

Throttle, Mixture, and Propeller Controls for Piper Aircraft

- All metal construction
- Pilot friendly knobs
- Lifetime lubrication
- Superior low friction conduit

Carb Heat and Alt Air Controls
Longer life and save \$\$\$

- The most commonly replaced controls just got better
- Special, heavier wire for more fatigue strength and reliability
- Improved friction mechanism
- Reduced vibration wear
- Anti-rotate feature to reduce stress on the inner wire
- High temperature Teflon lined conduit

Vernier-Assist™ Throttle Controls

Precision Control

New roller action vernier provides smooth jam-proof coarse and fine adjustment.

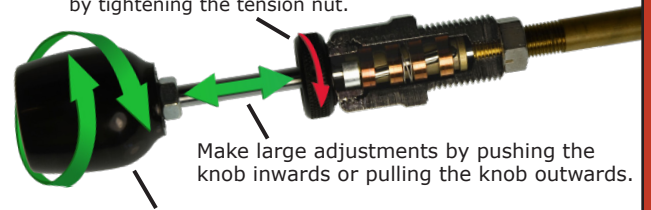
- Jam-proof safety
- Precision power adjustments
- Smooth friction control
- Light and compact
- Standard vernier action, without the button!



New MCVA Throttle Series

Vernier and friction lock - The best of both!

Tension and vernier action is increased by tightening the tension nut.



Make large adjustments by pushing the knob inwards or pulling the knob outwards.

Make fine adjustments by rotating the knob clockwise or counterclockwise. Our **Vernier-Assist™** throttle control uses a patented roller action and does not use a positive lock thread engagement. For extreme conduit routing or heavy carburetor load installations, slight inward or outward assist pressure could be required during rotation.

Patent No. 8,485,057 B1



New! Controls for Piper Super Cub Aircraft!

Model	Serial Number	Throttle Control	Propeller Control	Mixture Control	Carb Heat or Alt Air Control
PA-18, PA-18S	All	MC12694-002 ⁹ New! MC12694-000 ¹⁰ New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18"105" (Special)	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18"125" (Army L-21A)	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18"135" (Army L-21B)	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18"150"	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18A, PA-18A"135",A"150"	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18AS"125", AS"135", AS"150"	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18S"105",S"125",S"135"	All	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-18S "150"	1809001 thru 1809113	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ³
PA-18S "150"	18-3771 thru 18-8309025	MC12694-003 New!		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-19, PA19S,L-18C	All			MC600-72	
PA-20, PA-20S	20-01 thru 20-811	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20, PA-20S	20-812 thru 20-1121	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20, PA-20S	20-1122 and On			MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20"115", PA-20S"115"	20-01 thru 20-1121	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20"115", PA-20S"115"	20-1122 and On			MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20"135", PA-20S"135"	20-877 thru 20-1121	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-20"135", PA-20S"135"	20-1122 and On			MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-22	All	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-22-108	22-8000 and On	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ¹
PA-22-135	22-534 thru 22-2377	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²
PA-22-135	22-2379 thru 22-2424	MC455-139 or MCVA455-139 ¹¹		MC454-120 ⁵ ⁷ or MC600-72 ⁸	MC454-120 ²

See notes on next page
Eligibility continued on next page

Eligibility continued from previous page

Model	Serial Number	Throttle Control	Propeller Control	Mixture Control	Carb Heat or Alt Air Control
PA-22-135	22-2378, 22-2425 thru 22-3217	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-22-135	22-3219 thru 22-3386	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-22S-135	22-534 thru 22-2377			MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ²
PA-22S-135	22-2379 thru 22-2424			MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ²
PA-22S-135	22-2378, 22-2425 thru 22-3217	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-22S-135	22-3219 thru 22-3386	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-22-150, PA-22S-150	22-2378, 22-2425 thru 22-7642	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-22-160, PA-22S-160	22-5139, 22-5603 thru 22-7642	MC12693-04 or MCVA12693-04 ¹¹		MC454-120 ^{5 7} or MC600-72 ⁸	MC454-120 ³
PA-24	24-1 thru 24-2969			MC454-120 ^{1 7} or MC600-72 ⁸	
PA-24-250	24-1 thru 24-104			MC454-120 ^{1 7}	
PA-24-250	24-105 thru 24-2174 24-2176 thru 24-2298		MC455-184	MC454-120 ^{1 7} or MC600-72 ⁸ Carb Engine Only	
PA-24-250	24-2175, 24-2299 thru 24-2969		MC455-252	MC454-120 ^{1 7} or MC600-72 ⁸ Carb Engine Only	
PA-24-250	24-2970 thru 24-3687		MC455-252	MC600-72 ⁸ Carb Engine Only	
PA-24-260	24-3642, 24-4000 thru 24-4803		MC455-252	MC600-72 Carb Engine Only	
PA-24-260	24-4804 thru 24-5034			MC600-72 Carb Engine Only	
PA-24-400	26-2 thru 26-148			MC22633-04	
PA-28-140	28-20002 thru 28-21095	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-003 ⁴
PA-28-140	28-21096 thru 28-24999	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-016 ⁶
PA-28-140	28-25000 thru 28-25821	MC455-353		MC455-352	MC554-167
PA-28-140	28-25822 thru 28-7425418	MC455-353		MC455-352	MC554-093 ¹
PA-28-140	28-7425419 thru 28-7725290	MC455-353		MC455-352	MC554-094 ¹
PA-28-150	28-1 thru 28-2627	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-003 ⁴
PA-28-150	28-2628 thru 28-4377	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-016 ⁶
PA-28-151	All	MC455-350		MC455-352	MC554-093 ¹
PA-28-160	28-1 thru 28-2627	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-003 ⁴
PA-28-160	28-2628 thru 28-4377	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-016 ⁶
PA-28S-160	28-1 thru 28-1760			MC600-72	MC63902-003 ⁴
PA-28-161	2816001 thru 2816110 (Less 2816066)	MC455-350		MC455-352	MC554-093 ¹
PA-28-161	2816111 thru 2816119				MC554-093 ¹
PA-28-161	2841001 thru 2842999	MC455-350		MC455-352	MC554-093 ¹
PA-28-161	28-7716002 thru 28-8616057	MC455-350		MC455-352	MC554-093 ¹
PA-28-180	28-671 thru 28-1760	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-003 ⁴
PA-28-180	28-1761 thru 28-2627	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-003 ⁴

¹ Knob not included.

² Knob not included. Order P/N MC471-052

³ Knob not included. Order P/N MC471-060

⁴ Knob P/N MC471-084 included with control.

⁵ Knob not included. Order P/N MC471-053

⁶ Knob P/N MC571-131 included with control.

⁷ P/N MC454-120 duplicates original control.

⁸ P/N MC600-72 is a vernier control. Installation is approved as a minor alteration (No STC or Form 337). May require enlarging the mounting hole to 3/4" diameter. Use our Drill Step P/N 44460 (see details on page 54).

⁹ W/Electrical Equipment

¹⁰ W/O Electrical Equipment

¹¹ To order **Vernier-Assist™** throttle controls change "MC" prefix to "MCVA" prefix.

Additional knob eligibility is on the following pages. Rod end part numbers and eligibility is on the following pages.

Eligibility continues on next page



Push Pull Controls and Accessories

Engine Controls: Piper Aircraft



Eligibility continued from previous page

Model	Serial Number	Throttle Control	Propeller Control	Mixture Control	Carb Heat or Alt Air Control
PA-28-180	28-2628 thru 28-4377	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	MC63902-016 ⁶
PA-28-180	28-4378 thru 28-5152	MC455-333		MC455-332	MC66856-007
PA-28-180	28-5153 thru 28-5398	MC455-350		MC455-352	MC66856-007
PA-28-180	28-5399 and On	MC455-350		MC455-352	MC554-095 ¹
PA-28R-180	28R-30005 thru 28R-30481	MC455-322	MC455-322	MC455-322	
PA-28R-180	28R-30483 thru 28R-31092	MC455-322	MC455-322	MC455-322	
PA-28R-180	28R-31093 thru 28R-31279	MC455-322	MC455-322	MC455-322	MC554-092 ¹
PA-28R-180	28R-7130001 thru 28R-7130013	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28R-180	28R-7130014 thru 28R-7130019	MC455-322	MC455-322	MC455-322	
PA-28S-180	28-671 thru 28-2627			MC600-72	MC63902-003 ⁴
PA-28S-180	28-2628 thru 28-4377			MC600-72	MC63902-016 ⁶
PA-28S-180	28-4378 thru 28-5398				MC66856-007
PA-28S-180	28-5399 thru 28-28-7205234				MC554-095 ¹
PA-28-181	2843001 thru 2843999			MC455-352	MC554-094 ¹
PA-28-181	2890001 thru 2890205			MC455-352	MC554-095 ¹
PA-28-181	2890206 thru 2890231			MC455-352	MC554-094 ¹
PA-28-181	28-7690001 thru 28-8290174	MC455-350		MC455-352	MC554-095 ¹
PA-28-181	28-8390001 and On	MC455-350		MC455-352	MC554-095 ¹
PA-28-201T	28-7921001 thru 28-7921095	MC455-322	MC455-322	MC455-361	MC554-387 ¹
PA-28R-200	28R-30482, 28R-35001 thru 28R-35225	MC455-322	MC455-322	MC455-322	
PA-28R-200	28R-35226 thru 28R-35830	MC455-322	MC455-322	MC455-322	MC554-092 ¹
PA-28R-200	28R-7135001 thru 28R-7635545	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28R-201	2837001 thru 2837061	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28R-201	2844001 thru 2844999				MC554-130 ¹
PA-28R-201	28R-7737002 thru 28R-7837317	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28R-201T	28R-7703002 thru 28R-7803372	MC455-322	MC455-322	MC455-361	MC554-387 ¹
PA-28R-201T	2803001 thru 2803015	MC455-322	MC455-322	MC455-361	MC554-387 ¹
PA-28RT-201	28R-7918001 thru 28R-8018116	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28RT-201	28R-8018117 thru 28R-8118000				MC554-130 ¹
PA-28RT-201	28R-8118001 and On	MC455-322	MC455-322	MC455-322	MC554-130 ¹
PA-28RT-201T	2831001 thru 2831038				MC554-387 ¹
PA-28RT-201T	28R-7931001 thru 28R-8031188	MC455-322	MC455-322	MC455-361	MC554-387 ¹
PA-28RT-201T	28R-8031189 thru 28R-8131000				MC554-387 ¹
PA-28RT-201T	28R-8131001 and On	MC455-322	MC455-322	MC455-361	MC554-387 ¹
PA-28-235	28-10003 thru 28-11038	MC12693-04 or MCVA12693-04 ¹¹		MC600-72	
PA-28-235	28-11039	MC12693-04 or MCVA12693-04 ¹¹			
PA-28-235	28-11040 thru 28-11252	MC455-333		MC455-332	MC66856-007
PA-28-235	28-11253 thru 28-11393	MC455-333		MC455-332	MC554-094 ¹
PA-28-235	28-7110001 thru 28-7210033	MC455-333		MC455-332	MC554-094 ¹
PA-28-235	28-7310001 thru 28-7710089	MC455-333	MC455-344	MC455-332	MC554-094 ¹
PA-28-236	28-11001 thru 2811050				MC554-094 ¹
PA-28-236	28-7911001 thru 28-8211060	MC455-333	MC455-344	MC455-332	MC554-094 ¹
PA-28-236	28-8311001 and On	MC455-333	MC455-344	MC455-332	MC554-094 ¹
PA-32-260	32-451 thru 32-1110				MC63902-021 ⁶
PA-32-260	32-1111 thru 32-1320	MC455-360		MC455-361	MC554-053
PA-32-260	32-7100001 thru 32-7800008	MC455-360		MC455-361	MC554-053
PA-32-300	32-40000 thru 32-40565	MC69530-02 or MC69530-02 ¹¹	MC65451-04		

¹ Knob not included.

² Knob not included. Order P/N MC471-052

³ Knob not included. Order P/N MC471-060

⁴ Knob P/N MC471-084 included with control.

⁵ Knob not included. Order P/N MC471-053

⁶ Knob P/N MC571-131 included with control.

⁷ P/N MC454-120 duplicates original control.

⁸ P/N MC600-72 is a vernier control. Installation is approved as a minor alteration (No STC or Form 337). May require enlarging the mounting hole to 3/4" diameter. Use our Drill Step P/N 44460 (see details on page 54).

⁹ W/Electrical Equipment

¹⁰ W/O Electrical Equipment

¹¹ To order **Vernier-Assist™** throttle controls change "MC" prefix to "MCVA" prefix.

Additional knob eligibility is on the following pages. Rod end part numbers and eligibility are on the following pages.



Eligibility continues on next page

Eligibility continued from previous page

Model	Serial Number	Throttle Control	Propeller Control	Mixture Control	Carb Heat or Alt Air Control
PA-32-300	32-41019 thru 32-7140000				MC554-051
PA-32-300	32-40566 thru 32-41018	MC455-358			MC554-051
PA-32-300	32-7140001 thru 32-7940282	MC455-358			MC554-051
PA-32-300	32-7940283 and On				MC554-051
PA-32R-300	All				MC554-051
PA-32RT-300	All				MC554-051
PA-32S-300	32S40566 thru 32S-7240137				MC554-051
PA-32-301	32-8006001 thru 32-8406020	MC455-358			MC554-051
PA-32-301	32-8406021 thru 32-8506000	MC455-358			MC554-051
PA-32-301	32-8506001 and On	MC455-358			MC554-051
PA-32-301FT	All				MC554-051
PA-32-301T	32-8024001 thru 32-8424002	MC455-344		MC455-344	MC553-874
PA-32-301T	32-8524001 and On	MC455-344		MC455-344	
PA-32R-301	3213001 thru 3213103				MC554-051
PA-32R-301	3246001 thru 3246999				MC653-658
PA-32R-301	32R-8013001 thru 32R-8613006				MC554-051
PA-32R-301T	3229001 thru 3229003				MC553-885
PA-32R-301T	3257001 thru 3257999				MC653-658
PA-32R-301T	32R-8029001 thru 32R-8229078	MC455-360		MC455-360	MC553-885
PA-32R-301T	32R-8229079 thru 32R-8329000				MC553-885
PA-32R-301T	32R-8329001 and On	MC455-360		MC455-360	MC553-885
PA-32RT-300T	32R-7787001 thru 32R-7887000				MC554-466
PA-32RT-300T	32R-7887001 thru 32R-7987126	MC455-360		MC455-360	MC554-466
PA-38-112	All				MC554-511 ¹

¹ Knob not included.

² Knob not included. Order P/N MC471-052

³ Knob not included. Order P/N MC471-060

⁴ Knob P/N MC471-084 included with control.

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⁶ Knob P/N MC571-131 included with control.

⁷ P/N MC454-120 duplicates original control.

⁸ P/N MC600-72 is a vernier control. Installation is approved as a minor alteration (No STC or Form 337). May require enlarging the mounting hole to 3/4" diameter. Use our Drill Step P/N 44460 (see details on page 54).

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Additional knob eligibility is on the following pages. Rod end part numbers and eligibility are on the following pages.

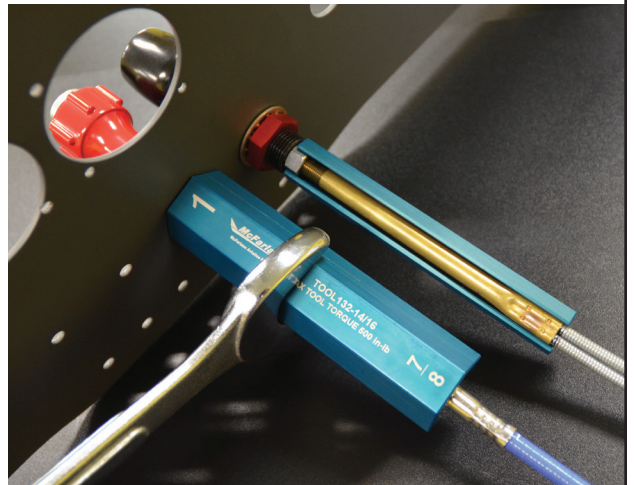
Easily remove or install your controls using our wrench tool set! See below.

Push-Pull Control Wrench Set

P/N TOOL132 installs and removes push-pull control nuts behind the panel

- Works with all controls — six nut sizes!
- 5 1/2" length reaches hard to access nuts
- Slot allows access to nut on installed control
- Wrench anywhere on the external hex
- Lightweight aluminum is easy to handle when using overhead
- Many other uses (brake/fuel/vent/hydraulic lines, etc.)

Includes case!



Part Number	Description
TOOL132	Contains one of each wrench
TOOL132-8/9	1/2" and 9/16"
TOOL132-11/12	11/16" and 3/4"
TOOL132-14/16	7/8" and 1" wrench

Cabin Environment Controls for Piper Aircraft

Longer life and save up to \$200.00

- Special, heavier wire for strength and reliability
- Improved friction mechanism
- Reduced vibration wear
- Anti-rotate feature to reduce stress on the inner wire
- High temperature Teflon lined conduit

Additional knob eligibility shown on the following page!



P/N MC454-120
without knob



P/N MC454-120 with
P/N MC471-052 Knob



P/N MC454-120 with
P/N MC471-060 Knob

Aircraft	Serial Number	Cabin Heat	Cabin Heat Rear	Cold Air Inlet	Defrost Control	Parking Brake
PA-18, PA-18A, PA-18S	All	MC454-120 ²				
PA-18 "105" (Special), PA-18S "105" (Special)	All	MC454-120 ²				
PA-18 "125" (Army L-21A), PA-18AS "125", PA-18S "125"	All	MC454-120 ²				
PA-18 "135" (Army L-21B), PA-18A "135", PA-18S "135"	18-1 thru 18-2167	MC454-120 ²				
PA-18 "135" (Army L-21B), PA-18A "135", PA-18S "135"	18-2168 and On	MC454-120 ²		MC454-120 ²		
PA-18AS "135", PA-18 "150"	All	MC454-120 ¹				
PA-18A "150", PA-18AS "150"	All	MC454-120 ²		MC454-120 ²		
PA-18S "150"	1809001 thru 1809113	MC454-120 ³		MC454-120 ¹		
PA-18S "150"	18-3771 thru 18-8309025	MC454-120 ²		MC454-120 ^{2,3}		
PA-20, PA-20S	20-1 thru 20-553	MC454-120 ²				
PA-20, PA-20S	20-554 thru 20-811	MC454-120 ²		MC454-120 ²		
PA-20, PA-20S	20-812 and On	MC454-120 ²	MC454-120 ²	MC454-120 ²		
PA-20 "115", PA-20S "115"	All	MC454-120 ²				
PA-20 "135", PA-20S "135"	20-877, 20-881, 20-885, 20-888	MC454-120 ²		MC454-120 ²		
PA-20 "135", PA-20S "135"	20-878 thru 20-880	MC454-120 ²	MC454-120 ²	MC454-120 ²		
PA-20 "135", PA-20S "135"	20-882 thru 20-884	MC454-120 ²	MC454-120 ²	MC454-120 ²		
PA-20 "135", PA-20S "135"	20-886 thru 20-887	MC454-120 ²	MC454-120 ²	MC454-120 ²		
PA-20 "135", PA-20S "135"	20-889 and On	MC454-120 ²	MC454-120 ²	MC454-120 ²		
PA-22	All	MC454-120 ²	MC454-120 ²	MC454-120 ²		MC454-120 ²
PA-22-108	All	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ¹
PA-22-135	22-534 thru 22-539, 22-543	MC454-120 ²		MC454-120 ²		MC454-120 ²
PA-22-135	22-540 thru 22-542	MC454-120 ²	MC454-120 ²	MC454-120 ²		MC454-120 ²
PA-22-135	22-544 thru 22-2377	MC454-120 ²	MC454-120 ²	MC454-120 ²		MC454-120 ²
PA-22-135	2378	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ¹
PA-22-135	22-2379 thru 22-2424	MC454-120 ²	MC454-120 ²	MC454-120 ²		MC454-120 ²
PA-22-135	22-2425 and On	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ¹
PA-22S-135	22-534 thru 22-2377 and 22-2379 thru 22-2424	MC454-120 ^{2,4}	MC454-120 ¹	MC454-120 ²		
PA-22S-135	22-2378, 22-2424 and On	MC454-120 ^{3,4}	MC454-120 ³	MC454-120 ³		
PA-22-150, PA-22S-150, PA-22-160, PA-22S-160	22-2378, 22-2425 thru 22-5138	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ³
PA-22-150, PA-22S-150, PA-22-160, PA-22S-160	22-2379 thru 22-2424	MC454-120 ²	MC454-120 ¹	MC454-120 ²		MC454-120 ²
PA-22-150, PA-22S-150, PA-22-160, PA-22S-160	22-5139, 22-5603 and On	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ¹
PA-22-150, PA-22S-150, PA-22-160, PA-22S-160	22-5140 thru 22-5602	MC454-120 ³	MC454-120 ³	MC454-120 ³		MC454-120 ³
PA-24, PA-24-250	24-1 thru 24-2174	MC454-120 ¹		MC454-120 ¹	MC454-120 ¹	MC454-120 ¹
PA-24, PA-24-250	24-2176 thru 24-2298			MC454-120 ¹		MC454-120 ¹

¹ Knob not included.

² Knob not included. Order P/N MC471-052

³ Knob not included. Order P/N MC471-060






⁴ Quantity 2 each of the Cabin Heat Control is required for this aircraft.

Easily remove or install your controls using our wrench tool set on the previous page!

Push Pull Controls and Accessories

Control Knobs and Rod Ends: Piper Aircraft

Continued from previous page

 P/N MC471-052	 P/N MC471-053	 P/N MC471-060	 P/N MC471-084 With P/N 6289 Carb Heat Decal (Decal sold separately)	 P/N MC571-131	Knob Type	Alternate Air (Chrome)	Cabin Heat (Chrome)	Cabin Heat (Black)	Cabin Heat (Ivory)	Cabin Heat (Rear)	Cabin Heat Rear (Ivory)	Cabin Heat Front (Ivory)	Cabin Vent (Black)	Carb Heat (Black)	Decal, Carb Heat	Carb Heat (Chrome)	Carb Heat (Black)	Carb Heat (Ivory)	Cold Air (Black)	Cold Air Inlet (Chrome)	Cold Air Inlet (Black)	Cold Air Inlet (Ivory)	Defrost (Chrome)	Mixture Control (Red)	Parking Brake (Black)	Parking Brake (Ivory)
Part Number	MC571-131	MC571-131	MC471-060	MC471-052	MC471-060	MC471-052	MC471-052	MC471-060	MC471-084	6289	MC571-131	MC471-060	MC471-052	MC471-060	MC571-131	MC471-060	MC471-052	MC471-060	MC571-131	MC471-060	MC471-052	MC571-131	MC471-053	MC471-060	MC471-052	

Aircraft	Serial Number	MC571-131	MC571-131	MC471-060	MC471-052	MC471-060	MC471-052	MC471-060	MC471-084	6289	MC571-131	MC471-060	MC471-052	MC471-060	MC571-131	MC471-060	MC471-052	MC471-060	MC571-131	MC471-060	MC471-052	MC571-131	MC471-053	MC471-060	MC471-052
PA-28-180, PA-28S-180	28-671 thru 28-2627																								
PA-28-180	28-2628 thru 28-4277		•									•													
PA-28-180	28-4278 thru 28-4377											•													
PA-28S-180	28-671 thru 28-2627											•	•												
PA-28S-180	28-2628 thru 28-4377											•													
PA-28-235	28-10003 thru 28-10675											•	•												
PA-28-235	28-10676 thru 28-11039		•																						
PA-32-260	32-1 thru 32-1110																								
PA-32-300	32-40000 thru 32-40565		•																						
PA-32-300S	32S-15 thru 32S-40565		•																						

Rod Ends for Piper Aircraft

Many applications and aircraft eligibility!



Piper Rod End Dimensions		
Part Number	Eye	Thread
CA452-334A	0.19	1/4-28 External
CA452-335A	0.19	1/4-28 Internal
CA452-336A	0.19	1/4-28 Internal
CA452-368	0.50	1/2-20 Internal
CA452-412	0.25	5/16-24 External
CA452-860A	0.25	1/4-28 External
CA452-584	0.19	Spherical

Model	Serial Number	Part Number	Description/Application
PA-18,A PA-18-105,125,135,150	All		
PA-18A-125,135,150	18-1 thru 18-8309025	CA452-335A	Wing panel assembly, uncovered
PA18-150	809001 thru 1809113		
PA-22 PA-22-108,135,150,160	All	CA452-335A	Wing panel assembly, nose wheel
PA-23-150,160 PA-23-235, PA23-250, PA 23-250	All	CA452-335A	Nose gear, main gear
PA-24-180,250,260,400	All	CA452-412	Landing gear retraction system, flap control mechanism, control surfaces
PA-28-140,150,160,180,235 PA-28R-180,200,201,201T	All	CA452-334A	Steering push rod and shimmy dampener, main gear bearing, control system
		CA452-335A	Bungee assembly, nose wheel, landing gear door
		CA452-336A	Flap control, nose gear assembly
		CA452-368	Main gear
		CA452-584	Landing gear door
		CA452-860A	Shimmy dampener
PA-28-151,161	715001 thru 28-7715314, 28-7716001 thru 28-8616057, 2816001 thru 2816119	CA452-334A	Nose gear
PA-28-161	2841001 thru 2841365	CA452-335A	Nose gear, control system, flap control
PA-28-161	2842001 and on	CA452-334A	Nose gear
		CA452-335A	Control system, flap control
PA-28-181	28-7690001 thru 28-8690056, 2890001 thru 2890231, 2843001 and on	CA452-336A	Flap control
		CA452-334A	Nose gear
		CA452-335A	Control system
		CA452-336A	Flap control

Eligibility continued on next page

Rod Ends for Piper Aircraft continued from previous page

See Rod End dimensions on previous page

Model	Serial Number	Part Number	Description/Application
PA-28R-201,201T	28R-773700, 2837001 thru 2837061, 28R7703002 thru 28R-7803372, 2803001 thru 2803015	CA452-334A	Nose landing gear, main landing gear
		CA452-335A	Landing gear door, control system, flap control
		CA452-336A	Flap control
		CA452-584	Landing gear door
PA-28R-201	2844001 and on	CA452-334A	Nose landing gear
		CA452-335A	Landing gear door, control system, flap control
		CA452-336A	Flap control
		CA452-368	Main landing gear
PA-28RT-201,201T	All	CA452-334A	Nose landing gear
		CA452-335A	Landing gear door
PA-30,39	All	CA452-412	Landing gear retraction system, flap control mechanism
PA-31P	All	CA452-335A	Cabin door step
PA-31P-350	All	CA452-412	Cabin door latch, nose landing gear, nose gear steering,
		CA452-335A	Cabin door step
PA-31-300,325, PA-31-350, PA-31-350 (T1020)	All	CA452-412	Cabin door latch, nose landing gear, nose gear steering,
		CA452-412	elevator trim
PA-31T,T1,T2	All	CA452-335A	Nose landing gear, nose gear steering mechanism
		CA452-412	Cabin door step, engine control
		CA452-860A	Cabin door latch, nose landing gear
PA-31T3	All	CA452-335A	Cabin door snubber
		CA452-412	Engine controls
		CA452-412	Nose landing gear, nose gear steering
PA-32-260,300, PA-32R-300,	All	CA452-334A	Nose gear, main gear, control system
		CA452-335A	Landing gear door, flap control
		CA452-368	Main gear
		CA452-584	Landing gear door
		CA452-860A	Nose gear
PA-32-301,301T	All	CA452-334A	Nose gear
		CA452-335A	Aileron control, flap control
		CA452-336A	Aileron control, flap control
		CA452-860A	Nose gear
PA-32-301 XTC	All	CA452-334A	Nose gear
PA-32-301FT	All	CA452-335A	Aileron control, flap control
		CA452-336A	Aileron control
		CA452-860A	Nose gear
PA-32R-301,301T	32R-8013001 thru 32R-8613005, 321001 thru 3213103, 32R-8029001 thru 32R-8629006, 3229001 thru 3229003	CA452-334A	Nose gear, main gear
		CA452-335A	Landing gear door, aileron control, flap control
		CA452-336A	Aileron control, flap control
		CA452-368	Main gear
PA-32R-301,301T	3246001 and on 3257001 and on	CA452-334A	Main gear
		CA452-335A	Landing gear door, aileron control, flap control
		CA452-336A	Aileron control, flap control
		CA452-368	Main gear
PA-34-200	All	CA452-334A	Nose gear, aileron control, rudder trim, hydraulic system
		CA452-335A	Nose and main gear door actuation, flap control
		CA452-336A	Flap control
		CA452-368	Main gear
PA-34-200T	All	CA452-334A	Air conditioning, Condenser and scoop, nose gear, hydraulic system rudder trim
		CA452-335A	Nose and main gear door actuation
		CA452-336A	Flap control
		CA452-368	Main gear
PA-34-220T	34-8133001 thru 34-8633031, 3433001 and on, 3448001 and on, 3447001 thru 3447029, 3449001 and on	CA452-584	Aileron assembly, nose and main gear actuation
		CA452-334A	Nose gear, rudder trim hydraulic system, air conditioning, condenser and scoop
		CA452-335A	Nose and main gear door actuation, aileron control, flap control
PA-34RT-300,300T	All	CA452-336A	Flap control
		CA452-334A	Nose gear, main gear, control system
		CA452-335A	Landing gear door, flap control
		CA452-368	Main gear
PA-36-285,300,375	All	CA452-584	Landing gear door
PA-42, PA-42-720	All	CA452-584	Elevator and elevator trim control
		CA452-335A	Cabin door step, engine controls

Eligibility continued on next page

Rod Ends for Piper Aircraft continued from previous page
 See Rod End dimensions on previous pages

Model	Serial Number	Part Number	Description/Application
PA-42-1000	All	CA452-412	Cabin door latch, nose landing gear, nose gear steering, elevator control
PA-44-180,180T	44-7995001 thru 44-8207020, 4495001 thru 4495013, 4496001 and on	CA452-334A	Nose landing gear, main gear
		CA452-335A	Landing gear door, aileron control, flap control
		CA452-336A	Aileron control, flap control
		CA452-584	Landing gear door
PA-46-310P,350P	46-8408001 thru 46-8608067, 4608001 thru 4608140, 4622001 thru 4622200	CA452-334A	Nose gear, nose and main gear door, actuation
		CA452-335A	Nose and main gear door actuation
		CA452-412	Flap drive - electrical
		CA452-860A	Flap drive - electrical, flap drive and hydraulic
PA-46-350P	4636001 and on	CA452-334A	Nose gear, nose and main gear door actuation
		CA452-335A	Main gear
		CA452-412	Flap Drive-Mechanical
		CA452-860A	Flap Drive-Mechanical
PA-46R-350T	4692001 and on	CA452-334A	Nose gear, nose and main gear door actuation
		CA452-335A	Main gear
		CA452-412	Flap Drive-Mechanical
		CA452-860A	Flap Drive-Mechanical
PA-46-500TP	4697002 with G1000, 4697340 with G1000, 4697399 and on with G1000	CA452-334A	Nose gear, nose gear door actuation
		CA452-335A	Main gear door actuation
		CA452-412	Flap Drive-Mechanical
		CA452-860A	Flap Drive-Mechanical
PA-46-500TP	4697001 and on without G1000	CA452-334A	Nose gear, nose and main gear door actuation
		CA452-335A	Nose and main gear door actuation
		CA452-412	Flap Drive-Mechanical
		CA452-860A	Flap Drive-Mechanical

New! Swivel Fittings and Studs (Bug Nuts) for Piper Aircraft

Save \$\$\$ with FAA-PMA Approval!

- Vast eligibility with multiple applications
- Heat-treated stainless steel
- Improved cone for less wire distortion
- Multiple FAA-PMA replacement options: buy only the swivel fitting and stud, or get the swivel assembly!
- The MC70371-00 Swivel Assembly replaces Piper P/Ns 70371-00 or 70371-800. This full assembly includes the -002 fitting, the -003 stud, as well as AN320-3 castle shear nut, MS24665-132 cotter pin, and two special sized Piper specific washers.
- Different stud lengths and swivel fitting sizes offered!

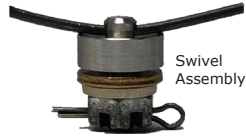


Aircraft	Serial Number	Part Number	Location																				
			Aft Hydraulics	Airbox Installation	Baggage Door Assembly	Cabin Door Assembly	Cabin Heat	Cabin Pressure Control	Cabin Vent	Carb Heat and Mix Control	Cowl Flap Control	Engine Control	Fuel Control	Fuselage Press. Air Supply	Hand Brake	Heat and Defrost	Hopper Installation	Turbocharger	Ventilation	Windshield Defroster			
J-3	All	MC70371-00										•											
		MC70371-002										•											
		MC70371-003										•											
J3 (Canadian), J3 (Converted TG-8 Glider), J3C-40, J3C-50, J3C-50S, J3C-65 (Army L-4,L-4A,B,H,J), Navy NE-1,2), J3C-65S, J3F-50, J3F-50S, J3F-60, J3F-60S, J3F-65 (Army L-4D), J3F-65S, J3L, J3L-65 (Army L04C), J3L-65S, J3L-S, J3P	All	MC70371-002										•											
		MC70371-003										•											
J5A (Army L-4F), J5A-80, J5B (Army L-4G), J5C	All	MC70371-00										•											
		MC70371-002										•											
		MC70371-003										•											
PA-12	All	MC70371-00										•											
		MC91193-00										•											
PA-12S	All	MC91193-00										•											
		MC70371-00																					
PA-14	All	MC70371-002																					
		MC70371-003																					
		MC91193-00																					
		MC70371-00																					

Eligibility continued on next page

Wire Clamps, Swivel Fittings and Studs (Bug Nuts)

Continued from previous page



Push-Pull Controls and Accessories

Aircraft	Serial Number	Part Number	Location																
			Aft Hydraulics	Airbox Installation	Baggage Door Assembly	Cabin Door Assembly	Cabin Heat	Cabin Pressure Control	Cabin Vent	Carb Heat and Mix Control	Cowl Flap Control	Engine Control	Fuel Control	Fuselage Press. Air Supply	Hand Brake	Heat and Defrost	Hopper Installation	Turbocharger	Ventilation
PA-15	All	MC70371-003							•										
		MC91193-00									•								
PA-17	All	MC91193-00									•								
PA-18, PA-18 "105" (Special), PA-18 "125" (Army L-21A), PA-18 "135" (Army L-21B), PA-18 "150"	All	MC70371-002		•							•								
		MC70371-003		•							•					•			
		MC91193-00									•								
PA-18A, PA-18A "135", PA-18A "150", PA-18AS "125", PA-18AS "135", PA-18AS "150"	All	MC70371-002		•							•					•			
		MC70371-003		•							•					•			
		MC91193-00									•								
PA-18S, PA-18S "105" (Special), PA-18S "125", PA-18S "135", PA-18S "150"	All	MC70371-002		•							•								
		MC70371-003		•							•					•			
		MC91193-00									•								
PA-19 (Army L-18C), PA-19S	All	MC70371-002		•							•								
		MC70371-003		•							•					•			
		MC91193-00									•								
PA-20, PA-20 "115", PA-20 "135", PA-20S, PA-20S "115", PA-20S "135"	All	MC70371-00									•								
		MC91193-00									•								
PA-22, PA-22-108, PA-22-135, PA-22-150, PA-22-160, PA-22S-135, PA-22S-150, PA-22S-160	All	MC70371-00									•								
		MC70371-002									•								
		MC70371-003										•							
		MC91193-00										•							
PA-23, PA-23-160	All	MC70371-00							•							•			
		MC91193-00		•	•						•								
PA-23-235, PA-23-250 (Navy UO-1), PA-E23-250	All	MC70371-00														•			
		27-0001 thru 27-2222		•	•														
		27-2223 thru 27-7954089	MC91193-00		•	•						•							
PA-24, PA-24-250, PA-24-260, PA-24-400	All	MC70371-00																	
		MC70371-002									•					•		•	
		MC70371-003										•				•		•	
		MC91193-00										•							
PA-28-140, PA-28-150, PA-28-160, PA-28-180	All	MC70371-00																	
		MC70371-002										•							
		MC70371-003										•							
		MC91193-00										•							
PA-28-151	All	MC70371-002																	
		MC70371-003																	
		MC70371-005																	
		MC70371-006																	
PA-28-161	All	MC70371-002																	
		MC70371-003																	
		MC70371-005																	
	2816001 thru 2816119	MC70371-006																	
		MC70371-003																	
		MC70371-005																	
28-7716001 thru 28-8616057	MC70371-006																		
	MC70371-003																		
	MC70371-005																		
PA-28-181	2843001 thru 2843999	MC70371-002																	
		MC70371-003																	

Eligibility continued on next page

Push Pull Controls and Accessories

Swivel Fittings: Piper Aircraft



Wire Clamps, Swivel Fittings and Studs (Bug Nuts)

Continued from previous page



Swivel Assembly



Swivel Fitting & Stud

Aircraft	Serial Number	Part Number	Location																	
			Aft Hydraulics	Airbox Installation	Baggage Door Assembly	Cabin Door Assembly	Cabin Heat	Cabin Pressure Control	Cabin Vent	Carb Heat and Mix Control	Cowl Flap Control	Engine Control	Fuel Control	Fuselage Press. Air Supply	Hand Brake	Heat and Defrost	Hopper Installation	Turbocharger	Ventilation	Windshield Defroster
PA-28-181	2890001 thru 2890231, 28-7690001 thru 28-8690062	MC70371-002					•				•							•		
		MC70371-003					•				•								•	
PA-28R-180, PA-28R-200, PA-28S-160, PA-28S-180	All	MC70371-00					•													
		MC70371-002					•		•		•									
		MC70371-003					•		•		•									
		MC91193-00					•				•									
PA-28-201T	All	MC70371-002									•				•				•	
		MC70371-003									•				•				•	
PA-28R-201, PA28R-201T, PA-28RT-201, PA-28RT-201T	All	MC70371-002									•				•				•	
		MC70371-003									•				•				•	
		MC91193-00									•				•					
PA-28-235	All	MC70371-00						•												
		MC70371-002					•		•		•									
		MC70371-003					•		•		•									
		MC91193-00					•				•									
PA-28-236	All	MC70371-002						•											•	
		MC70371-003						•											•	
PA-30	All	MC70371-002													•				•	
		MC70371-003													•				•	
PA-31, PA-31-300, PA-31-325	All	MC70371-00										•								
		MC70371-002							•		•		•	•					•	
		MC70371-003								•		•		•	•				•	
	31-2 thru 31-4 31-5 thru 31-7912023 31-7912024 thru 31-8312019	MC91193-00										•								
												•								
PA-31-350	All	MC70371-002								•				•	•				•	
		MC70371-003									•			•	•				•	
		MC91193-00									•									
PA-31P	All	MC70371-00											•						•	
		MC70371-002												•					•	
		MC70371-003													•				•	
		MC70371-005													•				•	
	31P-1 thru 31P-2 31P-3 thru 31P-7730003 31P-7730004 thru 31P-7730012	MC91193-00											•							
PA-31P-350	All	MC70371-00												•						
		MC91193-00													•					
PA-31T	All	MC70371-00													•				•	
		MC70371-002													•				•	
		MC70371-003													•				•	
31T-7400002 thru 31T-7720069	MC91193-00													•						
PA-31T1, PA-31T2	All	MC70371-00													•				•	
		MC70371-002													•				•	
		MC70371-003													•				•	
PA-32-260	All	MC70371-002													•					
		MC70371-003													•					
		MC91193-00														•				
PA-32-300	All	MC70371-002													•					
		MC70371-003													•					
PA-32-301, PA-32-301T	All	MC70371-002													•					
		MC70371-003													•					
PA-32-301FT, PA-32-301XTC	All	MC70371-002													•					
		MC70371-003													•					

Eligibility continued on next page

Wire Clamps, Swivel Fittings and Studs (Bug Nuts)

Continued from previous page



Push-Pull Controls and Accessories

Aircraft	Serial Number	Part Number	Location																	
			Aft Hydraulics	Airbox Installation	Baggage Door Assembly	Cabin Door Assembly	Cabin Heat	Cabin Pressure Control	Cabin Vent	Carb Heat and Mix Control	Cowl Flap Control	Engine Control	Fuel Control	Fuselage Press. Air Supply	Hand Brake	Heat and Defrost	Hopper Installation	TTurbocharger	Ventilation	Windshield Defroster
PA-32R-300	All	MC70371-002					•				•		•							
		MC70371-003					•				•		•							
PA-32R-301, PA-32R-301T	All	MC70371-002					•	•			•									
		MC70371-003					•	•			•									
PA-32RT-300, PA-32RT-300T	All	MC70371-002					•	•			•									
		MC70371-003					•	•			•									
PA-32S-300	All	MC70371-002					•				•			•						
		MC70371-003					•				•			•						
PA-34-200	All	MC70371-002					•	•								•				
		MC70371-003					•	•												
PA-34-200T	All	MC70371-002						•								•				
		MC70371-003						•								•				
PA-34-220T	All	MC70371-002						•						•	•					
		MC70371-003						•						•	•					
PA-36-285, PA-36-300, PA-36-375	All	MC70371-002																	•	
		MC70371-003																	•	
PA-38-112	All	MC70371-002					•				•									
		MC70371-003					•				•									
PA-39	All	MC70371-002									•				•				•	
		MC70371-003									•				•				•	
PA-42, PA-42-1000	All	MC70371-002								•				•						
		MC70371-003								•				•						
PA-42-720, PA-42-720R	All	MC70371-002								•				•						
		MC70371-003								•				•						
PA-44-180	All	MC70371-002												•	•				•	
		MC70371-003												•	•					
PA-46-310P	All	MC70371-002	•			•					•			•						
		MC70371-003	•			•					•			•						
		MC70371-005									•									
		MC70371-006									•									
PA-46-350P (w/G1000)	All	MC70371-002							•					•						
		MC70371-003							•					•						
		MC70371-005									•									
		MC70371-006									•									
PA-46-350P (w/o G1000)	4622001 thru 4622200	MC70371-002	•			•					•			•						
		MC70371-003	•			•					•			•						
		MC70371-005									•									
	4636001 thru 4636999	MC70371-002							•					•						
		MC70371-003							•					•						
		MC70371-005									•									
PA-46-500TP (w/G1000)	All	MC70371-002								•				•						
		MC70371-003								•				•						
PA-46-500TP (w/o G1000)	All	MC70371-002								•				•						
		MC70371-003								•				•						
PA-46R-350T (w/G1000)	All	MC70371-002								•				•						
		MC70371-003								•				•						
		MC70371-005									•									
		MC70371-006									•									
PA-46R-350T (w/o G1000)	All	MC70371-002							•					•						
		MC70371-003							•					•						
		MC70371-005									•									
		MC70371-006									•									