AN Troubleshooting Tree Outline

Sections:

Unit Scan

System Settings

Operations

Networking Setup

Networking Troubleshooting

Configuration Troubleshooting

# Common AN Troubleshooting Questions

1. Q. **I can ping my IP station but it won’t Scan on the Unit Scan. What’s wrong?**
2. Just because your breaks work doesn’t mean your left turn signal works. These are completely different operations, however the result does tell us several important clues.
	1. The station will only respond to a ping if it has power and a connection to the network.
	2. The station will only respond to a ping if the IP address is what they think it is.
	3. The station might not be plugged into the same switch as the computer, meaning their network is likely larger than just one switch or router.
	4. If the IP address they are pinging is anything other than 192.168.1.1 than either it has been programmed already or they used the LCD display menu to change it.

Next Step: Ask them to plug in their computer to the same switch/router as the device they are trying to find with Unit Scan and try again. If it still fails, the router may be intentionally blocking it (reduces bandwidth on high traffic networks). Under the assumption that the router is blocking it, have the technician use a separate, unrestricted network to get through the programming, then deploy the units to test. Make sure to get past the Import from Scan Result step before deploying them.

1. Q. **I try to upload but it keeps asking me for the System Name and Password, why does it do that?**
2. The Upload operation is sending information to those IP addresses, which respond with a “who are you” request. The problem is they are typing in the NEW system name and password when the units are likely still assigned AN-8000 and guest. They did not complete the Import from Scan Result step correctly, which means the hardware and software don’t agree on who is in the system even if it knows what their IP addresses are.

Next Step: Do the Import again and try another upload, or try using Delete All Settings from the browser using any combination of System Name and Passwords that might be assigned. After Delete All Settings, do the Unit Scan and Import from Scan Result steps again as if for the first time.

1. Q. **The system uploads correctly but the door station’s call button doesn’t work. Why not?**
2. It would be worth checking the door station’s browser view for any clues in the Operation Log (such as Wrong Number Dialed), and listening to the tone the door station makes, if any.

For the door,

* 1. a short single beep with a solid light for 5 seconds that says “My speed dial isn’t set” and in the Operation log this will appear as a “Speech path connection” followed by a “Speech path disconnection” 5 seconds later (and 10 will be the default).
	2. a solid light for 5 seconds followed by a short beep says “Connection problem”, in the Operation Log it will appear (under ‘detail indication’) “Command receiving Timeout”. This will happen if there is a network problem (such as the network cable unplugged).
	3. a rapid series of beeps that says “I can’t connect to the station I’m calling”
	4. a ringback tone with solid light that says “I’m calling someone.” (this can be disabled)
	5. an “on hold” two-tone falling and repeating, like during the master’s Transfer + Function + 0 sequence
	6. a repeating long beep, short pause busy tone with a solid light that says the station being called is busy. Operation Log will denote “Called party busy”. Note that it will ring through as soon as the station it is trying to call becomes available.

For the master,

* 1. A long tone, followed by the return to the normal display with the time and its own station number (10 will display as its station number if using factory default settings) means that the extension or paging zone you are trying to reach doesn’t exist. In the Operation Log it will appear as a “Speech path connection” for as long as you lift the handset, then log “Speech path disconnection”.
	2. A rapid series of tones means that the extension you are trying to reach is unreachable, such as when you dial a door station’s extension when it has been disconnected from the network.

Depending on the situation, the Operating Log will give further details, saying Wrong Number Dialed, have several rapid Connections and Disconnections, or a Connection Error (with Detailed button pressed). At the very least, the light should react to the guest hitting the call button, unless the connector is loose, or the station doesn’t have power. Every button press should also have a sound that will accompany it, ask them to describe it.

Next Step: Find out which master a door is attempting to Speed Dial, then use that master to dial the door station’s extension and see what happens. Use the browser if this test produces an error tone at the master, and check both devices’ logs. Also do a connection test from either device to make sure they can even ‘see’ each other.

1. Q. **My audio keeps cutting in and out at the master, what is going on?**
2. Luckily there are several things to check and adjust that may solve their problem.
	1. Background noise adjustment for master’s microphone (Press # or \* to raise and lower it during a call until it stops picking up the background noise as your voice and transmitting it)
	2. Use the handset instead of answering by hitting any button
	3. Use the PTT key when answering to force it into Push to Talk mode
	4. Adjust bandwidth settings to the highest available, which really isn’t a lot when you consider the average network and the total sum of its traffic.
	5. If they really are having bandwidth issues, a router can set up QoS (Quality of Service) priorities for the AN devices.

Next Step: Find out how the End User is operating it and ask for them to operate it using one of the other 2 methods, or to use the Background noise adjustment and ‘play with it’ until they find the sweet spot for their unique environment. The results should point us to the answer.

# Using a Browser

When? Caller complains that the station doesn’t work. Ask to hear the Error Tone to make sure it has power, then use a browser to search for clues as to why the error tone is produced.

What? IE, Firefox, Opera, whatever

How? Type the IP address in the address bar [<http://(ipaddress):(web> port)]. If the web port is still 80, don’t worry about typing that in (the browser assumes port 80 unless you specify something else). Then type in the system name and password (the default is AN-8000 and guest)

Why? Use it to verify the IP address exists and has been assigned (via Unit Scan). Does it respond? If it does you know the IP address has been assigned, and it can be found from the current location of the network (from your computer). If it can’t be found, either the IP address is wrong or there’s something missing on the router’s configuration that would prevent the connection.

Operation Log entry definitions:

“Speech path connection” means it is attempting to dial someone. It will tell you the extension it is attempting to reach.

“Speech path disconnection” means the attempt to communicate is over and the station will return to its neutral “ready” state.

“Calling start” means there is a connection between the device and the extension it is attempting to reach (in that order, the extensions will appear on the right).

“Conversation start” means that there is a conversation happening between the device and another station (extensions listed in that order).

“Conversation end” means the conversation is over.

“Command receiving Timeout” (under detail indication) means that the network cable for the station has been unplugged.

“Called party busy” means that the station that is being called is occupied, the call will give busy tone until they become available and then the call will ring through.

# Using Unit Scan

When? Caller complains that the station doesn’t work, can’t get into browser, or can’t upload to it.

What? Open the supplied AN program, enter System Name and Password (or new system if you don’t have it). You’ll need to be plugged into the same switch or router that the device is plugged into. It uses an ARP broadcast that asks the switch if there are any AN devices. It will NOT scan their network, nor will it scan the entire internet looking for devices. It is not a PING, so don’t be surprised if PING works but Unit Scan doesn’t.

How? Open the program and punch in the system name and password (or new system if they haven’t got that far). Select Unit Scan and then hit the Scan button. Sometimes it will help to have the computer’s network card assigned to an address on the same subnet as the devices, so give it 192.168.1.2 (or any number other than 1).