

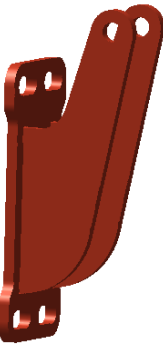
DeltaForce®

Gaspardo DeltaForce Row Unit Install

 Precision Planting®

Gaspardo Row Unit Install

Gaspardo Row Unit Kit: 712107

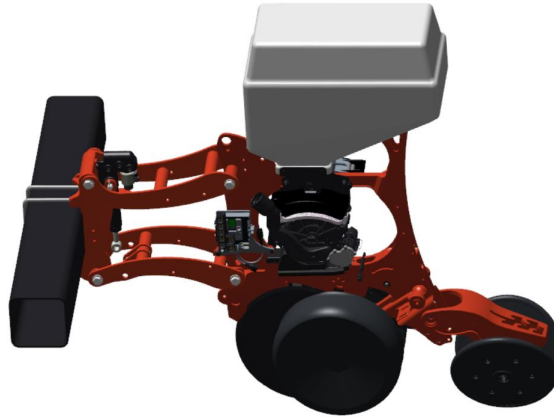
QTY	PART NUMBER	PART NAME	DESCRIPTION
1	712205	LOWER PARALLEL ARM BRACKET	
1	712210	UPPER PARALLEL ARM BRACKET	
1	712215	W-MOUNT BRACKET	
1	712209	GASPARDO HARDWARE KIT	SEE BOX BELOW
1	729627	KIT	TIGHT CLEARANCE FITTING KIT

Gaspardo Hardware Kit: 712209

QTY	PART NUMBER	PART NAME	DESCRIPTION
8	33090	WASHER	5/8 SAE FLAT ZN
4	38761	HEX CAP SCREW	M16X2 X 50 FULL THREAD HEX HD CAP SCREW ZN
2	38763	HEX CAP SCREW	M16X2 X 60 FULL THREAD HEX HD CAP SCREW ZN
1	38777	HEX CAP SCREW	M16X2 X 200 HEX HEAD CAP SCREW ZN
4	65104	PIN	5/32 X 1.25 COTTER ZN
7	90684	NUT	M16 TOP LOCK NUT ZN
2	712174	PIN	CYLINDER PIN

QTY	PART NUMBER	PART NAME	DESCRIPTION
8	712213	BUSHING	0.632 ID X 1.000 OD X 0.500 LONG
2	712214	BUSHING	0.632 ID X 1.250 OD X 0.500 LONG

DeltaForce Row Unit Install

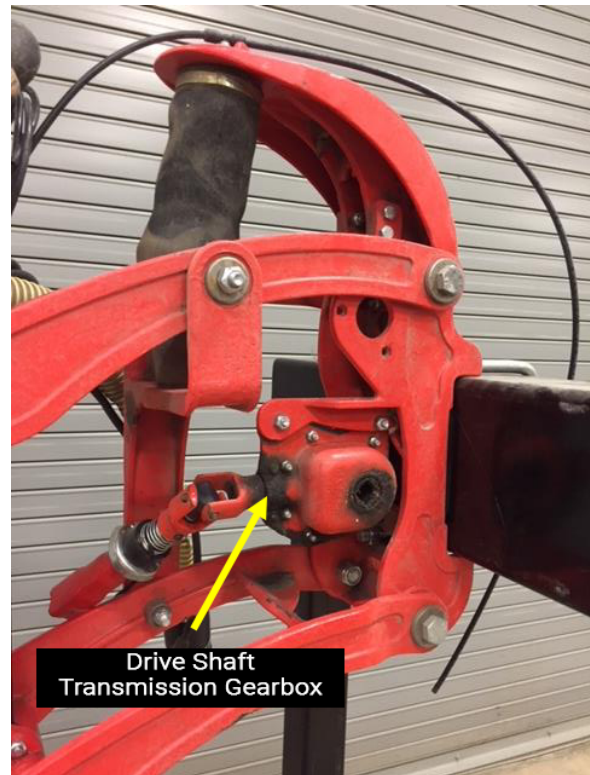


The row unit will need to be secured or lifted with an engine hoist or fork truck, make sure personal safety is insured during this process.

Step 1:

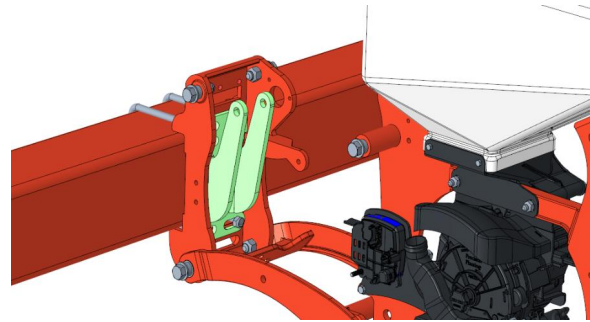
Start by using a fork truck or an engine puller to secure the row unit. It may also work to lower the planter so the row unit is balanced on the working surface. It is required to remove the OEM (Gaspardo) air bag system and bracketry, as well as the drive shaft transmission gearbox, from the row unit.

Note: The gearbox mounting bracket is attached to the W-Plate and does not need to be removed.



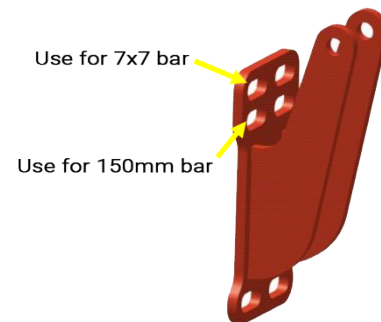
Step 2:

Remove the OEM upper parallel arm bracket to gain access to the inside of the W-Plate. With the row unit secure, remove the 4 nuts on the U-bolts holding the OEM W-Plate to the bar. Do not remove the OEM W-Plate. Install the 712215 DeltaForce W-Mount bracket over the U-bolts and secure it with the OEM nuts.



Note: The DeltaForce W-Mount Bracket is highlighted in light green to show proper location.

Note: The W-Mount bracket has two rows of holes at the top. The top set of holes would be used for a 7x7 bar. The bottom set would be used for a 150mm bar.

**Step 3:**

Using one of the two provided 712174 cylinder pins and two cotter pins, install the DeltaForce cylinder to the W-Mount bracket. This pin should go through the top hole on the cylinder with a cotter pin securing the cylinder on either side. The other pin and cotter keys will be set aside for now. They will be installed after the Lower Parallel Arm Bracket has been installed and the Air Purge Test has been completed.

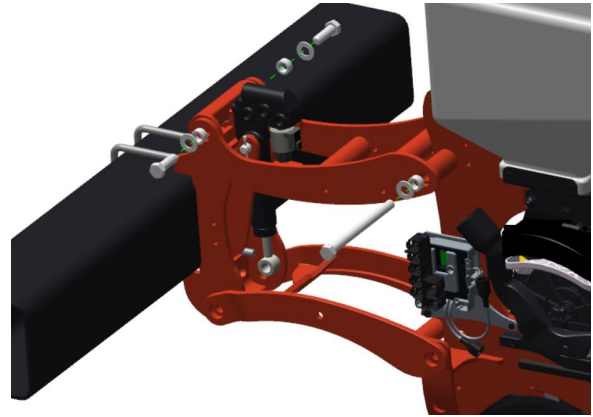


Note: The DeltaForce Cylinder should be installed with the solenoid facing away from the planter bar.

Note: It is recommended to use the fittings in the 729627 Tight Fittings Clearance Kit into the DeltaForce cylinder. This will avoid interference with the Gaspardo hex shaft bracket. It may also be beneficial to install the fittings before pinning the cylinder to the 712215 W-Mount Bracket.

Step 4:

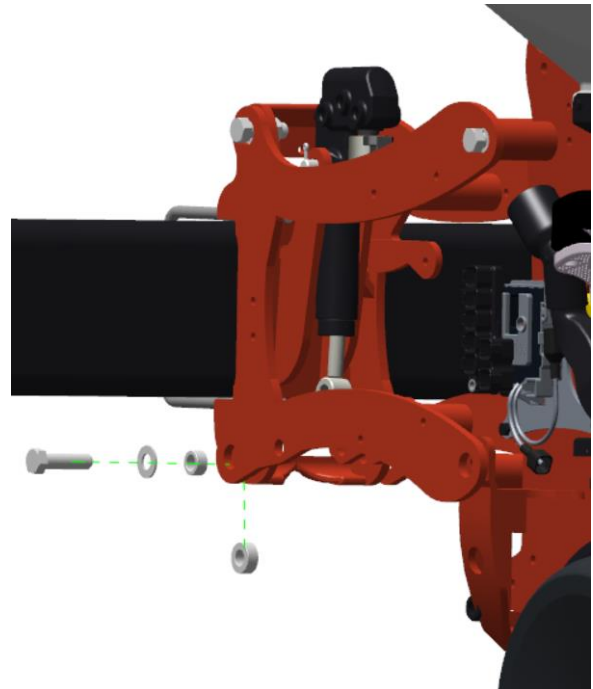
Using two of the four M16X2X50 Bolts, two of the eight thinner (1.00 OD) bushings, two 5/8" washers, and two nuts, install the 712210 DeltaForce Upper Parallel Arm Bracket to the W-Plate. The swoop in the bracket should face downward and the end with the crossbeam should be closer to the row unit.

**Step 5:**

The other end of the DeltaForce Upper Parallel Arm Bracket will install to the row unit shank using the one long M16X2X200 bolt, two more of the thinner bushings, two washers, and a nut.

Step 6:

Remove the OEM lower parallel arm bracket. Replace it with the 712205 DeltaForce Lower Parallel Arm Bracket. The (2) M16X2X60 bolts, (1) 5/8 SAE Washer, and the (2) thicker (1.25 OD) bushings will be used to install the Lower Parallel Arm Bracket to the W-Plate. The two thicker bushings act as spacers and will install between the W-plate and Lower Parallel Arm Bracket. Two of the thinner bushings (1.00 OD) will still be used in the Lower Parallel Arm Bracket and secured with an M16 Locknut.



Note: The Lower Parallel Arm Bracket should be installed with the swoop in the bracket facing up. The crossbeam with the tabs (used to pin the bottom of the cylinder) should be closer to the planter bar with the tabs pointing down.

Step 7:

The other end of the 712205 Lower Parallel Arm Bracket will install to the row unit with the two remaining M16X2X50 bolts, two 1.00 ID bushings, two washers, and two nuts.

**Step 8:**

After the DeltaForce cylinder and brackets have been installed on all rows the Air Purge Test can be completed. After the completion of the test, the bottom of the DeltaForce cylinder can be pinned with the remaining 712174 cylinder pin and two cotter pins. For more information on the Air Purge Test see the note below.



Note: The Air Purge Test is a health check that is performed with the 20/20 monitor to verify all the air bubbles are purged from the hydraulic system. After the test is complete, the second cylinder pin and cotter pin can be installed. These are the final two steps of the install. Information on how to perform this test can be found in Section 7 of the complete DeltaForce Install Guide.

Note: A large number of Gaspardo row units are on telescoping planter bars. It is very important on telescoping bars that inter-row hydraulic hoses are not too long or too short. For assistance with routing hydraulic hoses on telescoping bars, refer to document 955830 in the Product Resources section of the Precision Planting website.