

BALBOX 16 Channel GPI Inserter/Extractor



FEATURES

- User configurable as Inserter or Extractor
- Inserts up to 16 GPI signals into SDI
- Data inserted into user selectable VBI line
- Two SDI outputs
- SDI bypass relay
- Standalone or rack-mountable in 1U
- Universal mains powered stand-alone unit

The *GPRT016* allows up to 16 GPI signals to be transported in one line of the vertical blanking interval of an SDI video signal. Two SDI outputs are provided.

The unit may be set by the user to insert or extract data. In the insert mode, the inputs are simply 16 contact closures. In the extract mode, common collector outputs are provided, to enable driving of relays and lamps if required. Two units are required to provide a GPI link.

A bypass relay is incorporated to route the SDI input to the 'main' SDI output to ensure signal continuity in the event of power failure, or under user control. By cascading two or more units it is possible to achieve redundancy, or embed more than 16 GPI signals in one SDI signal.

The unit will not interfere with embedded audio which may be present in the SDI stream, or RS232 data which may have been inserted with the *DIDX010* units

The *GPRT016* is housed in a robust case designed to be free-standing but up to four *BALBOX* style units can be mounted in a 1U high tray.

The universal mains power is supplied via an IEC inlet.

A separate mains powered *GPRL016* relay output box is available to take the 16 open collector outputs of the *GPRT016* and provide voltage free NO/NC contacts for each of the 16 GPI signals. The *GPRL016* unit is also housed in a *BALBOX* case.

SPECIFICATION – GPRT016

SDI INPUT CHARACTERISTICS

Input signal:	270Mb/s serial digital video to SMPTE RP259M
Line standard:	625/50 or 525/60 automatically detected
Cable equalization:	up to 250m of Belden 8281 coaxial cable or similar
Input impedance:	75 ohm terminating
Input return loss:	>15dB
Input connector:	BNC socket

GPI CHARACTERISTICS

No of circuits:	16.
Inputs (in insert mode):	Contact closure to ground (must be held closed for at least 20ms)
Outputs (in extract mode):	Common collector (35V max, at 50mA per output).
GPI Data connector:	37way sub-miniature D-type socket, with screw-locks.

SDI OUTPUT CHARACTERISTICS

No of outputs:	2
Output signal	270Mb/s serial digital video to SMPTE RP259M
Bypass:	Power fail/user select between SDI input and main SDI output
Output impedance:	75 ohm
Output return loss:	>15dB
Output connectors:	BNC socket x 2

CONTROLS

DIP switches:	Manual Bypass, Insert/Extract, Invert output
Rotary switch:	VBI Insertion line selection (7 to 22)

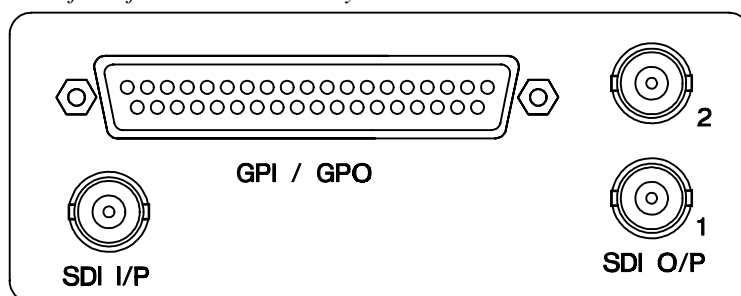
INDICATORS

LED 1:	Bi-colour, status
LED 2:	Power

INSTALLATION DATA

Package:	Standard <i>BALBOX</i> housing, with three 75ohm BNC signal connectors and one 37w D-type socket.
Size:	184 x 103 x 42.4mm.
Weight:	950g.
Mains supply:	90 – 250Vac
Consumption:	<15VA

Refer to *BALBOX* data sheet for information on 1U tray – **BOXRACK**



GPRT016 Rear Panel

ORDER CODE

GPRT016
GPRL016
BOXRACK

DESCRIPTION

BALBOX 16 channel GPI Inserter / Extractor.
BALBOX Relay output unit for use with GPRT016 extractor.
Tray to hold up to 4 *BALBOXes* in 1U 19" rack.
