



Application Note #5450

Using Opto-22 G4 Series Racks with Galil Extended I/O

When using Opto-22 G4 series I/O racks with Galil extended I/O, special considerations must be made depending on the models described below. Due to changes to the pinout orientation of the 50-pin header of the G4 rack input, damage may occur to Galil components, or the opto rack may not be properly powered.

In the past, Opto-22 racks adhered to a “standard” pinout configuration for the 50-pin IDC header that mated with Galil extended I/O headers. The standard pinout configuration of the 50-pin header on Galil products allows the Galil to power the opto-isolated relays by supplying 5 VDC at pin-49. This applies to Galil 50-pin extended I/O headers present on the DB-14064, DB-28040-5V, DB-12064, DB-15072, DB-10072 extended I/O daughter boards and DMC-1748 controller. This also applies to the 50-pin headers on the CB-50-80 connector board used for the extended I/O on the DMC-2xx0 series.

G4PB8

G4PB16

G4PB24

The 50-pin headers on these opto racks do not connect pin-49 to the supply input for the modules. The user will have to supply 5 VDC to the terminal marked LOGIC (+) on the rack. This can be accomplished by simply running a single lead from the Galil 5v supply to LOGIC (+) [note: the (-) return is already connected by the header].

G4PB8H

G4PB16H

The 50-pin headers on these racks actually connect both pin-49 and pin-1 to the logic supply. The user does not have to supply 5v. However, pin-1 of the ribbon cable **MUST** be cut to avoid damage. Pin-1 leads to an actual unused I/O channel on the Galil and damage will occur to the extended I/O board if the 5v line is left connected.

G4PB32H

G4PB32DEC

These 32 channel opto racks are **NOT** compatible with Galil extended I/O headers. Damage may occur if the connection is made with Galil extended I/O headers. The pinout configurations are laid out for a specific DEC computer interface and PAMUX B4 brain boards.