

## Installation and Operation

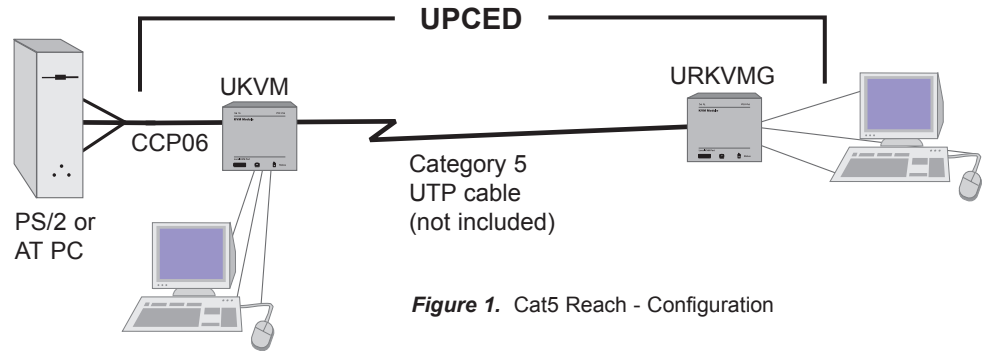
### Introduction

Cat5 Reach includes a transmitter-receiver (UKVM/URKVMG) pair that enables you to locate a PC (CPU) in a clean, secure area and access the PC from any convenient, remote location. The remote user (keyboard, monitor, and mouse), connected to the receiver, can be up to 1000 feet from the PC using Category 5 UTP cable. In addition to the remote user, a local user (keyboard, monitor, and mouse) can be connected to the transmitter. Similarly, Cat5 Reach can be used to extend distances between Raritan KVM switches, user consoles, and connected computers.

### Cat5 Reach Application with PC

#### Cat5 Reach

*To locate a keyboard, monitor, and mouse 30 feet to 1000 feet from a PC*



**Figure 1.** Cat5 Reach - Configuration

### Sequence of Steps for Cat5 Reach Installation

1. Before connecting to the PC (CPU), make sure that the PC is powered off.
2. Connect UKVM to PC using included CCP06 cable.
3. Connect UKVM to URKVMG using standard Category 5 enhanced UTP cable with RJ45 connectors up to 1000 feet in length (video resolutions up to 1024 x 768) or 650 feet in length (video resolutions up to 1600 x 1200).
4. Plug the DC Adapter (Part # A10D1-06MP) into the URKVMG and the other end into an AC power outlet
5. Plug a keyboard, VGA monitor, and PS/2 mouse into URKVMG (and UKVM if desired).
6. Power on the PC and VGA monitor and operate.
7. The URKVMG contains automatic video tuning (AVT) and is pre-set at the factory. No manual adjustments should be required—the URKVMG will automatically adjust the video quality based on the length of the Category 5 cable. If you feel that the video quality is not satisfactory, an adjustment can be made by inserting a small flat-head screwdriver into the opening labeled Video Adjustment and slowing fine-turning the adjustment up or down.

# Cat5 Reach

## Cat5 Reach Applications with MasterConsole (or other KVM Switch)

### Cat5 Reach Extended Length Kit to connect a user console

To locate a user console (keyboard, monitor, and mouse) 30 feet to 1000 feet from MasterConsole or other KVM switch

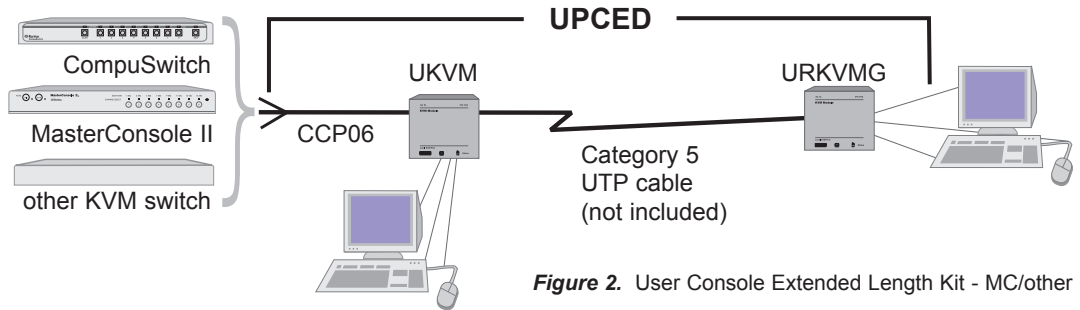


Figure 2. User Console Extended Length Kit - MC/other KVM

To locate a user console (keyboard, monitor, and mouse) 30 feet to 1000 feet from MasterConsole MX<sup>4</sup>

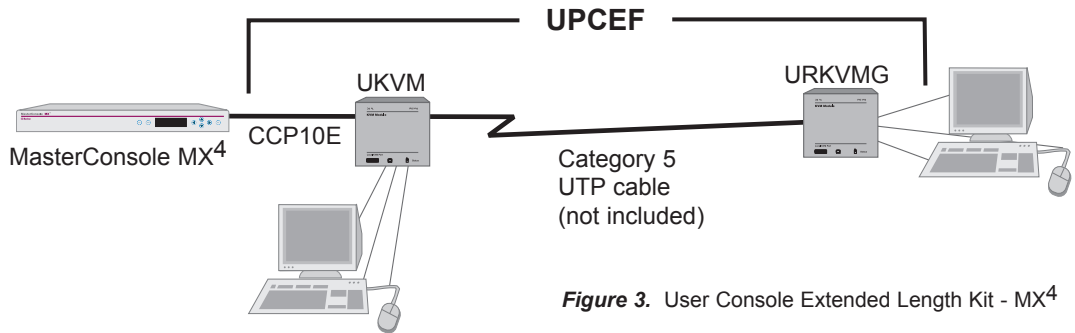


Figure 3. User Console Extended Length Kit - MX<sup>4</sup>

### Cat5 Reach Extended Length Kit to connect a PC

To locate a PC 30 feet to 1000 feet from MasterConsole or other KVM switch

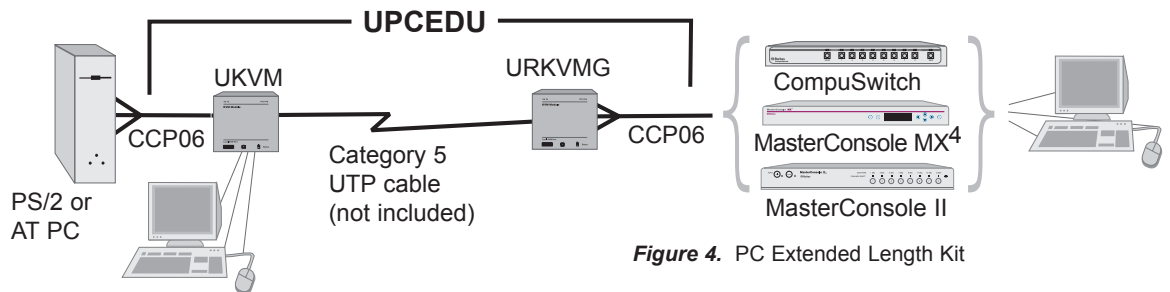


Figure 4. PC Extended Length Kit

### Cat5 Reach Extended Length Kit to cascade MasterConsole MX<sup>4</sup> units

To cascade MasterConsole MX<sup>4</sup> units from 30 feet to 1000 feet

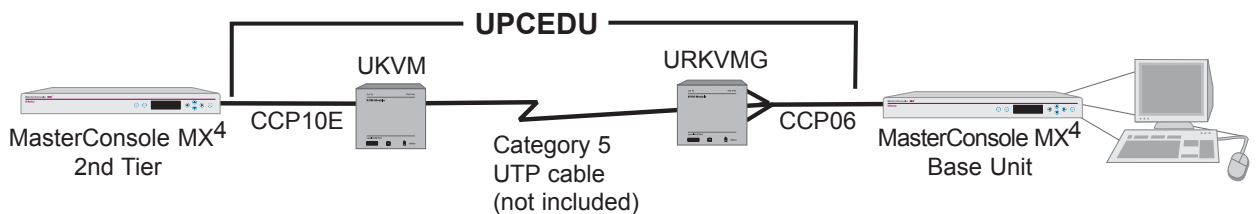


Figure 5. Cascade Extended Length Kit

# Cat5 Reach

## Specifications for Components

UKVM (Transmitter)	
Dimensions	4.3" (W) x 3.6" (D) x 1.0" (H) 108mm (W) x 91mm (D) x 23mm (H)
Weight	0.5 lbs. (0.2 kg)
Power	No external power required
Connectors to PC	2' universal cable kit CCP06 included
User Port (local access)	6 pin keyboard & mouse, HD15 monitor

URKVMG (Receiver)—Automatic Video Tuning	
Dimensions	4.3" (W) x 3.6" (D) x 1.0" (H) 108mm (W) x 91mm (D) x 23mm (H)
Weight	0.5 lbs. (0.2 kg)
Power	6V DC input (Adapter included)
User Port (remote access)	6 pin keyboard & mouse, HD15 monitor

**Note:**

Raritan's Category 5 UTP transmitter-receiver (UKVM/URKVMG) products provide a convenient and cost effective way to extend PC access.

Distance	Supported Video Resolutions
Up to 1000 feet	Up to 1024 x 768
Up to 650 feet	Up to 1600 x 1200

The quality of the video can be affected by the quality of the cable used. The following cables have been tested and are determined to produce satisfactory results with the products:

Manufacturer	Cable Type (enhanced)
Belden	Datatwist 350 Type 1700A
Belden	Mediatwist Type 1872A
Madison Cables	p/n 08FI00013
Helix/Hitemp Cables	p/n 803508F

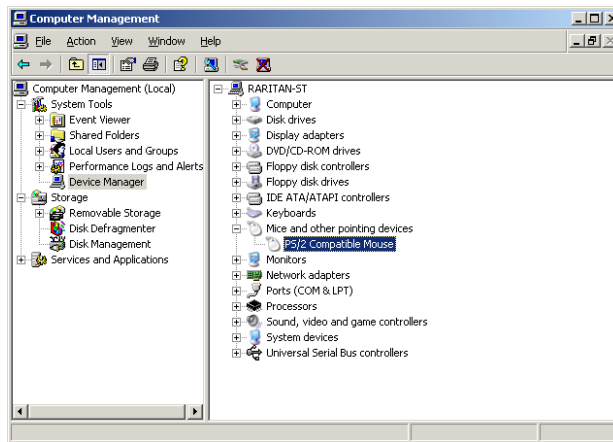
Raritan's Category 5 Reach products utilize the EIA/TIA T568B standard. Category 5 UTP cable used with Raritan's Category 5 products should be enhanced and must conform to this standard.

## Troubleshooting

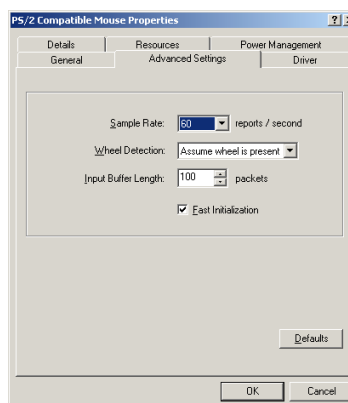
If you use "Unotron M10 ScrollSeal Washable Optical Mouse," you may find that the mouse jumps up and down when it is dragged over the screen. If this occurs, you can change the mouse sample rate to resolve this problem. See below for details.

### Solution in Windows XP

1. Choose **Start**.
2. Right click **My Computer**.
3. Choose **Manage** from the pop-up menu. The *Computer Management* window appears.
4. Click **Device Manager** on the left pane.
5. Click the plus (+) symbol before **Mice and other pointing devices** on the right pane.



6. Double click **PS/2 Compatible Mouse**. The *PS/2 Compatible Mouse Properties* dialog appears.
7. Click the **Advanced Settings** tab.
8. Change the value of **Sample Rate** to 60.



9. Click **OK**.

## Solution in Windows Vista

1. Choose **Start > Run**.
2. Type `regedit`.
3. Click **OK**. The **Registry Editor** window appears.
4. Click the plus (+) symbol before **HKEY\_LOCAL\_MACHINE** on the left pane, then the plus symbol before **SYSTEM, ControlSet001, Enum, ACPI, PNP0F13** and finally the plus symbol before **3&2411e6fe&0**.
5. Click **Device Parameters** on the left pane.
6. Double click **SampleRate** on the right pane.

EnableWheelDetection	REG_DWORD	0x00000002 (2)
FirmwareIdentified	REG_DWORD	0x00000001 (1)
Migrated	REG_DWORD	0x00000001 (1)
MouseDataQueueSize	REG_DWORD	0x00000064 (100)
MouseInitializePolled	REG_DWORD	0x00000000 (0)
MouseResolution	REG_DWORD	0x00000003 (3)
MouseSynchIn100ns	REG_DWORD	0x01312d00 (20000000)
SampleRate	REG_DWORD	0x0000003c (60)
WheelDetectionTimeout	REG_DWORD	0x000005dc (1500)

7. Change the value data to either 3C (Hexadecimal) or 60 (Decimal).
8. Click **OK**.