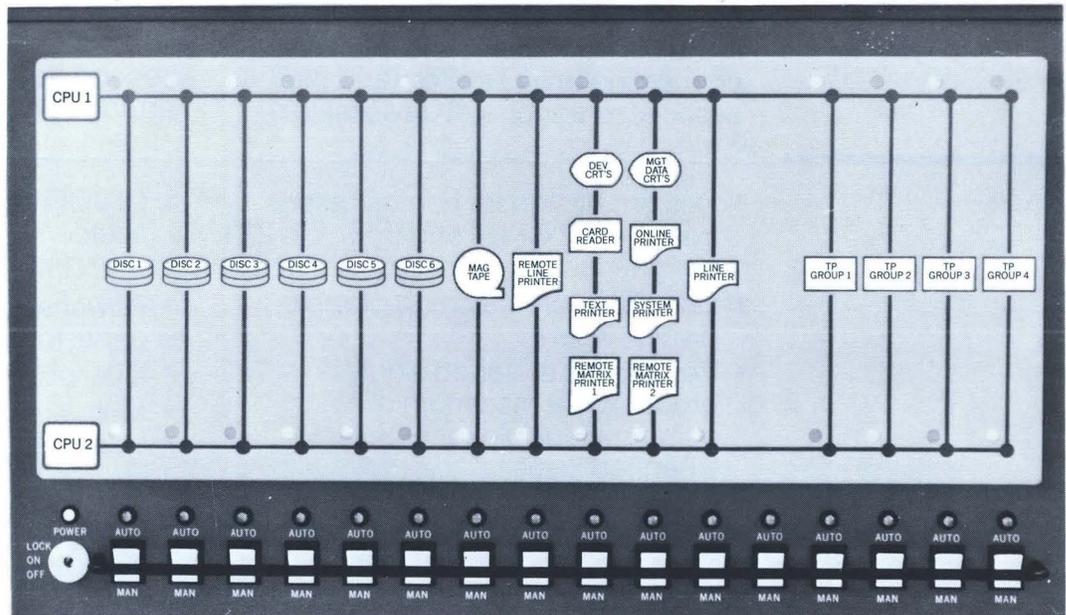# GRAPHIC BUS SWITCH PANEL

Typical
Customer
Configuration



## Product Description

The Perkin-Elmer Graphic Bus Switch Panel (GBSP) is an I/O switching module which achieves finger-tip control of the switching of peripheral devices among CPUs. The panel is used in conjunction with modified Perkin-Elmer I/O switches. The panel allows peripheral devices or device groups associated with an I/O switch to be switched manually or under software control. In either manual (MAN) or automatic (AUTO) mode, the GBSP provides an immediate visual display of which peripheral devices or device groups are connected to which

CPUs in configurations consisting of up to 12 CPUs and up to 224 peripherals (or more, if subchannel controllers and multi-line terminal ports are used). The GBSP is a custom-designed alternative to the M48-063 and M48-064 Perkin-Elmer IOS manual control panels. With the GBSP, there is no need to remove cabinet doors and observe LEDs mounted on I/O Switch B boards to confirm switching. The graphic panel contains an easily changeable insert which pictorially illustrates the CPU, I/O bus, and peripheral device layout in use. The insert may be revised to

## Product Description (Continued)

reflect any change in a customer configuration. The insert and its associated LEDs display any selected status under manual or software control. The GBSP enables control of larger configurations than do the previous manual control panels and is easier to use.

### Standard Configuration

In a standard GBSP configuration, a system operator can manage as many as 96 separate I/O switches (IOSs) from a single switch panel mounted on the front of a processor or expansion cabinet. The I/O switches service connections between up to 6 CPUs and up to 16 I/O buses (each bus capable of accepting up to 14 peripheral device controllers, depending upon the number of CPUs in the configuration). The choice of connecting an I/O switch (and thus, its associated peripheral devices) to a CPU is made by simply depressing a membrane switch point on the graphic panel; the devices associated with the specific I/O switch are immediately connected to the appropriate CPU, and an LED indicator located on the panel at the membrane switch point lights to confirm the connection. The LED signal is a positive feedback of the IOS B-board select indicator.

### Extended Configuration

In an extended GBSP configuration, two graphic bus switch panels are used, mounted one above the other. The expanded configuration allows an operator to manage as many as 192 separate I/O switches servicing connections between up to 12 CPUs and up to 16 I/O buses. If the number of I/O chassis used is greater than 16, a second double GBSP panel arrangement can be installed.

## Features

- Custom-design for configurations from 2 to 12 CPUs and from 1 to 224 peripherals
- Configuration-matching graphic display insert
- Peripherals switched singly or in groups (on a maximum of 16 common Multiplexor or Selector Channel buses)

- ON/OFF/LOCK switch to prevent accidental reselection
- AUTO/MANUAL select switches
- Power supply maintenance control panel for serviceability
- Dual power supply option
- Multiwire logic board
- Complies with FCC regulations

Series 3200 System with Graphic Bus Switch Panel

## Product Characteristics

The GBSP product is available in a standard and an extended configuration. The standard configuration permits the use of up to 6 CPUs with either 4, 10, or 16 common buses. The expanded configuration permits the use of up to 12 CPUs with the same combinations of common buses. The standard GBSP product consists of a 56″ cabinet door with cutout, a GBSP panel which mounts in the door cutout area, a cable-connection convenience panel to be mounted at the rear of the GBSP cabinet, appropriate cables for all interconnection, a loop-back test cable, and an I/O chassis power supply manual turn-off panel. Extended configurations provide a door with a double panel cutout, two GBSP panels, and two cable-connection convenience panels, in addition to the remaining items mentioned above.

In addition to the GBSP product already described, two related products (available under separate part numbers) are required: a custom front panel laminate insert which is a matrix design of the customer's configuration with symbols, lettering, and matrix layout determined by the customer; and one IOS GBSP To Common Bus Interconnect Kit for each common bus in the configuration.

A dual power supply switching unit is available to provide power supply redundancy. The use of this optional unit minimizes the possibility of a shut down of all I/O chassis upon the failure of a single power supply.

## Specifications

**Power:**
Current = 2.60 amperes
    @ V = 5.0 volts
V maximum = 5.50 volts
    @ I = 3.0 amperes
V minimum = 4.50 volts
    @ I = 2.1 amperes

**Environmental:**
Operating Temperature: 0° to 50°C
Storage Temperature: − 40° to 85°C

**Operating Humidity:**
5 to 90% humidity, non-condensing

**Dimensions:**
Height: 267mm (10.5 in.)
Width: 483mm (19 in.)
Depth: 38mm (1.5 in.)
Weight: 1.36 kg (3 lb.)

## Part Numbers

**Standard GBSP Product**
92-136F07M01   Accommodates up to 6 CPUs x 4 common buses; handles from 4 to 56 peripheral devices.
92-136F08M01   Accommodates up to 6 CPUs x 10 common buses; handles from 10 to 140 peripheral devices.
92-136F09M01   Accommodates up to 6 CPUs x 16 common buses; handles from 16 to 224 peripheral devices.

**Extended GBSP Product**
92-136F10M01   Accommodates up to 12 CPUs x 4 common buses; handles from 4 to 56 peripheral devices.
92-136F11M01   Accommodates up to 12 CPUs x 10 common buses; handles from 10 to 140 peripheral devices.
92-136F12M01   Accommodates up to 12 CPUs x 16 common buses; handles from 16 to 224 peripheral devices.

**Front-Panel Inserts**
94-279Fxx   Receives a unique functional variation designation after custom design and manufacture for a specific customer configurations.

**IOS/GBSP To Common Bus Interconnect Kit**
92-157F01-F12   For Standard Configuration
92-157F13-F36   For Extended Configuration

**Related Documentation**
91-281M01   Graphic Bus Switch Panel (GBSP) Installation and Maintenance Manual (Multiwire)

## Worldwide Sales Offices

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**The information contained herein is intended to be a general description and is subject to change with product enhancement.**

# PERKIN-ELMER

**Data Systems Group**
2 Crescent Place
Oceanport, N.J. 07757
(201) 870-4712
(800) 631-2154