

SMARTBOX[®] MOUNTING BRACKET INSTALLATION INSTRUCTIONS **John Deere[™] 1790 (24/20"), 1770NT, and DB CCS[®] Planters – Ladder & Rear Row Mount**

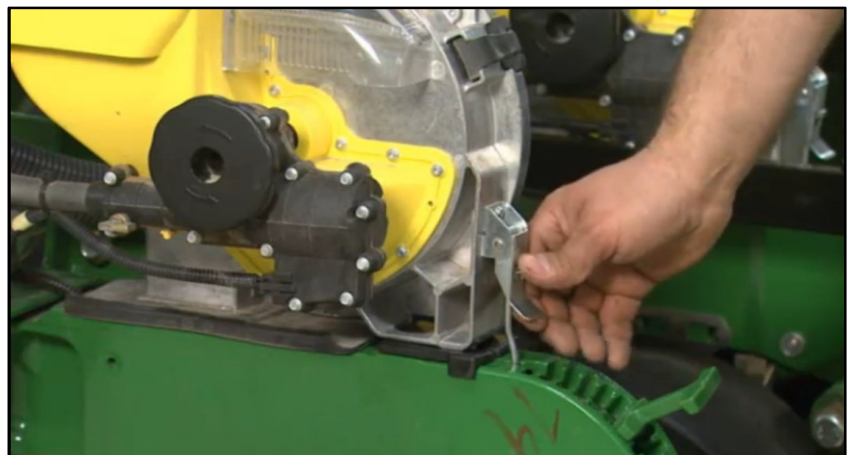
Always use and follow planter manufacturers owner's manual recommended safety guidelines.

Prior to installation, unfold planter and leave the planter row units in the raised position.

See the attached Drawing No. SB016563, SB01654 & SB012538, the AMVAC SmartBox System Parts and Operator's Manual and www.amvacsmartbox.com (About SmartBox, then Videos) website for additional installation information.



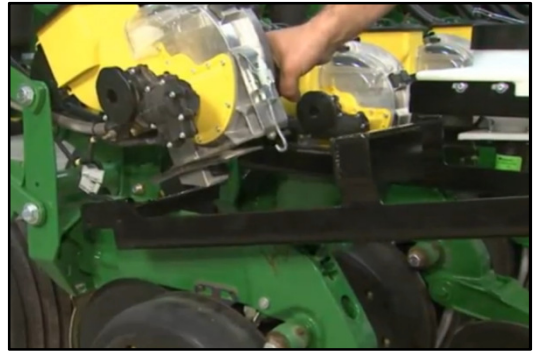
- A. Start by unlatching the seed meter.



- B. Remove the black plastic spacer under the seed meter. This spacer will no longer be used.



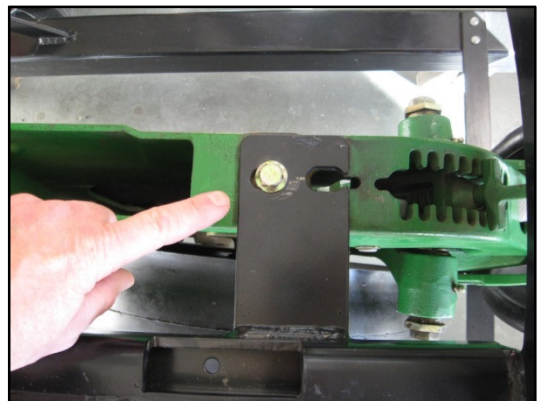
- C. Slide the SmartBox bracket into place under the seed meter.



- D. Attach the front left and right mounts through the existing holes in the planter's parallel arms using the 5/16" bolts, washers and locknuts provided.



- E. Fasten the bracket's rear mount with a M10 bolt using the threaded hole that was originally occupied by the black plastic spacer. Reinstall the seed meter.



Refer to the *AMVAC SmartBox System Parts and Operator's Manual* regarding the installation of the remainder of the system.

REVISION HISTORY

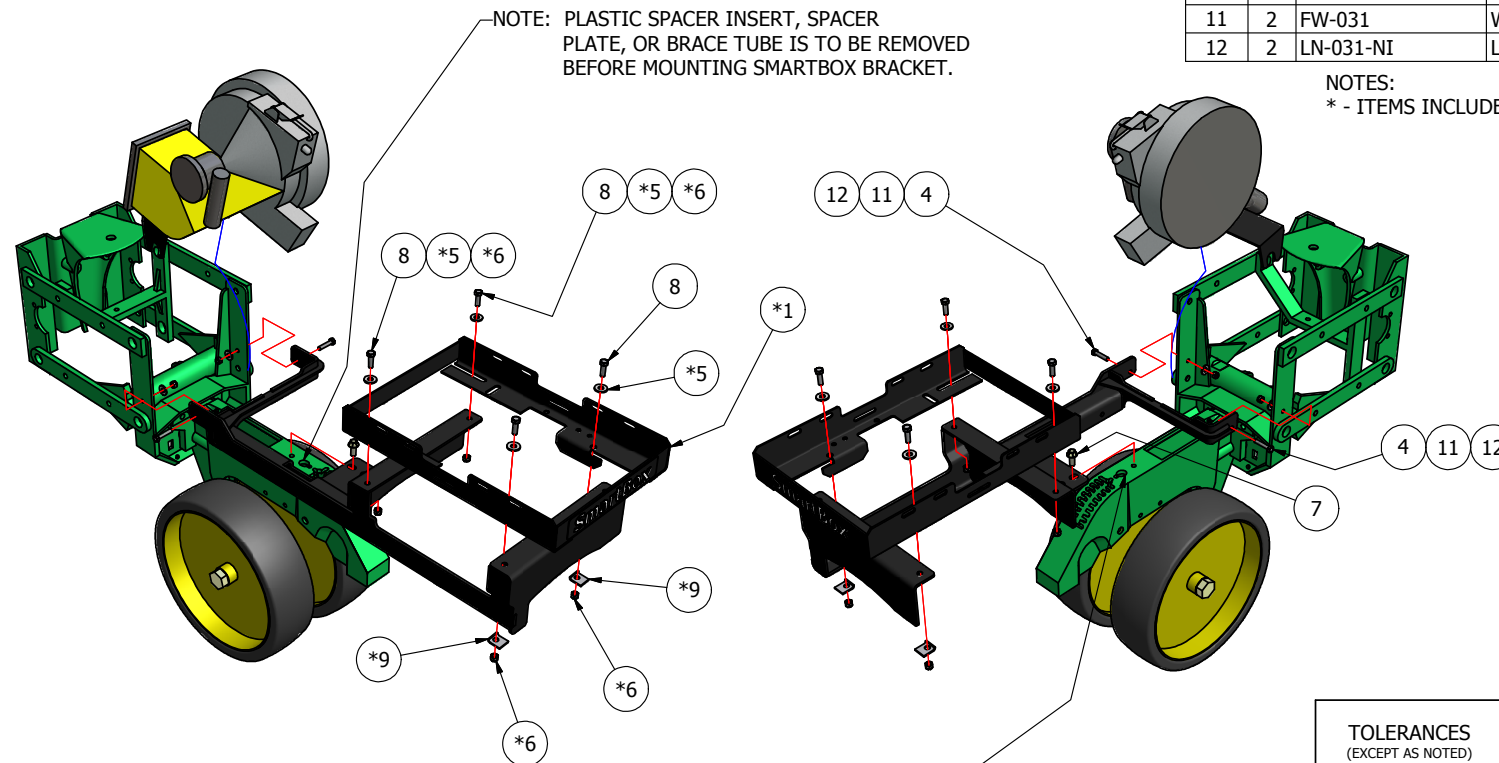
REV	DATE	DESCRIPTION	BY	ECO#
1	8/11/09	RELEASE TO PROTO	JJA	-
A	10/28/09	RELEASE TO PRODUCTION	JJA	7110

Parts List

ITEM	QTY	PART NO.	DESCRIPTION
*1	1	SBCA001	ASSY; SMARTBOX BASE CONT CRADLE
3	1	SB019650	WLDMT; XP & PRO ROW MT, GEN. II
4	2	BH-031-150-5	BOLT; 5/16 X 1.50 GRADE 5
*5	4	FW-031	WASHER, FLAT, 5/16
*6	4	LN-031-NI	LOCKNUT; 5/16" NYLON INSERT
7	1	BHF-050-125-8-YZ	BOLT, HEX FLANGE; M10 x 25 x 10.9 HRD, YZ
8	4	BH-031-100-5	BOLT; 5/16 X 1" GRADE 5
*9	2	SBC-010	CASE MOUNTING CLIP
11	2	FW-031	WASHER, FLAT, 5/16
12	2	LN-031-NI	LOCKNUT; 5/16" NYLON INSERT

NOTES:

* - ITEMS INCLUDED WITH SMARTBOX BASE ROW UNIT KIT



TOLERANCES (EXCEPT AS NOTED)

2 PLACE DECIMALS ± .06
3 PLACE DECIMALS ± .030
ANGLES ± 1°

THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF AMVAC CHEMICAL CORP. THIS DRAWING MAY NOT BE USED FOR MANUFACTURING WITHOUT THE WRITTEN PERMISSION OF AMVAC CHEMICAL CORP.



AMVAC CHEMICAL CORPORATION

DESCRIPTION
KIT; JD SINGLE ROW XP & PRO, GEN II

DWG NO SB012538

DRAWN
JJA

SIZE
B

DATE
8/11/2009

SCALE N/A

SHEET 1 OF 1

REV
A

Note: Holes may need to be drilled into the ladder bracket weldment (No. 1) in order to bolt to the stair case.

F. Remove the two bolts on each of ladder that secure the top step (recommend removing 1 at a time while installing the bracket so the step will remain in place). Using the 3/8" bolts and nuts provided (No. 3 & 6), attach the bracket to the side of the stair assembly, replacing 1 bolt at a time. Repeat for second bracket.



G. Mount the base cradle with the SmartBox[®] logo to the rear, sliding the base cradle hooks into place on the ladder bracket. Attach the base cradle to the ladder bracket using the mounting clips, bolts, washers and nuts provided (Nos. 2,4,5 & 10) in the SmartBox[®] row unit hardware. The mounting clips will be used to secure the rear of the cradle, as seen below.



H. The SmartBox[®] base container (with meter installed on base container) can now be installed.

Note: Meter attachment to the base container for the ladder mount section will need to be secured at a 90° angle so the meter nipple delivering product faces the row it is feeding. See the meter installation instructions for proper installation.

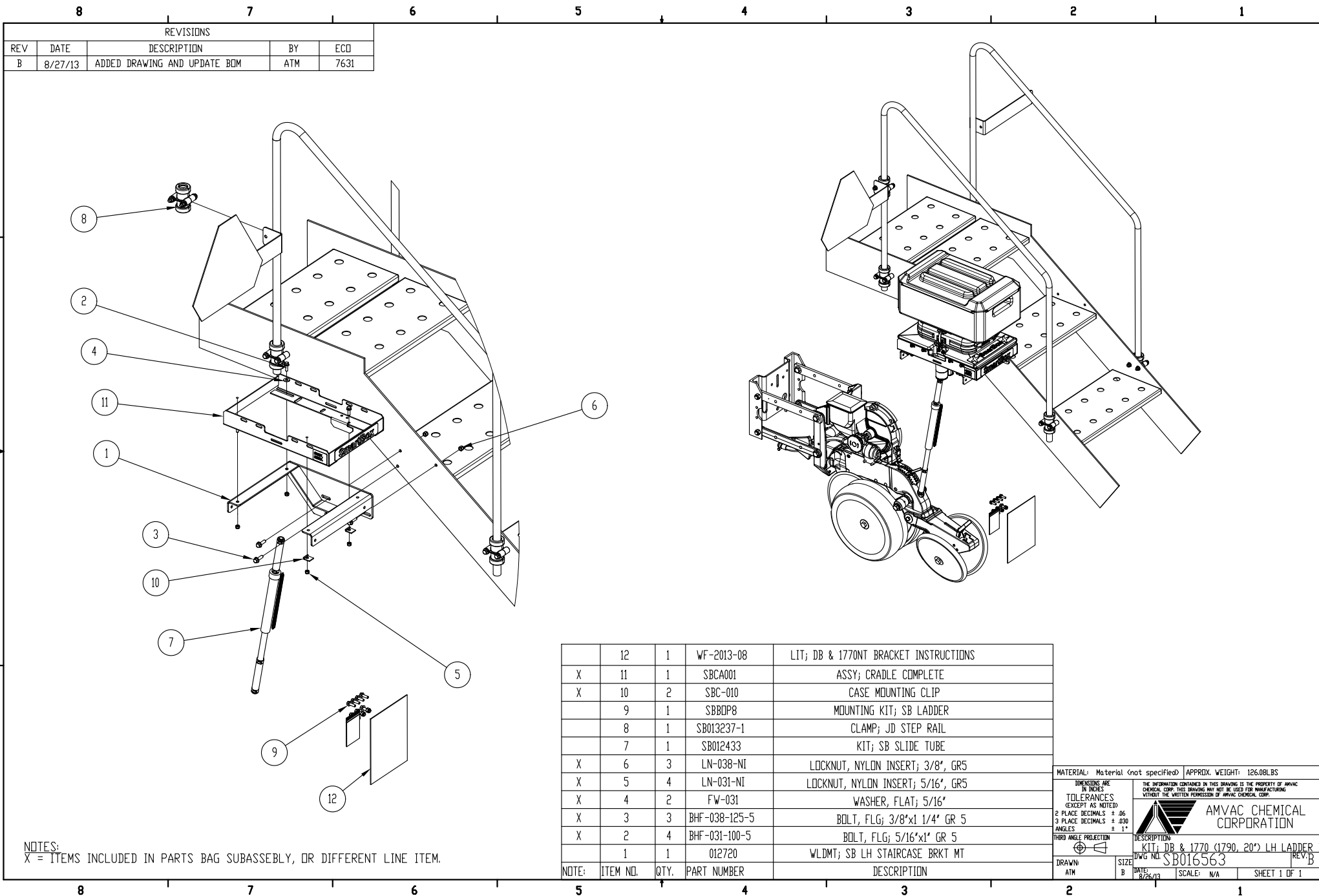


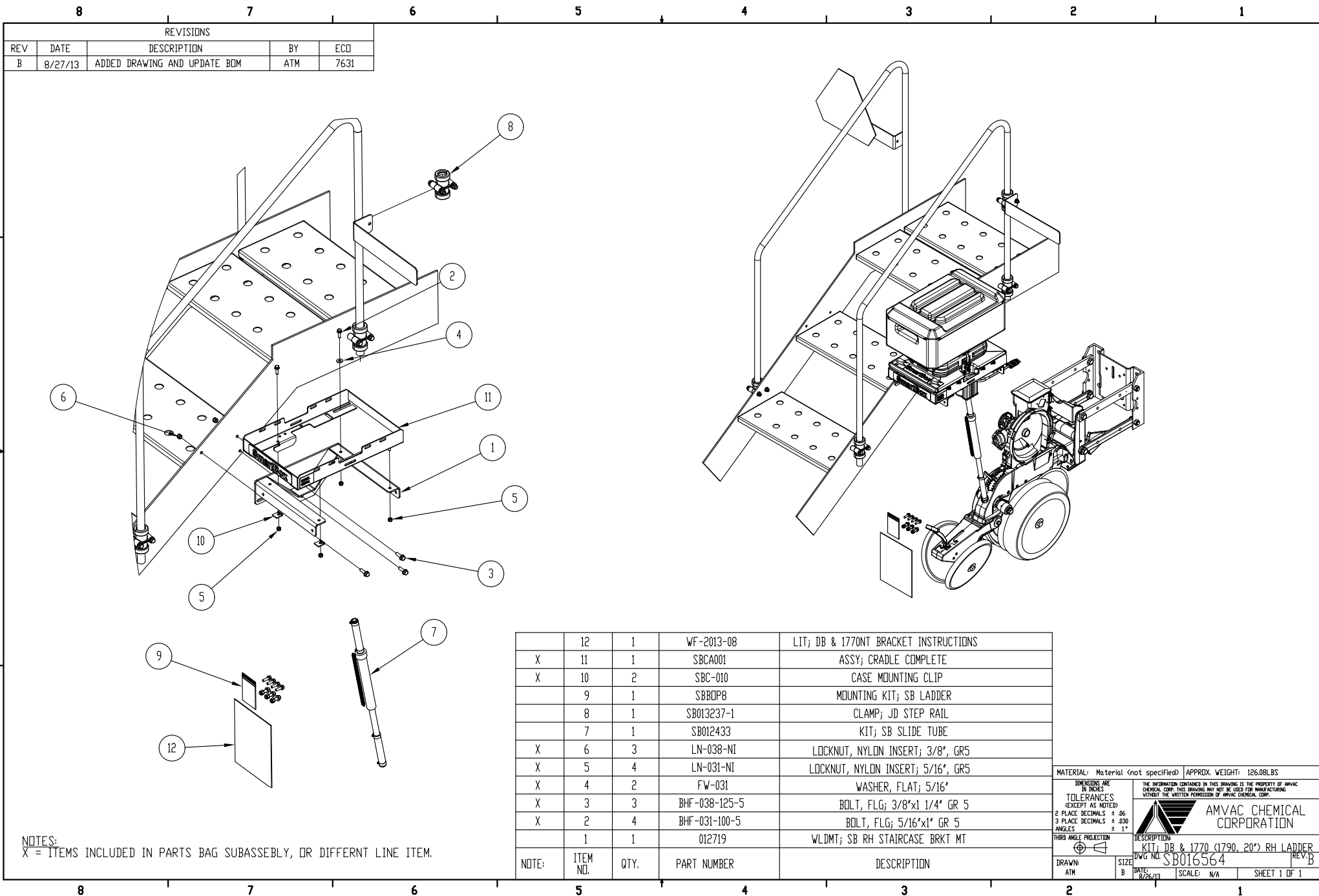
Important: After installation, check that all of the planter's required factory installed safety features are intact and fully functional. Roadway lights and reflective materials, including the SMV emblem must not be obscured. Mechanical service locks and hydraulic shutoff valves must remain functional and accessible. All safety signs must be visible and readable. Reposition the SMV sign and reflective bracket as shown below. The parts needed are provided with the hardware (No. 8).



I. Remove the SMV bracket and reflector bracket from the existing mounts. Remove the top-side handrail brackets and slide the gaskets (No. H215556) up the handrail. Reattach the handrail brackets to the stairway assembly. Attach the SMV bracket and reflector bracket to the newly installed John Deere[™] parts (No. 8). The new parts should be positioned 20-inches above the handrail brackets. Repeat on other side.







Installation Instructions for JD Slide Tube Assembly

(for Ladder Mount SmartBox[®] -mounts on 1790 (24/20"), 1770NT & DB planters)

The Slide Tube Assemblies are used with the Ladder Mount Brackets for the center rows only on John Deere CCS-type planters (*i.e.* 1770, 1790, DB). The Rear Row Mount Brackets cannot be used on these center rows as the planter's ladder/stairway would interfere with the SmartBox chemical transfer containers.

Begin the installation process with the planter being placed and secured in the raised position. Attach the SmartBox Ladder Mount Brackets, base row units (*with meters attached*), and in-furrow drop tubes.

Next, cut two (2) $\frac{3}{4}$ " long each pieces of the $\frac{1}{2}$ " inside diameter (ID) hose. Place one (1) of these hose pieces onto the SmartBox meter nipple, and the other piece onto the material inlet opening of the in-furrow drop tube.

Then cut an approximate 7" long piece of the $\frac{3}{4}$ " ID hose. Slide one end of this hose over the $\frac{1}{2}$ " ID hose that has been placed onto the meter nipple and secure with a hose clamp. Slide the other end of this 7" long hose over the SLIDE TUBE, BONDED LONG and secure with a hose clamp.

Attach the remaining $\frac{3}{4}$ " ID hose to one end of the TUBE MID; PVC LONG and secure with a hose clamp. (*This hose will be cut to length and clamped later.*)

Place a mark on the opposite end of the TUBE MID; PVC LONG approximately $\frac{3}{4}$ " from the end. Place this marked end up into the SLIDE TUBE, BONDED LONG.

Hook one end of the spring to the hose clamp found on the top of the TUBE MID; PVC LONG and the other end of the spring to the hose clamp found on the bottom of the SLIDE TUBE, BONDED LONG.

Now extend the TUBE MID; PVC LONG so that only the $\frac{3}{4}$ " marked end is sticking into the SLIDE TUBE, BONDED LONG. (*This represents the maximum extension of the Slide Tube Assembly.*)

While holding the slide tubes in this manner, mark and cut the length of $\frac{3}{4}$ " ID hose and attach to the in-furrow drop tube with a clamp.

Please refer to the attached Drawing No. SB012433: **KIT; SB SLDE TUBE.**



