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Service Bulletin No. SB-AG-002
October 17-1977

SUBJECT: REPLACEMENT OF BETA LIGHT MICROSWITCH

MODELS AFFECTED:

SERIAL NUMBERS AFFECTED

	<u>KIT</u>	<u>ENGINE</u>	<u>AIRFRAME</u>
Rockwell Commander S2R	1	56046	1712R
with United Aircraft of	3	56166	1873R
Canada PT 6A-34 AG engine	4	56186	5003R
	5	56218	5062R
	6	56187	5057R
	7	56228	1877R
	8	56240	1876R
	9	56229	1872R
	10	56219	5058R
	11	56248	2185R
	12	56250	5071R
	13	56247	5065R
	14	56265	2033R
	15	56288	1926R
	16	56284	1949R
	17	56289	5073R
	18	56302	5072R
	19	56303	2256R
	20	56308	5074R
	21	56315	5075R
	22	56316	5076R
	23	56309	2260R
	24	56380	2366R
	25	56381	2368R

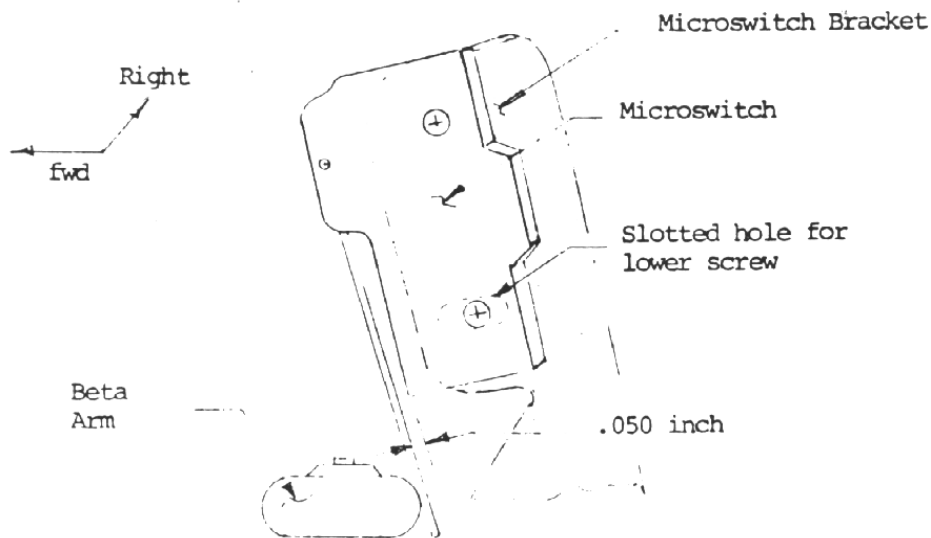
COMPLIANCE TIME: At the next regularly scheduled inspection interval, not to exceed the next 50 hours of operation.

PURPOSE: To provide instructions for replacement of the beta light microswitch with an improved microswitch installation.

FAA APPROVED

INSTRUCTIONS:

1. Remove the spinner and the two forward cowling sections.
2. Obtain a suitable 3 arm hub puller. Position the puller post against the prop dome center screw and attach the arms to the forward end of the beta rod assembly. Be sure to position the puller so that it pulls smoothly and equally on each of the three beta rods without warping the beta rod assembly. Turn the center post of the puller enough to retract the beta rods and the brass low stop collar approximately one-half inch. This is done to obtain wrench clearance to the two nuts that mount the beta light microswitch bracket to the front case of the engine.
3. Remove and replace the existing beta light microswitch and bracket with the new microswitch and bracket that are supplied with the kit. Reconnect the wire terminals to the "common" and "normally closed" screws on the back of the microswitch. (See Attachment I for installation).
4. Remove the hub puller before adjusting the microswitch.
5. For the initial adjustment of the microswitch, position the body of the microswitch as shown on the sketch below:



Use the lower mounting screw to adjust the microswitch so that the operating lever is within .050 inch of the microswitch body with the brass low stop collar in its full aft (normal ground) position. This is an initial trial setting.

6. Start the engine and pull the propeller out of feather. The beta light should not illuminate when the propeller reaches its fine pitch stop. Slowly pull the power lever through the reverse gate into the reverse (beta) range. The beta light should illuminate within the first .250 inch of power lever motion past the reverse gate as measured on the quadrant where the power lever arm meets the quadrant decal.

Adjust the microswitch body forward to make the light come on at more aft positions of the power lever, or vice versa.

7. Make a log book entry certifying compliance with this Service Bulletin.

MATERIAL REQUIRED:

1. Replacement beta light microswitch assembly consisting of:
 - 1 ea. BZ-2RW805551-A2 Microswitch (Honeywell P/N)
 - 1 ea. P/N 9054-41 mounting bracket
 - 2 ea. AN526-6-R16 screws
 - 2 ea. AN 365-632 elastic stop nuts
 - 4 ea. AN 960-6 washers
2. Compliance Card

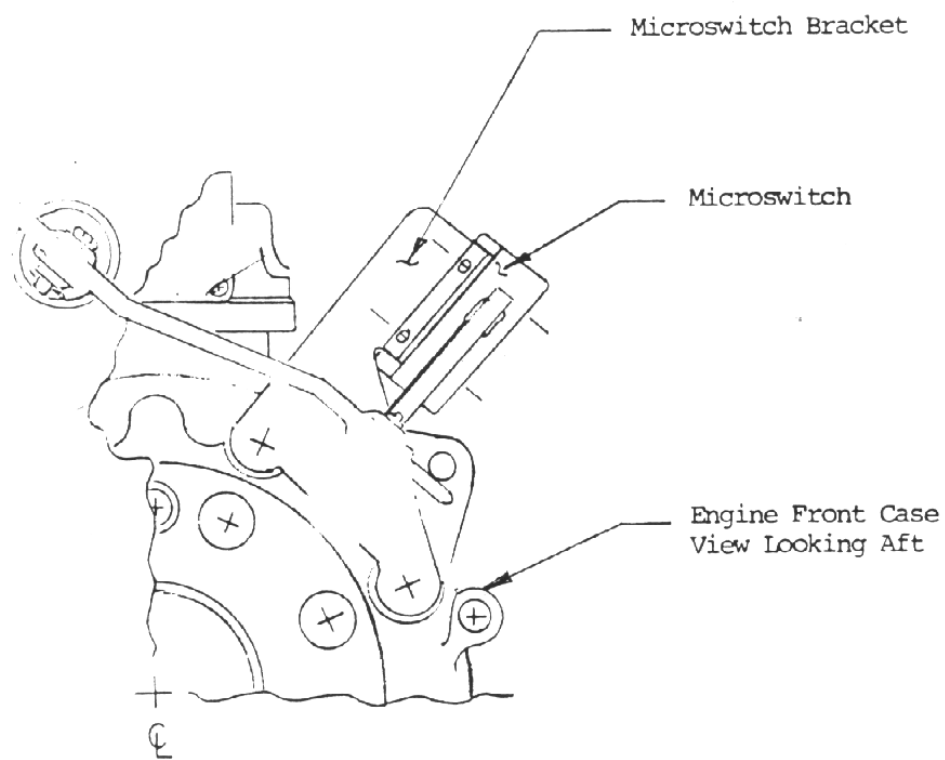
AVAILABILITY OF PARTS:

Ayres Corporation Parts Department, Albany, Georgia

AYRES CORPORATION SERVICE BULLETIN NO. 002

ATTACHMENT I

Microswitch and Bracket Installation



Mount microswitch and bracket on the front case of the engine as shown above. Be sure and attach the microswitch bracket to the engine with the flange facing forward. Retorque mounting nuts 145 in-lb min. to 165 in-lb max.