Wireless Communication System
User Guide

Transmitter - Lamp - Transmitter - Panel Practical application, synchronization, and fundamental operational procedures

- **What is the purpose of this guide?**

This document is designed for the field installation and daily operation of the wireless calling system.

The guide outlines the functionalities of the four devices, the pairing process, the meanings of the LED and buzzer signals, the procedures for erasing, and common usage scenarios.

Rather than concentrating on technical development specifics, the installation and operational procedures are outlined in a straightforward and pragmatic fashion.

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System Overview

1. **The system comprises four primary devices: the call button, lamp device, relay device, and panel device. The sender serves as the actual source that initiates the call. The lamp and relays transmit the data from the sender to the panel, which subsequently displays the corresponding sender IDs on the screen.**

Cihaz	Temel görev	Kim ile eşleşir?	Rolü
Call Button (Bedside, bedside handset, and toilet corded call button)	Çağrı ve çağrı sonlandırma olayını gerçekleştirir.	Lamba, aktarıcı ve panel ile öğrenilebilir.	Gerçek çağrı kaynağıdır.
Kapı Üzeri Lamba	Eşleştiği çağrı butonundan gelen çağrıyı ışık/ses ile gösterir ve ileri taşır.	Yalnızca çağrı butonu ile eşleşir.	Kapı üstü görsel/işitsel uyarıdır.
Aktarıcı	Çağrı butonu, lamba veya başka aktarıcıdan gelen çağrıyı panele ulaştırır.	Yalnızca çağrı butonu ile eşleşir.	Menzil ve kapsama genişletir.
Panel	Eşleştiği çağrı butonu çağrılarını listeler ve gösterir.	Yalnızca çağrı butonu ile eşleşir.	Merkezi görüntüleme cihazıdır.

- **Significant system regulation**
- **The panel consistently utilizes the actual call button ID, rather than the lamp or transmitter.**
- **Consequently, the identical call manifests as a singular call button on the panel, regardless of whether it originates directly from the transmitter, via the lamp, or through an alternative transmitter.**

2. Identity and Correspondence Regulations

Call button device IDs may vary from 1 to 999.
Each sender ID must remain distinct.
The lamp is designed to connect with up to 16 transmitters.
The relay is designed to connect with up to 16 transmitters.
The panel's EEPROM has the capacity to store up to 999 sender records.
When transmitting data among themselves, relays may utilize the internal hub ID; this information is not retained on the panel, with only the call button ID visible on the screen.

3. Utilization of Call Button Devices

The call button is the device that initiates and resets a call. Its fundamental operation is as follows.

- The device transmits a CALL packet upon activation or when a call is initiated.
- The call LED will persist in blinking, allowing the user to identify which device is engaged in an active call.
- Upon pressing the RESET button, a RESET packet is transmitted.
- The data structure associated with the call button is fixed at 22 bytes, with the remainder of the system transmitting this data.

- **Call Button Correspondence Note**
- **The call button on the device lacks a universal system pairing mode; the pairing process is initiated by sending a CALL from the call button once the pairing window of other devices has been activated.**
- **The user first activates pairing mode on the device they wish to learn from, then proceeds to initiate a call by pressing the call button.**

4. Utilizing the Lamp Device

The lamp device operates as a door-top warning system in the field. It signals an incoming call from the paired call button through a local LED and sound, while also relaying the same call within the system.

4.1 Lamp and Transmitter Alignment

- Press and hold the lamp pairing button for 3 seconds.

The device activates sender (learning) mode.
Initiate a CALL from the sending device while this window remains open.

- The lamp records the identification of the first available call button that is received.
- Upon completion of the pairing process, the device will revert to its standard mode.

4.2 Erasing Lamp Memory

- Press and hold the lamp pairing button for 10 seconds.

The device removes all records of paired call buttons.

- After being wiped, the lamp reverts to its original state.

4.3 Lamp Operational Characteristics

- It enters red alert mode upon receiving a call from the paired call button.
- Even if the same active call is received multiple times, it is not regarded as a new call.

The call concludes upon receiving a RESET signal from the corresponding call button.

- It advances the CALL data three times and the RESET data five times.
- It exclusively accepts raw call button data and does not reintegrate the call returned from the relay into the system.

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4. Utilizing the Lamp Device

5 seconds to pair, 10 seconds to reset.

- Sender Learning Mode

Initial Call

Second Call

Standby Mode

5. Utilizing the Transmitter Device

The relay device serves to extend the coverage area. It processes data received directly from the call button, lamp, or other relays and transmits it to the panel.

5.1 Associating the relay with the call button

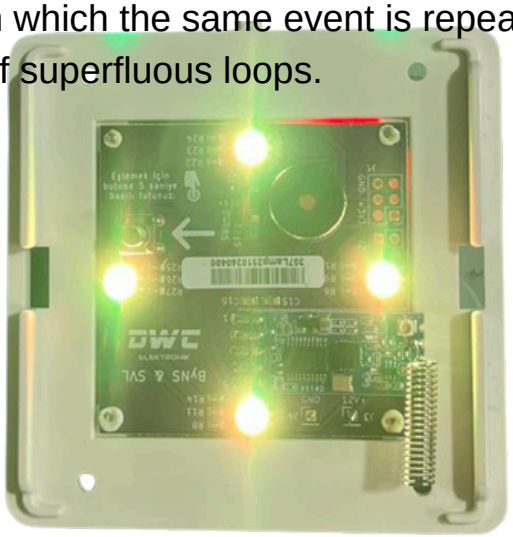
- Press and hold the transmitter pairing button for 3 seconds.
- The device activates sender (learning) mode.
- While this window remains open, please send a CALL message by utilizing the call button.
- The relay retains the identification of the corresponding call button.
- Upon completion of the pairing process, it will revert to normal mode.

5.2 Erasing the Transfer Memory

- Press and hold the transmitter pairing button for 10 seconds.
- All saved call button identifiers have been removed.
- The device reverts to its original state.

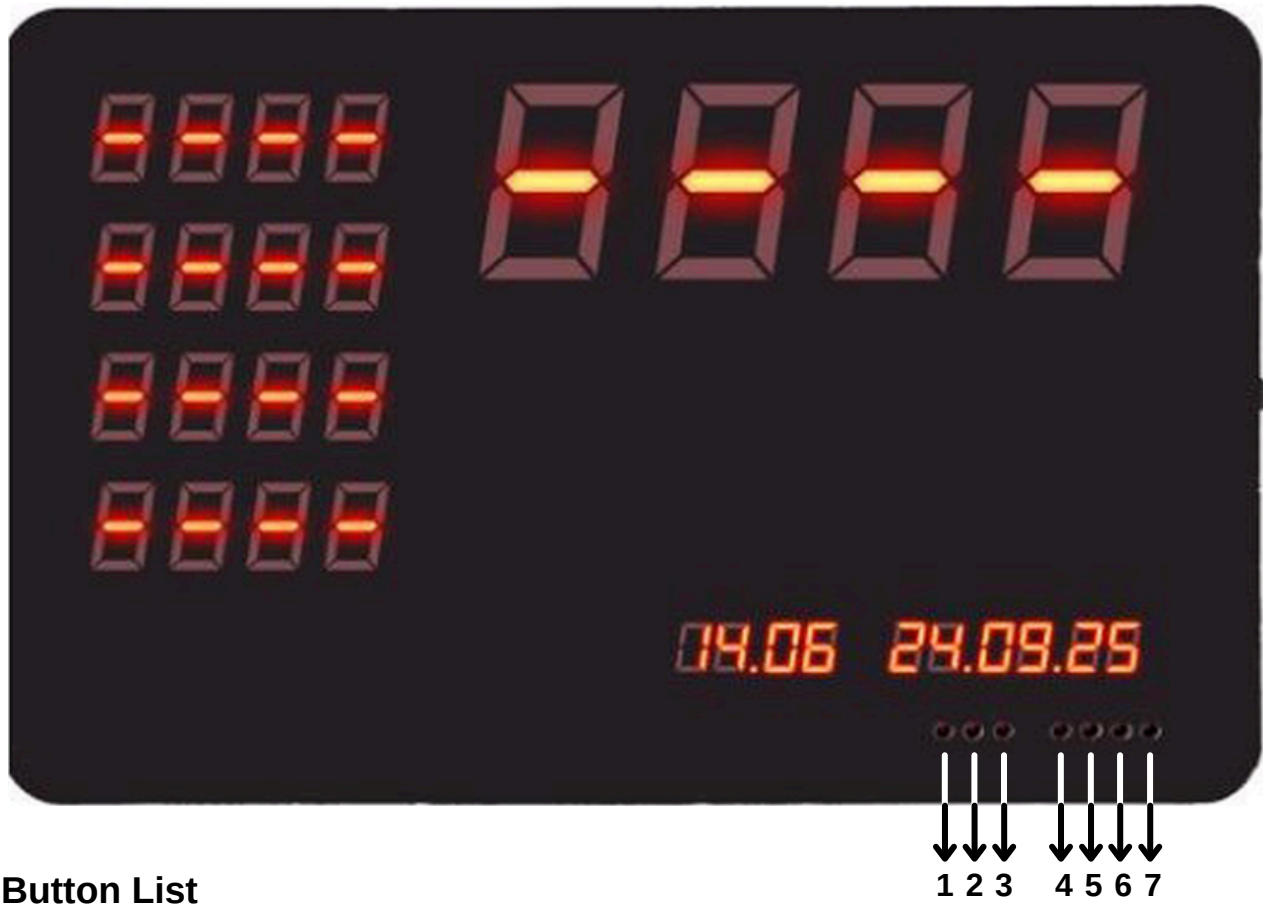
5.3 Transmitter Operational Behavior

- It accepts calls initiated directly from the call button.
- It interprets the call from the lamp and transmits it while maintaining the authentic sender ID.
- It interprets and transmits the call originating from another relay.
- If the generated data returns, it will not be processed again.
- It advances the CALL signal three times and the RESET signal five times.
- The frequency with which the same event is repeated is restricted; this mitigates the risk of superfluous loops.



6. Utilizing the Panel Device

The relay device serves to extend the coverage area. It processes data received directly from the call button, lamp, or other relays and transmits it to the panel.



Button List

1. Time/Date Digit Selection Button
2. Enhance Value Button
3. Time/Date Preservation Button
4. Device Synchronization Button (SET)
5. Save Button
6. Device Name Selection Button (SELECT)
7. Enhance Digit Value for Device Name (PLUS) Button

6.1 Aligning the call button with the panel

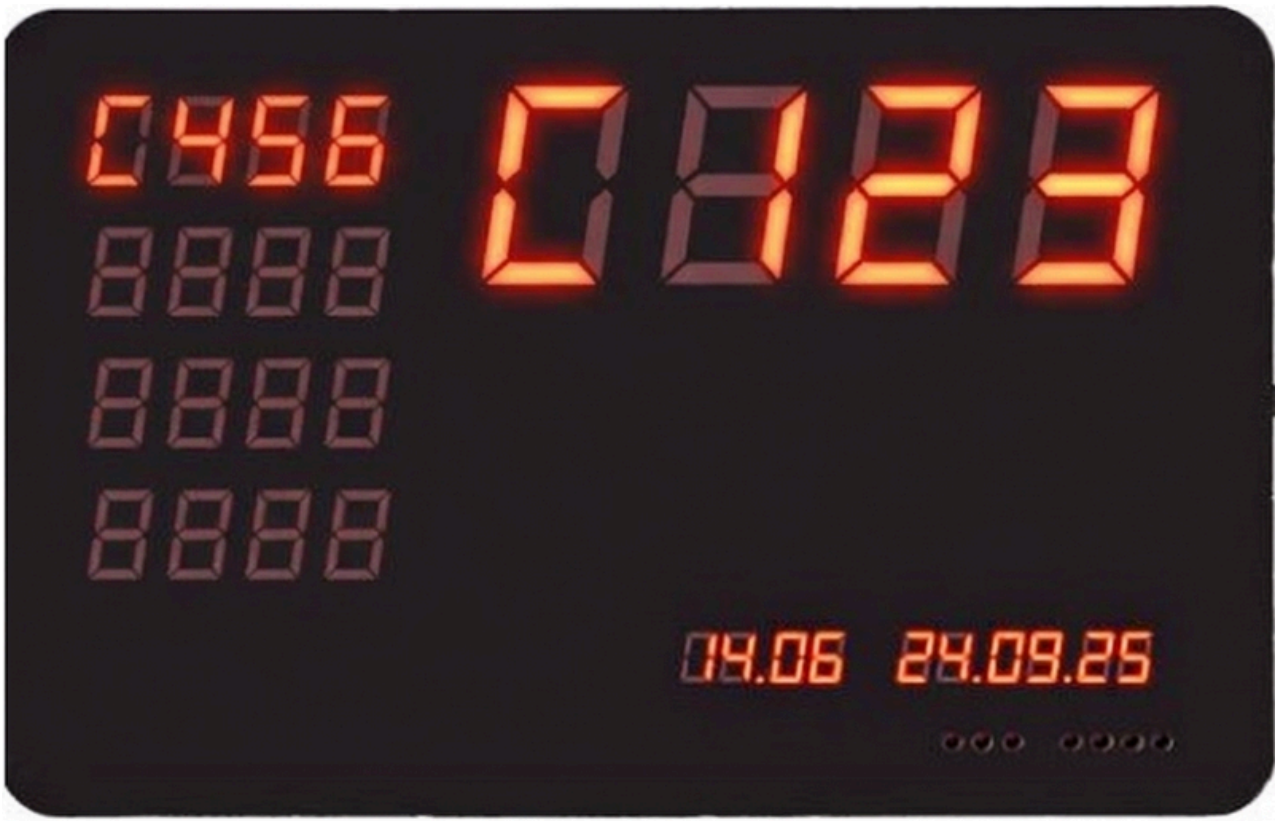
- Press and hold the panel pairing button for 3 seconds.
- The panel initiates a 10-second matching window.
- At this juncture, the text ESLE is displayed on the second line, and the panel emits two beeps.
- Initiate a CALL from the sending device within this 10-second interval.
- The panel logs the initial incoming call from a direct sender.
- Upon completion of the recording, the panel will reset and resume normal operation.

6.2 Removal of Panel Logs

- Press and hold the panel pairing button for 10 seconds.
- The term DELT is displayed on the second line, and the panel produces three beeps.
- The DELT screen is displayed for a duration of 5 seconds.
- At the conclusion of this period, the panel nullifies all sender records utilizing a header-based rapid deletion method.
- It then emits three beeps, after which the panel restarts.

6.3 Panel Work Conduct

- It accepts calls initiated directly from the call button.
- It identifies the call originating from the lamp and presents the actual sender ID.
- It acknowledges the call from the relay and presents the current sender ID.
- The relay hub ID information can be parsed; however, it is not retained on the panel.
- It screens for the same event that reoccurs from the same sender through a duplicate verification process.
- The call will remain active until a RESET message is received; it will not disconnect automatically due to data interruption.



6.4 Panel Display Logic

- The panel can display as many as five active calls concurrently.
- Each line consists of four digits: the first three represent the sender ID, while the final digit indicates the type information.
- Aliases may be modified on the panel if preferred.
- If there are more than five calls, the additional calls are placed in the waiting queue.
- When a call is reset, the subsequent call in the queue is shown on the screen.

7. Summary of Visual and Audio Feedback

Cihaz	İşlem	Geri bildirim
Lamba	Sender (öğrenme)	Pair moduna girer, kullanıcı gönderciden CALL (çağrı) verir.
Lamba	Silme	Tüm sender kayıtları temizlenir.
Aktarıcı	Sender (öğrenme)	Pair moduna girer, kullanıcı çağrı butonundan CALL (Çağrı) verir.
Aktarıcı	Silme	Tüm sender kayıtları temizlenir.
Panel	ESLE penceresi	2. satırda ESLE, 2 bip.
Panel	DELT penceresi	2. satırda DELT, 3 bip.
Panel	Silme tamamlandı	3 bip ve otomatik yeniden başlatma.

8. Common Field Scenarios

Scenario A - Call Button -> Control Panel

The panel is synchronized with the sender.
When the call button transmits a CALL signal, the call is immediately displayed on the panel.
When the call button transmits RESET, the call is eliminated from the list.

Scenario B - Call Button → Lamp → Panel

The lamp and panel are connected to the same transmitter.
The call button transmits a CALL signal.
The lamp signals the call locally, while the panel shows the call button ID.

Scenario C - Call Button → Relay → Panel

The transmitter and panel are synchronized with the same call button.
If the call button is located at a considerable distance, the relay will transmit the call to the panel.
The panel screen continues to display solely the actual call button ID.

Scenario D - Call button → Lamp → Transmitter → Panel

The lamp indicates the call originating from the Call button locally.
The relay transmits the identical call to the panel.
The panel carrier does not observe the device; it processes the call button ID as a singular record.

9. Troubleshooting and Verification Checklist

- If pairing fails, first verify that the pairing window is open on the appropriate device.
- During the pairing process, the panel exclusively accepts CALLs initiated from the call button; it does not acquire information from data transmitted through lamps or transmitters.
- If the device fails to revert to its original state following the wipe process, verify the power and button statuses.
- If the call does not appear, ensure that the sender ID matches on the device.
- Even if the same call is received through various channels, only one call should be displayed on the panel; this is the anticipated behavior.
- After installation, verify that the common network and zone settings are consistent across all devices.

10. Rapid Post-Installation Assessment

- Send a CALL (call) using the call button: a warning lamp and panel display should activate.
- If the same call button can also connect to the panel through the relay, then coverage is confirmed.
- Send RESET from the call button: the panel and lamp should deactivate the call.
- If an alias is necessary on the panel, modify it using the SET, SELECT, or PLUS keys.
- Before proceeding with a deletion, confirm that all active calls in the field have been reset.

11. Commonly Asked Questions

- **The LEDs on the panel are flashing; what is the reason for this warning?**
- **This signifies that no devices are registered on the panel.**

It will revert to normal once the call button is paired by entering pairing mode.

- **What is the maximum number of call buttons that can be paired with a relay?**
- **A relay can be connected to a maximum of 16 distinct call buttons.**

- **Is it possible to utilize multiple transmitters?**
- **Indeed, in situations where the panel is positioned at a considerable distance, an additional transmitter may be incorporated to enhance the range.**

- **What is the maximum quantity of call buttons that can be incorporated into a panel?**
- **The panel can be configured with an unlimited number of call buttons as needed.**

- **What is the lifespan of the batteries in the call buttons?**
- **In a situation where an average of three calls are received each day, the system can function for roughly two years.**

- **Can I customize the names of the devices? Once the panel and call buttons are configured, you can choose the desired device using the SET/SELECT/PLUS buttons on the panel and assign it a 4-digit number. (C155, 112C, 1234)**

- **Can power outages result in data loss or reset functions on panels, buttons, lamps, and transmitters?**
- **Power outages do not cause any resets or data loss on any devices. All settings and configurations remain unchanged.**