

POWERFUL SOLUTIONS

For maximum F&I profitability

Electric Vehicles and Hybrids

As always, our Guests are more *likely* to have a *positive* ownership experience when we are equipped to meet their needs as *Educators*! In service to this goal, we will embrace humility as our friend, because let's face it... none of us knows too much... even if we have been doing this for years. Remember, our Master Technicians are *regularly* updating *their* skill sets, through ongoing certifications, so they are up to date on the state-of-the-art. *We* must keep up, as well, with knowledge applicable to *our* craft. It is *our* responsibility to share the necessary perspective with our Guests to ensure they possess the information required to make fully informed decisions.

As reviewed previously, due to upcoming, incredibly aggressive C.A.F.E. standards, our industry is experiencing massive pressure to evolve, and the pace is unprecedented! In fact, it is questionable whether our Industry's typical, customary *sound* research and development processes are being followed. It would seem as though there just isn't enough time...

How important *is* time?

The logistics involved in running an Automobile Manufacturer are immense and require time to get it correct! From marketing, to concept, to design and development, to tooling, to raw material and parts sourcing, to labor considerations, to testing and revision, to quality control, to delivery of the final product, etcetera... turning one of these ships around takes *a lot* of time. However, the punitive nature of the fines that may occur (resulting from failure to meet the Federal Government's fuel economy mandates) ensures TIME is not something of which the Manufacturers have enough. This may have the effect of the *less than optimum* result (to say the least) of the Manufacturers being forced to test their new systems (aimed at meeting the higher C.A.F.E. standards) on their buying public. Time will tell...

Previously, in the Training Tip "Manufacturing and Engineering Changes," we considered topics related to the changes being implemented to internal combustion engine (I.C.E.) powered vehicles. There are all sorts of physical and dynamic considerations in play, here. Remember that Master Technician to whom we were referencing, earlier? He or she is an invaluable source of knowledge just waiting to share some of that perspective with us. Let's get busy asking them for some insight... insight which we can then share with our Guests.



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Electric Vehicles and Hybrids (*Continued*)

EVs and Hybrids

Regarding Electric Vehicles... while Automobile Manufacturers have over 100 years of research, development, and real-world results to rely upon, regarding internal combustion engines, electric motors are an entirely different story. How well the traditional I.C.E.-powered Automobile Manufacturer's electric motors will hold up to the demands of the general public in the near/long term remains to be seen. This is particularly applicable when we consider the engineering challenges present when moving the electric motor into high volume production and use. Additionally, keeping these vehicles moving down the road will be the responsibility of a new breed of Technicians capable of meeting the novel demands necessitated by electric traction motors, power controllers and inverters, DC/DC or DC/AC (GM) converters, traction battery packs, charging ports, electric traction motor transmissions, onboard chargers, regenerative braking systems, and more. And then there are all the high-tech support systems required to monitor and regulate these electric motors, many times of which there are multiples onboard. And in a Hybrid... throw in a gasoline engine to spice up the already complicated mix, a little more, and include the systems necessary for the I.C.E. and EV power sources to communicate with each other!

All of that, and to this point we haven't even addressed the multitude of systems simultaneously working, in the background, to make all our do-dads work correctly. Automotive system technologies have grown *exponentially* in complexity! Between all the regulatory and electrical/mechanical management systems, safety systems, power convenience features, connectivity and control features, and even AI involvement (and more)... hardware costs increase with every system added to the vehicle.

It's enough to make *anyone's* head spin!

As Business Managers, we have a duty to our Guests to familiarize ourselves with these realities... to equip ourselves with the necessary perspective, thereby ensuring we can share this information with our Guests, when necessary.

Think about it.

Good luck and good selling!



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Partnership + Performance = Profit