
	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

This procedure is applicable to below models:

Machine Model	Server Option		
	S1	S2	S3
V810 / V810i STD			
V810 / V810i XXL			
V810 / V810i S2EX		√	√
V810 / V810i Mini			


REVISION HISTORY

Rev	Effective Date	Description	Doc Originator
00	1 Apr 2018	First Release	Tan Liang Kai

	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

Content

RMS PC Motion profile backup.....	3
Filter Height Motor Config & Z-axis Motor Config backup.....	4
MEI card Transfer.....	5
V810 Atom PC Setting Configuration.....	7
IP configuration.....	11
IP Configuration for V810 Series 1.....	12
IP Configuration for V810 Series 2.....	12
Software Installation.....	13
Clear Path Motor (Z Motor) Application Installation.....	18
USB Driver Installation (Only perform when ClearPath Motor is undetectable).....	20
Filter Height Motor Application Installation.....	22

	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

RMS PC Motion profile backup

1. Launch Remote Desktop application at Master Computer (Below is the sample login into Atom PC) with refer to Table 1. Security certification window will prompt, click “Yes” continue remote session.

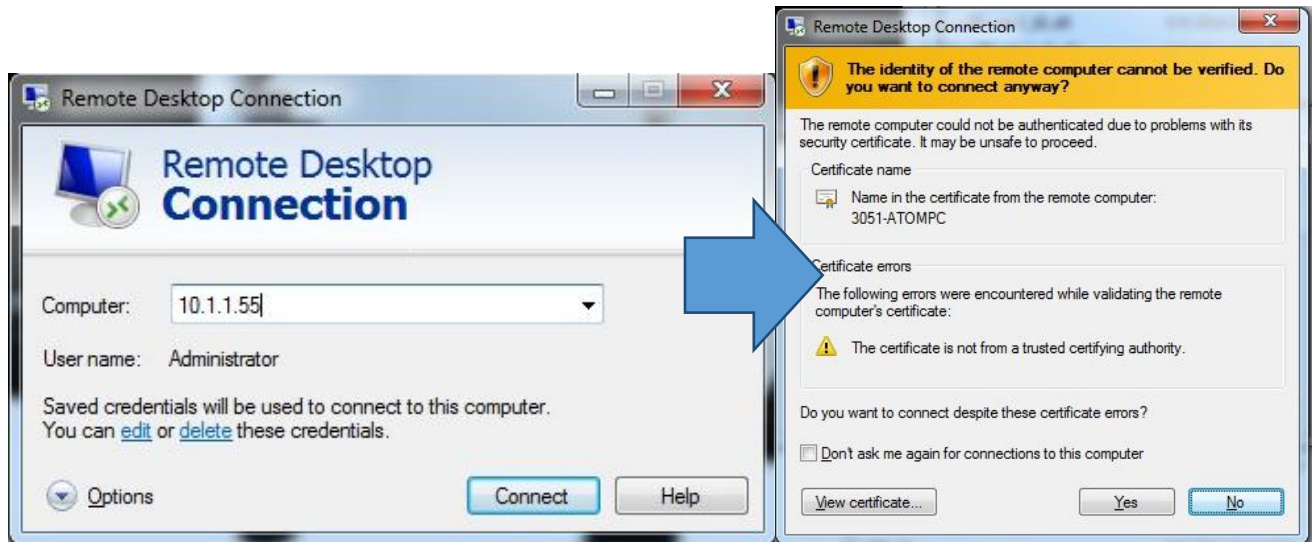


Figure 1 Remote Desktop Connection


Series Type	Computer Devices	IP Address	User Account	Password
Series 1	Atom PC (RMS)	10.1.1.55	Administrator	Please!
Series 2	Atom PC (RMS)	192.168.128.70		

Table 1 IP list

2. By refer to below table, backup motion control folder.

Model	Path
Std Series One & Series 2	C:\Program Files\AXI System\v810\5.0\config\motioncontrol
XXL Series One & Series 2	C:\Program Files\AXI System\v810\5.0\XXLconfig\motioncontrol
S2EX	C:\Program Files\AXI System\v810\5.0\s2exconfig\motioncontrol

Table 2 Motion control folder access path

	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

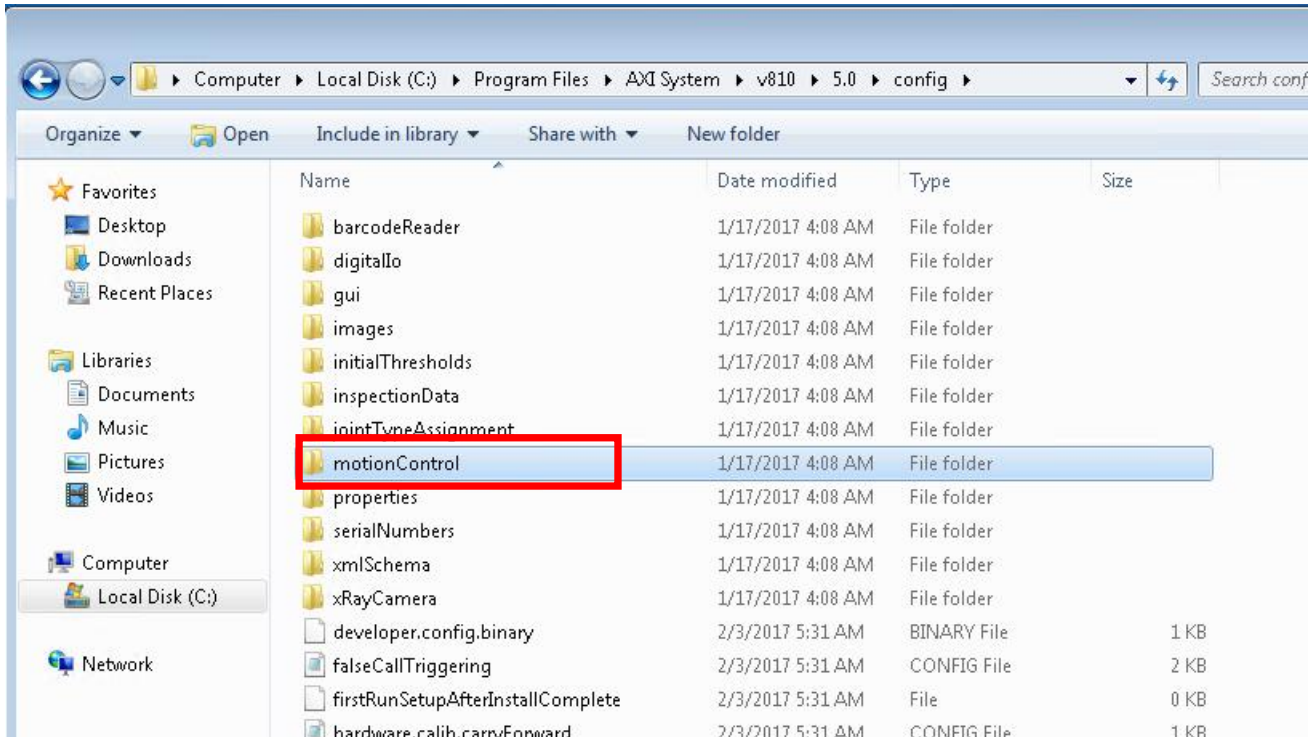


Figure 2 Motion Control folder (Reference only)


Filter Height Motor Config & Z-axis Motor Config backup

1. At Atom PC desktop, backup “Motor Config file” folder.

Remark: Filter Height Motor Config & Z-Axis Motor Config are keep inside Motor Config folder.



Figure 3 Motor Config file folder (Reference only)

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

MEI card Transfer

1. While remote desktop connection at Atom PC, type : “shutdown-s” at search bar as below Figure.

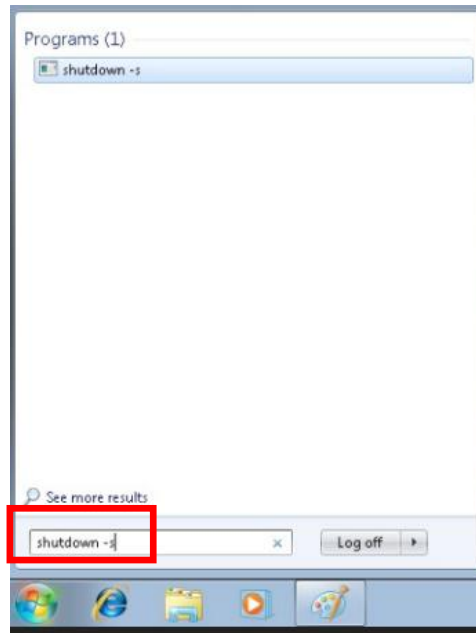


Figure 4 Shutdown Old Atom PC

2. Unplug all cables behind Atom PC. Loosen 2x Screws as below Figure & gently slide the block towards front side. Remove defective Atom PC from the machine.




Figure 5 Atom PC Bracket Removal

3. Unscrew & remove top cover of old Atom PC.



Figure 6 Atom PC

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

4. Transfer the origin MEI Motion Control Card from OLD RMS PC to NEW RMS PC.

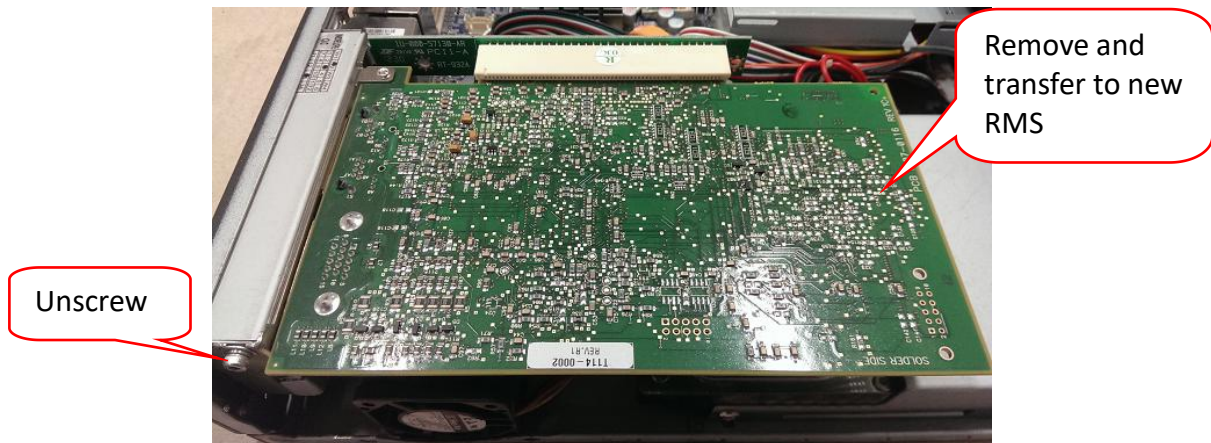


Figure 7 Mei Card removal

5. Connector require to sit firmly during parts assembly.

Remarks : # OLD type RMS PC with Flex cable, NEW type RMS PC with PCIRiser card.

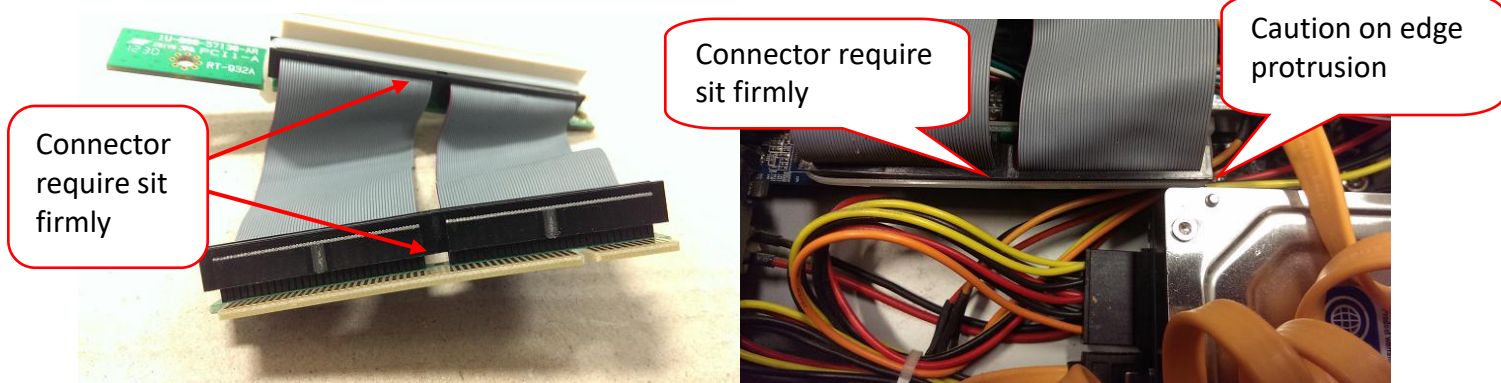


Figure 8 Flex Cable Type

6. Assemble RMS PC to Server Rack and connect as below cables layout. Turn on RMS PC.

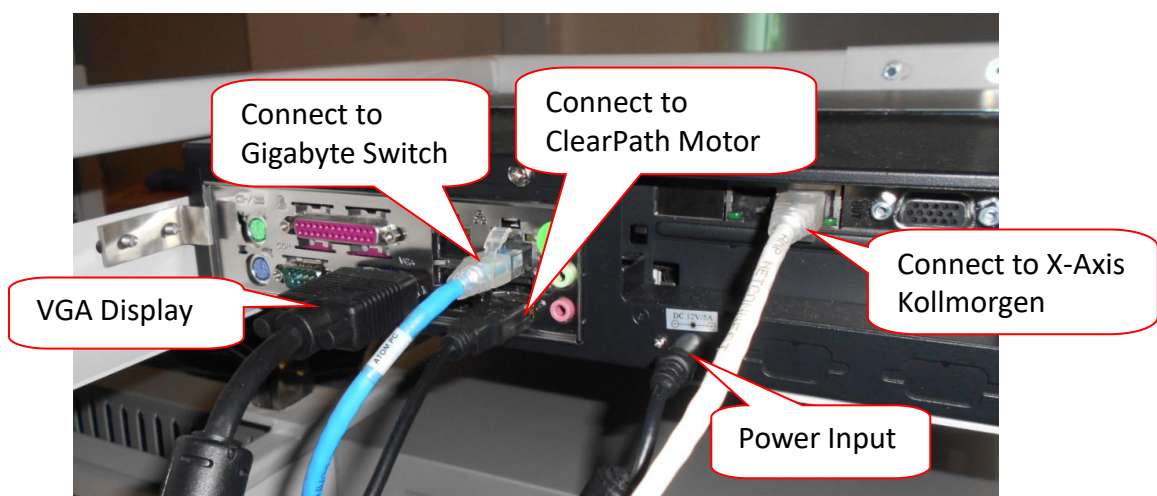



Figure 9 RMS PC (Rear view)

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision 00	
		Effective Date	1 Apr 2018

V810 Atom PC Setting Configuration

New spare will build in with series of offline configuration where may refer to below table.

Configuration list	Status	Remarks
IP Address Configuration	Complete	
Remote Access	Complete	
Username & Password	Complete	
Window Firewall	Complete	
Window Defender	Complete	
Window Update	Complete	
Power Saving	Complete	
RMS Driver (V810 RMS SW)	NO	User will require to perform this task by refer to SW version at master controller

Table 3 Offline Configuration List

Additional info :

RMS PC Window log in,

User account “administrator” and password “Please”

1. Launch Remote Desktop application at Master Computer (Below is the sample login into Atom PC) with refer to Table 2. Security certification window will prompt, click “Yes” continue remote session.

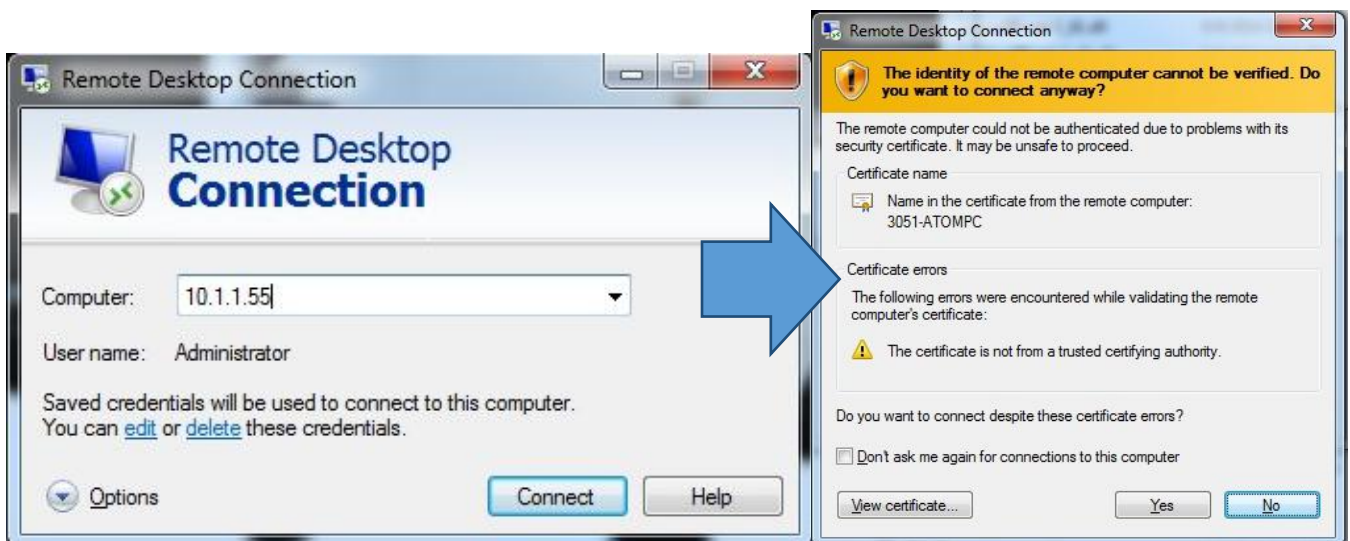



Figure 10 Remote Desktop Connection

Series Type	Computer Devices	IP Address	User Account	Password
Series 1	Atom PC (RMS)	10.1.1.55	Administrator	Please!
Series 2	Atom PC (RMS)	192.168.128.70		

Table 4 IP list

	<p align="center">Work Instruction</p> <p align="center">AXI V810 S2EX RMS PC Replacement Procedure</p>	<p>Doc. Revision 00</p> <p>Effective Date</p>	<p>00</p> <p>1 Apr 2018</p>
--	---	---	---

2. Go to “Control Panel” and view as “Category”, enter to “System and Security” tab as Figure 7.

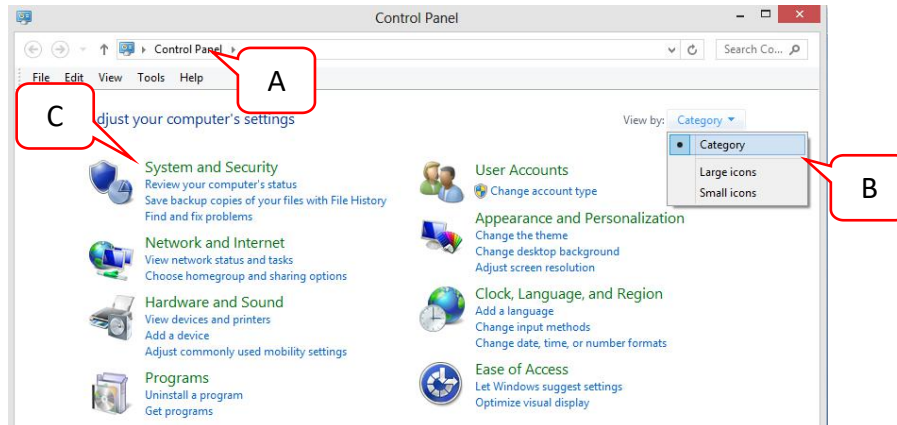


Figure 11 System and Security

3. Go to “Window Firewall” and select “Turn Window Firewall on or off” at left panel as Figure 8.

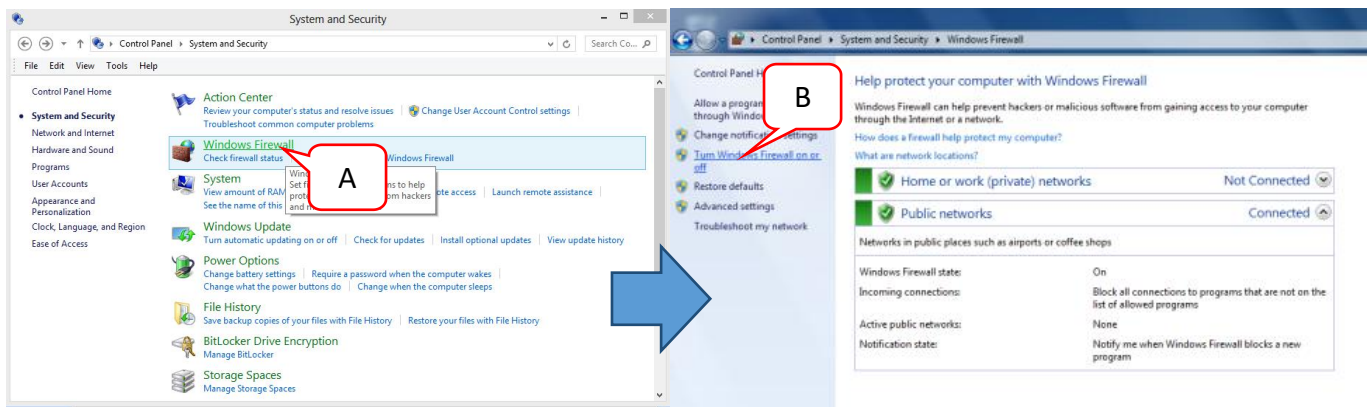


Figure 12 Window firewall

4. Select “Turn off Window Firewall” for “Home or work (private) and Public Network setting”. Click “OK” once done set as Figure 9.

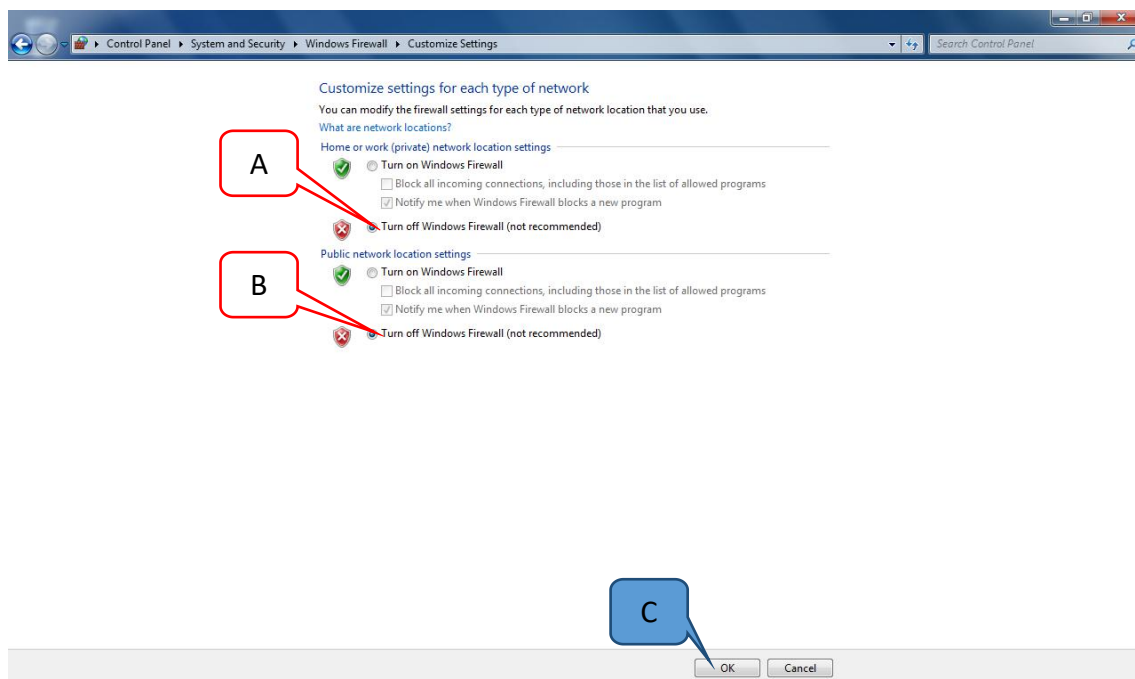



Figure 13 Window firewall

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

5. Return to “System and Security” tab and select “Allow Remote Access” at “System” tab. At the Remote Desktop, select “Allow connection from computers running any version of Remote Desktop (less secure)” and click ok as Figure 10.

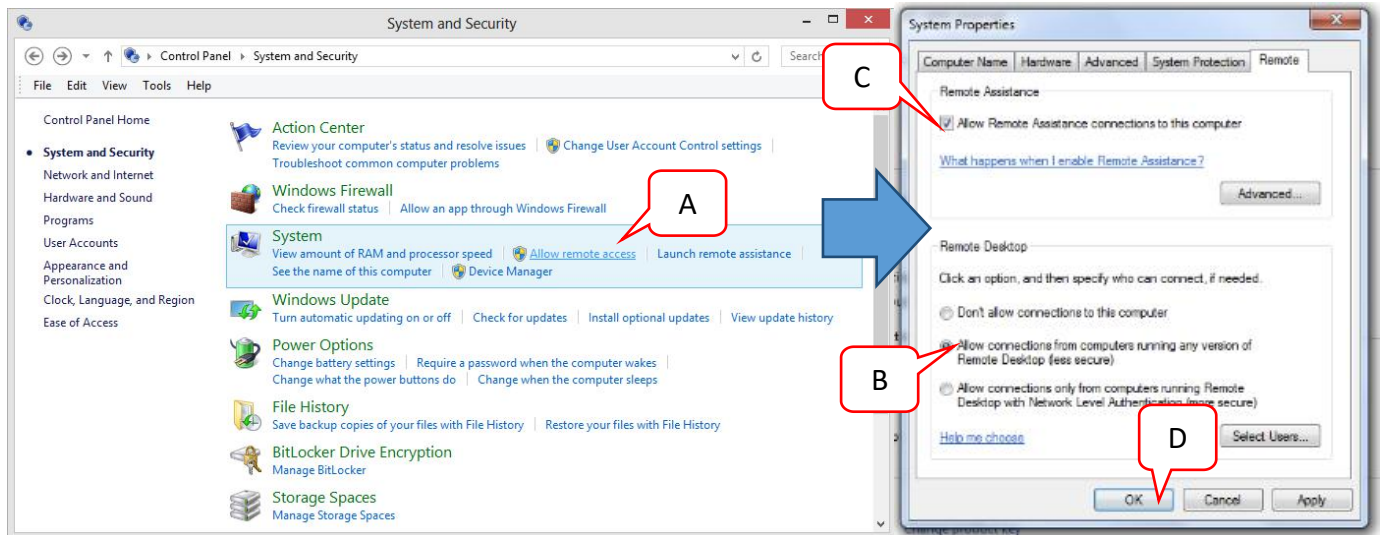


Figure 14 System Properties

6. Return to “System and Security” tab and select “Turn automatic updating on or off” at “Windows Update” tab. At the Important updates tab, select the “Never check for updates (not recommended)” as Figure 11.

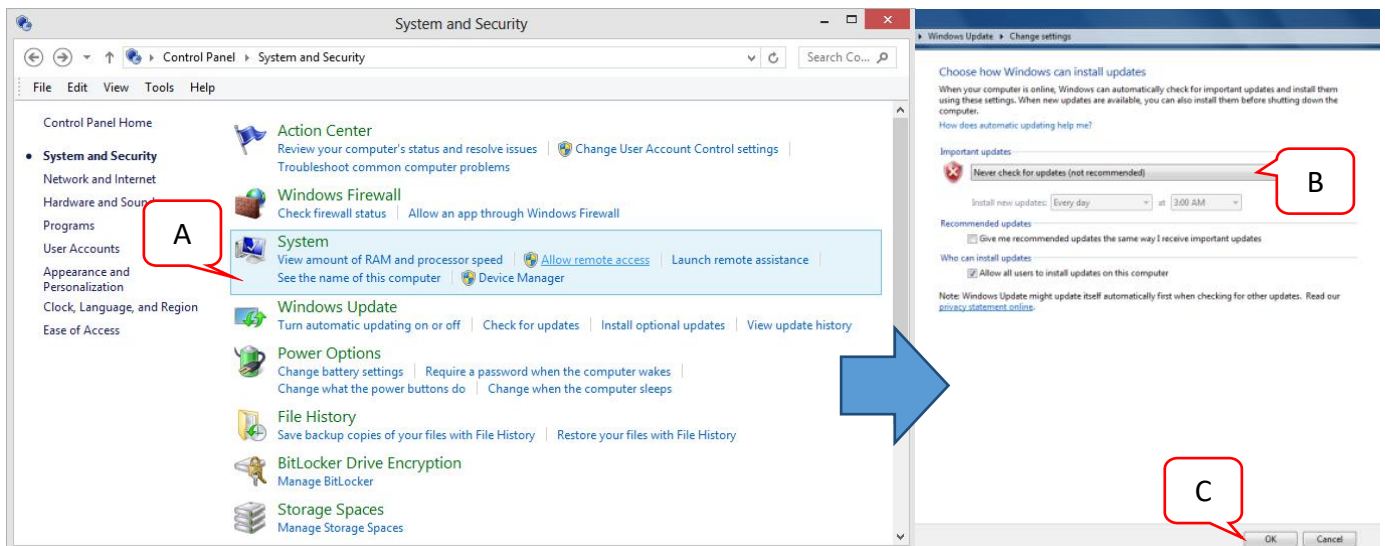



Figure 15 Window update

	<p align="center">Work Instruction</p> <p align="center">AXI V810 S2EX RMS PC Replacement Procedure</p>	<p>Doc. Revision 00</p> <p>Effective Date</p>	<p>00</p> <p>1 Apr 2018</p>
--	---	---	---

7. Return to “System and Security” tab and enter to “Power Option” tab. Select “Never” for “Turn off the display” and “Put the computer to sleep” and click “Save changes” as Figure 12.

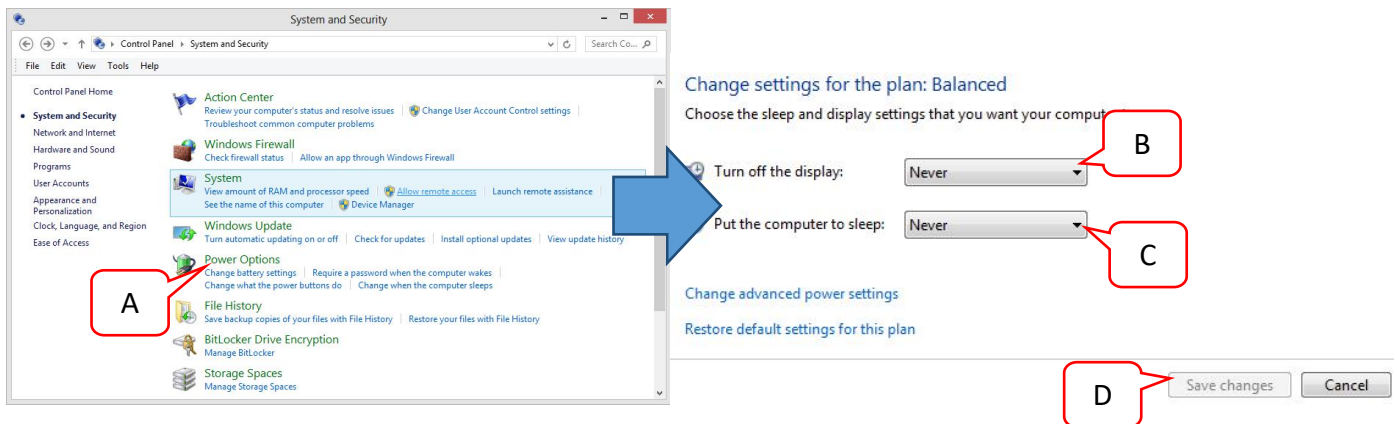


Figure 16 Power Option

8. At the “Power Option” tab, enter to “Change advance power setting”.

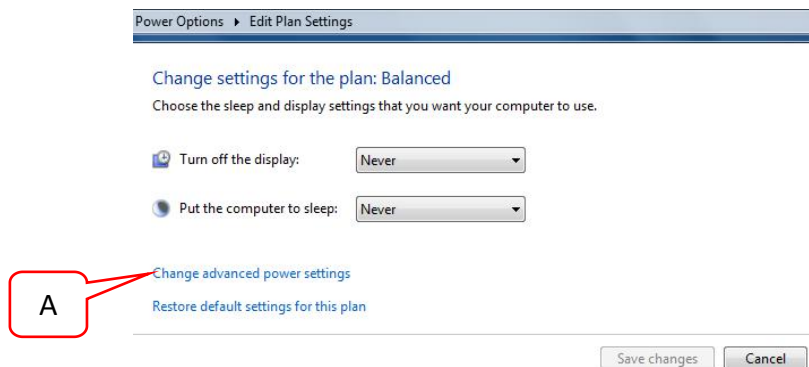


Figure 17 Power Option

9. Expand the “Hard disc” tab and set the “Turn off hard disk after” to “0”. Then go to “Sleep” and expand, set the “Sleep after” to “0” and “Hibernate after” to “Never” as Figure 12. Click “Ok” once set-up complete.

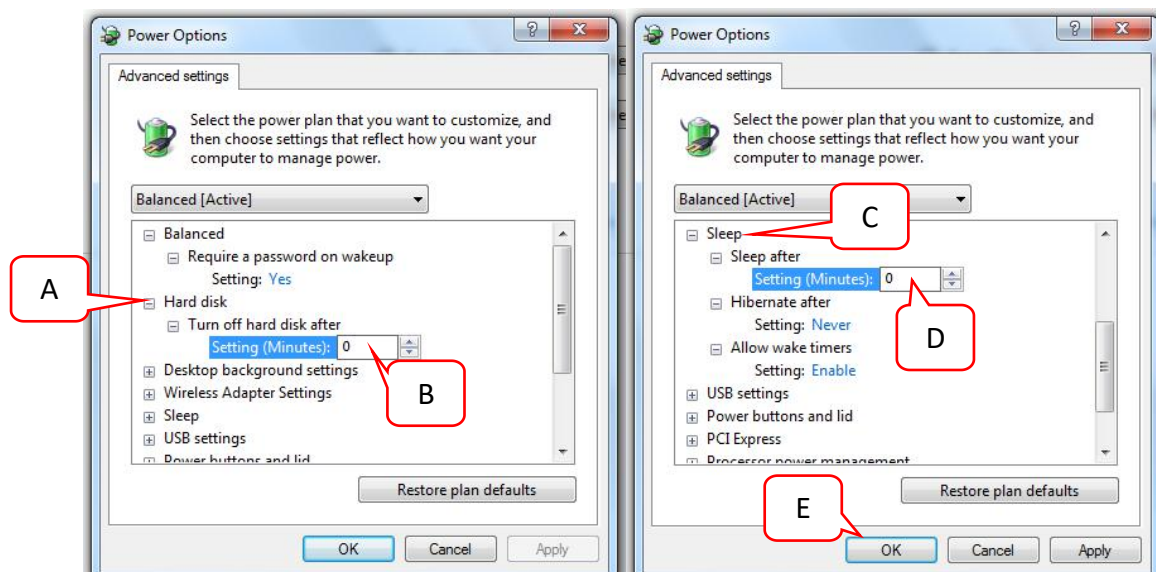



Figure 18 Power Option

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

IP configuration

- V810 Series 1 (Dell Master Controller), connect the LAN cables (from Master Controller) at Port 1 (Left).
- V810 Series 2 (Super Micro Server), connect the LAN cables (from Cisco Gigabit Switch) at Port 2 (Right).

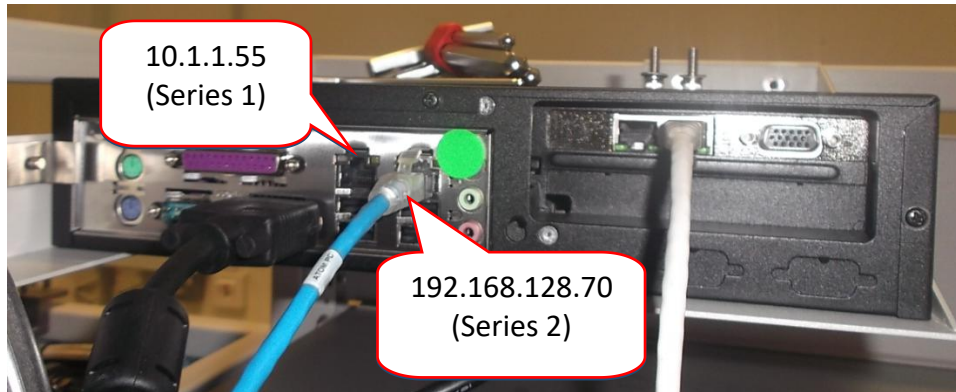


Figure 19 RMS PC(Rear view)

1. Go to Control Panel, at the “Network and Internet” tab, select the “View network status and tasks”, click Enter then select “Change adapter setting” as Figure 16.

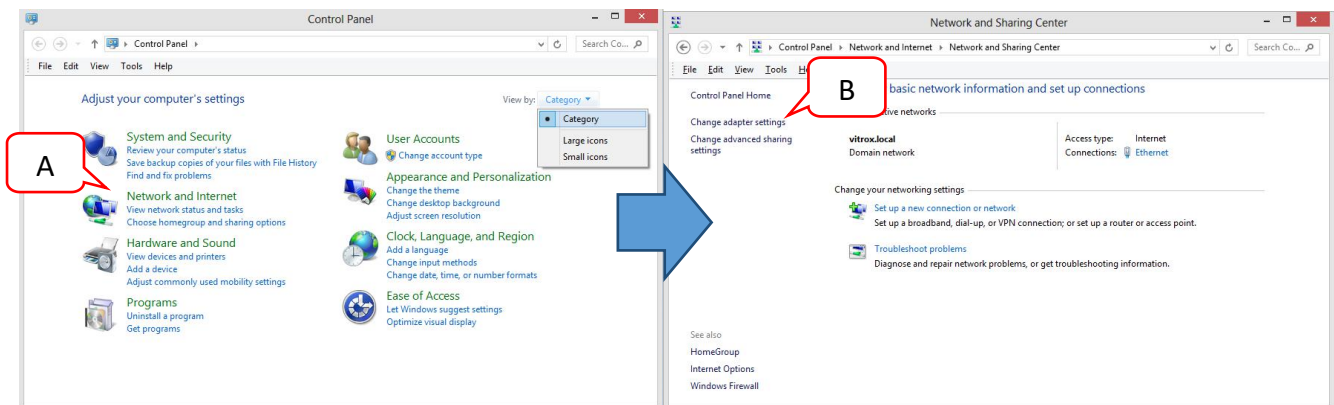


Figure 20 Network Adapter

2. The connect LAN port will show as logo below. Select and right click on “Properties”.

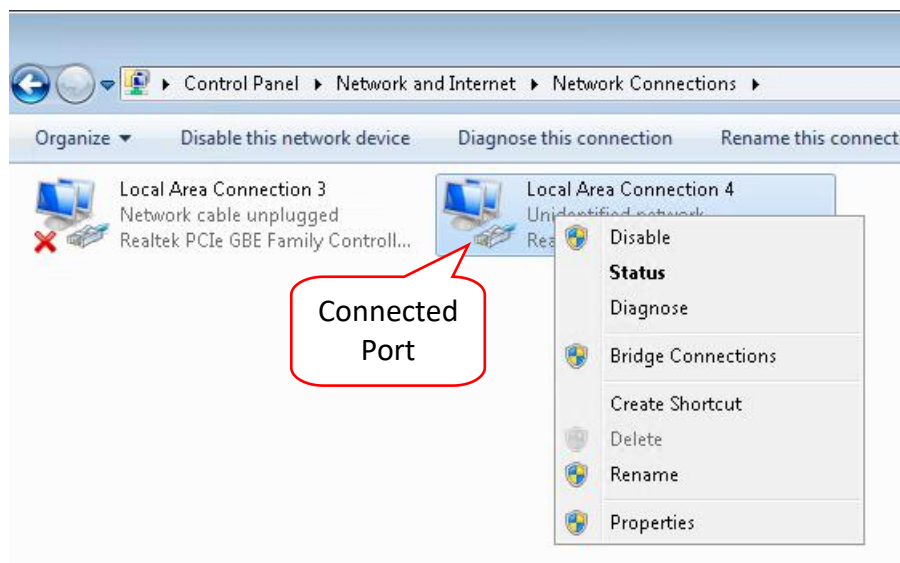



Figure 21 Local area connection

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

IP Configuration for V810 Series 1

For V810 Series 1, set the Ethernet configuration as Figure 18.

- IP Address; 10.1.1.55; Subnet mask; 255.0.0.0; Default gateway; 10.1.1.254

Uncheck IPV6.

Configure IPV4 Only.

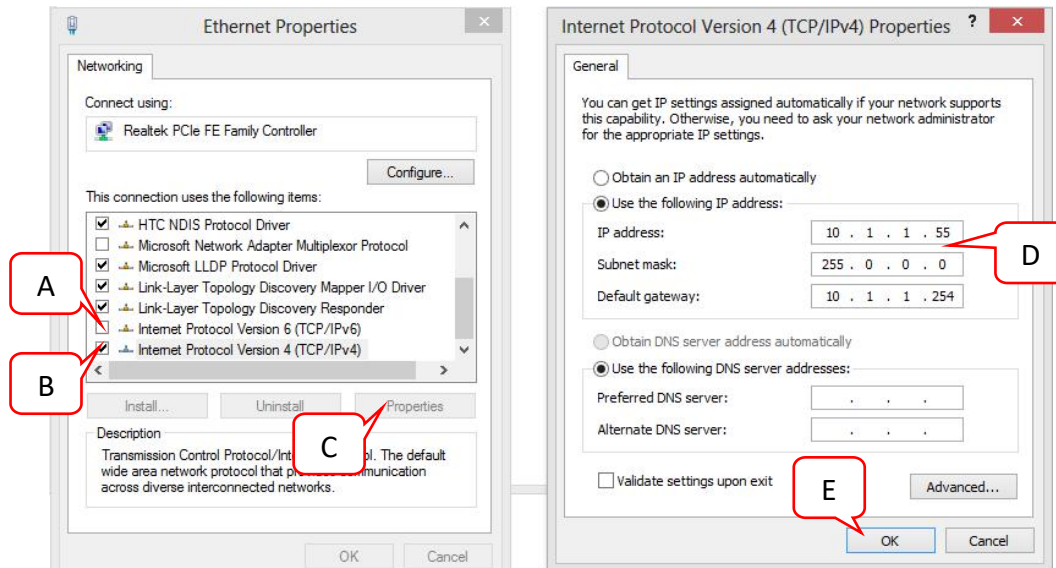


Figure 22 (Only for V810 Series 1)

IP Configuration for V810 Series 2

For V810 Series 2, set the Ethernet configuration as Figure 19.

- IP Address; 192.168.128.70; Subnet mask; 255.255.255.0;

Uncheck IPV6.

Configure IPV4 Only

Leave the Default Gateway as blank

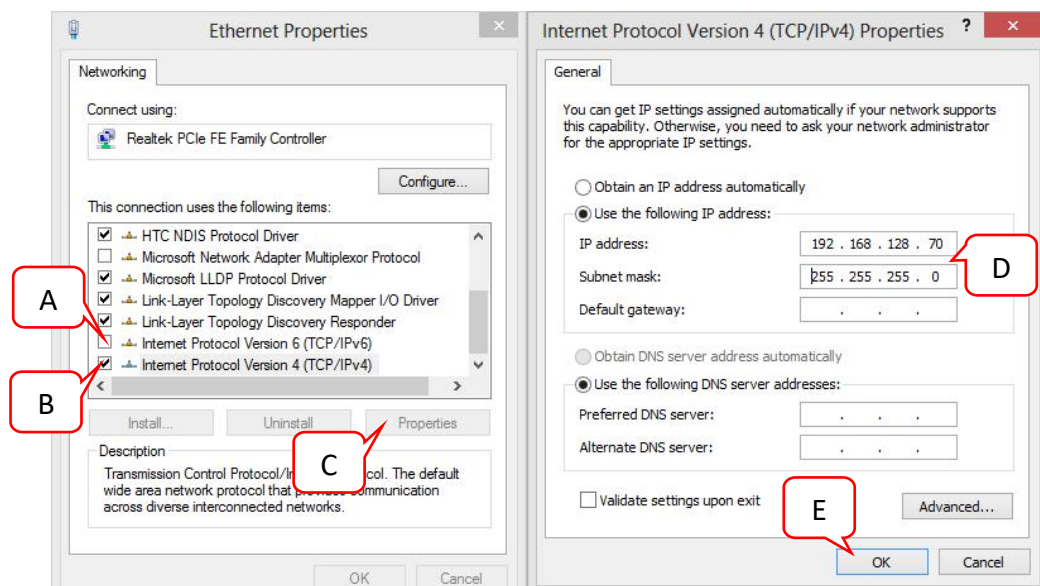



Figure 23 (Only for V810 Series 2)

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision	00
		Effective Date	1 Apr 2018

Software Installation

1. Open V810 GUI at Main Controller (Dell or Super Micro Server) and check the current machine running software version at “Main” page.

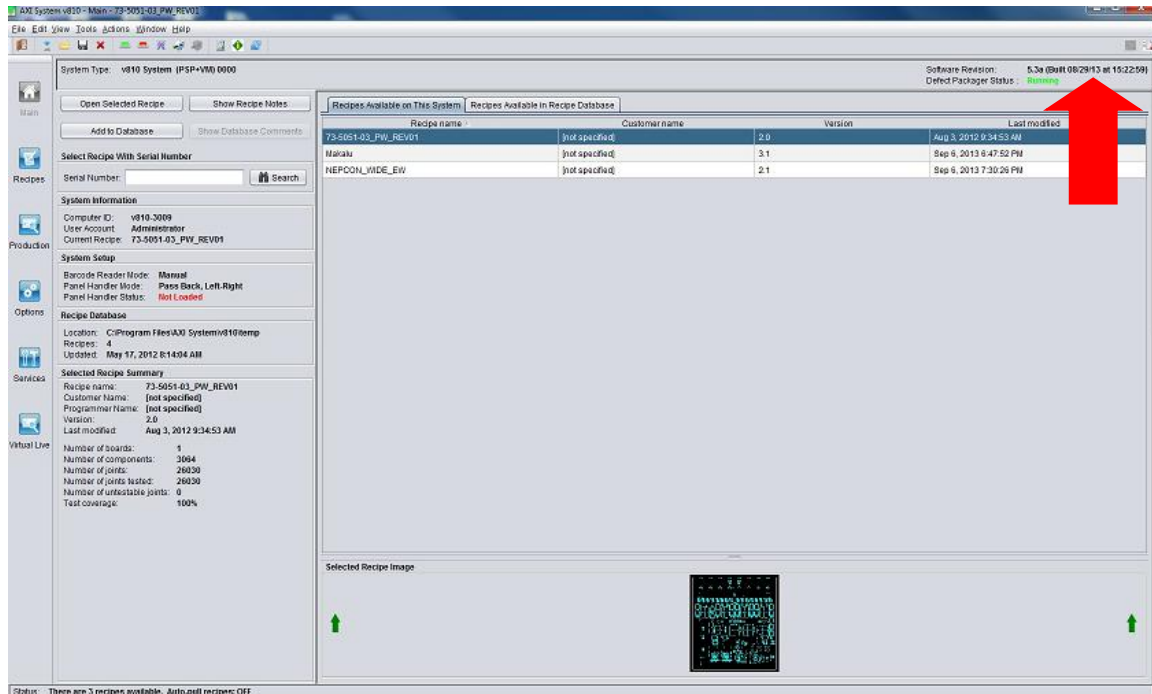



Figure 24 V810 SW interface (Master Controller)

2. Download the RMS installer version by refer to the below table from FTP side or obtain from ViTrox SNS team.

Machine GUI SW Version	RMS Version
3.0 and above	RMS 3.0
4.0 and above	RMS 4.0
5.0 and above	RMS 5.0

Table 5

	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

3. Launch Remote Desktop application at Master Computer (Below is the sample login into Atom PC) with refer to Table 6. Security certification window will prompt, click “Yes” continue for remote session.

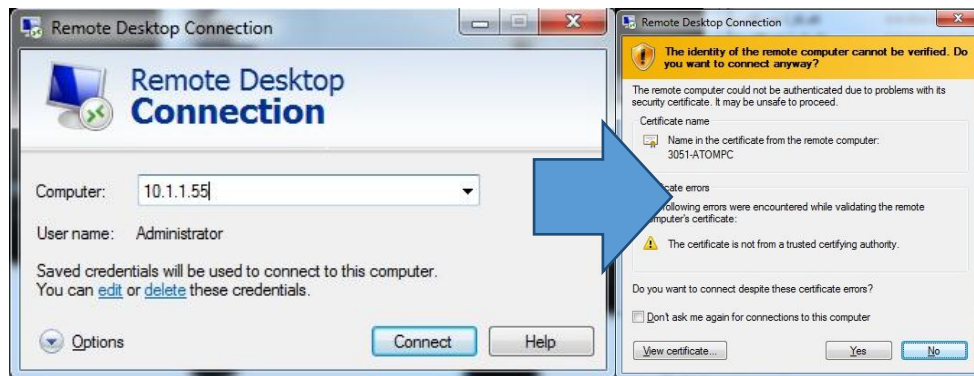


Figure 25 Remote Desktop Connection

Series Type	Computer Devices	IP Address	User Account	Password
Series 1	Atom PC (RMS)	10.1.1.55	Administrator	Please!
Series 2	Atom PC (RMS)	192.168.128.70		

Table 6

4. Extract the installer at RMS device desktop. Go to the RMS installer folder, “...\5.0 RMS installer\CDROM_IMAGE\Disk Images\Disk1” and click Setup.exe. Click Yes if request for permission.

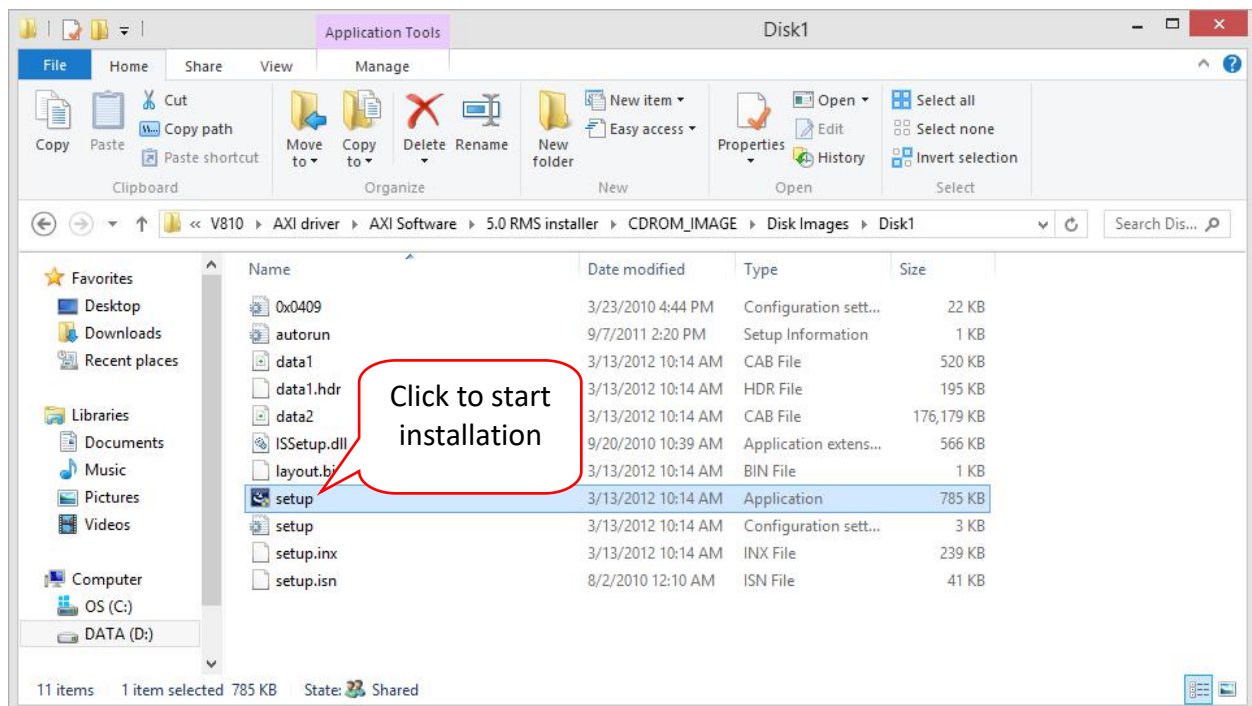



Figure 26 RMS Installer

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

- Click “Next” for continues installation.

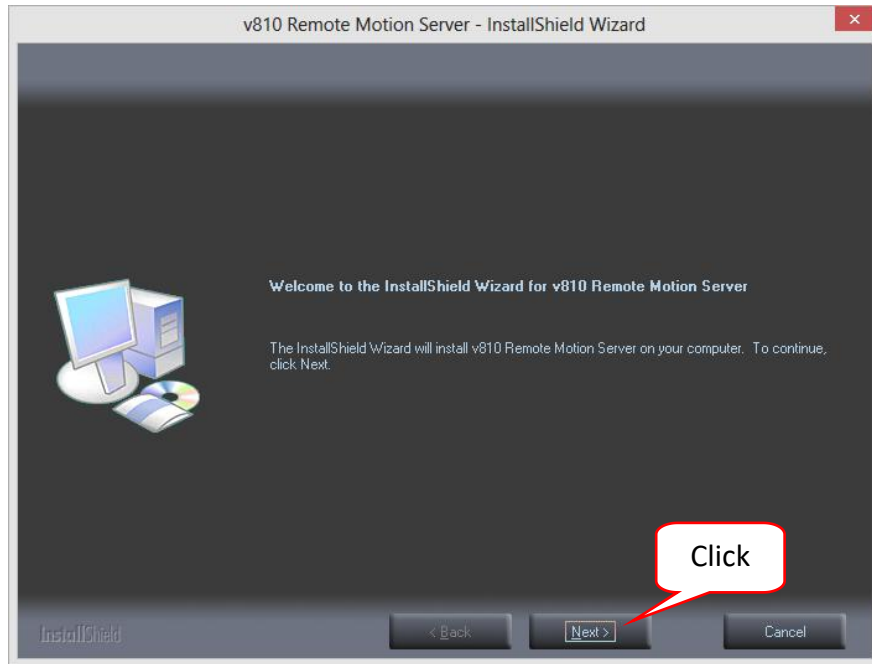


Figure 27 RMS driver interface

- Click “Install” to continue installation and installation will start.

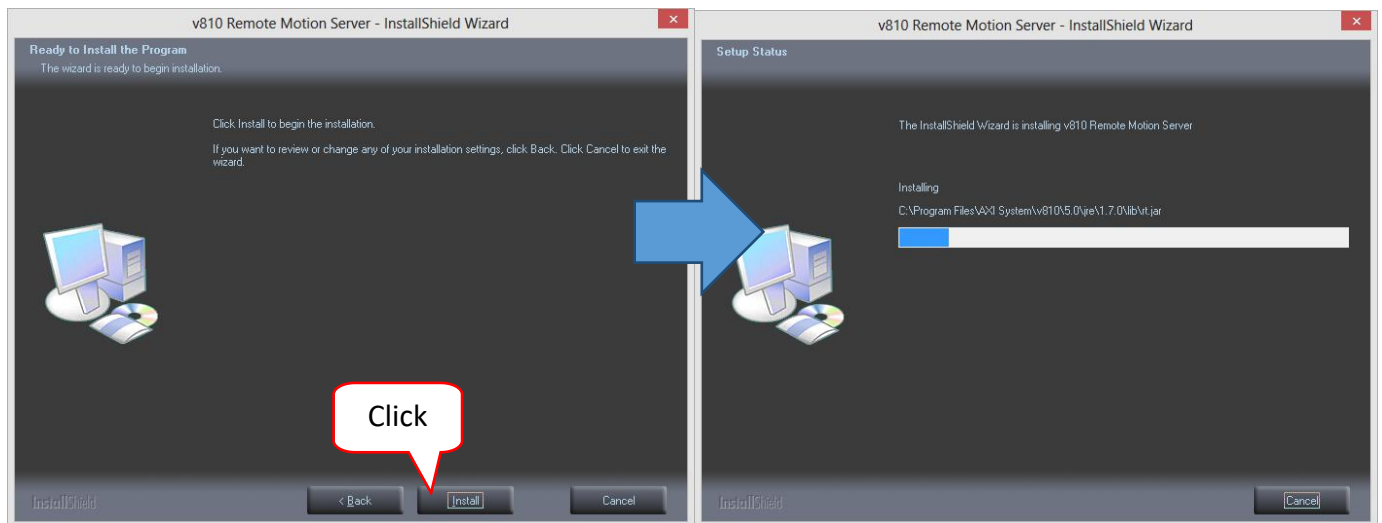



Figure 28 RMS driver

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

7. Click “Finish” to once installation complete.

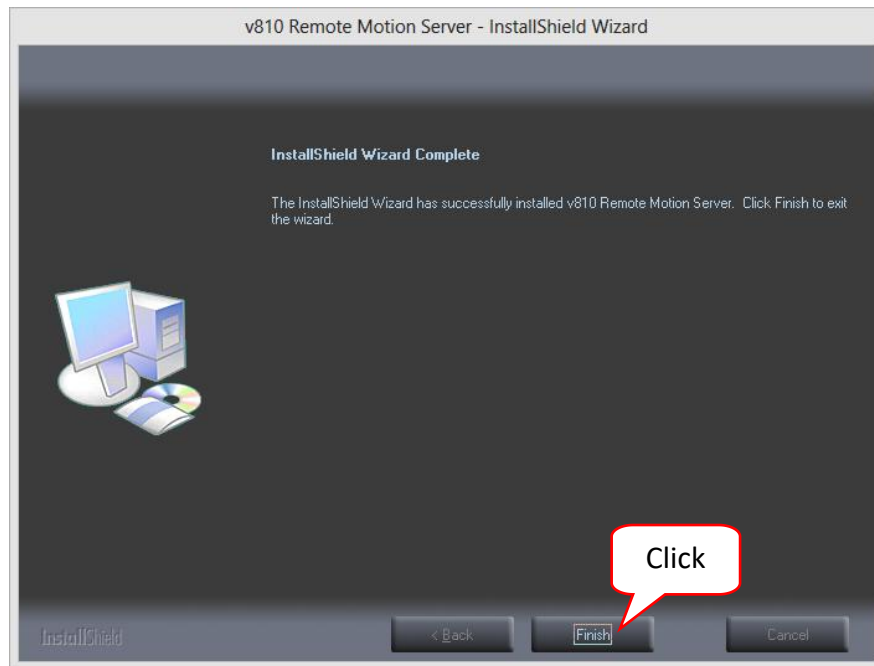


Figure 29 RMS driver

8. Go to Device Manager (RMS device) and check for the Motion Controller as Figure 26.
 # If installation error, the XMP Motion Controller show “!”, MEI card would require to reseal.

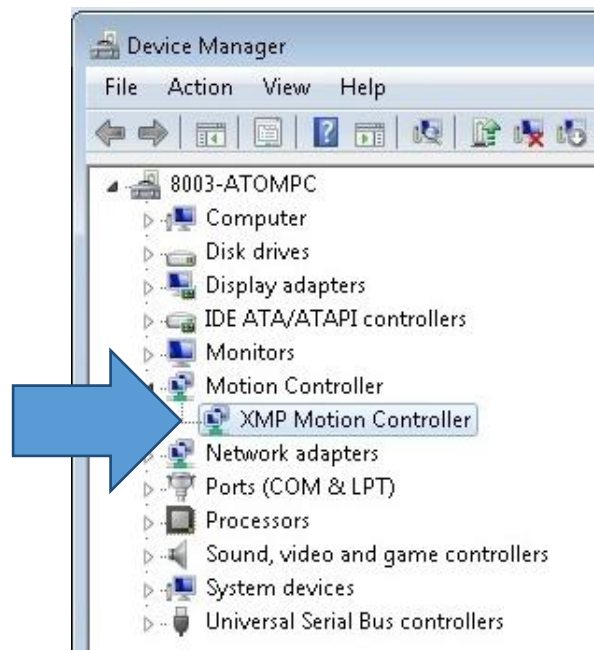



Figure 30 Device Manager

	Work Instruction	Doc. Revision	00
	AXI V810 S2EX RMS PC Replacement Procedure	Effective Date	1 Apr 2018

9. Use “backup motion folder” which backup at Step 2 Or obtain motion folder from Vitrox AXI S&S Team.
10. Paste backup motion folder at RMS PC by refer to below table.

Model	Path
Strd Series One & Series 2	C:\Program Files\AXI System\v810\5.0\config\motioncontrol
XXL Series One & Series 2	C:\Program Files\AXI System\v810\5.0\XXLconfig\motioncontrol
S2EX	C:\Program Files\AXI System\v810\5.0\s2exconfig\motioncontrol

Table 7 Motion control folder access path

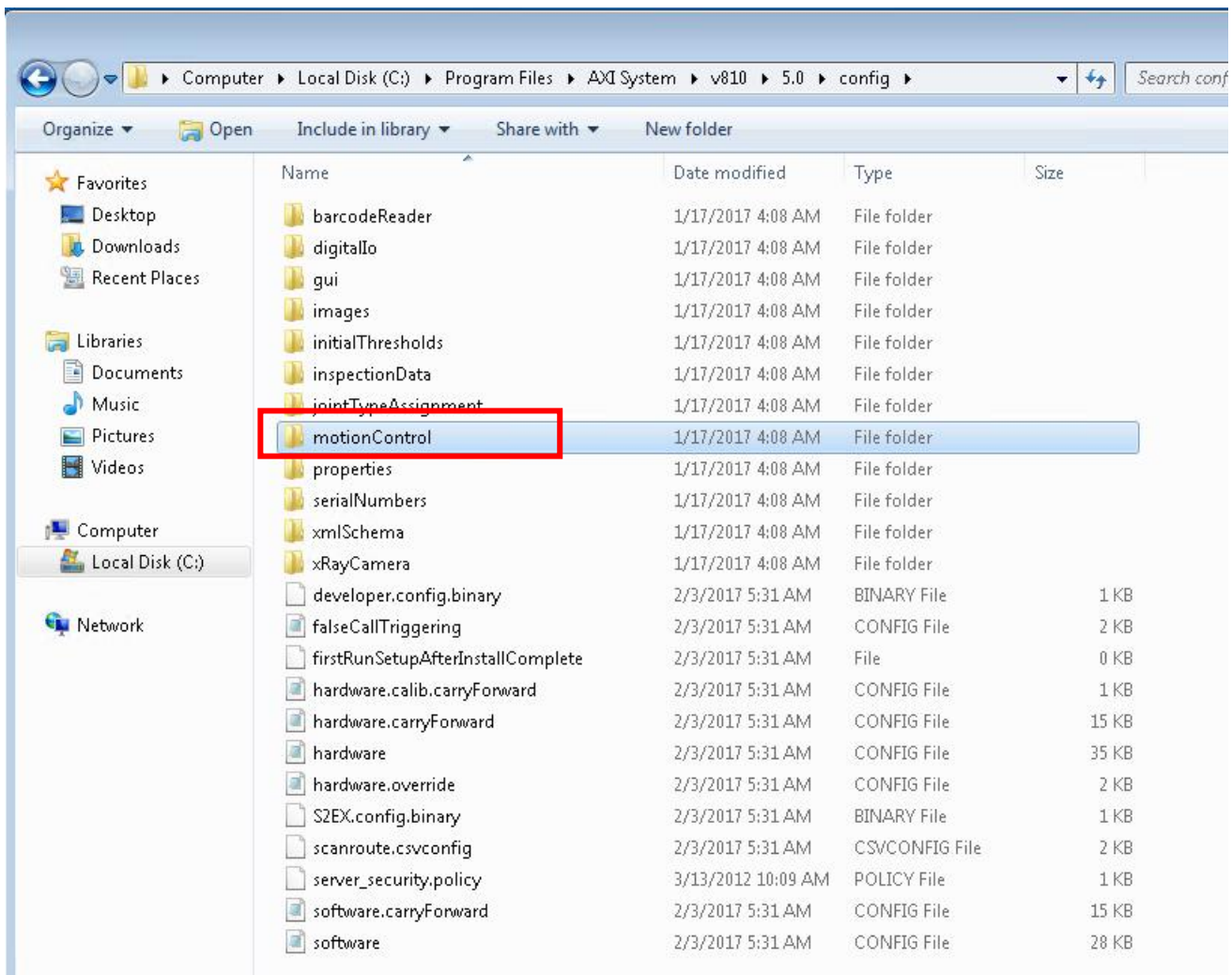



Figure 31 Motion Control Folder (Reference only)

11. Retrieve the Motor Config file folder which back up at Section “Filter Height Motor Config & Z-axis Motor Config backup” and paste at New RMS PC Desktop.

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

Clear Path Motor (Z Motor) Application Installation

1. Download and unzip the installer into RMS desktop.
2. Run "ClearPath_MSP_1.7.113.exe" & click "Immediate Installation".

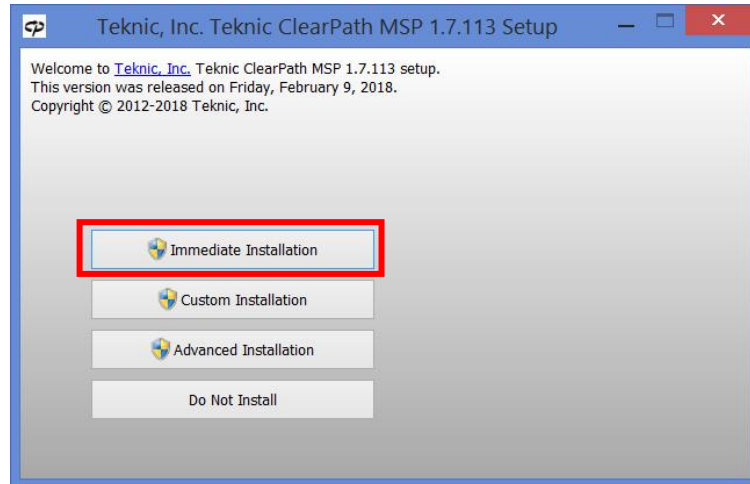


Figure 32 ClearPath Software Installation

3. Click "Yes, I do" to continue installation.

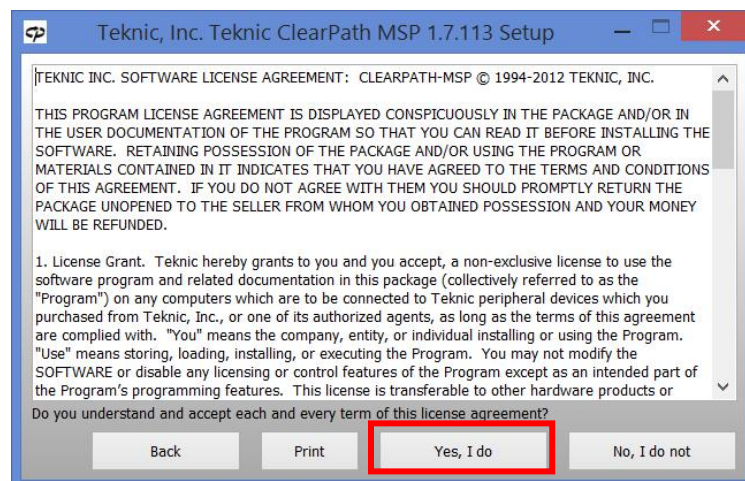


Figure 33 ClearPath Software Installation

4. Click "Proceed" to continue installation for Microsoft Runtime V9.

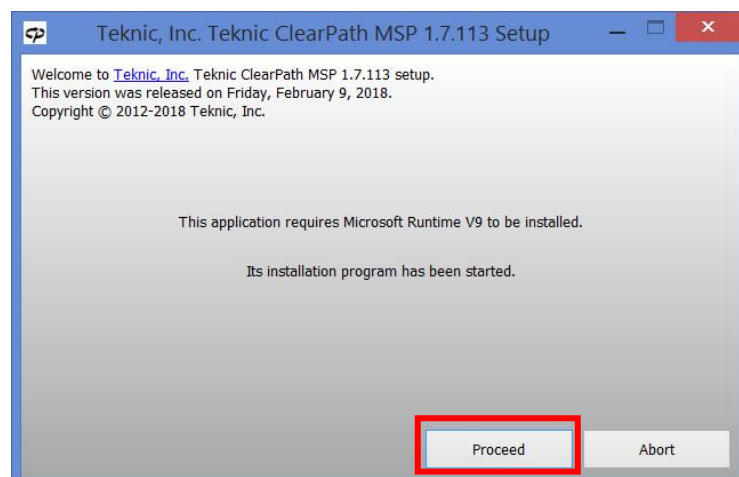



Figure 34 ClearPath Software Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision 00	
		Effective Date	1 Apr 2018

5. Click “Proceed” to continue installation for Microsoft Runtime V14.

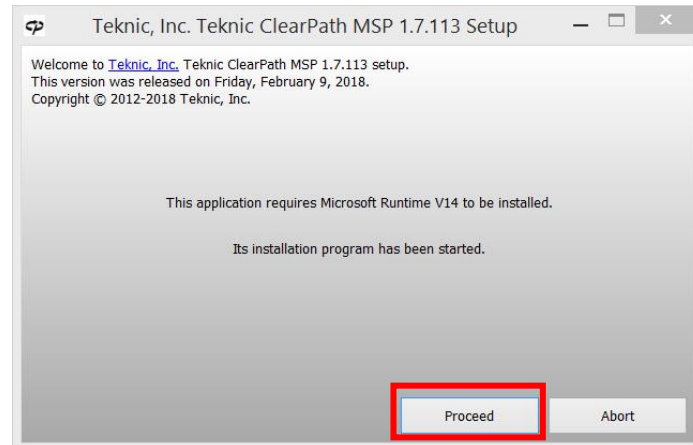


Figure 35 ClearPath Software Installation

6. Wait until the installation complete & ClearPath MSP file folder will prompts out.

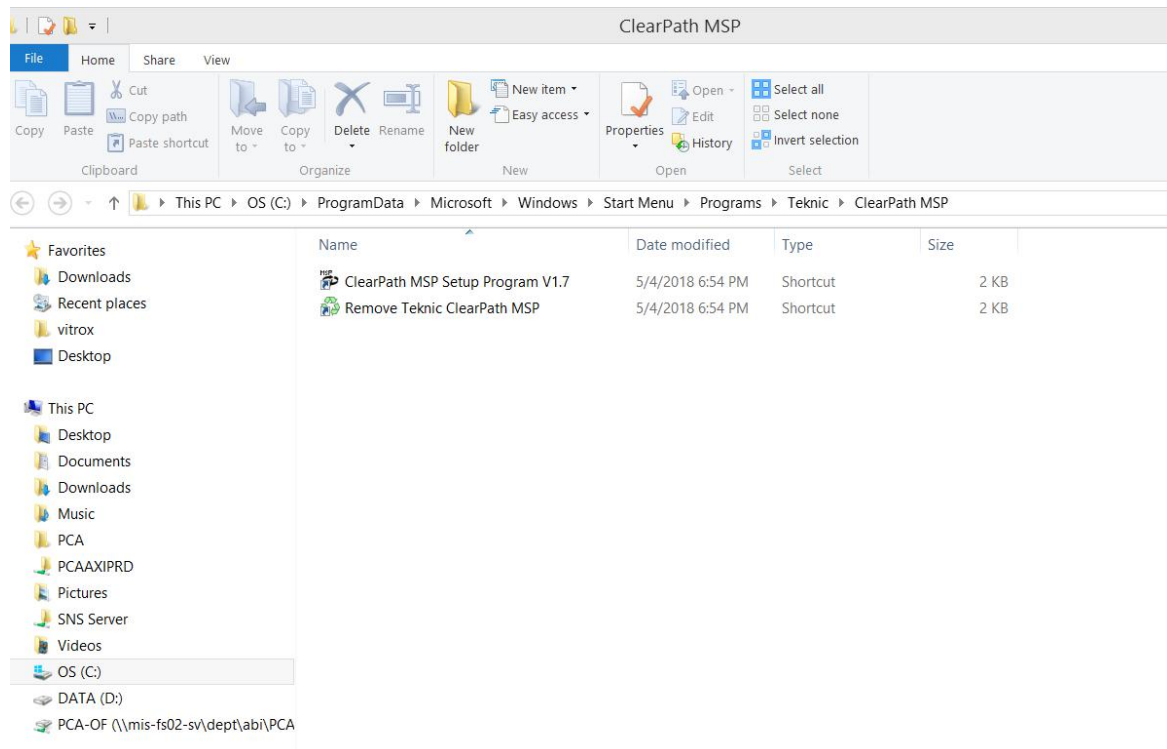



Figure 36 ClearPath Software Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

USB Driver Installation (Only perform when ClearPath Motor is undetectable)

1. Go to device manager > "Other devices" > Right-click "ClearPath Motor"> Click "Update Driver Software..." .

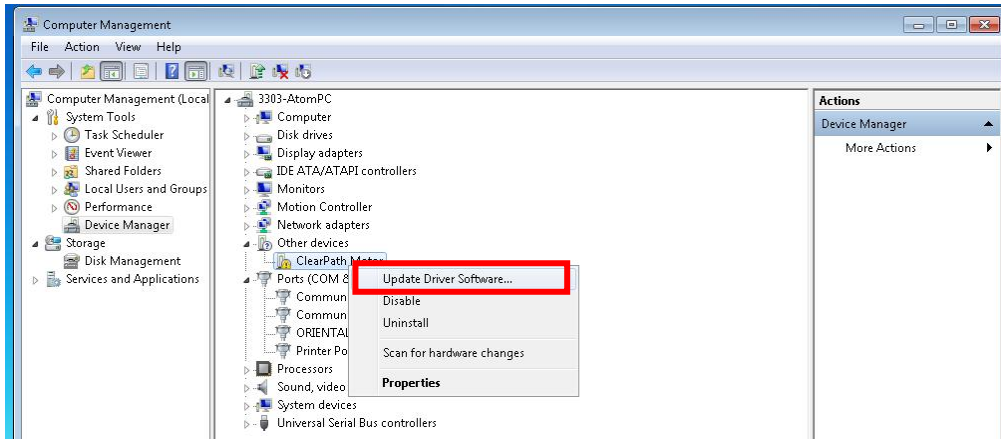


Figure 37 USB Driver Installation

2. Click "Browse my computer for driver software".

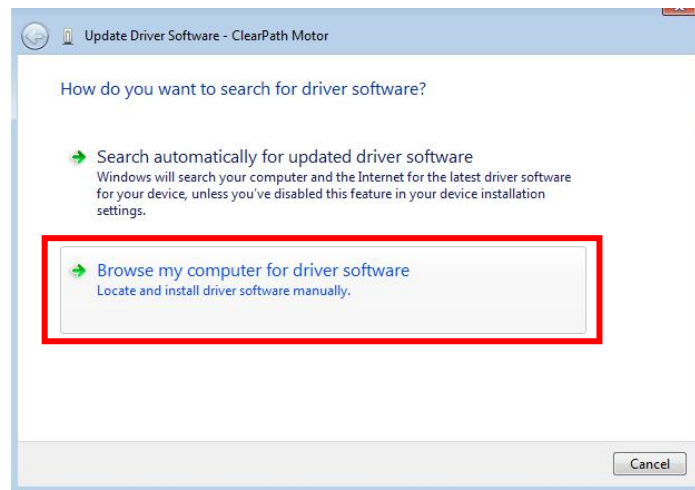



Figure 38 USB Driver Installation

3. Browse to folder directory "C:\Program Files\Common Files\Teknic\CPM USB Driver\Teknic\CPM USB Driver\CPM USB Driver\x86" > Click "Ok" follow by "Next".



Figure 39 USB Driver Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

4. Click "Install this driver anyway".

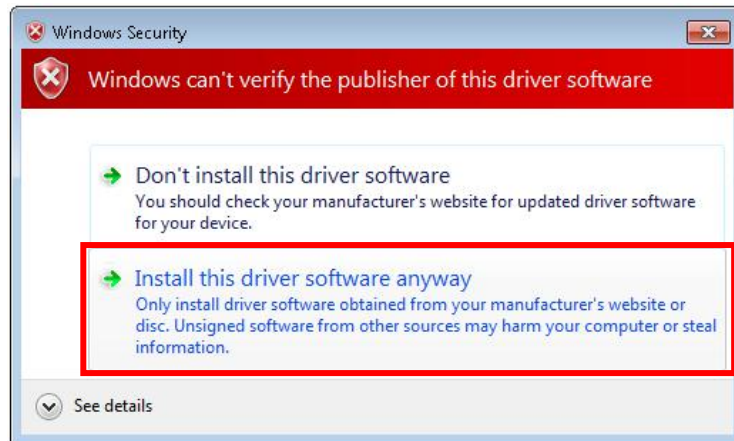


Figure 40 USB Driver Installation

5. Click "Close".

Remark: The driver is installed successfully and MSP will be able to detect motor when it is opened.

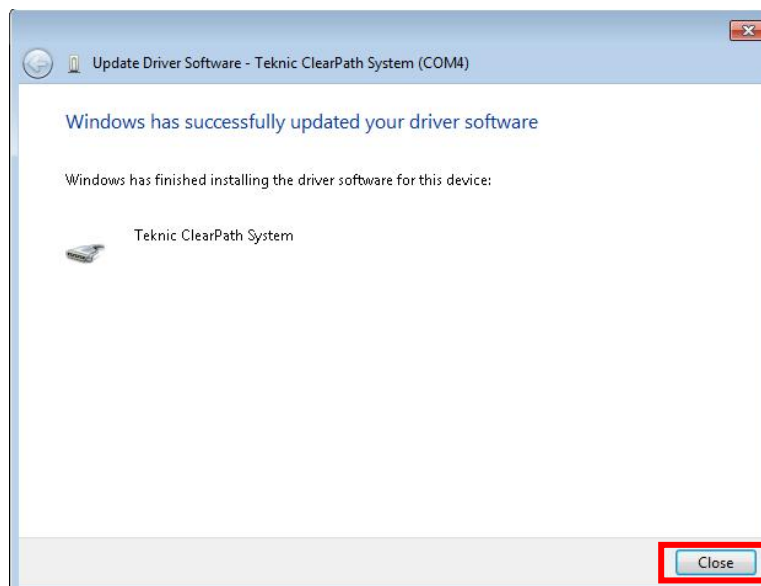



Figure 41 USB Driver Installation

	<p align="center">Work Instruction</p> <p align="center">AXI V810 S2EX RMS PC Replacement Procedure</p>	<p>Doc. Revision 00</p> <p>Effective Date 1 Apr 2018</p>	
--	---	--	--

Filter Height Motor Application Installation

1. Download and unzip the installer into RMS desktop.
2. Go to path “C:\Users\Desktop\Installer\Filter Height Sensor\soft_mexeo2_xp-v-7_3-11e\MEXE02ENG” and run the “setup.exe”.

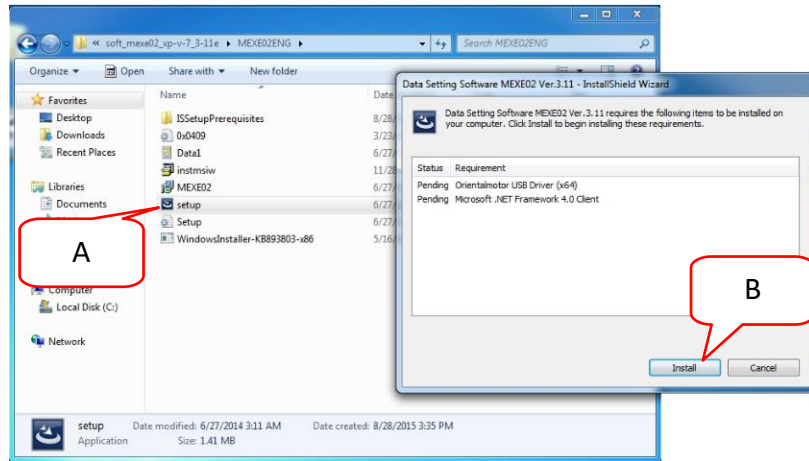


Figure 42 Filter Height Motor Software Installation

3. Click “Install” to continue.

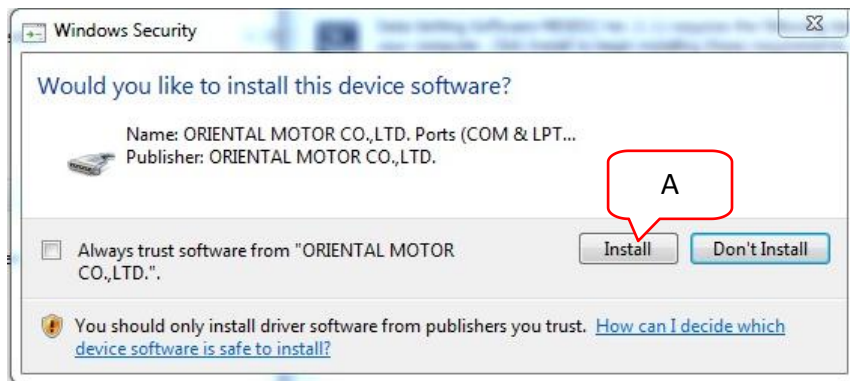


Figure 43 Filter Height Motor Software Installation

4. Wait until complete install “Microsoft .NET Framework 4.0 Client”.

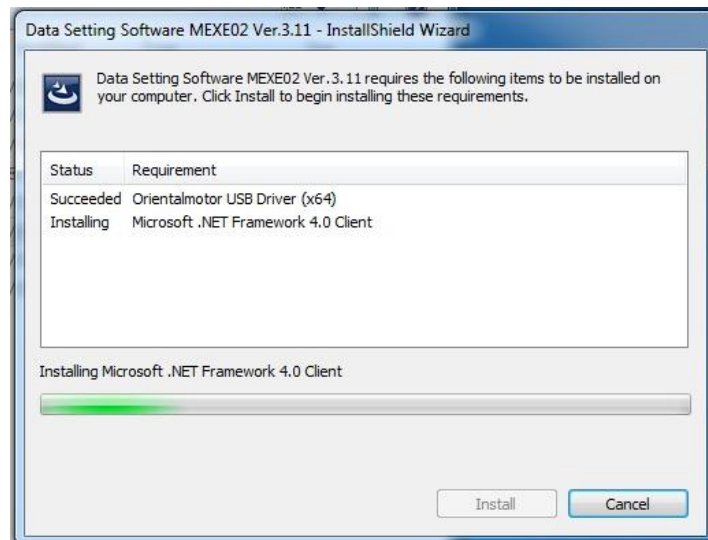



Figure 44 Filter Height Motor Software Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

- Click next to continue install “MEXE02” driver.

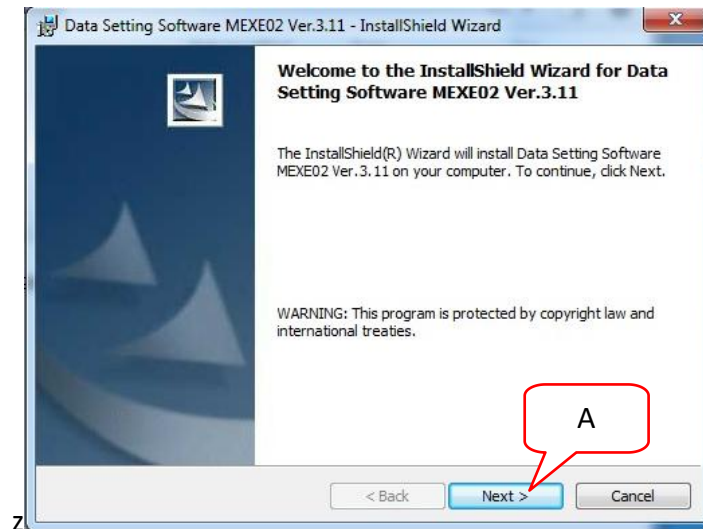


Figure 45 Filter Height Motor Software Installation

- Select “Accept Agreement” and click next to continue install “MEXE02” driver

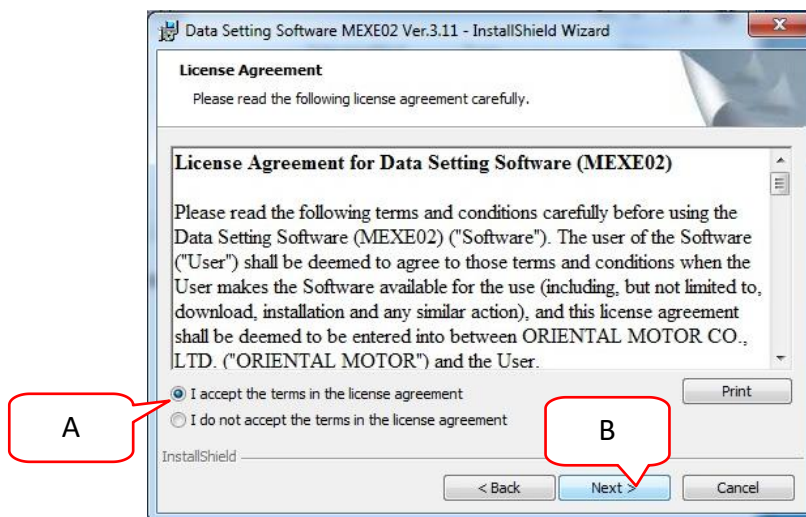


Figure 46 Filter Height Motor Software Installation

- Leave the setting as origin and click next to continue installation.

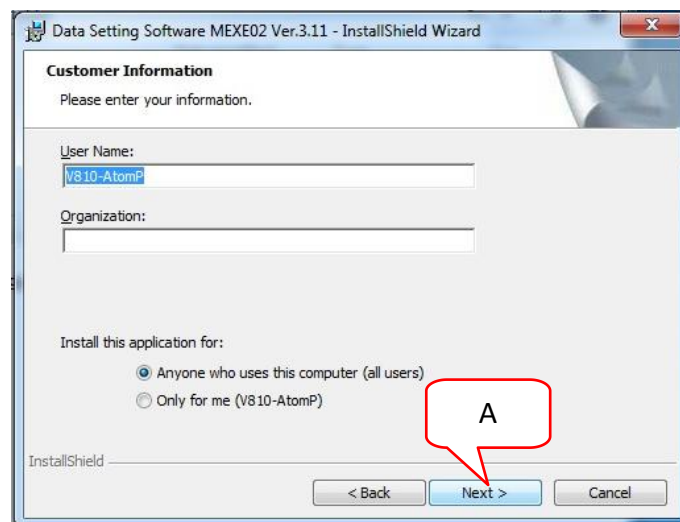



Figure 47 Filter Height Motor Software Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision Effective Date	00 1 Apr 2018
--	--	---	--------------------------------

8. Select “Complete” and click next to continue installation.

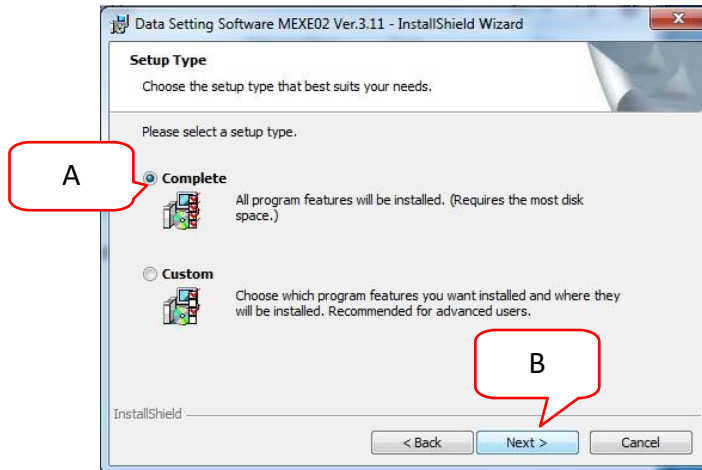


Figure 48 Filter Height Motor Software Installation

9. Click install to continue installation

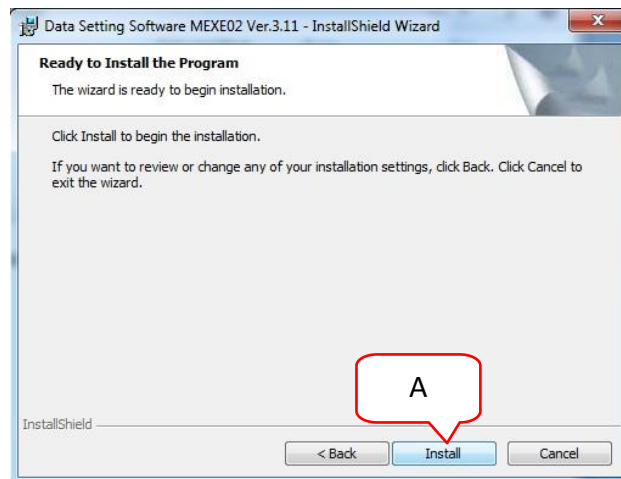


Figure 49 Filter Height Motor Software Installation

10. Wait until the installation complete and click finish to complete the installation

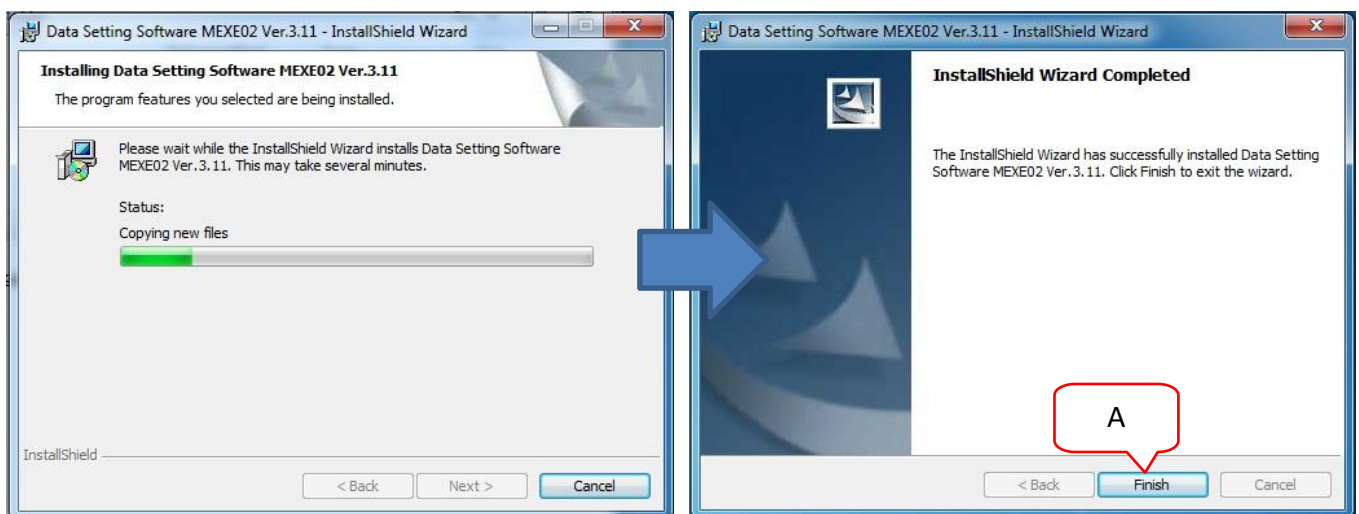



Figure 50 Filter Height Motor Software Installation

	Work Instruction AXI V810 S2EX RMS PC Replacement Procedure	Doc. Revision 00	Effective Date 1 Apr 2018

11. At V810 GUI, go to “Connected Processor” and upgrade the RMS.

Services → Subsystem Status & Control → Connected Processor → Stop RMS → Upgrade RMS → Restart RMS

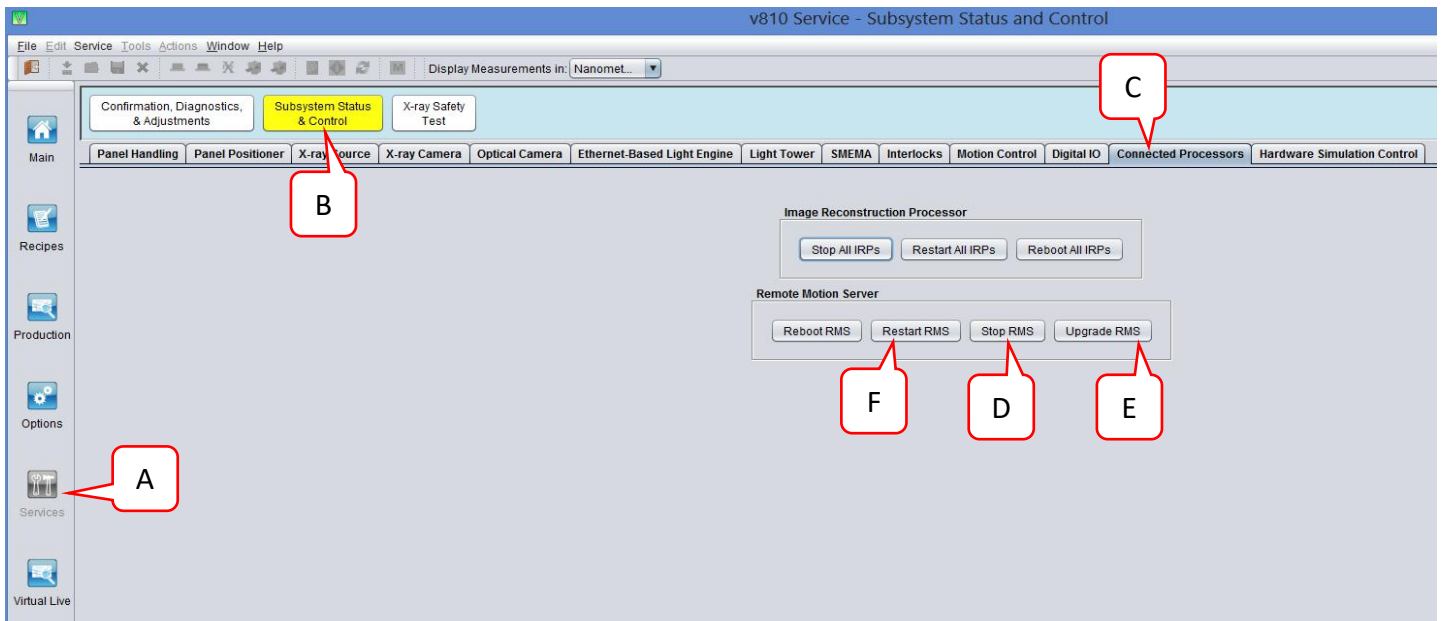


Figure 51 Connector Processor

12. Go to Motion Controller tab & upgrade the motion firmware.

Remark: Approximately take 15 min to complete upgrade.

Services → Subsystem Status & Control → Motion Control → Upgrade Firmware → Initialize

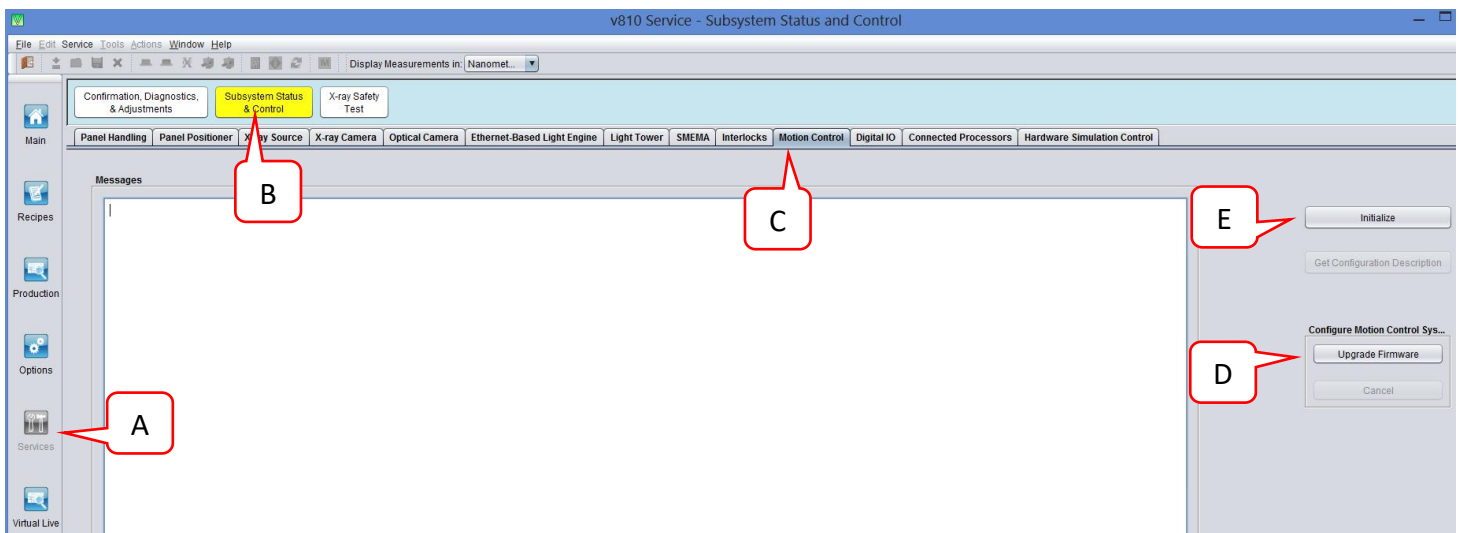


Figure 52 Motion control