General Description

The Rane CP66 is a multiple-input Commercial Zone Processor with paging support. Designed for versatility, it is perfect for use in restaurants, bars, offices, retail stores, stadiums, and other types of multi-zone environments.

With six Program inputs, six linkable Zone outputs, Page input, and support for the Rane PAGER2, DR1, and DR3 Digital Remotes, a multitude of system configurations are possible.

The CP66 can be configured entirely using its intuitive front panel controls, and easily set up by a technician in any location without a computer. Included Windows® software (connected through USB) provides the additional ability to save and load preconfigured settings for easy deployment, and also allows custom Zone and Group naming.

Any of the six Program inputs can be assigned to each Zone. Program Input 6 can act optionally as a gated Priority Input for use with a jukebox or notification system.

Each Zone features independent settings for:

- Level
- Source Select
- Ducker Depth
- Limiter Threshold
- 3-Band EQ
- Page Level
- High-Pass Filter
- Priority Input Enable

Page inputs are priority controlled, so a high priority input will always override the other. If Page priorities are equal, then both can be used simultaneously.

Page 1 supports an analog line or mic level input with selectable 24 V phantom power, and is assigned to Zones via a rear panel dipswitch.

Page 2 supports the optional Rane PAGER2 paging station, allowing dynamic Zone selection right at the microphone, and can store preset groups for even easier page selection. The PAGER2 connects via a single shielded CAT 5e cable.

Zones may be linked into groups via rear panel switches. When linked, the Level and Source as well as any connected Remote controls are set to the same value for each Zone in the group. This allows simple but powerful linking scenarios without the need for complicated software.

The Rane Digital Remote DR1 adds remote control of Zone (or linked group) Output Level, optionally limited by configurable max and min values. The DR3 adds Input Source selection along with Level, and can be a Master Level control displaying and controlling all six Zone levels from a single location. Custom Digital Remote display names can be set in the PC software.

Independent *Accelerated-Slope*™ 3-band tone controls for each zone allow easy intuitive adjustment. The tone controls use 12 dB per octave Linkwitz-Riley filters with a range of ±6 dB.

A dedicated transformer-isolated output delivers any Program input source to music-on-hold in a telephone system.
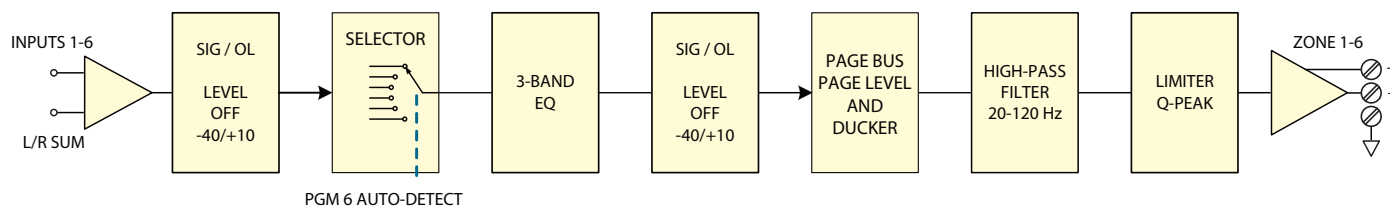
System security can be enabled from a local or remote switch. Options include full CP66 front panel lockout, allowing only front panel zone control, and remote muting.

The Rane CP66 includes an internal 100-240 VAC power supply and is CSA approved.

Features

- Six independent and linkable Zones.
- Six Program Inputs (4 RCA, 2 Balanced Euroblock).
- One gated Priority Input.
- Paging Inputs with Priority assign.
- Independent EQ, Limiter, Ducker depth, Filter Cutoff, Priority Enable and Page Level per Zone.

- Music-on-Hold Output (Transformer isolated).
- Front Panel lockout switch.
- Optional PAGER2 Smart Paging Station with Mic input.
- Optional DR1 Remote Zone/Group Level control.
- Optional DR3 Remote Zone/Group Input Select or Master Level.
- Universal Internal Power Supply (100-240VAC)

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Program Input to Zone Output Block Diagram

Features and Specifications

Parameter	Specification	Limit	Units	Conditions/Comments
Program Inputs 1-4				
..........Input Type	RCA			Unbalanced; Mono-summed L & R
..........Max Input Level	+14.3	+2 /-1	dBu	Equivalent to 4.0 Vrms
..........Input Level Adjust	Off to 0		dB	
..........Frequency Response	20 Hz to 22 kHz	±0.4	dB	+0 dBu, 20 Hz to 20 kHz
..........Input Impedance	17.3k	10%	Ω	
Program Inputs 5-6				
..........Input Type	Euroblock			Balanced; Mono-summed L & R
..........Max Input Level	+20	+2 /-1	dBu	
..........Input Level Adjust	Off to 0		dB	
..........Frequency Response	20 Hz to 22 kHz	±0.4	dB	+0 dBu, 20 Hz to 20 kHz
..........Input Impedance	14.0k	10%	Ω	
Page 1 Input				
..........Input Type	Euroblock			Balanced
..........Gain Range	-41 to 0		dBFS	Continuously adjustable
.....**Input Mode: Line**				
..........Input Impedance	5.8k	10%	Ω	
..........Max Input Level	+20		dBu	Gain set to min.
.....**Input Mode: Mic**				
..........Input Impedance	1.1k	10%	Ω	
..........Max Input Level	+5		dBu	Gain set to min.
..........Phantom Power	24	+4 /-0	V	10 mA max.
Zone Outputs				
..........Number of Outputs	6			Mono
..........Output Type	Euroblock		dB	Balanced
..........Max Output Level	+20	±1	dBu	
..........3-band Tone Controls	±6 dB			Accelerated-Slope
...............Low/Mid Frequency	300 Hz			12 dB per octave Linkwitz-Riley
...............Mid/High Frequency	4 kHz			12 dB per octave Linkwitz-Riley
..........Frequency Response	20 Hz to 22 kHz	+0 /-3	dB	
..........THD +N	0.06	0.01	%	+4 dBu, BW=22 kHz
..........Output Impedance	100	10%	Ω	Each leg
Unit				
..........Conformity	CE, FCC, cCSAus			
..........Universal Line Voltage	100-240 VAC, 50/60 Hz			20 watts
..........Construction	All Steel			
..........Size	3.5"H x 19"W x 8.5"D			2U (8.9 cm x 48.3 cm x 21.6 cm)
..........Weight	7 lb			(3.2 kg)
.....Shipping: Size	4.5" x 20.3" x 13.75"			(11.4 cm x 52 cm x 35 cm)
..........Weight	12 lb			(5.4 kg)
Note: 0 dBu = 0.775 Vrms				

Data Sheet-2

Paging Station

The PAGER2 is a Smart Paging Station that allows advanced features beyond a normal analog microphone. Specific to the CP66, this unit lets you decide which combination of the six Zones to Page into and displays important information such as whether or not a higher priority page is already occurring.

The PAGER2 accepts any standard gooseneck mic and has built-in selectable 24 V Phantom Power and a 13 dB pad. It normally sits on a desk or table, and has lockdown features for security. It connects to and is powered by the CP66 via a shielded CAT 5e cable up to 500 feet / 150 meters in length. Labels for custom Zone and Group names may be inserted in slots on the sides of the protective Lexan faceplate. A label template is downloadable at rane.com/cp66.html.

The PAGER2 chassis is painted steel, measuring 4.5" x 6" x 2" (11.4 x 15.2 x 5.1 cm). Unit weight is 20 ounces (567 grams).

Shipping weight is 1 lb 9 ounces (709 grams), in a shipping box that is 8.25" x 6" x 5.5" (21 x 15.25 x 14 cm).
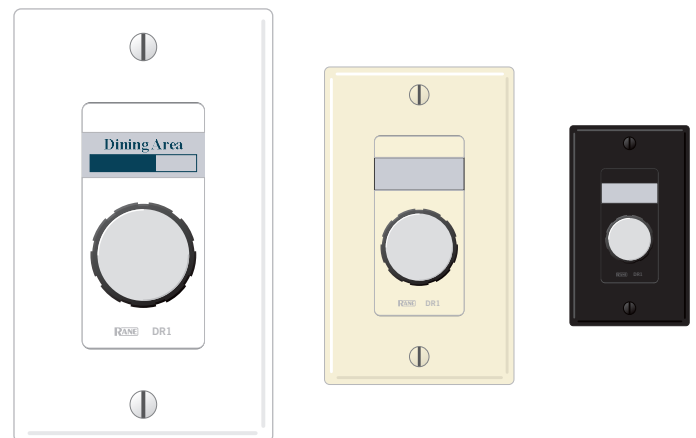

Rane PAGER2 Smart Paging Station

Digital Remotes

Digital Remotes connect to the CP66 via a single shielded CAT 5e cable up to 1,000 feet / 300 meters in length.

DR1

The Rane DR1 is a Level Control remote with several features that make it stand out against any other wired remote. The LCD display shows the name of the Zone or Group that it is connected to, customizable in the CP66 Software to anything you like. The Level value is also shown, and updated dynamically when it is changed elsewhere, such as in a linked group with multiple Remotes connected. The display has a backlight for readability that turns on when used, then dims after a short time period.

The DR1 may be installed in a standard electrical box with a minimum depth of 2.25" (5.7 cm). Available in white, ivory and black, the DR1 includes a matching Decora® plate cover.

Rane DR1 Remote Level Control

DR3

The Rane DR3 also provides Level control when connected to a Zone Remote port on the CP66, with the added control of Input Source selection. This lets you select the audio source for a room from within the room itself, or anywhere else you need remote control.

The DR3 can also be used as a Master Remote on the CP66, displaying the Volume Level for all Zones and Groups and allowing you to change each of them dynamically from a single location, such as behind a bar or at a reception area.

The DR3 may be installed in a standard 2-gang electrical box with a minimum depth of 2.25" (5.7 cm). Available in white, ivory and black, the DR3 includes a matching Decora® plate cover.

Rane DR3 Remote Selection and Level Control
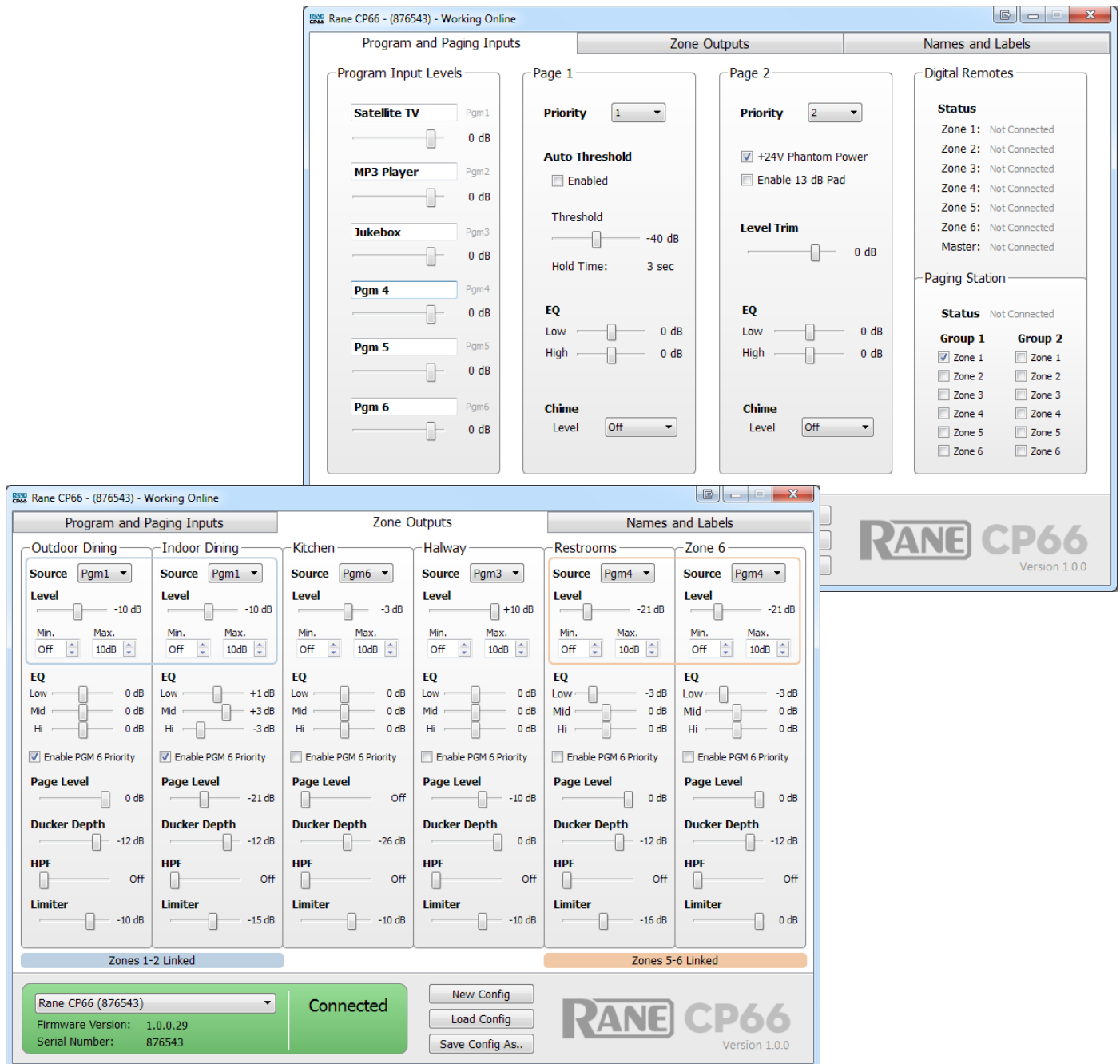
Data Sheet-3

Rane CP66 Software

Rane CP66 Software is supported on Windows® XP, Vista, and 7, and connects the computer to the CP66 via USB. It is included on disc with a CP66, or may be downloaded at no charge from *rane.com/cp66.html*.
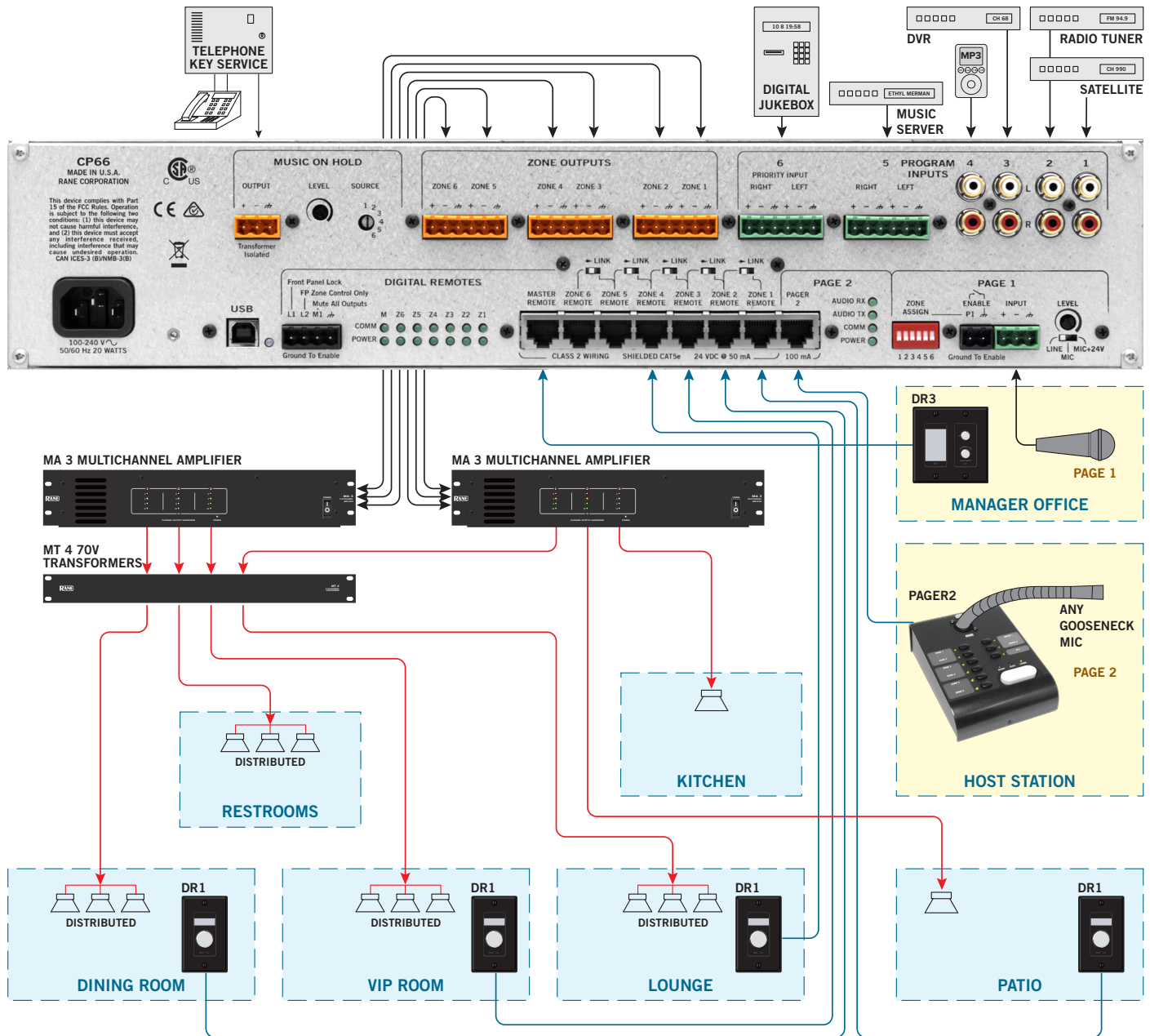
The Rane CP66 software allows you to view and configure all the same settings that are available on the front panel from a single interface, as well as a few additional features that are not otherwise accessible. This includes custom Input and Zone naming, setting of Max / Min Zone Levels, Page 1 Threshold adjustment, and Program 6 Priority Threshold / Hold Time settings.

You may set up a configuration in real-time when connected to a unit, as well as in Offline mode. In both instances your configuration can be saved to a file to be recalled and edited later, or loaded directly onto one or more units for a remote or batch installation.

Restaurant Application Example

This example allows host paging in the dining room, lounge, meeting room, patio, restrooms and kitchen. Groups of zones may be accessed by single buttons on the PAGER2. For instance, a group can be named "table ready" and include the lounge, patio and restrooms. Another group only pages the eating areas. A third group can page everyone.
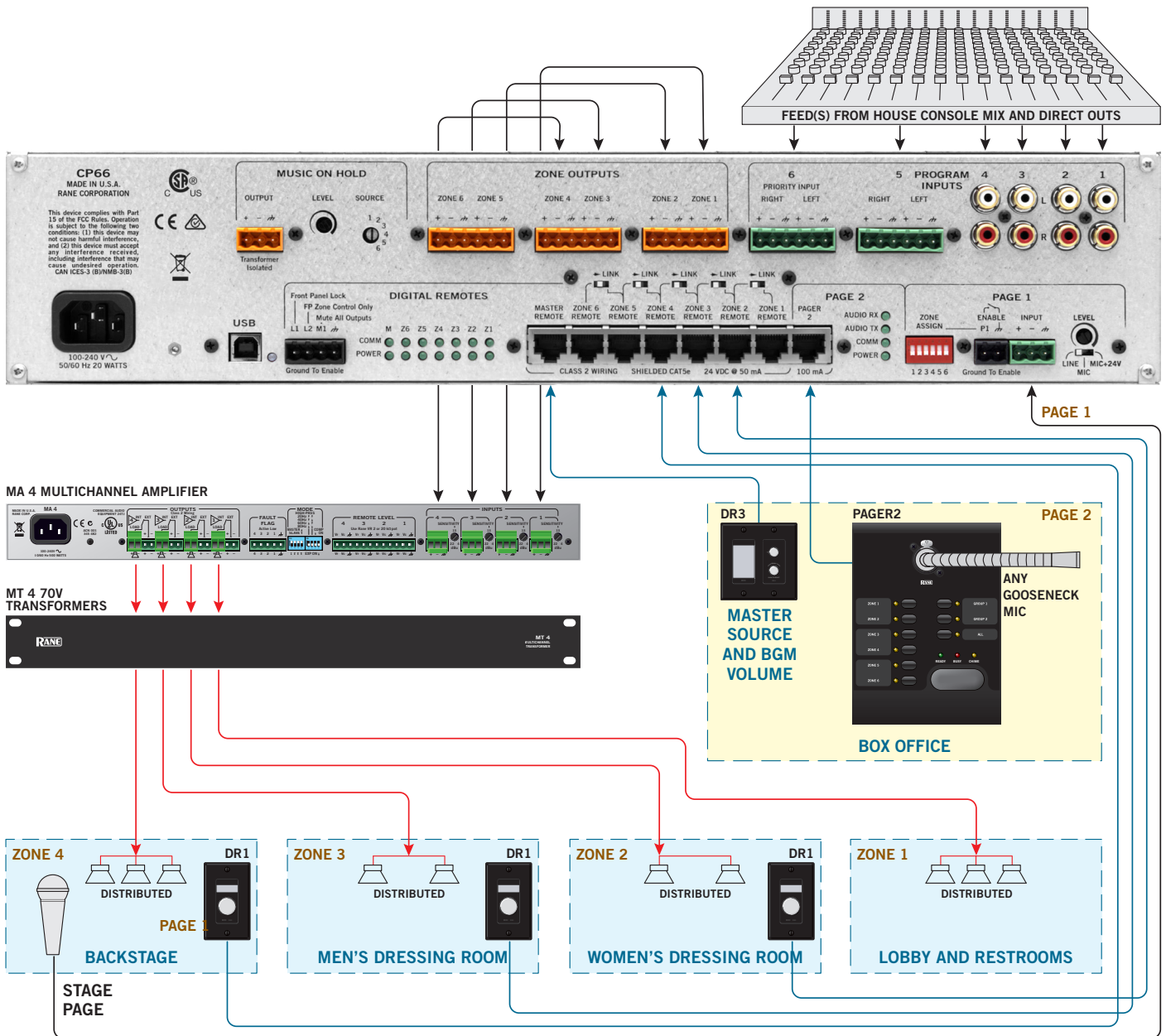
The manager can page any room using a DR3 remote and a microphone without leaving his office (or put one in the kitchen).

Background music volume is controlled by a DR1 remote in the dining, meeting, lounge and patio, giving local control by the staff to accommodate the quiet or busy times in each room.

Background music is also fed to music-on-hold in the telephone system.

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Theater Application Example

This theater uses the CD player, computer, or radio in the sound booth as shared background music sources. The house mix is also a program source during showtime.

The PAGER2 at the box office is able to page the lobby and restrooms, backstage, and the women's or men's dressing room. Groups of zones may be accessed by single buttons on the PAGER2. For instance, a group can be named "manager call" and include the dressing rooms and backstage. Another group
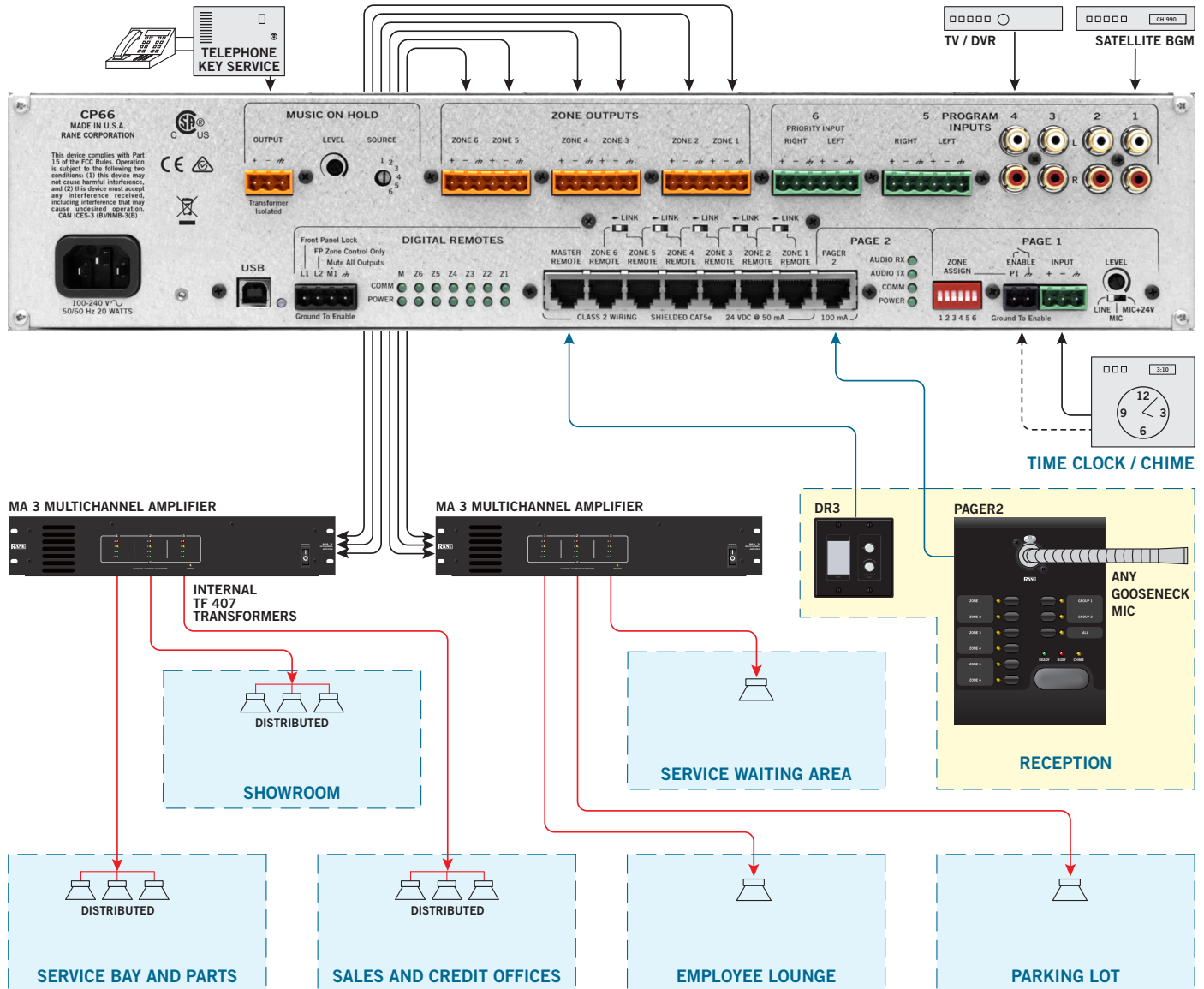
only pages the public areas. Another group can page everyone.

A DR3 master source remote can be locate in the box office or concession area to control background music or the house mix in the lobby.

A paging mic can be present backstage so someone can page the other areas during rehearsal.

Background music or stage volume is controlled by a DR1 remote backstage and in each dressing room.
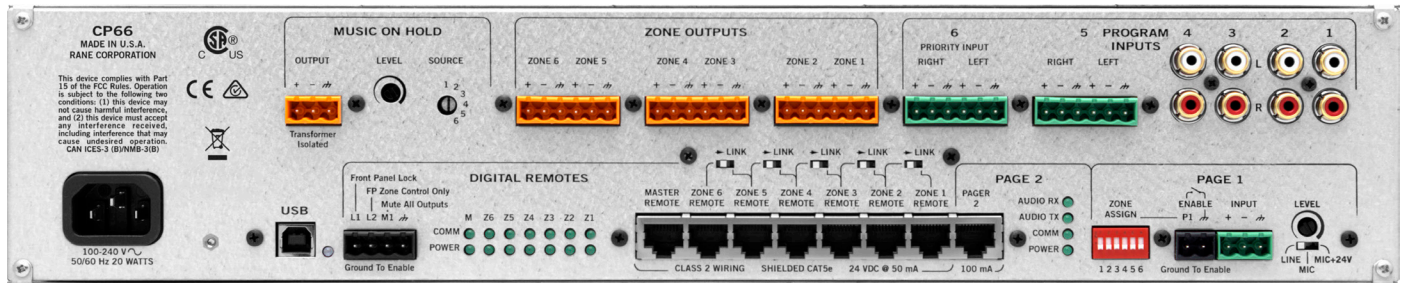
Auto Dealer Application Example

This car dealer has a time clock with a chime output connected to the PAGE 1 INPUT. The clock has a contact closure that enables the chime. Volume and ducking of background music are controlled in the zone output settings.

The PAGER2 at the reception desk is able to page the showroom, service waiting area, service bay and parts department, sales and credit offices, the employee lounge, and the parking lot.

Groups of zones may be accessed by single buttons on the PAGER2. For instance, a group can be named "service to front" and include the service bay, sales offices, employee lounge and parking lot. Another group only pages customers in the showroom and service waiting areas. Another group can page everyone.

A DR3 master source remote can be locate in the reception desk or manager's office to control background music in the customer areas.
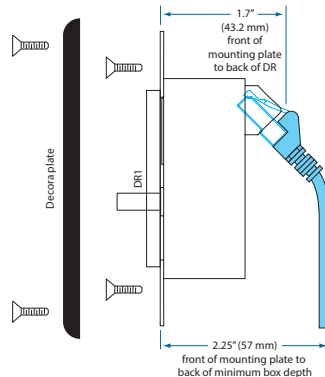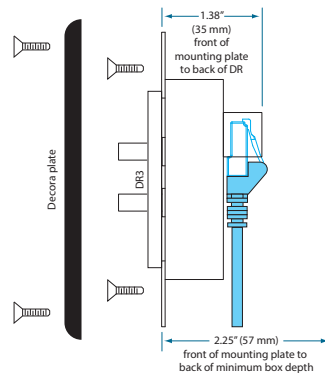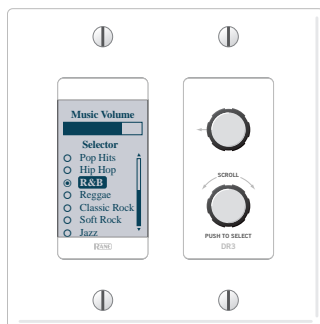
CP66 Rear Panel

PAGER2 Rear Panel

DR1 Side View

DR3 Side View

CP66 Architects & Engineers Specification

The Commercial Zone Processor shall have six analog Program inputs, six linkable analog mono Zone outputs, analog Page input and support for paging and digital remotes. The six Program inputs shall be divided into four unbalanced stereo pairs on RCA connectors and two balanced stereo pairs on plug-in barrier strips. The analog Page input shall be a balanced plug-in barrier strip, selectable for Line, Mic, or Mic with 24 VDC phantom power, along with a plug-in barrier strip contact closure Enable input that is assignable to any combination of the six output zones. A second Page input shall be provided for a Rane PAGER2 remote audio device (RAD). A transformer isolated, balanced Music-on-Hold output shall be provided on plug-in barrier strips, including level control and source selection for any of the six inputs. Provisions shall be provided for seven Rane DR1 or DR3 digital remotes. Six ports allow level control only (DR1), or source selection and level control (DR3) in each of the six zones. A seventh master remote port adjusts volume in each zone (DR3). A plug-in barrier strip shall be provided for contact closure Front Panel Lock Out, Front Panel Zone Control Only, and Mute All Outputs functions. A USB 2.0 connector shall be provided for software control using an external Windows PC, as well as firmware updates. The processor shall be configured entirely by front panel controls and LCD display, or by optional external software. Each zone shall have independent settings for Level, Source, EQ, Ducker, Limiter, High-Pass Filter, Page Level and Program Priority Input Enable. Page inputs shall have programmable priority control, EQ and optional pre-announce chime. Using the software shall add the ability to save and load preconfigured settings as well as allowing custom Zone and Program source naming, and provides zone min and max settings. The processor shall have an internal 100-240 VAC, 50/60 Hz power supply.

The Commercial Zone Processor shall be a Rane CP66 Commercial Processor.

All features & specifications subject to change without notice. 1-2015