aco®

OPERATING MANUAL FOR THE FAM-P SERIES DIGITAL DOOR ENTRY PANEL

IMPORTANT! When disinfecting panels made of stainless steel, use on ly alcohol-based cleaners. All types of chlorides (which are present in the composition of common cleaners) are harmful to the steel surface, because they abrade its natural protective coating and increase the risk of corrosion marks.

TECHNICAL PARAMETERS

- Power supply: (11,5V ± 0,5V) AC or 15V $^{+0,5V}_{-1,5\,V}$ DC
- Power consumption in stand-by mode: ~1,3W
- Power consumption of FAM-P-2NPZS: max. 250mA without electric lock
- Proximity key ring support (version with built-in ACC): 192 key rings
- Max. load of electric lock out: 1A
- Enclosure: stainless steel; front panel mounted with 3mm Allen screws
- Required space for mounting:
  - flush-mounted panel installation: 197 x 90 mm (H / W / D)
  - flush-mounted box: 180 x 74 x 33 mm (H/W/D) with add-on module 180 x 74 x 50 mm
  - surface-mounted panel installation: 177 x 70 mm (H / W)
  - surface-mounted panel with flush-mounted adapter: 214 x 107 mm (H/W)
  - hole size for the flush-mounted adapter: 180.5 x 73.5 x 26.5 mm (H / W / D)

INSTALLATION OF THE PANEL

We assemble the panel in such a way as to minimize the impact of adverse weather conditions, especially water. According to the drawing below:

The **flush-mounting box** (or flush-mounting adapter) is mounted in the appropriate hole of the wall (or brick post) by means of holes **5** and plugs (or appropriate screws) and plaster in such a way that the plane of the box flange is flush with the mounting surface. For mounting in **a steel pole**, use an additional set of gaskets and screws - available as an option). The wires are led out through the hole 1 in the box base (in order to get bigger hole it is necessary to cut out the cap). Auxiliary holes **4** are used for temporary installation with the use of e.g. nails in case of settling the device in soft materials e.g. polystyrene. Holes **4** also make mounting easier when using the mounting foam. The cover cap **2** should be cut out for mounting the add-on module in its place. For the best possible tightness, only those holes should be cut out that are necessary for mounting the panel.

The **surface-mounting box** is mounted in the right place with holes **6** and dowels or appropriate screws. The wires are led out through hole **7** in the base of the box.

Then we evenly screw all screws of the casing to the mounting box with a 3mm Allen key.
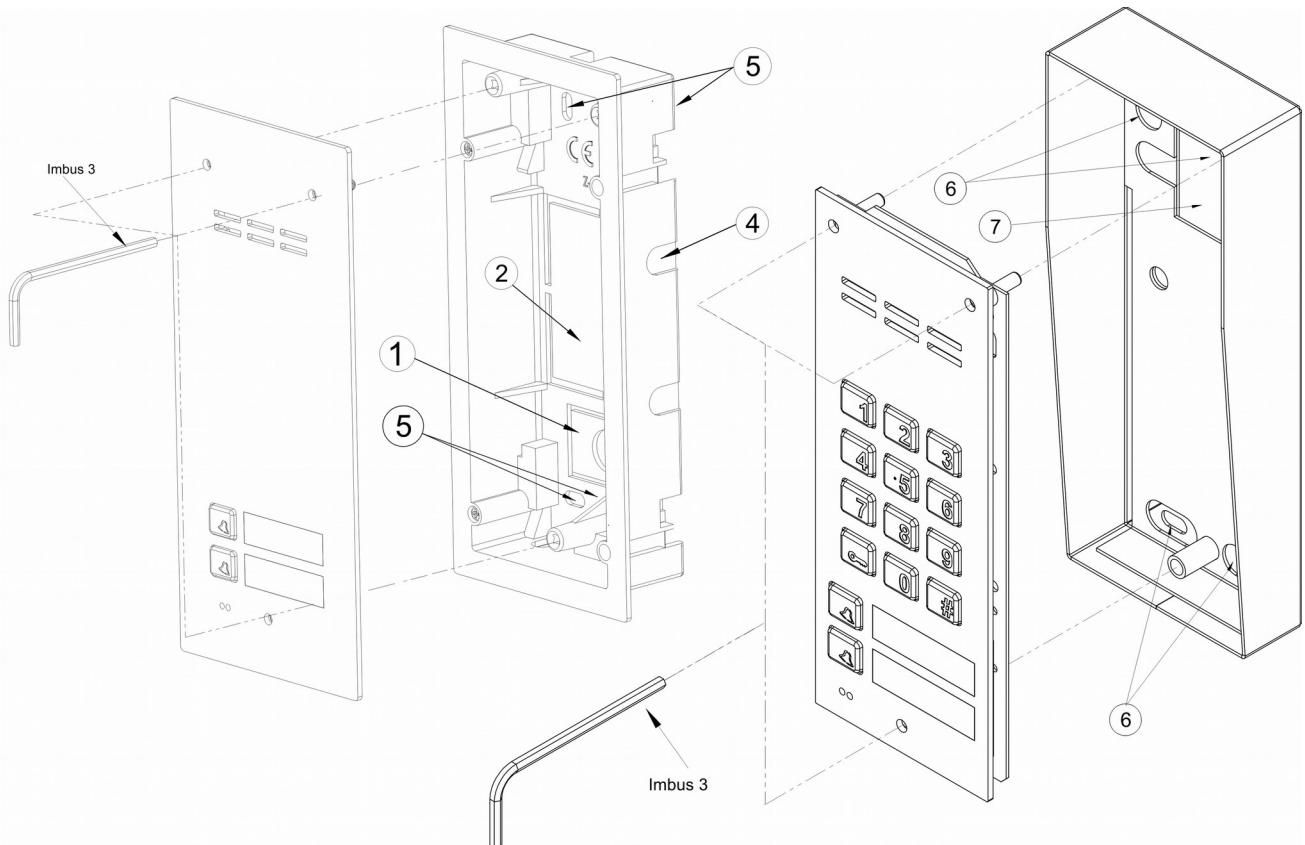
NOTE! For proper functioning and ensuring safety of use, the intercom unit should be connected to earth by connecting the "grounding" terminal on the body with a suitable protective installation (PE).

The connection between the control panel and the electric door strike and power supply is recommended using a 1 mm^2 cable (e.g. LY1,0). The length of the cable should not exceed 7m for the electric door strike circuit and 15m for the power supply circuit! Too low power supply power, too small cross-section of wires and too long connections (voltage drops) can cause interference of the device (e.g. interference of the audio track: so called "buzzing" or activation of the reset system and restarting the device, all the more so when opening the electric lock).

The supply voltage of 11.5V AC is connected to the POWER (AC/AC) terminals, whereas when using the 15V DC power supply, the supply voltage is connected to the +DC (+ELOCK) and -DC (GND) terminals.

Connect the electric door strike without a specific polarity freely to the "ELOCK" terminals using the electric striker. Reverse the panel settings and insert the jumper Z1 (available under the panel terminals). When working with the reversible electric striker, voltage appears on the "ELOCK" output depending on the power supply or transformer used - a suitable reversible electric striker should be used. It is also possible to use the MOD- DC-12V module, which will provide 12V DC to the reversing door strike when the intercom is powered from a 15V DC power supply or from a transformer.

Maximum length of signal wires (so called line or bus) depends on cross-section of used wires responsible for audio path (LINE terminals). For typical cable cross-sections (0.5mm) this distance is up to 300m. In case of using larger cross-sections, it is possible to increase the length of the bus: - using 1 mm^2 wire we can increase the distance to 400 m - using 1.5 mm^2 wire we can increase the distance to 600 m - using 2.5 mm^2 wire we can increase the distance to 1000m.

Cables to be lead to the panel:
- 2 wires x 1 mm^2 – power supply
- 2 wires x 0,75 mm^2 – to electric lock
- 2 wires x 0,5 mm - intercom cable for connecting handsets
- 1 wire of the cable in yellow green insulation - to connect the housing's grounding.

MOUNTING AND CONNECTING HANDSETS
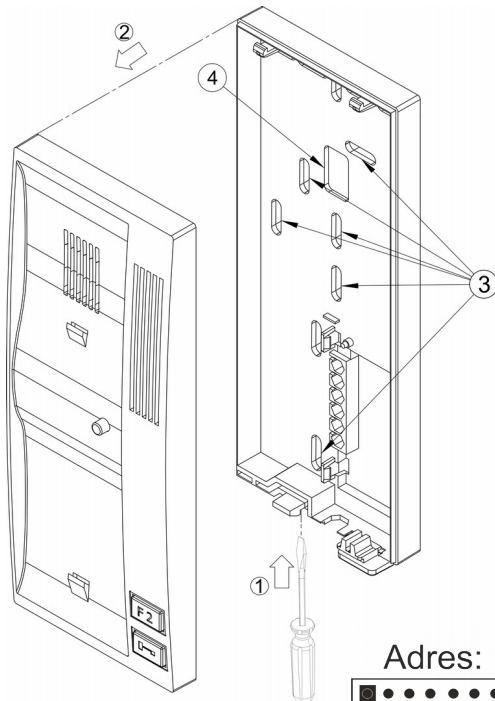
In order to mount the handset, open the enclosure (press the lower part of the handset "1" with screwdriver and open the front part of the enclosure "2"), through the whole "4" lead the cable and screw in the back of the handset using the holes "3".
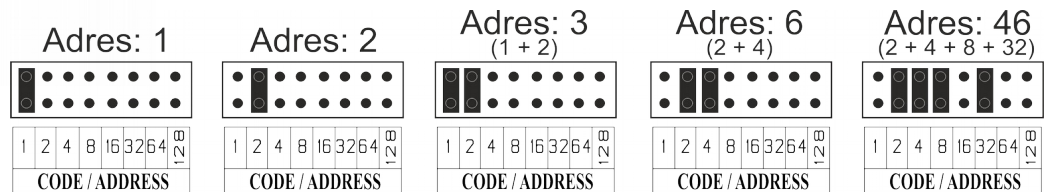
While connecting the handset to the panel pay attention to the correct connection (polarization) of the terminals „LINE+" and „LINE-" in both the panel and the handset.

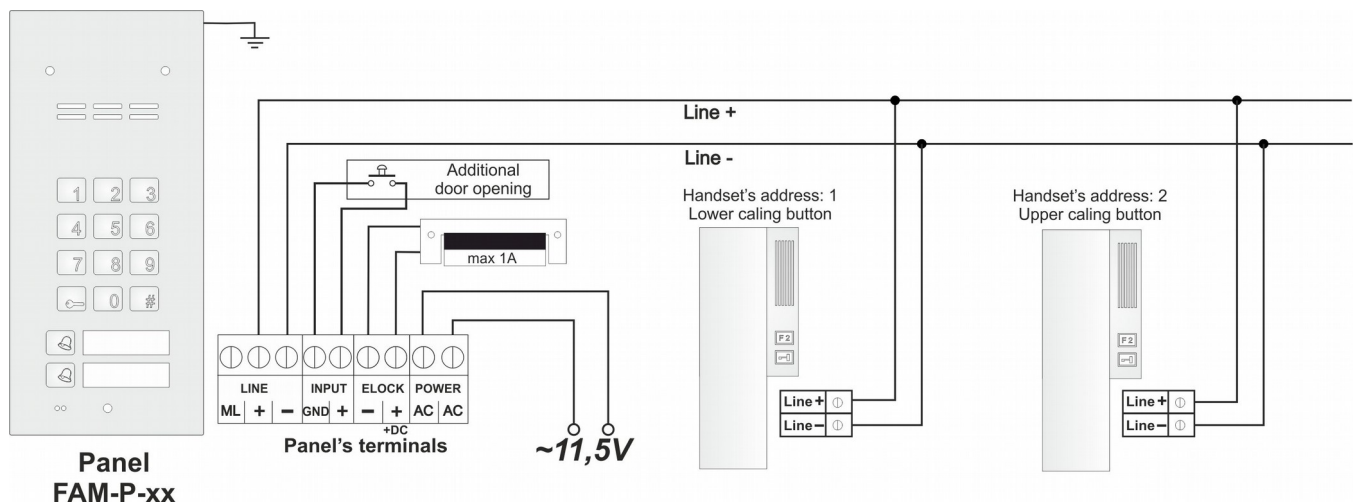**NOTE!** Pay attention also to the proper setting of address in the handset's decoder.

For panels with direct call buttons (ringtones), the factory set button addresses are from 1 to 6 (depending on panel model). The lowest button corresponds to address 1.

If there are no direct call buttons, the handsets addresses are dialed directly from the keypad (factory set from 1 to 10).

It is important that there are no handsets in the system with the same address, <u>every handset has to have its individual address</u> which means that only one handset can ring at the same time. If you wish to call more than one handset, you need to use special handset model: INS-UP720MR (this model is adapted to work with the same physical addresses). Ask your provider about it.

Adres: 1	Adres: 2	Adres: 3 (1 + 2)	Adres: 6 (2 + 4)	Adres: 46 (2 + 4 + 8 + 32)
1 2 4 8 16 32 64 128	1 2 4 8 16 32 64 128	1 2 4 8 16 32 64 128	1 2 4 8 16 32 64 128	1 2 4 8 16 32 64 128
CODE / ADDRESS	CODE / ADDRESS	CODE / ADDRESS	CODE / ADDRESS	CODE / ADDRESS

PANEL AND HANDSETS CONNECTION DIAGRAM

Panel FAM-P-xx

Line +
Line -

Additional door opening
max 1A

LINE   INPUT   ELOCK   POWER
ML + −   GND + −   − +   AC AC
+DC
Panel's terminals   ~11,5V

Handset's address: 1
Lower caling button
F2
Line+
Line−

Handset's address: 2
Upper caling button
F2
Line+
Line−

OPERATING THE PANEL

- Turning on power supply of the panel every time you turn on the power, the panel will be beeping for 30 seconds. This function stabilizes conditions of handsets line and allows to set default codes and panel settings. The countdown can always be canceled with „#" or lower direct call button.
- Calling:

Panels with direct call buttons: Calling the subscriber involves pressing the appropriate handset ringer button - in the selected premises will start ringing.

Panels with the numeric keypad itself: Calling the subscriber involves dialling the number of the premises (from 1 to 10 at the factory) using the keypad keys. After approx. 3 seconds the uniphone in the selected premises will start ringing. The panel sends two ringing tones and sets itself to stand by to pick up the handset.

If the call is not answered withing 20s, another single signal is sent. If in total of 40s the call is not answered, the panel comes back into stand-by mode automatically. Calling can always be canceled with „#" button. If the call is answered, the connection will be established. From this moment conversation and door opening are possible. The call can last up to 2 min.

- Using a code or proximity key fob (ACC):

To open the door (activate the electric door strike), you can use the code by entering it on the numeric keypad or, in panel standby mode, by placing the key fob on the lowest description window. For panels equipped with numeric keypad and direct dial buttons, the factory set codes are **1111** (for the lower button), **2222** (for the upper button). For panels equipped with the numeric keypad itself, use the resident code from the factory-programmed code table (code table attached to the panel).

To do this, select the number of the apartment, press the "key" button and then select the appropriate code (assigned to the apartment according to the code table).

If you precede the code (or the proximity card) by pressing the key button twice, an additional device such as a gateway (optional I/O module connected to the panel is required) will be activated.

The panel has a function of notifying residents about using a code or key ring - in the handset unit to which the code or key ring is assigned, a short triple sound will be emitted.

NOTE! It is recommended to change the codes after installing the panel.

For Panels with direct call buttons, the user can change the code as follows: Enter the current code, then press and hold the "key" button within 1.5 seconds (approx. 4s) until the panel sounds the entrance to the code change procedure. Then, a new four-digit code is entered. For panels with the numeric keypad itself, the code can be changed from the installer's menu (see extended instructions).

To add and remove proximity tags, use the ACC computer program from version v3.5 onwards available at www.aco.com.pl and connect the panel to the computer using an optional **CDN-USB cable** (purchased separately).

- Restore codes and panel settings to factory default values and delete all key rings:

Turn off the panel power, wait 5 seconds, turn on the power again. The panel will "beep" for 30 seconds. During this time, press the "#" button and immediately (instantly) press simultaneously:

- keys 1 and 7 to restore the lower key code to 1111 (for Panels with direct dial buttons)
- keys 2 and 7 to restore the top button code to 2222 (for direct dial panels)
- keys 2, 5, 8 to restore **all** factory settings, including both codes (for models without a numeric keypad, press the lower ringing tone key after the first beep that occurs after power is turned on and hold until the factory reset procedure is started.
- Handset line failure: The panel detects damage of handset line (short circuit) - signaled by blinking keypad backlight. During this time, to enable entrance to the building, pressing any button starts door opening. After detection of correct line condition (short circuit loss) the panel automatically returns to normal work.

The panel has pre-set sound levels, but in a particular case, these should be adjusted to individual conditions and needs. Adjust the volume level after connecting to the receiver as follows: - with the "**MIC**" potentiometer adjust the sensitivity of the panel's microphone - with the "**SPK**" potentiometer adjust the volume level of the panel's speaker After setting the MIC and SPK values, use the "**BALANCE**" potentiometer to determine the position of the points where excitation (squealing) occurs in the speaker and set the potentiometer in the middle between these points (to get as far away as possible from the position where excitation/squealing occurs).

If the BALANCE potentiometer cannot be set to a position where there is no coupling - reduce the sensitivity of the panel microphone and/or the panel speaker volume. In a mixed system with different receivers, the adjustment should be made for the hands-free receiver by setting the maximum call volume on the receiver - if the call is "interrupted", the panel speaker volume and/or microphone sensitivity should be reduced. Make sure that the microphone of the handsfree receiver is not covered by something or is not too close to an object. **NOTE**: In the newest panels, the microphone is located in the hole of the lower panel mounting screw - any adjustments or tests should definitely be carried out when the screw is tightened firmly to the mounting frame/box!

OPERATING THE HANDSET

- To pick up the call while it is ringing, simply pick up the handset. During the call, you can open the door with the key symbol. It is possible to activate additional devices, e.g. gateway, function key "F2" (only for INS-UP, INS-UP720M or INS-UP720MR handset and panel with an optional I/O module connected).

NOTE! Do not place the handset on your ear during the ringing, as the appearance of the ringing tone may damage your hearing.

- The call ends automatically when you hang up the handset.
- In the standby mode, you can adjust the ringing volume of the hearing instrument (with the switch at the bottom of the instrument).
- In the standby mode, you can open the door: pick up the handset and press the key symbol key three times (for classic handset), for the INS-UP720MR, press once a button with a key symbol (without lifting the handset).

More possibilities of Familio series panels (programming of advanced functions, cooperation with more panels, connecting with other ACO systems, i.e. CDNP, Inspiro, and description of typical problems) can be found in the **extended manual of FAM-P series panels** available at www.aco.com.pl

It is possible to change all panel settings using the **"FAM_P"** computer program. The programs are available for download from www.aco.com.pl (The panel should be connected to a computer using an optional **CDN-USB** cable purchased separately).

RULES OF STORING USED ELECTRICAL DEVICES

Used electrical equipment must not be disposed of with other waste. They should be stored in places designated for this purpose. For this purpose, please contact the responsible institutions or waste recycling companies. - Directive 2002/96/ec of 27.01.2003