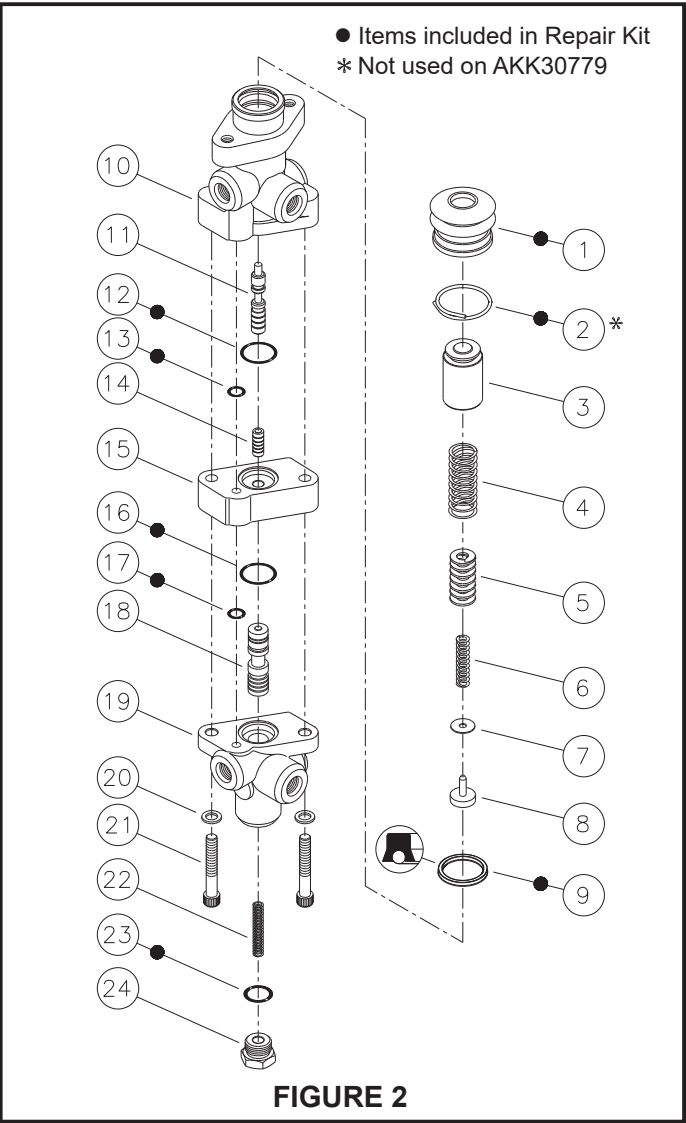
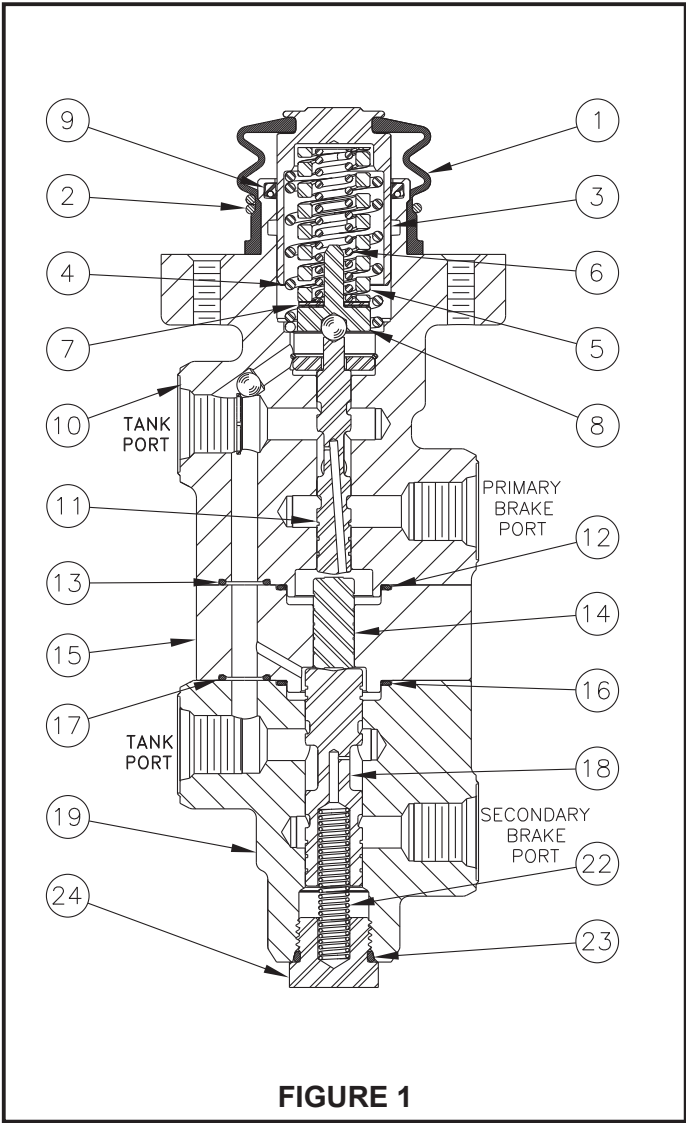


TANDEM MODULATING VALVE

Service Instructions

TABLE 1 (Specifications)

John Deere Part Number	John Deere Repair Kit Number	Primary Brake Port Pressure Setting		Secondary Brake Port Pressure Setting	
		bar	(PSI)	bar	(PSI)
AKK30779	AKK32851	207 ± 3.4	(3000 ± 50)	75 ± 3.4	(1088 ± 50)
AKK65099	AKK32851	175 ± 3.4	(2538 ± 50)	89 ± 5.0	(1290 ± 72)
AKK67093	AKK32851	207 ± 3.4	(3000 ± 50)	75 ± 5.0	(1088 ± 72)



⚠ WARNING

Installation and test note: Piston (3) in Figures 1 & 2 must be retained mechanically. This will prevent it from blowing out at high velocity if an incorrect connection occurs from power source to tank port. **Be sure the tank port is connected to tank.** Failure to do this could result in serious injury or death.

Part Numbers: AKK30779, AKK65099, AKK67093

DISASSEMBLY

(Refer to Figures 1 and 2)

NOTE

Housings (10 & 19) and spools (11 & 18), spacer (15) and spool (14) are manufactured as matched sets. These sets must not be intermixed with other parts.

1. Remove retaining ring (2) and boot (1) from piston (3) and housing (10). **NOTE: AKK30779 does not use retaining ring (2).**
2. Remove piston (3), springs (4, 5, & 6), shim(s) (7), and retainer assembly (8) from housing (10). **NOTE: Be aware of the number of shim(s) (7) being removed from housing (10).**
3. Carefully remove cup (9) from housing (10) bore. **NOTE: Be careful not to scratch or mar housing bore.**
4. Remove end plug (24) and spring (22) from housing (19). Remove o-ring (23) from end plug (24).
5. Separate housings (10 & 19) and spacer (15) by removing cap screws (21) and washers (20). Remove o-rings (12, 13, 16, & 17) from housings (10 & 19) and spacer (15).
6. Carefully remove spools (11 & 18) from housings (10 & 19) and spool (14) from spacer (15). Note direction of spools (11, 14, & 18). **NOTE: Be careful not to damage spools or housing bores.**

⚠ CAUTION

Do not intermix spools and housings. Spool (11) and housing (10) are a matched set, as are spool (18) and housing (19), and spool (14) and spacer (15).

ASSEMBLY

(Refer to Figures 1 and 2)

LUBRICATE ALL RUBBER COMPONENTS FROM REPAIR KIT WITH CLEAN TYPE FLUID USED IN THE SYSTEM.

1. Clean all parts thoroughly before assembling.
2. Lubricate spool (11) with clean system fluid and carefully slide into bottom end of housing (10) bore. Note direction of spool (11). **NOTE: Spool must slide freely into bore. If either part is damaged, new valve assembly may be required.**
3. Lubricate spool (14) and carefully slide into spacer (15). **NOTE: Spool must slide freely into bore. If either part is damaged, a new valve assembly may be required.**
4. Install new o-rings (12, 13, 16, & 17) in proper o-ring pockets on housings (10 & 19) and spacer (15).
5. Reassemble housings (10 & 19) and spacer (15) using cap screws (21) and washers (20). Use Loctite 242 on cap screws (21) and torque 29.8-33.9 N·m (22-25 lb·ft). **NOTE: Make sure housings line-up correctly and o-rings (12, 13, 16, & 17) remain in their pockets during assembly.**
6. Lubricate spool (18) with clean system fluid and carefully slide into housing (19) bore. Note direction of spool (18). **NOTE: Spool must slide freely into bore. If either part is damaged, a new valve assembly may be required.**
7. Install new o-ring (23) on end plug (24).
8. Install spring (22) and end plug (24) into housing (19). Torque end plug (24) 47.5-61.0 N·m (35-45 lb·ft).
9. Carefully install new cup (9) into housing (10) bore. Note direction of cup (9). **NOTE: Be careful not to scratch or mar housing bore.**
10. Install springs (4, 5, & 6), shim(s) (7), and retainer assembly (8) in piston (3).
11. Carefully install piston (3) assembly into housing (10) bore.
12. Install new boot (1) on housing (10) and piston (3) and new retainer (2) on boot (1). **NOTE: AKK30779 does not use retaining ring (2).**

NOTE

After service, the valve must develop primary brake port pressure as indicated in the specifications, TABLE 1. Shim(s) (7) are used to obtain the correct pressure setting. Contact manufacturer if brake pressure setting is not able to be obtained.