

Audio Video Switching Unit

The AVSU-M is our most versatile and powerful audio-video switching unit to date. It is built as a modular design with expandable input and outputs thus saving vital weight and space.

Technically Advanced - The AVSU-M provides a scalable audio and video routing matrix in a modular construction ranging from 8 inputs and 4 outputs to a maximum of 16 input and 16 outputs. The unit is fitted with analogue "video through" ports and a short range, high speed, multi-channel, digital audio link output to allow cascading of a number of AVSU-Ms in a system to increase the overall capability.

Each audio input channel has independent digitally controlled gain to allow trimming of nonstandard signal levels. Flexible Control - As the main hub in our Cabin Management System the AVSU-M can receive command inputs from either the Soft Switch Panels Graphical Passenger Control Units or Touchscreens thus eliminating the need for any particular type of passenger control.

The AVSU-M is controlled by two RS-485 control busses (Primary and Secondary), using our International proprietary device interface protocol. PA override Control - A PA keyline is provided. The presence of a PA signal will cause all audio outputs to mute. Robust and Reliable - The unit operates from the aircraft 28vdc supply, protected with an internal fuse and EMC filters to reduce the power line noise. The unit will operate over the full range of aircraft power fluctuations and incorporates spike protection circuitry.

Headphone Driver / Audio and Video - inputs and outputs in common with all our equipment, audio input and output circuits are 600 ohm balanced. 8 to 600 ohm headphones can be driven with relatively constant power across headphone types. Video inputs are 1V p-p into 75 ohm and the digital link input/output is differential 100 ohm.



CMS Switching Unit

As avionic systems throughout the aircraft cockpit are becoming integrated, the alliance of cabin and entertainment functions, are also possible. A central point in a cabin or at certain seat positions can now take full control of the cabin environment.

The CMS Switching Unit acts as the interface between the different cabin functions. Switch Control Functions - Provides isolated AC/DC output interfaces. 16 low current and 4 high current outputs to interface with lighting and other electrically controlled equipment. Resistive Outputs - Eight resistive variable outputs typically for control of airconditioning or continuously variable lighting dimmers. Keyline Inputs - A series of 16 isolated inputs for reading remote keylines from other systems.

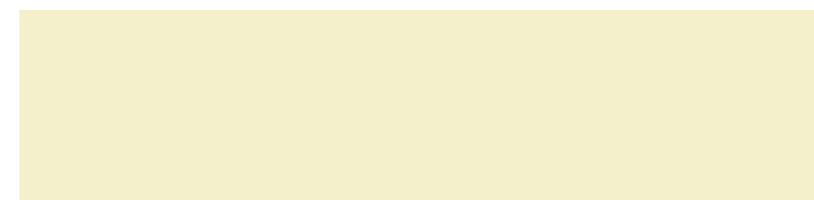
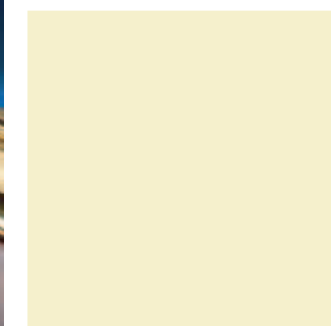
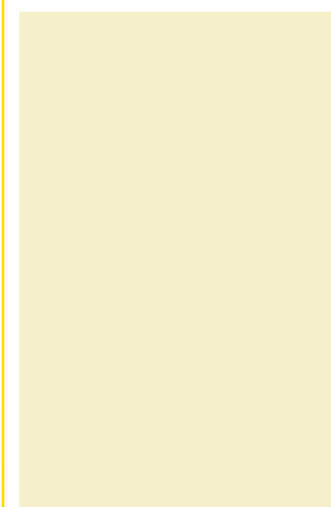
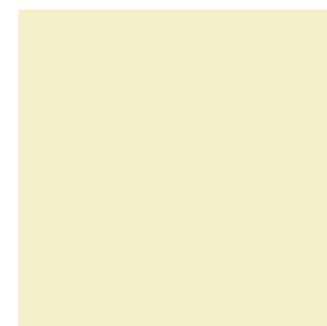
Expansion - Controlled via bi-directional RS485 data bus, further cabin management switching units can be added for larger aircraft. However, the basic single unit has been designed to cater for the requirements of most corporate aircraft applications. Certain models incorporate an A to D providing a reference or control voltage input to the CMS Switching Unit. This signal is typically used in conjunction with a water tank level sensor.

Expansion - The unit has been designed to fail safe and can be configured to ensure in the unlikely event of a device failing, the unit or output will switch to a known safe condition. A series of built in test functions (BITE) check for satisfactory operation. All outputs can be disabled via a decompression keyline.



Switches

Announcing the Digital insert text here
Compliant Unit text switches switches



Intheairnet Ltd. Offers A Complete Line Of Cabin Products

Discrete Switch Panels - RS485 Control

To support the range of graphic switch panels for passenger and cabin/galley applications, we produced a series of discrete switch panels. Offered in a matching style, the panels can be configured to function in a number of different operational modes.

Each switch element has the ability to offer both alternate and momentary action through a remote set of contacts. Advanced functions such as timed or delay actions are also programmable within the switch module. Each Discrete Switch Panel is designed to provide remote operation via the RS485 digital bus to relays appropriately located elsewhere in the aircraft. This reduces the cost and quantity of cabling required in the aircraft and allows the size of the Discrete Switch Panel to be minimized. The backlight for each button can be used to indicate either the state of the switch, or the device it is controlling.

A number of switches may be linked and interlocked such that pressing any one switch will cause all others in the interlocked group to release. The modular concept of each switches' internal circuitry permits different configurations of switch element functions to be grouped for specific applications. In keeping with our system approach to minimize the number of LRU components per aircraft shipset and simplify the time consuming definition phase, the pin configuration of each interface connector remains constant.



Commander Remote Control

The Commander Remote Control works in conjunction with our Infra-Red Receiver and IR Protocol Converter. The Commander will allow users to combine all their remote controls into one unit.

The Commander Remote Control Touch Screen is an addition to the existing line-up of Colored Touch Screen Switch Panels. The interactive user interface allows maximum flexibility and configuration to create a user friendly remote control to suite any customers needs.

- Large, high-resolution color LCD display
- Unique, intuitive and fully customizable graphical user interface
- Unlimited macro functionality
- Recharging docking station with NiMH battery pack included
- Automatic power mgmt: auto power
- Battery type: rechargeable AAA battery pack
- Dynamic interactive display screen input: finger or stylus.
- Quick buttons for mute, channel up/dn, page up/dn, backlight button.



Color Graphic Switch Panel

The requirement to control even more cabin functions continues to grow. The Soft Switch Panel operation permits different functions to be designated through software to each of the graphic switch element areas. Changes in function can be undertaken through a series of simple software modifications.



Intheairnet Ltd. offers a solution that enables a Completion Center or OEM to install a control panel, which can cater for changes in specification and functionality without increasing in size. The Coloured SSP will have a built-in headset jack that can be used for audio and to download software to incorporate changes or upgrades to the system.

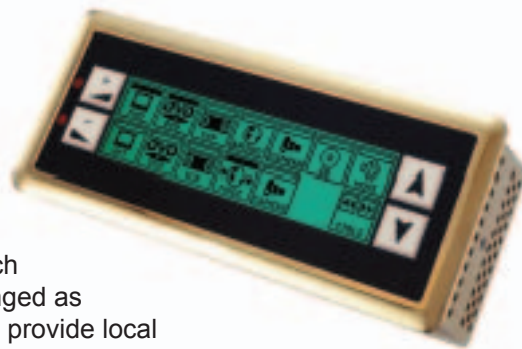
- Removable and customized bezels to satisfy customer requirements
- Changes in cabin or galley functions can be easily configured.
- Standard size panels to meet aircraft requirements.
- Switch position color can be customized.

Soft Switch Panel

Intheairnet Ltd. offers a solution to this costly and time consuming issue with the Soft Switch Panel. It enables a completion centre or OEM to install a control panel which can cater for changes in specification and functionality without increasing in size.

Each unit has 18 touch switch positions. Four are fixed function and the remaining are positioned over a graphic LCD panel. This permits these switch elements and their associated functions to be changed as necessary. Each touch switch can be configured to provide local control through a series of relays, or be remotely controlled over the built-in RS485 data bus, allowing control of many other functions including source control, switching, galley functions and lighting via the CMS Switching Unit.

Other possibilities include display of switch or function status, including data such as time or temperature, where available. The Soft Switch Panel operation permits different functions to be designated through software to each of the graphic switch element areas. The installer can now fit a standard sized panel offering the flexibility to meet different aircraft requirements without the major expense of redesigning the interior fittings of the aircraft or that of the panel.



Square Soft Switch Panel

The Square SSP operation permits different functions to be designated through software to each of the graphic switch element areas. The installer can now fit a standard sized panel offering the flexibility to meet different aircraft requirements without the major expense of redesigning the interior fittings of the aircraft, or that of the panel.

Changes in function can now be undertaken through a series of simple software modifications. The unit is expandable through second level function display pages hidden under certain keys. A main screen function, such as "galley" for example can open up additional switch selections.

The operating software may be re configured and updated by connecting the unit to a (laptop) PC and downloading the new data without removal of the panel from the aircraft cabin. The Square SSP interfaces directly with our Cabin Management System (CMS) via the CMS Switching Unit to switch lighting. The unit can be supplied with a headphone jack on the front panel, if required, for personal entertainment selection and volume.



Graphics Passenger Control Panel

The Graphic Passenger Control Panel incorporates a graphic LCD screen with four active touch screen buttons. A touch screen button can be defined with a particular graphic icon or text. Individual, or a series of touch screen buttons, can be linked as an intuitive menu leading the operator to make simple commands to the entertainment or cabin management system.

User programming of the GPCU can be undertaken from an RS485 data port allowing modifications to the operation and functionality be undertaken within the aircraft, in conjunction with a portable computer. Changes in operation or functionality can now be incorporated without replacing the panel and in most cases reduces modifications to aircraft wiring and furniture units.

The GPCU drives the Audio and Video Switching Unit (AVSU-H) to provide independent control over channel selection; bass, treble, volume and balance. Further functionality can be incorporated in conjunction with the CMS Switching Unit, such as lighting and air-conditioning.

