Addendum

10

AMS CONTROLS, INC.

Controls Division

XL200 Model AMS
Version 1 Controllers

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INTRODUCTION

The information of this addendum is added to assist in the setup, calibration and programming of the Model XL200 Series of controllers. The XL200 series of controllers are the latest in control innovation for the roll forming industry.

A greater number of inputs and outputs, larger display screen and communications capability, gives the XL200 the power and flexibility not seen in other controllers.

Programming for the XL200 model controller is similar to the XL100 Series, making the transition between the XL100 and the XL200 series of controllers easier.

The following pages include:

- The cutout dimensions for mounting the controllers.

- Input/Output settings.

- Dipswitch settings.

- Identification of the function keys.

- Schematic drawings.

These pages are provided to assist in interconnecting and programming the controller.

Models: XL200, XL200H

Switch #	OFF	ON
1	Feed-to-Stop Shear	Non-Stop Shear
2	Shear Die Boost Output	Shear Up Output
3	Single-Speed Shear	Two-Speed Shear
4	Disable Auto Crop	Enable Auto Crop
5	Feed-to-Stop Punch	Non-Stop Punch
6	Punch Die Boost Output	Punch Up Output
7	Single-Speed Punch	Two-Speed Punch
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Models: XL202, XL202H, XL206, XL206H, XL212, XL212H

Switch #	OFF	ON
1	Feed-to-Stop (All Presses)	Non-Stop (All Presses)
2	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
3	Single-Speed (All Presses)	Two-Speed (All Presses)
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Switch 4	Switch 5	Switch 6	Switch 7	Number of Presses
OFF	OFF	OFF	OFF	1
ON	OFF	OFF	OFF	2
OFF	ON	OFF	OFF	3
ON	ON	OFF	OFF	4
OFF	OFF	ON	OFF	5
ON	OFF	ON	OFF	6
OFF	ON	ON	OFF	7
ON	ON	ON	OFF	8
OFF	OFF	OFF	ON	9
ON	OFF	OFF	ON	10
OFF	ON	OFF	ON	11
ON	ON	OFF	ON	12

Notes:

1. Turning Switches 5, 6, and 7 OFF disables the punch press on models XL200 and XL200H.

IO#	Inputs	Outputs
1	Jog Forward	Fast
2	Jog Reverse	Slow
3	Run	Reverse
4	Not Used	Run
5	Setup Lockout	Item Complete
6	Manual Shear	Forward
7	Manual Punch	Print Flush/Encoder
8	Tail Out (Inverted Sheet Detect)	Print Trigger
9	Press 1 Complete (Shear)	Press 1 Down (Shear)
10	Press 2 Complete	Press 2 Down | Gag 2
11	Press 3 Complete	Press 3 Down | Gag 3 | Press 1 Up/Boost
12	Press 4 Complete	Press 4 Down | Gag 4 | Press 2 Up/Boost
13	Press 5 Complete	Press 5 Down | Gag 5
14	Press 6 Complete	Press 6 Down | Gag 6
15	Press 7 Complete	Press 7 Down | Gag 7
16	Press 8 Complete	Press 8 Down | Gag 8
17	Press 9 Complete	Press 9 Down | Gag 9
18	Press 10 Complete	Press 10 Down | Gag 10
19	Press 11 Complete	Press 11 Down | Gag 11
20	Press 12 Complete	Press 12 Down | Gag 12
21	Asynchronous Print Detect	Not Used
22	Not Used	Not Used
23	Not Used	Not Used
24	Hole Detect	Not Used

Notes:

1. Each model will have enough Press Down outputs available for the maximum number of presses allowed for that model. Press Up/Boost outputs will begin at the next available output following last Press Down output.

2. The maximum number of presses (including the shear press) allowed for each model is as follows:

Model	Max. Presses
XL200, XL200H, XL202, XL202H	2
XL206, XL206H	6
XL212, XL212H	12

3. Boost outputs are only available on models XL200 and XL200H and take the place of the Press Up outputs in these models when selected.

4. Gag outputs are only available on models XL202, XL202H, XL206, XL206H, XL212, and XL212H. The maximum combined number of presses and gags allowed per model is the same as the maximum number of presses specified in the table above.

5. The "Hole Detect" input is only available on models with an "H" suffix in their name.

Models: XL200CL

Switch 1	Switch 2	Description
OFF	OFF	Feed-to-Stop, One Encoder
ON	OFF	Feed-to-Stop, Two Encoders
OFF	ON	Single-Speed Die Accelerator
ON	ON	Two-Speed Die Accelerator
Switch #	OFF	ON
3	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
4	CW Encoder 1 Direction	CCW Encoder 1 Direction
5	CW Encoder 2 Direction	CCW Encoder 2 Direction
6	Normal Analog Voltage Polarity	Inverted Analog Voltage Polarity
7	Disable Punch	Enable Punch
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Models: XL200HCL

Switch 1	Switch 2	Description
OFF	OFF	INVALID
ON	OFF	INVALID
OFF	ON	Single-Speed Die Accelerator
ON	ON	Two-Speed Die Accelerator
Switch #	OFF	ON
3	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
4	CW Encoder 1 Direction	CCW Encoder 1 Direction
5	CW Encoder 2 Direction	CCW Encoder 2 Direction
6	Normal Analog Voltage Polarity	Inverted Analog Voltage Polarity
7	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Models: XL202CLF, XL202HCLF, XL206CLF, XL206HCLF, XL212CLF, XL212HCLF

Switch #	OFF	ON
1	CW Encoder 1 Direction	CCW Encoder 1 Direction
2	Normal Analog Voltage Polarity	Inverted Analog Voltage Polarity
3	CW Encoder 2 Direction	CCW Encoder 2 Direction
4	Single Speed	Two Speed
5	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
6	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
7	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Models: XL202CL, XL206CL, XL212CL

Switch #	OFF	ON
1	CW Encoder 1 Direction	CCW Encoder 1 Direction
2	Normal Analog Voltage Polarity	Inverted Analog Voltage Polarity
3	One Encoder	Two Encoders
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	CRT Disabled	CRT Enabled
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF

Switch 4	Switch 5	Switch 6	Switch 7	Number of Presses
OFF	OFF	OFF	OFF	1
ON	OFF	OFF	OFF	2
OFF	ON	OFF	OFF	3
ON	ON	OFF	OFF	4
OFF	OFF	ON	OFF	5
ON	OFF	ON	OFF	6
OFF	ON	ON	OFF	7
ON	ON	ON	OFF	8
OFF	OFF	OFF	ON	9
ON	OFF	OFF	ON	10
OFF	ON	OFF	ON	11
ON	ON	OFF	ON	12

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Encoder 1 and Encoder 2 are used as follows:

Model	Encoder 1	Encoder 2
XL200CL – Feed To Stop	Motor Encoder (Feeder)	Line Encoder (if 2 Encoders Used)
XL200CL, XL200HCL – Die Accelerator	Line Encoder	Motor Encoder (Die Accelerator)
All XL2**CLF and XL2**HCLF	Line Encoder	Motor Encoder (Die Accelerator)
All XL2**CL	Motor Encoder (Feeder)	Line Encoder (if 2 Encoders Used)

IO#	Inputs	Outputs
1	Jog Forward	Fast | Forward
2	Jog Reverse	Slow
3	Run	Reverse
4	Emergency Stop (E-Stop)	Run
5	Setup Lockout	Item Complete
6	Manual Shear	Drive Enable
7	Manual Punch	Print Flush/Encoder
8	Tail Out (Inverted Sheet Detect)	Print Trigger
9	Press 1 Complete (Shear)	Press 1 Down (Shear)
10	Press 2 Complete	Press 2 Down | Gag 2
11	Press 3 Complete	Press 3 Down | Gag 3 | Press 1 Up
12	Press 4 Complete	Press 4 Down | Gag 4
13	Press 5 Complete	Press 5 Down | Gag 5
14	Press 6 Complete	Press 6 Down | Gag 6
15	Press 7 Complete	Press 7 Down | Gag 7
16	Press 8 Complete	Press 8 Down | Gag 8
17	Press 9 Complete	Press 9 Down | Gag 9
18	Press 10 Complete	Press 10 Down | Gag 10
19	Press 11 Complete	Press 11 Down | Gag 11
20	Press 12 Complete	Press 12 Down | Gag 12
21	Asynchronous Print Input	Not Used
22	Feed Ready | Die Home	Not Used
23	Slow Run | Alternate List Select	Not Used
24	Hole Detect	Not Used

Notes:

1. Each model will have enough Press Down outputs available for the maximum number of presses allowed for that model. Press Up/Boost outputs will begin at the next available output following last Press Down output.

2. The maximum number of presses allowed for each model is as follows:

Models	Max Presses
XL200HCL, All XL2**CLF, All XL2**HCLF	1
XL200CL, XL202CL	2
XL206CL	6
XL212CL	12

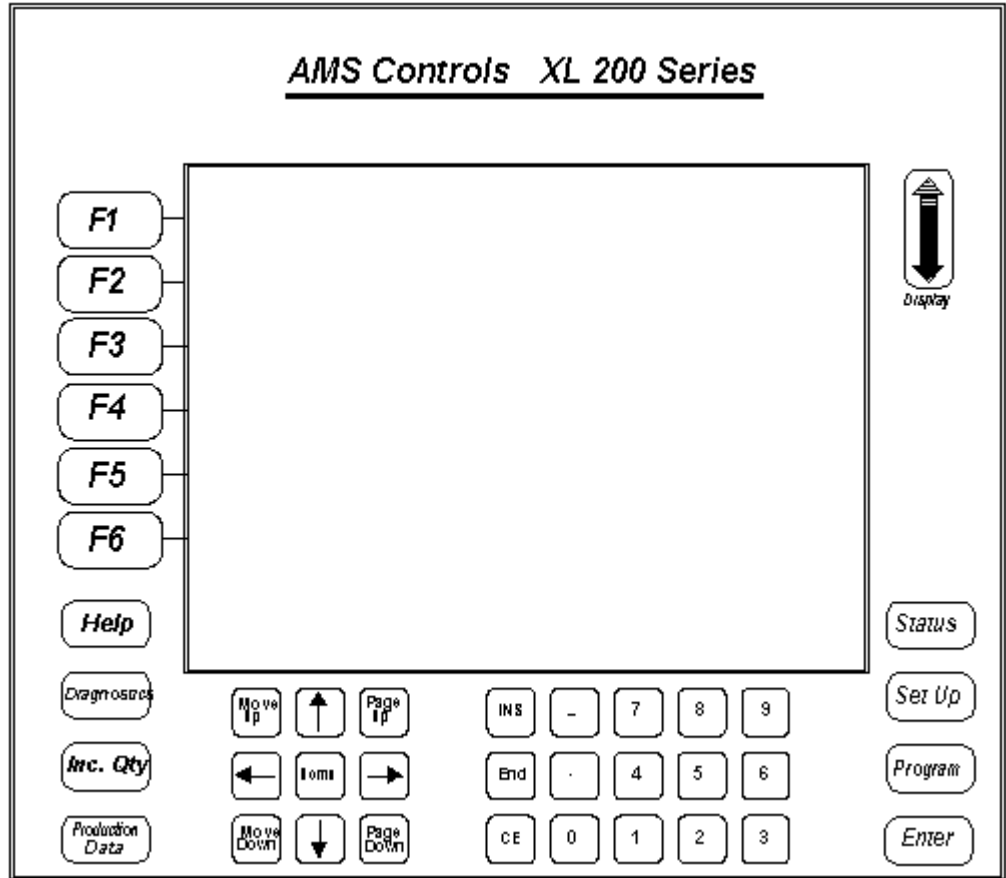3. Gag outputs are only available on models XL202CL, XL206CL, XL212CL

4. Hole Detect Input available only on models with an "H" in their name.

5. Feed Ready and Slow Run inputs are available only in Feed-to-Stop mode.

6. Die Home and Alternate List Select inputs are available only in Die Accelerator mode.

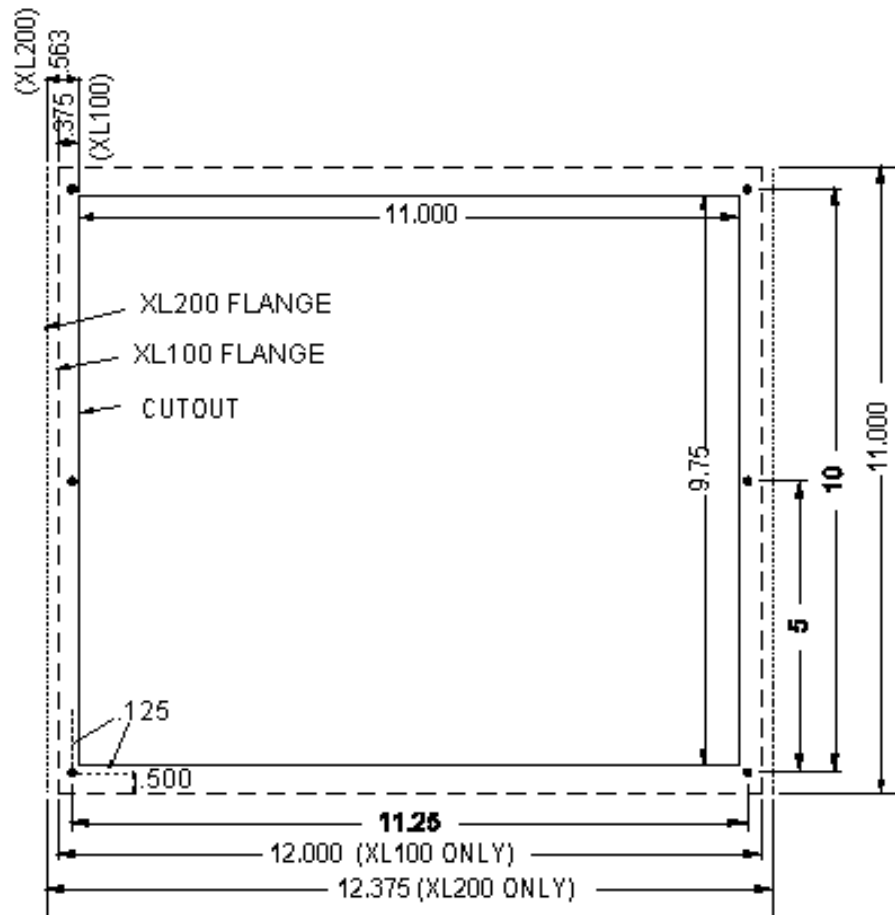8. Exp. Gag Board option will only be available on model XL212CL.

**XL200 KEY NAME**   **KEY FUNCTION**

- F1   NEXT LINE
- F2   SKIP LINE
- F3   ADD LINE
- F4   DELETE LINE
- F5   PRINT
- F6   DECREASE QUANTITY
- DIAGNOSTICS   NO FUNCTION DEFINED
- INC. QUANTITY   INCREASE QUANTITY
- PRODUCTION DATA   FOOTAGE TOTALIZER
- INS   PICK

Note: Function keys designated above are for the version 1 series of the XL200 controllers. Higher versions will have different functions for the keys.
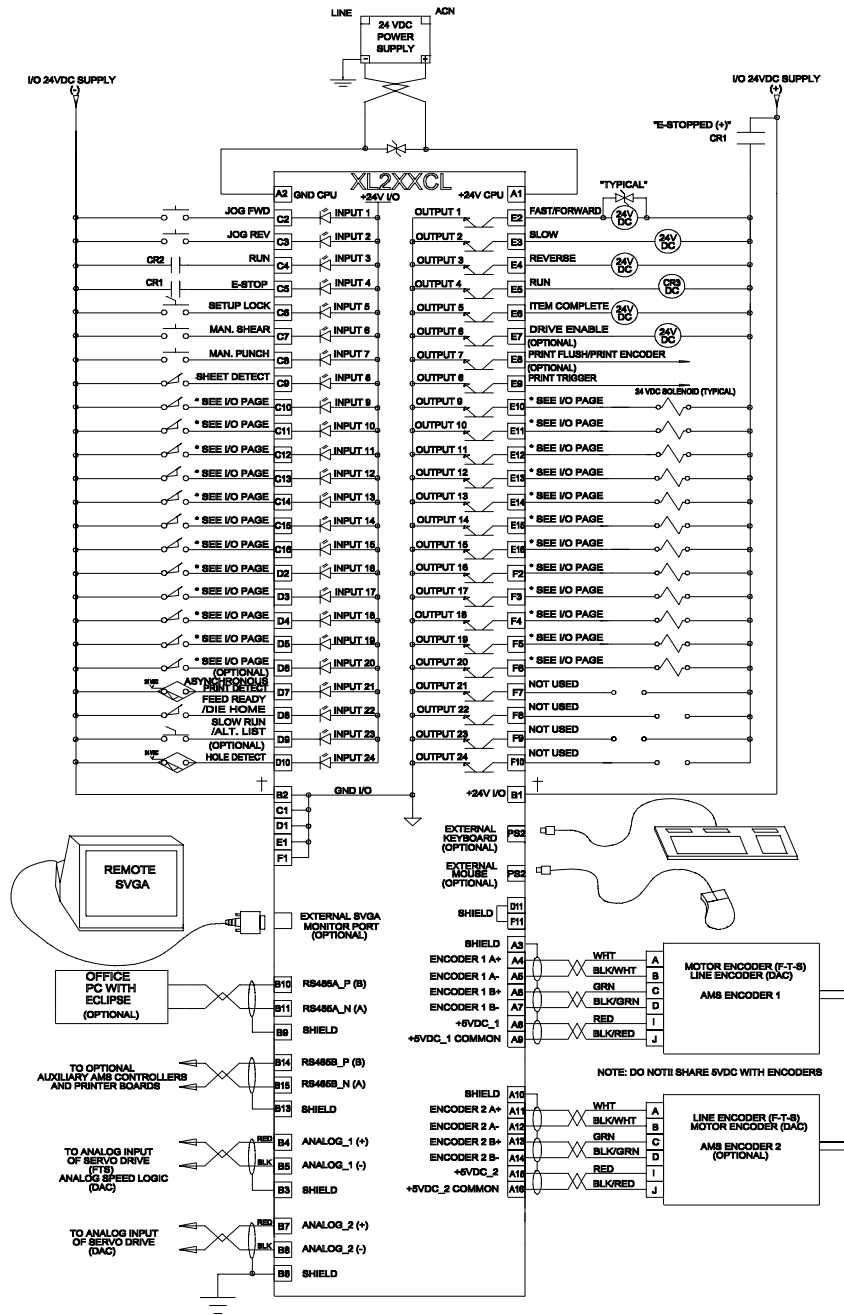
CUTOUT MOUNTING DIMENSIONS
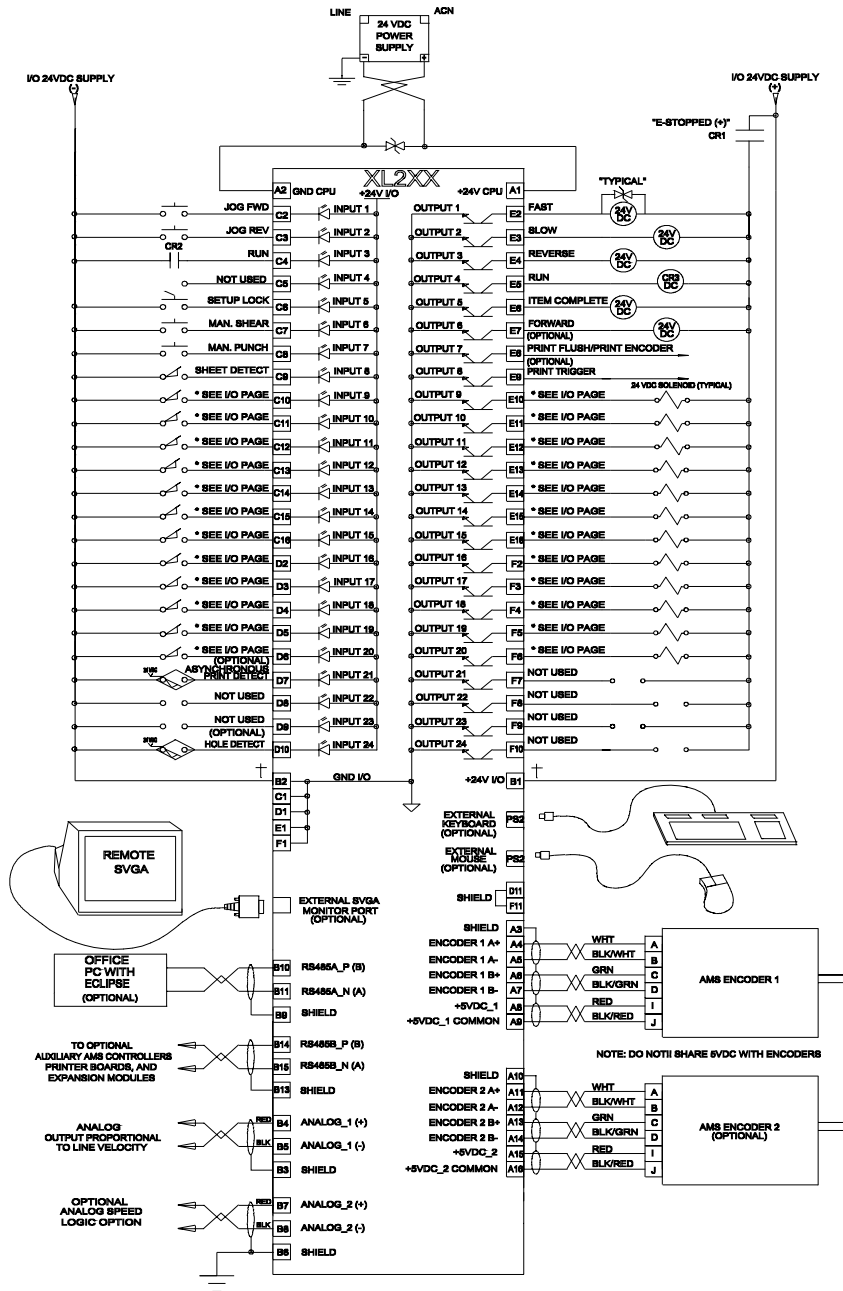
Note: AMS provides this drawing for illustration purposes only. It is not to be taken as a literal example for wiring your machine. Each machine is different, having its own safety considerations. The customer is responsible for the installation of adequate emergency stop circuitry, safety guards and enclosing all equipment potentially hazardous to personnel.

CLOSED LOOP SCHEMATIC

Note: AMS provides this drawing for illustration purposes only. It is not to be taken as a literal example for wiring your machine. Each machine is different, having its own safety considerations. The customer is responsible for the installation of adequate emergency stop circuitry, safety guards and enclosing all equipment potentially hazardous to personnel.