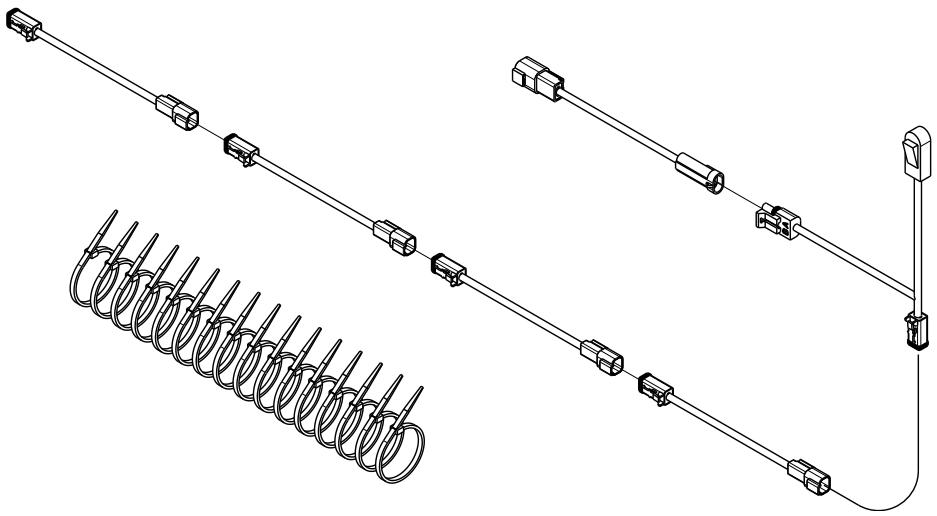
Skid Steer Control Harness

Kit No. 301-590A
For DZ3084 & DZ3096 6-Way Dozer Blades

70695



Control Harness With Two Pin Plug and Thumb Switch

301-591MK
Operator's Manual

Read the Operator's Manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Cover photo may show optional equipment not supplied with standard unit.

Kubota®

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Equipment Documentation

To assist you and your dealer in handling your needs, please record **"Dealer Contact Information"** and **"Product Identification"** below. It is also advisable to supply this information to your insurance company. It will be helpful in the event that the equipment or power machine is lost or stolen.

Dealer Contact Information

Dealer Name: _____

Street: _____

City/State_____

Telephone: _____

Product Identification

Model Number: _____

Serial Number: _____

Date of Purchase:_____

To The Purchaser

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation**, and keep it in your files for further reference.

This manual has been prepared to assist the owner and operators in the safe operation and suitable maintenance of the equipment. The information is applicable to products at the time of manufacture and does not include modifications made afterwards.

Read and understand this operator's manual before attempting to put equipment into service. Familiarize yourself with the operating instructions and all the safety recommendations contained in this manual and those labeled on the equipment and on the power machine. Follow the safety recommendations and make sure that those with whom you work follow them. Not following them could result in serious personal injury or equipment damage. If you have any questions consult your dealer.

To The Dealer

Give this manual to the owner upon delivery of the equipment.

To The Purchaser and Dealer

Illustrations

The illustrations may not necessarily reproduce the full detail and the exact shape of the parts or depict the actual models, but are for reference only.

Assembly Instructions

A detailed listing of parts for this accessory kit is provided on page 10. Use this list to identify components during assembly and as a checklist to inventory parts received. Please contact Kubota by Land Pride for any missing hardware.

Further Assistance

Your dealer wants you to be satisfied with your new control harness. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss any problems you have with your attachment with your dealership service personnel so they can address the problem.
2. If you are still not satisfied, seek out the owner or general manager and explain the problem.

⚠ *SAFETY FIRST*

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read theses instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.

⚠ **DANGER:**	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
⚠ **WARNING:**	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ **CAUTION:**	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
IMPORTANT:	Indicates that equipment or property damage could result if instructions are not followed.
NOTE:	Gives helpful information.

California Proposition 65

⚠ **WARNING**: Cancer and reproductive harm - www.P65Warnings.ca.gov

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The Product(s) described in this Publication are designed and manufactured only for the country in which they are initially wholesaled by Kubota. Kubota does not provide parts, warranty or service for any Product which is re-sold or retailed in any country other than the country for which the Product(s) were designed or manufactured.

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Safety

⚠ DANGER

To avoid serious injury or death:

- *Do not go near or under raised lift arms unless an approved lift-arm support is available and is used to secure the lift arms in the raised position.*
- *Have a second person secure raised loader arms with an approved lift-arm support before leaving the operator's seat. The operator can be crushed if loader arms drop while exiting the skid steer cab.*
- *Have a second person remove the lift-arm support after the operator is seated in the skid steer. The operator can be crushed if loader arms drop while entering the skid steer cab.*

IMPORTANT:
Make sure wire harnesses do not become entangled, stretched, or kinked while loader arms are being raised and lowered.

Skid Steer Shutdown Procedure

The following are basic skid steer shutdown procedures. Follow these procedures and any additional shutdown procedures provided in your skid steer Operator's Manual before leaving the operator's seat.

1. Reduce engine speed and shut-off all power to the attachment.
2. Park on solid, level ground.
3. Adjust attachment level and straight (not angling).
4. Lower attachment until it is flat on the ground or on support blocks.
5. Turn off engine, and remove switch key to prevent unauthorized starting.
6. Relieve all hydraulic pressure to auxiliary hydraulic lines.
7. If included, raise seat bar and move controls until both lock.
8. Wait for all components to come to a complete stop before leaving the operator's seat.
9. Use steps, grab-handles and anti-slip surfaces when stepping on and off the skid steer or attachment.

Route Wire Harness (#3B)

Refer to Figure 1 & Figure 13 on page 10:

1. Be sure to read and understand **"Safety Information"** on page 5 before installing the wire harness.
2. If attached, unhook the dozer blade. Refer to **"Unhook Dozer Blade"** in the Operator's Manual.
3. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 5.
4. Attach male end (A) of wire harness (#3B) near the quick release hydraulic couplings with cable ties (#1). Do not draw cable ties up tight at this time.
5. Continue routing wire harness (#3B) along the loader arm while frequently attaching it to the hydraulic lines and mounting brackets with cable ties (#1).
6. If necessary, add additional cable ties to prevent the wire harness from becoming slack and catching on objects as loader arm is raised and lowered.

Refer to Figure 2:

7. At the back, route wire harness (#3B) below the hydraulic lines until it terminates with female end (B).
8. Securing wire harness (#3B) with cable ties (#1) to keep it from becoming slack and catching on objects as loader arm is raised and lowered.

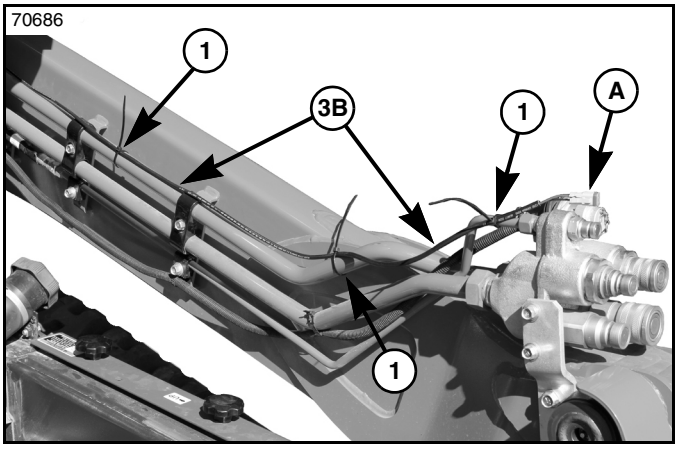
Route Wire Harness (#3C)

Refer to Figure 2 & Figure 13 on page 10:

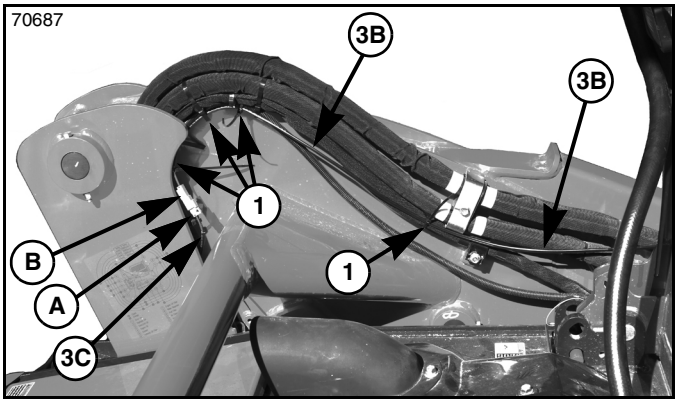
1. Attach wire harness (#3B) to wire harness (3C).
2. If necessary, add additional cable ties (#1) to prevent harness from becoming slack and catching on objects as loader arm is raised and lowered.

Refer to Figure 3:

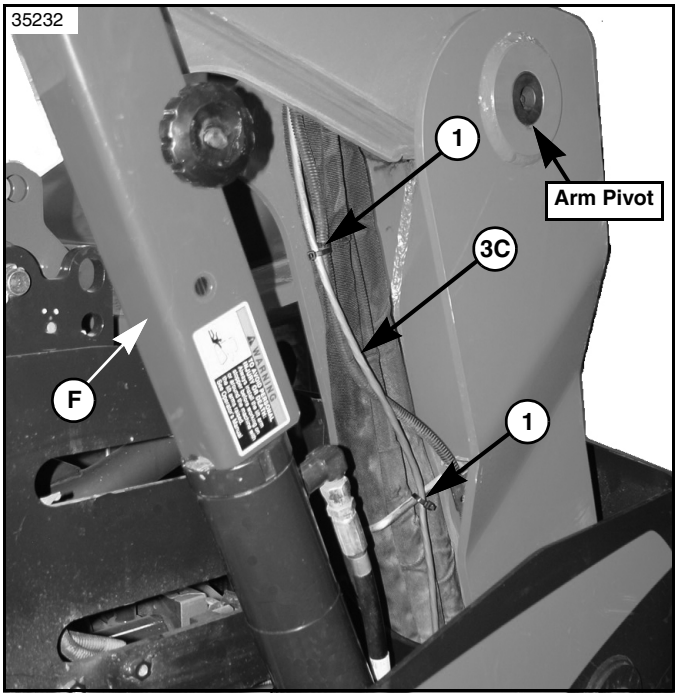
3. Raise loader arm up to access area below arm pivot.
4. Have a second person secure loader arm in the raised position with lift-arm support (F).
5. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 5.
6. Continue routing wire harness (#3C) below the loader arm pivot point while frequently attaching the harness to hydraulic lines and mounting brackets with cable ties (#1).
7. Make sure wire harness (#3C) does not become entangled, stretched, or kinked while loader arms are raised and lowered.



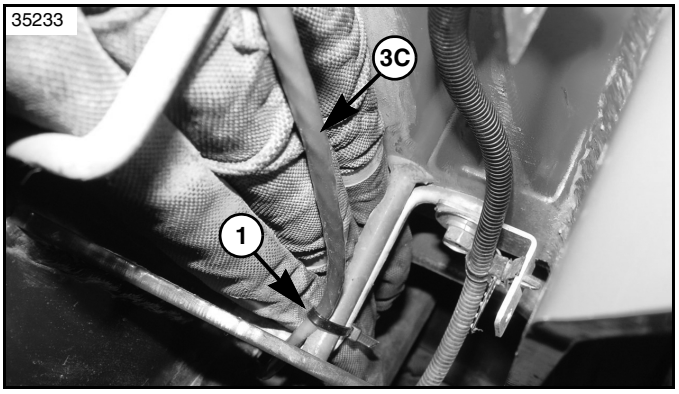
Route Wire Harness (#3B)
Figure 1



Route Wire Harness (#3B) at The Back of Loader Arm
Figure 2



Route Wire Harness (#3C) Below Pivot Point
Figure 3



Route Wire Harness (#3C) to Engine Room
Figure 4

Route Harness (#3C)

Refer to Figure 4:

1. Start skid steer and raise loader arms. Have a second person remove the lift-arm support.
2. Lower loader arms and shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 5.
3. At the bottom of the vertical run and just before crossing over into the engine room, attach wire harness (#3C) to hydraulic hoses or mounting bracket with cable tie (#1).
4. Make sure wire harness (#3C) is snug and cannot catch on objects, stretch, or pull apart as loader arm is operated.

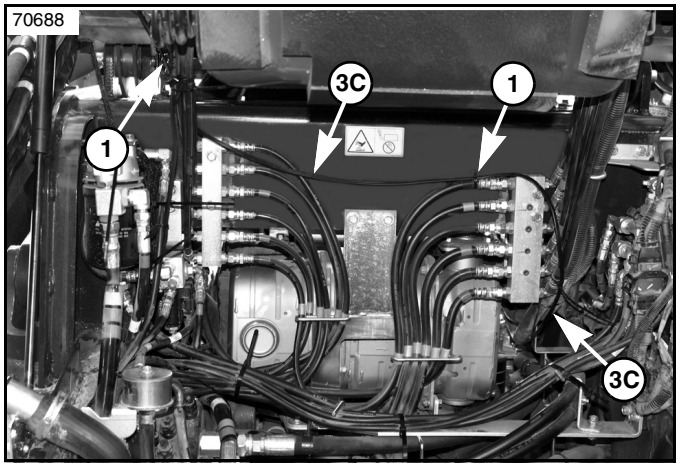
Refer to Figure 5:

5. Raise skid steer cab up to access the area in front of the engine fire wall.
6. Do not crossover the engine with wire harness (#3C). Instead, thread wire harness (#3C) from the left side of the engine room forward to the area just in front of the engine fire wall.
7. Thread wire harness (#3C) across the engine fire wall to the right-hand side of the skid steer as shown.
8. Make sure wire harness (#3C) is snug and cannot catch on objects, stretch, or pull apart as the cab is raised and lowered.
9. Add cable ties (#1) to contain wire harness (#3C) in the engine room and in front of the fire wall as shown.

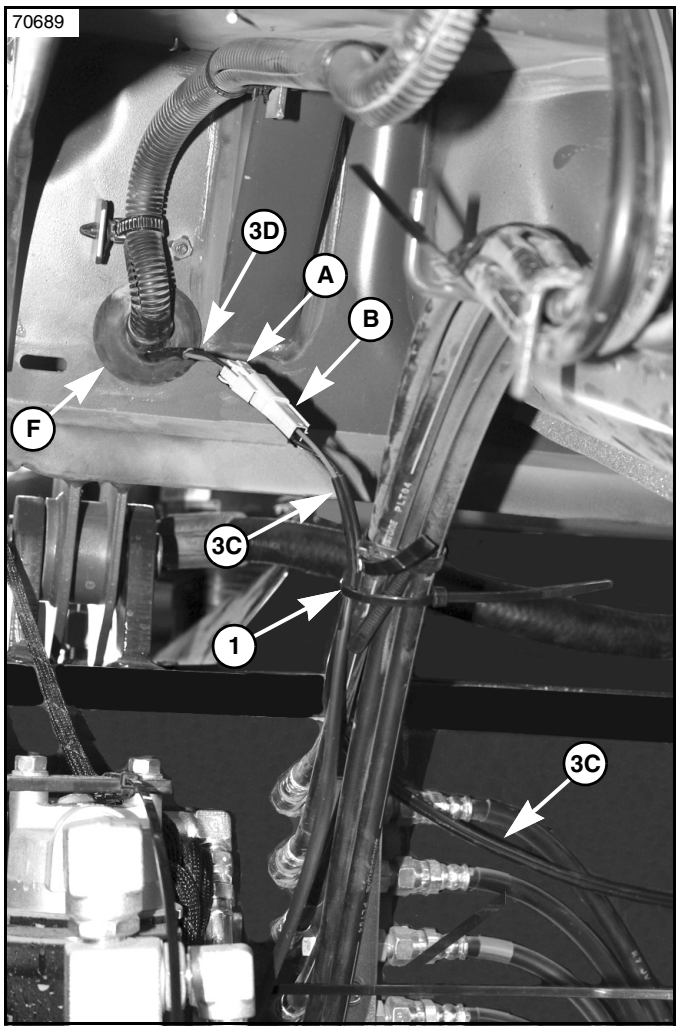
Route Harness (#3D)

Refer to Figure 6:

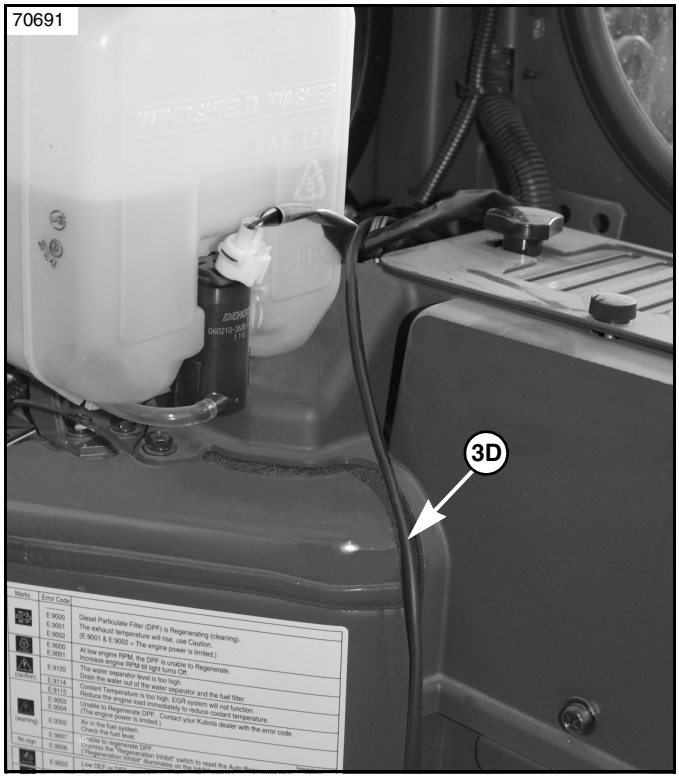
1. Remove grommet (F) and insert female end (B) of wire harness (#3D) through the hole in the grommet.
2. Pull harness (#3D) through grommet (F) until only a few inches of harness are remaining under the grommet.
3. Reinsert grommet (F) in its mounting hole. Make sure female end of wire harness (#3C) is inside the cab.
4. Connect wire harness (#3C) to wire harness (#3D).



Route Wire Harness (#3C) Across the Fire Wall
Figure 5



Terminate Wire Harness (#3C) Before Grommet (F)
Figure 6



Route Wire Harness (#3D) Behind Operator Seat
Figure 7

Refer to Figure 7:

5. Lower the skid steer cab to its operating position.
6. Inside the cab, route wire harness (#3D) down to the floor and behind the operator seat.
7. **See Figure 13 on page 10:** Connect wire harness (#3D) to momentary switch wire harness (#4).

Power Hook-up

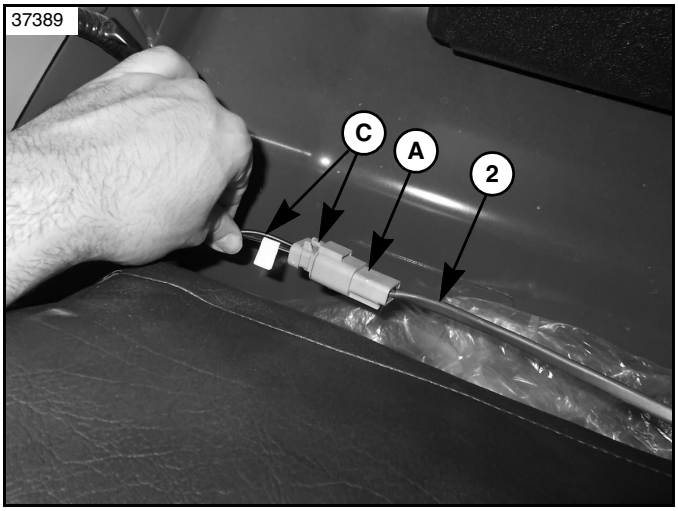
Refer to Figure 8 & Figure 13 on page 10:

8. Connect 60" power harness (#2) to Kubota's 2-pin Deutsch plug (C) located behind the seat.
9. **See Figure 13 on page 10:** Connect opposite end of 60" power harness (#2) to the momentary switch wire harness (#4).

Mount Momentary Switch

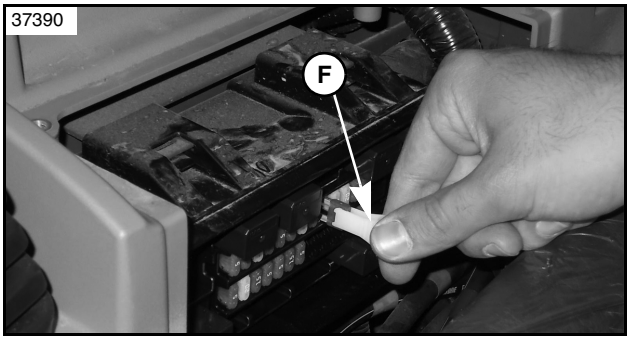
Refer to Figure 9:

1. On the left-hand side of the operator's seat, run momentary switch wire harness (#4) from behind the seat to the left-hand control lever (D).
2. Attach momentary switch (E) to the skid steer's control lever (D) as shown with two cable ties (#1).
3. Coil excess wire harness (#3D, #2 & #4) and secure with cable ties (#1).
4. Make sure wire harness (3D, #2 & #4) are snug and cannot catch on objects, stretch, or pull apart as the cab is raised and lowered.
5. Add cable ties (#1) as needed to the in cab harness.



Kubota Power Connection (Located Behind the Seat)
Figure 8

Mount Momentary Switch to Control Lever
Figure 9



Install of 10 amp Fuse (F)
Figure 10

Install 10 amp Fuse

Refer to Figure 10:

1. Fuse (F) is supplied by customer. Install 10 amp fuse (F) in Kubota's fuse box slot #17 labeled "Electrical Outlet-2".

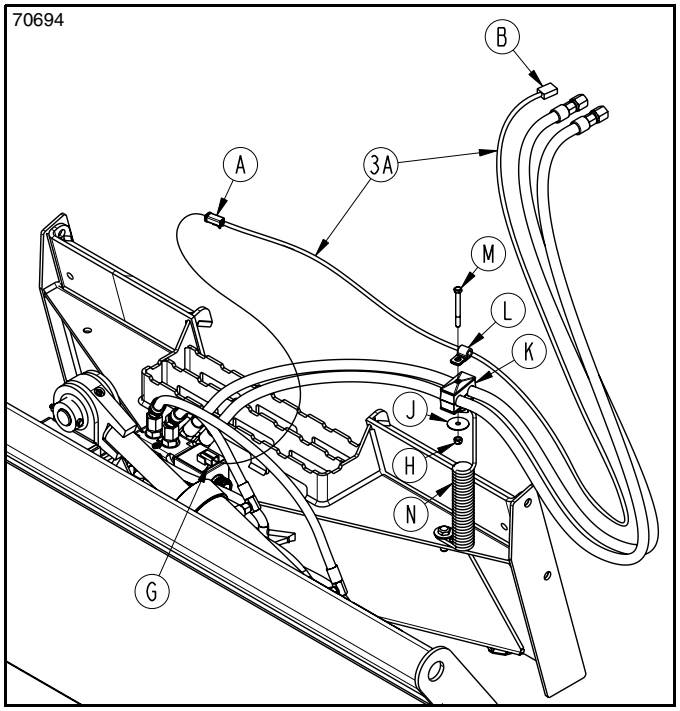
Route Wire Harness (#3A)

Refer to Figure 11 & Figure 13 on page 10:

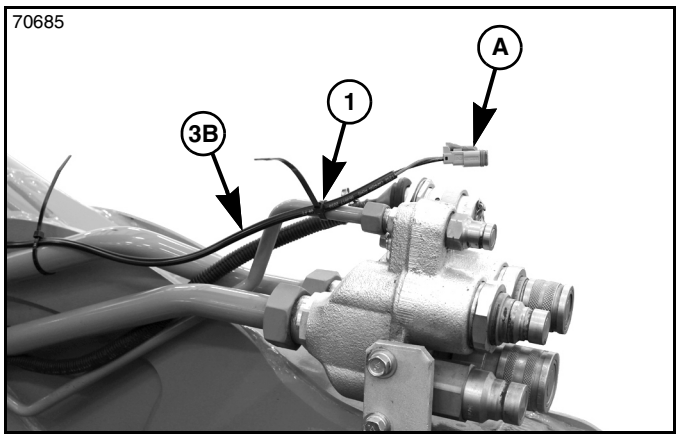
1. At the dozer blade, connect 100" wire harness (#3A) to solenoid (G).
2. Remove nut (H), flat washer (J), and bolt (M). Keep hose clamps (K) in place with hydraulic hoses while completing steps 4-5 below.
3. Spread hose clip (L) apart just enough to insert wire harness (#3A) into the clip.
4. Attach hose clip (L) to hose clamp (K) with bolt (M), flat washer (K), and hex nylock nut (H).
5. Adjust wire harness (#3A) in hose clip (L) to allow slack between the spring hose holder (N) and solenoid (G).
6. Tighten hex nylock nut (H) to where hose clamp (K) is able to pivot on hose spring (N) with hydraulic hoses (#2 & #3) secured in hose clamp (K).
7. Attach wire harness (#3A) to the hydraulic hoses with existing hose wraps.
8. Hook-up the dozer blade and its hydraulic hoses to the skid steer. Refer to the **"Hook-up Dozer Blade"** in the Operator's Manual.

Refer to Figure 11 & Figure 12:

9. Connect wire harness (#3A) in Figure 11 to wire harness (#3B) in Figure 12.
10. Coil excess solenoid harness (#3A) in Figure 11and secure the coil to one of the hydraulic hoses or to the skid steer coupler mount with cable tie (#1).



Solenoid Connector on The Divert Valve
Figure 11



Wire Harness (#3B) at Hydraulic Couplers
Figure 12

Test Run

Refer to Figure 9 on page 8:

1. Return to the skid steer and raise the dozer blade off the ground.
2. Press and hold momentary switch (E) and operate auxiliary port variable switch on control lever (D) to extend and retract tilt cylinder.
3. Release momentary switch (E) to return hydraulic flow to the angle cylinders.
4. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 5.

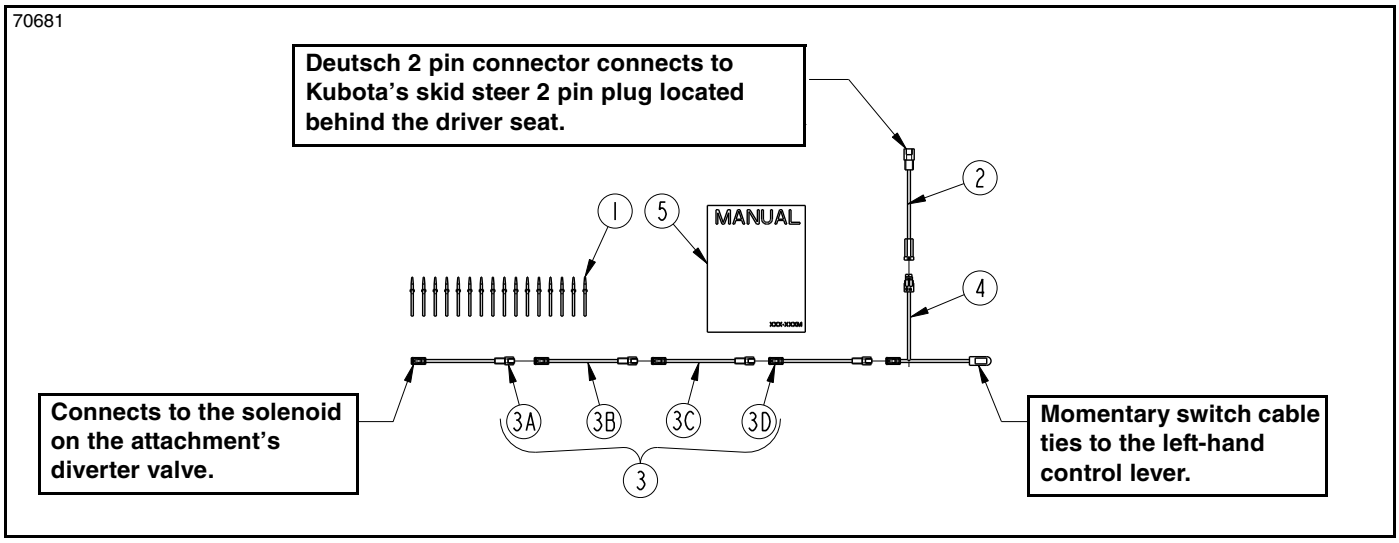


Figure 13

Kit No. 301-590A Control Harness With 2 Pin Plug and Thumb Switch

Item	Part No.	Part Description	Qty
1	800-112C	CABLE TIE .19X7.25 1.75D 50LB	16
2	823-439C	HARNESS DTP04-2P 14 GA 2WPS /5'	1
3	823-474C	HARNESS, WIRE EXTENSION 100"	4
4	823-475C	HARNESS, MOMENTARY SWITCH	1
5	301-591MK	HARNESS WIRE ROUTING MANUAL	1

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