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## SERVICE LETTER 228

### Cessna 172 & 175 Hydraulic Pump Replacement on 2100A Floats & 2350A Floats

<b>Aircraft Makes/Model(s):</b>	<b>Float Model(s):</b>	<b>Compliance:</b> Optional	<b>By:</b> MAB
Textron Aviation 172 Series 175 Series	2100A & 2350A	<b>Part Number:</b> 1011867	<b>Approved:</b> SDW
		<b>Date:</b> 7/13/2021	<b>Revision:</b> A

### LOG OF REVISIONS

Revision	Description	Date
A	Initial release	7/13/2021

FAA approval has been obtained for technical data in this publication that affects STC or TSO design compliance.

#### EFFECTIVITY:

This service letter applies to Textron Aviation Skyhawk model 172 series and Skylark model 175 series with Wipline 2100 Amphibian Floats installed per STC SA00674CH or Wipline 2350 Amphibian Floats installed per STC SA00900CH.

#### COMPLIANCE:

Optional compliance

#### BACKGROUND:

Textron Aviation (Cessna) 172 & 175 Hydraulic Pump Assembly 12 VDC p/n 21A09000-239 and Hydraulic Pump Assembly 24 VDC p/n 21A09000-283 have both been discontinued. This service letter provides the option to replace them with pumps p/n 1011849 for the 12 VDC or 1011850 for the 24 VDC.

#### COMPLIANCE METHOD:

Install provided parts as shown in the Work Instruction section of this service letter.

#### APPROXIMATE SHOP HOURS:

The work instruction for this service letter will take approximately 8 labor hours.

#### WEIGHT AND BALANCE CHANGE:

+4.2 LBS, F.S. 6.69

#### WARRANTY INFORMATION:

This service letter does not include warranty for labor and parts.

#### TECHNICAL DATA:

Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at [www.wipaire.com](http://www.wipaire.com).

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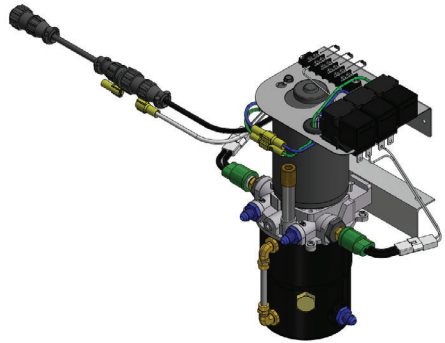
**ITEMS PROVIDED IN SERVICE KIT 1011867-01 (12 VDC HYDRAULIC PUMP ONLY)**

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011849	ASSEMBLY, HYDRAULIC POWER PACK, 12V
2	1	1011851	SPACER, INSTALLATION, HYDRAULIC POWER PACK
3	2	AN4-6A	BOLT, 1/4-28, 0.313 GRIP, UNDRILLED, STEEL
4	4	NAS149F0432P	WASHER, 0.265 ID, 0.032 THK, STEEL
5	2	MS21044N4	NUT, REGULAR HEIGHT, 1/4-28 UNF

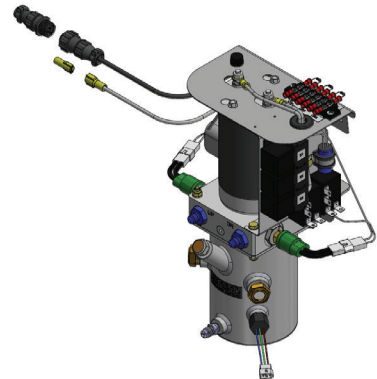
**ITEMS PROVIDED IN SERVICE KIT 1011867-02 (24 VDC HYDRAULIC PUMP ONLY)**

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011850	ASSEMBLY, HYDRAULIC POWER PACK, 24V
2	1	1011851	SPACER, INSTALLATION, HYDRAULIC POWER PACK
3	2	AN4-6A	BOLT, 1/4-28, 0.313 GRIP, UNDRILLED, STEEL
4	4	NAS1149F0432P	WASHER, 0.265 ID, 0.032 THK, STEEL
5	2	MS21044N4	NUT, REGULAR HEIGHT, 1/4-28 UNF

**12 VDC PUMP ONLY**

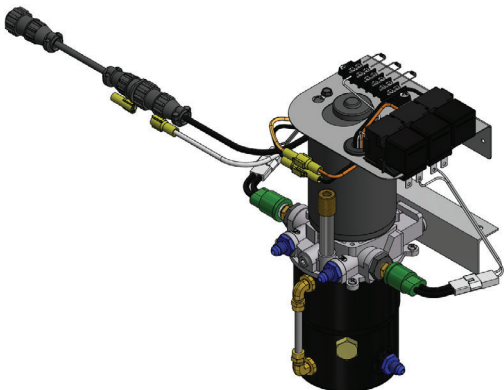


**DISCONTINUED 12 VDC  
HYDRAULIC PUMP 21A09000-239**

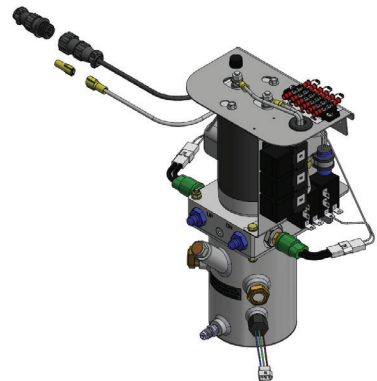


**NEW 12 VDC  
HYDRAULIC PUMP 1011849**

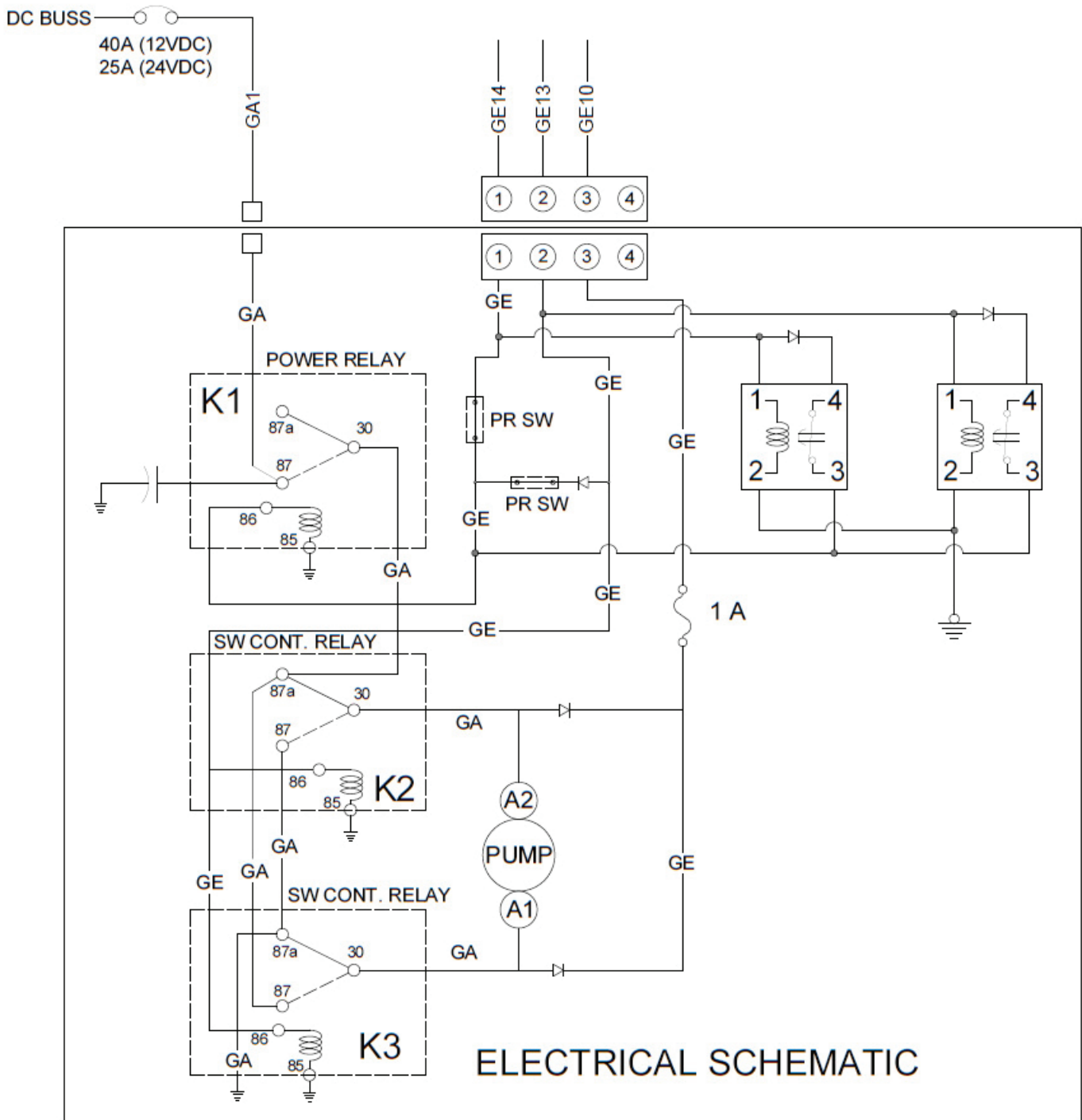
**24 VDC PUMP ONLY**



**DISCONTINUED 24 VDC  
HYDRAULIC PUMP 21A09000-283**



**NEW 24 VDC  
HYDRAULIC PUMP 1011850**



## Work Instructions

### 12 VDC Hydraulic Pump Only

1. Disconnect aircraft battery.
2. Disconnect single pin Molex connector for GA1 wire.
3. Disconnect 4 pin CPC connector from hydraulic power pack assembly 21A09000-239.
4. If aircraft has a hydraulic low level warning system, disconnect wire harness from sensor in reservoir.
5. Drain hydraulic fluid from hydraulic power pack reservoir.
6. Disconnect and cap 21A09000-198 hydraulic line from reservoir to firewall bulkhead fitting.
7. Disconnect and cap 21A09000-197 hydraulic lines from pump up and dn ports to firewall bulkhead fittings.
8. Unbolt and remove hydraulic power pack 21A09000-239 from firewall.
9. Install new hydraulic power pack 1011849 onto existing angle 21A09348-020 with spacer 1011851 between pump and angle. Use supplied hardware to mount pump to angle. Use existing hardware to mount upper plate through firewall.
10. Re-install hydraulic lines 21A09000-239 onto pump manifold up and dn ports.
11. Re-install hydraulic lines 21A09000-198 to pump reservoir fitting.
12. If aircraft has a hydraulic low level warning system, reconnect wire harness to sensor in new reservoir.
13. Re-install 4 pin CPC connector. See electrical schematic.
14. Cut single pin Molex connector from GA1 wire. Install 73F-250-32NL connector onto GA1 wire. Connect GA1 wire to power wire on hydraulic pump assembly. Run ground wire from hydraulic pump to ground on aircraft. See electrical schematic.
15. Reconnect aircraft battery, service pump reservoir with MIL-H-5606 hydraulic fluid, and perform a retraction/extension test to make sure system is functioning correctly. Watch the system for leaks and add MIL-H-5606 hydraulic fluid as needed.

### 24 VDC Hydraulic Pump Only

1. Disconnect aircraft battery.
2. Disconnect single pin Molex connector for GA1 wire.
3. Disconnect 4 pin CPC connector from hydraulic power pack assembly 21A09000-283.
4. If aircraft has a hydraulic low level warning system, disconnect wire harness from sensor in reservoir.
5. Drain hydraulic fluid from hydraulic power pack reservoir.
6. Disconnect and cap 21A09000-198 hydraulic line from reservoir to firewall bulkhead fitting.
7. Disconnect and cap 21A09000-197 hydraulic lines from pump up and dn ports to firewall bulkhead fittings.
8. Unbolt and remove hydraulic power pack 21A09000-283 from firewall.
9. Install new hydraulic power pack 1011850 onto existing angle 21A09348-020 with spacer 1011851 between pump and angle. Use supplied hardware to mount pump to angle. Use existing hardware to mount upper plate through firewall.
10. Re-install hydraulic lines 21A09000-239 onto pump manifold up and dn ports.
11. Re-install hydraulic lines 21A09000-198 to pump reservoir fitting.
12. If aircraft has a hydraulic low level warning system, reconnect wire harness to sensor in new reservoir.
13. Re-install 4 pin CPC connector. See electrical schematic.
14. Cut single pin Molex connector from GA1 wire. Install 73F-250-32NL connector onto GA1 wire. Connect GA1 wire to power wire on hydraulic pump assembly. Run ground wire from hydraulic pump to ground on aircraft. See electrical schematic.
15. Reconnect aircraft battery, service pump reservoir with MIL-H-5606 hydraulic fluid, and perform a retraction/extension test to make sure system is functioning correctly. Watch the system for leaks and add MIL-H-5606 hydraulic fluid as needed.



## **Aircraft Closing & Return to Service**

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 228.