

Case IH 1250 - 12/16/24 Row Planter Scale

Instructions
And
Repair Parts

Panningen, The Netherlands

www.digi-star.com

D3870-US Rev B August 26, 2011



TABLE OF CONTENTS

INTRODUCTION	
Charging Battery and Welding	1
SCALE KIT MOUNTING INSTALLATION - 12, 16 ROW.	2
Front Load Cell	3
Right Side View	4
Rear Load Cell	
Rear Scale Mount Components	6
Junction Box	6
SCALE KIT MOUNTING INSTALLATION - 24 ROW	
Right/Left Load Cell Bracket	7
Front Bracket	
Rear Load Cell and Bracket	
JUNCTION BOX MOUNTING	
Connect Load Cell and J-Box Cable	
Installing wires into Terminal Block	
INDICATOR MOUNTING	
Power Connection:	
Load Cell Connection:	
TROUBLE SHOOTING	
How to Check the Drill Scale after Installation	12
REPAIR PARTS	
406429 Kit – Scale CNH1250, 12, 16 Row	
406467 Kit – Scale CNH1250, 12, 16 Row, Indicator in Tractor Cab	
406306 Kit – Scale CNH1250, 24 Row	
406307 Kit – Scale CNH1250, 24 Row, Indicator in Tractor Cab.	
INDICATOR SWIVEL MOUNT	
LICENSE AGREEMENT	16

All rights reserved. Reproduction of any part of this manual in any form whatsoever without Digi-Star's express written permission is forbidden. The contents of this manual are subject to change without notice. All efforts have been made to assure the accuracy of the contents of this manual. However, should any errors be detected, Digi-Star would greatly appreciate being informed of them. The above notwithstanding, Digi-Star can assume no responsibility for errors in this manual or their consequence.

© Copyright! 2008 Digi-Star, Fort Atkinson (U.S.A.).



INTRODUCTION

Congratulations on the purchase of your new Digi-Star Planter Scale for Case IH 1250 planter in 12/16/24 rows.

The scale system is specially designed to weigh the bulk-fill seed hopper. The scale will record and monitor seed weight going into or out of the central hopper.

This scale system is covered by the following US patents: 6732667, 7059258 and 7273017. The single-use license is included with this document (see page 16).

This SAFETY ALERT SYMBOL indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of PERSONAL INJURY and carefully read the message that follows.

AWARNING NEVER OPERATE WITHOUT ALL COVERS, SHIELDS AND GUARDS IN PLACE. KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

Some covers and guards have been removed for illustrative/photographic purposes only in this manual.

For information on ordering repair parts, refer to Parts Section in this book.

This supersedes all previous published instructions.

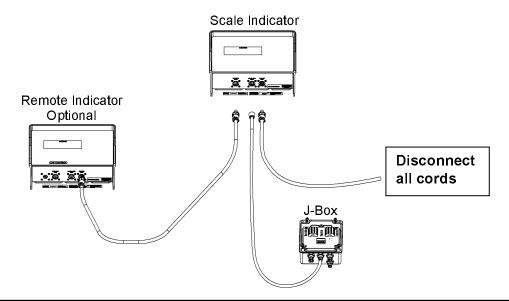


Important!

Charging Battery and Welding

Disconnect all cables from the weighing indicator before charging the battery or welding on the machine. If cables are left connected, the weighing indicator and connected load cells could be damaged.

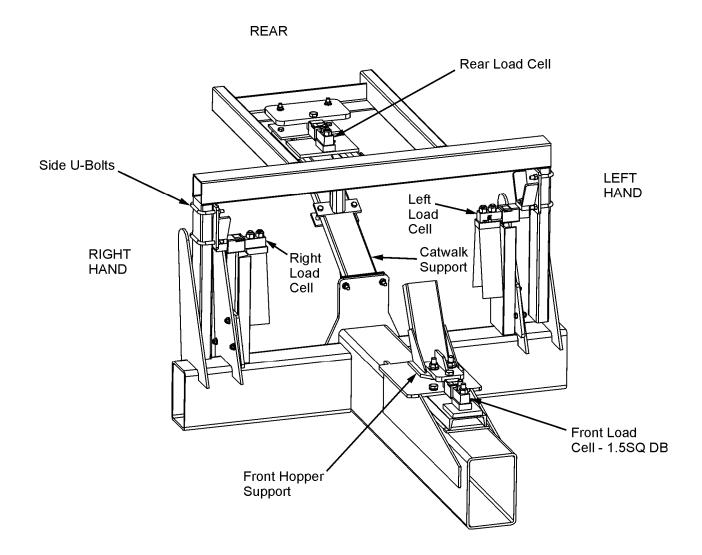
Important: Do not weld near indicator, load cells or cables; remove from area to be welded. Place ground close to area to be welded to prevent current from passing through electronic parts.





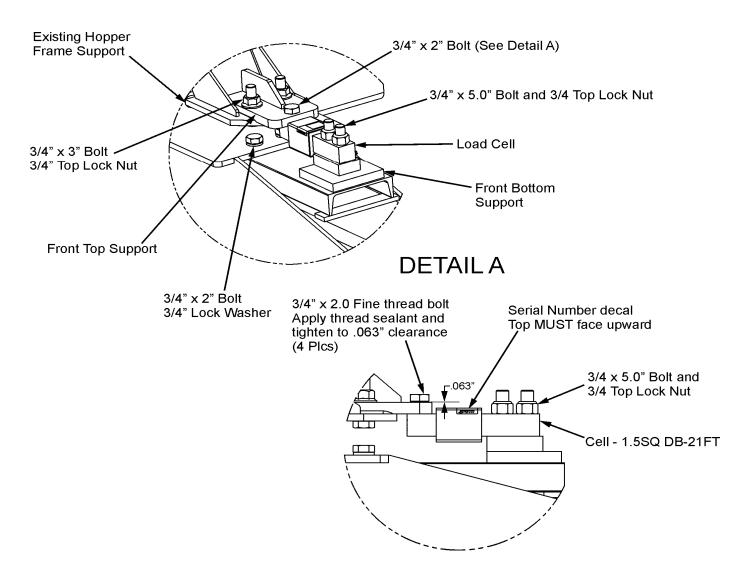
SCALE KIT MOUNTING INSTALLATION - 12, 16 ROW

The Case IH-12, 16 Row Scale Kits requires mounting four load cells. The illustration below highlights the location of each load cell.





Front Load Cell

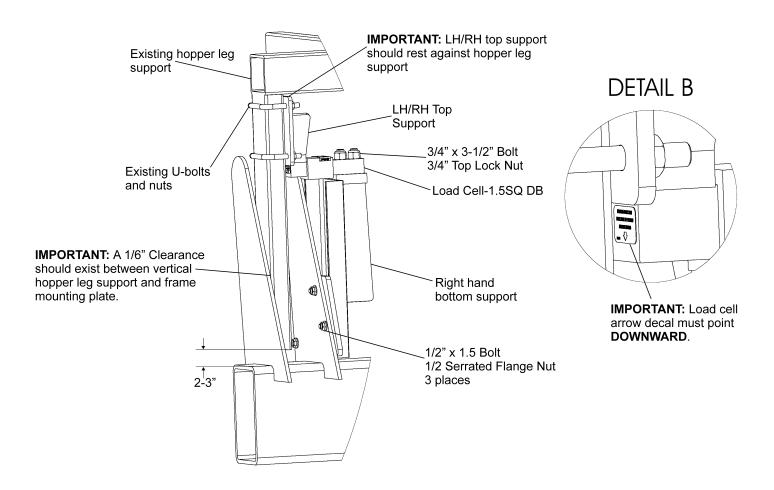


- 1. Remove the three bolts that hold the front hopper support to the frame and the U-bolts on the left and right hand side legs. Loosen but **DON'T** remove the bolts on the top of the support that holds the catwalk.
- 2. Jack the front up so that the front seed hopper support is off of the frame 2-3 inches.

 IMPORTANT: The lift chains, bucket attachment, loader/skid steer, winch or jack must be capable to lifting and controlling 1000 lbs.
- 3. Install load cell to front bottom support with 3/4" x 5.0" bolts. Keep bolts loose. **IMPORTANT:** Load cell decal MUST face **UPWARD**.
- 4. Install front bottom support under slot in frame with three 3/4" x 2" bolt and 3/4" lock washer. Keep bolts loose.
- 5. Install front top load cell support to existing hopper front frame support with two 3/4" x 3" bolt and 3/4" top lock flange nut. Secure front top support to load cell with 3/4" x 2" fine threaded bolt. Apply thread sealant and tighten to 1/16" clearance. See Detail A.
- Align all supports and load cell and tighten all hardware.



Right Side View



7. Raise hopper leg support 2-3" and mount right hand top support to hopper leg support with two existing U-bolts and nuts.

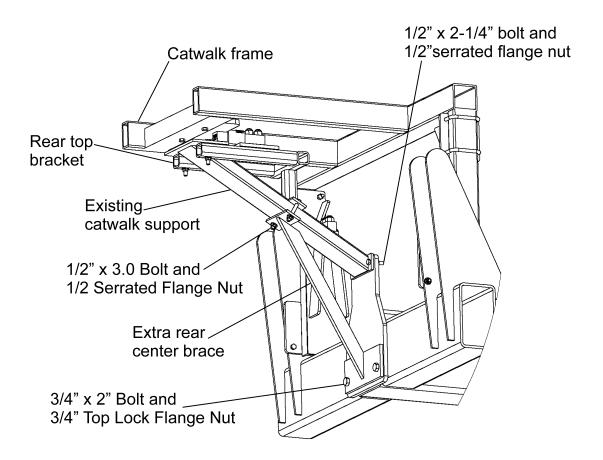
Note: Top support should rest against hopper leg support.

- 8. Mount right hand bottom support to inner planter frame plate with 1/2" x 1.5 bolt and 1/2" serrated flange nut.
- 9. Mount load cell to right hand bottom support with 3/4" x 3-1/2" bolt and 3/4" top lock nut. **IMPORTANT: Make sure the arrow on the end of the load cell is pointed down.** Mount short load cell end (side with single mounting hole) to top support with 3/4" x 2.0 fine thread bolt. Apply thread sealant and tighten to 1/16" clearance. See Detail A on page 3.
- 10. Align all supports and load cell and tighten all hardware.
- 11. Repeat for left hand side.



Rear Load Cell

- 12. Remove two bolts that hold the existing catwalk support to catwalk frame. Raise catwalk two inches.
- 13. Mount load cell mounting plate to top side of catwalk angle iron frame with 1/2" x 2-1/4" bolt and 1/2" serrated flange nut. Tighten hardware. See Detail C on page 6.

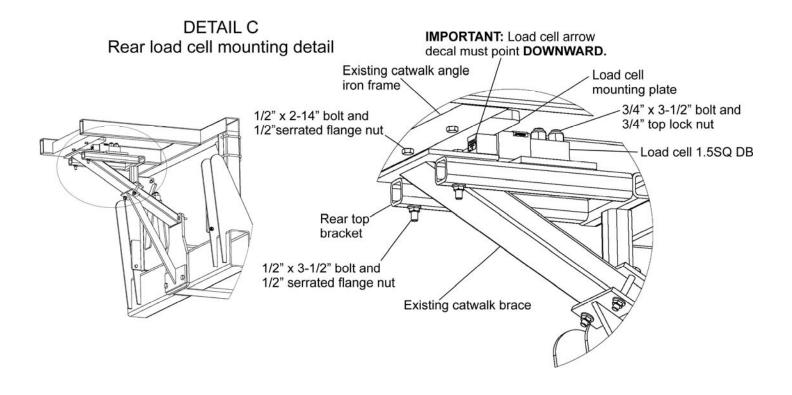


- 14. Mount rear top bracket to existing catwalk brace with 1/2" x 3-1/2" bolt and 1/2" serrated flange nut. Leave hardware loose.
- 15. Mount extra rear center brace to bottom existing catwalk brace with 1/2" x 3.0 bolt and 1/2" serrated flange nut.
- 16. Mount Load Cell-1.5SQ DB to rear top bracket with 3/4" x 3.0 bolt and 3/4" top lock nut.

 MPORTANT: Make sure the arrow on the end of the load cell is pointed down. Mount short load cell end (side with single mounting hole) to load cell mounting plate with 3/4" x 2.0 fine threaded bolt. Apply thread sealant and tighten to 1/16" clearance. See Detail A on page 3.
- 17. Align all supports and load cell and tighten all hardware.

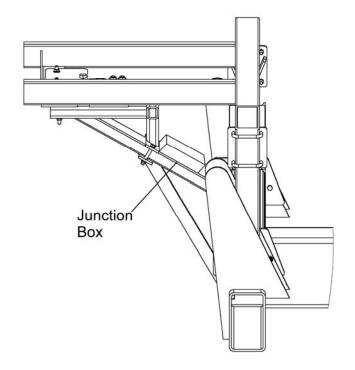


Rear Scale Mount Components



Junction Box

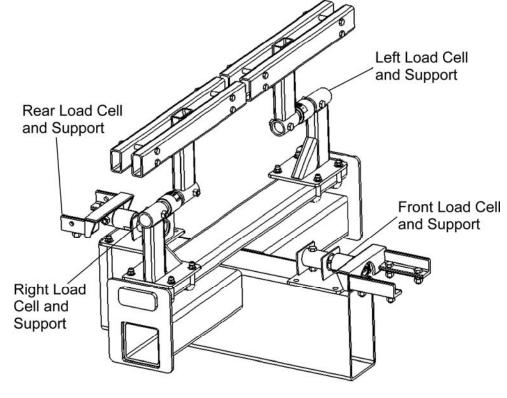
- Clean the area thoroughly and let dry.
- Peel the adhesive tape off and press on.
 Press firmly for at least 30 seconds.
- Run the wires from the weigh bars in a safe spot where they cannot get pinched or rubbed. If possible run the wires along with other wires or hoses on the planter.
- Mount the indicator on the rear catwalk tubing where it is most convenient. Make sure wires are protected from being pinched or rubbed.



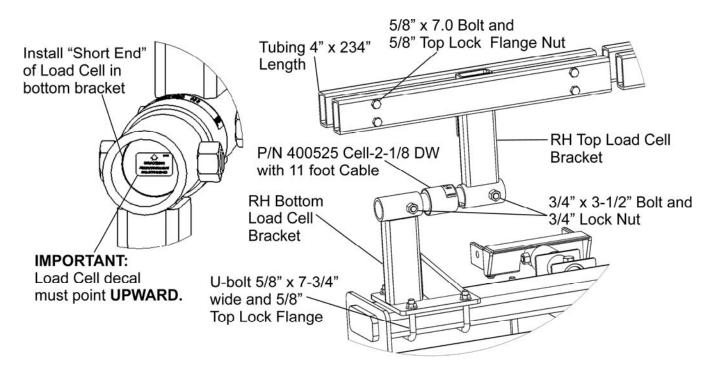
SCALE KIT MOUNTING INSTALLATION - 24 ROW

The Case-IH-24-Row Scale Kits requires mounting four load cells. The illustration below highlights the location of each load cells.

- Remove the one U-bolt on the bracket which sits between the steps and the main planter frame on the rear of the planter.
- 2. Loosen the U-bolts on the front leg bracket located between the front of the hopper and the main frame.
- 3. Loosen the bolt on the two left brackets that are located under the catwalk.
- 4. Remove the bolts on the two right leg brackets.
- Lift up the two right legs about 1-1/2".
 IMPORTANT: The lift chains, bucket attachments, loader/skid steer, winch or jack must be capable of lifting and controlling 1000 lbs.



Right/Left Load Cell Bracket

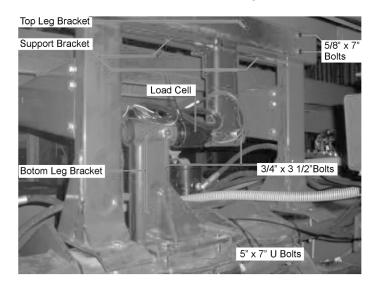




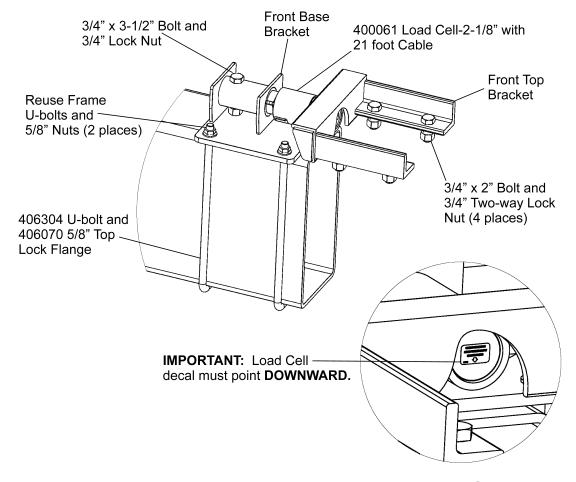
6. Mount RH bottom bracket with supplied U-bolts 5/8" x 7-3/4" and 5/8" top lock flange. Insert part number 400525 Cell-2-1/8" DW with 11 foot cable into bottom bracket and secure with 3/4" x 3-1/2" bolt and 3/4" lock nut. The short end of load cell is installed in the bottom bracket; the long end is installed

in the top bracket. **IMPORTANT:** Load cell arrow decal must point **UP**.

- 7. Bolt the top load cell bracket and support bracket together. With 5/8" x 7.0 bolt and 5/8" top lock flange nut. The two existing planter frame legs are bolted between the top bracket and 4 x 2 x 34" tubing. The top bracket needs to be adjacent to the frame under the catwalk.
- 8. Repeat the same procedure for the left side load cell.



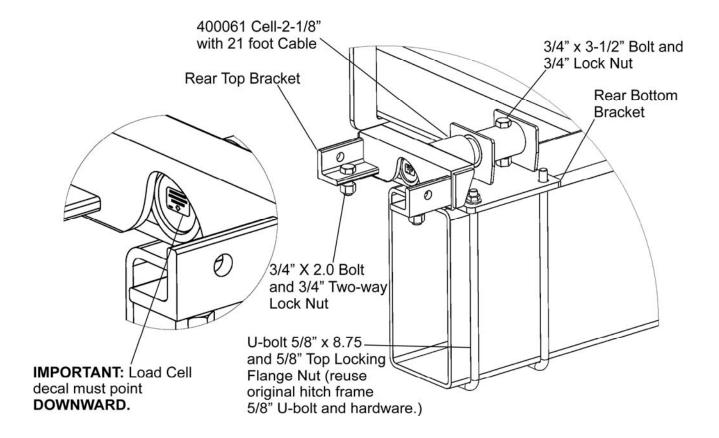
Front Bracket



Front Load Cell Detail

- 9. Remove the U-bolt on the front bracket and lift up the hopper 1-1/2".
- 10. Bolt front top bracket to existing front hopper leg using 3/4" x 2" bolt and 3/4" two-way lock nut.
- 11. Install load cell (part number 400061) to the front base bracket using 3/4" x 3-1/2" bolt and 3/4" lock nut. Make sure arrow load cell decal is pointing **downward** (See Front Load Cell Detail). Install the short load cell end to the front top bracket using 3/4" x 3-1/2" bolt and 3/4" lock nut. Reuse frame U-bolts and 5/8" nuts.

Rear Load Cell and Bracket



12. Install rear brackets in the same manner as the front brackets. Use one existing 5/8" U-bolt, plus one new 5/8" x 8.75 U-bolt and 5/8" top lock flange nut to bolt the rear base bracket to planter main frame. Install rear top step bracket with 3/4" x 2.0 bolt and 3/4" two way lock nut. Install 400061Load Cell-2-1/8" DB with 3/4" x 3-1/2" bolt and 3/4" lock nut. Make sure load cell decal must point **downward**.

D3870-US Rev B Case IH Planter Scale 9



JUNCTION BOX MOUNTING

The junction box is water resistant, not water-proof. It should be mounted to avoid submersion during wet weather and to avoid physical abuse. The junction box can be mounted on the front or rear of the drill, planter or seeder. All load cell cables must reach the J-Box. Install by removing the double sided tape backing and apply to cleaned surface.

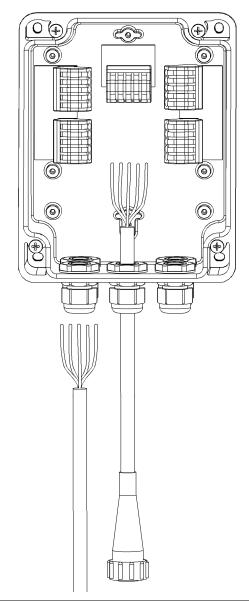
Connect Load Cell and J-Box Cable

- 1. Route front and rear load cell cables to J-box location. Make sure they are not bound or pinched. Cable tie (customer provided) load cell cables in place.
- 2. Insert load cell and J-box cables through each of the water-tight strain-reliefs.
- 3. Remove each terminal block from the J-box.
- 4. Connect wires of the same color to the same terminal block. See instructions below.
- 5. Install terminal block into the J-box as shown (location not important).
- 6. Tighten nuts on the water-tight strain-reliefs.
- 7. Assure that gasket is properly installed in the cover.
- 8. Attach cover using 4 screws (provided).

Installing wires into Terminal Block

- 1. Open levers 90° to locked position.
- 2. Insert individual wires into terminal.
- Close lever.
- 4. Tug wire to assure solid connection.

Note: Wire strip length is 7/16" (11mm).



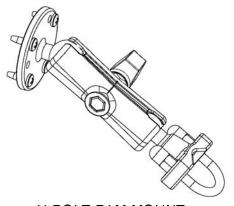
406232	J-Box Lever Nut 4Pt (Planter)
141837	Cable - 30Ft J-Box
406074	Cable - 45Ft J-Box
403335	Cable - Power 17Ft 2-Wire
406073	Cable - Power 36Ft 2-Wire
406072	Cable - Power 6Ft 2-Wire
824316	Cable - 15Ft-J-Box
145096	Cable - 70Ft-J-Box
406276	Cable – Power 65Ft 2-Wire

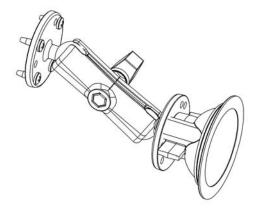


INDICATOR MOUNTING

The scale indicator can be mounted in the tractor cab or on the planter with swivel mounting pack (406629). Depending on which kit you purchase, two cables must be connected to the indicator bottom panel, J-Box and power cables. Refer to Indicator Manual D3831-US for details of indicator mounting options and connection of power cord.

INDICATOR MOUNTINGS





U-BOLT RAM MOUNT

TRACTOR CAB MOUNTING

- 1. Bolt the readout in the cab, or mount the swivel bracket on the drill, planter or seeder.
- 2. Install power cord to a 12-volt negative ground battery.
- 3. Route J-box cable to indicator and install to indicator bottom panel.
- 4. Program indicator with set-up #125040 and calibration #32000 (see Indicator Manual) for Case IH 24 Row; set-up #145016 and calibration #15000 for Case IH 12/16 Row.

Power Connection:

The power cable should be connected directly to a vehicle battery or regulated power supply. The scale end of the power cable is attached to the J901 connector located on the bottom panel of the indicator.

Connect the RED wire from the power cable to +12 VDC and the BLACK wire to GROUND. The indicator is fused internally at 4 amps.

Power Cable Connections:

Wire color	Wire Function			
Red	Battery (+12 VDC)			
Black	GROUND			

Load Cell Connection:

The indicator is designed to operate with strain gage load cells. The indicator will normally be supplied with a "J-BOX" cable going between the scale and the load cell junction box. <u>Extension kits</u> are available from your dealer in various lengths.

Load Cell Wire	Digi-Star	Function
1	RED	+EX
2	GREEN	-SIG
3	WHITE	+SIG
4	BLACK	-EX
5	CLEAR	SHIELD



TROUBLE SHOOTING

How to Check the Drill Scale after Installation

For the first test, lift the drill, planter or seeder all the way up, to a level area. Put 200-250 pounds of weight on the right side, then compare it to the left. Both sides should be within four to six pounds of each other.

 If the weight is not within the four to six pound range, inspect the scale system for loose or misalign mounts.

The second test is to lift the drill, planter or seeder to a level area and zero the scale. Lift the drill/planter/seeder up and down two to three times, checking to see if the scale zeros out. Each time the scale is in the up position, it should be within four to six pounds.

If further assistance is necessary, please call Digi-Star, LLC at 920-563-9700.

***The example we are using is 2000 lbs of seed evenly filled in both hoppers. There is 25 lbs of seed left from the last fill.

Push the "Start" button. The screen will show zero, and the arrow is now pointing to "Net" on the screen. This is a temporary zero point to start loading the planter with seed. You will now fill 1000 lbs of seed into the left hopper.

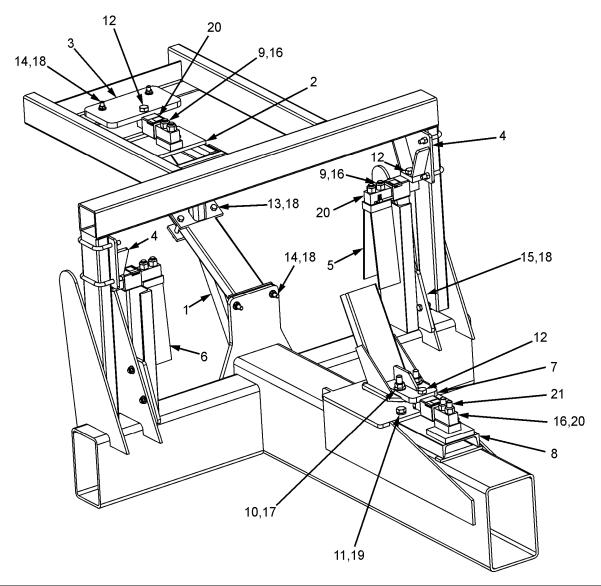
Push the "Stop" button, the readout now reads 1025 lbs of seed inventory.

Push the "Start" button again. The screen will say zero again. Load another 1000 lbs of seed into the right side.

Now push "Stop" and the screen will read 2025 lbs of seed. The number will decrease as the seed is planted.

REPAIR PARTS

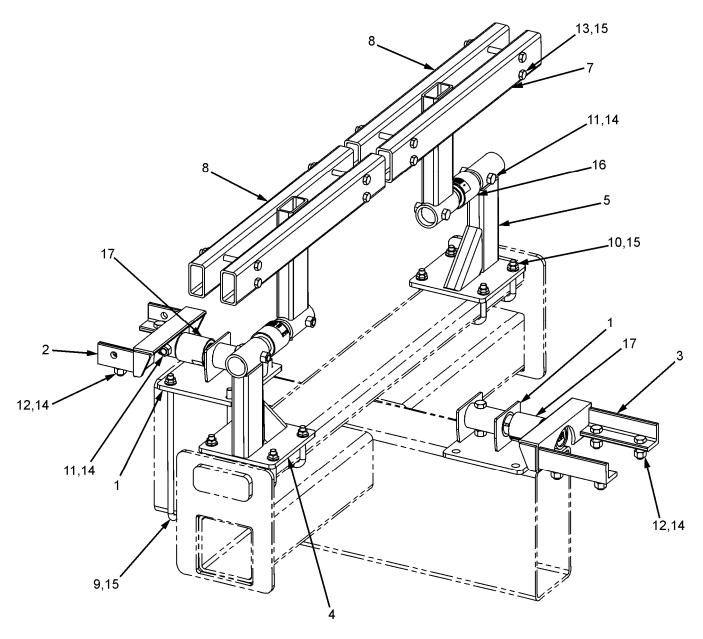
406429 Kit - Scale CNH1250, 12, 16 Row 406467 Kit - Scale CNH1250, 12, 16 Row, Indicator in Tractor Cab



KEY	QTY.	PART NO.	DESCRIPTION		QTY.	PART NO.	DESCRIPTION
1	1	406417	Weld – Rear Center Brace (CNH1250)	12	4	406067	Scr – 3/4 -16 x 2.0 HHCS Grd 5 ZP
2	1	406421	Weld – Rear Top Bracket (CNH1250)	13	4	406458	Scr – 1/2 -13 x 3.5 HHCS Grd 5 ZP
3	1	406430	Plate – LC Mount 3/4"	14	4	405854	Scr - 1/2 -13 x 2-1/4 HHCS Grd 5 ZP
4	2	406434	Weld – LH/RH Top Support (CNH1250)	15	6	406459	Scr – 1/2 -13 x 1.5 HHCS Grd 5 ZP
5	1	406448	Weld – LH Side Support (CNH1250)	16	8	405921	Nut – 3/4-10 Top Lock ZP
6	1	406449	Weld – RH Side Support (CNH1250)	17	4	405988	Nut – 3/4-10 Top-Lock Flange ZP
7	1	406431	Weld – Front Top Support (CNH1250)	18	14	406085	Nut – 1/2-13 Ser Flange ZP
8	1	406438	Weld – Front Bottom Support (CNH1250)	19	3	405273	Washer – 3/4 Split Lock ZP
9	6	406068	Scr – 3/4-10 x 3.5 HHCS Grd 8 ZP	20	4	404284	Cell – 1.5 Sq. DB-21 Ft
10	2	405272	Scr – 3/4-10 x 3.0 HHCS Grd 5 ZP	21	2	405937	Scr – 3/4 x 5.0 HHCS ZP Grd 5
11	5	406301	Scr = 3/4-10 x 2 0 HHCS Grd 5 ZP				



406306 Kit - Scale CNH1250, 24 Row 406307 Kit - Scale CNH1250, 24 Row, Indicator in Tractor Cab



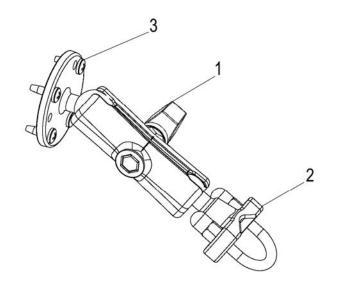
KEY	QTY.	PART NO.	DESCRIPTION		QTY.	PART NO.	DESCRIPTION
1	2	406295	Weld – Rear Base Bracket (CNH 1250)		4	406305	U-Bolt 5/8-11 x 7.75W x 4.5L
							Grd 5 Zp
2	1	406288	Weld – Rear Top Bracket (CNH 1250)	11	8	406068	Scr 3/4-10 x 3.5 HHCS Grd 8 ZP
3	1	406289	Weld – Front Top Bracket (CNH 1250)	12	6	406301	Scr 3/4-10 x 2.0 HHCS Grd 5 ZP
4	1	406278	Weld – RH Bottom Bracket (CNH 1250)	13	8	406302	Scr 5/8-11 x 7.0 HHCS Grd 5 ZP
5	1	406277	Weld – LH Bottom Bracket (CNH 1250)	14	14	406303	Nut 3/4-10 2-Way Lock ZP
6	1	406283	Weld – RH Top Bracket (CNH 1250)	15	18	406070	Nut 5/8-11 Top-Lock Flange ZP
7	1	406284	Weld – LH Top Bracket (CNH 1250)	16	2	400525	Cell - 2.125 DB
8	2	406335	Tube – Rect Support 34" Red	17	2	400061	Cell – 2-1/8 DB Pin H - 4140
9	1	406304	U-Bolt 5/8-11 x 8.75W x 17.5L Grd				

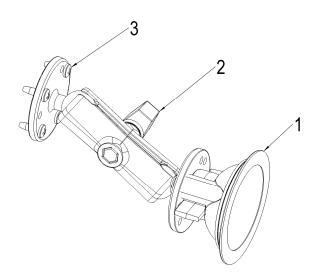


INDICATOR SWIVEL MOUNT

406629 - 1" Ram Mount with U-Bolt Mount

406385 - 1" Ram Mount with Suction Cup





406629					
KEY	QTY.	PART NO.	DESCRIPTION		
1	1	403180	Assembly – 1" Ram Mount		
2	1	403179	Mount Base – 1" Ball U-Bolt		
3	4	403779	SCR #10 x 5/8" PHSTS 48-2 Blk ZP		

	406385					
KEY	KEY QTY. PART NO. DESCRIPTION					
1	1	404230	Ram Suction Cup with Twist Lock			
2	1	403180	Assembly – 1" Ram Mount			
3	4	403779	Scr - #10 x 5/8 PHSTS 48-2 Blk ZP			



LICENSE AGREEMENT

IMPORTANT NOTICE: Acceptance and use of the enclosed electronic scale products (hereinafter referred to as "Purchased Product") constitutes your agreement to the following terms and conditions. Please carefully read the following terms and conditions before using or reselling the Purchased Product.

- Limited License. Digi-Star, LLC, a Wisconsin limited liability company ("Owner") is the owner of the following U.S. Patents related to grain 6,732,667, 7,059,258, 7,273,017, 7,357,087, 7,448,335, 7,523,710 and any other patents which result from continuation applications thereof ("Patents"). Owner hereby grants to the customer ("Customer") a non-exclusive, non-transferable, revocable, limited license to use the technology described in the Patents to use the Purchased Product to assemble a seed planter product covered by the Patents ("Licensed Product"), and to sell and offer for sale one (1) unit of the Licensed Product in accordance with the terms and conditions set forth herein. Alternatively, Customer may resell the Purchased Product to another entity for the purpose of that entity assembling one (1) unit of a Licensed Product under a permitted sublicense from the Customer with the same terms as this Agreement. If Customer would like to assemble, use, sell or offer for sale more than one (1) Licensed Product, or resell more than one (1) Purchased Product, Customer understands and agrees that it must purchase another Purchased Product from Owner or acquire a separate license by requesting and purchasing another unit of the same SKU number that resulted in this purchase.
- Acceptance of Terms and Conditions. Customer warrants that it has the authority to enter into this binding agreement. If Customer does not accept the terms and conditions, Customer shall not use the Purchased Product. Customer understands and agrees that if it uses the Purchased Product as permitted herein, it will be deemed to have accepted these terms and conditions and they shall become a binding agreement.
- <u>Limitations on Use</u>. Customer agrees that it will use the Licensed 7. Product only as expressly authorized in this Agreement, and that any use not expressly authorized in this Agreement is prohibited. Customer agrees that it will not: (i) loan, rent, lease, assign, sublicense, distribute or otherwise transfer its rights under this Agreement to a third party, other than to resell the Purchased Product to another entity for the purpose of that entity assembling one unit of a Licensed Product; (ii) copy or reproduce the Licensed Product; or (iii) grant any sublicenses other than to an end user of the Licensed Product, or to another entity for the purpose of that entity assembling one unit of a Licensed Product. Customer agrees to use reasonable efforts to prevent any unauthorized use or copying of the Licensed Product and will notify Owner 9. immediately upon learning of any such unauthorized use or copying. Customer's obligations under this section shall survive any termination of this Agreement or the license granted hereunder. Any unauthorized use of the Licensed Product will result in, among other things, the immediate termination of this license.
- 4. Ownership of Proprietary Rights. Customer acknowledges that the Licensed Product is covered intellectual and/or proprietary rights, and that all such intellectual and proprietary rights are owned by Owner. Customer hereby acknowledges that it has no rights in the foregoing except as expressly granted herein.
 - NO WARRANTY. Customer agrees to fully test and evaluate the Purchased Product and Customer acknowledges and agrees that Owner will not assume any product liability or any other

- liability for the Purchased Product or the Licensed Product. The Purchased Product is furnished to Customer "AS IS." Except as otherwise provided by separate documentation, OWNER MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PURCHASED PRODUCT. Customer agrees that Owner shall have no liability resulting from Customer's use of the Purchased Product for any indirect damages including consequential, incidental or special damages for loss of profit, good will or otherwise. Customer shall indemnify and hold Owner harmless from any and all losses, expenses, damages, costs or expenses of any kind, including but not limited to reasonable attorneys' fees, incurred by Owner resulting from Customer's use of the Purchased Product. NO ORAL OR WRITTEN STATEMENTS MADE BY OWNER OR ITS EMPLOYEES INCLUDING BUT NOT LIMITED TO STATEMENTS REGARDING CAPACITY, SUITABILITY FOR USE, OR PERFORMANCE OF THE PURCHASED PRODUCT SHALL BE DEEMED A WARRANTY OR REPRESENTATION BY OWNER FOR ANY PURPOSE NOR GIVE RISE TO ANY LIABILITY OR OBLIGATION OF OWNER
- 5. Remedies for Violations. Owner reserves the right to seek all remedies available at law and in equity for violations of this Agreement, including but not limited to the right to recover the Licensed Product.
- Fees. In consideration for the rights granted under this Agreement, Customer has paid a license fee that was included in the amount invoiced to the Customer for the sale of the Purchased Product.
- 8. Entire Agreement. Except as expressly stated herein to the contrary, this Agreement constitutes the entire agreement between the parties regarding the subject matter hereof, and no verbal or written prior statements or representations of any sort made by any party shall be effective or valid for any purpose whatsoever. This Agreement may be amended only upon the mutual consent of all parties in writing.
- 9. <u>Severability</u> If any provision of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. The failure of any party to enforce any provision of this Agreement shall not be considered a waiver thereof, nor shall such failure prevent the future enforcement of any such provision.
- 10. Governing Law. This Agreement and the relationship between the parties shall be governed in all respects by the laws of the State of Wisconsin and the United States of America. The parties consent to the jurisdiction and venue of the Wisconsin and United States courts located in Wisconsin for resolution of any dispute under to this Agreement.

Use or sale of the Licensed Product or of Purchased Product shall bind Customer to all terms and conditions herein without the necessity of signatures on this Agreement.