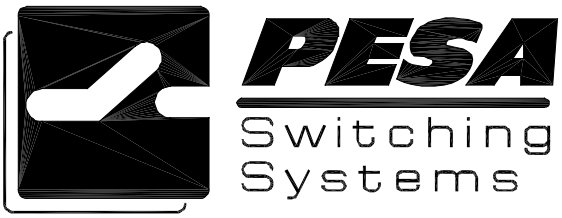

CP-HOR Protocol Converter

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Introduction

The PESA CP-HOR protocol converter is designed to allow PESA 3300/3500/3500Plus system controllers to control GVG Horizon matrices using the PRC system protocol.

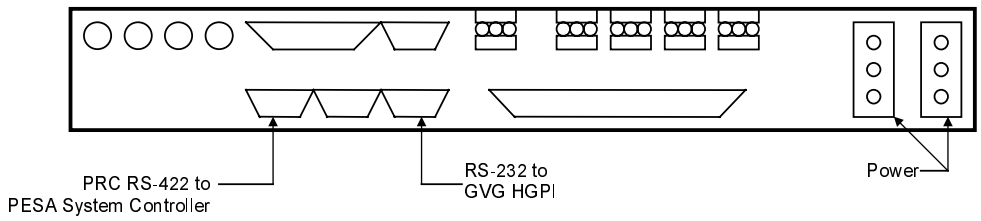
- The CP-HOR receives commands from the PESA system controller through an RS-422 interface using the PRC protocol.
- These commands are then sent from the CP-HOR to a GVG Horizon General Purpose Interface (HGPI) through an RS-232 interface using the GVG Terminal/Computer Interface protocol.
- The commands are then sent from the HGPI to the GVG Horizon system controller where they are interpreted into Horizon crosspoint switches.

Connections

The CP-HOR is connected to the PESA power supply, PESA system controller, and HGPI as follows:

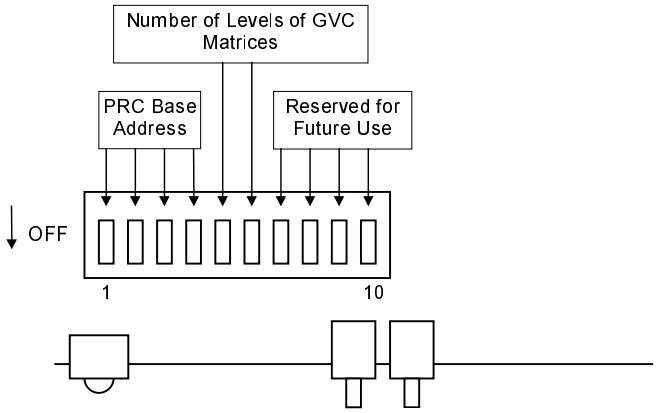
1. Power is supplied to the CP-HOR by connecting a standard PESA video power supply to either J17 or J18 on the back panel. The power may come from either a stand-alone power supply, or the auxiliary power connectors on a video routing switcher, or system controller.
2. The interface to the PESA system controller is the DB9-Male connector marked COM3/PRC. Use a pin-to-pin cable to connect this connector to the PRC interface connector on the rear of the PESA system controller.
3. The interface to the HGPI is the DB9-Male connector marked COM1. Use a serial cable to connect this connector to one of the RS-232 Control connectors on the rear of the HPGI. See “PESA CP-HOR to GVG HGPI Serial Cable” on page 4 for cable construction details.

Backplane Layout of CP-HOR Unit



Programming

The CP-HOR has the ability to control up to 4 Horizon level of matrices with up to 128 inputs and outputs on each level. The information indicating which strobes are active and the size of the matrices is determined by setting the DIP switch on the CP-HOR CPU.



2400 EX DIP Switch Positioning

DIP Switch Settings

Positions 1-4 - Strobe

Positions one through four determine the first PESA PRC strobe to which the system responds. These values can vary from 1-15 and are binary encoded.

PRC Base Address	S1	S2	S3	S4
Reserved	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF
8	OFF	OFF	OFF	ON
9	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

Positions 5-6 - Number of Levels

Positions five and six determine the number of levels of GVG matrices controlled.

Number of Levels	S5	S6
1	ON	OFF
2	OFF	ON
3	ON	ON
4	OFF	OFF

Positions 7-9 - Reserved

Positions seven through nine are reserved for future use.

Position 10 - Matrix Refresh

Position 10 determines whether the CP-HOR continually refreshes the GVG Horizon matrix. If enabled, the CP-HOR sends out background switch requests to the Horizon matrix to insure that its switches are taken. This will recover the Horizon matrix to the desired crosspoint state if for any reason, the Horizon has been power cycled or taken off line. If enabled, the Horizon cannot be effectively controlled by any other control device.

Matrix Refresh	S10
Enabled	ON
Disabled	OFF

Matrix Size

The CP-HOR responds to matrix sizes of up 128x128.

Address Space Mapping

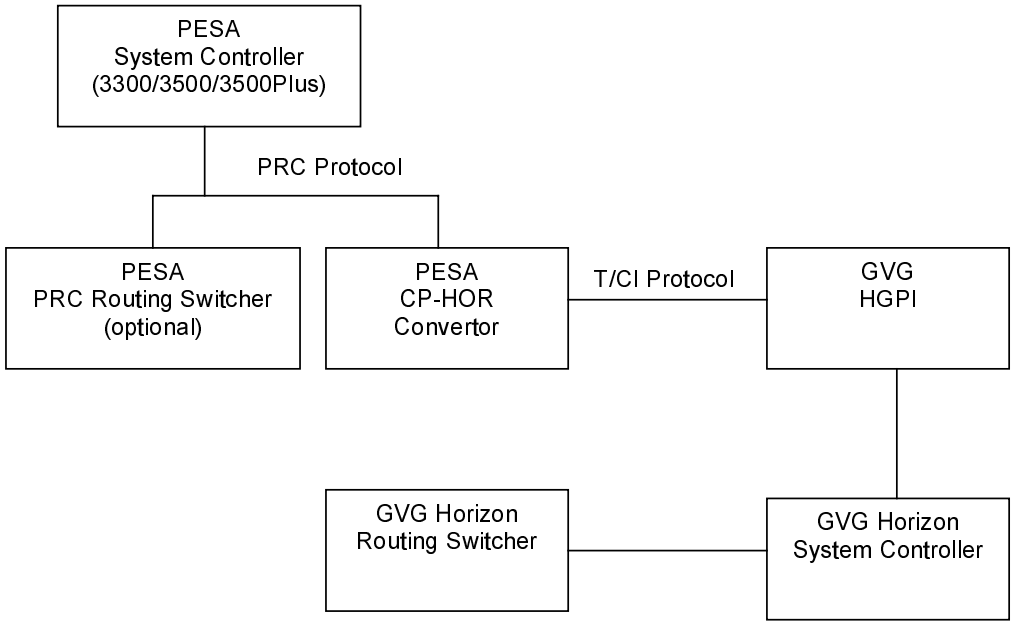
The CP-HOR maps the HORIZON levels directly to the PRC strobes selected. The first PRC strobe selected corresponds to the first Horizon level. The second PRC strobe selected corresponds to the second HORIZON level.

Even though the CP-HOR responds to 128x128 matrices, the Horizon need not be populated to that size. The user must be careful in assigning the proper number of inputs and outputs to these levels of control.

GVG HGPI Interface

The GVG Horizon matrices are controlled by the PESA controller via the GVG HPGI running T/CI command protocol. The HPGI takes serial commands and interprets them into Horizon matrix commands.

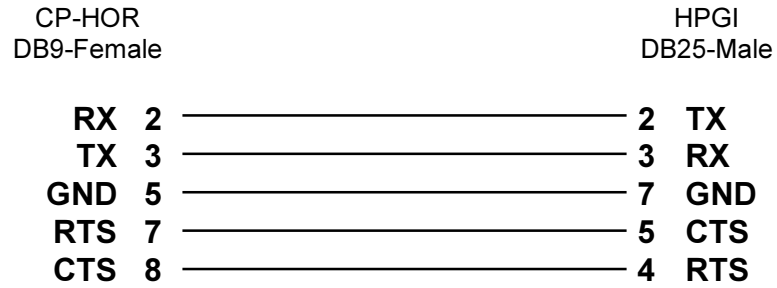
The GVG part number for the HPGI is HX-GPI



The GVG Horizon system controller must be properly configured to accept the commands from the CP-HOR. To ensure this, the system controller should be configured for the same number of levels as configured in the CP-HOR.

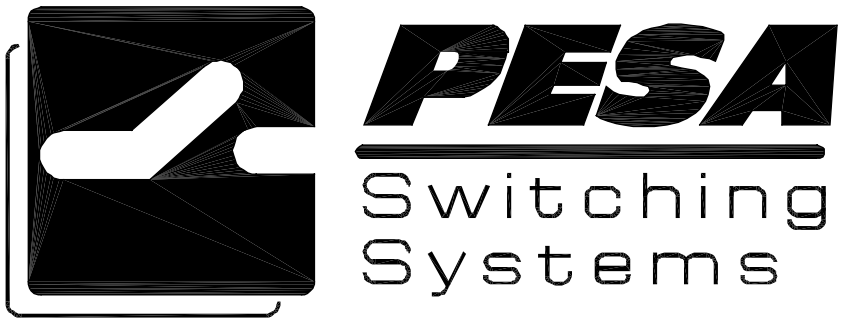
PESA CP-HOR to GVG HGPI Serial Cable

The CP-HOR is connected to the GVG HGPI with a serial cable constructed as shown below. The HGPI serial port should be set to 38400 baud, 8 data bits, and no parity.



Revision History

Rev.	Date	Description	By
A	07-27-99	Initial Release.	G. Tarlton
B	07-30-99	Added serial port setting information.	G. Tarlton
C	09-13-99	Revised to reflect as-built configuration.	G. Tarlton
D	09-29-99	Added info for DIP switch position 10 per ECO-3458.	G. Tarlton
E	03-06-01	Deleted Printing Specification per ECO CE00113.	G. Tarlton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