

SEAREY GEAR ALERT

Aircraft Components Inc.

Model: ACI 2070A

The SeaRey Gear Alert System is an electronic device that provides a loud non-cancelable voice-warning if a landing is attempted with the gear in the wrong position.

The system consists of an electronic module, and two push-type yellow illuminating switches (switch-lights) that mount on the instrument panel. One switch-light is labeled for landings on water and the other for runways. The electronic module is connected to gear position indicating lights, a landing flap position switch, the pitot line and the pilot headset. Voice prompts and warnings are heard in the pilot headset and through a small speaker in the electronic module. The switch-lights provide visual prompts.

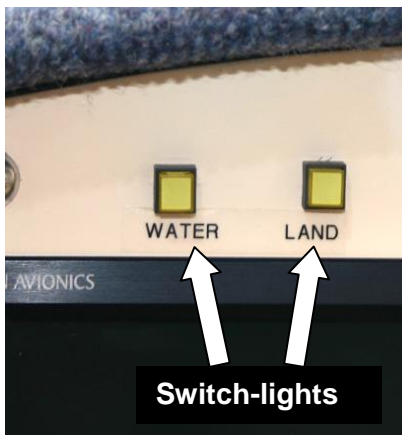


Unlike other gear warning systems the SeaRey Gear Alert system does not give “false alerts”. The system only becomes active after the airspeed has increased above a user-determined activation speed (initially factory preset to activate at 60 mph when airborne.)

On takeoff, the system will warn if the gear is accidentally left down after the flaps are up.

On approach, landing flap (20 or greater on the SeaRey) is the preferred initiator of the SeaRey Gear Alert landing sequence of audio and visual prompts. This provides ample time to react to warnings with the aircraft still some distance from touchdown.

Unlike other systems that rely only on flap position, if for any reason landing flap is not selected the SeaRey Gear Alert will initiate its landing prompts when the aircraft slows to the activation speed (60 mph.)



Finally, systems that rely only on lights, tones and voice confirmations have been ignored or cancelled by a distracted pilot.

The SeaRey Gear Alert system requires the pilot to actively indicate the desired type of landing. The system then provides a voice warning of an unsafe condition (wrong gear position for the intended type of landing or an asymmetric gear condition.) Otherwise, the pilot hears confirmation of the type of safe landing selected.

Gear Alert Comparison

Function	D.L.	R.G.	C.V-J	ACI- E	ACI-C	ACI-2070A
Gear Alert Type - buzzer			Yes			
Gear Alert Type - lights		Yes				Yes
Gear Alert Type - verbal	Yes			Yes	Yes	Yes
Actuation - flap	Yes	Yes	Yes	Yes i.		Yes
Actuation - airspeed				Yes	Yes	Yes
Pilot simply cancels alert	Yes h.	Yes f.		Yes		
Pilot must select landing type			Yes		Yes	Yes
Confirms - safe landing type				Yes	g.	Yes
Other Warning - unsafe gear				Yes	Yes	Yes
Other Warning - raise gear						Yes j.
Prevents false warnings	a.	a.	a. b.	Yes	Yes	Yes
Warns – for all flight scenarios	c.d.	c.	c.d.	e.	e.	e.
System test				Yes	Yes	Yes
System disengage		Yes f.		Yes	Yes	Yes

System Notes:

- D.L.** Flap-actuated, voice-alert system with “loop till cancel” function.
R.G. Flap-actuated, flashing LED-alert system with timed pause.
C.V-J Flap-actuated, buzzer-alert system with pilot select landing switch.
ACI-E ACI 2048 experimental, airspeed-activated, voice-alert system with flap backup.
ACI-C ACI 2042 certified, airspeed-activated, voice-alert system with select landing.
ACI 2070A **SeaRey Gear Alert**

- a. No, the system false alerts when selecting flaps on the ground.
- b. No, the system false alerts when raising flaps after takeoff.
- c. Will not alert if flaps are forgotten.
- d. Will not alert if flaps remain down while flying to a second destination.
- e. Will not alert if speed never exceeds system activation speed (60mph.)
- f. Alert can be paused for one or two minutes then returns if flaps are down.
- g. Will be modified to confirm landing type OK (same as the SeaRey Gear Alert)
- h. Will either alert once or can be modified to loop till cancelled.
- i. Activation speed is above flap selection speed. (won't work in a SeaRey.)
- j. On takeoff, if gear is left extended after flaps are up.