IP BOLD - Door Phone

IP BOLD – Tx IP BOLD – TxC IP BOLD – TKx IP BOLD - TKxC



Installation and operating instructions

<u>Congratulation to purchase modern VOIP door entry system</u> "VoIP Door Phone **BOLD**" **IP BOLD.** This door entry widely satisfy your needs for communication to visitors of your company, homes, schools etc...

Simply VoIP means "Voice over Internet Protocol" – this door entry is connectable to IP network and allows 2 ways of calling. Either P2P (peer to peer) – it means call directly to IP adress of other VOIP device or registrates to SIP server (as SIP client) and then call phone number.

To each button you can assign 5 phone numbers with possibility of progressive or simoultaneous dial.

The door entry IP BOLD is offered with 1, 2 or 4 button with or without full colour camera as same as with or without keypad.

The door entry IP BOLD is powered from 12V power supply which supply also electrical lock at door. It might be powered also by PoE (Power over Ethernet). By features remind hands free phone. To basic features belongs possibility open up 2 doors via connected electrical locks as same as user friendly configuration by WEB interface.



Producer progressively improves features of the unit (firmware). The door entry IP BOLD allows whenever upgrade the firmware by newest version via PC. Latest firmware version you can download from <u>www.alphatech.cz</u>. Neccessary guides you find at page 70. We recommend always use latest firmware version which brings new features as same as eventual correction of errors of previous versions. At <u>www.alphatech.cz</u> you can also find latest versions of user documentation.



Manual version V1.2 1-6-2015 Valid for firmware – V3.0.xx Alphatech spol. s r.o. Jeremenkova 88 140 00 Praha 4 Tel/fax: 272103334 www.alphatech.cz info@alphatech.cz

Contents

1	BAS	IC DESCRIPTION	6
	1.1	FEATURES	6
	1.2	USED TERMINOLOGY	7
	1.3	MODULES COMPOSITION	
	1.4	IP BOLD CONNECTION	
	1.4.1		
	1.4.2		
	1.4.3		
	1.4.4		
	1.5	INSTALLATION OF IP BOLD	
	1.5.1	8	
	1.5.2	8	
	1.5.3		
	1.5.4		
	1.5.5	Micro SD card	21
2	SER	VICE OF IP BOLD	22
	2.1	SIGNALLING OVERVIEW	22
	2.2	VISITOR AT DOOR	22
	2.2.1	Button press – outgoing call	22
	2.2.2	Button press – code lock	23
	2.2.3	· / I · · · · · · · · · · · · · · · · ·	23
	2.2.4	Call	24
	2.3	VISITOR INSIDE BUILDING	
	2.3.1	- 8 8	
	2.3.2	0	
	2.4	VIDEO	25
3	PAR	AMETRES PROGRAMMING	26
	3.1	WEB INTERFACE ACCESS	26
	3.1.1	Before login	26
	3.1.2	Login	27
	3.2	CURRENT STATUS	28
	3.2.1	Language settings	29
	3.3	IP NETWORK SETTING	
	3.3.1	8	
	3.3.2	3	
	3.3.3		
	3.4	BASIC SETTING	
	3.4.1		
	3.4.2	Relays	42
	3.4.3	Door sensors	46

	3.4.4	Setting SNMP	48
	3.4.5	Time profiles	49
	3.4.6	Date and time setting	51
	3.4.7	E-mail	52
	3.5	EXTENDED SETTING	54
	3.5.1	Door entry	54
	3.5.2	Audio setting	57
	3.5.3		
	3.5.4	, 1200 501118	
	3.5.5	Video watching (PopUp programm)	61
	3.5.6	, 1200 00 20 20 20 20 20 20 20 20 20 20 20	
	3.5.7	Streaming	63
	3.6	SERVICE	65
	3.6.1	Restart	65
	3.6.2	Configuration	66
	3.6.3		
	3.6.4		
	3.6.5	Firmware upgrade	70
	3.6.6	Logfile	71
	3.6.7		
	3.6.8	Sound files	74
4	TEC	HNICAL PARAMETRES	75
	4.1	ELECTRICAL PARAMETRES	75
	4.2	MECHANICAL DIMENSIONS	75
	4.3	VIDEO PARAMETRES	76

1.1 Features

- audio is full duplex with ECHO cancellation
- phone book for 999 subscribers (when keypad is used)
- every subscriber has more phone numbers with progressive or simultaneous calling
- Email sending when is unreachable including attachment with pictures
- 10 time plans with week programm
- 4 relays. 2 included on board with possibility connect 2 independent locks for door opening and 2 virtual (webrelays) (for remote control of IP relay or relays synchronization)
- Relays system via synchronization allows combination of any mode (progressive opening, 2 pulses etc..)
- 10 shared adjustable codes for every relay + every subscriber has own code for every relay
- 1 and 2 button versions can use door sensors
- SNMP usage possibility
- Real time clocks from NTP or SIP server
- Extendable possibilities of buttons functionality, light intensity settings, call duration restriction, keypad mode etc...
- Audio signalling settings, saving own tones or messages
- Multilanguage support
- Multilevel loading and configuration refresh
- Relaible firmware upgrade
- Loging system with possibility of data saving to MicroSD card (adjustable)
- Picturesas same as video saving possibility to MicroSD card (adjustable)
- WEB inerface management
- Power supply 12V or PoE (Class 0 12,95W)
- Ethernet 10/100Mb with standard 10BaseT and 100BaseTx
- Unit start within 10 seconds
- Linux operating system
- USB connection of integrated webcamera. Video transmission to webbrowser - JPEG, video transmission to VoIP phones - stream H.263, H.264
- SIP connection P2P or PBX (SIP server) system, switchable in web interface
- SIP 2.0 protocol , define RFC3261

1.2 Used terminology

- Ethernet is technology which is used to build up local networks (LAN)
- LAN Local Area Network (local network) mark PC network which cover small geographical area (for example homes, office, etc...).
- **10Base-T** As transmission medium use twisted twoline cable with rate 10 Mbit/s. It used 2pairs of structured cabling from four.
- **100Base-TX** Version with transmission rate 100 Mbit/s, which is named **Fast Ethernet**. It used 2 pairs UTP or STP cable category 5.
- **Twisted 2line** or also **twisted pair** is cable type which is used in PC networks. Twisted 2line is created by cables pair which are regularly twisted in the length and after pairs are twisted together.
- UTP, Unshielded Twisted Pair
- **STP**, Shielded Twisted Pair
- **WEB** World Wide Web (WWW, shortly **web**), is mark for application of http internet protocol
- HTTP (Hypertext Transfer Protocol) is internet protocol design for exchange of hypertex documents in format HTML
- USB (Universal Serial Bus) . Modern way of accessories connection to PC
- Video codec (compound of word begins "coder and decoder"). Compression H.263 is derived from MPEG-4, H.264 is coder for format MPEG-4 AVC. MPEG-4 is kind of video compression – decreasement of pictures sequence data flow
- JPEG is standard method of loss making compression used for savings PC pictures
- Voice over Internet Protocol (shortly VoIP) is technology allows transmission of digitized voice in body of family protocols UDP/TCP/IP pockets via PC network . It is used for calling via internet, intranet or any other data connection.
- **TCP/IP** contents set of protocols for communication in PC network and it is main protocol of worldwide network Internet.
- **IP adresa** is number which definitely identify network interface in PC network which used IP protocol.
- **DHCP** (Dynamic Host Configuration Protocol) is application protocol from family TCP/IP. It is used for automatic assign of IP adresses to individual computers in PC network. Due this simplify its management
- Internet is worldwide system of mutually connected PC networks
- **Intranet** is PC network similiar to internet but it is "private". It is designed jsut for small group of subscribers (for example workers in some company)
- **PoE** (Power over Ethernet) is powering via data network cable.
- NTP (*Network Time Protocol*) is protocol for synchronization of internal PC clocks

1.3 Modules composition

Door entry IP BOLD includes modern technology, timeless design and user friendly installation and service.

Door entry IP BOLD is equiped by 2 relays and PoE feeding. Basic models are different by using of keypad or full colour wideangle camera.

Version with camera has integrated fully colour wideangle camera on basic board. Version without camera used different plexi cover shield on top of the unit.

IP BOLD-T1 1 button audio IP BOLD-T2 2 button audio IP BOLD-T4 4 button audio **IP BOLD-T1C** 1 button audio, colour camera **IP BOLD-T2C** 2 button audio, colour camera **IP BOLD-T4C** 4 button audio, colour camera IP BOLD-TK1 1 button audio and keypad IP BOLD-TK4 4 button audio and keypad 1 button audio and keypad, colour camera **IP BOLD-TK1C IP BOLD-TK4C**

4 button audio and keypad, colour camera









IP BOLD-TK1C

1.4 IP BOLD connection

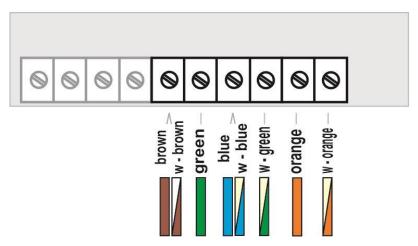
The IP BOLD includes basic board differently equipped. To the basic board is possible connect 1 or 2 button boards. Further is possible connect keypad in version TK.

1.4.1 IP BOLD basic board

The basic board is the same for all models of IP BOLD door entry. The difference is just camera module (with or without). The PoE modul is in standard (according directive IEEE802.3af) as same as connectors for button and keypad connection, MicroSD card reader and 2 relays (first relay has switchable contact [NO COM NC] and second relay has closing contact only [NO COM]).

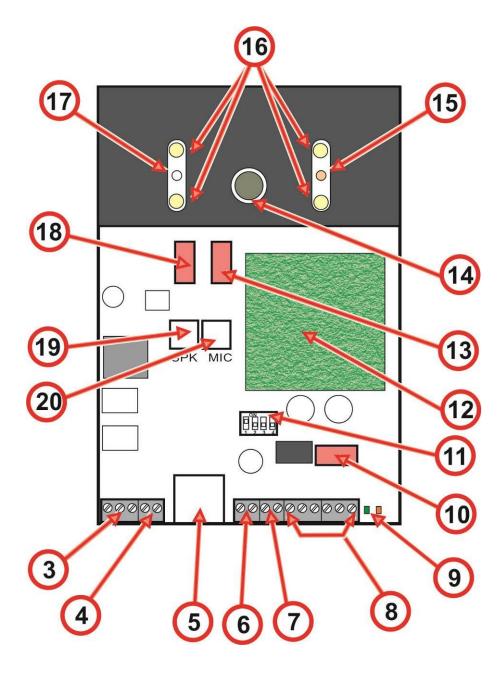
The basic board schematics at picture bellow and all important parts are marked in circle with description.

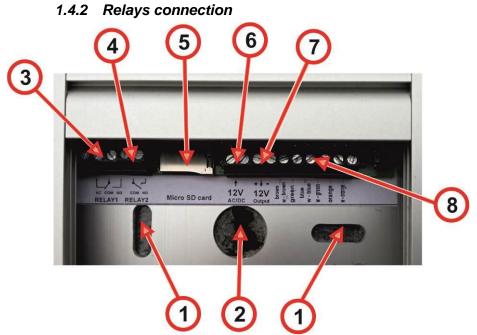
- 1. Mounting holes
- 2. Cabling holes (UTP, electrical locks connection, power supply)
- **3.** Switching contact screw terminal of **first relay** (NC= closed in stand by, NO=open in stand by nda COM= shared output)
- **4.** Switching contact screw terminal of **second relay** (NC= closed in stand by, NO=open in stand by nda COM= shared output)
- 5. MicroSD card slot Insert SD card before switch ON of door entry and do not také out during all operation time!
- 6. Input for powering IP BOLD 12V AC / DC (consumption cca 300mA max.) We reccomend use DC power supply
- **7.** Output 12V DC, max. 300mA, for example to power low consumption electrical lock via PoE powering of IP BOLD
- 8. UTP cable connection (Ethernet, LAN, net)



- **9.** The LED to control network activity, green = connection 100M LAN, yellow = data transmission on the LAN
- 10. Connector to Conner keypad module
- **11.** DIP switch
 - 1 allways ON (servis purpose only)
 - **2** OFF, hen is ON during start then default IP adress 192.168.1.250 is setup
 - 3,4 OFF, meanwhile spare not used
- 12. IP module
- **13.** Connector to connect 2 buttons or 1 button and 2 door sensors (Info about door closing)
- **14.** Camera lens (At camera models only). The lens angle is 110°, max. resolution 640x480.
- 15. Signalling 2 colours LED
 - red call picked up
 - green call in progress
 - red+green relay closed
- 16. Extra camera light at night white LED with intensity setting
- **17.** Sensor of surrounding lighting according setup control name cards lighting as same as camera lighting
- **18.** Connector to connect up 2 buttons
- 19. Connector to connect speaker
- 20. Connector to connect microphone (polarity attention)





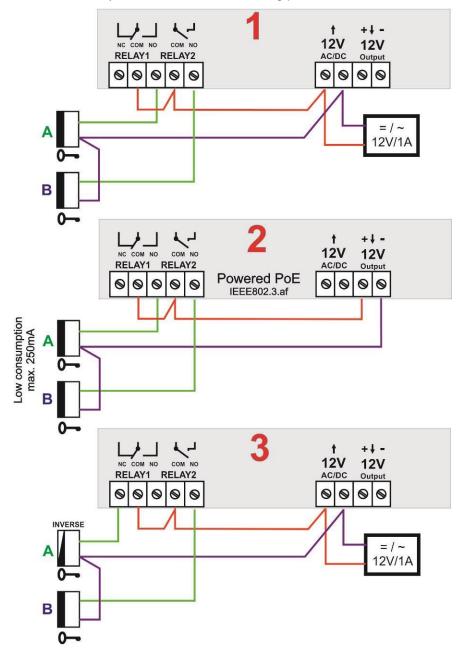


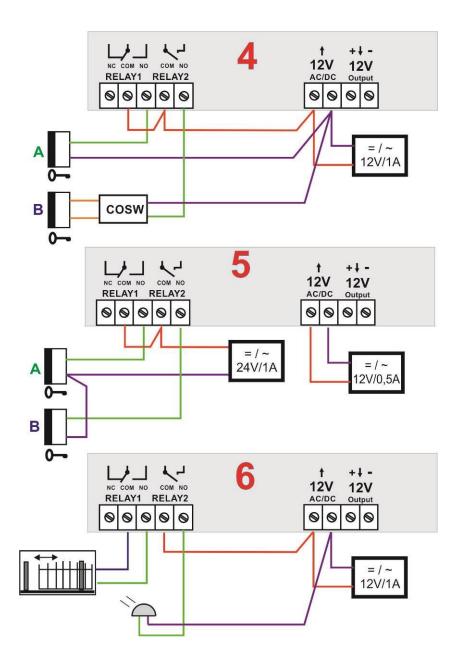
Relay contacts connection (3) and (4) is on the picture. Marking "**NO**" menas in stand by open contact, "**COM**" means shared output (middle) and "**NC**" means in stand by closed contact. Contacts of both relays are mutually galvanically isolated as same as isolated from othe IP Bold components.

NC COM NO COM NO RELAY1 RELAY2 0 0

It is recommended use for IP BOLD PoE powering (according directive IEEE802.3af) or AC voltage min.11input - max.15input or DC voltage min.12Vss - max.18Vss. which is connected to screw "**12V**". The IP BOLD consumption is max.300mA. This powering is possible simultaneously use for electrical lock(s) feeding. Then you have to consider el.lock consumption. In practise mostly used is AC / DC power supply 12V/1A÷2A.

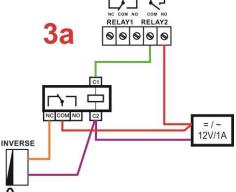
Possibilities of relays connection are at following pictures:





- Standard electrical lock connection. This connection is used most often. One shared power supply feeding door entry IP BOLD and both electrical loch. Current loading of PSU depends mainly on used el. Locks. Standard el. Lock has current consumption 0,6A – 1,0A. As next you have to consider posibility of both relays activation simultaneously. When not then 1A PSU is fine. When yes then use 2A PSU. When you use low consumption electrical loch then PSU 1A is fully acceptable.
- 2. The second most often used connection is by powering from PoE. There is advantage of no extra PSU necessity. However 2 conditions must be followed: Electrical locks must be low consumption as same as relays must not be activated simultaneously (via follow).
- 3. This connection is version for reversal lock (magnetic lock). Therefore switchable contact is lead out from first relay only the second (B) electrical lock is standard. When you need

connect inversal lock to second relay as well then you have to use extra relay – picture 3a:



- 4. Connection with security 0-transmission - "security" activation of B electrical lock . Security transmission is between door entry IP BOLD and module COSW (code switch). Therefore we recommend place COSW module close to electrical lock. For correct operation is necessary setup in IP BOLD door entry and COSW module the same code (via follow). The A electrical lock is in standard connection.
- 5. Connection with 2x PSU. When you need different feeding for electrical lock or you want separate powering of lock from door entry you can use 2 individual powering circles.
- 6. Examples of other devices (beside el.locks) connection. To the first relay is connected sliding door controller and to second relay is connected extra bell (siren).

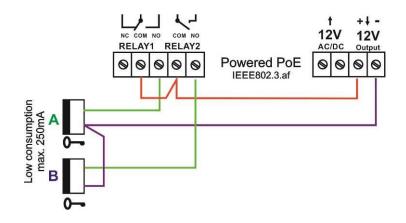
1.4.3 PoE

The IP BOLD is equiped by circuit for powering via UTP cable – PoE. When you have IP switch with PoE, or you have PoE PSU (box of adapter size inserted into UTP cable input – according directive IEEE802.3af) then you dont need extra 12V PSU for door entry powering.

When you use electrical lock for door opening then you have to use PSU for powering of door electrical lock (in relays contacts circuit only), or use low consumption electrical lock and for electrical lock powering use output screw "12V output" (7). When is used PoE then 12V/300mA is available.

CAUTION: There must not be activated both electrical locks simultaneously.

It might be reached for example by relays synchronization and setup progressive door opening (setting is descriped in follow capture relays setting)



1.4.4 Usage of door contacts

The door sensors might be connected max. 2 to door entry IP BOLD. There are designed for transmission of door close informatik. This information is display on initial screen (under picture from camera). It is also transmit to UDVguard applications. Further posibility is use SNMP.

The door sensor is ether part of electrical lock or it is ordinary magnetic contact used in security. It is connect as button to screw terminal (13), eventually to screw terminal (18). Those screw terminals are designed for buttons connection. Door sensors connection allways require special button module with cable for door sensors connection. This feature is optional. Therefore **you have to order in advance.**

1.5 Installation of IP BOLD

1.5.1 Wall mounting installation

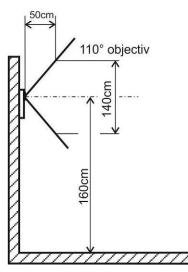
Installation place

To reach good video quality the camera must not point directly to

- sun lighting
- strong light sources
- · light orstrongly reflective walls

Installation height

Installation height of outdoor video station should be selected according camera scan range (via picture). People with average height will be at installation 160 cm from ground optimaly scaned.



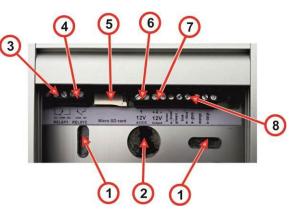
Installation is done by screws and wall plug.

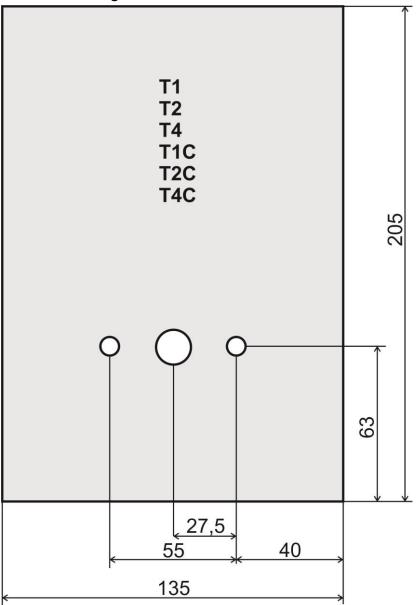
Recommended:

- Wall plug diameter 8mm
- Screw is twist with halfround head . Diameter 5mm lenght 35mm

We recommend following wall mounting procedure:

- Open the unit cover (via follow capture)
- Lead in cable (wires) via cable hole (2)
- Fix the unit safely to wall (screws + wall plugs) by fixing holes (1).
- Be carefull to dont squeeze setting block on back side.
- Connect the wires (follow instructions in next capture)
- Replace the unit cover (via following capture)





1.5.3 Open and close of cover

Cover opening

Bottom lath is connected to alu profile by 2 internal sixedge screws

 Screw up to middle way by enclosed key those screws
 turn bottom lath to left without its complete taking

(3) slide out name card plexi

Cover closing

Slide name plexi under lath Turn bottom lath to right to groove reach screw. Screw down the screw.



- When you slide name plexi be aware to dont demage seal ruber in grooves
- When you install next device please dont forget that name plexi is slide out in down direction. Dont install any other device closely under the unit

3

• Do not seal up the unit in any case! Condenseth water must flow away.

General recomendation for connection

To dont demage the unit please use enclosed screw driver. Pay attention:

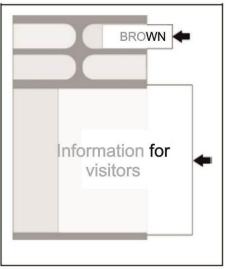
- dont put cable under lighting diod to disturb name cards lifting
- · dont squeeze cable under setting block on back side of unit

1.5.4 Name cards changing

Name cards writing

Templates you will find on our website www.alphatech.cz

- 1. Write desired names into template.
- 2. Print out name cards to special foil* and cut them of.
- 3. Release pockets on external edge of name plexi by delivered plastic board.
- 4. Slide name cards from side to spaces in name plexi



* We recommend print out the name cards to special resistant foil. This foil you can directly order from us: Polyester foil for name cards DIN A4

1.5.5 Micro SD card

Micro SD card is used to save users sound files and in near future also to save pictures, video, as record machine.

When you select users tone and microSD will not be inserted then tones of basic signalling will be used.

Never take out SD card during door entry operation!

2.1 Signalling overview

The door entry IP BOLD signalling acustically stages which occurs during operation. Further signalling is by 2 colour LED (placed right under black plexi). Acustical signalling for each status mentioned in bellow table might be switched off or might be used default tones "beeping" or recorded user sound.

Status	Tone	LED
Call start	Adjustable / user programmable	RED
Call end	Adjustable / user programmable	OFF
Call not possible (busy)	Adjustable / user programmable	RED
Confirmation of code insert	Adjustable / user programmable	GREEN
End of call notification	Adjustable / user programmable	GREEN
Rlay closing	Adjustable / user programmable	RED+ GREEN
Error	Adjustable / user programmable	
Button press	Adjustable / user programmable	
Call establishing	-	RED
Call in progress - talk	-	GREEN
Service mode (start boot)		GREEN
Linux start		RED
Rescue WEB start		RED blinking

* - indication needs active acoustic signalling of appropriate relay

2.2 Visitor at door

Visitor at door is person who wants enter inside the building.

2.2.1 Button press – outgoing call

Outgoing call is call from door entry (start by visitor). After door entry dial is ringit phone inside the building.

Door entry buttons have name cards with names and functions of people inside the building. The visitor press appropriate button and door entry start calling imediatelly (button is not first digit of code keylock) or delayed (time between button press) .The door entry dial preprogrammed number . Dialling number is different according setting in phone book:

- 1. Phone book position for selected button must be permitted
- 2. Must be fill min. 1 from 5 phone numbers (or IP adresses in P2P mode)
- 3. At filled phone number is active time plan in appropriate time or no plan is selected.

When is filled up more numbers then selection of phone number is up time plan and next are numbers dial in order $(1 - 2 \dots 5)$ or numbers might be dial simultaneously and which is picked up first it has the talk.

Both versions of dialling might be combinated. For example is possible call to 1. and 2. Phone number simultaneously. When call is not picked up until certain time then number 3 is dialled.

Repeated button press might have following functions:

- Nothing happen
- Dial again
- Call is ended

2.2.2 Button press – code lock

Door entry IP BOLD buttons have feature of code lock. By progressive buttons press you can activate appropriate relay. The codes for this feature are either shared by all subscribers (relays setting) as same as individiual (each subscriber has in phone book own priváte access code).

Caution: code might be done from available buttons only (for example model IP IP BOLD-TK4 has available 1,2,3,4)

When button number is first digit o any code then dialling from this button is delayed about "time between button press" for code evaluation.

It is also necessary mention feature relay closing by press of selected button (for example for function bell activation). This feature programmable in relays petting.

2.2.3 Keypad usage

At models with keypad are 3 ways of dialling:

- By button press as models without keyboard
- Direct phone number dial from keypad (When you insert IP adress in mode P2P then dot between numbers group is inserted by as is usual on IP phones)
- By dial of memory number (phone book have 999 subscribers. So by dial of numeral 1-999 is possible make same fiction as button press).

2	3
5	6
8	9
0	#
	5

End of call you can make allways by button press (***) When keypad is connected the fiction of code lock is extended

I tis possible use whole range of codes (numerals 0-9). The code for relay activation is differentiate from phone number dial by pressing in the begining. Then is code for relay activation.

2.2.4 Call

Door entry IP BOLD has adaptive ECHO canceller. The Echo dissapear usually within first 5 seconds of call. The call is then full duplex. The end of call happen:

- Called party hang up -
- Call duration time is over (when is setup)
- By button press(hen is setup)

2.3 Visitor inside building

By person inside building is person who is in communication with door entry IP BOLD.

2.3.1 Outgoing call

Outgoing call is call from door entry (start by visitor). After door entry dial is ringit phone inside the building. When call is picked up you can talk to visitor at door and by code dialling you can activate relay. Door entry sends 10sec before call end notification about time limit of call and by dial character (* / #) you can prolong the call. By phone hang up the call is ended.



All transmission ways of info about button press are available (for example code to activate relay) –either in "RTP channel – RFC2833" or in "SIP info" and "inband DTMF" . The IP Bold decoding all ways automatically and you have to be carefull for setting of IP phones, because when you setup for example inband DTMF + SIP info then info about button press is coming twice to door entry! Then press of button 5 is received by door entry as 55.

2.3.2 Incoming call

Incoming call is call to door entry (start by person inside building). After dial of extension number or IP adress where is connected door entry IP BOLD the door entry is ringing and after preprogrammed number of rings picks up the call. You can talk. Possibilities are the same as outgoing call (activate relay, prolong the call etc.).

2.4 Video

At models with camera is possible received video as follow:

- IP phone with LCD display
- PC WEB browser
- PC with programm UDVguard (www.alphatech.cz)
- PC with general programm for video watching (for example VLC)
- Android device (smart phone, tablet) UDVguard (Google Play)
- Apple device (smart phone, tablet) UDVguard (iTunes)

Video formats: JPG, MJPG, H.263, H.264

Video for WEB:

Internet Explorer, Mozilla, Opera, Firefox... - (set of JPG pictures - Port 80) it is used repeated http request "IPadresa/video.jpg"

programm PopUp (UDVguard) - (MJPEG stream - Port 80) is used http request "IPadresa/video.mjpg" (sometimes is reload necessary to run).This video is more fluent and has less network strain.

Stream video for IP phones:

H.263 and H264 is established by IP BOLD door entry and IPvideo phone over SIP/SDP protocol on standard SIP port. The video (as same as sound) then runs by RTP protokol on ports agreed over SIP (usually 9078). rtsp request "rtsp://IPadress/video.264"

or rtsp request "rtsp://IPadress/video.263

Video parametres:

JPG Pictures are created in IP modul and for all transmit protocols are the same .The Size (resolution) of video is selected in "Video setting" on WEB. Maximal resolution is defined by USB camera type and mostly is 640x480 Stream H.263 knows CIF resolution (352x288). It means bigger JPEG is cut and smaller framed.

Frequency (1-15 picture./sec) JPG Picture is selected in "Video setting" on WEB.

Frequency MJPG and Stream H.263 coming from camera. It is used every second and reset is between 7-15 pictures/sec. Higher resolution brings decreasement of Pictures/ sec. (limited by processor efficiency)

Ports:

Port **80** for http (WEB pages even JPG / MJPG video on them) Port **5060** for SIP

Ports RTP with oposite party communicates over SIP. Usually Port **7078** suggested for audio and Port **9078** for video

Port 554 video(H264 and H263) provided by door entry (server) protocol RTSP

Parametres programming 3

Parametres programming is performed by ordinary WEB browser. (Caution! version of IE V7 and lower are not supported).

3.1 WEB interface access

For successful display of WEB interface of IP BOLD door entry we go through some details.

Field length - names, titles, codes, passwords have fix length 40 characters.

- URL and etc. have max length 255 characters

3.1.1 Before login

Before first start of IP BOLD door entry firstly check positions of DIP switch. Each switches should be in positions as picture bellow.

- 1 on
- 2 off
- 3 off
- 4 off



Meaning of each switches:

- Always in **on** position.this switch is used in production or servis only. 1.
- When is on during power supply start(or reset), then is setup up default 2. IP adress 192.168.1.250, operational position is off
- off, currently not used 3.
- off, currently not used 4.

You should also dedicate attention into which PC network you are connected. Default door entry IP address is 192.168.1.250.

When is your PC in network setup also on segment 192.168.1.xxx then might caused a problem in network just by same IP address etc. 192.168.1.250.

In this case we recommend temporarily disconnect device from network.

When your PC is setup to different network segment than 192.168.1.xxx two possibilities are available:

- In PC you have system Windows 7 or 8, then you can setup "network setting" "Protocol IP version 4" "Property" specify" and here add IP address in PC segment of door entry for example. 192.168.1.10
 Generally in PC setup you program temporarily own IP address.In PC door entry segment for example 192.168.1.10. After change of door
- entry IP address you have return setting in PC back.

Then you can setup parameters of door entry including IP address and after restart of IP BOLD door entry you can login to door entry WEB page on new IP adress.

3.1.2 Login

In your WEB browser write IP adress of IP BOLD door entry in default it is **192.168.1.250**. you can see picture from camera as bellow – "home screen with video"



Under picture from camera (at models without camera is empty frame only) are on the left buttons **Stop** – to stop video and **Start** for run video again. On the right is description **Setup** – after clil on it will be display request for login data.

Write username and password. Username is allways **"admin"** and password is **"1234"** (adjustable in settings).

You enter now to first petting page of door entry IP BOLD. On this page is display "Current status". All necessary data about door entry status are here.

3.2 Current status

Current status display basic data about IP BOLD door entry status. It display Firmware version, door entry model, options connection (camera, keypad), SD card, MAC adresses, current time, network setting, door entry mode (P2P or SIP server), registration status and small calls statistic.

3.2.1 Language settings

Alphatech VoIP doorphone	*
Current status	Language
Network setting	Set: english 🗸
Basic settings	english čeština
Extended settings	cestina
Service	
Video camera	-
	Default values Save
	D Alphatech spol, s r.o., 2014-2015

After language selection please don't forget click on "Save changes". On the right top corner is display flag of current used language in whole WEB interface. After click on flag accessible language will be display. After language selection please don't forget click on "Save changes" otherwise language sselection wont be performed.

3.3 IP network setting

3.3.1 IP Network setting

Network settings you find in menu "Network setting". You can select using of fix IP adress or dynamically assigned by using DHCP.

Configuration of fix IP adress:

Alphatech VoIP doorphone		×
	0	
Current status		Network
Network setting	Setup via DHCP:	
Network	IP address:	192.168.1.250
SIP parameters	Network mask:	255.255.255.0
Web server		102 150 1 200
Basic settings	Network gateway: DNS server 1:	78.41.19.2
Extended settings	DNS server 2:	78.41.19.3
Service		
Video camera		
		Default values Save and restart

After performing of required changes please don't forget click on "Save and restart".

DHCP - ON / OFF using DHCP assignment of IP adresses

IP adress, Network mask – IP adress setting, mask. In case of emergency please contact your network administrator

Internet gateway – Router IP adress (Internet connection)

DNS server 1 and 2 – IP adresses of primary and secondary domain server **NAT address -** used for network traffic through the router (modifies transcription of the original or destination IP address)

DHCP configuration:

Alphatech VoIP doorphone		*
VoIP doorphone Current status Network setting Network SIP parameters Web server Basic settings Extended settings Service Video camera	Setup via DHCP: IP address: Network mask: Network gateway: DNS server 1: DNS server 2:	Network
		Default values Save and restart

After performing of required changes please don't forget click on "Save and restart".

DHCP – by mark of this checkbox as same as saving and restart will be assigned to door entry IP BOLD - IP adress by DHCP.

NAT address - used for network traffic through the router (modifies transcription of the original or destination IP address)

Important: if you use DHCP setting then DHCP assign IP address to door entry automatically and network administrator will assure your current IP address to be able watch video in WEB browser. Therefore this dynamically assigned IP address might be changed due for example power failure we recommend use dooe entry IP BOLD with fix IP adress.

3.3.2 SIP setting

The door entry IP BOLD might operates in 2 basic modes. It is either **SIP server** – door entry registration is performed to SIP server and then you call to phone numbers assigned by SIP server or **Peer to Peer** (P2P) – door entry call exact IP adress and SIP server services can't be used. **Mode SIP server**

Alphatech		
urrent status	SIP pa	rameters
etwork setting	SIP mode:	SIP server
Network		the second s
	Display name:	VolP Guard
SIP parameters	Account:	250
Web server	Auth. Id: Password:	250
asic settings	Fassword.	
xtended settings	Send register:	
ervice	Registrar server:	192.168.1.80
ideo camera	Port:	5060
	Expiration [sec]: Unregister on restart:	600 V
	onregister on restart.	
	SIP server:	192.168.1.80
	Port:	5060
	Outbound proxy:	
	Port:	5060
	Port	
	Provisional code:	180 Ringing
	Enable Simmetric RTP:	: 🗆
		Default values Save

After performing of required changes please don't forget click on "Save".

title-name - name by which is device presented in network (for example will display as door entry name in programms UDV panel, UDVguard)

- name unit name in SIP protocol (usually line number or name without diacritics)
- Auth.ID name for SIP server registration
- Heslo password for SIP server registration
- Send registration when registration is necessary (mostly yes) then this parametr must be used
- **Registration server** IP adress or server name of registration server (in most systems and installations is enough to insert IP adress). Registration is performed on this server. When you dont mark send registration then dont fill *Registration server and IP adres sof SIP server write to Proxy server*.
- Port SIP port is usually 5060 or 5061
- **Expiration[sec]** expiration of SIP server registration (period of registration request repeated sending)
- Unregistration during start when you mark then allways during restart will be unregistrated
- SIP Proxy server IP adress or server name. Over this server connection is made. When is not filled then connection makes on *Registration server* (but you must mark *Send registration*)
- Port SIP port is usually 5060 or 5061
- **Outbound proxy** IP adress or proxy name where is determine where will be sends door entry requests. If outbound proxy is setup will be INVITE regest sends to outbound proxy adress. Outbound proxy is used due NAT. When is not used dont fill up.
- Port SIP port is usually 5060 or 5061
- Provisional code determine if during ringing will be sends SIP code "180 Ringing" or "183 Session progress"
- Symetric RTP enable by mark is ON. It means that door entry will not sends by itself audio to RTP called party, but wait for called party to send RTP. After sends data to same adress:port from which message arrived. It is trick used for bridging NAT
- Registration status display on page as visible on picture.

Peer to Peer mode (P2P)

Alphatech VoIP doorphone		×
	SIP pa	rameters
Current status Network setting	SIP mode:	Peer-to-peer v
Network SIP parameters Web server	Display name: Account: Auth. Id:	VoIP Guard 250
Basic settings	Password:	
Extended settings	Send register: Registrar server:	
Service Video camera	Port: Expiration [sec]:	5060
	Unregister on restart:	
	SIP server: Port:	5060
	Outbound proxy: Port:	5060
	Provisional code:	180 Ringing V
	Enable Simmetric RTP:	
		Default values Save
		Alphatech spol. s r.o. 2014-2015

After performing of changes please don't forget click on "Save changes". **title - name** – name by which is device presented in network (for example will display as door entry name in programms UDV panel, UDVguard)

- **Name** unit name in SIP protocol (usually line number), it is recommended to keep filled.
- Port SIP port is usually 5060 or 5061
- Provisional code determine if during ringing will be sends SIP code "180 Ringing" or "183 Session progress"
- Symetric RTP enable by mark is ON. It means that door entry will not sends by itself audio to RTP called party, but wait for called party to send

RTP. After sends data to same adress:port from which message arrived. It is trick used for bridging NAT.



In active mode - P2P is possible to operate device, which require for their function registration at the SIP server. This option will use new SIP phones, which generally do not support P2P mode, as well as applications for iOS - Apple.

The principle of setting SIP phones and UDV guard, UDV Panel with IP BOLD:

- 1. Mode of phone is SIP server registration is IP address IP BOLD (registration or SIP server = IP address IP BOLD)
- 2. Name and password is the line number (we choose a numbering plan so that each number occurred in the network only once, then for each device, fill in name and password to register with this number).

Example:

- IP address of IP BOLD is 192.68.1.250 and the name (page SIP parameters) is **250**
- The IP address of SIP phone 1 is 192.168.1.200, fill in the registration here SIP server = 192.168.1.250 and name = password = **230**
- The IP address of SIP phone 2 is 192.168.1.201, fill in the registration here SIP server = 192.168.1.250 and name = password = **231**

Call to SIP Phone 1 is ${\bf 230},$ calls to SIP phone 2 is ${\bf 231}$ and calls to IP BOLD is ${\bf 250}$

3.3.3 WEB server

Alphatech VoIP doorphone	*
1	Web server
Current status Network setting Network SIP parameters Web server	Web interface TCP port: 80 Service password:
Basic settings Extended settings Service Video camera	
	Default values Save and restart

After performing of changes please don't forget click on "Save and restart".

WEB interface TCP port - posibility of chase usual TCP port 80 to other (security reasons)

New access password / password confirmation – inserting of new access password (instead default password 1234) – length max.40 characters

- **Home page video** Video ON/OFF on home page of WEB interface (mainly from security reasons. When video is OFF it is accessable after login with password only).
- Video protection by password further protection is secure access by password to http://ipaddress/video.jpeg (camera picture). CAUTION! this option caused non working video on SNOM phones !

Telnet permission – posibility ON / OFF access from telnet (name: root, pass: 8765). Use telnet is not recommended, in practice, this possibility has caused a lot of problems. Damage Doorphone IP BOLD unprofessional intervention via Telnet warranty will be void Doorphone IP BOLD.

3.4 Basic setting

In this part are setup user and most often changed parametres.

3.4.1 Phone book

Alphatech		
	iber: 1234	
	Phon	nebook
Current status		
Network setting	Title: Email:	Mr. Brown brown@email.com
Basic settings	Enabled:	
Phonebook	1. call number:	180
Relay	Timetable:	None V
Door sensors	Calling:	Group start
Setting SNMP	cunny	
Timetable	2. call number:	229
Time setting	Timetable:	None
E-mail	Calling:	With previous 🖌
Extended settings	3. call number:	210
Service	Timetable:	1 Open time 🗸
√ideo camera	Calling:	Group end V
		Landard and a second and a second s
	4. call number:	200
	Timetable:	None
	Calling:	Sequential
	5. call number:	
	Timetable:	None
	Calling:	Sequential 🗸
	External code for relay 1 External code for relay 2	
	External code for relay 3	
	External code for relay 4	
		Default values Save

After performing of changes please don't forget click on "Save".

The phone book contents 999 subscribers. For first 99 subscribers agree subscriber number with button number. In this version of door entry – IP BOLD is max = 4 button. Therefore first 4 subscribers are most important.

The door entry IP Bold is equipped by automatic detection of connected devices. So when is not keypad connected then phone book has 1 - 4 position only according model (number of buttons).

Position number in phone book is selected at top bar by click on appropriate numeral. It is possible also listed by 10 (</>) or go to exact position (all by selection in first – highlighted – row).

The 999 subscribers has a sense when keypad is used (models TK) and eventually using touch display for selective subscriber selection from phone book.

Every position of phone book allows insert up to 5 phone numbers with possibility to join some of them (or all) into group and call group of phone numbers simultaneously.

- **Position name in list** This text has informative character only. In case of display using will be name shown in list selection.
- **Email** to this email will be sent Info about missed calls with picture or video in case of model (C) or with records (in case or recorder activation). Necessary is setup Emailu via follow.
- **Permission** Item of phone book (also function of appropriate button) is working hen is permitted only (marked). It has a sense for pensions, hotels etc....)
- **1.Phone number** is phone number with highest priority. It is call as first (when is used progressive dial mode). 1. Phone number will be dialled with compliance to selected time plan only.
- **Time plan** when is not selected then 1 number is allways active. Usage of 1 phone number might be limited by time plan.
- **Calling -** allows create groups via follow.
- **2.phone number** is phone number which is dial as second (when is used progressive dial mode). 2nd phone number will be dialled with compliance to selected time plan and when is filled only.
- **Time plan** when is not selected then 2 number is allways active. Usage of 2nd phone number might be limited by time plan
- Calling allows create groups via follow.
- **3th phone number** is phone number which is dial as thirth (when is used progressive dial mode). 3th phone number will be dialled with compliance to selected time plan and when is filled only.
- **Time plan** when is not selected then 3th number is allways active. Usage of 3th phone number might be limited by time plan
- **Calling -** allows create groups via follow.
- **4th phone number** is phone number which is dial as fourth (when is used progressive dial mode). 4th phone number will be dialled with compliance to selected time plan and when is filled only.

Time plan – when is not selected then 4th number is allways active. Usage of 4th phone number might be limited by time plan

Calling - allows create groups – via follow.

- **5th phone number-** is phone number which is dial as fifth (when is used progressive dial mode). 5th phone number will be dialled with compliance to selected time plan and when is filled only.
- **Time plan** when is not selected then 5th number is allways active. Usage of 5th phone number might be limited by time plan
- **External relay code 1/2/3/4** here insert priváte codes for code lock. The code lock might be completed from door entry buttons (it is according buttons 1 4 in TC model), or in TK models you can use keypad. Each subscriber has one cod efor every relay.

Calling – description

The group means that 2 or more phone numbers creates group and those Numbers are dialled simultaneously (all are ringing together). Who from dialled Subscribers pick up first can talk and ringing to other subscribers in group Will be ended.

Individualy – this phone number is dialled individualy. It is not in group with any other number.

Group start – first phone number in group call

In group with previous – phone number in group. It is not first and also not last.

Group end – phone number is last from the group

By this setting you can create for every subscriber up 2 groups or groups with 5 numbers and make groups combination with individual phone numbers.

EXAMPLE: first phone number rings to operator – "Individualy"

Second phone number is "Group start"

Thirth and fourth phone number is "in group with previous" Fifth phone number is "Group end"

- Those four phone numbers ringing in office together where are picked up by other subscribers when operator is busy. In offices phones start ringing after adjustable time.

3.4.2 Relays

	Number:	1234					
Comment attachment			R	elay			
Current status Network setting	_	Enabled:		•			
	-	Timetable:		None	Y		
Basic settings Phonebook		Relay mode		Monostat	ole 🗸		
Relay		Delay time		0			
		Run time [s Source:	ec]:	5			
Door sensors Setting SNMP			delay [sec]:	0	~		
Timetable		Active on ca		Ignore	Y		
Time setting		Acoustic ton		None	V	1	
E-mail		Active by H				d /ii	
	-	Security out	put code:				
Extended settings	-	Direct ON b		1			
Service			d at relay ON: d at relay OFF:	-			
Video camera	_					250 320200	
		Code 55	Source	On		Timetable None	
	2.	11221	Button V	On		1 Open time	~ ~
	3.	11661	DTMF V	Off		None	~
	4.		DTMF V	Off	and the second second	None	~
	5.		DTMF ¥	Off		None	~
	6.		DTMF V	Off		None	~
	7.		DTMF V	Off		None	~
	8.		DTMF V	Off	~	None	~
	9.		DTMF 🗸	Off	~	None	~
	10.		DTMF 🗸	Off	~	None	~
						Default valu	es Save

After performing of changes please don't forget click on "Save".

In relays setting are accessible 4 relays. The relays 1 and 2 is output of relays contacts directly in IP BOLD door entry. Next 2 relays (3 and 4) is possible use for remote relays (IP relays via follow) or as virtual relay usefull for synchronization to allows creation of more difficult functions of relays. The relay selection is perform by click to relay number in top highlighted row – similiary as in phone book.

- **Permitted** relay function might be eliminated. Due this will be eliminated synchronization signal for other relays. Meaning is for example when you want temporarily prevent certain door opening. Then instead of all codes cancellation and their repeated programming simply prohibit this relay. After time out you can easily return relay with all codes to original function. When such status repeats regularly (for example school) you can use time plan.
- **Time plan** defines time period when relay is working and hen not. For example is shop operation time , school, etc..
- **Relay mode** <u>monostable</u> by code is closed and after preprogrammed timeout is open. Using for electrical lock switching, sliding gates control, button press signalling etc... (for control codes setting you must insert "ON" (via follow)
- **Relay mode bistable** by code is closed and stay closed till moment of open by other code. For this purpose is beside control codes posibility select "ON" for closing and "OFF" for open. (via follow)
- Delayed closing is time, between closing code evaluation and relay closing. It has no influence for open code which is performed immediately. Closing time is calculated from real relay closing. Using is for example: progressive door opening, we setup same closing code for both relays, by this delay is monitored walking time from first to second doors. This feature is adjustable by synchronization as well. By synchronization delay are available individual codes for each doors control.
- Closing time relay closing time in monostable mode (time of electrical lock opening)
- Synchronize with time plan it is selected time plan for relay and 2 options are available:

<u>Monostable</u>, then allways when setup time period in time plan is suitable and time plan is active is perform closing for preprogrammed closing time.

<u>Bistable</u>, then allways when setup time period in time plan is suitable and time plan is active the relay is closed and out of those conditions is open.

Synchronize with relay 1 – 4 – relay closing starts closing of the same or other relay. Example for usage is sliding gate control, where by partly opening you can create passage – door substitution. For this mode relay must close for 1 sec in 2 times in sequence. Where period between closing is created passage.(for example 6sec). *The setting make that for relay 1 select monostable mode with time closing 1 sec, synchronization with relay 1 and synchronization delay 7 sec.* In case you need setup situation that for one code (55) relay 1 close 2 pulses in sequence – passage creation and by second code (56) gate will be closed then use not connected relay 4 for synchronization with relay 4

and synchronization delay 7 sec. Codes for relay 1 closing are 55 and 56. The relay 4 we setup as monostable, closing time 1 sec, closing code 55.

By synchronization you can create different closing combination.

Synchronization delay – time between synchronization start and its evaluation. Usage for example in more relays closing combination for one code

Activation during call - options are

none (calling has no influence for relay status)

incoming call – relay closed during incoming call. The monostable for preprogrammed time. The bistable permanently for all call duration.

outgoing call – relay closed during outgoing call. The monostable for preprogrammed time. The bistable permanently for all call duration.

<u>Incoming as same as outgoing call</u> – relay closed during every call. The monostable for preprogrammed time. The bistable permanently for all call duration.

Acoustical signal – In case of need you can simulate relay closing by sound signal. This feature is usefull mainly in monostable mode in case of PoE feeding of low consumption electrical lock by DC power supply. This sound simulates typical buzzing of electrical lock. Further option is record voice message to SD card for blind people with information about electrical lock opening.

This option has yet another hidden meaning, the LED on the front panel when you turn the acoustic signal indicates the switch is activated lights red + green.

- Activation during LAN failure— this is security action when network connection fail it is not possible close relay for example by code from buttons. Application is there where is monitor when was used which code and this record during LAN failure will not be performed.
- Activate by protocol HTTP relay status is possible change by sending HTTP request (GET request) to IP adress of door entry. To get working this feature you must permit by parametr relay control by HTTP. Request for door entry must be in following format (you can test by variol web browser):

command relay switch:

IPaddress / relay_control? R = on where r = number of relays 1-4 E.g. http://192.168.1.250/relay_control?1=on - switches on relay 1 (doorphone to the default IP address)

command to releasing relay:

IPaddress / relay_control? R = off where r = number of relays 1-4 E.g. http://192.168.1.250/relay_control?1=off - switches off relay 1 (doorphone to the default IP address). Releasing the relay is important in the bistable switch mode.

Security code for output – relay output is close/open in default. This static status is dangerous in case of unauthorised enter for example by door entry demaged and short circuit wires of power supply and electrical lock. Defence is using module COSW which you connect to electrical lock wires – closest to electrical lock. For relay closing is sends in such connection pulses set and when setup code at COSW match with code of this parametr relay is closed.

Caution – do not fill code when electrical lock without COSW is connected. It can demage relay in door entry IP BOLD!

- Button for closing when you fill up button number then this number will work as departure button only. Eventually might be used relay output for control of mechanical bell. During button press is relay activated in monostable mode for closing time.
- **Command for external relay close** Enable setup command sends to external device (for example WEB relay) during relay closing. Command is sending by protokol HTTP (GET request). The command must be in format http://ip_adresa/cesta. For example http://ip_adresa/cesta. For example
- **Command for external relay open** Enable setup command sends to external device (for example WEB relay) during relay opening. Command is sending by protocol HTTP (GET request).

The command must be in format http://ip_adresa/cesta.For example <u>http://192.168.1.249/relay1=off</u>

Codes for relay control – her eis 10 basic central codes for relay. Moreover every subscriber in phone book has his own priváte cod efor relay control (code keylock from buttons). Those 10 codes might be assigned as codes from buttons (code keylock) or by phone (DTMF). Further is possible assign feature relay closing/opening (ON/OFF). The Code validity is discriminated by time according selected time plan.

3.4.3 Door sensors

Door sensors are special functions of door entry IP BOLD which is optional. It is HW option which is different according button number of each model – inputs for door sensors. There is created information in the system about close/open the door.

Alphatech VoIP doorphone	*
Į.	Door sensors
Current status	
Network setting	Sensor 1: Enable v Now is: Open
Basic settings	
Phonebook	Sensor 2: Disable 🗸
Relay	
Door sensors Setting SNMP	
Timetable	
Time setting	
E-mail	
Extended settings	
Service	
Video camera	
	Default values Save

After performing of changes please don't forget click on "Save".

Sensor 1 / 2 permit or prohibit - by permission is activated transmission of Inko about open / close the door. This Info is display ether on this page - Now is - or on home page with video(under video frame will be display frames with . this Info. Further is p

Stop	Play	Open	Open	Setu
	A CONTRACTOR OF	ALC: NOT THE OWNER OF	CONTRACTOR OF CONTRACTOR	-

transmitted to programms

UDVguard and UDV panel and as last is possible use it in SNMP.

3.4.4 Setting SNMP

<u>Remote management</u> – SNMP is internet protokol designed for network management. It allows progressive data collection for network management purposes and its following evaluation.

Current status	Setting	SNMP
	Enable SNMP:	
etwork setting	Community:	alphatech
asic settings	Admin address:	192.168.1.22
Phonebook		
Relay	Variables in MIB tree:	040040
Door sensors	Startup: Open sensor:	0.1.2.3.1.0 0.1.2.3.2.0
Setting SNMP	Sensor open timeout:	60
Timetable	Open sensor for too long:	
	Entered invalid keycode:	0.1.2.3.3.1
Time setting	Open relay:	0.1.2.3.1.1
E-mail	open rentr.	0.112.0.11
ktended settings		
ervice		
ideo camera		
		Default values Save

After performing of changes please don't forget click on "Save". **SNMP enable** – by mark you activate remote management (SNMP)

Comunity - here is necessary select exact user of SNMP

Administrator adress – setup IP adress or domain name of server where are sent information according defined setting

Variable MIB – is designed for identification of none sense numeral chain OID OID is numeral identificator which definitely identify every value in SNMP communication. OID is created by number sequence separand by dot. Every dot represent exact level of tree structure into which are OID maped. The numeral identification in range of each undertree is not Unixe that is why OID is sent allways as whole unit.

3.4.5 Time profiles

VoIP doorphone	-						
	Number: 1	23456789					
Current status	_		Tir	netab	le		
letwork setting	Timetabl	e name:	Open tim	e			
asic settings							
Phonebook	Sun:	Active In	iterval 1	Int	erval 2	Interval 3	
Relay	Mon:	Yes v 08:00	-12:00	13:00	- 17:00		
Door sensors	Tue:	Yes v 08:00	- 12:00	13:00	-15:00		
Setting SNMP	Wed:						
Timetable		Yes V 08:00	-12:00	13:00	-17:00	1	
Time setting E-mail	Thu:	Yes v 08:00	-12:00	13:00	-18:00	E .	
tended settings	Fri:	Yes 🗸 08:00	- 12:00	13:00	-14:00		
arvice	Sat:	No 🗸		101		H	
deo camera	Code for	activation:	11				
deo camera	Code for	deactivation:	10				
	Active:		Yes				
)efault values Save	

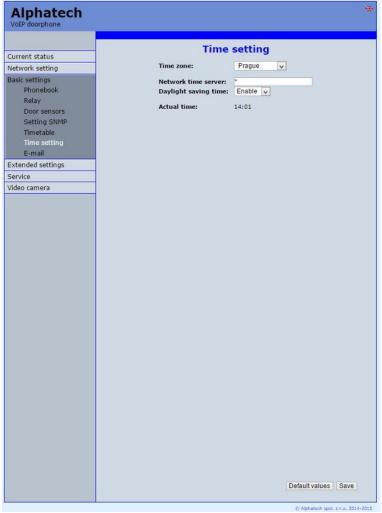
After performing of changes please don't forget click on "Save".

In time profiles setting is available 10 profiles. **Profile selection is perform by click in top highlighted row** – similiary as in phone book.

Profile name – for easy orientation you can named every profile.

- Period setting table profile is active when current time match with setup periods. Every day might have up to 3 active periods. Further is possible deactivate whole day (first item on the row select "Active" Yes /No). In example on the picture it is Saturday or whole day setup on active in example i tis sunday. To use correctly this feature is necessary to setup correct time in the unit (via Date and time setting)
- activation / deactivation code immediate switching status profile by using DTMF. If you switch the time profile, then change it takes to meet the closest in time profile changes (according to the times in the table) or switch to another state using DTMF.
- Active display current profile status
- Switch by click you change profile status

3.4.6 Date and time setting



After performing of changes please don't forget click on "Save".

Time zone – selection of installation time zone

Time server – IP adress or domain name of NTP server. When you dont know then by inserted * will IP BOLD find NTP server automatically according own selection. Condition is setup in network setting start gate and DNS.

Daylight time - permission to switch daylight time

Present time- for control is display present time in IP BOLD

3.4.7 E-mail

When you want inform subscriber about missed calls from door entry you can setup IP BOLD to sent out email after every missed call. You can setup own subject and text of email. When you have door entry with camera you can automatically add to email one or more pictures from camera. (Pictures are taken during ringing)

Door entry sends emails to all subscribers who have in phone book preprogrammed valid email adress. When parametr E-mail in phone book is not filled then emails are sent to preprogrammed default email adress.

Alphatech VoIP doorphone		•	*
Current status		E-mail	
Network setting	Enable:		
Basic settings	SMTP Server:	smtp.alphatech.cz	
Phonebook	SMTP Port: SMTP Account:	587	
Relay	SMTP Password:		
Door sensors	Message From:	jelinek@alphatech.cz	
Setting SNMP	Default message To:	jelinek@alphatech.cz	
Timetable	Send timeout [min]:	600	
Time setting	Attach pictures: Pictures count:	10	
E-mail	Picture interval [sec]:	5	
Extended settings	Message Subject:	Call missing from IP Bold door 1	
Service		Call from: \$Device\$	
		Day: \$Datum\$	
Video camera	Message body:	In time: \$Time\$ On user: \$User\$ Tel. number: \$DialNumber\$	
		Send test message	
		Default values Save	

After performing of changes please don't forget click on "Save".

Enable SMTP service - it activates email sending

SMTP server (adress) - SMTP server adress where emails will be sent

Port SMTP server – adjust in case of none standard SMTP server setting only. SMTP port is setup usually on value 25

Registration name – when SMTP server requires authorization then must be in this field mentioned name for registration to server. In opposite case leave field empty.

Registration password – password for registration to SMTP server.

E-mail of sender – sender e-mail mentioned in sent email.

- **Default E-mail** door entry send emails to adress mentioned in phone book at appropriate subscriber. When you leave this field empty then email is sent to default email which you setup in this field. When receiver is not mentioned in phone book as same as default email field the email is not sent. This e-mail is designed also for function control – **Send** *control message* – when you want verify correct functionality of emails sending then this control message is sent to this email.
- **Deliver to** Setup max time for which door entry try to deliver email to inaccessible SMTP server
- Attached pictures enable send attachment with one or more Picture taken during ringing.
- **Pictures number in message** setup Pictures number which will be attached to email.
- Pictures frequency setup time between each pictures

Email subject - setup subject of sending email message

Message contents – enable correct contents of sending message. You can insert to text special alternative symbols for user name, date and time for door entry identification. Those alternative symbols will be substitute by actual value before email sending. Via follow table of alternative symbols:

\$Device\$ = door entry identification

\$Date\$ = current date

Time\$ = current time

\$User\$ = name of dialled subscriber

DialNumber\$ = dialled phone number

Send control message – when you want verify correct functionality of email sending then control message will be sent to default email

3.5 Extended setting

This part is designed for system setting which are done once during installation or when are problems with device kompatibility.



Alphatech VoIP doorphone		
Current status	Guard	
Current status Network setting Basic settings Guard Audio Audio tester Audio codecs Video codecs Streaming Service Video camera	Ringing timeout [sec]: 30 Maximum call duration [sec]: 120 Prolongation key: • Asterisk • Ringing cycles count: 1 Same key pressed again: Cancel call • Dialing timeout [sec]: 2 Camera light: During a night call • Light intensity [%]: 10 Labels light: Atnight • Light intensity [%]: 10	
	Default values Save	

After performing of changes please don't forget click on "Save".

- **Ringing time** time for which is ringing. When is setup more numbers as same as progressive ringing then after this time ringing is ended on first phone number (IP adress in P2P) and starts ringing on second. It is time until which subscriber must pick up. When is not next number to call then email is sent either to email adress mentioned in phone book or to default email (E-mail setting).Setting range is 5 to 300sec (6min.) caution: it might happen that ringing time will not be limited but it is limited by time parametres of SIP protocol and it is usually 2-5min (according SIP device setting). You can record message to SD card during this time and simultaneously send email.
- **Maximal call duration** when call is picked up timer for call duration limit is activated. When you insert empty, then there is no limit. The 10sec before call end you hear tone after which you can dial character for call prolongation and by this prolong the call about same time period.
- **Call prolongation character** options are * or # and usage is descriped in "Maximal call duration"
- Number of ringing cycles this option enable repeating of call (or progressive call). In phone book is for example filled first and second phone number and not create group. When come condition for first number: ringing time is out
 - phone number is busy
 - subscriber is not reachable / registrated in network

Then second number is dialled. When the same conditions come true and ringing cycles are setup 2 the whole cycle is repeated one more time.

- The same button pressed one more time when you press again the same button then you setup door entry behaviour. Options are:
 - call is hang up
 - call is repeated
 - nothing happen
- Maximal number inserting time this time concern buttons (keypad) and it is deciding for correct code inserting. When space between button press is longer than this time the cod eis not correctly evaluated . Situation:
 - code keylock provides correct code evaluation
 - number dial from keypad –dial end resolution

This time simultaneously prolong dial time at buttons which are initial numbers of codes.

- **Maximal DTMF inserting time** this time concerns incoming calls from telephones and it is deciding for correct code inserting. The principle is the same as previous parametr but it concerns codes from telefone.
- Keypad mode models TK only memory number dial means that you press 1-3 digit code on keypad which determined position in phone book (1-999). The door entry process the call same way as you

pressed button on door entry (1-999). *Direct phone numbers dial* means that you dial numbers by keypad as on ordinary phone.

When you have in numbers dial space longer than **maximal number inserting time** then door entry calls. When you want in mode P2P call to IP adress then "." in IP adress is substitute by \bigcirc .

Camera lighting mode – wideangle camera has posibility of extra lighting when light conditions are not acceptable. The lighting provils by white LEDs (unfortunately infra LED cant be used but advantage is fully colour picture). The door entry has dark sensor and you have following options of lighting:

- OFF, LEDs will never light

- during conversation, LEDs are allways lighting during call independently on surrounding light conditions

- in the night, LEDs are lighting according surrounding light conditions independently on call

- during night call, Led svítí pouze při hovoru a podle okolního osvětlení

Camera lighting intensity – here you setup LEDs light intensity

Backlight mode – name card might be backlighted by 3 ways:

- OFF, name cards will never be back lighted
- in the night , backlighting depends on surrounding light
- name card is permanently back lighted

Backlight intensity - here you setup backlight intensity

3.5.2 Audio setting

Alphatech VoIP doorphone		9
	Audio	
Current status		
Network setting	Speaker volume:	0 dB 🗸
Basic settings	Microphone gain:	0 dB 🖌
Extended settings	Echo limiter threshold:	25
Guard	Echo limiter attenuation:	-36 dB 🗸
Audio	Echo limiter samples:	2000
Audio tester		Default
Audio codecs	Acoustic tone on call start:	Default v
Video	Acoustic tone before call end:	Default v
Video codecs	Acoustic tone on call end:	Default v
Streaming	Acoustic tone on error:	Default v
	Acoustic tone on remote busy:	Default v
Service	Acoustic tone on unknown number:	Default v
Video camera	Acoustic tone on button pressed:	Default v
	Acoustic tone on valid code entry:	Default 🗸
	Acoustic tones volume:	0 dB 🗸
	Relay running tone volume:	0 dB 🗸
		Default values Save
		© Alphatech spol, s.r.o. 2014-20

After performing of changes please don't forget click on "Save". **Speaker loudness + microphone sensitivity** – amplification setting

ECHO limiter – it is designed for Echo cancellation which is created by distortion of loud signal.During standard door entry call is working automatic adaptive echo canceller which cancel the echo after cca 3 seconds of talk and call is full duplex. The setting is : High intensity

signals coming from phone to speaker of door entry are distorted and automatic echo canceller cant process them. This **level** you setup (in %). How much should be reduced signal returning through microphone input is adjusted by **reducing**. **Delay** of returning signal is adjustable by samples amount.

- **Tone** here you select acoustical signalling of different door entry status.
 - Options are: None, this status will not be signalling
 - default, simple signalling in default setting
- user, this is recorded signalling by user (SD card) -via. Servis **Hlasitost** loudness signalling adjustment

3.5.3 Audio codecs

Alphatech VoIP doorphone		*
-	Audio code	ecs
Current status		
Network setting	Priority 1:	G711µ v
Basic settings	Priority 2: Priority 3:	G711a v G722 v
Extended settings	Priority 4:	G726-32bit v
Guard	Priority 5:	GSM V
Audio	Jitter compensation [msec]:	
Audio tester		
Audio codecs		
Video		
Video codecs		
Streaming		
Service Video camera		
		Default values Save
		© Alphatech spol, s r.o. 2014-2015

After performing of changes please don't forget click on "Save".

Priority – setting of codecs priority for usage. Some audio codecs requires payable license (for example G729) – codec permission you perform in Servis – license management.

Jitter compenzation - jitter means fluctuation of packet delay during network running

3.5.4 Video setting



After performing of changes please don't forget click on "Save".

Image size – image size selection. Stream H.263 knows just CIF resolution (352x288) so bigger image is cut and smaller image is framed

Image number per second – this setting concern mainly image transmission to WEB browser. For H.263(4) is flow control flexibly according processor and network workload and it is in range 5-15 pictures/sec.

Further setting is standard image parametres petting and reset is immediately visible in Windows screen.

3.5.5 Video watching (PopUp programm)

The door entry video records by USB WEB camera. The camera image sends either like JPEG pictures set to WEB browser (first page on door entry IP adress) or door entry sends stream video in coding H.263 and H.264. This streaming video you can watch for example on IP phone with LCD display.

Further very popular video watching is using PopUp programm UDVpanel for Windows. This programm including user guide you can download for free on <u>http://www.alphatech.cz/ipdp.htm</u>. Except showing video has programm following features:

- During call is automatically activated from Windows bar to front and show image from door entry IP Bold. When call is ended i tis minimalize again.
- Enable activate both door entry relays by click door opening
- Enable acoustical connection with door entry IP Bold when door entry calls to PC adress with installed and running programm then you can receive call through sound card in PC. By click to DoorPhone button in programm you can call to door entry IP Bold – CAUTION PC sound card ECHO canceller setting !!
- Programm might be installed to max.100 computers in network. When is active door entry IP Bold connection then all computers have maximalized Windows with video from door entry. In programm you setup door entry IP adress. Then you can operate more door entries in one network. You assign setup "nameplate" to appropriate door entry to determine programms to door entries. The "nameplate" is display in header of UDVpanel programm.
- UDV Panel operates in P2P mode as same as SIP server registration (SIP client) .

For Android operating system you can download programm UDVguard on Google Play for free.

For iOS (Apple) operating system you can download programm UDVguard on AppleStore for free.

3.5.6 Video codecs



After changes performing please don't forget click on "Save".

Priority - setting of codecs priority for usage .

Compatibility – Due some of VOIP phones producers specialities you have to use in certain cases extra setting:

Polycom – phones Polycom

- Yealink phonesYealink
- SNOM it is script sending for showing JPEG video. It is unique for SNOM phones

3.5.7 Streaming

Alphatech VoIP doorphone		*
Current status Network setting	Streaming Enable streaming:	
	Enable streaming: Permitted Clent: Stream media: Multicast address: JPEG image quality: 85	
	Default values Save	

After changes performing please don't forget click on "Save".

RTSP server – permitted / prohibited to provide video (H.263 and H264) by door entry IP BOLD (server) protocol RTSP on port 554. To receive such video you need some standard stream video players (IP TV or for example Grandstream, MPlayer, VLC etc...). This video running permanently. It is not depending on calls.

Permitted IP adress – when is not filled up then video might be watch by anybody. When is filled then video is limited just for this IP adress

Transmitted media - selection of what will be transmitted from RTSP server:

- video
- audio
- video and audio

Multicasting adress – by inserting IP adress you permit sending RTP packets to selected multicasting adress.

JPEG quality – you insert percentage of video coding quality

3.6 Service

This part contents service functions.

3.6.1 Restart

Network setting Press button bellow for immediate device restart. Basic settings Restart Service Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones Very Service	Alphatech VoIP doorphone	*
Current status Network setting Press button bellow for immediate device restart. Press button bellow for immediate device restart. Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones		Pestart
Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones	Current status	
Extended settings Service Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones	Network setting	Press button bellow for immediate device restart.
Service Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones	Basic settings	
Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones	Extended settings	Restart
	Service Restart Configuration Style and language Firmware upgrade Logfile	

By click on "Restart" button you make door entry reset.

3.6.2 Configuration

Current status	Co	nfiguration	
	ve configuration:	Make	
Network setting			
	nd configuration: ad phonebook:	0	
Loa	ad network and SIP:		
Restart	d others:	Make	
Carlandia	and a second second		
Style and language Def	ar phonebook: fault network and SIP:	ă	
Firmware upgrade Def	fault others:	Make	
Logfile		Make	
User acoustic tones			
Video camera			
			Alphatech spol, s r.o. 2014-2015

The door entry IP BOLD allows saving of current setting to PC or other repositury. From this saved file you can later restore this setting in a few levels – for example phone book only. It helps for example during installation of door entry in more entries to the building.

Configuration saving – after click to "Make" button will be offered where you can save the file

- **Configuration loading** by click to empty button will be offered file selection. Further is necessary select if phone book, network setting, SIP and other parametres have to be loaded. By click to "Make" button is loaded door entry petting from the file.
- Default (factory) setting is selectable in more levels:
 - **Erase phone book** erase complete phone book into default (all 999 possible items)
 - Factory network setting and SIP make default setting of network (IP adress 192.168.1.250) and erase SIP setting
 - Other parametres factory setting all remains parametres put to factory setting

By click to "Perform" will be done required setting/erasing door entry parametres.

3.6.3 Language and style

Current status Extinde settings Basic settings Extended settings Service Make Restart Configuration Style and language Image Logille User acoustic tomes	Alphatech VoIP doorphone			*
Current status Network setting Basic settings Extended settings Clean languages: Load language file: Make Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones		Stv	le and language	
Basic settings Make Extended settings Extended settings Clean languages: Load language file: Make Configuration Style and language Firmware upgrade Logfile User acoustic tones				
Extended settings Service Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones Clean languages: Load languages: Load language file: Make Make Make Make Make Make Make	and a state of the		Make	
Service Make Restart Save language file: Configuration Save language file: Style and language Make Firmware upgrade Logfile User acoustic tones Vertice	Extended settings		<u>_</u>	
Restart Configuration Save language file: Make Style and language Firmware upgrade Logfile User acoustic tones	Service	Load language file:	Make	
Style and language Firmware upgrade Logfile User acoustic tones				
Firmware upgrade Logfile User acoustic tones		Save language file:	Make	
Logfile User acoustic tones				
User acoustic tones				
Video camera				
	Video camera			

file Style import – by click to empty button select the file and by click to "Make" is style file (symbols and colours setting) loaded.

Clean languages – it allows erase all added languages except factory languages En+Cs (mark and click on perform)

File language import – by click to empty button select the file and by click to "Make" is new language file loaded.

File language export – after click on "Make" button will be performed language file export of just selected language

3.6.4 Style and language preparation

Style file is HTML file. WEBpage formating is included in this file. Requirement is basic knowledge of HTML language. For transparent editing we recommend use programm <u>PSPad</u>, symbols sada must be UTF8. Head of this file must be : <!--VIPM Style 3--> . It is not possible use style files from other door entry model.

To create new language we recommend following steps. Firstly make export of language file (language version of exported file is simultaneously selected language (flag in right top corner). Rename this file to new language and open in text editor (<u>PSPad</u> is recommended because file has rows ended by LF only and no CR+LF as usual). Character set select UTF8 and make translation. Save finished file (file name is language and no extension) and import to door entry. The flag will be assigned to language file automatically according row for example. SYS_FLAG="gb" for Great Britain.Country code examples (flag codes) are mentioned in bellow table:

CZ	Čzech republic	NL	Holand
GB	Great britain	IT	Italy
SK	Slovakia	DE	Germany
ES	Špain	PL	Poland
FR	France	HU	Hungary
GR	Greece	PT	Portugal

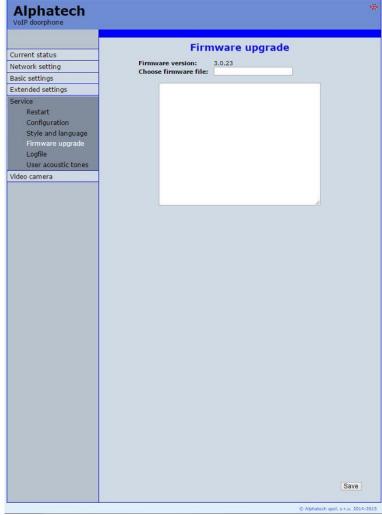
Further codes are according directive ISO-3166-1 alpha-2

Code examples of most often used languages:

CS	czech	nl	dutch
en	english	it	italian
sk	slovac	de	german
es	spanish	pl	polish
fr	french	hu	hungarian
el	greek	pt	portuguese

Further language codes are according directive ISO 639-1

3.6.5 Firmware upgrade



FW version – display present firmware version in door entry IP BOLD
 Firmware file – by click to empty field select file with firmware (for example apt.firmware it is not file *.zip, but already unzip file – on website are firmware files packed to archive *.zip)

In Windows is display proces so firmware upgrade. When from any reason (power failure, network disconnection etc..) firmware upgrade is not finished then you find backup WEB interface for repeating of firmware upgrade.

If you have any problem so is possible by switch of DIP 2 switch to position on and restart on adress 192.168.1.250 you find backup WEB

interface for repeating of firmware upgrade. After do not forget move back DIP switch 2 to position OFF.

After firmware upgrade make restart of door entry IP BOLD.

3.6.6 Logfile

Alphatech VoIP doorphone	5	*
	Lo	ogfile
Current status		
Network setting	Start enhanced log: Download log file:	Start Make
Basic settings	and the second	
	Show call log:	Show in new window
Extended settings Extended settings Service Restart Configuration Style and language Firmware upgrade Logfile User acoustic tones Video camera	Show call log: Syslog server:	Save
		© Alphatech spol. s r.o. 2014-2015

- Start enhanced log it is OFF in default to save processor efficiency. When you switch it ON then are save into internal memory detail information about door entry operation. It is very helpfull to solve different problems (compatibility etc..).
- **Download log file** after activation of enhanced log perform action which doesnt work correctly and immediatelly after performing click on button "Make". You save like this record of extended log file into file which you send to <u>www.alphatech.cz</u> for further analyses (see procedure. below).
- **Show call log** in new WEB interface window are online display information about making calls.
- Syslog server IP adress or server name of syslog server where will be sent records about IP BOLD door entry operation (do not forget setup NTP server for setting of internal door entry clocks otherwise records will be saved with incorrect date and time)



The procedure to download Enhanced LOG file. Really send by e-mail LOG downloaded file, do not send copies of screens, videos, etc.

- 1. Turn enhanced LOG (click Start). Before this step, it is recommended to restart the IP BOLD
- 2. Perform the action that you are interested in, where you have the problem
- 3. Immediately download the LOG file uploaded to your PC
- 4. This file be attached to e-mail a brief description of the problem and send (email contacts on www.alphatech.cz)

3.6.7 License

Alphatech		**
Current status Network setting Basic settings Extended settings Service Restart Configuration Style and language Firmware upgrade Logfile License User acoustic tones Video camera	License Some features of IP communicators are avail license key. Codec G729: Save The license is the license is	
		© Alabatach sool e so 2014-2015

This page allows extend door entry features about payable functions via licenses.For example audio codec G729.

After payment you receive license number by email

License validity shows if license is working correctly. The license code is connected to MAC number of door entry.

3.6.8 Sound files

Alphatech			*
Current status	User aco	ustic tones	
Network setting	Acoustic tone on button pressed:	Save Oland Blad	
Basic settings		Save Clear Play	
Extended settings	Acoustic tone on call start:		
Service		Save Clear Play	
Restart	Acoustic tone before call end:		
Configuration		Save Clear Play	
Style and language Firmware upgrade	Acoustic tone on call end:		
Logfile		Save Clear Play	
User acoustic tones	Acoustic tone on error:		
/ideo camera		Save Clear Play	
	Acoustic tone on remote busy:		
		Save Clear Play	
	Acoustic tone on unknown number:		
	Acoustic tone on unknown number:	Save Clear Play	
		Constant Resolution Constant	
	Acoustic tone on valid code entry:	Save Clear Play	
		Save Clear Flay	
	Acoustic tone during relay run:		
		Save Clear Play	
		in Alahatada spol. s r.o. 2014-2	

This page is designed for recording own (user) sounds signalling. By click on "Play" will be played currently active sound file (selection is permormed on page "Audio setting" eventually sound of relay closing on page "Relays"). *Attention files are recorded on a microSD card!* <u>Audio files: WAV – 8Kbit – mono – 16bit PCM</u>

4.1 Electrical parametres

Parametr	Value	conditions
Interface	Ethernet 10BaseT, 10	0BaseTx
VoIP protocol	SIP 2.0 defined RFC3	261
Default IP address	192.168.1.250	
Audio	G.711u, G.711a, G.7 G729 (optional)	26-32b, GSM, G722,
Band range	300Hz – 3400 Hz	
Echo supression	automatical	
Video	série JPEG, MJPG, s	tream H.263, H.264
Resolution	Max. 640 x 480	
Camera angle	110deg H x 110deg. V	
Power supply - adaptér	12Vss ± 2V , 12Vst ± 1V	
- or PoE	IEEE802.3af Altern.	A + B
Max. consumption	300mA	12Vss
Max. switching voltage by relays	48V	when I < 1A
Max. switching current by relays	2A	when U < 30 V
Temperature range	- 20 to + 80°C	

4.2 Mechanical dimensions

IP BOLD model	dimensions HxWxD [mm]
IP BOLD Tx	205 x 135 x 20
IP BOLD TxC	205 x 135 x 20
IP BOLD TKx	280 x 135 x 20
IP BOLD TKxC	280 x 135 x 20

Water proof and antivandal resistence of all models is IP44

4.3 Video parametres

Video formats: JPG, MJPG, H.263, H.264 Video for WEB:

Internet Explorer, Mozilla, Opera, Firefox... - (set of JPG pictures - Port 80) it is used repeated http request "IPadresa/video.jpg"

programm PopUp (UDVguard) - (MJPEG stream - Port 80) is used http request "IPadresa/video.mjpg" (sometimes is reload necessary to run).This video is more fluent and has less network strain.

Stream video for IP phones:

H.263 and H264 is established by IP BOLD door entry and IPvideo phone over SIP/SDP protocol on standard SIP port. The video (as same as sound) then runs by RTP protokol on ports agreed over SIP (usually 9078). rtsp request "rtsp://IPadress/video.264"

or rtsp request "rtsp://IPadress/video.263

Video parametres:

JPG Pictures are created in IP modul and for all transmit protocols are the same .The Size (resolution) of video is selected in "Video setting" on WEB. Maximal resolution is defined by USB camera type and mostly is 640x480 Stream H.263 knows CIF resolution (352x288). It means bigger JPEG is cut and smaller framed.

Frequency (1-15 picture./sec) JPG Picture is selected in "Video setting" on WEB.

Frequency MJPG and Stream H.263 coming from camera. It is used every second and reset is between 7-15 pictures/sec. Higher resolution brings decreasement of Pictures/ sec. (limited by processor efficiency)

Ports:

Port **80** for http (WEB pages even JPG / MJPG video on them) Port **5060** for SIP Ports PTP with opposite party communicates over SIP. Usually Port

Ports RTP with oposite party communicates over SIP. Usually Port **7078** suggested for audio and Port **9078** for video

Port 554 video(H264 and H263) provided by door entry (server) protocol RTSP

Audio files: WAV – 8Kbit – mono – 16bit PCM

- Setup: Default IP adress 192.168.1.250
- name: admin / password: 1234
- Telnet: name: root / password: 8765

Guarantee conditions:

The product was shop-checked. The producer guarantees that this product will keep the features described in these operating instructions in the course of guarantee provided that the user will be handled with it as described in the operating manual. Particularly the warranty does not cover damage from improper intervention via **Telnet**. The guarantee will be extended by period of possible guarantee repair.

When claiming in guarantee period please contact your dealer. The producer only will make the guarantee repairs. Attach the description of claim reason, proof of purchase and your exact address to the product.

The guarantee does not include:

- mechanical, thermal, chemical and other damages caused by user's activities
- defects caused by natural disasters
- defects caused by repair or changes carried out by user or other unauthorized person
- willful damage of product
- incorrect use of product caused by other use than specified in operating manual (e.g. installation, programming, improper use of Telnet)
- damages caused during product transport to customer and from supplier

Producer:	
Dealer:	
Date of sale:	

<u>**ALPHN**</u> Tech

© Alphatech spol. s r.o. 2014-2015 version V1.2