

ADPRO® Amux

Integrated Video Management System with Advanced Multiplexer

Data Sheet

The ADPRO Amux is an Integrated Video Management System with a 20 camera full duplex colour advanced multiplexer. Amux provides outstanding performance for CCTV security, surveillance and VCR video multiplex recording and replay.

These applications typically need a versatile, high quality digital multi-screen format with automated display of alarm video on multiple monitors. These requirements also demand high quality, fast update rate and video recording of multiple cameras to a VCR.

Key Features

- Flexible mini-matrix video switcher (20x4) capability.
The four video monitor outputs can be set for spot monitoring of selected cameras or automated displays to include camera sequencing and/or alarm homing.
- Superior VCR record update rate and high quality multiple camera displays with fast refresh rates.
- Selectable recording options for each camera that include continuous, interleaved or alarm only recording.
- Support for linking up to 5 Amux chassis to control up to 100 cameras from a single keyboard.
- Setup menus on screen in English, French, German, Italian and Spanish.
- High quality digital output displaying single or multiple cameras. Standard support for the use of a high resolution, flicker-free SVGA monitor.
- Digital video display of single or multiple cameras in full-screen or 4, 7, 9, 10, 13 or 16-way split. Option to freeze the display at any time.
- Electronic Zoom and Pan feature for both live and freeze displays.
- Unique Window mode. This mode consists of a quad display showing three user selected fixed cameras while one quadrant acts as a Spot, Sequencing or Alarm Homing window.
- Integrated Activity Detection allows optimisation of recording for scenes with activity. Also features optional selection of alarm triggering and/or spot monitoring on activity.
- User friendly operator interfaces, accessible via front panel or external keyboard. Straightforward setup with programmable settings and options.
- Pan/Tilt/Zoom control for a wide range of camera stations including support for selected models with Down-The-Coax telemetry. Accessed via the AMK-200 Joystick or by the AMK-100 keypad.
- Open architecture for easy integration with other components forming a total site security solution.
- All functions can be controlled via the RS232 port using a published command set.



ADPRO[®] Amux

Overview of Key Features

Flexible and Automated Video Management

The ADPRO Amux effectively provides all the features and functions of a mini video matrix switching (20x4) system, by providing three monitor outputs in addition to the digital monitor output.

The additional monitors can be set up for spot monitoring of single or selected cameras, or automated displays that include camera sequencing and/or alarm homing.

Fast VCR Record and Display Refresh Rates

Superior VCR record update rates and quality multiple camera displays with fast refresh rates are achieved using dual internal digital video paths.

When the Amux is in normal surveillance mode (minimal alarms expected) and the VCR is recording in a time-lapse mode of 12 Hour or greater, priority is allocated to ensure maximum refresh rates of the multi-camera digital display.

When the VCR is recording in real time mode (usually during alarm activity), priority is given to provide the fastest possible VCR recording update rate.

Video Multiplex Recording and Replay

In addition to fast recording update rates, the ADPRO Amux supports all industry standard time-lapse VCR's.

It is possible to use the synchronisation output of some VCR's to automatically optimise the multiplex video output sequence for the current time-lapse mode of the VCR.

The function and importance of each camera in a CCTV security system often have different priorities with respect to general surveillance and alarm monitoring. The ADPRO Amux caters for these varying needs by

providing user programmable recording options for each camera. These include continuous, interleaved, or alarm only recording.

Digital Video Displays

The ADPRO Amux provides a digital video display of single or multiple cameras in Full Screen and 4, 7, 9, 10, 13 or 16-way splits with the option to freeze the display at any time.

Included as standard is the ability to use a high resolution and flicker-free SVGA monitor.

This ensures the display of high quality digital video for single and multiple cameras, video freeze and electronic zoom and pan.

Electronic Zoom and Pan

This feature is available on both live and freeze displays. When the zoom option is selected the camera image is 2x zoomed around the same point in the image as the last zoom and/or pan operation.

Unique Window Mode

The quality and refresh rate of the digital display means that it can effectively act as four monitors through a unique Window display mode. This mode consists of a quad display showing three user defined fixed cameras while one quadrant acts as an operator's Spot, Sequencing, or Alarm Homing window.

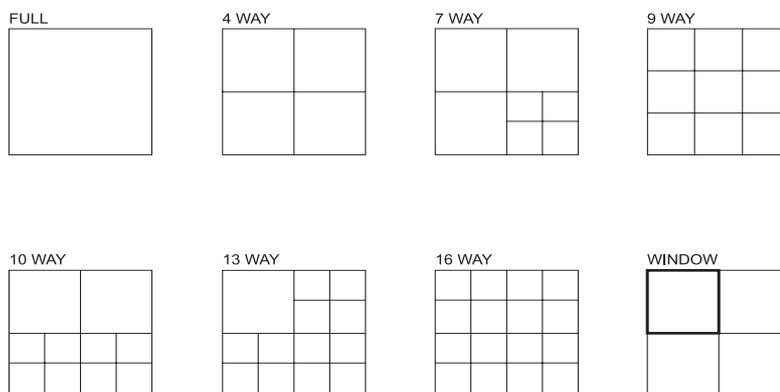
Activity Detection

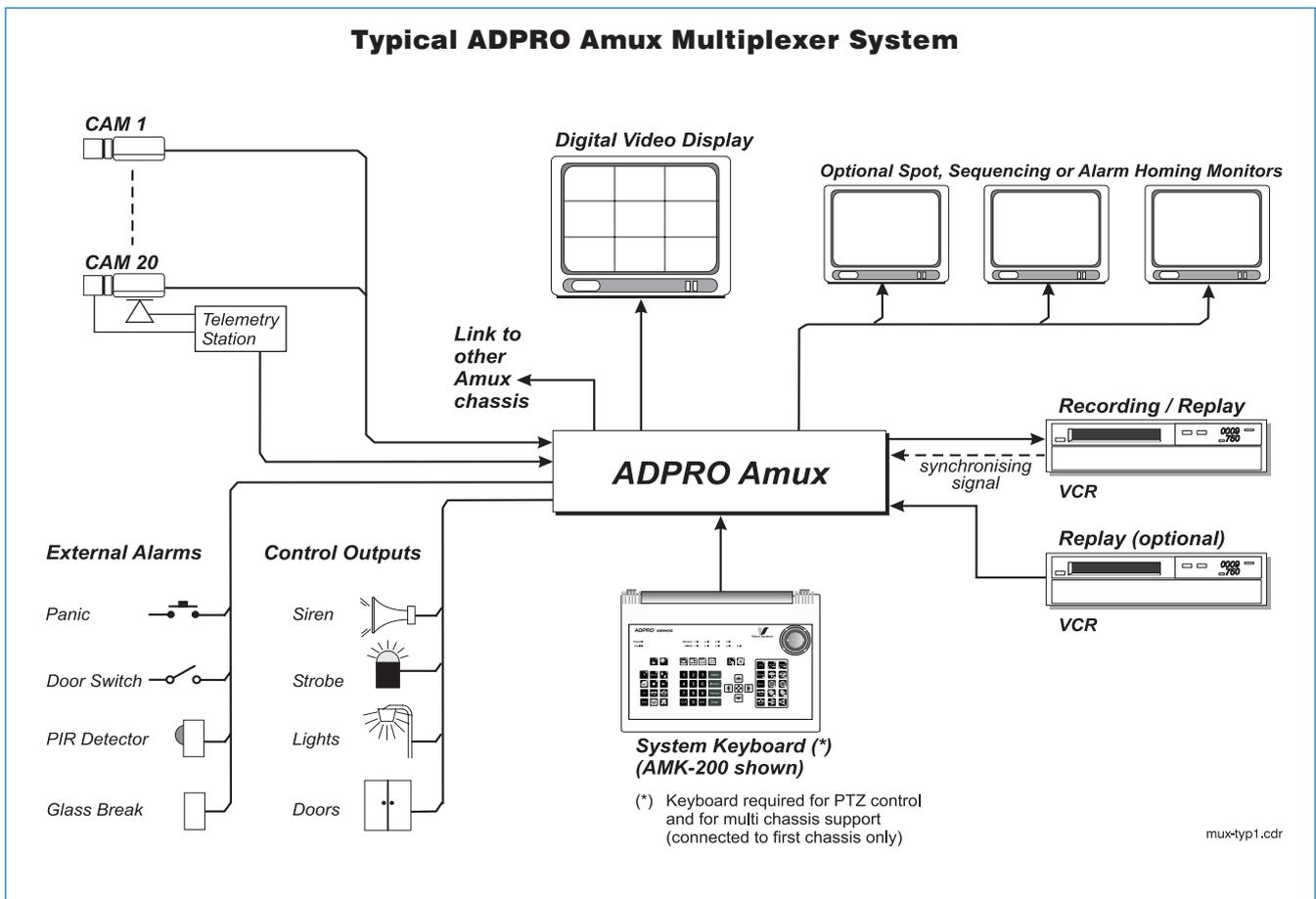
ADPRO Amux leads the class with sample rates that ensure no activity is missed even during time-lapse recording. Each channel can be set to produce an alarm when activity is detected within the camera scene.

Integration and Use

Open architecture ensures easy integration with other components that form the total site security solution. Expansion of the system to support 100 cameras is available via multi chassis connections. The system is easy to use with user friendly operator interfaces and straight-forward setup for settings and options. Joystick control or dedicated keys available for PTZ control of telemetry stations.

Digital Video Displays





User Setup and Configuration Options

External Alarm Inputs

- One per camera and user programmable N/O or N/C
- Expandable to 100 with multi chassis configuration

Activity Detection

- Programmable, per camera, to change the recording speed and/or the interleave rate of images sent to the VCR. Activity can also be used to generate an alarm or to enable homing on a per camera basis.

System Access/Secure

Operator selectable with a password from the keyboard, or via hardware control using the access/secure control input.

Alarm Logic

- Alarms can be optionally reset automatically (after a timeout) or manually by the operator.
- Each camera is user programmable to alarm on either External Input, Activity Detection or the logical AND or OR of both.

Camera Multiplexer Recording

Each camera is user programmable to:

- Include it in the multiplexed record video sequence and optionally;
 - a) record at all times, b) only during the individual camera alarm, or c) only during a system alarm.
- Interleave (priority) record during alarms.

- Activate the VCR Relay (switch the VCR to real time mode) during alarms.

Video Loss Detection

- Each camera is programmable to generate video loss alarms at any time.

Monitor Display Options

Each monitor has programmable options to define its role in the surveillance system. These include:

- Options to define displayable cameras.
- Ability to setup a custom auto sequence list and dwell time.
- The automatic display of alarm conditions in various forms.

Specifications

Video Standards

CCIR/PAL, or RS170/NTSC. Auto detects appropriate standard at startup.

Camera Inputs

Twenty (20) BNC inputs, with looped through BNC output and auto terminating in 75 ohms if the looped output is not used.

Video Decoder

Resolution 720x288 (PAL) or 720x240 (NTSC), 256 grayscale, 16.7M colours, and 27MHz sample rate.

Monitor Outputs

- Four monitor composite video outputs, MON1 to MON4, each with a BNC connector.
- The video displayed on MON1 composite output is simultaneously available in S-VHS (Y/C) video format on a four-pin mini-DIN connector.
- MON1 video is also available in SVGA video format on a standard SVGA connector, with 16.M colours, and resolution of 720x576 (PAL inputs) or 720x480 (NTSC inputs).
- Vertical Sync 50Hz PAL, 60Hz NTSC.

Recording Update Rate

Up to 50/60 (PAL/NTSC) fields per second maximum recording rate.

VCR Composite Video

Two BNC connectors suitable for connection to a VHS time-lapse video recorder's composite video input and output.

S-VHS VCR Connectors

Two S-VHS (Y/C) four-pin mini-DIN connectors suitable for connecting to a S-VHS time-lapse video recorder's input and output.

VCR Synchronisation Input

Screw terminal VCR time-lapse synchronisation input to automatically match the time-lapse recording rate to the VCR's recording rate and optimise the record update rate.

VCR Relay

Form C contacts with screw terminals to allow connection and control of the VCR recording mode.

External Alarm Inputs

Twenty (one per camera) user programmable N/O or N/C, alarm inputs via a 37-way female D-connector.

Activity Detection

Detection zone mask is user definable for each camera. Five sensitivity levels available. Mask size 20x16 (PAL) or 20x13 (NTSC).

Access/Secure Input

Screw terminals provide a short to ground access/secure input to optionally switch this function from an external source. Polarity is programmable.

Camera Alarm Outputs

Twenty (one per camera) TTL open-collector outputs via a 37-way male D-connector to indicate individual camera alarm conditions.

General Alarm Relay Output

Screw terminal connections for the General Alarm form C relay output.

Status Indicators

- Green "power on" led, and red "fault" led on the front panel of the unit.
- Screw terminals for two open-collector outputs located on the back panel to indicate "video loss" and "system fault" detection.

Audible Alarm Indication

An alarm buzzer is provided in the keyboard with user programmable volume level.

Power Connector

Factory installed industry standard IEC fused power socket or 12V DC connector.

AC Operation

180-264VAC, 50Hz, 60VA (max) at 240V.
90-130VAC, 60Hz, 60VA (max) at 110V.

DC Operation

10-15V DC, 28W (max) at 12V.

Non-volatile Memory

All user programmable options stored in non-volatile memory.

Time and Date

Accuracy of at least one second per week.

Keyboard

External desktop keyboard with or without Joystick for camera PTZ control. Transformer coupled, LonWorks™ protocol 78Kbits/sec. Input voltage 10-15VDC.

Maximum distance between keyboard and Amux 500m (1650 feet) (subject to voltage drop between Amux and keyboard).

Construction and Dimensions

Standard 19" rack-mount, 2U high subrack to DIN4194, 482mm (19") W x 88.8mm (3.5") H x 370mm (14.5") L.

Weight

2.5 Kilograms (5.5 pounds)

Operating Conditions

Operating temperature range 0°C-50°C (32°F-122°F).

Humidity less than 90% non-condensing.

EMC Compliance

Emissions: Class A compliance to EN55022 (CISPR 22), FCC Part 15J, AS/NZS3548 and VCCI.

Immunity: EN50082-1 (IEC 1000-(4-2, 4-3, 4-4, 4-5, 4-6, 4-11))

Electrical Safety

EN60950, AS3260.

Warranty

Twelve (12) months.

Ordering Details

Amux 20CDK

Options

AMK-100	External Desktop Keyboard
AMK-200	External Desktop Keyboard with Joystick
AM-DTCT-1	Down-the-Coax option board

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