



**C1 Clutch PowerPack®**

**ALTO PART # 152755B, 1999-05**

**POWERPACK® CONTENTS:**

- (8) 152700D170 (.067") G3 1-Sided Internal Spline Friction Plates
- (8) 152701D170 (.067") G3 1-Sided External Spline Friction Plates
- (1) 152761P115 (.450") Top Pressure Plate
- (1) 152766 (.103") Bottom Apply Plate
- (1) 152701-218 (.086") Bottom Apply Plate

**ALTO PART # 152755C, 2006-On**

**POWERPACK® CONTENTS:**

- (8) 152700D170 (.067") G3 1-Sided Internal Spline Friction Plates
- (8) 152701D170 (.067") G3 1-Sided External Spline Friction Plates
- (1) 152761-254 (.400") Top Pressure Plate
- (1) 152766 (.103") Bottom Apply Plate

**C2 Clutch PowerPack®**

**ALTO PART # 152756B, 1999-On**

**POWERPACK® CONTENTS:**

- (7) 152702B185 (.073") G3 Friction Plates
- (8) 152703-218 (.086") Steel Separator Plates

**C3 Clutch PowerPack®**

**ALTO PART # 152757B, 1999-On**

**POWERPACK® CONTENTS:**

- (6) 152704A216 (.085") G3 Friction Plates
- (3) 152705AK218 (.086") Kolene® Steel Separator Plates
- (2) 152705AK250 (.097") Kolene® Steel Separator Plates
- (1) 152705DK218 (.086") Kolene® Grooved Apply plate
- (1) 152763B (.4725") C3 Top Pressure Plate
- (1) 152764-250 (.102") P1 Ring Gear Thrust Element Spacer
- (1) 152303A C3/C4 Apply Piston
- (1) 152309X C3/C4 Piston Return Spring Assembly

**C4 Clutch PowerPack®**

**ALTO PART # 152758B, 1999-On**

**POWERPACK® CONTENTS:**

- (6) 152704A216 (.085") G3 Friction Plates
- (5) 152705AK218 (.086") Kolene® Steel Separator Plates
- (1) 152705DK218 (.086") Kolene® Grooved Apply plate
- (1) 152303A C3/C4 Apply Piston
- (1) 152309X C3/C4 Piston Return Spring Assembly

**C5 Clutch PowerPack®**

**ALTO PART # 152759B, 1999-On**

**POWERPACK® CONTENTS:**

- (8) 152706A180 (.071" / 1.80mm, 115 Teeth) G3® Friction Plates
- (8) 152707K200 (.078" / 1.98mm) Kolene Steel Plates



**C1 Clutch PowerPack®**

**POWERPACK® 152755B, 1999-2005 INSTALLATION**

Install the apply plate 152766 (.103") against the apply piston. Install externally splined friction with the friction lining facing down (away from you). Alternate installation of internally splined plates and externally splined plates ending with an internally splined plate. (8 external & 8 internally splined plates) **(Failure to install plates correctly will result in catastrophic failure; steel sides of friction plates must never make contact with each other)**. Install top pressure plate 152761P115 and snap ring. **(Do not install spiral ring at this time)**. Check clutch pack clearance should measure .075" (1.90mm) to .085" (2.15mm). If clearance is incorrect, pressure plates are available from Allison. When correct C1 clutch pack clearance is achieved, install spiral ring.

**C1 Clutch PowerPack®**

**POWERPACK® 152755C, 2006 - on INSTALLATION**

Install the apply plate 152766 (.103") against the apply piston. Install externally splined friction with the friction lining facing down (away from you). Alternate installation of internally splined plates and externally splined plates ending with an internally splined plate. (8 external & 8 internally splined plates) **(Failure to install plates correctly will result in catastrophic failure; steel sides of friction plates must never make contact with each other)**. Install top pressure plate 152761-354 and snap ring. **(Do not install spiral ring at this time)**. Check clutch pack clearance should measure .085" (2.15mm) to .095" (2.41mm). If clearance is incorrect, pressure plates are available from Allison. When correct C1 clutch pack clearance is achieved, install spiral ring.

**C2 Clutch PowerPack®**

**POWERPACK® 152756B, 1999 - on INSTALLATION**

Use the same method as OE to stack the C2 clutch pack. Install an .086" steel plate against the apply piston, alternate installation of friction and steel plates ending with a steel plate. (7 frictions & 8 steels) Clutch pack clearance should be from .070" to .080".

**C3 Clutch PowerPack®**

**POWERPACK® 152757B, 1999 - on INSTALLATION**

Place the 152764-250 spacer between the P1 ring gear thrust washer and the P2 ring rear when building the rear unit of the transmission. This moves the ring gear hub into position to accept the PowerPack® friction plates. Install 152303A piston and 152309X return spring, make sure vent hole is located at 12 o'clock. Install the grooved apply plate with the grooves toward the apply piston, alternate 152704A216 friction plates and 152705AK250 and 152705AK218 Kolene® steel plates ending with a friction plate, 6 frictions and 5 steel plates. Install 152763B top pressure plate and OE snap ring. Clearance should be .060"-.075".

**C4 Clutch PowerPack®**

**POWERPACK® 152758B, 1999 - on INSTALLATION**

Install 152303A apply piston and 152309X return spring, make sure vent hole is located at 12 o'clock Install the grooved apply plate with the grooves toward the apply piston, alternate installation of friction plates and Kolene® steel plates ending with a friction plate, 6 frictions and 5 steel plates. Install OE backing plate and OE snap ring. Clearance should be .060"-.075". (Alto has available a .098" selective steel plate 152705AK250 to further adjust clutch pack clearance.)

**C5 Clutch PowerPack®**

**POWERPACK® 152759B, 1999 - on INSTALLATION**

Stack-up is the same method as OE. Install the pressure plate then a friction plate, followed by a steel plate and continue until the last plate installed is a steel plate, 8 friction plates & 8 steel plates with a set of calipers, measure from the top of the lugs down to the top steel plate. This measurement, which is not the actual clutch pack clearance, should be .170" to .200" (4.45 to 5.33mm). Finally install the OE return spring assembly.