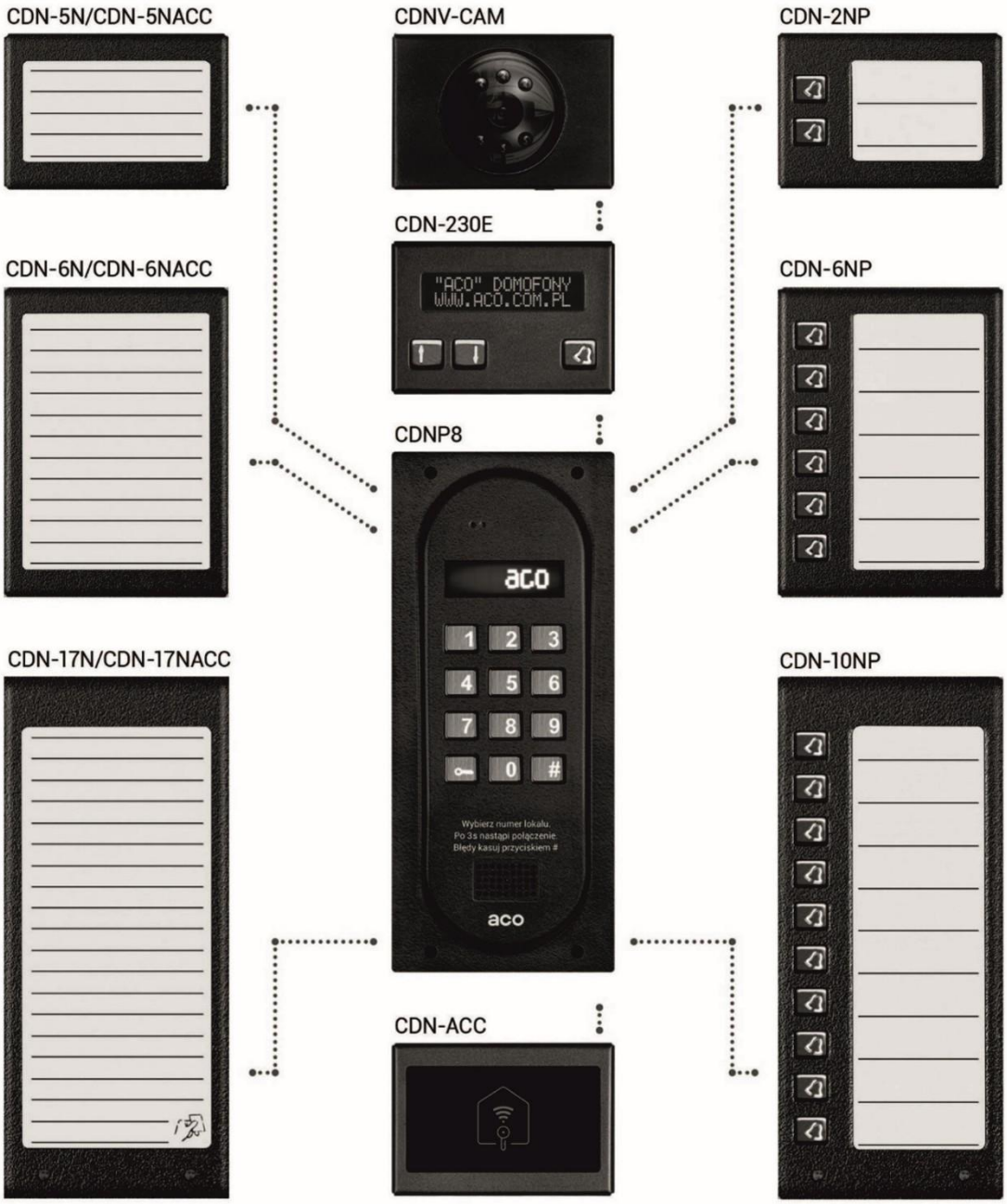
USER MANUAL FOR THE DIGITAL INTERCOM CENTRAL UNIT CDNP8ACC (G3)



The illustration above shows examples of how the central unit can be expanded with modules that may be purchased separately. A keypad with embossed Braille alphabet characters is also available as an option.

RULES FOR THE DISPOSAL OF WASTE ELECTRICAL EQUIPMENT

Waste electrical equipment must not be disposed of together with other waste. It must be disposed of at designated locations. For this purpose, please contact the responsible institutions or companies dealing with waste recycling. - Directive 2002/96/EC of 27.01.2003.

INSTALLING THE CENTRAL UNIT

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The central unit is mounted on the wall of the building (storm porch, vestibule, sheltered wall, east-facing wall, etc.) so as to minimise the influence of adverse weather conditions, in particular water. We recommend installing the central unit at a height of approximately 1.35 m. The central unit frame is fixed using wall plugs or suitable screws; in addition, the flush-mounting frame is fixed with plaster in the wall opening. The cables are led out through the openings in the base.

NOTE! For correct operation and to ensure safety, the metal frame must be connected to earth by joining the "ground" terminal to a suitable protective installation (PE).

The connection between the central unit and the power supply should be made using a cable with a cross-section of min. 1.5 mm^2 (e.g. OMY 2x1.5) with a maximum length of 30 m. The connection between the central unit and the electric strike should be made using a cable with a cross-section of min. 1.0 mm^2 (e.g. OMY 2x1.0) with a maximum length of 7 m. Insufficient supply power, too small a cable cross-section and excessively long connections (voltage drops) may cause disturbances in the operation of the device (e.g. audio path interference: a so-called "hum", or triggering of the reset circuit and a restart of the device, all the more so while the electric lock is being released). To power the central unit, it is recommended to use a +15VDC direct-current power supply, which is connected to the +DC (+ELOCK) and GND (LINE-) terminals. If an 11.5VAC supply transformer (alternating voltage) is used, it is connected to the 12V~AC/AC terminals. For video systems, use exclusively a 15VDC direct-current power supply and connect it to the summator terminals.

An electric strike without a defined polarity is connected to the "ELOCK" terminals in any orientation; when using a reverse electric strike, the operating mode of the central unit must be switched to operation with a reverse electric strike (Program 10). When working with a reverse electric strike, a voltage appears at the "ELOCK" output depending on the power supply used – an appropriate reverse electric strike must be used. You can also use the MOD-DC-12V module, which supplies 12VDC to the reverse electric strike when the intercom is powered from a 15VDC power supply or from a transformer. The additional relay output "OUTPUT" can be used to control, for example, an entrance gate (factory setting) by means of a code (with a "double key") and the F2 button in the receiver. The activation time (factory setting 1s) and the functions of the "OUTPUT" output can be changed in the computer software (Central unit parameters: CDN I/O module - Port 2). **All installation connections must be soldered!**

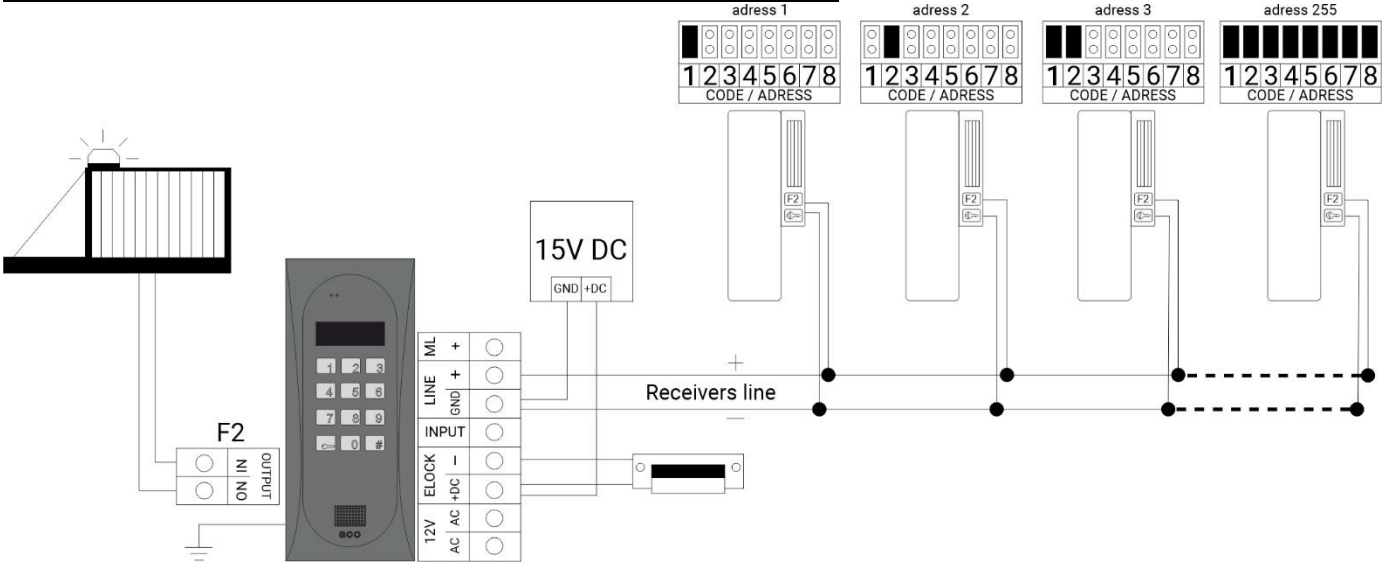
The following cables are run to the central unit:

- 2 cores x 1.5mm^2 – central unit power supply (max 30m)
- 2 cores x 0.5mm – intercom cable for connecting the receivers (max 300m)
- 2 cores x 1mm^2 – to the electric strike (max 7m)
- 1 core of cable in yellow-green insulation, for connecting the earth.

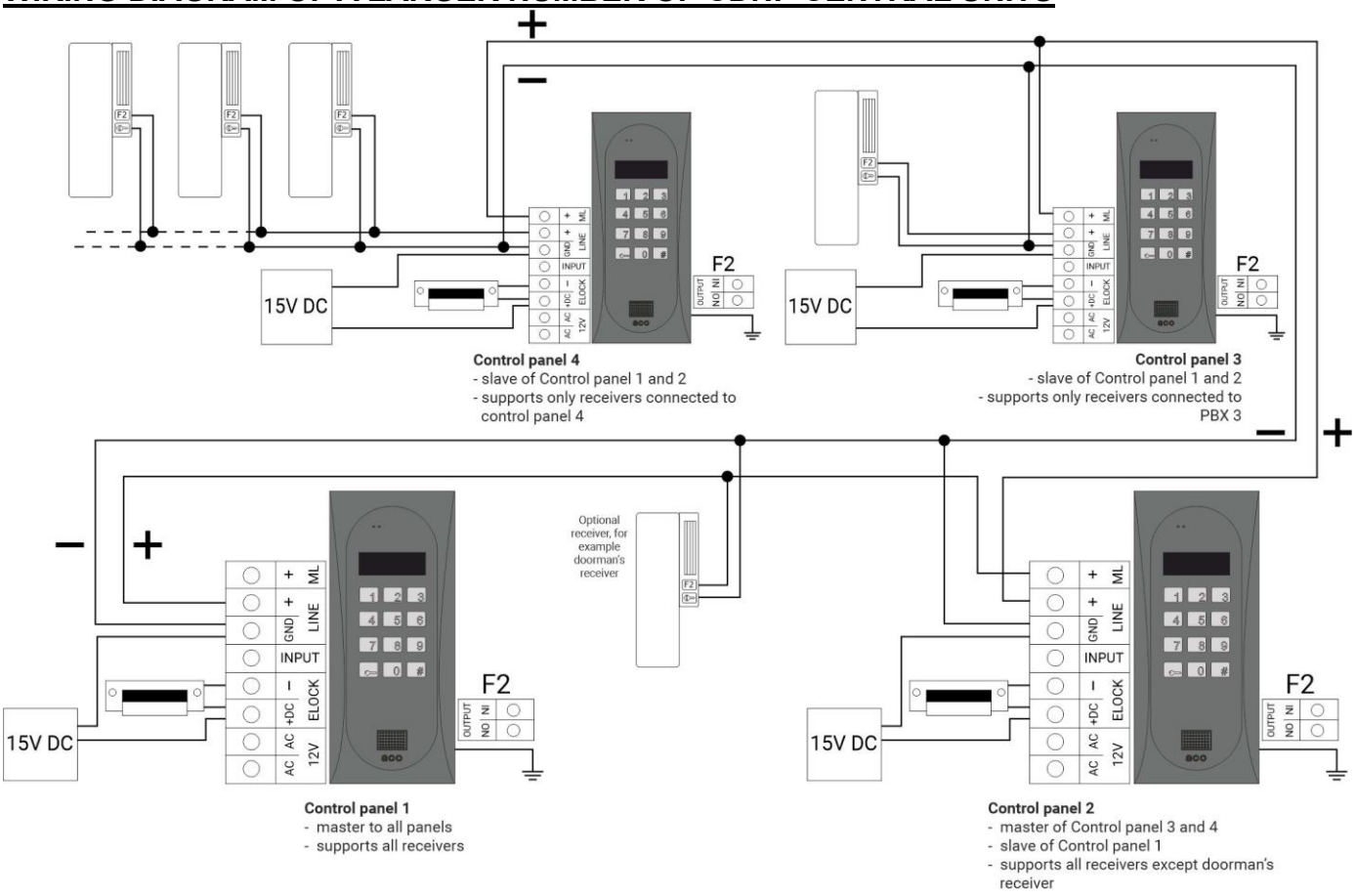
Electrical parameters:

- Power supply: **15VDC** (13.5V – 15.5V) or **11.5VAC** (±0.5V)
- Maximum current consumption (without electric strike and additional modules): **250mA**
- Permissible load of the electric-strike output:
- **1A or 0.5A** for a reverse electric strike
- Power consumption in standby mode: **~0.6W**
- Permissible load of the OUTPUT (F2) output contacts: **2A / 30VDC**

WIRING DIAGRAM OF A SINGLE CDNP CENTRAL UNIT



WIRING DIAGRAM OF A LARGER NUMBER OF CDNP CENTRAL UNITS



INSTALLATION AND CONNECTION OF THE RECEIVERS

The receivers (handsets) are installed in accordance with their installation manual and connected, paying particular attention to the correct setting of the individual address in the receiver decoder for each apartment and to the correct, polarity-compliant connection to the central unit's "LINE+ and LINE-" terminals. For a 2 x 0.5 mm cable, the maximum distance of the receiver from the central unit is 300m (for a 2 x 2.5 mm^2 cable it is 1000m).

SOUND LEVEL ADJUSTMENT

The volume levels are set after a connection with the receiver has been established, as follows:
- the "MIC" potentiometer adjusts the sensitivity of the central unit's microphone
- the "SPK" potentiometer adjusts the volume level of the loudspeaker in the central unit
- the "SOUNDS" potentiometer adjusts the volume level of the central unit's sounds

After setting these values, turn the "BALANCE" potentiometer to determine the positions at which feedback (whistling) occurs in the loudspeaker, and set the potentiometer halfway between these points (so as to move as far as possible away from the position at which feedback/whistling occurs – if it is not possible to find a position free of feedback, reduce the microphone sensitivity and/or the central unit loudspeaker volume). In a mixed system, with different receivers, the adjustment should be carried out for hands-free receivers, setting the maximum conversation volume on them – when the conversation is "choppy", reduce the loudspeaker volume in the panel and/or the microphone sensitivity.

OPERATION

In the idle state, the "Intro" is shown on the screen and can be freely changed (by default "ACO"). By default, you can call numbers from 1 to 255, which correspond directly to the physical addresses set in the receivers. From the installer menu (program P20), set the range of receivers supported at the site. Using the computer software you can, among other things, set any dialling number in the range from 0 to 999999 and assign it freely to a receiver address, limit the range of supported receivers, and edit the Intro. Calling consists in selecting the apartment number using the keypad buttons (or, if the 230E module is present, you can select an entry with the "arrows" and press the "bell" button). After approx. 3 sec. the receiver in the selected apartment will start ringing. If the call is answered in calling mode, you can hold a conversation and open the door. Opening the door with a user (tenant) code consists in entering the apartment number on the keypad, confirming with the "key" button and entering the four-digit code that is individual to each apartment. In order to print the full code table of all users, or ready-made cards for the tenants together with the operating

instructions, use the “ACO Code Generator” available at www.aco.com.pl/aco_generator/. For each central unit the code table is entered at the factory on the back of the device as a 4-digit number, and in order for the same opening codes to work in every central unit, the same code table must be used. Opening with one of the five administrator codes consists in pressing the “key” button on the keypad and then entering a six-digit code. The administrator code is intended for persons administering the building, e.g.: technical services, postmen, building caretakers, etc. The door will also open when a proximity fob (of a tenant or administrator) that is registered in the device is presented. If the fob is not registered, a triple “beep” will be heard in the loudspeaker. While the door is being opened, the message “**Enter!**” appears on the display. The door will also open immediately when the additional **INPUT** input is shorted to ground (GND) – exit-button connection. Activation of the **OUTPUT** output occurs after pressing the F2 button in the receiver during a conversation, or after entering a user code – press the “key” button twice before entering the same code as for basic opening (the message “**Out-2**” will appear on the display). When using the ACC, activation of the second output occurs after pressing the “key” button and presenting a proximity fob that is registered in the device.

PROGRAMMING THE CENTRAL UNIT

The central unit allows the basic settings to be changed from the built-in installer menu. Entering the installer menu: press the “key” button and, within 5 seconds, enter “1507xxxx”, where “xxxx” is the four-digit installer password, which by default corresponds to the last four digits of the product serial number available on the sticker on the back of the device and should be changed to your own! (menu 7). Entry into the installer menu is confirmed by an audible signal, by the appearance of the software version on the display and, after a moment, of program no. 0: “Open”. The menu is navigated with the “2” button (up) and the “8” button (down). With the “Key” button you enter the currently displayed menu and confirm the entered values. With the “#” button you go back, cancel changes and exit the installer menu. In installer mode, the central unit can be reset (restarted) by pressing buttons 7 and 9 simultaneously. When exiting the installer menu, the current temperature inside the central unit is displayed. **NOTE!** Full configuration of the central unit is possible using the "CDNP Manager" computer software, available for free download from www.aco.com.pl. To connect the central unit to a computer, the optional CDN-USB cable is required, which must be purchased separately. From the website you can also download software for managing proximity fobs, “ACC_7x.exe”, as well as the extended operating manual for the CDNP central unit together with a description of typical problems.

PROGRAMS AVAILABLE VIA THE INSTALLER MENU:

0	Open	E-lock activation in maintenance mode	1	PIN	Change of user’s (tenant’s) opening code
2	Akey	Change of 5 administrator’s codes, adding administrator’s key fobs	3	Rings	Setting the number of ringtones, permission to call
4	OpInf	Turning on - off the door opening signal in the apartment	5	Tones	Setting one of four ringtones
6	LTime	Setting the E-lock time	7	IPass	Installer’s password change
8	Fobs	Verifying card assignment to apartments	9	Table	Entering access code table
10	ReEL	Enabling reversible E-lock	11	RstLo	Disabling factory settings reset
12	M-ACC	Adding/Deletting key fobs to "ACC" proximity reader	13	M-xNP	Programming module for names with buttons 2, 6, 10 NP (first zone only)
14	Delay	Setting opening delay when INPUT is shorted	15	CaSrv	Programming the time to turn on the "call service" text
16	InsCa	Installer's call from apartment (apartment range from-to)	17	SrvCa	Service call from apartment (specific apartment)
18	Searc	Finding misplaced or defective receivers	19	LTest	Line test - testing devices in the installation
20	FrmTo	Range of supported physical addresses of receivers in zone 1			