



DCY

ComputerTrak™ 150, 350, 450 Monitors

OPERATOR'S MANUAL ComputerTrak™ 150, 350, 450 Monitors (North American Edition)

OMA77221 Issue E5 (ENGLISH)

CALIFORNIA Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

John Deere Seeding Group
(This manual replaces OMA77221 D5)
North American Edition
LITHO IN U.S.A.



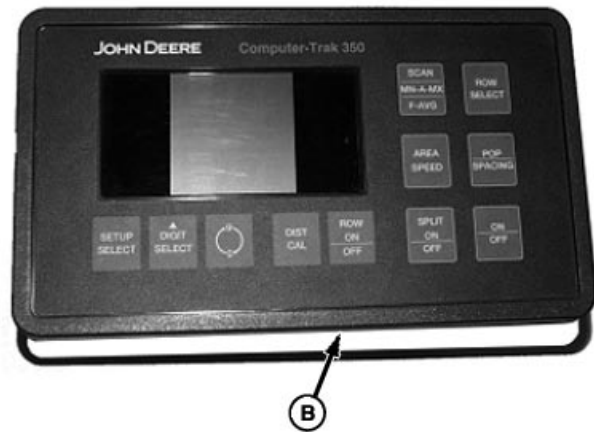
OMA77221

Introduction

Foreword



A—150



B—350/450

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

■ THIS MACHINE is of metric design. Measurements in this manual are metric with the customary U.S. measurement following. Use only metric hardware and tools as specified.

WRITE PRODUCT IDENTIFICATION NUMBERS in the space provided in the Specifications section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs

these numbers when you order parts. If this manual is kept on the machine, also file the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

A51973 -UN-07MAR03

OUO6074.00006F0 -19-07MAR03-1/1

To the Dealer

Predelivery service is the service John Deere recommends that a dealer perform on a machine before delivering it to a customer. This includes assembly, adjustment, and test. The service assures that the monitor will be delivered to the customer in good condition and that the customer will be fully satisfied with its performance right from the start.

The illustrations and instructions on the following pages give the proper sequences for John Deere COMPUTER TRAK™ Monitors.

References to right-hand and left-hand sides in these instructions are determined by standing at the rear of the planter and facing in the direction of travel.

On the next page is a Predelivery Check List. This list is a reminder of the points to inspect and test on this monitor and to be sure it has been properly assembled and is in good working condition before delivering it to your customer.

The Delivery Check List is a reminder of items that should be covered when the monitor is delivered to your customer.

The operator's manual, which contains important operating, lubricating and service information, is for your customer. Acquaint the customer with its contents.

After the monitor has been assembled, inspect it thoroughly to be sure it is functioning properly before delivering it to the customer. The following check list is a reminder of points to check. Check off each item as it is found satisfactory or after proper adjustment has been made.

The John Deere Delivery Receipt, when properly filled out and signed by the dealer and customer, verifies that the predelivery and delivery services were satisfactorily performed. When delivering this monitor, give the customer a copy of the delivery receipt and the operator's manual. Explain their purpose.

Be certain to retain your copy of the packing list for shipping bundle information.

Predelivery Check List

The following check list is a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

- ☐ Check battery connection for proper battery polarity and connecting locations.
- ☐ Check all wires, harnesses and connections on planter and tractor for proper fit and for clearance from moving parts.
- ☐ Operate monitor to make sure it functions properly.
- ☐ This monitor has been thoroughly checked, and to the best of my knowledge, is ready for delivery to the customer.

(Date Set Up)

(Signature of Set-Up Person)

OWNER REGISTER

Name _____
Post Office _____
County _____
City _____
State _____
Model _____
Serial No. _____
Date Sold _____

Delivery Check List

The following check list is a reminder of very important information which should be conveyed directly to the customer at the time the planter is delivered. Check off each item as it is fully explained to the customer.

- ☐ Tell the customer about all safety precautions that must be observed while using the monitor.
- ☐ Give the operator's manual to the customer and explain all operating adjustments.
- ☐ To the best of my knowledge, this monitor has been delivered ready for field use and customer has been fully informed as to proper care and operation.

(Date Delivered)

(Signature of Delivery Person)

Contents

	Page		Page
Safety	05-1	Area/Speed	30-5
Safety Signs	10-1	Seed Counter Mode	30-6
Attaching and Detaching		Distance Counter Mode	30-7
Look for Supplemental Information	15-1	Row Failed Messages	30-8
Attaching and Detaching Monitor	15-2	Distance Failed Message	30-8
COMPUTER TRAK 150 Monitor		Display During Transporting or Turning	
COMPUTER TRAK™ 150 Row		Around	30-9
Configuration For 4, 6, and 8 Row Monitor . . .	20-1	High or Low Population Warnings.	30-9
COMPUTER TRAK™ 150 Row		Point Row Planting.	30-10
Configuration For 10 and 12 Row Monitor. . .	20-3	Seed Spacing.	30-10
Switches.	20-3	Monitor History (Planter Mode).	30-11
Tuning Alarm Point.	20-4	Troubleshooting	
Row Elimination	20-5	Monitors	35-1
COMPUTER TRAK 350/450 Monitor Setup		Service	
Monitor Component Identification	25-1	Monitor Fuse	40-1
Preparing Monitors	25-1	Lamps	40-1
Turning Console On	25-1	Regular, Regular Straight, Small Straight	
English/Metric Selection	25-2	and Large Seed Tubes (MaxEmerge™	
Distance Calibration	25-3	Plus Row Units)	40-1
Speed Set Mode	25-5	Sugar Beet Seed Tube (Plate Meter)	40-3
Row Spacing	25-7	Cleaning Seed Sensor	40-4
Number of Rows	25-7	Monitor and Radar Installation	
Turning Rows On/Off	25-8	Assemble COMPUTER TRAK™	45-1
Implement Width	25-8	30-55 Series Utility Tractors—Console	
Setting High Population Limit	25-9	Installation.	45-1
Setting Low Population Limit	25-10	30—55 Series Utility Tractor—Radar and	
Area Counters 1 and 2	25-11	Bracket Installation	45-3
Split On/Off.	25-12	30-60 Series Row Crop Tractors (with	
PA (Population Adjust)	25-13	Cab)—Console Installation	45-4
PA Chart — Small Soybeans — 8972		30—60 Series Open Station Tractors—	
seeds/kg (4070 seeds/lb)	25-14	Console Installation.	45-6
PA Chart — Large Soybeans — 4564		Install Radar Signal Adapter Harness—	
seeds/kg (2070 seeds/lb)	25-17	30 and 60 Series Tractors.	45-9
F-AVG (Fast Average)	25-20	30-60 Series Row Crop Tractors—Radar	
Resetting Constants	25-21	and Bracket Installation.	45-9
Operating COMPUTER TRAK 350/450 Monitor		30-50 Series Four-Wheel Drive	
Powering Monitor On	30-1	Tractors—Radar and Bracket Installation . . .	45-11
Monitoring Population and Seed Spacing	30-2		

Continued on next page

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

COPYRIGHT © 2005
DEERE & COMPANY
Moline, Illinois
All rights reserved
A John Deere ILLUSTRATION® Manual

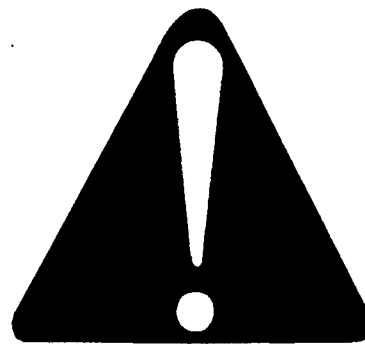
	Page		Page
60-70 Series Four-Wheel Drive Tractors— Console Installation	45-13	Keep Proof of Ownership	55-3
Install Radar Signal Adapter Harness— 60 and 70 Series Tractors	45-15	Keep Machines Secure	55-4
Modification and Installation of Radar Bracket (60 Series Four-Wheel Drive Tractors)	45-17	John Deere Service Keeps You on the Job John Deere Is At Your Service	3
Modification and Installation of Radar Bracket (70 Series Four-Wheel Drive Tractors)	45-18		
6000 Series Tractors—Console Installation . . .	45-19		
6000 Series Tractors with Exhaust Attached to Cab—Radar and Bracket Installation	45-23		
6000 Series Tractors with Exhaust on Hood—Radar and Bracket Installation	45-24		
7000 Series Tractors—Console Installation . . .	45-27		
Install Radar Signal Adapter Harness 7000 Series Tractors Produced Prior to January 1993	45-29		
Install Radar Signal Adapter Harness—7000 Series Tractors Produced After January 1993	45-31		
7000 Series Tractors—Radar and Bracket Installation	45-31		
8000 Series Tractors—Console Installation . . .	45-33		
Install Radar Signal Adapter Harness—8000 and 8000T Series Tractor . .	45-37		
8000 Series Tractors—Radar and Bracket Installation	45-39		
Install Radar—8000T Series Tractors	45-41		
9000 and 9000T Series Tractors—Console Installation	45-43		
Install Radar Signal Adapter Harness—9000 and 9000T Series Tractor . .	45-46		
9000 and 9000T Series Tractor—Radar and Bracket Installation	45-47		
Seed Sensors			
Installing Monitor Sensors—455, 1520, and 1530	50-1		
Install Monitor Sensors—1560, 1590	50-3		
Installing Seed Sensors—CCS Machines	50-6		
Install Seed Tubes—MAXEMERGE™ Plus Row Units	50-8		
Install Seed Tubes—PRO-SERIES™ Row Units	50-10		
Specifications			
Specifications	55-1		
Record Monitor Serial Number	55-2		
Declaration of Conformity	55-3		

Safety

Recognize Safety Information

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT -19-29SEP98-1/1

T81389 -UN-07DEC88

Understand Signal Words

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



DX,SIGNAL -19-03MAR93-1/1

TS187 -19-30SEP88

Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



DX,READ -19-03MAR93-1/1

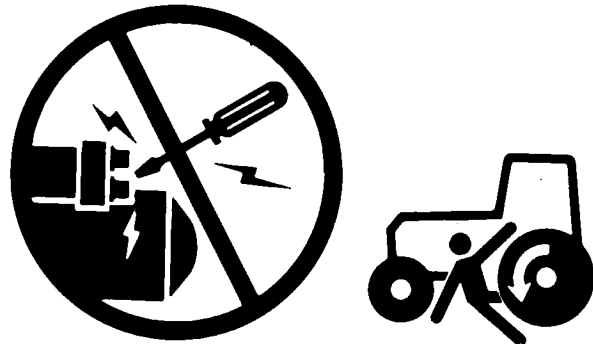
TS201 -UN-23AUG88

Prevent Machine Runaway

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.



TS177 -UN-11JAN89

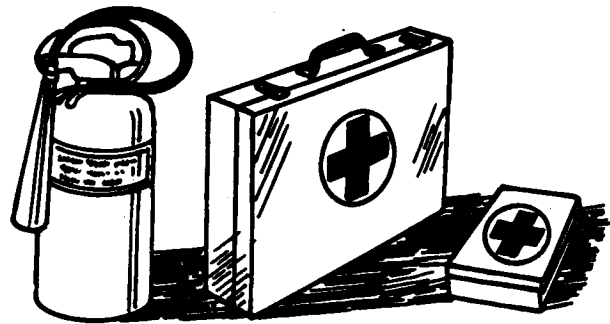
DX,BYPAS1 -19-29SEP98-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 -UN-23AUG88

DX,FIRE2 -19-03MAR93-1/1

Store Attachments Safely

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.



TS219 -UN-23AUG88

DX,STORE -19-03MAR93-1/1

Electrical Connections

Keep all sparks and flames away from battery, as gas given off by electrolyte is explosive. To avoid sparks, connect ground cable last and disconnect it first.

AG,OUO1074,809 -19-01MAR00-1/1

Do Not Modify the Monitor or Radar Sensor

Doing so could nullify the warranty. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

AG,OUO1074,810 -19-01MAR00-1/1

Safety Signs

Safety Signs



Radar Sensor

AG,OUO1074,811 -19-01MAR00-1/1

Attaching and Detaching

Look for Supplemental Information

Occasionally new or revised information will become available after manuals are printed. To get this up-to-date information into your hands, publication supplements are prepared and supplied to the field in the machine literature package.

Supplements can be supplied in the following forms and are usually identified with one of these titles:

- Direction(s) Sheet
- Installation Instructions
- Publications Supplement

Before your initial review of the manual, look through the machine literature package to see if any

supplemental information has been provided. If supplied, review this information to determine which procedures are impacted or modified by the revised instructions. Pay close attention to “CAUTION” and “IMPORTANT” statements. CAUTION statements address your safety, the safety of others and safe operation of the machine. IMPORTANT statements refer to machine adjustment, servicing and care.

Manuals are revised annually, at which time the supplemental information is incorporated directly into the manual, thereby eliminating the supplement.

HX,1900GI,A1A -19-21SEP98-1/1

Attaching and Detaching Monitor

CAUTION: Avoid possible injury or death from machine runaway. Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

Never start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.

Do not connect auxiliary equipment to starter terminals. Doing so can cause tractor to start in gear and move. Connect directly to tractor battery or other ways as instructed.

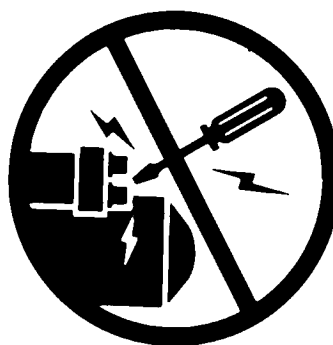
Remove dust covers.

Line up grooves and tabs between connectors. Carefully push planter monitor harness connector (B) onto monitor connector (A) and turn collar clockwise.

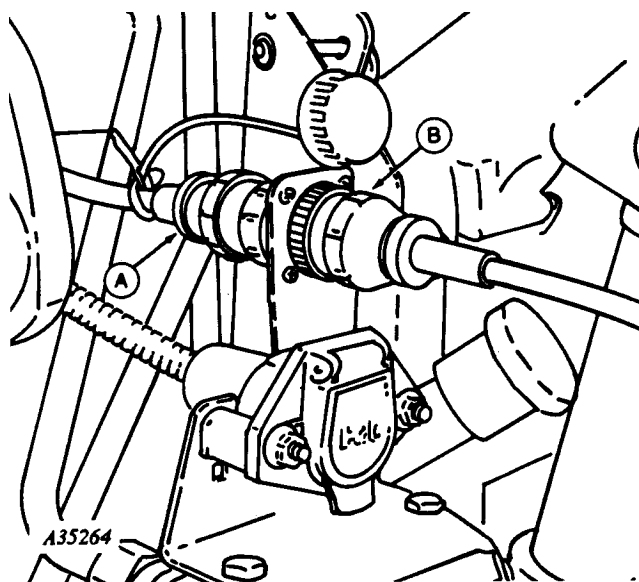
To remove monitor harness (B), turn collar counterclockwise and pull straight back.

Install dust covers.

A—Monitor Connector
B—Monitor Harness



TS177 -UN-11JAN89



7000 Series Tractor Illustrated

A35264 -UN-04MAY93

COMPUTER TRAK™ 150 Monitor

COMPUTER TRAK™ 150 Row Configuration For 4, 6, and 8 Row Monitor

NOTE: The same monitor is used for 4, 6, and 8 row applications.

1. The consoles are shipped in an 8 row configuration. If a 4 or 6 row console is desired, carefully remove bezel with a small screwdriver.



COMPUTER TRAK is a trademark of Deere & Company

Continued on next page

OUO6074,00006F1 -19-07MAR03-1/2

2. Position switch (A) to the correct number of rows.

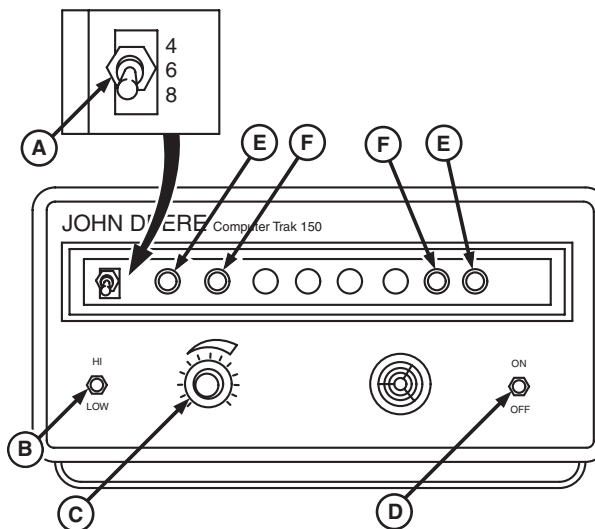
NOTE: To install or remove lamps, simply push and twist. Twist clockwise to insert or counterclockwise to remove.

3. Remove lamps one and eight (B) to convert to a six row monitor.

Remove lamps two and seven (C) in addition to lamps one and eight to convert to a four row monitor.

4. Install new bezel (D) with correct number of rows.

A—Switch
B—Lamps One And Eight
C—Lamps Two And Seven
D—New Bezel



A52073 -UN-04JUN03



A51990 -UN-07MAR03



A51991 -UN-07MAR03

OUO6074,00006F1 -19-07MAR03-2/2

COMPUTER TRAK™ 150 Row Configuration For 10 and 12 Row Monitor

1. Carefully remove bezel with small screwdriver.



H41828 -UN-18APR90

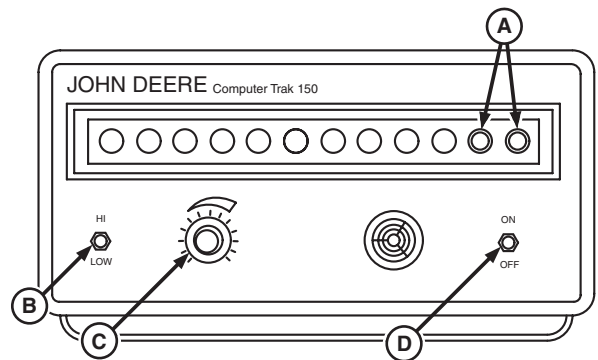
COMPUTER TRAK is a trademark of Deere & Company

OUO6074,00006F4 -19-11MAR03-1/2

NOTE: To install or remove lamps, simply push and twist. Twist clockwise to insert or counterclockwise to remove.

2. Remove two right-hand lamps (A) for 10 row application. Install all lamps for 12 row application.
3. Install bezel labeled with correct number of rows.

A—Lamps



A51993 -UN-04JUN03

OUO6074,00006F4 -19-11MAR03-2/2

Switches

ON/OFF switch (A) controls the power to the monitor console. HI/LOW switch (B) places monitor into HIGH range for monitoring 16 to 145 seeds per second or into LOW range for monitoring 2 to 16 seeds per second. The HIGH range is typically used for soybeans and other volume-metered seeds or small seeds. The LOW range is typically used for corn.

Tuning knob (C) sets the alarm point for seed output on all rows.



H41833 -UN-18APR90

A—ON/OFF Switch
B—HI/LOW Switch
C—Tuning Knob

OUO6074,00006F2 -19-07MAR03-1/1

Tuning Alarm Point

1. Position HI/LOW switch (A) in LOW position.
2. Rotate tuning knob (B) completely counterclockwise.
3. Turn power switch (C) ON. Begin planting and maintain constant speed.

ALL LAMPS SHOULD BE OFF.

4. Rotate tuning knob (B) clockwise until ALL row lamps are lit. If all lamps do not light, return tuning knob to the counterclockwise position and place HI/LO switch (A) in HI position. Rotate tuning knob clockwise until ALL row lamps are lit.

NOTE: All lamps should tune out at approximately the same point on the dial. If one or more lamps tune out considerably down the scale, check those planting units for malfunction.

5. Slowly rotate tuning knob (B) counterclockwise until all lamps are off and immediately stop rotating knob.
6. Rotate tuning knob one additional segment (D) counterclockwise (inset).

NOTE: Once the tuning point has been determined, planting speed must be maintained because seed flow is directly proportional to ground speed. Any change in planting speed will require a new tuning point to be set.

Once monitor is tuned, if seed flow in any planting unit drops or stops the row lamp will light and an audible alarm will sound. Possible causes are; inadequate seed flow from seed hopper, broken pick-up finger, broken spring, low vacuum, sheared pin, plugged opener, disabled chain, or empty hopper.

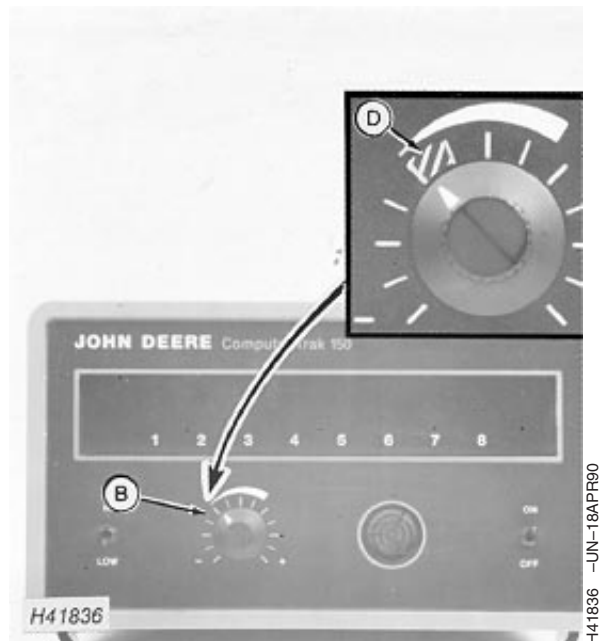
- A—Hi/Low Switch
B—Tuning Knob
C—Power Switch
D—Segment



H41834 -UN-18APR90



H41835 -UN-18APR90



H41836 -UN-18APR90

When monitor detects all rows below tuning point (such as when turning at end of field) the audible alarm will turn off after a few seconds, but all the lamps will stay lit.



H41839 -UN-18APR90

OUO6074,00006F3 -19-07MAR03-2/2

Row Elimination

IMPORTANT: See your John Deere dealership for proper replacement bulb, or damage to the circuitry may result.

If a problem develops with a sensor or harness that creates an erroneous failure, remove the faulty row lamp. Correct the problem as soon as possible and replace the lamp.



H41840 -UN-18APR90

AG,OUO1074,816 -19-01MAR00-1/1

COMPUTER TRAK 350/450 Monitor Setup

Monitor Component Identification

MONITOR DISPLAY REPRESENTATION									
High Warning						High Warning			
Low Warning			8	8	8	Low Warning			
Area	ON	OFF				Area	1	2	
Row	ON	OFF	MIN	AVG	MAX	Scan			
Row Spacing			SPACING		POPULATION	Avg	Max		
Number of Rows			SPLIT			Row Select			
Distance Calibration			ROW		18.8	Distance			
Implement Width			SENSOR			Failed			
M	Split	PA				Speed			

OUO6074,0000DF4 -19-22APR05-1/1

Preparing Monitors

Constants necessary for monitor to make proper calculations are row spacing, number of rows and a distance calibration.

Distance calibration is very important. Accurate populations, areas and speed are just some factors dependent upon distance calibration. Calibration

should be performed under actual field/planting conditions to account for wheel slippage and other factors.

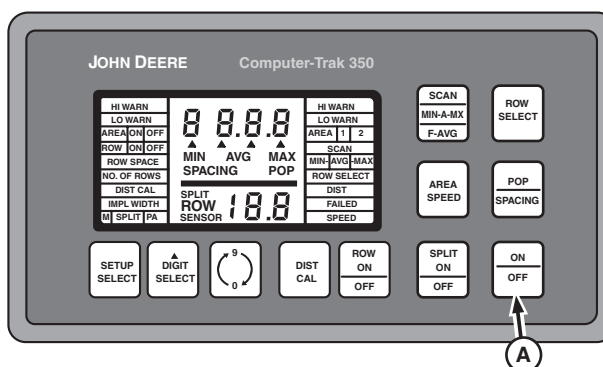
Examples used throughout this book show planter populations as seeds per acre. All calculations are set in ENGLISH units.

AG,OUO1074,817 -19-01MAR00-1/1

Turning Console On

Press ON-OFF switch (A). All display messages will appear for a few seconds and console will automatically perform a diagnostic check of all seed sensors. If a sensor is defective the display will show the row number and the row sensor failed message will be displayed.

A—ON-OFF switch



COMPUTER TRAK™ 350 Monitor

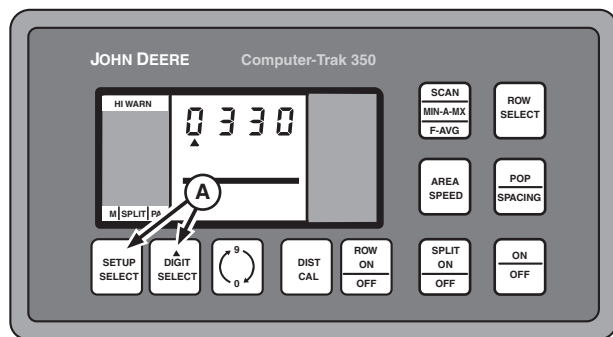
A49585 -UN-26JUL02

AG,OUO1074,818 -19-01MAR00-1/1

English/Metric Selection

To change the selection, press SETUP SELECT and DIGIT SELECT switches (A) simultaneously. A letter "M" will be displayed in the lower left-hand corner when in the metric mode.

A—Switches



A49596 -UN-26JUL02

OUO6074.00006FA -19-18MAR03-1/1

Distance Calibration

IMPORTANT: Distance calibration is very important. Population readings, area calculations and ground speeds are just some factors dependent upon distance calibration value. Calibration procedure should be performed under actual field/planting conditions to account for wheel slippage and other factors. If calibration procedure is performed on a hard flat surface instead of under field conditions, every reading using the calibration number for calculation purposes may be erroneous.

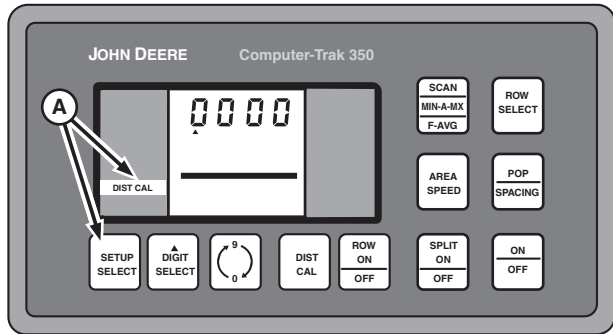
A distance calibration can only be performed with an operational radar unit installed. If the radar fails, seed flow can still be monitored by entering a fixed speed into monitor. See SPEED SET MODE in this section.

1. Repeatedly press SETUP SELECT switch (A) until DIST CAL is displayed in left-hand column.
2. Mark a straight 121.9 m (400 ft) course in the field.
3. While driving at expected planting speed, press the DIST CAL switch (B) exactly when passing start marker on the course. This will set the display to zero and begin counting pulses. Press DIST CAL switch again, exactly when passing the end of course.

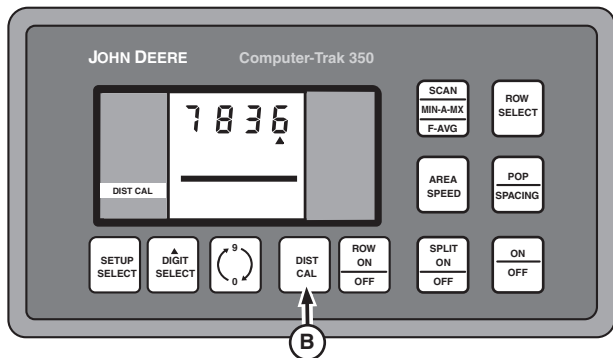
The display will show approximately 7836.

NOTE: The calibration value must be between 300 and 9999 or the monitor will be forced into a **FORCED SETUP STATE**. The monitor will not acknowledge other selections until a proper value has been entered.

7836 is a theoretical number and different field conditions will produce a slightly different result. A calculation number can be manually input into the console by using the DIGIT SELECT and 0-9 switches, but the most accurate population, area and speed data will be obtained using the 121.9 m (400 ft) course method.



A49593 -UN-26JUL02



A49594 -UN-03SEP02

A—SETUP SELECT Switch
B—DIST CAL Switch

Tractors Equipped with a Performance Monitor Only

The radar for the tractor performance monitor and the radar for the 350/450 monitor produce the same output pulses. If each radar is connected independently to each monitor, both will have to be calibrated independently. If one radar is connected to both monitors at the same time using a "Y" harness (see your John Deere dealer for part number), only one monitor has to be calibrated using the course. The other monitor's calibration value can be determined using a calculation and entered manually.

NOTE: *The calibration value for the tractor performance monitor will NOT be the same as the planter monitor's value.*

When both monitors are connected to a single radar, it is not necessary to calibrate both monitors over a 121.9 m (400 ft) course. If the tractor monitor is calibrated in the field on a 121.9 m (400 ft) course, multiply calibration number by 1.365 and enter the result into the planter monitor (see tractor OM for calibration procedure). If the planter monitor is calibrated in the field on the 121.9 m (400 ft) course, multiply calibration number by 0.733 and enter the result into the tractor monitor (see tractor OM for procedure). This should yield nearly identical speed readings from both tractor display and 350/450 monitor display.

Example: When using one radar unit with two monitors

Tractor Monitor used for calibration on 121.9 m (400 ft) course	A calibrated tractor value of $5800 \times 1.365 = 7917$ to be manually entered into 350/450 monitor
350/450 Monitor used for calibration on 121.9 m (400 ft) course	A calibrated 350/450 value of $7900 \times 0.733 = 5790$ to be manually entered into tractor monitor

OUO6074,00006FD -19-19MAR03-2/2

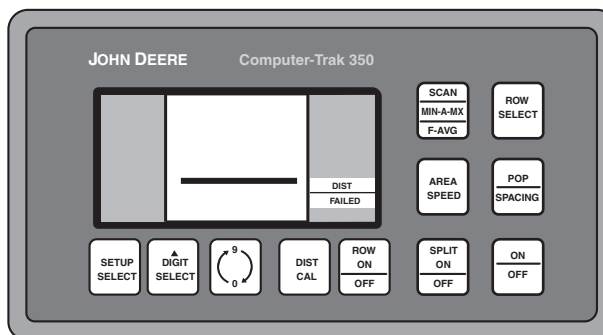
Speed Set Mode

IMPORTANT: Speed Set Mode is only required if radar input has failed.

If a DIST FAILED message occurs and the problem can not be fixed, a set speed can be entered to allow continued monitoring of seed flow. Fast Average, Area and Speed readouts will not be available while operating in this mode. Row Failed messages will occur when seed counts drop below two seeds per second. Hi and Low population warning messages are deactivated in this mode.

While in this mode, even though actual populations may remain accurate at slower and faster speeds, the monitor is going to show fluctuating populations because it assumes the machine is traveling at a constant speed. Displayed population will only be close to actual population when actual ground speed matches set speed.

Speed Set Mode is deactivated each time monitor is powered off.



A49616 -UN-26JUL02

Continued on next page

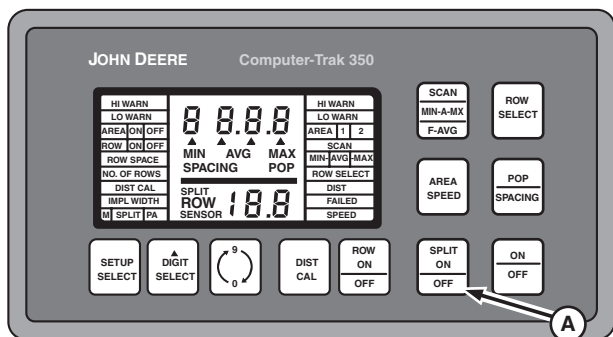
OUO6074,000070A -19-26MAR03-1/3

COMPUTER TRAK 350/450 Monitor Setup

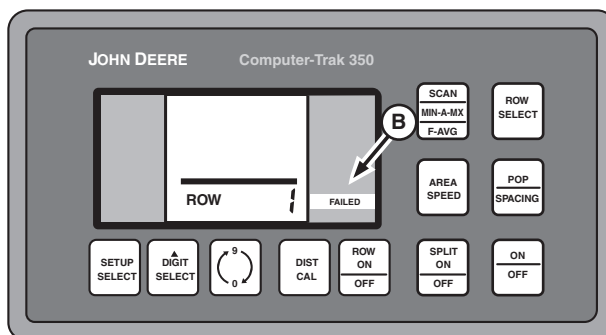
NOTE: Speed Set Mode is deactivated each time monitor is powered off.

- To enter Speed Set Mode, hold SPLIT ON/OFF switch (A) while turning monitor on. A full display screen will be displayed for a few seconds and then the ROW FAILED screen (B) will display.

A—SPLIT ON/OFF Switch
B—ROW FAILED Screen



A52103 -UN-27MAR03

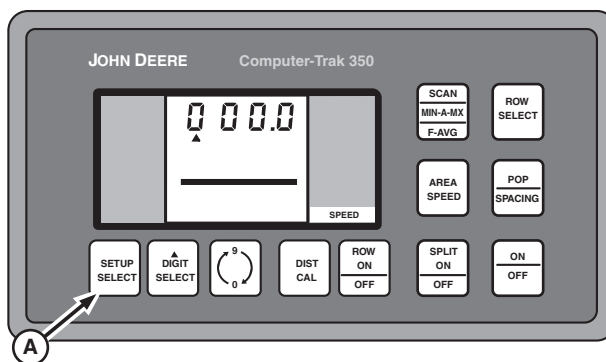


A52104 -UN-27MAR03

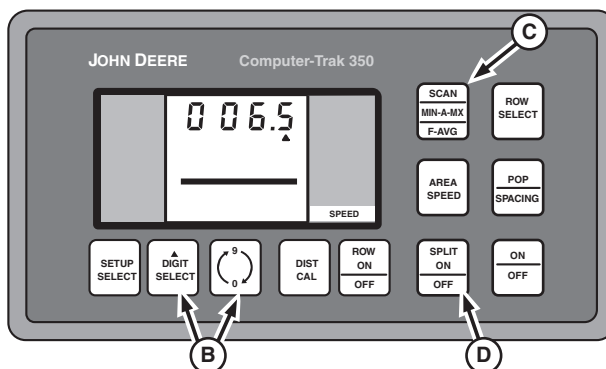
OUO6074,000070A -19-26MAR03-2/3

- Release SPLIT ON/OFF switch and press SETUP SELECT switch (A). SPEED screen will be the first displayed. "SPEED" will be displayed in lower right-hand corner.
- Use DIGIT SELECT and 0-9 switches (B) to enter expected planting speed.
- Press SCAN switch (C) to begin monitoring seed flow.
- If power is lost to monitor for any reason, hold SPLIT ON/OFF switch (D) for one second while powering monitor on to re-enter Speed Set Mode. Previously entered speed is stored in memory and will not have to be re-entered.

A—SETUP SELECT Switch
B—DIGIT SELECT and 0-9 Switches
C—SCAN Switch
D—SPLIT ON/OFF Switch



A49619 -UN-26JUL02



A52105 -UN-27MAR03

OUO6074,000070A -19-26MAR03-3/3

Row Spacing

NOTE: Display shows a 30 in. row spacing example.

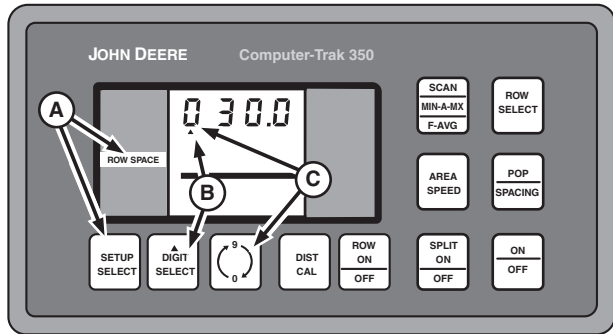
1. Repeatedly press SETUP SELECT switch (A) ROW SPACE is displayed in left-hand column.
2. Repeatedly press DIGIT SELECT (B) until triangle is below number to be changed.

NOTE: If row spacing is less than one or greater than 250, the monitor will be forced into a FORCED SETUP STATE. The monitor will not acknowledge other selections until set to a proper row spacing.

3. Touch 0-9 switch (C) until desired number is shown.

1890 Machines Only: Each meter supplies seed to two rows. Row spacing entered into monitor must be double the machines row spacing.

Changing the row spacing will automatically recalculate IMPLEMENT WIDTH.



A—SETUP SELECT Switch
B—DIGIT SELECT Switch
C—0-9 Switch

A49591 -UN-26JUL02

OUO6074.0000706 -19-25MAR03-1/1

Number of Rows

NOTE: Display shows 16 rows as an example.

1. Repeatedly press SETUP SELECT switch (A) until NO. OF ROWS is displayed in left-hand column.

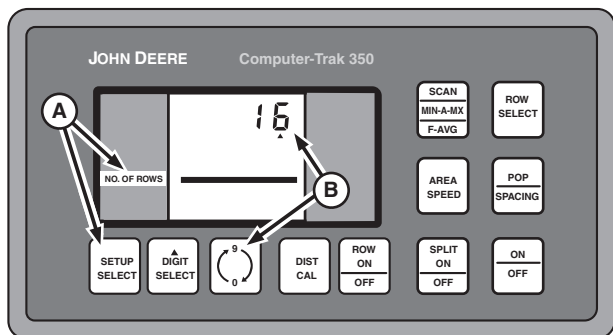
NOTE: Changing the number of rows will automatically turn on all rows turned off in the row ON/OFF procedure.

NOTE: No digit selection is required for row number selection.

2. Repeatedly press 0-9 switch (B) until the total number of rows are displayed.

1890 Machines Only: Each meter supplies seed to two rows. Number of rows entered into monitor must be one half the total number of rows on machine.

Changing the number of rows will automatically recalculate IMPLEMENT WIDTH.



A—SETUP SELECT Switch
B—0-9 Switch

A49592 -UN-26JUL02

OUO6074.00006FB -19-18MAR03-1/1

Turning Rows On/Off

NOTE: See *SPLIT ON/OFF* for split row applications.

1. Repeatedly press SETUP SELECT switch (A) until the display shows ROW ON or OFF in left-hand column.
2. Each time the 0-9 switch (B) is pressed, the next row number will be displayed.

NOTE: Rows that have been turned OFF will remain in memory even if monitor is turned OFF.

3. Press ROW ON/OFF switch (C) to turn each row on or off, as desired.

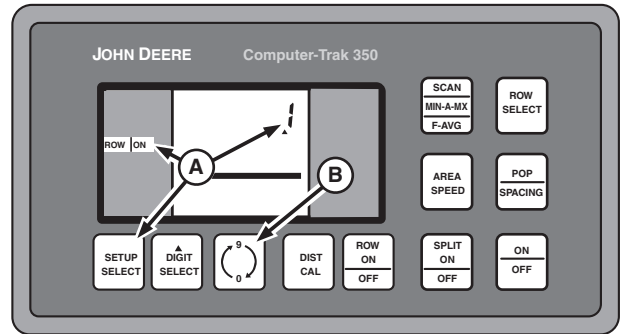
Rows that are turned off will not be monitored, but are still used in area calculations.

For normal planting, all rows should be ON.

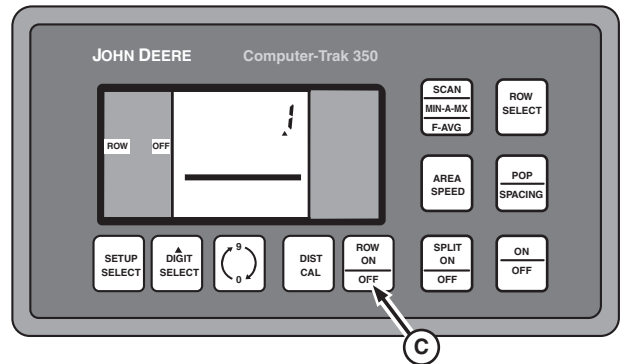
A—SETUP SELECT Switch

B—0-9 Switch

C—ON/OFF Switch



A49589 -UN-03SEP02



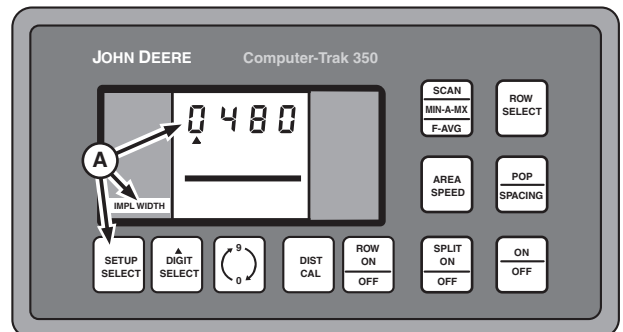
A52070 -UN-19MAR03

OUO6074,00006FC -19-18MAR03-1/1

Implement Width

Repeatedly press SETUP SELECT switch (A) until display shows IMPL WIDTH in left-hand column. Any changes made to the number of rows or row spacing will automatically change the IMPLEMENT WIDTH. The value can be manually changed with the DIGIT SELECT and 0-9 switches to enter a specific IMPLEMENT WIDTH for special planting, such as skip row planting. This should be done after row width and row spacing have been entered to prevent it from being automatically changed.

A—SETUP SELECT Switch



A48595 -UN-26JUL02

OUO6074,00006FF -19-19MAR03-1/1

Setting High Population Limit

NOTE: Rows must be turned ON for a warning to occur.
See **TURNING ROWS ON/OFF** in this section.

When the monitor detects any row sensor with seed population counts in excess of the high limit, the monitor displays HI WARN, sounds an alarm and locks onto the row number giving the reading. The alarm will sound every 1/200th of an acre (which that row travels) as long as the limit is being exceeded. When setting high population limits, add 50 percent to desired population as a starting value. When actual planting population is displayed, HI WARN limit may be changed to a closer tolerance. The closer the tolerance is set to actual population, the more frequently alarms may sound.

When planting volume metered or small seeds, pounds-per-acre values will have to be converted into seeds-per-acre values for monitor entry. Refer to planting rate chart information in operator's manual for average number of seeds per pound. Multiply average seeds per pound BY pounds-per-acre rate to roughly determine average seeds-per-acre.

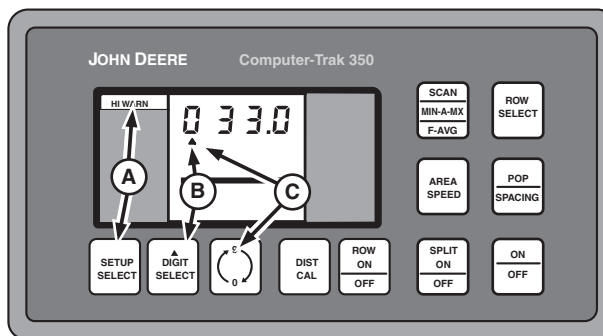
OUO6074,00006F8 -19-30MAR05-1/2

1. Repeatedly press SETUP SELECT switch (A) until display shows HI WARN in left-hand column.

NOTE: Each whole number represents 1000 seeds per acre. In example shown, 033.0 represents a 33 000 population limit.

2. Repeatedly press DIGIT SELECT switch (B) until triangle is below the number to be changed.
3. Touch 0-9 switch (C) until desired number is displayed.

A—SETUP SELECT Switch
B—DIGIT SELECT Switch
C—0-9 Switch



A49586 -UN-26JUL02

OUO6074,00006F8 -19-30MAR05-2/2

Setting Low Population Limit

NOTE: Rows must be turned ON for a warning to occur.
See *TURNING ROWS ON/OFF* in this section.

When the monitor detects any row sensor with seed population counts less than the lower limit, the monitor displays LO WARN, sounds an alarm and locks onto the row number giving the reading. The alarm will sound every 1/200th of an acre (which that row travels) as long as the limit is being exceeded. When setting low population limits, subtract 50 percent from desired population as a starting value. When actual planting population is displayed, LO WARN limit may be changed to a closer tolerance. The closer the tolerance is set to actual population, the more frequently alarms may sound.

When planting volume metered or small seeds, pounds-per-acre values will have to be converted into seeds-per-acre values for monitor entry. Refer to planting rate chart information in operator's manual for average number of seeds per pound. Multiply average seeds per pound BY pounds-per-acre rate to roughly determine average seeds-per-acre.

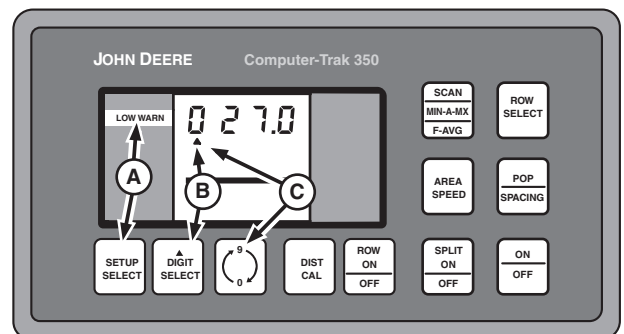
OUO6074,00006F9 -19-30MAR05-1/2

1. Repeatedly press SETUP SELECT switch (A) until display shows LO WARN in left-hand column.

NOTE: Each whole number represents 1000 seeds per acre. In example shown, 027.0 represents a 27 000 population limit.

2. Repeatedly press DIGIT SELECT switch (B) until triangle is below the number to be changed.
3. Touch 0-9 switch (C) until desired number is displayed.

A—SETUP SELECT Switch
B—DIGIT SELECT Switch
C—0-9 Switch



A49587 -UN-26JUL02

OUO6074,00006F9 -19-30MAR05-2/2

Area Counters 1 and 2

Use this feature to clear accumulated area or to preset an area from which to begin counting.

Enter all zero's to clear display and cause display to show values in tenths (with decimal point).

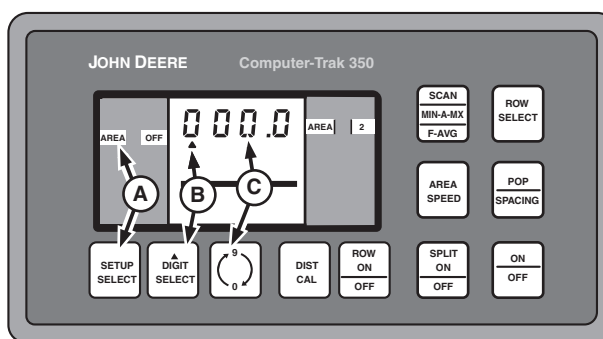
Enter all nine's to eliminate decimal point and allow values larger than 999.9 to be entered.

OUO6074,00006FE -19-19MAR03-1/2

1. Repeatedly press SETUP SELECT switch (A) until display shows AREA 1 in left-hand column. Press SETUP SELECT switch (A) again to display AREA 2, if desired.
2. Press DIGIT SELECT switch (B) until the triangle is below the number to be changed.

NOTE: The monitor displays numbers in tenths up to 999.9. Further area readings will be displayed in whole numbers only, such as 1000, 1001, 1002. If the decimal point is desired, it will be necessary to start over at 000.0.

3. Press 0-9 switch (C) until desired number is displayed.
4. Press ROW ON/OFF switch to activate and deactivate area counters.



A—SETUP SELECT Switch
B—DIGIT SELECT Switch
C—0-9 Switch

A49588 -JUN-03SEP02

OUO6074,00006FE -19-19MAR03-2/2

Split On/Off

NOTE: Deactivated rows are not selectable when split row is activated.

Activation of split row feature allows seed sensors on every other row to be ignored with the touch of a button.

When split is activated it has the following effects:

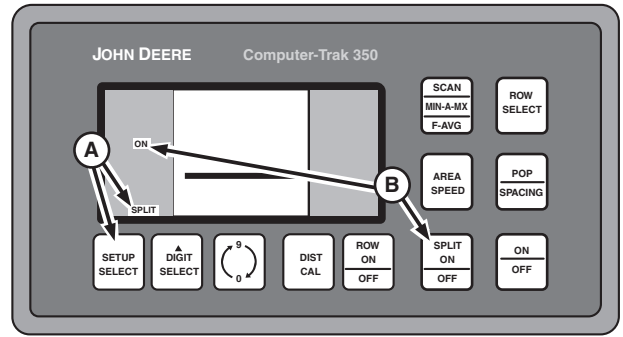
- Shuts off unused seed sensors for split row applications
- Monitors (displays) only the rows with active seed sensors
- Keeps row width correct

1. Repeatedly press SETUP/SELECT switch (A) until SPLIT is displayed on lower left-hand column.
2. Press SPLIT ON/OFF switch (B) to toggle between feature ON and feature OFF.
3. Return to operating mode and press SPLIT ON/OFF switch to activate (C) and deactivate split row operation. This switch will only function during operating mode if split feature is turned ON in setup mode.

Two conditions exist when split feature is on and activated:

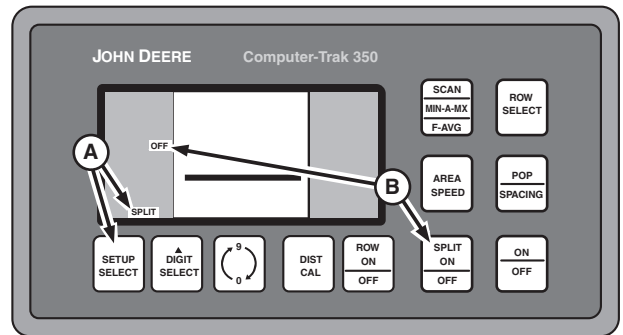
- Machines with an even number of rows: When SPLIT is activated, all "odd" rows are turned off.
- Machines with an odd number of rows: When SPLIT is activated, all "even" rows are turned off.

A—SETUP/SELECT Switch
B—SPLIT ON/OFF Switch
C—Split Rows Activated



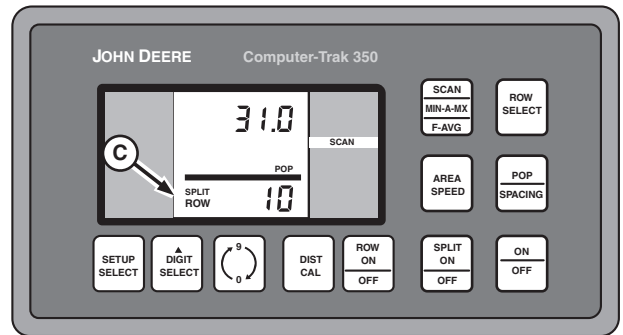
Split Feature On—Setup Mode

A49807 —UN-08AUG02



Split Feature Off—Setup Mode

A49808 —UN-08AUG02



Split Row Activated—Operating Mode

A52078 —UN-24MAR03

PA (Population Adjust)

PA (POPULATION ADJUST) is best used with high delivery rates or small seeds when the sensors are not able to count every seed.

PA (POPULATION ADJUST) This number represents a “correction factor” by which Population readings are multiplied, prior to being displayed. A “PA” number of 1.00 causes no change in the population readings. A “PA” number of 2.00 causes population numbers to double before being displayed.

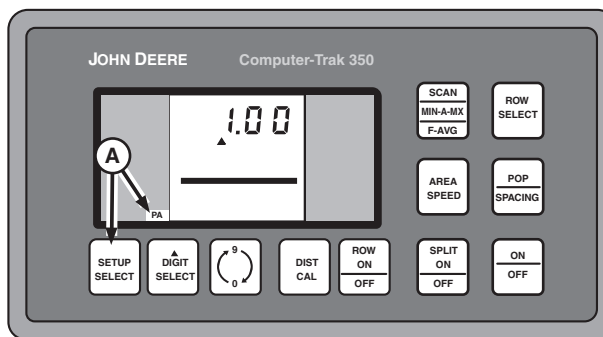
NOTE: The minimum number allowed is 0.5 and the maximum number allowed is 2.50. Any number less than 0.5 or greater than 2.50 will not allow the *SETUP* function to be exited until a number within this range is entered.

Repeatedly press SETUP SELECT switch (A) until PA is displayed in left-hand column.

Use DIGIT SELECT and 0-9 switches to enter values.

Example:

If 100 000 seeds/acre is displayed on monitor but 150 000 are actually being planted, a PA value of 1.5 should be entered. This would cause the monitor to multiply each seed detected by 1.5 and increase the accuracy displayed.



A—SETUP SELECT Switch

A49806 -UN-08AUG02

PA Chart — Small Soybeans — 8972 seeds/kg (4070 seeds/lb)

Population = 296 500 seeds/ha (120 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.04	1.06	1.09	1.12
8.05 (5)	1.06	1.07	1.11	1.13
9.66 (6)	1.06	1.09	1.13	1.15
11.27 (7)	1.08	1.10	1.14	1.17
12.87 (8)	1.09	1.12	1.15	1.19
14.48 (9)	1.10	1.13	1.16	1.22
16.1 (10)	1.11	1.13	1.18	1.25

Population = 321 200 seeds/ha (130 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.06	1.09	1.12
8.05 (5)	1.06	1.08	1.12	1.14
9.66 (6)	1.07	1.09	1.13	1.16
11.27 (7)	1.08	1.11	1.14	1.18
12.87 (8)	1.09	1.12	1.16	1.21
14.48 (9)	1.11	1.13	1.17	1.24
16.1 (10)	1.12	1.14	1.20	1.27

Population = 345 900 seeds/ha (140 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.07	1.10	1.13
8.05 (5)	1.06	1.09	1.13	1.15
9.66 (6)	1.08	1.10	1.14	1.17
11.27 (7)	1.09	1.12	1.15	1.20
12.87 (8)	1.10	1.13	1.17	1.23
14.48 (9)	1.12	1.14	1.18	1.26
16.1 (10)	1.13	1.15	1.21	1.29

Population = 370 600 seeds/ha (150 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.07	1.11	1.13
8.05 (5)	1.07	1.09	1.13	1.15
9.66 (6)	1.08	1.11	1.14	1.18
11.27 (7)	1.09	1.13	1.16	1.21
12.87 (8)	1.11	1.13	1.18	1.25
14.48 (9)	1.12	1.14	1.21	1.28
16.1 (10)	1.13	1.15	1.23	1.31

Population = 395 300 seeds/ha (160 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.08	1.12	1.14
8.05 (5)	1.07	1.09	1.13	1.16
9.66 (6)	1.09	1.12	1.15	1.19
11.27 (7)	1.10	1.13	1.17	1.23
12.87 (8)	1.12	1.14	1.19	1.27
14.48 (9)	1.13	1.15	1.22	1.30
16.1 (10)	1.13	1.16	1.25	1.31

Population = 420 100 seeds/ha (170 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.08	1.12	1.14
8.05 (5)	1.08	1.10	1.14	1.17
9.66 (6)	1.09	1.12	1.16	1.21
11.27 (7)	1.11	1.13	1.17	1.25
12.87 (8)	1.12	1.14	1.21	1.28
14.48 (9)	1.13	1.16	1.23	1.31
16.1 (10)	1.14	1.17	1.27	1.31

COMPUTER TRAK 350/450 Monitor Setup

Population = 444 800 seeds/ha (180 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.09	1.13	1.15
8.05 (5)	1.08	1.11	1.14	1.18
9.66 (6)	1.10	1.13	1.16	1.22
11.27 (7)	1.12	1.14	1.18	1.26
12.87 (8)	1.13	1.15	1.22	1.30
14.48 (9)	1.13	1.16	1.25	1.31
16.1 (10)	1.14	1.18	1.28	1.31

Population = 518 900 seeds/ha (210 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.08	1.10	1.14	1.17
8.05 (5)	1.09	1.13	1.16	1.21
9.66 (6)	1.12	1.14	1.18	1.26
11.27 (7)	1.13	1.15	1.23	1.31
12.87 (8)	1.14	1.17	1.26	1.31
14.48 (9)	1.15	1.18	1.30	1.32
16.1 (10)	1.16	1.21	1.31	1.35

Population = 469 500 seeds/ha (190 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.07	1.09	1.13	1.16
8.05 (5)	1.09	1.12	1.15	1.18
9.66 (6)	1.10	1.13	1.17	1.23
11.27 (7)	1.12	1.14	1.20	1.28
12.87 (8)	1.13	1.16	1.23	1.31
14.48 (9)	1.14	1.17	1.27	1.31
16.1 (10)	1.15	1.18	1.30	1.32

Population = 543 600 seeds/ha (220 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.08	1.11	1.14	1.17
8.05 (5)	1.10	1.13	1.16	1.23
9.66 (6)	1.12	1.14	1.20	1.27
11.27 (7)	1.13	1.16	1.24	1.31
12.87 (8)	1.14	1.17	1.27	1.31
14.48 (9)	1.15	1.20	1.31	1.32
16.1 (10)	1.16	1.23	1.31	1.38

Population = 494 200 seeds/ha (200 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.07	1.09	1.13	1.16
8.05 (5)	1.09	1.12	1.15	1.20
9.66 (6)	1.11	1.13	1.18	1.25
11.27 (7)	1.13	1.15	1.21	1.29
12.87 (8)	1.13	1.16	1.25	1.31
14.48 (9)	1.14	1.18	1.28	1.31
16.1 (10)	1.15	1.21	1.31	1.32

Population = 568 300 seeds/ha (230 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.08	1.11	1.15	1.18
8.05 (5)	1.10	1.13	1.17	1.24
9.66 (6)	1.12	1.15	1.21	1.29
11.27 (7)	1.13	1.16	1.21	1.31
12.87 (8)	1.15	1.18	1.29	1.32
14.48 (9)	1.16	1.21	1.31	1.34
16.1 (10)	1.17	1.24	1.31	1.40

Continued on next page

OUO6076.00001C9 -19-30MAR05-2/3

COMPUTER TRAK 350/450 Monitor Setup

Population = 593 100 seeds/ha (240 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.09	1.12	1.15	1.19
8.05 (5)	1.11	1.13	1.18	1.25
9.66 (6)	1.13	1.15	1.22	1.30
11.27 (7)	1.14	1.17	1.26	1.31
12.87 (8)	1.15	1.19	1.30	1.32
14.48 (9)	1.16	1.22	1.31	1.37
16.1 (10)	1.18	1.25	1.31	1.43

Population = 667 200 seeds/ha (270 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.10	1.13	1.16	1.22
8.05 (5)	1.12	1.14	1.21	1.28
9.66 (6)	1.13	1.16	1.25	1.31
11.27 (7)	1.15	1.18	1.30	1.32
12.87 (8)	1.16	1.22	1.31	1.37
14.48 (9)	1.18	1.25	1.32	1.44
16.1 (10)	1.21	1.28	1.33	1.51

Population = 617 761 seeds/ha (250 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.09	1.12	1.15	1.20
8.05 (5)	1.11	1.14	1.18	1.26
9.66 (6)	1.13	1.15	1.23	1.31
11.27 (7)	1.14	1.17	1.27	1.31
12.87 (8)	1.15	1.20	1.31	1.32
14.48 (9)	1.17	1.23	1.31	1.39
16.1 (10)	1.18	1.26	1.32	1.46

Population = 691 900 seeds/ha (280 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.10	1.13	1.17	1.23
8.05 (5)	1.12	1.15	1.21	1.29
9.66 (6)	1.14	1.17	1.26	1.31
11.27 (7)	1.15	1.20	1.31	1.32
12.87 (8)	1.17	1.23	1.31	1.39
14.48 (9)	1.18	1.26	1.32	1.46
16.1 (10)	1.21	1.29	1.35	1.53

Population = 642 500 seeds/ha (260 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.09	1.12	1.16	1.21
8.05 (5)	1.12	1.14	1.20	1.27
9.66 (6)	1.13	1.16	1.24	1.31
11.27 (7)	1.14	1.18	1.29	1.32
12.87 (8)	1.16	1.21	1.31	1.35
14.48 (9)	1.17	1.24	1.31	1.41
16.1 (10)	1.20	1.27	1.32	1.48

PA Chart — Large Soybeans — 4564 seeds/kg (2070 seeds/lb)

Population = 296 500 seeds/ha (120 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.03	1.05	1.07	1.09
8.05 (5)	1.04	1.06	1.08	1.12
9.66 (6)	1.05	1.07	1.10	1.14
11.27 (7)	1.06	1.08	1.12	1.17
12.87 (8)	1.07	1.09	1.14	1.20
14.48 (9)	1.08	1.10	1.17	1.23
16.1 (10)	1.08	1.12	1.19	1.26

Population = 370 600 seeds/ha (150 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.04	1.06	1.08	1.12
8.05 (5)	1.05	1.07	1.11	1.15
9.66 (6)	1.06	1.08	1.13	1.19
11.27 (7)	1.07	1.10	1.16	1.22
12.87 (8)	1.08	1.12	1.19	1.26
14.48 (9)	1.09	1.13	1.21	1.30
16.1 (10)	1.11	1.15	1.24	1.33

Population = 321 200 seeds/ha (130 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.04	1.05	1.07	1.10
8.05 (5)	1.05	1.06	1.09	1.13
9.66 (6)	1.05	1.07	1.11	1.16
11.27 (7)	1.06	1.09	1.13	1.19
12.87 (8)	1.07	1.10	1.16	1.22
14.48 (9)	1.08	1.11	1.18	1.25
16.1 (10)	1.09	1.13	1.20	1.28

Population = 395 300 seeds/ha (160 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.06	1.09	1.13
8.05 (5)	1.06	1.07	1.12	1.16
9.66 (6)	1.07	1.09	1.14	1.20
11.27 (7)	1.08	1.10	1.17	1.24
12.87 (8)	1.09	1.13	1.20	1.28
14.48 (9)	1.10	1.14	1.23	1.32
16.1 (10)	1.12	1.16	1.26	1.35

Population = 345 900 seeds/ha (140 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.04	1.05	1.08	1.10
8.05 (5)	1.05	1.07	1.10	1.14
9.66 (6)	1.06	1.08	1.12	1.17
11.27 (7)	1.07	1.09	1.15	1.20
12.87 (8)	1.08	1.10	1.17	1.24
14.48 (9)	1.09	1.12	1.20	1.27
16.1 (10)	1.10	1.14	1.22	1.31

Population = 420 100 seeds/ha (170 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.06	1.10	1.13
8.05 (5)	1.06	1.08	1.13	1.18
9.66 (6)	1.07	1.10	1.16	1.21
11.27 (7)	1.08	1.11	1.18	1.26
12.87 (8)	1.10	1.13	1.21	1.30
14.48 (9)	1.11	1.15	1.24	1.34
16.1 (10)	1.13	1.18	1.28	1.36

COMPUTER TRAK 350/450 Monitor Setup

Population = 444 800 seeds/ha (180 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.07	1.10	1.14
8.05 (5)	1.06	1.08	1.13	1.19
9.66 (6)	1.08	1.10	1.17	1.23
11.27 (7)	1.09	1.12	1.20	1.27
12.87 (8)	1.10	1.14	1.23	1.32
14.48 (9)	1.12	1.17	1.26	1.35
16.1 (10)	1.13	1.19	1.30	1.38

Population = 518 900 seeds/ha (210 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.08	1.12	1.17
8.05 (5)	1.07	1.10	1.16	1.22
9.66 (6)	1.09	1.12	1.20	1.27
11.27 (7)	1.10	1.15	1.23	1.33
12.87 (8)	1.12	1.17	1.27	1.36
14.48 (9)	1.14	1.20	1.32	1.39
16.1 (10)	1.16	1.22	1.34	1.44

Population = 469 500 seeds/ha (190 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.05	1.07	1.11	1.16
8.05 (5)	1.07	1.09	1.14	1.20
9.66 (6)	1.08	1.11	1.18	1.24
11.27 (7)	1.09	1.13	1.21	1.29
12.87 (8)	1.11	1.16	1.24	1.33
14.48 (9)	1.13	1.18	1.27	1.36
16.1 (10)	1.14	1.20	1.32	1.39

Population = 543 600 seeds/ha (220 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.08	1.13	1.18
8.05 (5)	1.08	1.10	1.17	1.23
9.66 (6)	1.09	1.13	1.21	1.29
11.27 (7)	1.11	1.16	1.25	1.34
12.87 (8)	1.13	1.18	1.29	1.37
14.48 (9)	1.15	1.21	2.00	1.40
16.1 (10)	1.17	1.23	1.35	1.47

Population = 494 200 seeds/ha (200 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.07	1.12	1.16
8.05 (5)	1.07	1.09	1.15	1.21
9.66 (6)	1.08	1.12	1.19	1.26
11.27 (7)	1.10	1.14	1.22	1.31
12.87 (8)	1.12	1.16	1.26	1.35
14.48 (9)	1.13	1.19	1.30	1.38
16.1 (10)	1.15	1.21	1.33	1.41

Population = 568 300 seeds/ha (230 000 seeds/acre)				
Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.06	1.09	1.14	1.19
8.05 (5)	1.08	1.11	1.18	1.25
9.66 (6)	1.10	1.14	1.22	1.30
11.27 (7)	1.12	1.16	1.26	1.35
12.87 (8)	1.14	1.19	1.30	1.38
14.48 (9)	1.16	1.22	1.34	1.43
16.1 (10)	1.18	1.25	1.37	1.50

Continued on next page

OUC6076,00001C6 -19-30MAR05-2/3

COMPUTER TRAK 350/450 Monitor Setup

Population = 593 100 seeds/ha (240 000 seeds/acre)

Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.07	1.09	1.14	1.20
8.05 (5)	1.08	1.12	1.19	1.26
9.66 (6)	1.10	1.14	1.23	1.32
11.27 (7)	1.12	1.17	1.27	1.36
12.87 (8)	1.14	1.20	1.32	1.40
14.48 (9)	1.17	1.23	1.35	1.45
16.1 (10)	1.19	1.26	1.38	1.29

Population = 667 200 seeds/ha (270 000 seeds/acre)

Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.08	1.10	1.17	1.23
8.05 (5)	1.09	1.13	1.21	1.30
9.66 (6)	1.12	1.17	1.26	1.35
11.27 (7)	1.15	1.20	1.32	1.39
12.87 (8)	1.17	1.23	1.35	1.45
14.48 (9)	1.19	1.26	1.38	1.53
16.1 (10)	1.21	1.30	1.42	1.61

Population = 617 761 seeds/ha (250 000 seeds/acre)

Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.07	1.09	1.15	1.21
8.05 (5)	1.09	1.12	1.20	1.27
9.66 (6)	1.11	1.15	1.24	1.33
11.27 (7)	1.13	1.18	1.29	1.37
12.87 (8)	1.15	1.21	1.33	1.41
14.48 (9)	1.17	1.24	1.36	1.48
16.1 (10)	1.20	1.27	1.39	1.55

Population = 691 900 seeds/ha (280 000 seeds/acre)

Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.08	1.10	1.17	1.24
8.05 (5)	1.10	1.14	1.22	1.31
9.66 (6)	1.12	1.17	1.27	1.36
11.27 (7)	1.15	1.20	1.33	1.40
12.87 (8)	1.17	1.24	1.36	1.48
14.48 (9)	1.20	1.27	1.39	1.56
16.1 (10)	1.22	1.31	1.44	1.63

Population = 642 500 seeds/ha (260 000 seeds/acre)

Ground Speed km/h (m/h)	Population Adjust Value for Row Spacing			
	191 mm (7.5 in.)	254 mm (10 in.)	381 mm (15 in.)	508 mm (20 in.)
6.44 (4)	1.07	1.10	1.16	1.22
8.05 (5)	1.09	1.13	1.20	1.28
9.66 (6)	1.11	1.16	1.25	1.34
11.27 (7)	1.13	1.19	1.30	1.38
12.87 (8)	1.16	1.25	1.34	1.43
14.48 (9)	1.18	1.25	1.37	1.51
16.1 (10)	1.20	1.28	1.40	1.58

F-AVG (Fast Average)

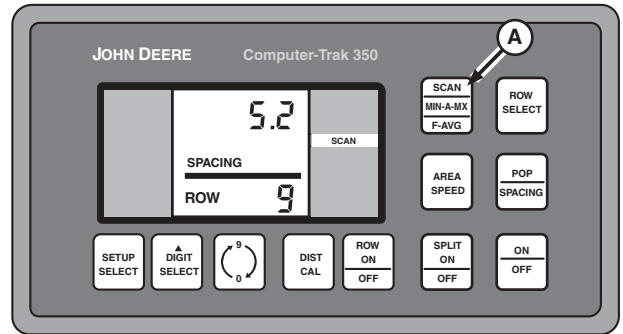
NOTE: This is primarily used for grain drills with EPRC (Electronic Population Rate Control) and CCS Seed Metering systems.

NOTE: One second is the fastest a monitor will update.

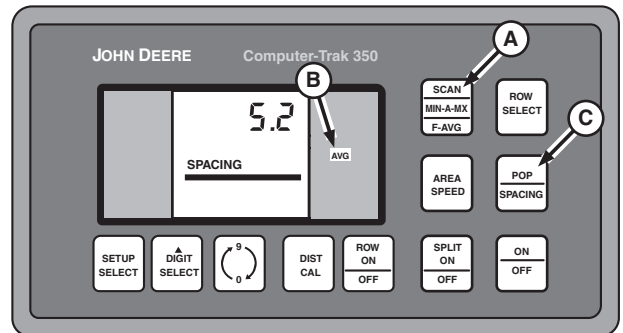
F-AVG (Fast Average) updates the displayed reading faster than standard SCAN, but will fluctuate more. F-AVG works well for EPRC and CCS Seed Metering applications when changing population values based on monitor readings.

1. Press SCAN switch (A) repeatedly until AVG (B) is displayed in right-hand column. This activates Fast Average monitoring.
2. Press POP/SPACING switch (C) to alternate between population and seed spacing readouts.

A—SCAN Switch
B—AVG
C—POP/Spacing Switch



A49818 -UN-09AUG02



A49819 -UN-03SEP02

Continued on next page

OUC1074,00013F6 -19-28MAY02-1/2

The monitor will update population values every second or after counting a predetermined number of seeds, whichever is greater. To change F-AVG SEED COUNT proceed as follows:

1. Turn monitor off.
2. Hold SCAN switch (A) while turning monitor back on.
3. Release SCAN switch.

NOTE: Fast average screen remains available in setup mode until monitor is powered off.

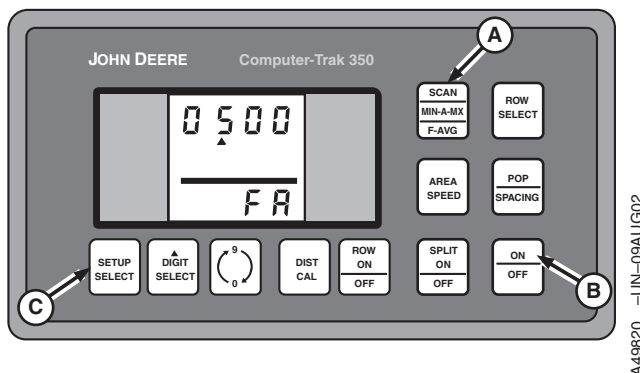
4. Press SETUP SELECT switch (C) repeatedly until "FA" is displayed on bottom of screen.

NOTE: Any number from 50 to 9999 may be entered.

5. Use DIGIT SELECT and 0-9 switches to enter TOTAL number of seeds to be counted across ALL rows before fast average screen updates.

Example:

If fast average is set-up to count 200 total seeds, the fast average display will update as soon as 200 seeds are counted or one second elapses, whichever takes longer.



A—SCAN Switch
B—Power Switch
C—SETUP SELECT Switch

OUO1074,00013F6 -19-28MAY02-2/2

Resetting Constants

IMPORTANT: All setup information remains in the monitor even if disconnected from the battery.

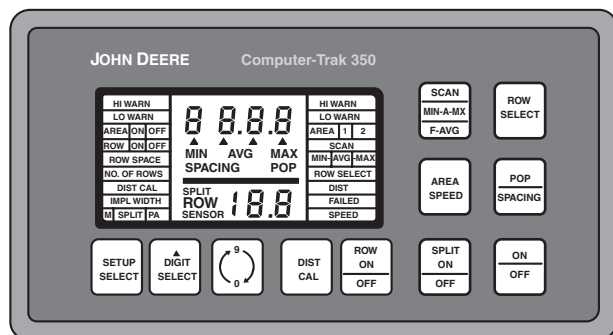
Once all monitor settings have been entered, any change can be made. Press SETUP SELECT switch until the setting to be changed is displayed.

OUO6074,0000701 -19-24MAR03-1/1

Operating COMPUTER TRAK™ 350/450 Monitor

Powering Monitor On

Immediately after ON/OFF switch is pressed the initial POWER-UP display will be shown.



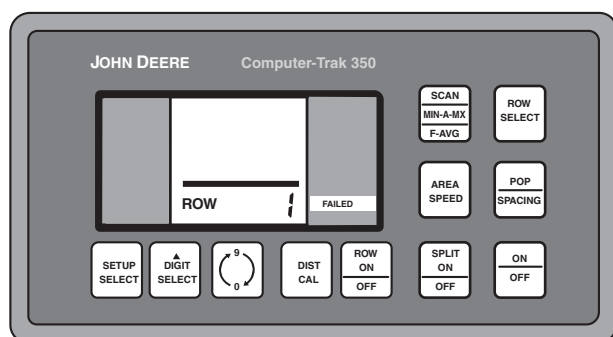
A49597 -UN-26JUL02

OUO6074,0000702 -19-25MAR03-1/2

The display will cycle through all rows and display row sensors FAILED, if machine is stopped.

If a setup message is displayed, each setup value must be examined for a possible change and to verify correct setup values.

Correct any value that has changed and then press any one of the right-hand switches to operate the monitor.



A49598 -UN-26JUL02

Row 1 Failed Illustrated

OUO6074,0000702 -19-25MAR03-2/2

Monitoring Population and Seed Spacing

During field operation, the population/seed spacing of each row is monitored in sequence.

NOTE: When planting begins, there will be a slight hesitation before the monitor begins counting up. This is normal and occurs in order to eliminate start up errors.

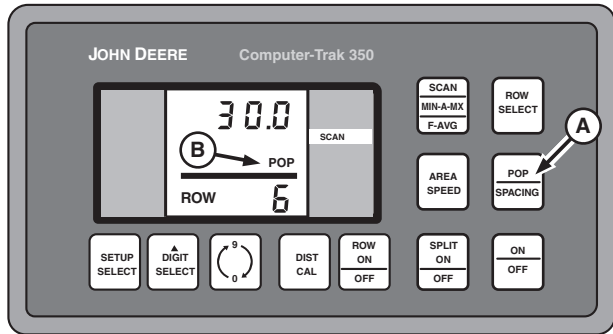
When operation begins, the monitor receives signals from the radar sensor and seed sensors.

NOTE: For example, a 76 cm (30 in) row traveling approximately 27.4 m (90 ft) covers 1/200th of an acre.

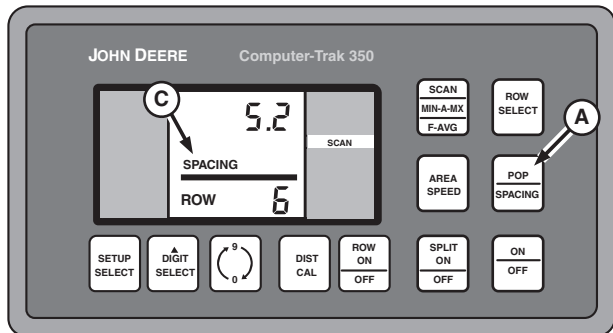
During the initial 1/200th acre per row, the monitor counts up to the actual population. Each row is then monitored in sequence.

Press POP/SPACING switch (A) to display either population or seed spacing during any monitoring function (SCAN, MIN-AVG-MAX, F-AVG, or ROW SELECT).

When population is displayed, it is indicated by "POP" (B) on screen. When seed spacing is displayed, it is indicated by "SPACING" (C) on screen.



A52083 -UN-28MAR03



A52087 -UN-28MAR03

A—POP/SPACING Switch
B—POP
C—SPACING

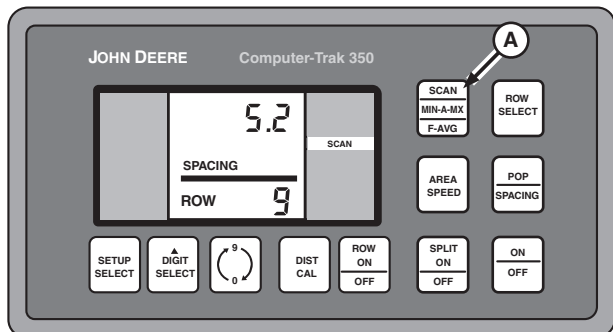
OUO6074,0000703 -19-25MAR03-1/5

Scan Function

Press SCAN, MN-A-MX, F-AVG switch (A) repeatedly until SCAN is displayed in right-hand column.

Each row will be scanned and displayed in sequence. Readout may be either population or seed spacing depending on selection.

A—SCAN, MN-A-MX, F-AVG Switch



A49818 -UN-09AUG02

Continued on next page

OUO6074,0000703 -19-25MAR03-2/5

Minimum, Average, Maximum Function

Press MN-A-MX switch repeatedly until MIN-AVG-MAX is displayed in right-hand column.

Screen will repeatedly scroll through three different displays. Readout may be either population or seed spacing depending on selection.

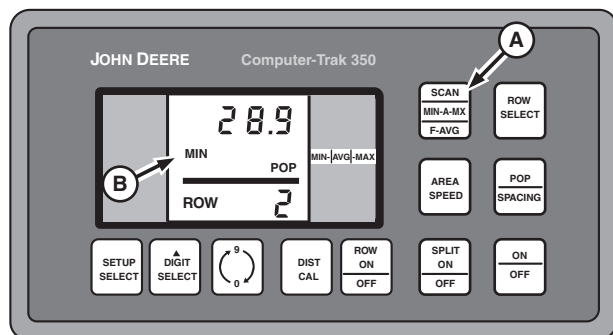
- MIN (B) screen displays the row number with the lowest current reading.
- AVG (C) screen displays average reading of all rows.
- MAX (D) screen displays the row number with the highest current reading.

A—SCAN, MN-A-MX, F-AVG Switch

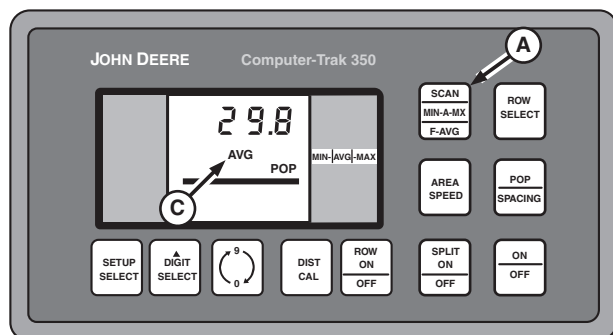
B—MIN

C—AVG

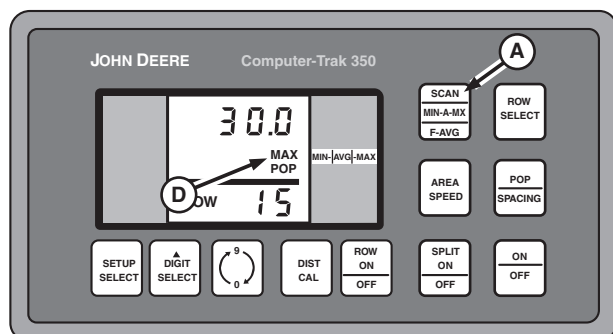
D—MAX



A52084 —UN-28MAR03



A52085 —UN-28MAR03



A52086 —UN-28MAR03

Continued on next page

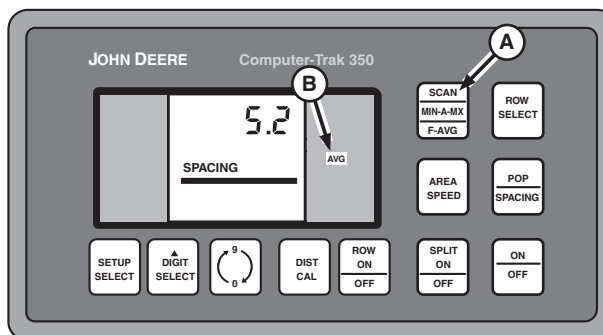
OUC6074,0000703 —19-25MAR03-3/5

Fast Average Function

Press MN-A-MX switch (A) repeatedly until AVG (B) is displayed in right-hand column.

Fast Average monitors the average seed count across all rows each second OR after counting a predetermined number of seeds across all rows, whichever takes longer. The predetermined number is entered through setup mode. See F-AVG (FAST AVERAGE) in COMPUTER TRAK 350/450 Monitor Setup section.

A—MN-A-MX Switch
B—AVG



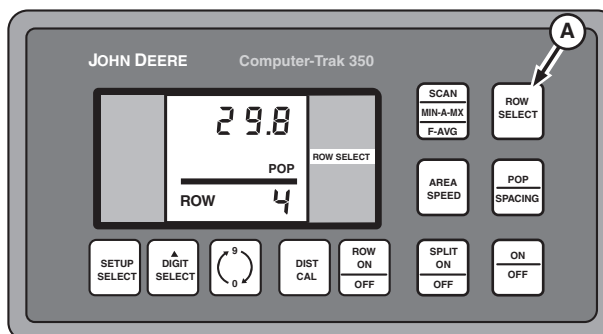
A52088 -UN-28MAR03

OUO6074,0000703 -19-25MAR03-4/5

Row Select Function

Press ROW SELECT switch to lock monitor display onto one row. Row number can be changed by pressing ROW SELECT switch repeatedly, until desired row number is displayed. Monitor will continue to display a single row until another function is selected.

A—ROW SELECT Switch



A49603 -UN-26JUL02

OUO6074,0000703 -19-25MAR03-5/5

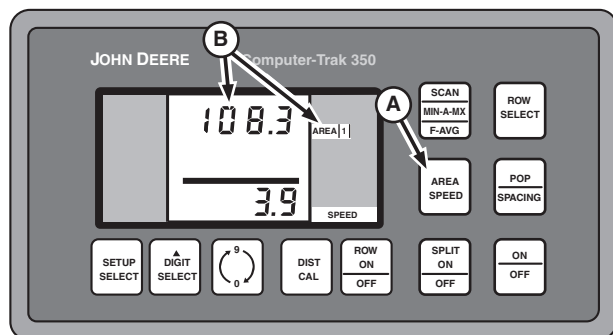
Area/Speed

NOTE: The monitor will only display a decimal point up to 999.9. Further area readings will be displayed as whole numbers (1000, 1001, 1002). If a decimal point is desired, it will be necessary to reset display to 000.0. See AREA COUNTERS 1 AND 2 in COMPUTER TRAK 350/450 Monitor Setup section.

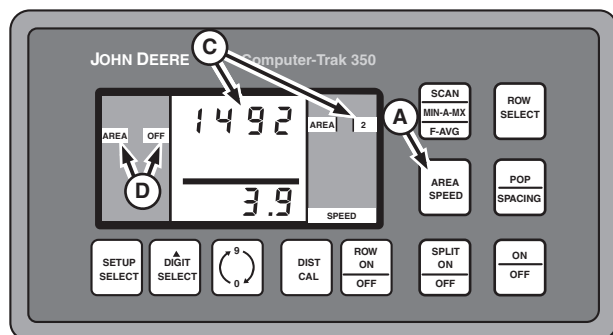
Repeatedly press AREA SPEED switch (A) to toggle between AREA 1 (B) and AREA 2 (C) counters.

If an area counter is turned off, AREA OFF (D) will appear in left-hand column. AREA OFF will not appear in left-hand column, if area counter is turned on. To turn area counters on and off or to reset counters, see AREA COUNTERS 1 AND 2 in COMPUTER TRAK 350/450 Monitor Setup section.

- A—AREA SPEED Switch
- B—AREA 1
- C—AREA 2
- D—AREA OFF



A52090 -UN-28MAR03



A52089 -UN-28MAR03

OUO6074,0000705 -19-25MAR03-1/1

Seed Counter Mode

Seed Count Mode allows the operator to view the number of seeds that pass a single row sensor.

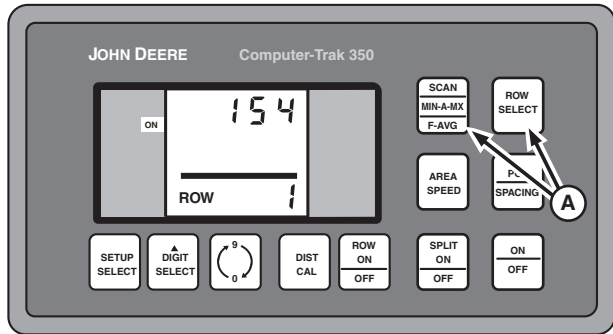
To enter this mode, press SCAN and ROW SELECT (A) simultaneously.

ROW ON/OFF switch (B) turns seed counter ON and OFF.

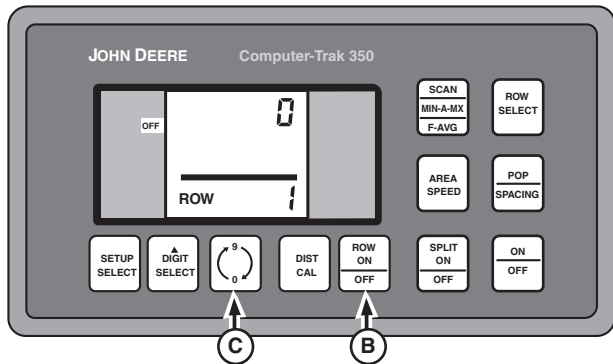
The 0-9 switch (C) has two functions:

- Resets the accumulated count when seed counter is ON
- Changes the row number selected when seed counter is OFF

To exit this mode push either SCAN, ROW SELECT, AREA SPEED, POP/SPACING or SETUP SELECT switches. Row failures will be displayed while in this mode, but HI-LO warnings will not. The DIST FAILED function is inoperative in this mode. If a ROW FAILURE occurs, the Seed Count Mode will be automatically exited.



A52106 -UN-27MAR03



A49622 -UN-26JUL02

A—SCAN and ROW SELECT
B—ROW ON/OFF Switch
C—0-9 Switch

OUO6074,000070B -19-26MAR03-1/1

Distance Counter Mode

Distance Count Mode allows the operator to measure distance traveled based on radar information.

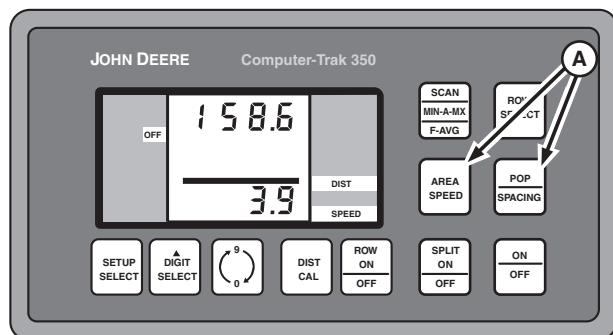
To enter this mode, press AREA SPEED and POP/SPACING (A) simultaneously. DIST and SPEED will be displayed in lower right-hand display. Current speed is displayed on bottom portion of screen.

Press ROW ON/OFF switch (B) to turn distance counter ON and OFF.

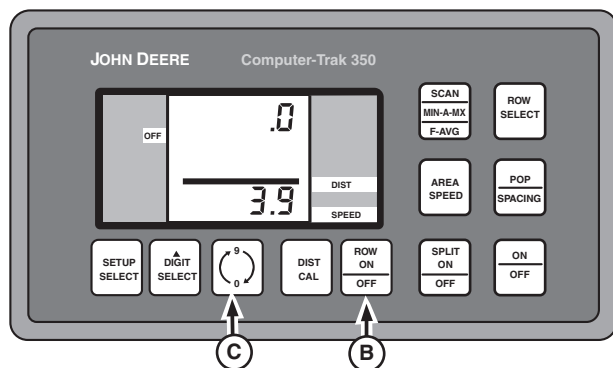
Press 0-9 switch (C) to reset counter to zero.

To exit this function, press SCAN, ROW SELECT, AREA SPEED, POP/SPACING or SETUP SELECT.

- A—AREA SPEED and POP/SPACING
- B—ROW ON/OFF Switch
- C—0-9 Switch



A49623 -UN-26JUL02



A49624 -UN-26JUL02

OUO6074,000070C -19-26MAR03-1/1

Row Failed Messages

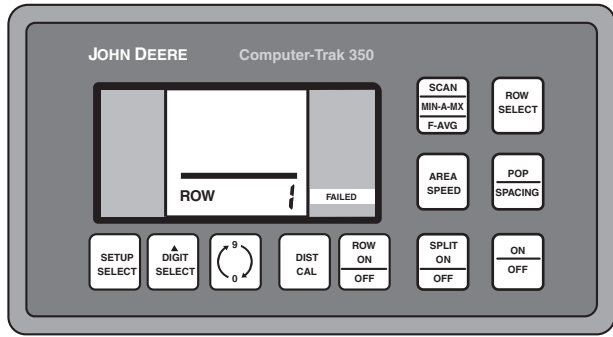
When system is in operation, if seed rate of any row falls below two seeds per second, the alarm will sound and the failed row numbers will be displayed without a population. The messages ROW and FAILED are displayed and the audible alarm sounds continuously. This overrides any other display.

When machine is stopped, the monitor continues to display the failed message, but the alarm will stop after a few seconds. When machine is stopped, the right-hand switches can be operated to review populations for the last 1/200th of an acre per row.

The loudness of the audible alarm can be changed by rotating the alarm cover (A) on bottom of monitor.

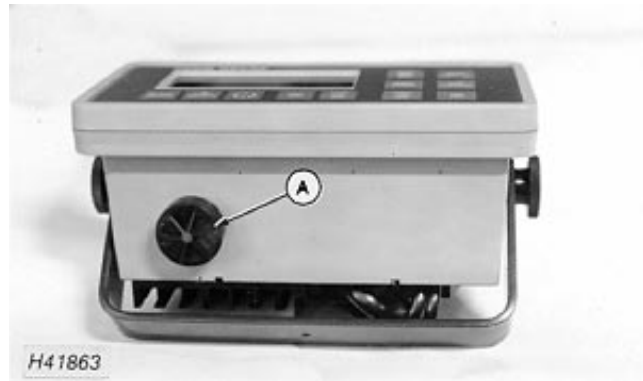
When planting is resumed, if the problem causing the alarm has not been corrected, the alarm will sound and the message will be displayed. If the condition has been corrected, the monitor resumes the display mode it was in before the failure occurred.

A—Alarm Cover



A49605 -UN-26JUL02

Row 1 Failed Illustrated



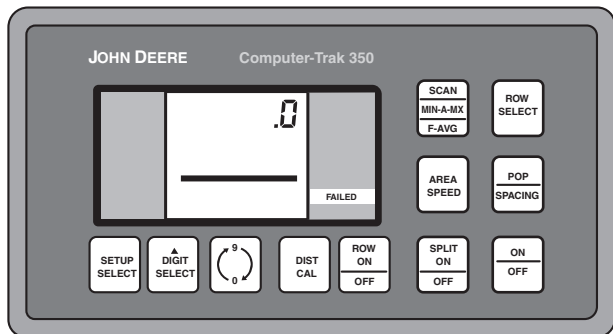
H41863 -UN-18APR90

OUO6074,0000708 -19-26MAR03-1/1

Distance Failed Message

If the radar signal is lost due to a poor connection, pinched harness or failed radar sensor, population, area and ground speed cannot be computed or displayed. DIST and FAILED will alternately flash in right-hand column and alarm will sound briefly.

The sensor problem should be fixed as soon as possible. If planting must continue, the monitor can still monitor seed flow. A fixed speed must be entered into distance calibration page to continue monitoring without radar input. See SPEED SET MODE in COMPUTER TRAK 350/450 Monitor Setup section.



A49606 -UN-26JUL02

OUO6074,0000709 -19-26MAR03-1/1

Display During Transporting or Turning Around

When machine is lifted and no seed drop is detected, the monitor indicates failure of each row in sequence.

The audible alarm will sound for a few seconds.

NOTE: It is normal for the monitor not to display information for approximately five seconds after planting has resumed. The delay allows for a more accurate population calculation.

When planting is resumed, the monitor will display information from the last 1/200th of an acre per row recorded and begin to update.

OUO6074,000070D -19-26MAR03-1/1

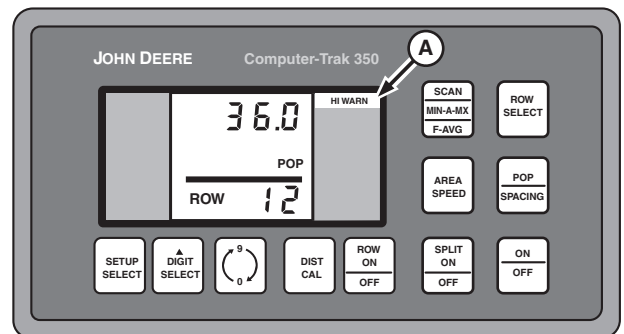
High or Low Population Warnings

NOTE: If the high and low limits are set too close to each other, this warning will occur often.

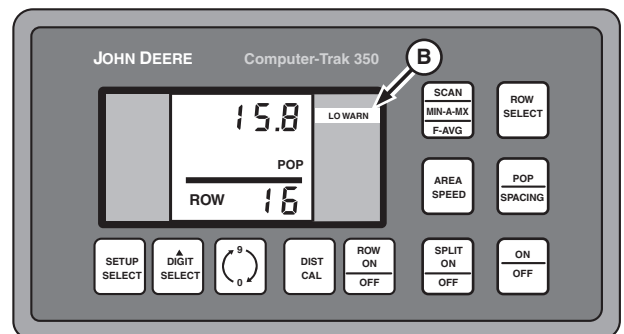
When the population of any row is outside the limits of either the HIGH or LOW settings, the display shows the rows, the actual planting population and a HI warning (A) or LO warning (B). The alarm will sound intermittently.

When the planter is stopped, the right-hand switches will override the ROW FAILED indications so the row populations can be compared for diagnostic purposes, or to determine new HI/LO warning limits.

A—HI Warning
B—LO Warning



High Population Warning



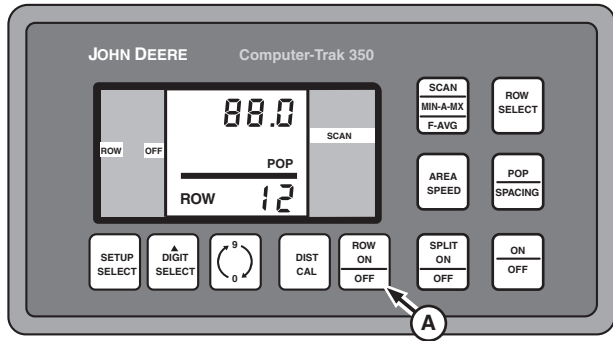
Low Population Warning

OUO6074,000070E -19-26MAR03-1/1

Point Row Planting

When half-width disconnect is activated or any individual row units are disabled, row failure alarms can be deactivated by pressing ROW ON/OFF switch (A). The monitor will stop monitoring turned off rows and ROW OFF will be displayed in left-hand column as a reminder. Area is calculated using active rows only. The monitor will return to normal operation when seed flow is detected in ANY disabled row.

EXAMPLE: (12-Row Planter) If the left-hand clutch is disengaged, normal planting will show ROWS 1-6 FAILED. Pressing the monitor ROW ON/OFF switch will clear failed messages and continue scanning operative rows only. When clutch is re-engaged, seed flow will be detected in rows 1-6 and monitor will begin scanning all rows again.



A49613 -UN-03SEP02

A—ROW ON/OFF Switch

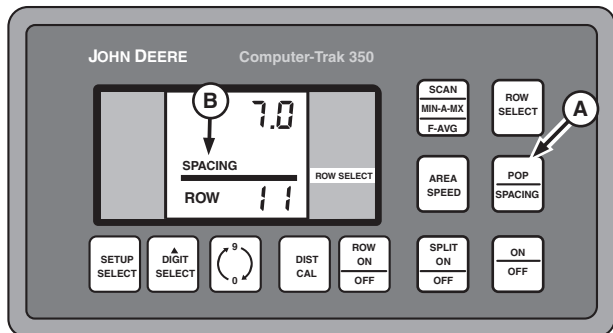
OUO6074,000070F -19-27MAR03-1/1

Seed Spacing

Press POP/SPACING switch (A) to display seed spacing instead of population while monitoring. "SPACING" (B) is displayed on screen.

Seed spacing is available for all monitoring functions (SCAN, MN-A-MX, F-AVG, and ROW SELECT).

A—POP/SPACING Switch
B—SPACING



A52114 -UN-28MAR03

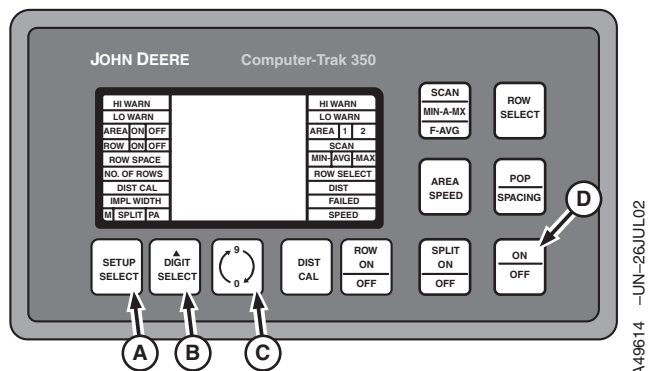
OUO6074,0000710 -19-27MAR03-1/1

Monitor History (Planter Mode)

There is some data stored in the consoles permanent memory.

To access this data, press and hold SETUP SELECT (A), DIGIT SELECT (B), and 0-9 (C) switches simultaneously. While holding all three switches press ON/OFF switch (D). After powering up release all switches.

- A—Setup Select
- B—Digit Select
- C—0-9 Switch
- D—Power Up

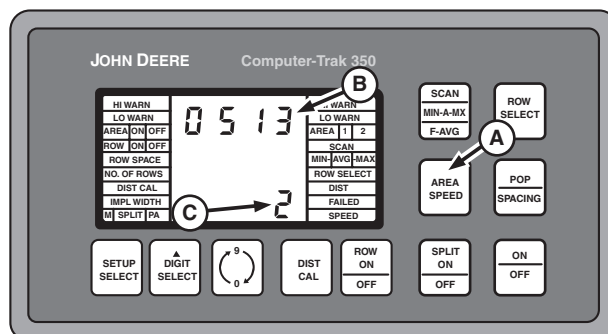


A49614 -UN-26JUL02

OUO6074,0000711 -19-27MAR03-1/2

Press AREA SPEED switch (A). The upper display (B) will show total acres accumulated up to 9,999 acres. The lower display (C) will show number of times total acres have reached 10,000. Display at right shows 20,513 total acres accumulated.

- A—AREA SPEED Switch
- B—Upper Display
- C—Lower Display



A52117 -UN-28MAR03

OUO6074,0000711 -19-27MAR03-2/2

Troubleshooting

Monitors

Symptom	Problem	Solution
Console operates intermittently.	Monitor not receiving full 12 volts.	Be certain console-to-convenience outlet connection is tight.
One row shows failure.	Seed tube plugged.	Unplug seed tube.
	Unit roller chain off sprocket.	Replace roller chain.
	Unit not planting.	See Service section in planter operator's manual.
	Seed sensors are dirty.	Clean sensors with sensor brush (available from your John Deere dealer) or with a bottle brush.
	Plateless units—fingers malfunctioning.	Replace fingers or springs (see Service section in planter operator's manual.)
Failure shown for half of planter's units.	Shorted sensor or planter harness.	Check for damaged harness.
	Sheared drill shaft pin.	Replace pin.
All rows fail.	Drive chain in center of planter off sprockets.	Replace chain on sprockets.
	Shorted sensor or planter harness.	Check for damaged harness.
	No power to sensors.	Check for damaged harness.
Failure shown intermittently.	Shorted sensor or planter harness.	Check for damaged harness.
(COMPUTER TRAK™ 150 only) One lamp fails to light when units are turned on.	Burned out lamp.	Test for burned out lamp by installing a good lamp from another row. If lamp is burned out, see your John Deere dealer for proper replacement bulb.
	Short in sensor harness or planter harness.	Check for shorted sensor harness or planter harness wire. If wires are cut or damaged, solder wires back together according to color codes and tape each wire individually.

Continued on next page

OUO6074,0000712 -19-27MAR03-1/2

Troubleshooting

Symptom	Problem	Solution
(COMPUTER TRAK™ 350/450 only) Erratic monitor operation.	Intermittent excessive planter drive wheel slippage.	Check to be sure row unit down pressure springs are not excessively tight (too much down force), or add ballast to planter frame. Be certain that row attachments such as coulters or tine tooth are not carrying too much planter frame weight.
	HI-WARN or LOW-WARN alarm sounds too frequently.	Limits may be set too close for planting conditions. Planter seed sensors may be dirty. Planter drive wheels may be slipping excessively.
	F-AVG Enabled for lower population crops.	Switch out of F-AVG mode.

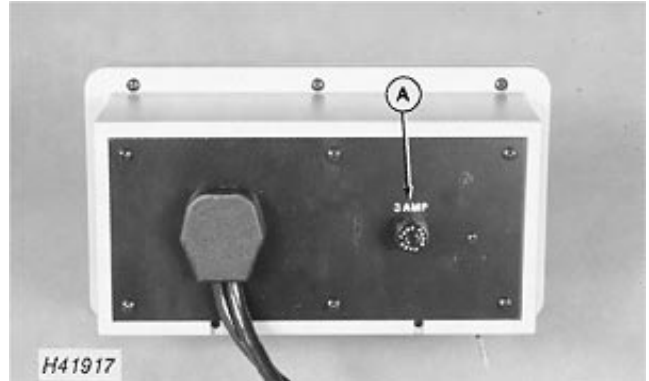
OUO6074,0000712 -19-27MAR03-2/2

Service

Monitor Fuse

COMPUTER TRAK™ 150 Monitor uses one 3 amp fuse (A).

A—3 Amp Fuse



COMPUTER TRAK™ 150 Monitor

H41917 -UN-25MAY90

AG,OUO1074,845 -19-01MAR00-1/1

Lamps

(COMPUTER TRAK™ 150). If replacement bulb is needed, see your John Deere dealer for proper bulb.



H41872 -UN-18APR90

AG,OUO1074,846 -19-01MAR00-1/1

Regular, Regular Straight, Small Straight and Large Seed Tubes (MaxEmerge™ Plus Row Units)

If seed tubes must be removed or replaced, proceed as follows:

To remove:

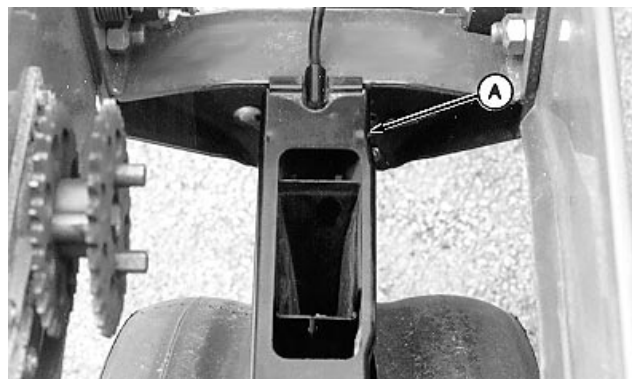
1. Disconnect planter harness from seed tube sensor.

Continued on next page

AG,OUO1074,847 -19-01MAR00-1/5

2. Remove shank cover (A).

A—Cover



A41218 -UN-14MAY97

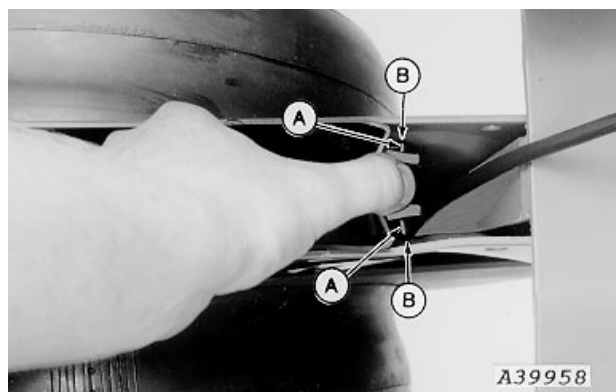
AG,OUO1074,847 -19-01MAR00-2/5

3. Depress front of seed tube to disengage tabs (A) from latching holes (B).

4. Remove seed tube.

To install:

A—Disengage Tabs
B—Latching Holes



A39958 -UN-05AUG96

AG,OUO1074,847 -19-01MAR00-3/5

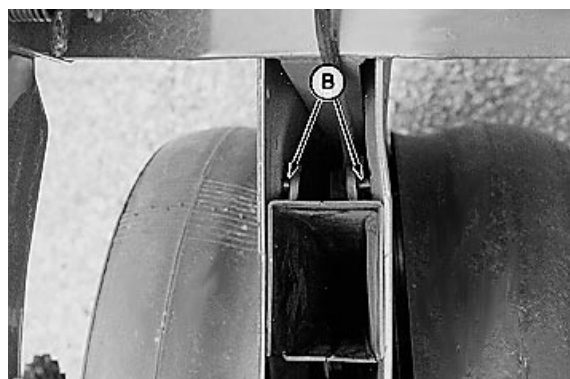
IMPORTANT: If seed tube is not properly located on aligning pin, inaccurate seed metering and/or damage to the seed tube may occur.

1. Position seed tube in shank, making certain it is engaged on pin (A).
2. Depress front of seed tube and engage tabs (B) in latching holes.

A—Pin
B—Engage Tabs



A41217 -UN-14MAY97



A41219 -UN-14MAY97

Continued on next page

AG,OUO1074,847 -19-01MAR00-4/5

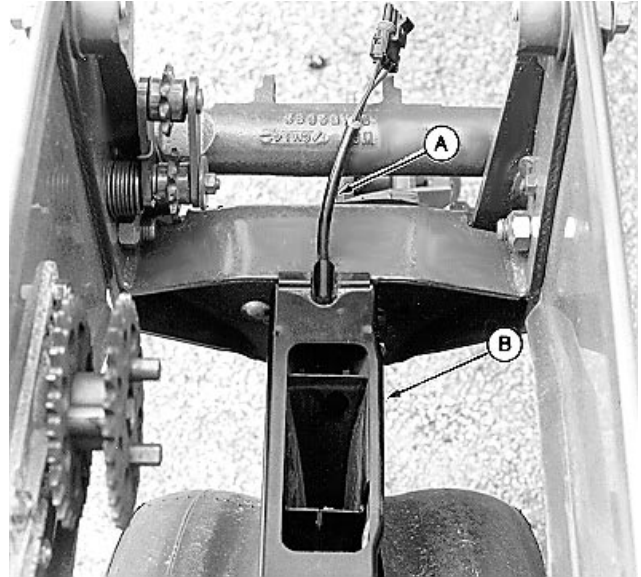
3. Route harness lead (A) out of shank as shown.

4. Replace shank cover (B).

NOTE: make certain all slack is out of sensor lead before securing with ties.

5. Connect seed tube sensor harness to planter harness.

A—Harness Lead
B—Cover



A41220 -UN-14MAY97

AG,OUO1074,847 -19-01MAR00-5/5

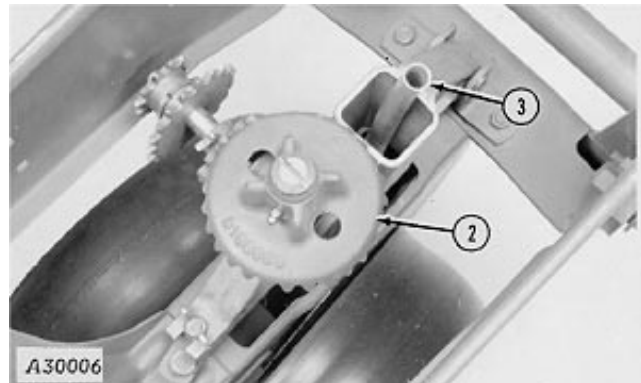
Sugar Beet Seed Tube (Plate Meter)

If seed tubes must be removed, proceed as follows:

1. Disconnect drive chain.
2. Remove plate-meter gear nest.
3. Remove seed tube assembly.

IMPORTANT: The top of the seed tube should make light contact with the false plate. Too much pressure can cause false plate wear and seed tube damage.

NOTE: When installing seed tubes, be certain hook on seed tube is on the aligning pin in the shank.



A30006 -UN-06OCT88

AG,OUO1074,848 -19-01MAR00-1/1

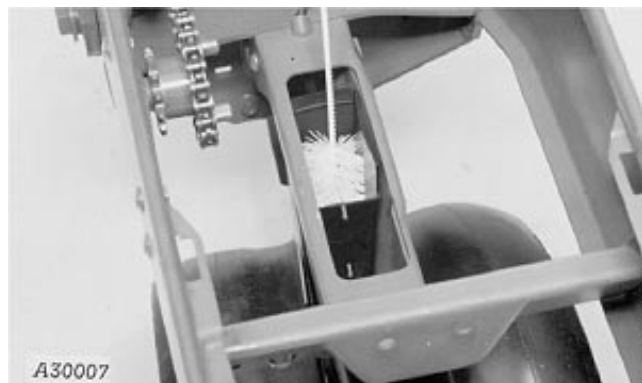
Cleaning Seed Sensor

In extremely dusty operating conditions, dust can build up on the seed sensor. Even in normal operating conditions, seed treatments can build up on the sensor. Eventually this buildup may become sufficient to disturb the sensor signal light, causing low population counts or low warnings to be indicated.

Periodically clean the seed sensor with the brush (dry) provided.

The sensor may also be cleaned with the brush, using mild detergent and water.

IMPORTANT: Do not plant again until the entire seed tube and sensor surfaces are dry.



AG,OUO1074,849 -19-01MAR00-1/1

Monitor and Radar Installation

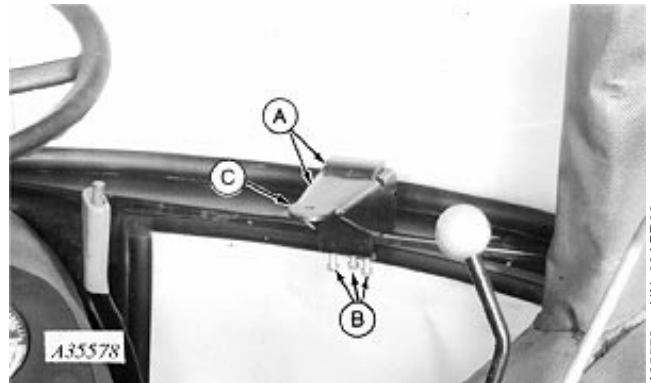
Assemble COMPUTER TRAK™

NOTE: A COMPUTER TRAK™ 350/450 Monitor is shown for all tractor models. The instructions are the same for the COMPUTER TRAK™ 150 Monitor.

AG,OUO1074,850 -19-01MAR00-1/1

30-55 Series Utility Tractors—Console Installation

1. Assemble brackets (A) and attach to window ledge with cap screws (B).
2. Place rubber washer (C) over hole.
3. Attach monitor to bracket.
4. Install monitor harness and radar harness into grommet.



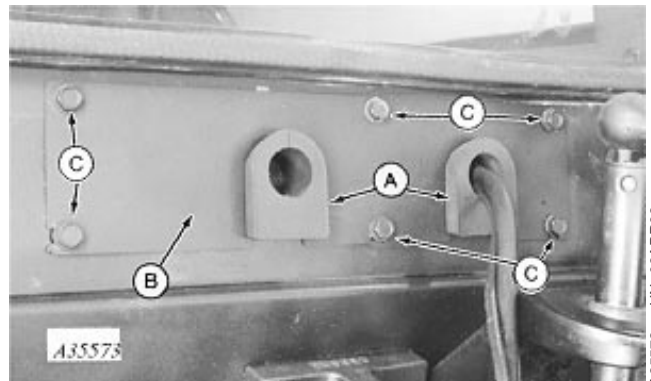
A35578 -UN-08APR93

A—Brackets
B—Cap Screws
C—Rubber Washer

AG,OUO1074,851 -19-01MAR00-1/3

5. Install grommets (A) into rear plate (B) as illustrated.
6. Attach rear plate to cab with six 5/16 x 7/8 in. screws (C).

A—Grommets
B—Rear Plate
C—Screws



A35573 -UN-08APR93

Continued on next page

AG,OUO1074,851 -19-01MAR00-2/3



A—Harness

7. Install monitor harness (A) as illustrated.
8. Connect monitor power harness to 12 volt power source. If tractor is equipped with a 2-pin

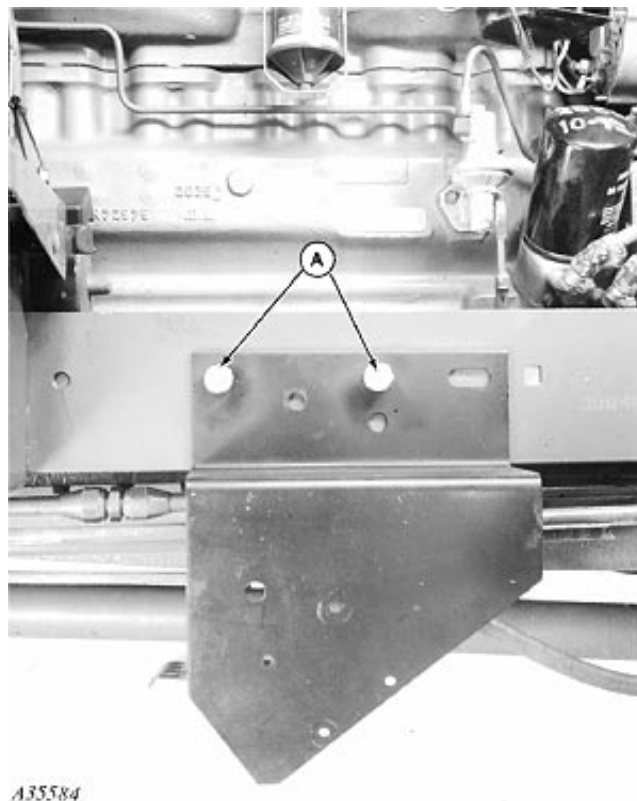
convenience outlet, order AA37254 to convert 2-pin to a 3-pin outlet. If tractor is not equipped with a convenience outlet, order AA37247.

AG,OUO1074,851 -19-01MAR00-3/3

30—55 Series Utility Tractor—Radar and Bracket Installation

1. Install two 5/8 x 1-1/2 in. cap screws (A) in right-hand engine rail.
2. Install radar mounting bracket on cap screws with lock washers and nuts as illustrated.

A—Cap Screws



AG,OUO1074,852 -19-01MAR00-1/2

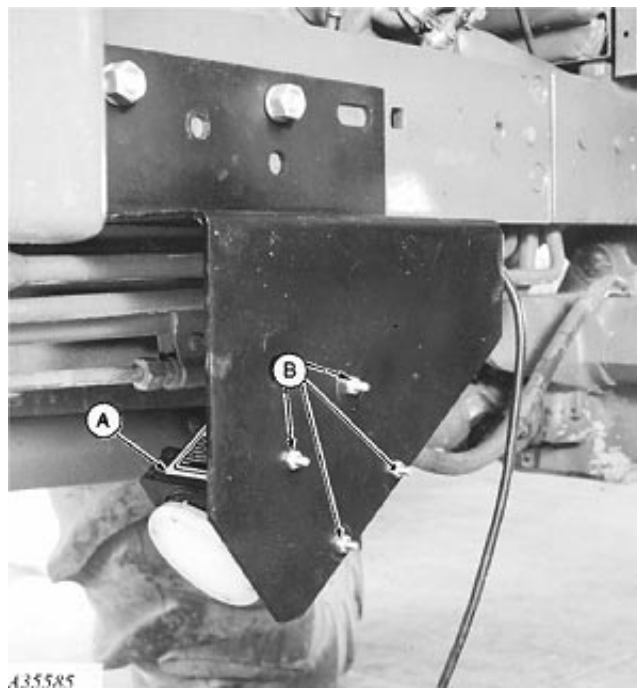


CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

NOTE: Be certain radar unit is mounted to bracket with serial number plate facing up.

3. Attach radar unit (A) to inside of mounting bracket with four 1/4 x 4 in. cap screws (B), flat washers and lock nuts. (washers under head of cap screws against radar unit).
4. Route radar cable toward rear axle and connect to power module lead.

A—Radar Unit
B—Cap Screws

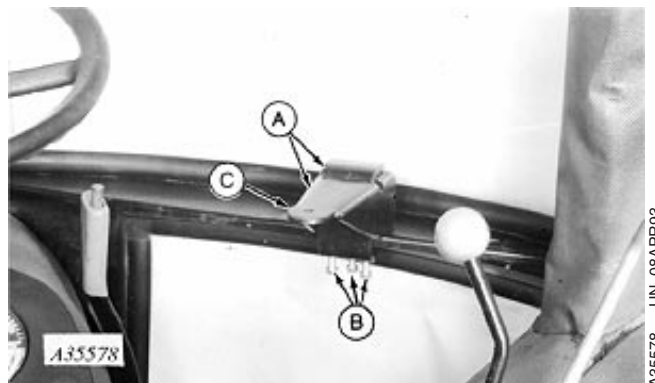


AG,OUO1074,852 -19-01MAR00-2/2

30-60 Series Row Crop Tractors (with Cab)— Console Installation

NOTE: For open station tractors see 30—60 Series Open Station Tractors Console Installation, this group.

1. Assemble monitor brackets (A) together and attach to window ledge with cap screws (B).
2. Place rubber washer (C) over hole.
3. Attach monitor to bracket.
4. Install monitor harness and radar harness into grommet.

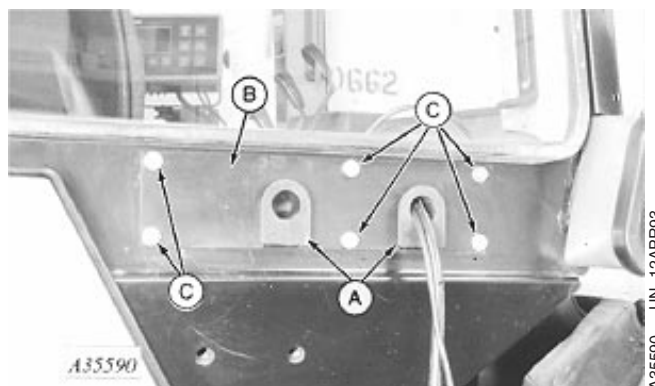


A—Brackets
B—Cap Screws
C—Rubber Washer

AG,OUO1074,853 -19-01MAR00-1/8

5. Install grommets (A) into rear plate (B) as illustrated.
6. Attach plate to cab with six 5/16 x 7/8 in. screws (C).

A—Grommets
B—Rear Plate
C—Screws



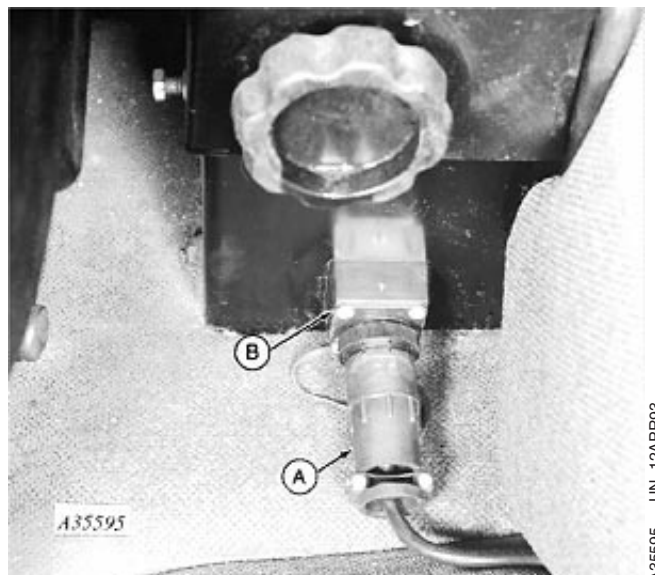
AG,OUO1074,853 -19-01MAR00-2/8

NOTE: If tractor is equipped with a 2-pin convenience outlet, order AA37254 to convert 2-pin to a 3-pin outlet.

If tractor is not equipped with a convenience outlet, order AA37247.

7. Carefully push monitor power connector (A) into convenience outlet (B) and turn collar clockwise.

A—Monitor Power Connector
B—Convenience Outlet

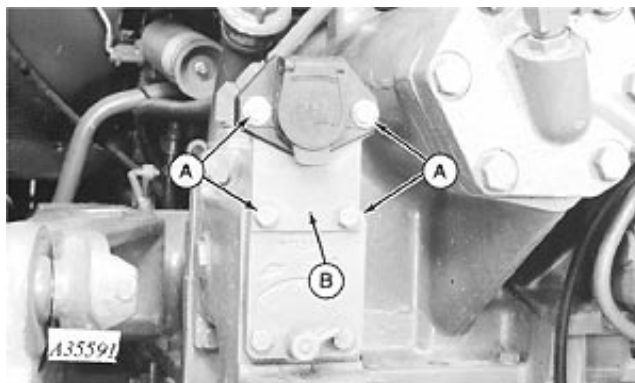


Continued on next page

AG,OUO1074,853 -19-01MAR00-3/8

8. Remove four cap screws (A), two nuts and SAVE for reuse.
9. Remove connector mounting plate (B) and DISCARD.

A—Cap Screws
B—Mounting Plate

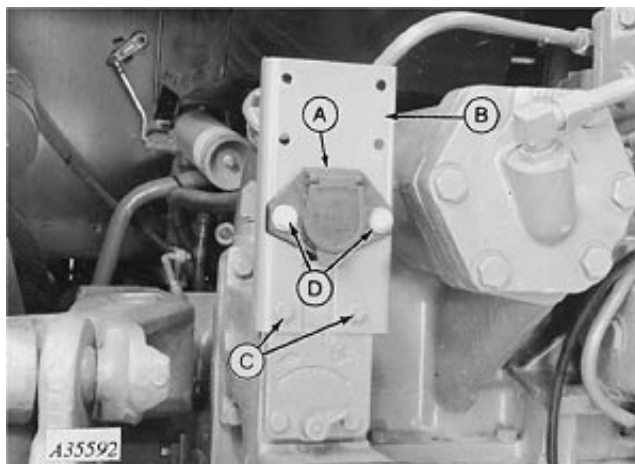


A35591 —UN-12APR93

AG,OUO1074,853 —19-01MAR00-4/8

10. Install harness connector (A) through slot in bracket (B).
11. Mount bracket (B) (legs to front) to tractor SCV with two cap screws (C) previously removed.
12. Install two cap screws (D) and nuts previously removed through connector (A) to bracket (B).

A—Harness Connector
B—Bracket
C—Cap Screws
D—Cap Screws

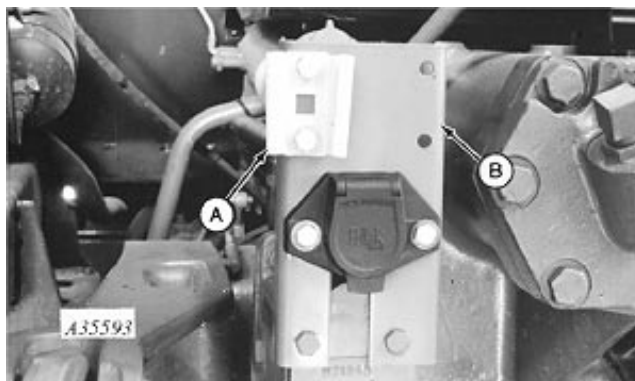


A35592 —UN-19APR93

AG,OUO1074,853 —19-01MAR00-5/8

13. Install socket (A) to connector bracket (B) with two M8 x 16 cap screws and M8 nuts.

A—Socket
B—Connector Bracket



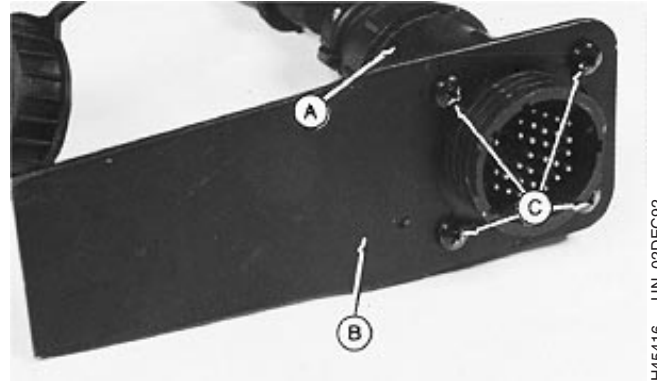
A35593 —UN-12APR93

Continued on next page

AG,OUO1074,853 —19-01MAR00-6/8

14. Attach monitor harness connector (A) to mounting spade (B) using four self-tapping screws (C) provided with monitor.

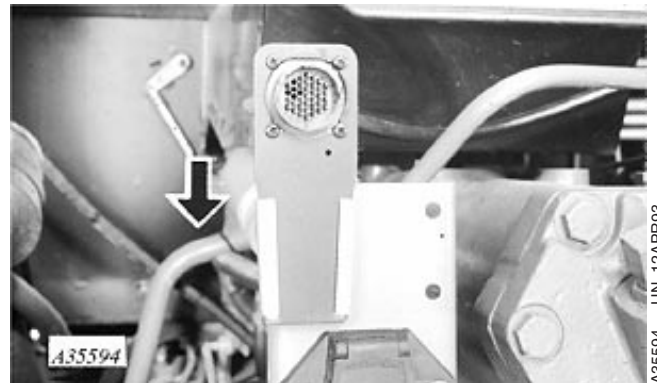
A—Harness Connector
B—Mounting Spade
C—Self-tapping Screws



H45416 -UN-02DEC92

AG,OUO1074,853 -19-01MAR00-7/8

15. Insert monitor spade into socket.



A35594 -UN-12APR93

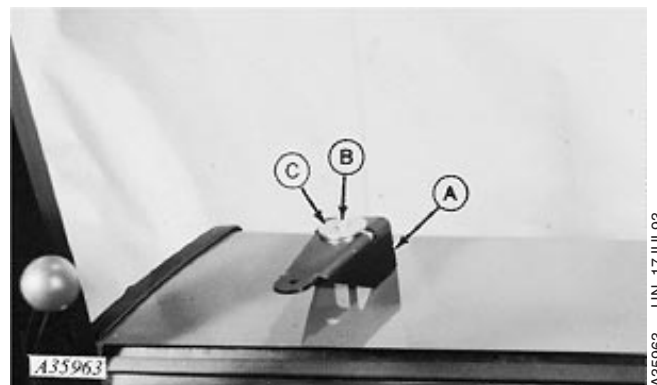
AG,OUO1074,853 -19-01MAR00-8/8

30—60 Series Open Station Tractors— Console Installation

1. Drill hole in right fender and attach bracket (A) with 3/8 x 3-1/2 in. cap screw (B) and 0.391 x 2 x 0.22 in. washer (C) and 3/8 in. nut.

Order from Parts:

A40983	Mount
19H1912	Cap Screw, 3/8 x 3-1/2
24H1300	Washer, 0.391 x 2 x 0.22
14H1076	Nut, 3/8



A35963 -UN-17JUL93

A—Bracket
B—Cap Screw
C—Washer

Continued on next page

AG,OUO1074,854 -19-01MAR00-1/7

2. Attach monitor to bracket.

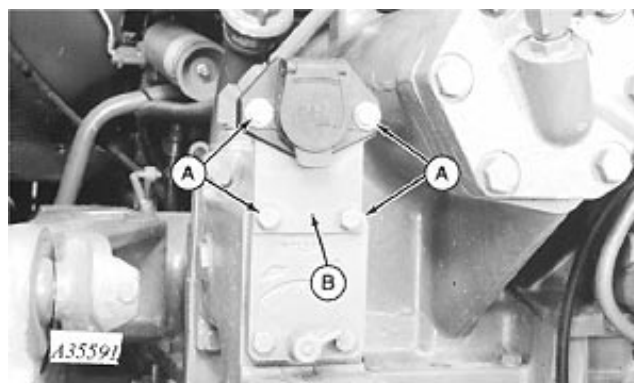


A35964 -UN-17JUL93

AG,OUO1074,854 -19-01MAR00-2/7

3. Remove four cap screws (A), two nuts and SAVE for reuse.
4. Remove connector mounting plate (B) and DISCARD.

A—Cap Screws
B—Mounting Plate

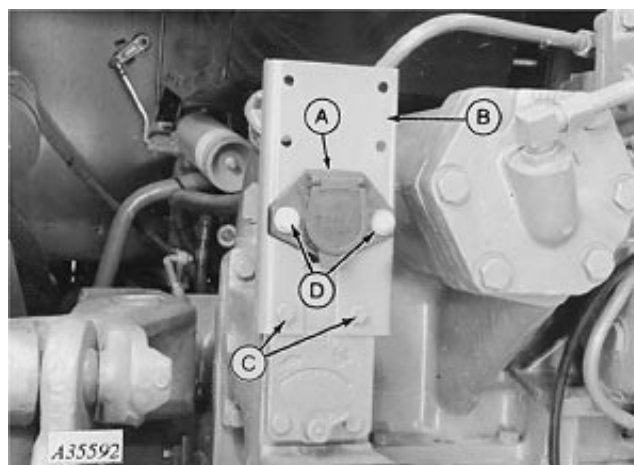


A35591 -UN-12APR93

AG,OUO1074,854 -19-01MAR00-3/7

5. Install harness connector (A) through slot in bracket (B).
6. Mount bracket (B) (legs to front) to tractor SCV with two cap screws (C) previously removed.
7. Install two cap screws (D) and nuts previously removed through connector (A) to bracket (B).

A—Connector, Harness
B—Bracket
C—Cap Screws
D—Cap Screws



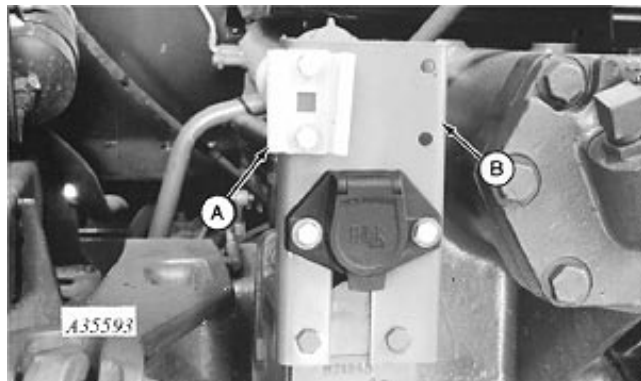
A35592 -UN-19APR93

Continued on next page

AG,OUO1074,854 -19-01MAR00-4/7

8. Install socket (A) to connector bracket (B) with two M8 x 16 cap screws and M8 nuts.

A—Socket
B—Connector Bracket

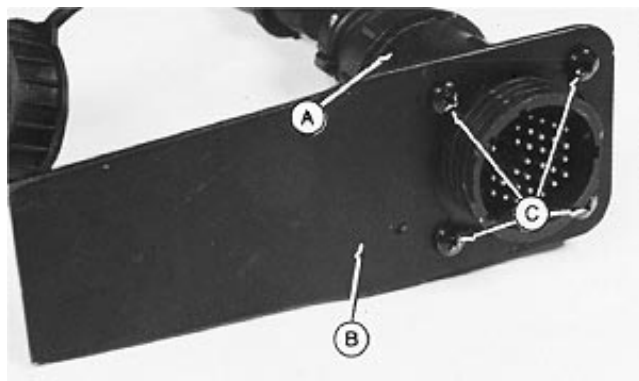


AG,OUO1074,854 -19-01MAR00-5/7

A35593 -UN-12APR93

9. Attach monitor harness connector (A) to mounting spade (B) using four self tapping screws (C) provided with monitor.

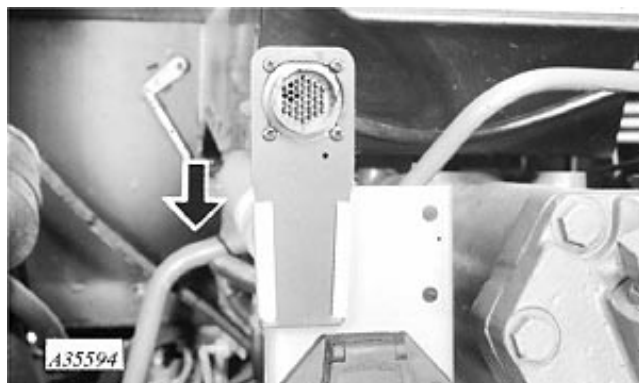
A—Harness Connector
B—Mounting Spade
C—Self-tapping Screws



AG,OUO1074,854 -19-01MAR00-6/7

H45416 -UN-02DEC92

10. Insert mounting spade into socket.
11. Connect monitor power harness to 3-pin convenience outlet. If tractor is equipped with a 2-pin outlet, order AA37254 to convert 2-pin outlet to a 3-pin outlet. If tractor is not equipped with a convenience outlet, order AA37247.



AG,OUO1074,854 -19-01MAR00-7/7

A35594 -UN-12APR93

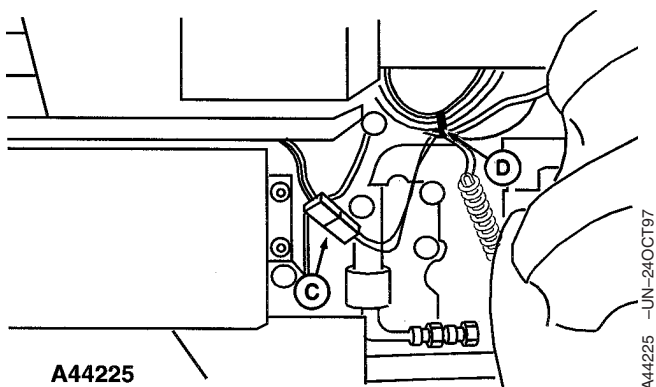
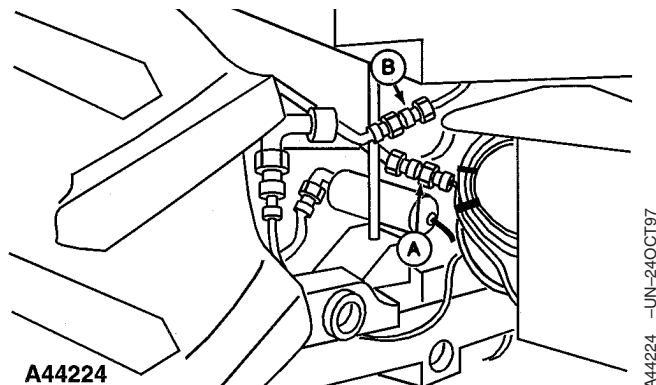
Install Radar Signal Adapter Harness—30 and 60 Series Tractors

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to “30-60 Series Row Crop Tractors—Radar and Bracket Installation”.

1. Disconnect radar lead from instrumentation radar lead.
2. Connect one short lead of adapter harness to radar lead (A) and other short lead from adapter harness to SEEDSTAR™ radar lead (B).
3. Route other end of adapter harness (C) and connect to instrumentation input lead.

IMPORTANT: Make certain harness cannot come in contact with moving parts and linkages.

4. Loop excess harness and secure to tractor with tie straps (D).



A—Radar Lead
B—Radar Lead
C—Adapter Harness
D—Tie Straps

SEEDSTAR is a trademark of Deere & Company.

OM61890,90C -19-28OCT97-1/1

30-60 Series Row Crop Tractors—Radar and Bracket Installation

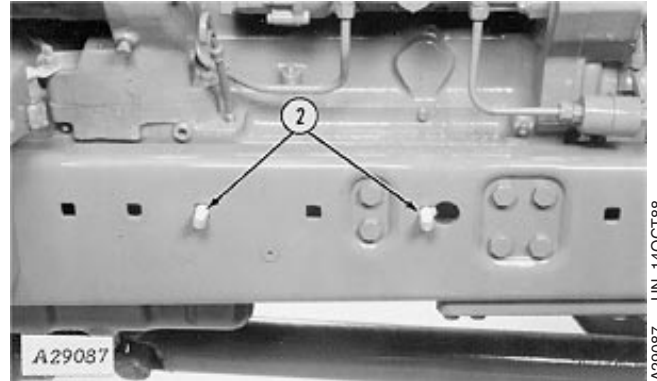
1. Remove toolbox and mounting bracket from right-hand side of tractor.



Continued on next page

AG.OUO1074,855 -19-01MAR00-1/4

2. Insert 5/8 x 1-1/2 in. cap screws in holes as shown.

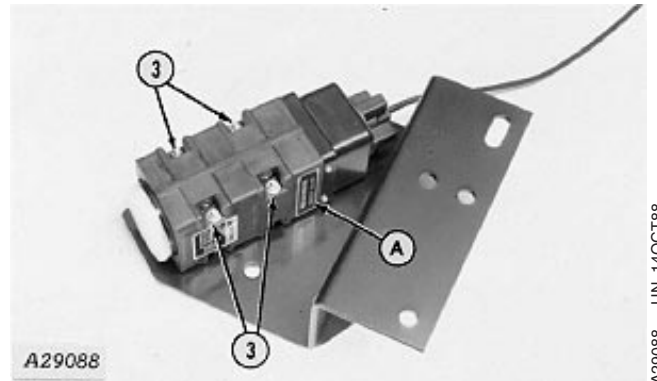


AG,OUO1074,855 -19-01MAR00-2/4

A29087 -UN-14OCT88

3. Attach radar unit to mounting plate with 1/4 in. cap screws, washers and lock nuts (do not overtighten). Be certain radar unit is mounted on plate so serial number plate (A) is facing up when plate is attached to tractor.

A—Serial Number Plate



AG,OUO1074,855 -19-01MAR00-3/4

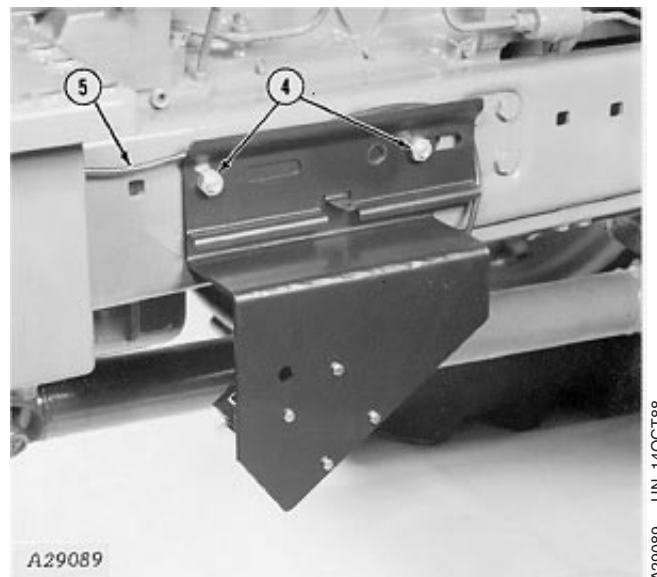
A29088 -UN-14OCT88

NOTE: 55 and 60 Series Tractors have spacers on toolbox mounting hardware. Install radar bracket against side frame, then spacers and toolbox mounting bracket (in this order).

4. Install radar plate and toolbox mounting bracket on cap screws and secure with lock washers and nuts.
5. Route cable back toward rear axle and connect to console radar lead.

CAUTION: Avoid looking directly into the sensor face to prevent possible eye damage from microwave signal emitted from radar sensor.

6. Fasten lead away from moving parts with tie straps.
7. Install toolbox on mounting bracket.



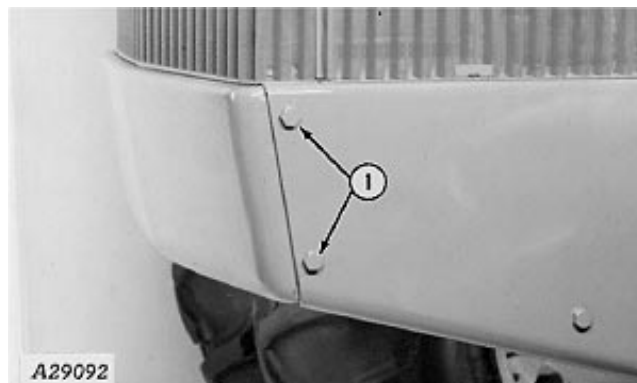
AG,OUO1074,855 -19-01MAR00-4/4

A29089 -UN-14OCT88

30-50 Series Four-Wheel Drive Tractors— Radar and Bracket Installation

NOTE: Monitor console installation procedure is the same as 30—60 Series Row Crop Tractors.

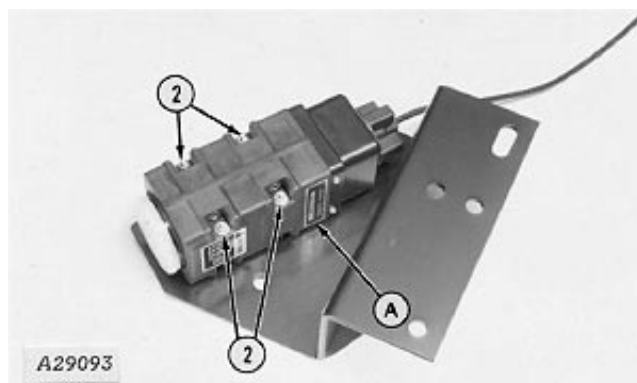
1. Remove front two cap screws from left-hand side of tractor.



AG,OUO1074,856 -19-01MAR00-1/5

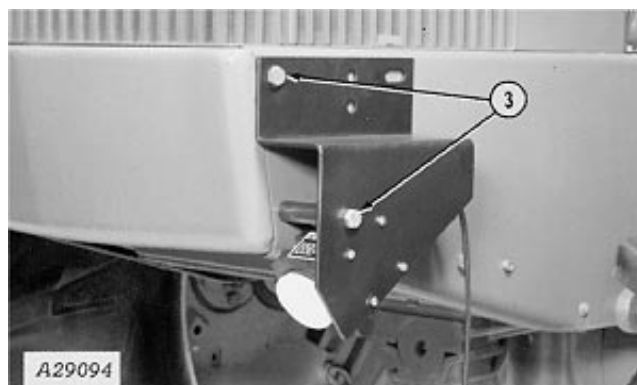
2. Attach radar unit to mounting plate with 1/4 x 4 in. cap screws, washers and lock nuts (do not overtighten). Be certain radar unit is mounted on plate so serial number plate (A) is facing up when plate is attached to tractor.

A—Serial Number Plate



AG,OUO1074,856 -19-01MAR00-2/5

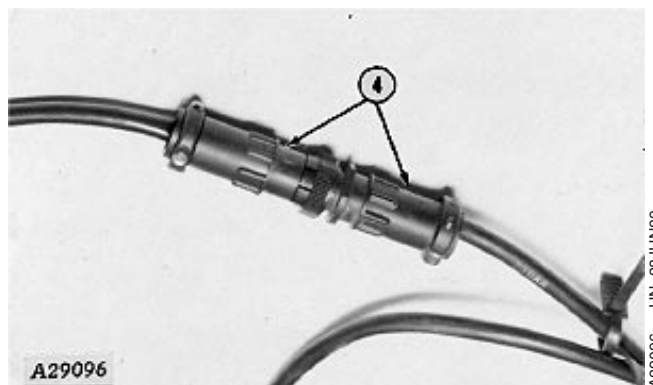
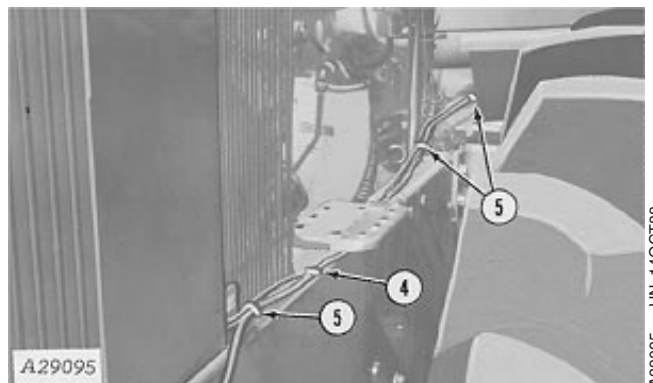
3. Attach mounting plate to tractor with one cap screw (removed in Step 1) and 5/8 in. cap screw and bushing.



Continued on next page

AG,OUO1074,856 -19-01MAR00-3/5

4. Route cable back toward rear axle and connect to power module radar lead.
5. Fasten radar cable leads to tractor with tie straps.

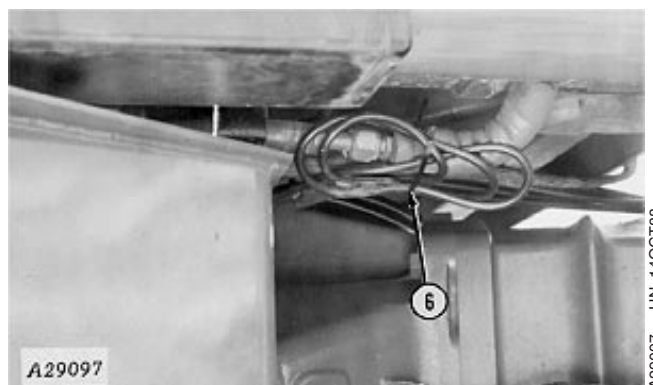


AG,OUO1074,856 -19-01MAR00-4/5



CAUTION: Avoid looking directly into the sensor face to prevent possible eye damage from the microwave signal emitted from radar sensor.

6. Loop and tie excess radar cable to tractor beneath SOUND-GARD™ body with tie strap.



SOUND-GARD is a trademark of Deere & Company.

AG,OUO1074,856 -19-01MAR00-5/5

60-70 Series Four-Wheel Drive Tractors— Console Installation

1. Install bracket to inside of cab (Right-hand front near window) using two M10 x 25 cap screws (A).
2. Attach monitor to bracket making certain to install rubber washer on top of strap at mounting.

A—Cap Screws



A35517 -UN-14APR93

AG,OUO1074,857 -19-01MAR00-1/5

NOTE: Early 60 Series 4WD have 2-pin convenience outlet Order (AA37254) to convert to 3-pin convenience outlet.

3. Connect monitor (A) to 3-pin convenience outlet.

A—Monitor



A35959 -UN-09AUG93

Continued on next page

AG,OUO1074,857 -19-01MAR00-2/5

-

A35960 -UN-09AUG93

-

A35510 -UN-11MAR93

-

A35957 -UN-09AUG93

Install Radar Signal Adapter Harness—60 and 70 Series Tractors

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to "Installation of Radar Bracket for 60 or 70 Series Four Wheel Drive Tractors".

1. Remove bell-shaped cover from back of radar sensor.

Continued on next page

OM61890,95H -19-28OCT97-1/2

2. Disconnect radar sensor harness (A) from sensor and connect one short lead (B) from adapter harness to radar sensor. Connect other short lead (C) to sensor harness (A). Make sure adapter harness connectors are fully seated against sensor connectors.

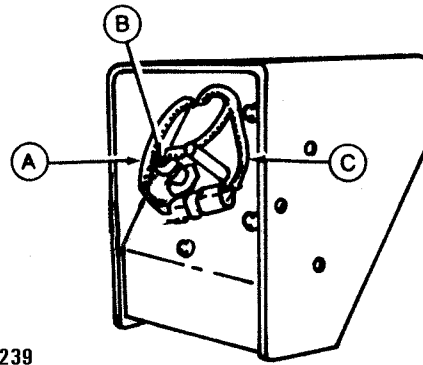
Reinstall cover to sensor.

3. Route adapter harness along hydraulic oil lines and secure with tie straps (D) as necessary. Keep away from moving parts and linkages.

NOTE: Be sure to leave some slack in adapter harness at hinge area to prevent damage to harness when articulating tractor.

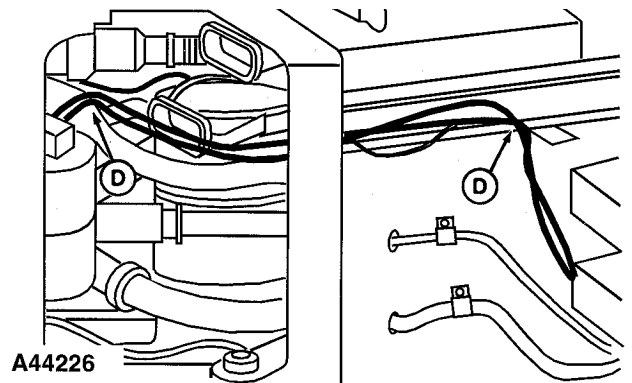
4. Connect adapter harness to COMPUTER TRAK™ radar lead (E). Secure excess harness beneath body, as necessary, with tie straps.

A—Radar Sensor Harness
 B—Short Lead
 C—Short Lead
 D—Sensor Harness
 E—COMPUTER TRAK™ Radar Lead



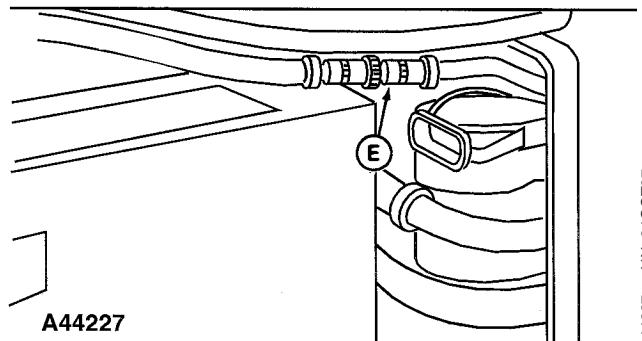
A44239

A44239 -UN-24OCT97



A44226

A44226 -UN-24OCT97



A44227

A44227 -UN-24OCT97

COMPUTER TRAK is a trademark of Deere & Company

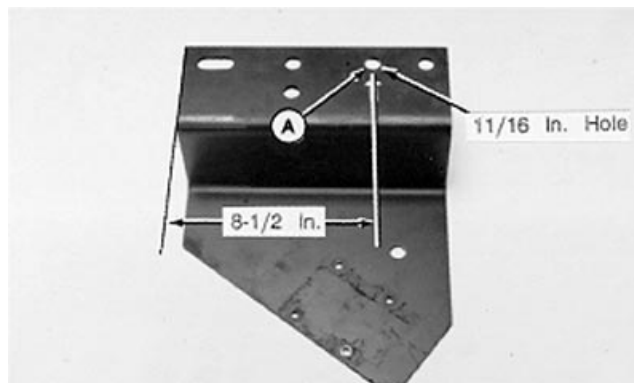
OM61890,95H -19-28OCT97-2/2

Modification and Installation of Radar Bracket (60 Series Four-Wheel Drive Tractors)

NOTE: The radar bracket needs a 17.5 mm (11/16 in.) hole added to allow bracket to bolt to the frame under the engine.

1. Mark center point as illustrated at (A) and drill 17.5 mm (11/16 in.) hole.

A—Center Point



A45960 -19-02MAR00

AG,OUO1074,858 -19-01MAR00-1/2

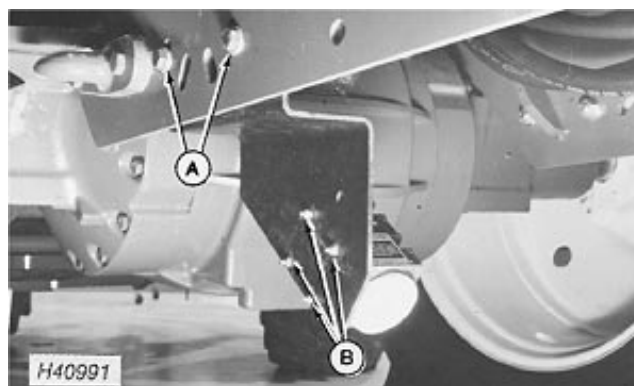
NOTE: Shift bracket so top of bracket is LEVEL.

2. Install bracket on tractor with two 5/8 x 2-1/2 in. cap screws, flat washers and nuts at (A) using the holes as illustrated.



CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

3. Install radar unit on bracket, with serial number plate facing up with cap screws, washers and nuts (B).



H40991 -UN-26MAR90

A—Bracket Mounting Point
B—Cap Screws, Washers and Nuts

AG,OUO1074,858 -19-01MAR00-2/2

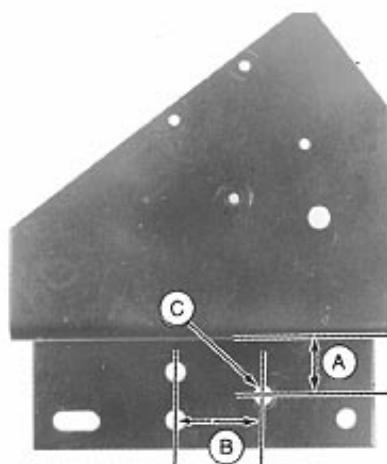
Modification and Installation of Radar Bracket (70 Series Four-Wheel Drive Tractors)

1. Mark center point from (A) and (B) as illustrated and drill 17.5 mm (11/16 in.) hole (C) in radar bracket.

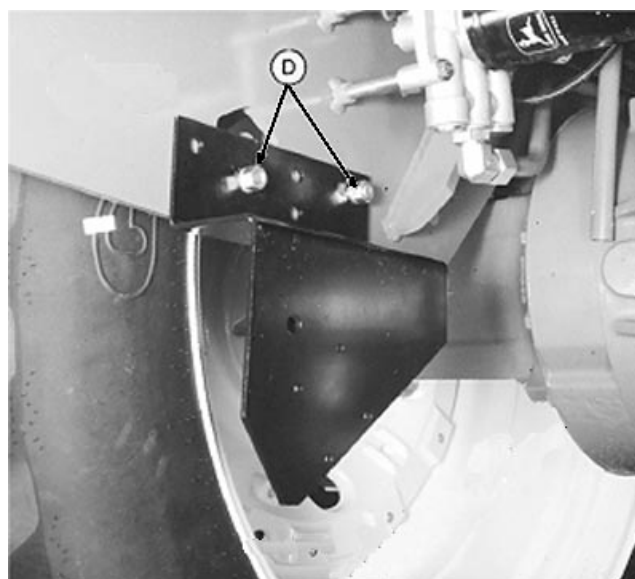
NOTE: Shift bracket until top is *LEVEL*.

2. Install bracket on tractor with two 5/8 x 1-1/2 in. bolts, lock washers and nuts (D) using holes as illustrated.

A—Dimension, 98 mm (3-7/8 in.)
 B—Dimension, 45 mm (1-3/4 in.)
 C—Hole, 17.5 mm (11/16 in.)
 D—Bolts, Lock Washers, and Nuts



A35511 -UN-14APR93



A45954 -UN-01MAR00

Continued on next page

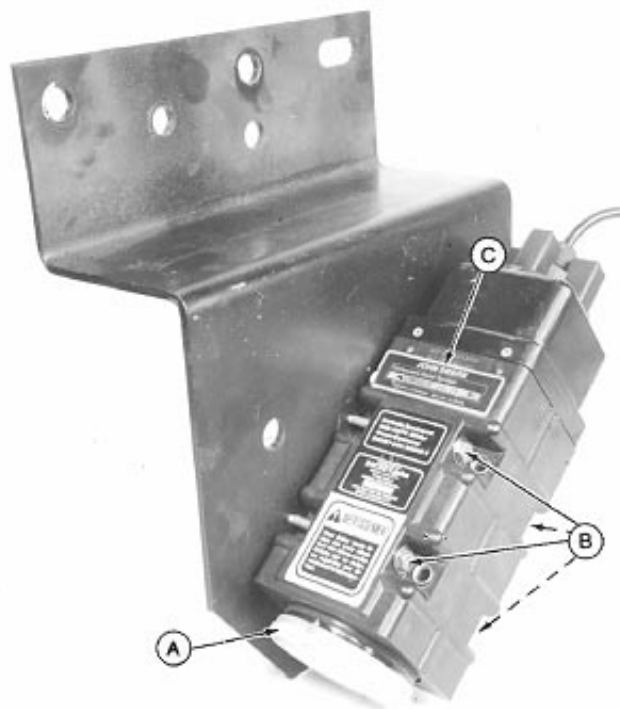
AG,OUO1074,859 -19-01MAR00-1/2

CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

NOTE: Be certain radar unit is mounted on bracket with radar serial number plate (C) facing up.

3. Install radar unit (A) on inside of bracket with four 1/4 x 4 in. cap screws (B). (washers under head of cap screws against radar unit), and nuts.

A—Radar Unit
B—Cap Screws
C—Serial Number Plate



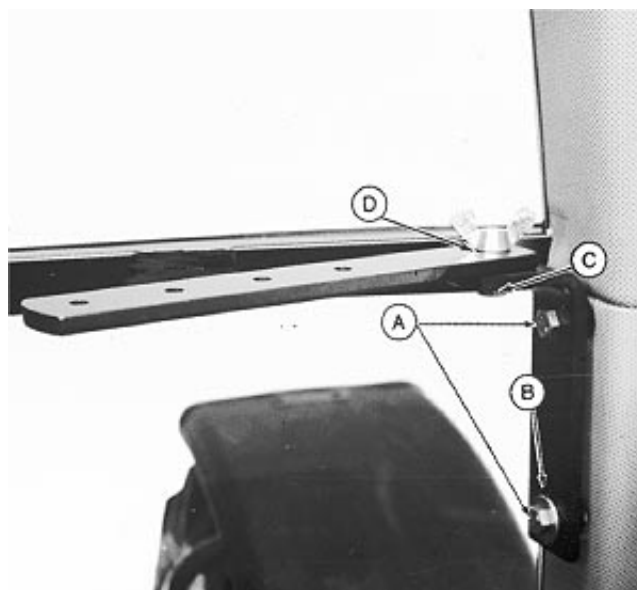
A35513 -UN-14APR93

AG,OUO1074,859 -19-01MAR00-2/2

6000 Series Tractors—Console Installation

1. Install mounting bracket (A) with two M10 x 20 screws with flat washer on slot (B).
2. Thread M10 x 30 bolt (C) into bracket and install monitor mounting strap with M10 wing nut (D).

A—Mounting Bracket
B—Slot
C—Bolt
D—Wing Nut



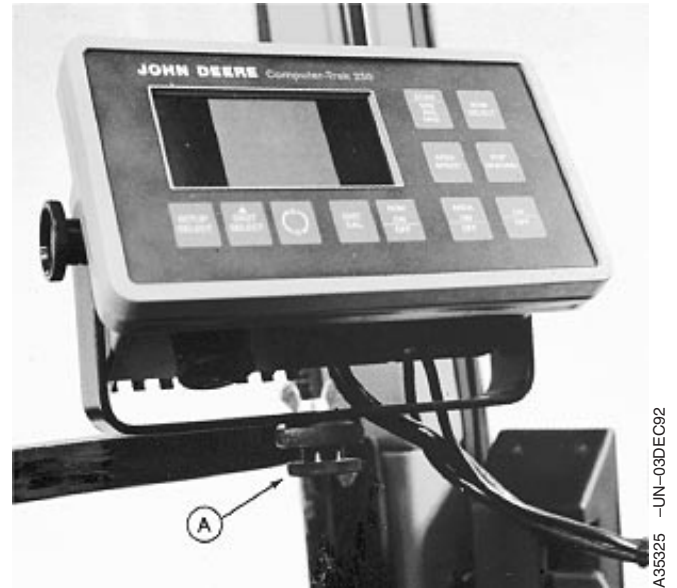
A35324 -UN-03DEC92

Continued on next page

AG,OUO1074,860 -19-01MAR00-1/7

3. Mount monitor console to monitor strap with threaded knob (A).

A—Knob



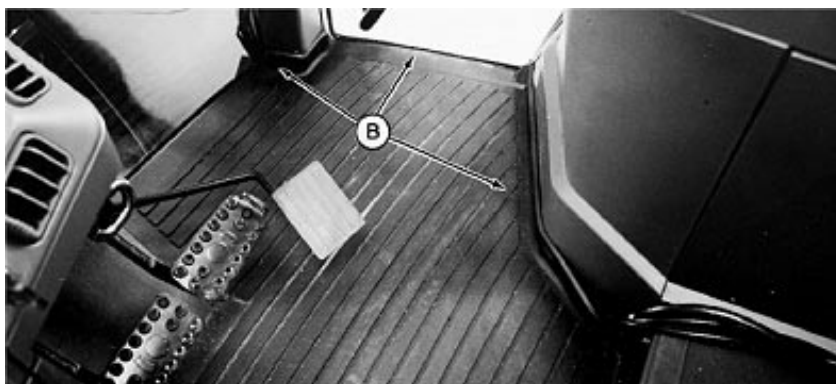
Continued on next page

AG,OUO1074,860 -19-01MAR00-2/7

A35325 -UN-03DEC92



9-Ft Harness Illustrated



15-Ft Harness Illustrated

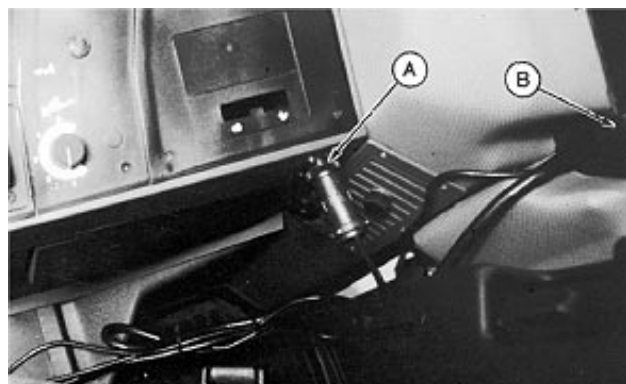
A—Door Gas Cylinder Anchor B—Harness Routing

4. (Monitors With 2.7 m (9 ft.) Harness) Tie harness to door gas cylinder anchor (A) and route along side of right-hand console.
5. (Monitors With 4.6 m (15 ft.) Harness) Route under floor mat along side of right-hand console as shown (B).

AG,OUO1074,860 -19-01MAR00-3/7

6. Connect power harness to rear convenience outlet (A).
7. (350/450 Monitor Only) Route main harness and radar harness through right-hand grommet (B).

**A—Rear Convenience Outlet
B—Grommet**



Continued on next page

AG,OUO1074,860 -19-01MAR00-4/7

8. Install connector mounting spade to monitor harness connector using four self tapping screws (A).

A—Self-tapping Screws

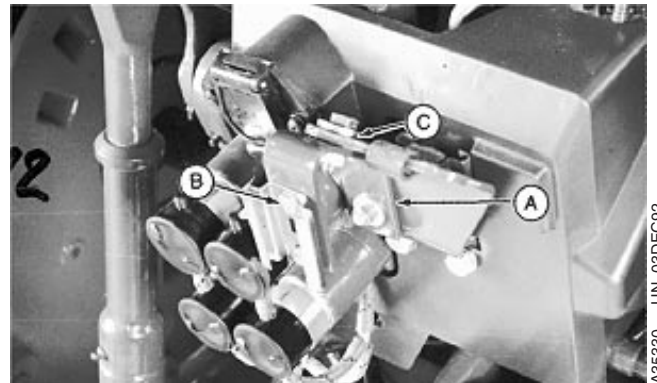


A35329 -UN-03DEC92

AG,OUO1074,860 -19-01MAR00-5/7

9. Install rear connector mounting bracket (A) to tractor bracket as shown.
10. Install bracket with hex head against socket (B).
11. Use large washer over large hole in tractor bracket (C).

A—Rear Connector Mounting Bracket
B—Socket
C—Tractor Bracket



A35330 -UN-03DEC92

AG,OUO1074,860 -19-01MAR00-6/7

12. Install monitor connector with spade into socket (A).
13. Coil and band excess harness behind cab.
14. Connect radar harness from radar to monitor radar harness outside cab. Keep radar connector outside cab for easy monitor removal.

NOTE: Put harness under SMV first, then loop harness and install spade in socket.

15. Position grommet on harness and caulk with rubber sealant.

A—Socket



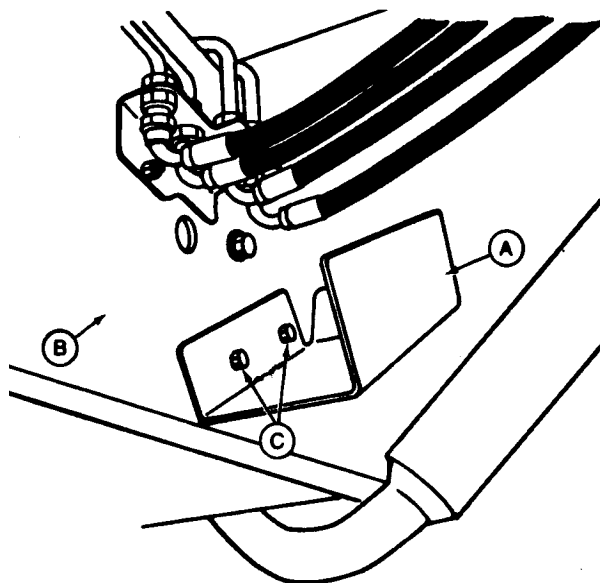
A35331 -UN-03DEC92

AG,OUO1074,860 -19-01MAR00-7/7

6000 Series Tractors with Exhaust Attached to Cab—Radar and Bracket Installation

1. Mount radar bracket (A) to frame (B) with two M12 x 35 cap screws (C). Use M12 nuts provided if tractor frame holes are not threaded.
2. Tighten all mounting hardware.

A—Radar Bracket
B—Frame
C—Cap Screws



A35492 -UN-03FEB93

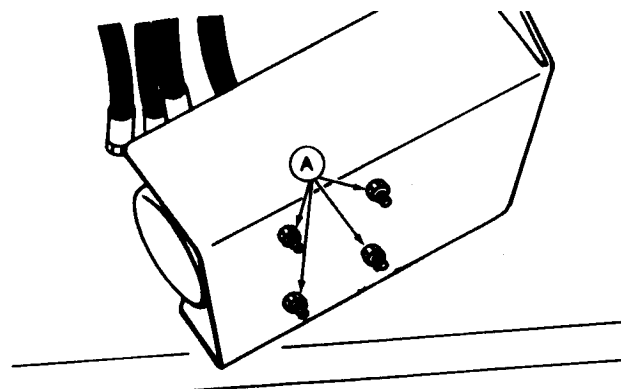
AG,OUO1074,861 -19-01MAR00-1/2

3. Radar must be mounted with serial number tag facing up. Attach with four 1/4 x 4 in. cap screws, four washers and four lock nuts (A). Washers are installed between bracket and lock nuts.
4. Route harness past cab side tipping hinge to rear of cab and connect to radar power harness. Secure with plastic self locking bands.



CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

5. Nominal calibration for this radar installation is 7776. Radar points 7 degrees to side to miss rear tire. Calibration is less than other radars at 7836.



A—Lock Nuts

A35497 -UN-03FEB93

AG,OUO1074,861 -19-01MAR00-2/2

6000 Series Tractors with Exhaust on Hood— Radar and Bracket Installation

1. Remove toolbox (A) and disassemble bracket (B).

A—Toolbox

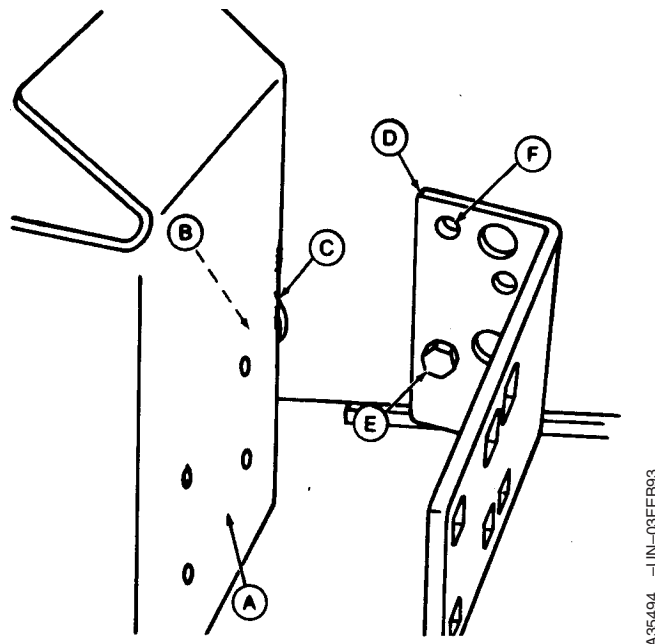
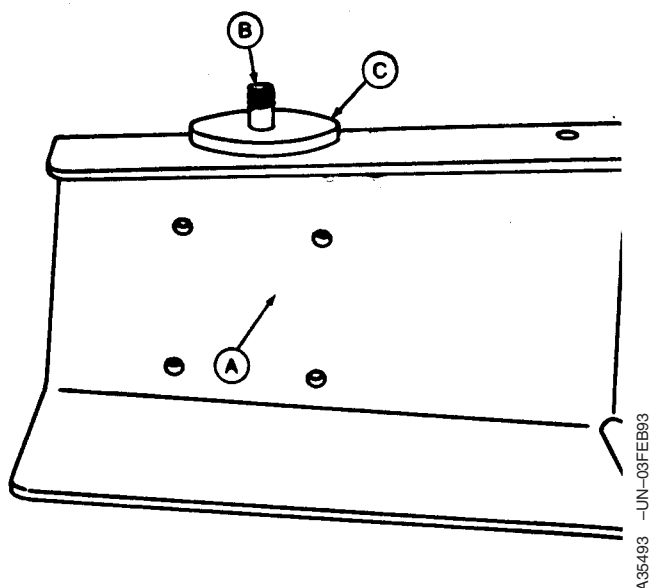
B—Bracket



H45444 -UN-02DEC92

Continued on next page

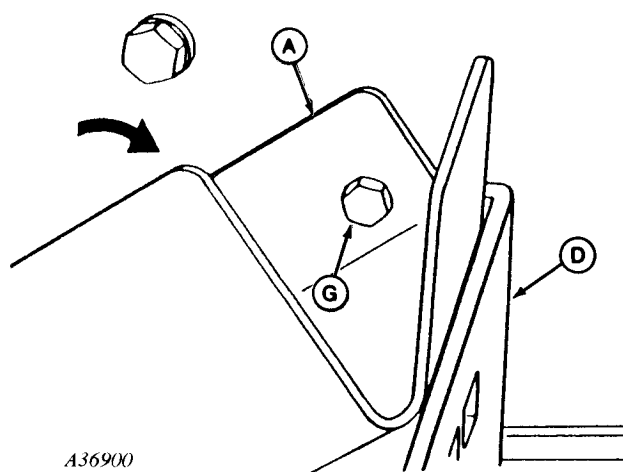
AG,OUO1074,862 -19-01MAR00-1/4



NOTE: Use M12 nuts provided if tractor frame holes are not threaded.

2. Install radar mounting bracket (A) with one M12 x 35 cap screw (B) and spacer (C). (Do not tighten cap screw.)
3. Install tool box bracket (D) with M12 x 35 cap screw (E). Line up top hole (F) with hole in tractor frame as illustrated.
4. Rotate radar mounting bracket (A) and line up holes in both brackets and insert M12 x 35 cap screw (G).

TIGHTEN ALL MOUNTING HARDWARE.



- A—Mounting Bracket
- B—Cap Screw
- C—Spacer
- D—Tool Box Bracket
- E—Cap Screw
- F—Top Hole
- G—Cap Screw

Continued on next page

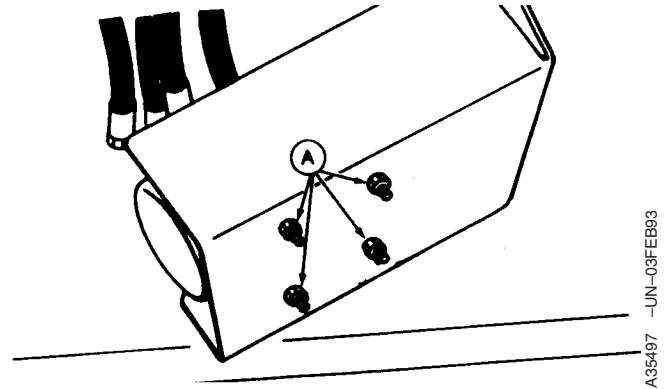
AG.OUO1074,862 -19-01MAR00-2/4

5. Radar must be mounted with serial number tag facing up. Attach with four 1/4 x 4 in. cap screws, four washers and four lock nuts (A). Washers are installed between bracket and lock nuts.
6. Route harness past cab side tipping hinge to rear of cab and connect to radar power harness. Secure with plastic self locking bands.



CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

7. Nominal calibration for this radar installation is 7776. Radar points 7 degrees to side to miss rear tire. Calibration is less than other radars at 7836.



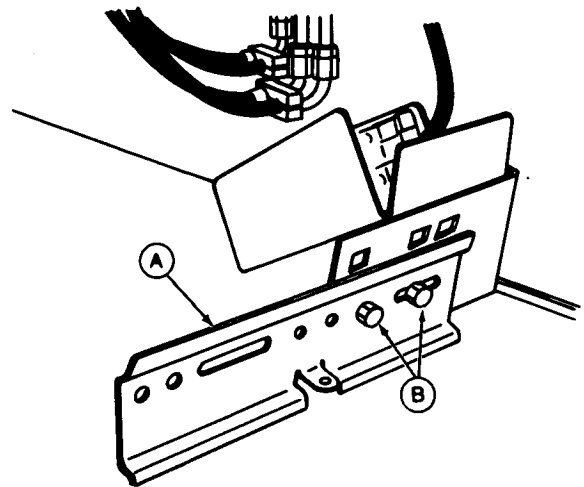
A—Lock Nuts

A35497 -UN-03FEB93

AG,OUO1074,862 -19-01MAR00-3/4

8. Install tool box bracket (A) as shown using existing hardware (B) and install tool box.

A—Bracket
B—Existing Hardware

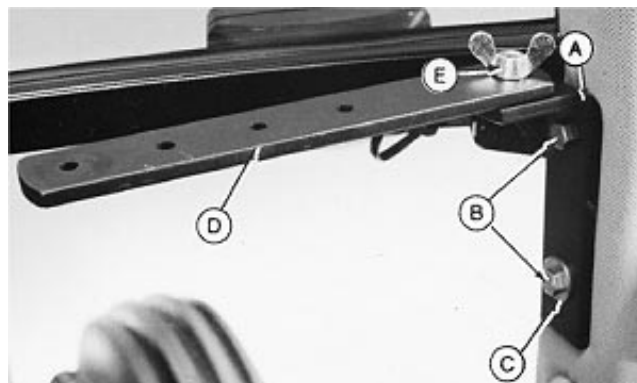


A35496 -UN-03FEB93

AG,OUO1074,862 -19-01MAR00-4/4

7000 Series Tractors—Console Installation

1. Install "L" bracket (A) on front post with two M10 x 20 cap screws (B) with flat washer (C) on lower cap screw.
2. Install monitor strap (D) with M10 x 30 carriage bolt and wing nut (E).
3. Attach monitor to strap making certain to install rubber washer on top of strap at mounting.



A—"L" Bracket
B—Cap Screws
C—Flat Washer
D—Strap
E—Wing Nut

AG,OUO1074,863 -19-01MAR00-1/7

4. Route monitor harness (A) through left-hand grommet as illustrated.

A—Monitor Harness



AG,OUO1074,863 -19-01MAR00-2/7

NOTE: Install monitor into rear outlet if tractor is NOT equipped with front outlet.

5. (Tractors With Front Convenience Outlet Only) Install monitor into front outlet (A).

A—Front Outlet

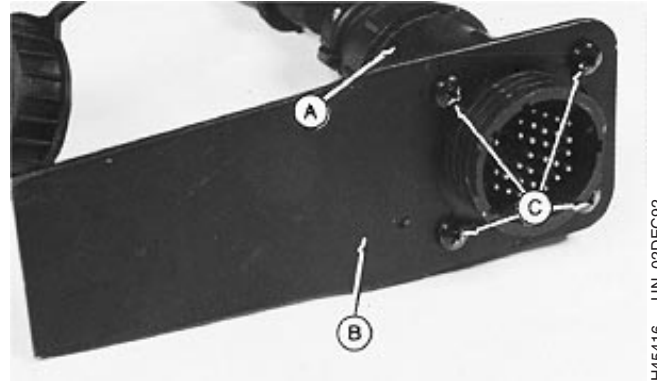


Continued on next page

AG,OUO1074,863 -19-01MAR00-3/7

6. Attach harness connector (A) to mounting spade (B) using four self tapping screws (C).

A—Harness Connector
B—Mounting Spade
C—Self-tapping Screws

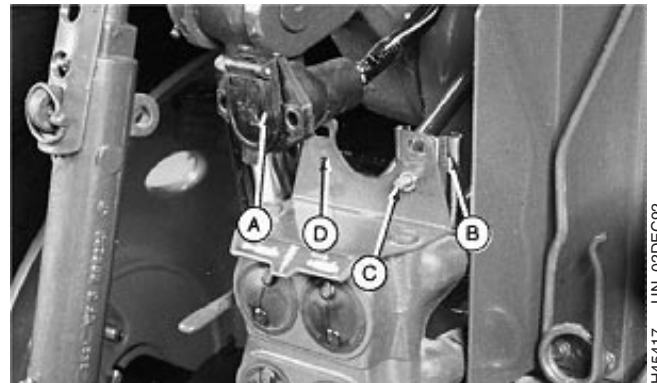


H45416 -UN-02DEC92

AG,OUO1074,863 -19-01MAR00-4/7

7. Remove two cap screws securing 7-pin connector (A) and discard.
8. Install socket (B) with carriage bolt and nut (C). Do NOT tighten until all hardware is in place.
9. If folding planter control is used, add second socket to opposite side of bracket (D).

A—7-Pin Connector
B—Socket
C—Carriage Bolt
D—Bracket

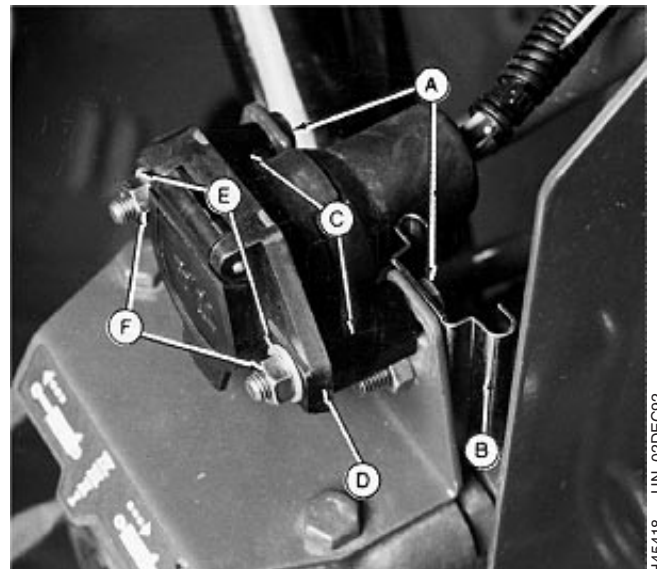


H45417 -UN-02DEC92

AG,OUO1074,863 -19-01MAR00-5/7

10. Install cap screws (A) in top hole of socket (B).
11. Install spacers (C), 7-pin connector (D), flat washers (E) and nuts (F). **TIGHTEN HARDWARE.**

A—Cap Screws
B—Socket
C—Spacers
D—7-Pin Connector
E—Flat Washers
F—Nuts

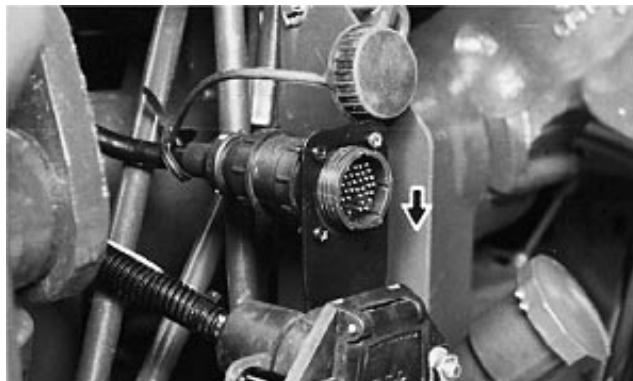


H45418 -UN-02DEC92

Continued on next page

AG,OUO1074,863 -19-01MAR00-6/7

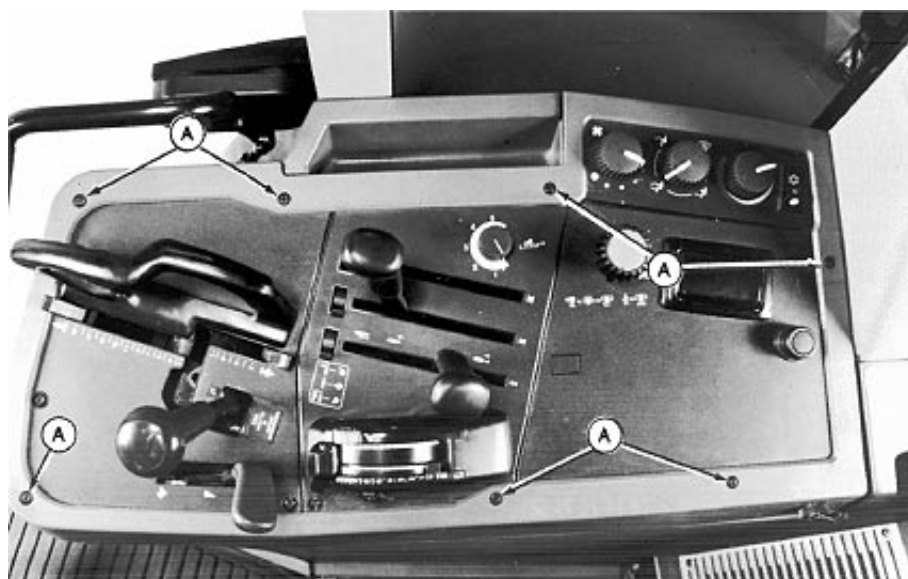
12. Install spade into socket and push down to seat.



H45419 -UN-02DEC92

AG,OUO1074,863 -19-01MAR00-7/7

Install Radar Signal Adapter Harness 7000 Series Tractors Produced Prior to January 1993



H45403 -UN-25NOV92

A—Screws

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to "Install Radar".

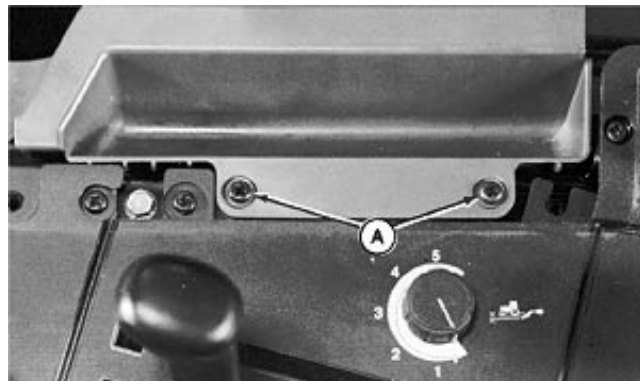
1. Remove the seven screws (A) from console trim ring and remove trim ring.
2. Tip console trim ring to gain access.

Continued on next page

HX,A53033,D -19-04DEC92-1/4

- Remove the two screws (A) from pencil tray and remove tray.

A—Screws



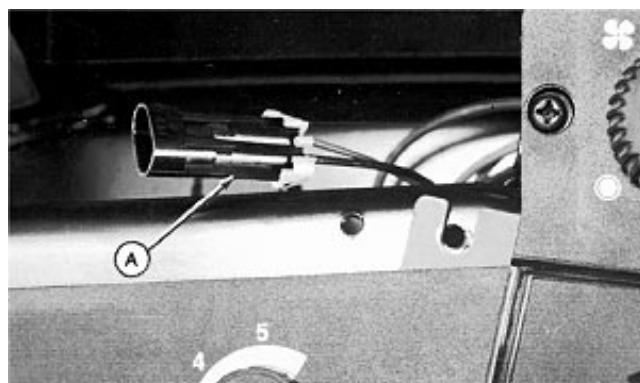
H45404 -UN-25NOV92

HX,A53033,D -19-04DEC92-2/4

NOTE: If connector is NOT accessible, remove screws from left-hand console panel near the floor, then remove panel. Locate connector and push toward window. Pull connector out right-hand side far enough to make connection. It may be necessary to remove window to gain access.

- Locate the 2-pin connector (A). Position the connector to connect with the radar signal connector.

A—2-Pin Connector

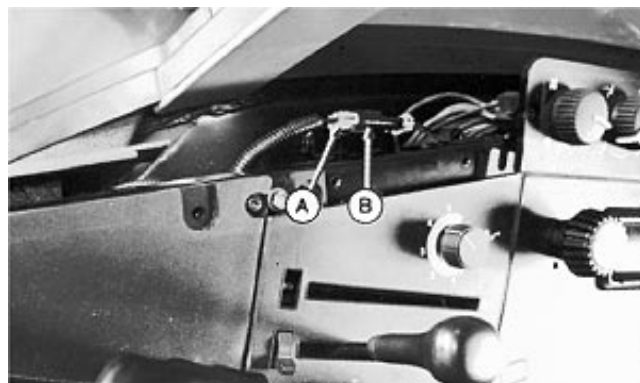


H45405 -UN-25NOV92

HX,A53033,D -19-04DEC92-3/4

- Connect radar signal harness adapter (A) to tractor connector (B).
- Position harness forward and inward because it will not fit under the pencil tray. Push other end of harness between console and trim to make connection with radar sending unit.
- Install pencil tray and console trim ring.

**A—Signal Harness Adapter
B—Tractor Connector**



H45406 -UN-25NOV92

HX,A53033,D -19-04DEC92-4/4

Install Radar Signal Adapter Harness—7000 Series Tractors Produced After January 1993

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to "Install Radar".

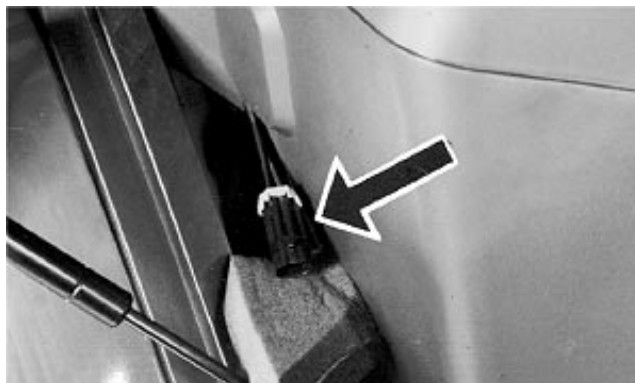
1. Pull back foam strip and find tractor connector behind right-hand console wrap around.



H45407 -UN-25NOV92

OM61890,100B -19-28OCT97-1/2

2. Pull connector out from behind console. Connect adapter harness to this 2 pin plug.
3. Position connector near the floor and tuck excess in between console and upholstery.
4. Connect adapter harness to 2-pin plug and to monitor radar connector.



H45408 -UN-25NOV92

OM61890,100B -19-28OCT97-2/2

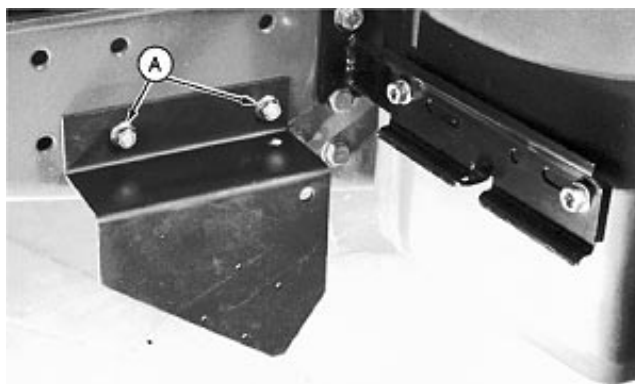
7000 Series Tractors—Radar and Bracket Installation

1. Remove tool box.

AG,OUO1074,864 -19-01MAR00-1/5

2. Install planter radar bracket to side frame with two M16 x 35 flange head screws (A).

A—Flange Head Screws



A35317 -UN-03DEC92

Continued on next page

AG,OUO1074,864 -19-01MAR00-2/5

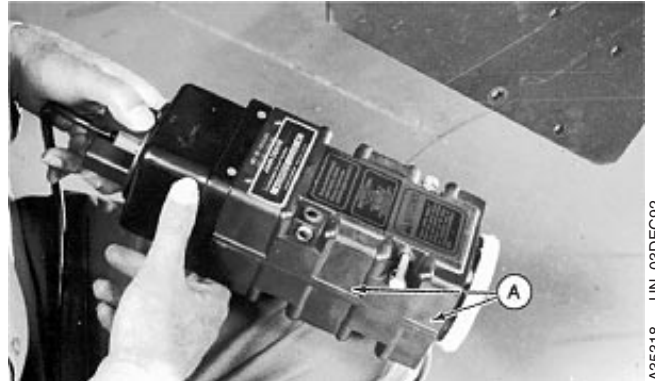
3. Install radar plastic body with seam (A) against bracket (serial number must be **UP**) using four 1/4 x 4 in. cap screws (B) and four 9/32 x 5/8 x 0.060 in. washers. Make certain washers are located between plastic radar body and bracket.

DO NOT OVER TIGHTEN

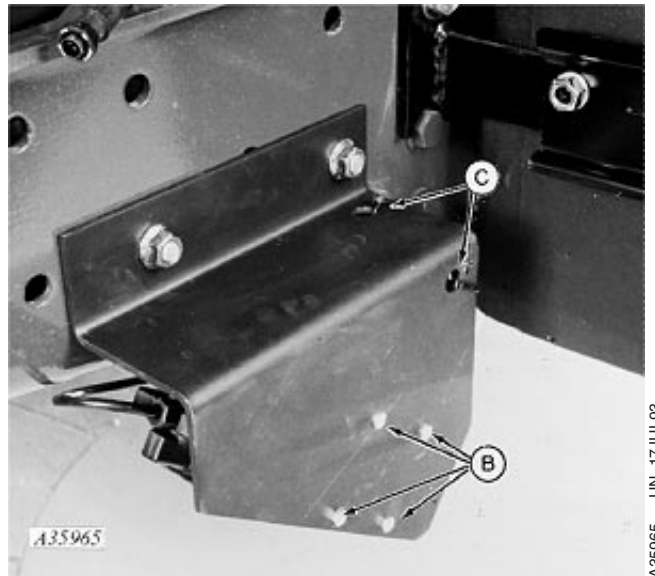
NOTE: DO NOT let harness hang in front of radar white eye.

4. Route connector behind starter. coil excess harness under bracket.
5. Attach to two unused bracket holes (C) with tie bands.
6. Install tool box.
7. Remove cab floor mat and panel.

A—Seam
B—Cap Screws
C—Bracket Holes



A35318 -UN-03DEC92

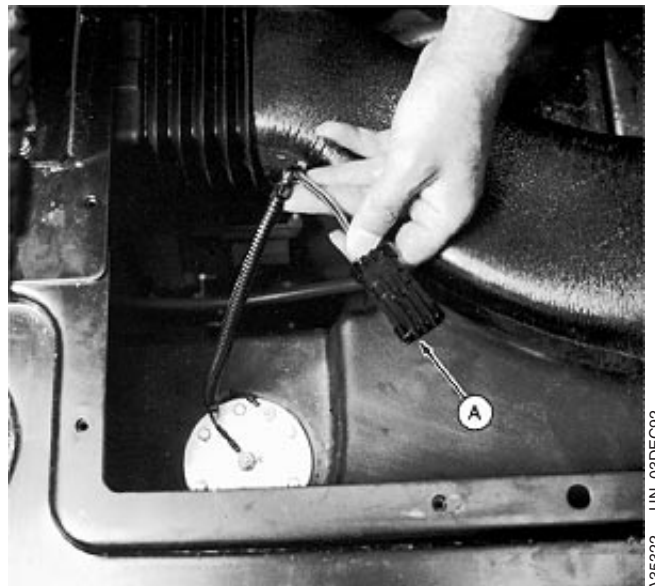


A35965 -UN-17JUL93

AG,OUO1074,864 -19-01MAR00-3/5

8. Connect radar signal harness (A) to tractor harness at fuel sender.

A—Signal Harness



A35322 -UN-03DEC92

Continued on next page

AG,OUO1074,864 -19-01MAR00-4/5

9. Route harness (A) along air conditioner lines and behind starter as shown.

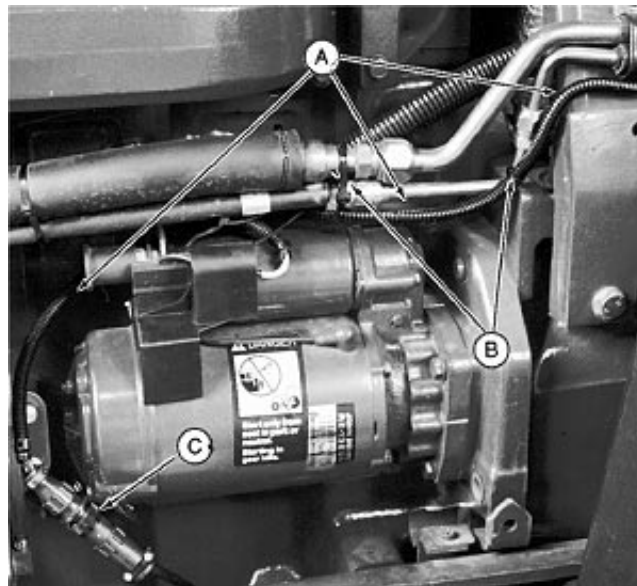
10. Attach harness to lines with tie straps (B).

CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

NOTE: Once radar is connected to tractor harness, radar supplies tractor instrumentation and radar signal is available for monitor from 2-pin connector at right-hand console.

11. Connect signal harness to radar harness at (C).

A—Harness
B—Straps
C—Harness Connection



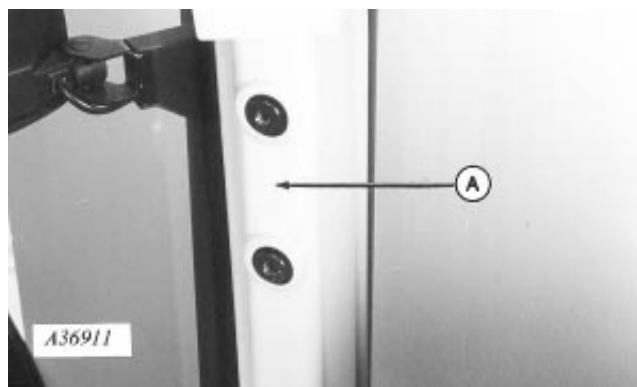
A35523 -UN-03DEC92

AG,OUO1074,864 -19-01MAR00-5/5

8000 Series Tractors—Console Installation

1. Unscrew plastic covers from right-hand front post (A) and remove. (Already removed in illustration.)

A—RH Front Post



A36911 -UN-26APR95

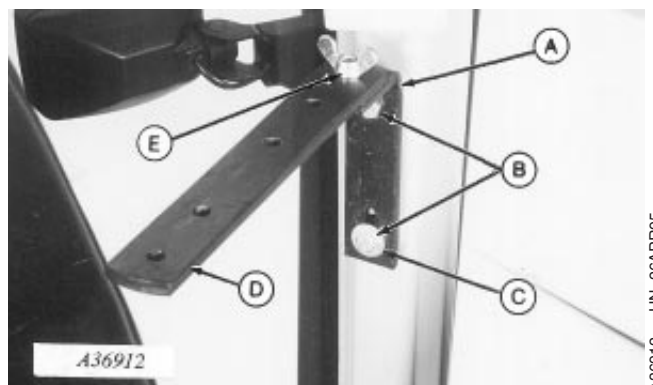
Continued on next page

AG,OUO1074,865 -19-01MAR00-1/11

Monitor and Radar Installation

2. Install "L" bracket (A) on front post with two M10 x 20 cap screws (B) with flat washer (C) on lower cap screw.
3. Install monitor strap (D) with M10 x 30 round head bolt and wing nut (E), with strap hole spacing as shown.

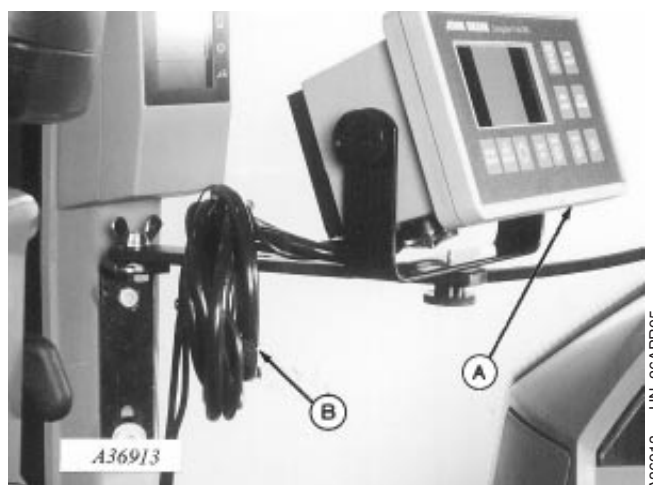
A—"L" Bracket
B—Cap Screws
C—Flat Washer
D—Monitor Strap
E—Wing Nut



AG,OUO1074,865 -19-01MAR00-2/11

4. Mount monitor (A) to strap as illustrated.
5. Coil excess harness (B) around strap.
6. Route monitor harness along right window and behind instrument panel.

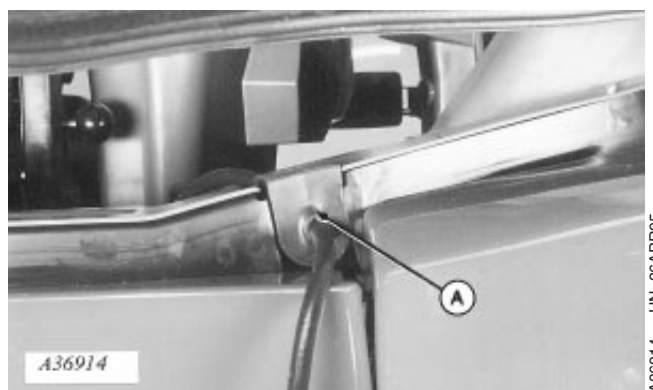
A—Monitor
B—Excess Harness



AG,OUO1074,865 -19-01MAR00-3/11

7. Remove existing right-hand side grommet. Install harness in new grommet (provided) and install grommet (A).

A—Grommet

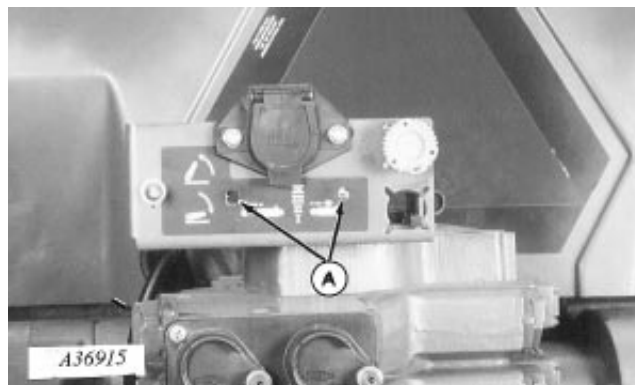


Continued on next page

AG,OUO1074,865 -19-01MAR00-4/11

8. Cut holes (A) in decal.

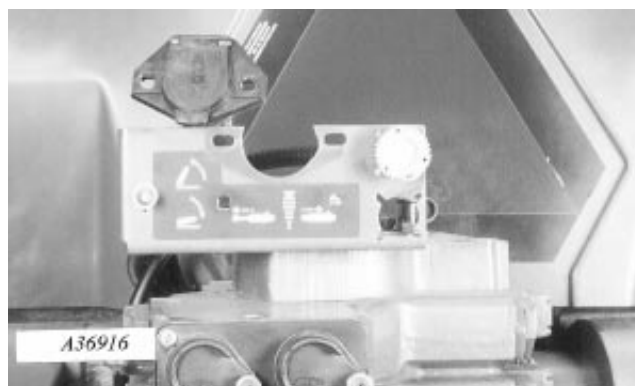
A—Holes



A36915 —UN-26APR95

AG,OUO1074,865 —19-01MAR00-5/11

9. Remove two cap screws attaching 7-pin connector and discard.



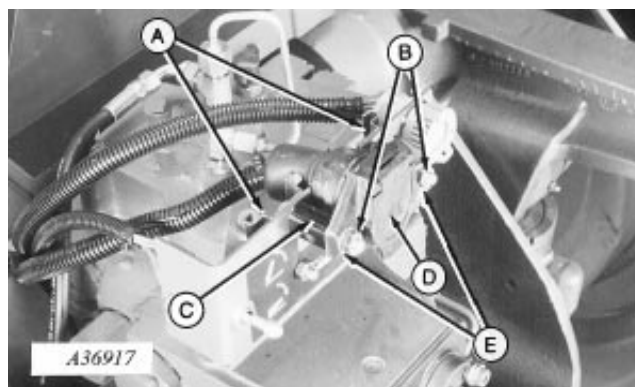
A36916 —UN-26APR95

AG,OUO1074,865 —19-01MAR00-6/11

10. Install sockets (A) with M8 x 16 round head bolts, flat washers and nuts. DO NOT tighten until all hardware is in place.

11. Install two M8 x 55 cap screws (B), spacer (C), and 7-pin connector (D) with flat washers against connector plastic (E) and nuts. Tighten hardware.

A—Sockets
B—Cap Screws
C—Spacer
D—7-Pin Connector
E—Plastic Connector



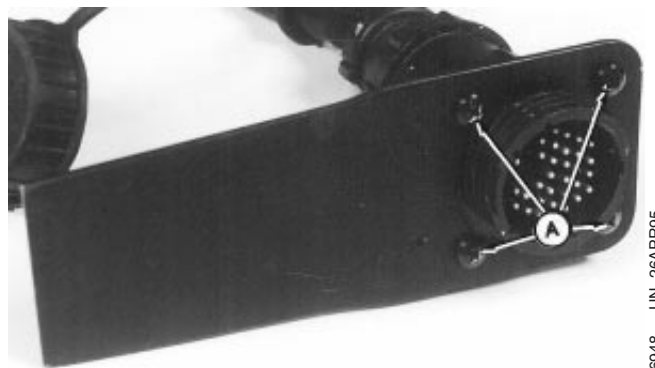
A36917 —UN-26APR95

Continued on next page

AG,OUO1074,865 —19-01MAR00-7/11

12. Attach harness to connector spade using four self-tapping screws (A).

A—Self-tapping Screws

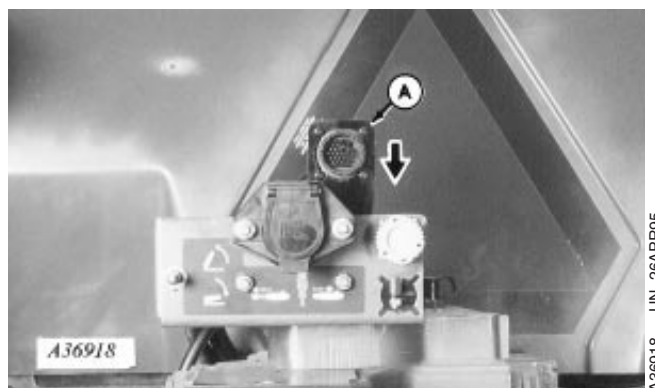


A36948 -UN-26APR95

AG,OUO1074,865 -19-01MAR00-8/11

13. Install connector spade (A) into socket and push down to seat.

A—Connector Spade



A36918 -UN-26APR95

AG,OUO1074,865 -19-01MAR00-9/11

NOTE: Harness may be installed in rear outlet.

14. Install monitor power harness (A) into front convenience outlet if equipped.
15. Route harness under floor mat.
16. Nylon tie excess main and power harness to monitor strap.

A—Harness



A36919 -UN-26APR95



A36920 -UN-26APR95

Continued on next page

AG,OUO1074,865 -19-01MAR00-10/11

17. Route harness (A) along air conditioner lines and behind starter.

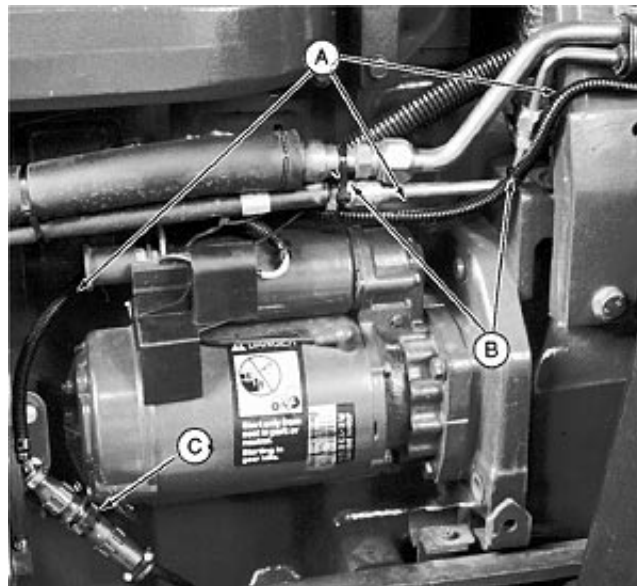
18. Attach harness to lines with tie straps (B).

CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar sensor.

NOTE: Once radar is connected to tractor harness, radar supplies tractor instrumentation and radar signal is available for monitor from 2-pin connector at right-hand console.

19. Connect signal harness to radar harness at (C).

A—Harness
B—Tie Straps
C—Harness Connection



A35523 -UN-03DEC92

AG,OUO1074,865 -19-01MAR00-11/11

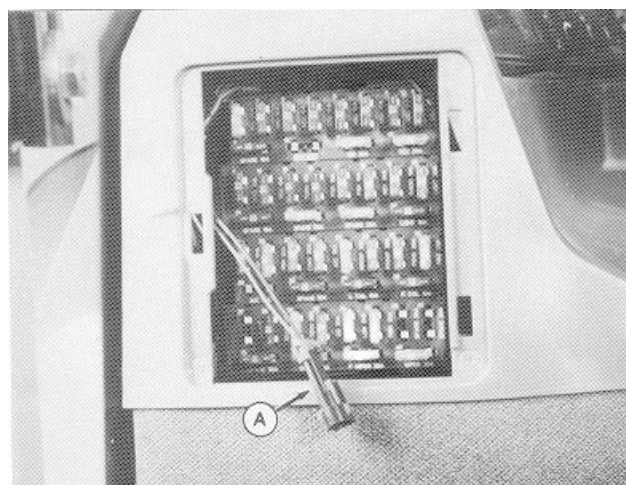
Install Radar Signal Adapter Harness—8000 and 8000T Series Tractor

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to "Install Radar".

8000 Series Tractor installation illustrated.

1. Remove fuse panel cover and locate 2-pin harness (A).

A—2-Pin Harness



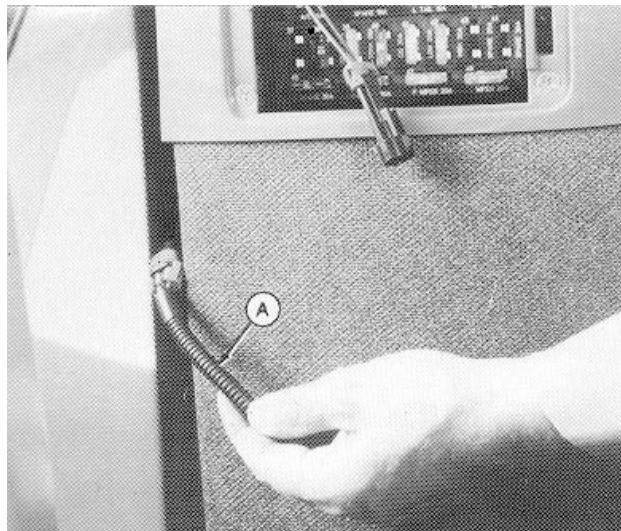
A40635 -UN-26DEC96

Continued on next page

59082OM,90D -19-27JAN97-1/4

2. Route signal harness (A) behind console and into fuse panel area.

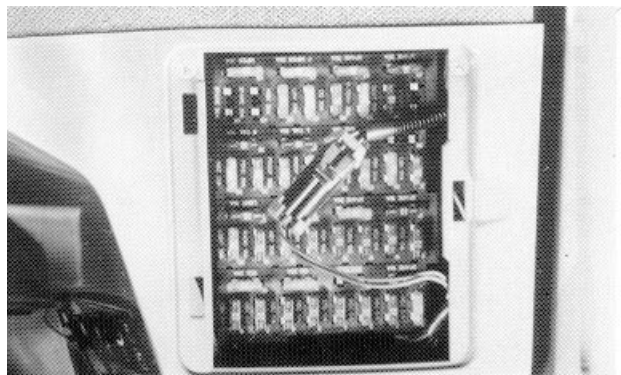
A—Signal Harness



A40636 -UN-26DEC96

59082OM,90D -19-27JAN97-2/4

3. Connect signal harness to tractor harness. Push connector back to side of fuses.
4. Install fuse panel cover.
5. Route signal harness under floor mat along window.

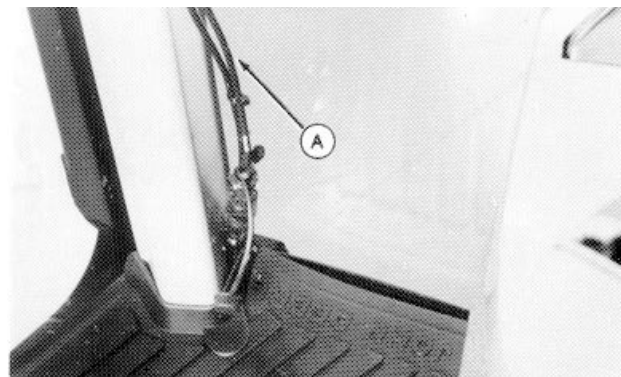


A40637 -UN-26DEC96

59082OM,90D -19-27JAN97-3/4

6. Connect signal harness to monitor radar harness (A).

A—Monitor Radar Harness



A40638 -UN-26DEC96

59082OM,90D -19-27JAN97-4/4

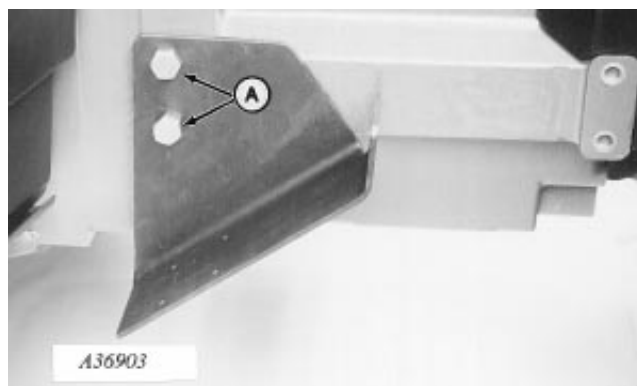
8000 Series Tractors—Radar and Bracket Installation

1. Remove two plastic plugs on right-hand side of tractor ahead of fuel tank.

AG,OUO1074,866 -19-01MAR00-1/9

2. Install radar bracket with two M20 x 35 cap screws (A).

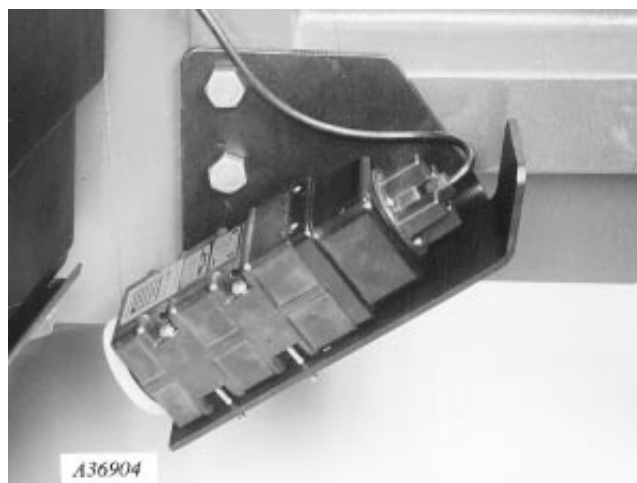
A—Cap Screws



AG,OUO1074,866 -19-01MAR00-2/9

IMPORTANT: Radar serial number plate must be facing up when radar is installed.

3. Install radar on bracket with four 1/4 x 4 in. cap screws and lock nuts.
4. Remove right side engine cover.

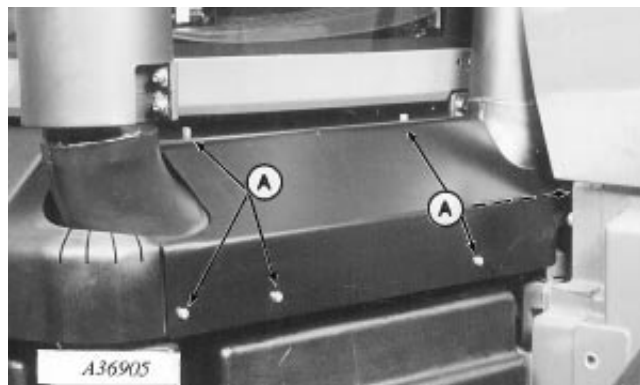


Continued on next page

AG,OUO1074,866 -19-01MAR00-3/9

5. Remove six cap screws and washers (A) from exhaust shield. Save for reuse.

A—Cap Screws and Washers

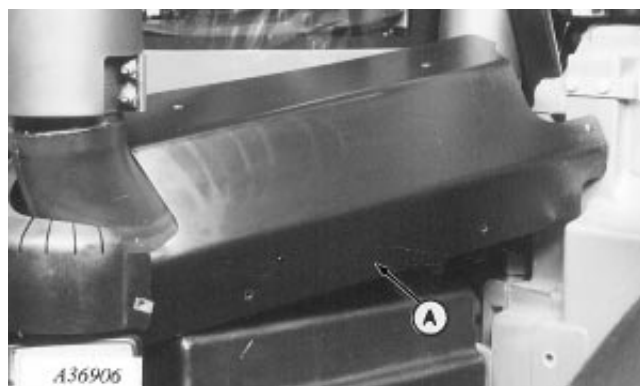


A36905 -UN-26APR95

AG,OUO1074,866 -19-01MAR00-4/9

6. Remove exhaust shield (A).

A—Shield



A36906 -UN-26APR95

AG,OUO1074,866 -19-01MAR00-5/9

7. Locate 3-pin connector (A) behind exhaust shield.

A—3-Pin Connector

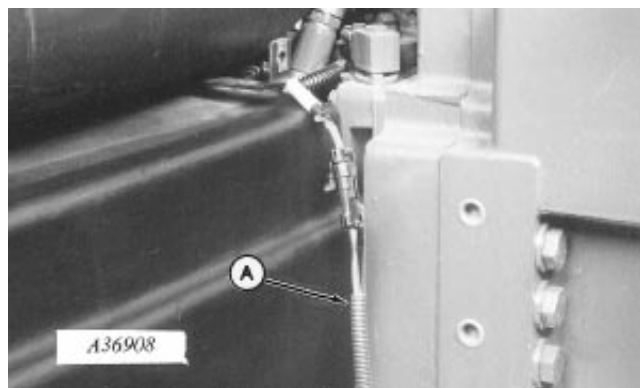


A36907 -UN-26APR95

AG,OUO1074,866 -19-01MAR00-6/9

8. Connect radar harness to adapter harness and adapter harness (A) to 3-pin connector.

A—Adapter Harness



A36908 -UN-26APR95

Continued on next page

AG,OUO1074,866 -19-01MAR00-7/9

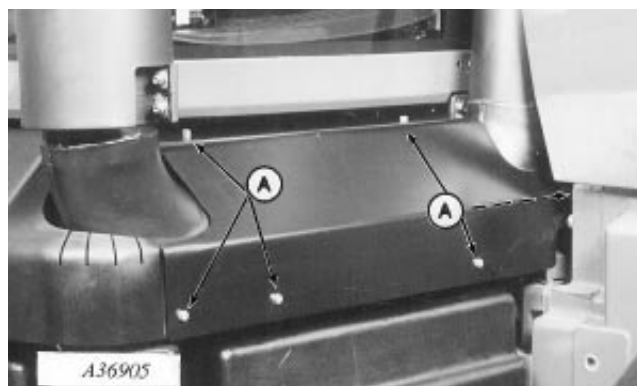
9. Coil excess harness and tie away from exhaust using plastic ties as required.



AG,OUO1074,866 -19-01MAR00-8/9

10. Install exhaust heat shield with six cap screws and washers (A) and right side engine cover.

A—Cap Screws and Washers



AG,OUO1074,866 -19-01MAR00-9/9

Install Radar—8000T Series Tractors

1. Remove two plastic plugs on right-hand side of tractor ahead of the cab air filter cover.

Continued on next page

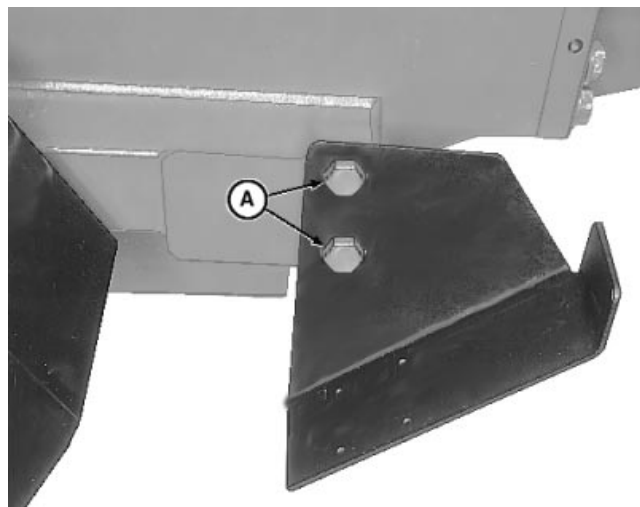
A62535,L -19-05MAY98-1/4

2. Install radar bracket using two M20 x 35 cap screws (A).

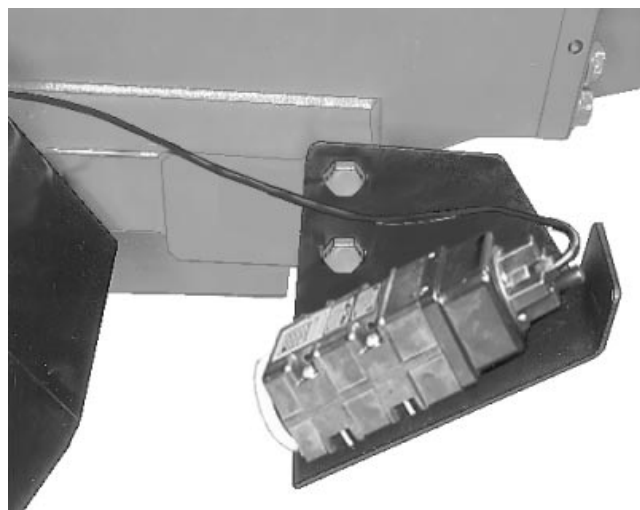
IMPORTANT: Radar serial number plate must be facing up (as illustrated) when radar is installed.

3. Install radar on bracket using four 1/4 x 4 in. cap screws, flat washers and lock nuts.
4. Route harness and connect to monitor radar lead.

A—Cap Screws



A44870 -UN-01MAY98



A44898 -UN-01MAY98

A62535,L -19-05MAY98-2/4

5. Locate 3-pin connector (A) on left side of transmission.

A—3-Pin Connector



A44896 -UN-06MAY98

Continued on next page

A62535,L -19-05MAY98-3/4

6. Connect radar harness to adapter harness and adapter harness (A) to 3-pin connector.
7. Coil excess harness and tie away from exhaust and moving parts using plastic ties as required.

A—Adapter Harness



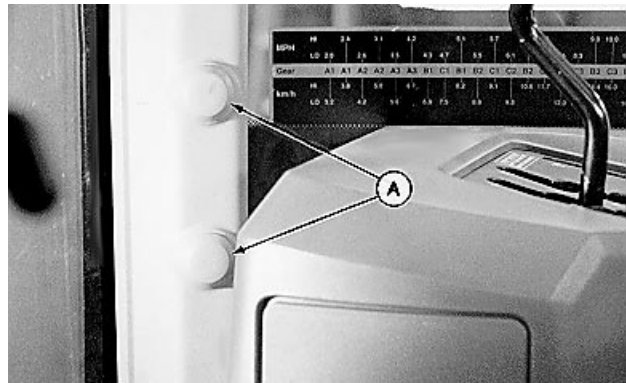
A44897 -UN-06MAY98

A62535.L -19-05MAY98-4/4

9000 and 9000T Series Tractors—Console Installation

1. Remove threaded plastic covers (A) from right-hand front corner post.

A—Plastic Covers

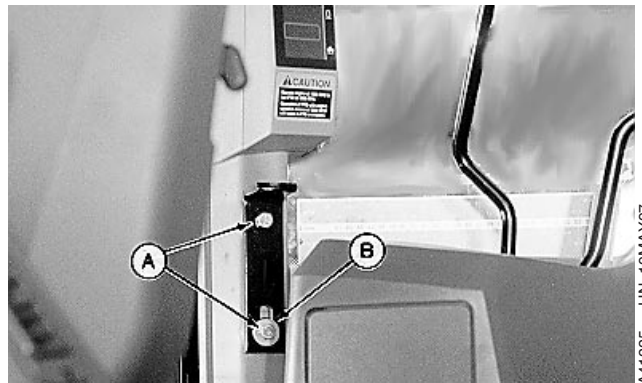


A41224 -UN-19MAY97

AG.OUO1074,867 -19-01MAR00-1/10

2. Install "L" bracket to front post using two M10 x 20 cap screws (A) with flat washer (B) on lower cap screw (slotted hole).
3. Install M10 x 30 cap screw in threaded hole in "L" bracket.

**A—Cap Screws
B—Flat Washer**



A41225 -UN-19MAY97

AG.OUO1074,867 -19-01MAR00-2/10

4. Attach monitor strap (A) using M10 wing nut (B).

**A—Monitor Strap
B—Wing Nut**



A41226 -UN-19MAY97

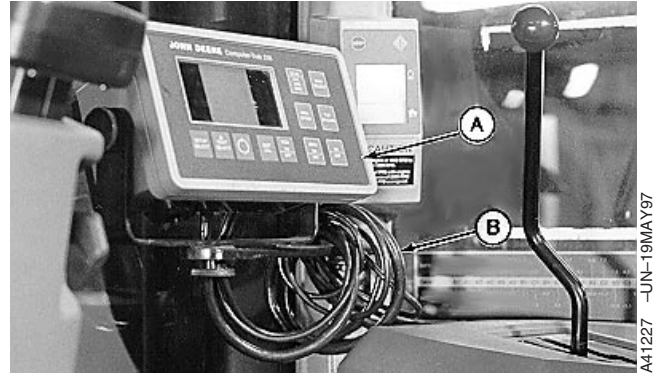
Continued on next page

AG.OUO1074,867 -19-01MAR00-3/10

NOTE: For tractors with mechanical shift transmission (MST), position monitor so as not to interfere with shifter operation.

5. Attach monitor (A) to strap making certain to install rubber washer between monitor and strap.
6. Coil excess harness (B) around strap.
7. Route monitor harness along right-hand window and behind instrument panel.

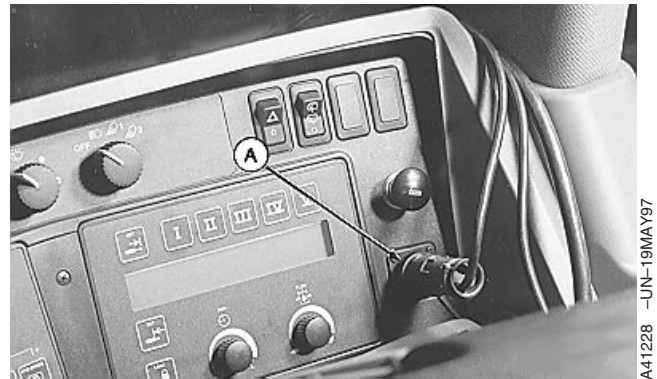
A—Monitor
B—Excess Harness



AG,OUO1074,867 -19-01MAR00-4/10

8. Connect monitor power harness to rear convenience outlet (A).

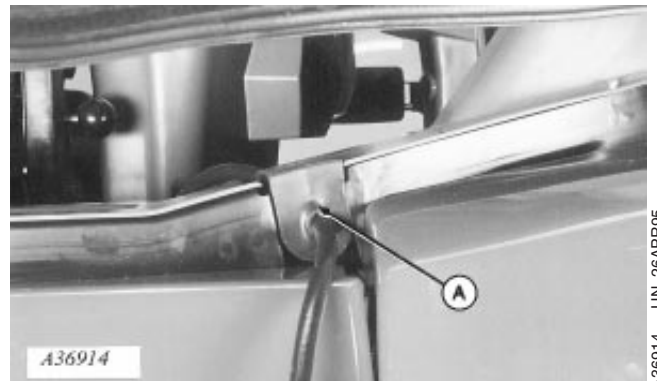
A—Convenience Outlet



AG,OUO1074,867 -19-01MAR00-5/10

9. Remove existing right-hand side grommet. Install harness in NEW grommet (provided) and install grommet (A).
10. Connect extension harness to monitor harness from cab.

A—Grommet

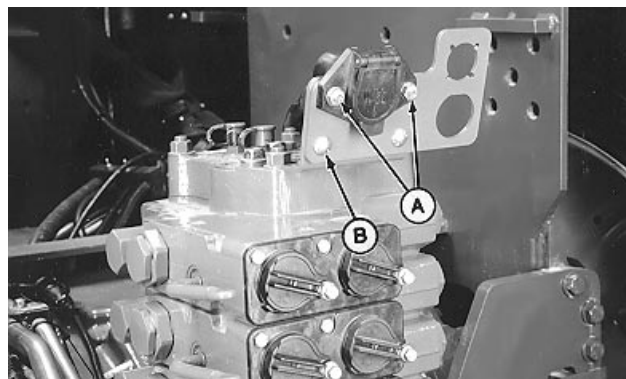


Continued on next page

AG,OUO1074,867 -19-01MAR00-6/10

11. Remove two cap screws (A) attaching 7-pin connector and discard. Remove round head bolt (B) and save.

A—Cap Screws
B—Round Head Bolt

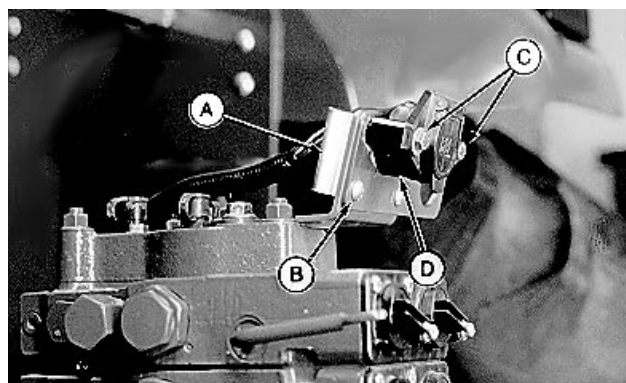


A41223 -UN-19MAY97

AG,OUO1074,867 -19-01MAR00-7/10

12. Install socket (A) using M8 x 16 round head bolt (B), washer and nut removed in step 11.
13. Install two M8 x 60 cap screws (C), spacer (D) and 7-pin connector with flat washers against connector plastic, and nuts. Tighten hardware.

A—Socket
B—Round Head Screw
C—Cap Screw
D—Spacer

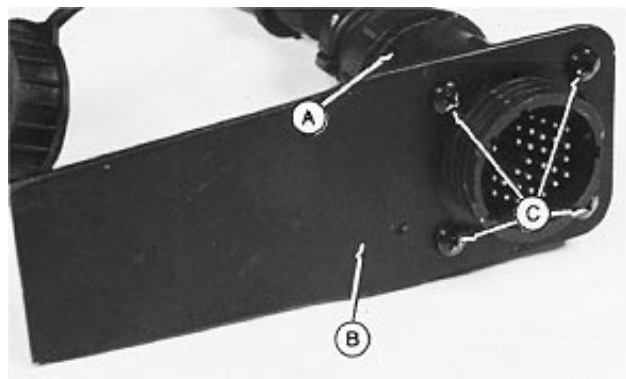


A41229 -UN-19MAY97

AG,OUO1074,867 -19-01MAR00-8/10

14. Attach harness connector (A) to mounting spade (B) using four self-tapping screws (C).

A—Harness Connector
B—Mounting Spade
C—Self-tapping Screws



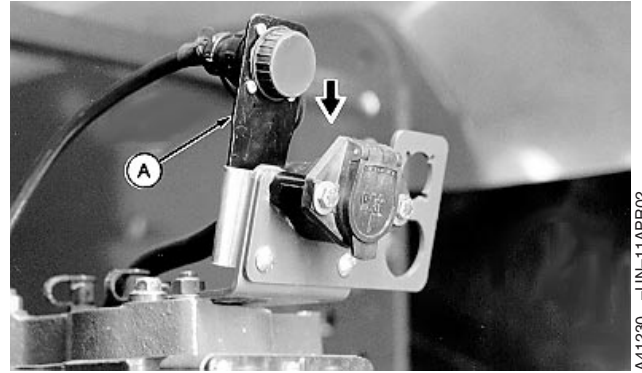
H45416 -UN-02DEC92

Continued on next page

AG,OUO1074,867 -19-01MAR00-9/10

15. Install connector spade (A) into socket and push down to seat.
16. Route extension harness along existing harnesses or hydraulic lines. Be certain harness is clear of moving parts (e.g. PTO shaft, tractor hinge etc.).
17. Tie band harness as required.

A—Connector Spade



A41230 -UN-11APR02

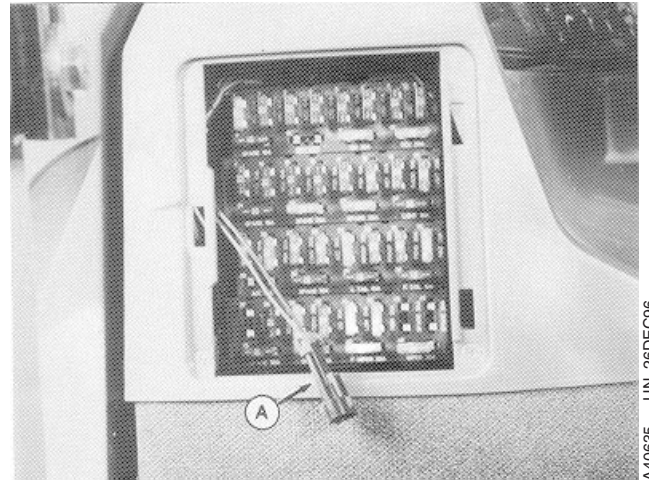
AG,OUO1074,867 -19-01MAR00-10/10

Install Radar Signal Adapter Harness—9000 and 9000T Series Tractor

NOTE: This harness is used when existing tractor radar will supply signal to monitor and to tractor instrumentation. If tractor is not equipped with radar and a planter radar will be installed, go to “9000 and 9000T Series Tractor—Radar and Bracket Installation”.

1. Remove fuse panel cover and locate 2-pin harness (A).

A—2-Pin Harness

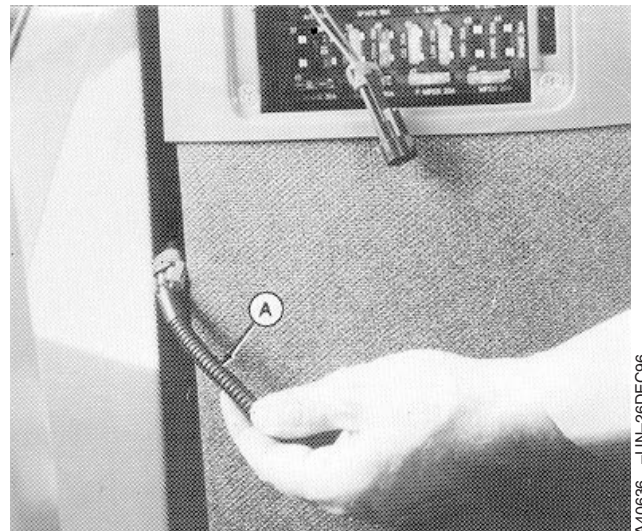


A40635 -UN-26DEC96

59082OM,90DA -19-27JAN97-1/4

2. Route signal harness (A) behind console and into fuse panel area.

A—Signal Harness

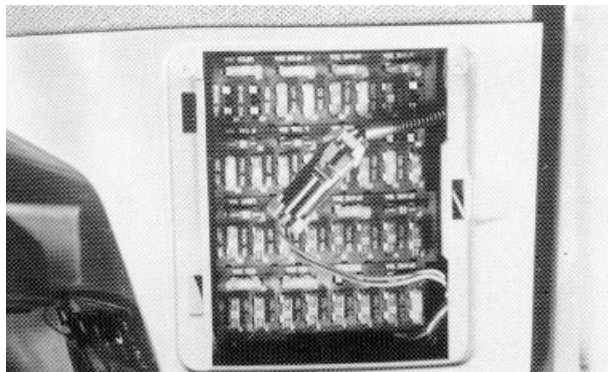


A40636 -UN-26DEC96

Continued on next page

59082OM,90DA -19-27JAN97-2/4

3. Connect signal harness to tractor harness. Push connector back to side of fuses.
4. Install fuse panel cover.
5. Route signal harness under floor mat along window.

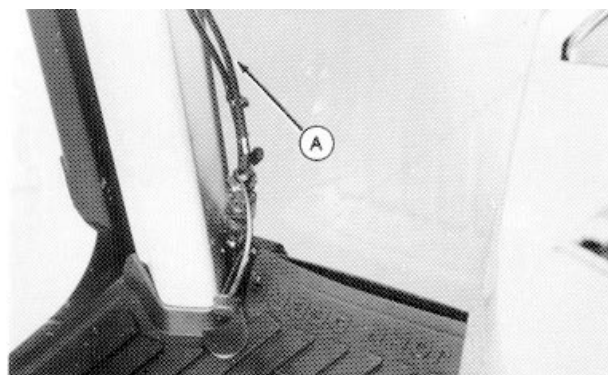


A40637 -UN-26DEC96

59082OM,90DA -19-27JAN97-3/4

6. Connect signal harness to monitor radar harness (A).

A—Radar Harness



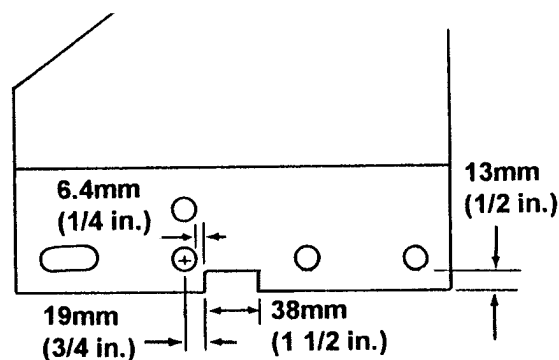
A40638 -UN-26DEC96

59082OM,90DA -19-27JAN97-4/4

9000 and 9000T Series Tractor—Radar and Bracket Installation

NOTE: Earlier brackets will need to be modified to avoid interference with hydraulic oil filter housing mounts. After modifying bracket, procedure to install earlier and later brackets is the same.

1. Refer to the illustration and cut a notch out of the top of the bracket at specified dimensions.



A45961 -19-02MAR00

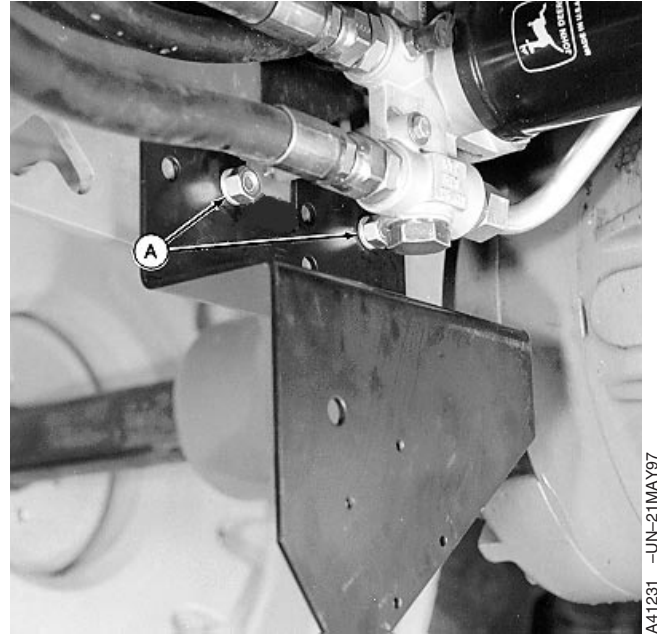
Continued on next page

AG,OUO1074,868 -19-01MAR00-1/3

NOTE: Shift bracket until top is level.

2. Install bracket on tractor, by hydraulic oil filter housing, using two 5/8 x 1-1/2 in. cap screws (A), flat washers, lock washers and nuts as illustrated.

A—Cap Screws



A41231 -UN-21MAY97

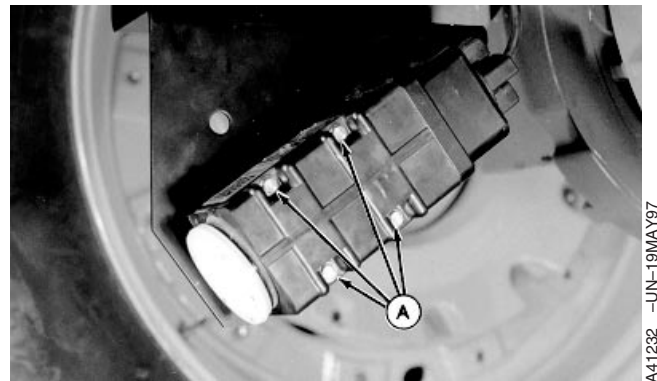
AG,OUO1074,868 -19-01MAR00-2/3



CAUTION: Avoid looking directly into the sensor face of radar to prevent possible eye damage from microwave signal emitted from radar.

NOTE: Be certain radar unit is mounted on bracket with serial number plate facing upward.

3. Install radar unit on inside of bracket using four 1/4 x 4 in. cap screws (A), flat washers and lock nuts (flat washers under head of cap screw against radar unit).
4. Route harness along right-hand frame to rear of cab. Tie band as required.
5. Connect radar harness to monitor harness.



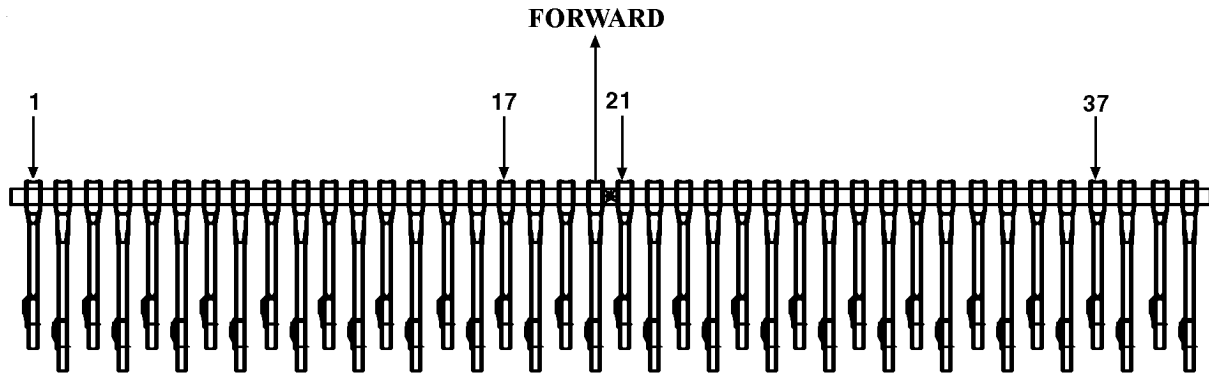
A41232 -UN-19MAY97

A—Cap Screw

AG,OUO1074,868 -19-01MAR00-3/3

Seed Sensors

Installing Monitor Sensors—455, 1520, and 1530



A45166 -19-05NOV98

40 Row 455 Drill Shown

1. Remove seed tube hose from feed cup and seed boot. See chart below for proper hoses to remove.

455 Drill	Drill Width	Row Spacing	Row Numbers
50 Row	7.62 m (25 ft)	15 cm (6 in.)	1, 22, 26, 47
40 Row	7.62 m (25 ft)	19 cm (7.5 in.)	1, 17, 21, 37
30 Row	7.62 m (25 ft)	25 cm (10 in.)	1, 13, 16, 28
60 Row	9.1 m (30 ft)	15 cm (6 in.)	1, 17, 21, 27, 41, 57
60 Row	9.1 m (30 ft)	15 cm (6 in.)	1, 17, 21, 27, 41, 57
48 Row	9.1 m (30 ft)	19 cm (7.5 in.)	1, 13, 17, 29, 33, 46
36 Row	9.1 m (30 ft)	25 cm (10 in.)	1, 10, 13, 22, 25, 34
70 Row	10.7 m (35 ft)	15 cm (6 in.)	1, 22, 26, 42, 46, 67
56 Row	10.7 m (35 ft)	19 cm (7.5 in.)	1, 17, 21, 33, 37, 54
42 Row	10.7 m (35 ft)	25 cm (10 in.)	1, 13, 16, 25, 28, 40

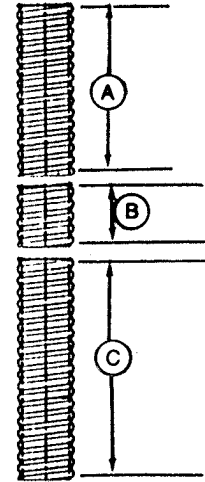
1520 Drill	Drill Width	Row Spacing	Row Number
30 Row	4.6 m (15 ft)	15 cm (6 in.)	2, 13, 18, 29
24 Row	4.6 m (15 ft)	19 cm (7.5 in.)	2, 10, 15, 23
18 Row	4.6 m (15 ft)	25 cm (10 in.)	2, 8, 11, 17
40 Row	6.1 m (20 ft)	15 cm (6 in.)	2, 18, 23, 39
32 Row	6.1 m (20 ft)	19 cm (7.5 in.)	2, 14, 19, 31
24 Row	6.1 m (20 ft)	25 cm (10 in.)	2, 11, 14, 23
1530 Drill	Drill Width	Row Spacing	Row Number
11 Row	4.6 m (15 ft)	38 cm (15 in.)	1, 5, 6, 11
12 Row	4.6 m (15 ft)	38 cm (15 in.)	1, 6, 7, 12
15 Row	6.1 m (20 ft)	38 cm (15 in.)	1, 7, 8, 15
16 Row	6.1 m (20 ft)	38 cm (15 in.)	1, 8, 9, 16

Continued on next page

OUO6074.0000003 -19-31AUG00-1/3

2. Count 8 ribs from the top of each seed tube hose and cut. KEEP the 8 rib sections (A) for future use.
3. Measure 51 mm (2 in.) from top of seed tube hoses, and cut again. DISCARD the 51 mm (2 in.) sections (B). KEEP the remaining seed tube hose sections (C) for future use.

A—8 Rib Section
 B—51 mm (2 in.) Section
 C—Seed Tube Hose Section



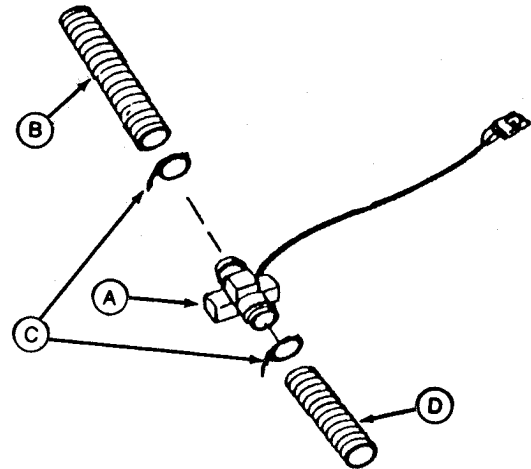
A45167 -UN-05NOV98

OUO6074,0000003 -19-31AUG00-2/3

NOTE: Top of sensor has wire lead coming out.

4. Insert top of sensor (A) in 8 rib section of seed tube hose section (B). Make sure to insert flange of sensor into the third rib of the seed tube hose section. Attach seed tube to sensor with tie strap (C) between flange and sensor body.
5. Insert bottom of sensor (A) in remaining seed tube (D). Make sure to insert flange of sensor into the third rib of the seed tube. Attach seed tube to sensor with tie strap (C) between flange and sensor body.
6. Install seed tube hoses with sensors on drill.

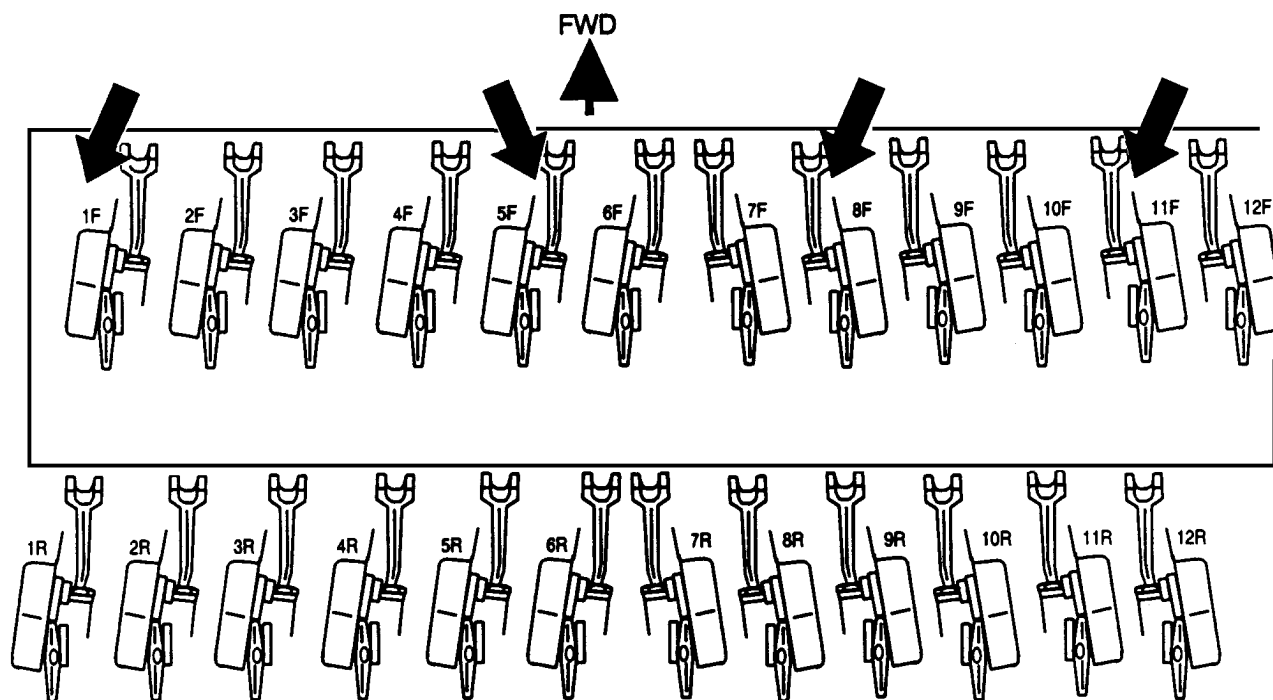
A—Sensor
 B—8 Rib Section
 C—Tie Strap
 D—Seed Tube Hose Section



A45168 -UN-05NOV98

OUO6074,0000003 -19-31AUG00-3/3

Install Monitor Sensors—1560, 1590



24—Row 4.57 m (15 ft) Shown

A45193 -UN-18NOV98

1. Remove seed tube hose from feed cup and convolute tube. See chart below for proper hoses to remove.

1560/1590 Drill	Drill Width	Row Spacing	Row Numbers
16 Row	3048 mm (120 in.)	191 mm (7.5 in.)	1F, 4F, 6F, 8F
18 Row	4572 mm 180 in.)	254 mm (10 in.)	1F, 4F, 6F, 9F
24 Row	4572 mm 180 in.)	191 mm (7.5 in.)	1F, 5F, 8F, 11F
32 Row	6096 mm (240 in.)	191 mm (7.5 in.)	1F, 6F, 10F, 15F

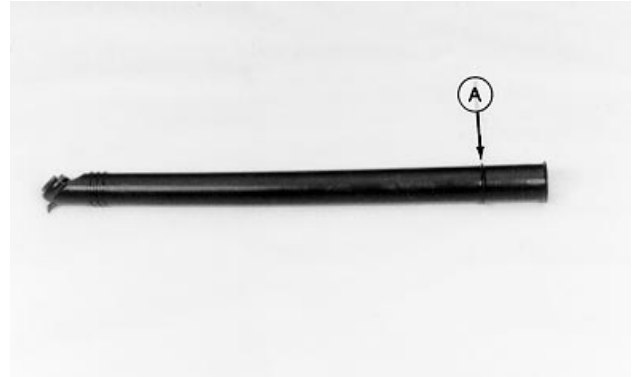
NOTE: If front rank lockup is used, install sensors on rows 1R, 5R, 8R, 11R, on a 4.57 m (15 ft) machine with 191 mm (7.5 in.) spacing.

Continued on next page

OUO6074,000040B -19-04SEP01-1/5

2. Cut tube just above rib (A) on lower end of tube. Clean rough edges.

A—Rib



A45194 -UN-16NOV98

OUO6074,000040B -19-04SEP01-2/5

3. Assemble clamp halves (A) with hose clamp (B).
4. Insert tube to stops inside clamp halves.
5. Drill holes (C) in seed tube using holes in clamp halves as template.
6. Disassemble clamp halves.

A—Clamp Halves
B—Hose Clamp
C—Holes

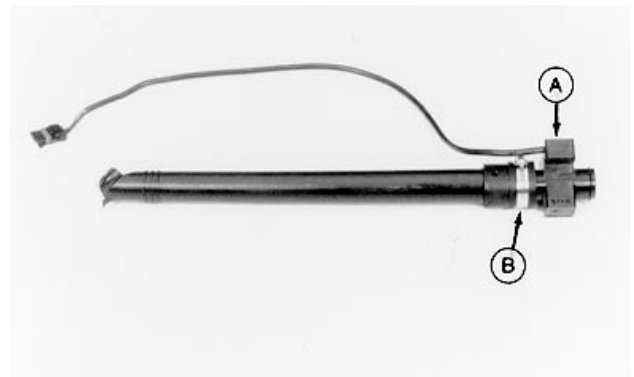


A45195 -UN-16NOV98

OUO6074,000040B -19-04SEP01-3/5

7. Assemble tube and sensor (A) in one clamp half. Nub on clamp half will fit in drilled hole in seed tube. Place rib on sensor in groove of clamp.
8. Position other half of clamp and fasten with hose clamp (B).
9. Repeat steps 2—8 for other three seed tubes.

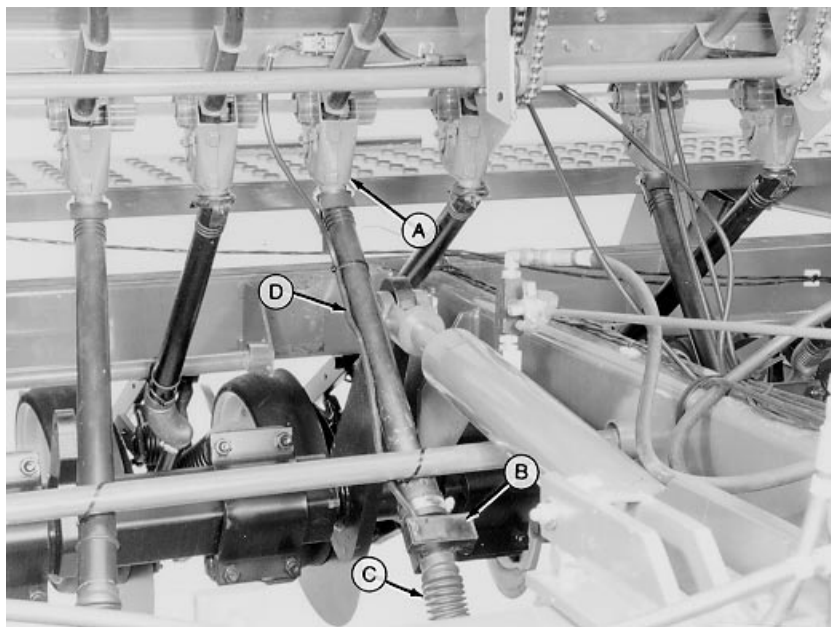
A—Sensor
B—Hose Clamp



A45196 -UN-16NOV98

Continued on next page

OUO6074,000040B -19-04SEP01-4/5



A—Feed Cup

B—Sensor

C—Convolute Tube

D—Sensor Harness

10. Install seed tubes to specified rows and attach to feed cups (A).
11. Insert bottom, of sensor (B) into convoluted tube (C). Make sure to insert flange of sensor into third rib of convoluted tube.
12. Route sensor harness (D) up seed tubes and fasten with tie bands.

OUO6074,000040B -19-04SEP01-5/5

Installing Seed Sensors—CCS Machines

IMPORTANT: Hose ends must be cut off in alternating lengths to allow for sensor clearance.

IMPORTANT: Hoses must be re-numbered after being cut for proper identification and installation.

NOTE: Seed delivery tubes are numbered and pre-cut according to which opener and venturi they will connect. Openers and venturies are numbered in sequence from machine left to machine right.

1. Cut 152 mm (6 in.) from end of odd numbered hoses and re-number new hose ends. Save removed portions for sensor installation.
2. Cut 229 mm (9 in.) from end of even numbered hoses and re-number new hose ends. Save removed portions for sensor installation.

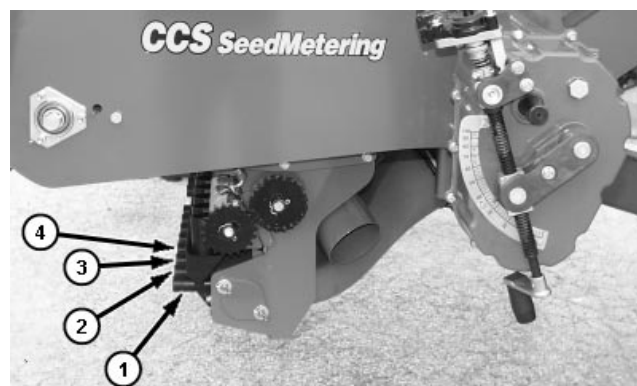
IMPORTANT: Avoid seed plugging or damage. Sensor is designed for seed flow in one direction only. Install seed sensor with harness facing short hose sections (toward rear of machine).

3. Attach seed sensors (C), in proper direction, to hose sections with couplers (D) and hose clamps.
4. Loosely install coupler (E) on other end of sensor with one hose clamp. Tighten clamp just enough to prevent coupler from falling off.

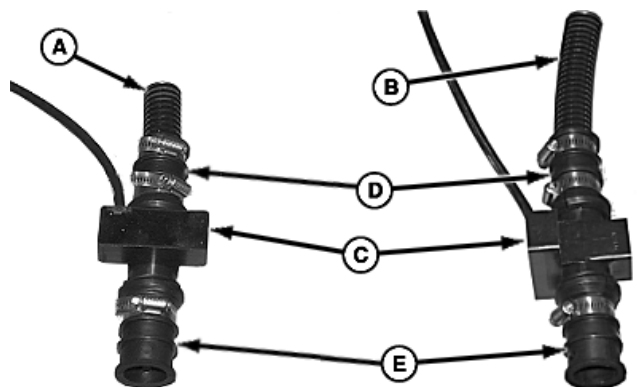
A49526 -UN-18JUL02



Left-To-Right Opener Numbering



Left-To-Right Venturi Numbering



Harness On Same Side As Hose Section

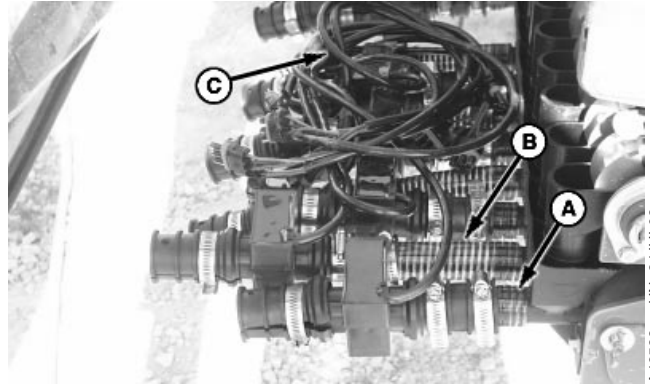
- A—Hose Section, 152 mm (6 in.)
 B—Hose Section, 229 mm (9 in.)
 C—Sensors
 D—Couplers
 E—Couplers

Continued on next page

OUO6074,000056F -19-30MAR05-1/3

NOTE: A heat gun can be used to soften the hose for installation, also.

5. Lubricate end of 152 mm (6 in.) hose section (A) on sensor assembly and number one venturi surface with glass cleaner and press completely on venturi fitting.
6. Lubricate end of 229 mm (9 in.) hose section (B) on sensor assembly and number two venturi surface with Lubricating Soap (AR54749) and press completely on venturi fitting. Continue with sensor installation in order and in alternating pattern across machine.

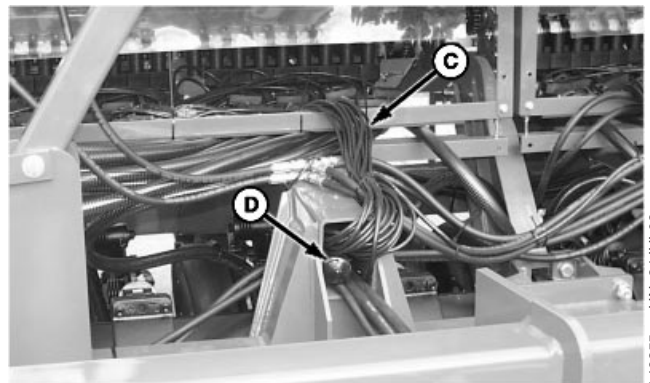
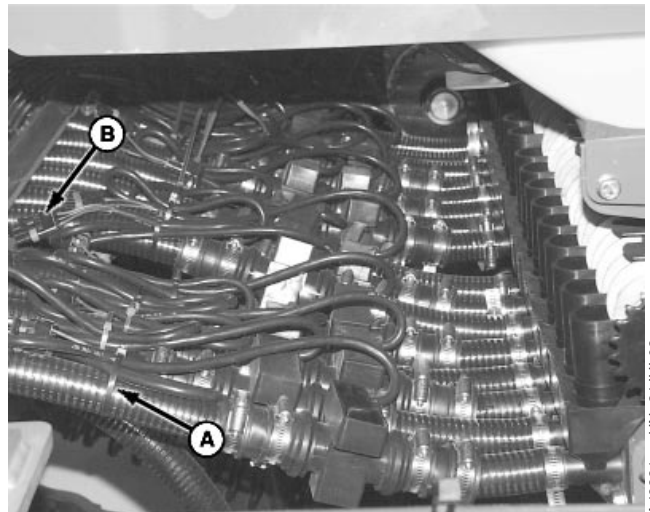


A—Hose Section, 152 mm (6 in.)
B—Hose Section, 229 mm (9 in.)
C—Harness Leads

OUO6074,000056F -19-30MAR05-2/3

7. Coil sensor harness and fasten to delivery hose with tie bands (A).
8. Connect sensor plugs (B) to sensor harness (C) and route over hose supports.
9. Place potted junction (D) and excess harness in end of frame tube.
10. Route main harness to front of machine and secure with tie bands.

A—Tie Band
B—Plug
C—Harnesses
D—Potted Junction

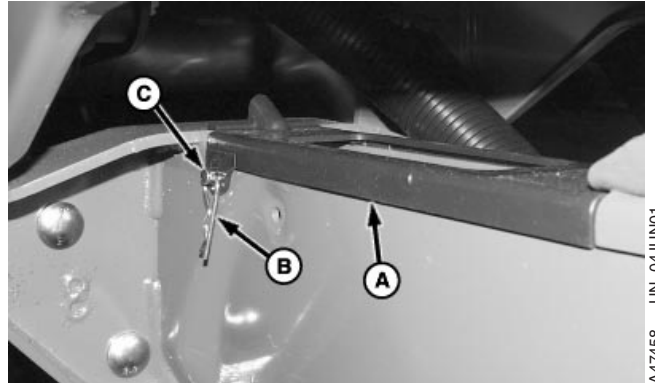


OUO6074,000056F -19-30MAR05-3/3

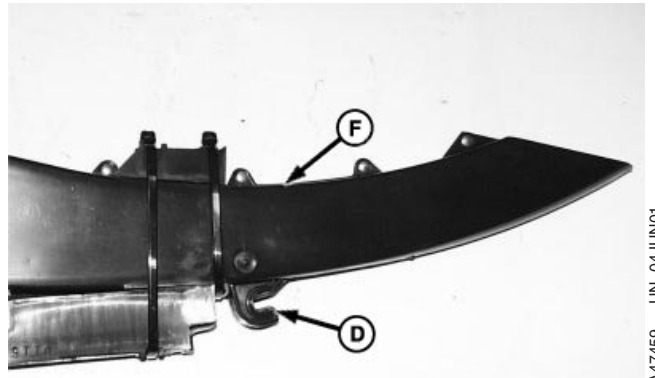
Install Seed Tubes—MAXEMERGE™ Plus Row Units

1. Remove spring pin (B) and drilled pin (C). Lift cover (A) off planting unit.
2. Insert seed tube (F) into planting unit so the hook (D) locks on alignment pin (E).
3. Position seed tube so tabs (G) lock into holes.

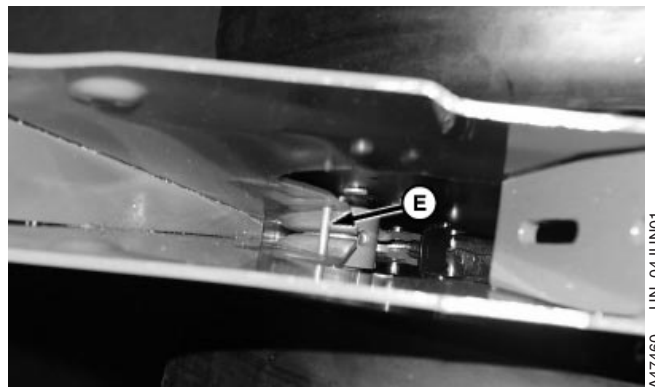
A—Cover
 B—Spring Pin
 C—Drilled Pin
 D—Hook
 E—Alignment Pin
 F—Seed Tube
 G—Tabs



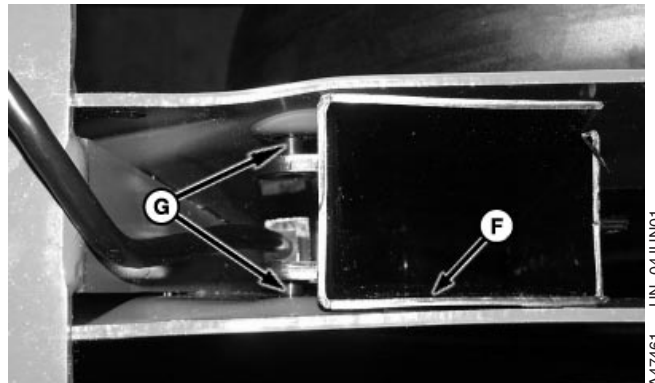
A47458 -UN-04JUN01



A47459 -UN-04JUN01



A47460 -UN-04JUN01



A47461 -UN-04JUN01

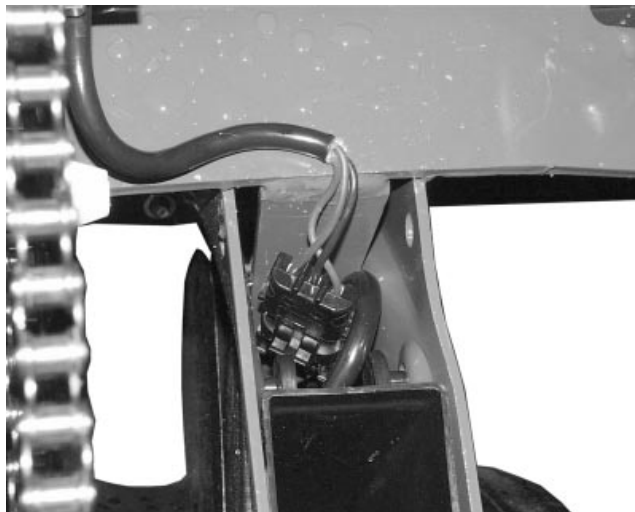
4. Connect monitor harness to sensor harness and place plug under cover (A).

NOTE: Route wire through harness slot (D).

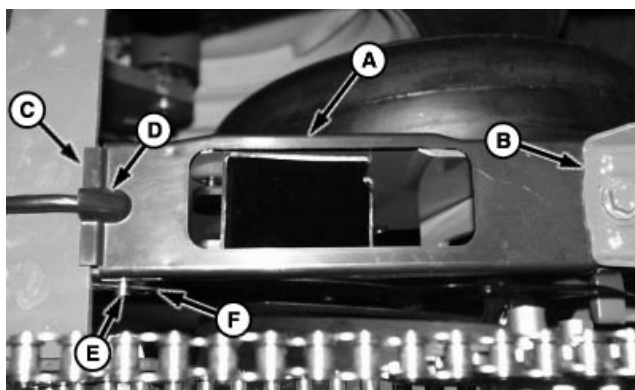
5. Install cover (A) with rear tab under the frame (B) and front tab (C) over the frame.

6. Install drilled pin (E) and spring pin (F).

A—Cover
B—Frame
C—Front Tab
D—Harness Slot
E—Drilled Pin
F—Spring Pin



A47534 -JUN-13JUN01



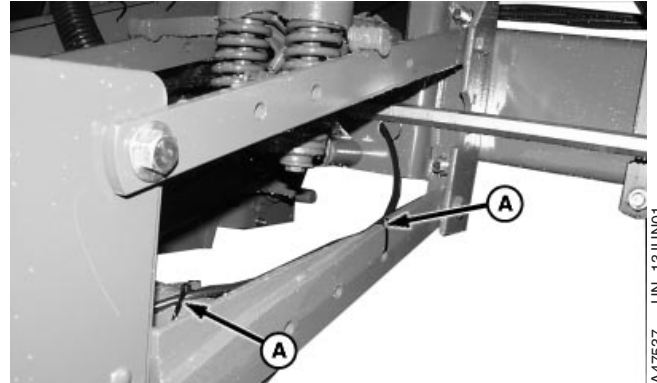
A47462 -JUN-04JUN01

Continued on next page

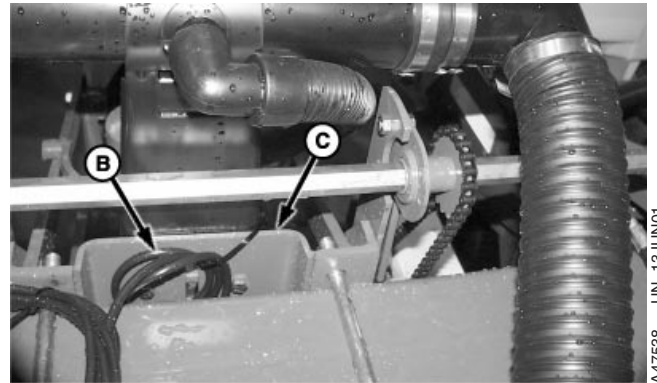
OUO6074,0000385 -19-30MAR05-2/3

7. Attach harness to planting unit with tie bands (A).
8. Coil excess harness (B) behind plate (C) and attach tie band.

A—Tie Bands
B—Harness
C—Plate



A47537 -UN-13JUN01



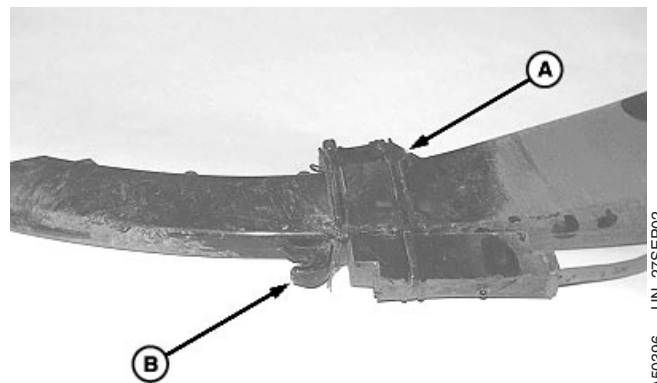
A47538 -UN-13JUN01

OUO6074,0000385 -19-30MAR05-3/3

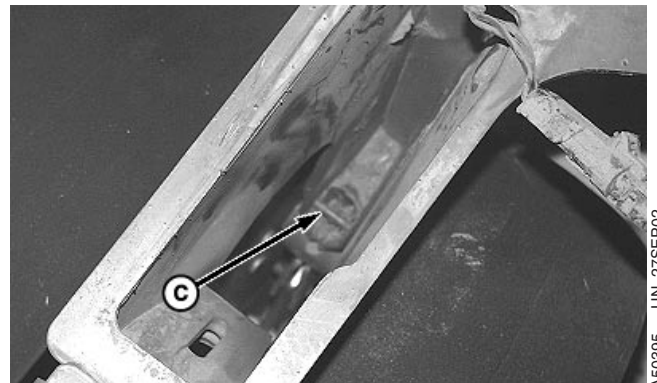
Install Seed Tubes—PRO-SERIES™ Row Units

1. Insert seed tube (A) into row unit, aligning hook (B) with alignment pin (C).

A—Seed Tube
B—Hook
C—Alignment Pin



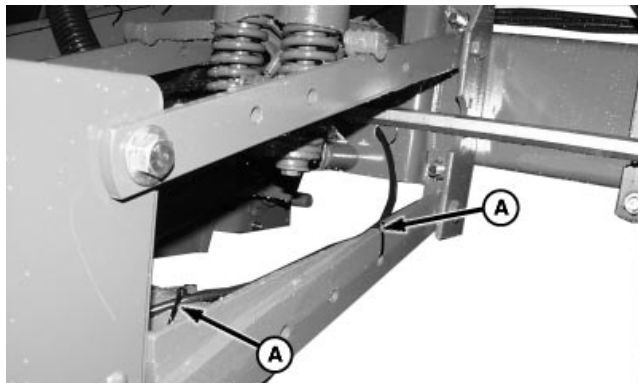
A50396 -UN-27SEP02



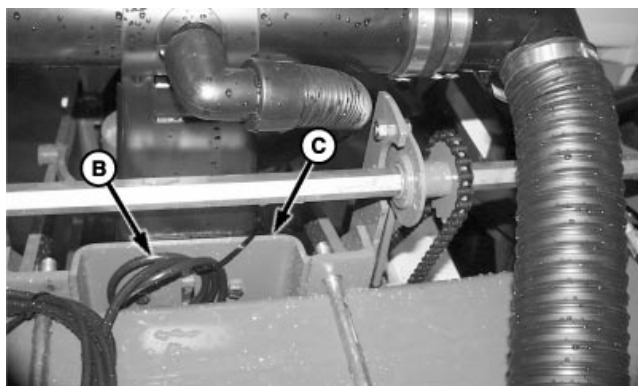
A50395 -UN-27SEP02

2. Attach harness to planting unit with tie bands (A).
3. Coil excess harness (B) behind plate (C) and attach tie band.

A—Tie Bands
B—Harness
C—Plate



A47537 -UN-13JUN01



A47538 -UN-13JUN01

OUO6089,000033D -19-30MAR05-2/2

Specifications

Specifications

COMPUTER TRAK™ 150 MONITOR	
Alarm System	Individual Row Lamps and Audible Alarm
Circuit Protection	One 3-Amp Fuse
Features	Tunable Seed Flow Alarm By Using a HI/LO Toggle Switch and Tunable Knob
COMPUTER TRAK™ 350/450 MONITOR	
Alarm System	Liquid Crystal Display and Audible Alarm
Measurement System	English and Metric
Distance Sensor	Radar Unit
Features	HI/LO Population Warning, Area Planted, Population Scan With Elective MIN-AVG-MAX., Speed Indicator and Individual Row Selection, Population or Spacing

AG,OUO1074,878 -19-01MAR00-1/1

Record Monitor Serial Number

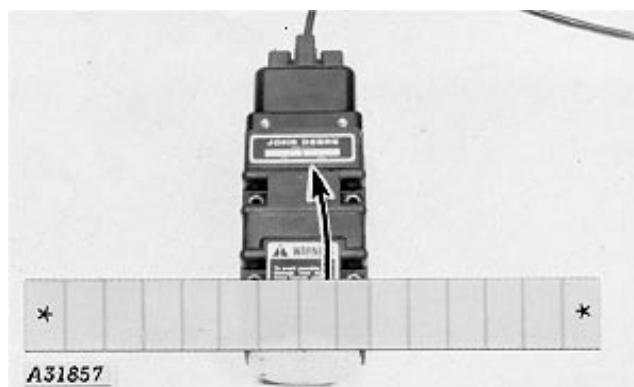
The serial numbers are located on the console and radar. Record in the spaces provided.



150 Monitor Serial Number



350/450 Monitor Serial Number



Radar Serial Number

AG.OUO1074,879 -19-01MAR00-1/1

Declaration of Conformity

DECLARATION OF CONFORMITY

John Deere Seeding Group
501 River Drive
Moline IL 61265
U S A

Conforms with the applicable
requirements of :

89/336/EEC.....Electromagnetic
Compatibility
Directive

Monitor

Model.....CT150, CT350, CT450

Moline 18APR2005


Donald K. Landphair
Manager, Product Engineering
World Wide Seeding

A56256 -19-29APR05

If a declaration is shown, it applies for those
models that bear the CE Mark.

OUC6074,0000DFE -19-05MAY05-1/1

Keep Proof of Ownership

1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
 - Mark your machine with your own numbering system
 - Take color photographs from several angles of each machine

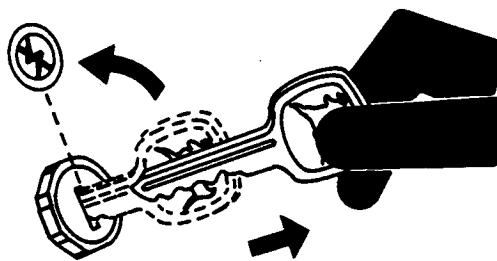


TS1680 -UN-09DEC03

DX,SECURE1 -19-18NOV03-1/1

Keep Machines Secure

1. Install vandal-proof devices.
2. When machine is in storage:
 - Lower equipment to the ground
 - Set wheels to widest position to make loading more difficult
 - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.



TS230 -UN-24MAY89

DX,SECURE2 -19-18NOV03-1/1

Index

	Page		Page
A		H	
Area		High or low population	30-9
Calibration	25-3	High population limit	25-9
Monitoring	30-5	History, monitor	30-11
Setup	25-11		
C		I	
Calibration	25-3	Implement width	25-8
COMPUTER TRAK 150		Install seed sensors	
Row configuration	20-1, 20-3	1690, 1890 CCS	50-6
Row elimination	20-5	Install Seed Tubes	
Setting alarm level	20-4	MAXEMERGE Plus Row Units	50-8
Switches	20-3	Pro-Series™ Row Units	50-10
COMPUTER TRAK, assemble	45-1	Installing Monitor Sensors	
Console installation		1560, 1590	50-3
30-55 Series utility tractors	45-1	455, 1520, and 1530	50-1
30-60 Series open station tractors	45-6		
30-60 Series row crop tractors with cab	45-4	L	
60-70 Series four-wheel drive tractors	45-13	Lamps	40-1
6000 Series tractors	45-19	Low population limit	25-10
7000 Series tractors	45-27		
8000 Series tractors	45-33	M	
9000 Series tractors	45-43	Metric units	25-2
D		Min-avg-max function	30-3
Declaration of conformity	55-3	Modification and installation of radar brackets	
Distance calibration	25-3	70 Series four wheel drive tractors	45-18
Distance counter	30-7	Modification and installation of radar bracket	
Distance failed messages	30-8	60 Series four-wheel drive tractors	45-17
E		Monitor	
English units	25-2	Attaching	
F		Detaching	15-2
Fast average (F-AVG)		Monitor lamps	40-1
Operation	30-4	Monitor overview	25-1
Setup	25-20	Monitoring a single row	30-4
Fuse	40-1	Monitoring population and seed spacing	30-2
		P	
		PA (Population Adjust)	25-13
		Point row planting	30-10
		Population monitoring	30-2
		Population adjust chart	
		Large soybeans	25-17

	Page		Page
Small soybeans	25-14	Supplemental information	15-1
Power up	25-1		
Powering monitor on	30-1		
		T	
R		Transport display	30-9
Radar adapter harness		Troubleshooting	35-1
30-60 Series tractors	45-9	Turning console on	25-1
60-70 Series tractors	45-15		
7000 Series tractors	45-29, 45-31		
8000 Series tractors	45-37		
Radar and bracket installation			
30-50 Series four-wheel drive tractors	45-11		
30-55 Series utility tractor	45-3		
30-60 Series row crop tractors	45-9		
6000 Series tractors with exhaust attached to cab	45-23		
6000 Series tractors with exhaust on hood	45-24		
7000 Series tractors	45-31		
8000 Series tractors	45-39		
8000T Series tractors	45-41		
9000 and 9000T Series tractors	45-46		
9000 Series tractor	45-47		
Resetting constants			
350, 450	25-21		
Row failed messages	30-8		
Row number setup	25-7		
Row on/off, setup	25-8		
Row select function	30-4		
Row spacing			
Setup	25-7		
S			
Safety signs	10-1		
Scanning rows	30-2		
Seed counter	30-6		
Seed sensor, cleaning	40-4		
Seed spacing	30-10		
Seed tubes	40-1		
Serial number plates	55-2		
Spacing, seed monitoring	30-2		
Specifications	55-1		
Speed			
Calibration	25-3		
Monitoring	30-5		
Speed set, fixed	25-5		
Split row setup	25-12		
Sugar beet seed tube (plate meter)	40-3		

John Deere Service Literature Available

Technical Information

Technical information can be purchased from John Deere. Some of this information is available in electronic media, such as CD-ROM disks, and in printed form. There are many ways to order. Contact your John Deere dealer. Call **1-800-522-7448** to order using a credit card. Search online from <http://www.JohnDeere.com>. Please have available the model number, serial number, and name of the product.

Available information includes:

- **PARTS CATALOGS** list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.
- **OPERATOR'S MANUALS** providing safety, operating, maintenance, and service information. These manuals and safety signs on your machine may also be available in other languages.
- **OPERATOR'S VIDEO TAPES** showing highlights of safety, operating, maintenance, and service information. These tapes may be available in multiple languages and formats.
- **TECHNICAL MANUALS** outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in separate component technical manuals
- **FUNDAMENTAL MANUALS** detailing basic information regardless of manufacturer:
 - Agricultural Primer series covers technology in farming and ranching, featuring subjects like computers, the Internet, and precision farming.
 - Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
 - Fundamentals of Services manuals show you how to repair and maintain off-road equipment.



TS189 -UN-17JAN89



TS191 -UN-02DEC88



TS224 -UN-17JAN89



TS1663 -UN-10OCT97

- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.

DX,SERVLIT –19–31JUL03–2/2

John Deere Service Keeps You on the Job

John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

- Machine model and product identification number
- Date of purchase
- Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance.

5. If a problem is not resolved to your satisfaction, contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at agriculture@johndeere.com.



TS201 –UN-23AUG88

DX,IBC,2 –19-02APR02-1/1

