

PLC

**Technical Reference Guide
Modbus for Technicians**

Technician Guide to Modbus

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Siemens

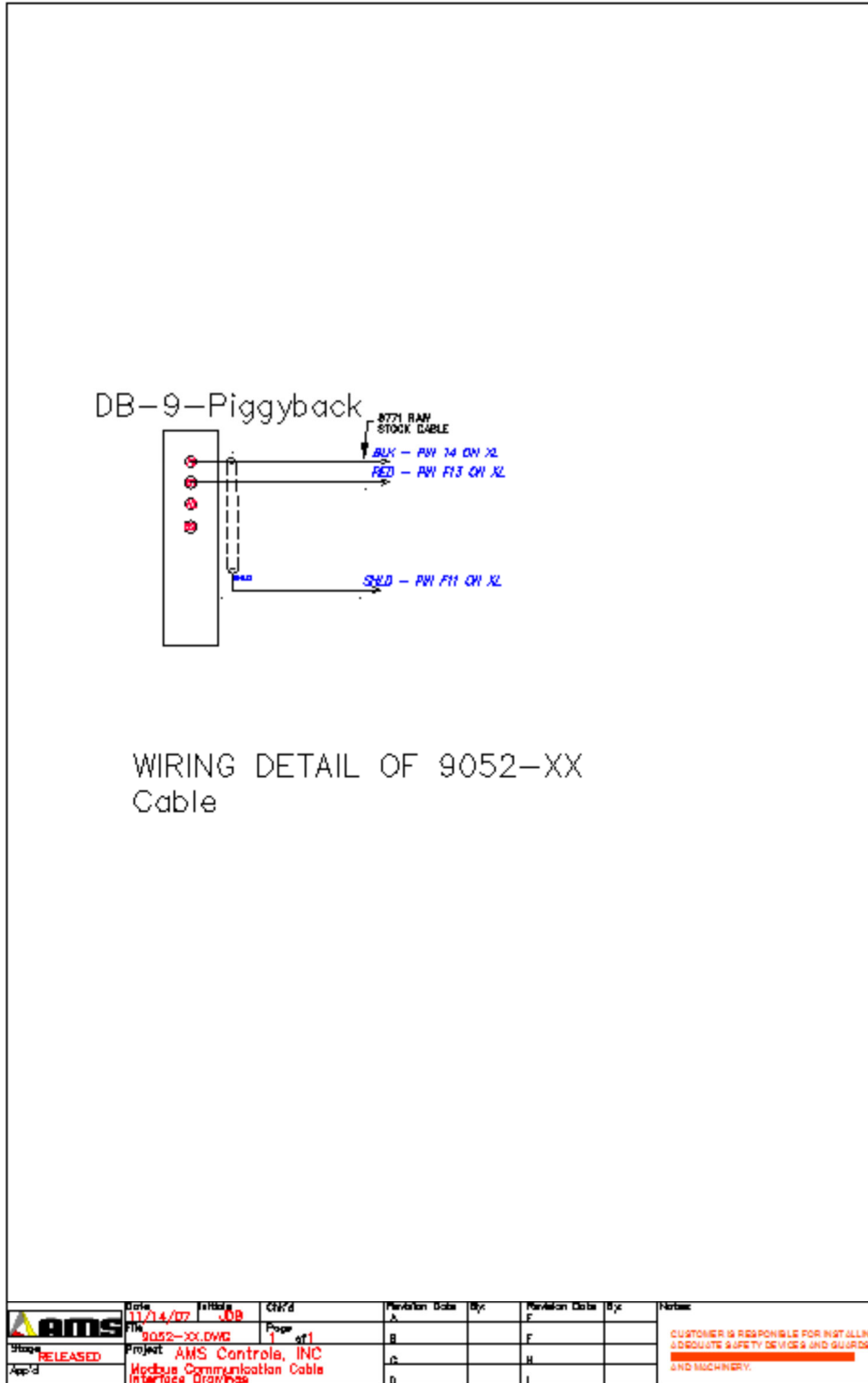
S7-226 Series

- a. List of Processors
 - ✓ S7-226 – Siemens P/N 6ES7 216-2BD23-0XB0
- b. Cable for connecting PLC to the XL200 Series Controller
 - ✓ 9052-xx (xx=length of cable)
 - ✓ Modbus port on Siemens processor is Port 0



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c. Cable Pin-out



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d. PLC Communication configuration

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8:59 AM			

Model: XL200CLI		Created: 0/00/0012:00 AM Switch: 0		Version: 3.29.00	
Setup Menu		ID	Name	Value	
+ Machine Parameters		675	PLC Unit ID	1	
- Tool Data		676	PLC Baud Rate	38400	
- Trim Correction		677	PLC Parity	None	
- Controller Settings		679	PLC Stop Bits	2	
- Clock / Calendar		678	Configuration Register Address	0	
- Network Settings		680	PLC Powerup Delay	1sec	
- PLC Communication					
- Operator Preferences					
- License					
- QuickSet Data					

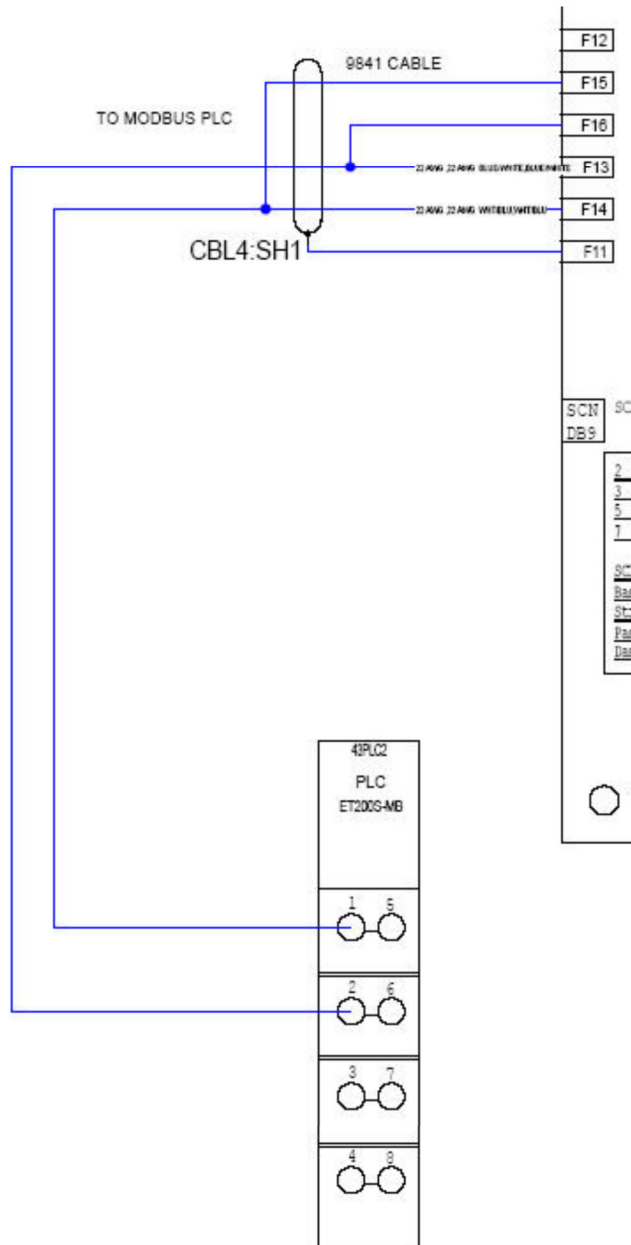
Message Not Found in List.

SetUp F1-Next Window

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S7-300 Series

- a. List of Processors
 - ✓ ET200S
- b. Cable for connecting PLC to the XL200 Series Controller
 - ✓ 9841 Raw Stock Cable
 - ✓ Connects directly to pins on ET200S-MB Card
- c. Cable Pin-out



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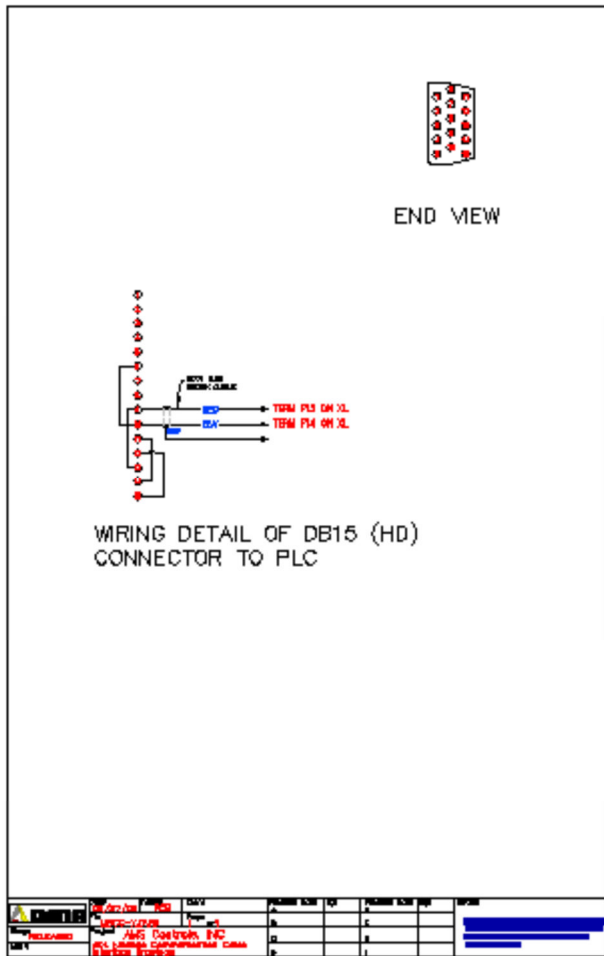
d. PLC Communication configuration

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Setup Menu <input checked="" type="checkbox"/> Machine Parameters Tool Data Trim Correction <input type="checkbox"/> Controller Settings Clock / Calendar Network Settings PLC Communication Operator Preferences License QuickSet Data	<table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>675</td> <td>PLC Unit ID</td> <td>1</td> </tr> <tr> <td>676</td> <td>PLC Baud Rate</td> <td>38400</td> </tr> <tr> <td>677</td> <td>PLC Parity</td> <td>None</td> </tr> <tr> <td>679</td> <td>PLC Stop Bits</td> <td>2</td> </tr> <tr> <td>678</td> <td>Configuration Register Address</td> <td>0</td> </tr> <tr> <td>680</td> <td>PLC Powerup Delay</td> <td>25sec</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ID	Name	Value	675	PLC Unit ID	1	676	PLC Baud Rate	38400	677	PLC Parity	None	679	PLC Stop Bits	2	678	Configuration Register Address	0	680	PLC Powerup Delay	25sec													<p>A time in seconds, that the controller will wait, for a connected PLC to power up before attempting to communicate with it.</p>	
ID	Name	Value																																		
675	PLC Unit ID	1																																		
676	PLC Baud Rate	38400																																		
677	PLC Parity	None																																		
679	PLC Stop Bits	2																																		
678	Configuration Register Address	0																																		
680	PLC Powerup Delay	25sec																																		
SetUp F1-Next Window																																				

Automation Direct

D0-06

- a. List of Processors
 - ✓ D0-06DR-D
 - ✓ D0-06DD2
- b. Cable for connecting PLC to the XL200 Series Controller
 - ✓ MBCC-xx (xx=Length of Cable)
- c. Cable Pin-Out



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d. PLC Communication configuration

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11:32 AM			
Model: XL200CLI		Created: 0/00/0012:00 AM Switch: 0	Version: 3.29.00
Setup Menu	ID	Name	Value
+ Machine Parameters	675	PLC Unit ID	1
Tool Data	676	PLC Baud Rate	19200
Trim Correction	677	PLC Parity	None
- Controller Settings	679	PLC Stop Bits	1
Clock / Calendar	678	Configuration Register Address	640
Network Settings	680	PLC Powerup Delay	1sec
PLC Communication			
Operator Preferences			
License			
QuickSet Data			

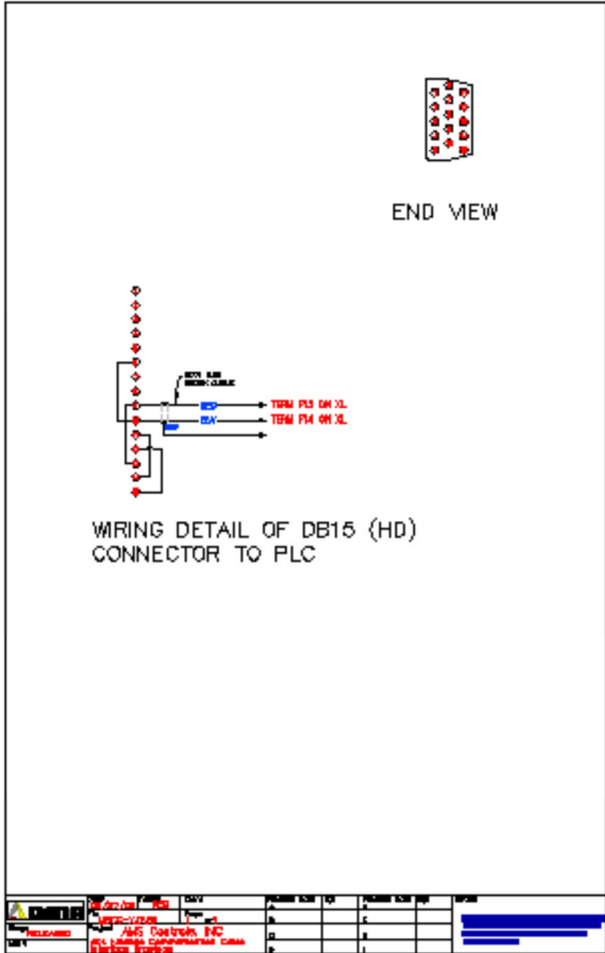
A time in seconds, that the controller will wait, for a connected PLC to power up before attempting to communicate with it.

SetUp F1-Next Window

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DL-200 Series

- a. List of Processors
 - ✓ DL-260
- b. Cable for connecting PLC to the XL200 Series Controller
 - ✓ MBCC-xx (xx=Length of Cable)
- c. Cable Pin-Out



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d. PLC Communication configuration

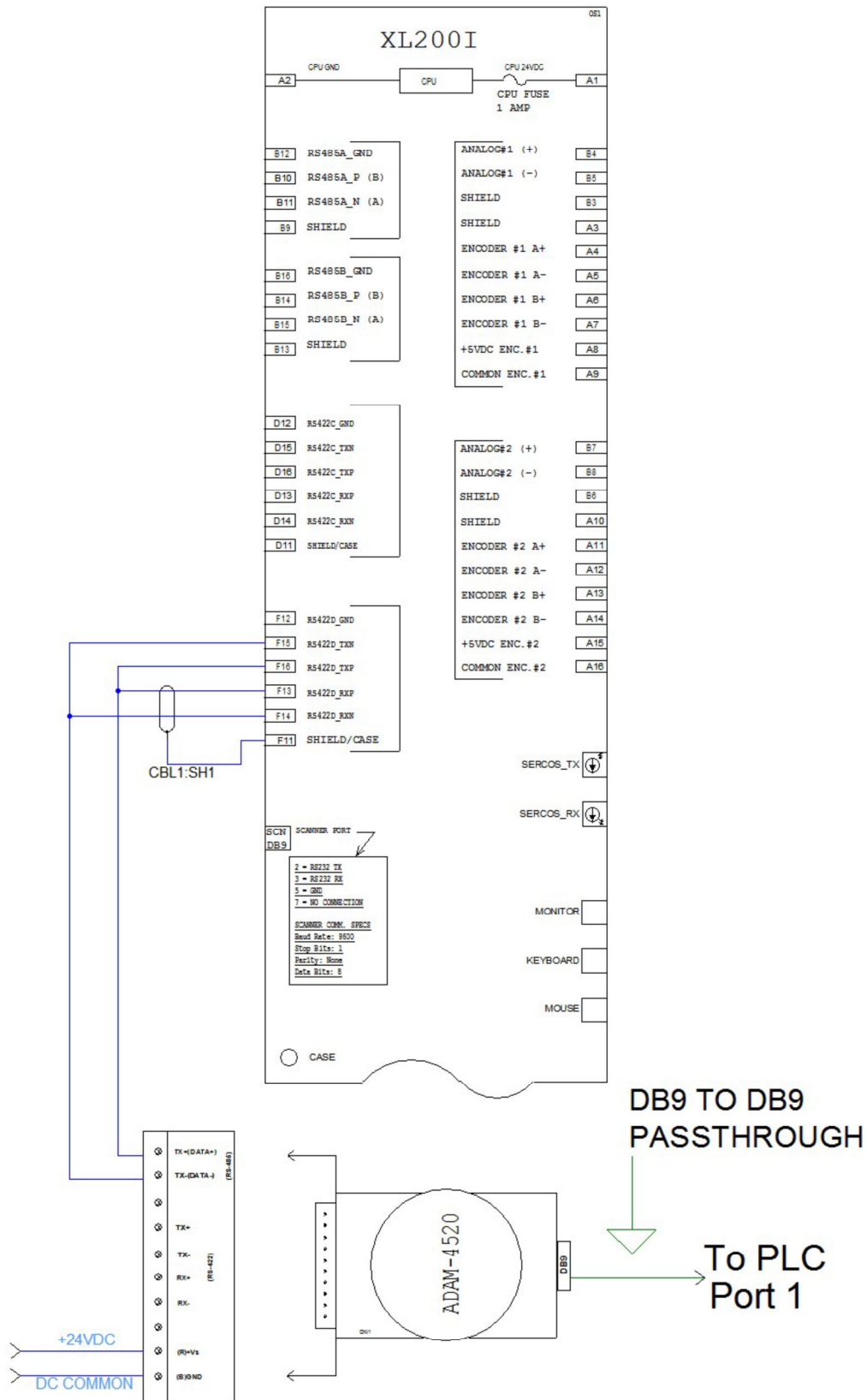
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12:24 PM																																										
Model: XL200CLI		Created: 0/00/0012:00 AM	Switch: 0	Version: 3.29.00																																						
Setup Menu <input checked="" type="checkbox"/> Machine Parameters Tool Data Trim Correction <input checked="" type="checkbox"/> Controller Settings Clock / Calendar Network Settings PLC Communication Operator Preferences License QuickSet Data		<table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>675</td> <td>PLC Unit ID</td> <td>1</td> </tr> <tr> <td>676</td> <td>PLC Baud Rate</td> <td>38400</td> </tr> <tr> <td>677</td> <td>PLC Parity</td> <td>None</td> </tr> <tr> <td>679</td> <td>PLC Stop Bits</td> <td>1</td> </tr> <tr> <td>678</td> <td>Configuration Register Address</td> <td>768</td> </tr> <tr> <td>680</td> <td>PLC Powerup Delay</td> <td>1sec</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ID	Name	Value	675	PLC Unit ID	1	676	PLC Baud Rate	38400	677	PLC Parity	None	679	PLC Stop Bits	1	678	Configuration Register Address	768	680	PLC Powerup Delay	1sec																			
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679	PLC Stop Bits	1																																								
678	Configuration Register Address	768																																								
680	PLC Powerup Delay	1sec																																								
<p>Lists all parameters that are used to configure the MODBUS communications port. This port is typically used to communicate with a PLC on a MODBUS network.</p>																																										
SetUp F1-Next Window																																										

Allen Bradley

Micrologix Series

- a. List of Processors
 - ✓ ML1500
 - ✓ ML1400
- b. Connecting PLC to the XL200 Series Controller
 - ✓ Adam 4520 RS485 to RS232 Serial Converter
 - ✓ Standard Serial Cable (Not Null)
 - ✓ 9841 Raw Stock Cable
- c. Connection Diagram

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d. PLC Communication configuration

1/10/08	HALTED	0FPM	0.000"
4:46 PM			

Model: XL200CLI		Created: 0/00/0012:00 AM	Switch: 0	Version: 3.29.00
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Setup Menu	ID	Name	Value
+ Machine Parameters	675	PLC Unit ID	1
Tool Data	676	PLC Baud Rate	38400
Trim Correction	677	PLC Parity	None
+ Controller Settings	679	PLC Stop Bits	1
Clock / Calendar	678	Configuration Register Address	0
Network Settings	680	PLC Powerup Delay	1sec
PLC Communication			
Operator Preferences			
License			
QuickSet Data			

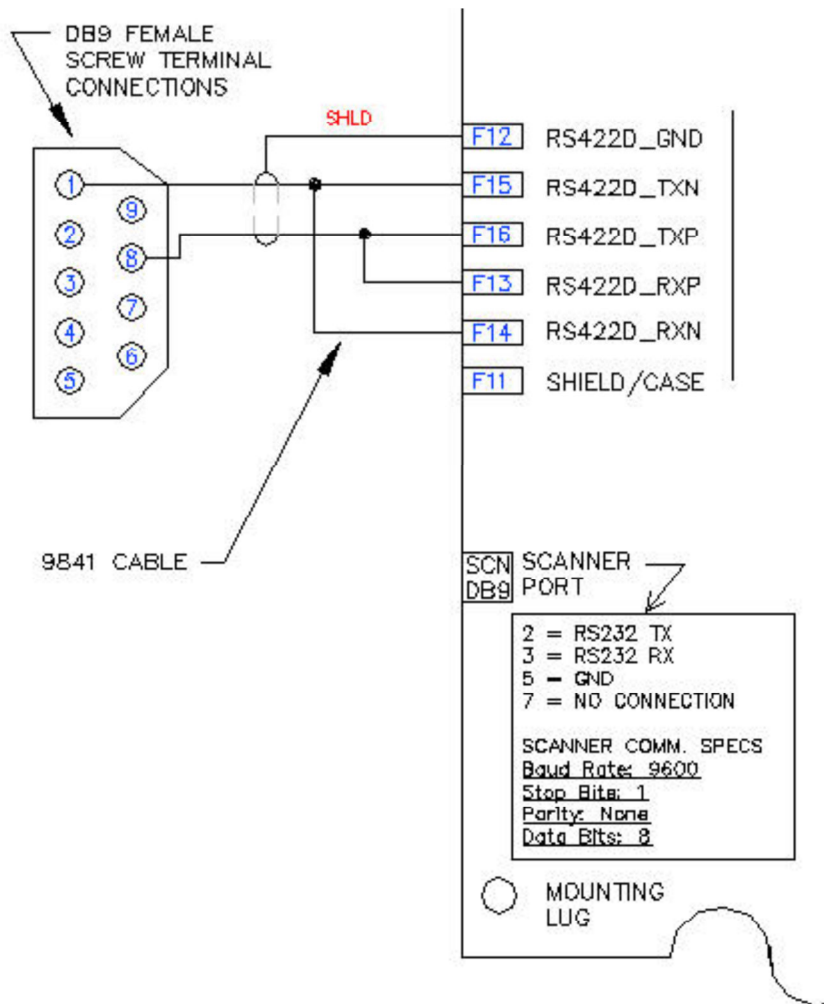
A time in seconds, that the controller will wait, for a connected PLC to power up before attempting to communicate with it.

SetUp F1-Next Window

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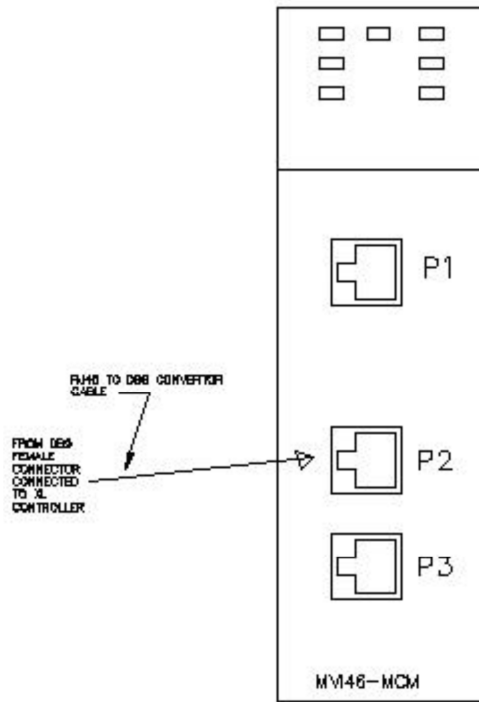
SLC-500 Series

- a. List of Processors
 - ✓ 1747-5/01
 - ✓ 1747-5/02
 - ✓ 1747-5/03
 - ✓ 1747-5/04
 - ✓ 1747-5/05
- b. Connecting PLC to the XL200 Series Controller
 - ✓ MVI46-MCM – Prosoft Modbus Module
 - ✓ DB9-Male Screw Terminal
 - ✓ 9841 Raw Stock Cable
- c. Connection Diagram



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PROSOFT MODBUS
COMMUNICATION ADAPTOR
RACK 0 - SLOT 9



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d. PLC Communication configuration

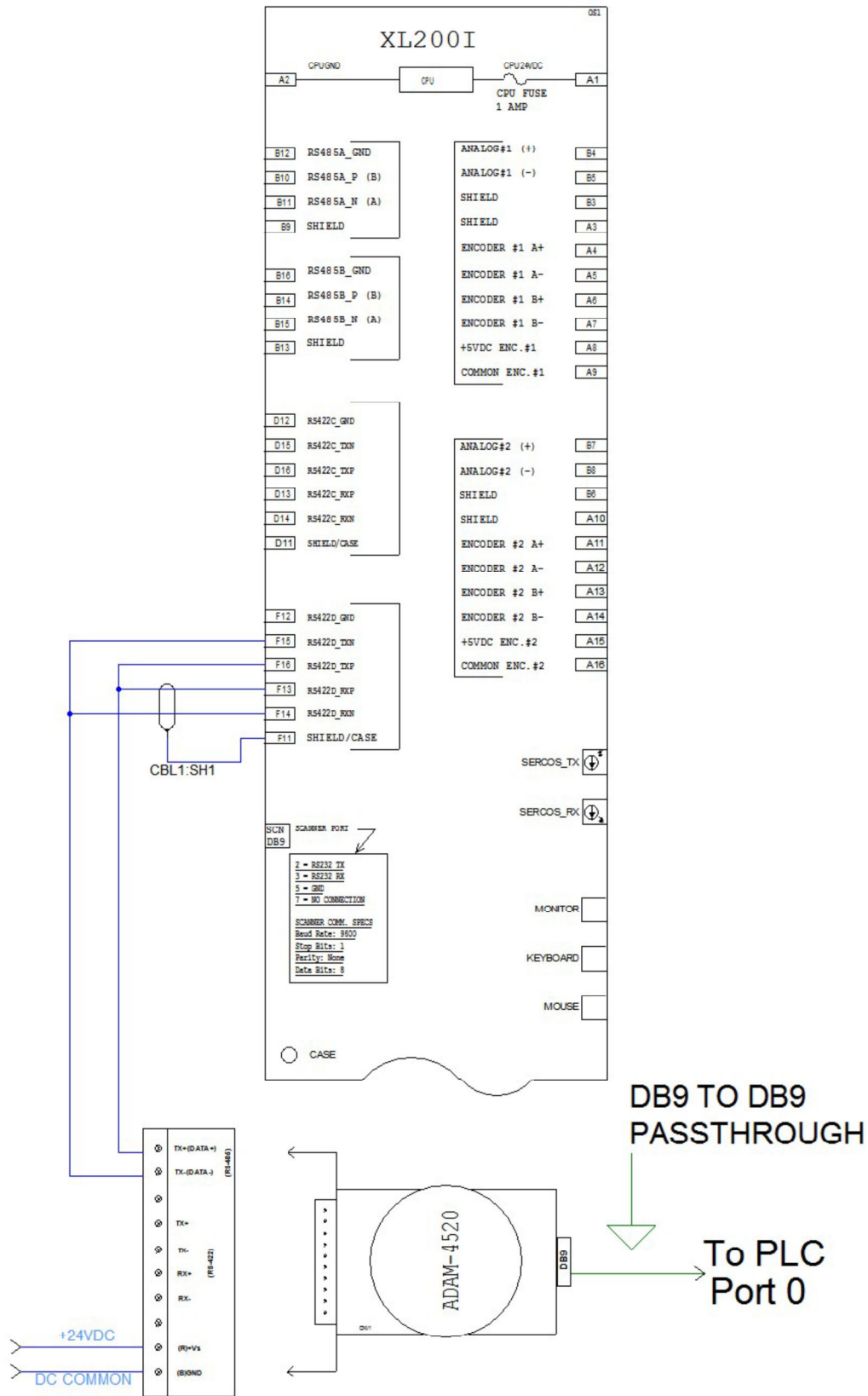
1/10/08	HALTED	0FPM	0.000"
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Model: XL200CLI Created: 0/00/0012:00 AM Switch: 0 Version: 3.29.00			
Setup Menu	ID	Name	Value
+ Machine Parameters	675	PLC Unit ID	1
Tool Data	676	PLC Baud Rate	19200
Trim Correction	677	PLC Parity	None
+ Controller Settings	679	PLC Stop Bits	1
Clock / Calendar	678	Configuration Register Address	0
Network Settings	680	PLC Powerup Delay	1sec
PLC Communication			
Operator Preferences			
License			
QuickSet Data			
A time in seconds, that the controller will wait, for a connected PLC to power up before attempting to communicate with it.			
Setup	F1-Next Window		

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Compact Logix

- a. List of Processors
 - ✓ 1769-L32E
- b. Connecting PLC to the XL200 Series Controller
 - ✓ Adam 4520 RS485 to RS232 Serial Converter
 - ✓ Standard Serial Cable (Not Null)
 - ✓ 9841 Raw Stock Cable
- c. Connection Diagram

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d. PLC Communication configuration

1/10/08	HALTED	0FPM	0.000"
4:46 PM			
Model: XL200CLI Created: 0/00/0012:00 AM Switch: 0 Version: 3.29.00			
Setup Menu	ID	Name	Value
+ Machine Parameters	675	PLC Unit ID	1
Tool Data	676	PLC Baud Rate	38400
Trim Correction	677	PLC Parity	None
+ Controller Settings	679	PLC Stop Bits	1
Clock / Calendar	678	Configuration Register Address	0
Network Settings	680	PLC Powerup Delay	1sec
PLC Communication			
Operator Preferences			
License			
QuickSet Data			
A time in seconds, that the controller will wait, for a connected PLC to power up before attempting to communicate with it.			
Setup	F1-Next Window		