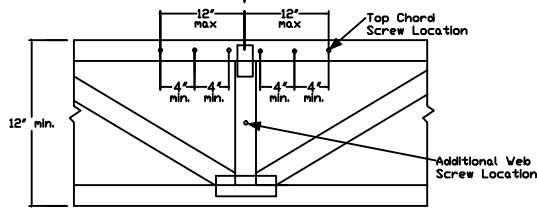


# System 42 Ply to Ply Connection Detail

Using GRK (RSS) JTS 1/4x6-3/4 or Simpson SDS25600 or SDW22634 Strong Drive Screws or Equal.

Max. Concentrated Load per Chart Below



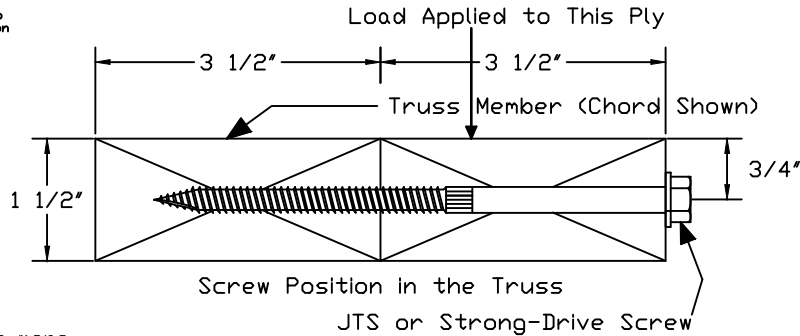
Apply screws to top chord within 12' of the concentrated load location @ 4' o.c., min, evenly distributing them to each side of the concentrated load. A maximum of 6 screws may be applied to the top chord for each concentrated load.

For double top chords, evenly distribute the screws over both top chords, using same spacing guidelines specified above. The max number of top chord screws is 6 per chord member for a total maximum of 12 screws.

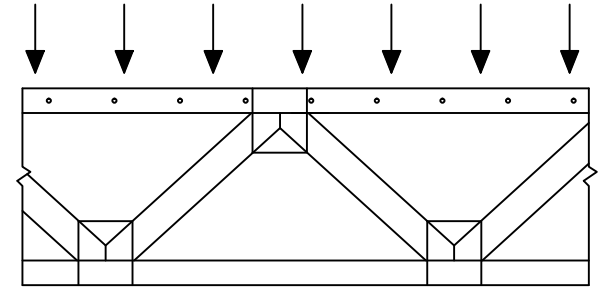
If the concentrated load connection requires more screws than 6 per top chord member and the load is located at a panel point where webs intersect the top chord, the remainder of required screws may be applied to those webs below the concentrated load location evenly spaced @ 4' o.c., min, keeping the 3' min end distances. Each additional screw is worth 474 lb for SP webs, 442 lb for DFL webs, and 400 lb for SPF webs.

# of Screws	Maximum Concentrated Load (lbs) (1.00 DF)		
	SP	DFL	SPF
1	474	442	400
2	984	884	800
3	1422	1326	1200
4	1896	1768	1600
5	2370	2210	2000
6	2844	2652	2400
7	3318	3094	2800
8	3792	3536	3200
9	4266	3978	3600
10	4740	4420	4000
11	5214	4862	4400
12	5688	5304	4800

Refer to Alpine sealed drawing for individual truss design.



Max. Uniform Load per Chart Below



For single top chord, see chart below for screw spacing. For double top chord the screw spacing may be doubled (but may not exceed 24' o.c. per chord). Screw spacing shall be offset by 1/2 the o.c. spacing in each chord.

Screws need only apply to the extents of that load.

For chord sections supporting less than 100 plf apply one screw at each top chord joint location.

### General Notes:

1. Screws centered along the 1.5" dimension of the 4x2 member.
2. Minimum end distance of 3".
3. Screws installed with head in loaded member.
4. Gap between plies not to exceed 1/8".
5. Screw location may be adjusted up to 1" to avoid conflict with other hardware or to avoid lumber defects.
6. Do not install screws in areas where lumber wane exceeds 1/4".
7. Equal loads from both faces or loads that are evenly distributed to each ply do not require connections per this detail.
8. For 3x2 members use GRK (RSS) JTS 1/4x5 screws, or Simpson's SDS25412 or SDW22500 screws or equal.
9. Contact Alpine for special connections not covered by this detail.

Top Chord Screw o.c. Spacing (inch)	Maximum Uniform Load (plf) Along Top Chord (1.00 DF)		
	SP	DFL	SPF
4	1422	1326	1200
6	948	884	800
8	711	663	600
10	568	530	480
12	474	442	400
14	406	378	342
16	355	331	300
18	316	294	266
20	284	265	240
22	258	241	218
24	237	221	200

**WARNING: READ AND FOLLOW ALL NOTES ON THIS DRAWING. IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.**

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this Job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com); TPI: [www.tpinet.org](http://www.tpinet.org); SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)



514 Earth City Expressway  
Suite 242  
Earth City, MO 63045

TC LL	PSF	REF	SY42 Connection
TC DL	PSF	DATE	01/19/2018
BC DL	PSF	DRWG	CNSY42PL0118
BC LL	PSF		
TOT. LD.	PSF		
DUR. FAC.	1.00		
SPACING			