

D3000/4000 Series Command Set Protocol

The DGH D3000 and D4000 series products use a simple command and response protocol. A module must be interrogated by a host computer to obtain data. A module will never initiate a command sequence in order to prevent communications collisions.

A command is initiated with a command prompt, may be a dollar sign (\$) or pound sign (#). Following the prompt a single address character must be transmitted. Each module on a communications bus must be setup with a unique address. The address is followed by a two character command. Every command is terminated with a carriage return.

The module response begins with a response prompt, which is an asterisk (*) followed by the necessary data. Every response is terminated with a carriage return. Linefeeds after the carriage return are user selectable. See the table below for typical commands and their respective response messages.

D3000/4000 Command Definition	Typical Command	Typical Response
ACK - Acknowledge	\$1ACK	*
AO - Analog Output	\$1AO+00020.00	*
DI - Digital Input	\$1DI	*0007
HX - Hex Output	\$1HX0FFF	*
RAO - Read Analog Output	\$1RAO	*+00001.07
RHI - Read HI Limit	\$1RHI	*+00032.00
RID - Read Identification	\$1RID	* Boiler
RLO - Read LO Limit	\$1RLO	*+00004.00
RMS - Read Manual Slope	\$1RMS	*+00004.00
RMN - Read Minimum	\$1RMN	*+00004.00
RMX - Read Maximum	\$1RMX	*+00020.00
RS - Read Setup	\$1RS	*31070140
RSU - Read Setup	\$1RSU	*31070140
WE - Write Enable	\$1WE	*
Write Protected Commands		
HI - HI Limit	\$1HI+00015.00	*
ID - Identification	\$1ID BOILER	*
LO - LO Limit	\$1LO+00004.00	*
RR - Remote Reset	\$1RR	*
SU - Setup	\$1SU31070140	*
TMN - Trim Minimum	\$1TMN+00000.95	*
TMX - Trim Maximum	\$1TMX+00100.00	*

D4000 Commands		
RAD - Read Analog Data	\$1RAD	*+00012.34
RPS - Read Present Slope	\$1RPS	*+00001.00
RSL - Read Slope	\$1RSL	*+00001.00
RSV - Read Starting Value	\$1RSV	*+00005.00
RWT - Read Watchdog Timer	\$1RWT	*+00010.00
Write Protected D4000 Commands		
MS - Set Breakpoint	\$1MS+00010.00	*
MN - Set Minimum	\$1MN+00000.00	*
MX - Set Maximum	\$1MX+00200.00	*
SL - Set Slope Value	\$1SL+00001.00	*
SV - Set Starting Value	\$1SV+00020.00	*
TRN - Trim Readback Minimum	\$1TRN	*
TRX - Trim Readback Maximum	\$1TRX	*
WT - Set Watchdog Timer	\$1WT+00005.00	*
WSL - Write Slope to EEPROM	\$1WSL+00100.00	*