distinctive variations in grain and color. These natural variations in color and grain are not flaws, but are a part of the natural beauty and uniqueness of hardwood flooring. (These inherent variations should be expected and serve to enhance the natural beauty and enduring charm.) CFS Hardwood Floors™ are manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type. (Remember: No two hardwood floors are alike.)

- The installer assumes all responsibility for final inspection of product quality. This inspection of all flooring should be done before installation. Carefully examine the flooring for color, finish and quality before installing it. Use reasonable selectivity and cull out or cut off pieces with glaring defects. If material is not acceptable, contact your CFS Hardwood Flooring™ dealer immediately.
- Before beginning the installation of any hardwood flooring product, the installer must determine that the environment of the job site and the condition and type of the subfloor involved is acceptable, insuring that it meets or exceeds all requirements which are stipulated in the CFS Hardwood Flooring™ installation instructions which follow.
- CFS Industries, Inc. declines any responsibility for job failure resulting from or associated with inappropriate or improperly prepared subfloors or job site environment deficiencies.
- The use of stain, filler or putty stick for the correction of defects during installation should be accepted as normal procedure.
- When CFS Hardwood Flooring™ is ordered, a 5 - 10% waste factor, depending on layout, must be added to the actual square footage amount needed. (Diagonal Installations may require more.)

Job Site Inspection & Acclimation

- In new construction, CFS Hardwood Flooring™ should be one of the last items installed. All work involving water or moisture (plumbing, plaster / drywall ceilings or wall finishes, painting, etc.) should be finished with ample time allowed for complete drying prior to wood flooring being installed. Heating and air systems should be fully operating maintaining a consistent room temperature at 60-80o F and a constant relative humidity range of 35%-65%, 5 days prior to wood acclimation.
- Flooring should not be delivered until the above guidelines are completed. Concrete and plaster should be cured and at least 60 to 90 days old. Check basements and under floor crawl space to be sure that they are dry and well ventilated to avoid damage caused by moisture. CFS recommends a minimum of 6 mil vapor barrier placed on 100% of the surface of the ground in crawl spaces not finished with cement.
- Flooring should be at the job site at least 48 hours prior to installation. Do not open until ready to install.
- Handle with care. Do not stand on ends or sides. Store CFS Hardwood flooring flat with proper support on the ends and center sections in a dry place being sure to provide at least a four-inch air space under and around cartons. Stack the cartons 3-4 high to insure efficient acclimation.
- Do not store directly upon on grade concrete or next to outside walls. Cartons should be placed as close to the center of the installation area as possible, away from exterior walls, windows, and doors. Keep out of direct sunlight and away from air vents.
- The installation site should have consistent room temperature of 60o - 80o F., and a constant relative humidity level of 35% - 65% for a minimum of 5 days prior to acclimation and installation of any CFS Hardwood Flooring™ product.

IMPORTANT: 3/4" Solid Flooring is approved for on grade or above grade installation only! DO NOT INSTALL BELOW GRADE LEVEL!

NOTE: 3/4" Solid Flooring cannot be installed over radiant heated sub floor systems.

Required Tools And Accessories

Hand saw or electric saw (carbide tip blade recommended)
Utility knife
Spacers (3/8" or 9/16")
Tape measure
Broom
Pull bar
Carpenter's square
Tapping block
Safety equipment (goggles and mask)
Soft rubber mallet
Hammer

For Floating Installations You Will Also Need

- CFS Hardwood Tongue and Groove™ Flooring Adhesive or equivalent
- CFS Adhesive Remover or equivalent
- Damp and Dry Towels

For Glue Down Installation You Will Also Need

- 100 or 150 lb. Roller
- Approved CFSBond Hardwood Flooring Adhesive or equivalent
- CFS Adhesive Remover or equivalent
- Notch Trowel – ¼" square notch (planks 5" or wider), 3/16" square notch (planks less than 5" wide)
- Damp and Dry Towels



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For Nail/ Staple Down Installation You Will Also Need

Model Staples/Nails

For 3/8", 7/16", 1/2" thick engineered/cross-ply hardwoods – planks less than 5" wide

- 100 or 150 lb. Roller
- Approved CFSBond Hardwood Flooring Adhesive or equivalent
- CFS Adhesive Remover or equivalent
- Notch Trowel – ¼" square notch (planks 5" or wider), 3/16" square notch (planks less than 5" wide)
- Damp and Dry Towels

For 7/16", 1/2", 9/16", 5/8" thick engineered/cross-ply hardwoods- planks that are 5" or wider

- Power Nailer Model 200 (pneumatic) E-Cleat Nail/1 ½" long
- Power Nailer Model 250 (manual) E-Cleat Nail/1 ½" long
- Stanley MillIFS (pneumatic) use adapter plate ½" Crown x 1 ½"-2" long staple
- Power Nailer #445 (pneumatic) use adapter plate 2" Cleat Nail
- Power Nailer #45 (manual) use adapter plate 2" Cleat Nail

NOTE: Use only a flooring nailer that engages the top profile over the tongue at the appropriate angle. Make sure that the flooring nailer is in good working condition and seats properly against the board to prevent top edge and surface damage.

IMPORTANT: Set air compressor to 70-80 PSI (or follow manufacturer's suggested PSI setting). Adjust the air pressure to insure proper setting of staples. If tongue damage occurs, lower the air pressure.

IMPORTANT: If you need to remove a side nailed staple, do not pull straight up from the tongue. This will damage the surface of the board. Instead, pull out the staple from the tongue at the front of the board with all pressure from the hammerhead directed into the subfloor.

Subfloor Preparation

Approved Subfloor Types

1. APA approved 5/8" minimum thickness, preferred 3/4" or thicker exterior grade plywood, on 16" center 2"x10" joists.

NOTE: When installing and fastening approved plywood, please refer to specific structural panel manufacturer's instructions.

2. 3/4" (23/32") OSB on 16" center, 2"x10" floor joists properly nailed. When installing hardwood over engineered joists and truss systems that are spaced wider than 16" on center, it may be necessary to add an additional layer of sub flooring or use additional cross bracing to stiffen the system, reducing excessive deflection.
3. Concrete slab-CFS Engineered Hardwood Flooring Products can be installed on all grade levels. Concrete slabs must be clean and dry- less than 3 lbs. /1000 sf. / 24 hr.- per CCTM.
4. Existing Hardwood wood floors (installed at right angle, only over existing wood sub floors).
5. Resilient tile and sheet vinyl only over an above mentioned and approved subfloor.

Subfloor Must Be:

- **CLEAN** - Scraped or sanded, swept, free of wax, grease, paint, oil and other debris
- **SMOOTH/FLAT** - Within 1/8" in a 6' span. Sand high areas or fill low areas with cement base leveling compound- no less than 3000 p.s.i. rating.
- **STRUCTURALLY SOUND** - Nail or screw any loose areas that squeak or reveal movement. Replace any damaged subflooring or underlayments.
- **DRY** - Moisture content of wood subfloor must not exceed 14% prior to installation of wood flooring.

REMEMBER: All moisture testing must be performed before and after, the wood has been acclimated 48 hours and all job site requirements have been met.

Wood Substrates

Test the moisture of the wood substrate using a calibrated moisture meter approved for testing wood moisture according to the meter manufacturer. The reading should not exceed 14%, or read more than a 5% difference than moisture content of products being installed.

Concrete Slab

All concrete sub floors must be tested for moisture content prior to installation of the hardwood flooring. The moisture content of the concrete sub floor must register dry, according to whichever test method is used to determine the slab condition.

NOTE: Pre-existing, wood panels or strips must be removed from the concrete slab before installing new hardwood.



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Below are methods to test to indicate moisture is present in the concrete sub floor:

1. Use an approved calibrated concrete Moisture Meter as a preliminary measurement for moisture such as: Delmhorst Moisture Meter Model G, Tramex Concrete Encounter. Follow manufacturer's specific calibration requirements.
2. Perform a polyfilm mat test. Tape down 3' x 3' polyfilm squares, in several places on the floor- (one every 200 sf.).
3. Wait 24-48 hours, remove and check for the appearance of condensation or a darkening of the concrete slab.
4. Either occurrence signals the likely presence of excess moisture, requiring a mandatory Calcium Chloride Test.

If you have determined that the slab has excessive moisture, then Calcium Chloride and PH alkalinity tests must be performed to determine the moisture content, vapor emissions, and alkalinity levels in the concrete floor. Test evaluations will determine what corrective measures need to be taken.

- Perform a Calcium Chloride test according to the manufacturers' instructions. The maximum acceptable reading is 3-lbs. /1000 sq. ft /24 hours for moisture emissions.
- Perform a PH Alkalinity Test according to the manufacturers' instructions. A pH reading of 6-9 on a pH number scale of 1-14 is acceptable.
- If the test results exceed these readings, the concrete slab should be sealed with an appropriate sealer that will correct high emissions, as per the sealant manufacturers' recommendations.
- Also check all site drainage to make sure all exterior water flows are directed away from the job site.

Plywood and Wood Substrates

Do not install over particleboard, with exception of products that can be installed using the floating installation method. Subfloor should be constructed of 5/8" or thicker plywood when installing directly over 16" on center 2"x10" joists. Plywood sheets should be laid with grained outer plies at right angles to joists; adjacent rows staggered four feet and nailed every 6" along each joist with 7D or larger nails. When installing new hardwood flooring directly over an old wood or strip wood floors, sand any high spots. Re-nail the old floor to eliminate squeaks or loose boards, and install new planks at right angle (perpendicular) to the old floor. The moisture content of the wood or plywood subfloor should not exceed 14%.

IMPORTANT: Do not install any CFS Hardwood Flooring Product using the glue down installation method over any vinyl asbestos flooring, vinyl composition tile, linoleum, asphalt tile, ceramic or stone tiles, carpet, or vinyl sheet products. Use a CFS Hardwood that is rated for the Floating Floor Installation Method.

IMPORTANT: Do not use the Glue Down or Staple Down installation method over radiant heat floors. Use the floating floor installation method only. Only engineered, cross ply constructed planks, wider than 5" (oak, ash, merbau only), are approved for installation over water radiant heated floor systems only. Electric radiant heated floor systems are not approved sub-floors for any hardwood installation. Hardwood planks with HDF core are not approved to install over any type radiant heated flooring system.

FLOATING FLOOR INSTALLATION METHOD

Approved Subfloor Types

All CFS Engineered Hardwood Flooring™ products which have been approved for the floating installation method can be installed over any dry, level, sound subfloor, regardless of install level or sub floor type. All subfloors should be covered with CFS underlayment or an approved foam underlayment. When using a basic foam underlayment over a concrete subfloor, you must also use a 6 or 8 mil. polyethylene film under the foam pad, which acts as a vapor barrier.

NOTE: Any pre-existing wood panels or strips that are floating or direct glued to the concrete slab, must be removed before installing Engineered Hardwood flooring using the floating method.

Below Grade

All CFS Engineered Hardwood Products, when installed using the floating installation method, can be installed below grade. Always check the slab for excessive moisture and perform a PH test to insure that the slab is suitable for hardwood installation. (See Concrete Slabs:) Install CFS Silent Step™ "3in1", "2in1" Underlayment, or the 6 mil. poly film and basic foam underlayment, which should be installed with ends butted together and taped with a clear 2" packaging tape to prevent any moisture from coming up through the seams. The Silent Step™ "3 in 1", "2in1" underlayment or 6 mil. poly film should be lapped up the wall 4" all the way around the room. This can be trimmed off after moldings are installed. If you are using the Silent Step™ "3 in 1" or "2 in 1" Underlayment, you are ready to begin the installation. However, if you have used the 6 mil. poly film, you need to install a approved basic foam pad on top of the 6 mil poly film butting the edges (but not overlapping). All seams must be taped with 2" clear package tape when installing over concrete slab.

Follow the below grade instructions (above) for underlayment requirements and installation instructions. Also, use the below requirements when installing over radiant heat systems.

- A. The maximum temperature of subfloor under normal use should not exceed 80° F. (Check with heat system manufacturer).
- B. For correct water temperature inside heating pipes, check with manufacturer's suggested guidelines.
- C. Heating pipes must be covered with 1 1/4" of concrete or minimum 1/8" below bottom side of plywood subfloor. In addition, for plywood subfloor, heat transfer plates or insulation boards must be between pipes and sub floor.
- D. Before installation of hardwood flooring, heat system must be operated at normal living temperature for a minimum of 28 days. Two days before flooring is delivered for acclimation before installation, switch heating unit off. During the installation, the sub floor must remain 64o - 68o F. Two days



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after the installation, increase the heat setting gradually at a rate of 2-3 ° per day to desired temp., (not to exceed the maximum of 80o F).

Use the same procedure to decrease temperature when shutting heat off for the season.

- E. Room temperature should not vary more than 15o F from season to season. Relative humidity should remain 35% - 65% in home for radiant heated floor installations.
- F. Do not use the glue or nail down installation method on radiant heat flooring (use the floating installation method only).

Jobsite Preparation

- Undercut door casings
- Remove any existing wall base, shoe molding, quarter round or doorway threshold.

IMPORTANT: Do not install cabinets or walls on top of the flooring when using the floating installation method.

Step 1: POSITION THE FIRST ROW

IMPORTANT: The flooring should be installed from several cartons at the same time to insure proper color, grain, and shade mix.

1. Before starting, first measure the width of the room, and then divide the room's width by the width of the plank. If this means that the last row of planks will be narrower than 2", then you will need to cut the first row of planks to make it narrower. Cut in such a way that both rows of planks (the first and last to be installed in the room) will have the same approximate width for an overall continuous look. See installing the last row.

NOTE: To cut the boards, always saw with the teeth cutting down into the face or top of the board. Cutting from the top down helps protect the surface. Use a carbide tip blade to insure smooth cuts.

2. Begin the installation of the planks in the left-hand corner of the room with the long direction parallel to the longest wall of the room. Always start so that you will be working left to right when facing starting wall. When possible, run the length of the planks in the same direction as incoming sunlight. Be sure to install the first row of engineered planks with the groove side facing the wall (Versa- lock planks – tongue faces starting wall).

Using the proper spacers (depending on the thickness of the flooring), provide a gap for the seasonal expansion of the flooring along the walls of the entire room. Always place expansion spacers against the wall every 2-3'. Also place spacers at each plank end joint connection, as this will make maintaining a good square easier.

NOTE: Larger rooms require additional expansion space. Add 1/16" to the width of the expansion space for every 3' the room extends beyond 25'. Dimensions exceeding 40'in length or width, requires the use of a T-Molding for expansion.

3. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor. When the first row is complete, you must have a straight, even base established.

Step 2: GLUING THE BOARDS TOGETHER

- When installing the CFS Hardwood Flooring products which have been approved for the floating installation method, the boards must be side and end glued using an approved adhesive.
- Always apply the adhesive into the bottom of the groove on each board. Do not fill the groove. Apply a continuous bead, filling the bottom of the groove no more than halfway full. Start & stop adhesive 2" from the ends on the long side of the board and 1" from the ends on the butt end.

NOTE: If any excess adhesive squeezes up to the finished surface, wipe it off immediately using a water dampened cloth or CFS Adhesive Remover. Then immediately dry the surface and buff with a dry cloth. If the adhesive has dried, use a soft white cloth moistened with CFS Adhesive Remover. Do not abrade the wood surface.

Step 3: INSTALLING THE REST OF THE FLOOR

NOTE: Always stagger approximately 12" to 24" between end joints of adjacent board rows. The end joints should not repeat visually across the installed floor.

- After installing the first row of boards, apply the adhesive to the first board on the second row using the above gluing instructions. Connect that board to the first row remembering the 12" to 24" stagger between the end joint of the board on the first row. Tap the boards together with a hammer and a tapping block. Be sure that the tapping block is against the tongue only and use only a gentle tapping motion to tap the boards together. Excessive force will damage the board making it difficult to install additional boards. Once the board has been tapped into place check for a tight fit on sides and ends. To install the rest of the flooring, continue placing the boards from left to right, building a rack 3 to 4 rows wide, as the installation continues to complete the floor.

NOTE: When installing around fixed objects, small areas or even in general installation areas, the use of installation straps may prove helpful for securing boards together. Installation Straps are a handy tool that will insure a tight fit when used to strap continuous rows of hardwood.

Step 4: INSTALLING THE LAST ROW

Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple



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procedure:

- Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed.
- Take a full width scrap piece of the CFS Hardwood product that is being installed with the face down and the tongue side against the wall. Use appropriate spacers against the wall to ensure the proper expansion space.
- Draw a line along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar. Spacers should remain while the adhesive sets.

NOTE: Floor should remain free of foot traffic for a minimum of 12 hours while adhesive sets.

- A drying time of 24 hours is recommended before any damp-dry mopping, cleaning or heavy objects or furniture can be put back into place.
- Make sure when the installation is complete that the spacers are removed and the expansion space is covered with an appropriate molding.

Staple Or Nail Down Installation Method

Jobsite Preparation

- Undercut door casings
- Remove any existing wall base, shoe molding, quarter round or doorway threshold.

IMPORTANT: Do not install cabinets or walls on top of the flooring when using the floating installation method.

Step 1: POSITION THE FIRST ROW

IMPORTANT: The flooring should be installed from several cartons at the same time to insure proper color, grain, and shade mix.

1. Before starting, first measure the width of the room, and then divide the room's width by the width of the plank. If this means that the last row of planks will be narrower than 2", then you will need to cut the first row of planks to make it narrower. Cut in such a way that both rows of planks (the first and last to be installed in the room) will have the same approximate width for an overall continuous look. See installing the last row.

NOTE: To cut the boards, always saw with the teeth cutting down into the face or top of the board. Cutting from the top down helps protect the surface. Use a carbide tip blade to insure smooth cuts.

2. Begin the installation of the planks in the left-hand corner of the room with the long direction parallel to the longest wall of the room. Always start so that you will be working left to right when facing starting wall. When possible, run the length of the planks in the same direction as incoming sunlight. Be sure to install the first row of engineered planks with the groove side facing the wall (Versa- lock planks – tongue faces starting wall).

Using the proper spacers (depending on the thickness of the flooring), provide a gap for the seasonal expansion of the flooring along the walls of the entire room. Always place expansion spacers against the wall every 2'-3'. Also place spacers at each plank end joint connection, as this will make maintaining a good square easier.

NOTE: Larger rooms require additional expansion space. Add 1/16" to the width of the expansion space for every 3' the room extends beyond 25'. Dimensions exceeding 40'in length or width, requires the use of a T-Molding for expansion.

3. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor. When the first row is complete, you must have a straight, even base established.

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NOTE: If any excess adhesive squeezes up to the finished surface, wipe it off immediately using a water dampened cloth or CFS Adhesive Remover. Then immediately dry the surface and buff with a dry cloth. If the adhesive has dried, use a soft white cloth moistened with CFS Adhesive Remover. Do not abrade the wood surface.

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NOTE: When installing around fixed objects, small areas or even in general installation areas, the use of installation straps may prove helpful for securing boards together. Installation Straps are a handy tool that will insure a tight fit when used to strap continuous rows of hardwood.

Step 4: INSTALLING THE LAST ROW

Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple procedure:

- Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed.
- Take a full width scrap piece of the CFS Hardwood™ product that is being installed with the face down and the tongue side against the wall. Use appropriate spacers against the wall to ensure the proper expansion space.
- Draw a line along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar. Spacers should remain while the adhesive sets.

NOTE: Floor should remain free of foot traffic for a minimum of 12 hours while adhesive sets.

- A drying time of 24 hours is recommended before any damp-dry mopping, cleaning or heavy objects or furniture can be put back into place.
- Make sure when the installation is complete that the spacers are removed and the expansion space is covered with an appropriate molding.

Special Circumstances

Doorways

Attempting to continue installing rows through a doorway into another room can cause problems because the narrow opening is a very small base upon which to continue consistent even rows into the next room. Use a master reference line placed through the adjoining rooms to insure plank alignment. Rooms may be divided at doorways by using a color matched T-molding.

Pipes, vents and other fixed object

Each can be unique, but the general rule is to measure very carefully before you cut and remember to leave a 1/2" expansion gap between the object and the flooring. You will cover expansion gaps with molding, colored sealant, vent covers or pipe rings when the floor is complete.

Installation on Stairs

Flooring on stairs must be fully nailed to the stairs. Installation on a flight of Stairs or complete stairwell is not recommended. Check with local building codes before cutting off any of the original wood on the existing step. Stair Nose Moldings should be installed using construction grade adhesive, as well as screw type fasteners or nails.

CAUTION: Hardwood installed on steps can be slick. Always be very careful, especially while walking on steps with stockings or socks only, on the feet.

Moldings, Trim & Transition Pieces

Installation Tips:

- Moldings must be predrilled to avoid splitting whenever they are to be secured with nails or fasteners, unless a pneumatic trim nailer is used.
- The tool of choice for cutting hardwood moldings is a 10" or 12" motorized miter saw with pre-set adjustments for the basic miter cuts at 22.5o, 45o, and 90o. A carbide tipped blade makes the best cuts.
- When installing Wall Base molding, eliminate the need to putty as many holes on the molding by placing the bottom nail below the finished line of the Quarter Round.
- On Wall Base or Quarter Round moldings, never restrict the hardwood floor's natural contraction/expansion movement by driving the fasteners at a downward angle. Rather, attach the moldings to the wall or vertical surface.
- Always miter cuts rather than having butt cuts when splicing hardwood moldings. Decide the direction of the miter by cutting the molding with the long point oriented in the same direction as your natural line of vision when you enter the room.

Wall Base

Borders the wood floor at the base of the wall to give the room a finished look. This molding along with the Quarter Round conceals the required expansion space between the wall and the hardwood flooring. It is also sometimes used under cabinets and toe kicks.

Quarter Round

This molding conceals the required expansion space between the Wall Base and the hardwood flooring. It is also sometimes used under cabinets and toe kicks where a wall base won't fit or at the base of the stairs to provide a subtle blend between the floor and the wall or vertical surface.

Threshold

A molding typically used at exterior doorways as a transition between flooring and the doorway threshold. It is also used to transition a wood floor to different floors to make them fit together perfectly, such as high pile carpeting or tile. Another typical use for a threshold is to conceal the expansion space between the



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flooring and a vertical surface such as fireplace hearths and sliding glass doors.

Installation: Lay the Threshold Molding in place to determine a proper fit. The Threshold Molding should overlap the flooring by 1/8" to 1/4" leaving the balance for expansion. Nail the molding to the subfloor behind the lip of the molding. Be sure when nailing, not to obstruct the floors expansion space.

T Molding

Used in doorways to join two wood floors in adjoining rooms, or when making transitions, from a wood floor to another floor that is approximately the same height such as ceramic tile, hardwood or laminate floors.

Installation: A space of 1 1/4" between the two adjoining floors is necessary to properly install the T- molding.

This is to allow for the expansion space. Measure, cut, and dry fit the T-molding in place to insure the proper fit.

When using the T-molding between a ceramic tile floor and the hardwood floor, apply 1/4" bead of clear silicone sealant to the top edge of the ceramic tile. When using between two hardwood floors, seat the molding in place allowing for a minimum of a 1/4" overlap on the wood flooring. Make sure to allow for the expansion space between the T-Molding and the tile or wood. Fasten the T-mold by nailing to the sub floor through the center part of the molding.

Flush Reducer

Used to join hardwood floors with floors in adjoining rooms that have floor coverings that are lower in height, such as vinyl, ceramic tile, or low pile carpeting.

Installation: To attached molding, pre-drill and nail in appropriate 6" to 8" intervals. Do not nail closer than 2"-

3" from the ends of either side.

Flush Stair Nose

Provides the proper transition for stair treads, which match the hardwood flooring that has been installed. The Stair Nose also provides the proper transition from one floor level to the next, such as the step down into a sunken living room.

Installation: All Stair Nose moldings must be installed using construction grade adhesive as well as finish nails or screws. Set the nail or screw heads, then use color matched wood filler to achieve a desirable finished look.

Hardwood Flooring Care & Maintenance

Routine Maintenance

1. Use a damp cloth to blot up spills as soon as they happen. Never allow liquids to stand on your floor.
2. For tough spots, such as oil, paint, markers, lipstick, ink, or tar, use acetone/nail polish remover on a clean white cloth, then wipe the area with a damp cloth to remove any remaining residue.
3. Sweep, dust, or vacuum the floor regularly with the hard floor attachment (not the beater bar) to prevent accumulation of dirt and grit that can scratch or dull the floor finish.
4. Periodically clean the floor with cleaning products made specifically for pre-finished hardwood floor care.
5. Do not wash or wet mop the floor with soap, water, oil-soap detergent, or any other liquid cleaning material. This could cause swelling, warping, delamination, and joint-line separation, and void the warranty.
6. Do not use steel wool, abrasive cleaners, or strong ammoniated or chlorinated type cleaners.
7. Do not use any type of buffing or polishing machine.
8. For spots such as candle wax or chewing gum, harden the spot with ice and then gently scrape with a plastic scraper, such as a credit card. Be careful not to scratch the flooring surface. Wipe clean with a damp cloth.
9. For tough stains, you may need to use a heavy-duty stain remover made specifically for hardwood floors.
10. A more frequent dust-mopping or vacuuming schedule may be required in very sandy areas such as a beach home.

Environmental Protection

1. Entry mats will help collect the dirt, sand, grit, and other substances such as oil, asphalt, or driveway sealer that might otherwise be tracked onto your floor.
2. Do not use rubber or foam backed plastic mats as they may discolor the flooring finish. To prevent slippage, use an approved vinyl rug underlayment.
3. Use floor protectors and wide-load bearing leg bases/ rollers to minimize indentations and scratches from heavy objects. As a rule, the heavier the object, the wider the floor protector.
4. Maintain a normal indoor relative humidity level between 45 and 65% throughout the year to minimize the natural expansion and contraction of the wood.
5. Heating season (Dry): A humidifier is recommended to prevent excess shrinkage due to low humidity levels. Wood stove and electric heat tend to create very dry conditions.
6. Non Heating Season (Wet): An air conditioner, dehumidifier, or periodically turning on your heating will help to maintain humidity levels during summer months.
7. Avoid excessive exposure to water during periods of inclement weather.
8. Do not walk on your floor with stiletto heels, spiked golf shoes, or other types of sports cleats.
9. Do not allow sharp, pointed, or rough textured objects to be exposed to the hardwood flooring. Keep your pet's nails trimmed to prevent them from



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scratching your floor.

10. Periodically rearranging your area rugs and furniture will allow the floor to age evenly. UV sunlight will soften the tone of different species of hardwood to varying degrees.
11. Use a dolly when moving heavy furniture or appliances; but first, put down a piece of quarter inch plywood or Masonite to protect the floor. Never try to slide or roll heavy objects across the floor.
12. A protective mat should be used for furniture or chairs with castors.

Repairing Your Hardwood Floor

1. Minor damage to your hardwood floor can be repaired by using a color fill. This special product should be matched to the color of your floor and, when properly used, will make the damaged area virtually invisible. In addition, the repaired area will hold up to traffic and wear.
2. A qualified hardwood flooring installer should repair extensive damage to traditional engineered or solid hardwood flooring.
3. Call CFS at 866-751-4893 for assistance. damage the board making it difficult to install additional boards. Once the board has been tapped into place check for a tight fit on sides and ends. To install the rest of the flooring, continue placing the boards from left to right, building a rack 3 to 4 rows wide, as the installation continues to complete the floor.

NOTE: When installing around fixed objects, small areas or even in general installation areas, the use of installation straps may prove helpful for securing boards together. Installation Straps are a handy tool that will insure a tight fit when used to strap continuous rows of hardwood.

