

OUTDOOR PANEL
METAKOM

MK2003.2-RF(MF)



PASSPORT
USER'S MANUAL

Valid for filling

To be completed by the repair company

Contents of the repair. Name and number according to the scheme of the replaced part or unit. The place and nature of the defect:

Signature of the person who carried out repairs

Date of repair _____(Date, month, year)

Signature of the owner of the product, confirming the repair

Repair company stamp with the city

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APPENDIX 1

1. PURPOSE

The outdoor panel of METAKOM MK2003.2-RF (MF) (hereinafter doorphone) is a specialized microprocessor system intended for installation in multi-apartment buildings, offices, as well as for the organization of the doorphone system with the number of subscribers up to 999 (using several swiTKPes).

Modification of the outdoor panel METAKOM MK2003.2-KE has an integrated reader of contactless RFID keys with an operating frequency of 125 kHz.

Modification of the METAKOM outdoor panel MK2003.2-MF has a built-in Mifare proximity key reader with a working frequency of 13.6 MHz.

As user keys in the modification of METAKOM MK2003.2-KE, contactless trinkets METAKOM supporting Proximity technology (hereinafter RF (MF) -keys) are used. For the modification of METAKOM MK2003.2-MF, contactless METAKOM trinkets supporting Mifare technology (hereinafter MF-keys) are used. MF-keys have a special coding system for the identification number. The built-in MF reader supports the work with the trinkets encoded in the factory.

As the terminal devices installed at the subscribers, it is recommended to have TKP-01, TKP-05M, TKP-05M, TKP-10M, TKP-10M, TKP-12M, TKP-14M or other interphone sets with coordinate system addressing the production of METAKOM. The doorphone provides a call signal to the subscriber's TKP, duplex communication between the visitor and the subscriber, remote lock opening upon a signal from the TKP.

The lock can also be opened using the RF (MF) key, using the code dialed on the outdoor panel, or by pressing the EXIT button, which is installed at the entrance door inside the entrance.

To enable the use of different types of locks, the METAKOM MK2003.2-RF (MF) outdoor panel is available in two versions:

Full name of the model	Lock type	Terminal marking of terminal blocks	Description of the output node
METAKOM K2003.2-RF(MF)E	Electromagnetic lock without control board	LOCK - a line normally closed to the common lock wire GND	Powerful key transistor. When you open the lock, it turns off.
METAKOM MK2003.2-RF(MF)M	Electromechanic lock without control board	LOCK – a line normally open to the common lock wire GND	Powerful key transistor. When you open the lock, it turns on.

Tear-off coupon N2

For the warranty repair of the outdoor panel

METAKOM MK2003.2-KP(MP)

To be completed by the manufacturer

Serial number of the product _____

Release date _____
(date, month, year)

Representative of the QC of the manufacturer _____
(QC stamp)

Address for return of the coupon to the manufacturer:
Russia, 241024, Bryansk city, Delegate street, 68, LTD "Metakom"

To be completed by a trade or installation organization

Sale date _____
(date, month, year)

Seller _____
(signature or stamp)

Trade organization stamp:

Date of commissioning _____
(date, month, year)

Seller _____
(signature or stamp)

The stamp of the organization that conducted the installation:

Valid for filling

To be completed by the repair company

Contents of the repair. Name and number according to the scheme of the replaced part or unit. The place and nature of the defect:

Signature of the person who carried out repairs

Date of repair _____
(date, month, year)

Signature of the owner of the product, confirming the repair

Repair company stamp with the city

The output stage with a transistor is designed for direct control of the lock winding without using any additional control card or demagnetization.

The power supply of the call and lock unit can be provided from the METAKOM BP-2U power supply.

The full name of the calling panel consists of the following elements:

MK2003.2 - RF E V N

1. MK2003.2 - model number;
2. RF(MF) - support for electronic keys METAKOM TM2002, METAKOM TM2003(A,B) и Dallas iButton4"1;
3. E - for the electromagnetic lock,
M - for electromechanical lock,
4. N - doorphone supports networking
V - Built-in video camera and infrared illumination

2. DISTINCTIVE FEATURES

- Auto-collection of keys;
- MF modification uses subscriber keys with the encoding of the identification number (keys are coded in the factory);
- Transfer of all doorphone settings to a personal computer (or other doorphone) and back via the METAKOM adapter MKA-02U and the TM-key DS1996 (L). It is possible to configure all modes of operation of the doorphone and input subscriber CDs (MEs) with the help of a personal computer (PC) in a comfortable laboratory environment. The information prepared in this way is transferred to the non-volatile memory of the outdoor panel. A copy of this information is stored on the PC and used for subsequent servicing;
- Possibility to expand swiTKPes to seven (the number of serviced subscribers can not exceed 999);
- Possibility of the organization of interphone network type 1 Master / 16 Slave (one main input, 16 additional);
- The possibility of diagnosing the system during commissioning (test the subscriber's handsets with the output of the parameters of the audio line on the indicator);
- Adjustment of parameters for determining the position of the handset for each subscriber separately (the setting can be made for each subscriber separately);
- Vandal-proof design - special keypad design, installation on site with a special key;
- Waterproof keyboard with illumination of each key, backlight of the RF (MF) key reader;
- Return to the factory settings of the outdoor panel, while retaining the stored keys;
- Self-test on power-up or reset.

Tear-off coupon N1

For the warranty repair of the outdoor panel

METAKOM MK2003.2-KP(MP)

To be completed by the manufacturer

Serial number of the product _____

Release date _____
(date, month, year)

Representative of the QC of the manufacturer _____
(QC stamp)

Address for return of the coupon to the manufacturer:
Russia, 241024, Bryansk city, Delegate street, 68, LTD "Metakom"

To be completed by a trade or installation organization

Sale date _____
(date, month, year)

Seller _____
(signature or stamp)

Trade organization stamp:

Date of commissioning _____
(date, month, year)

Seller _____
(signature or stamp)

The stamp of the organization that conducted the installation:

Annex 1. Code tables.

Table 1.

flat No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Code	0529	7970	8740	1333	9813	4066	8801	2433	0899	2307	4628	0278	3352	6961	9538	3923	0396	9077	4727	2039
flat No	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Code	5377	5379	0562	2085	2644	8022	2663	3426	4226	4339	7940	8469	0565	5416	3137	8786	6002	0372	2964	1029
flat No	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Code	7943	1794	9521	6707	3396	0853	0117	6775	6288	9729	0500	3348	0308	5942	4920	9553	2673	8066	6547	1796
flat No	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Code	4614	9495	4897	5682	2115	0837	1140	2181	2951	5376	2070	5666	0036	2628	0853	7526	0880	4978	4739	4867
flat No	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Code	2309	5325	4662	1841	6737	5986	8804	3686	9350	0247	9744	9249	0803	4901	4662	4950	2151	2673	8578	9971
flat No	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Code	8452	3861	6438	0823	7248	3922	7538	1908	4900	2565	9479	3330	1098	8469	3667	1350	7270	2664	1394	3385
flat No	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Code	1554	9492	3892	4165	3128	3921	2402	7810	0132	5877	2069	0294	6960	4131	6979	3939	9573	2949	2680	5120
flat No	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Code	5634	9491	8755	5414	5190	9318	6753	0385	8850	0603	3848	4871	6198	3377	8273	7522	0341	5478	9621	0744
flat No	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Code	1296	4882	1571	9027	3638	1125	3672	0369	9873	1011	1013	1798	8230	1094	7745	5473	2915	3941	5268	2294
flat No	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Code	9223	1312	4371	4147	8275	5717	1141	7858	2177	7154	1539	7971	6437	3005	0086	1090	2387	1892	3445	1525
flat No	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
Code	6677	0264	7201	1345	2883	2885	3670	0103	3222	8192	0785	4868	0789	0836	3142	4951	7521	0114	8594	3587

Table 7

flat No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Code	2065	4627	3605	0053	9542	0102	5488	6273	5266	8436	6149	4118	0039	2338	0819	2643	4723	0358	6549	6125
flat No	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Code	6913	3361	2851	0805	5445	0898	3446	2929	8337	2788	2052	4614	7989	4663	9537	4419	8035	1381	1684	7173
flat No	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Code	3335	2306	1811	5442	0068	5732	8294	1670	0129	3570	0515	4628	2597	8517	9031	8785	3426	0371	4484	2293
flat No	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Code	3003	5366	6448	0065	5202	0581	8820	2181	9366	8192	3857	8211	2852	9796	2118	0614	9513	7794	9618	1539
flat No	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Code	3845	4871	0536	9280	1602	0098	8804	4228	1911	7159	1040	8466	4131	2883	9541	1351	3943	5474	4497	0228
flat No	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Code	4853	8725	0025	6711	1074	6241	4180	7540	2534	2294	7687	5408	7714	3138	0821	6229	5237	9847	2433	3058
flat No	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Code	6930	8227	3124	3623	2104	3921	9058	8854	7300	7684	4885	6950	1298	5183	7762	8020	9829	0630	2695	1280
flat No	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Code	0273	3603	6436	4646	7238	3174	6753	4993	0146	8456	0788	7446	9255	0049	5171	3667	6771	4213	2950	2566
flat No	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Code	5904	3075	2580	6211	0837	6501	9063	2432	3055	4083	3332	4614	8230	1576	1872	0579	7794	9347	2196	3318
flat No	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Code	1814	0514	0787	3876	4435	8036	0102	0646	2960	2561	4626	8980	3621	0566	4679	2641	1619	8066	5764	2293
flat No	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
Code	3334	0279	4385	5411	1076	8827	4694	7030	5014	2048	2050	5907	5924	1062	2630	6758	6000	4737	0116	81

3. OPERATING FUNCTIONS

- Indication of operating modes on a 3-character indicator;
- Sound control of button pressing;
- Call the subscriber by dialing his number on the outdoor panel;
- Sound control of making a call to the subscriber (sending a ring signal
- Another key, if the subscriber's handset is not stacked);
- Duplex communication subscriber-visitor;
- Remote lock opening of the lock from the subscriber's TKP;
- Local lock opening by a set of general or individual code before;
- Local lock opening by individual KK (MP) - a key; Local opening of the lock from the entrance by pressing the EXIT button; Sound signaling of the use of an individual subscriber code or CC (MP) -key on the TKP of the corresponding subscriber (function included on request);
- Ability to prohibit the maintenance of the subscriber's TKP while maintaining access to the individual code;
- Code lock operation in common code mode, in individual codes mode or jointly (programmable);
- Adjustment of all parameters of work for the most complete conformity to the requirements imposed on the installation site;
- Use the master KK (MR) -key for quick access to the programming mode

4. SELF-TEST

When you turn on the power of the outdoor panel or press the "C" (RESET) button, the self-test procedure is performed. When an error is detected, an appropriate sound signal and a light indication are output.

If the EEPROM chip is initialized, the message "Er2" is displayed and an error signal is output. If the error is caused by the fact that a new (or previously used in the other device) EEPROM was installed, perform a full initialization of the EEPROM (see section 7.3). If the error message continues to appear, replace the IC with EERIOM.

When a keyboard malfunction occurs, the indicator "Er4" is displayed, its operation is blocked, while the function of opening the door lock from the exit button and the IE keys is workable.

When the audio line is short-circuited, the message "Er5" is displayed on the indicator, if the line "Er6" is broken.

11. OUTDOOR PANEL COMPLETENESS

1. Outdoor panel..... 1pc.
2. Passport 1pc.
3. Fixing kit 1pc.
4. Special key..... 1pc.
5. Packing box 1pc.

10. WARRANTY OF THE MANUFACTURER

The manufacturer guarantees the correspondence of the call outdoor panel METAKOM MK2003.2-YE (METAKOM MK2003.2-ME) to the requirements of MTCM.420570.003 TU when the user applies the rules of use, storage and transportation..

Warranty period - 12 months from the date of sale, but not more than 18 months from the date of manufacture.

Service life is 5 years from the date of manufacture.

Without presentation of a coupon for warranty repair and (or) violation of the integrity of seals, mechanical, electrical or other types of damage caused by improper transportation, storage, operation or actions of third parties, no claims to quality are accepted and no warranty repair is performed.

The address of the manufacturer:

Russia, 241024, Bryansk city, Delegate street, 68,

OOO "Metakom"

Tel./fax: (4832) 68-28-26

Tel. (4832) 68-28-25

<http://www.metakom.ru> E-mail: os@metakom-plus.ru

5. TECHNICAL SPECIFICATIONS

Maximum resistance of the access line	Max 30 Ohm
Maximum number of subscribers served	20
The maximum number of subscribers served for the modification of "No."	999
Maximum subscriber number	999
Maximum number of KP(MP)-keys	3000
Number of KP(MP)-keys per apartment	To 3000
Subscriber number offset	1...999*
Number of ringing signals applied to the TKP	2...62*
Lock opening duration	2... 102sec.*
Restriction of the conversation duration	40...240 sec.*
Maximum number of individual codes	999
Maximum number of the code table	255
Number of the subscriber code digits	4
Number of the total code digits	4
Number of the master code digits	6
Operating temperature range	-30...+40°C
Relative air humidity (at 35 ° C)	95%
Supply voltage (DC)	15...18B
Maximum current consumption in standby mode, max	180 mA
Peak consumption current (when a call signal is applied to a subscriber's TKP)	290 mA
Overall dimensions of the block, max (height x width x thickness)	200 x 105 x 45 mm
Block weight without package, max	0,7 kg

6. INSTALLATION PROCEDURE

ATTENTION! There is a dangerous voltage in the power supply - 220V. Do not perform installation and maintenance work when the power is on. In the outdoor panel and other doorphone devices, except for the power supply unit, there are no voltages exceeding 18V.

The following sequence of actions is recommended:

1. Carefully study this instruction manual and block diagram.
2. Prepare a niche for installing the outdoor panel (see the markup in Figure 1).
3. Install the power supply, lock, switch and opening button from the room. Connect the outdoor panel housing to the protective ground wire.
4. When using multiple switches to increase the amount of ob (Switch models with the "and" index), it is necessary to set jumpers L, 12, 13 in accordance with the address of the switch in the network.

Switch address	1	2	3	4	5	6	7
Jumper value	J1 = 1	J1=0	J1=1	J1=0	J1=1	J1=0	J1=1
	J2=0	J2=1	J2=1	J2=0	J2=0	J2=1	J2=1
	J3=0	J3=0	J3=0	J3=1	J3=1	J3=1	J3=1

The values of the jumpers can be taken from the table:

JN = 1 - the jumper is closed and JN = 0 - is open.

If you use one switch, then jumpers must be removed.

5. Set the apartment's lodging in the apartment's lodging rooms (TKP).
6. Install the wiring. Make taps from the loops and connect the TKP of all the subscribers. (Figure 2, 3)
7. Check that the connections are correct.
8. Turn the power on, the "_" symbol should flash on the indicator, enter the programming mode (see section 7.2) and perform the following actions:
 - A) Change the access code to the programming mode and, if required, program the master RF key. Be careful when entering the code. WRITE MASTER CODE!
 - B) If necessary, set the shift of the range of subscriber numbers (see Chapter 7.3). This parameter should always be set first, since all further operations with subscriber numbers will depend on the set offset.
 - C) Set the type of switch used.
 - D) When using multiple switches, program a new number of switches.
 - E) Program the subscriber RF (MF) -keys.
 - F) If the doorphone is to be used on the network, you must enter:
 - For the Slave doorphones the network number (from 1 to 16);
 - For the Master doorphone, specify the range of the serviced numbers of each Slave (slave) doorphone (see chapter 7.3).

8. USER`S USE OF THE OUTDOOR PANEL

After power on, the doorphone is in standby mode. The indicator "_" flashes on the indicator. After subscriber dialing the subscriber number and pressing "B", the connection with the subscriber's TKP is established and the set number of ringtones is applied. If the subscriber does not pick up the handset, after the set number of ring signals has been exhausted, the outdoor panel returns to standby mode. When the receiver is off, the call signals are given in a different key. In this case, for the conversation of the subscriber with the visitor, it is necessary to put the pipes, wait for the call signal of another key and lift the handset.

When the subscriber picks up the handset, the message "SAY" is displayed, meaning that the connection with the subscriber is established and the visitor can talk.

The lock is opened by pressing the button on the TKP of the subscriber. In this case, the message "OPn" is displayed and the corresponding sound signal sounds.

If the subscriber has hung up, the conversation is interrupted and the outdoor panel returns to standby mode. You can also interrupt the conversation by pressing the "C" button on the outdoor panel.

After the set time limit has expired, the conversation will be interrupted automatically (see Chapter 7.).

If the function of "general" or "individual" codes is turned on, when the button "B" is pressed from standby mode, the flashing message "1" will appear on the indicator. After this, it is necessary to enter the code (factory common code 1234, individual code is taken from the table).

If the code is entered correctly, the lock opens.

If the network protocol is activated, at the time of a call and a conversation on the Slave doorphone, "nEt" lights up. In this case, dialing the number on the keyboard is blocked. The door is opened by the exit button or KE (ME)-key.

G) If a common code is used in the code lock mode, then change the common code and switch the outdoor panel to the common code mode. Write down the general code (see chapter 7.3).

H) If individual codes are used, create a code table (see chapter 7.3). Record the code table number.

I) If necessary, change the duration of the ringing signal, the duration of the lock opening, the duration of the call restriction, etc. The factory settings are in most cases optimal.

NOTE: a.i items can be pre-made using a personal computer. In this case, the prepared information is transferred to the outdoor panel memory via the METAKOM MKA-02U adapter and the DS1996 (L) TM key.

9. Check the operation of the outdoor panel in the interphone mode and in the code lock mode.

10. In versions of the outdoor panel with index V, the built-in video camera can be powered from external or internal voltage 12V. For power supply from the internal source, the terminals "+ UV" and "+ 12V" must be closed

11. Secure the outdoor panel in a niche prepared in advance with the help of the attached set of fasteners.

12. Make a note in the tear-off coupons about the date of commissioning the unit.

If the volume of the call is insufficient, adjust the required parameters (microphone sensitivity and speaker volume) with trim resistors on the back of the outdoor panel.

Install the power supply and switch, if possible, in the boxes, niches, at the ceiling. The power supply unit must be installed not more than 15 meters, and the switch should not be more than 30 meters from the outdoor panel. The "EXIT" button provides opening of the lock when leaving the entrance and is installed near the entrance door inside the entrance.

To reduce the influence of climatic factors (low temperature, high humidity, hoarfrost, and dew), the outdoor panel and the lock should be installed on the second door of the entrance located in the vestibule.

The cross-sections of the wires connecting the power supply unit to the outdoor panel and the lock must be at least 0.35 mm² (KSPV 2x0.64 or IIIBBII 2x0.5), the rest - not less than 0.12

mm². As a connecting wire, it is recommended to use a wire with colored insulation of cores. To reduce the influence of external influences, connect the outdoor panel and the switch to a shielded cable (KSPEVG 4x0.2 or KSPEV 4x0.5). For installation of video equipment, use a coaxial cable of the type RK-75.

For doorphones MK2003.2 with a network function when installing a digital line (AV), use a twisted pair. On long communication lines on the "Master" and the last "Slave" doorphone, install 120 ohm resistors between the terminals AB.

The "+" terminal of the TKP is connected to the bus of tens, and the "-" TKP is connected to the bus of the switch units. Before connecting the TKP, the line must be checked for a short circuit. The resistance of the line should not exceed 30 ohms.

In the doorphone there is protection against short circuit of the line. At this time, communication with the TKP will be impossible. All other functions are available.

Installation of other doorphone units is carried out in accordance with the passports of these blocks.

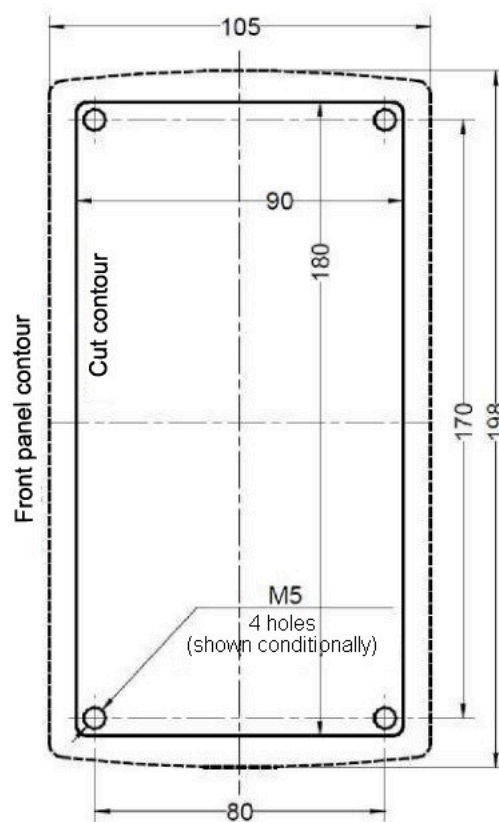


Fig.1 Markup for installation of the outdoor panel

If the doorphone works in the "Master" mode, then it is necessary to establish the correspondence of the range of serviced subscribers with the network number of the doorphone "Slave". After entering the section, it is necessary to enter the network number of the doorphone "Slave", press "B", then enter the lower number of the range of numbers to be served, press "B", then enter the upper number of the range of serviced numbers, press "B". After, if necessary, enter a new network number and continue entering the range of serviced numbers. These settings affect the performance of the entire system. It is necessary to correctly configure these parameters; otherwise there may be malfunctions during system operation.

Example.

It is necessary to set up the interphone network with the following parameters: 1 master house "Master", 5 "Slave" doorphones. The total number of serviced rooms is 180. Each "Slave" doorphone serves 36 numbers.

Setting of "Slave" doorphones:

Doorphone serving 1 ... 36 subscribers - network number "1";

Doorphone serving 37 ... 72 subscribers - network number "2";

Doorphone serving 73 ... 108 subscribers - network number "3";

Doorphone serving 109 ... 144 subscribers - network number "4";

Doorphone serving 145 ... 180 subscribers - network number "5";

Setting the doorphone "Master":

The network number is "1", the lower number is "1", and the upper number is "36";

The network number is "2", the lower number is "37", and the upper number is "72";

The network number is "3", the lower number is "73", and the upper number is "108";

The network number is "4", the lower number is "109", and the upper number is "144";

The network number is "5", the lower number is "145", and the upper number is "180";

Chapter 29 Select the melody of the sound signal.

Used to set one of the 2 variants of the sound signal beep. After entering the section to select the first melody, you need to dial "1" "B", the second - "2" "B".

DS1996 (L) to the reader, data transmission will start. If there is an error, an error signal will sound. A sign of the end of the transfer of information is the audio signal of the end of the recording and the output in the selection mode of reading (the message "DS-" will be displayed on the indicator).

To read the subscription database in DS1996 (L), press "3". A flashing "DS1" message appears indicating that the first key will be read. Then attach the key DS1996 (L) to the reader, the data transfer will begin. If an error occurs, an error signal will sound. A sign of the end of the transfer of information is the audio signal of the end of the recording and the message about reading the second key "DS2" will be displayed, if the information is read in full, the reader will enter the mode of reading selection (the message "DS-" will be displayed).

Warning: be sure to wait for the correct end of the reading, otherwise there may be malfunctions in the outdoor panel operation.

Chapter 23 Changing the system code

Used to change the access code to programming mode. After entering the section, you need to dial a new system code. After dialing the 6th digit, the new code will be automatically saved.

Chapter 24 Master key recording

Used to record a master key for quick access to the programming mode. The master key can be used as the CD (MP) key. After entering the section, you need to press:

"1" - to write the master key,

"0"- to delete the master key. After entering the recording mode, it is necessary to attach a key to the reader, if the key is read correctly, the master key will be recorded.

Chapter 25 Return to factory settings.

Used to set the factory settings. After entering the section, you must press "1" to confirm the installation, then automatically change the settings, and the key database will not change.

Chapter 26 Enabling the Network Protocol

Used to disable the network protocol or set the functional parameters of doorphones (Master or Slave) working on the network. After entering the section, you need to press:

"0" - to disable the network protocol;

"1" - the doorphone works in the "Slave" mode;

"2" - the doorphone works in the "Master" mode.

Chapter 27 Setting up the network protocol

Used to set parameters and configure the network protocol.

If the doorphone works in "Slave" mode, then after entering the section it is necessary to set the network number of the doorphone. It can be from 1 to 16. The network number is set in accordance with the subscriber numbers being serviced, i.e., the doorphone with the network number "1" will serve the initial numbers of the subscribers, and with the network number "16" - the last numbers of the subscribers.

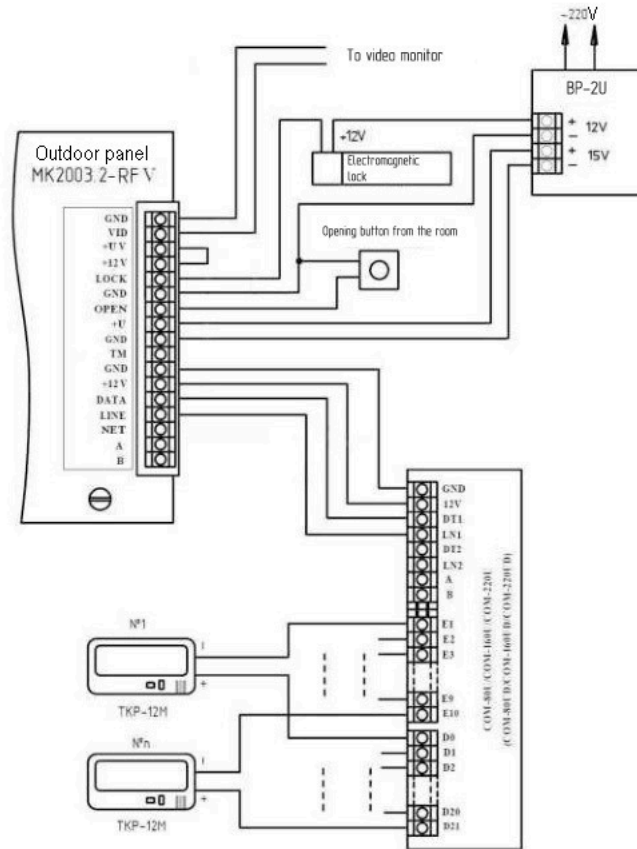


Fig. 2 Example of mounting the outdoor panel MK2003.2-KRU

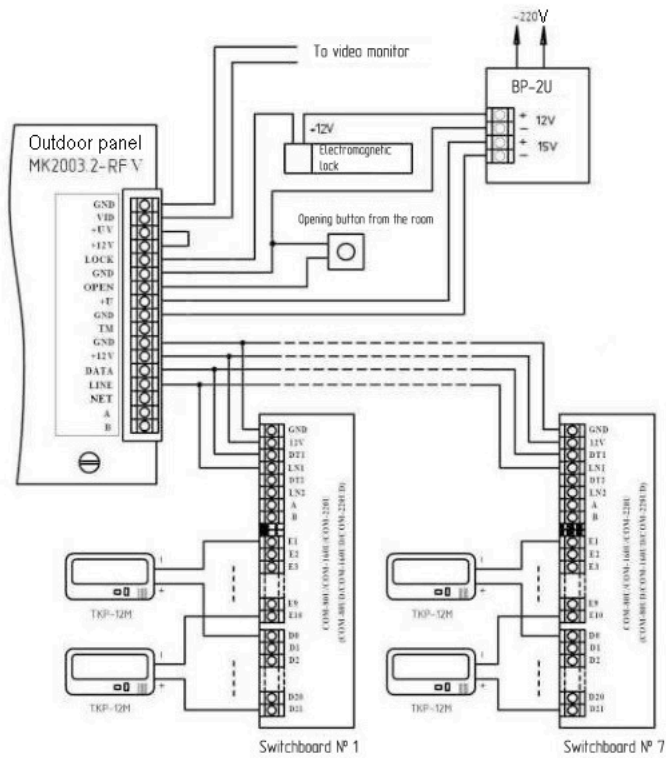


Fig. 3 An example of installing an outdoor panel MK2003.2-SKU when using multiple switches.

Unlocking the lock (long line, using some video monitors with adapters, etc.) it is possible to adjust the threshold for the opening of the lock on the subscriber tube in a certain range.

The threshold value can be in the range of 781 ... 830, the factory setting is $780 + 50/2$, where 50 is the threshold offset. When you press the lock release button, the signal level should be above the threshold value (with factory settings above 810). If the level is lower (measured in chapter No. 18 by pressing the lock release button), you can correct the threshold value by decreasing the shift. If in a conversation mode there is a spontaneous lock opening without pressing the opening button (for example, during a loud conversation), it is necessary to increase the threshold by increasing the offset. After entering the section, you need to dial the number of the subscriber for which you need to change the threshold and press "B", then type the offset value and press "B". If it is necessary to conduct actions for all subscribers, then instead of the subscriber number, press "0" next "B".

Chapter 21 Recording of electronic media DS1996 (L)

Used to transfer information from the memory of the outdoor panel to the TM-key DS1996 (L). To transfer information, it is necessary to connect the readers (KTM-1P key contactor) to the terminal blocks "TM" and "GND".

To record the system settings in the DS1996 (L), press "1", wait for the flashing message "- DS" to appear. Then attach the key DS1996 (L) to the reader, the data transfer will begin. If there is an error, an error signal will sound. A sign of the end of the information transfer is the audio signal of the end of the recording and the output in the selection mode of the recording (the message "- DS" will be displayed on the indicator).

To record the subscriber base in DS1996 (L), press "3". At the same time, a message on the number of DS1996 (L) keys required for writing TM-keys (a figure in front of the DS) will be displayed briefly on the indicator. Then a flashing "1DS" message will appear, indicating that the first key will be recorded. Then attach the key DS1996 (L) to the reader, the data transfer will begin. If an error occurs, an error signal will sound. A sign of the end of the transfer of information is the audio signal of the end of the recording and a message about recording the second "2DS" key will be displayed, if the information is written in full, then the recording selection mode will be output ("-DS" will appear on the indicator).

Warning: be sure to wait for the correct ending of the record, otherwise in the future when reading incorrect information in the operation of the outdoor panel there may be failures.

Chapter No. 22 Reading the electronic media DS1996 (L)

Used to transfer information from the TM-key DS1996 (L) to the memory of the outdoor panel. To transfer information, it is necessary to connect the readers (KTM-1P key contactor) to the terminal blocks "TM" and "GND".

To read the system settings from the DS1996 (L), you must press "1", before the flashing message "DS -" appears. Then attach the key

"B", then press: "0" "B" - to turn off the mode, "1" "B" - to activate the mode.

Chapter 18 Test of subscriber handsets

Used to determine the position of the handset at the subscriber during installation or the failure of the outdoor panel. After entering the section, it is necessary to dial the number of the subscriber for which you need to check the handset, press "B", the connection will be established and the indicator will show the value of the tube's position in conventional units. "0 ... 180" - short circuit, "180 ... 510" - the tube lies, "511 ... 780" - the tube is removed, "806 ... 999" - the line is broken (or the lock opening signal). These tube position values are given for the factory settings of the thresholds.

If the values of the thresholds are different, then it is necessary to carry out the correction (the correction can be carried out within the range 1 ... 100). To automatically correct the threshold for determining the position of the subscriber tube, it is necessary to increase the tube to the stand, and then press "1". To automatically correct the threshold for the opening of the lock on the subscriber tube, it is necessary to remove the handset from the stand, press the lock release button and hold it in the pressed state, then press "1". Manual correction is described in Chapter 19, 20.

Chapter 19 Setting the threshold for determining the position of the tube

Used to adjust the threshold for determining the position of the tube. If there is an incorrect positioning of the tube (long line, use of some video monitors with adapters, etc.), then you can adjust the threshold for determining the position of the tube within a specified range.

The threshold value is between 461 ... 560, the factory value is $460 + 50$, where 50 is the threshold offset. The outdoor panel determines that the handset is in the state "placed on the stand", if the level falls within the range 181 ... 510. If the level of the handset is above the value of 510, the outdoor panel will determine that the handset is in the off state. To correct the position of the tube, it is necessary to increase the offset to a value above the detection threshold of the tube. The threshold shift is in the range 1 ... 100. If, after removing the handset, the ringing signal continues to flow to the subscriber's handset, then it is necessary to reduce the offset to below the detection threshold of the removed handset.

Determine the amount of displacement can be from section # 18, measuring the value of the state of the tube in the laid down and removed position.

After entering the section, you need to dial the number of the subscriber for which you want to change the lower threshold and press "B", then dial the threshold value and press "B". If it is necessary to conduct actions for all subscribers, then instead of the subscriber number, press "0" next "B".

Chapter 20 Setting the threshold for opening the lock button on the subscriber's handset

Used to adjust the threshold for the opening of the lock button on the subscriber's handset. If an incorrect signal definition occurs

more than 100, then the type of the sound melody (short beep) will be changed when the lock is opened (for example, if the value 110 is entered, then the lock opening time will be $110 - 100 = 10$ sec)

N	Parameter	Value
1	Offset of subscribers	No
2	Switch Type	COM220
3	Number of switches	1
4	Ban of subscribers	All are allowed
5	Types of keys	All are allowed
6	Reading copies of TM2002 key	Disabled
7	On autosect key mode	Disconnected
8	Opening time of the lock	4 sec
9	Talk duration	90 sec
10	Number of ringtones	12
11	Using generic or individual code	Codes are disabled
12	Number of code table	1
13	Enable subscriber notification by key or code	Disabled
14	Tube position detection threshold level	50
15	The threshold level of the activation of the button for opening the lock on the subscriber tube	50
16	System code	123456
17	Master key	Not programmed
18	Network Protocol	Disconnected

Chapter №11 Talk time

Used to set the necessary duration of the conversation between the visitor and the subscriber. After entering the section, you need to dial the time in seconds and press "B", the maximum value is 240.

Chapter 12 Number of ringtones

Used to set the number of ringtones applied to the TKP. The call signal to the subscriber's TKP consists of an alternation of a musical fragment and a pause. This function determines the number of music fragments to be sent to the TKP. After entering the section, you need to dial the number of signals on the keyboard and press "B", the maximum value is 60.

Chapter 13 Incorporation of a common or individual code

Used to allow the work of a common or individual code. After entering the section, you need to press: "1" - to allow the work of the general code, "3" - to prohibit the work of the common code, "4" - to allow the work of the individual code, "6" - to prohibit the

work of the individual code. For simultaneous work of general and individual code, it is necessary to allow the work of the general, then individual, code.

Chapter 14 Changing the General Code

Used to enter a new common code. After entering the section, you need to type a new common code. After dialing the 4th digit, automatic saving of the new code will take place.

Chapter 15 Changing the code table number

Used to generate a new table of individual codes. After entering the section, you need to dial the table number and press "B", the maximum value is 250. Some code tables are in Appendix 1.

Chapter № 16 Changing the individual code

Used to enter a new individual code in the installed table of individual codes. After entering the section, you need to dial the number of the subscriber, for which you need to change the code, press "B". Next, you need to dial a new individual code. After dialing the 4th digit, the new code will automatically be saved.

Chapter 17 Activation of subscriber notification by code or key.

Used to activate the subscriber alert mode when using an individual code or key. After entering the section, you need to dial the number of the subscriber for which you want to activate the alert mode, press

This setting affects all subsequent changes in the parameters of the outdoor panel, so it must be performed at the beginning of the change of the subordinate parameters of the outdoor panel.

Chapter 5 Recording of electronic keys

Used to enter the KE (ME) keys into the memory of the outdoor panel. Recording KE (ME) - keys is carried out in 2 modes:

- the mode of "common" keys,
- the mode of "individual" keys.

In the mode of "common" keys KE (ME) -keys are written to the common database without pointing to a specific subscriber, and the function of the subscriber alerting is not available. In the mode of "individual" keys KE (ME) - the key is written to the number of a particular subscriber.

If recording of KE (ME) keys will result in the overflow of the number of keys, an error signal will be issued and further recording of the keys will not be possible.

After entering the section, it is necessary to press: "1" "B" - for recording common keys, "2" "B" for recording individual keys. In the common keys record mode, to attach the key to the reader, the key will be recorded, if the key is already written, then an error signal will sound. In the mode of recording individual keys it is necessary to dial the number of the subscriber to which the keys will be recorded, press "B" and attach the key to the reader, the key will be recorded, if the key is already recorded, then an erroneous action signal will sound. If the key is correctly written, an audible signal will sound and a "running line" will appear on the indicator.

Section number 6 Erasing of electronic keys

Used to delete the KE (ME) keys from the memory of the outdoor panel. Removal is carried out in 3 modes: deleting "shared" keys, deleting "individual" keys and deleting all keys. After entering the section, you need to press:

"4" "B" - to delete the "general" keys,

"5" "B" - to remove the "individual" keys,

"6" "B" to delete all keys.

After entering the subsection of deleting "individual" keys of the subscriber, it is necessary to enter the subscriber's number and press "B". When deleting the keys, a beep will sound and a "running line" will appear on the indicator.

Chapter 9 Activation of the mode of auto-selection of KE (ME) keys

Used for automatic recording of subscriber keys when the key is applied to the reader. This opens the door. After entering the section, you need to press "1" "B" to allow autoscore or "0" "B" to disable autoscore.

Chapter №10 Time of opening the lock

Used to set the required duration of the lock opening. After entering the section, you need to dial the opening time in seconds and press "B", the maximum time for input is 100 seconds. If you enter a value

7.1 OUTDOOR PANEL PROGRAMMING MODE

In the programming mode, access to the sections is made by typing the corresponding section number on the keyboard and pressing the "B" button, if the sub-section is used, access to it is done by pressing the corresponding buttons. Exiting the sections and the programming mode is done by pressing the "C" button. After entering certain sections, the flashing value of the previous saved parameter is displayed on the indicator. If no changes have been made or the buttons are not pressed, then after a while there will be an automatic exit from the section or the programming mode. When you enter incorrect data, the message "Err" is output and an audible signal of erroneous action sounds. The table shows the names of the sections and a combination of buttons for accessing them.

N menu	Menu name	Enter the menu	Submenu	Enter the submenu
1	First subscriber number	«1» «B»		
2	Switch Type	«2» «B»		
3	Number of switches	«3» «B»		
4	Disconnecting subscribers	«4» «B»		
5	Recording IE (ME) keys	«5» «B»	Shared keys	«1» «B»
			Individual keys	«2» «B»
6	Deleting DYE (ME) key	«6» «B»	Shared keys	«4» «B»
			Individual keys	«5» «B»
			All keys	«6» «B»
9	On autoselect key mode	«9» «B»		
10	Opening time of the lock	«10» «B»		
11	Talk duration	«11» «B»		
12	Ring time	«12» «B»		
13	Include a single or shared code	«13» «B»	Enable shared code	«1»
			Disable shared code	«3»
			Enabling the in-line code	«4»
			Disable the in-line code	«6»
14	Changing the General Code	«14» «B»		
15	Changing the code table	«15» «B»		
16	Changing individual code	«16» «B»		
17	Notification by code or key	«17» «B»		
18	Subscriber Tube Test	«18» «B»		
19	Setting the threshold for determining the position of the tube	«19» «B»		
20	Setting the threshold for opening the lock button on the subscriber's handset	«20» «B»		
21	Recording in E81996	«21» «B»	Recording System Settings	«1»
			Recording keys	«3»
22	Reading from E81996	«22» «B»	Reading system settings	«1»
			Reading keys	«3»
23	Changing the system code	«23» «B»		
24	Master key recording	«24» «B»	Deleting the master key	«0»
			Recording the master key	«1»

25	Factory settings	«25» «B»		
26	Enable Network Protocol	«26» «B»		

	Configuring the Network Protocol			
27		«27» «B»		
29	Select the melody of the sound signal.	«29» «B»		

7.2 ENTER TO PROGRAMMING MODE

To enter the programming mode, you need to know a special master code or a programmed master key.

A) Enter the programming mode using the master code.

When the outdoor panel is in standby mode, you must press and hold the button "B" for 5 seconds before the flashing "Soyo" on the indicator, then dial the master code ("123456" - the master code) on the keyboard, with each press accompanied by an audible signal and the corresponding symbol on the indicator. After that, if the code is entered correctly, the outdoor panel goes into the programming mode, the sign of finding in the programming mode is the inscription "Γ".

B) Enter the programming mode using the master key.

When the outdoor panel is in standby mode, it is necessary to press and hold the "B" button for 5 seconds before the flashing of the "Soyo" sign on the indicator, then enter the code "0", "0", "0", "0", "0", "0". A blinking "-b-" message appears on the display, and then the master key is attached to the reader. After the master key is identified, it will enter the programming mode.

7.3 DESCRIPTION OF THE SECTIONS OF THE PROGRAMMING MODE

Chapter 1 Set the offset of subscribers.

Used to set the offset of the subscriber numbers if the number range exceeds the maximum value of the serviced subscribers (the number of serviced subscribers is determined by the type and number of switches used). After entering the section, dial the first subscriber number and press "B". An indication of the parameter is the sound signal.

This setting affects all subsequent changes in the parameters of the outdoor panel, so it must be carried out at the beginning of the change of the subordinate parameters of the outdoor panel.

Chapter 2 Setting the Switch Type.

Used to install the switch model. After entering the section, to set the type of switch used, you need to type:

- "1" - if a switch of the COM-80CHO type is used);
- "2" - if a switch of the COM-160CHO type is used);
- "3" - if a switch of the COM-220CHO type is used);
- "4" - if a switch of the COM-25CHO type is used);
- "5" - if a switch of the COM-100CHO type is used).

Then press "B". If the input is correct, a beep will sound.

Depending on the installed switch type, the maximum number of the subscriber served is calculated. If the COM-220I switch is used, this parameter is not required to be changed.

This setting affects all subsequent changes in the parameters of the outdoor panel, so it must be carried out at the beginning of the change of the subordinate parameters of the outdoor panel.

Chapter 3 Setting the number of switches (only for switches with an "and" index)

Used to set the number of switches. The maximum number of switches used is 7. The number of switches used is determined by the number of subscribers served. The number of switches can be calculated as follows:

$KK = KA / T$, where KK - the number of switches;

SC - the number of subscribers served;

T - The type of the switch (for COM 80, $T = 80$, COM 160, $T = 160$, etc.) If it turns out that the CC is not an integer, then it is necessary to add 1 to the result. Example: the number of subscribers is 500.

When using COM-80I:

$KK = 500/80 = 6.25$, since the KK is not an integer, then $KK = 7$.

When using COM-160I:

$KK = 500/160 = 3.125$, since KK is not an integer, then $KK = 4$.

When using COM-220I:

$KK = 500/220 = 2.27$, because KK is not an integer, then $KK = 3$.

After entering the section, you need to dial the number of switches (1 ... 7) and press "B". If the input is correct, a beep will sound. Depending on the number of the switch, the maximum number of the subscriber is calculated.

For switches COM80 (B), COM160 (B), COM220 (B), this parameter should not be set. This setting affects all subsequent changes in the parameters of the outdoor panel, so it must be carried out at the beginning of the change of the lower-level parameters of the outdoor panel.

Chapter 4 Disconnecting subscribers

Used to disconnect the subscriber's service. When you turn off an unauthorized person, an erroneous beep will sound. After entering the section, dial the number of the subscriber to be switched off, press "B", then press:

"0" "B" - if it is necessary to turn off the service

"1" "B" - if it is necessary to turn on the service

If the input is correct, a beep will sound. If it is necessary to conduct actions for all subscribers, then instead of the subscriber number, press "0" next "B".