



Instructions for Continued Airworthiness

McFarlane Aviation, LLC. FAA-PMA Part Number MCC291502-0104 Fuel Primer Assembly.
 FAA PMA Number: PQ3732CE

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Approved By:


 Quality Assurance Manager
 
 Engineering Manager
 
 Production Manager



Revisions

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Original	DKB	09/27/2021	Original release
A	DKB	8/17/2022	Changed "FAA approved" to "FAA accepted" in document, changed "approved" to "accepted" in header note.

List of Effective Pages

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Contents

INTRODUCTION.....	3
SPECIAL OPERATING INFORMATION	3
PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION	3
TROUBLESHOOTING.....	3
PLACARDS.....	3
DATA	3
INSPECTION.....	3
RECOMMENDED OVERHAUL PERIODS.....	3
AIRWORTHINESS LIMITATIONS.....	3
ASSISTANCE & REVISIONS	3
REPLACEMENT OF CESSNA FUEL PRIMER.....	4
REPLACEMENT OF CESSNA FUEL PRIMER KNOB AND PISTON ASSEMBLY	5
SERVICING MCFARLANE FUEL PRIMER (P/N: MCC291502-0104).....	6
PRIMER LEAK TEST	7

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SECTION 1

INTRODUCTION

This document is intended to provide for the continued airworthiness of McFarlane Aviation, LLC. PMA Fuel Primer Assembly eligible for installation on various Cessna aircraft. For all items not related to the installation of the McFarlane Aviation, LLC. Fuel Primer Assembly, refer to the basic airplane model service and parts manuals.

SPECIAL OPERATING INFORMATION

The control and operation of the fuel system does not change with the installation of the Fuel Primer Assembly; see applicable Cessna Model Service Manual for the operational control of this system.

PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION

The following sections detail the specific installation, service, and parts associated with the Cessna models 150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, 152, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172RG, 175, 175A, 175B, 175C, 177, 177A, 177B, 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 185C, 185D, 185E, 188, 188A, 188B, 206, 207, 207A, 210-5A, 210G, 210H, 210J, 210K, 210L, 210M, 210N, 210R, A150K, A150L, A150M, A152, A185E, A185F, A188A, A188B, F150F, F150G, F150H, F150J, F150K, F150L, F150M, F152, F172D, F172E, F172F, F172G, F172H, F172K, F172L, F172M, F182P, F182Q, FA150K, FA150L, FA150M, FA152, FP172, FR172E, FR172F, FR172G, FR172H, FR172J, FR172K, FR182, P172D, P206, P206A, P206B, P206C, P206D, P206E, P210N, P210R, R172E, R172F, R172G, R172K, R182, T182, T207, T207A, T210G, T210H, T210J, T210K, T210L, T210M, T210N, T210R, TR182, TU206G, U206, U206A, U206B, U206C, U206D, U206E, U206F, and U206G aircraft. Please see applicable section for replacing your Cessna fuel primer with a McFarlane primer, servicing your Cessna fuel primer with McFarlane replacement parts, or servicing your McFarlane fuel primer.

TROUBLESHOOTING

None Applicable

PLACARDS

None Applicable

DATA

None Applicable

INSPECTION

Additional inspections are detailed in the relevant sections.

RECOMMENDED OVERHAUL PERIODS

None

AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is FAA accepted and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA accepted. No additional airworthiness limitations exist.

ASSISTANCE & REVISIONS

ICA revisions shall be made available on the McFarlane website, www.mcfarlaneaviation.com/ICA. For questions or assistance regarding these Instructions for Continued Airworthiness (ICA), contact McFarlane Aviation, LLC. via email or phone

Email: engineering@mcfarlaneaviation.com

Phone: 1-800-544-8594 (within the US) or 1-785-594-2741

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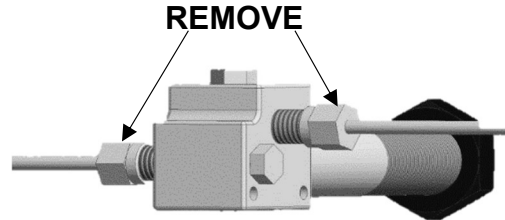
SECTION 2: REPLACEMENT OF CESSNA FUEL PRIMER

Cessna Part Numbers	McFarlane Part Number
0311538-10, 0311538-12, 0311538-8, C291502-0101, C291502-0103, C291502-0104, C291502-0106	MCC291502-0104

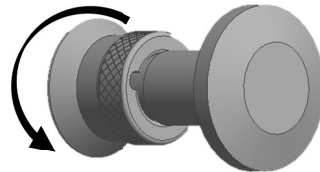
1. Turn off the fuel at the fuel selector valve.

2. Remove fuel line fittings from fuel primer.

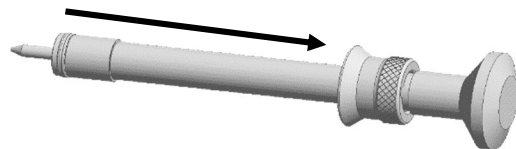
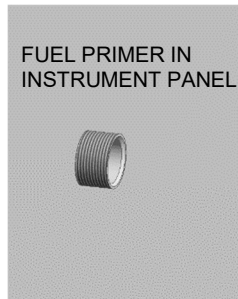
Note: Fuel should stop after line drains.



3. Unthread panel nut. It may be easier to use a 15/16" wrench on the jam nut on forward side of panel.

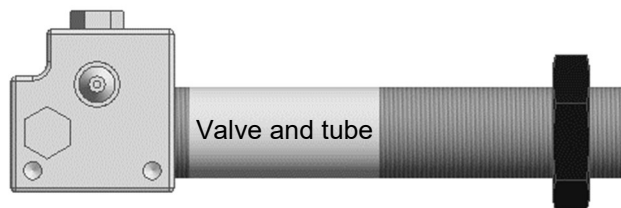


4. Pull knob and piston assembly from the fuel primer tube. The fuel primer tube is now not attached to the panel.



5. Remove primer valve and tube from back of panel.

6. Install the McFarlane fuel primer assembly per the applicable Cessna Model Service manual. First, tighten the knurled aft panel nut tight to the end of the tube for proper positioning of the plastic wear bushing located inside the knurled nut. Second, tighten the forward hex jam nut until the primer assembly is secure in the instrument panel.



7. Perform functional check in section 5 to ensure proper installation and function.

DO NOT LUBRICATE THE FUEL PRIMER. THE MCFARLANE FUEL PRIMER DOES NOT REQUIRE LUBRICATION .

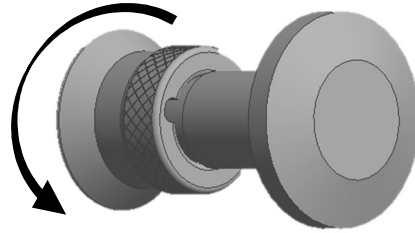
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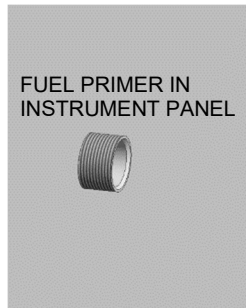
SECTION 3: REPLACEMENT OF FUEL PRIMER KNOB AND PISTON ASSEMBLY

This section details the replacement of the Cessna or McFarlane knob and piston assembly. When the Cessna or McFarlane fuel primer barrel and body assembly is in a serviceable condition, the knob and piston assembly can be replaced separately with McFarlane knob and piston assembly p/n 7711 only.

1. Turn off the fuel at the fuel selector valve.
2. Unthread panel nut. It may be easier to use a 15/16" wrench on the jam nut on forward side of panel.



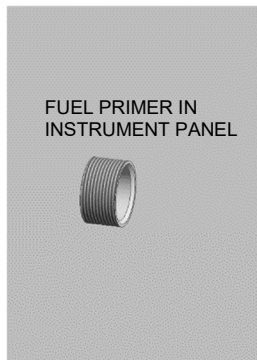
3. Pull Cessna knob and piston assembly from the fuel primer tube. Visually inspect the fuel primer tube for damage to the inner surface. Minor loss of the anodize coating in the fuel primer tube is acceptable



4. Ensure proper quad ring (P/N: 7750) is in the o-ring groove on McFarlane knob and piston assembly (P/N: 7711). Quad ring should not be used on Cessna OEM assembly.



5. Install the McFarlane fuel primer assembly per the applicable Cessna Model Service manual. First, tighten the knurled aft panel nut tight to the end of the tube for proper positioning of the plastic wear bushing located inside the knurled nut. Second, tighten the forward hex jam nut until the primer assembly is secure in the instrument panel.



6. Perform functional check in section 5 to ensure proper installation and function.

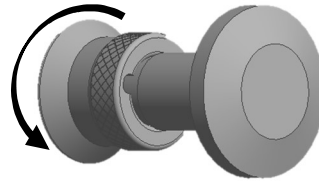
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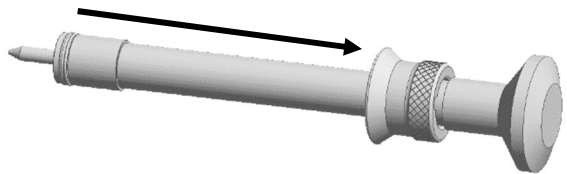
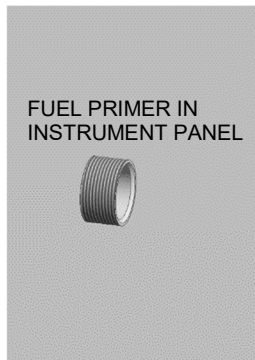
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SECTION 4: SERVICING MCFARLANE FUEL PRIMER (P/N: MCC291502-0104)

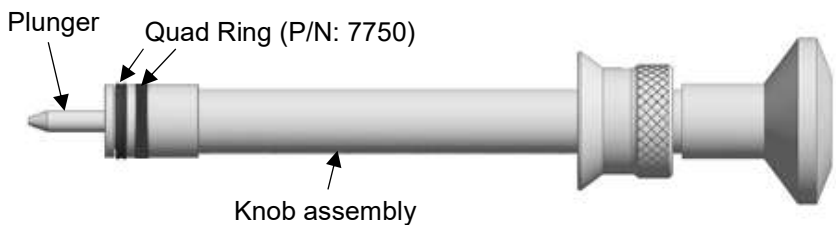
1. Turn off the fuel at the fuel selector valve.
2. Unthread panel nut. It may be easier to use a 15/16" wrench on the jam nut on forward side of panel.



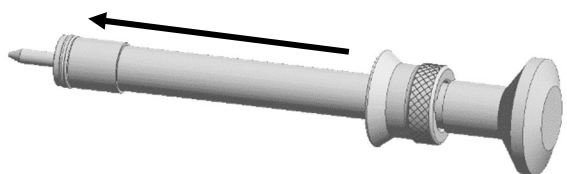
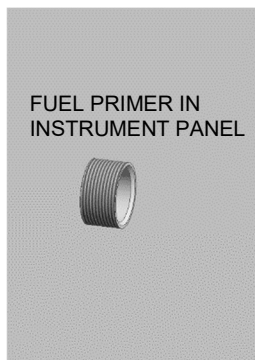
3. Pull knob and piston assembly from the fuel primer tube. Visually inspect the fuel primer tube for damage to the inner surface. Minor loss of the anodize coating in the fuel primer tube is acceptable



4. Visually inspect the quad rings, fuel primer tube, knob assembly, and spring loaded plunger and seal surface for scratches, burrs, or clear marks of wear. If primer tube shows wear, replace with new primer assembly. If the quad rings show wear, replace with McFarlane P/N: 7750. If the knob assembly or plunger shows wear, replace with McFarlane P/N: 7711. If the plunger seal surface in the valve shows wear or is no longer sealing, replace entire fuel primer unit.



5. Install the McFarlane fuel primer assembly per the applicable Cessna Model Service manual. First, tighten the knurled aft panel nut tight to the end of the tube for proper positioning of the plastic wear bushing located inside the knurled nut. Second, tighten the forward hex jam nut until the primer assembly is secure in the instrument panel.



6. Perform functional check in section 5 to ensure proper installation and function.

DO NOT LUBRICATE THE FUEL PRIMER. THE MCFARLANE FUEL PRIMER DOES NOT REQUIRE LUBRICATION.

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SECTION 5: PRIMER LEAK TEST

1. With the fuel selector valve in the on position, use the primer by extending and retracting the knob. Ensure that the primer is working properly. proper operation is determined by smooth resistance to movement as the barrel fills with fuel and again when fuel is pumped out to the engine. If the plunger movement is not smooth or no resistance is felt, the fuel primer is not functioning.
2. Disconnect outlet (engine) line on the fuel primer
3. Ensure the knob and piston assembly is in the closed and locked position.
4. Verify that no fuel is leaking out of the outlet port on the fuel primer. If fuel is leaking, check the plunger and plunger seal surface for damage or debris that could cause a faulty seal.
5. Correct any leakage and reinstall the primer line before returning to service.