

## **AutoMax Network Communication Board**

**A powerful, economical  
method for interfacing the  
GV3000 to AutoMax**



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*The AutoMax network communication board is designed to enable communication between the GV3000 A-C Drive and the AutoMax real-time Distributed Control System NETWORK (DCS-NET). A GV3000 drive can be controlled, tuned, and monitored by way of this high speed (875K Baud) network link. Drive data is predefined on DCS-NET through fixed memory mapping to ensure minimal programming.*

*A simple ribbon cable connects the GV3000 regulator to the communication board. Because the board mounts internally to the drive, no additional cabinet space is required.*

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## **Function**

DCS-NET is a master/slave control network designed for high speed coordination between multiple drive sections. Data is transmitted and received over a single coaxial cable. DCS-NET supplies the link to connect multiple AutoMax racks, personal computers, Reliance AC and DC drives and operator interface terminals to form a distributed control system. The network contains one master and up to 55 slave drops.

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## **Features**

### **Control**

Functional control of the GV3000 AC Drive is accomplished through DCS-NET. Typical network control includes: start/stop, Fwd/Rev direction, Run/Log mode and speed or torque reference.

### **Tuning**

The GV3000 drive can be adaptively tuned to its current process. This can include speed loop proportional or integral gain, reference trim or drive gain, and acceleration or deceleration rates.

## Monitoring

Even if a GV3000 is controlled through hardwired inputs or keypad control, monitoring of the drive is possible. Feedbacks such as speed and torque feedback, current, and fault diagnostics can be observed and trended.

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## Configurations

Parameter P.061 allows the user to select the network configuration for each GV3000 AC drive. Configurations are provided in two forms: Basic Drive Connection and Full Drive Connection.

### Basic

Configured in the basic connection, a GV3000 will occupy a single slave drop. For high density applications, this configuration will allow up to 48 drives to be connected on a single network. Network data is comprised of commonly used parameters and diagnostic information.

### Full

For network access to all parameters and operating variables, the GV3000 can be configured as a full drive connection. This connection type will occupy three slave drops, allowing up to 18 drives to be placed on a single network.

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## Specifications

- M/N 2AX3000
- 875K Baud transmission rate
- Maximum network cable length of 3000 feet
- Requires GV3000, Version 2.2 or later
- Fixed memory mapping
- Cable connection to passive tap included

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## GV3000 Setup

Minimum number of setup parameters to begin DCS-NET communication.

Parameter	Description
P.000	Control source (LOCAL, rR, PC, OP)

P.060	Drop number assignment (1-55)
P.061	Network connection type (0-Basic, 1-Full)
P.062	Communication loss response (0-LLT, 1-Hold, 2-Terminal)
P.063	Reference select (0-Direct, 1-8-Broadcast)

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## Related Documentation

- AutoMax Network Communication Option Board - I/M D2-3308
  - Installing and Operating the GV3000 - I/M D2-3312
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## Related Hardware

57C380 - Communications Passive Tap  
 57C381 - Communications Module to  
     Passive Tap Cable  
 57C404 - AutoMax Network Communications  
     Module  
 57C445 - AutoMax PC Link Module  
 45C70 - Coax BNC TEE Connector  
 45C71 - Coax BNC 75 OHM Terminating Load

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