

# Accessories

**H**arris offers a number of accessories and

services to complement your *BMXdigital* console.

Available products range from the VistaMax Audio

Management System to integrate multiple *BMX-*

*digital* consoles into a facility-wide network, to an

External RLS for multiple-source selection, to host

and guest panels, monitor control panels, headphone

panels, console drop-in peripheral control panels, a

host turret with clock and timer and space for eight

control panels, and a 3 x 6 headphone distribution

amp with digital level control panels. Harris ser-

vices range from supplying logic wiring for com-

mon peripheral devices to complete system wiring

design and installation packages.

## FURNITURE AND CABINETRY

Harris offers a full line of standard and custom furniture and cabinetry, to house the *BMXdigital* console and studio peripheral equipment, as well as complete turnkey studio design and implementation services. Contact your Harris sales representative for details.

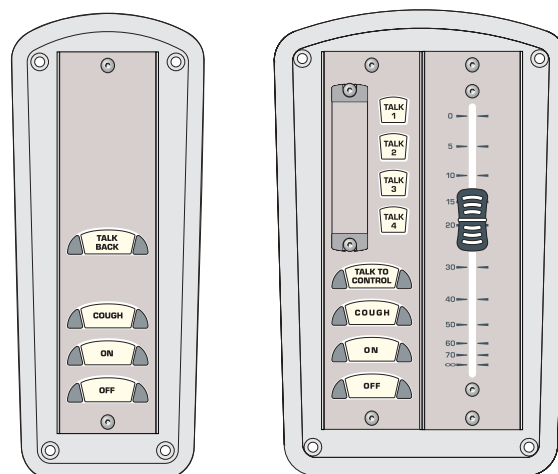
## FURNITURE MOUNTED PANELS

Furniture-mounted accessory panels maintain the console's look and feel while providing remote control for important studio functions. All *BMXdigital* accessory panels are 6" long by either 1.6" or 3.2" wide. Single width panels (1.6" x 6" panels) include various mic control panels, studio and headphone level panels, and peripheral control panels. Cabinet skirt-mounted panels include two headphone panels (jack-only and jack with level control). Custom-designed switch and indicator panels are also available.

The PRE99-1788-1 Single Cabinet Plate allows any single 1.6" x 6" panel to mount into a countertop. The PRE99-1788-2 Dual Cabinet Plate allows two 1.6" panels or a 3.2" double-width panel to mount into a countertop.

The PRE99-1213 Studio Turret (shown on the next page) is a countertop turret that comes with a PRE99-1211 Clock and Timer. It has space for eight single-width 1.6" panels.

CABINET PLATE APPLICATION EXAMPLES



PRE99-1788-1 SINGLE  
POSITION CABINET PLATE  
(SHOWN WITH A PRE99-1198)

PRE99-1788-2 DUAL  
POSITION CABINET PLATE  
(SHOWN WITH A PRE99-1199  
& A PRE99-1191)

## PERIPHERAL PANELS

These panels allow the console operator to use other equipment without turning away from the console. Available drop-in panels include the Telos Desktop Director and Switch Console, several digital delivery system controllers, a delay unit controller, and a tape remote. Some of these require Divider Kits (see page 2-2) when mounting into the blank panel areas at either end of the mainframe.

## MIC REMOTE PANELS

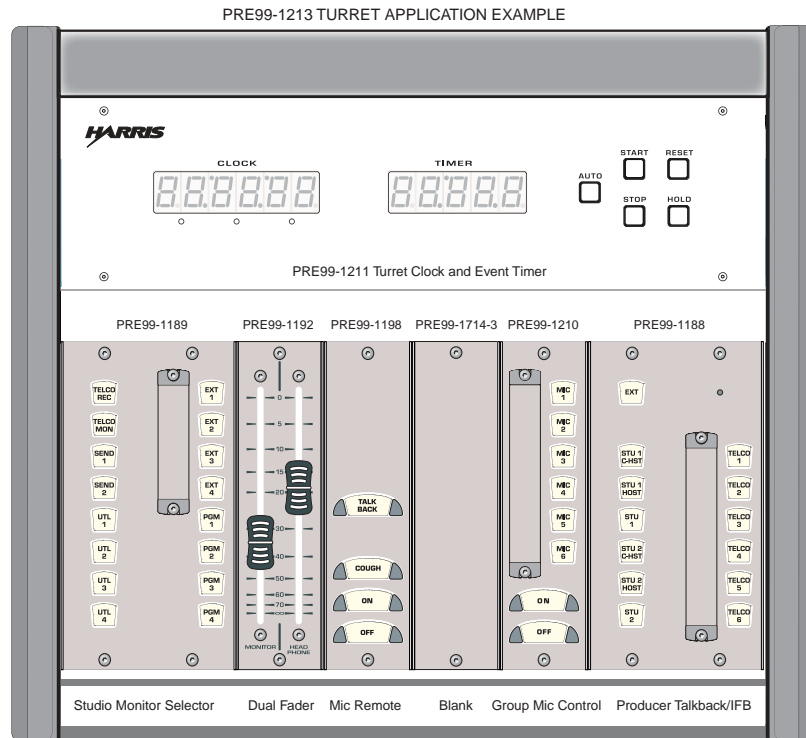
Four mic remote control panels are available for the *BMXdigital*. The basic panel is the PRE99-1197, with On, Off, and Cough buttons. The PRE99-1198 (shown in the turret example) adds a Talkback button to the three basic panel buttons. A simplified schematic, and connection information, for these panels is shown on page 6-3.

The PRE99-1199 Mic Control panel (shown in the dual cabinet plate example on the previous page) is designed for a host or co-host. It has the standard On, Off, Cough, and Talk to Control Room buttons, but also adds four additional Talk buttons that can be configured for talking to two studios, directly to a host or a co-host, or with an external location.

The PRE99-1210 Group Mic Controller (shown in the turret example) is used in a studio where separate guest mic control panels are not installed. The panel gives a host On/Off control for up to six microphones from a single 1.6" panel.

## HEADPHONE DISTRIBUTION AMP

The PRE99-1215 Headphone amp has six outputs for one Host and up to five Co-Hosts or Guests. The three inputs to the amp come from



the Host, Co-Host, and Guest outputs (from either the Control Room or Studio modules).

Headphone level control is done digitally through the PRE99-1214-series headphone panels. Headphone panels are available with and without a volume control pot. Those without a pot are designed to work with the Headphone fader controller (shown in the dual cabinet plate example on the previous page).

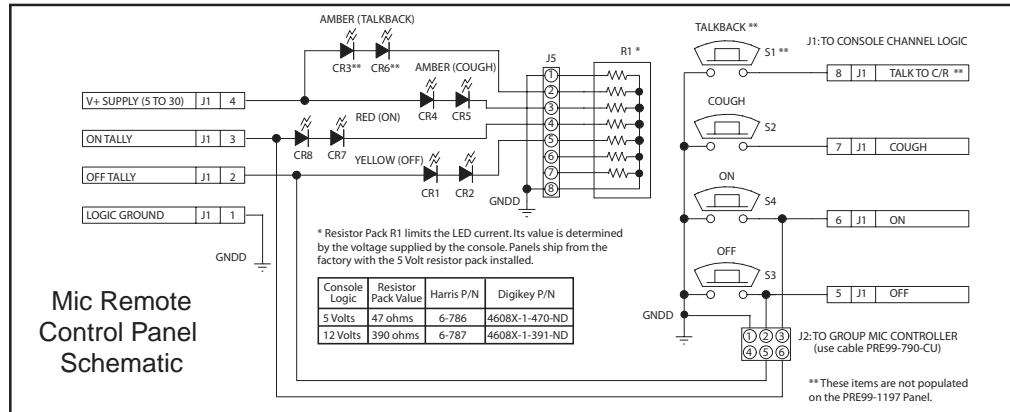
Existing headphone panels, which use a pot to directly control the amplified level, can also be used with the PRE99-1215 amplifier.

## LOGIC WIRING DIAGRAMS & CABLES

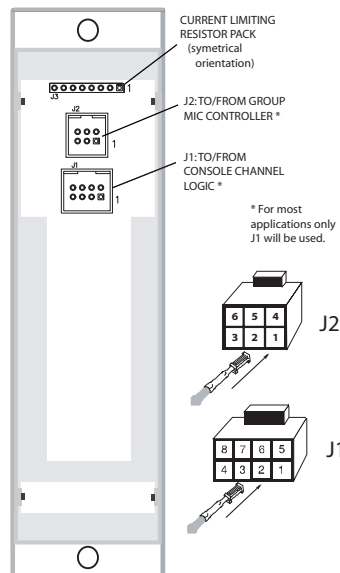
To assist in logic cable design and construction, Harris' Technical Services Department can supply logic wiring diagrams for many popular peripheral devices.

To assist in installation, Harris also offers pre-made peripheral logic cables for many popular devices. For availability and pricing, contact a sales representative.

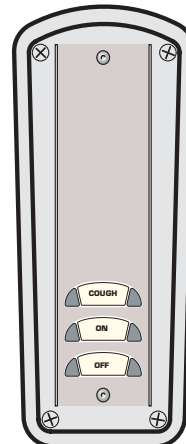
## MIC REMOTE CONTROL PANEL INFORMATION (FOR PRE99-1197 AND PRE99-1198)



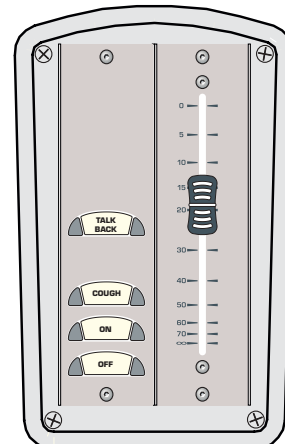
### Mic Remote Control Panel Connections



### Application Examples



PRE99-1788-1  
SINGLE CABINET  
PLATE with a  
PRE99-1197  
GUEST MIC PANEL  
(ON/OFF/COUGH)



PRE99-1788-2 DUAL CABINET  
PLATE with a PRE99-1198  
GUEST MIC PANEL  
(ON/OFF/COUGH/TALKBACK)  
& PRE99-1191 HEADPHONE  
FADER PANEL

## PRE99-787-CU, 1.6" Mic Remote Panel Cable (for PRE99-1197 and PRE99-1198)

### Mic Remote Panel

P1	Signal	Pin
	Logic Ground	1
	Off Tally	2
	On Tally	3
	V+ Supply	4
	Off Switch	5
	On Switch	6
	Cough Switch	7
	Talkback Switch	8

### Console MAIN Logic Connector

Pin	Signal	P2
1	Logic Ground	
16	Off Tally Output	
17	On Tally Output	
12	+5 Volt Supply	
8	Remote Off Switch	
7	Remote On Switch	
9	Remote Cough Switch	
20	Remote Talk C/R Switch	
14	Tally Common	
6	+5 Volt Supply	
18	Opto Source Voltage	
10	+5 Volt Supply	

### PARTS LIST

P1: Housing, 8-pin AMP MOD IV (PRE14-486)

P2: Housing, 24-pin AMP MOD IV (PRE14-513)

Contacts, AMP MOD IV (PRE15-938-1)

Cable: 8-conductor Belden # 9421 or equivalent

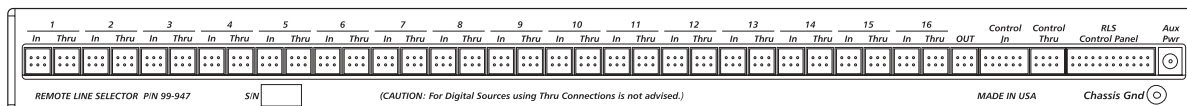
Jumper Wire: 26 AWG white hookup, UL1429 or equivalent

## EXTERNAL REMOTE LINE SELECTOR (EXT. RLS)

The Ext. RLS (PRE99-947) is a rack-mount stereo source selector with 16 balanced inputs and a single balanced output that connects to any Telco or RLS module. It works with both balanced analog and AES/EBU digital signals, however, each Ext. RLS can only route analog or digital audio, not both. To route both analog and digital audio, two External RLSes are required to provide up to 32 source selection—sixteen analog and sixteen digital, to a single module.

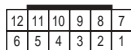
The External RLS's rear view, connector pinout and typical wiring diagrams are shown below.

## EXTERNAL REMOTE LINE SELECTOR (PRE99-947), REAR VIEW



**NOTE:** The RLS Control Panel and Aux Pwr connections are not used when the Ext. RLS connects to a BMXdigital module.

## EXT. RLS CONNECTOR PINOUTS



P39  
CONTROL IN  
(WIRE ENTRY END)

PIN	SIGNAL	FUNCTION
1	RLS-0	RLS RELAY CONTROL 0
2	RLS-1	RLS RELAY CONTROL 1
3	RLS-2	RLS RELAY CONTROL 2
4	RLS-3	RLS RELAY CONTROL 3
5	unused	none
6	unused	none
7	RLS-0 DSP	RLS SELECTION TO I/F 0
8	RLS-1 DSP	RLS SELECTION TO I/F 1
9	RLS-2 DSP	RLS SELECTION TO I/F 2
10	RLS-3 DSP	RLS SELECTION TO I/F 3
11	GND	DIGITAL GROUND
12	V+5D	+5 VOLTS (FOR DIGITAL)



P35  
CONTROL THRU  
(WIRE ENTRY END)

PIN	SIGNAL	FUNCTION
1	RLS-0	RLS RELAY CONTROL 0
2	RLS-1	RLS RELAY CONTROL 1
3	RLS-2	RLS RELAY CONTROL 2
4	RLS-3	RLS RELAY CONTROL 3
5	V+5D	+5 VOLTS (FOR DIGITAL)
6	GND	DIGITAL GROUND
7	V+5D	+5 VOLTS (FOR DIGITAL)
8	GND	DIGITAL GROUND



P1 - P33  
IN / THRU / OUT  
(WIRE ENTRY END)

PIN	SIGNAL	ANALOG FUNCTION	DIGITAL FUNCTION
1	Left Shield	Audio Left Shield	AES/EBU Shield
2	Left Low	Audio Left Low	AES/EBU Low
3	Left High	Audio Left High	AES/EBU High
4	Right Shield	Audio Right Shield	unused
5	Right Low	Audio Right Low	unused
6	Right High	Audio Right High	unused

PIN	SIGNAL	ANALOG FUNCTION	DIGITAL FUNCTION
1	Left Shield	Audio Left Shield	unused
2	Left Low	Audio Left Low	unused
3	Left High	Audio Left High	unused
4	Right Shield	Audio Right Shield	unused
5	Right Low	Audio Right Low	unused
6	Right High	Audio Right High	unused

PIN	SIGNAL	ANALOG FUNCTION	DIGITAL FUNCTION
1	Left Shield	Left Shield	AES/EBU Shield
2	Left Low	Left Low	AES/EBU Low
3	Left High	Left High	AES/EBU High
4	Right Shield	Right Shield	unused
5	Right Low	Right Low	unused
6	Right High	Right High	unused

### PARTS LIST

P1 - P33: Housing, 6-pin, MOD IV  
AMP 87631-2 (PRE14-484)

P35: Housing, 8-pin, MOD IV  
AMP 87631-4 (PRE14-486)

P38: Housing, 24-pin, MOD IV  
AMP 2-87631-0 (PRE14-513)

P39: Housing, 12-pin, MOD IV  
AMP 87922-2 (PRE14-490)

All contacts: Crimp, Gold, MOD IV  
AMP 102128-1 (PRE15-938-1)

## External RLS and BMXdigital Modules

RLS or Telco modules can be set as a control module for an External RLS. Once a module is configured to control an Ext. RLS (see below), the source can be dialed up and taken using the module's Source Selector and Take button.

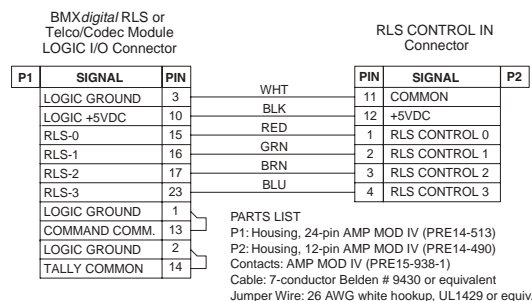
To configure an RLS or Telco module for use with an External RLS, set their DIP switches as follows:

### Remote Line Selector Module

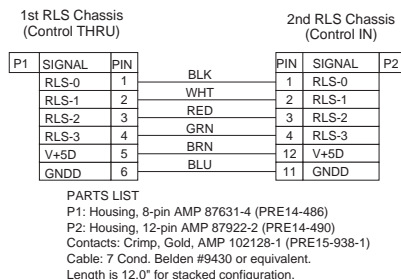
#### DIP Switch # Setting

DS1	4	On
DS1	5	Off

## WIRING DIAGRAM, EXTERNAL RLS CONTROL CABLE, TO RLS OR TELCO MODULE



## WIRING DIAGRAM, FOR RLS THRU



### Telco/Codec Module

DIP Switch	#	Setting
DS2	4	On
DS2	5	Off

Refer to pages 2-28 to 2-31 for more information on configuring the RLS module. Refer to pages 2-24 to 2-27 for more information about configuring the Telco/Codec module.

### External RLS and the BMXdigital Server

Connecting an External RLS, and properly setting up the controlling module, results in a module display that simply lists the sources as: Input 01, Input 02, Input 03, etc., as the Source Selector is rotated. These new settings must be saved to a session file in order to change these default names (see Chapter 4 for details), to more accurately reflect the RLS input sources.

In the session file, a typical External RLS entry looks like this:

[RLS\_145]

<The range for RLS modules is 145 (for the first RLS module from the left end) to 159. The range for Telco modules is 97 (for Telco 1) to 102 (for Telco 6). Each Telco or RLS module has one of these unique numbers (see page 4-7).>

Selection=4

<This is the current selection from the last time the session file was saved. It can be any number from 1 to 32.>

Label\_1=Delta

Label\_2=Fox trot

Label\_3=Hotel

<Label\_1 through Label\_16 are reserved for the sixteen possible analog sources.>

Label\_17=Golf

Label\_18=Echo

<Label\_17 through Label\_32 are reserved for the sixteen possible digital sources.>

Labels appear alphabetically in the module's

display (e.g. Alpha, Bravo, Charlie, Delta). The source type (analog or digital) is transparent to the board operator. Missing or empty entries are not displayed on the module.

When the Ext. RLS is used with digital sources, physical input 1 on the External RLS uses Label\_17, input 2 uses Label\_18, and so up to input 16 which uses Label\_32. An analog device can also be connected to the analog input on the module, and it can be selected like the RLS sources by simply adding an entry line for Label\_1 (when Label\_1 is selected the module automatically switches to the analog input).

Conversely, when an Ext. RLS is used with analog sources, the input entries match the inputs on the External RLS (e.g., input 1 uses Label\_1, input 2 uses Label\_2 and so on up to input 16 which uses Label\_16). A digital device can also be directly connected to the digital input and selected using the Source Selector by adding an entry line for Label\_17, which, when taken, switches the module to use the digital input.

For more information on the BMXdigital Server and session files, see Chapter 4.

### Typical External RLS Applications

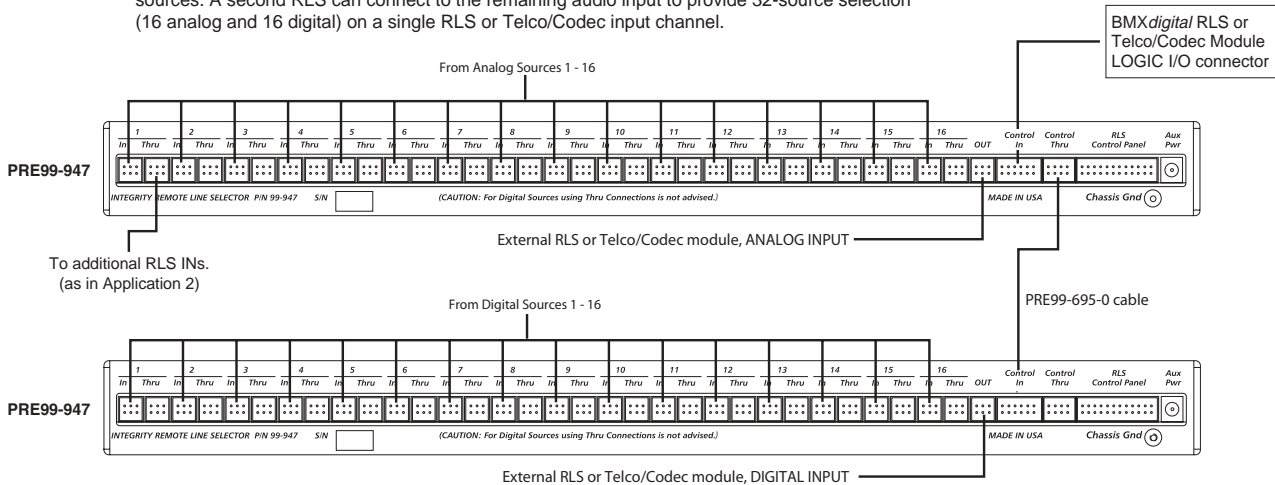
Two typical applications for the External RLS and the BMXdigital are shown page 6-6.

In Application 1, one or two External RLSes are connected to a single controlling module. The first External RLS is used for either analog or digital signals; the second External RLS is used for the other type of signal. For example, if the first External RLS is used for analog signals, the second is used for digital signals.

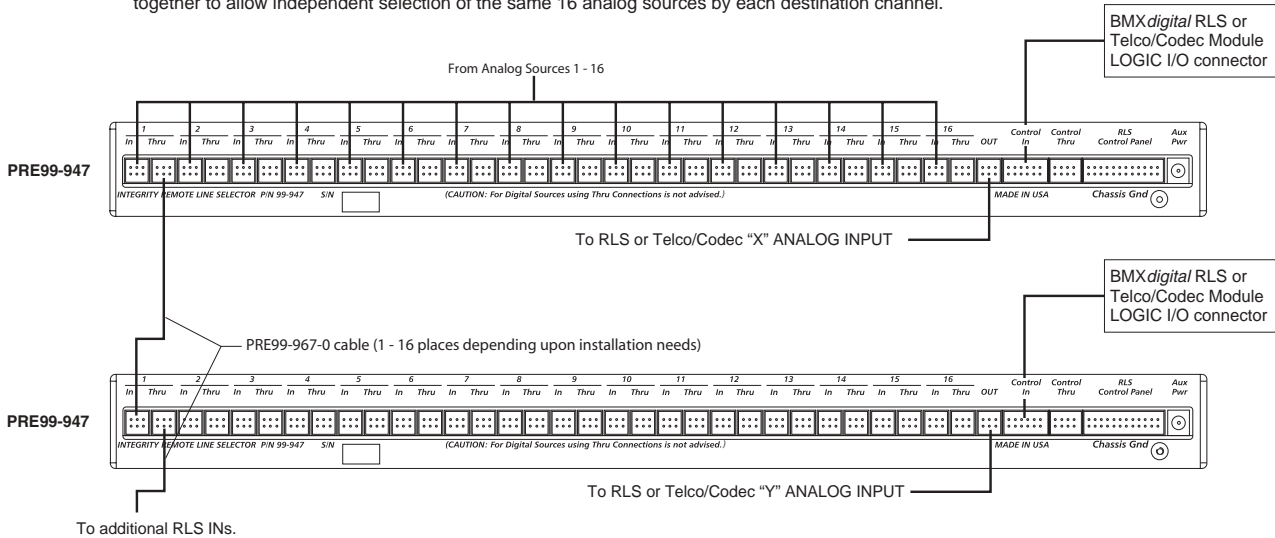
In Application 2, multiple External RLSes are used for analog sources. In this example, some or all of the analog sources are made available to multiple BMXdigital modules. Each analog input can cascade, using the THRU output, to additional External RLSes. In this way, the same analog

## TYPICAL EXTERNAL RLS APPLICATIONS

**Application 1:** One External Remote Line Selector (PRE99-947) can connect to the ANALOG INPUT, for selecting analog sources, or it can connect to the DIGITAL INPUT, for selecting digital sources. A second RLS can connect to the remaining audio input to provide 32-source selection (16 analog and 16 digital) on a single RLS or Telco/Codec input channel.



**Application 2:** Up to 16 analog sources need to be simultaneously available on multiple channels. Connect External RLSes to several RLS or Telco/Codec modules. The inputs to each External RLS are daisy-chained together to allow independent selection of the same 16 analog sources by each destination channel.



sources are made available to multiple RLS or Telco/Codec modules at the console.

Other installations are possible by combining the techniques of Application 1 and Application 2. The External RLS can also be used with an external controller (PRE99-953) to feed recording devices or other line-level devices needing multiple analog or digital source selection.

**Note:** Cascading, as shown in Application 2, cannot be done with digital signals. AES/EBU signals need to have one terminated destination. A digital distribution amplifier (Digital DA) must be used to provide similar functionality.