

Multi-Media Unit

Installation Instructions

Rapid Eye™
Multi-Media

Rapid Eye™
Multi-Media DSP

ISSUE	DATE	REVISIONS
V2.A	July 2004	Honeywell template.
V2.B	December 2004	Formatting: pagination, minor edits.
V2.C	August 2005	Minor edits: more serial ports, updated illustrations.
V3	January 2006	Update to illustrations, site information checklist, references to System Administrator's Guide for configuration of external hardware, specification summary, support for PIT and NetPIT devices, and port restrictions.

Declaration of Conformity

Honeywell Video declares that HRMxxxxyyzzzz Rapid Eye Multi-Media remote units are in conformity with Council Directives 89/336/EEC (EMC), 73/23/EEC (Product safety), and 95/5/EC (R&TTE).

These EuroNorms and harmonized standards were applied:

- EN 61000–6–3: 2001 Emission standard for residential environments (EN55022 Class B);
- EN50130–4: 1996 + A1: 1998 Alarm/security immunity requirements;
- EN60950: 2000, Safety of ITE;
- EN61000–3–2: 1995 Harmonics;
- EN61000–3–3: 1995, Flicker;
- TBR-21 (CTR-21) for PSTN and PBX.

FCC CFR 47, Part 15, Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or a radio/TV technician for help.

Rapid Eye Multi-Media
Rapid Eye Multi-Media DSP
Rapid Eye Multi-Media LT



Tested To Comply
With FCC Standards

FOR HOME OR OFFICE USE

FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the front cover of this equipment is a label that contains the FCC registration number and Ringer Equivalence Number (REN). You must provide this information to the telephone company when requested.

This equipment uses a USOC jack: RJ11.

This equipment may not be used on telephone-company-provided coin service. Connection to party lines is subject to state tariffs. This equipment is hearing aid compatible.

Ringer Equivalence Number

A **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada.

NOTICE: This equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). This is confirmed by marking the equipment with the Industry Canada certification number. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Repair or alteration made by the user to this equipment, or equipment malfunctions, may make the telecommunications company request the user disconnect the equipment.

Users should ensure for their protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Table 1: Specification summary

Operating environment

temperature	0° - 45°C. EN 50130-5 Environmental Class I.
power	100 - 240 V~, 60 - 50 Hz; auto-ranging.
heat dissipation	470 BTU/hr

Interface

cable requirement	Cables included with the unit are listed in table 2, on p. 2-2. Other connectors: DB9 (serial ports), BNC (video IN/OUT, public display), PC mouse, PC keyboard, RJ-11 (dial-up), RJ-45 (LAN), audio card (OUT/MIC IN), screw terminal connectors (ALARM & CONTROL), and custom RJ-45 (serial ports).
network access	Auto-sensing for 100BaseT or 10BaseT. LAN/WAN use through DSL or cable.
modem	Internal. Available on some models. Programmable. Complies with FCC (ACTA) Part 68, Industry Canada, TBR-21 - Public Switched Telephone Network (PSTN) and Private Branch Exchange (PBX).
local video output	Television monitor, for public display. VGA monitor, for operation and/or public display.
CD-RW drive	For unit upgrade and/or duplicating and distributing video clips.

Approvals

UL 60950	Underwriters Laboratory listed for US and Canada (UL, cUL)
IEC 60950	CB certificate
EN 50130-4	Security system immunity requirements (UPS required)
EN 61000-6-3	RF emissions, residential environments (EN 55022 Class B)

Storage

Software for estimating the storage of Multi-Media units can be obtained from Honeywell's website. See the URL for obtaining a storage calculator in 1.3.1: *For More Information...*, on p. 1-7.



The socket outlet shall be installed near the equipment and be easily accessible. This equipment shall be connected to an earthed mains outlet.



Table of Contents

1	Walk-through	1-1
1.1	Overview	1-1
1.2	Walking Through.....	1-2
1.3	Where To, Next?	1-7
2	Field Work	2-1
2.1	Unpacking the Unit	2-1
2.2	Rear Panel Reference	2-3
2.3	Reporting the Installation	2-4
2.4	Powering the Multi-Media Unit.....	2-5
2.5	Connecting a Camera.....	2-6
2.6	LocalView	2-7
2.7	Network Connection	2-9
2.8	Dial-up Connection	2-15
2.9	Field Testing a Connection	2-16
2.10	Damaged or Missing Goods.....	2-16
2.11	Upgrading Unit Software.....	2-17
3	Quick-pilot: Checking for Video	3-1
3.1	Multi-Media Software: Setup.....	3-1
3.2	Using Admin.....	3-2
3.3	Using View to Connect.....	3-8
3.4	Results.....	3-14
4	Audio	4-1
4.1	Audio at a Multi-Media Site	4-1
4.2	Audio for Operators	4-3
5	Other Site Hardware	5-1
5.1	Securing a Multi-Media unit	5-1
5.2	Unit Hard Disk.....	5-3
5.3	Hardware Options	5-4
5.4	Connecting a PTZ Dome	5-4
5.5	Alarm Sensors.....	5-6
5.6	Inputs for Sensors.....	5-7
5.7	Control Outputs.....	5-8
5.8	System Monitoring	5-9
5.9	Point of Sale Hardware	5-11
5.10	External Modems	5-14
5.11	NetPIT and PIT Devices	5-11
5.12	Port Use: Restrictions	5-14

6	Frequent Questions.....	6-1
6.1	Supporting an Installation	6-1
6.2	Background.....	6-2
7	Find-it.....	7-1
7.1	Knowledge Base	7-1
7.2	Tables.....	7-2
7.3	Illustrations	7-3
7.4	More FAQs	7-5
7.5	Site Information Checklist and Operator Notes	7-7
8	Index	8-1

1 Walk-through

1.1 Overview

New to Multi-Media?

Installers who are new to Multi-Media can benefit most from section 1.2: a walk-through of the key steps of a Rapid Eye Multi-Media unit installation.

Not new to Multi-Media?

Experienced installers can skip to sections:

- *2: Field Work.* Shows procedures and reference material for Multi-Media unit installation.
- *5: Other Site Hardware.* Shows optional hardware that you can add to a Rapid Eye site.

Software

The software operations for running a quick pilot are in section 3: *Quick-pilot: Checking for Video*, p. 3–1. For information about installing software and the Microsoft Windows patches needed to run Multi-Media software, consult the *Multi-Media Software: Setup Instructions* for Rapid Eye Multi-Media units, part #K5401, in your documentation set.

LocalView and View software

A Multi-Media unit can be operated:

- **without a computer (PC), using LocalView.** Connect a VGA monitor and mouse to the unit.
- **with a PC, using View and Admin software.** For information about installing software and Microsoft Windows patches needed to run Multi-Media software, consult the *Multi-Media Software: Setup Instructions* for Rapid Eye Multi-Media and Multi-Media LT units, available as a PDF after the installation of View and Admin on a PC.

Finding out more

To quickly locate

- frequently asked questions (FAQs), see section 6, on p. 6–1
- procedures (➤), tables or illustrations, there are handy *Find-its* in section 7, starting on p. 7–1
- the index, see p. 8–1.

1.2 Walking Through

Steps 1.2.1 to 1.2.10 offer a walk-through of a Multi-Media installation. Procedures follow in section 2: *Field Work*, p. 2-1.

1.2.1 Cameras

➤1 Connect cameras (as many as 16) to the Multi-Media unit

Connect coaxial cable ...

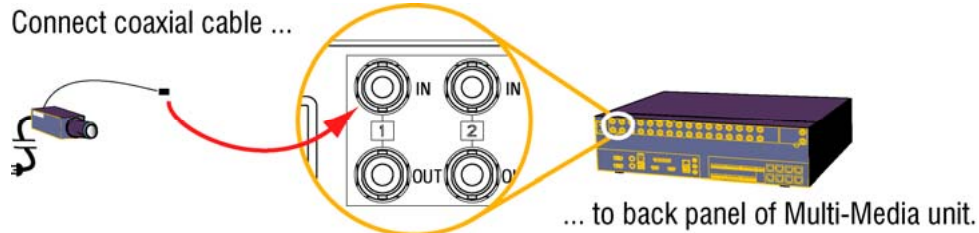


Figure 1. Use the first available “IN” on the Multi-Media back-panel for a camera.

For more detail

- 2.5: *Connecting a Camera*, p. 2-6

1.2.2 Communications

➤2 Connect the Multi-Media unit to a network or telephone line

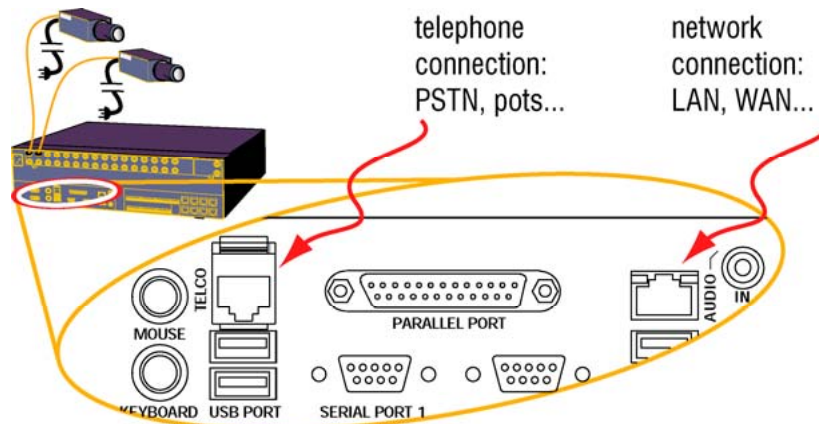


Fig. 2. Use standard connectors for network (LAN) or telephone line (TELCO).

For more detail

- 2.9: *Field Testing a Connection*, p. 2-16

1.2.3 Other Hardware

Ports for future use

The **USB** ports, **Printer** port, **VGA2** port, the **MIC IN** connector and the eight, numbered **RS-232** ports are for future use. Do use these ports. See also 5: *Other Site Hardware* on p. 5-1.

1.2.4 Powering-up the Multi-Media unit

➤3 Supplying power to the unit and the cameras

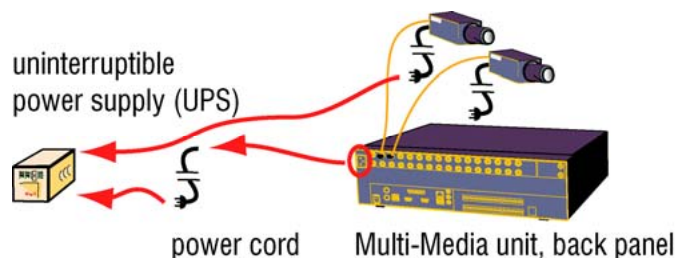


Fig. 3. Honeywell recommends plugging cameras into an uninterruptible power supply if such a device is used for a unit.



In Europe, a UPS is required to meet EN50130-4 Euro Norm.

Power switch

The power switch is located on the front of the unit, behind the locking grille, to the left of the small blue display screen.

1.2.5 Admin and View Software

➤4 Locate personal computer (PC) running Multi-Media software

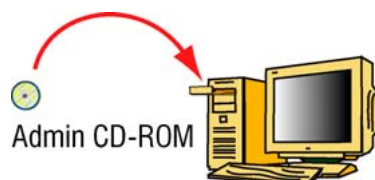


Fig. 4. To install *Admin* and *View* software, run the Multi-Media Admin CD-ROM. If Microsoft patches are needed for your Windows system, consult the *Multi-Media Software: Setup Instructions*, part #K5401.

1.2.6 A Database for Multi

➤5 Start Admin to create a Multi-Media database



Fig. 5. Shortcut for *Admin*, on the Windows desktop

➤ **6 Log on to a Multi-Media database, or create one using Admin**

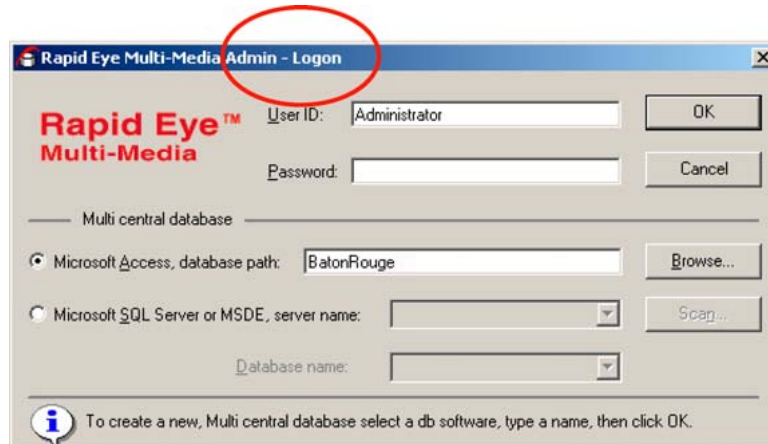


Fig. 6. The window for logging on can also be used to obtain an empty Multi-Media central database.

1.2.7

Site Name

➤ **7 Using Admin, add a site**

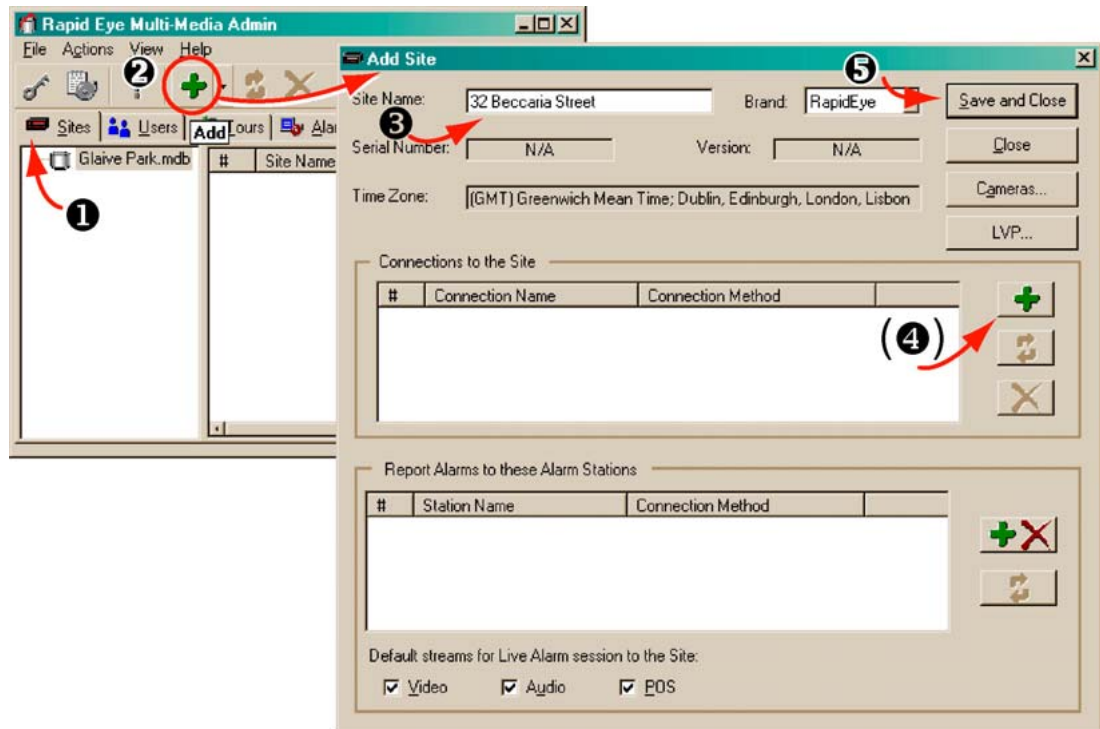


Fig. 7. From the Admin “Sites” tab, you can add, name, update and delete a site.

1.2.8 Type of Connection

➤8 Add information about a connection, then save it

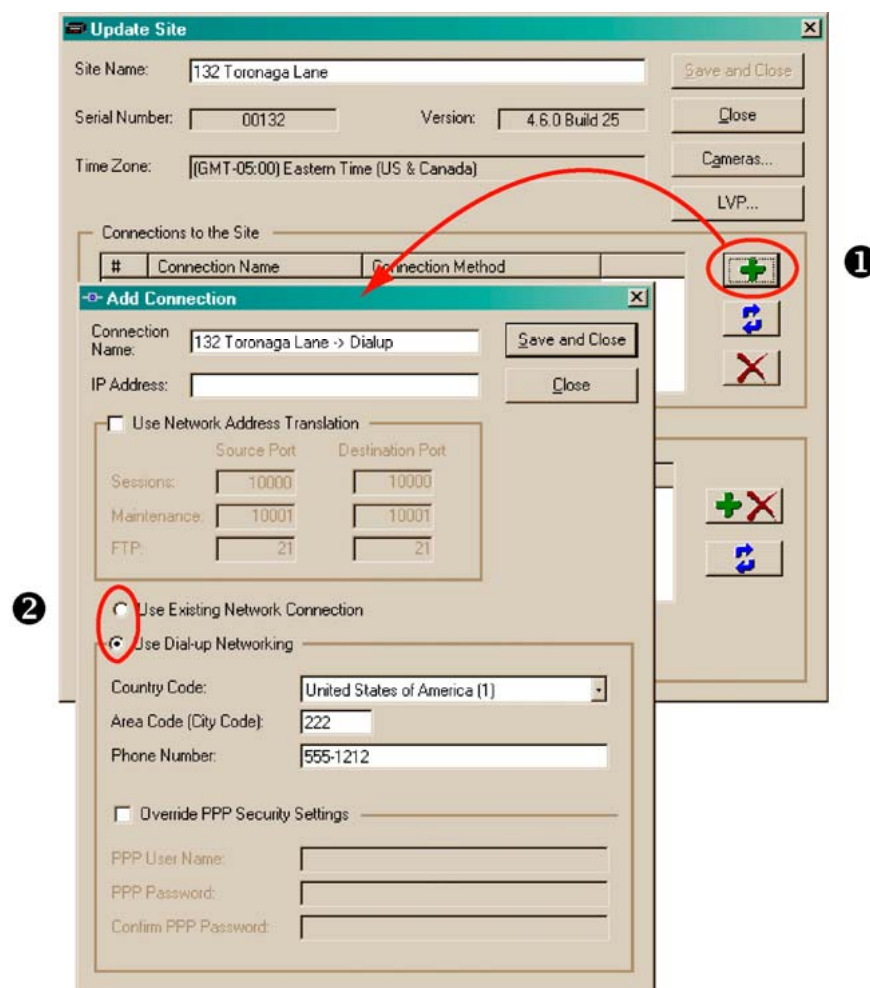


Fig. 8. Using Admin, select a network or dial-up (2) connection.

About connections

- 2.6: *LocalView*, p. 2–7
- 2.7: *Network Connection*, p. 2–9
- 2.8: *Dial-up Connection*, p. 2–15

1.2.9 Running View

➤9 To use View

- From your PC's desktop click the View shortcut icon, then log on.



Fig. 9. Shortcut for View, on the Windows desktop

➤ **10 Log on to View**

Clicking the database box shows the name of the Multi db.

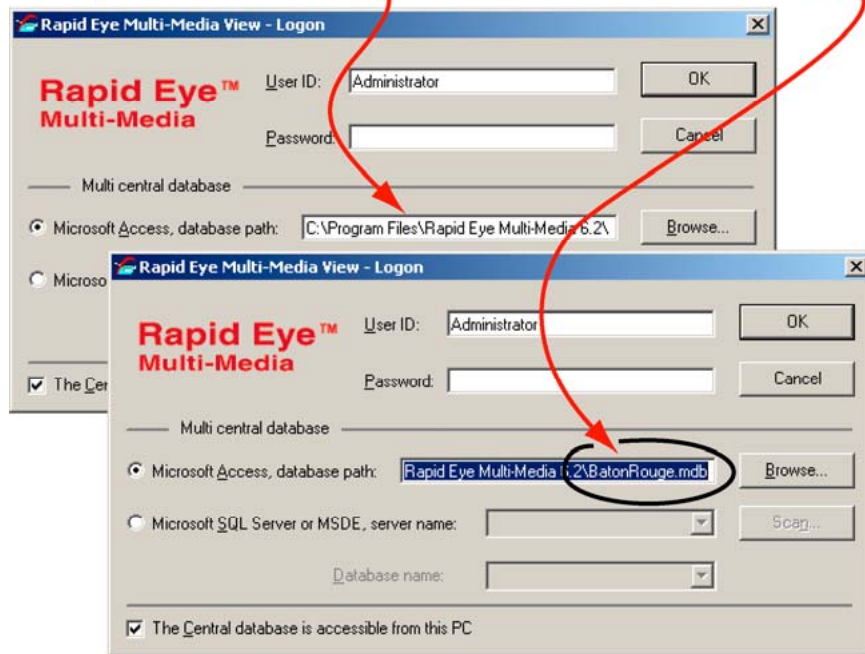


Fig. 10. Use the same database created earlier, using Admin; see fig. 6 on page 1–4.

1.2.10 Testing a Connection

➤ **11 Test the connection; use View to run a Maintenance session**

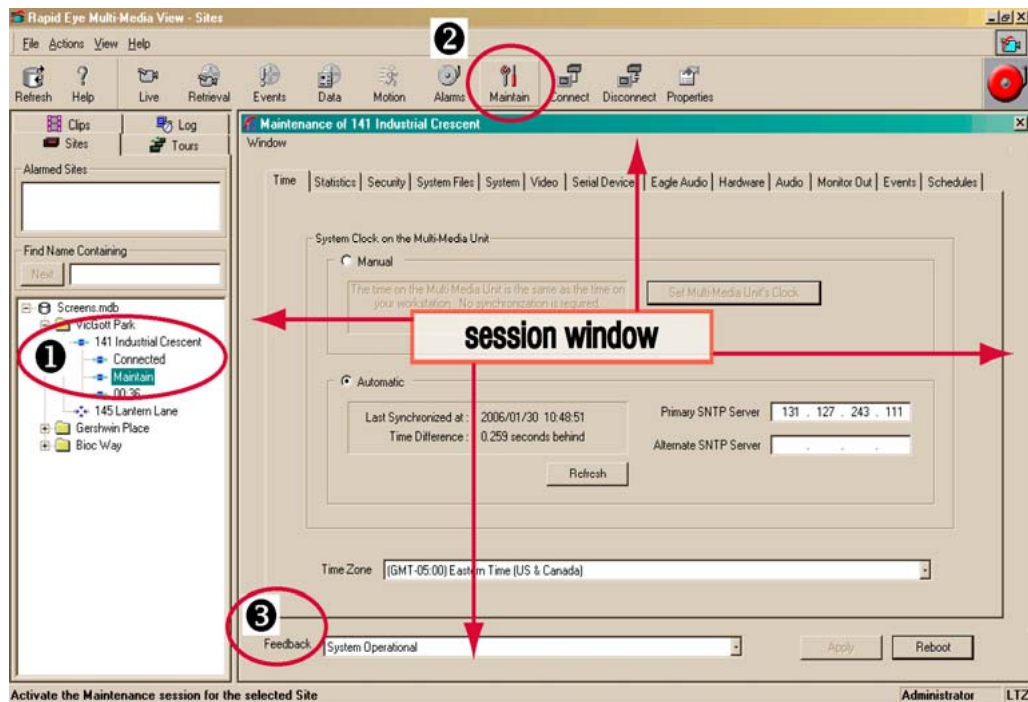


Fig. 11. A connection to a site (1) works if you see “System operational” in the Feedback box (3) of a maintenance session (2).

Web site

To see more Honeywell products that can be used with Multi-Media or to consult user guides of previous versions of this product, see:

- www.honeywellvideo.com

Background information

CCTV. For in-depth reference work about the field of closed-circuit television in a security setting, see:

- Kruegle, Herman, *CCTV Surveillance: Video practices and technology*, Butterworth–Heinemann, Newton (MA), 1995, ISBN 0-7506-9028-3, TK6680.K78.



Effective video feeds are a major component of any CCTV system.

Planning for camera position, distance from subject, angle and lighting can be as critical as operating your Multi-Media unit. For audio: planning microphone position, distance from subject and alarm bells can also be critical. Consult your camera and audio suppliers for optimal hardware setup.

Security. For ideas on how a defensible space can be enhanced by CCTV:

- Newman, Oscar, *Defensible Space: Crime Prevention through Urban Design*, Macmillan, New York, 1973, ASIN: 0020007507.

2 Field Work

Audience

Field technicians, tasked with the initial steps of an installation (see sections 1.2.1 and 1.2.2), will find the steps expanded and explained in more detail, in this section.

➤13 Road map to field work

- Unpack the unit.
- As you start connecting hardware to the Multi-Media unit, use the Site Information Checklist and Operator Notes on p. 7–7, to take notes.
- Connect one or more cameras to the unit.
- According to the communications that you plan to use, connect the unit to: a telephone line, your network or both.
- Power up the camera(s) and the Multi-Media unit.
- *For network connections only*, to assign a TCP/IP address to the Multi-Media unit, use either:
 - (a) the LocalView interface (included) and a monitor (not included), or
 - (b) a PC (not included) and a null-modem cable (included).
- Field-test the connection to the unit.



Please do not remove factory seals on a Multi-Media unit.

Breaking them voids your warranty. There are no user-serviceable parts inside.

Field technicians, tasked with the initial steps of an installation (see sections 1.2.1 and 1.2.2), will find the steps expanded and explained in more detail, in this section.

2.1 Unpacking the Unit

➤14 To unpack a unit

1. Open the box and remove the Rapid Eye Multi-Media unit, the power cord and other items from the box. The contents are listed in table 2.
2. Remove the plastic bag that surrounds the unit.
3. Store the box and packaging materials.

Table 2

Contents of Rapid Eye's hardware kit, WAMULTI7HW

item, one of each, unless otherwise noted	Part #
power cord	P8137
rack ears, brackets and screws, for optional mounting of unit	SARE2EARS
network cable (CAT-5), RJ45 connectors, 2m length	K9530
null-modem cable, serial, DB9 connectors, female	921400-05
straight through cable, DB9-pin, male connector, to DB9-pin, female connector	K0304
terminal block plug for FAULT RELAY, 4 positions, 3.5mm	K9531-4
terminal, block plugs (six), for ALARM inputs and CONTROL outputs, 8 positions, 3.5mm	K9531-8
screwdriver, slim, for terminal blocks	K9536
printed matter	
<i>Please Read This First!</i>	K9700
this document: <i>Multi-Media Unit Installation Instructions</i>	K9696

Table 3

Contents of Rapid Eye's software kit, WAMULTI7DC

Item, one of each, unless otherwise noted	Part #
mouse, two-button, PS/2 compatible	K9258
mouse pad	K0007V1
CD, Rapid Eye Multi-Media software	HRM7ADMIN
printed matter	
<i>Multi-Media Software: Setup Instructions</i>	K5401
<i>System Administrator's Guide—Using Admin and View software to configure Multi-Media Units and manage the accounts of Operators</i>	K5403
<i>View Operator Guide for Rapid Eye Multi-Media Units</i>	K5404

2.2 Rear Panel Reference

Table 4
Panel connectors

Connector Label	Description
SERIAL PORT 1 SERIAL PORT 2	DB9 connectors.
VIDEO INPUTS – IN	BNC connectors for video signal cable. A Multi-Media unit has 16 video input connections.
VIDEO INPUTS – OUT	BNC connectors to relay a video feed to either a CCTV, NTSC or PAL monitor, VCR, or other device. The outs are capped for delivery.
MONITOR OUTPUT 1	BNC connector; can be set to produce test pattern or a camera tour.
MONITOR OUTPUT 2	BNC connector; inoperative for this release.
MOUSE	For standard mouse (supplied)
KEYBOARD	For keyboard (optional)
TELCO	RJ-11 connector to Multi-Media unit's modem
USB PORT	Inoperative.
PARALLEL PORT	Inoperative.
LAN	RJ-45 connector to unit's 10/100 BT network card
AUDIO IN/OUT	Soundcard connectors
MIC IN	DISABLED; use AUDIO IN.
ALARM INPUTS	Screw terminal connectors for input and ground* connection, to interface with devices such as alarms. TTL type: minimum high level of +2.4 volts; maximum low level of +0.4 volts.
CONTROL OUTPUTS	Screw terminal connectors for output and ground* connection, to interface with devices such as: lights, sirens, locks, and so on. TTL type. The outputs do not directly drive devices; they control relays that do so.
SERIAL PORT	RJ-45 connectors on port 3 to 10.

* Control I/O must be referenced to the ground of the Multi-Media unit.

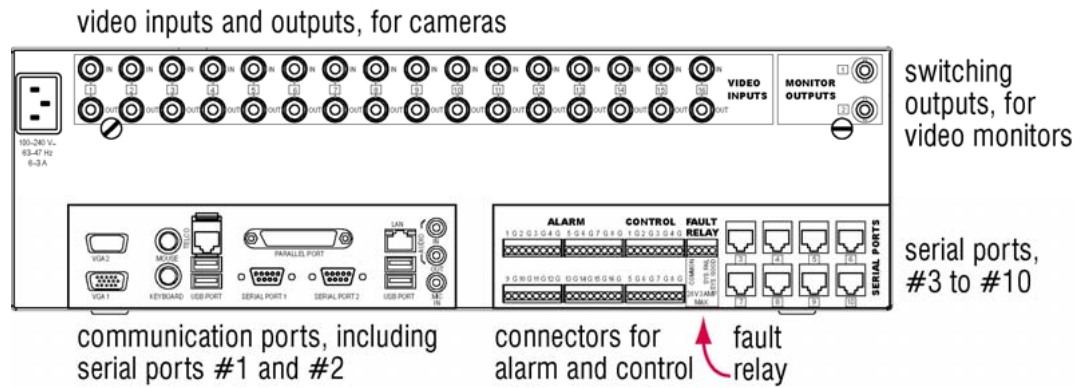


Fig. 13. Rear panel of a Multi-Media unit. The connectors are listed in table 4.

USB port and Printer port

The USB port and Printer port at the back of the REMM unit are for future use. Do not connect USB devices or a printer to a Multi-Media unit.

2.3 Reporting the Installation

Flexibility

As you start connecting hardware to the Multi-Media unit, Honeywell recommends that installers take notes in a form similar to the one provided in 7.5: Site Information, on p. 7–7. Include a record of the hardware connected to the Multi-Media unit and of use of LocalView to make changes to the Rapid Eye site’s configuration.

To whom...

Direct the report to the:

- **Multi SA.** An organization’s Multi-Media *system administrator* (Multi SA), responsible for use of the *Admin* software.
- and/or -
- **network administrator.** The installer may need to contact the organization’s network administrator, depending on a Multi-Media system’s sensitivity, complexity, size, and the Multi SA’s knowledge of computers and networks.

Content of installation report

The report contains information needed for configuring the site(s) using *Admin* and *View* software.

The installation report can list:

- telephone number or IP addresses assigned to Rapid Eye sites
- information about the cameras (color, PTZ, and so on)
- use of other hardware (gates, alarms and so on) connected to the Multi-Media unit’s input(s) or output(s).

2.4 Powering the Multi-Media Unit

Power requirement

Multi-Media units can auto-range:

- 100–240 V~, 63–47 Hz, 6–3 A

For many cameras in a permanent installation, you can use a power supply such as an APS 2404UL (4 cameras) or APS 2416UL (16 cameras).

Uninterruptible power supply

To allow time for a safe power-down, a UPS should guarantee 300 watts of power for each Multi-Media unit, for at least 30 minutes. In Europe, a UPS is required to meet EN50130–4.

UPS: remember the cameras

Powering the *cameras* (or their power supply) from a UPS ensures that the Multi-Media unit can continue to record video during a power outage, whether the outage is due to your utility or to a criminal act.

Honeywell recommends that a line conditioning uninterruptible power supply (UPS) be used with the Multi-Media unit and the cameras connected to the unit.

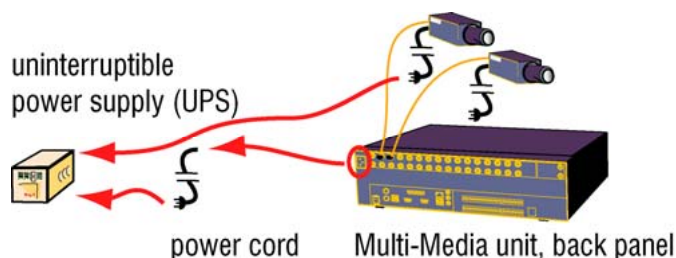


Fig. 14. Plugging-in a Multi-Media unit.

Without a UPS?

When a UPS is not used, the Multi-Media unit should be connected to a dedicated ground circuit. The outlet and breaker box should be marked as such. Nothing else should be plugged into this circuit.

2.4.1 Powering Up and Down

Wait after turning on a unit

During the two minutes a REMM unit needs to initialize, it is good practice to **not** turn it off—see 2.4.3: *Unit Recovery*. The end of the initialization is signaled by a **double-beep** from the unit.

➤ **15 The power up sequence recommended by Honeywell**

1. Plug the Multi-Media unit and its cameras into a power source, preferably an uninterruptible power supply (UPS).
2. Turn on camera(s) and other hardware, connected to the unit. Honeywell recommends that cameras be powered on *before* the Multi-Media unit. If not, cameras will not be auto-detected by the unit.
3. Turn on the Multi-Media unit.

➤ **16 The power down sequence**

1. Press and hold the power switch on the front of the Multi-Media unit for up to five seconds.
2. Unplug the Multi-Media unit from the uninterruptible power supply (UPS) or wall outlet.
3. Power down the camera(s) and/or other hardware.
4. Power down the UPS, if in use.

2.4.2 Temperature

Honeywell recommends that a unit be operated in a non-condensing environment, in temperatures ranging from 40° F to 104°F (or 5°C to 40°C).

2.4.3 Unit Recovery

Unit recovery is an internal diagnostic that seldom occurs and cannot be interrupted, even by powering down a unit. A unit recovery can take many hours, even dozens of hours on units with a large storage capacity. If unit recovery occurs repeatedly, contact Honeywell technical support.

2.5 Connecting a Camera



Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: *Powering Up and Down*, p. 2–5.

Connector

The BNC connector's low signal loss, ease of twist-on installation, and small size, make it a common connector for CCTV connections. Honeywell recommends using a solder- or crimp-type connector. Video is quite sensitive to bad connectors; **do not use** screw-type connectors. These can seriously compromise a unit's performance.

Connect coaxial cable ...

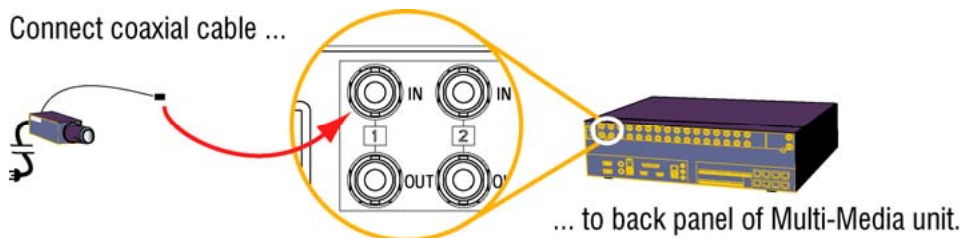


Fig. 15. Connect each camera to a different camera input (an “IN”, in the VIDEO INPUTS section), on the back-panel.

Rapid Dome or Rapid Dome Gold dome systems

With Rapid Dome or Rapid Dome Gold dome systems, using twisted pair transmission, Honeywell recommends that passive-to-passive transmission distances be no more than 500 feet (154 meters). For greater distance, please use an active receiver product such as an ATP652R.

Securing a camera

Forethought about poor camera angles and the possibility of tampering with cameras or vandalism can help to assist police if an area becomes a crime scene, for optimal gathering of evidence, whether for corporate use, or for use of video in a court of law.

When planning where to place video cameras, Honeywell suggests that your planning authority consider:

- dealing with environmental lighting situations that can render a system ineffective: direct sunshine or other strong lighting, darkness and so on.
- environmental factors that can hamper cameras or the lens of cameras: dust, condensation, grease (common in food preparation areas), excessive heat or cold.
- working around camera blind spots due to: architecture, mobile equipment, vehicle docking, construction and so on

Reference

The details of camera lens selection, camera angle, maintenance and so on, are beyond the scope of this guide. For an in-depth reference about the field of closed-circuit television in a security setting, see:

- **Kruegle**, Herman, *CCTV Surveillance: Video practices and technology*, Butterworth–Heinemann, Newton (MA), 1995, ISBN 0-7506-9028-3, TK6680.K78

2.6 LocalView

Hardware

LocalView is available by connecting a VGA monitor and a mouse directly to the REMM unit. LocalView automatically starts when the REMM unit is powered up. An online help facility is included with LocalView. To use LocalView, you need only the mouse supplied with the REMM unit – a keyboard is not required.



Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: Powering Up and Down, p. 2–5.

Functions

Using LocalView, you can:

- perform basic system setup functions such as: configuring network settings, including the unit's IP address
- perform camera setup: name, type, recording rate, PTZ and so on
- configure system clock: date, time and time zone
- review and search the system log

- record and monitor live video, audio or data
- make and view a video-clip that includes audio and data
- copy a video-clip to the unit's CD-RW drive; a drive is an option on REMM units
- set up a camera tour, using the Cycle feature.
- monitor a video feed at high resolution.

LocalView help on operator's PC

LocalView's online help is available in a small, standalone application for an operator's PC. It is on the *Admin and View* CD and on the *Upgrade* CD, in the *RU* folder. Look for: *LocalView Help.exe*. The files are HTML; they are read using an internet browser.

Monitors

VGA. For using LocalView, a VGA monitor can be plugged directly into a Multi-Media unit. The software is designed for a resolution of 800 x 600.



Select a VGA monitor to run LocalView only if the monitor supports a resolution of 800 × 600.

NTSC. To use LocalView on an NTSC television set or monitor, you need a VGA- to-NTSC converter. Text labels on such equipment may be harder to read than on a VGA monitor.

PAL. To use LocalView on a PAL television set or monitor, you need a VGA- to-PAL converter. Text labels on such equipment may be harder to read than on a VGA monitor.



Do not place a monitor or other equipment directly on top of the Multi-Media unit.

Recommended media for videoclips

For recording clips use the CD-RW drive on a Multi-Media unit.



Honeywell recommends that only *recordable* compact discs be used (CD-R). Do not use re-writable compact discs (CD-RW) or recordable digital video discs (R-DVD) to store Multi-Media video clips.

LocalView passwords

LocalView passwords are also explained in LocalView's online help system and briefly discussed in this guide and in the *System Administrator's Guide*.

➤ 17 To enable the locking of a LocalView functions

1. Using *LocalView*, click the **Setup** tab. Sub-tabs appear.
2. On the **System** sub-tab, under "Security Passwords", click the checkboxes for either: **Cycle**, **Setup**, or both, so that they show a checkmark.

➤ **18 To change a LocalView password**

1. After locking a LocalView function, as explained in procedure ➤17, click that function's **Password** button. A window appears showing a virtual keypad.
2. Using the virtual keypad, enter a number. The password's length can be between 4 and 10 digits.
3. Click **OK**.



Please make a note of passwords. A lost password can make the LocalView interface unchangeable. See the 7.5: *Site Information Checklist and Operator Notes*, p. 7–7.

Default LocalView passwords

To lock a Cycle: **1111**.

To lock the LocalView setup: **9999**; this password can be used to also unlock a cycle of the Live tabs.

To lock the availability of making a clip: **1111**.

To lock use off PTZ: **1111**.

The LocalView passwords have no effect on other passwords, set using Admin software. See the *System Administrator's Guide* for procedures involving other passwords.

Very low recording rates

Only when using LocalView are there limits that a Multi SA needs to impose on cycle times for low recording rates. See table 5.

Table 5

Restriction for LocalView cycle times when setting low recording rates

recording rate (fps)	lowest cycle time (sec.)
0.25	16
0.50	8
1.00	4

2.7 Network Connection

Overview

You may not need to assign an IP address to a unit if your network is enabled for Dynamic Host Configuration Protocol (DHCP).

Networks with DHCP

Multi-Media units can be enabled as DHCP clients; DHCP is OFF by default. After enabling DHCP, power-down a unit connected to the network and power-up. See the *Admin User Guide* for detailed procedures.

A network administrator has the option of assigning a reserved IP address to a Multi-Media unit, instead of a "computer name". In that case, the unit's default IP address can be used. You have the option of assigning a different static IP address to the unit using the procedures for networks without DHCP, below.



Within DHCP without DNS, an assigned IP address needs to be reserved or it may change.

Plan to let the network's administrator as well as the Multi SA know of the unit's installation; after a unit is rebooted or reset, a new DHCP address is assigned to it and communication to the unit could be hampered if wrongly configured.

For a network without DHCP

There are two methods of setting a static IP address on a Multi-Media unit. You can do so by using either:

- **LocalView.** Software available on Multi-Media units. To use, LocalView software, connect a monitor (not supplied) and a mouse (supplied) to the unit; connecting a keyboard is optional.
- **PC.** When using a PC onsite, procedures >20 to >25 are used.

2.7.1 Using LocalView Onsite

>19 To assign an IP address to a unit using LocalView

If needed, repeat steps 3 to 6 for the **Network Mask** and **Gateway**.

1. Connect a monitor and mouse to a Multi-Media unit. *LocalView* appears on the monitor while the unit is on.
2. Using the mouse connected to the Multi-Media unit, click the **Setup** tab of LocalView. Sub-tabs appear.
3. On the **System** sub-tab, under "Network Settings", click the **IP Address** field. A window appears showing a virtual keypad.
4. Click the keys of the virtual keypad to enter the IP address.
5. Click **OK**.

What next?

After making these settings, someone needs to use Admin software to duplicate the settings in a Multi-Media database, before a View software operator can connect to the unit through a network.

2.7.2 Using a PC Onsite

Procedures >20 to >25 explain how to use a PC onsite.

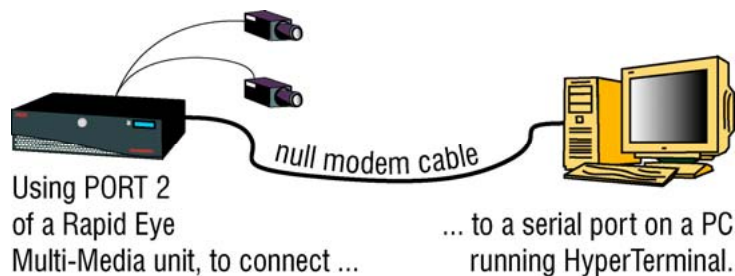


Fig. 16. Temporary use of a PC onsite.

Null-modem cable

A null-modem cable comes with your Multi-Media unit.

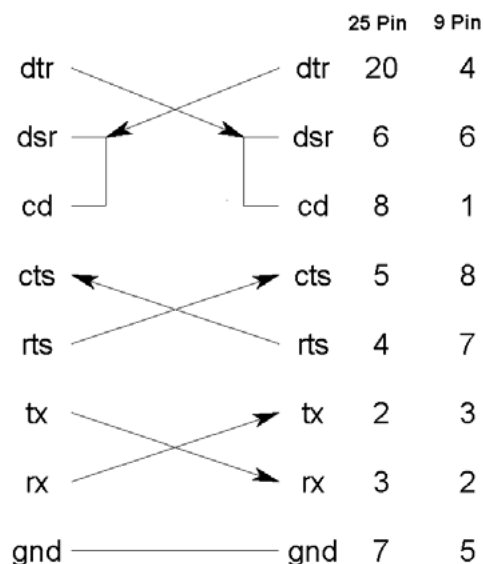


Fig. 17. Wiring diagram of a null modem cable

➤20 To connect a null-modem cable

1. Power off the Multi-Media unit.
2. Connect the 9-pin (or 25-pin) female connector of a *null modem* cable to one of the PC's serial ports. Connect the other 9-pin female connector to the RS-232 **Port 2** connector at the back of the unit.

➤21 To setup a terminal program

1. On the PC connected to a Multi-Media unit, start a terminal session. You can use a program such as *HyperTerminal*—bundled with Microsoft *Windows*. The commands for launching *HyperTerminal* are listed in table 6. The terminal session is used to send commands to the *Multi-Media Shell* software on the unit. A dialog appears, similar to the *Connection Description* in figure 18.



Fig. 18. Naming a connection, using *HyperTerminal*

2. In the *Connection Description* dialog, type “Rapid Eye Multi-Media” (or similar) in the **Name** field.
3. Click **OK**. A *Connect To* dialog appears. See figure 19.
4. Using the *Connect To* dialog, select the Workstation's COM port number that is connected to the null modem cable, by using the arrow next to the **Connect using** field.
5. Click **OK**. The *COM Properties* dialog box is displayed.



Fig. 19. Indicating a PC's COM Port, using *HyperTerminal*

6. In the *COM Properties* dialog box, set the Terminal program to the values listed in table 7.
7. Click **OK**.

Table 6
Commands for launching *HyperTerminal*

Windows	Click [Start] and point to then click
98se	Programs, Accessories, Communications, <i>HyperTerminal</i>	Hypertrm.exe icon
Win2000	Start, Programs, Accessories, Communications	<i>HyperTerminal</i>
XP: XP style	Start, All Programs, Accessories, Communications	<i>HyperTerminal</i>
XP: classic style	Start, Programs, Accessories, Communications	<i>HyperTerminal</i>
Server2000	Start, Programs, Accessories, Communications	<i>HyperTerminal</i>
Server3000	Start, Programs, Accessories, Communications	<i>HyperTerminal</i>

Table 7
Settings for *HyperTerminal* communications session

Parameter	Value
Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	Hardware

➤ **22 To use the the *Multi-Media Shell***

1. While watching the terminal program running on the PC, turn the Multi-Media unit on. For ten seconds, the terminal program displays: "HIT ENTER TO KEEP SHELL RUNNING".
2. Press **Enter** within ten seconds. After ten seconds, the Multi-Media unit bypasses the the *Multi-Media Shell* and continues its initialization.



After 10 minutes of inactivity, the the *Multi-Media Shell* times out. To return to it, turn the Multi-Media unit off, then use procedure 22.

➤ **23 To assign an IP address to the Multi-Media unit**

1. Type "ip=" (without the quotation marks) followed by the network address assigned to the Multi-Media unit by your network administrator. Press **Enter**.
2. If needed, use "gateway=" and "netmask=" the *Multi-Media Shell* commands to set them to values assigned by your network administrator. Press **Enter** after each command's data.

Table 8
Default Multi-Media network settings

Field Name	Default Address	Shell command
IP Addr	172.25.2.1	ip=
Subnet Mask	255.255.0.0	netmask=
Gateway	172.25.100.4	gateway=

Multi-Media Shell Reference

While using the shell, what you type is saved as soon as you press the **Enter** key. To change a setting, type its command, as listed in table 9.

Table 9
the *Multi-Media Shell* commands

Command	Result
?	Displays a list of commands.
cls	Clears the Terminal screen.
quit or q	Quits the the <i>Multi-Media Shell</i> and starts the Multi-Media video unit in its normal mode of operation.
show	Displays current LAN and PPP settings.
ip= gateway= netmask=	IP: LAN settings
comport=	Port offering a connection to the Multi-Media unit's modem. Values: none , port1 , port2 , or internal .
baudrate=	Transfer rate from the Multi-Media unit to the modem. Values: 9600 , 19200 , 38400 , 57600 , or 115200 .
modem prefix= modem init= modem dial=	Modem dialing string commands. Your modem documentation lists acceptable values.
local= host=	PPP: temporary IP settings for TCP/IP network communications, established between the local (Multi-Media unit) and the host (PC) during a <i>dial-up</i> connection.
timeout=	Time allotted between alarm callback attempts on dial-up connections. Value: from 0 to 999 seconds.
Recover	Restores unit software to previous version. System, configuration, and application files are restored from the backup directory. After you enter this command, the Multi-Media unit is automatically rebooted.

To start the the *Multi-Media Shell*, see 2.7.2: *Using a PC Onsite*.

➤24 To quit the program

- Quit the the *Multi-Media Shell* by typing “q” and pressing **Enter**.



After 10 minutes of inactivity, the the *Multi-Media Shell* times out. To return to it, turn the Multi-Media unit off, then use procedure 22.

➤25 To return to the the *Multi-Media Shell* after a time out

- Turn the Multi-Media unit off, wait five seconds, then turn the unit on again and go back to the previous procedures.

The commands for the the *Multi-Media Shell* are listed above in the *Multi-Media Shell Reference*, on the next page.

2.8 Dial-up Connection

For Telco communication, a data-grade (fax) telephone line is preferable to a standard line. Special features, such as call waiting, should not be available to a telephone line used by a Multi-Media unit.

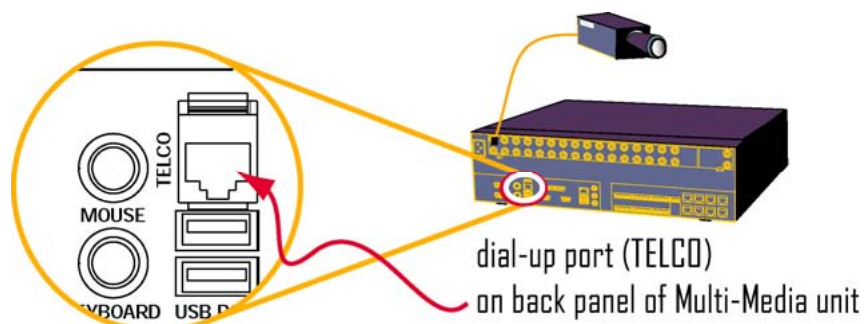


Fig. 20. Detail of “TELCO” port, used for dial-up connection.



Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: *Powering Up and Down*, p. 2–5.

➤26 To connect the Multi-Media unit to a telephone line jack

1. Using a standard telephone cable with RJ-11 connectors, plug one connector into the unit’s TELCO port; see figure 20.
2. Plug the other connector in a telephone outlet.

Note: Connect the unit to a telephone line only if a dial-up connection is used to communicate with the Multi-Media unit. For a network connection, please skip to section 2.7: *Network Connection*.

What next?

You are ready to power-up the camera(s) and unit as explained in section 2.4: *Powering the Multi-Media Unit*, on p. 2–5.

2.8.1 Modem Reference

The default settings for the modem in a Multi-Media unit are listed in table 10. Consult the organization's Network Administrator or Multi System Administrator (Multi SA) if this modem's settings need to be changed.

Table 10
Default modem settings

Field Name	Value
TELCO Port	Internal or Port 1
Baud	115,200
Wait	60
Prefix	AT
Initialization	Z
Dialing	D

2.9 Field Testing a Connection

➤ **27 To field-test a dial-up connection**

- Using a standard telephone line, dial the Multi-Media unit's number to hear if you can reach its modem.

➤ **28 To field-test a network connection**

- PING the IP address of the unit.

2.10 Damaged or Missing Goods

➤ **29 To deal with a damaged Multi-Media unit**

1. Inspect the unit for any other damage or missing parts. See table 2, above, for a checklist of the contents.
2. Make a note of the unit's serial number, located on the underside of the unit.
3. Call your Rapid Eye supplier to describe the problem and to tell them the unit's serial number. As required, the supplier assigns a Return Authorization (RA) number to the unit.
4. Make a note of the RA.
5. Re-pack the unit, along with the other contents.
6. Prominently display the RA on the shipping container.
7. Return the packaged unit to the location specified by your supplier.

2.11 Upgrading Unit Software

Upgrade CD-ROM

Onsite, you can upgrade Multi-Media units equipped with a CD-ROM drive.

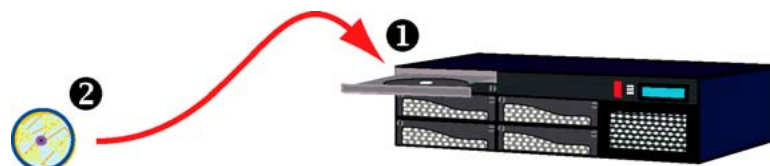


Fig. 21. Upgrading a unit in the field.

➤30 To upgrade a Multi-Media unit's software, onsite

1. Remove the front cover of the Multi-Media unit; if the cover is locked, use the key supplied with the unit.
2. Press the button on the CD-RW drive. A tray slides out.
3. Place the CD-ROM identified as "**ADMIN**" into the tray. See figure 21.
4. Shut the CD-RW's tray.
5. Turn the unit off, by pressing the red POWER button while the CD-ROM remains *in the unit*.
6. Power-up the unit.
7. Check the unit's blue LCD; as the unit starts up, a set of messages appear:
 - "Honeywell Startup Shell", "*Do Not Restart* Upgrading Unit", "Upgrade Complete. Restarting Unit", "Honeywell Startup Shell".
 - The final message depends on the unit's hardware.
For units holding a Pentium 3 processor: "Rapid Eye Multi-Media V5.2";
for units holding a Pentium 4 processor: "Rapid Eye Multi-Media V6.2".
8. The unit is operational. Press the button on the CD-RW drive and remove the CD-ROM from the tray.
9. Shut the CD-RW's tray.
10. Replace the front cover on the unit.

Multi-Media unit without a CD-RW drive

Multi-Media *units* without a CD drive can be upgraded from a View Operator's PC.

You can also upgrade in the field by connecting a PC directly to the unit, using a null-modem cable.

Please continue.

3 Quick-pilot: Checking for Video

Audience

After installers have field-tested connections (see 2.9 on p. 2–16), the next steps involve working with Multi-Media software from a PC. Your organization’s Multi SA needs to establish that video can be obtained on a PC. The *road map for using Multi-Media software...* outlines the work.

➤31 Road map for using Multi-Media software to obtain video

1. Locate a PC on which *Admin* and *View* have been installed. See 3.1: *Multi-Media Software: Setup*.
2. Use *Admin* software to:
 - create and log on to an empty Multi-Media central database (Multi db)
 - name the Rapid Eye site being tested
 - add connection information about the Rapid Eye site.
3. Use *View* software to:
 - log on to the Multi db
 - run a “Maintenance” session for the Rapid Eye site, to check the type of camera(s) that were auto-detected by the Multi-Media unit
 - run a “Live” session to obtain video.

Why check a connection?

It is useful to establish that the hardware and software installations are in good working order **before** securing the system (with passwords, user profiles and so on) and establishing a user base (by creating user accounts).

3.1 Multi-Media Software: Setup

Installing Multi-Media software is explained in the *Multi-Media Software: Setup Instructions*. You have the option of installing the software before or after the fieldwork, described in section 2, above.

3.2 Using Admin

➤ 3.2 To continue installing a Multi-Media unit

Before you can check for video, a record of a Rapid Eye site and connection is made, using *Admin*. A *site* is a term used for a unit, along with its cameras or other hardware.

Creating an empty Multi db

For installation purposes, you have the option of creating an empty db *on the fly*, as you log on to *Admin*. A Microsoft Access software template is used. You do *not need* a copy of Access installed on the PC to use this feature; everything you need is included with your copy of Rapid Eye Multi - Media software. Only one Multi-Media database (Multi db) is needed for many sites.



Fig. 22. Icon for Admin on the Windows desktop



Do not create a db each time that you log on.

Choose a name for your Multi db that avoids:

- (a) a name that you will need for a *user* of that Multi db; or
- (b) “Administrator”. It is the name of the default user in any Multi db. A Multi db with the same name as a user account causes an error when *View* is started.

Upgrading a Multi-Media database

You can use a populated SQL or MS-Access db for testing an installation. Microsoft Access-based Multi-Media databases, created using an older version, are upgraded *on the fly*; one prompt at logon and conversion is automatic. For specifics, see the *Multi-Media: Software Installation Instructions* and the *Multi-Media: System Administrator's Guide*.

3.2.1 Running Admin

Logging on to Admin

Three pieces of information are needed:

- **user account.** Use the “Administrator” account. It has the right to use all of the functions in Admin and View. It also has access to every Rapid Eye site in your system.
- **password.** By default, there is no password for the Administrator account. A password can be added after testing is complete. Account and system passwords are explained in the *System Administrator's Guide*.
- and -
- **database.** For testing, you can obtain an empty database as explained below, in section 3.2.2.

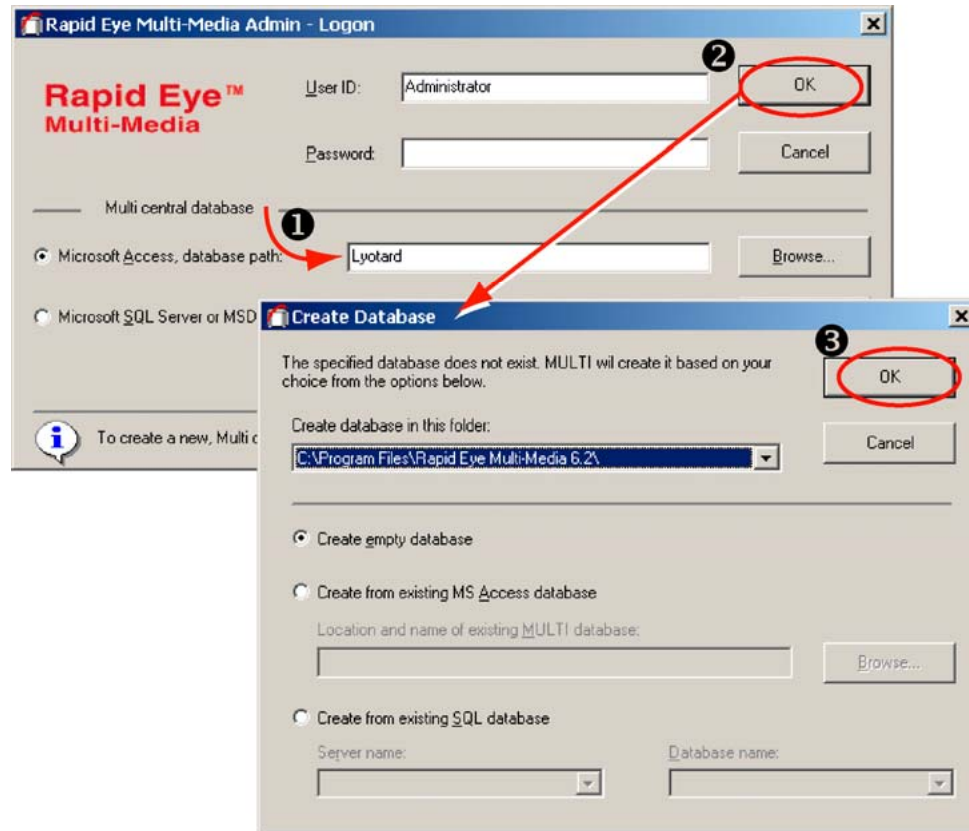


Fig. 23. To test Rapid Eye Multi-Media site information, create an empty Multi db, using the Microsoft Access engine.

3.2.2

Obtaining a Multi Db

Double-duty logon dialog

Besides logging on to *Admin*, you can use the “Admin Logon” dialog to create an empty Multi-Media database. After creating a database, Admin logs you on automatically.

Do not create a db each time that you log on.



➤33 To create an empty Multi db

1. Double-click the Admin icon (fig. 22). The Logon dialog is displayed.
2. Select “Microsoft Access Central database”.
3. Type a name, or a name and a path for the empty Multi db.
4. Click **OK**. Your logon is deferred, and a “Create database” dialog is displayed. See figure 23.
5. In the *Create Database* dialog, “Create empty database” is selected by default. Click **OK**. You are logged on to an empty database, bearing the name that you typed at step 2, and the Admin window appears.

What next?

Add site information to the database, as explained in the next section, 3.2.3.

3.2.3 Adding Site Information

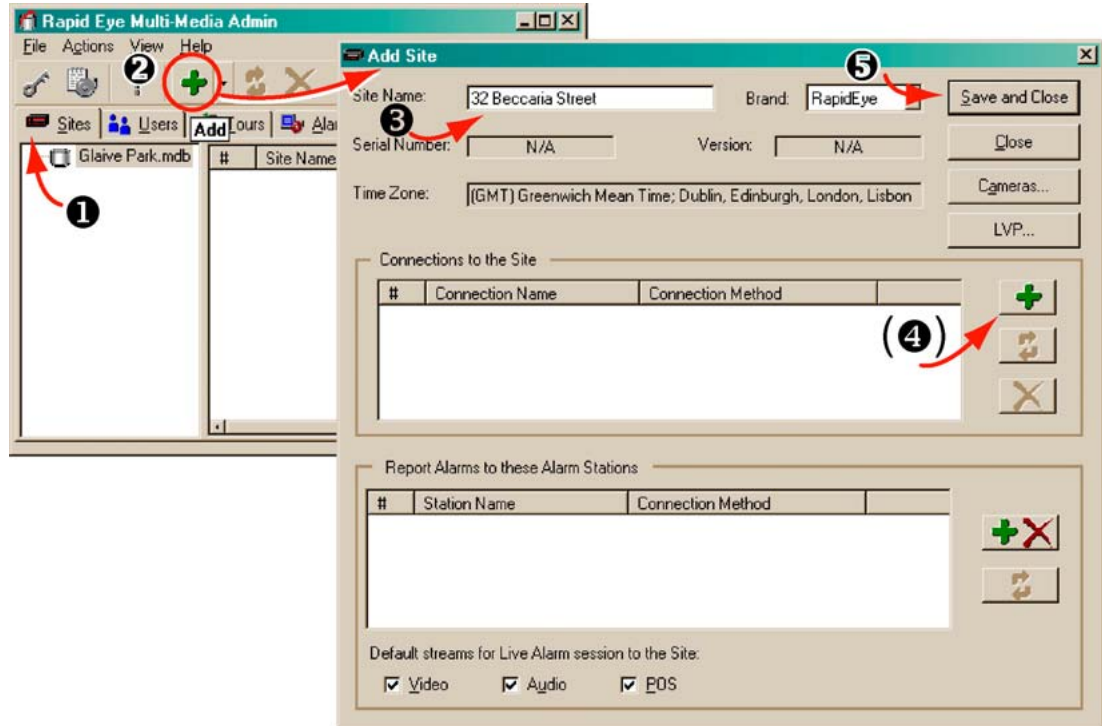



Fig. 24. Type the site name of your choice in the Add Site dialog.

Site identification checklist

- Name the site.
- Make a record of the type of connection used by the site.
- Click **Save and Close**.

➤ 34 To name a site

1. Using Admin, click the *Sites* tab.
2. To display the *Add Site* dialog box, either:
 - Click  on the toolbar (see figure 24).
 - or -
 - Click **Add** on the *Actions* menu.
3. Type the name in the **Site Name** box. You have the option of clicking **Save and Close** or of setting up a connection.

Dealing with connections

Indicate which of the two basic connections you will use to test your Multi-Media unit:

- a dial-up connection
- a network connection

Confirmation

Your network administrator can confirm that networked Multi-Media units can be reached by PING. For dial-up, verify that the telephone line and modem are working. See 2.9: *Field Testing a Connection*, on p. 2–16.

3.2.4 Dial-up Connection

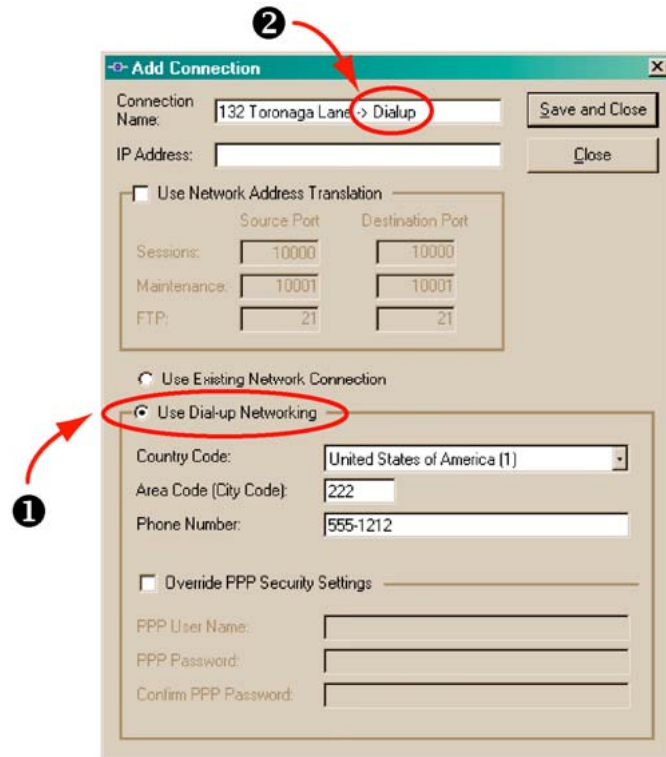



Fig. 25. Adding a dial-up connection. The “-> Dialup” in the connection name appears as you click *Use Dial-up Networking*.

➤ 35 To make a record of a dial-up connection

1. Click  in the “Connections to the Site” pane. The *Add Connection* dialog is displayed. The **Connection Name** box appends a stylized arrow and “Network” to the site’s name.
2. Click **Use Dial-up Networking**.
3. Admin automatically names the connection in the **Connection Name** box.



For a dial-up only connection, leave the IP Address box empty.

An IP address is typed in a dial-up connection only if a RAS server is part of the connection.

4. Leave the **Country Code** to “(dialing same country)”, unless the Multi-Media unit is in a different country than the View operator planning to use the site.
5. Type the unit’s **Area Code** and **Telephone Number**.



Access to an outside line. If your telephone exchange needs a prefix (an extra telephone key stroke such as a “9” or an “8”), set it in the Window's Telephony program used by the PC, not in Admin.

6. Click **Save and Close**. The Sites tab is displayed. In the tab’s Primary Connection column, the first letter of “dial-up” appears in parentheses: **(d)**, followed by the telephone number used to connect to the Multi-Media video unit.

3.2.5 Network Connection

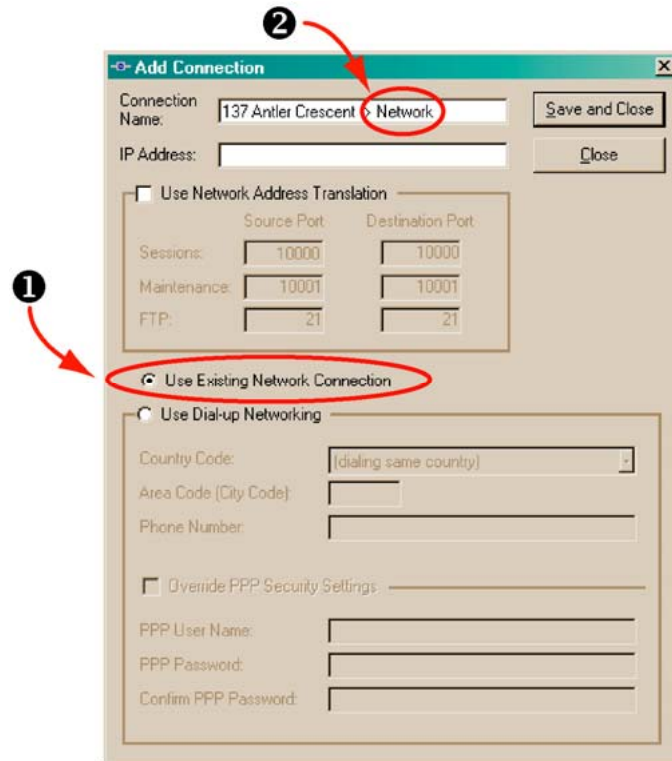



Fig. 26. Adding a network connection. By indicating “Use Existing Network Connection” (1), a “-> Network” indicator is appended to the Connection Name (2).

➤ 36 To make a record of a network connection

1. Using Admin software, in the *Add Site/Update Site* dialog, click  in the “Connections to the Site” pane. The *Add Connection* dialog is displayed. The **Connection Name** box appends an arrow and “Network” to the site’s name.
2. In the **IP Address** box, type the Multi-Media unit’s IP address. The IP Address is mandatory for a network connection. The address is the same as the one given in the field to the Multi-Media unit; see 2.7: *Network Connection* on p. 2–9.
3. You can choose to either:
 - Leave the *connection* name in the **Connection Name** box, as it was set automatically by Admin.
 - Type another name in the **Connection Name** box.
4. Click **Save and Close**. The Sites tab is displayed. In the tab’s Primary Connection column, the first letter of “network” appears in parentheses: **(n)**, followed by the IP address used to connect to the Multi-Media video unit.

3.2.6 Firewall Reference

Multi-Media sessions (live, retrieval and alarm) are sent to port 10 000, the unit's base IP port. The value of the base port can be changed by a Multi SA. For port functions, see table 11.



The TCP ports should be left open in your organization's firewall.

Table 11
Default Transmission control protocol (TCP) ports

Port*	Name	Use	Needed at ...
10 000†	Base	live, retrieval and alarm sessions	Multi-Media unit operator station
10 001	Maintenance	maintenance session for configuration, security, and sending/receiving system files	Multi-Media unit administrator's station
21	FTP	file transfer during upgrades and to obtain a unit's log	Multi-Media unit administrator's station
10 003	Alarm	alarm server for callbacks	alarm station Multi-Media unit

* These port settings are listed in the Add Connection/Update Connection dialogs in *Admin* software; see figure 27, below.

† The base port can be changed by using *Admin* software.

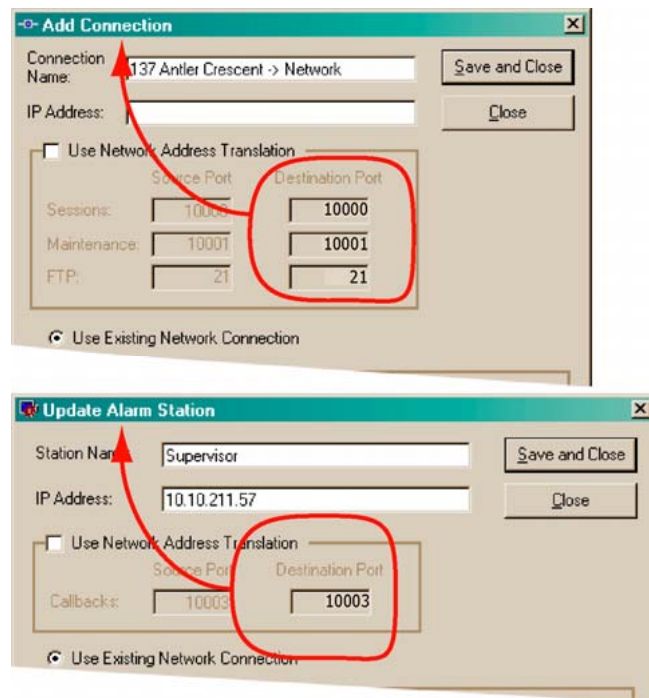


Fig. 27. A unit's base IP Ports.

3.3 Using View to Connect

Checking for video

After an initial maintenance session, View Operators use Live and Retrieval sessions to obtain video from a Rapid Eye site.



Fig. 28. View icon

3.3.1 Running View

Logging on to View

Three pieces of information are needed:

- **user account.** Use the “Administrator” account. It has the right to use all of the functions in View. It also grants access to every Rapid Eye site in your system.
- **password.** Account and system passwords are explained and discussed in the *System Administrator's Guide*.
- **database.** Use the same database used to log into Admin. See 3.2.1: *Running Admin*.

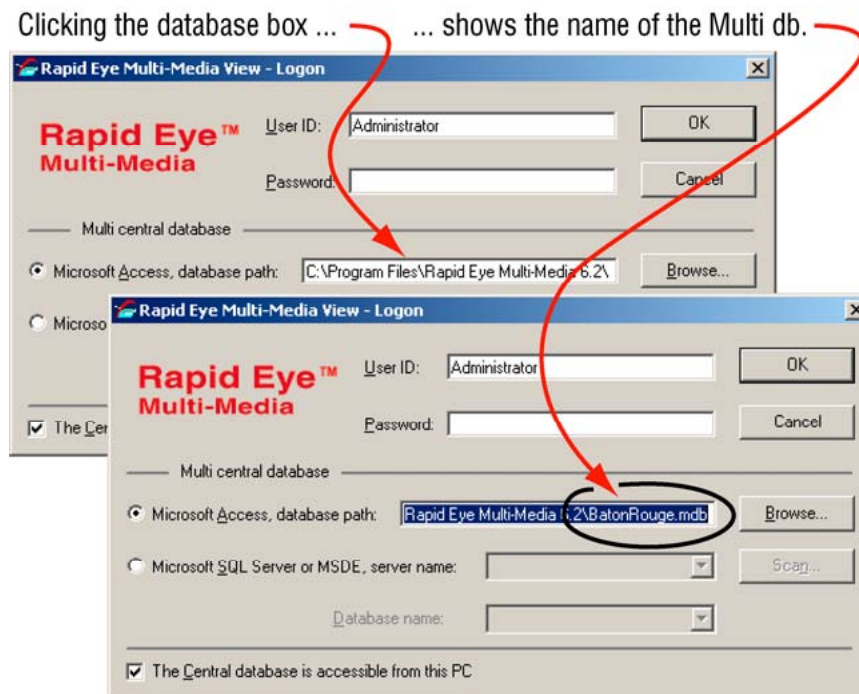


Fig. 29. Your database can have the name of your choice; see figure 23 on page 3-3.

3.3.2 Testing a Connection: Maintenance

Using Maintenance

Run a Maintenance session to set the Multi-Media unit's time and configure the site's cameras. A successful maintenance session also indicates that the record of the site in the Multi db is correct.

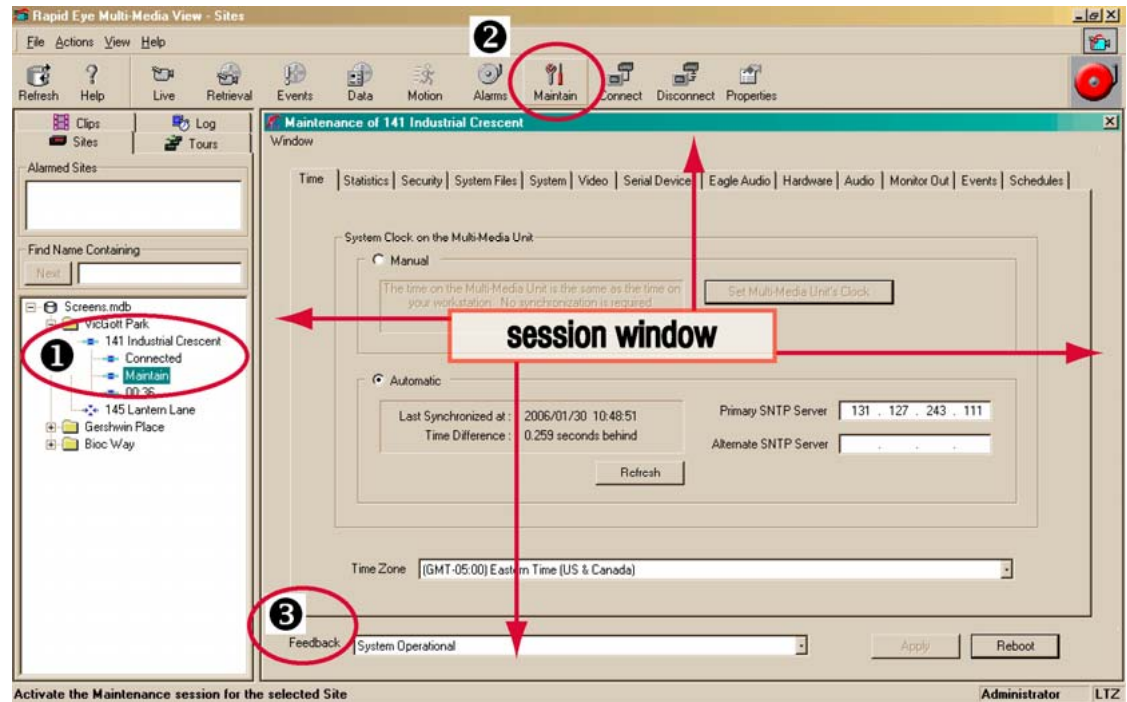


Fig. 30. A connection works if, after (1) selecting a site and (2) clicking **Maintain**, you see the “System operational” message in the **Feedback** box (3).

➤ 37 To run a maintenance session on a Rapid Eye site

1. Double-click the View icon (fig. 28). The “View Logon” dialog is displayed.
2. Log on using the “Administrator” **User Id** and the **Database** as for Admin (section 3.2.1). The Site tab in View should list the site(s) created in Admin.
3. To start a Maintenance session, either:
 - Right-click on the site name to select **Maintain** from the shortcut menu.
 - Select the site; then click the **Maintain** command on the Actions menu.

- or -

- Select the site; then click  **Maintain** on the toolbar.

3.3.3 Setting the Time on a Unit: Automatic

Crucial settings for reporting on video of events

Setting the **Time Zone** and **System Clock** on all Multi-Media units is crucial to the correct identification of video. These two settings also govern the scheduled recording and scheduled alarm features. Please set them with care.

SNTP requirement for an automatic setting

See your organization's IT Administrator to find out if a Simple Network Time Protocol (SNTP) server is in use. Multi-Media units on a LAN can benefit from an automatic setting that is accurate to within a fraction of a second. There are two SNTP boxes: **Primary SNTP Server** and **Alternate SNTP Server**. They hold IP addresses of SNTP servers. Your Multi SA can obtain these values from your network administrator.

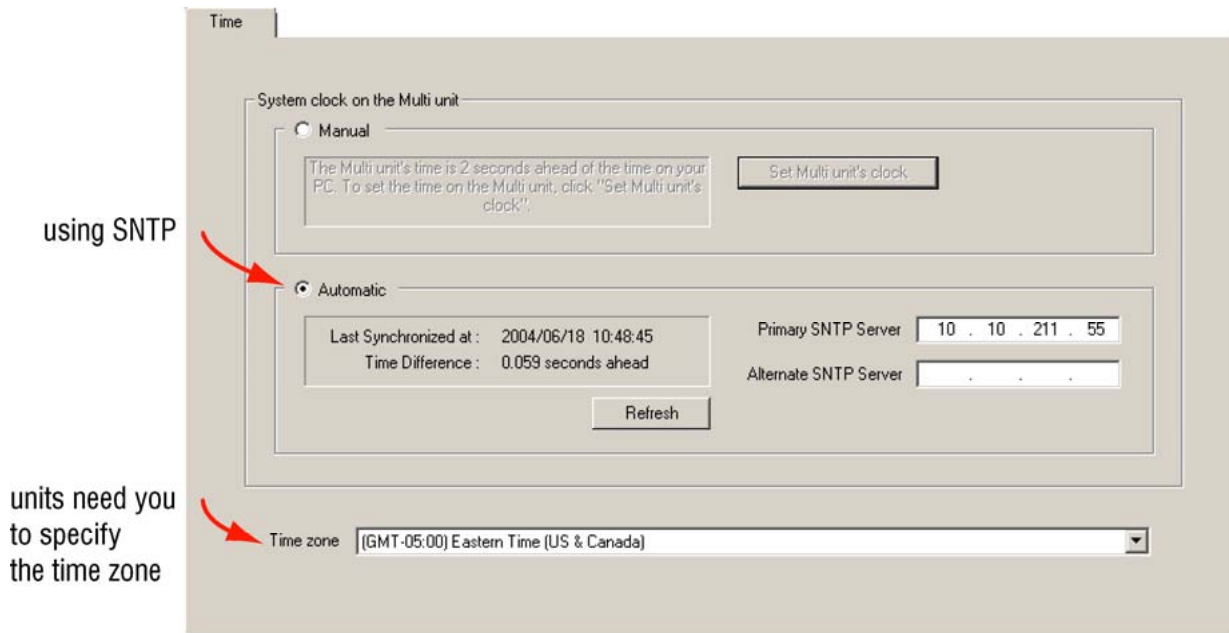


Fig. 31. Indicating the correct **Time Zone** in which a Multi-Media unit has been installed is crucial to avoiding confusion during the operation of your video surveillance system.

➤38 To set a unit's clock automatically, using SNTP

1. Obtain the IP address of an SNTP server. You have the option of also obtaining the address of an alternate server.
2. Using View, select a unit whose clock needs to be set.
3. Start a maintenance session.
4. Click the Time tab.
5. If **Automatic** is not selected, click it. The Time tab appears as in figure 32.
6. Click the **Primary SNTP Server** box and type the IP address of an SNTP server obtained in step 1. You have the option of indicating an alternate in the **Alternate SNTP Server** box.
7. Click **Refresh**. The Multi-Media unit contacts the SNTP server and synchronizes the Multi-Media clock to the SNTP time.

Auto-synch statistics

Auto-synch statistics do not apply to a clock set to Manual.

Last Synchronized at. Latest time that the SNTP server was used.

Period. Time amount between synchronizations. A dynamic value, that keeps the unit's clock 0.4 to 0.2 seconds of the server's.

Time Difference. Accuracy of synchronization.

3.3.4

Setting the Time on a Unit: Manual

A Multi SA can synchronize the clock of a Rapid Eye Multi-Media unit using a PC's clock as reference. This is more useful for units connected only by dial-up, but can also be used for units on a LAN.

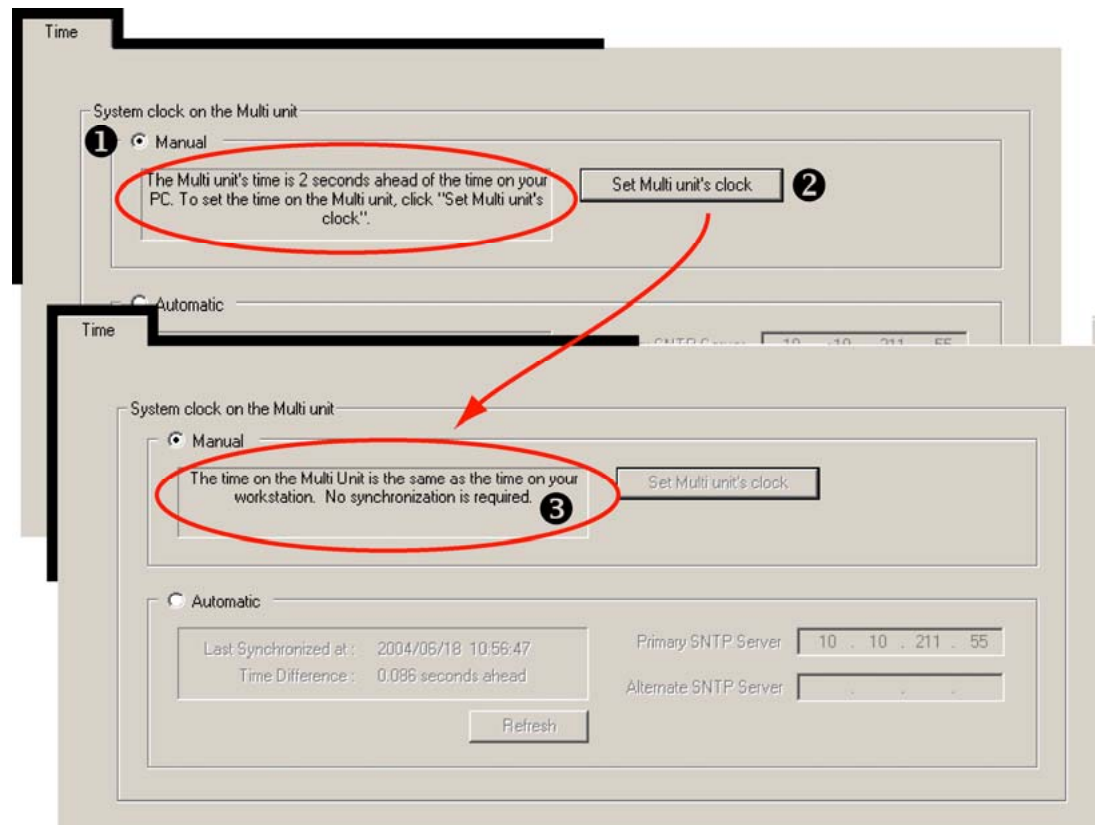


Fig. 32. A unit's **System Clock** can be set manually (1) using a PC's clock as reference (2).

➤ 39 To set a unit's clock manually, using a PC's

1. Check the accuracy of the time and the time zone *on the PC* and adjust it as needed. To adjust a PC's time, date and time zone, click **Start** followed by **Settings, Control Panel** and **Date/Time**.
2. Using *View* software, select a unit whose clock needs to be set.
3. Start a maintenance session.
4. Click the *Time* tab. If **Manual** is not selected, click it.
5. Click **Set Multi-Media unit's Clock**. Please wait until the "Synchronized Time" message appears.

3.3.5 Setting the Time Zone on a Unit

➤40 To indicate the time zone of a Multi-Media unit

1. Using View, select a unit whose time zone needs to be set.
2. Start a maintenance session.
3. Click the Time tab. See figure 32.
4. If the zone indicated in the Time Zone box is incorrect, click the arrow in the box. A list of all time zones appears.
5. Scroll the list as needed to find a match for the time zone in which the unit is installed. The time zone is set right away; there is no need to reboot the unit.



The time zone is set on a unit-by-unit basis.

Repeat this procedure for all of the units in your system.

Conflicting time zones

A Multi-Media LT unit's time zone can be changed without the knowledge of a View operator. It can be done at the unit, using *LocaView*, or through another Multi-Media database (Multi db). The View operator's next attempt to access the site is interrupted by a message, shown in figure 33.

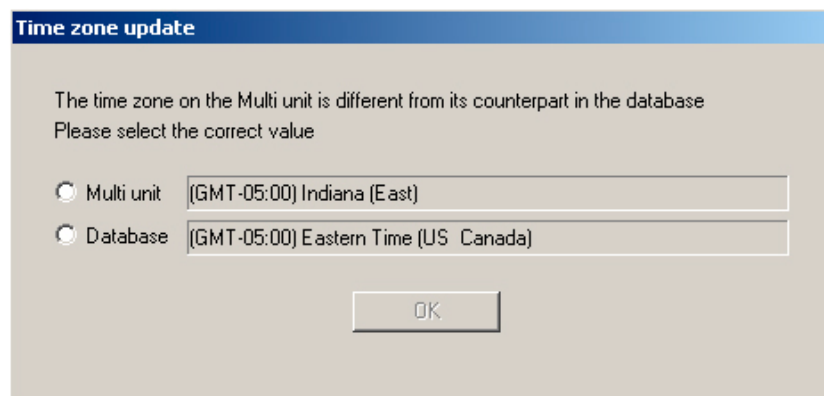


Fig. 33. Different rules for daylight savings time in one time zone.

The message also appears if a time zone's *area* is changed, since some areas within a time zone can have different rules for daylight savings time. For example: "Indiana (East)" in the Eastern time zone (GMT-5:00) differs from "Eastern Time (US Canada)", also in the GMT-5:00.

3.3.6 Testing a Connection: Camera

The cameras connected to a Multi-Media unit are detected automatically. You can name a camera and adjust a camera's picture settings during a maintenance session.

➤41 To configure a Rapid Eye site's camera(s)

1. Run a maintenance session at the pilot site.
2. Click the **Video** tab and adjust Picture controls as needed. See figure 34. The adjustments are made on the fly; you do not need to click the **Apply** button, as for older Multi-Media units.
3. You have the option of ending the Maintenance session for the Multi-Media unit.

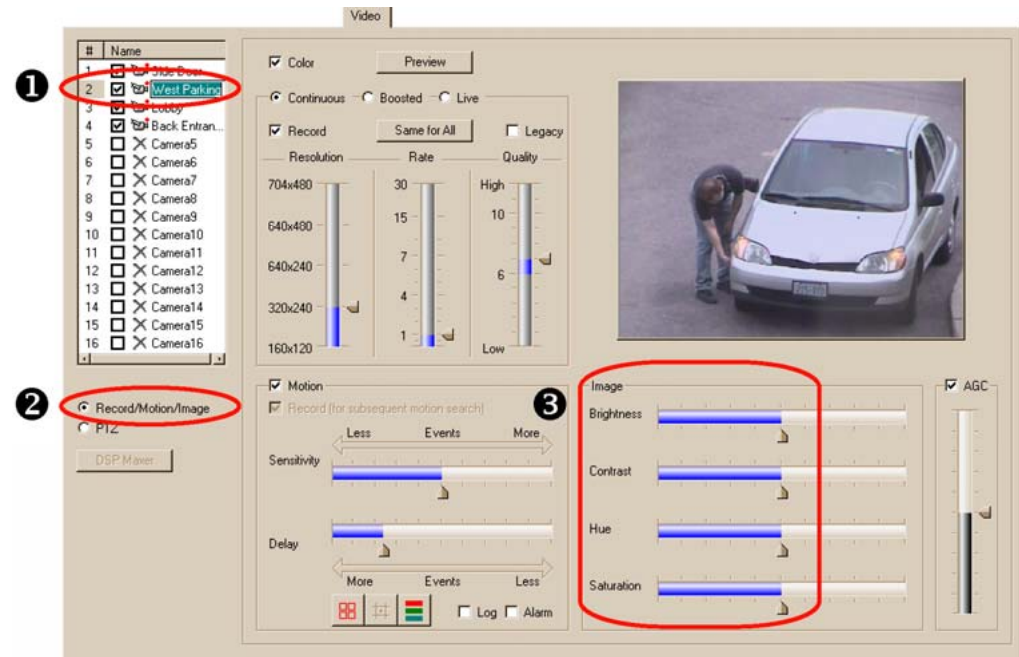



Fig. 34. Video feed (1) adjustments (2). The name of a camera can be changed (3).

3.3.7 Obtaining Video

➤42 To obtain video from a “live video session”

1. Start by obtaining the list of cameras at the site. Either:
 - Right-click on the site name to select **Live** from the shortcut menu.
 - Select the site; then click **Live** on the Actions menu.
- Selecting the site; then click  **Live** on the toolbar.
2. Select cameras as required. Click **OK**. Video should appear.
3. End the Live session by closing the Live window or View.

3.4 Results

To recap, the connection to the site has been checked and you have:

- used Admin to create a record for each unit in a Multi-Media database
- used View to run a maintenance session to adjust the Multi-Media unit's time and camera(s)
- used View to run a live video session at the site.
- checked that the video feeds are effective: camera's distance from subject, angle and lighting.

4 Audio

4.1 Audio at a Multi-Media Site

Microphones

If security procedures call for viewing the person that is speaking, plan to place microphones in camera range. However, microphones can be placed independently of cameras; they have their own cabling. Microphones require amplification to provide line-level input to a Multi-Media unit; see figure 35.

channel 1 / LEFT
microphone

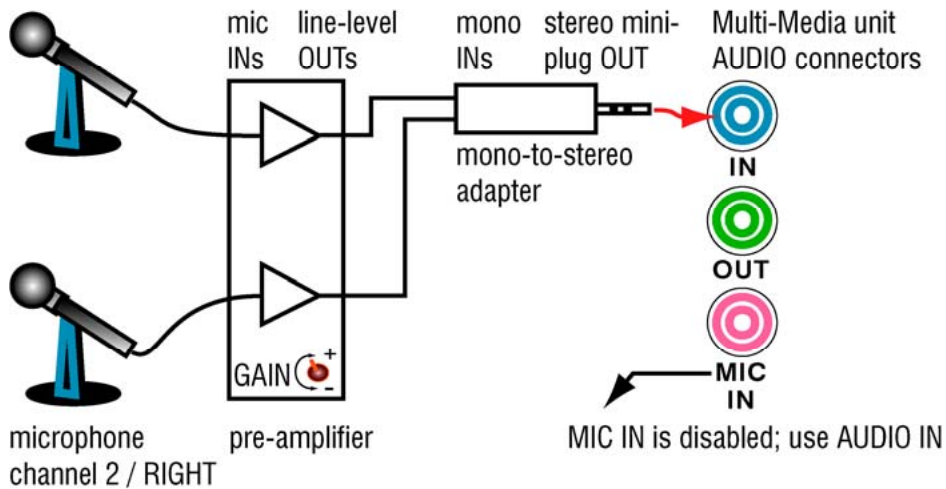


Fig. 35. Audio input to Multi-Media unit.

Selecting a microphone

Choosing a microphone type (condenser, canon, Lavalier, and so on), pickup pattern (cardioid, omni-directional, and so on), sensitivity, whether one needs phantom power, and other considerations, are beyond the scope of these installation instructions. Unlike camera domes, you can mix different models of microphone at a site. Please see your microphone supplier.

Placing a microphone

Microphone placement requires experience with noise sources, sound absorption and reflections; these topics are beyond the scope of these instructions. Please see your microphone supplier. See also 4.1.1: *Checking for Audio Interference*, next.

Speakers

Connect powered speakers to a Multi-Media unit so that people at the site can hear an operator. See figure 36.



Honeywell recommends that speakers be placed away from microphones, to avoid audio feedback.

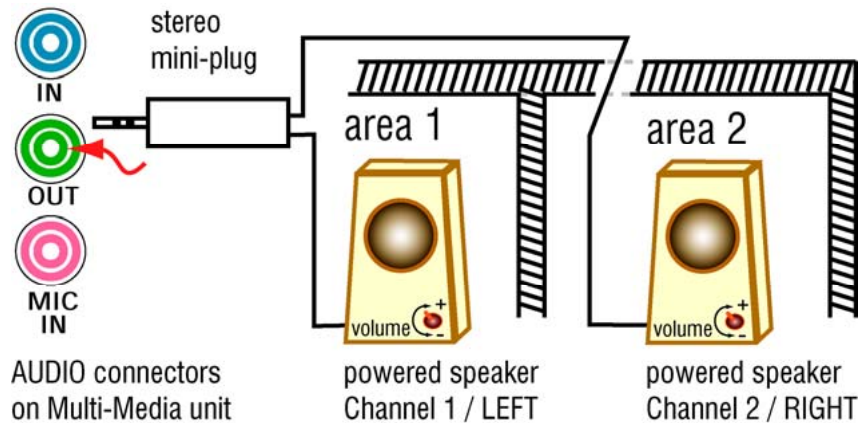


Fig. 36. Speaking remotely from a PC running View, or onsite using LocalView, an operator can communicate with people at the site.



Use the “[Audio] In” connector. The “Mic In” connector is disabled.

4.1.1 Checking for Audio Interference

Preventive measures

Checking one’s installation for hard-to-predict situations includes spot-checking for:

- **live audio.** Coordinate the testing of audio with fire alarm and security alarm testing. Using *View*, connect to that Multi-Media unit and check audio for feedback and interference, before and during alarms.
- **recorded audio.** After a day or two, check for background noise in recordings, using a retrieval session to spot-check each microphone for a few seconds at every half-hour or so, during a 24 hour period. This can reveal if microphones are placed too near sources of background noise such as a vent. Noise is amplified to a point where it interferes with audio. Hard to predict noise from the area’s soundscape—rush-hour traffic, passing trains and planes, crowds in a stadium, and so on—may not have been present during the installation of microphones and speakers.



Loud alarms should be tested during the installation; they can interfere with Multi-Media audio. If microphones and speakers are used while alarm bells are ringing, Honeywell recommends that Multi-Media audio equipment be sonically insulated from the loudness of the alarms.

Placing a microphone or speaker close to a ringing alarm bell can render either ineffective: the bell noise can mask the voice of an operator attempting to use the microphone. The bell could also mask a voice coming from a speaker. Loud alarms can interfere with microphones or a speaker when they could be needed most.

4.2 Audio for Operators

At View Operator's PC

When listening, sound sources are mixed at a View operator's station, regardless of the number of sites being monitored at once. Each Rapid Eye site can send two channels of audio to a View operator.

➤43 To send and receive audio offsite

1. Install a sound card on the View operator's PC.
2. Connect a microphone to *the PC's sound card*.
3. Connect a powered speaker to the PC's sound card.

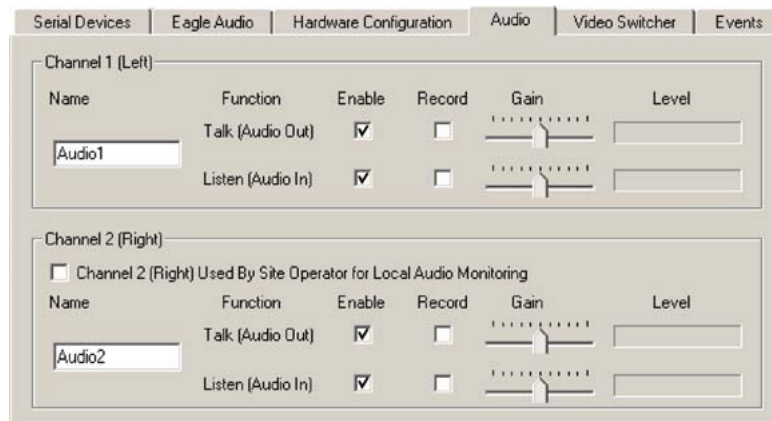


Fig. 37. Audio tab, set to deliver sound to and from the View operator's PC to two channels of audio, at one Multi site.



The Audio tab is unavailable on PCs without a soundcard.

➤44 To monitor and record

You can monitor, record or do both, for each channel.

1. Click the **Enable** boxes to enable transmission of sound from point to point and monitor it.
2. Click the **Record** box to record sound along with the video from the site.

➤45 To enable "talking to" a site

- Click the monitor **Talk** boxes, as needed for each channel; see fig. 37. An operator can broadcast on either or both channels, and to *as many sites at once* as can be opened, that have audio.



Loud alarms can interfere with microphones or a speaker at times when they could be needed most.

Onsite Audio, Using LocalView

Local View can be used to test or permanently monitor audio onsite.

➤ **46 To enable audio for use onsite, by LocalView**

1. Using LocalView, on the **Audio Setup** tab, add a checkmark to the box for **Channel 2 (Right) Used by Site Operator for Local Audio Monitoring**. The "channel 2" **Enable**, **Record** and name are not needed for monitoring audio by a LocalView operator and are removed from view. The **Gain** controls remain available for both audio channels.
2. In the Channel 1 controls, add checkmarks to the **Enable** boxes for **Talk**, **Listen** or both, as needed.
3. You have the option of adding checkmarks to **Record** boxes for **Talk**, **Listen** or both, as needed. The **Enabled** box needs to be checked before its **Record** box can be.

➤ **47 To disable audio for LocalView**

- On the **Audio Setup** tab, remove the checkmark in the box for **Channel 2 (Right) Used by ...**

5 Other Site Hardware

Audience

You can add hardware to a Multi-Media unit at any time. Multi-Media software is then used to make Multi-Media units “aware” of the hardware. The steps to do so are outlined in the *road map*, below.



Before adding more hardware, Honeywell recommends that you test the connection to your unit, as explained in section 1.

Road map for adding hardware

After testing the connection from an operator’s PC to Multi-Media unit, you can:

- Place the Multi-Media unit and its camera(s) in their operational locations.
- Use View software to run a Maintenance session at the site to specify other (optional) hardware connected to the Multi-Media unit: extra cameras, gates controlled by a Multi-Media operator, heat sensors.

Aside from cameras and communications, a Multi-Media unit can interface with many different types of hardware, such as:

- sensors: motion, heat, alarm and so on.
- relay triggered devices: locks, gates, warning sirens, and so on.
- alarm panel: a fault relay offers a means to monitor the unit’s operational status, using an external device.
- point of sale (POS) hardware, using text messaging over serial communications, or other device.

5.1 Securing a Multi-Media unit

When planning where to place a unit, Honeywell suggests that your planning authority be made aware of, and consider:

- allowing for access to the unit, if maintenance is required, yet preventing easy criminal tampering with the system
- and -
- environmental factors that can hamper a unit: lack of ventilation, dust, condensation, excessive heat or cold.

➤48 To secure the unit

1. Select a secure, clean, well-ventilated area for the Rapid Eye Multi-Media unit.
2. You have the option of rack-mounting the unit. Leave a one-inch space on the sides of the rack for ventilation.
3. Plug the supplied power cord from the rear of the Multi-Media unit to a grounded power supply.



Do not block the air intakes on the side of a Multi-Media unit.
A warning sticker indicates this on the right-hand side of the unit.



Do not place equipment, such as a monitor, directly on top of the Multi-Media unit.

5.1.1 Serial Communications on Ports 3 to 10

Connector

The wiring for the RJ-45 connectors on a Multi-Media unit's PORT 3 to PORT 10 is listed in table 12. The Multi-protocol chip is a Maxim MAX3161.

Table 12

Wiring an RJ-45 cable for serial use on a Multi-Media unit.

RS-232	RS-422 (full duplex)	RS485 (half duplex)
GND - 4	GND - 4	GND - 4
RXD - 5	+TXD - 1	+DX - 1
TXD - 6	-TXD - 2	-DX - 2
CTS - 7	+RXD - 7	
RTS - 8	-RXD - 3	

* Rx = Rapid Eye input; Tx = Rapid Eye output

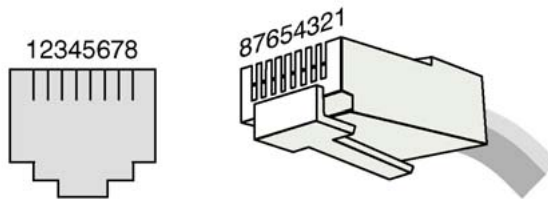


Fig. 38. Pin order on serial ports 3 to 10 of a Multi-Media unit, and RJ-45 connector.

5.1.2 Detachable Camera I/O

A detachable sub-panel is used for mounting the camera input/output (I/O) connectors and monitor outputs. This is convenient for swapping a unit with another without having to disconnect cameras from a unit.

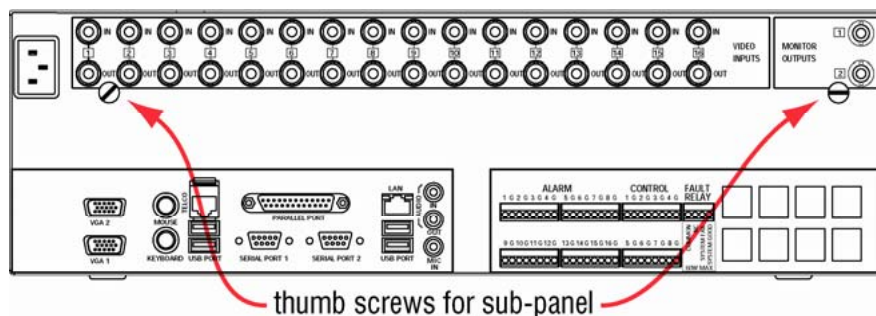


Fig. 39. Removing the camera input/output (I/O) connectors.

➤49 To detach the sub-panel

1. Power down the unit.
2. At the back of the panel, unscrew the two thumbscrews. See fig. 39.
3. Pull the panel straight out, to avoid bending pins of the connectors inside.

Detaching the panel can serve to speed-up servicing or replacement of a Multi-Media unit, while preserving camera wiring.

5.2 Unit Hard Disk

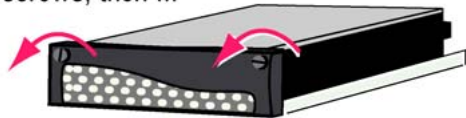
S.M.A.R.T. checking for degradation

Hard disk use on a unit for storing video, audio and data is monitored for signs of degradation that can lead to failure. Degradation is reported on a Multi-Media unit's blue LCD screen as: "CRITICAL STATE: DISK FAILURE". The pilot light on a disk drive turns red to identify a hard disk that is degrading. This degradation report is also a Multi-Media event: S.M.A.R.T. (Self Monitoring Analysis and Recording Technology).

5.2.1 Hard Disk Report

The SMART report is not a cause for alarm. It is a suggestion that the hard disk should be replaced. Contact an authorized Honeywell dealer to obtain a mounted hard disk for your Multi-Media unit. See figures 40 and 41.

1. Loosen screws, then ...



2. ... swing open the handle.



Fig. 40. Handle on mounted hard disk.



Fig. 41. Pull to remove a mounted hard disk from a unit; push to insert. Remove the front cover of the unit beforehand.

5.3 Hardware Options

A Rapid Eye Multi-Media unit interfaces with hardware such as:

- cameras, domes that pan-tilt-zoom (PTZ)—5.4: *Connecting a PTZ Dome*;
 - alarm sensors, connected to a Multi-Media unit's inputs—5.6: *Inputs for Sensors*;
 - relay triggered devices, including locks, gates, warning sirens, and so on, that connect to the outputs of a Multi-Media unit—5.7: *Control Outputs*;
 - relay triggered device for system monitoring—5.8;
 - point of sale hardware, with text messaging over serial communications, or any other device with serial communication capability—5.9;
- and -
- secondary communications (network or dial-up), including an external modem—5.12.

5.4 Connecting a PTZ Dome

Connection to unit

To connect the **Data In** port of a PTZ dome (an RS-485 connector) to one of the ports on a Multi-Media unit (RS-232 connector).

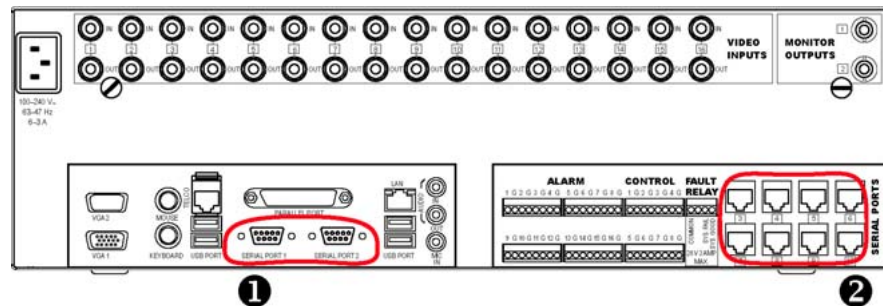


Fig. 42. (1) A 232/485 converter may be needed on SERIAL PORT1 or SERIAL PORT2. (2) The serial ports 3 to 10 (RJ-45 connectors) have built-in RS-232/485 converters.

5.4.1 Converter: Technical Notes

A 232/485 converter interfaces with a PTZ dome/controller to the Multi-Media unit. The converter amplifies PTZ control data for transmission over longer distances for a maximum of 1.2 km (or 4,000 feet).

Cabling

For the cabling to connect a PTZ dome to a converter and from the converter to the Multi-Media unit, see the converter's documentation.

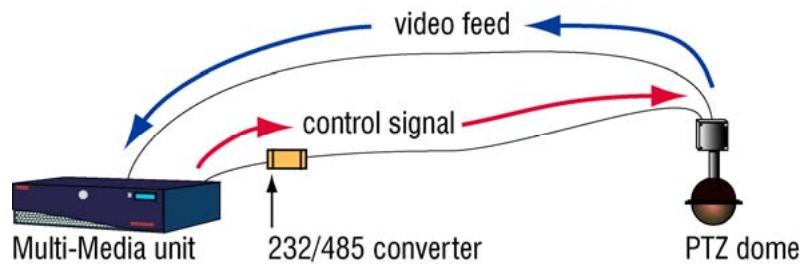


Fig. 43. PTZ wiring plan, when using SERIAL PORT 1 or SERIAL PORT 2. The serial ports 3 to 10 (RJ-45 connectors) have built-in RS-232/485 converters.

Table 13
Cabling a PTZ dome

Type	Dome to converter	Converter to Multi-Media unit
Javelin / Pelco	RS-485 cable	25-pin male to 9-pin female to RS-232 port - not included
Kalatel	RS-485 cable	9-pin female to RS-232 port - included with KTD-312 computer interface

5.4.2 Daisy-chaining Domes

Connecting more domes

You can connect up to 16 domes on one communication line connected to the Multi-Media unit. Terminate the *communication* input(s) of the last dome in the chain. Leave other domes un-terminated.



Honeywell recommends that cable not be “T-tapped”; this can introduce unwanted distortion into the video signal.

To obtain a video feed, use an output port on the Multi-Media video unit.

5.4.3 Configuring PTZ

➤50 To configure PTZ functions

- Use *View* software to run a maintenance session; use the **Video** tab.

Multi-Media units supports the PTZ domes listed in table 14. A Multi-Media site can support many types of PTZ software drivers at the same time.



Communicate the address used by a PTZ dome to the Multi SA, after the installation.

You can use other PTZ hardware and its software driver. For software driver and baud rate, see table 14.

Configure each PTZ unit to communicate at its default baud rate. See the *System Administrator's Guide* for procedures to enable a PTZ dome.

Table 14
PTZ drivers for controllers and domes

Driver name (alphabetical)	Baud rate	Supported controller/dome
Javelin 308	9600	Javelin 308 Controller and others
Kalatel	9600 or 2400	Kalatel KTD 312 Cyberdome
Pelco D	4800*, 9600, or 2400	Pelco D: many domes
Pelco P	2400	Pelco P: many domes
Rapid Dome/Orbiter [†]	9600	RapidDome or Orbiter
SensorMatic RS422 [§]	4800	SensorMatic RS422: Delta and Speed
Ultrak (using VCL)	2400	Ultrak (configured as VCL)

* A value of “4800” is typical; other values can be used as needed.

[†] In other versions, this driver is jav306 or Javelin/ADEMCO.

[§] This driver’s name was “Delta” in older versions of View.

5.5 Alarm Sensors

Tools

You need:

- a slot screwdriver—supplied. The screws are slightly smaller than those for a 1/8" screwdriver.
- and -
- a wire stripper.

Cable

To connect alarm-type hardware to a Multi-Media unit, use hookup wire in the 20-gauge range.

➤51 To connect an alarm sensor

1. From the alarm wires’ tips, strip approximately 0.6 cm (1/4 inch) of insulation.
2. Insert each alarm wire into the screw-type, terminal connector on the ALARM terminal strip: one wire to the numbered terminal connection and the other wire to ground.



To avoid short-circuits, ensure that bare wire is not visible at the rear panel.

5.6 Inputs for Sensors

5.6.1 Technical notes

Alarm sensors

Most alarm sensor units have a dry contact for outputs, usually providing normally open (NO) contacts or normally closed (NC) contacts (see figure 44).

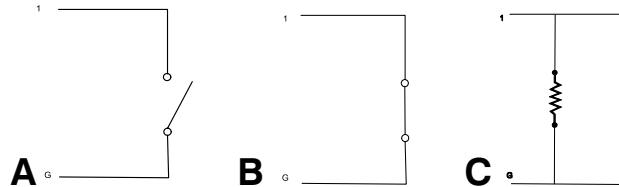


Fig. 44. Schematics: (a) normally open, (b) normally closed or (c) end-of-line

Inputs to a Multi-Media unit, used by hardware devices

Honeywell recommends that installers report the connection of input devices to the organization's Multi-Media System Administrator (Multi SA), indicating if the devices are using connections that are: normally open, normally closed or end-of-line.

Normally open

The sensor inputs to a Multi-Media video unit are configured for normally open (NO) devices.

End-of-line

A sensor input can also be configured as EOL (end-of-line or protected). The load for an EOL connection is 2 k Ω , nominal.

Table 15

Sensor hardware

Acronym	Sensor Input	Implication
NO	Normally Open	input is active when switch goes ON
NC	Normally Closed	input is active when switch goes OFF
EOL	End of Line	input is active when switch goes ON, or if wires to the alarm sensor are cut

5.6.2 Configuration, using View software

➤52 To configure inputs

1. Using *View*, start a maintenance session for the Rapid Eye site. Please wait until the "System Operational" message is displayed.
2. Click the **Events** tab. More tabs are displayed.
3. Click the **Inputs** tab.

4. Next to an input reported as “in use” by an installer, type the name of the input in the **Input** box. You can type a name of your choice.
5. Click the **NO**, **NC** or **EOL** button, as needed.
6. Ignore the “Log” and “Alarm” checkboxes.

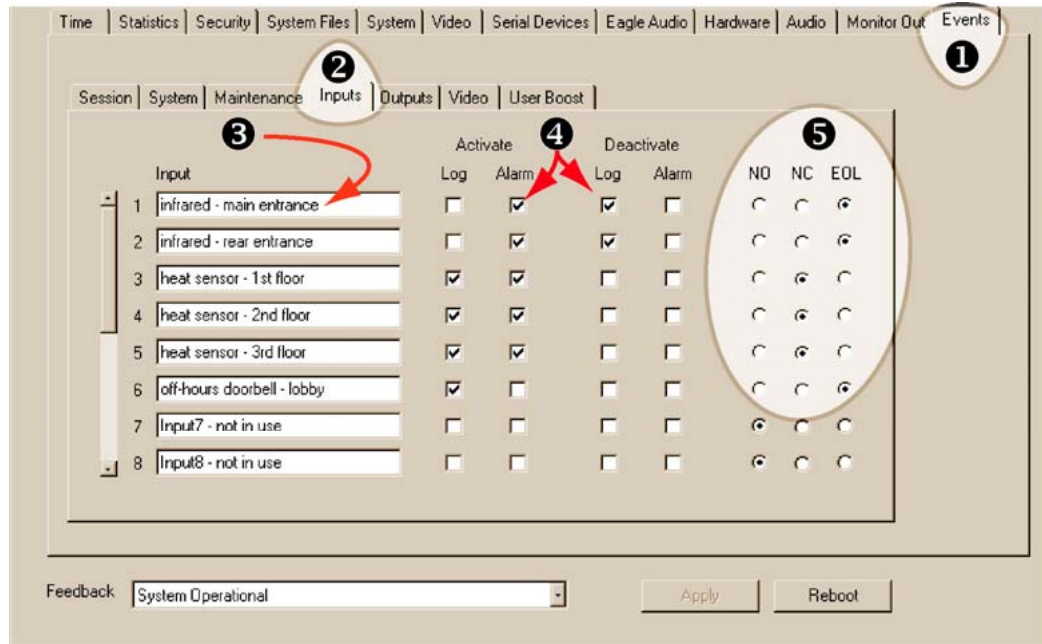


Fig. 45. Input configuration during a maintenance session. Inputs (1) can be named (2). Their activation and deactivation can be monitored (3). By default, alarm/control inputs are configured as NO (4).

5.7 Control Outputs

Power rating

Up to 24 mA can be drawn at each output. Use hookup wire in the 20-gauge range to connect the outputs to relay triggered devices (locks, gates, warning sirens and so on) to a Multi-Media unit.

Tools

You may need:

- a slot screwdriver—supplied. The screws are slightly smaller than those for a 1/8" screwdriver.
- a wire stripper.

Connector

1. From the hookup wires' tips, strip approximately 0.6 cm (1/4 inch) of insulation.
2. Insert each relay control wire to the screw-type, terminal connector on the CONTROL OUTPUTS terminal strip: one wire to ground and the other wire to the numbered connection you choose.



To avoid short-circuits, ensure that bare wire is not visible at the rear panel.

Purpose

Outputs can be activated by:

- a View operator
- automatically by response rules, set by a Multi SA. See 5.8: *System Monitoring*, next.

5.8 System Monitoring

Overview

A Multi-Media unit can be monitored for failure to:

- function
- report alarms
- hardware failure to record video
- configuration error, to stop the recording of video.

Alarm panel

Connect a combination of Fault Relay circuitry and outputs to an alarm panel, preset to warn your organization, if failure occurs. An output can be configured to respond to a Response Schedule.

5.8.1 Fault Relay

If a unit fails to function, report alarms or record video due to hardware failure, for more than 19 minutes, the FAULT RELAY is triggered.

A catastrophic failure—from causes such as a power outage—triggers the relay immediately.

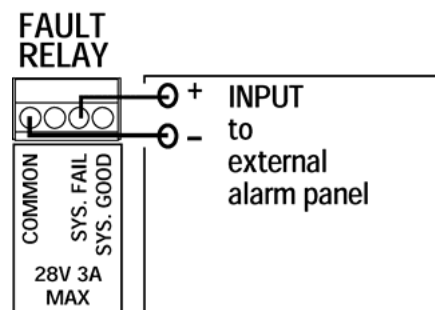


Fig. 46. FAULT RELAY connector on Multi-Media unit's back-panel, showing connection to an external alarm panel.



Do not connect a device to CONTROL output 6 after enabling the FAULT RELAY. Enabling the FAULT RELAY provides a status pulse at **CONTROL 6**, disabling it as a general-purpose output. Connecting a device to **CONTROL 6** could interfere with the relay's performance.

Software setup

The screenshot shows the 'System' tab of a software interface. It contains several sections: 'Site Info' with fields for 'Serial Number' (00137) and 'Software' (7.0 Build 36), an 'Upgrade' button, 'Signal Format' with radio buttons for 'NTSC' (selected) and 'PAL', 'Network Settings' with checkboxes for 'Use DHCP' (unchecked) and fields for 'Network Name' (N/A), 'IP Address' (164 . 178 . 32 . 137), 'Subnet Mask' (255 . 255 . 255 . 0), 'Gateway' (164 . 178 . 32 . 1), and 'MAC Address' (00:02:6b:03:55:7e), and 'Maximum Network Data Rate' with a checkbox for 'Regulate Data Rate' (unchecked) and fields for 'Send no more than' (1000) bytes, 'every' (15) 1/60 second, and 'Apply only to blocks larger than' (250) bytes. The 'System Monitor' section, which includes 'Enable Status Pulse' (checked) and 'Monitor Alarm Reporting' (unchecked), is circled in red.

Fig. 47. Options for monitoring a unit are on the System tab.

Enable Status Pulse. Enables the FAULT RELAY to trigger.

Monitor Alarm Reporting. Interruptions in reporting of alarms, greater than 19 minutes, trigger the fault relay. The monitoring is designed to report alarms that have not reached their designated alarm station, because of that alarm station being unavailable.

➤ **53 To set the FAULT RELAY to trigger**

1. Using *View* software, start a maintenance session.
2. On the System tab, enable either:
 - Enable Status Pulse...
 - Monitor Alarm Reporting
 - **both.** See figure 47.
3. On the Events tab, click the **Outputs** subtab.
4. The name of Output 6 has changed to "System Status Pulse". You have the option of changing the name of the output by typing in the box.
5. You have the option of ending the maintenance session.

5.8.2 Response Schedule

Vandalism

One can add rules to trigger an output if video recording fails—due to a cut cable, dead camera or other failure that is not related to the unit's performance. Consult the *System Administrator's Guide* under “Response Schedule”.

5.8.3 Alarm when Disabling Video Recording

Units can be monitored for operator tampering with recording. Consult the *System Administrator's Guide* under “tracing”.

5.9 Point of Sale Hardware

Cable

For a point-of-sale (POS) device or other data communication equipment (DCE):

- SERIAL PORT 1 or SERIAL PORT 2. Use a standard RS-232 cable with a female DB-9 connector.
- SERIAL PORTS 3 to 10. Use RJ-45 connectors.

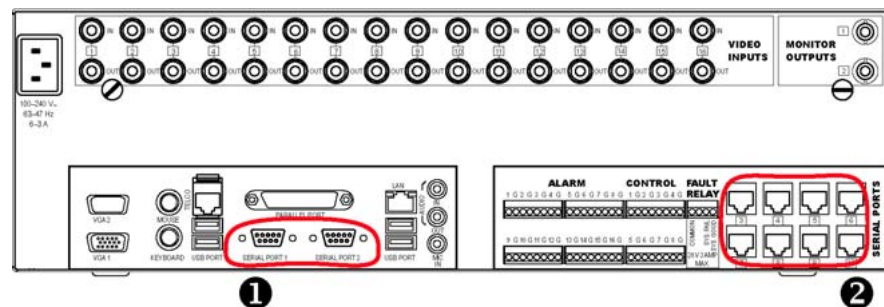


Fig. 48. For POS, use either (1) SERIAL PORT 1 or SERIAL PORT 2 or (2) the serial ports with RJ-45 connectors.

5.9.1 Configuring POS, PIT and NETPIT Devices

For procedures on using the Data Recording tab in the Maintenance dialog, to configure POS devices, consult the *System Administrator's Guide*.

5.10 NetPIT and PIT Devices

Overview

To connect a Multi-Media unit to a point of sale (POS) device—a cash register, automatic teller machine (ATM), and so on—a device is needed for Protocol Interface Translation (PIT) or Network Protocol Interface Translation (NetPIT). PIT and/or NetPIT devices are connected to the serial ports on the back of Multi-Media units. Your installer configures the PIT/NetPIT device for use with the make and model of POS device.

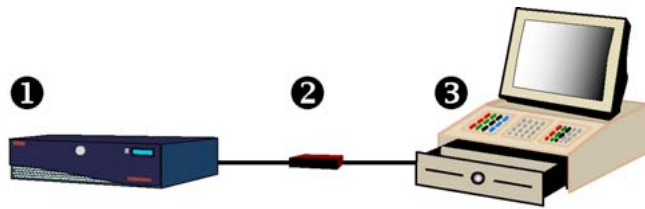


Fig. 49. Rapid Eye Multi-Media unit (1) connected to a PIT/NetPIT device (2) which is in turn connected to either: the serial port on a POS device—here, a cash register (3)—, the Ethernet port on the POS device or to a network of POS devices.

- Port assignment for a NetPIT device shows the device's network settings. See figure 50.
- Restrictions to assigning devices for PIT and NetPIT to a Multi-Media unit are indicated below.
- NetPIT supports applications by Retailx (RetPIT), Micros (MicPIT) and AtmPIT.

➤ **54 To complete a connection to a POS device through a NetPIT/PIT device**

1. Check with your installer to find out which devices are connected to the Multi-Media unit. Device settings can be obtained from the devices' documentation.
2. Using View, run a maintenance session.
3. On the Serial tab, assign the single NetPIT device and/or PIT devices, as needed.
 - **NetPIT.** From the “Unassigned Devices Group”, drag the NetPIT device to a port. Enter the IP and communication settings for the device, then click **Apply Network Settings**. See figure 50.
 - **PIT.** From the “New Devices Group”, drag the NetPIT device to a port. See figure 51. You have the option of naming a PIT device.

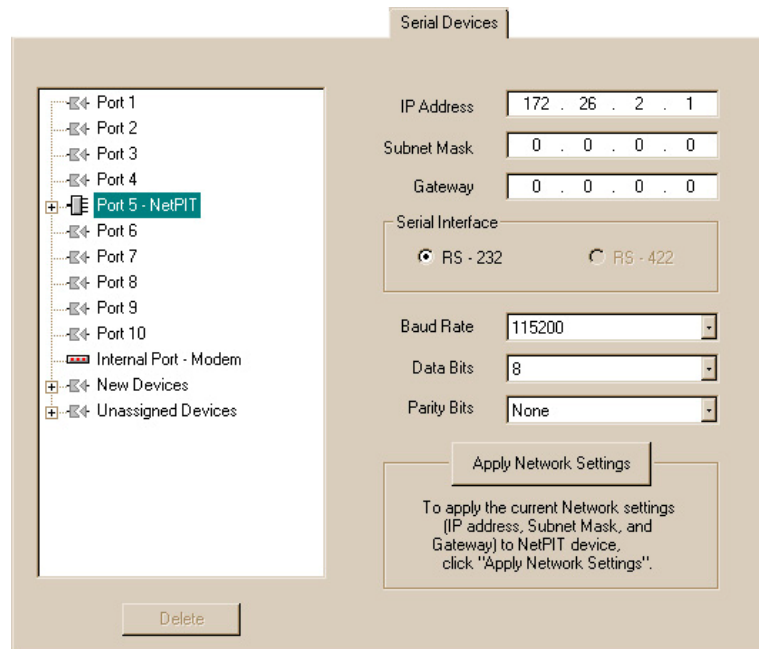


Fig. 50. A NetPIT device assigned to PORT 5 on a Multi-Media DSP unit. When expanded, a NetPIT device displays sixteen ports, labeled “A” to “P”.

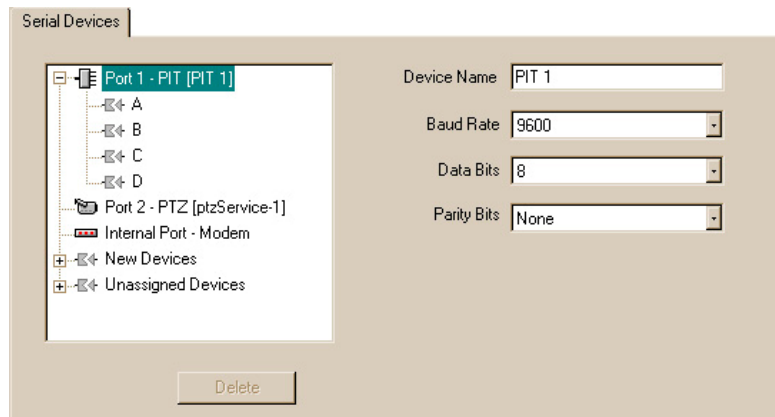


Fig. 51. PIT device on PORT 1, expanded to show 4 ports labeled “A” to “D”.

Port restrictions

- Port 2 and the Internal Port cannot be used for a PIT device or NetPIT (Network Protocol Interface Translation) device.
- On Multi-Media units which have ten serial ports, RS-232 serial communications is the default.
- A PIT device cannot be assigned to a NetPIT port.

Assignment limits

- Only one NetPIT device can be supported; only one can be assigned to a Multi-Media port. Up to 16 POS devices can be assigned to a NetPIT device.
- Up to four PIT serial devices can also be supported. Four POS devices can be assigned to each PIT device.

Multi-Media units with two serial ports

When View is operating the following units, only one PIT (or one NetPIT) device can be connected to it:

- Older Multi unit (using a P3 processor) running V5 software.
- Multi-Media unit with only two serial ports, and Multi-Media LT units: the nine-camera and four-camera models.

Serial switch label

If a serial switch was installed on a Multi unit or Multi-Media unit, and the unit is upgraded to this release, the switch is renamed to “PIT” on the Serial tab of a maintenance session, while running View software.

5.11 Port Use: Restrictions

Some serial port connections on a Multi-Media unit are not allowed; see table 16.

Table 16
Serial port use: restrictions

serial connection	connect only to serial port (COM) ...
data recording device	1, 3–10*
serial switch, PIT, NETPIT	1, 3–10
null-modem cable for terminal session	2

* Serial ports 3 to 10 are available on Multi-Media DSP units.

USB port and Parallel port

The **USB** ports and Parallel port at the back of the REMM unit are for future use.

Do not connect devices to the USB ports or to the parallel port of a REMM unit.



Multiple serial switches

Nested serial switches are not supported in Multi-Media software; please do not connect more than one to a Multi-Media unit.

Using null-modem cable for installation of Multi-Media unit

If a null-modem cable is needed to install a REMM unit, plug it into SERIAL PORT 2.

5.11.1 Internal Port: Internal Modem

During a maintenance session, the Serial Devices tab shows an **Internal Port** that lists a modem or nothing at all. If the **Internal Port** holds a modem, the modem cannot be deleted. The internal port cannot receive devices from the “New devices” or the “Unassigned devices” groups.

5.12 External Modems

At unit, connected to a network

You can connect an external modem to a LAN-based Multi-Media unit.

- **for POTS.** Honeywell recommends a U.S. Robotics Sportster, transmitting at a least 33.6Kps, for POTS connections.
- **for ISDN.** A U.S. Robotics Courier I-Modem is recommended for ISDN connections. Please refer to your modem manufacturer's documentation for the modem's configuration.



For use of an external modem with a POTS-based Multi-Media unit, contact Honeywell Video Systems technical support, at: 1 (800) 796–2288; i.e., 1 (800) 796–CCTV.

6 Frequent Questions

6.1 Supporting an Installation

If you are installing a Multi-Media unit and having trouble, see the frequently asked questions (FAQs) listed in table 17. Similar questions are used by Honeywell technical support, when customers call.

Table 17
Installation FAQ

#	Frequently asked question	Section
Cannot install or use Admin		
1	How do I find out which Microsoft patches need to be installed on my PC, needed to run Multi-Media software? The installation program lists missing patches. Patches are provided by Microsoft's web site.	3.1
2	Has the password to the "Administrator" account been changed? Ask your Multi SA to check your user account, using Admin.	3.2.1
3	Does your user account have the right to log on to Admin? Ask your Multi SA to check your user account, using Admin.	3.2.1
4	How does one know what IP address to use for the site? Have the installers submitted a report of the installation? A Site Information Checklist and Operator Notes can be found starting on p. 7-7.	2.3 & 7.5
5	Is the Multi-Media database accessible from the PC? Your network administrator can help with rogue paths to a destination, mapped drives, a missing IP address, and so on.	2.3
Cannot connect to Multi-Media unit, using View		
6	Can you log on to View? If not, your user account may not be valid.	3.3
7	Is the site listed? If not, then information is missing in the database or you are using the wrong database at logon. Quit View and logon again, making sure that the correct database is in use. If it is, ask your Multi SA to check the Multi-Media database.	3.2.2 & 3.3.2
8	The PC should be using the same logical type of connection as the unit's: network or dial-up.	2.7 & 2.8
9	For units on a LAN, was an IP address assigned to the unit in the field?	2.7

#	Frequently asked question	Section
No video is reaching View		
10	How are the cameras connected?	2.5
11	Is there a power outage? Has the UPS failed?	2.4
12	Are the unit, cameras and other hardware powered?	2.4.1
13	Does the site connection information, in the Multi-Media database that you are using to log on, reflect the type of connection used by the PC and the Multi-Media unit: network or dial-up?	3.2.2

See also

7.4: *More FAQs*, p. 7–5.

6.2 Background

Planning

Closed circuit television (CCTV) can help assess an area, assist with police work when an area becomes a crime scene, and so on. Some forethought about unit tampering can help provide optimal gathering of evidence, for corporate use, or use of video in a court of law.

When planning where to place the unit and its video cameras, Honeywell suggests that your planning authority be made aware of, and consider:

- allowing for access to the unit, if maintenance is required, yet preventing easy criminal tampering with the system;
- working around camera blind spots due to: architecture, mobile equipment, vehicle docking, construction and so on;
- dealing with environmental lighting situations that can render a system ineffective: direct sunshine or other strong lighting, darkness and so on;
- dealing with environmental factors that can hamper a unit or its cameras: dust, condensation, excessive heat or cold, and so on;
- supplying adequate power to the unit; critical sites may benefit from an uninterruptible power supply (UPS);
- connecting the FAULT RELAY to an alarm panel, to monitor systems status;
- and -
- the type(s) of communications used to obtain information from the Multi-Media unit: dial-up, network, both, or dial-up to a network.

Reference

For these and other background questions about the field of closed-circuit television in a security setting, a standard, reliable, in-depth reference is:

- Kruegle, Herman, *CCTV Surveillance: Video practices and technology*, Butterworth–Heinemann, Newton (MA), 1995, ISBN 0-7506-9028-3, TK6680.K78

6.2.1 Coaxial Cable

Cabling to camera

For short camera-to-monitor distances (several hundred feet), use pre-assembled or field-connected lengths of RG59/U coaxial cable, with continuous shielding, using a BNC connector at each end.

Length limit

The cable length between a camera and the Multi-Media unit should be limited to 230 meters/750 feet. When installing coaxial cable, avoid loops, kinks, or wraparounds.

Table 18
Recommended maximum length of coaxial cable

Requirement	Length (feet)	Length (meters)
not amplified	750	230
amplified	3,400	1,035

Amplifier

As needed, optional video signal amplifiers can be used where longer distances separate cameras and monitors. Amplifiers at the camera output or along the coaxial cable run increase camera-to-monitor distance to a maximum length of 3,400 feet for RG59/U cable.

Coaxial cable checklist

- Terminate all unused inputs and unused outputs in their correct impedance.
- In long cable runs, use the minimum possible number of connectors. Each connector causes attenuation.
- In long transmission systems, use balanced coaxial cable.
- Splicing coaxial cables can cause reflection of the signal, resulting in distortion, when improper connectors are used.
- For outdoor applications, use weatherproof connectors.

6.2.2 Grounding

Consult a certified electrician to avoid ground loops—video and audio—in your Multi-Media system. Unbalanced coaxial cable runs between low power sources can create ground loop problems.



Do not remove the third wire on a three-prong electrical plug

(aka “lifting” the ground). This is a violation of local electrical codes, and goes against recommendations of the Underwriters Laboratory.

6.2.3 Electrical Interference

To manage electrical interference (also called electro-magnetic interference or EMI), you can survey the facility for electronics that generate EMI “noise”—fluorescent lights, radio frequency (RF) receivers or transmitters, power lines or elevator shafts—before installing equipment. Cables can be routed around or away from sources of noise so that there is no interference with the CCTV signal.

Hum bar

Hum bars appear as horizontal distortion across the monitor. The hum bar is caused by the effect of high voltage on the horizontal synchronization signal.

Triaxial cable

Use triaxial cable instead of coaxial cable when the cable must be routed through an area having EMI caused by:

- large machinery
- high voltage power lines
- refrigerator units
- microwaves
- and so on -

Triaxial cable has a center conductor, insulator, and shield, followed by a second insulator and shield. The double shielding significantly reduces the amount of EMI radiation that is exposed to the center conductor.

6.2.4 Lighting

A big factor of image quality is the amount of light reaching a camera’s lens. You can manage lighting by moving the CCTV cameras in consideration of:

- beam angle from the light source to the camera lens
- intensity of reflection and contrast from objects in a camera’s field
- and -
- complexity and motion at the scene.

7 Find-it

7.1	Knowledge Base	
	➤ 1 Connect cameras (as many as 16) to the Multi-Media unit	1-2
	➤ 2 Connect the Multi-Media unit to a network or telephone line	1-2
	➤ 3 Supplying power to the unit and the cameras	1-3
	➤ 4 Locate personal computer (PC) running Multi-Media software	1-3
	➤ 5 Start Admin to create a Multi-Media database	1-3
	➤ 6 Log on to a Multi-Media database, or create one using <i>Admin</i>	1-4
	➤ 7 Using <i>Admin</i> , add a site	1-4
	➤ 8 Add information about a connection, and save it	1-5
	➤ 9 To use View	1-5
	➤ 10 Log on to <i>View</i>	1-6
	➤ 11 Test the connection; use <i>View</i> to run a Maintenance session	1-6
	➤ 12 Start a Live session	1-7
	➤ 13 Road map to field work	2-1
	➤ 14 To unpack a unit	2-1
	➤ 15 The power up sequence recommended by Honeywell	2-6
	➤ 16 The power down sequence	2-6
	➤ 17 To enable the locking of a LocalView functions	2-8
	➤ 18 To change a LocalView password	2-9
	➤ 19 To assign an IP address to a unit using LocalView	2-10
	➤ 20 To connect a null-modem cable	2-11
	➤ 21 To setup a terminal program	2-11
	➤ 22 To use the Multi-Media Shell	2-13
	➤ 23 To assign an IP address to the Multi-Media unit	2-13
	➤ 24 To quit the program	2-14
	➤ 25 To return to the Multi-Media Shell after a time out	2-14
	➤ 26 To connect the Multi-Media unit to a telephone line jack	2-15
	➤ 27 To field-test a dial-up connection	2-16
	➤ 28 To field-test a network connection	2-16
	➤ 29 To deal with a damaged Multi-Media unit	2-16

➤30 To upgrade a Multi-Media unit's software, onsite	2-17
➤31 Road map for using Multi-Media software to obtain video	3-1
➤32 To continue installing a Multi-Media unit	3-2
➤33 To create an empty Multi db	3-3
➤34 To name a site	3-4
➤35 To make a record of a dial-up connection	3-5
➤36 To make a record of a network connection	3-6
➤37 To run a maintenance session on a Rapid Eye site	3-9
➤38 To set a unit's clock automatically, using SNTP	3-10
➤39 To set a unit's clock manually, using a PC's	3-11
➤40 To indicate the time zone of a Multi-Media unit	3-12
➤41 To configure a Rapid Eye site's camera(s)	3-13
➤42 To obtain video from a "live video session"	3-13
➤43 To send and receive audio offsite	4-3
➤44 To monitor and record	4-3
➤45 To enable "talking to" a site	4-3
➤46 To enable audio for use onsite, by LocalView	4-4
➤47 To disable audio for LocalView	4-4
➤48 To secure the unit	5-1
➤49 To detach the sub-panel	5-3
➤50 To configure PTZ functions	5-5
➤51 To connect an alarm sensor	5-6
➤52 To configure inputs	5-7
➤53 To set the FAULT RELAY to trigger	5-10
➤54 To complete a connection to a POS device through a NetPIT/PIT device	5-12

7.2 Tables

Table 1 Operating environment	6
Table 2 Contents of Rapid Eye's hardware kit, WAMULTI7HW	2-2
Table 3 Contents of Rapid Eye's software kit, WAMULTI7DC	2-2
Table 4 Panel connectors	2-3
Table 5 Restriction for LocalView cycle times when setting low recording rates	2-9
Table 6 Commands for launching <i>HyperTerminal</i>	2-12
Table 7 Settings for <i>HyperTerminal</i> communications session	2-13

Table 8 Default Multi-Media network settings	2-13
Table 9 Multi-Media Shell commands	2-14
Table 10 Default modem settings	2-16
Table 11 Default Transmission control protocol (TCP) ports	3-7
Table 12 Wiring an RJ-45 cable for serial use on a Multi-Media unit.	5-2
Table 13 Cabling a PTZ dome	5-5
Table 14 PTZ drivers for controllers and domes	5-6
Table 15 Sensor hardware	5-7
Table 16 Serial port use: restrictions	5-14
Table 17 Installation FAQ	6-1
Table 18 Recommended maximum length of coaxial cable	6-3

7.3 Illustrations

Figure 1. Use the first available “IN” on the Multi-Media back-panel for a camera.	1-2
Fig. 2. Use standard connectors for network (LAN) or telephone line (TELCO).	1-2
Fig. 3. Honeywell recommends plugging cameras into an uninterruptible power supply if such a device is used for a unit.	1-3
Fig. 4. To install <i>Admin</i> and <i>View</i> software, run the Multi-Media Admin CD-ROM. If Microsoft patches are needed for your Windows system, consult the <i>Multi-Media Software: Setup Instructions</i> , part #K5401.	1-3
Fig. 5. Shortcut for <i>Admin</i> , on the Windows desktop	1-3
Fig. 6. The window for logging on can also be used to obtain an empty Multi-Media central database.	1-4
Fig. 7. From the Admin “Sites” tab, you can add, name, update and delete a site.	1-4
Fig. 8. Using Admin, select a network or dial-up (2) connection.	1-5
Fig. 9. Shortcut for <i>View</i> , on the Windows desktop	1-5
Fig. 10. Use the same database created earlier, using Admin; see fig. 6 on p. 1-4.	1-6
Fig. 11. A connection to a site (1) works if you see “System operational” in the Feedback box (3) of a maintenance session (2).	1-6
Fig. 12. Select a site on the Sites tab, then click Live .	1-7
Fig. 13. Rear panel of a Multi-Media unit. The connectors are listed in table 4.	2-4
Fig. 14. Plugging-in a Multi-Media unit.	2-5
Fig. 15. Connect each camera to a different camera input (an “IN”, in the VIDEO INPUTS section), on the back-panel.	2-6
Fig. 16. Temporary use of a PC onsite.	2-10
Fig. 17. Wiring diagram of a null modem cable	2-11

Fig. 18.	Naming a connection, using <i>HyperTerminal</i>	2-11
Fig. 19.	Indicating a PC's COM Port, using <i>HyperTerminal</i>	2-12
Fig. 20.	Detail of "TELCO" port, used for dial-up connection.	2-15
Fig. 21.	Upgrading a unit in the field.	2-17
Fig. 22.	Icon for Admin on the Windows desktop	3-2
Fig. 23.	To test Rapid Eye Multi-Media site information, create an empty Multi db, using the Microsoft Access engine.	3-3
Fig. 24.	Type the site name of your choice in the Add Site dialog.	3-4
Fig. 25.	Adding a dial-up connection. The "-> Dialup" in the connection name appears as you click <i>Use Dial-up Networking</i> .	3-5
Fig. 26.	Adding a network connection. By indicating "Use Existing Network Connection" (1), a "-> Network" indicator is appended to the Connection Name (2).	3-6
Fig. 27.	A unit's base IP Ports .	3-7
Fig. 28.	View icon	3-8
Fig. 29.	Your database can have the name of your choice; see figure 23 on p. 3-3.	3-8
Fig. 30.	A connection works if, after (1) selecting a site and (2) clicking Maintain , you see the "System operational" message in the Feedback box (3).	3-9
Fig. 31.	Indicating the correct Time Zone in which a Multi-Media unit has been installed is crucial to avoiding confusion during the operation of your video surveillance system.	3-10
Fig. 32.	A unit's System Clock can be set manually (1) using a PC's clock as reference (2).	3-11
Fig. 33.	Different rules for daylight savings time in one time zone.	3-12
Fig. 34.	Video feed (1) adjustments (2). The name of a camera can be changed (3).	3-13
Fig. 35.	Audio input to Multi-Media unit.	4-1
Fig. 36.	Speaking remotely from a PC running View, or onsite using LocalView, an operator can communicate with people at the site.	4-2
Fig. 37.	Audio tab, set to deliver sound to and from the View operator's PC to two channels of audio, at one Multi site.	4-3
Fig. 38.	Pin order on serial ports 3 to 10 of a Multi-Media unit, and RJ-45 connector.	5-2
Fig. 39.	Removing the camera input/output (I/O) connectors.	5-2
Fig. 40.	Handle on mounted hard disk.	5-3
Fig. 41.	Pull to remove a mounted hard disk from a unit; push to insert. Remove the front cover of the unit beforehand.	5-3
Fig. 42.	(1) A 232/485 converter may be needed on SERIAL PORT1 or SERIAL PORT2. (2) The serial ports 3 to 10 (RJ-45 connectors) have built-in RS-232/485 converters.	5-4
Fig. 43.	PTZ wiring plan, when using SERIAL PORT 1 or SERIAL PORT 2. The serial ports 3 to 10 (RJ-45 connectors) have built-in RS-232/485 converters.	5-5

Fig. 44. Schematics: (a) normally open, (b) normally closed or (c) end-of-line	5-7
Fig. 45. Input configuration during a maintenance session. Inputs (1) can be named (2). Their activation and deactivation can be monitored (3). By default, alarm/control inputs are configured as NO (4).	5-8
Fig. 46. FAULT RELAY connector on Multi-Media unit's back-panel, showing connection to an external alarm panel.	5-9
Fig. 47. Options for monitoring a unit are on the System tab.	5-10

7.4 More FAQs

In Europe, a UPS is required to meet EN50130-4 Euro Norm.	1-3
Effective video feeds are a major component of any CCTV system.	1-8
Please do not remove factory seals on a Multi-Media unit.	2-1
Honeywell recommends that a line conditioning uninterruptible power supply (UPS) be used with the Multi-Media unit and the <i>cameras connected to the unit</i> .	2-5
Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: <i>Powering Up and Down</i> , p. 2-5.	2-6
Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: <i>Powering Up and Down</i> , p. 2-5.	2-7
Select a VGA monitor to run LocalView only if the monitor supports a resolution of 800 × 600.	2-8
Do not place a monitor or other equipment directly on top of the Multi-Media unit.	2-8
Honeywell recommends that only <i>recordable</i> compact discs be used (CD-R). Do not use re-writable compact discs (CD-RW) or recordable digital video discs (R-DVD) to store Multi-Media video clips.	2-8
Please make a note of passwords. A lost password can make the LocalView interface unchangeable. See the 7.5: <i>Site Information Checklist and Operator Notes</i> , p. 7-7.	2-9
Within DHCP without DNS, an assigned IP address needs to be reserved or it may change.	2-10
After 10 minutes of inactivity, the Multi-Media Shell times out. To return to it, turn the Multi-Media unit off, then use procedure 22.	2-13
After 10 minutes of inactivity, the Multi-Media Shell times out. To return to it, turn the Multi-Media unit off, then use procedure 22.	2-14
Honeywell recommends powering down a unit before connecting hardware to it. See 2.4.1: <i>Powering Up and Down</i> , p. 2-5.	2-15
Do not create a db each time that you log on.	3-2
Choose a name for your Multi db that avoids:	3-2
Do not create a db each time that you log on.	3-3
For a dial-up only connection, leave the IP Address box empty.	3-5

Access to an outside line. If your telephone exchange needs a prefix (an extra telephone key stroke such as a “9” or an “8”), set it in the Window's Telephony program used by the PC, not in Admin.	3-5
The TCP ports should be left open in your organization's firewall.	3-7
The time zone is set on a unit-by-unit basis.	3-12
Honeywell recommends that speakers be placed away from microphones, to avoid audio feedback.	4-2
Use the “[Audio] In” connector. The “Mic In” connector is disabled.	4-2
Loud alarms should be tested during the installation; they can interfere with Multi-Media audio. If microphones and speakers are used while alarm bells are ringing, Honeywell recommends that Multi-Media audio equipment be sonically insulated from the loudness of the alarms.	4-2
The Audio tab is unavailable on PCs without a soundcard.	4-3
Loud alarms can interfere with microphones or a speaker at times when they could be needed most.	4-3
Before adding more hardware, Honeywell recommends that you test the connection to your unit, as explained in section 1.	5-1
Do not block the air intakes on the side of a Multi-Media unit.	5-2
Do not place equipment, such as a monitor, directly on top of the Multi-Media unit.	5-2
Honeywell recommends that cable not be “T-tapped”; this can introduce unwanted distortion into the video signal.	5-5
Communicate the address used by a PTZ dome to the Multi SA, after the installation.	5-5
To avoid short-circuits, ensure that bare wire is not visible at the rear panel.	5-6
To avoid short-circuits, ensure that bare wire is not visible at the rear panel.	5-9
Do not connect a device to CONTROL output 6 after enabling the FAULT RELAY.	5-10
Do not connect devices to the USB ports or to the parallel port of a REMM unit.	5-14
For use of an external modem with a POTS-based Multi-Media unit, contact Honeywell Video Systems technical support, at: 1 (800) 796-2288; i.e., 1 (800) 796-CCTV.	5-14
Do not remove the third wire on a three-prong electrical plug	6-3

7.5 Site Information Checklist and Operator Notes

Organization personnel

Personnel	Name, telephone #, email
Installer	
Multi-Media System Administrator (Multi SA)	
Security personnel	
Network Administrator	
Onsite personnel	
Emergency / after hours	

- checklist continues on next page -

Site definition

Rapid Eye site...	Identification
Name	
Serial number	
Time zone	
Street address	
Multi-Media unit location: floor, room, area...	
SNTP servers (optional)	primary: secondary:
System password	Changed?
FAULT RELAY	Enabled?

- checklist continues on next page -

Communications to unit

Connection	Value
<input type="checkbox"/> network <input type="checkbox"/> dial-up <input type="checkbox"/> both <input type="checkbox"/> NAT	
Network IP address	
Network Address Translation (NAT) for Internet Router	Router at Multi-Media LT site Inside IP Outside IP
Dial-up remote access service (RAS) server (yes/no)?	
Unit telephone number/RAS server telephone number	
Area code	
Area code is used normally (yes/no)?	
Country code	

Communications from unit to alarm station

Connection	Value at alarm station
<input type="checkbox"/> network <input type="checkbox"/> dial-up <input type="checkbox"/> both <input type="checkbox"/> NAT	
Network IP address	
Network Address Translation (NAT) for Internet Router	Router at alarm station Inside IP Outside IP
Dial-up remote access service (RAS) server (yes/no)?	
Unit telephone number/RAS server telephone number	
Area code	
Area code is used normally (yes/no)?	
Country code	

- checklist continues on next page -

Audio

#	Microphone type	Speaker type	Comments
1			
2			

- checklist continues on next page -

Video camera configuration

#	Color / B&W / none	Camera model, location	PTZ address
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

- checklist continues on next page -

Sensor hardware

Input	Type (NO, NC, EOL)	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

- checklist continues on next page -

Control outputs

Output	Description
1	
2	
3	
4	
5	
6	
7	
8	

Serial ports

Port	Use: modem, PTZ, POS...	Comment / parameters
SERIAL PORT 1		DB-9 connector.
SERIAL PORT 2		DB-9 connector.
3		RJ-45 connector.

- more serial ports on next page -

Serial ports (continued)

4		RJ-45 connector.
5		RJ-45 connector.
6		RJ-45 connector.
7		RJ-45 connector.
8		RJ-45 connector.
9		RJ-45 connector.
10		RJ-45 connector.

- checklist continues on next page -

Point of sale hardware

Type	Name / model #	Data / text of interest

Please continue.

8 Index

A

ADEMCO PTZ driver. *See* Javelin/ADEMCO administrator, Multi. *See* Multi SA
alarm bell, and audio interference, 4–3
alarm panel, 5–9
alarm sensor, connecting, 5–6
amplifier: audio, 4–1; video signal, 6–3
audience: field work, 2–1; testing connections, 3–1
audio: configuration, 4–3; LocalView, 4–3;
monitor, 4–3; record, 4–3; talk to site, 4–3

B

base port, 3–7
best practices, CCTV. *See* Kruegle
blind spot: vehicle docking, 2–7
BNC connector, 2–6
Butterworth–Heinemann Publishing. *See* Kruegle

C

cable: audio, 4–1; coaxial, 6–3; triaxial, 6–4
cable length limit table, 6–3
camera: auto-detection, 3–13; naming, 3–13
camera lens, hampered by: blind spot, 2–7;
condensation, dust or grease, 2–7, 5–1;
strong or weak lighting, 2–7
Canada, 5
CCTV: audio, and, 4–1; best practices. *See*
Kruegle; planning, 6–2; reference, 6–2
checklist: hardware kit, 2–2; site identification,
3–4; software kit, 2–2
clock: Multi-Media unit, 3–10; Refresh button,
SNTP server, 3–10; setting to automatic, 3–10
coaxial cable: checklist, 6–3
commands: Multi Shell table, 2–14
condensation, on camera lens, 2–7, 5–1
configuration: camera, 3–13; input, hardware, 5–7
connection: checklist, 3–14; dial-up, 3–5; field
testing, 2–16; network, 3–6; reason for testing,
3–1; record in database, 3–4
converter for PTZ, 5–4

D

daisy-chain of multiple domes, 5–5
damaged unit, 2–16
darkness, and camera lens, 2–7
database: at logon, 3–2, 3–8; empty, 3–3; for
installation, 3–2; for testing connection, 3–2, 3–8;
for upgrades, 3–2; populated, used for
installation, 3–2
Defensible Space. *See* Newman
Delta PTZ driver, 5–6
detachable sub-panel, 5–2
DHCP, 2–9
dial-up connection: field testing, 2–16; making a
record of, 3–5
dust, on camera lens, 2–7, 5–1
Dynamic Host Configuration Protocol. *See* DHCP

E

empty database, 3–3
EOL (end-of-line) sensor, 5–7
EuroNorm, 5, 1–3

F

FAQs: installation support, 6–1; list of, 7–5; walk
through of installation, 1–2
FAULT RELAY, 5–9; alarm-panel, 6–2
FCC, 5
feedback, audio, 4–2
Find-it lists, 7–1
firewall ports, 3–7

G

grease, on camera lens, 2–7, 5–1
Greenwich Mean Time. *See* UTC
ground: loop, 6–3

H

Honeywell: web site, 1–7
how to.... *See* Knowledge Base
Hyperterminal: launch command table, 2–12

I

Illustrations, list, 7–3
Industry Canada, 5
input, sensor hardware: configuring, 5–7; NC.
 See normally closed sensor; NO. See normally open sensor
installation: main steps, 1–1; report contents, 2–4; reporting, to whom, 2–4; walk through, 1–2
interference, electrical, 6–4
IP address: assigned using LocalView, 2–10
IP address, assigning to unit, 2–13
ISDN, 5–14

J

Javelin/ADEMCO PTZ driver, 5–6

K

Kalatel PTZ driver/Cyberdome, 5–6
kit: hardware, 2–2; software, 2–2
Knowledge Base, 7–1
Kruegle, Herman, 1–8, 2–7, 6–2

L

lighting, 6–4
Local UI. See LocalView
LocalView, 2–10; audio, 4–3; monitor, 2–8;
 password, default, 2–9; recording rates, low, 2–9
log on: database, 3–2, 3–8; double duty dialog, 3–3; password, 3–2, 3–8; user account, 3–2, 3–8

M

Macmillan Publishing. See Newman
maintenance: Admin documentation, 1–7;
 illustration, 1–6; running a session, 3–9
maintenance session: check auto-detection of cameras, 3–1
maintenance session, running, 3–9
microphone, 4–1
modem: default settings table, 2–16; external, 5–14; internal, Multi, 2–16
monitor: audio, 4–3
Multi db: create, 3–3
Multi SA (Multi-Media system administrator), 2–4; synchronizing clock on Multi-Media unit, 3–10, 3–11
Multi Shell: commands table, 2–14; quitting, 2–14; returning to, 2–10, 2–14; time out, 2–10, 2–14; using, 2–13
Multi-Media unit. See unit
Multi-Media unit, clock. See clock, on unit

N

network connection: field testing, 2–16; making a record of, 3–6
network settings: Multi default table, 2–13
Newman, Oscar, 1–8
NO (normally open) sensor, 5–7
noise: alarm bell, 4–3; audio, 4–2; loud alarm, 4–3
null-modem cable, 2–11

O

obtain video, 3–13
Orbiter dome, 5–6
output: connection, 5–8

P

panel connectors table, 2–3
part number: hardware kit, contents, 2–2;
 software kit, contents, 2–2
password: at logon, 3–2, 3–8; LocalView, 2–9
PC, in the field, 2–11
Pelco P/D PTZ driver/dome, 5–6
PING, 2–16, 3–4
power down, sequence, 2–6
power up, sequence, 2–6
protected sensor. See end-of-line sensor
PTZ: cabling table, 5–5; RS-232/485 converter, 5–4

R

RapidDome, 5–6
rear panel connectors, 2–4, 5–4, 5–11
record: audio, 4–3
recovery: power-down, 2–6
Refresh button, SNTP server, 3–10
report installation: content, 2–4; to whom, 2–4
return authorization, 2–16
Ringer Equivalence Number (REN), 5
road map: adding hardware, 5–1; all software, 3–1; field work, 2–1
rush-hour, noise from, 4–2

S

screwdriver, 5–8
sensor hardware table, 5–7
sensor, alarm. See input, sensor hardware
Sensormatic dome, 5–6
site: as unit, 3–4; new, naming, 3–4
site information, checklist, 2–1, 2–4, 6–1, 7–7
SNTP Server. See clock
soundscape, 4–2

speaker, audio, 4-1
spot checking: audio, 4-2
stadium crowd, noise from, 4-2
sub-panel, detachable, 5-2
sunlight, on camera lens, 2-7
synchronizing unit time to PC, 3-11, 3-12
System administrator, Multi. *See* Multi SA
system monitoring. *See* FAULT RELAY

T

Tables, list of, 7-2
TCP ports: base, 3-7
telephone jack, 2-15
terminal program, 2-11
time zone, 3-4
time zone conflict, 3-12
triaxial cable, 6-4
TTL, 2-3

U

Ultrak PTZ driver, 5-6
unit: default network settings, 2-13; if damaged, 2-16; maintenance session, 3-9; recovery, 2-6; securing, 5-1; time zone, 3-4; unpacking, 2-1
UPS: recommended, 2-5
user account, at logon, 3-2, 3-8

V

vehicle docking, blind spot, 2-7
ventilation, 5-1
video, obtaining, 3-13
View operator: audio at PC, 4-3; time zone conflict, 3-12

W

web site, 1-7
wire stripper, 5-6, 5-8

Honeywell Video Systems (Head Office)

2700 Blankenbaker Pkwy, Suite 150
Louisville, KY 40299, USA
www.honeywellvideo.com
☎ 1-800-796-2288

Honeywell Security Australia Pty Ltd.

Unit 5, Riverside Centre, 24-28 River Road West
Parramatta, NSW 2150, Australia
www.ademco.com.au
☎ +61.2.8837.9300

Honeywell Security Asia Pacific Ltd.

33/F, Tower A, City Center, 100 Zun Yi Road
Shanghai 200051, China
www.honeywell.com/security/cn
☎ +86 21.2527.4568

Honeywell Security Asia

Flat A, 16/F, CDW Building, 388 Castle Peak Road
Tsuen Wan, N.T., Hong Kong
www.honeywell.com
☎ +852.2405.2323

Honeywell Security France

Parc Gutenberg, 8, Voie La Cardon
91120, Palaiseau, France
www.honeywell.com/security/fr
☎ +33.01.64.53.80.40

Honeywell Security Italia SpA

Via Treviso 2 / 4
31020 San Vendemiano
Treviso, Italy
www.honeywell.com/security/it
☎ +39.02.457.1791

Honeywell Security España

Calle Vivero, 5, 28040
Madrid, Spain
www.honeywell.com/security/es
☎ +34.91.102.5900

Honeywell Video Systems Northern Europe

Netwerk 121
1446 WV Purmerend, The Netherlands
www.SecurityHouse.nl
☎ +31.299.410.200

Honeywell Video Systems UK Ltd.

Aston Fields Road, Whitehouse Ind Est
Runcorn, Cheshire, WA7 3DL, UK
www.honeywellvideo.com
☎ +0844 8000 235

Honeywell Security South Africa

Unit 6 Galaxy Park, 17 Galaxy Avenue,
Linbro Park, P.O. Box 59904
2100 Kengray, Johannesburg, South Africa
www.honeywell.co.za
☎ +27.11.574.2500

Honeywell Security Germany

Großenbaumer Weg 8
40472 Düsseldorf, Germany
www.honeywell-security.de
☎ +49.211.415.090

Honeywell Security Poland

Chmielewskiego 22a, 70-028
Szczecin, Polska
www.ultrak.pl
☎ +48.91.485.40.60

Honeywell Security Czech Republic

Havránkova 33, Brno
Dolní Heršpice, 619 00, Czech Republic
www.olympo.cz
☎ +420.543.558.111

Honeywell Security Slovakia Republic

Vajnorská 142, 83104 Bratislava
Slovakia
www.olympo.cz
☎ +421.2.444.54.660

Honeywell

Video Systems

www.honeywellvideo.com

+ 1.800.796.CCTV (North America only)

© 2006 Honeywell International Inc. All rights reserved. No part of this publication may be reproduced by any means without written permission from Honeywell Video Systems. The information in this publication is believed to be accurate in all respects. However, Honeywell Video Systems cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.



K9696V3 01/2006