



C1 Clutch PowerPack®

ALTO PART # 152755DG4, 1999-to Date

POWERPACK® CONTENTS:

- (8) 152700E170G4 (.067") G4 1-Sided Internal Spline Friction Plates
- (8) 152701E170G4 (.067") G4 1-Sided External Spline Friction Plates
 - (1) 152761V254 (.400") Top Pressure Plate
 - (1) 152766 (.103") Bottom Apply Plate
 - (1) 152701-218 (.086") Bottom Apply Plate

C2 Clutch PowerPack®

ALTO PART # 152756CG4, 1999-to Date

POWERPACK® CONTENTS:

- (7) 152702C185G4 (.078") G4 Friction Plates
- (6) 152703-218 (.086") Steel Separator Plates
- (3) 152703-170 (.067") Steel Separator Plate
- (1) 152703-250 (.098") Steel Separator Plate

C3 Clutch PowerPack®

ALTO PART # 152757BG4, 1999-to Date

POWERPACK® CONTENTS:

- (6) 152704B216G4 (.085") G4 Friction Plates
- (3) 152705A218PS (.086") Power Steel Separator Plates
 - (3) 152705AK250 (.097") Kolene Separator Plates
- (1) 152705D218PS (.086") Power Steel 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 # 152758BG4, 1999-to Date

POWERPACK® CONTENTS:

- (6) 152704B216G4 (.085") G4 Friction Plates
- (5) 152705A218PS (.086") Power Steel Separator Plates
- (1) 152705D218PS (.086") Power Steel Grooved Apply plate
 - (1) 152705AK250 (.097") Kolene Separator Plate
 - (1) 152303A C3/C4 Apply Piston
- (1) 152309X C3/C4 Piston Return Spring Assembly

C5 Clutch PowerPack®

ALTO PART # 152759BG4, 1999-to Date

POWERPACK® CONTENTS:

- (8) 152706B180G4 (.071" / 1.80mm, 115 Teeth) G4 ®Friction Plates
- (8) 152707K200 (.078" / 1.98mm) Kolene Plates

C1 Clutch PowerPack®

POWERPACK® 152755DG4, 1999-to Date INSTALLATION

5 Speed Allison 1999 – 2005, 5 Speed Allison 2001 – 2004 ½(Small Torrington Bearing Shaft), 6 Speed Allison 1999 – 2005

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 152761V254 and snap ring. **(Do not install spiral ring at this time).**

Check clutch pack clearance, should measure .070" to .090".

2006 to Date

Install the apply plate 152701-218 (.086") 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 152761V254 and snap ring. **(Do not install spiral ring at this time).**

Check clutch pack clearance, should measure .070" to .090".

(To achieve tighter clearance use 152766 (.103") bottom apply plate available from Alto)

When correct C1 clutch pack clearance is achieved, install spiral ring.

C2 Clutch PowerPack®

POWERPACK® 152756CG4, 1999 - on INSTALLATION

Stack-up is the same method as OE. Install an .086" steel plate against the apply piston, alternate installation of friction and steel plates until 6 of the .086" steels have been installed. Continue alternate stacking now using 2 of the .067" steels (7 frictions, 6 steels(.086"), 2 steels(.067")). Clutch pack clearance should be from .065" to .085". Depending on your drum, replace one of the 152703-218 (.086") with the 152703-170 (.067") or 152703-250 (.098") to achieve your desired clearance. **Note: The thinner .067" steels should be placed nearest to the top of the stack-up where less heat is generated.*

C3 Clutch PowerPack®

POWERPACK® 152757BG4, 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 152705D218PS grooved apply plate with the grooves toward the apply piston, alternate installation of 152704A216 friction plates and 152705AK250 and 152705A218PS Power and Kolene steel plates ending with a friction plate (6 frictions and 5 steel plates). There is 1 extra 152705AK250 to adjust clutch pack clearance. Install 152763B top pressure plate and OEM snap ring.

Clutch pack clearance should be .060" to .080".

C4 Clutch PowerPack®

POWERPACK® 152758BG4, 1999 - on INSTALLATION

Install 152303A apply piston and 152309X return spring, make sure vent hole is located at 12 o'clock. Install the 152705D218PS grooved apply plate with the grooves toward the apply piston, alternate installation of 152704A216 friction plates and 152705A218PS Power Steel plates ending with a friction plate (6 frictions and 5 steel plates). There is 1 extra 152705AK250 to adjust clutch pack clearance. Install OEM backing plate and OEM snap ring.

Clutch pack clearance should be .060" to .080".

C5 Clutch PowerPack®

POWERPACK® 152759BG4, 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.