

# SERVICE Counselor

PACKARD DIVISION  
OF  
STUDEBAKER-PACKARD CORPORATION



# Counselor

VOL. 28, NO. 12

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## SERVICE BUSHING TOOLS

These tools service practically all the internal bushings in all Ultramatic and Twin Ultramatic Transmissions. This group of tools will also service the bushing in the 24th through 54th Series Overdrive Rear Housing and the bushing in all Rear Housing Assemblies of the standard transmission starting with the 1941 Clipper through the 54th Series inclusive.

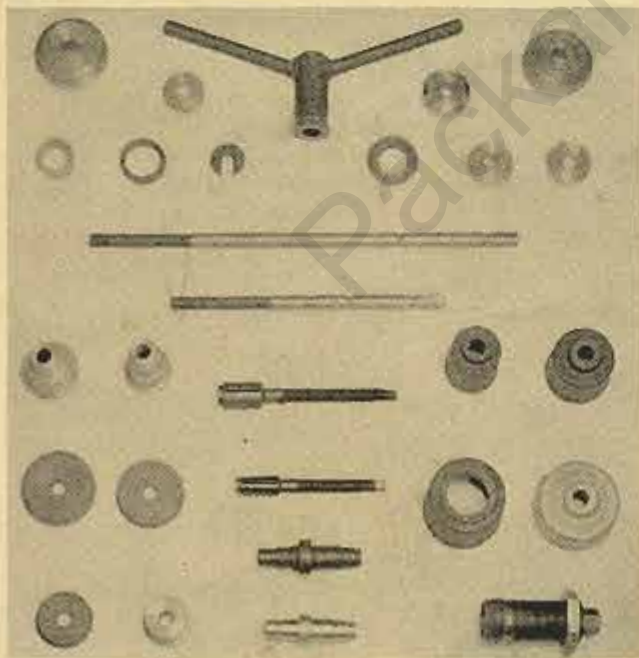


Fig. 1

Figure 1 illustrates the service bushing tools required to service the Ultramatic Transmission, 23rd through 54th Series and are listed under one group, Tool Number PU-335.

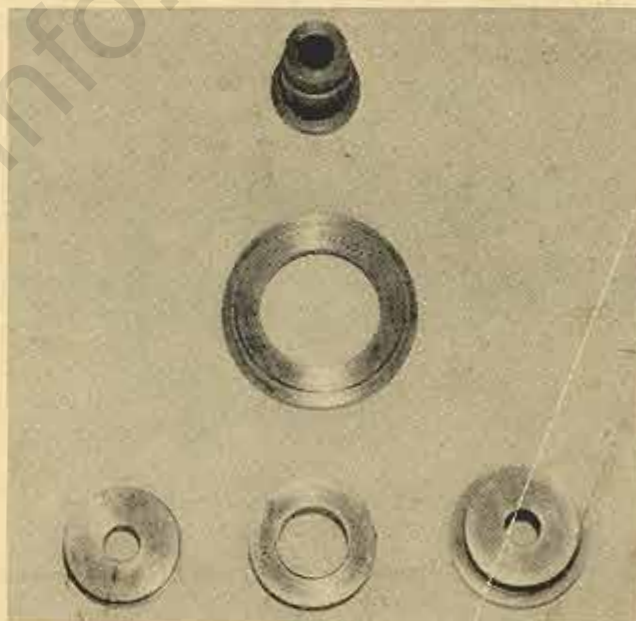


Fig. 2

Figure 2 illustrates the additional tools required in conjunction with group PU-335, to service the Twin Ultramatic Transmission bushings. These tools must be ordered separately and are listed as follows: PU-337-2-GS, PU-355-GS, PU-357-GS, PU-342-GS, PU-344-2-GS.

Figure 3 illustrates the tools required to install the rear housing oil seal on standard transmissions and overdrives starting with the 1941 Clipper through the 54th Series inclusive, also installs the rear housing oil seals in all Ultramatic and Twin Ultramatic Transmissions. These tools must be ordered separately and are listed as follows: PU-362, PU-363, PU-367.

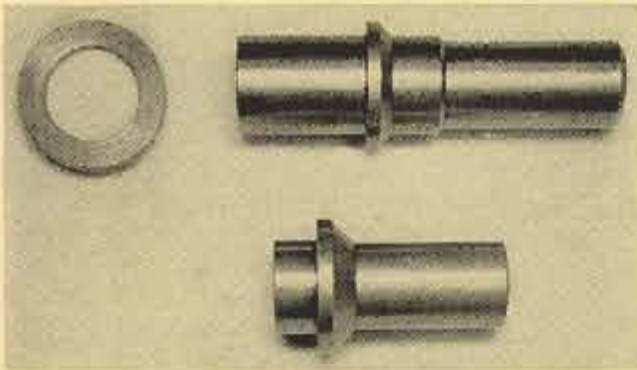


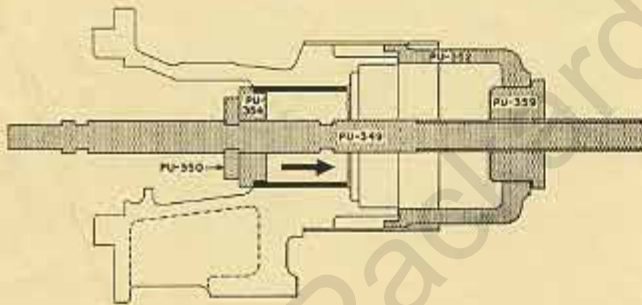
Fig. 3

Tool orders should be sent direct to K. R. Wilson, 215 Main Street, Buffalo 3, New York.

We are by illustration indicating the various combination of tools to be used for the different operations; however, two operations are not illustrated and are listed for your information.

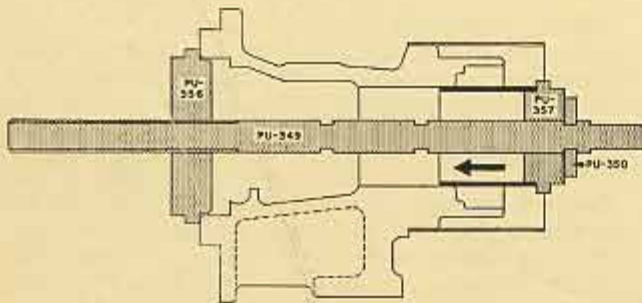
1. To replace bushing in standard transmission rear housing—Models 1951, 20, 21, 22 and 23rd Series, use PU-337-358-350-357.

2. To replace bushing in standard transmission rear housing—Models 24th through 54th Series, use PU-337-350-354-358.

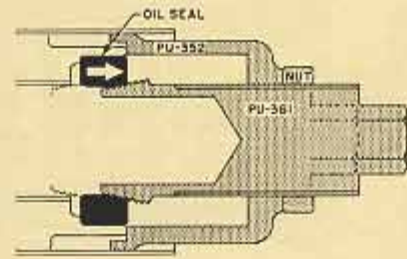


Removing Driving Shaft Bearing Rear Housing Bushing (23rd Series) Ultramatic

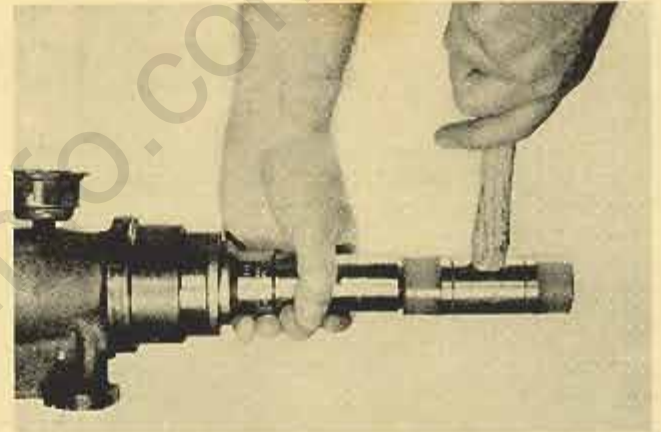
Removing Standard Transmission Rear Bearing Housing Bushing 19th through 23rd Series



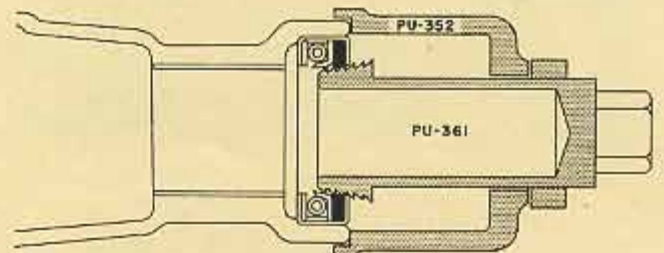
Replacing Driving Shaft Bearing Rear Housing Bushing (23rd Series Ultramatic)



Removing Oil Seal, Rear Housing (23rd Series Ultramatic)



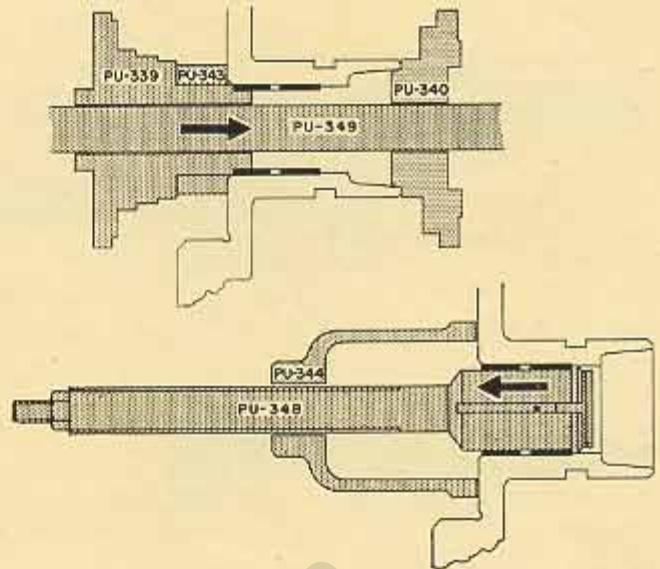
PU-362 and PU-363  
Replacing Rear Housing Oil Seal Std. Transmission 19th through 54th Series, 23rd Series Ultramatic and R-11 Overdrive



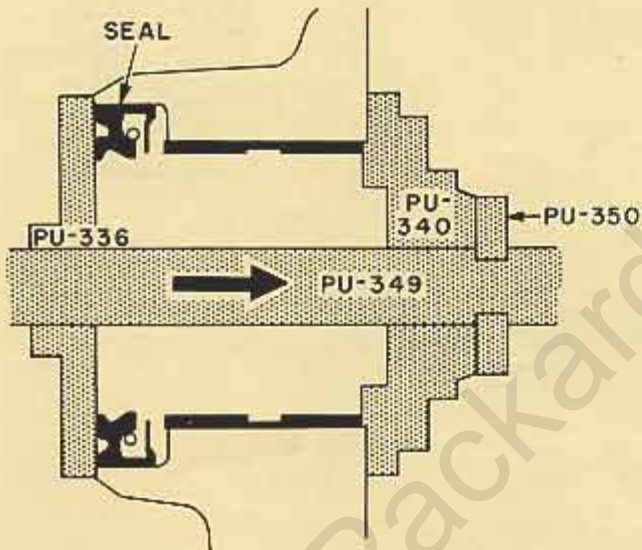
Removing Rear Housing Oil Seal R-9 Overdrive (24th through 54th Series Ultramatic and Twin Ultramatic)



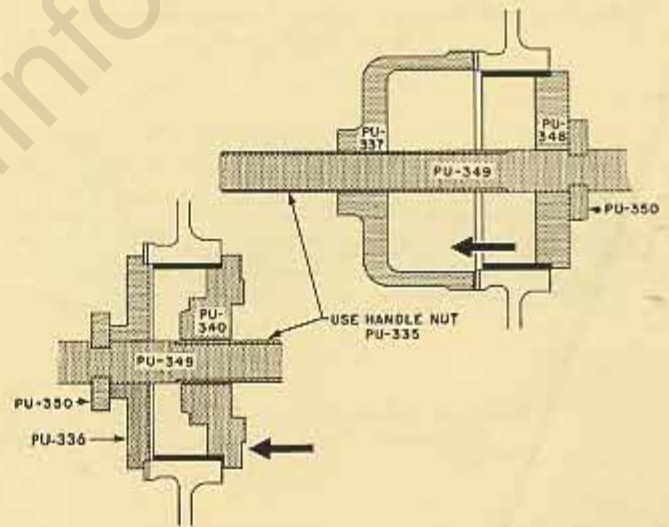
**PU-367**  
 Replacing Rear Housing Oil Seal  
 R-9 Overdrive  
 (24th through 54th Series Ultramatic and Twin Ultramatic)



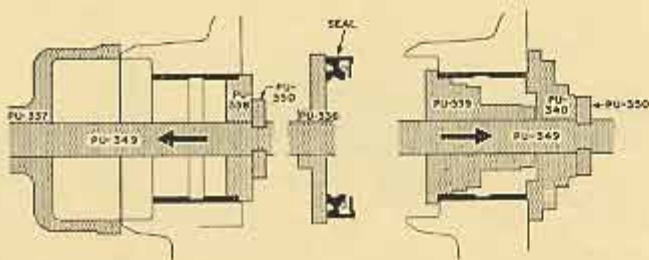
Removing and Replacing, Bushing, Reaction Clutch Housing  
 (23rd through 54th Series Ultramatic)  
 Not Replaceable in Twin Ultramatic



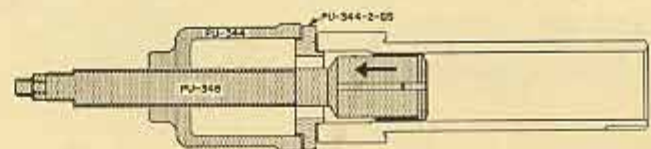
Replacing Oil Seal in Bell Housing  
 (Ultramatic and Twin Ultramatic)



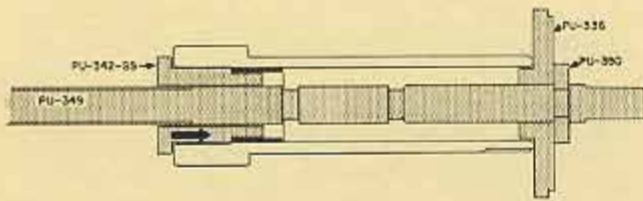
Removing and Replacing Bushing, Planetary Ring Gear  
 (23rd through 54th Series)  
 (Ultramatic and Twin Ultramatic)



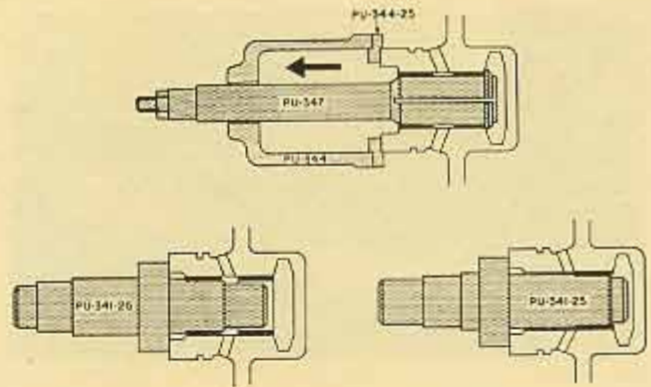
Removing and Replacing Bushing in Bell Housing  
 (Ultramatic and Twin Ultramatic)



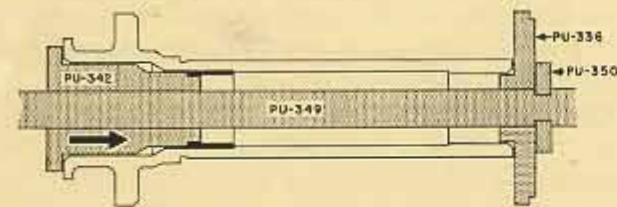
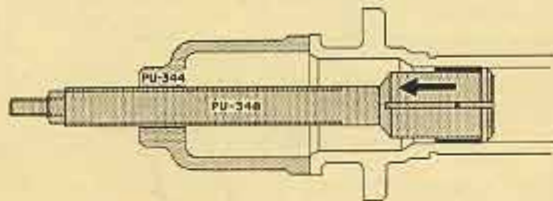
Removing Bushing from Reactor Shaft  
 (Twin Ultramatic)



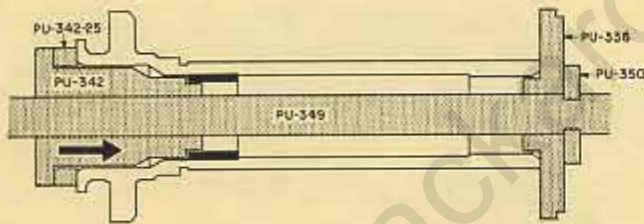
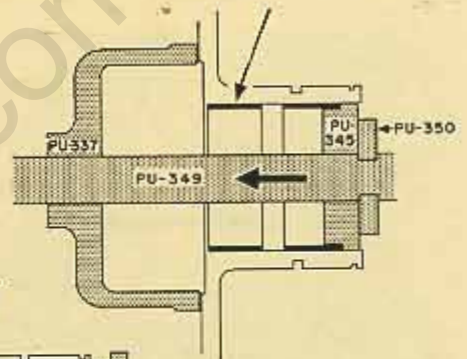
Replacing Bushing in Reactor Shaft  
(Twin Ultramatic)



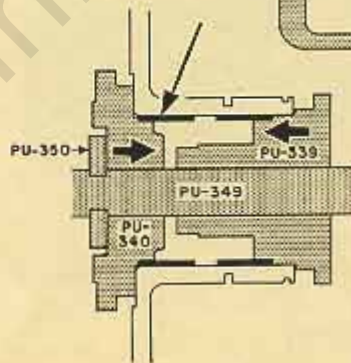
Removing and Replacing Bushings, Converter Clutch Housing  
9" Diameter Clutch  
(Ultramatic and Twin Ultramatic)



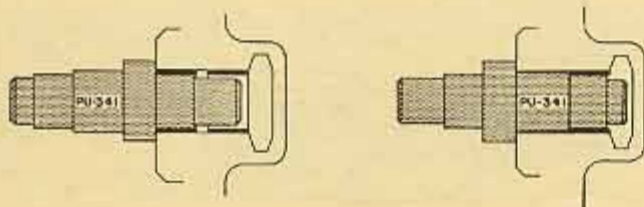
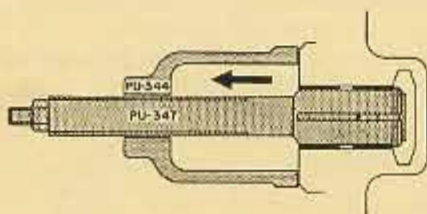
Removing and Replacing Bushing, Converter Reactor Shaft  
(1 1/4" Diameter Clutch Ultramatic)



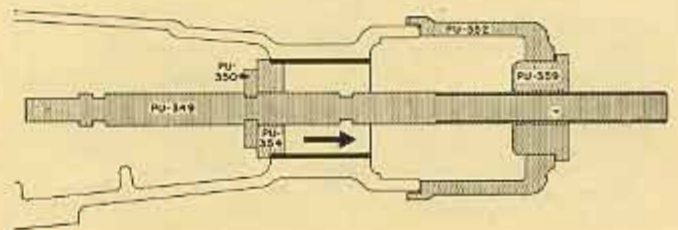
Replacing Bushing, Converter Reactor Shaft  
(9" Diameter Clutch Ultramatic)



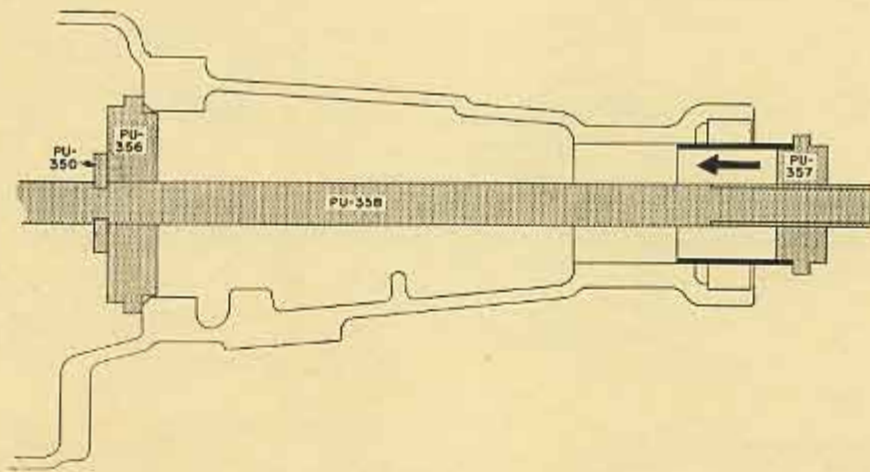
Removing and Replacing, Bushings, Clutch Housing  
23rd through 55th Series  
(Ultramatic and Twin Ultramatic)  
Bushing indicated by arrow (front) not used  
55th Series Twin Ultramatic



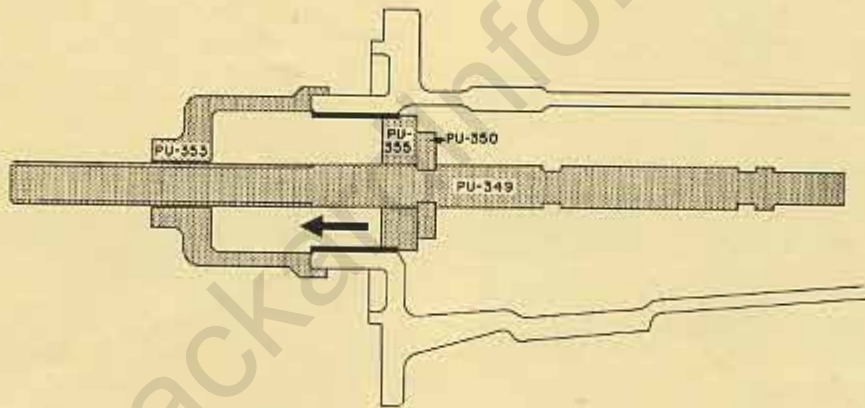
Removing and Replacing Bushings, Converter Clutch Housing  
(1 1/4" Diameter Clutch Ultramatic)



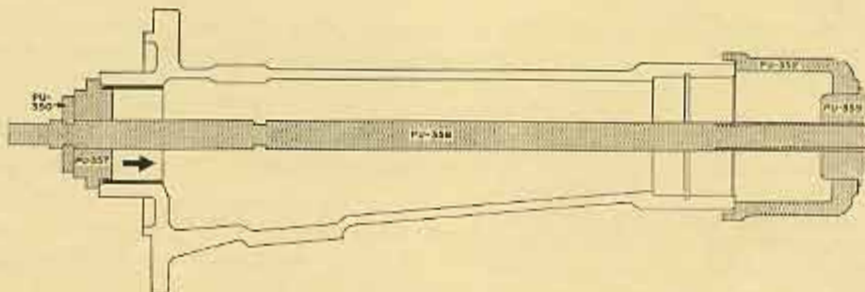
Removing Rear Housing Bushing Std. Transmission and Overdrive  
24th through 54th Series



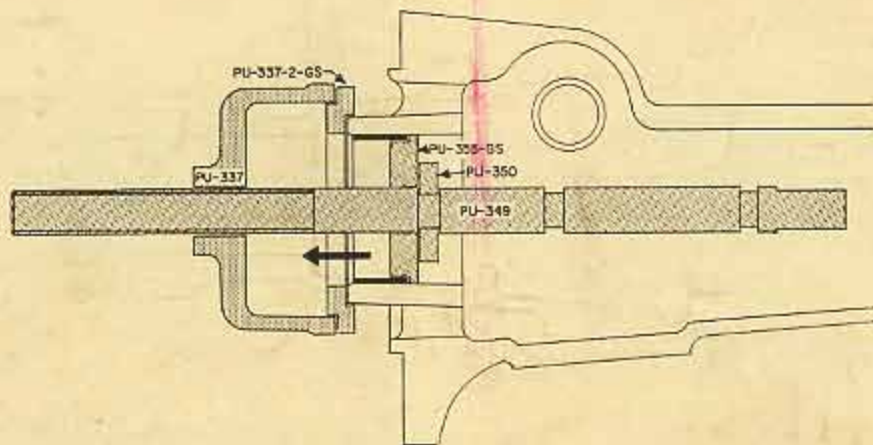
Replacing Overdrive Unit Main Shaft Bushing  
(24th through 54th Series)



Removing Bushing from Rear Housing  
(24th through 54th Series Ultramatic)



Replacing Bushing, Rear Housing  
(24th through 54th Series Ultramatic)

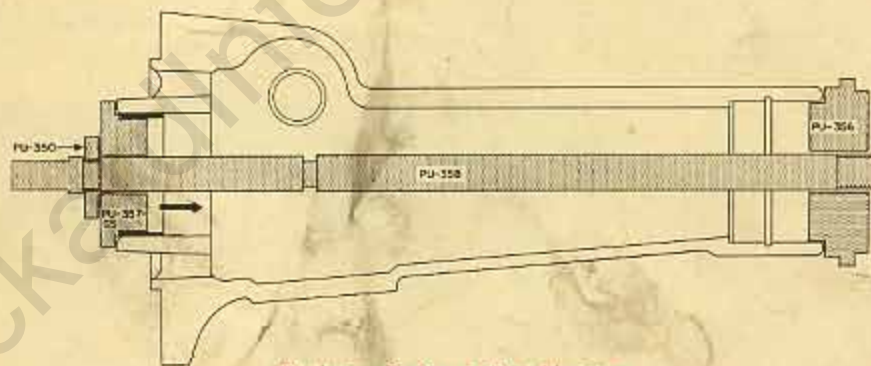


Removing Bushing from Rear Housing  
(Twin Ultramatic)

## Service Bushings

The following list of service bushings are available for servicing the standard transmissions, overdrives, Ultramatic and Twin Ultramatic Transmissions and are listed for your ready reference.

PART NO.	DESCRIPTION	NO. REQ'D
436018	Transmission driving shaft rear bearing rear housing bushing. 1941 Clipper through 54th Series Standard Transmission	1
436018	Overdrive Case Bushing. 24th through 54th Series	1
436018	Transmission rear housing bushing. 23rd Series—Ultramatic	1
436019	Transmission rear housing bushing. 24th through 54th Series—Ultramatic	1
458292	Transmission rear housing bushing. 54th-55th Series Twin Ultramatic	1
410864	Transmission bell housing bushing. 23rd through 54th Series—Ultramatic. 54th-55th Series Twin Ultramatic	1
410865	Converter reactor shaft bushing. 23rd through 54th Series—Ultramatic. 54th-55th Series Twin Ultramatic	1
410861	Transmission planetary ring gear bushing. 23rd through 54th Series—Ultramatic	1
458923	Transmission planetary ring gear bushing. 54th-55th Series—Twin Ultramatic	1
410866	Converter clutch housing bushing. 23rd through 54th Series—Ultramatic. 54th-55th Series Twin Ultramatic	2
410989	Transmission reaction clutch housing bushing. 23rd through 54th Series—Ultramatic	2
410990	Transmission clutch housing bushing. 23rd through 54th Series—Ultramatic. 54th Series—Twin Ultramatic	2
458661	Transmission clutch housing bushing. 55th Series—Twin Ultramatic	1



Replacing Bushing in Rear Housing  
(Twin Ultramatic)

## "Tips From The Editor"

### BUZZING NOISE IN REVERSE

A buzzing noise during reverse operation in the Twin Ultramatic Transmission may be caused by tight fitting pump check valves (Flapper Valves). The pump check valves are illustrated in Fig. 69, page 24, in your Serviceman's Training Book "Gear Start Ultramatic Drive."

The check valves must be free in the passage to function properly, therefore, if any bind exists, they should be relieved by grinding off a few thousands of an inch from both edges on one side of the valve.

NOTE: The valves must be installed with the flat side of the valve next to the round hole in the manifold.