

Conway Omega Keyboard

The Omega keyboard is primarily used to control the video matrix and receivers connected to the RS485 network. It can also be used in conjunction with the Conway up the coax RF matrix when control of DC Pan & Tilt heads is required.

Version The keyboard comes as a master version or slave, the visible difference between the two is the lack of program keys on the slave keyboard (as shown inset on main pic).

Control Full proportional control is achieved through the joystick with the added feature of a button tip enabling speed range change. At a press of this button, the range of speeds achieved from full movement of the joystick can be changed from minimum to maximum speed, to a much finer control over the slower speeds. This enables full control using a large zoom lens when zoomed right in on a subject without overshooting all the time. The lens speed can also be changed at the touch of a button, again allowing a more controlled situation when focusing on a subject on a fully zoomed lens.



Privacy Privacy zones can be very quickly set using the keyboard enabling private areas where the screen will be blacked out if the pan & tilt crosses over the electronic barriers. All text will still be displayed with an added caption to indicate to the operator that the privacy zone has been entered.

Throughout this zone constant velocity at a programmable rate will be maintained, not allowing the camera to remain stationery and preventing the camera from pointing at a sensitive area.

Main image: Omega Keyboard. Inset: Omega Slave Keyboard. (Not shown to scale)



Joystick control

Proportional control

Instant speed button

Creep control

Soft stop

Pre-sets

Tours

Alarms

Privilege levels

Matrix control

PCB interface

Multi-speed
lens control

Wash

Wipe

Auxiliary functions

Lamps

On-screen text

Time and date

Pan zones

Privacy zones

Alarm reaction
modes

Status LEDs




Conway
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Communications

The communication between keyboards (4 maximum recommended), is via an RS485 network. Communications to the matrix are via the same network. The RS485 matrix has three buffered RS485 outputs to link up with all the receivers on their networks, max 200 receivers.

Program mode

The programming mode of the keyboard is protected via a key-switch mounted on the rear panel along with the RS485 and RS232 ports.

Functions performed within program mode

Pre-sets

80 per camera can be programmed

Privacy zones

Privacy zones can be set 2 per receiver fitted with text option.

Date and time

To be displayed for each receiver fitted with text.

Loop Learn

Upon initial connection of the keyboard to a network, the keyboard is asked to perform a loop learn whereby all devices, connected and powered up, are interrogated and recorded in the keyboard memory. Once the devices are recorded by the keyboard, they will be regularly polled to ensure system integrity. If one device does not respond correctly then a warning LED is lit on the keyboard to indicate communications failure.

Loop through mode

The keyboard can be turned into a gateway to the system via its RS232 port for use with PC based systems requiring such access.

The Conway Editor1© program or Sigma for Windows™ is used in this mode to set up the following features:-

Camera identification

A name can be displayed on to the video signal from each camera, 20 characters long.



Rear panel of keyboard showing program switch, power jack and 2 RS485 / RS232 Ports.
Power input 12V dc, 300 mA

Pre-set text

A caption of 20 characters is attached to each pre-set. A default is programmed into the micro i.e. "Position 1" etc.

Zone text

A caption of 20 characters can be given to each zone, default is "zone 1" etc.

Tours

The receivers can be programmed to carry out up to 40 Tours which each consist of up to 30 positions. The dwell time at each position is variable and the speed between each position is programmable.

Servo parameters

The performance of the receivers can be adjusted to suit various speeds of pan & tilt heads.

Soft stop

The settings for the soft stop feature are set up in this mode. This feature slows the pan and tilt motors and lens motors just before reaching a pre-set position within a tour, or in response to an alarm activation, reducing wear by avoiding sudden jerky stops and reducing blurring of a recording as the area in question is being approached by the camera.

Alarms

Each alarm is assigned a tag number, pre-set positions and tours are allocated to a tag and actions to be performed by the matrix are also given tags. When an alarm is activated the tag signal is

broadcast around the communications loops. The receivers and matrices will read the tag and perform the task which has been programmed. The receivers can be told to initiate a tour or go to a pre-set position, and the matrix can be told to display particular cameras on to certain monitors.

Privileges

All keyboards come complete with all privileges enabled, allowing quick installation and easy set-up. Certain features or options can be disabled as required. The programmable features are as follows:

1 Access to cameras can be limited preventing the operator from selecting certain cameras or groups of cameras.

2 Telemetry control can be limited, to prevent operators from moving certain chosen cameras.

3 The switching of cameras on to monitors can be configured.

Monitor sequences

The monitor outputs of the matrix are programmed to sequence through the cameras in a certain order and dwell time for each picture.

There are many more programming features available within the Editor1© program or Sigma for Windows™.

Domes

Conway Omega Keyboards control a number of domes from other manufacturers.



Due to a policy of continual improvement, specifications may be subject to change.