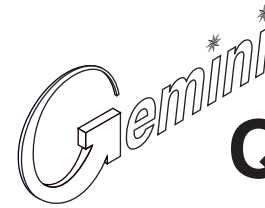
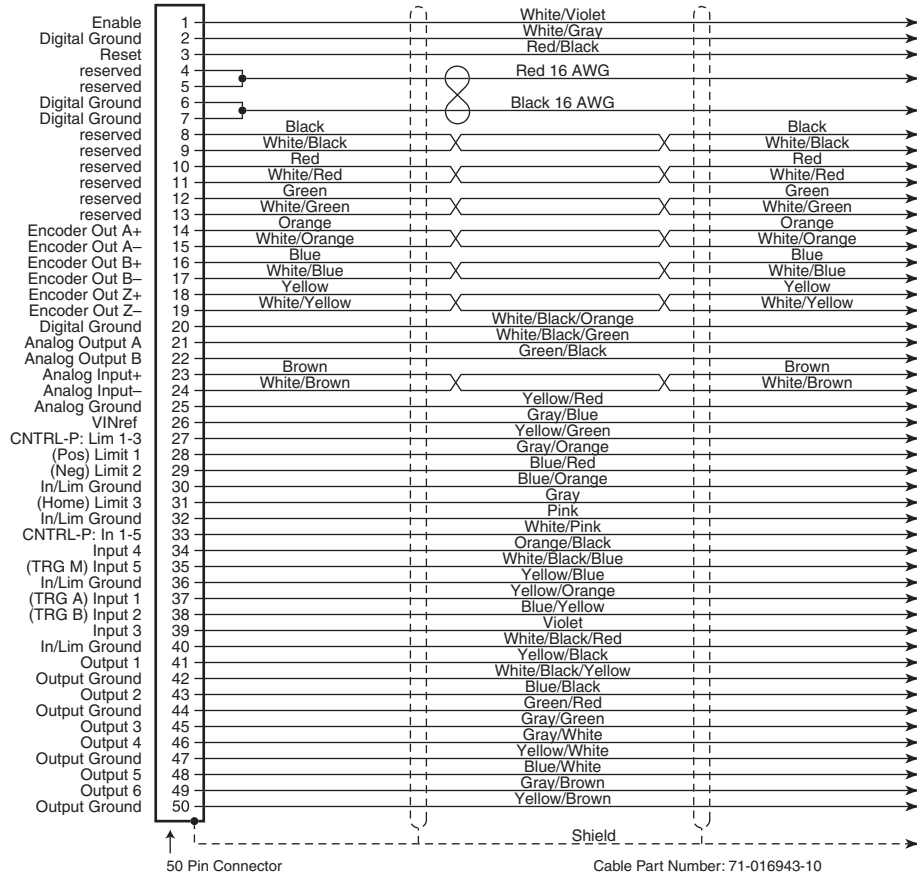
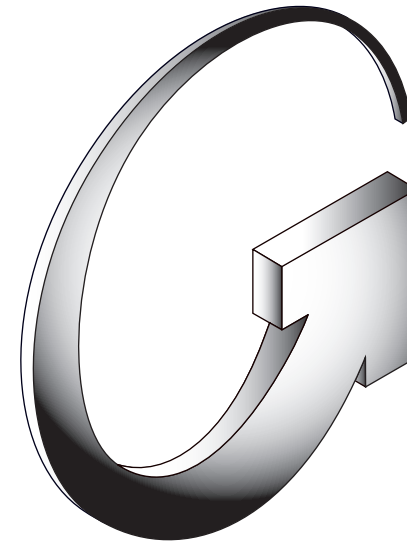


Gemini 50-Pin Connector to Flying Leads Cable



Quick Reference Guide



Protective Circuits

- Short Circuit Protection
- Inrush Current Protection
- Drive Overtemperature Protection
- Motor Overtemperature Protection
- Undervoltage Protection
- Overvoltage Protection
- Current Foldback
- Regeneration Protection

Environmental Specifications

- Operating Temperature: Still Air: 45°C (113°F)
Moving Air: 50°C (122°F)
- Storage Temperature: -40°C – 85°C (-40°F – 185°F)
- Humidity: 0 – 95%, non-condensing
- Shock: 15g, 11 msec half sine
- Vibration: 10 – 2000 Hz at 2g

Troubleshooting

Commonly used status commands (binary status bits are numbered 1 to n, from left to right):

- TERRLG Error log reports the last 10 error conditions (cleared with CERRLG).
- TASF General report, including fault conditions.
- TASXF Additional report of conditions not covered with TAS.
- TCS If TASX bit #7 or bit #28 is set, you can identify the cause with TCS.
- TINOF Bit 6 shows status of Enable input; 1 = OK for motion.
- TIN Status of digital inputs.
- TLIM Status of home and end-of-travel limits.
- TIO Status of expansion I/O.
- TOUT Status of digital outputs.
- TSSF Report of system status bits.
- TSTAT Report of system statistics.

You must configure all motor parameters. Be sure to follow the drive configuration procedure (see *Hardware Installation Guide*).

The drive can not be enabled (DRIVE1) unless the Enable input is grounded and the Reset input is not grounded.

- Use one of these methods to reset the drive/controller:
- RESET command (resets drive & internal controller).
 - DRESET command (resets drive, but not controller).
 - Momentarily close the Reset input.
 - Cycle power to the drive.

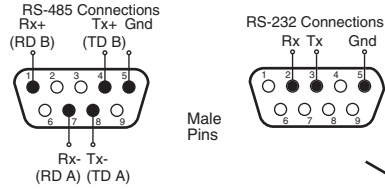
Gemini GV6K Series Digital Servo Controller/Drives

Compumotor Division
Parker Hannifin Corporation
p/n 88-019930-01 A (effective October 15, 2001)



RS-232/485 Connector – COM1 – Port 1

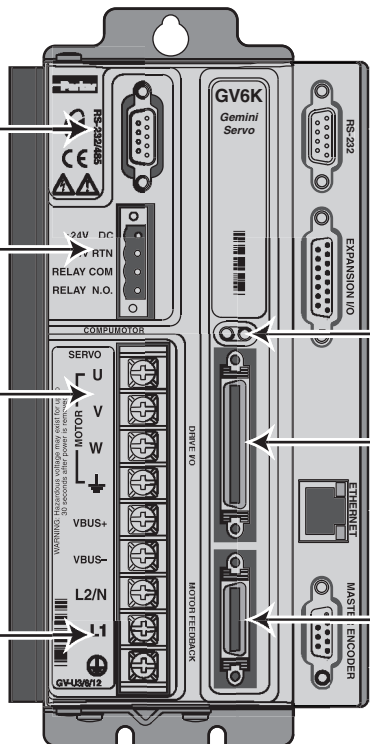
To configure drive parameters, connect a PC to this port. Use Motion Planner for drive configuration. Enabling Ethernet will disable the COM1 port.



Quick Reference Guide

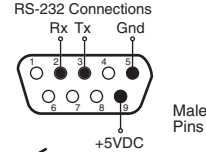


GV6K Servo



RS-232 Connector – COM2 – Port 2

Connect an RP240, or use this port for RS-232. Download Operating System through this port only. Ethernet and COM2 can both be active at the same time.



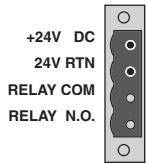
+24VDC/Relay Connector

Required +24VDC input. 19.2 – 28.8 VDC. 500 mA minimum.

When drive is enabled, it holds relay closed.

Relay rating: 5A at 24VDC or 120VAC.

If drive is faulted or disabled, relay will open. (Typical use: control of motor brake.)



LEDs

Green/Red Yellow/Green



LED Color:

Left	Right
Red Grn	+24VDC only
Red Yel	AC only
Grn Grn (flash)	Motion in progress
Off Yel/Grn (flash)	Autorun mode
Grn Off	Initializing
Red Off	Drive ready
	Drive not enabled or
	Drive faulted

Indicated State:

+24VDC only
AC only
Motion in progress
Autorun mode
Initializing
Drive ready
Drive not enabled or
Drive faulted

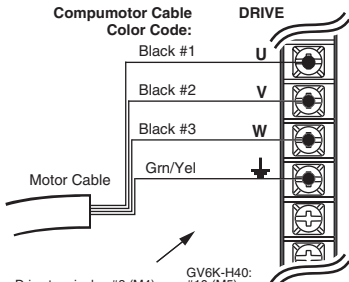
Ethernet Connector

RJ-45 connector for 10Base-T (10Mbps twisted pair) TCP/IP protocol. Default address is 192.168.10.30. Green LED on = Connection OK; Yellow LED on (flash) = Transmitting.

Master Encoder Connector

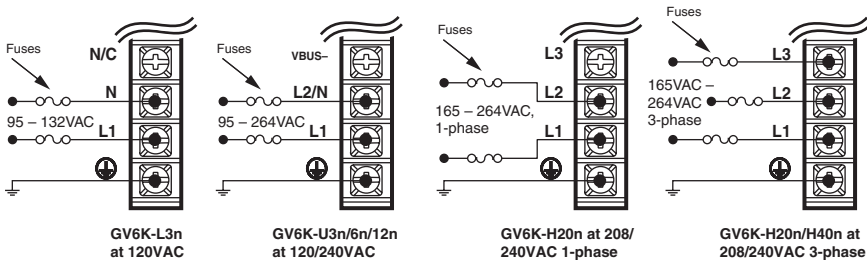
Connect an encoder for Following only; not for servo feedback or stepper stall detect.

Motor Output Connections

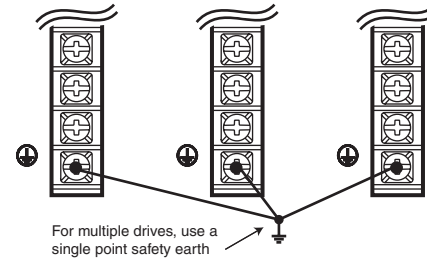


Drive terminals: #8 (M4) #10 (M5)
Mating terminals: spade fork, 0.325" ring terminal, 0.25" I.D., 0.50" O.D. max. width maximum width

AC Input Connections



Multiple Drive Connections



For multiple drives, use a single point safety earth

Expansion I/O Connector

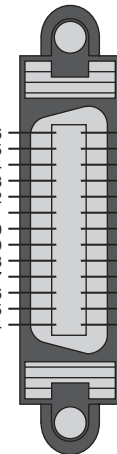
Connect as many as eight EVM32-II I/O modules in series, for up to 256 additional I/O points.

50 Pin DRIVE I/O Connector



Output Ground	50	25 Analog Ground
Output 6	49	24 Analog Input-
Output 5	48	23 Analog Input+
Output Ground	47	22 Analog Output B
Output 4	46	21 Analog Output A
Output 3	45	20 Digital Ground
Output Ground	44	19 Enc Out Z-
Output 2	43	18 Enc Out Z+
Output Ground	42	17 Enc Out B-
Output 1	41	16 Enc Out B+
Input/Limit Ground	40	15 Enc Out A-
Input 3	39	14 Enc Out A+
(Trig B) Input 2	38	13 Reserved
(Trig A) Input 1	37	12 Reserved
Input/Limit Ground	36	11 Reserved
(Master Trig) Input 5	35	10 Reserved
Input 4	34	9 Reserved
CNTRL-P: Inputs 1 - 5	33	8 Reserved
Input/Limit Ground	32	7 Digital Ground
(Home) Limit 3	31	6 Digital Ground
Input/Limit Ground	30	5 Reserved
(Neg) Limit 2	29	4 Reserved
(Pos) Limit 1	28	3 Reset
CNTRL-P: Lim 1 - 3	27	2 Digital Ground
VINref	26	1 Enable

26 Pin MOTOR FEEDBACK Connector



Cos-	26	13 Thermal Switch
Cos+	25	12 Thermal Switch
Sin-	24	11 Digital Ground
Sin+	23	10 Encoder Z-
Reserved	22	9 Encoder Z+
Reserved	21	8 Encoder B-
Ref 1-	20	7 Encoder B+
Ref 1+	19	6 Encoder A-
Hall C	18	5 Encoder A+
Hall B	17	4 Encoder Ground
Hall A	16	3 Encoder Ground
Hall Ground	15	2 Encoder +5V
Hall +5V	14	1 Encoder +5V