

ESI MODEL 280 DIGITAL CONTROL SYSTEM

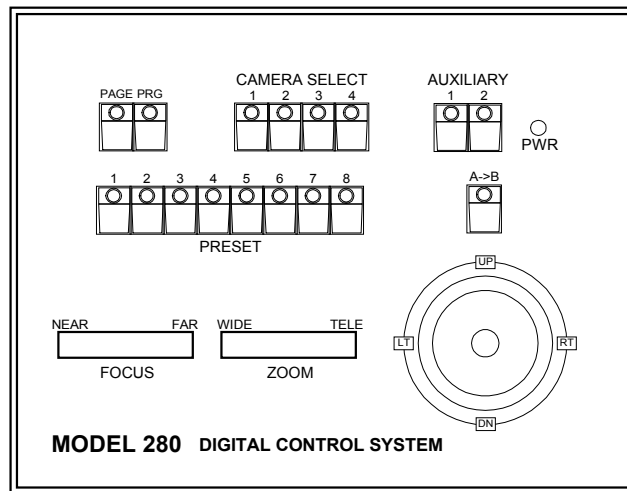
REMOTE PAN & TILT AND LENS CONTROL SYSTEM WITH VIDEO PREVIEW & SYNC DISTRIBUTION

The ESI Model 280 Digital Control System is functionally identical to the popular ESI Model 180 Digital Control System with the inclusion of a video preview switcher and a sync stripper/distribution module. These features were incorporated into the basic Model 180 to address the video switching needs found in applications such as:

- Teleconferencing
- Distance Learning
- Tele-medicine
- Theater Instrumentation
- Meeting Room Instrumentation

Specific Installations include:

- City Council Chambers
- County Commission Meetings
- School Board Meetings
- Auditoriums
- Classrooms
- Teleconferencing Rooms
- Meeting Rooms
- Boardrooms
- Churches



PAN & TILT AND LENS CONTROL OPERATION:

Like the Model 180, the Model 280 can provide pan & tilt and lens control for up to 4 remote camera sites. Sixteen presets per camera site may be selected from the Model 280. The digital design of the Model 280 allows custom controls to be included for unique customer requirements. These control functions may be activated via the 2 auxiliary switches located on the Model 280 front panel.

The pan and tilt control is provided by a proportional deflection joystick. Control of the zoom and focus is accomplished with proportional deflection "Seesaw" controls. The proportional controls allow a slow movement when the control is only slightly depressed and a much faster response when the control is more fully depressed.

An externally accessible DIP switch at the rear of the unit allows pan, tilt, and lens control reversal.

The versatile digital interface of the Model 280 to the DPT 115 allows a variety of camera/lens combinations to be controlled by a single Model 280. In addition, Options such as; Iris control or control of more than 4 remote camera sites may easily be implemented.

The Model 280 console version features a sloped front panel for ready access to all of the Model 280 controls. The unit is also available in a 19 inch rack mount version which only occupies 3.5 inches of vertical rack space.

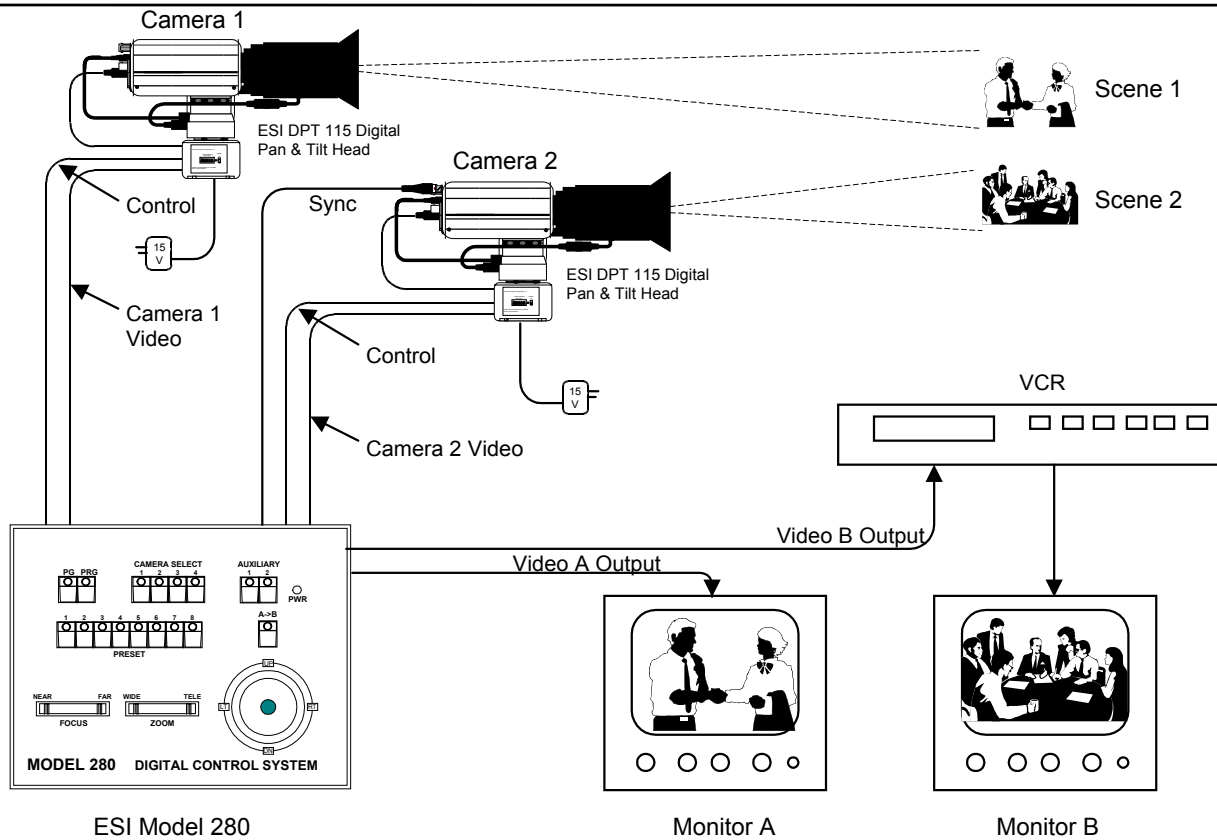
Four RS-422 connectors are located on the rear of the unit to interface to each of the 4 remote camera sites. A 9 Pin D connector located on the rear of the Model 280 provides the RS-232 serial interface for computer input/output. Input power to the Model 280 is provided by a wall mounted power supply which is provided with the unit.



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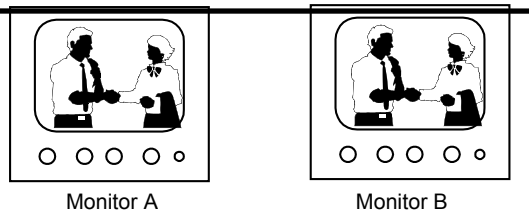
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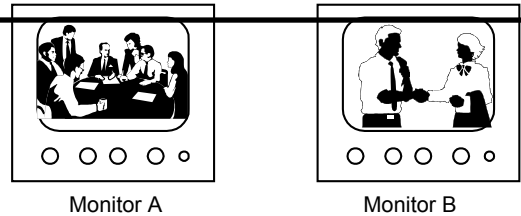
VIDEO PREVIEW SWITCHER OPERATION:

A typical 2 camera installation is illustrated above. The pan/tilt/lens operation is accomplished via the control cables between the Model 280 and each of the DPT 115 Digital Pan & Tilt Heads. The Video Preview Switcher is a 4 input and 2 output vertical interval switcher with a built-in sync stripper and sync distribution electronics.

When the system is powered up, the video signal from Camera 1 is output on both the Video A and Video B outputs. If the GENLOCK VID1/EXT switch on the rear of the Model 280 is in the VID1 position, The Video 1 signal goes through a sync stripper and the composite sync is stripped and used as a sync source for the other camera(s).



When the operator depresses the Camera Select 2 button on the Model 280, the video signal from Camera 2 is output on the Video A Output while the video signal on the Video B Output remains unchanged. The camera scene displayed on the Video A Output is always the camera being controlled by the controller and as such, may have its zoom/focus/pan or tilt settings changed while the Video B Output remains undisturbed.

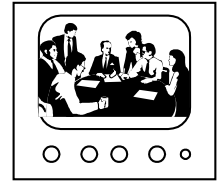


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After the operator has the camera scene setup properly, he may depress the "A > B" Switch and the video signal from Camera 2 is now output on both the Video A Output and the Video B Output. In this manner, the camera which is being broadcast or recorded is represented by the Monitor B display and preview signal is represented by the Monitor A display.

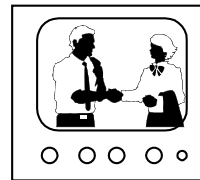


Monitor A



Monitor B

The operator may then depress the Camera Select 1 button and view the image from Camera 1 on the Video A Output, again the operator may change the zoom/focus, pan or tilt settings and select it for output to Video B Output by again depressing the "A > B" Switch.

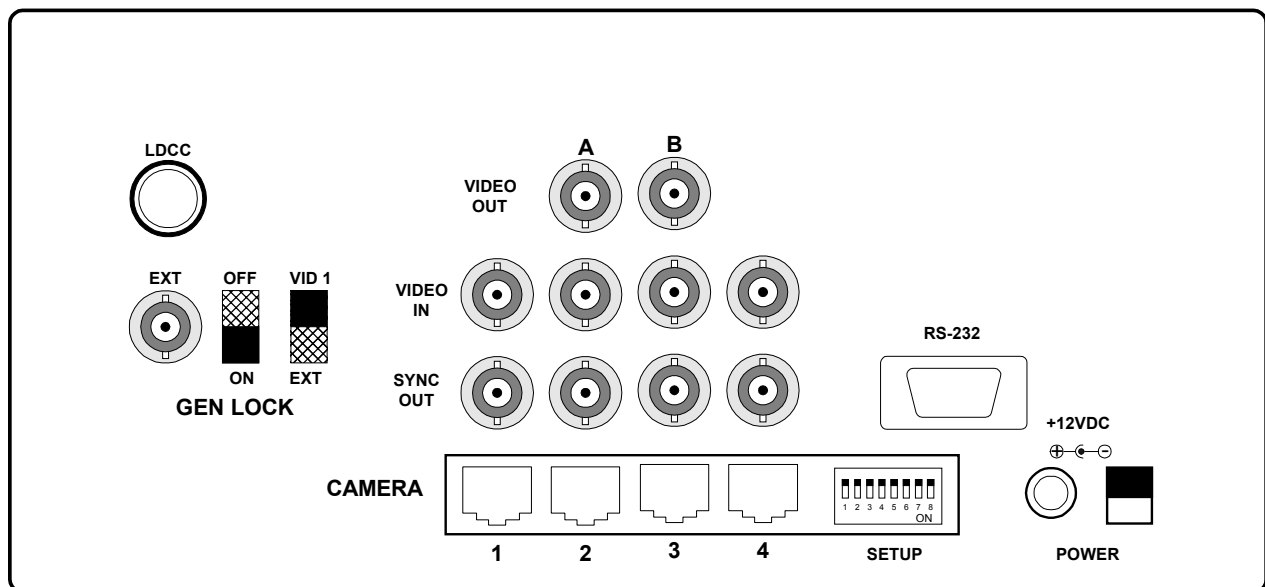


Monitor A



Monitor B

Model 280 Rear Panel



REAR PANEL CONNECTOR DESCRIPTIONS:

1. **LDCC Connector:** Interface to JVC RM-LP55 Handheld CCU for KY-F55BU and KY-F32U Cameras
2. **GENLOCK Controls:**
 - VID1/EXT Switch: VID1 Position strips sync from camera 1; EXT buffers an external sync input.
 - OFF/ON Switch: Turns Sync strip[per on or off.
 - EXT BNC Connector: External Sync Input.
3. **VIDEO Out:** Video Out A follows the Camera Select Switch; Video Out B is selected by A > B Switch
4. **VIDEO IN:** 4 Video Input BNC Connectors
5. **SYNC OUT:** 4 Sync Output BNC Connectors
6. **CAMERA:** 4 RJ-11 connectors to interface to DPT 115 Digital Pan/Tilt Heads
7. **SETUP:** Switches for selectively reversing pan/tilt/zoom and focus polarity
8. **RS-232:** Reserved for future use
9. **POWER:** DC Jack and Power ON switch. A Power ON LED is located on the front panel.

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REMOTE PAN & TILT AND LENS CONTROL SYSTEM WITH VIDEO PREVIEW & SYNC DISTRIBUTION

SPECIFICATIONS:

Operating Environment: Indoor; contact factory for outdoor requirements

Temperature:..... 40 to 104 degrees F. (0 to 40 degrees C.)

Control Characteristics:

Power Rear rocker switch, with front panel LED

Pan/Tilt Joystick, proportional deflection

Focus Seesaw control, proportional deflection

Zoom Seesaw control, proportional deflection

Presets 16 per camera station

Number of Stations 4

Max. distance between controller & p/t head..... 2,000 feet for RS-422 control interface.

Video Preview Switcher Characteristics:

Sync Source External or Video Input 1

Switcher Type 4 X 2 Vertical Interval Switcher

Number of Videos for Video A Out..... 4 Selectable for Video Out A via Camera Select

Number of Videos for Video B Out..... 4 Commanded from A > B Switch

Physical Characteristics:

Size (surface mount) 9.75 (W) X 7.25 (D) inches; sloped chassis

Size (rack mount) 19 (W) X 3.5 (H) X 5.25 (D) inches

Weight 4 Pounds

Mounting Table top, rack mount or special

Power Input Requirements:

Voltage +12 VDC

Current 0.4 Amperes

Wall Mount Power Supply Provided with Controller

Robotics Connectors:

DPT 115 Connector 4 Each RJ-11 style connectors

JVC RM-LP55 Connector 6 Pin female miniDIN (see AN101 for details)

Serial Output Connector 9 Pin D Connector

Power DC Jack

Video Preview Switcher Connectors:

External Sync BNC connector for external sync input

Preview Out A BNC video output which follows Camera Select

Preview Out B BNC video output selected by A > B switch

Video In 1 - 4 4 @ BNC Video inputs

Video Out 1 - 4 4 @ BNC Video Outputs



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