Note: Indented items indicate parts included in an assembly listed above		Quantity by Model					
Part Name/Description	**Part Number**	**1640**	**1644**	**1660**	**1666**	**1680**	**1688**
Instruction Kit – CaseIH 16xx	**2005200-2**	**1**	**1**	**1**	**1**	**1**	**1**
Flow Sensor – 16xx/21xx/23xx	**2000518**	**1**	**1**	**1**	**1**	**1**	**1**
Header Sensor - Standard	**2000322-1**	**1**	**1**	**1**	**1**	**1**	**1**
Arm Assembly (18" rod, S-hook, chain, spring)	**2000311-2**	**1**	**1**	**1**	**1**	**1**	**1**
Flow Sensor Template – 1640/1660/xx44/xx66	**2000521-1**	**1**	**1**	**1**	**1**		
Flow Sensor Template – 1680/xx88	**2000521-2**					**1**	**1**
Elevator Deflector – 1640/1660/xx44/xx66	**2000232-1**	**1**	**1**	**1**	**1**		
Elevator Deflector – 1680/xx88	**2000232-2**					**1**	**1**
Lower Adjuster	**2000254-2**	**1**	**1**	**1**	**1**	**1**	**1**
Boot Side Cover	**3100431**	**1**	**1**	**1**	**1**	**1**	**1**
Cable Kit – 16xx	**2001213**	**1**	**1**	**1**	**1**	**1**	**1**
Cab cable – 11-1/2 ft.	2000402-2	1	1	1	1	1	1
Distribution cable	2000403-1	1	1	1	1	1	1
Flow sensor cable – 20 ft.	2000406-9	1	1	1	1	1	1
Ground speed cable – 8 ft.	2000407-3	1	1	1	1	1	1
Elevator speed cable – 10 ft.	2000408-2	1	1	1	1	1	1
System power cable	2000452-4	1	1	1	1	1	1
Cable inst. kit	2000901-3	1	1	1	1	1	1
Drill bit – 5/16 in.	2001000-31	1	1	1	1	1	1
Hex head cap screw – 5/16 x 3/4 in.	2002001-31075	4	4	4	4	4	4
Hex serrated flange nut – 5/16 in.	2002057-31	4	4	4	4	4	4
Alcohol swab pack	2002811	2	2	2	2	2	2
Gray plastic cable clamps	2002812	6	6	6	6	6	6
Cable tie – 15 in.	2002817-15	10	10	10	10	10	10
Cable tie – 6 in.	2002817-6	50	50	50	50	50	50
Adhesive mounting base – 2 way	2002821-2	6	6	6	6	6	6
Grommet – 1/2 in. I.D. x 1-3/8 in. P.H.D	2002824-50	1	1	1	1	1	1
Grommet – 3/4 in. I.D. x 1-7/16 in. P.H.D.	2002825-75	1	1	1	1	1	1
Cable clamp – 3/4 in. x 3/4 in	2002867	4	4	4	4	4	4

Note: Indented items indicate parts included in an assembly listed above		Quantity by Model					
Part Name/Description	**Part Number**	**1640**	**1644**	**1660**	**1666**	**1680**	**1688**
Parts Kit – 16xx	**2001312-5**	**1**	**1**	**1**	**1**	**1**	**1**
Post bracket	3000693	1	1	1	1	1	1
Bearing – 1.25 in.	2001007-125	1	1	1	1	1	1
Header sensor inst. Kit	2000330-4	1	1	1	1	1	1
S – hook	2000329-3	1	1	1	1	1	1
Cap screw – 5/16 in. x 1 in.	2002001-31100	3	3	3	3	3	3
Lock nut – 5/16 in.	2002055-31	3	3	3	3	3	3
Flat washer – 5/16 in.	2002071-31	4	4	4	4	4	4
Monitor bracket inst. kit	2001304-9	1	1	1	1	1	1
Drill bit – 13/64 in.	2001000-20	1	1	1	1	1	1
Cap screw – 1/4 in. x 3/4 in.	2002001-25075	2	2	2	2	2	2
Hex nut – 1/4 in.	2002051-25	2	2	2	2	2	2
Split lock washer – 1/4 in.	2002061-25	2	2	2	2	2	2
Flat washer – 1/4 in.	2002071-25	4	4	4	4	4	4
Self-tapping screw – 1/4 in. x 3/4 in.	2002075-25075	4	4	4	4	4	4
Flow Sensor Inst. Kit	**2001300-4**	**1**	**1**	**1**	**1**	**1**	**1**
Nametag – Do Not Adjust, Use Lower Adjuster	2000132	1	1	1	1	1	1
Drill bit – 1/2 in.	2001000-50	1	1	1	1	1	1
Transfer punch – 11/32 in.	2001003-34	1	1	1	1	1	1
Offset link – Conveyor chain (CA550)	2001015	2	2	2	2	2	2
Roller link – Conveyor chain (CA550)	2001016	3	3	3	3	3	3
Connector link – Conveyor chain (CA550)	2001017	3	3	3	3	3	3
Corrugated wrap – 12 in. x 250 ft.	2001907-12	.0020	.0020	.0020	.0020	.0020	.0020
Carriage bolt – 1/2 in. x 2-3/4 in.	2002021-50275	2	2	2	2	2	2
Lock nut – 1/2 in.	2002055-50	2	2	2	2	2	2
Split lock washer – 1/2 in.	2002061-50	2	2	2	2	2	2
Alcohol swab pack	2002811	1	1	1	1	1	1
Deflector mounting block	3100181	1	1	1	1	1	1
Anchor bar kit – flow sensor	**2001302**	**1**	**1**	**1**	**1**	**1**	**1**
Channel	2000657	1	1	1	1	1	1
Anchor bar assembly	2000658	1	1	1	1	1	1
Brace – L shaped	2000659	1	1	1	1	1	1
Square file – 5/16 in.	2001006	1	1	1	1	1	1
File handle	2001019	1	1	1	1	1	1
Duct tape	2001014	1	1	1	1	1	1
Lock nut – 3/8 in.	2002055-38	3	3	3	3	3	3
Marking pen	2002813	1	1	1	1	1	1

Note: Indented items indicate parts included in an assembly listed above		Quantity by Model					
Part Name/Description	**Part Number**	**1640**	**1644**	**1660**	**1666**	**1680**	**1688**
Elevator Mount System (EMS)	**2005703**	**1**	**1**	**1**	**1**	**1**	**1**
Elevator Mount Unit	**3000638-1**	**1**	**1**	**1**	**1**	**1**	**1**
Power cable – 16 ft.	2000909-2	1	1	1	1	1	1
Cutout template	3000384	1	1	1	1	1	1
EMS installation kit	2001322-4	1	1	1	1	1	1
Fuse – 15 amp	2000061-15	3	3	3	3	3	3
Drill bit – 1/4 in.	2001001-25	1	1	1	1	1	1
Hole saw – 2 in.	2001002-200	1	1	1	1	1	1
Screw driver – proximity switch	2001038	1	1	1	1	1	1
Slotted pan head screw – 1/4 x 1 in.	2002033-25100	5	5	5	5	5	5
Hex nut – 1/4 in.	2002051-25	5	5	5	5	5	5
Hex lock nut – 1/4 in.	2002055-25	5	5	5	5	5	5
External tooth lock washer – 1/4 in.	2002063-25	5	5	5	5	5	5
Self-tapping screw – #8 x 3/8 in.	2002075-08038	5	5	5	5	5	5
Permanent marker	2002813	1	1	1	1	1	1
Moisture Sensor – 21 ft	**2000411-9**					**1**	**1**
Moisture Sensor – 18 ft	**2000411-10**	**1**	**1**	**1**	**1**		

Important Notices

You will save time and prevent wrong installation of components by closely following these step-by-step instructions. If you have questions, call ***Ag Leader Technology*** at 515-232-5363 x 1.

Signal words (**CAUTION, IMPORTANT** and ***NOTE***) are provided to draw attention to information that is important for the safe/correct installation and operation of this product.

- **CAUTION** – will alert you to situations that will impact the physical safety of you or others.
- **IMPORTANT** – will alert you to the potential for damage to the product or loss of data.
- ***NOTE*** – will provide you with additional information to simplify a procedure or clarify a process.

Keep parts list and installation instructions for use as a reference after completing installation.

Section Contents

Installing Display

Parts required for procedure:

- (1) PFadvantage
- (1) Post bracket
- (1) U-bracket
- (1) Marking pen or scribe
- (1) Punch
- (1) Drill bit – 13/64 in.
- (3) Self-tapping screw – 1/4 x 3/4 in.
- (2) Hex head cap screw – 1/4 x 3/4 in.
- (2) Split lock washer – 1/4 in.
- (2) Hex nut – 1/4 in.

- **Extra fasteners are provided**

NOTE: The recommended mounting position is on the right cab wall between the windows as shown in Figure 1. This places the display within easy reach and in a convenient viewing position.

Figure 1. Post bracket installed

Step-by-Step Procedure

1. Position post bracket along center cab post on right side of cab below mirror (if mirror is present) as shown in Figure 1. Move assembly up or down to obtain optimum position.

2. Using post bracket as template, mark (3) holes on cab post using permanent marker or scribe.

3. Punch and drill mounting holes using provided punch and 13/64 in. drill bit.

4. Attach post bracket to cab post with (3) 1/4 x 3/4 in. self-tapping screws.

5. Attach post bracket to U-bracket using provided 1/4 in. cap screws, lock washers and hex nuts as shown in Figure 2.

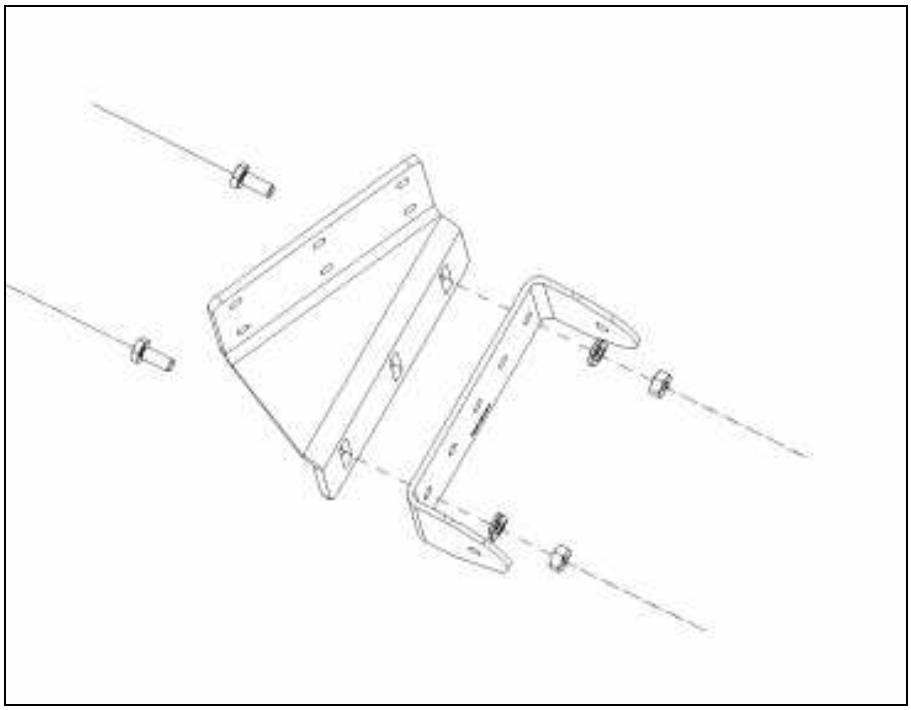

Figure 2. Display bracket assembly

6. Mount display to U-bracket.

NOTE: Multiple mounting holes and slots allow for versatility in mounting.

Installing Cab and Distribution Cables

Parts required for procedure:

- (1) Cab cable
- (1) Distribution cable
- (1) Grommet
- Plastic cable clips
- Cable ties

Step-by-Step Procedure

1. Remove cover over hydraulic valve bank to left of cab.
2. Remove cover on lower left exterior cab wall, to provide access to area under seat.
3. Cover D-shaped rectangular connector of cab cable with tape to keep contacts clean.
4. Push rectangular connector of cab cable under rubber seal flap where existing bundle of wires pass under operator seat. Push at least (1) ft. of cable into area behind seal flap.

   NOTE: A broom handle or similar tool might be useful in getting cable connector pushed through seal flap.

5. Remove cover on lower right exterior cab wall to provide access to area under control console and operator seat.
6. Reach into area under seat and pull several more feet of display cable through seal flap.

   NOTE: It may be necessary to remove a foam rubber pad from under seat to get access to cab cable.

7. Remove 8 x 7 in. rectangular plate attached to inside surface of front wall of console.
8. Route cab cable through oblong hole in front of console into interior of cab. Push enough cable through hole to reach monitor unit.
9. Install split rubber grommet around cab cable and position into bottom of oblong hole in console.
10. Remove tape from rectangular connector of cab cable and connect to mating connector of display unit.

IMPORTANT: Never use force to mate electrical connectors. If connectors do not mate easily, they are not aligned properly.

11. Adhere plastic cable clip near rear edge of right front cab window, above top of console to secure cab cable.

12. Push excess cab cable back inside console.

13. At rear of opening in left side of cab, locate 4 x 5 in. rectangular hole where several cables and air conditioner hoses pass through rear cab wall.

14. Route large flanged connector of cab cable through opening.

15. From behind cab, use cable ties to secure cab cable to small air conditioner hose. Secure cable so end of cab cable is approximately 6 in. behind rear wall of cab.

16. Install distribution cable onto cab cable by mating 24-pin plug to 24-pin receptacle. Figure 3 shows distribution cable at left-rear corner of cab.

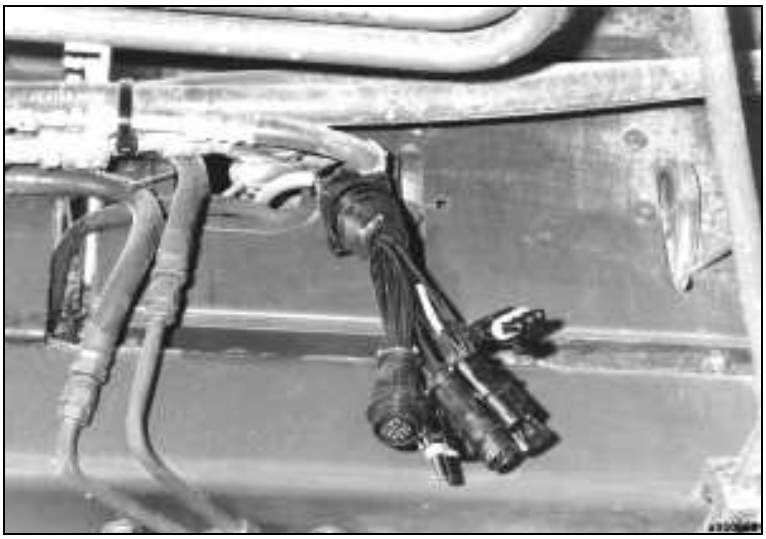

Figure 3. Distribution cable connected to cab cable behind cab

Installing Power Cable

Parts required for procedure:

- (1) Power cable
- Cable ties

Step-by-Step Procedure

NOTE: There are (2) power cables in kit. Verify you have the correct power cable. It should have a 3-socket tower connector on end opposite of ring terminals.

1. Connect ring terminals of power cable to batteries located left of engine compartment. Ensure red, fused wire connects to positive post and black wire connects to negative post. Check for 12-volt nominal power across battery posts.

2. Route cable forward to distribution cable along left side of combine as shown in Figure 4.

3. Connect 3-socket tower connector of power cable to mating connector of distribution cable.

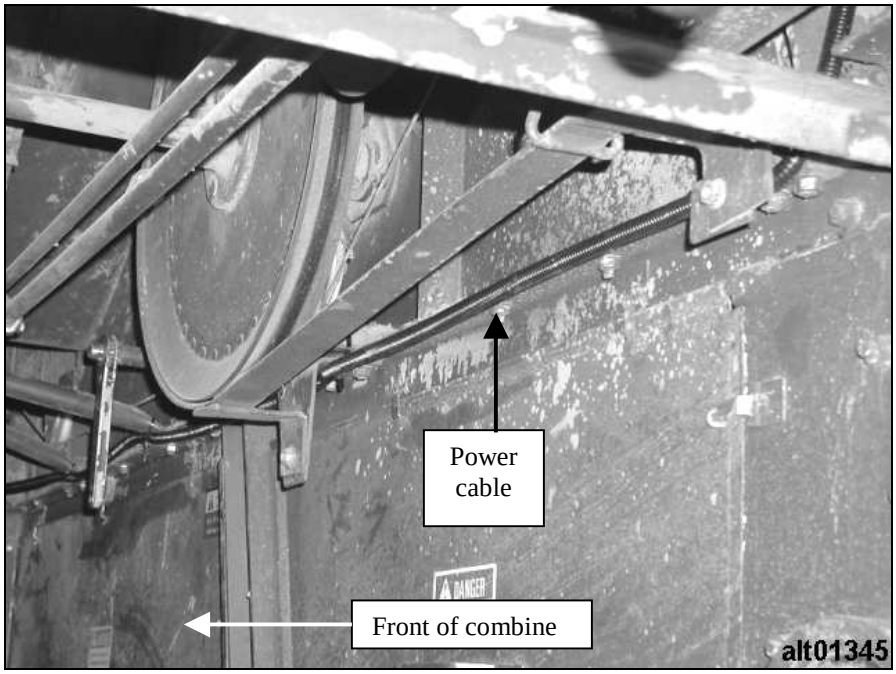

Figure 4. Power cable routed to distribution cable

Installing Elevator Speed Cable

Parts required for procedure:

- (1) Elevator speed cable
- Cable ties

Step-by Step Procedure

1. Locate elevator speed sensor connection at left end of clean grain cross auger as shown in Figure 5.

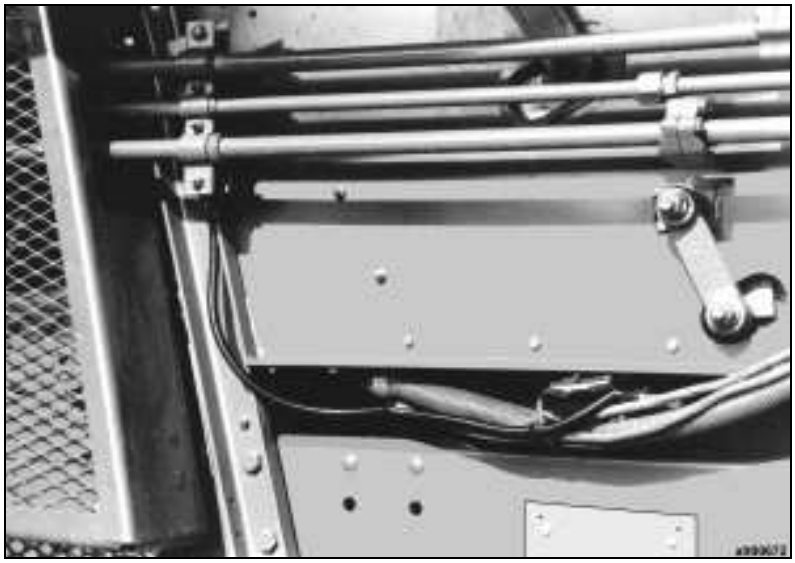

Figure 5. Elevator speed connection on left side of combine

2. Install tee end of elevator speed cable between existing wiring harness and low shaft speed sensor. Do not confuse ground speed cable with elevator speed cable.

3. Follow existing wiring harness forward and then up channel-iron frame member, as shown in Figure 5.

4. At top of channel-iron, route forward over braces above rotor access door, as shown in Figure 6.

5. Connect elevator speed cable to mating connector of distribution cable.

NOTE: It is not possible to connect cables to distribution cable incorrectly.

Figure 6. Elevator speed cable routed above rotor access door

Installing Ground Speed Cable

Parts required for procedure:

- (1) Ground speed cable
- Cable ties

Step-by Step Procedue

1. Remove fan shield from left side of combine.
2. Locate ground speed sensor on top of ground drive transmission, behind front axle of combine.
3. Install tee end of ground speed cable between existing wiring harness and ground speed sensor.
4. Route cable straight back to hydrostatic pump control cable and follow it all the way to distribution cable.
5. Connect ground speed cable to mating connector of distribution cable.

   NOTE: It is not possible to connect cables to distribution cable incorrectly.

6. Replace fan shield.

Installing Header Height Sensor

Parts required for procedure:

- (1) Header height sensor with integral cable
- (1) Arm assembly (18 in. rod, S-hook, chain, spring)
- (1) S-hook
- (1) Punch
- (1) Drill bit – 11/32 in.
- (3) Hex head cap screw – 5/16 x 1 in.
- (4) Flat washer – 5/16 in.
- (3) Lock nut – 5/16 in.
- Cable ties

Step-by-Step Procedure

1. Locate (2) channel-irons that run front-to-back and are spaced about 4 in. apart under cab toward left side.

2. Mount header sensor to existing holes (6 to 10 in. back from front of cab) of inner channel iron. Orient header sensor so cable is toward back of combine and open end of U-shaped housing is toward ground. Fasten with 5/16 in. hardware. Use outer front and back holes of header sensor housing so sensor is offset toward center of combine relative to channel iron.

3. Align header sensor parallel with channel-iron and tighten cap screws.

4. Install arm assembly into hole of sensor pivot shaft using a nut and lock washer on each side of shaft.

5. Install extension spring with chain in S-hook on end of threaded arm and pinch S-hook closed.

6. Bend threaded arm toward center of combine about 4 in. to align it with edge of shield over hydraulic reel drive pump.

7. With header fully raised, determine length of chain required to hold threaded arm of header sensor about 1 in. below front lip of cab, with chain attached to left-rear hairpin of reel pump drive shield, as shown in Figure 7. Cut off any excess length of chain. Finished installation should look like Figure 8.

   NOTE: On some 1600 series combines, pump drive shield and hairpin are not present on feeder house. In this case, attach chain to feeder house by drilling hole through top of feeder house and installing S-hook with 5/16 in. cap screw. Drill hole in same relative position as hairpin shown in Figure 7. May need to bend threaded arm closer to side of feeder house.

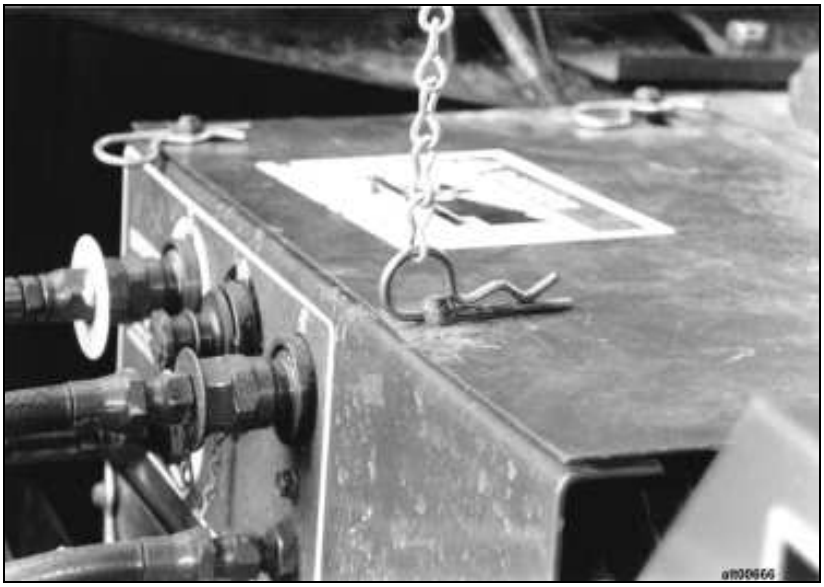

Figure 7. Hairpin on reel pump shield

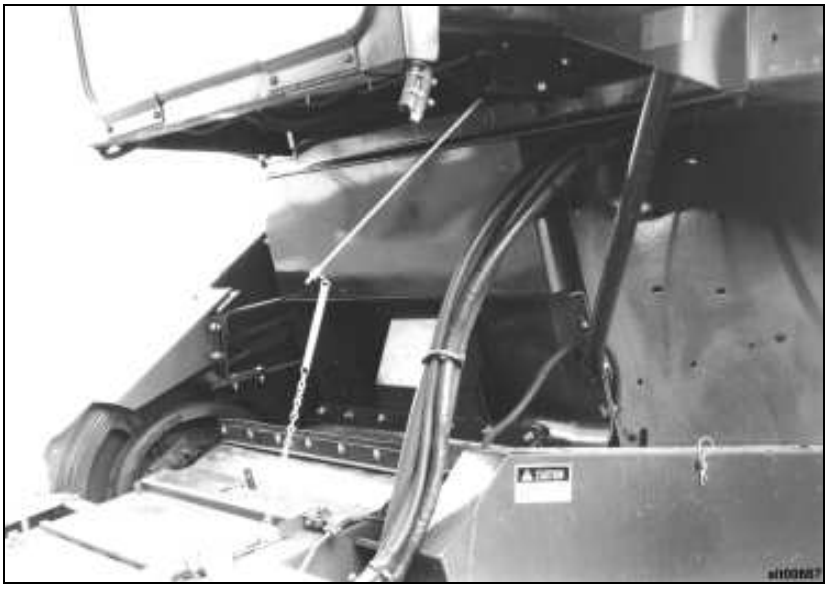

Figure 8. Header height sensor installed

8. Route sensor cable over frame rails and hoses under cab to distribution cable. Connect to mating connector of distribution cable.

   NOTE: It is not possible to connect cables to distribution cable incorrectly.

Installing Flow Sensor

Parts required for procedure:

- (1) Flow sensor
- (1) Stainless steel deflector
- (1) Deflector mounting block
- (1) Anchor bar kit
- (1) Flow sensor template
- (2) Offset link – CA550
- (3) Roller link – CA550
- (3) Connector link – CA550
- (1) Punch
- (1) Drill bit – 1/2 in.
- (2) Carriage bolt – 1/2 x 2-3/4 in.
- (2) Split lock washer – 1/2 in.
- (2) Lock nut – 1/2 in.
- (1) Nametag – "Do Not Adjust, Use Lower Adjuster"

Step-by-Step Procedure

1. Remove existing locking cover (U-shaped channel iron 10-1/2 in. wide) that locks (2) bearing bolts in place at top of clean grain elevator. Remove (2) bearing bolts and anchor plate that bearing bolts tighten against.
2. Install new anchor plate containing (3) 3/8 in. bolts pointing upwards.
3. Install galvanized metal template on front (2) 5/16 in. bolts securing anchor plate.
4. Bend template down to conform to elevator housing and tape lower end of template to hold it in place.
5. Center punch (6) small holes in template as shown in Figure 9.
6. Mark inside of large rectangular cutout.
7. Remove template and drill 1/2 in. holes in following (6) center punched locations:
    a. (2) holes which pass through plate holding bearing adjuster bolts.
    b. (4) holes which define corners of marked cutout areas.

Figure 9. Cutout template fastened to elevator

8. Apply tape around outline of marked cutout area to protect paint from scratches while cutting as shown in Figure 10.

9. Cut between (4) 1/2 in. holes defining corners of cutout opening (follow outside edge of marked lines) using a suitable cutting tool.

   NOTE: It may be difficult for a saber saw to cut through the plate due to its thickness. A heavy duty grinder made for metal cutting applications or a plasma cutter will cut the plate much faster than a saber saw.

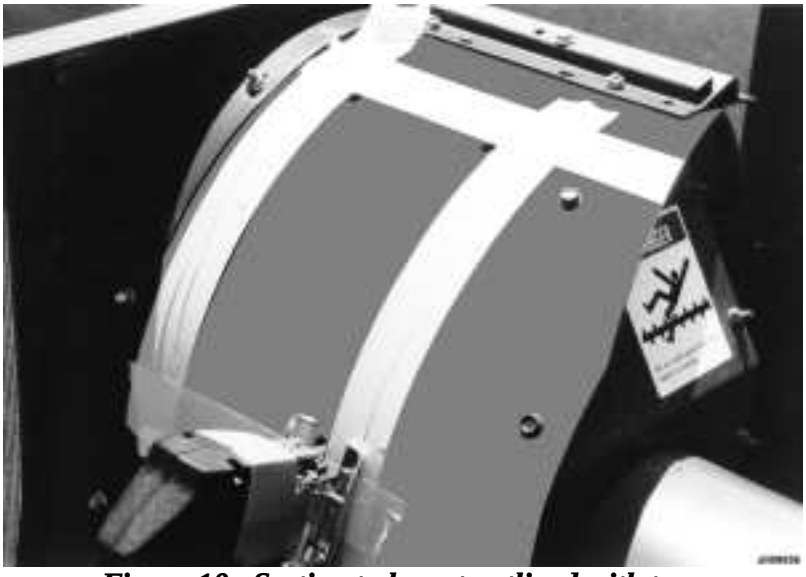

Figure 10. Section to be cut outlined with tape

10. Use file to remove any sharp edges.

    NOTE: Only bottom (2) corners of cutout need to be filed square.

11. Install stainless deflector at top of elevator using following procedure:

    a. With deflector held horizontal, curved portion turning downward toward rear of combine, place 1/2 in. carriage bolts up through slots in deflector. Place mounting block over bolts, with side of block with countersunk holes next to deflector.

    b. Place deflector inside elevator and guide top ends of bolts up through 1/2 in. holes.

    c. Install 1/2 in. lock washers and lock nuts on carriage bolts.

    d. Holding deflector up against mounting bar and back against back of elevator housing, tighten nuts just enough to hold deflector up against top of elevator.

    e. Tap on front edge of deflector to ensure it is tight against back of elevator.

    f. Fully tighten nuts on carriage bolts. Feel back edge of deflector to ensure it is tight against elevator.

12. Remove elevator drive chain under shield on right side of combine.

    NOTE: An easy way to do this is to pull on chain to compress spring on chain tensioner and put Vise-Grips on spring rod to hold tensioner in this position. Chain can be removed without splitting it.

13. Open bottom of clean grain elevator and turn conveyor chain until connecting links are at bottom.

14. Split conveyor chain by removing a connecting link or disconnecting an offset link.

    NOTE: Conveyor chain and drive chain will be reconnected after lower adjuster is installed in next section.

15. At top of elevator, rotate upper elevator sprocket to place a paddle directly over sprocket. Check clearance between top of paddle and stainless deflector.

16. Adjust top shaft so clearance between top of paddle and stainless deflector is 3/8 in. to 1/2 in.

IMPORTANT: Failure to do this will result in poor accuracy. Top shaft should never be adjusted again after completing installation.

17. After adjusting top shaft bearing holders, there may be a large enough opening in elevator housing under bottom of bearing slide plates to let grain drop to ground. If necessary, use silicone sealant to seal housing.

18. Install new locking cover on new anchor plate. **Do not install L-bracket or flow sensor at this time**. Installed flow sensor will look like Figure 11.

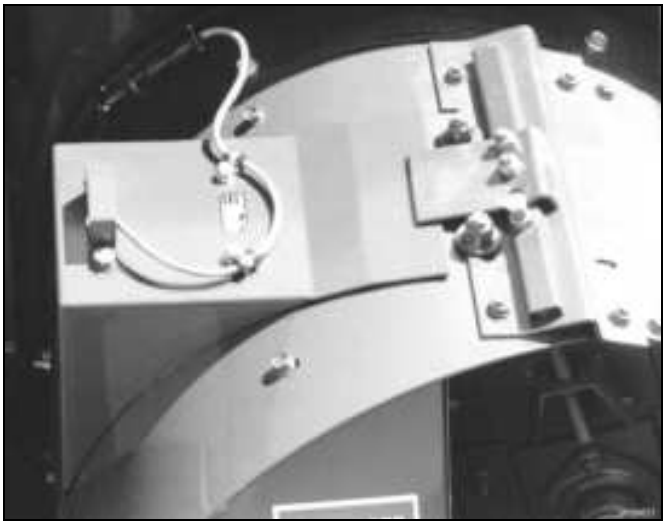

Figure 11. Flow sensor installed

19. Attach "Do Not Adjust! Use Lower Adjuster" decal on top of elevator near adjuster locking cover as shown in Figure 12.

Figure 12. Decal installed on top of elevator

Installing Elevator Adjuster

IMPORTANT: A slide adjuster must be installed at lower end of clean grain elevator, so top shaft of elevator can remain in a fixed position. Weight calibration may change if top shaft is adjusted.

IMPORTANT: If elevator chain and top drive sprocket have several years of use, it is a good idea to install new parts. If these parts are changed at a later date, it may affect accuracy.

Parts required for procedure:

- (1) Elevator adjuster assembly
- (1) Bearing – 1.25 in.
- (1) Boot side cover
- (2) Offset link – elevator chain
- (3) Connector link – elevator chain
- (3) Roller link – elevator chain

Step-by-Step Procedure

1. Remove bottom bearing from clean grain auger shaft.
2. Remove boot side cover from bottom of elevator as shown in Figure 13.
3. As shown in Figure 13, bend bottom lip of center divider inside elevator up 20 to 30 degrees. This will assure lower adjuster can be adjusted up enough to remove a half link when chain stretches beyond downward adjustment of lower adjuster.

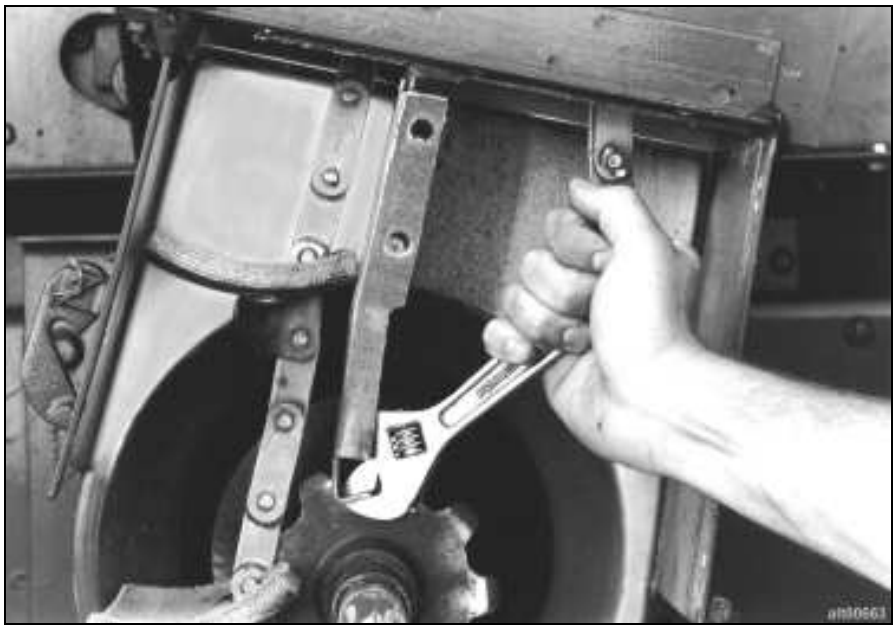

Figure 13. Bending center divider to increase adjuster travel

4. Install new boot side cover on bottom of elevator.

5. Mount adjuster loosely to side of boot cover using 3/8 in. carriage bolts.

6. Use a ruler to measure available up and down movement of slide adjuster.

7. If less than 7/8 in. total travel, determine what is interfering. If hub of sprocket is hitting center divider, remove side cover and bend bottom lip of divider again to increase upward travel. Then re-install cover.

8. Re-connect elevator chain. If required, add (1) or (2) provided offset links.

9. With lower auger suspended on elevator chain, tighten all bolts on lower adjuster.

10. Install locking collar on bearing.

11. When fully installed, lower adjuster will look like Figure 14.

12. Re-install elevator drive chain on lower drive sprocket and release spring loaded tensioner.

    NOTE: It may be necessary to add chain links since top shaft has been raised. Additional links are provided in kit.

13. Install flow sensor and L-bracket after making adjustments.

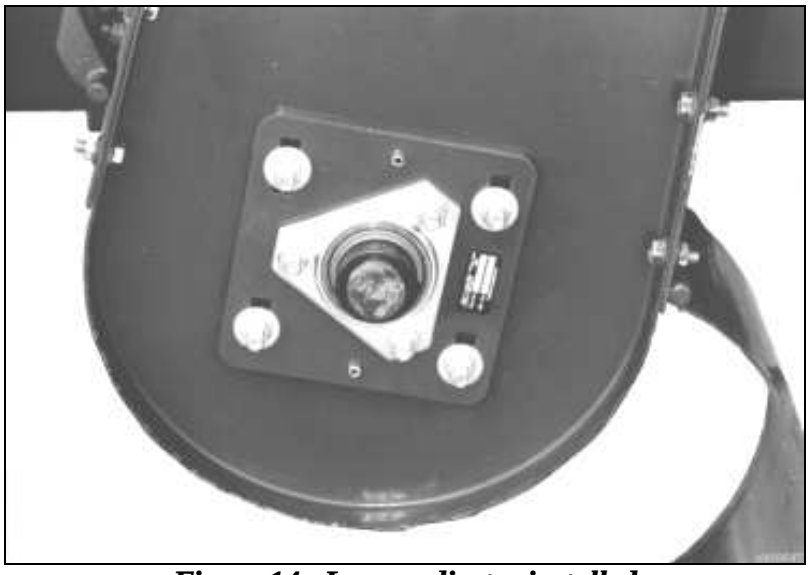

Figure 14. Lower adjuster installed

Installing Elevator Mount Unit (EMU)

Parts required for procedure:

- (1) Elevator mount unit (EMU)
- (1) Cutout template
- (1) Marking pen
- (1) Drill bit – 1/4 in.
- (1) Hole saw – 2 in.
- (1) Metal file
- (1) Roll of duct tape (optional)
- (4) Slotted pan head screw – 1/4 x 1 in.
- (4) External tooth lock washer – 1/4 in.
- (4) Hex nut – 1/4 in.
- (4) Lock nut – 1/4 in.

- **Extra fasteners are provided**

Step-by-Step Procedure

1. Locate mounting location above reinforcement brace as shown in Figure 15.

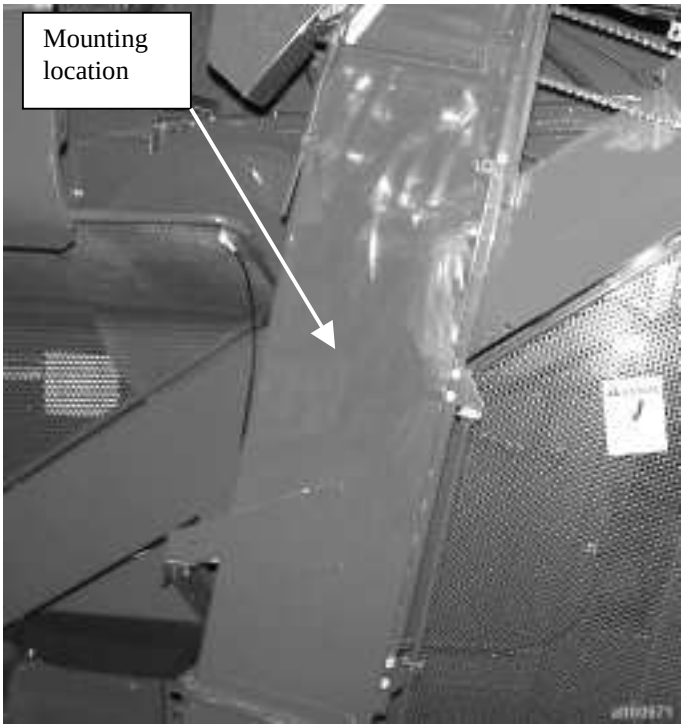

Figure 15. Mounting location

2. Position template on clean grain elevator as shown in Figure 16. Right side of template should be flush with right edge of elevator. Bottom of template should rest on lower reinforcement brace. Extra cutout in template is to go around a reinforcement bar on 1680 and 1688 machines.

3. Tape template in correct position if necessary using duct tape.

4. Trace inlet and outlet holes using permanent marker. Also mark locations for (4) mounting holes and (1) access hole. See Figure 17.

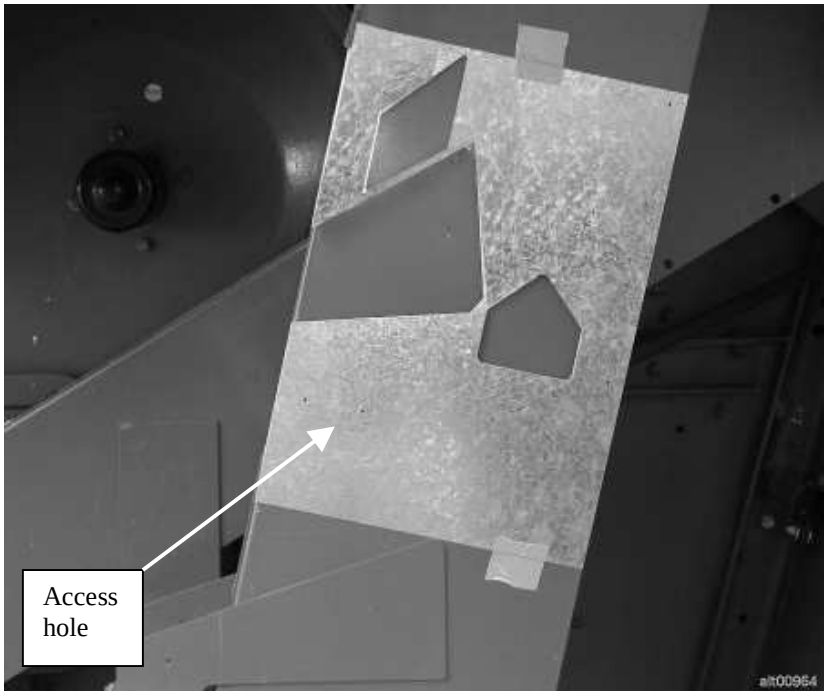

Figure 16. Marking template

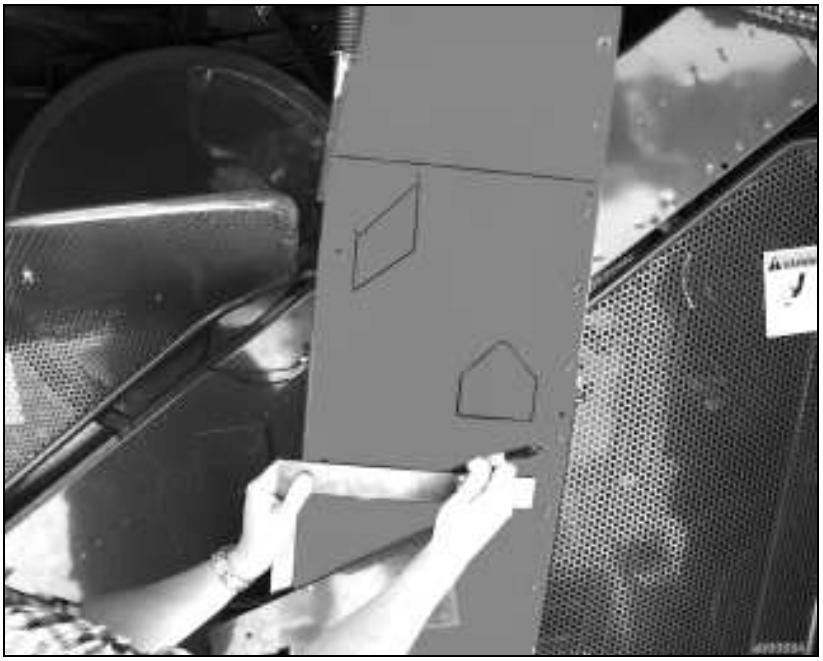

Figure 17. Holes and cutouts marked

5. Center punch locations of (4) outside mounting holes and (1) access hole.

6. Drill access hole using provided 2 in. hole saw and 1/4 in. drill bit.

7. Drill (4) mounting holes using provided 1/4 in. drill bit.

8. Cut out inlet and outlet holes using a suitable cutting device. Elevator should look like Figure 18 when all holes have been cut.

   NOTE: If using a plasma cutter to cut inlet/outlet holes, use template as a fence to ensure holes are cut accurately.

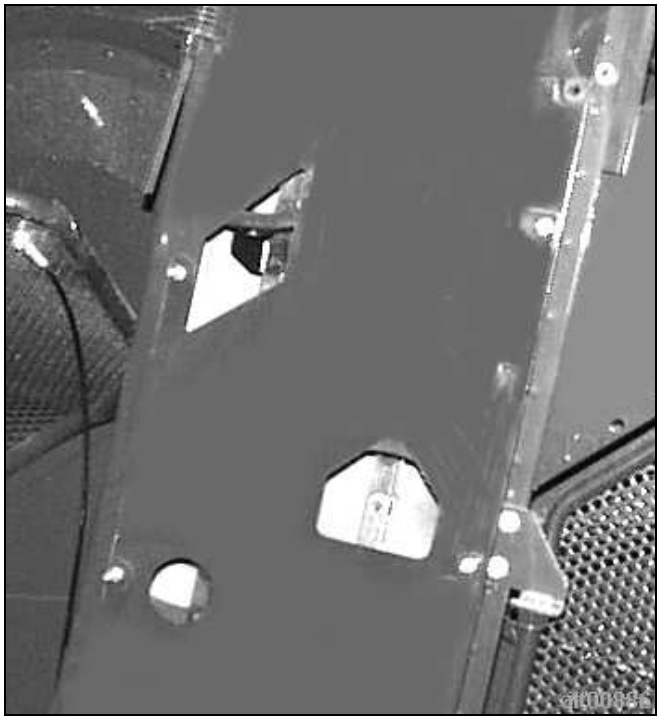

Figure 18. Inlet, outlet and access holes cut

9. Insert 1/4 in. x 1 in. slotted pan head screws into (4) mounting holes. Install hex nuts on pan head screws to secure them to elevator.

10. Install EMU over 1/4 in. screws and secure with 1/4 in. lock nuts.

11. Install electrical cover if not already done. Completed installation should look like Figure 19.

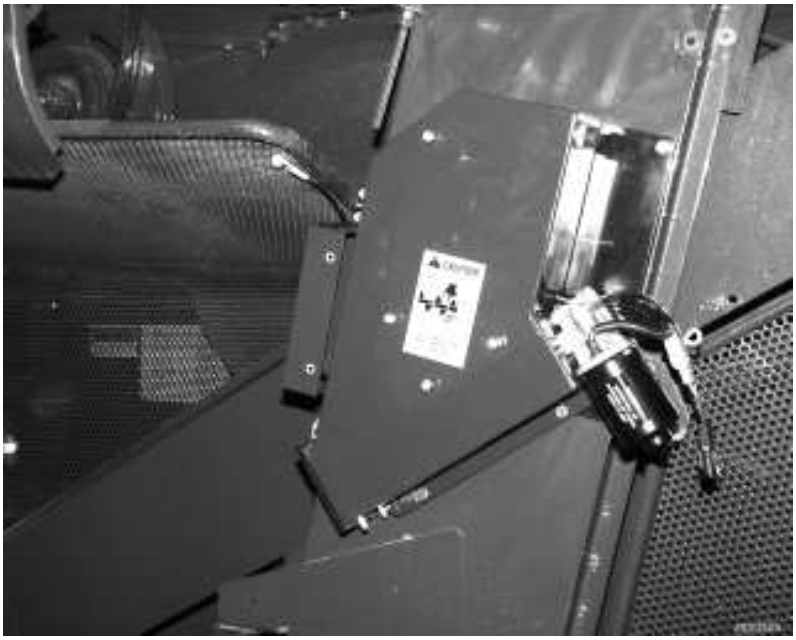

Figure 19. Completed installation

Installing Moisture Sensor

Parts required for procedure:

- (1) Moisture sensor with integral cable
- (1) Moisture sensor cover (attached to EMU)
- (4) #8 x 3/8 in. self-tapping screws
- Cable ties

Step-by-Step Procedure

1. Remove (1) sheet metal screw that attaches aluminum plate to plastic housing of moisture sensor. Install ground terminal strap of moisture sensor on screw as shown in Figure 20.

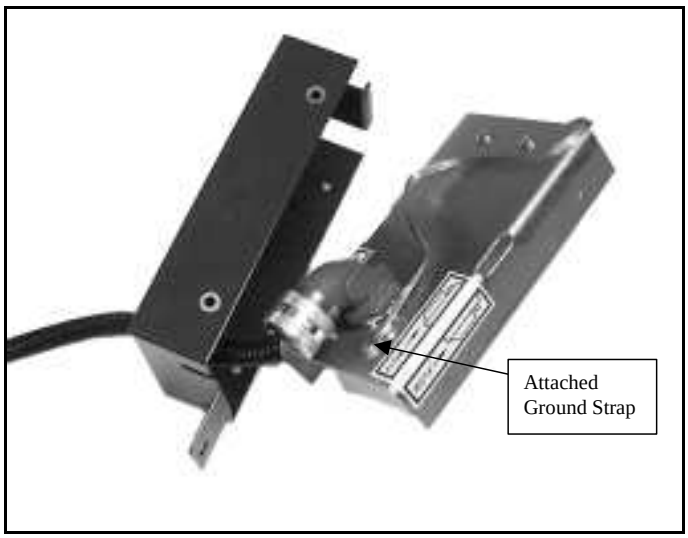

Figure 20. Moisture sensor

2. Feed moisture sensor cable through hole in top of moisture sensor cover from enclosed side out as shown in Figure 20.

3. Slip aluminum housing of moisture sensor into holder until all (4) holes in aluminum housing line up with (4) holes in holder.

4. Install (4) #8 x 3/8 in. self-tapping screws through holes in moisture sensor holder into aluminum plate of moisture sensor.

5. Install moisture sensor to EMU housing by engaging tab on bottom of moisture sensor holder with tab on side of main housing, tilting sensor upward to insert sensor blade into grain cavity, and securing holder with wing nut provided.

6. Route moisture sensor cable to mating connector of distribution cable.

7. Secure excess cable with zip ties to keep it clear of moving parts.

Installing Flow & EMU Power Cables

Parts required for procedure:

- (1) Flow sensor cable
- (1) EMU power cable
- Cable clamps
- Cable ties

Step-by-Step Procedure

1. Route EMU Power cable to batteries as follows:

   A. Connect 2-socket tower connector of EMU power cable to mating connector of EMU.

   B. Route power cable up clean grain elevator to bottom of grain tank. Drill holes in front flange of clean grain elevator and secure cable with provided cable clamps as necessary.

   C. Route cable to back edge of grain tank and then across to left side of machine where batteries are located. Secure cable underneath grain tank to existing bolt studs using provided cable clamps as shown in Figure 21.

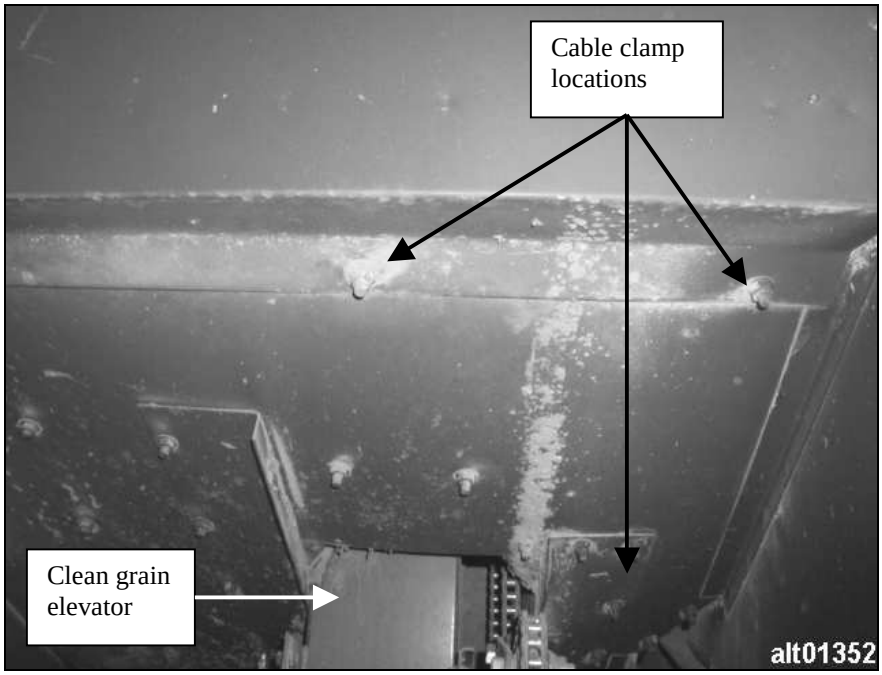

Figure 21. Locations for securing cable under grain tank

   D. Connect terminals of power cable to posts of battery. Ensure red, fused wire goes to positive post and black wire goes to negative post. Check for 12-volt nominal power across posts.

2. Route Flow Sensor cable as follows:

   A. Mate non-labeled end of flow sensor extension cable with mating connector of flow sensor.

   B. Route flow sensor extension cable up and over grain tank wall and proceed to distribution cable located at left rear wall of cab.

   NOTE: An alternative method for routing the flow sensor cable is detailed in steps (C-E). Otherwise skip to Final Inspection.

   C. Drill a 1-3/8-in. hole in grain tank floor as shown in Figure 22. A hole saw is **NOT** provided for this procedure.

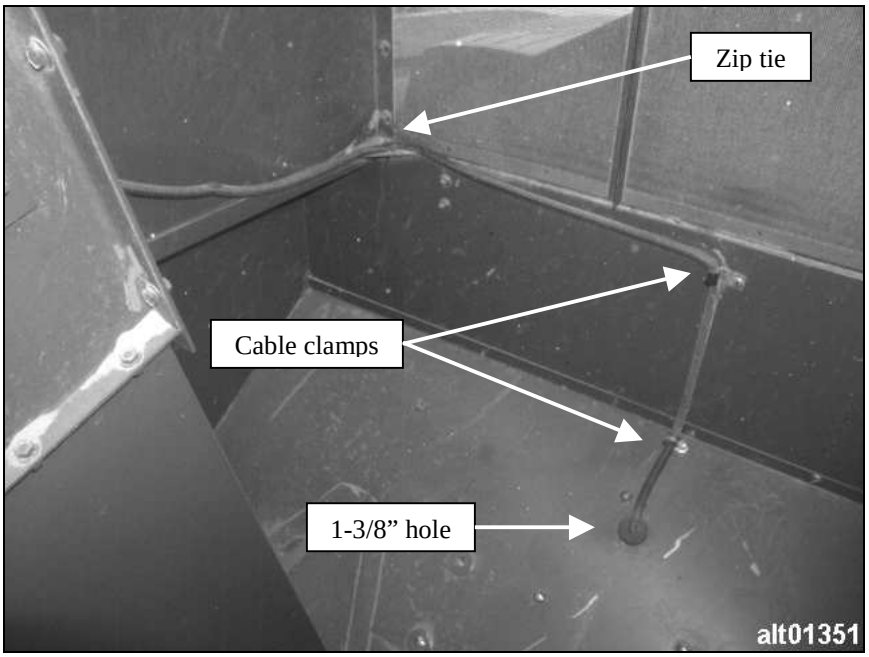

Figure 22. Hole in floor of grain tank

   D. Route flow sensor cable down through hole. Secure cable using cable clamps and zip ties also shown in Figure 22.

   E. Install provided grommet around flow sensor cable and insert grommet into hole.

   F. Route flow sensor cable across to left side of machine and then forward to distribution cable. Connect to mating connector of distribution cable.

   NOTE: It is not possible to connect cables to distribution cable incorrectly.

Final Inspection Installation is complete. Walk around combine to verify the following:

- All cable connections have been made.
- Excess cable has been tied out of way, to avoid interference
- All tools have been removed from combine.
- All fasteners are tight

Operational Checkout for PFadvantage

Refer to the Display Items section in the Operation Section for instructions on how to display different items on the screen.

Step-by-Step Procedure

1. Start engine.
2. Power up monitor.
    a. While program is loading, verify latest firmware is installed. Free firmware updates are available at www.agleader.com.
    b. After program has loaded, a field and load should be displayed at top of screen.
3. Display “Elevator Speed” on screen.
    a. Verify elevator RPM stays at zero with separator and header OFF.
    b. Engage separator and verify monitor measures elevator RPM. It should be about 400 RPM at full engine speed.

    NOTE: On some combine models, header must be engaged to receive elevator speed signal. If no elevator speed, engage header drive.
4. Display “Ground Speed” on screen.
    a. Ground speed should register zero with combine at rest.
    b. Move combine slowly. Monitor should register MPH value at low speeds (below 1 MPH).
    c. Engage separator with combine at rest and verify monitor reads 0.0 MPH.
5. Display “Head Height” on screen.
    a. Raise and lower header. Header height value should increase and decrease respectively.
6. Display “Temp” on screen and verify there is a temperature reading. The temperature may be off slightly because it has not been calibrated.

Refer to Setup Section of Operator Manual to adjust monitor to your combine.

Revision History

Date	Revision	Initials	Comments
Jul 1999	N/C	MB	-Initial release
Mar 2002	A	MB	-Changed monitor installation section due to an engineering change.
Nov 2002	B	SAK	-Added support for PFadvantage
Aug 2006	C	SLH	-Changed system power cable and corresponding installation instructions. -Updated Parts List