RECS

Version 3.00

USER MANUAL

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1. GENERAL INFORMATION

RECS, the radio-electronic calling system, is intended to simplify the process of customer service in cafes and restaurants (and can be adapted to other applications as well). RECS allows customers to call a waiter by pressing a button, instead of resorting to traditional "hand-waving" methods. Calls are shown on the indicator of a receiver and accompanied by audible signals, which makes it possible to provide prompt service to the customer.

Minimally, RECS consists of a receiver of incoming calls and "call bells".

The receiver accepts the incoming calls via radio frequency signals, sounds an alert, and displays the information on its indicator.

Call bells are given ordinal numbers corresponding to the numbers of the tables on which they are placed. Inside a call bell, there is a transmitter. Pressing on the button of the call bell, a customer summons a waiter, whereupon the number of the pressed bell is shown on the receiver.

In order for RECS to work correctly, it is necessary to carry out the initial setup (section 2.1), which consists of storing the ordinal numbers of call bells in the receiver.

2. SETTING UP THE RECEIVER

2.1 Initial Setup

In order for the receiver to receive signals from call bells, it is necessary to record each call bell in the receiver by performing the following procedure:

1. Enter the settings menu by pressing the button **[F]**.

1 – LEARN	**2 – DELETE**
3 – TEST	**4 – PIN CODE**

2. Choose "**1 – LEARN**" by pressing **[1]**.
3. At the prompt "**ENTER TABLE:**", enter the ordinal number of the table to which you plan to assign a call bell. Press **[ENTER]** to confirm. If an error was made during entry, you may press **[ESC]** to exit or **[←]** to erase the entered number.
4. At the prompt "**PRESS BELL**", press the button of the call bell that you are registering. To cancel registering, press any key on the receiver's keypad.
5. After successfully registering the call bell, the screen will display

TABLE WAS STORED
PRESS ANY KEY

6. To register the remaining call bells, repeat steps 2 through 5.
7. To exit the settings menu, press **[ESC]**.

After this, the setup process can be considered complete.

Note 1: It is only possible to assign one call bell to a given table number. Therefore, if you attempt to assign a new call bell to a table that is already registered, only the new one will be saved, and the old one will be automatically erased.

Note 2: The maximum number of bells recorded on a receiver is 99, but **a receiver is originally delivered in "demonstration" mode, with which it is possible to record only three call bells.** To remove this limitation it is necessary to enter the PIN CODE (see section 2.6 "***PIN CODE***").

Note 3: Information about the call bells remains in the receiver even when not connected to a power supply.

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2.2 Erasing a Call Bell from the Receiver

In the course of the usage of RECS, it may be necessary to remove some call bells from operation by performing the following procedure:

1. Enter the settings menu by pressing the button **[F]**.

1 – LEARN	**2 – DELETE**
3 – TEST	**4 – PIN CODE**

2. Choose "**2 – DELETE**" by pressing **[2]**.
3. At the prompt

ENTER TABLE:_ _

enter the number of the call bell (table number), which you plan to remove from operation. Press **[ENTER]** to confirm. If an error was made during entry, you may press **[ESC]** to exit or **[←]** to erase the entered number.

4. The indicator will display:

ENTER TABLE:_ _
1 – DELETE ESC – CANCEL

Press **[1]** to confirm or **[ESC]** to cancel.

5. After successful removal on the screen will be the following:

TABLE WAS DELETED
PRESS ANY KEY

After removal the receiver ceases to react to the call bell.

2.3 Changing a Call Bell's Number

If you need to change the number of a call bell that is already programmed, then you must simply register it with the new number (perform steps 1 - 5 of section 2.1 "***Initial Setup***"), whereupon the call bell's old number will be automatically erased.

2.4 Replacing a Call Bell

If the need should arise to replace a call bell with a new one, then you must simply record the new call bell in the receiver with the number of old call bell (perform steps 1 - 5 of section 2.1 "***Initial Setup***"), whereupon the old call bell will be automatically erased.

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2.5 Checking a Call Bell's Functioning

There is a special mode intended for the functional testing of call bells. It is turned on as follows:

1. Enter the settings menu by pressing the button **[F]**.

1 – LEARN	**2 – DELETE**
3 – TEST	**4 – PIN CODE**

2. Choose "**3 – TEST**" by pressing **[3]**. The following prompt appears:

PRESS BELL

3. Press on the call bells that you want to test, and the number of each call bell will light up on the indicator:

PRESS BELL **NEW CALL: x**

where x is the number of the pressed call bell. If the call bell is not recorded in the memory of the receiver, then the indicator will display:

PRESS BELL **TABLE NOT FOUND**

4. To exit to the settings menu, press **[ESC]**.

2.6 PIN CODE

The maximum number of bells recorded on a receiver is 99, but **a receiver is originally delivered in "demonstration" mode, with which it is possible to record only three call bells.**

To remove this limitation, it is necessary to enter a special PIN CODE of 8 digits, different for each receiver. The PIN CODE is given by the seller after paying for the equipment (it is necessary to report the serial number of receiver). The serial number of the receiver can be looked up by entering into PIN CODE entry mode:

1. Enter the settings menu by pressing the button **[F]**.

1 – LEARN	**2 – DELETE**
3 – TEST	**4 – PIN CODE**

2. Choose "**4 – PIN CODE**" by pressing **[4]**.
   The following is displayed:

SERIAL NUMBER: xxxx **ENTER PIN:**

xxxx is the receiver's serial number, consisting of 4 digits, which must be given when requesting the PIN CODE from the seller.

3. Next, enter the 8-digit PIN CODE.
4. If the code is correct, the indicator will display

ENTER NEW: _ _ **CURRENT NUMBER OF BELLS:** **3**

This means that currently a maximum of 3 call bells are allowed to operate, and you must enter a new quantity. After entering the number, press **[ENTER]**. If the entry is accepted, then the receiver will begin its functioning from the very beginning, as after turning on.

If the PIN CODE is incorrect or an error was made in its entry, then the indicator will display

INVALID PIN CODE **PRESS ANY KEY**

5. To cancel entry of the PIN CODE, press the **[ESC]** key.

Note: The PIN CODE makes it possible to change the maximum number of call bells accessible to the receiver an unlimited number of times.

3. OPERATING PROCEDURE

3.1 Turning On

Connect the cable of the power supply to the receiver, and plug in the power supply. Call bells work using a built-in battery; they are always operational. After switching on the receiver, the greeting "**WELCOME!**" appears on the indicator and a melody sounds. When the greeting vanishes, the system is completely ready to work.

3.2 Working with the Receiver

When customers press call bells, the numbers of their tables are displayed in the order they are received and remain on the indicator until the calls are cleared. Regardless of the number of times a customer presses a call bell, its number is shown only once. If a call bell's button is pressed and held, the signal will be transmitted from it only once, to prevent blocking the rest of the call bells.

The phrase "**NO CALLS**" on the indicator means that at the given moment there is not call from any table.

To remove a call, it is necessary to enter its two-digit number with the numerical keypad. For example, **[0] [5]** removes a call from table 5; **[2] [3]** removes a call from table 23; and so on.

If the number of calls exceeds the length of the indicator, then on the edges of the indicator appears the symbol ">>" or "<<", meaning that not all calls are shown on the screen. To view the unshown calls, the left/right buttons ([←], [→]) are used.

3.3 Light and Sound Signaling

All calls received are accompanied by a sound, whose volume can be adjusted with the help of the buttons **[↑]** (louder) and **[↓]** (quieter), and on the front panel of the receiver are two LED indicators for increasing the system's ease of use:

THE BLUE INDICATOR BLINKS,
when there are the still unserviced calls.

THE GREEN INDICATOR LIGHTS UP
when a new call is being received.

3.4 The Run-Down of a Call Bell's Battery

Inside each call bell is a battery (9V 6LR61 ALKALINE), which powers the call bell's electronic circuit. In the process of usage, the battery will inevitably run down and require replacement. The call bells are design so as to warn in advance about this. When the battery in a call bell is dying, then during calling the following phrase will appear on the receiver:

LOW BATTERY: xx **PLEASE REPLACE IT**

where xx is the number of the call bell in which the battery is dying. For further reliable operation, it is necessary to replace the battery as soon as possible (see section 4.2 "***Changing a Call Bell's Battery***").

3.5 Turning Off

To turn off the receiver, simply unplug its power supply. When shut off, only the assigned numbers of the call bells remain in the receiver's memory; information about calls is erased. Call bells are equipped with circuits to automatically shut off power, and they turn off automatically after each push of the call button upon completing sending of the radio signal. Therefore, they do not to be specifically shut off.

4. INSTALLATION AND MAINTENANCE

4.1 Equipment Placement

Because RECS operates through radio-frequency signals, for reliable operation it is advisable to adhere to the following recommendations when placing the equipment.

The receiver should be installed not less than 1 meter above floor level, far from metal constructions, computers, powerful electronic equipment, refrigerators, microwave ovens, and heating elements. Since the receiver has a circular zone of reception, the best results for operation can be obtained if the receiver is installed in the center of the prospective area for the positioning of call bells. With the positioning of call bells on tables, it is also advisable to exclude the proximity of metal constructions and electronic or lighting equipment. Bear in mind that the presence of obstacles in the path of the signal from call bell to receiver can decrease the range of the call bell.

After arranging the bells and receiver, it is necessary to carry out signal tracing of bells to the receiver (see section 2.5 "***Checking a Call Bell's Functioning***"). In case of the

unstable operation of some bells, it is necessary either to change the arrangement of bells and receiver or to try to interchange the position the bells among themselves.

Note: The tentative distance of the work of bell in the open country in the line-of-sight ranges is 400 m. and insignificantly changes from one article to the next (considerably it depends on the presence of foreign objects and discharge of the small battery of the nourishment of bell).

4.2 Changing a Call Bell's Battery

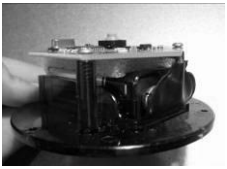
Inside each call bell is a battery, which powers the call bell's electronic circuit. In the process of usage, the battery will inevitably run down and require replacement. The type of battery installed is 9-Volt 6LR61 ALKALINE. For replacement, you will need a new battery, a scalpel or knife, and a screwdriver.

Replacement procedure:

1. Turn the call bell upside-down and remove round stickers.

2. Remove the screws from the lid and open the call bell's case.

4. Carefully, in order not to damage the wire, disconnect the old battery.



5. Observing polarity, connect the new battery and place it back as shown in the figure.

6. Put the case of the call bell back into place, oriented along the openings on the lid for the screws, twist in the screws, and attach the round stickers.

Note: The approximate operating life of the battery in the call bell is 3 years (depending significantly on the type of battery used and the intensity of the use of the call bell).

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5. ADDITIONAL POSSIBILITIES

This section describes additional modules and devices that can be connected to the receiver to extend its capabilities.

5.1 External LED Panel

An external LED panel is intended to display the queue of orders in a more visible form through the use of bright digital indicators with digits measuring 70 mm x 50 mm. What is written on the panel can be easily read up to 30 meters away, allowing waiters located anywhere in the room always to react promptly when summoned.

The panel can be installed up to 20 meters away from the receiver. It is connected to the receiver by a category 5 UTP (twisted-pair) cable. This version makes it possible to fasten a panel to the wall. Its power supply is 220V.

The quantity of tables simultaneously displayed on a panel is determined by the number of digital modules installed. Currently, a base set of 5 tables is issued. (Number of modules can be extended by individual order.) If the quantity of tables in the queue exceeds the number of modules installed, then the panel displays only the most recent calls.

Note: Additional blocks and modules are supplied by separate order.