

EVOLUTION *owner's* newsletter

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LANCAIR

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Information for the Evolution Owner and Builder

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Touch Screen Failures and your Pressure Controller

As you may know, we are working on a newer design touch screen to replace the Mortiz/Radiant touch screen unit. Due to the low production volume and some of their vendors discontinuing certain components, Radiant will not be manufacturing more of the existing units after mid-2015. We are working to ensure that in the event of a future screen failure on a Moritz/Radiant unit, we will have a “plug in” unit that can take over those functions and offer an overall improvement as well. The most common type of failure on the current Radiant unit is the touch screen becoming unresponsive or “going black”. The suspected root cause of this failure is a heat sensitivity of the unit which causes a warping of the touch screen board (it is these boards that are

becoming unavailable). If this happens during flight you will lose the ability to control the screen based functions including the pressurization. This is an inconvenience but not an emergency. The pressurization controllers are designed to “Fail Safe” and to maintain the current cabin differential pressure present if a controller failure occurs. It will schedule a pressure reduction during descent and will go to zero at the previously selected destination airport altitude. What it will not do is increase the differential if a climb is initiated after the failure.

If the ship’s power is present, the “Weight on Wheels” switch will ensure a zero pressure upon touchdown at the preselected altitude. If the landing airport is higher than the preselected altitude you may choose to initiate a manual “Cabin Dump” by actuating that switch just before landing. If ship’s power is not present as you would find in a complete electrical failure or a pilot initiated electrical shutdown, the pressure will still schedule down to the preselected landing field selection. If a zero cabin pressure level is desired before that altitude, it would have to be as a result of normal cabin leakage at idle or low power unless you have the optional “fresh air” manual air source which could be selected. It is our intention to have available the new improved unit for elective purchase in 2016.



ADS-B, Some answers

I would not presume to try and re-explain the entire concept, I can leave that to the myriad articles in the national mags. I will try and answer a couple Evolution-specific questions that you may have.

There are two Traffic Advisory Systems (TAS) that have been installed with standard Evolution panels. Earlier aircraft have the Avidyne TAS 620. If you have one of these and wish to get it upgraded, please call Alma Ridgell in Avionics for an explanation of your options and costs. Later aircraft, after S/N 23 have the Garmin GTS 800 TAS along with the GTX-33 ES (Extended Squitter). There are some software variations in the GTS 800's and again check with Alma to ensure you have the latest versions. This combination gives you what is called ADS-B "Out" capability. In other words you are transmitting (via your transponder signal) your altitude, trend of climb or descent and your direction of movement. What you will soon be getting, by way of a software update from Garmin, is ADS-B "In", which enables you to see other aircraft (also equipped with the Extended Squitter), their altitude differential and trend, plus their direction of movement in relation to your aircraft. These targets will appear as a yellow dot on your MFD or traffic page with the + or - altitude trend and differential, but now will also display a straight line off the target pointing in that target's direction of movement relative to your position. In other words, if that line points at you, you are merging. Of course you also still get the aural traffic alerts. This system is not affected by your aircraft's altitude in relation to the ground tracking stations and updates once per second.

Some common questions about the different GTS products pertain to range and power. The 800 is a 40 watt system. The 820 TAS is a 250 watt system and the 850 is a 250 watt TCAS 1 system. The higher power systems give longer range needed in high speed jet environments (higher closing speeds require more "notice"), 40 miles maximum rather than the 12 miles on the 800. All three systems can track 60 targets and display 30 and all are effective up to 55,000 feet. The full Mode-S Aircraft I.D. information appears only on the 820 and 850. There is also an available ADS-B "In" Weather Product which requires either a portable GDL 39-3D (a portable unit for iPad) or a larger permanently mounted GDL 88 which will generate ADS-B weather displays on your MFD. These choices



are not really needed because they would be in addition to your XM weather which remains unchanged and should continue to fill your weather information needs.

Are you considering retrofitting the BE De-Ice Boots?

A consideration for those planning on retrofitting the ABE Aerospace Ice Shield boots onto your currently flying Evolution. If you have leading edge lights or any non-standard leading edge devices, your boot will need to be custom made. The location, number, and size of these provisions will determine the extra cost and delay. The choice is to remove the item and bond in a fill panel.



Pre-Owned Evolutions

From time to time “pre-owned” (love that euphemism) Evolutions come on the secondary market. This is to be expected, the actual “metric” being that it’s normal to have around 5% of a fleet type on the market at any given time. It’s certainly normal and of no concern unless there would be a common reason for such sales. The metric holds for the Evolution and there is no common reason for the re-sales. Reasons to sell have ranged from “My wife wants a Jet”, or “I need more seats”, to changes in business and financial concerns. To my knowledge, none have been due to being dissatisfied with their airplane.

If that time comes for you, you will likely use a broker in order not to be bothered with the advertising, repeated inquiries, escrow set up, etc. You may know that Lancair offers a brokerage service and that there is at least one other very reputable service available to you. I have heard the belief expressed from time to time that Lancair “would rather sell a new plane” and therefore that we would not be the best choice as a broker. That isn’t true, and I’ll explain why....(shameless pitch follows).

First and almost without exception, anyone responding to advertising, or visiting a show, or is just curious, talks to us first. They want to know about the Evolution, how much it costs, how you get one, etc., just like you did. In the course of those conversations, if it becomes apparent that they may be a candidate for a used aircraft, we do not hesitate to inform them of the availability of any used aircraft we have listed, nor do we denigrate those that are not our listings. In fact, virtually every one looking at an aircraft we do not list calls us for further information on that aircraft! We freely answer those questions to the extent of our knowledge and truthfully. So, we almost universally get first crack at the inquiries and if a used aircraft is in the mix, we are happy to oblige with a listed aircraft. Why, would we do that you ask? First, Lancair absolutely wants to see those used aircraft OFF the market as quickly as possible, and for the highest price, regardless of who the broker or seller is. This is good for us, the seller, and current owners alike because it maintains the value of your airplane. But, what about the sales commissions, why would we or one of our dealers sell a used aircraft instead of new? We ensure that is a viable option by having a commission structure that pays the selling sales person as well as Lancair for the efforts to sell the aircraft regardless of territory. In addition, we offer a complete sales service package that includes:

- ***National print, online, and Lancair.com advertising at no charge***
- ***Demos may be provided by Lancair (with the approval of and at expense of the owner)***

Pre-Owned Evolutions, *continued*

- **Lancair provides "pre-buy" inspection performed by Cascade Aircraft Mgt. or Performance One at no charge**
- **Lancair provides or arranges escrow services**
- **Lancair provides registration and change of ownership document assistance**
- **Lancair provides up to 6 hrs. transition training for new owner (instructor only) at no charge**
- **LOBO notification by Lancair for new owner**
- **Industry standard commissions**

Your aircraft sale is treated professionally at all times by 3 full time Evolution sales professionals with a full time support staff. The Lancair support staff answers the telephone during regular business hours, pass along messages, and see that calls are returned. If you decide to sell your Evolution, why not let us do that for you?

Your Engine Warranty

Sometimes factory warranty coverage is treated like insurance, in that we sort of ignore it until we need it, and only then do we read the "fine print". Something came up recently that caused me to review the coverage on a new PT6A-135A. Except for those of you that were able to get the special promotion 5 yr., 2500 hr. Elite warranty, do you recall what your base coverage is? It is 1000 hours with no calendar limits. What could be better for

an Evolution owner who may fly their aircraft 250 hours or less per year? That is full warranty coverage for at least 4 years, and that's a pretty good deal. Keep this in mind if you do need to do any major component disassembly of your engine for any reason such as a prop strike or a FOD event, etc. Be sure that you use a Pratt approved maintainer to do that work or your warranty coverage on the entire engine may be voided. At least check with an approved P&W shop before doing any major disassembly.

Finally, what mistakes are you making?

There is an article in the February 2015 issue of AOPA PILOT's Turbine edition by Neil Singer, 10 Jet Pilot Errors. This article really hits the nail on the head regarding the same few errors that we ALL (I bet) occasionally make. There is at least one in there that really bugs the crap out of me and I bet you will find at least one that prompts the "I hate it when I do that!" response. I strongly recommend this short but "spot on" article. If you are not currently signed up for the Turbine edition of AOPA pilot, I highly recommend it. You get all the usual stuff plus added pages directed specifically at jet and turboprop pilots.



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