



New Cadence Switch System by ALTO Aviation:

The low cost CMS/IFE replacement customizable for all aircraft in Business Aviation.

About ALTO Aviation New Products

ALTO Aviation, the premier supplier of customized audio & entertainment systems for Business Aviation, has recently introduced a breakthrough **Cabin Management System & IFE replacement**, designed in house by ALTO engineers with simplicity in mind.

ALTO's new CMS, known as Cadence Switch System, or CSS, is a low cost, high quality, fit compatible solution and can be customized to any aircraft size greatly reducing installation costs and making a big cut on the budget. Kevin Hayes, ALTO Aviation VP of Sales & Marketing and Steve Lord, Sr. Technical Sales Manager talk about this new solution that is turning heads in the high-standards Business Aviation industry.

By Cristina Scarlata
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Kevin Hayes

What is CSS?

Kevin Hayes: CSS stands for Cadence Switch System and is ALTO Aviation's solution for customizable switch panels to support CMS and IFE installations for both new and fit compatible applications.

What are the biggest advantages of considering CSS for an aircraft?

K.H.: One of the biggest advantages the CSS offers for an aircraft is the provision to make cabin upgrades with minimized impact to the interior. Modifying wood work is very expensive and time consuming and using CSS greatly simplifies the upgrade. Also, the CSS is very scalable allowing any number of CMS iterations to be implemented. We can support any aspect of cabin audio, headphones, video, relay and temp control with customizable switch panels. You can easily add or subtract any feature you wish.

How does CSS serve the Business Aviation industry?

K.H.: The CSS can be used across any aircraft platform and can support any CMS/IFE configuration. We provide the industry with a low cost, installation friendly system.

CSS doesn't require software integration. How does it operate?

Steve Lord: ALTO CSS switch panels and relay controllers function on basic discrete logic. This straight forward approach helps us keep down the overall cost of the system and makes it very easy for our dealers to troubleshoot if a problem occurs.

Does ALTO take care of the basic configuration at installation?

S.L.: Project design begins before the customer issues a Purchase Order. Once

a PO is received, configuration documents are submitted to the customer for their approval. Once the configuration is approved, the system as assembled according to the specification and sent to our dealers ready to be installed in the aircraft.

How can CSS extend the aircraft's life?

K.H.: Many of the CSS installations address obsolete systems. Obsolescence impacts dispatch ability of the aircraft. By implementing CSS, the life of the aircraft can be extended for many years. The technology used in the CSS system is very simple and easily supportable. In addition, the CSS switch has been designed and tested to over 1M cycles so we know with certainty that the switch panels will take the abuse.



Our new Cabin Management System cuts your budget, not your woodwork.

New Cadence Switch System™

Low Cost. Fit Compatible. High Quality.

ALTO Aviation's engineers have developed a new CMS replacement solution available for all aircraft platforms in Business Aviation. The new Cadence Switch System™ or CSS provides your cabin with a full CMS/IFE upgrade, making little to no changes in woodwork, considerably reducing installation costs. Combined with ALTO's IFE product line, your customers will experience the most powerful front row, center stage ALTO Sound™ & HD video at 40,000 ft.

- Fit compatible with existing cutouts
- Replace broken, obsolete, non-serviceable cabin controls
- Discrete logic with no integration software required
- Available for all aircraft & rotor platforms

ALTO Aviation. Front row. Center stage. 40,000 ft.

CMS • IFE • LOUDSPEAKERS • SUBWOOFERS • AMPLIFIERS • SURROUND • PAGE/CHIME • PASSENGER CONTROLS

800 • 814 • 0123 sales@altoaviation.com altoaviation.com

The new CSS by ALTO Aviation makes a big cut in your budget, not in your woodwork.



Steve Lord

How does CSS drastically reduce installation costs?

S.L.: The ALTO CSS provides a very economic and practical solution because the switch panel bezels are machined to the same

form factor as the panel that is being replaced. This feature eliminates the need to replace veneered drink rails or trim in side panels. This saves a tremendous amount in both labor cost and downtime

How does CSS contribute to an aircraft resale value?

K.H.: The upgrade cost for the ALTO CSS system is significantly lower than competitor's solutions. By upgrading the CMS to a functional and operational system, the resale value of an aircraft is enhanced. It is difficult to sell an aircraft with an obsolete system and providing an allowance for the upgrade distracts from the sale.

How do you customize CSS for each aircraft?

S. L.: We begin by matching the functionality of the system the CSS is replacing. At that



point we receive input from the dealers regarding their customer's request which may include the addition of USB charging ports or aux inputs for PED interface. In some cases elimination of personal monitor control or headphone audio may be requested to reduce the cost of the system.

Is CSS available for new installations?

K.H.: The CSS is certainly available for new installations.

Is CSS available for helicopters?

S. L.: Yes, the same benefits that make the CSS an attractive option for fix wing operators also carry over to helicopter operators as well.



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What makes CSS a player in the CMS / IFE control game?

S. L.: The ALTO CSS fills the need for a low cost replacement system that provides both basic functionality and enhanced features at a relatively low price point. This makes our system very attractive to owners that have had their aircraft diminish in value over previous years and do not want

to purchase an expensive system designed for brand new aircraft.

How can CSS serve the military & special mission aircraft?

S.L.: Special mission operators are constantly modifying workstation to make changes to existing systems or adding components that require switching control. The CSS provides operators the ability to add switches or change placarding within a bezel that has room for expansion. These changes can be made by the mod centers or even by the operator without having a negative impact to a TSO switch. This feature can be extremely beneficial when operating in remote locations of the world where support may be limited.

How does CSS improve the current VIP experience in the cabin?

K.H.: The CSS modularity allows the system to be changed to support better ergonomics for the VIP. By repositioning PSU mounted switches to the local headphone panel location, it becomes easier to operate the lighting controls. Plus, the purpose of the upgrade is to take the opportunity to simplify the interfaces and the CSS does a great job of removing unused and redundant features to simplify the operation and improve the VIP experience

For more information on ALTO's new CSS, please Contact Kevin Hayes or Steve Lord at:

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