

WV Communications



Universal Destruct Panels (UDP)

Like Flight Termination Panels (FTP), Universal Destruct Panels (UDP) are the user interface to the Flight Termination System, but with the added capabilities of the FTS Status & Control Panel (FSC). When a limited number of FSC functions are required, a UDP provides the solution, while reducing the number of control panels. Like an FTP, a UDP accepts command requests via buttons, acknowledging them by LEDs and providing verification information via separate LEDs, traceable to the CVR in the transmitter chain, however the UDP provides some additional capabilities such as a Carrier control, transmitter selection, and antenna selection. Two model UDP's are shown below.

WV model **CT1070** provides the ability to assign five commands to one or more vehicles and assign tones or commands to five additional buttons, this UDP also provides the ability to manually select up to four transmitters, control the Carrier and select between two antennas. The UDP also has a pushbutton switch to Enable or Disable the panel and initiate a lamp test as well as a key switch to Enable or Disable the FPS functions.



CT1070

WV model **CT1075** provides the ability to assign twenty commands to one or more vehicles. The UDP also has a pushbutton switch to control the Carrier and initiate a lamp test, while the key switch is used to Enable or Disable the panel. Like FTP, the UDP's contain a Processor board for each communication path (two or more for redundancy), with



CT1075

The Panels are configured with LCD Pushbuttons that display the Commands and colors as programmed by the FPS. Each embedded Processor board has its own 48VDC Power Supply/DC-DC converter and rear panel power connector creating redundant power entry. All switches are DPDT providing a total of four contacts (2 NO and 2 NC). Each Processor board uses one NO and one NC contact to provide redundant switch state information. A fault is reported if the switch remains in an illegal state for any length of time. The second set of pole goes to the second Processor board. If there are more than two Processor boards, they alternate. Each Processor board contains isolation diodes to localize any fault that might occur in the board. The LED indicators are driven by each Processor board, therefore a Processor board failure or FCP fail-over will not cause faulty indication. The Switches LCD display / Verification LEDs signals are diode isolated to minimize the possibility of wrong indication from a faulty Processor board. Each Processor board clears all indications upon reset or loss of communication with the FCP, to insure that it is not erroneously driving indicators. Each Processor board also incorporates a Watch Dog Timer to reset the Processor in case of software malfunction.