

SSW900 SERIES SOFT STARTER AND SSW900-CETH-W COMMUNICATION MODULE FIRMWARE UPDATE





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MANUAL OVERVIEW

The Purpose of this Manual

Thank you for purchasing a WEG SSW900 series full featured soft starter and SSW900-CETH-W Ethernet communication module from AutomationDirect. This manual describes the process of updating the firmware for both devices. The firmware for both the SSW900 soft starter and the Ethernet communication module must match for the devices to work properly. The current firmware version for both devices is firware version 1.60.

TECHNICAL SUPPORT

• By Telephone: 770-844-4200

(Mon.-Fri., 9:00 a.m.-6:00 p.m. E.T.)

On the Web: www.automationdirect.com

Our technical support group is glad to work with you in answering your questions. If you cannot find the solution to your particular application, or, if for any reason you need additional technical assistance, please call technical support at 770-844-4200. We are available weekdays from 9:00 a.m. to 6:00 p.m. Eastern Time.

We also encourage you to visit our web site where you can find technical and non-technical information about our products and our company. Visit us at <u>www.automationdirect.com</u>.

CONVENTIONS USED



NOTE: When you see the "notepad" icon in the left-hand margin, the paragraph to its immediate right will be a special note.



WARNING: When you see the "exclamation mark" icon in the left-hand margin, the paragraph to its immediate right will be a warning. This information could prevent injury, loss of property, or even death (in extreme cases).

CURRENT FIRMWARE VERSION

The firmware for both the SSW900 soft starter and the SSW900-CETH-W Ethernet communication module must match for the devices to work properly. The current firmware version for both devices is firware version 1.60.

HARDWARE / SOFTWARE REQUIREMENTS:

 WPS Programming Software found at <u>https://www.automationdirect.com/support/</u> software-downloads

SSW900 FIRMWARE UPDATE

- USB type A to miniB programming cable such as MOSAIC-CSU.
- Firmware file "ssw900_package-v1_60-d1-r6218.fw", included in the zip file with this manual.

SSW900-CETH-W FIRMWARE UPDATE

- Ethernet cable such as <u>C5E-STPBK-S3</u>.
- Firmware file, "ssw900_ceth-w-v1_60-d1-r6222.bin", included in the zip file with this manual.

INITIAL STEPS:

- 1) Make sure there is no power to the control and line side of the Soft Starter.
- 2) Install SSW900-CETH-W. Note which slot the card is installed in. For installation instructions, see the <u>SSW900-CETH-W User's Guide</u> at AutomationDirect.com.
- 3) Do not connect Ethernet or USB cables until instructed. **Do not apply line power at any time in this process.** AutomationDirect recommends that all input and output side power wiring be disconnected before proceeding.
- 4) Apply control power.

SOFT STARTER HMI NAVIGATION

Using the SSW900 series (hereafter Soft Starter) HMI: (Refer to the <u>SSW900 User Manual</u> at AutomationDirect.com for HMI navigation.)

SET THE SOFT STARTER TO FACTORY DEFAULTS:

Set parameter C10.4 = "Yes" to default all parameters. You may be prompted to enter a password. The default password is: **5**

After the Soft Starter is reset to factory default, it will prompt you to set the configuration. At this time, use all default values.

CHECK PARAMETERS:

S3.2.1 for Soft Starter firmware version. Make note of the value.

S3.2.2.8 for firmware version, if SSW900-CETH-W is in Slot 1. Make note of the value.

S3.2.2.10 for firmware version if SSW900-CETH-W is in Slot 2. Make note of the value.

Assess the Need for Firmware Update

If the Soft Starter and SSW900-CETH-W card are V1.60 or higher, no updates are needed, and this process is complete. Proceed to normal commissioning.

If the SSW900-CETH-W firmware version is lower than V1.60, then this component will need to be updated.

If the Soft Starter firmware version is lower than V1.60, then this component will need to be updated. If both components need to be updated, start with the **Update SSW900-CETH-W Firmware** instructions.

If only the Soft Starter needs to be updated, skip the **Update SSW900-CETH-W Firmware** section and proceed to **Update SSW900 Series Firmware** instructions.



- There is no power on the Line and Output sides of the Soft Starter.
- SoftPLC is stopped.
- Faults are cleared.

WEG PROGRAMMING SUITE (WPS) UPDATING PROCESS

- 1) Start WEG Programming Suite (hereafter WPS).
- 2) Click the Help menu and select Check for Updates.



- 3) Follow the on-screen instructions to update WPS.
- 4) After updates are completed, restart WPS.

NOTE: Some firewall settings typically controlled by a company's IT department can cause WPS to not find any updates. An error message will appear in WPS indicating a problem with Proxy settings. Consult your IT department for resolution.

VERIFY WPS PLUGINS

1) Click the Tools menu and select Plugins.

P 1		Import Special Version	
Configurations ×	rations ×	Plugins	 Welcome ×
		Options	

2) In the Plugins dialog, click the Check for Updates button.

uares (in	Available Plugins (7) Downloaded in	stalled (228) Settings		
Check f	for Updates		Search:	
pdate	Name	Category	YML Task File Support	
	XML Task File Support	Base Suite		
KKKKKKK	WPS Function Blocks WPS Function Blocks WPS Execution Blocks WPS Configuration Project StRVO Extension WPS Configuration Project Structure XML Ladder File Support XML Parameters File Support WPS Resource Project PLC200 Extension WPS Resource Project PLC201 Extension	Base Suite Base Suite Base Suite Base Suite Base Suite Drives and Controls Drives and Controls	Installed version: 3: 10.6.2 Available version: 3: 10.6 Date: 4/23/25 Source: WPS Update Center Plugin Description http://updates.weg.net/WPS/310/release notes.txt	
Update	10 plugins selected, 11MB]	

- 3) When the check is complete, deselect all Plugins, EXCEPT any that are for SSW900.
- 4) If there are SSW900 updates, select them and click the Update button.

L	

NOTE: You may leave all updates selected if you choose. However, some of the Plugins are large and require significant time to download. ADC recommends selecting only SSW900 updates for this firmware update procedure.

5) After updating, or if no updates were available for SSW900, click the Installed tab in the Plugins dialog. A list of all installed Plugins will be displayed. Sort by Name and verify that the three shown Plugins for SSW900 are present and that their Active status shows a green check mark. If the Active status is grey, click Select next to the Plugins. The click the Activate button. Verify that the Active status is now Green.

					<u>S</u> earch:
elect	Name	Category	Active	1	
1.1	WPS Resource Project SSW08 Extension	Drives and Controls		XML Access Control API	
ñ	WPS Resource Project SSW7000 Extension	Drives and Controls	õ /		
0	WPS Resource Project SSW900-CETH-W Exte.	Drives and Controls	õ 🗖	Version: 3.10	
	WPS Resource Project SSW900 Extension	Drives and Controls	õ	Source: WEG Programming Suite 3.10	
	WPS Resource Project SSW900 FXDialogs	Drives and Controls	Ø		
ñ	WPS Resource Project THW Extension	Critical Power		Plugin Description	
ň	WPS Resource Project UMDW Extension	Critical Power		right beschpion	
ň	WPS Resource Project UMDW Special	Critical Power	ě	http://updates.weg.net/WPS/310/release_notes.txt	
ň	WPS Resource Project W30 Smart EC-I Appli	Drives and Controls	õ		
ň	WPS Resource Project W30 Smart EC-I Exten	Drives and Controls	0		
ň	WPS Resource Project WCW2200 Extension	Drives and Controls	0		
ň	WPS Resource Project WCW5000 Extension	Drives and Controls	0		
$\overline{\Box}$	WPS Resource Project WECC300 Extension	Drives and Controls	0		
ā	WPS Resource Project WPM250 Extension	Automotive			
õ	WPS Resource Utilities	Base Suite	0		
Ō	WPS Utilities Special	Base Suite			
	WPS Welcome Screen	Base Suite	0	1	
	XML Access Control API	Base Suite	0		
	XML Access Control File Support	Base Suite	0		
	XML Axes API	Base Suite	۲		
	XML Axes File Support	Base Suite	0		

6) After the update process is complete, close and re-open WPS.

UPDATING SSW900-CETH-W FIRMWARE

Using the SSW900 HMI

Set Parameter:

C8.5.1 = 0 – Parameters. This sets the IP as a fixed address. You may be prompted to enter a password. The default password is: **5**.

CHECK PARAMETER:

C8.5.2 IP address. Default is 192.168.0.10. Make a note of the IP address if it is different than default.

PC SETTINGS AND COMMUNICATION VERIFICATION:

- 1) Connect an Ethernet cable from your PC to either port of the SSW900-CETH-W card. Do not connect the USB cable.
- 2) Using your PC's Network Settings control panel, set your PC's IP Address to the same domain as the SSW900-CETH-W module.

Ethernet Status	Ethernet Properties ×	Internet Protocol Version 4 (TCP/IPv4) Properties X
General	Networking Sharing	General
Connection IPv4 Connectivity: Not Connected IPv6 Connectivity: Not Connected IPv6 Connectivity: Not Connected Developmention: 00:00:00 Speed: 0 bps Dgtalis Activity	Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Q gbtain an IP address automatically Q lage the following IP address: IP address: IP address: IP address: IP address: IP address: Q gbtain antipological settings Sybnet mask: Q gbtain DNS server address automatically
Sent — Received Packets: 0 0 Properties Diagnose Close	Igstall Uninstall Properties Deciption Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Uleg the following DNS server addresses: Preferred DNS server: Alternate DNS server: Validate settings upon exit Adganced OK Cancel

3) Open the Microsoft WIndows Command Console. Use the "ping" command to verify communications between the PC and the SSW900-CETW-W module.

Command Prompt X	+ ~
Microsoft Windows [Version	10.0.22631.5189]
(c) Microsoft Corporation.	All rights reserved.
C:\Users\lone>ping 192.168	.0.10
Pinging 192.168.0.10 with	32 bytes of data:
Reply from 192.168.0.10: b	ytes=32 time=1ms TTL=255
Reply from 192.168.0.10: b	ytes=32 time=1ms TTL=255
Reply from 192.168.0.10: b	ytes=32 time=1ms TTL=255
Reply from 192.168.0.10: b	ytes=32 time=1ms TTL=255
Ping statistics for 192.16	8.0.10:
Packets: Sent = 4, Rec	eived = 4, Lost = 0 (0% loss),
Approximate round trip tim	es in milli-seconds:
Minimum = 1ms, Maximum	= 1ms, Average = 1ms

WPS COMMUNICATION CONFIGURATION:

1) Switch over to WPS software. If there are any Configurations open in WPS, select Close All Configurations under the File menu.



 From the File menu, select New Configuration to create a new Configuration that will be used for updating the SSW900-CETH-W card. Name the configuration as appropriate for your operation. For this guide, we are using the same name in Configuration name and Resource name.

New Configuration	Ctrl+Shift+C		steps	Name		
Mew Resource	Ctrl+Shift+R		Name Communication configuration Device selection	Configuration name: Configuration path:	SSW900_CETH_FW_Update C:/Users/lone/WPS 3.10 Configurations	
Open <u>C</u> onfiguration Open Recent Configura	Ctrl+Shift+O tion	>		Resource name:	SSW900_CETH_FW_Update	
Close Configuration				Resource type:	Resource (default)	
Close Other Configurat	ions					
Close All Configuration	s	×				
Save	Ctrl+S					
Save <u>A</u> ll	Ctrl+Shift+S					
Сору То						
Import		>				
Export		>				
Page Setup						
Print	Ctrl+Alt+Shift+	P				
Print All	Ctrl+P					
Build Resource	F7					/
Exit						

3) Click Next. This will bring up the Communication Configuration screen.

ON THE COMMUNICATION CONFIGURATION SCREEN:

- 4) Change Preset to SSW900-CETH-W.
 - a) Select the Ethernet radio button.
 - b) Verify IP address matches Parameter C8.5.2.
 - c) Verify TCP Port = 502.
 - d) Set Unit ID to 254. This is a crucial step. The default value of 255 does not allow access for firmware updates.

s	Communication con	figuration						
Name	Communication ma	inager						
Communication	Host:	localhost						
Device selection	Port:	34502						
	Device							
	Preset:	SSW900-CETH-W V						
	Physical layer	O LISB O Serial (over			Configured connections			
	conngatation							
	IP address:	192.168.	0.10	Transmission delay:	0			
	TCP port:		502 🚔	Response delay:	0			
	Unit ID:		254 🜩	Timeout:	5000			
	Connacto		Dire					
	connected a	·).		Telegram size:	40			
					107.5			
	Current connection	n: Ethernet/Modbus-TCF	/192.168.0.10:502/	@254#0#0#5000#40	Tes			
	Status:							

5) Click Test and verify the information in Status. It is essential to verify the Status message contains "SSW900-CETH-W".

eps	Communication con	figuration					
Name	⊂ Communication m	anager					
Communication	Host:	st: localhost					
3. Device selection	Port:	34502					
	Device						
	Preset:	SSW900-CE	TH-W V				
	Physical layer:		Serial (over USB) O Fthe	met 🔿 Bluetor	oth CAN	O Configured co	onnections
	Configuration			Timina fr	nsl		
			-				
	IP address:		192.168.0.10	Transm	ission delay:	0	
	TCP port:		502	Respon	Response delay:	0	
	Unit ID:	Unit ID: 254 荣 Tim	÷ Timeou	Timeout:	5000		
	Connected devi	ces:	Discover	Telegra	m size:	40	
	Current connectio	n: Ethernet,	Modbus-TCP/192.168.0.10	502/@254#0#0	#5000#40		Test
	Status:	Commun Device of [WEG, SS	ication Manager online. nline. W900-CETH-W, V1.60]				

6) Click Next. This will bring you to the Device selection screen.

7) On the Device selection screen, verify Type and Version match this screen capture.

Steps	Device selection	(
 Name Communication configuration Device selection Application 	Type: Version:	SSW900-CETH-W 1.0X Identify Device	Features SSW900-CETH-W is an accessory for Soft-Starter SSW	900.

8) Click Identify Device, Verify data in the Message popup.

we New Configuration			>
Steps	Device selection		
1. Name 2. Communication configuration 3. Device selection 4. Application	Type: Version:	SSW900-CETH-W	
		Peatures wes Message Device: SSW900-CETH-W Firmware: 1.60	
		< Back Next > Einish Cancel Help)

9) Click OK to close the Message dialog, then Next. This will bring you to the Applications page.

Steps Application 1. Name Import WLP Backup 2. Communication configuration File Path 3. Device selection File Path	
Name Import WLP Backup Communication configuration File Path Device selection	
Application	
Application	
	Print

- 10) No changes are needed on this screen. Click Finish.
- 11) Select the Online menu and click Firmware download.

WEG Programming Suite 3.10 File Edit Online Tools Window Help ¢ Sonnect Device F9 Connected Device Information F10 Configurat 🖃 🔘 SSI **Quick Parameter Monitoring** ė. 🖬 Read Parameters from Device > ÷.. > Write Parameters to Device ÷.. ÷... Download Resource F8 O Upload Resource Ctrl+F8 Compare Device Resource > **Online Command** Force I/O Firmware download 💠 WComm

12) Select Upload a file from system directory and click the three dot Browse button.

eps	Firmware downloa	id data	
Firmware download data	Device		
	Model:	SSW900-CETH-W	
	Version:	1.0X	
	New firmware		
	🔘 Select a ve	ersion available on WPS	
	O Upload a	file from system directory	SSW900-CETH-W is an acessory for Soft-Starter
	Binary files		
	Select a firmwa	re file.	
	Select a firmwa	re file.	

13) Navigate to the location of the firmware package you downloaded when you downloaded this manual. Select "ssw900_ceth-w-v1_60-d1-r6222.bin" and click Open.

Firmware download data Device Model: SSW900-CETH-W Version: Open Version: Select Look in: Firmware Versions 1.60 Ssw900_ceth-w-v1_60-d1-r6222.bin Binary files File name: Ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel	ps	Firmware download data	
Model: SSW900-CETH-W Version: • Open New firm Look jn: Select issw900_ceth-w-v1_60-d1-r6222.bin Uploa ssw900_package-v1_60-d1-r6228.bin Binary files ssw900_ceth-w-v1_60-d1-r6228.bin File name: ssw900_ceth-w-v1_60-d1-r6228.bin File sof type: Firmware files Open Cancel	Firmware download data	Device	
Version: • Open New firmw Select Look jn: Firmware Versions 1.60 Ulploa \$ssw900_ceth-w-v1_60-d1-r6222.bin Binary files \$ssw900_package-v1_60-d1-r6218.fw File game: \$ssw900_ceth-w-v1_60-d1-r6222.bin File game: \$ssw900_ceth-w-v1_60-d1-r6222.bin		Model: SSW9	000-CETH-W
New firm Select Uploa Sw900_ceth-w-v1_60-d1-r6222.bin Sw900_package-v1_60-d1-r6218.fw File name: Ssw900_ceth-w-v1_60-d1-r6222.bin File sof type: Firmware files Open Cancel		Version: wes Open	X
Select Look jn: Firmware Versions 1.60 Uploa ssw900_ceth-w-v1_60-d1-r6222.bin Binary files ssw900_package-v1_60-d1-r6218.fw File game: ssw900_ceth-w-v1_60-d1-r6222.bin		- New firmw	
Image: Starswool_ceth-w-v1_60-d1-r6222.bin Image: Starswool_package-v1_60-d1-r6218.ftw Binary files File game: Starswool_ceth-w-v1_60-d1-r6222.bin File game: Starswool_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel		Select Look in:	🗂 Firmware Versions 1.60 🗸 🦻 🔂 🔛 📰
Sw900_ceth-w-v1_60-d1-r6222.bin Duploa Binary files File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel			
Binary files File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel		C Uploa	00_ceth-w-v1_60-d1-r6222.bin
Binary files File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel		Ssw90	00_package-v1_60-d1-r6218.fw
Binary files File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel			
File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel		Binary files	
File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel			
File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel			
File name: ssw900_ceth-w-v1_60-d1-r6222.bin Files of type: Firmware files Open Cancel			
Files of type: Firmware files v Open Cancel			
Open Cancel		File <u>n</u> ame	ssw900_ceth-w-v1_60-d1-r6222.bin
Open Cancel		File <u>n</u> ame Files of tv	: ssw900_ceth-w-v1_60-d1-r6222.bin
		File <u>n</u> ame Files of <u>t</u> y	e: ssw900_ceth-w-v1_60-d1-r6222.bin Firmware files
		File <u>n</u> ame Files of <u>t</u> y	ssw900_ceth-w-v1_60-d1-r6222.bin pe: Firmware files
		File <u>n</u> ame Files of <u>ty</u>	ssw900_ceth-w-v1_60-d1-r6222.bin pe: Firmware files
		File <u>n</u> ame Files of <u>ty</u>	ssw900_ceth-w-v1_60-d1-r6222.bin Firmware files Open Cancel
O Salart a firmwara fila		File name Files of ty	ssw900_ceth-w-v1_60-d1-r6222.bin pe: Firmware files
Select a firmware file.		File <u>n</u> ame Files of <u>ty</u>	ssw900_ceth-w-v1_60-d1-r6222.bin pe: Firmware files Open Cancel Cancel
Select a firmware file.		File name Files of fy	: ssw900_ceth-w-v1_60-d1-r6222.bin pe: Firmware files V Open Cancel

14) In the Firmware download data window, click Finish.

	Firmware download data	
I. Firmware download data	Device Model: SSW900-CETH-W Version: 1.0X New firmware Select a version available on WPS Upload a file from system directory ssw900_ceth-w-v1_60-d1-r6222.bin Elinary files w900_ceth-w-v1_60-d1-r6222.bin - 2025/04/14 13:22	SSW900-CETH-W is an accessory for Soft-Starter SSW900.
	L	

15) Click OK from the Question popup to confirm the download.

wes Question	>
Do you v	vant to confirm the download?

16) Follow the firmware update progress in the Status Block of WPS.

H						
	Outp	ut - D	efault	output		
L	25	Apr	2025	08:56:07.995	[INFO]	Firmware download started
L	25	Apr	2025	08:56:07.996	[INFO]	Downloading file (1/1) ssw900_ceth-w-v1_60-d1-r6222.bin
L						
L						
L						
L						
L						
•	The	e coi	npoi	nent update	will be	complete when the Satus Block message reads "Firmware
	dov	vnlc	, ad s	, uccessful".		, 5
				• • •		

```
Output - Default output

25 Apr 2025 08:56:07.995 [INFO] Firmware download started

25 Apr 2025 08:56:07.996 [INFO] Downloading file (1/1) ssw900_ceth-w-v1_60-d1-r6222.bin ...

25 Apr 2025 08:59:25.270 [INFO] Firmware download successful
```

Depending on the Slot you installed the SSW900-CETH-W in, you may get a F088 or F089 Slot x Fault Connection. This is due to the firmware update and can be reset before power cycle by pressing the Back button on the HMI.



17) Cycle power to the Soft Starter and remove the Ethernet cable from the SSW900-CETH-W module.

If you only need to update the SSW900-CETH-W, you can jump to *Post Update Steps* found later in this manual.

If the Soft Starter firmware needs to be updated, follow the process beginning on the next page.

UPDATE SSW900 SERIES SOFT STARTER FIRMWARE

PREPARATION:

Connect your PC to the HMI on the Soft Starter with a USB Type A to MiniB cable such as <u>MOSAIC-CSU</u>. The USB cable will provide power to the HMI itself, but not the Soft Starter.

If the Ethernet cable for the SSW900-CETH-W update is still plugged into the module, unplug the cable.

- Make sure control power is applied to the Soft Starter and there is no line power applied.
 - 1) In WPS, select Close All Configurations from the File menu.



2) Select File, New Configuration to create a new configuration that will be used for updating the Soft Starter.



Name the configuration as appropriate for your operation. We are using the same name in Configuration name and Resource name.

wes New Configuration		×
Steps	Name	
1. Name 2. Communication	Configuration name:	SSW900_FW_Update
configuration 3. Device selection	Configuration path:	C:/Users/Ione/WPS 3.10 Configurations
	Resource name:	SSW900_FW_Update
	Resource type:	Resource (default) O Application
120		
		< <u>B</u> ack Next > Einish Cancel Help

- 3) Click Next.
- 4) Select the USB radio button for the Physical layer connection between the PC and Soft Starter.

Name	Communication r	nanager				
Communication	Host:	localhost				
Device selection	Port:	34502				
	Device Preset: Physical layer: Configuration Unit ID:	SSW900	USB) C Ethernet	Bluetooth CAN Timing [ms] Transmission delay: Response delay: Timeout: Telegram size:	Configured cor 0 1000 240	inections
	Current connecti Status:	on: USB/@0#0#0#1000#;	240			Test
170						

5) Click Test to verify the Status of the USB connection. It is essential to verify that the Status message contains "SSW900".

eps	Communication configuration		
Name	Communication manager		
Communication	Host: localhost		
Device selection	Port: 34502		
	Device Preset: SSW900 Physical layer: O USB Serial (over USB) Configuration Unit ID:	Ethernet ○ Bluetooth ○ CAN Timing [ms] Transmission delay: Response delay: Timeout: Telegram size:	Configured connections 0 0 1000 240
	Current connection: USB/@0#0#0#1000#240 Status: Communication Manager o Device online. IVVEG SSW900 V1.601	nline.	Test
	[116, 53150, 11.00]		

6) Click Next. The Device selection screen will appear.

DEVICE SELECTION

On the Device Selection screen, Verify that Type is SSW900 and that the Version is lower than 1.6X.

eps	Device selection	l		
Name Communication configuration Device selection Application	Type: Version: Slot1	SSW900 1.0X Ethernet Anybus-CC Identify Device	▼ ▼ ▼	Eatures A Soft-Statter de baixa tensão SSW900 é um produto de alto desempenho o qual permite o controle da partida, parada e a proteção de motores de indução trifásicos de baixa tensão Desta forma evitam-se choques mecánicos na carga, surtos de corrente na rede de alimentação, e a queima do motor. Uma das principais características deste produto é a grande rode de alimentação e concoxêos, tormando possível ao cidente escolher qual a melhor forma de proteger o seu motor.

7) Click the Identify Device button. If the Version is 1.60 or higher, the Soft Starter has already been updated. If the Version is lower than 1.60, please proceed.

8) Click the OK button to close the Message dialog and click Next to open the Application screen.

eps	Device selection				
Name Communication configuration Device selection Application	Type: Version: Slot1	SSW900 1.0X Ethernet			
	∟ Slot2	Anybus-CC	ntify Device	Featur	res
		wes Message		×	Starter de baixa tensão SSW900 é um produto de alto senho o qual permite o controle da partida, parada e
	-	Device:	SSW900		cao de motores de indução tinásicos de baixa tensão orma evitam-se choques mecânicos na carga, surtos ente na rede de alimentação, e a queima do motor
		Firmware:	1.0		s principais características deste produto é a grande
				ОК	spinicipals calacterísticas deste producto e a guinde iz nas técnicas de detecção de falhas e alarmes na alimentação e conexões, tornando possível ao escolher qual a melhor forma de proteger o seu
				motor	r.

9) No changes are needed on this screen. Click Finish.

eps	Application	
Name	Import WLP Backup	
configuration	File Path	
Device selection Application		
		 1
		Print





10) Select Online from the WPS pulldown menu, then Firmware download.



Firmware Update

11) Navigate to the location of the firmware package you downloaded when you downloaded this manual. Select "ssw900_package-v1_60-d1-r6218.fw" and click Open.

teps	Firmware download data
Firmware download data	Device Model: SSW900 Version: Open New firmw Select Look jn: Firmware Versions 1.60 Select Uploa Ssw900_ceth-w-v1_60-d1-r6222.bin Ssw900_package-v1_60-d1-r6218.ftw
	File name: ssw900_package-v1_60-d1-r6218.fw Files of _v0 : Firmware files Open Cancel

12) In the Firmware download data window, Click Finish.

Firmware download data	Device			
	Model:	SSW900		
	Version:	1.0X	~	
	New firmwar	e		
	🔘 Select a	version available on WPS		
			~	
	O Upload	a file from system directory		A Soft-Starter de baixa tensão SSW900 é um
	ssw900	_package-v1_60-d1-r6218.fw		produto de alto desempenho o qual permite o controle da partida, parada e a proteção de
				motores de Indução trifásicos de baixa tensão.
	Binary files			Desta forma evitam-se choques mecânicos na carga surtos de corrente na rede de alimentação
	file105.bin - 2	2024/10/14 17:02:26		e a queima do motor.
	file106.bin - 2	2024/10/14 17:02:26		Uma das principais características deste produto é
	file120.bin - 2	2024/10/15 08:47:34		a grande robustez nas técnicas de detecção de
	file122.bin - 2	2024/10/15 08:47:34		raínas e alarmes na rede de alimentação e conexões, tornando possível ao cliente escolher
	file123.bin - 2	2024/10/15 08:47:34		qual a melhor forma de proteger o seu motor.
	file125.bin - 2	2024/10/15 08:47:34	1	

13) Click OK from the Question popup to confirm the download.

×
m the download?
Cancel

Follow the firmware update progress in the Status Block of WPS.

```
Output - Default output

25 Apr 2025 09:16:31.759 [INFO] Firmware download started

25 Apr 2025 09:16:31.759 [INFO] Downloading file (1/53) file035.bin ...

25 Apr 2025 09:16:32.097 [INFO] Downloading file (2/53) file036.bin ...

25 Apr 2025 09:16:36.868 [INFO] Downloading file (3/53) file037.bin ...

25 Apr 2025 09:16:37.522 [INFO] Downloading file (4/53) file038.bin ...

25 Apr 2025 09:16:38.191 [INFO] Downloading file (5/53) file039.bin ...
```

While the updates are downloading, the HMI will indicate "Wait: Do not turn off Control Supply".



When the message in the WPS Status block reads "Firmware download successful", this component update is finished.

```
Output - Default output
 25 Apr 2025 09:17:16.609 [INFO] Downloading file (39/53) file099.bin ...
 25 Apr 2025 09:17:16.718 [INFO] Downloading file (40/53) file100.bin ...
 25 Apr 2025 09:17:16.835 [INFO] Downloading file (41/53) file101.bin ...
 25 Apr 2025 09:17:17.106 [INFO] Downloading file (42/53) file102.bin ...
 25 Apr 2025 09:17:17.281 [INFO] Downloading file (43/53) file103.bin ...
 25 Apr 2025 09:17:17.350 [INFO] Downloading file (44/53) file104.bin ...
 25 Apr 2025 09:17:17.470 [INFO] Downloading file (45/53) file105.bin ...
 25 Apr 2025 09:17:17.589 [INFO] Downloading file (46/53) file106.bin ...
 25 Apr 2025 09:17:17.732 [INFO] Downloading file (47/53) file107.bin ...
 25 Apr 2025 09:17:17.838 [INFO] Downloading file (48/53) file120.bin ...
 25 Apr 2025 09:17:18.551 [INFO] Downloading file (49/53) file121.bin ...
 25 Apr 2025 09:17:22.715 [INFO] Downloading file (50/53) file122.bin ...
 25 Apr 2025 09:17:23.414 [INFO] Downloading file (51/53) file123.bin ...
 25 Apr 2025 09:17:54.092 [INFO] Downloading file (52/53) file124.bin ...
 25 Apr 2025 09:18:01.960 [INFO] Downloading file (53/53) file125.bin ...
 25 Apr 2025 09:18:29.339 [INFO] Firmware download successful
```

```
🗗 🐻 Output 🛈 Notifications
```

The HMI will read "You must reboot system".

You must system	reboot	

14) Remove the USB cable and reboot the Soft Starter by cycling the control power.

POST UPDATE STEPS

In WPS, close the Soft Starter Configuration file. Then open the SSW900-CETH-W Configuration file. Connect an Ethernet cable to SSW900-CETH-W.

- 1) Open the SSW900-CETH-W configuration.
- 2) Select Online from the WPS pulldown menu, then Connect Device.



WPS will generate an Error message requesting a change in resource. Select Yes.

\odot	Invalid device version	
	Change resource options?	
	Ver	

This will bring up the Communication Configuration screen.

ON THE COMMUNICATION CONFIGURATION SCREEN:

- 3) Select the Ethernet radio button.
 - a) Verify TCP Port = 502.
 - b) Set Unit ID to 255. This is a crucial step. A setting of 254 is used only for firmware updates.
- 4) Click the Test button and verify that the Status message is correct. It is important that the Status device is "SSW900" and not "SSW900-CETH-W". If the device shown is "SSW900-CETH-W", then close this dialog, reboot the SSW900 and restart the Post Update procedure. If the problem persists, contact ADC tech support.

Communication configur	tion Communication ma	anager				
Device	Host:	localhost				
Information Memory areas	Port:	34502				
	Device					
	Preset:	SSW900-CETH-W V				
	Physical layer:	O USB O Serial (over US	5B) 🧿 Ethernet 🔇	Bluetooth 🔿 CAN	O Configured connections	
	Configuration			Timing [ms]		
	IP address:	192,168.0.	10	Transmission delay:	0	
	TCP port	[502 🚔	Pernonce delaw	0	
	TCP pole		202	Response delay:	U	
	Unit ID:		255 -	Timeout:	5000	
	Connecte	es: D		Telegram size:	40	
	Current connectio	n: Ethernet/Modhus.ICP/1	192 168 0 10:502/@	255#0#0#5000#40		Te
	Chathan Chathan		152.100.0.10.502/@.	255**************		
	status:	Communication Manag Device online. [WEG, SSW900, V1.60]	er online.			

5) Clicking OK will bring you to the Application window.

Print	_
	Print

- 6) No changes are needed on this screen. Click Finish.
- 7) Close this Configuration. You will not need to use these firmware update configurations again.

SSW900 Commissioning

1) Create a new Configuration for Soft Starter and SSW900-CETH-W parametrization. Name as appropriate as this is the Configuration you will use to commission the Soft Starter. For demonstration, the same name is used in Configuration name and Resource name.

Configuration name:	SSW900_Commissioning	(
Configuration path:	C:/Users/lone/WPS 3.10	Configurations	
Resource name:	SSW900_Commissioning		
Resource type:	• Resource (default)	O Application	
	Configuration name: Configuration path: Resource name: Resource type:	Configuration name: SSW900_Commissioning Configuration path: C:/Users/Ione/WPS 3.10 Resource name: SSW900_Commissioning Resource type: O Resource (default)	Configuration name: SSW900_Commissioning Configuration path: C:/Users/lone/WPS 3.10 Configurations Resource name: SSW900_Commissioning Resource type: Resource (default) Application

2) Click Next. This will bring you to the Communication configuration screen. The Physical layer selection will be USB by default. You can continue your configuration via USB, or change to Ethernet. In order to set an IP address other than the default, you must use USB communication.

Name Communication configuration Device selection	Communication mar Host: Port:	nager Iocalhost 34502]	
Device selection	Device Preset: Physical layer: Configuration Unit ID:	SSW900 V USB O Serial (over USB) O) Ethernet O Bluetooth CAN Timing [ms] Transmission delay: Response delay: Timeout: Telegram size:	Configured connections C Configured connect
	Current connection Status:	USB/@0#0#0#1000#240 Communication Manager onl Device online. [WEG, SSW900, V1.60]	ine.	Test

USING A USB CONNECTION

• For a USB connection, click the Test button and verify that the Status message is correct. If the SSW900 or Device Online is not present in the Status box, verify the USB cable is connected correctly, the SSW900 has control power and that SSW900 is selected in the Preset drop down. If the problem persists, contact ADC tech support. Clicking Next will bring up the Device selection window. Proceed to Step 3.

USING AN ETHERNET CONNECTION

• For an Ethernet connection, select the Ethernet radio button and verify that the Status message is correct. If the device shown is "SSW900-CETH-W", then close this dialog, reboot the SSW900 and restart the Post Update procedure. If the problem persists, contact ADC tech support. The Unit ID must be set to 255. Clicking Next will bring up the Device selection window. Proceed to Step 3.

wes New Configuration						>
Steps	Communication config	uration				
1. Name	Communication mana	iger				
2. Communication configuration	Host: Id	calhost				
3. Device selection	Port: 3	4502				
				P		
	Preset:	sw900 ~				
	Physical layer:	USB Serial (over USB	Ethernet		O Configured connect	ions
	Configuration			Timing [ms]		
		[
	IP address:	192.168.0.10	0	Transmission delay:	0	
	TCP port:		502 🜩	Response delay:	0	
	Unit ID:		255 🗢	Timeout:	5000	
	Connected du res	Dis		Telegram size:	240	
		\sim				
	Current connection:	Ethernet/Modbus-TCP/19	2.168.0.10:502/@	255#0#0#5000#240		Test
	Status:	Communication Manager Device online. [WEG, SSW900, V1.60]	r online.			
		1				
	•		< <u>B</u> ac	k Next >	Einish Cancel	<u>H</u> elp

3) These steps apply to both USB and Ethernet connections. On the Device selection screen, click the Identify Device button and verify that the Version reads 1.6X or above and that the Ethernet communication module SSW900-CETH-W is shown in the correct slot. Contact AutomationDirect technical support if any of the values on this screen are incorrect.

Steps	Device selection	
 Name Communication configuration Device selection Application 	Type: SSW900 Version: 1.6X Siot1 Ethernet Siot2 Anybus-CC Iden	tify Device Features A Soft-Starter de baixa tensão SSW900 é um produto de alto desempenho o qual permite o controle da partida, parada e a proteção de motores de Indução trifásicos de baixa tensão. Desta forma evitam-se choques mecânicos na carga, surtos de corrente na rede de alimentação, e a quiema do motor. Uma das principais características deste produto é a grande robustez nas técnicas de deteçção de faihas e alarmes na rede de alimentação e conexões, tornando possível ao cliente escolher qual a melhor forma de proteger o seu motor.
1-11		e Parte Marta Einich Canad Uni

4) Clicking Next will bring up the Application window.

eps	Application	
Name Communication	Import WLP Backup	
Device selection	i lie Paul	
Application		
		Print

- 5) No changes are needed on this screen. Click Finish.
- 6) Select Online from the WPS pulldown menu, then Connect Device.

ies W	/EG Pr	ogrammi	ng Suite	≥ 3.10			
<u>F</u> ile	<u>E</u> dit	<u>O</u> nline	Tools	Window	<u>H</u> elp		
¢	¢	4	💪 Conn	ect Device		F9	
Con	figurat		🗿 Conn	ected Devi	ce Informat	ion F10	
() SSI		Quick	Parameter	Monitorin	g	
Ē			Read	Parameters	from Devi	ce	>
			Write	Parameter	s to Device		>
	<u>ا</u> ۰۰		Dowr	nload Reso	urce	F8	
	<u>+</u>	() Uploa	ad Resource	e	Ctrl+F8	
		Đ	Comp	are Device	Resource		
			Onlin	e Comman	d		>
		1	Force	I/O			
			Firmv	vare downl	oad		
		5	WCoi	mm			

A successful connection is indicated by a green indicator in the bottom right corner of WPS. **Ethernet Connection**



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💠 WComm

Firmware download

8) Expand the Parameter window to show additional parameter rows and value columns. Note the Online column updating as well as the progress in the Output window at the bottom of WPS.

File Edit Online Tools Window Help						
	⊜⊖ 🕄 ▶ 🗖	8 🍁			1	
Configurations × _	Welcome 🗙 🧮 Paramet	ers 🗙				
SSW900_Commissioning	Parâmetros		🕸 🚳 📝 🖓 📾 🛲			
SSW900 Commissioning (SSW900 v1.6)	🗄 🗮 S Status	3				
Parameter	🗄 🛄 D Diagnostics	Parameter	Description	Offline	Online	Min
Program	C Configurations	A1.1	Mode	0: No	0: No	0: No
Diagnostic	A Assistant	C1.1	Types of Control	1: Voltage Ramp + Current Limit	1: Voltage Ramp + Current Limit	t 0: Vc
Wizards		C1.2	Initial Start Voltage	30	30	25
		C1.3	Maximum Start Time	20	20	1
		C1.4	Start End Detection	1: Automatic	1: Automatic	O: Ti
		C1.5	Initial Current Ramp	150	150	150
		C1.6	Current Ramp Time	20	20	1
		C1.7	Current Limit	300	300	150
		C1.8	Start Torque Chara.	1: Constant	1: Constant	1: Co
		C1.9	Initial Start Torque	30	30	10
		C1.10	End Start Torque	110	110	10
		C1.11	Minimun Start Torque	27	27	10
		C1.12	Min.Start Torq. Time	20	20	1
		C1.13	Stop Time	0	0	0
	1		las a constant		1	

-			

Output Default Default 1:57:33.067 [INFO] PAR_S5_2_1: 258 25 Apr 2025 10:57:33.067 [INFO] PAR_S5_2_2: 18 25 Apr 2025 10:57:33.075 [INFO] PAR_S5_2_2: 10 25 Apr 2025 10:57:33.075 [INFO] PAR_S5_2_4: 0 25 Apr 2025 10:57:33.079 [INFO] PAR_S5_2_5: 0 25 Apr 2025 10:57:33.091 [INFO] PAR_S5_2_2: 0 25 Apr 2025 10:57:33.091 [INFO] PAR_S5_2_1: 0 25 Apr 2025 10:57:33.005 [INFO] PAR_S5_2_1: 0 25 Apr 2025 10:57:33.100 [INFO] PAR_S5_2_1: 0 25 Apr 2025 10:57:33.100 [INFO] PAR_S5_4_1: 0 25 Apr 2025 10:57:33.101 [INFO] PAR_S5_4_2: 0 25 Apr 2025 10:57:33.115 [INFO] PAR_S5_5_1: 0 25 Apr 2025 10:57:33.125 [INFO] PAR_S5_5_1: 0 25 Apr 2025 10:57:33.125 [INFO] PAR_S5_5_2: 0 25 Apr 2025 10:57:33.127 [INFO] PAR_S5_2.2: 0 25 Apr 2025 10:57:33.127 [INFO] PAR_S5_5_2.2: 0 25 Apr 2025 10:57:33.27 [INFO] PAR_S5_5_2.2: 0 25 Apr 2025 10:57:33.27 [INFO] PAR_S5_5_2.2: 0 25 Apr 9) After the parameter upload is complete, check parameter S3.2 Software Version to make sure both the Soft Starter and the SSW900-CETH-W module are firmware version 1.60.
 The Soft Starter is S3.2.2.1 and the comm card is S3.2.2.8 or .10. depending on the slot it is in.

arametros		🕸 🏠 📳					
S Status	Demonster	Description	045	Online	A distances	Mandanian	Faster stilles
r 🔚 S1 Measurements	Parameter	Description	Omine	Unine	Minimum	Maximum	ractory setting
- S2 I/O	\$3.2.1	Package	1.60	1.60	0.00	99.99	1.60
53 SSW900	\$3.2.2.1	Control 1 V	1.60	1.60	0.00	99.99	1.60
🗄 📟 S3.1 SSW Status	\$3.2.2.2	Control 1 rev.	6218	6218	-32768	32767	0
S3 2 Software Version	\$3.2.2.3	Bootloader V	1.03	1.03	0.00	99.99	1.03
the solution of the solution	\$3.2.2.4	Bootloader rev.	6130	6130	-32768	32767	0
S5.2.2 Details	\$3.2.2.5	HMI rev.	7550	7550	-32768	32767	0
S3.2.2.11 Software Vers	\$3.2.2.6	Control 2 V	1.60	1.60	0.00	99.99	1.60
🐵 🚟 S3.3 SSW Model	\$3.2.2.7	Control 2 rev.	6187	6187	-32768	32767	0
🐵 🛲 S3.4 Fan Status	\$3.2.2.8	Accessory 1 V	1.60	1.60	0.00	99.99	0.00
🗄 🚟 S3.5 Accessories	\$3.2.2.9	Accessory 1 rev.	6222	6222	-32768	32767	0
S4 Temperatures	\$3.2.2.10	Accessory 2 V	0.00	0.00	0.00	99.99	0.00
S5 Communications	\$3.2.2.11	Accessory 2 rev.	0	0	-32768	32767	0
S6 SoftPLC							
D Diagnostics							
C Configurations							
A Assistant			SSW900-C	ETH-W			
			Firmware V	ersion			
			Firmware v	ersion			
	1		Accessory 1	ersion = Slot 1			

Firmware update for the SSW900 soft starter and the SSW900-CETH-W Ethernet module is now complete. Both are ready for normal commissioning.

USER GUIDE LINKS

Refer to the WEG User Guides for device and programming specifics.

<u>SSW900 User Manual</u> <u>SSW900 Ethernet Manual</u> <u>SSW900 Programming Manual</u>