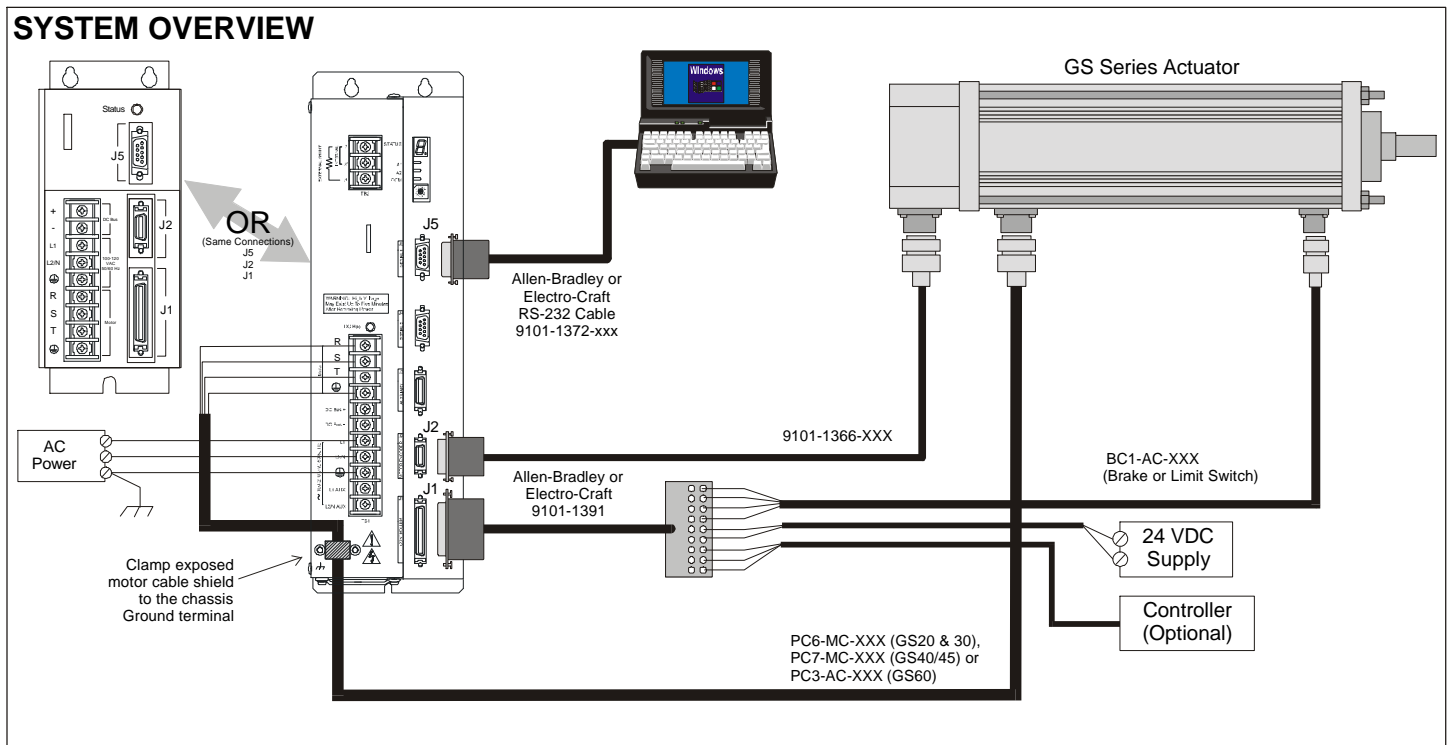


7.3 Allen-Bradley/Electro-Craft Drives with GS/X Actuator (M Connector Option)



Dangerous voltages exist so use extreme caution when operating this equipment. Sufficient energy remains in the DDM-XXX to cause motion even with the power removed. To verify that the equipment is safe, insure that the voltage across the DC+ and DC- terminals is at 0VDC. At startup, reduce the positive and negative current to below the rated current, such that accelerating torque is limited, until proper control is verified.

SETTING UP THE DDM-XXX DRIVE TO RUN EXLAR GS/X SERIES ACTUATORS

In order to program the drive to run the Exlar actuators, the motor parameter files provided by Exlar must be loaded into the motor directory, which by default is named “c:\brudrive\motordir”. Once the motor files are loaded, the following steps will set up the DDM-XXX drives to run the Exlar actuators:

1. Connect the serial cable from the PC to J5 of the DDM-XXX.
2. With the motor power cable disconnected from the motor, apply power to the DDM-XXX.
3. Double click on the Ultra Master or BRU Master icon to start the program.
4. Following the upload of drive information, click on the Drive Setup icon.
5. Click on the down arrow for the motor model and select the appropriate Exlar actuator model number.
6. The warnings generated after changing the motor are normal.
7. The motor parameters are now downloaded into the drive and configuration for the motor is complete.
8. Power down the drive and reconnect the motor cable.

Basic GS/X Series Parameter Settings for A-B/Electro-Craft DDM Drives (1)							
		GS/X20	GS/X30	GS/X40	GS45	GSX50	GS/X60
Integral Thermostat		Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
Number of Poles		GS-6 GSX-8	GS-6 GSX-8	GS-8 GSX-8	GS-6	8	GS-6 GSX-8
Thermal Time Constant	Seconds	780	1320	2200	2880	3750	5400
Maximum Speed	RPM	5000	3000	3000	2400	2400	2400
J _m	Kg-cm ²	See Inertia Table in section 7.0					
Encoder Line Count	Lines	2048	2048	2048	2048	2048	2048
Index Offset	Degrees	0	0	0	0	0	0
Hall Offset	Degrees	240	240	240	240	240	240
Startup Commutation		Hall/ Hall	Hall/ Hall	Hall/ Hall	Hall/ Hall	Hall/Hall	Hall/Hall
Current Feed forward	Degrees/ KRPM	0	0	0	0	0	0

(1) Appropriate motor files may be obtained from Exlar and downloaded to DDM-XXX drives. Changes to motor parameters require the advanced option for BRU Master or Ultra Master. Add /a to the command line of shortcut for the BRU Master or Ultra Master software to enable the advanced option. These Parameters and others specific to each motor winding are included in the motor file listed in the table in section 7.0.

(2) Set to "yes" if TS+ and TS- from the motor cable are connected to J2 pins 19 and 20.

(3) Voltage is 0 – peak of sinusoid, measured phase-to-phase

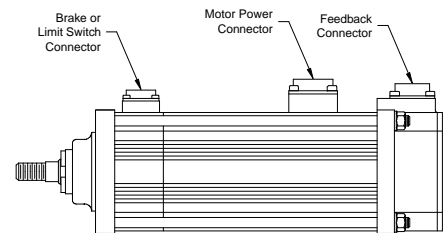
(4) Current is 0 – peak of sinusoid

CABLES FOR A-B / E-C DDM-XXX DRIVE AND GS/X SERIES ACTUATORS (M CONNECTOR OPTION)

Refer to the diagram at the beginning of Section 7.4. The required cables are identified in the table below.

An Exlar cable must be used for the brake/limit switch option and motor power on the GS/X Series actuators. Allen-Bradley / Electro-Craft does not offer a version of this cable.

A-B / Electro-Craft Cable Part Numbers (-XXX denotes cable length)	
GS/X20, GS/X30	
Feedback	9101-1366-XXX
Motor Power	PC6-MC-XXX (Exlar Cable)
Brake/Limit Switch	BC1-AC-XXX (Exlar Cable)
GS/X40, GSX50, GS45	
Feedback	9101-1366-XXX
Motor Power	PC7-MC-XXX (Exlar Cable)
Brake/Limit Switch	BC1-AC-XXX (Exlar Cable)
GS60	
Feedback	9101-1366-XXX
Motor Power	PC3-AC-XXX (Exlar Cable)
Brake/Limit Switch	BC1-AC-XXX (Exlar Cable)



Motor Power Cable PC6-MC-XXX and PC7-MC-XXX for GSX20, 30, 40, and GS45		
Amplifier Connection	Motor Power Pin	Exlar PC6, PC7 Power Cable Color
R	A	Brown
S	B	Black
T	C	Blue
GND	D	Green/Yel + Shield

Motor Power Cable PC3-AC-XXX for GS60		
Amplifier Connection	Motor Power Pin	Exlar PC3 Power Cable Color
R	A	Red
S	B	Black
T	C	Blue
GND	D	Green + Shield