

SHIELD Communicator Configuration Instructions

The Communicator module is an addition to the SHIELD system that allows for remote interface to the Emergency Communication System.

The Communicator dials out and allows a remote Call Center to talk and listen to the person in front of the Remote Call Station using a standard phone line.

Table of Contents:

1. About the Communicator

- 1.1: Requirements
- 1.2: Messages
- 1.3: Contact-ID
- 1.4: The Communicator
- 1.5: Sequence of Operation

2. Starting the Configuration Process

- 2.1: Messages
 - 2.1a: Description
 - 2.1b: Recording
 - 2.1c: Conversion
 - 2.1d: Uploading
 - 2.1e: Uploading Remote Station Announcements
 - 2.1f: Quick Load Messages
- 2.2: Configuration Files
 - 2.2a: Description
 - 2.2b: Configuring the System
 - 2.2c: Upload Configuration Files via the Down Program
 - 2.2d: Creating Configuration Files
- 2.3: Changing IP Addresses
- 2.4: System Setups
 - 2.4a: Single Command Panel Setup
 - 2.4b: Multiple Command Panels Setup

3.Updating Firmware

- 3.1: Updating the Master's Firmware
- 3.2: Updating the Communicator's Firmware
- 3.3: Updating Remote Call Stations' Firmware
- 3.4: Updating Isolator's and Relay's Firmware

4.C

5.Summarized Workflows

- 5.1: Uploading Messages
- 5.2: Uploading Configuration Files
- 5.3: Changing IP Addresses
- 5.4: Updating Firmware
- 5.5: Updating MAC Address

6.Troubleshooting

- 6.1: Device is Unable to Call Phone
- 6.2: Messages not Playing at Phone Line
- 6.3: Additional Notes

7. Test Call

8. Resources

INTRODUCTION



Description:

The purpose of the Communicator is to enable the ability for the system to dial off-site with a voice connection to the Remote Call Station in an alarm.

The Communication is half duplex. This means the Phone Operator can only either talk or listen, not both simultaneously. In order to switch between the Talk / Listen functions, press the asterisk / star key " * " on the keypad. To acknowledge and reset the call, press " 1 ".

Note: If the call is NOT reset, the system will keep dialing the number until it has been properly reset. This is to ensure the call is not dropped or interrupted and a pathway back to the remote's location is not lost.

It is recommended to send along the appropriate call sequence (Section 1.3, "Communicator Module Connections") and a zone list to the Call Center to attach to the account for the Phone Operator to see while answering a call.

1. About the Communicator

1.1: Requirements

This Communicator requires an Analog phone line. This may be supplied by the phone company, internet provider as a service, or via an analog terminal adapter.

To set up the Communicator, there are two things that must be done before hooking up the device. If you do not have access to install programs on your computer or make changes to your network adapter, see your IT administrator ahead of install. Ensure the computer being used has the DOWN Program installed.

The DOWN Program is available for download, see (Section 8, "*Resources*". Set your computer to a static IP Address to match and use the same network as the Communicator. The default IP Address is printed on a sticker on the Ethernet port of your SHIELD device. The Communicator is configured by a computer using a standard Ethernet cable.

In order to set up the Communicator, five messages must be recorded and downloaded to the module. These messages may be done ahead of time. A recording device, such as your phone, is required to capture the messages. The Communicator will keep these messages even if the system is powered down.

1.2: Messages

Before setting up your system, contact the Call Center.

Message 0 should announce the main address. Example:

"This is an emergency call from Boston, Acorn St. 1."

Message 1 should be "Operator Talk"

Message 2 should be "Operator Listening"

Message 3 is the verification message that plays when pressing the '1' key the first time. "Press '1' again to acknowledge and end the call."

Message 4 not used

<u>Message 5</u> is the message that will be played to the Central Station Operator, giving instructions on how to use the half-duplex mode. "Press the Star key to Talk, and the Star key to listen. Press the '1' key to end communication, and the '1' key again to acknowledge and end the call.". This message must be played all the way through before the call will finally reset.

1.4: The Communicator



- Mounts in SHIELD30 Master Command Panel or Communicator Enclosure (sold separately)
- Allows emergency calls to be sent to a standard POTS Phone Line
- Set up Site-specific Messages and Instructions
 - Refer to (Section 2.1, "Messages") in this current document
- RJ-45 Ethernet Port connects Communicator with Command Panel
- Supports voice calls and Contact-ID with Voice
 - o Refer to (Section 2.2b, "Configuring the System") in this current document
 - Refer to SHIELD30-Emergency-Communication-System-Operations-Manual
 > (Section 7.2, "Testing")
- Test Call Button Calls to POTS Phone Line
- Operates off system 24V Regulated DC Power
- With all DIP Switches set up, uses stored memory. With them down, switches to factory settings, with the IP Address changing to ".91". Reset the Dialer or System to apply settings.

1.5: Sequence of Operation

For Messages and their contents, refer to Section 1.2, "*Messages*" in the SHIELD30-Communicator-Configuration-Instructions manual.

Call Sequence: (Non contact-ID):

- 1. Call from Remote Call Station is placed.
- 2. Communicator dials number in Configuration File.
- 3. Operator picks up call.
- 4. Communicator in Command Panel starts playing Message 0, followed by Message 5.
- 5. The minimum required Voice Loops will force the Messages to play a certain number of times before they can be interrupted before proceeding the call.

Note: These messages will repeat if no input is given.

- 6. Operator listens to message and uses asterisk '*' key to talk.
- 7. Operator communicates with user at Remote using the '*' key. Each time the '*' is pressed the Operator hears Message 1 if they enable Talk, or Message 2 if they enable Listen.
- 8. Operator presses' 1 ' key to stop communication. Message 3 is played. Operator presses'1'key again to acknowledge and end the call.

Note: If the' 1 ' key is not used to confirm ending the call, the system will re-dial the number until the call is acknowledged.

A COPY OF THIS PAGE IS AVAILABLE AS THE LAST PAGE OF THIS MANUAL. THE COPY AT THE END IS TO BE GIVEN TO THE CALL CENTER OPERATOR

2. Starting the Configuration Process

2.1: Messages

Messages are recordings that are stored in the Communicator and play on a POTS Phone Line to provide instructions and vital information to the Central Station.

Sampling				
Default Sample Rate:	8000 Hz	\sim	44100	
Default Sample Format:	16-bit			\sim

2.1a: Description

Recording messages may be done in many different ways. The message downloaded to the Communicator must be in the following format: 8Khz, 16bit, Mono, export as .way

Content of the messages is described in (Section 1.2, "*Messages*"). The end user or Central Station and AHJ should be consulted to determine the content of the messages.

Many applications may be used to generate the files, but you must

have control to save in the 8000hz, 16bit, .wav format.

Recording can be done with a microphone or a smartphone. It's best to record messages in a quiet area. Once the messages have been recorded, import them to Audacity or an audio program of your choosing.

Trim any 'dead air' in the beginning and / or end of the recording. 'Dead air' only adds unnecessary time to the playback. Change the bitrate to match the requirements for the Communicator.

For each message, it is best to have a clear, distinct recording with no extra dead space. Using a smartphone to record then save to your computer is a great option to get a clear recording, and then trim and format appropriately in Audacity.

Steps to complete audio messages:

- A. Record and trim messages (creates appropriate .wav files)
- B. Convert to processor or format (convert .wav to .son files)
- C. Upload messages to communicator.

2.1b: Recording Messages

Audacity is a free, easy-to-use, multi-track audio editor and recorder for Windows, MacOS, GNU/Linux and other operating systems.

You may use ANY software available that can generate audio files with the correct sampling and bit rate.

Note: The message format before you convert it for the Communicator must be in the following format: 8Khz, 16bit, Mono, .wav

•Download and Install Audacity. https://www.audacityteam.org/download/

Setup - Audacity	Welcome to the Aud Wizard This will install Audacity 3.2.2 on yu It is recommended that you close a		- 🗆 your computer.	×
Audacity	continuing	Extracting files C:\Program Files\Audacity\vorbis.dll	Audacity	- □ × Completing the Audacity Setup Wizard Setup has finished installing Audacity on your computer. The application may be launched by selecting the installed shortcuts. Click Finish to exit Setup. ✓ Launch Audacity
	E			

Back

Finish

For Setup follow all of the defaults:

 Before Starting Audacity, create a folder in Preferences: Devices X C:\visar\ called 'umessage'. This directory will Devices Interface Playback be used to store all voice messages to be Host: \sim Recording Using: PortAudio V19.7.0-devel, revision unknown uploaded. MIDI Devices Quality Playback Interface Device: v - Tracks · Once you start Audacity, open the 'Edit' menu Tracks Behaviors Recording --- Spectrograms and then choose Device: - Import / Export > 1 (Mono) 'Preferences...' (at the very bottom) Extended Import Libraries ency Directories 100 milliseconds Warnings uffer length: Effects ncy compensation: -130 milliseconds Keyboard Mouse • Under the 'Devices' section, Modules Application make sure the 'Channels' is set to 1 (Mono) Cancel OK



*** The files MUST be stored in the "C:\visar\umessage" directory!

• Once the File is saved, repeat this process for message 1, 2, 3, 4 and 5.

Example Messages. See (Section 2.1e, "Upload Messages with Number Announcement") for full examples:

Message 0: Main Address. "This is an emergency call from Boston, Acorn St. 1"

Message 1: "Operator Talk".

Message 2: "Operator Listening".

Message 3: End of Call. "Press '1' key again to end the call".

Message 4: Not used.

<u>Message 5</u>: Instruction message "Press the Star key to Talk, and the Star key to listen. Press the '1' key to end communication, and the '1' key again to acknowledge and end the call."

If you already have made recordings, such as on a different program or device, the recordings will need to be converted and exported in the appropriate format as specified above: Mono, 16-bit, 8000Hz, .WAV format.

Note: Most programs and modern devices will record audio in Stereo instead of Mono.

To convert recordings from Stereo to Mono:



To ensure the recording has been converted to the appropriate format, a quick way to tell is to refer to its file size. Depending on how long the recording is, if the Mono .WAV file is less than 100 KBs, you may proceed with converting the .WAV into a .son.

2.1c: Conversion

Now run the ADPCM converter from: C:\visar\bin\AdpcmConverter.exe		
• This program converts the file into a format the dialer can play back.		- 🗆 ×
Click on the browse button next to "Input File".	ADPCM Conversion (must us Input file (.wav) FileEdit	se 8Khz, Mono)
Navigate to the previously recorded message and select open.	Output file (.son) FileEdit	
 ← → · ↑ → This PC > Downloads > audiotest > au Organize · New folder B Space Age Electro This PC ③ 3D Objects ○ Addo Drive ④ Example - Mono.wav ④ Example - Stereo.wav File name: Example - Mono.wav 	d ze Title Album 65 KB 713 KB	Convert to ADPCM — — ×
• This will fill in the output file name in the same director as the input file and update the extension to .son	Unput file (.wav)	Example - Mono.wav
• Click the convert to ADPCM button, and you will see - the new file appear in the directory.	C:\visar\umessage\Example - Mono.son	Convert to ADPCM
File Home Share View ← → ↑ □ > This PC > Local Di	sk (C:) > visar > umessage v 0	Search umessage
This PC Name This PC 0-Defa 3D Objects 1-Defa Control Desktop 2-Defa Documents 3-Defa Documents 4-Defa Downloads 5-Defa	Size Diamondary ult-Announcement.son 13 KB 9/ ult-OperatorTalk.son 6 KB 9/ ult-OperatorListen.son 5 KB 9/ ult-EndCall.son 11 KB 4/ ult-Trouble.son 13 KB 9/ ult-Instructions.son 37 KB 9/	ate modified Type /24/2021 1:49 PM SON File /24/2021 1:50 PM SON File /22/2022 9:50 AM SON File

StationNumber-03.son

StationNumber-04.son

StationNumber-05.son

StationNumber-06.son

StationNumber-07.son

StationNumber-08.son

4 KB 8/16/2021 11:28 AM

4 KB 8/16/2021 11:29 AM

4 KB 8/16/2021 11:29 AM

5 KB 8/16/2021 11:29 AM

4 KB 8/16/2021 11:30 AM

4 KB 8/16/2021 11:30 AM

SON File

SON File

SON File

SON File

SON File

SON File

Pictures

Videos

Local Disk (C:)

My Passport (D:)

SAE COMMON (M:

38 items 1 item selected 16.1 KB

2.1d: Upload Messages

Now it is time to run the Down Program and configure the device. Execute the DOWN Program from the Desktop Icon. Instructions for installing the Down Program may be found in the **SHIELD30-DOWN-Program-Installation-and-Setup-Guide** which may be found in the Dropbox:

https://www.1sae.com/lifeguard-networks

First, we must connect to the Communicator, the module that connects directly to the phone line. This is the module the messages will be uploaded to.

📌 Download Program 2.0.3 (1	Jan 18 2022)							
File ?				₫ • Co	ommunication Set Up			• •
Uhity Gateway Digital Ampli Upload Logbook Convert Logbook Get Time Set Time	Download to de Downl. Firm Send Genera Erase All Gene	vice ware al File ral Files use old protocol	Address MAC Explore Devices Get Version	Command N Reset Dev Bulk Erase [Open Spy W	IP Configuration remote serial	COM1	 ✓ 9600 	×
IP: 192,168,1,100 Password	Connect Disconnect	Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected Disconnected			• IP	192 168.1.100 1025	RS-485 Module Node Send to RS-485 no Send Broadcast Send Broadcast wit	1 de h node
							Ok	Cancel

Main Screen

Configuration Menu

1)

- Go to File > Configuration Menu
- · Select 'IP'

• In the field, type in the IP Address of the target module. In this instance, we are connecting to the Dialer, 192.168.1.100. The factory default address is 192.168.1.100 This is the IP address of the Communicator

- · Leave everything else be and click 'Ok' to refer back to the Main Screen.
- Enter the password '33333' (five 3's) in the 'Password' field.
- · Click the 'Connect' button.
- Once connect, the text in the console area will turn red and the message 'Connected...' appears.
- Next, at the Main Screen navigate to the 'Digital Amplifier' tab, then click on the 'VoiceMessages' icon.
- This will open the Voice Messages window.

-		File Name		File Content	Durati	on(s)				Voice Messages
_	0	0-Default-Announcement.son	~		4	14	StationNumber-14.son	~	2	
-	1	1-Default-OperatorTalk.son	~		2	15	StationNumber-15.son	~	2	UMESSAGE
	2	2-Default-OperatorListen.son	~		2	16	StationNumber-16.son	~	2	
	3	3-Default-EndCall.son	~		3	17	StationNumber-17.son	~	2	
	4	4-Default-Trouble.son	~		4	18	StationNumber-18.son	~	2	
	5	5-Default-Instructions.son	~		10	19	StationNumber-19.son	~	2	
	Sta	art of station messages				20	StationNumber-20.son	~	2	
	3	StationNumber-03.son	~		1	21	StationNumber-21.son	~	2	
.	4	StationNumber-04.son	~		1	22	StationNumber-22.son	~	2	
ed.	5	StationNumber-05.son	~		1	23	StationNumber-23.son	~	2	
	6	StationNumber-06.son	\sim		2	24	StationNumber-24.son	~	2	Load Directory
	7	StationNumber-07.son	~		1	25	StationNumber-25.son	~	2	Ok
	8	StationNumber-08.son	\sim		1	26	StationNumber-26.son	~	2	
	9	StationNumber-09.son	\sim		2	27	StationNumber-27.son	~	2	Cancel
	10	StationNumber-10.son	\mathbf{v}		2	28	StationNumber-28.son	~	2	Print
	11	StationNumber-11.son	\sim		1	29	StationNumber-29.son	~	2	
	12	StationNumber-12.son	\sim		2	30	StationNumber-30.son	~	1	
on	13	StationNumber-13.son	\sim		2	31		~	0	
0.1						32	(<u></u>	~	0	

'Start of Station Messages', you can scroll through the individual available audio files. This is also how you can select and upload custom messages to certain Remote Call Stations, for instance, the locations of these Remotes.

· After the first five Messages, unde

• Click 'Load Directory'. All of the recorded messages in the C:\visar\umessage folder will be listed

· Once complete, click 'Ok'.

Note: If you choose to select one Message, any blank fields will not remove the corresponding Message on the Dialer.



• Next, click the 'Send User Voice' button. This will upload all of the messages to the Communicator.

	🕪 Download Program 2.0.3 (lan 18 2022)			
Note: During upload, it will send each file one after	File ? Utility Gateway Digital Amplit	ier			
another. The Download Status dialogue box will pop up after	🐠 Download Status		UserVoice		
every file has been upoaded. Do NOT click any dialog boxes	Status: storage ok !				
until it completes all files.		Set Amplifuer Into 2 Channel Mode			
		File Name Bytes Written: 4546		Abort	
	IP: 192.168.1.100	File 38 of 36		Close	
Note: During upload it will	Password	Pkt 4096 11:26:18 AM Ack 4096 11:26:18 AM Pkt 4224 11:26:18 AM			
scroll through the packets being sent for each file. This is a good indicator all is working.		Connect Ack 4224 11:26:18 AM Pkt 4352 11:26:18 AM Disconnect Pkt 4480 11:26:18 AM			
		Ack 4480 11:25:18 AM	error	•	
					ļi.
•Once complete, errors will appear Press 'Close' and 'OK' on	ar. This is normal. the final dialogue bo	xes.	Number of by	ytes sent 4546	
			>	ОК	
		🔗 Download Status			• • •
		Status: storage ok !			Close

If 'File xx of xx' exceeds the number of messages you are uploading (in this case 38 of 36), then the uploading process was a success!

Once messages are uploaded, the Communicator will immediately use them. Resetting the device is not required at this time.

2.1e: Upload Messages with Number Announcement

Uploading messages with the number announcement is very similar to the previous method, except selecting the additional messages. Note the order is critical:

File Name Message

- 0 'Emergency Communication System has been activated'
- 'Clear to Talk' 1
- 2 'Now Listen'
- 3 'End Call'
- 4 Trouble Message

'Eighteen'

'Nineteen'

'Twenty-One'

'Twenty-Two'

'Twenty-Three'

'Twenty-Four'

'Twenty-Five'

'Twenty-Six'

'Twenty-Seven'

'Twenty-Eight'

'Twenty-nine'

'Thirty'

'Twenty'

5 Instructions 6 'Three' 7 'Four' 8 'Five' 9 'Six' 10 'Seven' 11 'Eight' 12 'Nine' 13 'Ten' 14 'Eleven'

15

16

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33

Inree	File Name	File Content	Duration(s)			Voice Messages
'Four'						
'Eivo'	0 0-Default-Announcement.son \sim		4 14	StationNumber-14.son	~	2 Divisar
	1 1-Default-OperatorTalk.son 🗸		2 15	StationNumber-15.son	~	2 DMESSAGE
'Six'	2 2-Default-OperatorListen.son 🗸		2 16	StationNumber-16.son	~	2
'Seven'	3 3-Default-EndCall.son 🗸 🗸		3 17	StationNumber-17.son	×	2
'Eight'	4 4-Default-Trouble.son 🗸		4 18	StationNumber-18.son	~	2
Eight	5 5-Default-Instructions.son \sim		10 19	StationNumber-19.son	~	2
'Nine'	Start of station messages		20	StationNumber-20.son	~	2
'Ten'	3 StationNumber-03.son V		1 21	StationNumber-21.son	~	2
'Elovon'	4 StationNumber-04.son 🗸		1 22	StationNumber-22.son	~	2
Eleven	5 StationNumber-05.son 🗸		1 23	StationNumber-23.son	~	2
'Twelve'	6 StationNumber-06.son V		2 24	StationNumber-24.son	~	2 Load Directory
'Thirteen'	7 StationNumber-07.son ~		1 25	StationNumber-25.son	~	2 Ok
I Counto on l	8 StationNumber-08.son 🗸		1 26	StationNumber-26.son	~	2
Fourteen	9 StationNumber-09.son 🗸		2 27	StationNumber-27.son	~	2 Cancel
'Fifteen'	10 StationNumber-10.son 🗸 🗸		2 28	StationNumber-28.son	~	2 Print
'Sixteen'	11 StationNumber-11.son 🗸		1 29	StationNumber-29.son	×	2
	12 StationNumber-12.son 🗸		2 30	StationNumber-30.son	~	1
Seventeen	13 StationNumber-13.son 🗸 🗸		2 31	StationNumber-31.son	~	2
'Fighteen'			32	StationNumber-32.son	~	2

$\leftarrow \rightarrow \cdot \uparrow \square$	This PC > Local Disk (C:) > umessage		~	ن الم Search umessage	
	Name ^	Date modified	Туре	Size	
🖈 Quick access	0A-Default son	11/30/2018 7-29 AM	SON File	39 KR	
Desktop 🖈	0-Default-Appouncement son	9/24/2021 1-49 PM	SON File	13 KB	
👆 Downloads 🖈	A-Default-son	11/30/2018 7:29 AM	SON File	5 KB	
🗄 Documents 🖈	1-Default-OperatorTalk.son	9/24/2021 1:49 PM	SON File	6 KB	
📰 Pictures 🛛 🖈	2A-Default.son	11/30/2018 7:29 AM	SON File	5 KB	
-	2-Default-OperatorListen.son	9/24/2021 1:49 PM	SON File	5 KB	
	3A-Default.son	11/30/2018 7:29 AM	SON File	9 KB	
	3-Default-EndCall.son	4/1/2020 1:44 PM	SON File	11 KB	
_	4-Default-Trouble.son	9/24/2021 1:50 PM	SON File	13 KB	
	5-Default-Instructions.son	9/24/2021 1:50 PM	SON File	37 KB	
 OneDrive 	3556 zanker road building G.son	10/12/2021 1:36 PM	SON File	54 KB	
	StationNumber-01.son	8/16/2021 11:28 AM	SON File	4 KB	
Ihis PC	StationNumber-02.son	8/16/2021 11:28 AM	SON File	4 KB	
3D Objects	StationNumber-03.son	8/16/2021 11:28 AM	SON File	4 KB	
Desktop	StationNumber-04.son	8/16/2021 11:29 AM	SON File	4 KB	
Documents	StationNumber-05.son	8/16/2021 11:29 AM	SON File	4 KB	
Downloads	StationNumber-06.son	8/16/2021 11:29 AM	SON File	5 KB	
h Music	StationNumber-07.son	8/16/2021 11:30 AM	SON File	4 KB	
Picturer	StationNumber-08.son	8/16/2021 11:30 AM	SON File	4 KB	
The second second	StationNumber-09.son	8/16/2021 11:30 AM	SON File	4 KB	
Videos	StationNumber-10.son	8/16/2021 11:30 AM	SON File	5 KB	
Local Disk (C:)	StationNumber-11.son	8/16/2021 11:30 AM	SON File	4 KB	
-	StationNumber-12.son	8/16/2021 11:31 AM	SON File	5 KB	
	StationNumber-13.son	8/16/2021 11:31 AM	SON File	5 KB	
	StationNumber-14.son	8/16/2021 11:31 AM	SON File	5 KB	
	StationNumber-15.son	8/16/2021 11:31 AM	SON File	5 KB	
-	StationNumber-16.son	8/16/2021 11:31 AM	SON File	5 KB	
-	StationNumber-17.son	8/16/2021 11:31 AM	SON File	5 KB	
	StationNumber-18.son	8/16/2021 11:31 AM	SON File	5 KB	
- USB Drive (E)	StationNumber-19.son	8/16/2021 11:32 AM	SON File	5 KB	

2.1f: Quick Load Messages

There is an option to quick load messages to the Voice Messages list in order to save time.

Within the folder, there is a 'voice.ini' file. Open 'voice.ini' in Notepad. You may delete any of the audio file names already written on there and replace them with your own. Make sure to write '.son' at the end so that the Down Program knows it is searching for an audio file.

Save the 'voice.ini' file, then launch the Voice Messages menu in the Down Program.

On the right, click 'Load Directory'. Audio files should start populating the blank spaces!

Note: The first six messages (0 - 5) are for phone instructions and operation. The remainder are individual stations. You may change these to represent the location the Remote is residing.

	File Name	File Content	Duration	n(s)				voice messages
0	0-Default-Announcement.son 🗸		4	14	StationNumber-14.son	~	2	C:\
1	1-Default-OperatorTalk.son 🗸 🗸		2	15	StationNumber-15.son	~	2	B UMESSAGE
2	2-Default-OperatorListen.son 🗸		2	16	StationNumber-16.son	~	2	
3	3-Default-EndCall.son 🗸 🗸		3	17	StationNumber-17.son	~	2	
4	4-Default-Trouble.son 🗸 🗸		4	18	StationNumber-18.son	~	2	
5	5-Default-Instructions.son		10	19	StationNumber-19.son	~	2	
Sta	art of station messages			20	StationNumber-20.son	~	2	
3	StationNumber-03.son 🗸 🗸		1	21	StationNumber-21.son	~	2	
4	StationNumber-04.son V		1	22	StationNumber-22.son	~	2	
5	StationNumber-05.son 🗸		1	23	StationNumber-23.son	~	2	(I I I I I I I I I I I I I I I I I I I
6	StationNumber-06.son 🗸 🗸		2	24	StationNumber-24.son	~	2	Load Directory
7	StationNumber-07.son \lor		1	25	StationNumber-25.son	~	2	Ok
8	StationNumber-08.son 🗸		1	26	StationNumber-26.son	~	2	Canad
9	StationNumber-09.son 🗸 🗸		2	27	StationNumber-27.son	~	2	Lancer
10	StationNumber-10.son 🗸 🗸		2	28	StationNumber-28.son	~	2	Print
11	StationNumber-11.son V		1	29	StationNumber-29.son	~	2	
12	StationNumber-12.son 🗸		2	30	StationNumber-30.son	~	1	
13	StationNumber-13.son 🗸 🗸		2	31		~	0	
				32		~	0	

📕 VoiceFile.ini - Notepad	- <u></u> -	×
File Edit Format View Help		
[VoiceFiles]		~
0=0-Default-Announcement.son		
1=1-Default-OperatorTalk.son		
2=2-Default-OperatorListen.son		
3=3-Default-EndCall.son		
4=4-Default-Trouble.son		
5=5-Default-Instructions.son		
6=StationNumber-03.son		
7=StationNumber-04.son		
8=StationNumber-05.son		
9=StationNumber-06.son		
10=StationNumber-07.son		
11=StationNumber-08.son		
12=StationNumber-09.son		
13=StationNumber-10.son		
14=StationNumber-11.son		
15=StationNumber-12.son		
16=StationNumber-13.son		
17=StationNumber-14.son		
18=StationNumber-15.son		
19=StationNumber-16.son		
20=StationNumber-17.son		
21=StationNumber-18.son		
22=StationNumber-19.son		
23=StationNumber-20.son		
24=StationNumber-21.son		
25=StationNumber-22.son		
26=StationNumber-23.son		
27=StationNumber-24.son		
28=StationNumber-25.son		
29=StationNumber-26.son		
30=StationNumber-27.son		
31=StationNumber-28.son		
32=StationNumber-29.son		
33=StationNumber-30.son		
34=StationNumber-31.son		
35=StationNumber-32.son		
		~

2.2: Configuration Files 2.2a: Description

The Communicator uses a Configuration File (.cfg) to configure the IP address of the Master and Communicator defaults.

The Communicator may be connected directly to the Master or through a standard Ethernet network. If it is necessary to configure through a firewall, the default port is UDP - 1025.

In the following Example, the IP address of the Master is		📗 system-Dialer-Default-100.cfg - Notepad	— C	×
192.168.1.90 /1025		File Edit Format View Help		
		/MEMBER_IP HOST 192.168.1.90 1025		^
And the IP address of the Communicator is:		/VOICE_IP HOST 192.168.1.90 1025		
102.100.1.100 / 1020		/SYSTEM_POLLING		
		/MY_AREA A1		
The system-Dilger-Default-100 cfg of the Commun	picator includes:	/MY_ZONE DIALLER		
The system-blact-belauk-roolog of the commu		/DIAL_NUMBER 5558476305		
		/DIAL WAIT 5		
/WEWDER_IP and /VOICE_IP		/NUMBER_OF_VOICE_LOOPS_BEFORE_DTMF 2		
Defines the CP on the network. Multiple CP's may	be defined to use a single dialer.			
SYSTEM POLLING		/xUSE_CONTACT_ID		
		/ITNE IN DB AUDIO 20		
Should remain un-touched.		,,,,		
/DIAL_NUMBER		/xDISABLE_TROUBLE_TRANS_DIALER		
Must be updated to the target for the site.				
/DIAL WAIT				
the number of seconds the dialer will wait to call o	ut on the POTS line if the Command		TT O	~
Panel does not acknowledge the call coming from	a Remote Call Station. This may be	Lh 23, Col 1 100% Windows (CRLF) C	/17-0	1
from 1 to 1800 seconds.	-			
/LINE_IN_DB_AUDIO	*Set to*default, only change	if necessary		
This function allows the input volume to be adjusta	able. (0 - 32)			
/VOLUME_HP_PERCENT	*Set to default, only change	if necessary		

The amplitude of the audio transmitted to the POTS phone. unless necessary, this should remain at 125

Note: Both functions /LINE_IN_DB_AUDIO and /VOLUME_HP_PERCENT use logarithmic numbers, not linear! Note: An 'x' after any backslash will comment out the line, disabling that function, as shown in this example. See (Sections 1.3, "Contact-ID" and 2.2b, "Configuring the System") for Contact-ID Example. All of the Configuration Files are available for download. See (Section 8, "Resources").

There are additional functions that can be used in the Configuration Files. These functions include: Note, Changing any of these settings is outside of the UL

/DTMFDURATION 125

Duration of dial tones.

/DTMFMARK 125 Duration of time between dial tones

/DTMFAMPLITUDE 110 Volume of dial tones.

/DIAL PERIODIC REPORT PERIOD MINUTES 10

The Command Panel will dial the Central Station every 10 minutes to check in. See (Section 2.2b, "Configuring the System") for one set to check in every 24 hours.

/NUMBER_OF_VOICE_LOOPS_BEFORE_DTMF

The number of times required to listen to the informational and instruction messages when answering the phone line before they can be interrupted to start the call. If set to 1, the phone operator can immediately interrupt the messages any time by pressing the * key. If set to 2, the operator must listen to the messages all the way through at least once before they can be interrupted. Any greater than 2 adds an additional loop before the messages can be interrupted.

/xDISABLE TROUBLE TRANS DIALER

Disables Trouble errors at the Command Panel in relation to the Communicator.

System-Dialer-Default-ContactID-100 cfg - Notenad	s <u></u>	п	×
File Edit Format View Help /MEMBER_IP HOST 192.168.1.90 1025 /VOICE_IP HOST 192.168.1.90 1025			^
/SYSTEM_POLLING /MY_AREA A1 /MY_ZONE DIALLER /DIAL_NUMBER 5558476305			
/DIAL_WAIT 5 /NUMBER_OF_VOICE_LOOPS_BEFORE_DTMF 2			
/USE_CONTACT_ID /CONTACT_ID_ACCOUNT 1570 /LINE_IN_DB_AUDIO 20 /xDIAL_PERIODIC_REPORT_PERIOD_MINUTES	144	0	
/xDISABLE_TROUBLE_TRANS_DIALER			

system-Dialer-Default-100.cfg - Notepad

2.2b: Configuring the System

Configuration for the Master

The systemMaster_90.cfg of the Command Panel:

/MEMBER_IP and /VOICE_IP

Defines the Communicator address. The **SUPERVISED** tag tells the Master to supervise the Communicator and Report an error event if the Communicator goes offline or if the phone line is un-plugged.

Note: without the 'SUPERVISED' tag, this is the default configuration for the Command Panel. You should not need to adjust the Command Panel's Configuration File except to add the

'Supervised' tag or change IP settings from default.



Note: If changing the IP addresses of either module, update the /MEMBER_IP and /VOICE_IP in the configuration files to match the new IP Addresses. Also perform this task when working with a setup using multiple Command Panels and/or Relays.

Note: Uploading the Configuration Files to the modules will not be possible without the device connected to a phone line!

2.2c: Upload Configuration File via the DOWN Program

Each configuration should be uploaded to the associated device. When saving the files, any name is acceptable as long as it uses the .cfg extension.



Example: "systemMaster_Airport_90.cfg"

For an example of a Multi-Command Panel setup, refer to (Section 2.4b, "Multiple Command Panels Setup").

Labeling Remote Call Stations

Create a .cfg file and using the

/MY_LABEL function, type in the desired name for the target Remote Call Station. The name must be typed in two quotation marks; "Lobby".

To meet the minimum file size requirement to upload this file, do not remove these X's!



COM1 9600 remote seria 192.168.1.90 RS-485 Module Node 6 • IP 1025 Send to RS-485 node Send Broadcast Send Broadcast with node 01-Look in: ASM4-WA5500 ~ 🕝 🎓 📂 🖽 ~ Date modified * Name Type 8/30/2021 4:09 PM 7/23/2021 8:55 AM File fo jflash OldFW Quick access Ampli-Address3 Ampli-ELEV.1-3-Floor2-Address 4 Ampli-Example CFG I CFG I 9/7/2021 1:41 PM 12/8/2021 4:50 PM 5/18/2022 10:48 AM Desktor Digital Am Ampli-Example2 Ampli-LEDsForStatus 3/3/2022 3:30 PM CFG I -1/29/2021 8:46 AM CFG I Download to device Upload Logbook Libraries 4/8/2022 1:42 PM Downl. Firmware vert Logbo This PC Get Time Erase All General Files ٢ Set Tim 00:00:00 Network File name: Ampli-Example Oper Pkt 1 Ack Pkt 1 Pkt 1 Ack 13105 10:41:30 AM Pkt 13312 10:41:38 AM Ack 13312 10:41:39 AM IP: 192.168.1.90 RS-485 nod Files of type: Config (*.cfg) Cancel Password Disconnected... ID: SM30-24D1->c Disconnect output class: 38, selector : 0 Activity NE030 0- D . . . M:\ENG\EP\WorkAreas\Dan Mongeau\EP04466-Shield\Boards\ASM4-\WA5500\AmpliExample.ch File Name File Name Translation Enabled Cance Ampli.cfg Amplifier ->Amplifiefg IPG->gw.cfg TSD->gwtem.cfg, main.cfg IPMG->config.cfg IPMG LUA ->program.lua SIM-4, SAM-4, etc -> module.cfg

IP Configuration

- Going to the DOWN Program, navigate to
- File > Configuration Menu.
- Connect to the Master Module, then type in the number of the Remote Call Station you would like to label based off of its DIP Switch Node. In this example, we will be connecting to Station 6.
- Check 'Send to RS485-node', then hit 'Ok'.
- Back in the main screen, hit 'Connect', then 'Send General File'.
- Click on the three dots to the left and search for the Configuration File you had just created.
- Referring back to the Download File window, check 'File Name Translation Enabled', then select 'Ampli.cfg' from the dropdown list and hit 'Ok'.

Labeling Remote Call Stations (Continued)



% Devices

First Node

Last Node



Node: 6 : Area Station SW Version:1.57 Lobby Node: 21 : Area Station SW Version:1.57 Station: 21 Node: 22 : Area Station SW Version:1.57 Station: 22 Node: 23 : Area Station SW Version:1.57 Station: 23 Node: 24 : Area Station SW Version:1.57 Station: 24 Node: 25 : Area Station SW Version:1.57 Cafe Node: 34 : RLM Supervisory SW Version:1.30 Output_2 Node: 34 s' 34 2 Node Change (stored in EEprom) 2 Change To: 3 Get Input Array Get Output Array Get Logical States Array

Command Panel View After pressing '6' on Main Screen

Explore Devices View

. . .

2.2d: Creating Configuration Files

When creating Configuration Files for your Device, it is important to note the file extension. With File Name Extensions turned off, the file extension can still be seen in the top-left corner of the notepad.

When saving, be sure to switch the "Save as type:" from "Text Documents (.*txt)" to "All Files (*.*), then type in ".cfg" at the end of the file name.



Share View

🔡 Medium icons

📧 Extra large icons 🔚 Large icons

Small icons

E Details

Home

💷 🚦 List

If you wish to turn on File Name Extensions, open File Explorer, click "View" towards the top of the window, then check "File name extensions."

With this feature on, you can also change the file extension without needing to open it. This method can be done both on the desktop and the file explorer.

Right-click on the file, select "Rename," then replace its original file extension with the desired one.

Note: Windows will give you a warning popup informing that changing certain files this way could corrupt it. This is **not** a concern when dealing with .txt and .cfg files. sysitem Dial... sysitemMas...

r 90.txt

-

11-

Item check boxes

File name exte

Hidden items

1

Option

system Dial... systemMbs...



For best practices, we recommend creating a folder either on the desktop or in the "C:/Visar" folder to store the Configuration Files.

2.3 Updating IP Parameters

Master Module = IP ends with .90, Named SM30_xxxx Communicator Module = IP ends with .100, Named SCOMM-xxxx

This chapter goes over the steps of changing the IP address(es) of your SHIELD30 Emergency Communication System.

Changing the IP Address is recommended when working with multiple Command Panels, or if an unrelated device is already occupying that IP Address.

Identifying IPs via CMD Prompt

IP	MAC Address	
Interface: 192.168.1.13 Internet Address 192.168.1.90 192.168.1.100	9 0xf Physical Address 00-50-c2-e3-24-d1 00-50-c2-e3-24-aa	Type dynamic dynamic
104 4 4 10 104 4 4 20 104 4 4 20 104 10 20 104 20		

If the device is not connecting to the Down Program, not pinging to the computer, and the IP on the target module is not certain, it's time to reset the IP address

Note: If the device is pinging but not connecting to the Down Program, we recommend contacting your IT Technician.

2.3 Updating IP Parameters (Continued)

Opening the DOWN Program, type in the password, "33333", then navigate to: File > Configuration Menu.

Configuration Screen on the Command Panel. This screen can be found under: Menu > Config.



Default MAC and IP Master Module

As we can see here, this Command Panel's IP Parameters are currently set to its default, **192.168.1.90**

Connect to the desired Module you wish to change the IP Parameters of.

In this example, we are connecting to the Master Module. It's currently set to its default IP, "162.198.1.90".

We want to change the end of the IP address from ".90" to ".94".

Click "Ok".

Back in the main screen, click 'Connect', then select the 'Gateway' tab towards the top of the screen.



2.3 Updating IP Parameters (Continued)



Note: Currently, in DOWN Program version Jan 18, 2022, there is a visual error which reads "Download FAILED! Check Password!" This is only a visual bug in the program and has no functional effect on the system.



2.3 Updating IP Parameters (Continued)

Once the changes have finished uploading, close all the Download and TCP/IP windows and refer back to the main window.

Check the Command Panel and refer to its Configuration Screen to see the updated IP.

-

You can also check by entering the 'arp -g' command using the CMD Prompt.



Command Prompt			Config	
Interface: 192.168.1. Internet Address 192.168.1.94 192.168.1.100	13 0xf Physical Address 00-50-c2-e3-24-d1 00-50-c2-e3-24-aa	Type dynamic dynamic	Comg P: 192168.194 MASK: 255.255.255.0 GW: 192168.11 Srvr1 192168.113 Srvr2 0.0.0 myID: SM30-24D1 Baudrate 1 115200 8 n Baudrate 2 9600 8 n Version SW: 2.61 Home	
C:\Users\KSeneca>_				

Go into the Configuration Menu and switch to the new IP Address.

IP: 192.168.1.90	Password	Connect Disconnect Activity	Starting console IP channel selected Disconnected ID: SM30-24D1->output class: 38, selector : 0 Connected Pkt 0 9:14:30 AM Ack 0 9:14:30 AM Disconnected
IP: 192.168.1.94	Password	Connect Disconnect	Ack 0 9:14:30 AM Disconnected Disconnected IP channel selected Disconnected IP channel selected Disconnected ID: SM30-24D1->output class: 38, selector : 0
		C Activity	Connected

Note: Whatever changes are being made to the IP Address must also match in their Configuration Files!

🏼 system-Dialer-Default-100(2).cfg - Notepad

File Edit Format View Help /MEMBER_IP HOST 192.168.1.90 1025 /VOICE_IP HOST 192.168.1.90 1025 *system-Dialer-Default-100(2).cfg - Notepad
File Edit Format View Help
/MEMBER_IP HOST 192.168.1.94 1025
/VOICE_IP HOST 192.168.1.94 1025

Default Communicator Configuration File

Modified Communicator Configuration File

5. Summarized Workflows

This section goes over all the previous steps in a condensed format. For visual steps, refer to Sections 2 thru 4.

5.1: Uploading Messages (Summarized)

- 1. Launch the DOWN Program and Connect to the Communicator Module
 - a. The Messages get stored on the Communicator Module while the Master Module handles their execution.

2. Navigate to the **Digital Amplifier > Voice Messages icon**

a. Select each individual field and assign Messages to their corresponding Station Number,

OR...

- b. If quick-loading Messages with the Voice.ini file, select "Load Directory" and wait for the list to populate with all messages written in that file.
 - *i.* Note: Messages 0 5 are reserved for Announcement and Instructions. The order is critical!
- c. Select "OK and refer back to the Digital Amplifier tab.

3. Upload the Messages to Communicator

- a. Select "Send User Voice". A dialogue box will pop up. select 'OK' to continue.
- b. A message will appear every time each file has been uploaded to the Communicator. Leaving these windows alone will *not* stall the uploading process, so they can all be closed at once when finished.

5.2: Uploading Configuration File (Summarized)

- 1. Launch the DOWN Program and Connect to the **Target Module** a. Master, Communicator, Remote Processor (RCS)
- 2. From the Main Menu, select "Send General File" and search for the appropriate Configuration Files (.cfg) that goes with the correct Module.
 - a. At the "Download File" window ...
 - i. If uploading to Master, Remote Processor and Communicator Modules, select "TSD -> system.cfg, main.cfg" from the drop-down menu,

OR...

- ii. If uploading a Label to Remote Processor, select "Amplifier -> Ampli.cfg from the drop-down menu.
- b. Select 'OK' and wait for Configuration File to upload.
- c. Once finished, restart the Device or specific Module.
- d. If uploading a Label to a Remote Processor, check to ensure successful upload by either referring to Explore Devices > Scan Device in the DOWN Program, or refer to the Command Panel and select the corresponding Station Number from the Main Screen.

Sequence of Operation **Central Station Operator's Copy**

Call Sequence: (Non contact-ID):

- 1. Call from Remote Call Station is placed.
- 2. Communicator dials number in Configuration File.
- 3. Operator picks up call.
- 4. Communicator in Command Panel starts playing Message 0, followed by Message 5.
- 5. The minimum required Voice Loops will force the Messages to play a certain number of times before they can be interrupted before proceeding the call.

Note: These messages will repeat if no input is given.

LifeGuard NETWORKS

- 6. Operator listens to message and uses asterisk '*' key to talk.
- 7. Operator communicates with user at Remote using the '*' key. Each time the '*' is pressed the Operator hears Message 1 if they enable Talk, or Message 2 if they enable Listen.
- 8. Operator presses' 1 ' key to stop communication. Message 3 is played. Operator presses'1'key again to acknowledge and end the call.

Note: If the' 1 ' key is not used to confirm ending the call, the system will re-dial the number until the call is acknowledged.

SHIELØ30

*Voice Loops:

The number of times required to listen to the informational and instruction messages when answering the phone line before they can be interrupted to start the call. If set to 1, the phone operator can immediately interrupt the messages any time by pressing the * key. If set to 2, the operator must listen to the messages all the way through at least once before they can be interrupted. Any greater than 2 adds an additional loop before the messages can be interrupted ..



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This sheet is a part of the SHIELD30-Communicator Configuration Instructions manual. For further documentation, visit our website or scan the QR code on the right.

