ADP-2 LINER PANEL
ERECITION GUIDE

BEHLEN MFG. CO.
COLUMBUS, NE 68601

IMPORTANT NOTE:
If prints are provided for this project, this book must accompany them.

NOTE: See back side of cover for latest changes to this manual.

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COLUMBUS, NE 68601

TECHNICAL INFORMATION 55063
Rev. 4/22/2020
NOTE: If pink sheets are included in this manual, refer to them for latest revisions.

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GENERAL INFORMATION

The erection information presented herein is provided as a supplement to the erection drawings prepared for your specific job. The information, illustrations and procedures in this guide are typical for most Behlen buildings. Variations may occur because of special building requirements. Always refer to the erection drawings supplied with each job which will govern specific part and assembly arrangements and applicable illustration details. Because Behlen products are constantly being improved, the information contained herein is subject to change without notice.

The following fastener schedule is to be used with this erection guide and will correspond to the fastener schedule in the erection drawings supplied with each job.

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<th>Loc.</th>
<th>Part No.</th>
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<tbody>
<tr>
<td>1</td>
<td>3228100</td>
<td>Screw ¼ x 3/4 FL-TP SD WW</td>
</tr>
<tr>
<td>2</td>
<td>3228084</td>
<td>Screw 12 x 1 HWH SD NW</td>
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<tr>
<td>3</td>
<td>3228101</td>
<td>Screw 12 x 1-1/4 FL-TP SD WW</td>
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<tr>
<td>4</td>
<td>3228105</td>
<td>Screw ¼ x 1-1/4 LG-LF SD WW</td>
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<td>5</td>
<td>3228099</td>
<td>Screw 8 x ½ HWH SD NW</td>
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<td>6</td>
<td>3188333</td>
<td>Bolt ½ x 2 HVHX A325 GALV and Nut (1328191)</td>
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<td>Bolt 5/8 x 2-1/4 HVHX A325T GALV and Nut (1328195)</td>
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<td>Bolt ¾ x 1-1/2 HVHX A325T GALV and Nut (1328192)</td>
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<td>9</td>
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<td>Bolt ¾ x 2-1/2 HVHX A325T GALV and Nut (1328192)</td>
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<td>Screw ¼ x 3/4 FL-TP SD WW for ADP-1 Roof</td>
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<tr>
<td>11</td>
<td>3228103</td>
<td>Screw ¼ x 3/4 LG-LF SD WW for SSR</td>
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<td>12</td>
<td>3228101</td>
<td>Screw 12 x 1-1/4 FL-TP SD WW for ADP-1 Roof</td>
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<tr>
<td>13</td>
<td>3228105</td>
<td>Screw ¼ x 1-1/4 LG-LF SD WW for SSR</td>
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<td>Screw 12 x 1-1/4 HWH SD #5PT NW</td>
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<td>Bolt ½ x 1-1/2 HVHX A325T GALV and Nut (1328191)</td>
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<td>16</td>
<td>3208170</td>
<td>Bolt ½ x 1 FLT RD HD A307 PLTD and Nut (2688007)</td>
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<tr>
<td>17</td>
<td>3228102</td>
<td>Screw 12 x 2 FL-TP SD WW</td>
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</tbody>
</table>

Abbreviations

HD = Head
SD = Self-Drilling
ST = Self-Tapping
SS = Stainless Steel
PT = Point
RD = Round
WW = With Washer
NW = No Washer
FLT = Flat
HVHX = Heavy Hex
GALV = Galvanized
PLTD = Plated
HWH = Hex Washer Head
FL-TP = Flat Top
LG-LF = Long Life

ERECTION INFORMATION

Liner panel sidelaps shall be stitched together with a ② fastener at 24” centers.

HANDLING LONG TRIM COMPONENTS

When removing long trims from the shipping crate and during installation, care should be taken by construction workers to avoid damage caused by buckling.
STOP . . . PLEASE READ

RECOMMENDED INSTALLATION FOR SELF-DRILLING TAPPING FASTENERS TO INSURE FASTENER PERFORMANCE.

* Apply with 1800 RPM electric screw gun.

* Drive socket size must fit appropriately to fastener head.

**Socket Types:**

1. **Super Star Socket** - Used for long-life non-magnetic screw heads. Can be used with carbon screw to avoid drill chips collecting on magnetic sockets.

   Inland Part No. - 1/4” (3518045)   5/16” (3518046)   3/8” (3518047)

2. **Non-magnetic** - Used by erectors on roofing applications, mainly to avoid drill chips collecting in sockets.

   Special Order - 1/4”   5/16”   3/8”

Drilling/Driving fastener must be held perpendicular to the fastening surface.

Self-Drilling fasteners should not be forced in. Allow the drill point to do the work.

**- CAUTION -**

Over-torquing may result in fastener separation/failure (head popping off).
Care should be exercised during installation.
Torque of 30-60 in. lbs. Based on fastener size and application.

FOR APPLICATION SUPPORT, CONTACT:

ATLAS BOLT & SCREW TECHNICAL SERVICES (800) 321-6977
Inland Buildings (800) 438-1606

*1800 RPM screw guns and sockets are available at your local tool house or from:
Dynamic Fasteners 1-800-821-5448
HANDLING LONG TRIM COMPONENTS
When removing long trims from the shipping crate and during installation, care should be taken by construction workers to avoid damage caused by buckling.

PROTECTIVE FILM REMOVAL
The trim components received with this building have a protective film on the colored surface that must be removed prior to installation.

Prolonged exposure (more than 3 weeks) to rain and/or sunlight will adversely effect the protective film making removal difficult.

When film is being removed from trim having a hem along its edge, the film should be peeled off along the entire end. This includes the 3/8" hemmed area on the back side. Pull the entire film strip at a constant rate. Do NOT try to rip the film off as it will tend to tear at the hemmed edge and corners leaving a strip that will have to be removed separately.
RELATIONSHIP OF LINER PANEL AND EXTERIOR PANEL RIBS

Liner panels for a complete sidewall or endwall surface have been detailed with a process similar to the exterior wall panels. The location of the liner panels is based on the length of the exterior wall surface and whether there is a “Start Dimension” at each end of the wall surface. This detailing process will keep the liner panel ribs and the exterior panel ribs in line.

During the erection process, the sidewall liner panel locations may start or stop at J-trims as desired but on the endwall surface, the liner panel length may be insufficient if moved to some other location.
LINER AT BASE

BASE ANGLES

BASE CHANNEL

ONE-PIECE BASE ANGLE/SEAL
**LINER AT EAVE STRUT**

![Diagram of Liner at Eave Strut]

**LOW EAVE**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>ROOF SLOPE PER 12&quot;</th>
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<tr>
<td></td>
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<tr>
<td>AG21</td>
<td>--</td>
</tr>
<tr>
<td>AG65</td>
<td>9/16&quot;</td>
</tr>
<tr>
<td>AG66</td>
<td>1 1/16&quot;</td>
</tr>
<tr>
<td>AG67</td>
<td>2 1/16&quot;</td>
</tr>
<tr>
<td>AG68</td>
<td>3 1/16&quot;</td>
</tr>
<tr>
<td>SK6</td>
<td>4 1/16&quot;</td>
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**HIGH EAVE**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>ROOF SLOPE PER 12&quot;</th>
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<td>AG21</td>
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</tr>
<tr>
<td>AG46</td>
<td>9/16&quot;</td>
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<tr>
<td>AG47</td>
<td>1 1/16&quot;</td>
</tr>
<tr>
<td>AG48</td>
<td>2 1/16&quot;</td>
</tr>
<tr>
<td>AG49</td>
<td>3 1/16&quot;</td>
</tr>
<tr>
<td>SK6</td>
<td>4 1/16&quot;</td>
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</tbody>
</table>
LINER AT RAKE

RAFTER OFFSETS OF 1'-0", 1'-2", 1'-4", 1'-5", 2'-0" OR 2'-2"

RAFTER OFFSETS OF 1'-0" OR 1'-2"
(RAFTER FLANGE WIDTHS OF 10" OR 12")
**DOUBLE CEE COLUMN (SINGLE CEE IS SIMILAR)**

**WELDED COLUMN**
CORNER COLUMN (SINGLE CEE OR DOUBLE-CEE)

- BY-PASS SIDEWALL GIRT
- BY-PASS ENDWALL GIRT

CORNER COLUMN (WELDED OR DOUBLE-CEE)

- BY-PASS SIDEWALL GIRT
- BY-PASS ENDWALL GIRT
RIGID FRAME AT ENDWALL W/1'-4" OR MORE OFFSET

- BY-PASS SIDEWALL GIRT
- BY-PASS ENDWALL GIRT

ROTATED CORNER COLUMN W/1'-0" OR 1'-2" OFFSET

- BY-PASS SIDEWALL GIRT
- BY-PASS ENDWALL GIRT
DOUBLE CEE COLUMN (SINGLE CEE IS SIMILAR)

WELDED COLUMN W/DEPTH EQUAL TO GIRT DEPTH

WELDED COLUMN W/DEPTH GREATER THAN GIRT DEPTH
LINER AT COLUMNS – 0” PROJECTION – FLUSH GIRTS

SINGLE OR DOUBLE CEE COLUMNS

WELDED COLUMN W/DEPTH EQUAL TO GIRT DEPTH

WELDED COLUMN W/DEPTH GREATER THAN GIRT DEPTH
1 INCH GIRT PROJECTION

CORNER COLUMN (SINGLE CEE)
(DOUBLE CEE CORNER COLUMN SIMILAR)
- FLUSH SIDEWALL GIRT
- FLUSH ENDWALL GIRT

CORNER COLUMN (WELDED)
- FLUSH SIDEWALL GIRT
- FLUSH ENDWALL GIRT
LINER AT CORNER – FLUSH SIDEWALL/ENDWALL GIRTS

0 INCH GIRT PROJECTION

CORNER COLUMN (SINGLE-CEE) [DOUBLE-CEE CORNER COLUMN SIMILAR]
- FLUSH SIDEWALL GIRT
- FLUSH ENDWALL GIRT

CORNER COLUMN (WELDED)
- FLUSH SIDEWALL GIRT
- FLUSH ENDWALL GIRT
LINER AT CORNER – flush sidewall/endwall girts

0 inch Girt Projection (1 inch Girt Projection is similar)

Rotated corner column w/ 4” or 5” offset
- flush sidewall girt
- flush endwall girt

Rigid frame at endwall w/ 1’-4” or 1’-5” offset
- flush sidewall girt
- flush endwall girt
LINER AT CEILING

CEILING LINER PANEL
ADP-2

12'-6" LENGTH LINER RIDGE TRIM TM12, TM13 OR TDE6 _031-031__

DEGREES

TWO LETTER COLOR CODE _

LINER AT RIDGE

AC2 OR AC91 RAKE ANGLE
(FIELD NOTCH AT PURLINS)

1'-4" OR MORE

LINER AT RAKE - RAFTER OFFSET OF 1'-4" OR MORE
LINER AT CEILING

LINER AT RAKE - RAFTER W/6" MAX FLANGE WIDTH - OFFSET OF 1'-0" OR 1'-2"

LINER AT RAKE - RAFTER W/8" FLANGE WIDTH - OFFSET OF 1'-0" OR 1'-2"

LINER AT RAKE - RAFTER OFFSET OF 4" OR 5"
LINER AT SELF-FRAMING WINDOW

ADP-1 WALL PANEL SHOWN
ADP-2 WALL PANEL SIMILAR

LINER PANEL ADP-2

J-TRIM TM33-12 OR TM33-20

AT HEADER

# 12" CTY

CLOSURE CHANNEL
MC2 (8" GIRT)
MC34 (10" GIRT)

WALL PANEL

AT SILL

CLOSURE CHANNEL
MC2 (8" GIRT)
MC34 (10" GIRT)

# 12" CTY

TM33-20 OR TM33-12 J-TRIM

LINER PANEL ADP-2

STEP J-TRIM ON HEADER & SILL HERE

ADP-2 LINER PANEL

# 24" CTY

TM33-12 J-TRIM OR TM33-20 J-TRIM

STRAP FIN

ADP-1 WALL PANEL

AT JAMB WITH ADP-1 WALL PANEL

SECTION THRU JAMB w/ADP-2 WALL PANEL
w/ADP-2 LINER PANEL

JAMB TRIM

ROUGH OPENING

WINDOW

CLOSURE CHANNEL JAMB
MC2 (8" GIRT)
MC34 (10" GIRT)

STEP J-TRIM ON HEADER & SILL HERE

ADP-2 LINER PANEL

# 24" CTY

TM33-12 J-TRIM OR TM33-20 J-TRIM

MC24 OR MC3

CLOSURE CHANNEL SILL/HEADER
GOLD BEND TABS AT END
AND FASTEN TO CLOSURE
CHANNEL JAMS

JAMB TRIM

ROUGH OPENING

WINDOW

CLOSURE CHANNEL JAMB
MC2 (8" GIRT)
MC34 (10" GIRT)
LINER AT KNOCK-DOWN DOOR

AT HEADER

AT 24" CTRS. ②

J-TRIM TM23-8

④ AT 24" CTRS.
ADP-2 LINER PANEL

JAMB

JAMB TRIM

ADP-1 WALL PANEL

JAMB TRIM STIFFENER

AT JAMB WITH ADP-1 WALL PANEL

AT 24" CTRS. ②

J-TRIM TM23-8

④ AT 24" CTRS.
ADP-2 LINER PANEL

DOOR JAMB

ADP-2 WALL PANEL

JAMB TRIM

JAMB TRIM STIFFENER

AT JAMB WITH ADP-2 WALL PANEL

7/21/06
LINER AT WALK DOOR ROUGH FRAME

REINFORCING ANGLE
(10" GIRT ONLY)

WALL PANEL

FOAM CLOSURE

DRIP CAP

DOOR HEADER

LINER PANEL ADP-2

GIRT

2 @ 24" CTRS

TM23-8 J-TRIM

3 1/2"

Z-TRIM TM121

4 1/2"

Z-TRIM TM122

AT HEADER

ADP-2 LINER PANEL

@ 24" CTRS

TM23-8 J-TRIM

ADP-1 WALL PANEL

JAMB TRIM STIFFENER

JAMB

DOOR JAMB

JAMB TRIM

AT JAMB WITH ADP-1 WALL PANEL

ADP-2 LINER PANEL

@ 24" CTRS

TM23-8 J-TRIM

ADP-2 WALL PANEL

JAMB TRIM STIFFENER

JAMB TRIM

AT JAMB WITH ADP-2 WALL PANEL
LINER AT FRAMED OPENING

HEADERS NEAR EAVE STRUTS

HEADERS BELOW SIDEWALL / ENDWALL GIRTS AT STANDARD ELEVATIONS

11/8/10
Liner at Framed Opening

1. Stop J-Trim on header here.
2. Structural lines.
3. ADP-2 Liner Panel.
4. Field locate to provide necessary clearance for door track & hardware.

1. Jamb Trim Stiffener.
2. ADP-1 Wall Panel.

At Jamb with ADP-1 Wall Panel.

1. Stop J-Trim on header here.
2. Structural lines.
3. ADP-2 Liner Panel.
4. Field locate to provide necessary clearance for door track & hardware.

1. Jamb Trim Stiffener.
2. ADP-2 Wall Panel.

At Jamb with ADP-2 Wall Panel.

27
11-8-99
LINER AT FRAMED OPENING WITH SILL

STOP J-TRIM ON HEADER & SILL HERE

@ 24° CTRS @ 24° CTRS

J-TRIM TM33-8, TM33-12, TM33-16 OR TM33-20

ADP-2 LINER PANEL

ADP-1 WALL PANEL

JAMB

JAMB TRIM

JAMB TRIM STIFFENER

AT JAMB WITH ADP-1 WALL PANEL

STOP J-TRIM ON HEADER & SILL HERE

@ 24° CTRS

J-TRIM TM33-8, TM33-12, TM33-16 OR TM33-20

ADP-2 WALL PANEL

JAMB

JAMB TRIM

JAMB TRIM STIFFENER

AT JAMB WITH ADP-2 WALL PANEL