CORN HEADER MANUAL: HARVESTEC

09021001c
About Headsight

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About this Manual

How to use this manual
The instructions in this manual are in the order that they should be completed for new installations. Complete all applicable instructions in each section before proceeding. Note that some sections are labeled to indicate they only apply to certain machines or applications. An index is available in the front of the manual to help find technical information for previously installed systems.

This icon designates information of which you should take note.

This icon indicates a special tool needed for a given task.

This icon designates an important instruction.

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Suggestions
If you have any suggestions to improve this manual please call 574-546-5022 or email info@headsight.com.

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Installation

Before working under header always:

1. Perform all combine and header manufacturer safety precautions for servicing header.
2. Insert stop to prevent movement of header.
3. Turn off combine and remove key from ignition.
4. Set combine parking brake.
5. Disconnect all drive shafts from the header.
Complete this installation portion of the header manual before continuing.

Mounting Sensors – 6000 Series

All Rows

1. Do not install sensors in outer rows on 6000 series headers.
2. Mount sensor to HT2217 bracket and tighten bolts.
3. Loosely bolt rear U bracket to the HT2217 rear hole as shown.
   - 20" - use HT2218
   - 30" - use HT2216
   - Use M8-16 carriage bolt and flange nut
   - Nut must be on underside of bracket
4. Remove OEM bolt holding snoot tip in place.
5. Install sensor assembly onto bolt and reinstall loosely into snout.
6. Attach rear U bracket to threaded inserts.
7. Tighten all hardware.
Mounting Sensors – 4000 & 5000 Series Poly

20": – All Rows

1. Because of variances in the guess rows on 20" spacing, we recommend mounting on the second row in rather than the end rows.

2. Mount sensor to bracket and secure to header with screws.
If the snout is newer than 2009 you will need to remove the steel skid to attach the Headsight sensor.

1. Measure and mark out hole to be cut into poly.

2. Use a universal bit to drill out the corners of the hole.
3. Cut out poly.

4. Attach sensor to Headsight bracket with B2262.

5. Remove metal snout tip.
   • Insert bracket between snout tip and poly and retighten.
1. Mount sensor onto bracket using hardware labeled “B2223”.

2. Bolt the bracket to the snout using the threaded inserts in the snout.
1. Measure and mark out hole to be cut into poly.
   - Cut poly as marked

2. Attach the sensor to the bracket using B2244.
   - Remove the bolts holding the snout point to the poly
   - Insert the Headsight bracket between the snout and the tip and retighten bolts

All Metal Snouts
1. Mount sensor into snoot point similar to Inner Rows – 30" MY 2009+, using mount bracket HT2240
   - Install mount as far forward as possible
   - Trim metal as necessary
   - Bolt or weld mount to snoot
Routing Wiring

1. Select appropriate wiring from chart below and mark blue connector with sensor position.

Properly routing the wiring is the most critical part of the installation process. Please take time to ensure that you have allowed sufficient slack for motion as well as sufficient clearance from moving header parts or crop flow.

Harness Length Table

<table>
<thead>
<tr>
<th>Header Width</th>
<th>Left</th>
<th>Left Center</th>
<th>Center</th>
<th>Right Center</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 20'</td>
<td>17'</td>
<td>17'</td>
<td>17'</td>
<td>33'</td>
<td></td>
</tr>
<tr>
<td>21' up to 30'</td>
<td>23'</td>
<td>17'</td>
<td>17'</td>
<td>23'</td>
<td>38'</td>
</tr>
<tr>
<td>31' up to 40'</td>
<td>38'</td>
<td>17'</td>
<td>17'</td>
<td>33'</td>
<td>33' and 10'</td>
</tr>
<tr>
<td>41' and up</td>
<td>38'</td>
<td>23'</td>
<td>17'</td>
<td>38'</td>
<td>33' and 17'</td>
</tr>
</tbody>
</table>

*Use Left, Left Center, Center, Right Center and Right for 5 sensor system
*Use Left, Left Center, Right Center and Right for 4 sensor system
*Use Left, Center and Right for 3 sensor system
*Use Left and Right for 2 sensor system

Removing Connectors for Tight Access

When routing the wiring, there may be times when you would like to route the wiring through a small hole. You may remove the Weather-Pack connector by using the following procedure. This step is NOT required; it is only shown to aid installation as needed.

1. Release wire retaining clip on each connector. Insert removal tool and pull each wire out of connector.

2. Flare connector terminal tabs using removal tool.

3. Reinstall wires in connector body:
   - Black into A
   - White into B
   - Green into C

4. Latch wire retaining clip.

5. Connect wiring harness to sensor.
**Wiring Instructions**

1. Lay out wiring to appropriate snout.
   - Wiring will run from the sensor to the rear of the header near the combine’s feederhouse connection
   - See the Harness Length Table

2. Connect the wiring to the sensor.
   - Ensure connection is properly aligned and seated
   - Push gently but firmly until you hear or feel a slight click

3. Fasten wiring with cable clamps on both sides of the connection.
   - Allow slight (1/2") slack near sensor
   - Fasten off to side of snout to prevent damage from sensor arm movement

4. Fasten with cable clamps near snout hinge points.
   - Lift and/or fold snout to see full range of motion
   - Leave enough slack to prevent tension on the wiring
   - Make sure to adequately clamp wiring to prevent rubbing or pinching

5. For some models, routing cable inside snout or bonnet may improve installation.
   - Drill 1” holes at front and rear of snout or bonnet
   - Route cable through center
   - Make sure to drill holes where cable is not in danger of being bound or pinched
6. For 6000 headers’ center snouts:
   • Route wiring through existing hole to rear of header
   • Make sure to adequately clamp wiring to prevent rubbing or pinching
   • If necessary, route wiring through a steel conduit to protect it from debris—especially on chopping headers

7. 4000-5000 series center snouts:
   • Drill 1” hole
   • Route wiring through hole to rear of header
   • Make sure to adequately clamp wiring to prevent rubbing or pinching
   • If necessary, route wiring through a steel conduit to protect it from debris—especially on chopping headers

8. Route wiring to rear of header.
   • Route to rear of head near the combine feederhouse electrical
   • Secure wiring with cable clamps and zip ties approximately every 12-24” as needed

9. Repeat steps above for each sensor.

10. Wrap and fasten excess wiring in secure location.

See the Headsight combine manual for more details about how to install the remaining wiring harness or control box and then connect each individual sensor.
Sensor Adjustment

Insert header stop to prevent movement.

Changing Swing

1. Loosen the bolt A holding downstop.
2. Slide the downstop to new position in slotted hole.
   • Raising downstop will increase voltage swing and allow higher maximum cutting height
   • Lowering the downstop will decrease total voltage swing and help prevent arm from stabbing the ground when the headers is lowered

Increasing or Decreasing Voltage

1. Loosen sensor mounting nuts B.
2. Twist the sensor to new position using the slotted mounting holes.
   • Twisting sensor clockwise will lower voltage
   • Twisting sensor counterclockwise will increase voltage
3. Retighten the nuts B.
**Sensor Extensions**

 Headsight recommends using the lowest extension setting that allows you to run high as you desire. Increasing the length of the extension will reduce header control sensitivity.

1. Remove flange lock nut then remove arm and spring.
2. Install extension to sensor assembly with previously removed spring and flange locknut.
3. Install arm in extension with two bolts and nuts as pictured at desired length.
   - **Headsight does not recommend extensions unless you need to run higher**
   - If you desire to operate header higher then sensors will allows, you may add extensions
### HT2000 Parts

**ITEM NUMBER** | **PART NUMBER** | **DESCRIPTION** | **QUANTITY**
--- | --- | --- | ---
1 | HT2125 | PIVOT ARM | 1
2 | HT2111 | SPRING | 1
3 | HT2131 | BUSHING BLUE | 1
4 | HT2132 | BUSHING WHITE | 1
5* | HT2139 | BUSHING ASSEMBLY WITH SEALS | 1
6 | 08100103 | SNAP RING & CLIP | 1
7 | HT2120 | CORN BODY | 1
8 | HT2128 | SENSOR | 1
9 | 08200147 | M5x20 HEX BOLT | 2
10 | HT2130 | SHEILD (OPTIONAL) | 1
11 | 08200117 | M8x12 FLANGE BOLT | 1
11A | 08200117 | M8x12 FLANGE BOLT (OPTIONAL) | 1
12 | HT2105 | STOP | 1
13 | 08200151 | 5/16-18 FLANGE LOCK NUT | 1
14 | HT2110 | SPRING | 1
15 | 08200131 | 3/8-16 SERRATED FLANGE NUT | 2
16 | HT2117 | EXTENSION | 2
17 | 08200108 | 3/8-16x1-3/8 HEX BOLT | 2
18 | HT2113-B | POLY ARM BLACK | 1
| HT2113-Y | POLY ARM YELLOW | 1
19 | HT2000-B | COMPLETE SENSOR ASSEMBLY BLACK | 1
| HT2000-Y | COMPLETE SENSOR ASSEMBLY YELLOW | 1

**NOTE:** SENSOR CALIBRATION TARGET HIGH VOLTAGE = 4.00V (ACCEPTABLE RANGE 3.95V - 4.05V)

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**HEADSIGHT INC.**

**MATERIAL N/A**

**DIMENSIONS ARE IN INCHES, DIMENSIONS TO BE ROUNDED TO NEAREST 0.01**

**DATE JAN 30, 17**

**CORN SENSOR PARTS, HALL EFFECT**

**CHG LEVEL**

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**HT2000_PARTS**

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**Third Angle Projection**
Mounting Bracket and Harness

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
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<td>AR</td>
<td>HT2223</td>
<td>Mounting Bracket</td>
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<tr>
<td>2</td>
<td>AR</td>
<td>HT2262</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>3</td>
<td>AR</td>
<td>HT2244</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>4</td>
<td>AR</td>
<td>HT2217</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>5</td>
<td>AR</td>
<td>HT2216</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>6</td>
<td>AR</td>
<td>HT2218</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>PFBxx (xx=length) (10,17,23,33,38)</td>
<td>Extension Harness</td>
</tr>
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</table>
STATEMENT OF LIMITED WARRANTY

For Headsight® Products

Headsight Inc. (Headsight) warrants its new products to be free from defects in material and workmanship for a period of twelve (12) consecutive months following the date of purchase by the retail purchaser.

Headsight Inc. (Headsight) warrants its new corn sensors assemblies for a period of thirty-six (36) months.

Headsight warrants genuine Headsight replacement parts and components to be free from defects in material and workmanship for a period of six (6) consecutive months following the date of purchase or the remainder of the original equipment warranty period, whichever is longer.

Headsight’s obligation under these warranties shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in Headsight’s judgment, shows evidence of such defect.

Limitations to Warranty

This warranty does not cover:

- Warranty claims directly resulting from improper installation of the product.
- Any product damaged by accident, abuse, misuse, or negligence after shipment from Headsight.
- Any unauthorized product alteration or modification.
- Any unauthorized repairs made with parts other than genuine Headsight parts.
- Any repairs performed by anyone other than Headsight or an authorized Headsight dealer unless specifically authorized by Headsight.

Warranty Procedure

- Troubleshooting should be done between farmer/dealer and Headsight through our technical assistance @ 574.220.5511.
- Labor reimbursement will occur only pre-arranged through Headsight technical assistance and be scheduled to a flat rate basis or reasonable time allowance in Headsight’s judgment.
- There is no mileage reimbursement.
- Diagnostic time will not be reimbursed except in pre-arranged circumstances.
- Warranty claims should be on typical dealer service work order with a number and name to be attached for any future correspondence.
- All warranty work must be performed, and claims submitted, within thirty (30) days of the occurrence of the claim and within the warranty period.
- All parts removed during warranty repair must be returned to Headsight with Headsight’s Return Form within thirty (30) days of the occurrence of the claim and within the warranty period.
- Headsight, Inc. reserves the right to either inspect the product at the original retail purchaser’s location or require it to be returned to Headsight, Inc. for inspection.

Limitation of Liability

Headsight makes no express warranties other than those, which are specifically described herein. Any description of the goods sold hereunder, including any reference to buyer’s specifications and any descriptions in circulars and other written material published by Headsight is for the sole purpose of identifying such goods and shall not create an express warranty that the goods shall conform to such description.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. There are no implied warranties of merchantability or fitness of a particular purpose. This warranty states Headsight’s entire and exclusive liability and buyer’s exclusive remedy or any claim for damages in connection with the sale of furnishing of Headsight products, their design, suitability for use, installation or operation, or for any claimed defects herein. HEADSIGHT WILL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, NOR FOR ANY SUM IN EXCESS OF THE PRICE RECEIVED FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

No representative of Headsight nor any dealer associated with Headsight has the authority to change the items of this warranty in any manner whatsoever, and no assistance to purchaser by Headsight in the repair of operation of any Headsight product shall constitute a waiver of the conditions of this warranty, nor shall such assistance extend or revive it.

Headsight reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.  Warranty: 1/2018