

APPLICATION NOTE

APNUS033 Recovery Mode Options in Acksys July 2023

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1. Introduction

This application note is an overview on various recovery options available on ACKSYS Router to help our customers and technical partners to be able to use different methods to make a factory reset or solve emergency mode issue.

2. Default login information

Using recovery methods reset allow you to let Acksys Router's configuration to its default state therefore you will need to use the default authentication info in order to login to the device :

- Default Address (LAN IP) : 192.168.1.253
- Default Username: root
- Default Password: No password

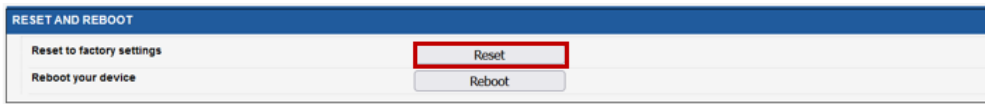
3. Acksys Reset Options

Acksys provides different methods to reset to factory and these methods are explained in this application note for better User experience.

Reset the router through the WEB GUI

It is possible to reset any ACKSYS router device in GUI. A factory reset deletes all personalized settings including your custom configuration, password, WiFi network name (SSID), and security settings.

- Login to the router's WebUI and go to Tool → Save Config /Reset → Reset
- Click Save and Apply



Hard Reset using reset button

This method is usually applied if you forgot password and IP address of Acksys Routers configured in web GUI access. It is a simple hard reset way using the reset button to recovery factory settings.

There is a tiny reset button available in every router. Some routers have the reset button inside (RailBox AirXroad, RuggedAir,) and some have backside beside LAN ports (AirBox, AirLink, AirWan,).

Please refer to the [Quick start manual](#) for each router to find the way to perform the hard reset.

Just find the reset button and follow the steps to make the factory reset using the reset button for your ACKSYS router.

The Reset button has three functions:

- A short press (< 2 seconds) will reboot the product. The DIAG led will turn red steadily when the reboot takes place, until the product is operational.
- A long press while the product is running will reset it to factory settings. Press and hold the reset button until the DIAG led turns RED.
- A long press at startup time (either at power-up or very shortly after a reboot) will activate the "Emergency upgrade" mode. When the mode is activated the DIAG LED will blink quickly. This mode allows either to reload the firmware from Acksys WaveManager or to reset to factory settings with another press on the pushbutton (see below).

Example for some ACKSYS routers:



Ex: For some routers like RuggedAir, a RESET button is accessible by opening the cover.

Put the powered-on product, wait for the initialization to complete and hold the "reset" button pressed (at least 2 seconds) until changing the Diag light to red. Release and wait for it goes back to green, indicating that the product has restarted in factory configuration. Close the hood, always tightening the 4 screws of the hood diagonally by applying a torque of 2Nm.

Please follow the recommendation of the Quickstart manual to avoid any damage or injury.



Reset the router through SNMP

You can perform a factory reset with “snmp set” command.

If you agreed to perform a factory reset. The router will be reset to its factory settings. The entire sequence of events should look like the commands below in case the router is reachable (192.168.1.181) :

```
snmpset -v2c -c private 192.168.1.181 .1.3.6.1.4.1.28097.1.2.2.0 i 1
snmpset -v2c -c private 192.168.1.181 .1.3.6.1.4.1.28097.1.2.5.0 i 1
snmpset -v2c -c private 192.168.1.181 .1.3.6.1.4.1.28097.1.2.6.0 i 2
```

Parameter	Description
Snmpset	This keyword indicates to execute the Set operation.
-V	Specify the SNMP version and here 2c
-c	SNMP Community : private
AGENT	IP address of the agent :192.168.1.181
OID	OID of the MIB object in the agent : Admin-Reset OID : .1.3.6.1.4.1.28097.1.2.2.0 OID_SAVE=".1.3.6.1.4.1.28097.1.2.5.0" OID_APPLY=".1.3.6.1.4.1.28097.1.2.6.0"
TYPE	MIB object type, the value can be i, u, t, a, o, s, x, d, b, or n. The following three are used in this document : - The value i indicates an integer. - The value a indicates an IP address. - The value s indicates a character string.
VALUE	1 reset the product ,1 adminSave and 2 AdminApply

Emergency Mode

The Emergency mode is a special router state used as a recovery tool in case the router becomes unreachable even after a factory reset. It can be used to upgrade the router's firmware or bootloader version.

Regardless of what the router's IP address was before, the **IP address** of the router when it is in the **emergency mode** state is always **192.168.1.253**. The router can be pingable but it is not possible to connect in GUI or in CLI.

Only WaveManager can be used in this mode to restore the router in its proper configuration. Just click on the Menu Firmware and upload the FW image file.

In this mode, only WaveManager can detect the product as you can see on the example screenshot below:

Firmware change

Change the firmware of the selected products

Select a firmware file (.bin) Password

PID40-ID40-ku-E2148.AC.1-v4.18.5.1.bin Browse Password

☐ Delayed > Update Date 14/06/2023 Update Time 00:00

Model	Product Id	IPV4 Address	Firmware	Description	Result
☒ WaveOS Emergency Upgrade	0000198D5F88	192.168.1.253	3.6.2.1	WaveOS Emergency Upgrade	In Progress

Start

Commenté [RM1]: Ajouter une image de Wavemanager avec des produits en emergency mode.

Commenté [KA2R1]: Update

Commenté [KA3R1]:

NOTE: You can recognize that the product is in this failover mode because its **DIAG LED** will blink quickly (remind that this LED is green or OFF in normal working mode). The product will then execute a restricted service allowing only firmware uploads from the ACKSYS WaveManager software.

After the upgrade, the router will be in the correct configuration as expected with the old configuration before the emergency mode.

4. RMA

If conventional recovery methods do not help, you may need to send the device to warranty for repair after filling the RMA form available on [our extranet](#).

Support : <https://support.acksys.fr>