

NG-500 Universal Operator Control System



System Description

The NG-500 Universal Operator Control System (UOCS) provides the controls, communication subsystems, and displays for remote monitoring and control of a variety of tele-remote vehicles, including Applied Research Associates' All-Purpose Remote Transport System (ARTS) and Modular Robotic Control System (MRCS), and attachments. The UOCS permits the operator to select the desired video feed; control the orientation and zoom of the video cameras; start and stop the platform engine; monitor and direct the motion and speed of the platform; clearly observe platform and attachment motions; and control attachment activity.

Suitcase-sized, the UOCS is easily man-portable. The system consists of the suitcase style enclosure (pictured above) and a set of cables including input power, video output, and audio output cables.

Communications

Radio frequency (RF) radios for transmission of video and data are standard equipment with the UOCS; Analog radios are limited to line of sight up to approximately 1.5 miles. Optional communications for the UOCS include: digital radios and fiber optic cable.



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Software

The UOCS software is compliant with the requirements of the Joint Architecture for Unmanned Systems (JAUS). The software also provides password protection at operating system level (operator and administrator) and at application level. Support for new platforms is achieved by developing a "vehicle definition file" which contains all platform specific information that the UOCS needs for operation of the new platform.

Hardware

Touch Screen:	Sunlight readable, 12" Color LCD with adjustable brightness
Video Monitor:	Sunlight readable, 15" Color LCD with adjustable brightness
Keyboard:	Standard 81 key, NEMA 4 compliant
Mouse:	USB 1.1 interface to the motherboard
Joystick 1:	3-Axis, with 1 Button
Joystick 2:	2-Axis, with 1 Button, 1 rocker switch and 1 dead man switch
Emergency Stop:	Factory programmable to customer requirements
Audio:	Adjustable Volume Loudspeaker and Headphone Jack
Computer:	Hercules EBX

Electrical

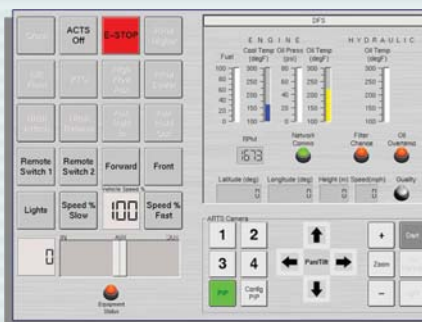
Input Voltage:	120VAC 50/60 Hz or 12VDC
Power:	150W

Mechanical

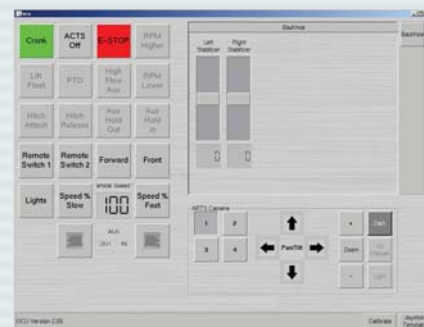
Size:	24" x 18" x 8"
Weight:	45 lbs

Environmental

Nema rating:	NEMA 4 Rating when closed
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Data Feedback System Touchscreen



Standard UOCS Touchscreen