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Video Entry System IP Video Intercom



Installation Manual and Programming Guide





Integrated Solutions





IP Video Intercom

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Technical Specifications



Entry Panels



Outdoor Panel Functions

- Video Intercom with Indoor Monitors and optional management center
- Optional IC/ID/RF card reader (A9K & DRCR Only) (max # of fobs = 10,000pcs)
- Passcode Entry (ASK Only)
- Supports SIP 2.0 Protocol to communicate with IP phone and SIP software
- Infrared Detection

NT-IP-A9K

- Operating Voltage: 12V DC
- Power: 6W Operating | 3W Standby
- Display: 4.3" TFT LCD (480x272)
- IP Rating: IP-54
- Dimensions: 6.1" (W) x 14.76" (H) x 2.05" (D)
- Operating Temperature: 14°F~131°F



NT-IP-DRG

- Operating Voltage: 12V DC
- Power: 5W (Operating)/2.5W (Standby) POE Ready
- IP Rating: IP-55
- Dimensions: 3.94" (W) x 6.30"
 (H) x 1.85" (D)
- Operating Temperature: -40°F
 ~ 158°F



NT-IP-DRS1

- Operating Voltage: 12V DC
- Power: 5W (Operating)/2.5W (Standby) POE Ready
- IP Rating: IP-55
- Dimensions: 3.94"(W) x 6.30"(H) x 1.85"(D)
- Operating Temperature: -40°F ~ 158°F



NT-IP-DRCR

- Operating Voltage: 12V DC
- Power: 5W (Operating)/2.5W (Standby) POE Ready
- IP Rating: IP-65
- Dimensions: 4.57"(W) x 7.56"(H) x 1.85"(D)
- Operating Temperature: 14°F~131°F



Tech Specs Cont'd

Monitor



NT-IP-G9W-S & NT-IP-G9W

Operating Voltage: 12V DC (POE)

Power: 6W (Operating)/2.5W (Standby)

Screen Size: 7" @ 1024x600 Resolution

Dimensions: 9.25" (W) x 5.71" (H) x 0.77" (D)

OS: Android 4.4 KitKat

Internal Storage: 4GB

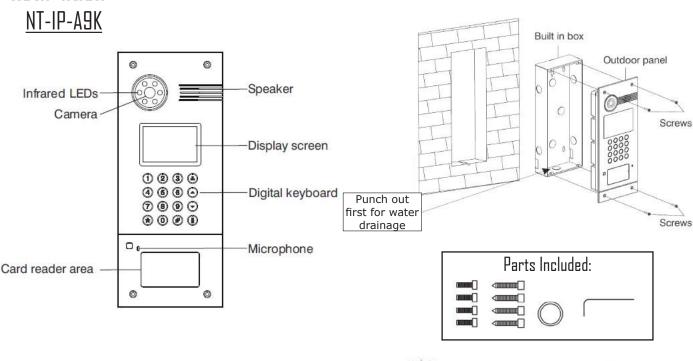
SD Card Maximum: 32GB

Model NT-IP-G9W-S includes BEC SIP Server Access

Monitor Features

- VOIP: Supports audio/video calling over IP networks, monitoring network door panels & cameras, and call logging.
- Security: Supports up to 8 alarm zones with 3 states, with built-in zone/scene setup.
- Smart-Home: Can interface with a smart-home system via RS-485 communication.
- Android Features: Ability to install apps via android APK files.
- Built in Micro-USB port for power & data transfer.

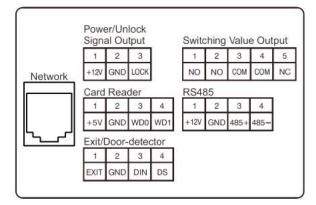
Installation





A9K Connections & Wiring

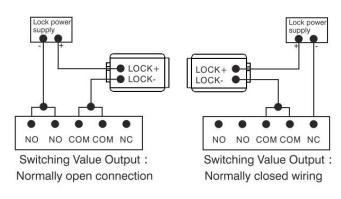
Rear Connections



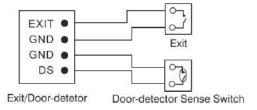
RS485 Interface



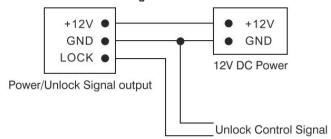
Switching Value Lock Wiring



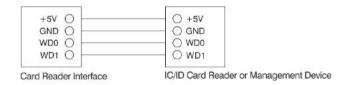
Door Detection & Exit Switch



Standard Lock Control Signal



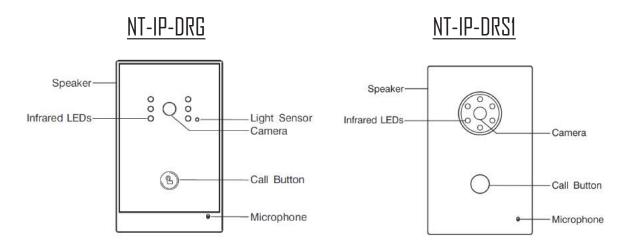
Card Reader Interface

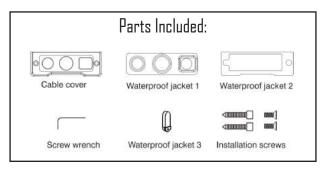


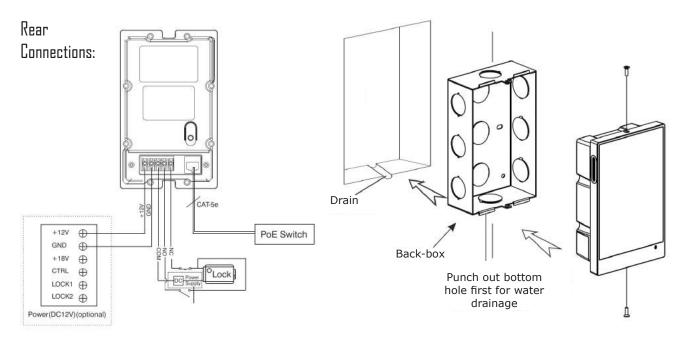
Notes:

- The standard control signal can be used with an Altronix 6062 relay to handle the lock connections with any lock 9-24vDC or AC.
- The switching value connection supports a max current of 3.5A and requires an external PSU for your lock. When the outside power is off, the NO and NC terminals are opposite from normal operation.
- The optional RS485 header enables connections between compatibile equipment. Capable of 12v/100mA power output.
- Exit/Door Detection header allows for an internal exit switch and a sensor to know when the door is open or closed.
- The card reader interface can read keyfobs from a standalone controller. If unit has reader built-in, it cannot be used.



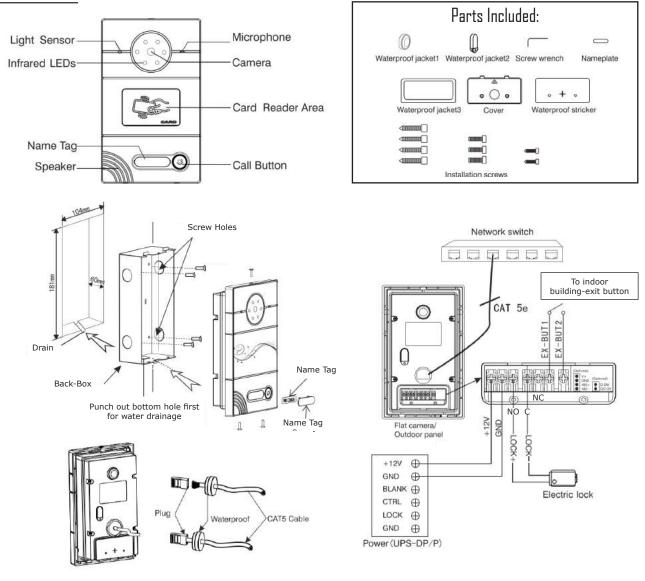








NT-IP-DRCR



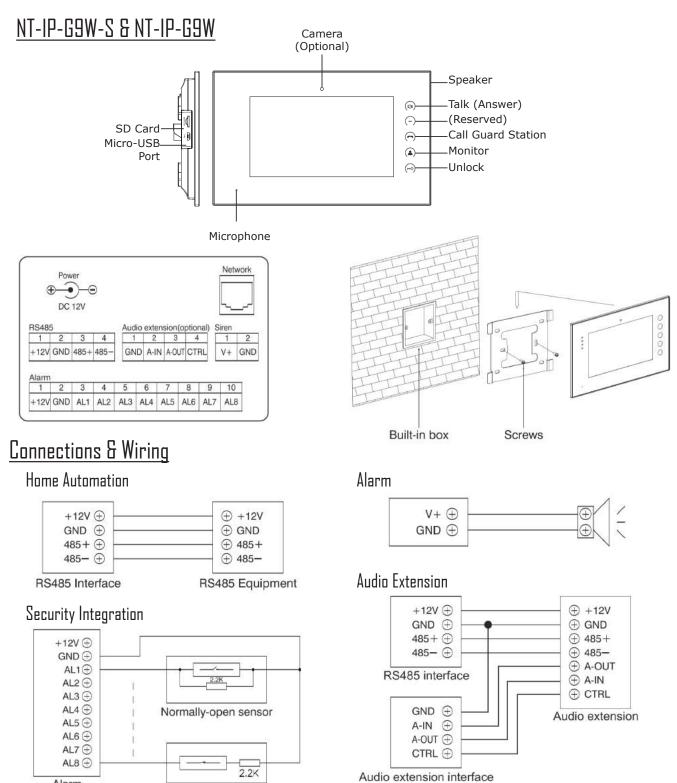
A Note on Lock Wiring

All IP door panels are designed to operate an electric strike, available as a "slim-style" 12vDC strike plate from BEC, however any type of lock can be used if wired to the dry contacts on an Altronix 6062 relay, also available from BEC. You must include an external power source for your lock. If you need assistance with lock wiring, please contact either BEC technical support, or your lock manufacturer for further support.



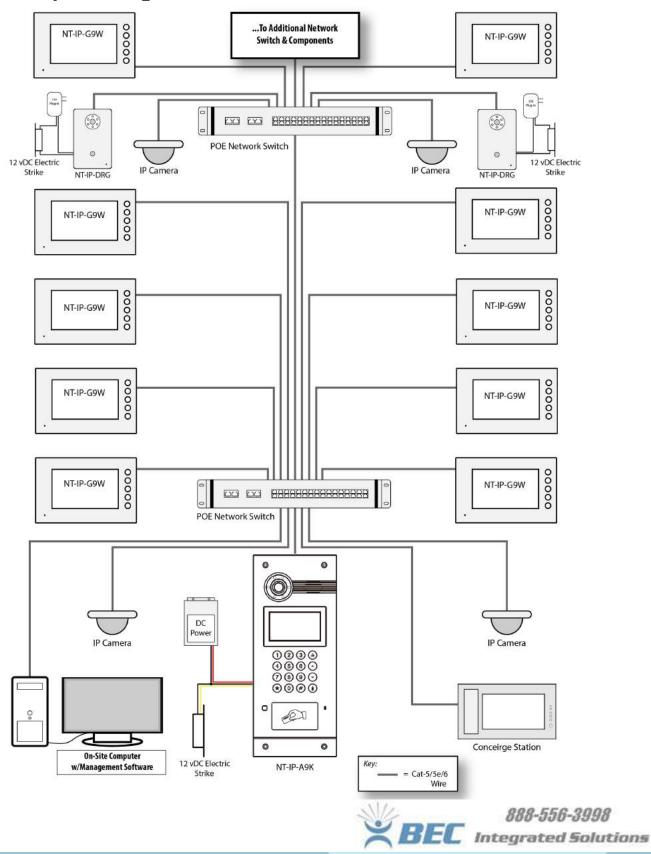
Alarm

Normally-closed sensor





General System Diagram



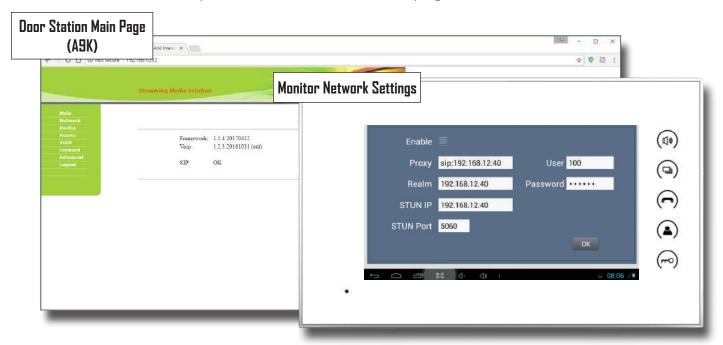
Quick Overview

Before setting up your system, consider the amount of time it would take you to go room-to-room to program your monitors. In a large environment with many monitors, it may be extremely time-consuming to program on-site. In this case, we recommend setting up all monitors locally, one-at-a-time, then installing them in their assigned rooms. This ensures, not only will the monitors be plug-and-play at that point, but you'll have an understanding of the basic system functionality, before your scheduled installation date.

To begin, you'll need to set the IP address of each monitor and door panel either at each component, or through a network connected computer using the **default IP: 192.168.68.90** for each device, one-at-a-time. ***NOTE*: You'll have conflicting IP addresses out of the box** if more than one deviced is connected to the network.

Once addressed, you'll need a laptop or computer connected at the switch, or within your network to access the online settings. To access your online settings out of the box, you'll need to set the PC's ethernet controller's IPv4 address. Assign the PC's IP to 192.168.68.xxx (x=# of your choice), with a default gateway of 192.168.68.1. You can then type in the IP address in a browser window of your choice, enter the admin credentials (default=admin:123456),then adjust settings using the device's graphical user interface (GUI).

Note: All door stations, except the full-sized A9K model, must be programmed over the network.





NT-IP-G9W-S & NT-IP-G9W

7" Touchscreen Monitor



Main Taskbar: VOIP, Security, Smart, Service, Contact, Calendar, Mediaplayer, and About

Top Shortcuts: Elevator, Out/Secure, Unlock, and Apps

- 1. Missed and unread notifications will appear on the left widget interface.
- 2. Weather icons and information is synchronized using NTP.

Bottom Navigation Bar: Previous, Home, Multi-Tasking, Volume -, Volume + will appear when outside of the home screen.

- 1. Return ☲: Tap to return to the previous screen.
- 2. Home 🕿: Tap to return to the home screen.
- 3. Multi-Tasking =: Tap to display currently running apps.
- 4. Volume- **■**: Tap to decrease volume.
- 5. Volume+
 ☐: Tap to increase volume.

Physical Buttons (Right)

- 1. Talk (Answer)
- 2. (Unassigned)
- 3. Quick Dial Management Center
- 4. Monitor
- 5. Unlock



VOIP Menu

Tap VOIP to open the VOIP menu (shown right) -

Call - Tap the call icon to enter the dialing menu.

- To call a network monitor type the 1-3 digit building no. + "Building" + 2-digit unit no. + "Door" + 4-digit room no., then click to call. (Ex. 1+Building+1+Door+0207). The system will enter into the calling menu, and the called monitor will ring.
- In the calling menu, press to answer the call, press to ounlock the door, and press to end the call.
- While in an active call, press to take a snapshot, or to start a recording (Photos and recordings will be saved to external SD card if installed).
- Tap "center" to call the management center.

Monitor - Tap to open the monitor menu

- Press o to begin monitoring the camera feed.
 Press or to switch cameras. Press to end. Press to unlock.
- Press "DoorO1" to switch from outdoor panel to flat camera modes.
- Monitoring will time-out in 25 seconds.





Dialing Menu



Calling Menu





VOIP Menu Cont'd

Monitor Menu



Records Menu



Room Settings



Records - Tap to open the records menu.

- Represents call-dialed
- Represents call-received
- Represents call-missed
- Select one record, press
 ■ to call; Press
 ■ to delete;
 ■ to back-up. If record has image attached, press
 ■ to view it.

Room - Tap room to enter room settings menu (Default Pass: 123456)

Note: Please revise the 6-Digit Sync # ASAP to prevent conflict. The sync # is used to synchronize multiple devices in one household.

- Building No. Max 3-Digits (Ex. 001)
- Unit No. Max 2-Digits (Ex. 01)
- Floor No. Max 2-Digits (Ex. 03)
- Room No. Max 2-Digits (Ex. 10)

For this example, when calling from an outdoor panel, you would dial 0310# (Floor + Unit + #).

 Device No. - Set to D for master device, 1-5 will be set as "slaves" (sub1-sub5).

Additional devices will need the same SYNC # and set to device I to 5 (including within the IpCalls smartphone app).

 Server & Password - IP Address of the Management PC running the available software. (Default Password: 123456 - set on PC)



Features & Set-Up VOIP Menu Cont'd

VOIP - Tap VOIP to enter the VOIP Menu.

For SIP/cell forwarding mobile app setup instructions, please see the **NT-Setup Guide** included with your shipment, or available from support@becsolutionsllc.com.

BEC will provide SIP Server access for call forwarding to a mobile app on a North American based server ONLY on the "G9W-S" monitor.

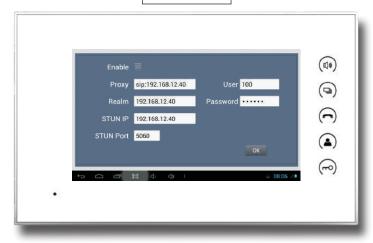
There is an annual fee associated with the callforwarding service PER DEVICE/SMARTPHONE of \$30 each for up to 3 devices, or \$100/year for 4 or more devices. Please contact BEC or your system administrator for further information!

Internet connection will be required for cellphone access

Settings - Tap Settings to open intercom settings.



VOIP Menu



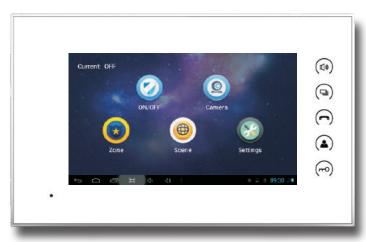




VOIP Menu Cont'd

Settings Menu

- Intercom Camera (Disabled on G9W & G9W-S), Message ON/OFF, Auto Answer ON/OFF, Volume
- Network Settings
 - DHCP: To automatcially assign an IP address, turn this ON, otherwise adjust the following settings:
 - IP Address: Type an IP address to network your monitor to the system. Each IP must be unique. (Example: 192.168.1.240)
 - Mask: Default = 255.255.255.0 usually, this does not need to be changed.
 - Gateway: By definition, the default address of your router must be the same on all monitors. (Example: 192.168.1.1)
 - DNS: If the indoor monitor is communicating to the internet, this must be set correctly.
 (Typical default address would be 8.8.8.8 Google Public DNS)
- Password Used for system settings (Default = 123456). Can be 1-16 digits.
- QR Code Used with the IpCalls system application available for smartphones. System settings will be syncrhonized automatically, but only available for use on the local network.



Camera - Press camera to enter the IP camera menu.

- Tap
 ○ to begin monitoring camera. Press
 ○ to stop.
 Select a specific camera using the
 ○ or
 ○ keys
- To setup camera access, log into the monitor webpage via IP address in a web browser.

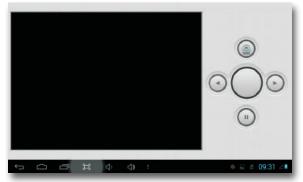
Use credentials: Username=user; Password=1234

Security Menu

Tap Security on the home screen to enter the security menu.

ON/OFF - Tap to enter the security mode selection menu. Tap "Out", "Home", or "Sleep" to activate the alarm system. System sounds 2-beeps and icon appears at the home screen when active.

Press "OFF" when system is active to disarm.
 (Default Pass = 1234).





Features & Set-Up Security Menu Cont'd

Online IP Camera Menu -

- Set max no. of cameras
- Type in a name for the camera.
- Type in the address of your camera in RTSP format.

rtsp://user:password@192.168.1.Xx:xxxx/ch01

Zone - Tap Zone to open Zone Menu

 You can adjust the Type, Mode, Delay, and Sensor mode by tapping on the index within the table shown below.









Security Menu Cont'd



Smart Home Menu

Tap Smart to enter into the smart home menu.

Currently, these functions are unsupported by BEC, but will be in the future. Check with your smart home device manufacturer. If you have questions, please call us at 888-556-3998 to speak with a technician!





Scene - Tap scene to enter scene menu (Left).

- Checked options will be active alarms, unchecked will be inactive within the 3 modes.
- Tap activation time to select between NONE, 30s, 40s, 60s, 100s, or 300s.

Settings - Tap settings to enter the security settings menu (Below).

 Here you can adjust the security/alarm password (Default = 1234)







Features & Set-Up Smart Menu Cont'd



Service Menu

Tap Service to enter the service menu.

These links can be adjusted online via the monitor's web-interface from the network computer.

SMS - Can store 64 messages sent from PC using available management software.

Default links can be set to any online webpage through the monitor's online interface.



Online Settings

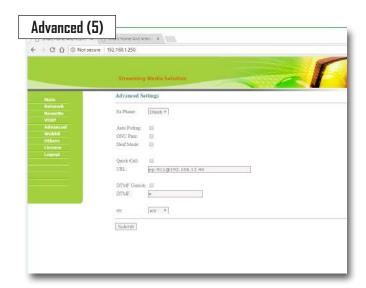


Online Settings - Accessed @ IP Address of monitor (Note: .

- 1. IP Address/DHCP/Gateway/DNS Addresses can be addressed here. See pg 14. for further info.
- 2. SIP Addresses can be entered here as well as the monitor. See pg 13. for further info.
- 3. Room Number, Floor Number, etc. can all be adjusted here. See pg. 12 for further info.
- 4. Webkit allows you to address the links within the service menu to Gov, Cook, Mail, Map, and Browser.



Features & Set-Up Online Settings Cont'd



Online Settings - Accessed @ IP Address of monitor.

- 5. Advanced Settings -
 - ExPhone: Input IP Address of other SIP/VOIP device as the sub deivce of indoor monitor. When outdoor panel calls indoor monitor, IP device will ring at the same time.
 - Auto Pickup: Checked, the indoor monitor will answer after unanswered 10s.
 - Quick Call: You can address a device to ring when the "Center" button is pressed under the Calling menu.



Additional Notes

- The micro-usb port on the side can be used to connect to computer's usb-port to transfer media files or Android application files (.apk).
- You can access the *Android* system app drawer via the main screen, and tapping apps in the upper right corner. Navigate to settings to adjust additional settings such as date & time, system info, and to turn on "Install from Unknown Sources". This is required to install additional apps such as the Android Play Store, if desired.
- Monitor footage/photos can be removed via MicroSD or micro-USB cable.



Features & Set-Up Door Station Settings



NT-IP-DRG





NT-IP-DRS1

NT-IP-A9K



NT-IP-A9K Set-Up

Basic Operation

- When programmed as an "outdoor panel", type at least 3 digits (floor + room) to call a room. (Example: 0312#)
- When programmed as a "wall station", type the building no. + #, unit no. + #, + Room no. + # (at least 7 digits).
- If room exists, monitor will dial and room monitor will ring. If device not found, a failure tone and message will appear. If indoor monitor is busy, "Busy" will appear.
- During communication, "*" will end the call.

Unlocking the Door

- Press # then type the access password (Default = 0000). Press # to confirm. If password is correct, door will unlock. If incorrect, an error will sound.
- To unlock via IC/ID card, swipe or place the fob on the card reader area of the panel. If registered, the door will unlock.



Features & Set-Up A9K Door Setup







Panel Settings - Press '#' TWICE to bring up the admin prompt then type the admin password (Default = 123456)

To navigate through the menu, press 2 or to go UP, press 8 or to go down. Press '#' to confirm; press '*' to return.

I. Device Settings

- Device Mode: Choose between "Unit Panel" or "Wall Panel" Unit panels can call monitors within only that unit, while wall
 panels can call any monitor within your network.
- Language Settings
- Volume: Set volume from 1-6, 6 being the loudest.
- Size: Screen resolution, choose between 230x240, 640x480, or 1280x720
- Password: Admin password for device settings.
 (Default = 123456)

2. Network Settings

- DHCP: Enable/Disable
- IP Address: Set for network access. Must be unique.
- Mask: Default Mask = 255.255.255.0
- Default Gateway: Default is 192.168.68.1
- DNS: Default = 8.8.8.8
- Server: Refers to the network PC running the management software. Default = 192.168.12.40

3. Access Settings

- Timeout: Controls how long the unlock will hold for. Set from 1-9 seconds. Ineffective if using an Altronix 6062 relay.
- Delay: Controls a delay between user pressing the unlock key on a monitor and opening at the door. Set from 1-9 seconds.
- Password: Sets the unlock code for passcode access to the building. (6 digits)

4. Misc Settings

- The "RoomNum" setting is to assign a keycard to a room #.
- Reboot: Set to 1 to reboot the panel.
- Default: Set to 1 to set to system defaults.



Features & Set-Up A9K Door Setup Cont'd

2	Network Se	ttings		Streaming Media Solution
on 555 555 55 55 55 55 55 55 55 55 55 55	DHCP: IP: Mask: Gateway: DNS: Server IP: Password: Submit	192,168,1,252 255,255,255,0 192,168,1,1 8.8.8.8	Main Network Device Axxes VOIP Forsyard Advanced Logost	Device Settings
_		d through assigned ll based computer.	3	Submit

1. Network Settings

DHCP: Enable/Disable

IP Address: Default = 192.168.68.90

Default Mask: 255.255.255.0Gateway: Default = 192.168.68.1

DNS Address: 8.8.8.8

Server IP: Address of the management PC

Password: For PC access (default = 123456)

2. Device Settings

- Build and Unit Number need to be the same of the Outdoor Panel.
- Unique for the Outdoor Panel. Max of 9 outdoor panels.
- Sys Password: Default = 123456; this changes the login password for online access, and panel admin settings outside.
- Panel Mode:
 - Unit panel Used in one unit; calls residents and guard station. (This is the most common mode).



- Panel Mode Cont'd
 - Wall panel Used at a community entrance; calls outdoor panels, residents, and management center.
 - Personal Panel N/A
- Panel volume and language can be adjusted as well.
- Forward: Change between "All at Once" or "One by One" to change the call fowarding behavior.



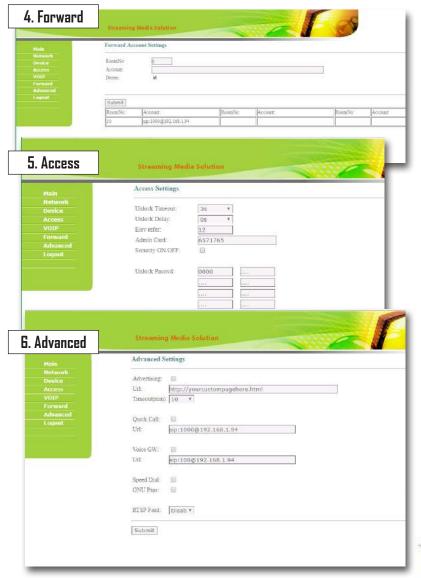
A9K Door Setup Cont'd

Online Settings - Available via assigned IP Address of the door station.

3. SIP Settings

- User & Password: Assigned by the SIP server.
- Screen Timeout: 2m, 5m, 10m, 20m, or 30m.
- Ringing: Time in seconds the user will have to answer the call at the monitor.

Further SIP/Call Forwarding information can be found on the NT-Setup Guide document included in your shipment, or available via email by contacting support@becsolutionsllc.com.



4. Foward

- Room No.: Calling-code to assign forwarding rule to
- Account: SIP/VOIP IP Address to foward a missed call to. Calls will forward to cell phone app if successfully authenticated.

5. Access Settings

- Unlock Timeout controls time lock is open (1-9s) Ineffective if 6062 Relay is used.
- Unlock Delay delay from monitor to door (1-9s)
- Elev Refer is used for setting the floor # from 01-99 for your elevator control module.
- Admin Card: Required to program your keyfobs via built-in reader:

To program your fobs, you must first browse to the online interface, and in the "Admin Card" field, type in the last 8-digits of an ID card/fob to assign your admin card. If admin card # is unknown, type 0, hit "submit", then swipe your desired admin card. To program fobs to the panel, swipe the admin card at the reader, swipe fobs to program, then swipe the admin card once more.

- Security On/Off: Arming is only at a secondary panel, unit panel only supports disarming by card.
- Unlock Password: Used for unlocking by passcode at the door keypad. Default = 000000. 8 different passwords can be created.



A9K Door Setup Cont'd

Online Settings - Accessed @ IP Address of door station.

6. Advanced Settings

- Advertising: Check the box to have the panel automatcially display the webpage input into the URL field.
- Quick Call: Check the box to enable to assign monitor's "Center" button in calling menu to call web address typed into the URL field.
- Speed Dial: Press one # key to give a direct call.

Additional A9K Notes

- "SIP: OK" will show on the online homepage when SIP account is successfully authenticated.
- The BE-KF keyfobs/ID cards can be entered into the system online using the last 7 digits printed on the fob. The admin card is required to program fobs.
- To program fobs, swipe the admin card once, swipe all fobs to be programmed, then swipe admin card once more.

7. Phonebook

The A9K panel (Firmware 1.6.0 or later) includes a resident directory! If you are in need of the latest software update, please contact our tech support department for the .img file.

To set up the phonebook for easy calling:

- Navigate to the "Phonebook" menu on the left of the GIII
- Type a name in the Name field that will display on the panel's screen, along with the corresponding monitor to be called in the "Room No." filed (must be 4-digits; ex. 0104)







- Hit submit to save your entries
- To remove, click directly on the Name in the chart below, then click delete.

To scroll through the list of names on the panel, press either the UP or DOWN key on the panel to view the list, and press "#" to call.



Features & Set-Up Single-Button Door Setup (NT-IP-DRS1 & NT-IP-DRG)

Connect to your door panel's online GUI with the default IP address: 192.168.68.90 (Login with: admin; 123456)



NT-IP-DRG

1. LAN Setting

- IP Address: Must be unique in the LAN (Default IP = 192.168.68.90)
- Mask: Default mask = 255.255.255.0
- Gateway: Dependent on the IP address (Default Gateway = 192.168.68.1)
- DNS: Typically 8.8.8.8
- Server IP: Assigned IP Address of management PC running the corresponding software.
- NTP: Network Time Protocol -(Default = ntp.nasa.gov)

2. Device Setting

- The building and unit no. should be the same of corresponding indoor monitor.
- No.: Outdoor panel no. (1-9) Maximum 9 outdoor panels.
- System password: Change the online login password (Default = 123456)
- Panel mode: Choose between wall panel or personal panel.
- Ring back: Choose the tone to playback at panel.

3. Access Setting

- Unlock timeout: Set the door open for 1-9s.
- Unlock delay: Set the delay from monitor to door for O-9s.
- Unlock Password, Elev Refer, Admin Card are disabled (N/A)

4. VOIP Setting

Input Relevant SIP Server Information
 (See A9K page for default addresses and field descriptions)

5. Forward (Call Transfer)

 Call Indoor Monitor: Monitor can be assigned an IP address to call if there is no answer within 25 seconds. Input room No. of indoor monitor then input sip account address. (Example: sip:1000@yoursip.domain.com)

One-Button Reader Setup (NT-IP-DRCR)



NT-IP-DRCR

Press call button to call assigned monitor.

Swipe programmed ID Card at panel to unlock door.

To access the online settings menu, type in the IP address in a browser window on a network-connected PC. (Default IP = 192.168.68.90)

All programming functions are the same as other single-button panels, with the exception of the access settings to allow for card reader programming.

To program your fobs, you must first browse to the online interface, and in the "Admin Card" field, type in the last 8-digits of an ID card/fob to assign your admin card. If admin card # is unknown, type 0, hit "submit", then swipe your desired admin card.

To program fobs, swipe the admin card at the reader, swipe fobs to program, then swipe the admin card once more.



Management Software

Please see additional management software manual for further assistance with software setup.

Troubleshooting & Other Info.

For assistance with BEC Server Connectivity, please refer to the NT-Setup Guide, or contact us at 888-556-3998 for further setup help.

All systems will be shipped with an Altronix 6062 relay for unlocking. This relay is compatible with all types of locking mechanisms, so long as a compatible power supply is provided for power. Please contact technical support for custom locking diagrams if you have an alternative lock.

There is a 1 year limited warranty available on each component beginning at the time of purchase. Please contact technical support at ext. 4 for troubleshooting assistance. We will issue an RMA and replace the unit if found defective after troubleshooting.





We hope you enjoy your new IP based video entry system! We are excited to introduce this to our current lineup of available intercom systems and believe this system will withstand the ever changing market of entry-technology.

If you have any questions, or would like to speak about any issues you come across during your usage, or are interested in additional systems for your future projects, please call us at our main line, or email support@becsolutionsllc.com and we will do our best to meet your needs!







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