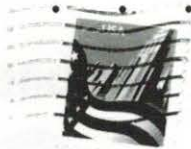


Letters to the Editor



Hi Frank,

My name is Ann and I got your email from the Airflow Club of America website. This may seem like an odd request, but do you have any members (or advice) on where to find a '36 Airflow?

The motivation to my question is that my dad is turning 70 this year, and when I asked him what his "dream car" was, he quickly said, 1936 Chrysler Airflow. He is a retired body man, so he's restored many cars for other people, but I wanted to find his "dream" for himself.

I'm not familiar the classic cars resale market, so I've tried to look online. I figured that maybe I'd try to find someone willing to let go of their Airflow, or they could give me tips on where to find one.

If you have any tips, suggestions or names, any help is appreciated.

~ Sincerely, Ann Ling

Frank,

I've been driving the C17 just about every chance I get these days. Had it for a couple of months now, and I want it to be a car I can just get in and drive. It is, sort of.

Last evening Barbara and I drove it to the monthly meeting of the local AACA chapter. It was dusk; I turned on the lights. About a mile from our destination we got a faint whiff of wood smoke. This is in Mission Valley, right in San Diego. People don't burn leaves here. Could it be outdoors? There's hardly any wood in this car...

We pulled into the parking garage and the smell was still there, maybe stronger. Stepped out of the car, and nothing. Has to be coming from inside? Not much odor under the hood. Check inside again — oh oh. There's a wisp of smoke coming from the drivers side defroster vent. (C17s have defrosters.) Inside the driver's side glove box door (the radio is out at the moment) I see a fluffy blanket of old insulation. Wonder if that stuff could burn?

There's more smoke now. I crawl under the dash, hanging by my heels. Can't see a thing. Try my cell phone flash light. Lots of wires, more of that insulation. I've rarely driven this car after dark, so this is easily our longest outing with the lights on. What the heck? What's the last thing I did? Where have I been changing things? What could I have done? Is there a short? Doesn't smell like one, and the ammeter reads zero.

The panel lights on this car are rather dim. There's a pull switch that seems to have three positions: off, dim, and useless. Checking around under the dash a few days ago, I could only find one bulb for each instrument assembly, and according to the manual, they are 1.5 cp bulbs. I found some 6 volt bulbs with larger globes and much brighter light, so I swapped those for the 1.5 cps. I don't know what these new ones are, but they are definitely brighter. Only after a little experimentation, the dim position of the panel lights now seems to be off. Never mind — I don't need that anyway. At least I can read the gauges now.

Back to firefighting. The smoke is getting worse now. There's quite a lot of it. Smells like a fireplace. With the light from my cell phone, I can see there's a good deal more of that fluffy insulation up near the dash, some stuck to the underside, some loose and hanging down. As I try to return to a head-on-top position from under the dash, I pull myself up by one hand on top of the dash. The top of the dash is warm, very warm. Really warm. I localize the heat to above the panel light switch. Wish I had put that fire extinguisher in the car! This could end very badly.

Connecting the dots: recent changes to the light bulbs, loose fluffy insulation, first lights-on driving, smoke, heat near the panel light switch, I realize the smoke has to be from smoldering or burning insulation. It's not wood, but it's probably organic. Back under the dash I go, madly yanking out all that stuff I can find. One piece is blackened, smoking, smoldering, and partially burned. There are sparks. I stamp on it and it's surprisingly resistant to extinguishing. Eventually I get it out. Meanwhile, Barbara seems relatively calm. No screaming! What a great woman!

The smoke clears, the fire is out. The dim position of the panel lights is the same as off. The bright position is really bright, nicely bright. Turn signals, parking lights, headlights, fog lights — they all work. What happened? Today I need to get back in there and figure it out. But I'm an engineer with mathematical training. I prefer to solve problems by reasoning. It's what we system engineers do. So overnight, I develop a theory. In 1965 I took Physics 4A at Humboldt State, and I learned that resistors reduce voltage. So if you had a 6 volt bulb that you wanted to be dimmer, you could put some resistor in series with it. The voltage you would get after the resistor would be reduced by Ohm's law, $V = I \times R$: current in amperes times the resistance in ohms gives the reduction in voltage. Give the bulbs 4 volts instead of 6 and they will be dimmer. That's probably how that panel light switch works.

I recall that resistors generate heat while they reduce voltage. It's called Joule heating, and I remember the formula for it is $\text{heat} = I \times I \times R$. So suppose this panel light circuit is designed for 1.5 cp bulbs, and I put in a bigger bulb, 6 cp maybe? That bright bulb is drawing more current, say, maybe 4 times as much? So with my new magic bulbs I can read the gauges, but four times as much current is going through that resistor that must be in the switch. The Joule heating is proportional to the square of the current, so it's going to be 16 times as much heat. That could be hot! Combine that with sagging, 80-year-old, flammable insulation, and you might have trouble. I'm ordering another fire extinguisher today.

I still need to confirm my theory, but I thought it worthwhile to share my experience in the hope it might save someone else the risk of fire in an Airflow. There aren't that many of these old cars left; let's not burn them up!

~ John Boyd