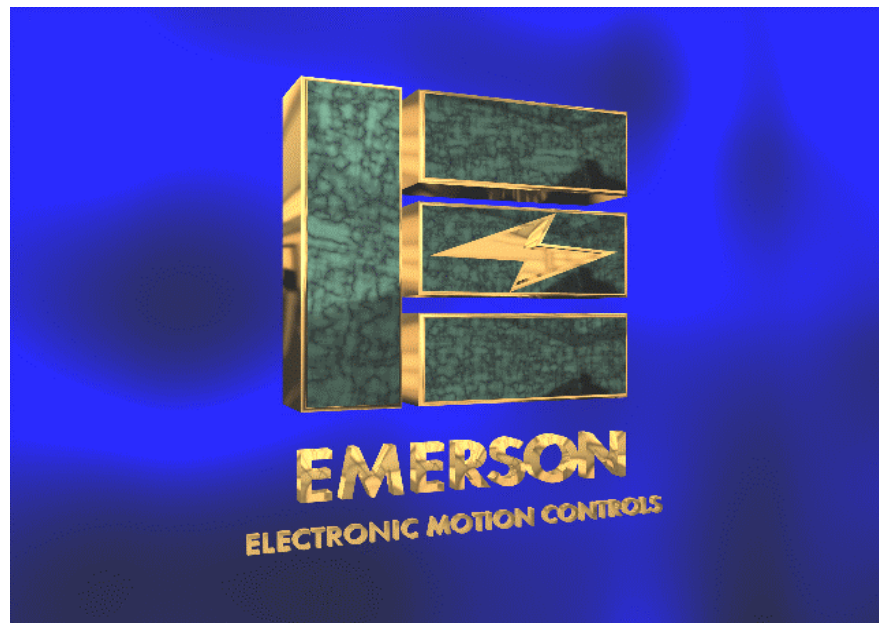


MX Manual Addendum #4

Includes: MX-2600, MX-3200, and MX-4800



P/N 400268-04

Rev: A4

Date: Feb. 27. 1998

MX Manual Addendum #4

Includes: MX-2600, MX-3200, and MX-4800



Information furnished by EMERSON EMC is believed to be accurate and reliable. However, no responsibility is assumed by EMERSON EMC for its use. EMERSON EMC reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. EMERSON EMC also assumes no responsibility for any errors that may appear in this document. Information in document is subject to change without notice.

P/N 400268-04

Rev: A4

Date: Feb. 27, 1998

Customer Services:

EMERSON EMC offers a wide range of services to support our customers' needs. Listed below are some examples of these services.

Service Support (612)-474-8833

Emerson Electronic Motion Control's products are backed by a team of professionals who will service your installation wherever it may be. Our customer service center in Minneapolis, Minnesota, is ready to help you over the telephone to solve those occasional problems. Our customer service center is available 24 hours a day for emergency service to help speed any problem solving. Also, all hardware replacement parts, should they ever be needed, are available through our customer service organization.

Need on-site help? Emerson EMC provides on-site service, in most cases, the next day. Just call Emerson EMC's customer service center when on-site service or maintenance is required.

Training Services (612)-474-1116

Emerson EMC maintains a highly-trained staff of instructors to familiarize customers with Emerson EMC products and their applications. A number of courses are offered. Upon request, many of the courses can be taught in your plant.

Application Engineering

An experienced staff of factory application engineers provide complete customer support for tough or complex applications. Our engineers offer you a broad base of experience and knowledge of electronic motion control applications.

EMERSON BBS (612) 474-8835

Emerson EMC maintains a BBS which provides you with access to software updates, technical information and services.

Communications Protocol: BBS. 300 - 9600 Baud, N, 8, 1.

FAX (612) 474-8711

TABLE OF CONTENTS

CUSTOMER SERVICES:.....	ii
<i>Service Support (612)-474-8833</i>	<i>ii</i>
<i>Training Services (612)-474-1116</i>	<i>ii</i>
<i>Application Engineering</i>	<i>ii</i>
<i>EMERSON BBS (612) 474-8835</i>	<i>ii</i>
<i>FAX (612) 474-8711</i>	<i>ii</i>
OVERVIEW.....	1
SPECIFICATIONS	1
MECHANICAL INSTALLATION	3
MX-3200, MX-4800 (SIZE 3)	3
MX-2600 (SIZE 2)	3
MOUNTING DIMENSIONS	4
INDUCTOR MOUNTING	5
DATA ENTRY PANEL.....	6
ELECTRICAL INSTALLATION.....	7
POWER AND MOTOR CONNECTIONS.....	7
CONTROL TERMINALS.....	9
SYSTEM SETUP	10

Overview

This addendum provides installation and specifications information particular to MX-2600, MX-3200 and MX-4800 amplifiers and motors. Refer to the MX User's Guide (P/N 400268-00) for general mechanical and electrical information such as safety, cooling and ventilation, environmental considerations, etc.

Programming your MX-2600, 3200 or 4800 amplifier is accomplished exactly the same way as the smaller MX amplifiers (see Chapter 5 of the MX User's Guide).

Specifications

Table 1 Motor Performance

BL Motor	MX Amplifier	Motor		Torque (lb-in)		Max Speed
		Kt lb-in/Amp	Inertia lb-in-sec ²	Continuous	Peak* (30 seconds)	
BLM-6400-4	MX-2600	17.8	.0288	400	690	3500
	MX-3200			400	780	
BLM-8500-4	MX-2600	19.5	.0744	500	750	3000
	MX-3200			500	920	
BLM-8800-4	MX-3200	20.6	.1116	670	1000	2700
	MX-4800			800	1500	
BLM-81000-4	MX-4800	20.7	.1488	1000	1500	2700

* This rating is for the amplifier only. The motor may overheat if this torque level is maintained for 30 seconds.

Table 2 Power And Current Ratings

Model	Model Size	Motor Power kW	I _{nom} A	I _{max} A	Duration of I _{peak}
MX-2600	2	11	26.0	39.0	30 seconds
MX-3200	3	15	32.0	48.0	30 seconds
MX-4800	3	22	48.0	72.0	30 seconds

Table 3 AC Line Fuses And Motor Cables

Model	Recommended AC Line Fuse *	Recommended Motor Cable Size	
		A	mm ² AWG
MX-2600	35	4.0	10
MX-3200	40	10.0	6
MX-4800	60	16.0	4

* A low-peak-type fuse is recommended, such as a Bussman LPS-xxx or equivalent. If a low-peak-type fuse is not available, use a fuse equivalent to a Bussman FRS-xxx.

Table 4 Braking Resistors

Model	Model Size	Maximum duty cycle for internal braking resistor	Minimum value of internal or external resistor
MX-280 MX-440	1	1.5kW for 10 second braking time with 90 second minimum cooling time. 150W continuous. (When an external resistor is used, the internal braking resistor must be disconnected.)	80Ω
MX-850 MX-1300 MX-1600 MX-2600	2	3.0kW for 10 second braking time with 90 second minimum cooling time. 300W continuous. (When an external resistor is used, the internal braking resistor must be disconnected.)	40Ω
MX-3200 MX-4800	3	No internal braking resistor fitted.	11Ω minimum (External only)

When an external braking resistor is used, the maximum duty cycle is limited by the power rating of the resistor.

Table 5 Switching Frequency

Model	Switching Frequency
MX-2600	8 kHz
MX-3600	4 kHz
MX-4800	4 kHz

Mechanical Installation

MX-3200, MX-4800 (size 3)

The amplifier is fitted with two mounting plates: One in the rear of the case for through-panel mounting, the other at the rear of the heatsink for surface mounting.

To insert the heatsink through an aperture for through-panel mounting, follow the procedure shown below.

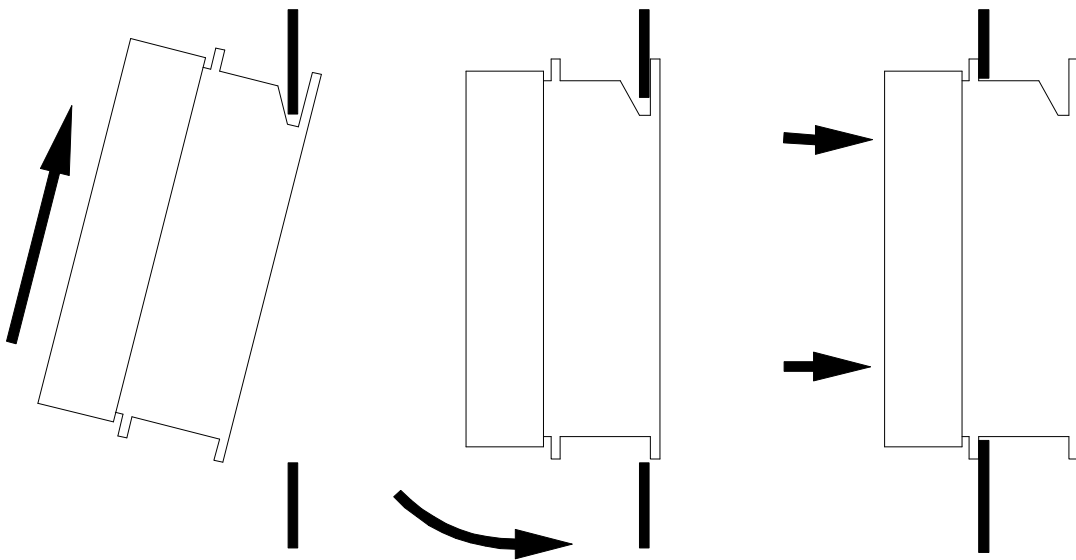


Figure 1 Through-Panel Mounting for Size 3

Fasten the amplifier to the mounting panel using mounting bolts as shown in Figure 2, the mounting dimensions diagram.

MX-2600 (size 2)

Use the installation instructions for an MX-1600 found in the MX Manual, p/n 400268-00.

Mounting Dimensions

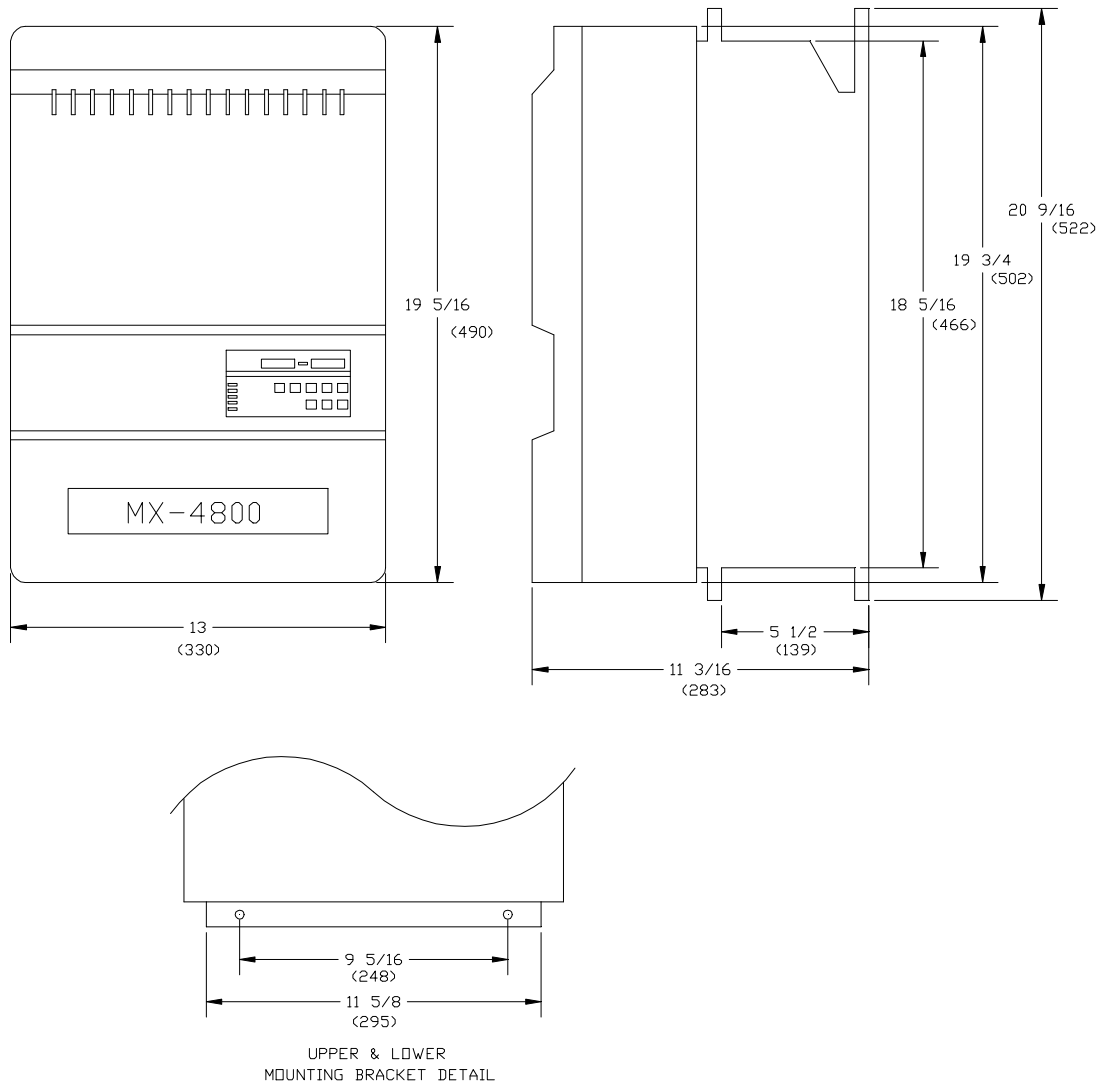
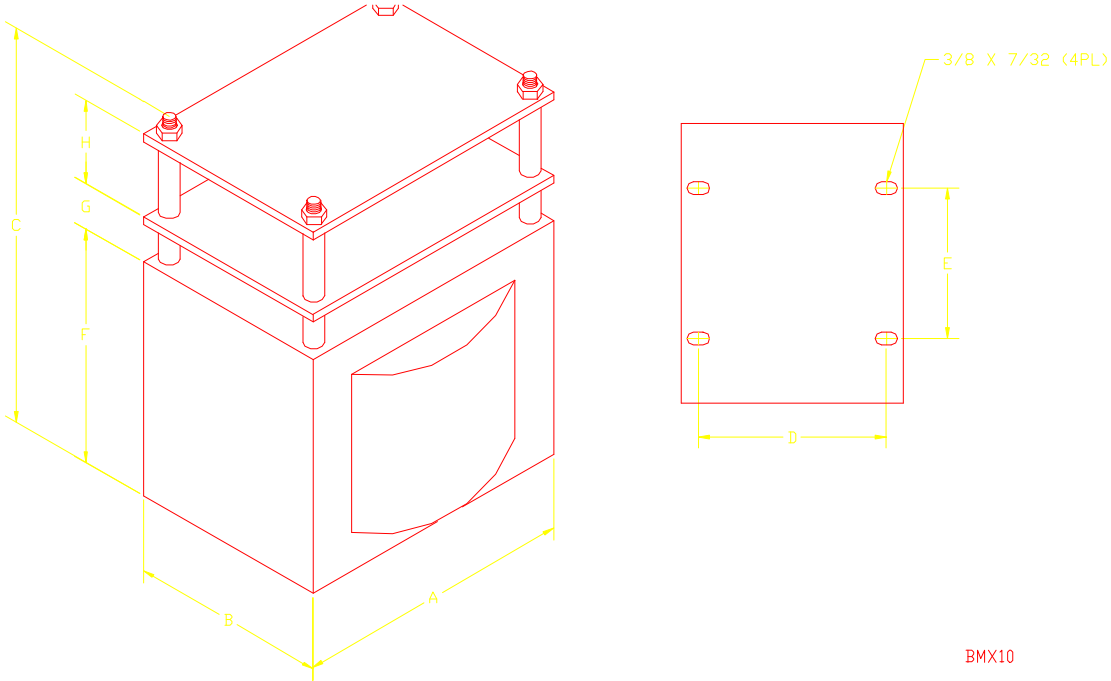


Figure 2 Mounting Dimensions, MX-3200 and 4800 Amplifiers

Inductor Mounting



	FDR MX-3200		FDR MX-4800	
	PN 4400-0060		PN 4400-0075	
	INCHES	MM	INCHES	MM
A	4 5/8		5 3/8	
B	3 3/4		4 5/8	
C	6 3/8		7	
D	3 3/16 ($\pm 3/32$)		3 19/32 ($\pm 1/8$)	
E	2 1/2		3 1/2	
F	3 7/8		4 1/2	
G	3/4		3/4	
H	1 3/8		1 3/8	

Figure 3 Inductor Dimensions

Data Entry Panel

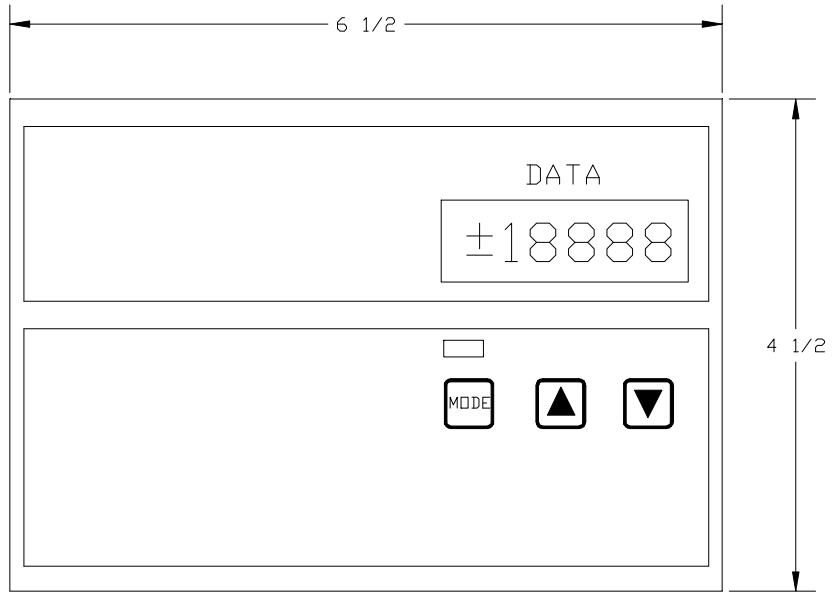


Figure 4 MX-3200, MX-4800 Data Entry Panel Dimensions

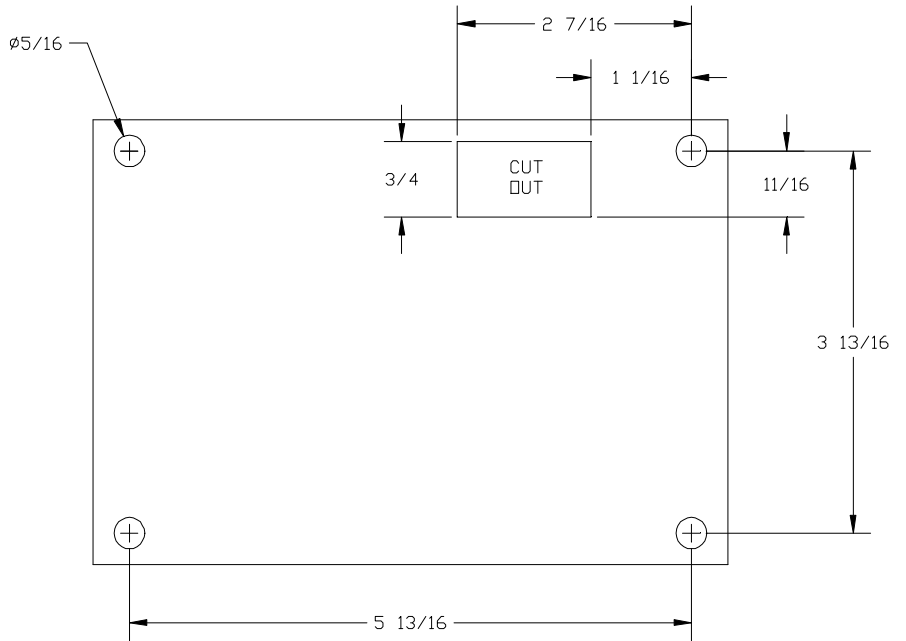


Figure 5 Data Entry Panel Mounting Cutout Dimensions

Electrical Installation

Power and Motor Connections

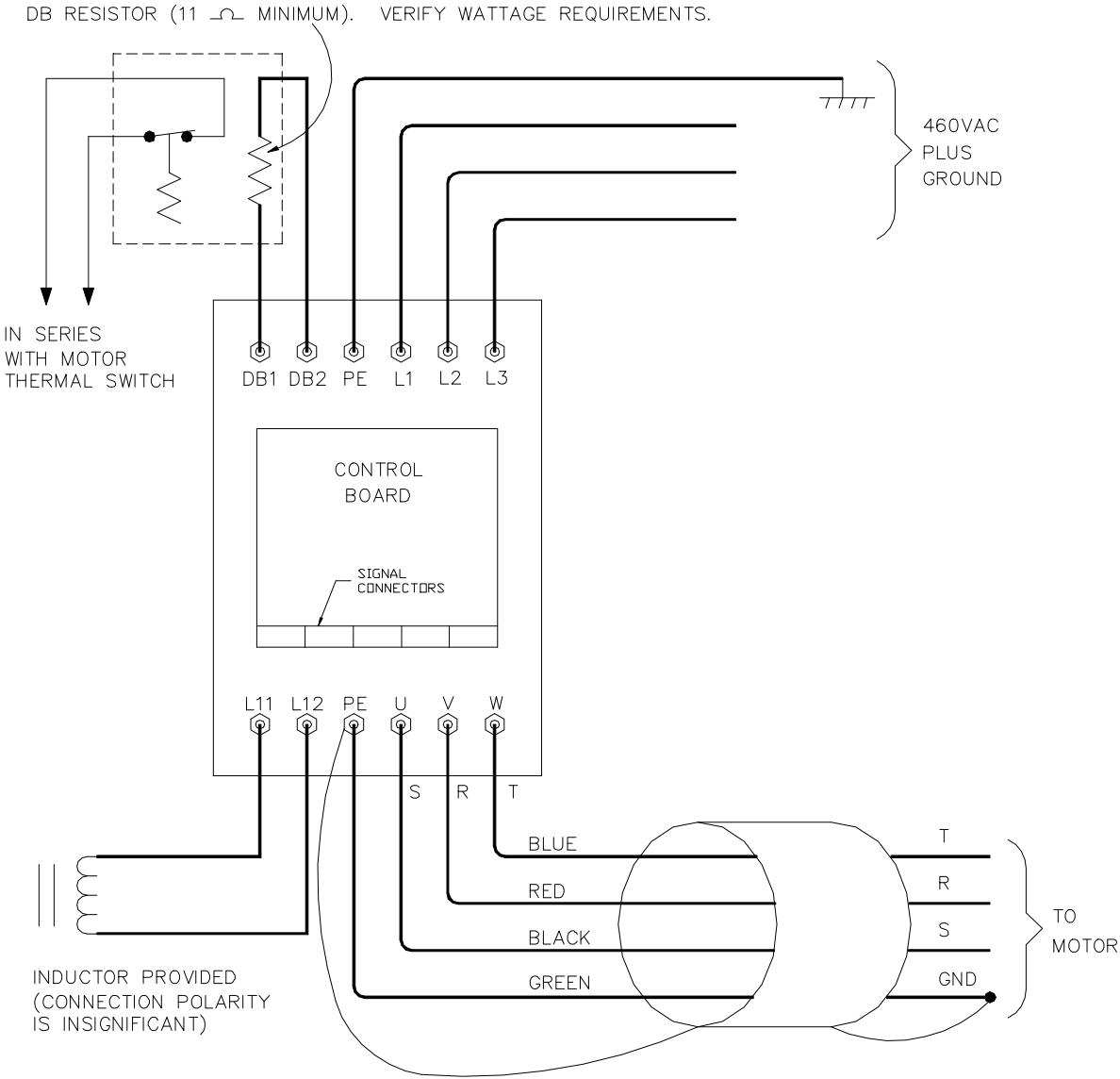
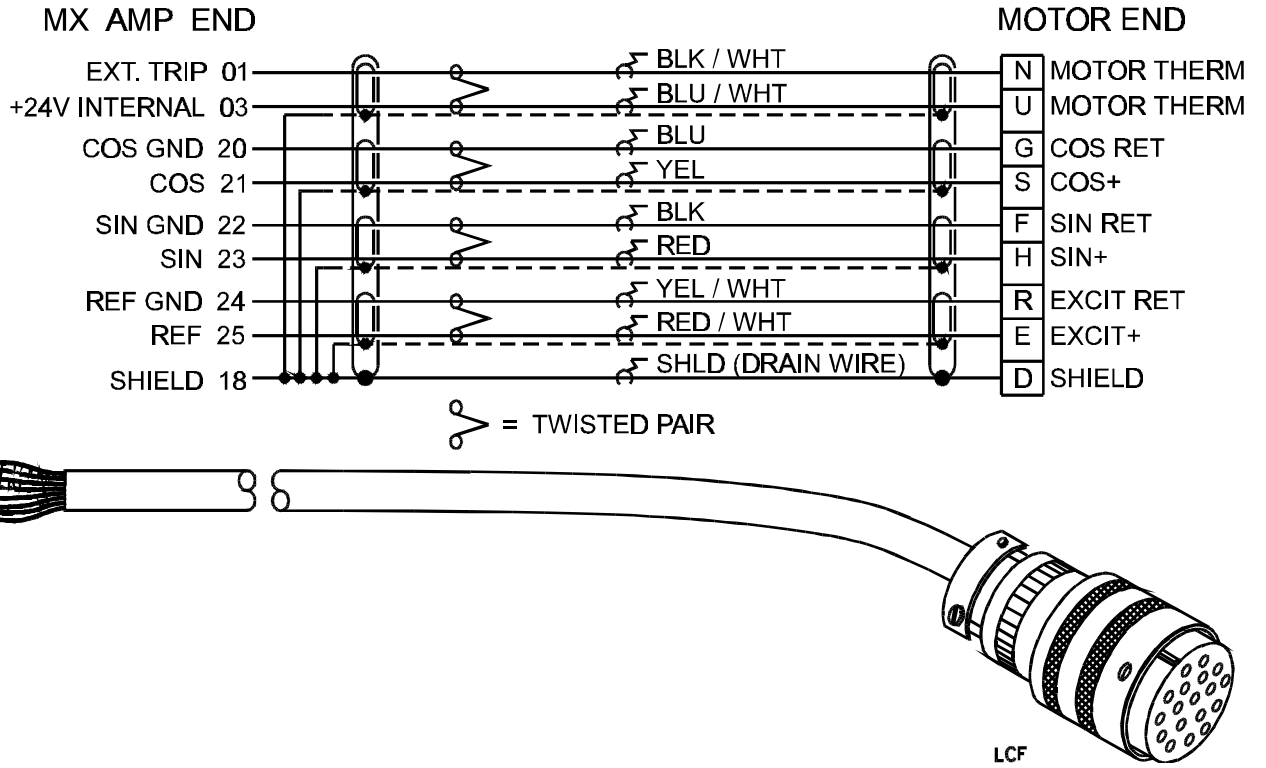


Figure 6 Power Connections Diagram, MX-3200 and 4800 Amplifiers

Figure 7 LCF Resolver Connections to MX Amplifiers



Control Terminals

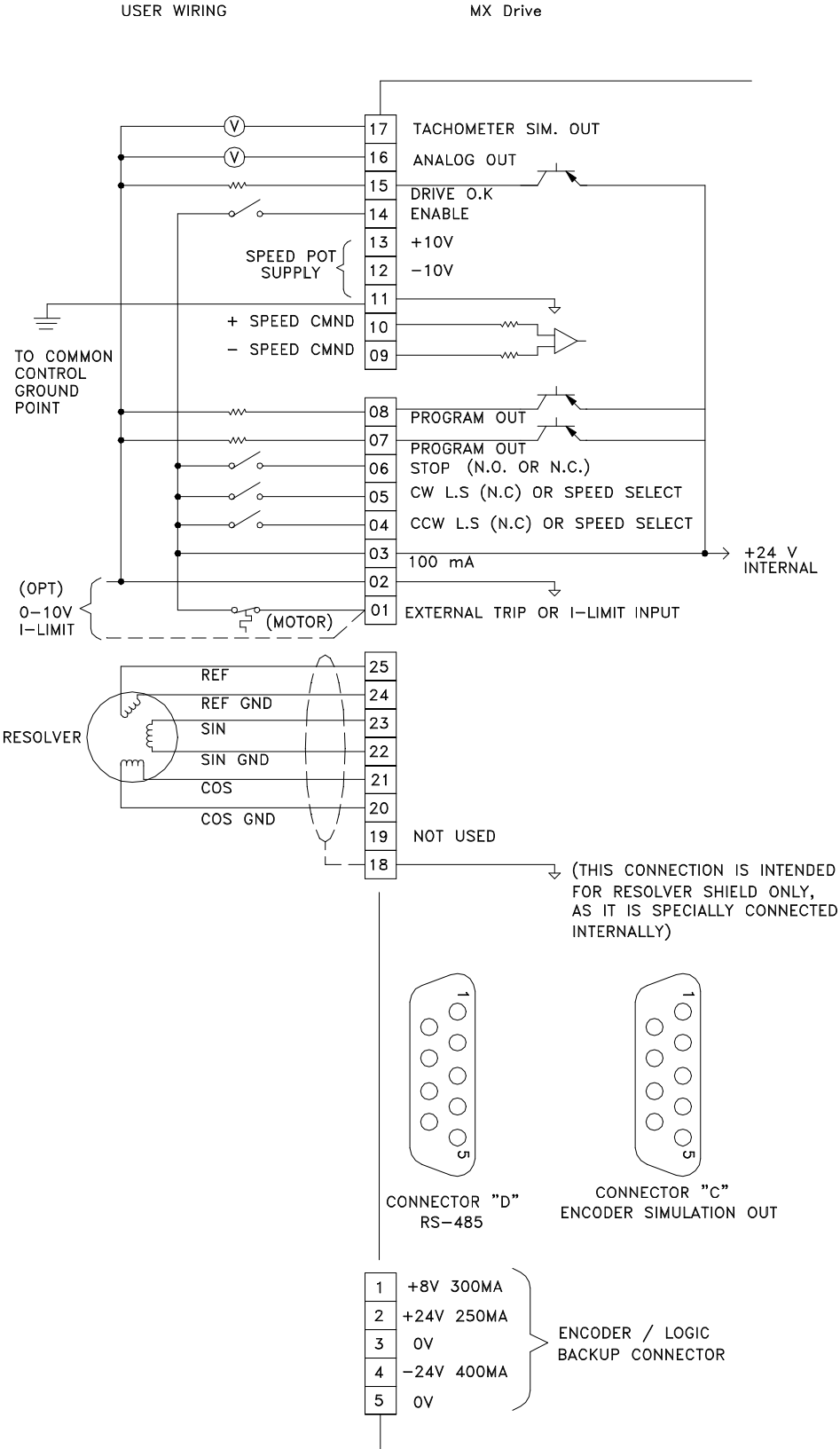


Figure 8 Control Terminal Connection Example, MX-3200 and 4800 Amplifiers

System Setup

Table 6 Standard System Settings Chart

BL Motor	MX Amplifier	Current Limits			Gain Settings			Resolver Offset
		Pr42	Pr45	Pr55	Pr13	Pr14	Pr15	Pr16
BLM-6400-4	MX-2600	100	58	10	30	30	30	170
	MX-3200	91	47	10	20	30	30	170
BLM-8500-4	MX-2600	100	67	10	30	30	30	284
	MX-3200	100	50	10	30	30	30	284
BLM-8800-4	MX-3200	100	67	10	30	30	30	284
	MX-4800	100	53	10	30	30	30	284
BLM-81000-4	MX-4800	100	67	10	30	30	30	284