

**PROBLEM:** Log home corners are **NOT** held tight, due to obsolete joinery methods. The competitor's use of nails, lag screws, or thru-bolts in the corner can actually cause the corner to separate due to log shrinkage. This may permit air into the home.

*Nails, lag screws or thru-bolts will create a GAP between the corners over time from shrinkage.*



*Competitor's corner will shrink toward the nail (red arrows)*



**COMPETITOR'S BANDAGE:**

The competitor's customers are expected to fill the gaps around the corners with expensive and labor-intensive caulking or chinking products on a *continuous* basis.

**TRUE NORTH'S SOLUTION:**

Our **KEYLOCK AIR SEAL CORNER** system will **prevent** any air infiltration through the corners. True North homeowners are spared the messy and time consuming task of having to continually caulk or chink the dovetail corners.

*True North - 200- Log Homes*

# The Patented Keylock Air Seal Corner.

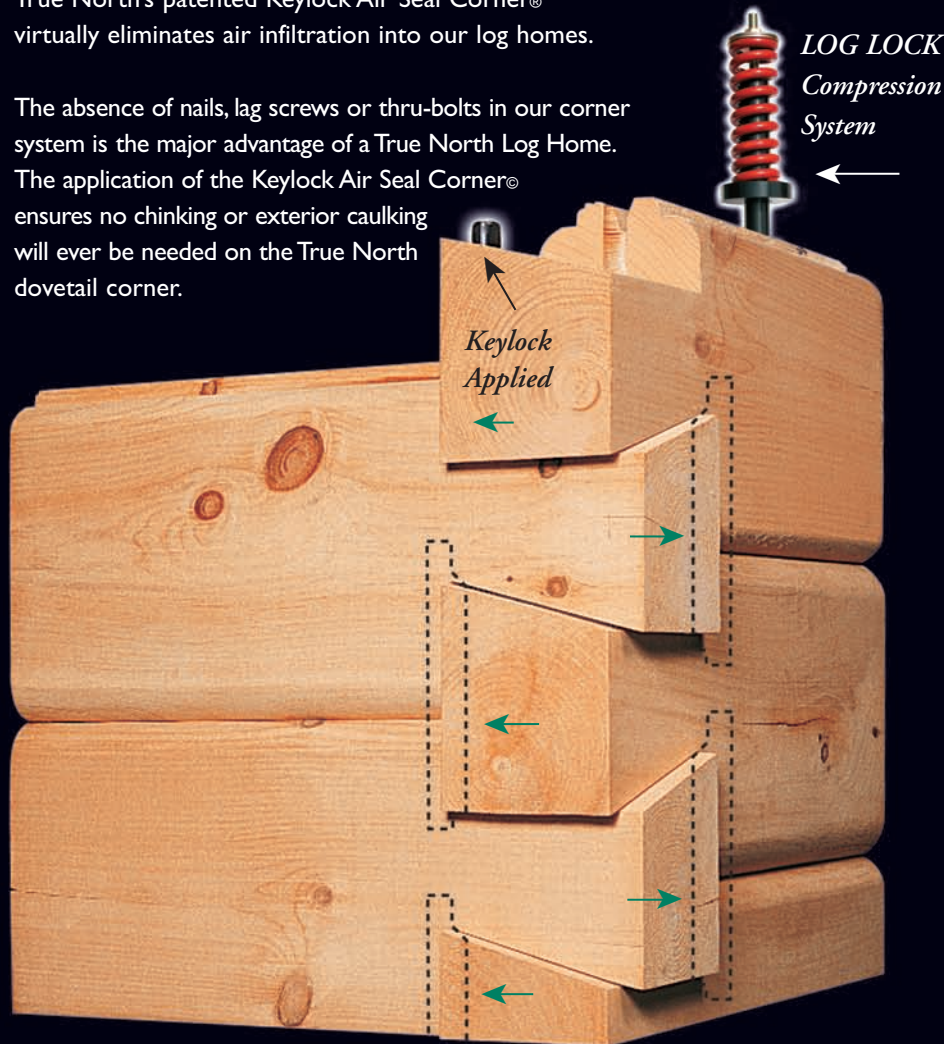


**TRUE NORTH'S SECRET...**

True North uses the naturally occurring shrinkage in the width of the Log to its fullest advantage, making the corner tighter (as shown with green arrows). True North's patented Keylock, when inserted, tightens the Log interfaces together. Over time the Log shrinks towards the Keylock ensuring an airtight seal.

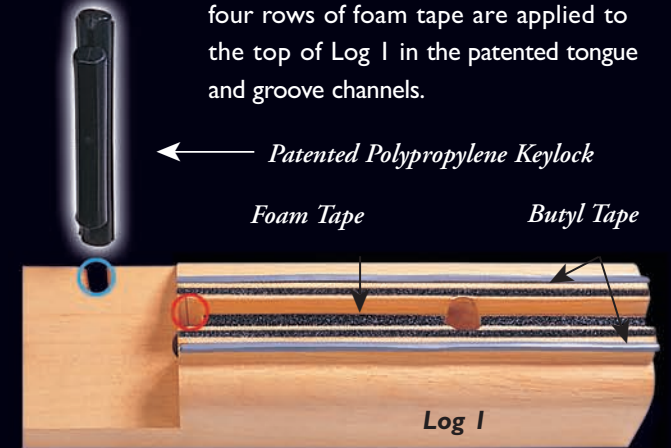
True North's patented Keylock Air Seal Corner® virtually eliminates air infiltration into our log homes.

The absence of nails, lag screws or thru-bolts in our corner system is the major advantage of a True North Log Home. The application of the Keylock Air Seal Corner® ensures no chinking or exterior caulking will ever be needed on the True North dovetail corner.



**Step 1**

Log 1 is sawn in half at the factory and is attached to the concrete foundation or subfloor. Two rows of butyl tape and four rows of foam tape are applied to the top of Log 1 in the patented tongue and groove channels.



True North pre-drills a 1-1/8" hole in the centre of the Log as shown in red. A second hole is drilled on the inside face of the Log as shown in blue. When the dovetail is cut, part of the hole, shown in red, is removed.

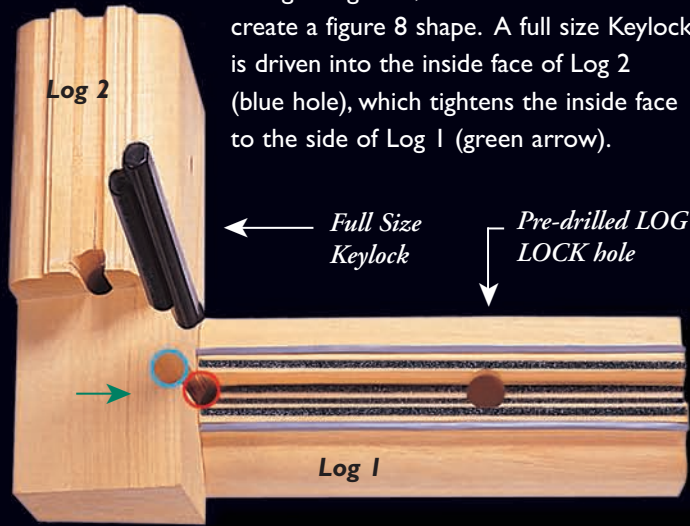


**Step 2**

The bottom groove of Log 2 is removed at the factory to lay flat on the concrete foundation or subfloor. The patented polypropylene Keylock is cut in half. The top half of the Keylock is driven into the inside face of Log 1, shown in blue. A foam corner gasket is applied to the top of the dovetail on Log 1 to seal the angled surfaces between the dovetails of Log 1 & Log 2. The red hole in Log 2 drops over the half Keylock in Log 1. The inside face of Log 1 is now Keylocked to Log 2, creating an airtight seal.

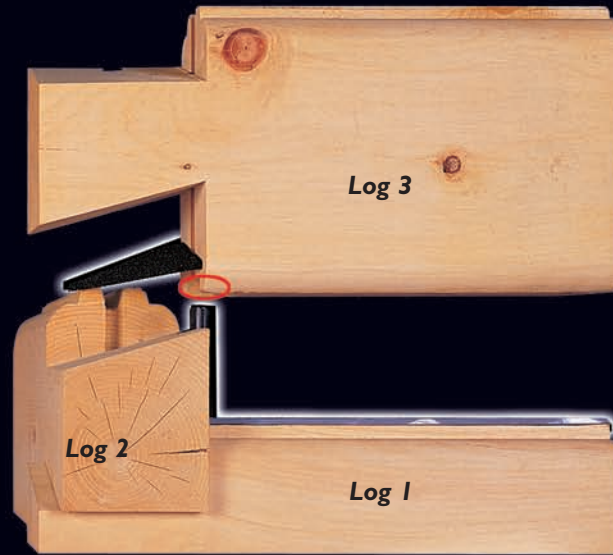
### Step 3

When the faces of Logs 1 and 2 are brought together, the blue and red holes create a figure 8 shape. A full size Keylock is driven into the inside face of Log 2 (blue hole), which tightens the inside face to the side of Log 1 (green arrow).



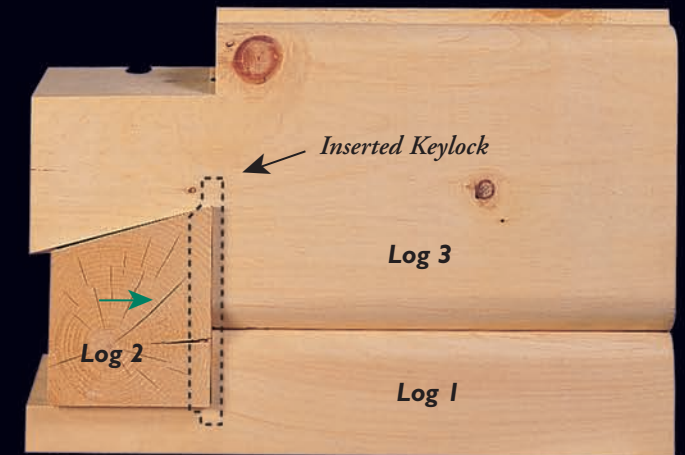
### Step 4

Another foam corner gasket is applied to the top of the dovetail on Log 2. The red hole in Log 3 is dropped over the Keylock in Log 2.



### Step 5

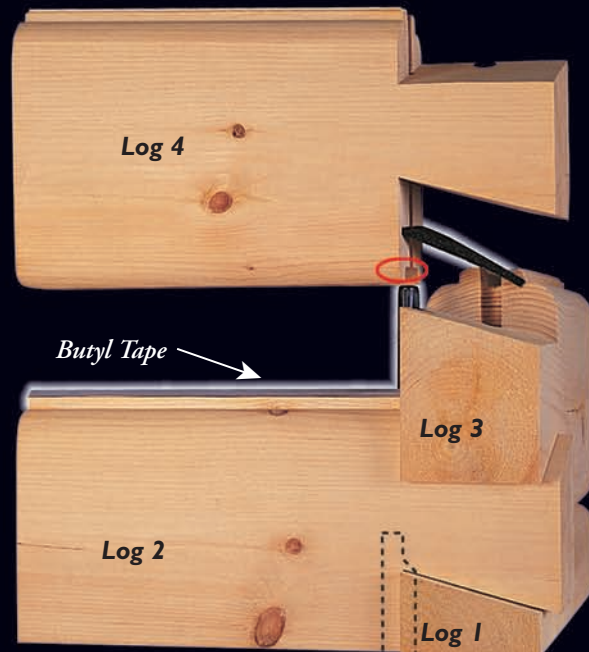
Logs 1, 2 and 3 are now Keylocked together at the interface. The green arrow shows the direction in which Log 2 is tightened. Log 2 will shrink to Logs 1 and 3 creating an even tighter seal over time.



### Step 6

On top of Log 2, butyl and foam tapes are again set into the tongue and groove channels. Another Keylock is now driven into the inside face of Log 3, which tightens this face to the side of Log 2.

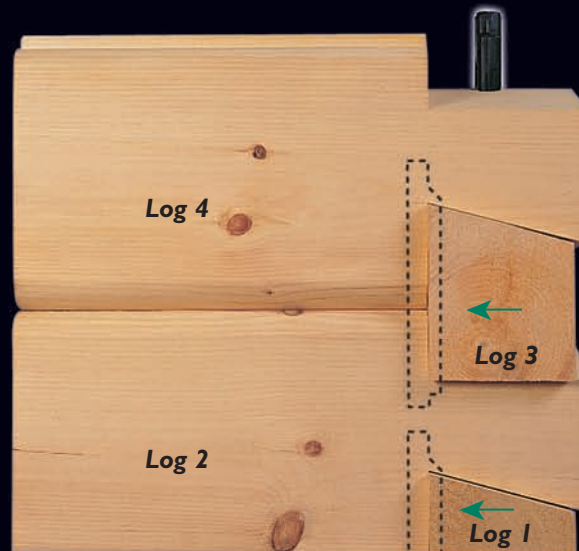
A third corner gasket is applied to the top of the dovetail on Log 3. The red hole in Log 4 is now dropped over the Keylock in Log 3.



### Step 7

Logs 2, 3 and 4 are now Keylocked together at the interfaces. The green arrows show the direction in which Logs 1 and 3 are tightened to Logs 2 and 4 internally by the Keylocks. Log 1 and 3 will shrink to Logs 2 and 4 over time creating a complete airtight seal.

The sequence continues through each course to the top of the Log wall. After the top Log is applied, the LOG LOCK COMPRESSION SYSTEM is installed as shown in the first Keylock corner picture. (far left)



What is the advantage to a True North customer?

## KEYLOCK MEANS

- NO AIR INFILTRATION
- NO CAULKING OR CHINKING OF DOVETAIL CORNER
- 25 YEAR "ZERO" AIR INFILTRATION WARRANTY

