ECO P2P / RDMS User Manual

This guide explains how to set up, test, and troubleshoot ECO P2P and RDMS (built-in P2P terminal), allowing your PC/system to connect to time attendance devices across different networks (similar to port forwarding, but without complex router configuration).

1.0 ECO P2P Connection Methods
ECO P2P supports three connection options depending on your network environment.

Option 1: ECO P2P – Internet & Terminal via LAN Cable (Recommended)
Use case: Stable environment with available LAN ports.

Steps:
1. Connect ECO P2P WAN to your router LAN.
- Ensure the router can provide IP address (DHCP) and Internet access.

2. Connect ECO P2P LAN to the terminal device TCP/IP port.

3. Power on ECO P2P and wait 3–5 minutes for startup.

4. On the terminal device, set:
- IP Address: 10.0.0.201   - Port: 4370
- Path: Menu > Comm. > IP Address / Comm Port

5. Set Comm Key (any value is acceptable).
- Path: Menu > Comm. > PC Connection > Comm Key

6. Test connection using:
- Web page (refer to Section 2.0), or
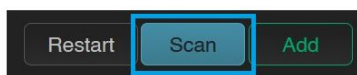- ECOTIMEPRINT ETA3 (refer to Section 3.0).

Option 2: ECO P2P – WiFi for Internet, LAN Cable to Terminal
Use case: No LAN access to router, but WiFi is available.

Steps:
1. Power on ECO P2P and wait 3–5 minutes.

2. Connect your PC to ECO P2P using a LAN cable.

3. Log in to the ECO P2P router panel.

4. Navigate to Network > Wireless

5. Click Scan and select one of the following WiFi modules:

- MediaTek MT7628 (2.4GHz, slower speed but longer range)
or
- MediaTek MT7613BE (5GHz, much faster speed but shorter range)

6. Select your WiFi SSID and click Join Network.

Join Network: Wireless Scan

Signal	SSID	Channel	Mode	BSSID	Encryption	
-40 dBm		2	Master		WPA2 PSK (CCMP)	Join Network
-40 dBm		7	Master		WPA2 PSK (CCMP)	Join Network
-44 dBm	ECOTIMEPRINT	9	Master	78:20:51:ED:75:06	WPA2 PSK (CCMP)	Join Network
-44 dBm		9	Master		WPA2 PSK (CCMP)	Join Network
-44 dBm		9	Master		WPA2 PSK (CCMP)	Join Network
-54 dBm		6	Master		mixed WPA/WPA2 PSK (TKIP, CCMP)	Join Network
-59 dBm		9	Master		WPA2 PSK (CCMP)	Join Network
-59 dBm		9	Master		WPA2 PSK (CCMP)	Join Network
-59 dBm		9	Master		WPA2 PSK (CCMP)	Join Network

7. Enter WiFi password and click Submit, do not change other settings unless necessary.

Joining Network: "ECOTIMEPRINT"

Replace wireless configuration ☐
　❓ Check this option to delete the existing networks from this radio.

Name of the new network　`wwan`
　❓ Name for OpenWrt network configuration. (No relation to wireless network name/SSID)
　　The allowed characters are: `A-Z`, `a-z`, `0-9` and ▢

WPA passphrase　●●●●●●●●●●●●●●●●●●● ＊
　❓ Specify the secret encryption key here.

Lock to BSSID ☐
　❓ Instead of joining any network with a matching SSID, only connect to the BSSID `78:20:51:ED:75:06`.

Create / Assign firewall-zone　`wan` wan: 🖥 　wan6: 🖥 　wwan: 👤 　▾
　❓ Choose the firewall zone you want to assign to this interface. Select *unspecified* to remove the interface from the associated zone or fill out the *custom* field to define a new zone and attach the interface to it.

Cancel　**Submit**

8. Click Save, then Save & Apply.

Wireless Overview

📡 radio0	**MediaTek MT7628 802.11b/g/n** **Channel:** ? (? GHz) | **Bitrate:** ? Mbit/s		Restart Scan Add
📶 disabled	**SSID:** ECOP2P | **Mode:** Master *Wireless is disabled*		Enable Edit Remove
📶 disabled	**SSID:** ECOTIMEPRINT | **Mode:** Client Interface has 7 pending changes		Disable Edit Remove
📡 radio1	**MediaTek MT7613BE 802.11ac/n** **Channel:** 157 (5.785 GHz) | **Bitrate:** 6 Mbit/s		Restart Scan Add
📶 disabled	**SSID:** ECOP2P | **Mode:** Master *Wireless is disabled*		Enable Edit Remove
-49/-89 dBm	**SSID:** ECOTIMEPRINT-5G | **Mode:** Client **BSSID:** 82:AF:CA:88:32:39 | **Encryption:** -		Disable Edit Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
📡 Client "ECOTIMEPRINT-5G" (phy1-sta1)	B0:6E:BF:9B:3C:DC	?	-49/-90 dBm	6 Mbit/s, 20 MHz 866.7 Mbit/s, 80 MHz, VHT-MCS 9, VHT-NSS 2, Short GI

Save & Apply ▾　Save

9. Restart ECO P2P and wait 3–5 minutes to go online.

Note: WiFi Module Comparison
MediaTek MT7628 – 802.11 b/g/n (2.4GHz)
- Slower speed　　- Longer range　　- Better wall penetration
- More interference (Bluetooth & crowded networks)

MediaTek MT7613BE – 802.11 ac/n (5GHz)
- Much faster speed (Wi-Fi 5)　- Shorter range
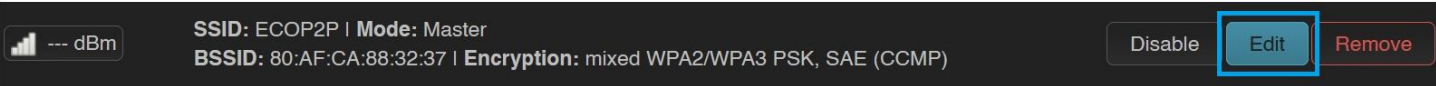- Less wall penetration　　　　- Cleaner, less crowded signal

Option 3: ECO P2P – LAN for Internet, WiFi to Terminal
Use case: Terminal device connects wirelessly to ECO P2P.

Device　　　　　　　　　　**P2P**　　　　　　　　　**Internet**
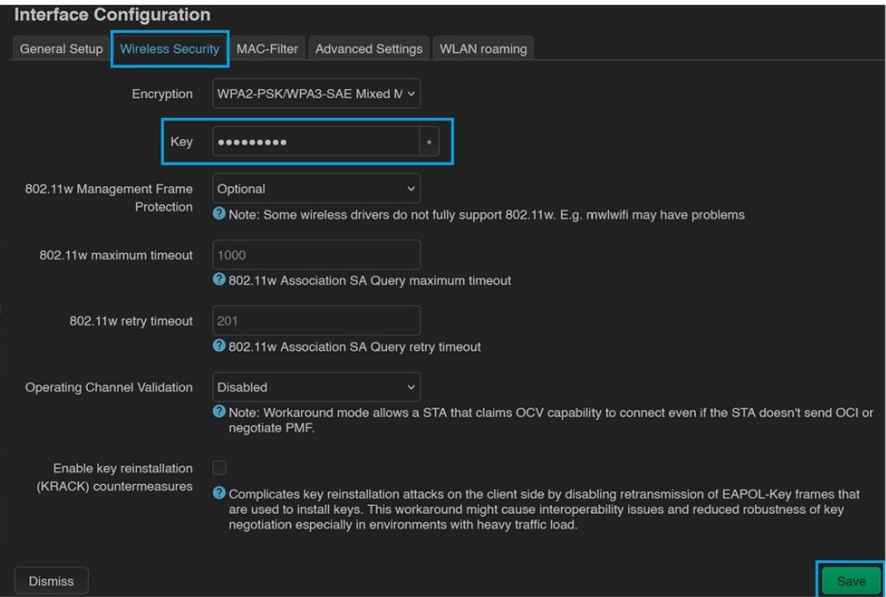
WiFi　　　　　　　　　　　**LAN Cable**

WAN　　　*LAN*

Steps:

1. Power on ECO P2P and wait 3–5 minutes.

2. Connect your PC to ECO P2P using a LAN cable.

3. Log in to the ECO P2P router panel.

4. Go to Network > Wireless
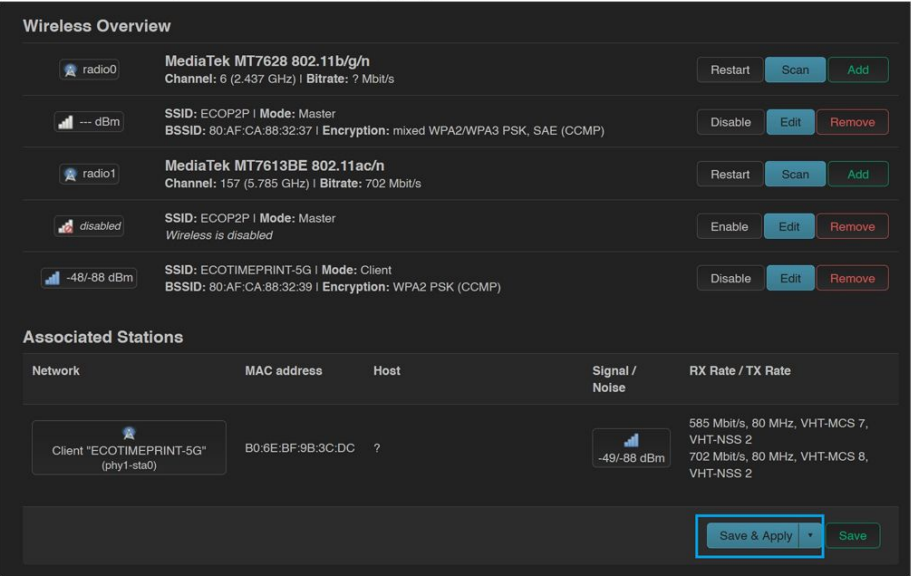
5. Locate SSID: ECOP2P | Mode: Master and click Enable.

disabled	**SSID:** ECOP2P | **Mode:** Master *Wireless is disabled*	Enable	Edit	Remove

6. Click Edit.

--- dBm	**SSID:** ECOP2P | **Mode:** Master **BSSID:** 80:AF:CA:88:32:37 | **Encryption:** mixed WPA2/WPA3 PSK, SAE (CCMP)	Disable	Edit	Remove

7. Go to Wireless Security tab, look for Key section, Set a WiFi password for the terminal device.

Interface Configuration

General Setup | **Wireless Security** | MAC-Filter | Advanced Settings | WLAN roaming

Encryption　　　WPA2-PSK/WPA3-SAE Mixed M ∨

Key　　　●●●●●●●●●　　　*

802.11w Management Frame Protection　　Optional ∨
❓ Note: Some wireless drivers do not fully support 802.11w. E.g. mwlwifi may have problems

802.11w maximum timeout　　1000
❓ 802.11w Association SA Query maximum timeout

802.11w retry timeout　　201
❓ 802.11w Association SA Query retry timeout

Operating Channel Validation　　Disabled ∨
❓ Note: Workaround mode allows a STA that claims OCV capability to connect even if the STA doesn't send OCI or negotiate PMF.

Enable key reinstallation (KRACK) countermeasures　　☐
❓ Complicates key reinstallation attacks on the client side by disabling retransmission of EAPOL-Key frames that are used to install keys. This workaround might cause interoperability issues and reduced robustness of key negotiation especially in environments with heavy traffic load.

Dismiss　　　　　　　　　　　　　　　　　　　Save

8. Click Save, then Save & Apply.

Wireless Overview

radio0	**MediaTek MT7628 802.11b/g/n** Channel: 6 (2.437 GHz) | Bitrate: ? Mbit/s	Restart	Scan	Add
--- dBm	**SSID:** ECOP2P | **Mode:** Master **BSSID:** 80:AF:CA:88:32:37 | **Encryption:** mixed WPA2/WPA3 PSK, SAE (CCMP)	Disable	Edit	Remove
radio1	**MediaTek MT7613BE 802.11ac/n** Channel: 157 (5.785 GHz) | Bitrate: 702 Mbit/s	Restart	Scan	Add
disabled	**SSID:** ECOP2P | **Mode:** Master *Wireless is disabled*	Enable	Edit	Remove
-48/-88 dBm	**SSID:** ECOTIMEPRINT-5G | **Mode:** Client **BSSID:** 80:AF:CA:88:32:39 | **Encryption:** WPA2 PSK (CCMP)	Disable	Edit	Remove

Associated Stations

| Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
Client "ECOTIMEPRINT-5G" (phy1-sta0)	B0:6E:BF:9B:3C:DC	?	-49/-88 dBm	585 Mbit/s, 80 MHz, VHT-MCS 7, VHT-NSS 2 702 Mbit/s, 80 MHz, VHT-MCS 8, VHT-NSS 2

Save & Apply ▾　Save

9. Connect the terminal device to the ECOP2P WiFi in Menu > Comm. > Wireless Network

1.1 RDMS – Built-in P2P Terminal Setup
RDMS terminals connect directly to the Internet without a separate P2P device.

Internet

Device

TCP/IP

LAN

WAN
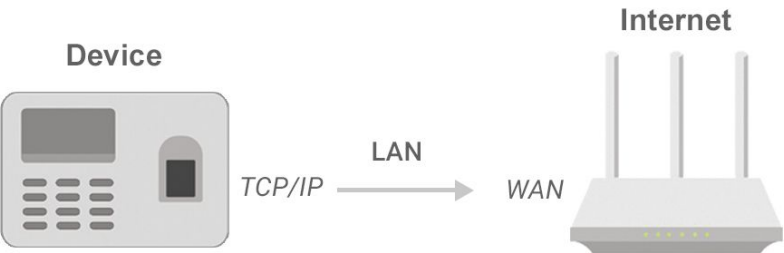
Option 1: LAN Cable Connection
Steps:

1. Connect LAN cable from router to the terminal device.

2. Power on the terminal.

3. Navigate to: Menu > Comm. > Ethernet

4. Choose one option:
Static IP: Set IP Address, Gateway, and DNS with Internet access
DHCP: Enable DHCP

5. Set Comm Key (any value).
Path: Menu > Comm. > PC Connection > Comm Key

Option 2: WiFi Connection (Model Dependent)

Internet

Device
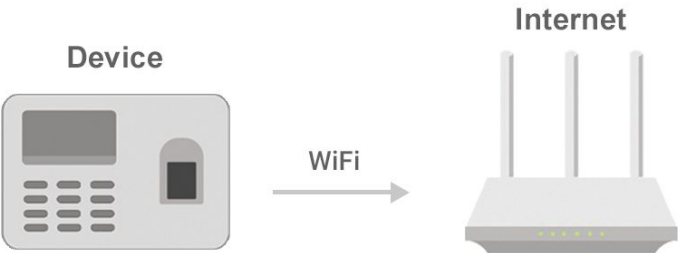
WiFi

Steps:
1. Navigate to: Menu > Comm. > Wireless Network
2. Select your WiFi SSID.
3. Go to: Menu > Comm. > Wireless Network > Advanced
4. Choose one option:
Static IP: Set IP Address, Gateway, and DNS
DHCP: Enable DHCP
5. Set Comm Key.
Path: Menu > Comm. > PC Connection > Comm Key

2.0 Testing P2P / RDMS Online Status

Option 1: Test Using Web Page
A. Test Internet Connection

1. Visit: https://portal.ecotimeprint.com/P2PConnection

2. Enter ECO P2P serial number.

3. Click Test Connection.

B. Test Terminal Device Connection

1. On the same page, enter ECO P2P serial number.

2. Click Test Device Connection.

3. Ensure:
Port = 4370,
Comm Key matches portal and device settings

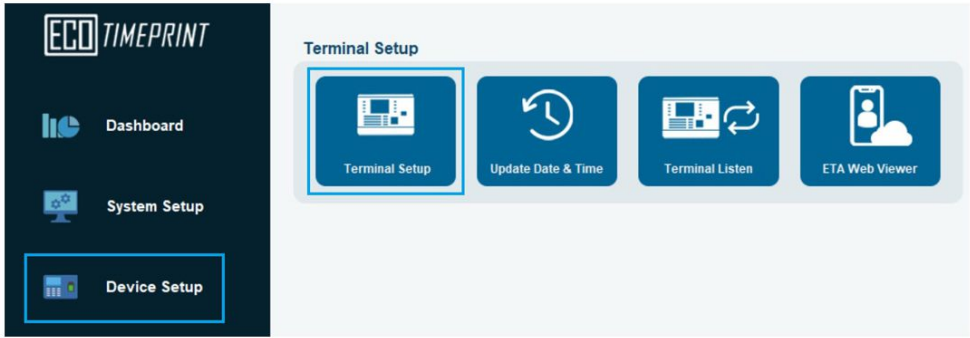### Option 2: Test Using ECOTIMEPRINT ETA3
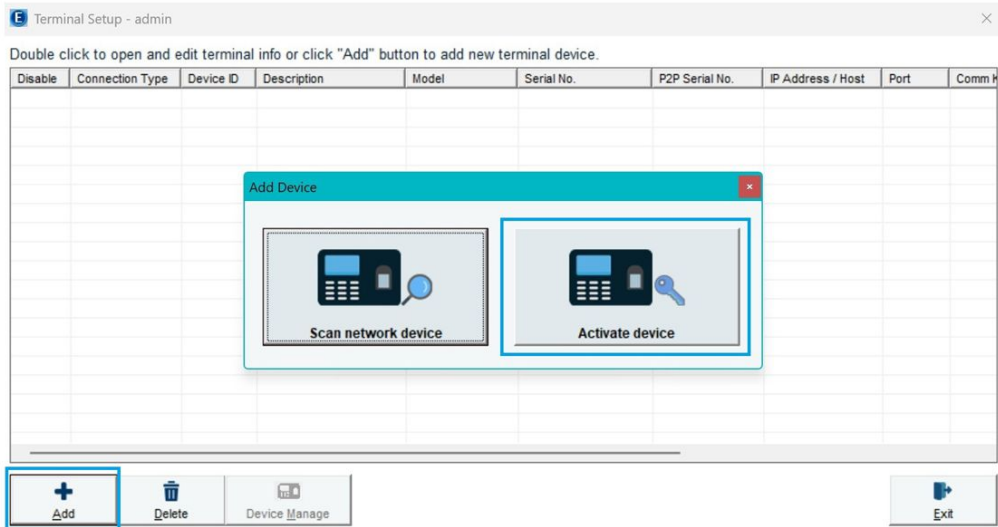Refer to Section 3.0.
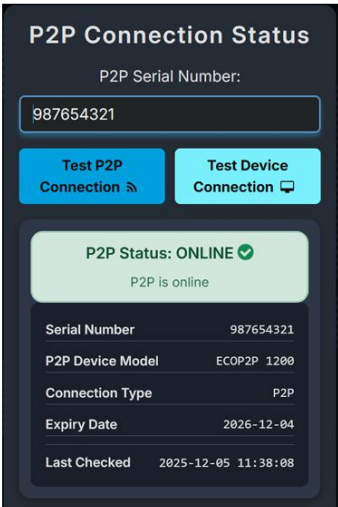
3.0 Adding P2P / RDMS in ECOTIMEPRINT ETA3

1. Go to: Terminal Setup > Device Setup

2. Click Add > Activate Device

3. Select Connection Type: P2P or RDMS
4. Key in and select:
- Description   - Terminal Serial number   - Device model

- P2P Serial No.
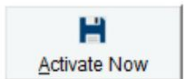Note: For RDMS, it only require Terminal Serial Number to connect

- Comm Key (Must match the one set up in terminal device)
- Device ID

6. (Optional) Click Test > Network Connection.

7. Click Activate.

8. You can now connect to terminal to manage users and download data

4.0 Troubleshooting
If ECO P2P or RDMS does not come online, please check the following:

1. Plug the LAN cable from your internet source into a PC and confirm Internet access.

2. Ensure that Port 8024 is allowed and not blocked by your Internet router or firewall.

3. If DHCP is unavailable:
- ECO P2P: Manually set IP in P2P router panel

- RDMS: Set static IP on terminal device

4. Restart the device and wait 3–5 minutes.

5. Contact your vendor if the issue persists.

Notes

1. To use IP address or port other than 10.0.0.201 and 4370, please contact your vendor.

2. Do not reset the ECO P2P device, as it will restore factory settings and require reconfiguration.