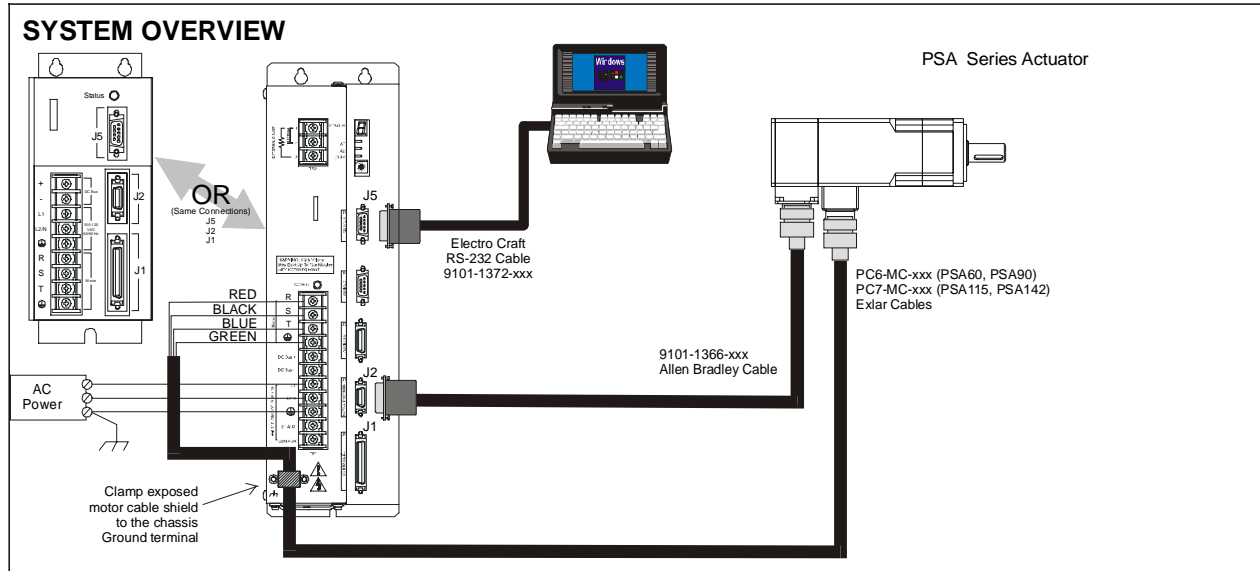


## 6.4 Allen-Bradley/Electro-Craft Drives with PSA Actuator (M Connector Option)



**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 PSA 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 PSA Series Parameter Settings for A-B/Electro-Craft DDM Drives (1)					
		PSA60	PSA90	PSA115	PSA142
Integral Thermostat		Note 2	Note 2	Note 2	Note 2
Number of Poles		6	6	8	6
Thermal Time Constant	Seconds	780	1320	2200	2880
Maximum Speed	RPM	5000	3000	3000	2400
J <sub>m</sub>	Kg-cm <sup>2</sup>	See Inertia Table in section 6.0			
Encoder Line Count	Lines	2048	2048	2048	2048
Index Offset	Degrees	0	0	0	0
Hall Offset	Degrees	240	240	240	240
Startup Commutation		Hall/Hall	Hall/Hall	Hall/Hall	Hall/Hall
Current Feed forward	Degrees/ KRPM	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

Motor Cable PC6-MC-XXX for PSA60, PSA90 PC7-MC-XXX for PSA115, and PSA142			
Exlar Connector	Wire Color	Function	TX-XXX Connection
A	Red	R Phase	R
B	Black	S Phase	S
C	Blue	T Phase	T
D	Green/Yellow & Shield	GND	

**Refer to Allen-Bradley / Electro-Craft Documentation for pinout information of Allen-Bradley / Electro-Craft cables.**