



## Allison 1000, 2000, 2400

### C3 Clutch PowerPack®

#### POWERPACK® 152757 INSTALLATION

Remove OE clutch pack and apply plate with springs. Be sure the vent hole is located in the 12 o'clock position. Install apply plate with springs so that the slot in the apply plate is aligned with vent holes. Use the same method as OE to stack the C3 clutch pack maintaining slot alignment. Reinstall pressure plate and snap ring. Clearance should be .060".

#### POWERPACK® 152757A 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 152302 piston, make sure vent hole is located at 12 o'clock, install 152761L3175 bottom apply plate and the OE return springs, alternate 152704-213 friction plates and 152705K170 Kolene® steel plates ending with a friction plate, 7 frictions and 6 steel plates. Install 152763A top pressure plate and OE snap ring. Clearance should be .060"-.075". Use the 152705K216 selective steel plate if required. (Alto has available a .098" selective steel plate 152705AK250 to further adjust clutch pack clearance.)

### C4 Clutch PowerPack®

#### POWERPACK® 152758 INSTALLATION

Remove OE clutch pack (5 frictions/ 4 steels). Make sure vent hole is located at 12 o'clock. Install apply plate with springs. Stack the C4 clutch pack as follows: friction, .099" steel, friction, .067" steel, friction, .099" steel, friction, .067" steel, friction, maintaining the slot alignment (6 frictions/ 5 Kolene steels). Reinstall pressure plate and snap ring. Clearance should be .060".

#### POWERPACK® 152758A INSTALLATION

Install 152302 modified apply piston, make sure vent hole is located at 12 o'clock. Install 152761B635 apply plate and attach OE springs to plate, alternate installation of friction plates and Kolene® steel plates ending with a friction plate, 6 frictions and 5 steel plates. It is best to install the 152705K250 (.098") steel in the middle of the stack-up. 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® 152759 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. With a set of calipers, measure from the top of the lugs down to the top steel plate. This clearance, which is not the actual clutch pack clearance, should be .170" to .200" (4.45 to 5.33mm). Finally install the OE return spring as-



## Allison 1000, 2000, 2400

### C1 Clutch PowerPack®

#### ALTO PART # 152755, 1999-2005

#### Alto # 152755 POWERPACK® CONTENTS:

- (7) 152700B170 (.067" / 1.70mm) Carbonite® 1-Sided Internal Spline Friction Plates
- (7) 152701A170 (.067"/1.70mm) Carbonite® 1-Sided External Spline Friction Plates
- (1) 152761-500 (.197" / 5.00mm) Bottom Apply Plate

#### ALTO PART # 152755A, 2010-On

#### Alto # 152755A POWERPACK® CONTENTS:

- (8) 152700B170 (.067") HEG 1-sided Internal Spline Frictions
- (8) 152701A170 (.067") HEG 1-sided Internal Spline Frictions
- (1) 152766 (.105") Bottom Apply Plate
- (1) 152761-254 (.400") Top Pressure Plate

### C2 Clutch PowerPack®

#### ALTO PART # 152756, Up to 2005

#### Alto # 152756 POWERPACK® CONTENTS:

- (8) 152702-177 (.069" / 1.75mm) Red Eagle® Friction Plates
- (8) 152703-170 (.067"/1.70mm) Steel Separator Plates
- (1) 152762A500 (.197"/5.00mm) Bottom Apply Plate

#### ALTO PART # 152756A, 2006-On

#### Alto # 152756A POWERPACK® CONTENTS:

- (7) 152702-177 Red Eagle™ Frictions Plates (.069")
- (7) 152703-218 Steel Separator Plates (.086")
- (1) 152762A500 Bottom Apply Plate (.197")

### C3 Clutch PowerPack®

#### ALTO PART # 152757, Up to 2005

#### Alto # 152757 POWERPACK® CONTENTS:

- (5) 152704-213 (.084" / 2.13mm) Red Eagle® Friction Plates
- (4) 152705K170 (.067" / 1.70mm) Kolene® Steel Separator Plates



## Allison 1000, 2000, 2400

### C3 Clutch PowerPack®

ALTO PART # 152757A, 2006-10

Alto # 152757A POWERPACK® CONTENTS:

- (7) 152704-213 (.084") Red Eagle® Friction Plates
- (6) 152705K170 (.067") Kolene® Steel Separator Plates
- (1) 152705K216 (.085") Kolene® Steel Separator Plate
- (2) 152761L3175 (.125") C3 Apply Plate with Slots
- (1) 152763A (.426") C3 Top Pressure Plate
- (1) 152764-250 (.102") P1 Ring Gear Thrust Element Spacer
- (1) 152302 C3 Modified ApplyPiston

### C4 Clutch PowerPack®

ALTO PART # 152758, Up to 2005

Alto # 152758 POWERPACK® CONTENTS:

- (6) 152704-213 (.084" / 2.13mm) Red Eagle® Friction Plates
- (3) 152705K170 (.067" / 1.70mm) Kolene® Steel Separator Plates
- (2) 152705K250 (.099" / 2.50mm) Kolene® Steel Separator Plates

ALTO PART # 152758A, 2006-10

Alto # 152758A POWERPACK® CONTENTS:

- (6) 152704-213 (.084") Red Eagle® Friction Plates
- (4) 152705K170 (.067") Kolene® Steel Separator Plates
- (1) 152705K250 (.098") Kolene® Steel Separator Plate
- (1) 152761B635 (.250") C4 Top Pressure Plate
- (1) 152302 C4 Apply Piston

### C5 Clutch PowerPack®

ALTO PART # 152759, 1999-On

Alto # 152759 POWERPACK® CONTENTS:

- (8) 152706-180 (.071" / 1.80mm, 115 Teeth) HEG® Friction Plates
- (8) 152707K200 (.078" / 1.98mm) Kolene Steel Plates

**IMPORTANT!!** Be sure to pre-soak the friction plates in ATF for a minimum of fifteen minutes. This will dissipate heat on initial start-up and apply to avoid friction paper glazing.



## Allison 1000, 2000, 2400

### C1 Clutch PowerPack®

POWERPACK® 152755 INSTALLATION

Install the apply plate against the apply piston. Install internally splined friction with the friction lining facing up (towards you). Alternate installation of externally splined plates and internally splined plates ending with an externally splined plate. All linings should face up. **(Failure to install plates correctly will result in catastrophic failure; steel sides of plates must not make contact with each other).** Install top selective pressure plate and snap ring. **(Do not install spiral ring at this time).** Check clutch pack clearance .100" (2.54mm) to .125" (3.18mm). If clearance is incorrect, selective pressure plates are available from Allison. When correct C1 clutch pack clearance is achieved, install spiral ring.

POWERPACK® 152755A INSTALLATION

Install the Apply Plate 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, all linings should be face down. **(Failure to install plates correctly will result in catastrophic failure; steel sides of plates must not make contact with each other)** Install top pressure plate, install snap ring. **(Do not install spiral ring at this time)** Apply air to apply the clutch pack several times. Check clutch pack clearance .080" to .100". Install spiral ring

### C2 Clutch PowerPack®

POWERPACK® 152756 INSTALLATION

Use the same method as OE to stack the C2 clutch pack. Install the bottom apply plate against the apply piston, starting with a friction disc. Alternate installation of friction and steel plates ending with a steel plate. Clutch pack clearance should be from .070" to .085".

POWERPACK® 152756A INSTALLATION

Use the same method as OE to stack the C2 clutch pack. Install the Bottom Apply Plate against the apply piston, stack the plates as follows:  
Apply Plate, Friction, Steel, Friction, Steel, Friction, Steel, Friction, Steel, Friction, Steel, Friction, Steel, Friction, Steel (7 Friction & 7 Steel Plates). Clutch pack clearance should be from .060" to .075"

**IMPORTANT!!** Be sure to pre-soak the friction plates in ATF for a minimum of fifteen minutes. This will dissipate heat on initial start-up and apply to avoid friction paper glazing.