ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for growing industrial end-markets in energy infrastructure, electronics, aerospace and transportation. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life.

Founded in 1920, ITT is headquartered in White Plains, NY, with employees in more than fifteen countries and sales in more than 125 countries. The company generated 2011 revenues of $2.1 billion.

For more information, visit www.itt.com.
Master Control Unit
- Integrated Power Supply
- Dedicated BIT (Built-In Test and programming port)
- 12V and 24V controllable outputs for lights and accessories
- 4 CANBus ports for symmetric seat installations
- 4 RS485 Inputs/Outputs
- 1 RS232 Input/Output
- Alarm detection with auto-reverse and force limiting
- 300 Volt power supply
- Complex with Boeing 707 and A320 interface requirements

Pneumatic Comfort Controls
- High flow pneumatics pump for instant response
- Quiet operation
- Custom pneumatic shapes for lumbar, headrest
- Multi-chamber programmable massage option
- Active deflation

Diagnostics
- Continuous polling
- 30 power-up memory
- Onboard capability
- ARINC or Text Messages

Actuators
- Integrated electronics, compact packaging
- Fixed mount locking connectors – eliminates need for panel mount connections
- Integrated positive lock – Patent Pending
- 3-color LED diagnostic indicator lights for on-board troubleshooting
- Brushless DC motor for efficiency and reliability
- Ball Detent Manual Override - low release force without tools
- Low operating noise ~50dB
- Full range of output forces
- Rotary – Linear – Thru Shaft configurations
- No calibration required for replacement

Passenger Control Units
- Custom keypads
- Touchscreen option
- Up to 50 keys per seat group
- Interface with 3rd party serial communication PCU's

Software and Diagnostics
- Integrated or remote BIT readout – laptop or touchscreen PCU
- ARINC 485/404 compliant
- Event logging for 30 + power-ups, time stamp option
- Compatible with IFE systems for communication to master control panel
- Central Command option to activate all seats for cabin servicing
- 3-color LED readout on actuators for fast troubleshooting on board
- Continuous polling with downloaded capability

System Architecture
- Simplified CANBus communication
- Scalable for Single, Double, and Triple Seat Applications
- Airbus and Boeing compatible Power Management
- Fast replace actuators with Auto-Calibration feature
- Optional Junction Box for power and communication distribution
- Communication with 3rd party serial communication PCU's
- Optional individual Keypad for each passenger place

System Components

Specifications

Master Control Unit
- Input: 115 VAC single phase, 400Hz (240-520Hz) power factor corrected (pf>90%) at full rated load
- Output: 300V continuous
- Protection: Continuous thermal monitoring, Circuit breakers
- Features: Power cascading, Connection air cooled
- Drive: Brushless DC, Dynamic braking, Hardware over-current monitor
- Communication: Multi RS232, RS485, CANBus ports and keypad controls
- Efficiency: 95% at full load
- DC Power Output: Actuators 33 VDC overload protected, PCU Auxiliary 12 VDC @ 1.5A max, Lighting 28 VDC @ 3A max

Pneumatic Comfort Controls
- Pump/Controller: High flow rate, quiet operation
- Deflection: Active
- Lumber: 4-way, 6-way optional
- Headrest: Available
- Programmable Message: Available

Interconnect Wiring
- MIL Spec or equivalent wiring and connectors
- Custom design to suit seat OEM
- Eliminates point-to-point harnesses

Actuators
- Configurations: Rotary-Thru Shaft-Extension Shaft
- Output Force: Full range available
- Manual Override: Low force release with knob or cable remote lever
- Motor: Brushless DC, low EMI, high power density
- Integrated Positive Lock – patent pending
- Position Feedback: Potentiometer

Regulatory
- RTCA DO-160/EUROCAE ED-14
- RTCA DO-178B/EUROCAE ED-12B
- P800023
- Boeing DG-36460
- Airbus ARB0100, 250M166, X3219PTS
- ARINC 405, 604
- ARP 5526

Passenger Control Units
- Membrane Keypad: Up to 25 keys per passenger
- Touchscreen Control: Optional
- Available to command calibration mode, BIT