AIRFLOW PERFORMANCE

Continental/Titan 4 Cylinder Cold Air Sump
FM-150 Cable Bracket Kit
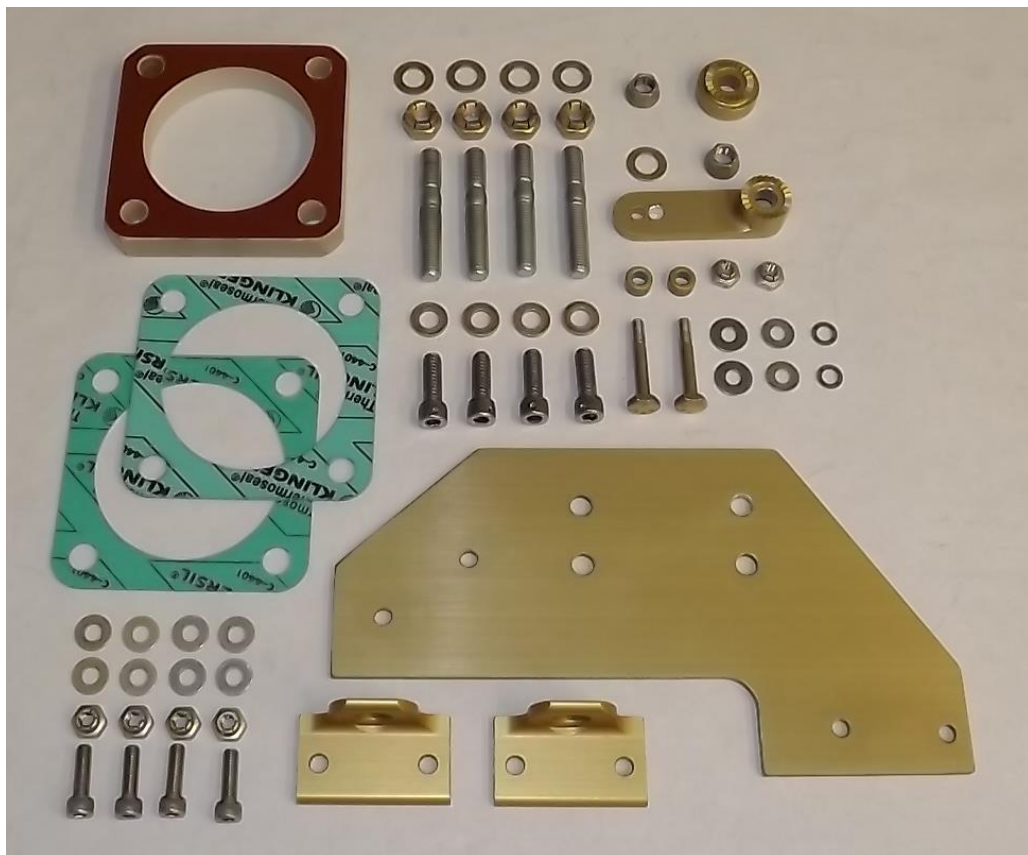# Installation Manual

7DCBKIT150

Airflow Performance, Inc.
111 Airflow Dr.
Spartanburg, SC   29306
864-576-4512
www.airflowperformance.com

<u>WARNING!!!</u>

All of Airflow Performance, Inc. products are EXPERIMENTAL. It is the responsibility of the installer to ensure that all installation procedures in this manual are performed in accordance with AC43-13 Acceptable Methods, Techniques and Practices. This includes ensuring standard torque values are used on all installation hardware provided with this kit. Improper use, modification or failure to properly lockwire can or will cause engine failure to the extent that damage, injury or death may occur. Airflow Performance, Inc. will not be held liable for any damages that occur due to incorrect installation or incorrect use of hardware. If you have any questions regarding the proper use of any of these parts, consult a qualified mechanic.

Parts List

| Qty	P/N	Description		
	Kit Part Number 7DCBKIT150	**Continental 7 Degree Sump FM-150 Cable Bracket Kit**		
Qty	**P/N**	**Description**		
		P/N 7DCBKIT150		
1	2090271	7 Degree Throttle/Mixture Bracket		
2	1010059	FM-100 Gasket		
4	HW-1903	5/16 X 2 Stud ST-18		
1	1090128	Throttle Shaft Spacer		
4	MS21045-5	5/16-24 Locknut		
5	AN960-516L	Washer		
1	2090269	Straight Throttle Lever		
2	AN3-11A	Bolt		
2	1090274	Cable Brackets		
4	HW-0344-SSD	1/4-20 x 3/4 SHCS Drilled SS		
4	AN960-416	Washer		
1	1010219	FM-100 .50" Phenolic Spacer		
6	MS21045-3	Locknut		
2	MS21042-5	Locknut		
4	HW-0341-SS	10-32 x 5/8 SHCS SS		
10	AN960-10L	Washer		
2	HW-1303-SS	Large Area Washer		
2	1090276	.2 Spacer		
2	HW-1306-SS	Stainless Steel Washer		

The following instructions pertain to installation of an FM-150 fuel control to a Continental IO-360 with a 7° front entrance sump.

Bracket Installation

Install both Cable Brackets, P/N 1090274, on the Throttle/Mixture Bracket, P/N 2090271 prior to installing the bracket on the sump.

NOTE: Ensure correct positioning of Cable Brackets when installing them. Failure to do so may result in interference with the sump.
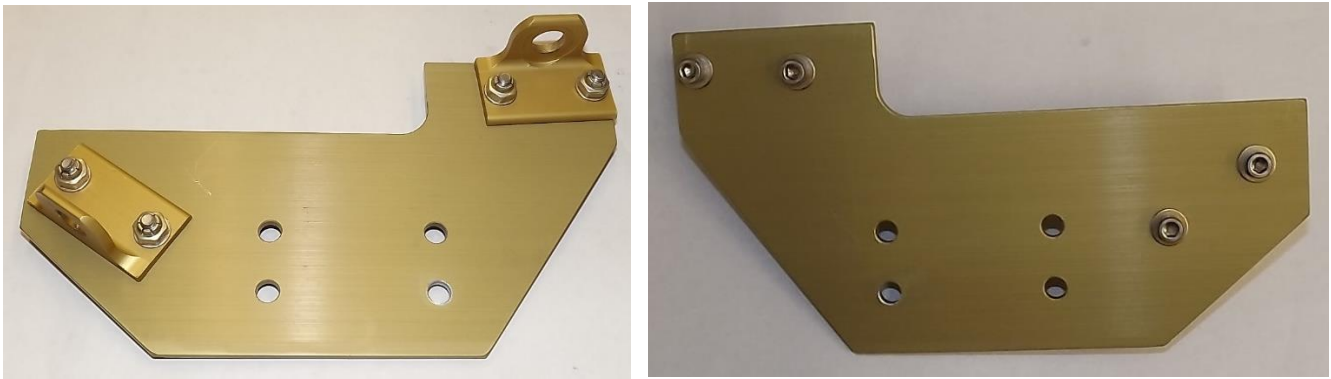
Secure the Cable Brackets to the Throttle/Mixture Bracket using the 10-32 x 5/8" Socket Head Cap Screws, P/N HW-0341-SS, AN960-10L Washers and MS21045-3 Lock Nuts provided. Torque Lock Nuts to 25-30 in lbs.

Once the Cable Brackets are installed, secure the Throttle/Mixture Bracket to the sump using the ¼-20 x ¾" Socket Head Cap Screws, P/N HW-0344-SSD, provided. Torque cap screws 35-40 in-lbs. Lock wire the screws in accordance with AC43-13.

Fuel Control Installation

Install the 5/16 x 2" Studs, P/N ST-18, in the sump using Loctite 620 to secure them. Upon installation, the Studs should extend approximately 1 1/2" from the face of the sump.
Allow Loctite to set up before installing the Spacer, Gaskets and Fuel Control.
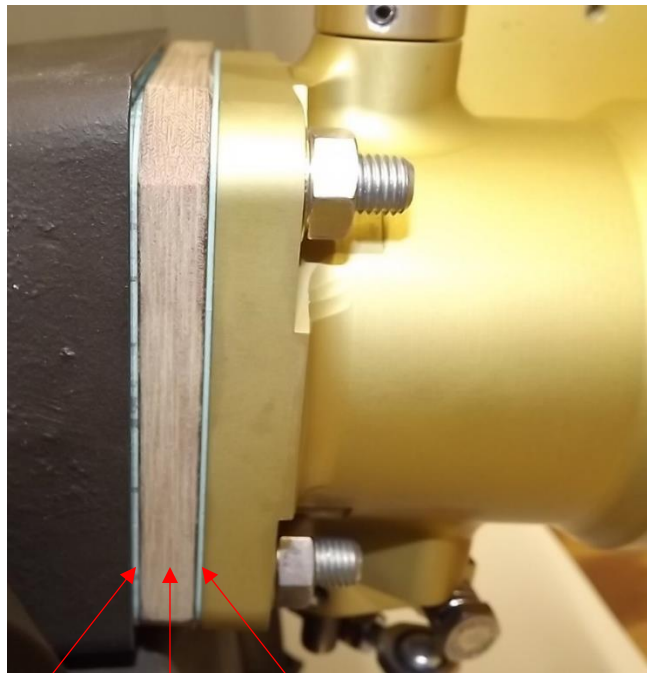

Prior to mounting the fuel control to the sump, it will be necessary to remove the Throttle Lever from the Throttle Stop Lever and replace it with the Throttle Shaft Spacer, P/N 1090128, provided. Secure the Throttle Shaft Spacer to the Throttle Shaft using the MS21042-5 Lock Nut provided. Do not install a washer under the Lock Nut. Torque the Lock Nut to 110-115 inch pounds.

Install the Straight Throttle Lever, P/N 2090269, on the opposite side of the Throttle Shaft and secure using an AN960-516L Washer and an MS21042-5 Lock Nut. Do not torque the Lock Nut at this time. The lever will need to be loose for rigging purposes.


With the ST-18 Studs installed and secure, install the FM-100 Gaskets, P/N 1010059, and .50" FM-100 Phenolic Spacer, P/N 1010219, as shown.

Gasket   Spacer   Gasket

Position the FM-150 Fuel Control with the throttle and mixture levers at the bottom of the sump. Secure the Fuel Control to the sump using the 5/16-24 Lock Nuts, P/N MS21045-5, and AN960-516L Washers provided. Torque 5/16 Lock Nuts to 110-115 inch pounds.

With the Fuel Control mounted, there will be minimal clearance between the sump and the idle linkage rod end. This is normal and not cause for alarm.
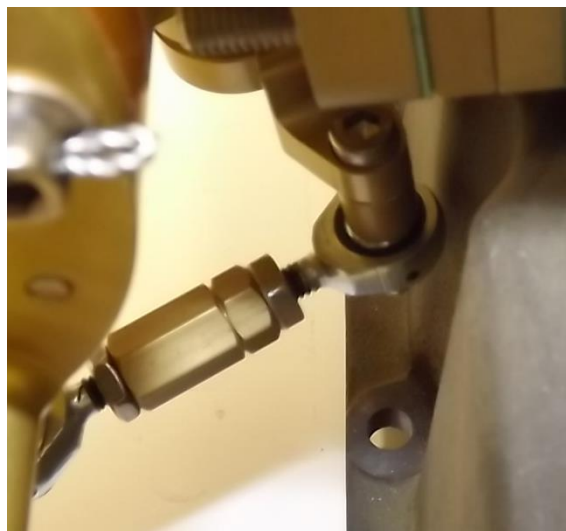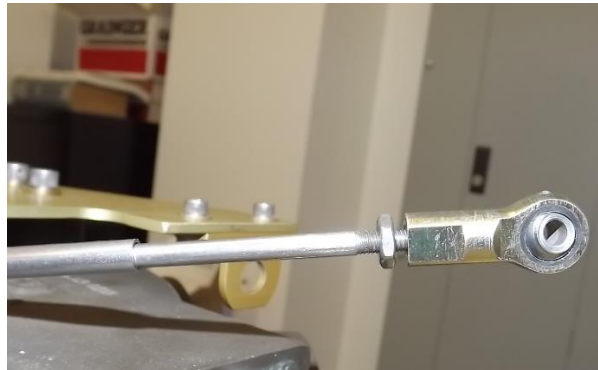
Cable Installation and Rigging

Install Mixture and Throttle Cables in the Cable Brackets leaving Jam Nuts loose for adjustment.

Next, install the Jam Nuts and Rod Ends onto the Cables. Leave the Jam Nuts loose for adjustment later.

Connect the Throttle Cable Rod End to the Straight Throttle Lever using the AN3-11A Bolt, Spacer, Washers and Locknut provided. Install the bolt as shown with large area washer, small washer, the rod end and the .2 spacer next to the throttle lever.

Next, connect the Mixture Cable Rod End to the Mixture Lever using the AN3-11A Bolt, Spacer, Washers and Locknut provided.
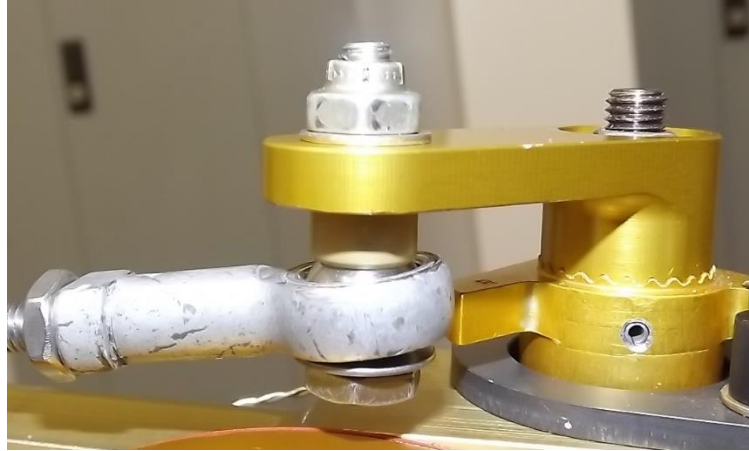
The parts used to secure the rod ends to both the Mixture and Throttle Levers should be assembled in the order shown in the picture below. This will prevent binding or rubbing of the Rod End against the Large Area Washer.


Once you have connected the Mixture and Throttle Cables to their respective levers, you can now rig them to achieve proper throw and tighten the appropriate hardware. Torque the MS21045-3 lock nuts and AN3-11 bolts to 25-30 In-lbs.

Rig the Throttle Cable so that in the Wide-Open Throttle position, the cockpit control runs out of travel before the Throttle Stop Lever contacts the Throttle Stop Pin.

Up to 1/16" clearance is acceptable for the clearance between the throttle stop lever and the pin at wide open throttle.

Rig the Mixture Cable so that the Mixture Stop Lever contacts the the stop before the cockpit control runs out of travel.
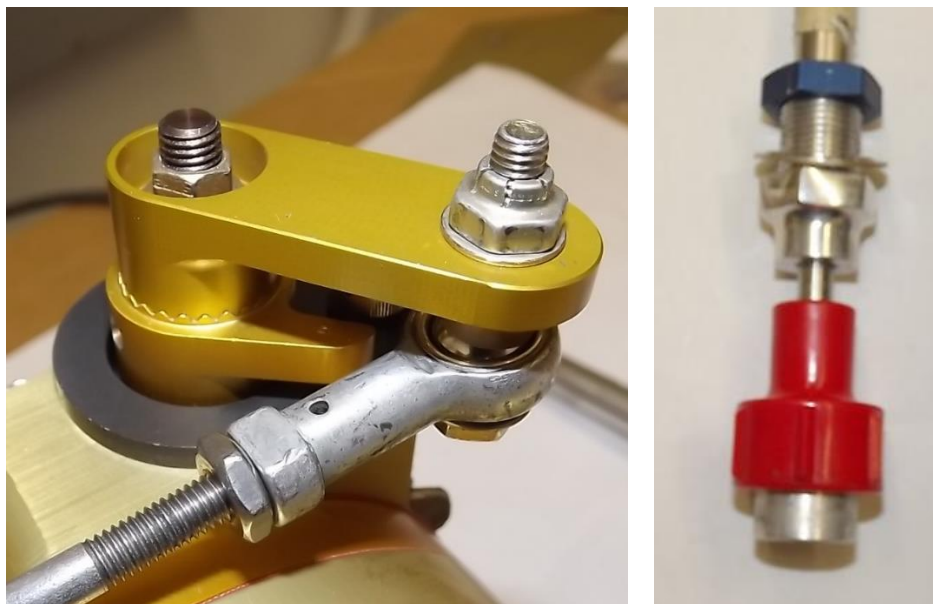
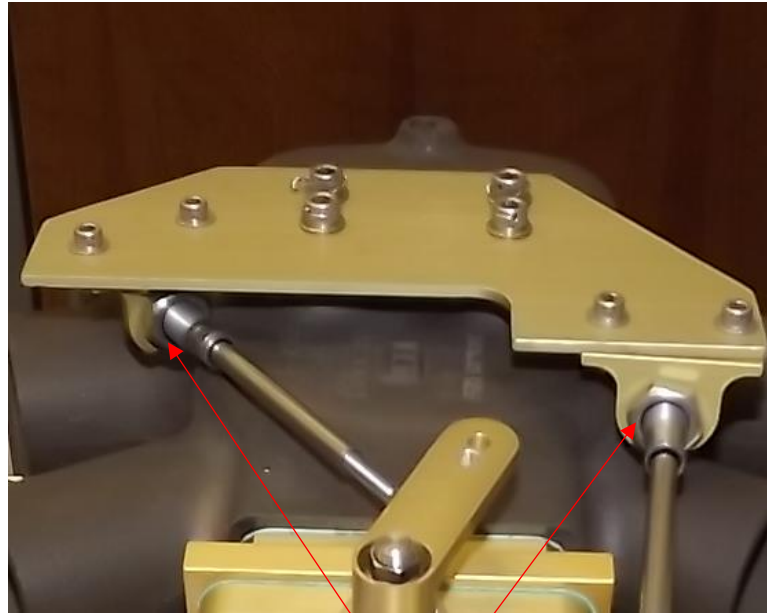**NOTE: Cables shown above are shown for illustrative purposes only.**

Once the Throttle and Mixture Cables have been rigged correctly, it will be necessary to torque the cable and rod end jam nuts appropriately.

Torque the rod end jam nuts to 20-25 inch pounds.
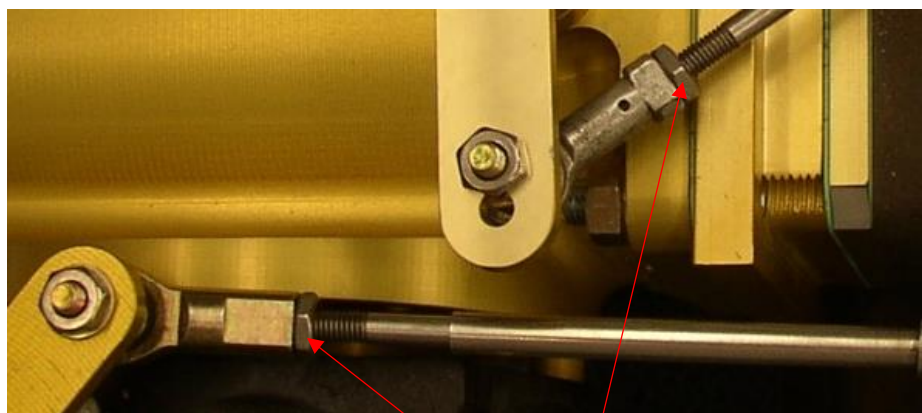
20-25 in lbs

Torque the 4 11/16" cable adjustment jam nuts to 90-100 in lbs.

90-100 in lbs

Torque the MS21042-5 lock nut on the throttle lever to 110-115 in-lbs. Torque the MS21042-4 lock nut on the mixture lever to 25-30 in-lbs. Insure proper travel, rigging of the controls after torqueing all the adjustments and lock nuts. Insure cables and controls do not bind through the entire travel of the control.

Final Assembly