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Design KI-1988

# Rauland Ranger<sup>®</sup> Media Management System: Design Guide



**Rauland-Borg Corporation**

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# 1

## General Information

The *Ranger® Media Management System: Design Guide* simplifies the ordering process by offering summary information regarding *Ranger®* Central, Source, Rack, and Classroom Equipment.

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### Scope of this Guide



First things first: do not use the original form to make or submit your order. Rather, make a photocopy and store the original in a safe place. Next, complete your copied form and either fax it for review to a Sales Application Engineer or for order entry directly to the Customer Service Order Entry area. Should you prefer to use your Excel™-equipped PC to complete the order form, an interactive, on-line version is available on the Rauland BBS (file name: “Quote.xls”). In either case, we suggest you keep a copy of your order on file for future reference.

# Rauland Ranger® Media Management System

Please complete the following information before submitting your order:

**Distributor Information** (Name, Address, Voice and Fax Numbers):

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**Customer Information** (Customer's Name, Address, Voice and Fax Numbers):

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**Special Requirements/Other Information:**

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## Central Equipment

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANPCSW</b>	Media Control Personal Computer (system) and Software. Provides media scheduling, database software, media source machine control and interface, interactive help, diagnostics, generates message screen displays, system setup and configuration. One (1) PC required per Ranger system. A RANSHELF, RANMONMNT, and RANKEYMNT can be used to rack mount the RANPCSW. PC SYSTEM CONFIGURATION (ref.): Processor: <i>133 MHz Pentium</i> Hard Disk: <i>850 MB</i> Memory: <i>16 MB RAM</i> Graphics: <i>14" Color SVGA, 2 MB VRAM</i> CD-ROM: <i>12X (internal)</i> Modem: <i>28.8K bps (internal)</i> Operating System: <i>Microsoft® Windows® for Workgroups 3.11</i>	See rack mount section				
<b>RANCC16</b>	Control Card Cage. Provides slots for sixteen (16) control cards each capable of controlling one (1) media device. One (1) required for every 16 media input devices. Power requirement: 12VDC, 120mA.	2 RU (3.5")				
<b>RANCPU</b>	Control CPU. One (1) required per Ranger system. Completely manages the entire media device control network. Handles up to 60,000pf of capacitance maximum on the control link cable. Mounts in the RANCC16. Power Requirement: 12VDC, 100mA. For systems larger than 255 devices or 120 classrooms contact Rauland-Borg for system design and pricing.	Mounts in the RANCC16				
<b>RANBROAD</b>	Control Expander. Required if the amount of control cable cannot be accommodated by the RANCPU (exceeds 60,000pf). Handles 10 runs of cable; each with a maximum of 60,000pf. Power Requirement: 12VDC, 200mA	1 RU (1.75")				

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Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANIR</b>	Infrared Control Card. Provides control for a wide variety of IR media devices. Includes IR transmitter cable (RANIRCABLE) One (1) required for each IR media device (e.g. Still Video player, VCR, CD-I Player). Mounts in the RANCC16 Control Card Cage. Power Requirement: 12VDC, 45mA	Mounts in RANCC16				
<b>RAN232</b>	Data Control Card. Provides control for a wide variety of media and computer devices. One (1) required to support the RANPCSW . One (1) required to support the Video Matrix Switch (RAN[x]VS][y]). One (1) required for each RS232/422 Controlled Media Device (e.g. Laser Disc Player, Character Generators, etc.). Mounts in the RANCC16 Control Card Cage. Power Requirement: 12VDC, 125mA.	Mounts in RANCC16				
<b>RANRLY8</b>	Relay Control Card. Provides 8 relays for specialized control functions. Power Requirement: 12VDC, 125ma.	Mounts in RANCC16				
<b>RANCAGE</b>	Fiber and Multiplexer Card Cage. Required for mounting the audio/video multiplexers (RANAVMS2) as well as the fiber cards (RANFT4, RANFR4). This card cage holds either ten (10) RANFT4 Fiber Transmitter Cards, ten (10) RANFR4 Fiber Receiver Cards, or ten (10) RANAVMS2 Multiplexer Cards. Mounts in the Central Equipment Rack.	4 RU (7")				
<b>RANAVMS2</b>	Audio/Video Multiplexer. One (1) required for every two (2) inputs in a baseband system (e.g. media devices, demodulated broadcast channels , satellite inputs). Use only with systems using the RANCL101CP in the classroom.	Mounts in RANCAGE				
<b>RANFT4</b>	Quad Fiber Transmitter Card. One (1) required for every four (4) outputs (Classrooms) in a fiber-based system. Not required for a baseband coax system. Power Requirement: 12VDC, 200mA.	Mounts in RANCAGE				
<b>RANFT4FM</b>	Quad FM Fiber Transmitter Card. FM version of RANFT4	Mounts in RANCAGE				
<b>RANFR4</b>	Quad Fiber Receiver Card. One (1) required for every four (4) classrooms returning local origination for	Mounts in				

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<b>Model No.</b>	<b>Component Description</b>	<b>Rack Space Each</b>	<b>Price Each</b>	<b>Qty.</b>	<b>Total Rack Space</b>	<b>Total Price</b>
	distribution in a fiber-based baseband system. Not required for a baseband coax system. Power Requirement: 12VDC, 400mA	RANCAGE				
<b>RANFR4FM</b>	Quad FM Fiber Receiver. FM Version of RANFR4.	Mounts in RANCAGE				
<b>RANPS12</b>	Power Supply. Provides 12.5 amps at 12VDC. One (1) or more required to power the central equipment Mounts in the central equipment rack.	Mounts on side or bottom of rack				
<b>RANMON13</b>	13" Monitor. One (1) required in the central equipment. Maximum of four (4) per system. Allows the Learning Resource Center to view classroom programs. Uses the RANMONMNT Rack Mount Kit.	8 RU (14")				



Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<p><b>RAN[x]VS[y]</b></p>	<p>Video Matrix Switch. Video Matrix switches are available in any size increment of ten (10) inputs and ten (10) outputs The video matrix switch size should be carefully planned in order to allow for future expansion.</p> <p>✓ For a baseband Ranger System, the outputs are simply the number of locations (classrooms and rack-mounted operator's monitors) that will be viewing the centrally located media (in multiples of 10).</p> <p>✓ For a broadband Ranger System, the outputs are the number of modulated channels reserved for Ranger viewing (in multiples of 10).</p> <p>Each of the following should be considered inputs for the video switch:</p> <ol style="list-style-type: none"> <li>1. Media Devices (VCRs, Laser Disc Players, etc.)</li> <li>2. Demodulated Broadcast/Cable Channels (each channel to be distributed through a baseband Ranger system)</li> <li>3. Satellite or Microwave Transmissions</li> <li>4. Local Origination Inputs (video all call)</li> </ol> <p>One (1) RAN232 Data Control Card is required for the Video Matrix Switch. The video matrix switch should be ordered under the part number of RAN[x]VS[y]</p> <p>x = number of inputs y = number of outputs.</p> <p>For example, if a 20 input by 60 output switch is required, a RAN20VS60 should be ordered.</p>					

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<p><b>RAN[x]VS[y]</b> (Continued)</p>	<p>Each video switch consists of the following components:</p> <ol style="list-style-type: none"> <li><b>RAN10C10 Crosspoint Cards.</b> Quantity needed is <math>([x](\text{inputs rounded up to the nearest 10}) \times [y](\text{outputs rounded up to the nearest 10})) / 100</math>. Ex: Given 13 actual Inputs and 61 actual Outputs. Calculation: 13 rounds up to 20, 61 rounds up to 70. Crosspoint Cards = <math>(20 \times 70) / 100 = 14</math></li> <li><b>RANVIDOUT Output Cards.</b> Quantity needed is <math>[y](\text{outputs rounded up to the nearest 10}) / 10</math>.</li> <li><b>RAN50VS20 Entrance Frame.</b> One (1) required if total number of inputs [x] is 50 or less. Provides mounting for 2 output cards.</li> <li><b>RAN70VS20 Entrance Frame.</b> One (1) required if the total number of inputs [x] is 70 or less. Provides mounting for 2 output cards.</li> <li><b>RAN110VS10 Entrance Frame.</b> One (1) required if the total number of inputs [x] is 110 or less. Provides mounting for 1 output card.</li> </ol> <p><b>RAN150VS10 Entrance Frame.</b> One (1) required if the total number of inputs [x] is 150 or less. Provides mounting for 1 output card.</p> <p><b>RAN50X20 Expansion Frame.</b> One (1) required for every 20 outputs excluding the 20 provided with the entrance frame.</p> <p><b>RAN70X20 Expansion Frame.</b> One (1) required for every 20 outputs excluding the 20 provided with the entrance frame.</p> <ol style="list-style-type: none"> <li><b>RAN110X10 Expansion Frame.</b> One (1) required for every 10 outputs, excluding the 10 included with the entrance frame.</li> <li><b>RAN150X10 Expansion Frame.</b> One (1) required for every 10 outputs, excluding the 10 included with the entrance frame.</li> </ol>	<p>RAN10C10 mounts in frames.</p> <p>RANVIDOUT mounts in frames</p> <p>RAN50VS20</p> <p>RAN70VS20 RAN110VS10 RAN50X20 RAN70X20 RAN110X10 6RU (10.5")</p>				

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<b>Model No.</b>	<b>Component Description</b>	<b>Rack Space Each</b>	<b>Price Each</b>	<b>Qty.</b>	<b>Total Rack Space</b>	<b>Total Price</b>
<b>VW2294</b>	Control Cable. with Connectors. Connects RANCC16 to Character Generators	Not Applicable				
<b>VW2292</b>	Control Cable. Connects RANCC16 to laser disc players	Not Applicable				
<b>RANSYNCR</b>	Sync Pulse Generator. One (1) required per baseband system for the character generator	Mounts on the side or rack				
<b>RANLPSW</b>	Lesson Plan Software. (optional) Allows the user to create a multi-media presentation and store the commands for later scheduling and use. Runs on both Windows® and Macintosh® machines. Standard software allows 10 simultaneous users on a Microsoft Windows NT®, Novell® Netware®, or AppleShare® network (must be Ethernet or Token Ring). See specification sheet for additional requirements.	Not Applicable				
<b>RANREMOTSW</b>	Remote Scheduling Software (optional). Allows users to schedule media titles and resources from network workstations. Runs on both Windows® and Macintosh® machines. Standard software allows 10 simultaneous users on a Microsoft Windows NT®, Novell® NetWare®, or AppleShare® network. See specification sheet for additional requirements.	Not Applicable				

**Central Equipment Total** (add cost of all “central equipment” together) \_\_\_\_\_

## Source Equipment

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RAN16MM</b>	16mm to Video Converter. One (1) RANIR is required for each RAN16MM	Table Mount				
<b>RAN35MM</b>	35mm to Video Converter. One (1) RANIR is required for each RAN35MM.	Table Mount				
<b>RANCDROM</b>	CD-ROM Drive. One (1) RANIR is required for each CD-ROM drive. Each CD-ROM drive requires a computer as well as a RANNTSC for NTSC video output (see specification sheet for details). Requires a RANSHELF Rack Mount Kit.	3 RU (5.25")				
<b>RANCDI</b>	CD-Interactive Player. One (1) RANIR IR Control Card is required for each CD-I player. Requires a RANSHELF Rack Mount Kit.	3 RU (5.25")				
<b>RANMENU</b>	Character Generator Kit. Allows system to display available media devices (with courseware titles) on the classroom monitor. Multiple RANMENUs can be used in a Ranger system to minimize blocking (recommend one for every 30 classrooms). Kit includes software, cable and a VGA/NTSC converter. You must supply an IBM® compatible PC with VGA output and Microsoft® MS-DOS® (no monitor, keyboard or hard drive is required). One (1) RAN232 Data Control Card required for each character generator in the system. Requires a RANSHELF. VS2293-1 cable (included).	3 RU (5.25")				
<b>RANVCR</b>	Video Cassette Player. One (1) RANIR Control Card is required for each VCR Requires a RANSHELF for rack mounting.	3 RU (5.25")				
<b>RANSVHS</b>	Super VHS Video Cassette Player. One (1) RANIR IR Control Card is required for each SVHS player. Requires a RANSHELF rack mount kit.	3 RU (5.25")				
<b>RANVEDIT</b>	VHS/SVHS Editing System. One (1) RANIR is required for each RANVEDIT. Requires a RANSHELF for rack mounting.	3 RU (5.25")				

**Source Equipment Total** (add cost of all "source equipment" together) \_\_\_\_\_

## Rack Equipment

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANRACK61</b>	61" Black Rack, 24" deep, rear door, removable sides. Add suffix "P" for pontoon base with wheels.					
<b>RANRACK77</b>	77" Black Rack, 24" deep, rear door, removable sides. Add suffix "P" for pontoon base with wheels.					
<b>RANSP61</b>	61" Rack Side Panels (pair).					
<b>RANSP77</b>	77" Rack Side Panels (pair).					
<b>RANSHELF</b>	Shelf Rack Mounting Kit. Accommodates all media devices requiring 3 RU of space	3 RU (5.25")				

**Rack Equipment Total** (add cost of all "rack equipment" together) \_\_\_\_\_

## Classroom Equipment

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANHHELD</b>	Remote Control Unit with dedicated keys for each RANGER function. Provides media device control in an IR handheld unit. Recommend one (1) per classroom	Not Applicable				
<b>RANCL101CP</b>	Baseband classroom electronics unit providing IR handheld remote of media devices from the classroom. The RANCL101CP mounts directly on either a Bretford or Peerless television mount (other mounts may require the drilling of 4 mounting holes).	Not Applicable				
<b>RANFBINT</b>	Classroom fiber interface. House fiber receivers/transmitters for fiber-based systems. Also acts as classroom termination point for headend cabling.	Not Applicable				

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Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANCL201CP</b>	Broadband classroom electronics unit providing an efficient and cost-effective means of providing IR handheld remote of media devices from the classroom. The RANCL201CP mounts directly on either a Bretford or Peerless television mount (other mounts may require the drilling of 4 mounting holes).					
<b>RANBARC</b>	Barcode Reader. Allows user to scan a barcoded instruction manual from the classroom. Use only with Pioneer LDV series of laser disc players	Not Applicable				
<b>RANMON20 RANMON25 RANMON27 RANMON32</b>	RANMON Series of Video Monitors. Available in 20", 25", 27" and 32". RANIR is required for Broadband Systems when used as an Operation Console at the Headend. See RANHRD series for mounting information	Not Applicable				
<b>RANHRDS20 RANHRDS27 RANHRDS32</b>	Suspended Ceiling Mount Hardware for the video monitors Available in 20", 25"/27", and 32" sizes	Not Applicable				
<b>RANHRDC20 RANHRDC27 RANHRDC32</b>	Finished Ceiling Mount Hardware for the video monitors. Available in 20", 25"/27", and 32" sizes	Not Applicable				
<b>RANHRDW20 RANHRDW27</b>	Wall Mount Hardware for the Video Monitors. Available in 20" and 25"/27" sizes.	Not Applicable				
<b>RANNTSC</b>	RGB to NTSC Composite Video Adapter. Works with both standard VGA signals on a PC or with any Macintosh video that supports the Apple 13" RGB Monitor. Allows the computer screen image to be sent directly to the video monitor (RANMON series) while displaying the image on the computer's monitor at the same time. Cables for connection to a PC or Macintosh are supplied. Requires a wall plate connector for connection. Resolution is limited to 400 horizontal lines; for better resolution use a multiscan monitor.	Not Applicable				

Model No.	Component Description	Rack Space Each	Price Each	Qty.	Total Rack Space	Total Price
<b>RANAVMS1</b>	Single Audio/Video Multiplexer. Stereo Standard. One (1) required for each classroom with a RANCL101 or RANCL101CP for distributed local origination (e.g. video all call). Required for both coax and fiber baseband systems. Mounts in the RANCL101. Requires a wall plate connector for connection of the camera.					
<b>RANFT1</b>	Fiber Transmitter. One (1) required for each classroom with distributed local origination in a fiber system. Mounts in the RANFBINT.	Not Applicable				
<b>RANFR1</b>	Fiber Receiver. One (1) required for each fiber classroom in a fiber baseband system. Mounts in the RANFBINT.	Not Applicable				

**Classroom Equipment Total** (add cost of all "classroom equipment" together) \_\_\_\_\_

## Order Totals

**Central Equipment Total** \_\_\_\_\_  
**Source Equipment Total** \_\_\_\_\_  
**Rack Equipment Total** \_\_\_\_\_  
**Classroom Equipment Total** \_\_\_\_\_  
**Shipping** \_\_\_\_\_  
  
**Grand Total** \_\_\_\_\_