

DECK LEDGER TO RIM JOIST

CONNECTION DETAILS

The LedgerLOK Ledger Board Fastener has been designed specifically for attaching the deck ledger to a rim joist or band board of the house in a code compliant manner. When installed as instructed in this bulletin, the LedgerLOK can be used to meet the current National Building Code of Canada requirements.

In addition, the proprietary coating on this fastener exceeds the corrosion protection provided by code approved hot-dipped galvanized coatings.

INSTALLATION PROCEDURES

- Choose 3-5/8" or 5" LedgerLOK so that threads fully engage the rim material and fastener tip extends beyond the inside face of the rim joist.
- Use a high torque, 1/2" variable speed drill (18V if cordless).
- Follow the minimum spacing and fastening patterns from Figure 1 and Table 1.
- Install fasteners through the ledger and sheathing. Continue into the rim joist until the washer head is drawn firm and flush to the ledger board. Do not overdrive.

CORROSION STATEMENT

The proprietary galvanized and polymer coating applied to the LedgerLOK has been tested under the current standard for evaluating corrosion resistance in treated lumber and deemed suitable alternative to code-approved hot-dipped galvanized coatings when exposed to ground contact ACQ preservative treatment in wet-use conditions.

For applications within 1,000 feet of saltwater, we recommend the use of a stainless steel fastener.

SPACING REQUIREMENTS

Fasteners should be staggered in a "V" pattern and spaced as follows:

- A. Minimum end distance = 3-3/4" (95mm)
- B. Minimum edge distance = 2" (51mm)
- C. On-center spacing = Per Table 1

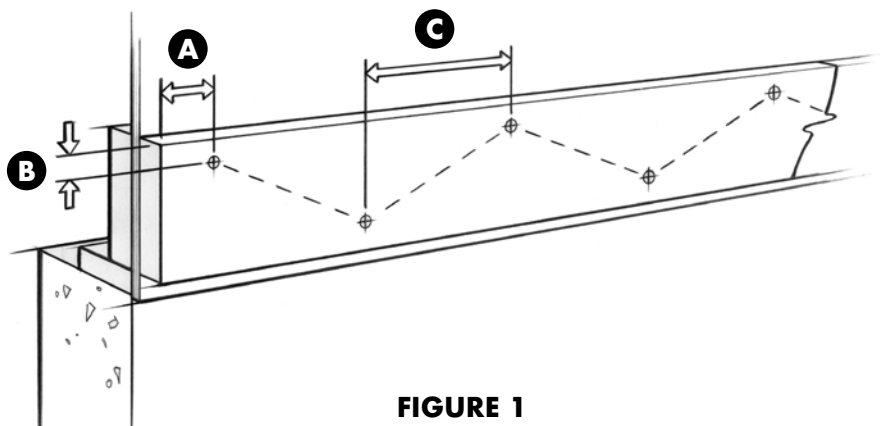


FIGURE 1



Effective December 1, 2017. Please reference our website to ensure that you are using the most up to date version.

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FASTENING PATTERN

LedgerLOK fastening patterns in the table below were derived from design values determined through testing at the Wood Science and Technology Centre at the University of New Brunswick.

To determine the proper fastener spacing, use the row associated with the live load or snow load requirement for your local jurisdiction then the column that refers to the maximum joist span between the ledger and first supporting beam.

Live Load		On center spacing between fasteners based on maximum joist spans of:						
Pounds	kPA	8' 0"	9' 10"	11' 6"	13' 0"	14' 9"	16' 5"	18' 0"
		2.5 M	3.0 M	3.5 M	4.0 M	4.5 M	5.0 M	5.5 M
40	1.9	11"	9"	8"	7"	6"	5"	5"
		275 mm	225 mm	200 mm	175 mm	150 mm	125 mm	125 mm
60	2.8	8"	6"	6"	5"	4"	4"	4"
		200 mm	150 mm	150 mm	125 mm	100 mm	100 mm	100 mm
80	3.8	6"	5"	4"	4"	3"	3"	3"
		150 mm	125 mm	100 mm	100 mm	75 mm	75 mm	75 mm

- Fastening patterns based on ledger and band joist materials of SPF (0.42 Specific Gravity) or better. If using lower density ledger or rim materials such as Northern Species (0.35 SG) contact FastenMaster for new patterns.
- Engineered wood band joists (LVL, LSL) must have a minimum Specific Gravity of 0.50 and a thickness of 1-1/8" or greater.
- Sheathing may separate the ledger and rim provided that it is attached per code and no greater than 1/2" inch (12 mm) in thickness.
- Spacing is based on non-incised lumber. Where incised lumber is used, reduce spacing between fasteners by 15%.
- Table values assume 10 psf (0.48 kPa) dead load.
- A wet service condition factor, $K_{sf} = 0.67$ has been applied to anticipate exterior conditions.
- Assumes a load duration of 1.0. Spacing may be adjusted by the applicable load duration as specified in CSA 086-09.
- Fastening patterns for the LedgerLOK Ledger Board Fasteners meet the requirements of the NBC Section 9.4.2.3 for deck ledger attachments.
- Testing and analysis of the LedgerLOK Ledger Board Fasteners are in accordance with the requirements of CSA 086.

GENERAL FASTENING GUIDELINES

- The LedgerLOK is not designed for attachment to masonry/concrete or over stucco, siding, rigid foam insulation or brick veneer.
- Connections and joints shall be properly flashed to prevent water from contacting the rim joist.
- Where a positive connection to the rim joist cannot be verified through inspection, decks shall be self supporting.
- Ledgers should not be attached over cantilevered portions of the house where the rim is unsupported by a foundation.
- For ledgers being attached to open web floor trusses, consult "Attachment of Residential Deck Ledger to Metal Plate Connected Wood Truss Floor System" published by the Structural Building Component Association for proper design methods. This Technical Note can be found at www.sbcindustry.com.
- Wood structural panel sheathing or gypsum board sheathing not exceeding 1" (25 mm) in thickness shall be permitted provided that the maximum distance between the inner face of the ledger board and the outer face of the rim joist is no greater than 1" and is properly fastened to the rim.
- Under the following conditions, the LedgerLOK may still be approved but a design professional should be consulted for proper spacing requirements:
 1. In areas where live load requirements exceed 80 psf (3.8kPa) or snow load requirements exceed 90 psf (4.3 kPa).
 2. For decks designed to carry increased dead loads (ex: hot tubs, stationary planters).
 3. Three-season or fully enclosed decks supporting an overhead roof.
- All local code requirements as well as guidelines set forth in this technical bulletin must be followed for patterns outlined above to be applicable.