

JDLink™ iT4 Embedded MTG Install Kit

BPF11511



JOHN DEERE

INSTALLATION INSTRUCTIONS

JDLink™ iT4 Embedded MTG Install Kit

PFP15993 01SEP16 (ENGLISH)

Waterloo iT4 Tractors

John Deere Ag Management Solutions
PFP15993 (01SEP16)

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A John Deere ILLUSTRATION™ Manual

PFP15993-19-01SEP16

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—28JUN13

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 instruction. Read the product operators manual for operating instructions and safety messages. Do not let anyone operate without instruction. (A copy of the operators manual may also be available from the Service ADVISOR™ application.)



Service ADVISOR is a trademark of Deere & Company

DX,READ,INS -19-23JUN09-1/1

TS201 —UN—15APR13

Replace Safety Signs

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



TS201 —UN—15APR13

DX,SIGNS1 -19-04JUN90-1/1

Practice Safe Maintenance

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.



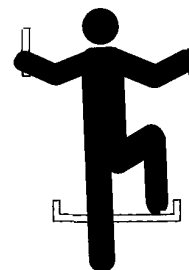
TS218 —UN—23AUG88

DX,SERV -19-17FEB99-1/1

Use Steps and Handholds Correctly

Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps, handholds, and handrails.

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease or oil. Never jump when exiting machine. Never mount or dismount a moving machine.



T133468 —UN—15APR13

DX,WW,MOUNT -19-12OCT11-1/1

Handle Electronic Components and Brackets Safely

Falling while installing or removing electronic components mounted on equipment can cause serious injury. Use a ladder or platform to easily reach each mounting location. Use sturdy and secure footholds and handholds. Do not install or remove components in wet or icy conditions.

If installing or servicing a RTK base station on a tower or other tall structure, use a certified climber.

If installing or servicing a global positioning receiver mast used on an implement, use proper lifting techniques and wear proper protective equipment. The mast is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform.



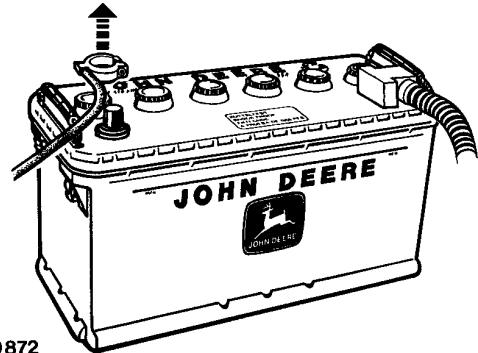
DX,WW,RECEIVER -19-24AUG10-1/1

TSS249 —UN—23AUG88

Electrical System — General Instructions on Safety

CAUTION: Before working on the electrical system, always disconnect battery ground cable (-).

NOTE: Refer also to the Technical Manual before installing, removing or adjusting components.



LX 000872

OUO6043,0000313 -19-16OCT13-1/1

LX000872 —UN—19SEP94

Use Technical Manuals

When performing the work described in this instruction, use relevant Technical Manuals for additional service instruction.

Carefully read and comply with safety messages and cautions presented throughout the text.

Both diagnostic and repair technical manuals are concise guides for specific equipment. They are on-the-job instructions containing vital information to diagnose, analyze, test, and repair the equipment.



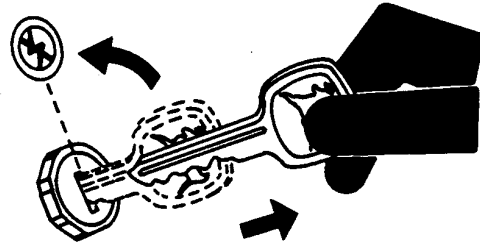
OUO6043,0000314 -19-16OCT13-1/1

ZX1051364 —UN—20NOV12

Park Machine Safely

Before working on the machine:

- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.



TS230 —UN—24MAY89

DX,PARK -19-04JUN90-1/1

Avoid Exposure to High Radio Frequency Fields

Prevent injury from exposure to high radio frequency fields at the MTG antenna. Do not touch the MTG antenna while the system is transmitting. Always disconnect power to the antenna before installing or servicing.

The MTG antenna should always be separated from the operator or nearby persons by a minimum distance of 20 cm (8 in.)



PC12632 —UN—04JUN10

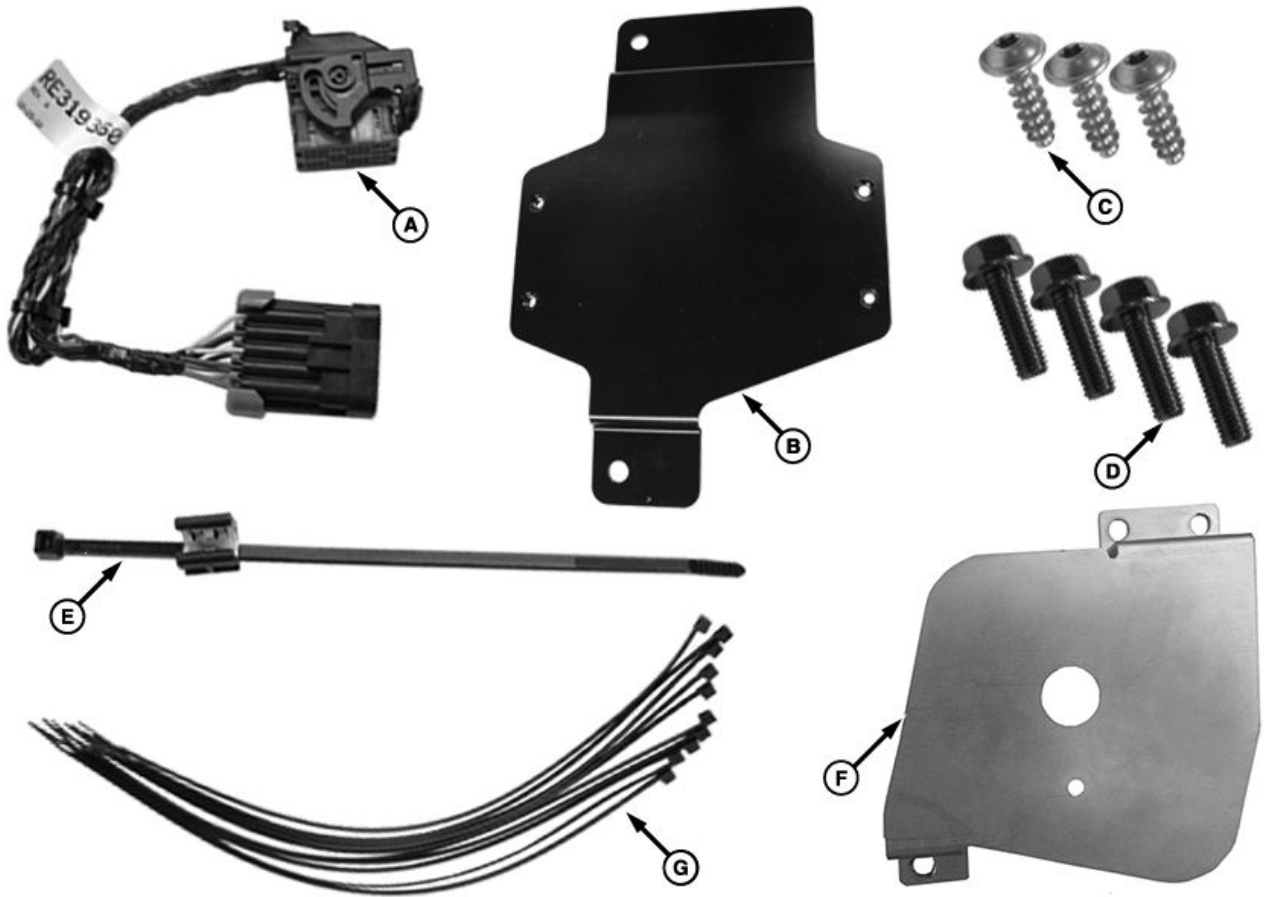
CZ76372,0000544 -19-30NOV12-1/1

To The Dealer

Average time required to install the component(s) in this kit can be found at <http://mst.deere.com>.

AL70325,000019C -19-02OCT14-1/1

Parts List



A—MTG Extension Harness
B—MTG Bracket

C—Self-Tapping Screw, M6 x 20
D—Cap Screw, M8 x 25

E—Cable Tie Clip
F—Antenna Bracket

G—Tie Band

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Callout	Description	Part Number	Quantity
D	Cap Screw, M8 x 25	19M7867	4
C	Screw, Self-Tapping, M6 x 20	37M7352	3
E	Cable Tie Clip	AH225363	1
A	Harness, MTG Extension	RE319360	1
F	Bracket, Antenna	R559454	1
B	Bracket, MTG	R314885	1
G	Tie Band	R105388	10

AE77568,00001E8 -19-28JUN16-1/1

PC22795 —UN—23JUN16

Activate JDLink™

IMPORTANT: The terminal needs to be activated before being installed. Complete the following instructions to activate the terminal before installing any hardware.

There is a free 28 day dealer installation activation of the JDLink™ Terminal.

NOTE: Temporary period ends once terminal is transferred to a customer account.

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If terminal is not transferred within 28 days, terminal is inactive.

1. Log on to StellarSupport.com or John Deere MarketPlace Seller Community.
2. Follow steps on the screen to complete activation.
(Reference website's help files for more information.)

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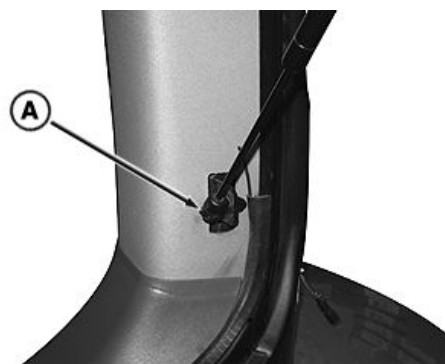
Install Antenna

CAUTION: Read and understand the "Handle Electronic Components and Brackets Safely" section before accessing cab roof.

IMPORTANT: Disconnect battery ground (-) cable before installation process.

1. Open rear window.
2. Remove and retain rear window cylinder retaining clip (A).
3. Slide operator seat all the way forward.
4. Remove and retain rear cab fuse cover and upholstery panel (B).
5. Remove and retain rear storage tray (C) and corner post cover retaining screw (D).

A—Rear Window Cylinder Clip C—Rear Storage Tray
B—Rear Upholstery Panel D—Screw



Rear Window



RXA0105292 —UN—30OCT09

RXA0105290 —UN—30OCT09

PC12862 —UN—15SEP10

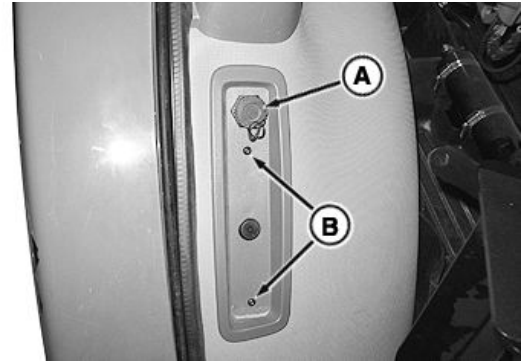
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AE77568,00001D1 -19-29JUN16-1/5

6. Remove and retain right-hand cup holder insert and tray insert.
7. Remove and retain Service ADVISOR™ connector cap (A), nut, and two console cover screws (B).
8. Remove and retain two right-hand console cover screws (C).
9. Remove and retain screw covers (D) and right-hand corner post shroud (E).
10. Loosen and lean right-hand console (F) towards seat.
11. Pull headliner (G) down at right-hand rear corner post.

A—Service ADVISOR™
Connector Cap, Nut
B—Screw
C—Screw
D—Screw Cover (4 Used)

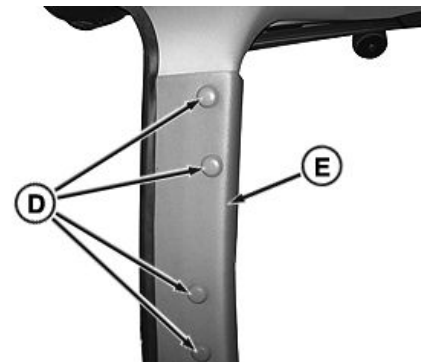
E—Corner Post Shroud
F—Right-Hand Console
G—Headliner



RXA0105286 —UN—30OCT09



RXA0105284 —UN—30OCT09



RXA0105288 —UN—30OCT09

Rear Corner Post



RXA0105280 —UN—30OCT09

Service ADVISOR is a trademark of Deere & Company

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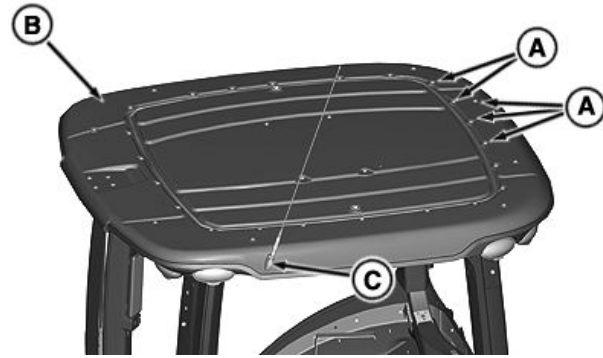
NOTE: An assistant is required to remove the green roof to avoid possible damage.

12. Remove and retain cab roof cap screws (A).
13. Remove and retain StarFire™ antenna bracket, if equipped.
14. Remove and retain green roof (B).
15. Disconnect radio antenna cable (C) and business band radio antenna, if equipped.

A—Cap Screw (38 Used)

B—Green Cab Roof

C—Radio Antenna



RXA0100480—UN—17MAR09

StarFire is a trademark of Deere & Company

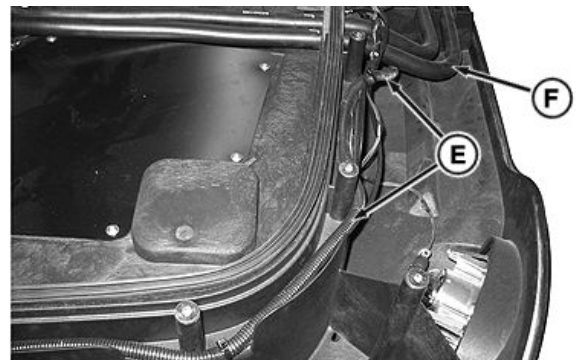
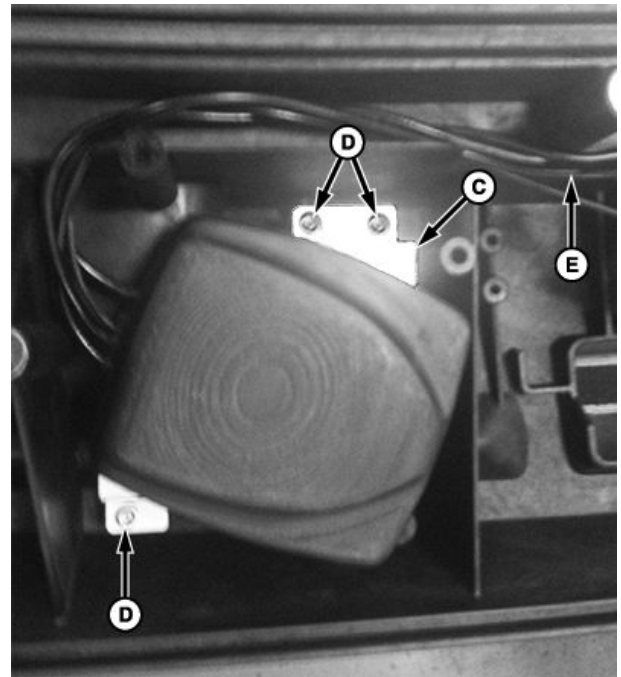
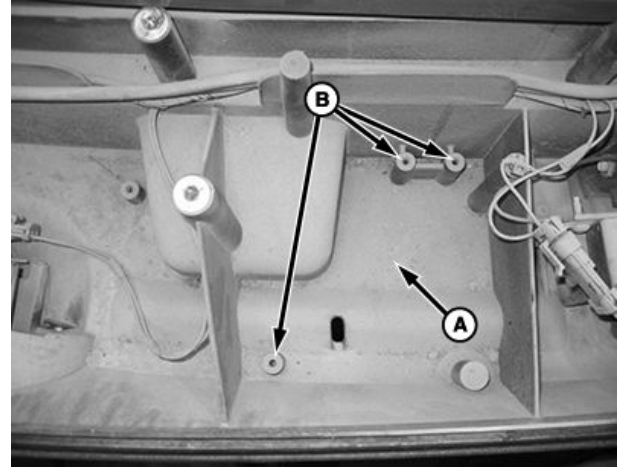
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AE77568,00001D1 -19-29JUN16-3/5

16. Locate the JDLink™ antenna mounting bracket location (A) and three screw bosses (B) on black roof, near rear window wiper motor.
 17. Attach antenna bracket (C) using self-tapping screws (D).
 18. Remove protective paper from adhesive pad on antenna. Position antenna facing right-hand side of machine and approximately 15 deg to the rear. Firmly press antenna to antenna bracket.
- Suggested Adhesive Application Temperature Ranges:
- Ideal tape application temperature range is between 21—38°C (70—100°F).
 - Application is not recommended below 0°C (32°F).
19. Route the antenna harness (E) in channel to right-hand rear corner post.
 20. Route harness under heater hoses (F) to foam seal.

A—Antenna Location
B—Screw Boss
C—Antenna Bracket

D—Self-Tapping Screws, M6 x
20 (3 Used)
E—Harness
F—Heater Hoses



PC22605 —UN—05MAY16

PC22797 —UN—29JUN16

RXA0105306 —UN—30OCT09

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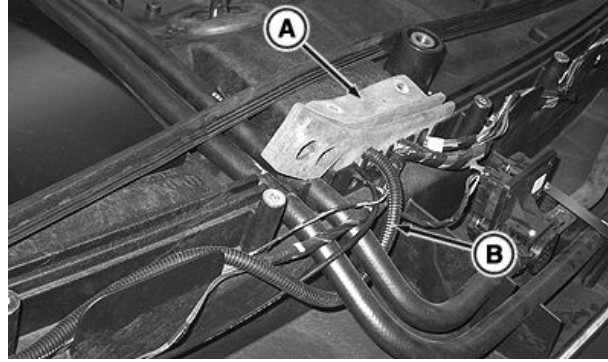
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21. Lift foam seal (A) up to route antenna harness (B) over ROPS tube and through opening.
22. Pull excess antenna harness (B) through cab headliner while routing along top edge of cab window and down right-hand rear corner post and behind seat.
23. Reinstall foam seal by pressing down. Start in the front and move towards the rear.
24. Reinstall the roof cab seal (C) in original retaining groove.
25. Attach six tie bands to retain antenna harness to existing harness or hoses. Avoid pinching harness between black and green roof.
26. Route antenna harness back to right-hand rear corner post, then down post to rear cab panel.

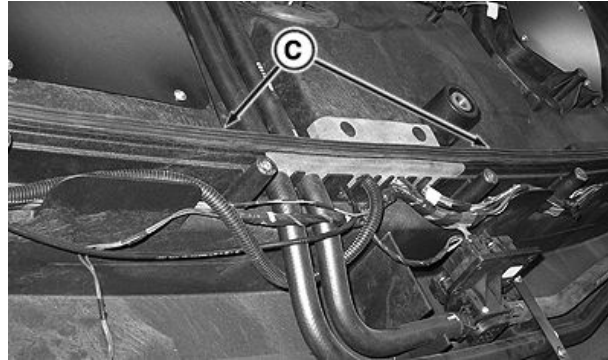
A—Foam Seal

B—Antenna Cable Routing

C—Cab Seal

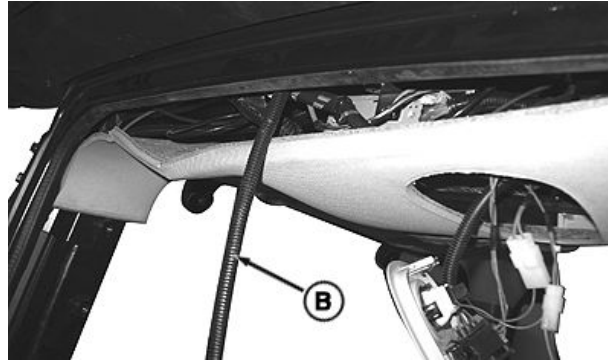


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RXA0105278—UN—30OCT09

Foam Seal



RXA0105284—UN—02NOV09

Antenna Harness Routing

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Install MTG and Bracket

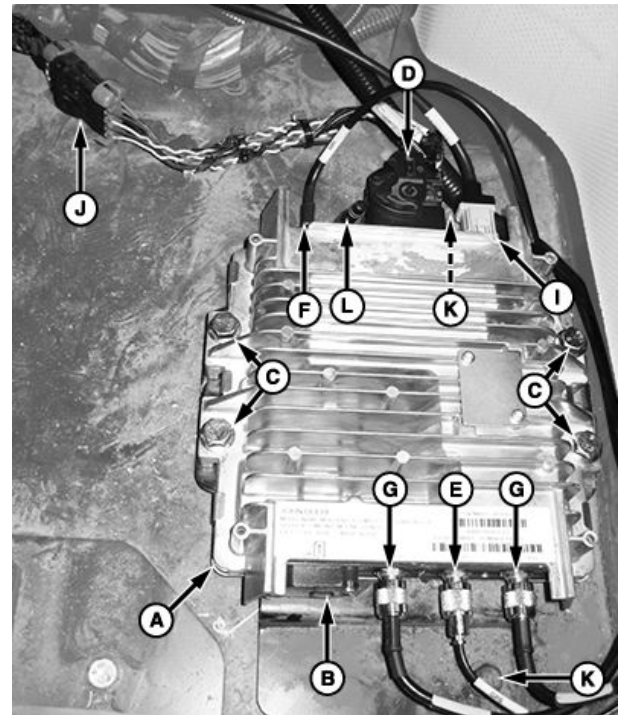
1. Position modular telematics gateway (MTG) (A) on the raised middle portion of the bracket with the LED (B) facing the wider step-down portion of the bracket. Attach MTG to its bracket using cap screws (C).
2. Attach 48-pin Molex® connector (D) on the MTG extension harness to MTG.
3. Connect global positioning system (GPS) (E), wireless (F), and both cellular antenna connectors (G) to MTG.

NOTE: If machine has 12-pin Ethernet connector, connect Ethernet cable directly to MTG.

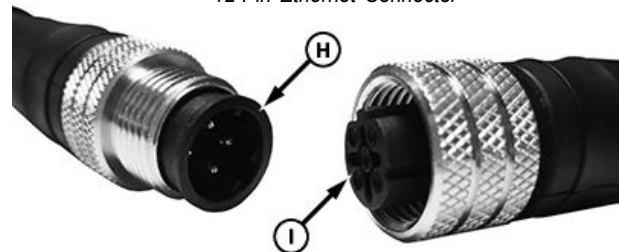
4. If equipped, connect Ethernet cable (H) to Ethernet adapter (I) and connect Ethernet adapter to MTG.
5. Connect 10-pin connector (J) on MTG extension harness to existing 10-pin machine harness connector.
6. The MTG is installed on the floor to the left and behind the operators seat. Locate two cap screws (K) in the floor in this location. Remove and retain cap screws.
7. Install MTG and bracket using retained cap screws. Position MTG so that the LED faces the front of the machine.
8. Reinstall any retained hardware from machine.
9. Move machine to an area where antenna has a clear view of the sky.
10. Set parking brake, and let engine run for 10 minutes. This allows time for the MTG to call in and auto-register.

A—MTG
B—LED
C—Cap Screws, M8 x 25 (4 used)
D—Molex® Connector
E—GPS Connector
F—Wireless Connector

G—Cellular Connector
H—Ethernet Cable
I— Ethernet Adapter
J— 10-Pin Connector
K—Machine Cap Screws (2 used)
L— Wireless Antenna



12-Pin Ethernet Connector



Molex is a trademark of Molex, LLC

AE77568,00001BE -19-30JUN16-1/1

PC22611 —UN—30JUN16

PC22673 —UN—19MAY16

PC22809 —UN—30JUN16

Verify Installation

1. Using 2630 or Armrest display, select Main Menu > Message Center.
2. Select Addresses softkey.
3. In the drop down, select JDL.

NOTE: Control Unit JDL could take up to 5 minutes to boot up and appear on CAN bus. Also, if JDL appears on CAN bus and then disappears, cycle switched power and check address 156 to make sure Hibernation voltage threshold is not set above current system voltage.

If JDL doesn't appear on CAN bus, check MTG and harness connections.

4. Scroll through list and select address 103. Software version will be displayed.

Latest software version number can be found on StellarSupport.com in the current software release notes.

If the MTG needs to be updated, download the latest software from the Custom Performance website and install using Service ADVISOR™.

Service ADVISOR is a trademark of Deere & Company

5. Return to JDL address list and scroll to addresses 160 and 162. These two display the status of the GPS/Cellular antenna. Ensure address 160 displays "1" and, depending on location, address 162 displays either "1" or "2".

If not, check GPS/Cellular connections at the MTG and make sure antenna cable is not pinched or damaged.

GPS Antenna Status	
0	Unknown
1	OK
2	Short Circuit
3	Open Circuit

Cellular Antenna Status	
0	Unknown
1	United States
2	European Union
3	Short Circuit
4	Open Circuit

CZ76372,0000415 -19-10APR12-1/1

Verify Cell Signal

Once the installation is verified, check to make sure the MTG has cell signal and has called in.

1. Return to JDL address list and scroll to address 112. Address 112 provides four values separated by commas. An example may look like this:

-060,3104101234,1,0

Ensure the last digit displayed is "0", meaning there are no errors communicating with the cellular network.

Cellular Signal Status	
0	No Error
1	Modem Unresponsive
2	No SIM
3	Network Registration Error
4	Error Establishing Calls

2. Also at JDL address 112, the first number displayed is a negative number representing signal quality. The closer the number is to zero the better the quality. Adequate signal is valued between "-050" and "-090".

3. Return to JDL address list and scroll to address 124. Address 124 displays the time and duration of the last call attempt in the following format:

YYYY :MM :DD :HH :MM :SS :nnnnn

Ensure the last number, the call duration, is greater than "00000". This signifies that the last call attempt was successful.

CZ76372,0000418 -19-11APR12-1/1

Transfer Terminal

Once activated and the installation verified, the terminal may need to be transferred from the dealer account to the customer account.

1. Log on to <http://www.jdlink.com/>.
2. Go to the Admin/Settings tab.
3. Select the Terminal Setup button.
4. Select the terminal to transfer by clicking on the name.
5. Select the Move This Terminal to Customer button and the Move Terminal to Customer popup will appear.
6. Select the customer check box to search for customers.
7. Search for the customer that the terminal will be transferred to.
8. Select the correct customer profile.
9. Then press Save & Close to transfer the unit to the customer.

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