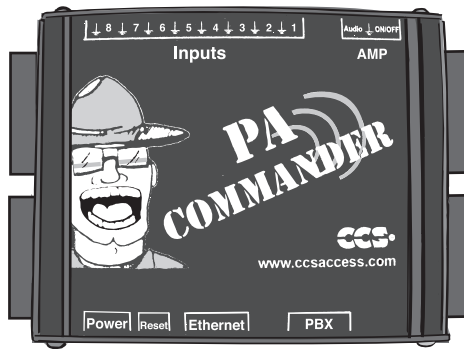# PA COMMANDER

User Manual

Congratulations! You are now the new proud owner of PA Commander. You will find that PA Commander meets your automatic announcement needs.

The unit combines different external resources with easy programming on a web browser. This makes PA Commander an effortless solution to communicate information.

This manual will provide you with the information you need for installation, set up and product specifications. We have included everything you need to get up and running quickly. Thank you for purchasing PA Commander.
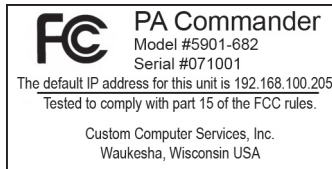
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CCS. Inc

Custom Computer Services, Inc.
Waukesha, Wisconsin, USA
262-522-6500

TABLE OF CONTENTS

GETTING STARTED

1.1 Package Contents
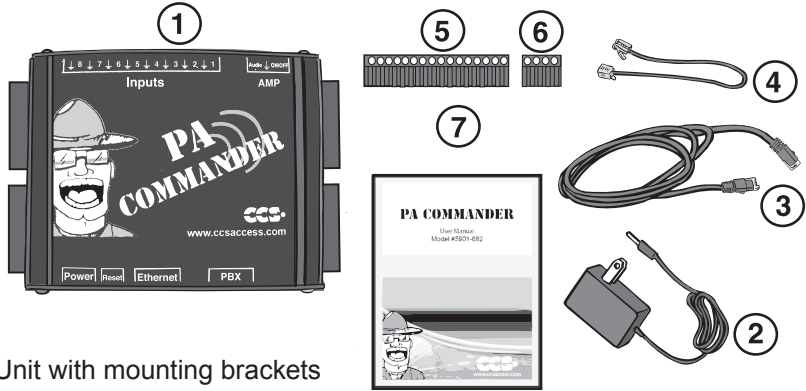
① PA Commander Unit with mounting brackets
② 9V Power Supply
③ Ethernet Cable
④ PBX Cable
⑤ Input Connectors
⑥ Amp/Audio Connector
⑦ User Manual

1.2 PA Commander Inputs and Ports

Mounting Brackets

(Figure 1)

(Figure 2)

(Figure 3)

A B C D

E   F
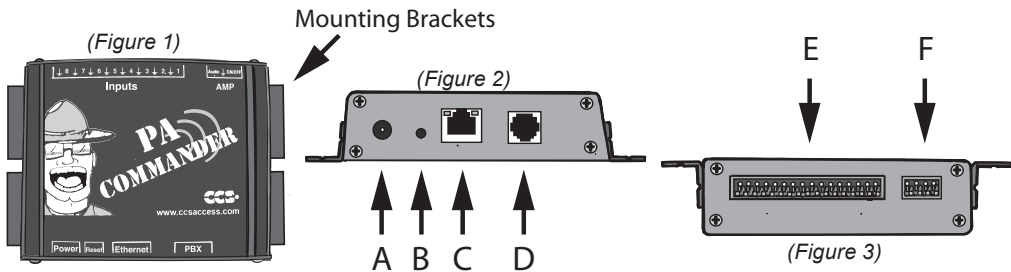
Ⓐ Power Connector
Ⓑ Recessed Reset button
Ⓒ Ethernet Connection
Ⓓ PBX Port
Ⓔ 16-pin Connector for sensor inputs
Ⓕ 4-pin Connector for Amp/Audio

1.3 Installation

1.3.1 Mount the PA Commander unit (#1) at the desired location where there is access to the PA or Phone System, Ethernet and a wall outlet.

1.3.2 Insert the 9V power supply (#2) included with PA Commander to in the slot labeled 'Power' (see Figure A) and the other end into a wall outlet.

1.3.3 Insert the Ethernet cable (#3) into the port labeled 'Ethernet' (see Figure 2-C) and then into a network-enabled router, switch or hub. When the device is powered and the Ethernet port detects a connection, the illuminated red LED indicates a link and the blinking green LED indicates activity on the network.

1.3.4 **Connect PA Commander to an analog phone line or a PA system.**

Using the PBX cable (#4) provided, insert it into the port labeled 'PBX' (see Figure 2-D) and the other end directly to the Phone system. PA Commander is enabled to use a PA system accessed through the phone system. Do not connect directly to a digital phone line. This step is not required for installing PA Commander directly to a PA system.

To Installing PA Commander directly to a PA system.

When connecting to a PA system, use the supplied 4 pin connector (#6) at the end of a cable. The PA Commander can also be directly connected to an amplifier or amplified speaker system (see figure C). The Audio and Ground pins carry the non-amplified audio signal from the PA Commander to an amplifier. The ON/OFF pins are used to control the audio system. An internal relay will connect the two pins when a phrase is being spoken by the PA Commander. Use the ON/OFF pins to connect a power source to an amplifier enable input.

Test your unit by following the instructions under "Configuration Screen" and the 'Speak Now' feature on the Home page.

1.3.5 The last stop is to determine what inputs you would like configured to PA Commander. Once you have chosen up to eight different inputs, the 16-pin connector (#5) provided to hook-up the sensors to the unit (see Figure 3-E). The PA Commander can be programmed to react based on the behavior of the inputs that are wired into the 16-pin connector. Connect to an external circuit or device based on the desired input characteristics. See the Input Configuration section for details on the many ways these inputs can be configured. The PA Commander's inputs share a common ground line, therefore when connecting multiple inputs from the same device or circuit, only one ground connection needs to be made.

INPUT CONFIGURATIONS

The inputs on the PA Commander can be individually configured as either voltage-detector or contact-closure types. This can be done in the unit's View/Modify Inputs page.

The inputs are grouped into eight inputs to two pins each. Both pins must be connected to the input source, but the method will vary depending on the type of input.

2.1 Voltage-detector

Voltage-detector inputs will activate when the voltage on the input pin exceeds 2.0V. Voltages greater than 12V can cause damage to your PA Commander. The input will be interpreted as low when the voltage is less than 1.0V. Voltages between 1.0-2.0V are not damaging, but may produce unexpected results. Do not apply negative voltages to the PA Commander input pins.

When configured as a voltage-detector, the input pin should be connected to a circuit or device with the output voltage described above. The ground pin is connected to the circuit or device's ground. The eight ground inputs on the PA Commander are internally connected, so if multiple inputs from the same device or circuit are used, only one ground connection needs to be made.

2.2 Contact-closure

Contact-closure inputs are activated when the two pins of input is connected. Unlike voltage-detector inputs, contact-closure inputs do not require the device triggering the input, to supply any voltage to the PA Commander.

Commonly contact-closure inputs will be used in conjunction with a switch or button. The input pin is connected to one side of the switch or button, and the input's ground pin is connected to the other side of the switch or button. When the switch is closed or the button pressed, the input will be activated. The total resistance of the switch and wire used in the circuit must be less than 500Ω or the PA Commander may not detect the input. A contact-closure input will have up to 3mA of current flowing through it when activated.

WEB INTERFACE

The PA Commander is configured through the use of a web browser that connects to web pages stored in the internal memory of PA Commander. To access these pages, connect the Ethernet and power cords as described in the Installation section. Open a web browser (Firefox, Internet Explorer, etc) on a computer that is connected to the same network that the PA Commander is connected. In the address bar, type in the IP address **192.168.100.205**—this is the default IP address of the PA Commander. From here, you are able to access all of the features of the PA Commander.

3.1 Configuration Page

To begin, enter the IP address from above and then select the configuration button. From this screen, you can view and change the IP configuration, time, and phone settings of the PA Commander. Simply modify the setting that you would like changed and click the appropriate Submit button.

IP Settings:

DHCP:
DHCP is a networking protocol that allows for unique IP address to be assigned dynamically to each device on a particular network. In order for DHCP to work, there must be a DHCP server enabled on the network. If DHCP is enabled, the IP address, netmask, and gateway will be displayed but will may not be changed. The default setting is DHCP disabled.

IP Address:
All devices on a network must have a unique IP address. The default IP address for the PA Commander is 192.168.100.205. IP addresses in the range 192.168.0.0 through 192.168.255.255 are reserved for private networks and therefore, will likely be used for the PA Commander.

Netmask:
The netmask is used when translating an IP address from a local network to a different network over the Internet. The default value is 255.255.255.0. If the device is only being accessed from the local network, then the default value does not need to be changed.

Gateway:
This is the IP address of the node in the network that acts as an interface from the network to the Internet. The default gateway is 192.168.100.1. If the device is only being accessed from the local network, then the default value does not need to be changed.
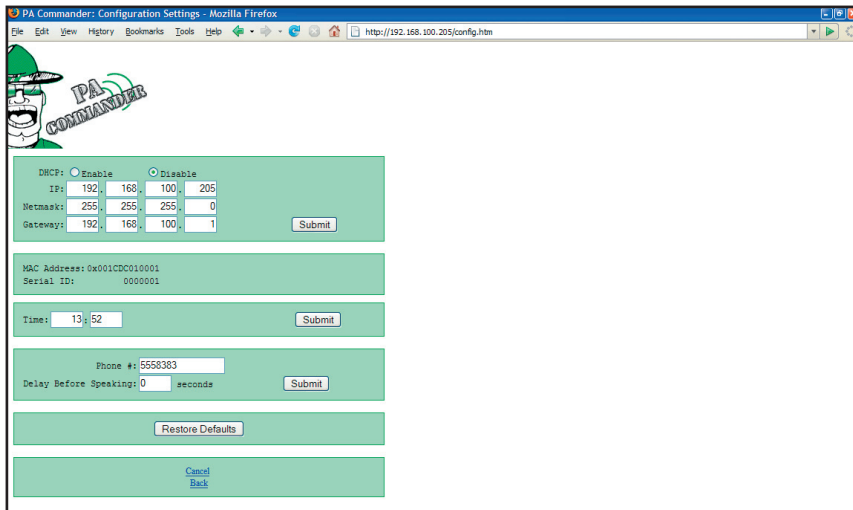
Below the IP settings, is the MAC address and assigned serial number. These settings are for reference only and may not be changed.

Any changes to the IP settings will not be immediately taken into effect, but will be saved in the PA Commander's internal memory. The PA Commander must be manually reset for the new IP configuration to take effect. Note: when resetting the PA Commander after changing the IP configuration, quickly press the reset button. Holding the button for five seconds or more will result in the IP settings being restored to their factory defaults.

After being reset, the PA Commander will broadcast its IP address over the network five times. This allows users to determine the IP address if DHCP is enabled, or if the IP address is forgotten. The message is broadcast on UDP port 6123 five times with a three-second gap between broadcasts. The most common way of viewing this message is through the use of a network analyzer (also known as a packet sniffer, protocol analyzer, or Ethernet sniffer) program, although other methods do exits.

The IP settings may be reset to their factory default values by holding the reset button for approximately five seconds. After this time, the two lights on the Ethernet jack will flash indicating the PA Commander's IP settings were successfully reset. Resetting the IP configuration in this manner will not delete the other settings.

If the default IP configuration does not allow you to access the PA Commander in its factory state (for exmple, if there is another device on the network that has the same IP address as the PA Commander's default IP), DHCP may be enabled on the initial power-up. Simply hold the reset button with the power cord disconnected from the PA Commander. Continue to hold the reset button while plugging the power cord into the PA Commander. When the PA Commander detects the reset button on power-up, it will automatically enable DHCP, allowing the DHCP server to dynamically assign an IP address to the PA Commander. There must be a DHCP server enabled on the network for this method to work.

Phone Settings:

Phone #:
This is the phone number that will be dialed when a phrase is activated or the Speak Now button is pressed. To access the PA system or the extension that should be called. A phone number may consist of up to fifteen digits.

Delay:
PA Commander can be set to delay, in seconds, to wait between dialing the last digit of the phone number and speaking the designated phrase. This is to accommodate for the delay of a PA system, or the approximate length of time for a person to pick up their phone. The PA commander will automatically speak the specified phrase after this length of time and will not wait for the other end of the phone line to be picked up.

Restore Defaults:

This button will restore the PA Commander to its manufacturing default state, however, the IP configuration will not be changed. To restore the default IP configuration, hold the reset button for approximately five seconds as described in the IP Settings section.

Return to the Home page for additional options in programming the unit. Click on the PA Commander image in the upper left corner to return to the Home page.

3.2 Home Page

Home is the first page after loading the PA Commander's IP address in the web browser. Access the other pages that allow for customization of PA Commander.

Type a phrase for PA Commander to speak immediately. Click the Speak Now button. The PA Commander will dial the phone number specified in the configuration screen and speak the typed phrase. The web browser will temporarily pause while waiting for the PA Commander to finish speaking the phrase.

3.3 View/Modify Inputs Page

Inputs page allows the selection of each individual input to be configured as a voltage-detector or as a contact-closure. See the section named Input Configurations for a description of these two types, as well as how to use each of them. To change an input type, click the appropriate radio button and then click Submit to program the changes into PA Commander.

This screen also shows the current state of each input: high (input voltage greater than 2.0V for a voltage-detector; contacts closed for a contact-closure) or low (input voltage less than 1.0V for a voltage-detector; contacts open for a contact-closure).
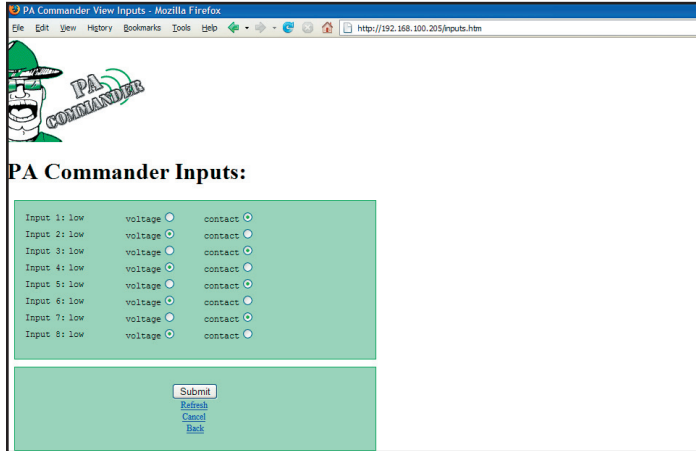
3.4 Program Phrases Page

This page shows all of the possible 32 phrases that may be edited and programmed on the PA Commander. A phrase that is in plain text is currently inactive and will not be spoken—even if the programming criteria for it becomes true. An active input will be shown in a bold and italics and will be spoken if its programming criteria become true.

To edit or activate a phrase, click the Edit button next to the appropriate phrase. The edit page will open.
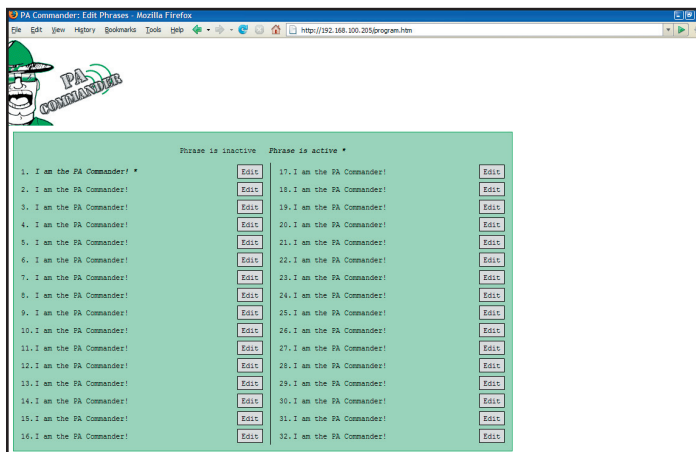
3.5 Edit Phrase Page

This page, allows for of the user can edit the settings for the selected phrase to be modified.

Activate/Deactivate:

Click Activate to make this input active and have the PA Commander speak this phrase when the desired conditions are achieved. Click Deactivate to program the PA Commander to ignore this phrase. Deactivated inputs remain stored in PA Commander's memory; and may be reactivated at any time.

Phrase:

The entered phrase is interpreted by PA Commander's internal text-to-speech (TTS) processor. Modify a phrase using the following guidelines of how the TTS processor interprets text:

- A word is considered a group of characters with a space on each side.

- The TTS processor will try to pronounce words as closely to the English language as possible. If the TTS processor cannot interpret the word, it may speak each of the letters individually or skip the word altogether.

- Numbers are generally pronounced as written. For example, "100" will be pronounced as "one hundred."

- Groups of capitalized letters are generally pronounced as individual letters, and not as a word.

- Replace a word with groups of sounds or phonemes, or change the word's spelling if the TTS processor cannot accurately speak the word. For example, names often have to be phonetically spelled for the PA Commander to pronounce it correctly.

- Use the Speak Now feature to try out a phrase before assigning it.

Setting the Mode for Phrase:

Define the condition that must be true in order for PA Commander to speak this phrase.

- Speak at set time:
  PA Commander will speak the selected phrase at a given time each day. Specify the time for this phrase to be spoken in the Time field below. All times must be in 24-hour format.

- Speak when input activated:
  PA Commander will speak the selected phrase when the specified input transitions from the low state to the high state. See the Input Configurations section for descriptions of the different inputs. Specify the desired input number (1-8) in the Input field below.

If this mode is selected and activated when the input is already high, the input will be automatically deactivated and the message "Entry deactivated: check inputs!" will appear near the top of the page. This is to prevent an instantaneous accidental triggering of the input.

- Speak when input deactivated:
  This mode is the same as the previous mode, except PA Commander will wait for a high-to-low transition of the desired input.

- Speak when input activated for set time:
  This mode causes an input to trigger the PA Commander to speak the phrase when an input has been active for a specified amount of time. For example, this mode might be used to alert someone if a door has been left open for too long a period of time. Specify the input and the length of time required to trigger the phrase.

- Speak when input deactivated for set time:
  The same as the previous mode, except the PA Commander will only speak if an input has been low for a certain amount of time.

Set Activation Time:

Allows the user to specify a specific time of day for a particular phrase to be spoken or when activated.

- Select "Speak only during set time" to activate PA Commander to speak a specified phrase at the specified "Time" input boxes

- Select "Speak any time" to allow the phrase to be spoken when triggered.

- Set Disable Time:
  PA Commander will ignore this particular phrase for a set number of minutes after it is spoken. This is to prevent the PA Commander from speaking a long duration phrase multiple times for one input. This setting will be ignored if the particular phrase is set to "Speak at set time".

  Click the Submit button to save the settings for this phrase.
  Click the Cancel button to cancel any changes and return to the Program Phrases screen.
  The Back button will go to "Edit Phrase" page after "Submit" saved any changes.

Voltage-detector

Voltage-detector inputs will activate when the voltage on the input pin exceeds 2.0V. Voltages greater than 12V can cause damage to your PA Commander. The input will be interpreted as low when the voltage is less than 1.0V. Voltages between 1.0-2.0V will not damage the PA Commander, but may produce unexpected results. Do not apply negative voltages to the PA Commander's input pins.

When configured as a voltage-detector, the input pin should be connected to a circuit or device with the output voltage described above. The ground pin is connected to the circuit or device's ground. The 8 ground inputs on the PA Commander are internally connected, so if multiple inputs from the same device or circuit are used, only one ground connection needs to be made.

Contact-closure

contact-closure inputs will activate when the inputs two pins are connected. Unlike voltage-detector inputs, contact-closure inputs do not require the device triggering the input to supply any voltage to the PA Commander.

Most commonly, contact-closure inputs will be used in conjunction with a switch or button. The input pin is connected to one side of the switch or button, and the input's ground pin is connected to the other side of the switch or button. When the switch is closed or the button pressed, the input will be activated. The total resistance of the switch and wire used in the circuit must be less than 500Ω or the PA Commander may not detect the input. A contact-closure input will have up to 3mA of current flowing through it when activated.

ADVANCED PROGRAMMING

PA Commander can be integrated into an existing software system without having to use the web interface. PA Commander can will accept HTTP CGI GET commands to perform any configuration that would otherwise have to be done using the web interface. GET commands may be issued from a web browser or from any custom application. The following table shows the complete list of PA Commander's keys, acceptable values, and effects for every page. The following diagram notes how to use keys w/IP address: <u>xxx</u> • <u>xxx</u> • <u>xxx</u> • <u>xxx</u>
$$A\quad\;\; B\quad\;\; C\quad\;\; D$$

Index.htm

Key	Acceptable Values	Results	Notes
speaknow	Any string up to 40 characters	PA Commander to speak the phrase	Value may contain upper or lowercase letters; punctuation and numerals

Config.htm

Key	Acceptable Values	Results	Notes
dhcp	1,0	1-Enable DHCP on reset 2-Disable DHCP	
ip1	0-255	Change the most A byte of the IP address	
ip2	0-255	Change the B of the IP address	
ip3	0-255	Change the C byte of the IP address	
ip4	0-255	Change the least D byte of the address	
nm1	0-255	Change the A byte of the netmask	
nm2	0-255	Change the B byte of the netmask	

Key	Acceptable Values	Results	Notes
nm3	0-255	Change the C byte of the netmask	
nm4	0-255	Change the D byte of the netmask	
gate1	0-255	Change the A byte of the gateway	
gate2	0-255	Change the B byte of the gateway	
gate3	0-255	Change the C byte of the gateway	
gate4	0-255	Change the D byte of the gateway	
hours	0-23	Change the hours portion of PA Commander's time	Hours and minutes keys mus be sent consecutively, always in a pair, and hours must be the first of the pair
minutes	0-59	Change the minutes portion of PA Commander's time	Hours and minutes keys must be sent consecutively, always in a pair, and minutes must be the second of the pair
phone	Any combination of numerals	Change the PA Commander's phone number to dial	Up to 15 characters
delay	0-255	Change PA Commander's delay before speaking	Value is in seconds
resetentries	N/A	Reset PA Commander to its default state. Will not change IP Configuration	Value is ignored by the PA Commander

Inputs.htm

Key	Acceptable Values	Results	Notes
intype1	0,1	Changes the type of input 1: 0-voltage detector 1-contact closure	
intype2	0,1	Changes the type of input 2: 0-voltage detector 1-contact closure	
intype3	0,1	Changes the type of input 3: 0-voltage detector 1-contact closure	
intype4	0,1	Changes the type of input 4: 0-voltage detector 1-contact closure	
intype5	0,1	Changes the type of input 5: 0-voltage detector 1-contact closure	
intype6	0,1	Changes the type of input 6: 0-voltage detector 1-contact closure	
intype7	0,1	Changes the type of input 7: 0-voltage detector 1-contact closure	
intype8	0,1	Changes the type of input 8: 0-voltage detector 1-contact closure	

Program.htm
No configurations may be changed from this page

Edit1.htm - Editw.htm
PA Commander looks at the file name in the requesting URI to determine which phrase to edit. The following key=value pairs apply to the pages edit1.htm-edit9.htm and edita. htm-editw.htm. To change the configurations for phrase 1, use edit1.htm in the URI; edit2.htm modifies phrase 2 and so on. Use edita.htm to modify phrase 10, editb.htm to modify phrase 11: up to editw.htm which modifies phrase 32.

Key	Acceptable Values	Results	Notes
activate	0,1	Activate/deactivate the phrase: 0-deactivate 1-activate	
phrase	Any string up to 40 characters	Change the spoken phrase for this configuration	Value may contain upper or lowercase letters; punctuation and numerals.
speak	2-6	Changes the trigger for the phrase: 2-speak at set time 3-speak when input activated 4-speak when input deactivated 5-speak when input activated for set time 6-speak when input deactivated for set time	
whenhours	0-23	Changes the activation hour for a time-triggered event	
whenminutes	0-59	Changes the activation minute for a time-triggered event	
inputnum	1-8	Changes the triggered input for input-triggered events	

Key	Acceptable Values	Results	Notes
inputduration	0-65535	Changes the "set time" for input to be considered active for options 5,6 above	Time in seconds
period	0,1	Determines if a phrase's start and end time are checked: 0-do not perform bounds checking 1-do perform bounds checking	Ignored if a time-triggered even
beginedithours	0-23	Start time hours when bounds checking is active	Ignored if period=0
begineditminutes	0-59	Start time minutes when bounds checking is active	Ignored if period=0
endedithours	0-23	End time hours when bounds checking is active	Ignored if period=0
endeditminutes	0-59	End time minutes when bounds checking is active	Ignored if period=0
disable	0-255	Amount of time to disable an input for after speaking	Time in seconds

Example:

PA Commander's IP address is set to 192.168.100.205. In order to change inputs 1-4 to contact-closure and 5-8 to voltage detector types, send the following command to TCP port 80 (HTTP protocol):

http://192.168.100.205/inputs.htm?intype1=1&intype2=1&intype3=1&intype4=1&intype1=0&intype2=0&intype3=0&intype4=0

N O T E S

- All keys and values must be sent as ASCII text. For example, the value for dhcp should be sent as the character '0' or '1' (ASCII 0x30 or 0x31 respectively) and not as the hex value 0x00 or 0x01.

- All keys are lowercase.

- Changes to IP configuration will not take place until the Commander is manually reset.

- Most checking needs to be done by the client. PA Commander generally expects the keys and values to be well-formatted and the values to be appropriate.

- PA Commander checks the requesting page for certain keys. Be sure the URI contains the appropriate page for the keys=value pairs being sent to ensure proper results.

- The maximum length of the CGI data is 255 characters. Requests longer than this must be split up.

SPECIFICATIONS

Dimensions	5.5"L x 3.5"H x 1"W
Weight	Approximately. 0.5lbs.
Power	6VDC to 16VDC, 0.1A
Operating Temperature	40°-120°F (4°-50°C)
Network Protocols	HTTP: TCP Port 80 TFTP: UDP Port 69 IP Broadcast: UDP Port 6123
Ethernet	10Mbps Half Duplex (IEEE 802.3)
Certifications	Tested to comply with part 15 of the FCC rules.
PBX	DTMF dialing, 1 to 10 digits, and 0 to 60 second delay after dialing
Reset	Restore default configuration
Eight inputs	Screw terminal block (unpluggable), 3VDC to 12VDC sensor input, or dry contact closure detect (3V, 3mA)

EXAMPLE CONFIGURATIONS

EX 1 "Break Time"

To program PA Commander to say "Break Time" at 10:00am every day set the following configuration options in one of the "Edit Phrase" screens:

1. Select "Activate This Entry."

2. Type "Break Time" in the "Phrase" text box.

3. Select the "Speak at a set time" button.

4. Type "10" and "00" in the time field.

5. The "Speak any time" and "Disable for..." options do not matter for this particular event.

6. Press the Submit button.

EX 2 "Refrigerator door open 2 minutes"

To program PA Commander to detect a refrigerator door having been open for two minutes, first connect a contact sensor so the refrigerator door. The magnetic type that are commonly used in home security systems would work perfectly. Connect the two leads from the sensor to the input 1 and ground terminals on the PA Commander. Set the following configuration settings in the PA Commander's web interface:

1. In the "View/Modify Inputs" screen, select the "contact closure" radio button for input 1 and press submit. With the door closed, the input should register as high. You can open the door and press the refresh button on the screen to verify the input goes low when the door is opened.

2. In the "Edit phrase" screen, select "Activate This Entry."

3. Type "Refrigerator door open." in the "Phrase" text box.

4. Select "Speak when input low for set time," because the contact closure sensor is normally high.

5. Change input number to 1

6. Change input duration to 120 seconds (2 minutes), or whatever value you desire.

7. Select the "Speak any time" option.

8. Change the "Disable..." value to 0 so the input will always be active.

9. Press the Submit button.

HOOK-UP DIAGRAMS

6.1 Simple Doorbell With An Existing Phone-based PA System

Connect the two leads from a doorbell switch to one of the PA Commander inputs. One lead will connect to the input pin 1, the other will connect to the ground pin (↓). Either wire from doorbell can go into either input. There is no need to connect the doorbell to an external power supply in this case. Edit the input that the doorbell is connected to be a contact-closure type. Program a phrase using the web interface to announce when the input is activated.

To connect the PA Commander to the PA System, simply choose a free phone extension and connect the PBX port on the PA Commander to the free phone line using the supplied phone cable. The phone line used must be analog line as digital phone line may damage the PA Commander. Change the phone number in the configuration web page to be the extension that you normally dial to access the PA System.

Drawing 6.1
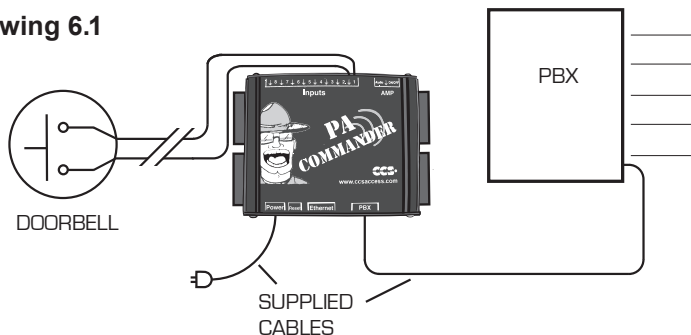
6.2 Connection To A PA System

To connect PA Commander to a PA System, use the 4-pin terminal connector. Connect the Audio and ground pins on the terminal to the audio inputs on the PA system. The Audio is the positive terminal (often colored red) and the ground is the neutral terminal (often colored black). Use the AMP ON/OFF terminals to allow PA Commander to automatically turn the PA system on before speaking. Most PA systems have an enable/disable or standby terminal allowing the PA system to be turned on/off electronically. If the amplifier requires a positive voltage on the enable terminal to turn the PA system on, connect an appropriate voltage source to one side of the AMP ON/OFF terminal and connect the other side to the enable terminal on the PA system.

Set the "Delay Before Speaking" setting to the amount of time it takes for PA system to activate. If you would like PA Commander to play touch tones before speaking, enter the desired tone combination in the phone number field.

Drawing 6.2
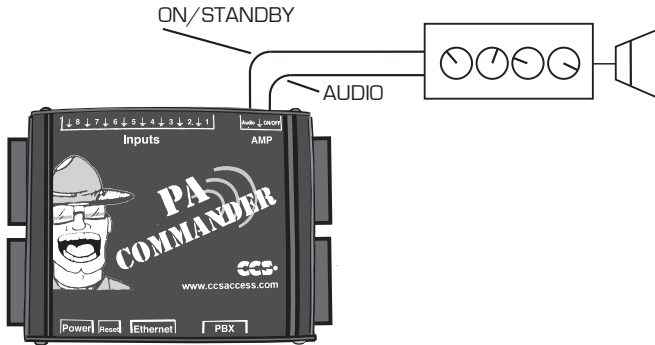
6.3 Connection To A Motion Sensor

PA Commander can be connected to a motion sensor to announce unexpected motion in a particular area. Connect the two terminals on a PA Commander input to the contacts of a motion sensor. Set PA Commander input to be a contact-closure. If the contacts are normally open, set the phrase to speak when input becomes active. If the contacts are normally closed, set the phrase to speak when the input becomes deactivated. Connect the device to an appropriate power source.

Drawing 6.3
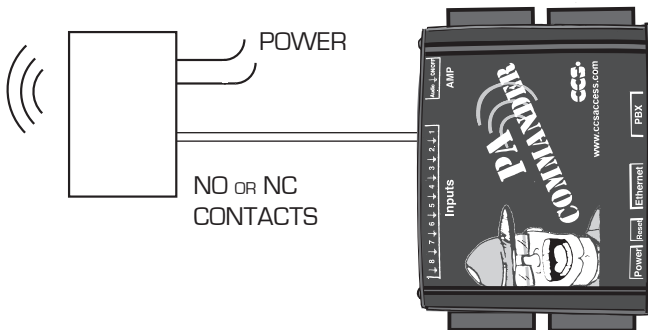
6.4 Connection To An Existing Low-Voltage Output

PA Commander can be used to determine whether an existing circuit is powered or not powered. For example, the device can be used to announce if a low-voltage light has been turned on. Before connecting PA Commander to any electrical circuit, verify the voltages present in the circuit are within the appropriate range specified in the PA Commander specifications. To connect the device to the circuit, tap into the positive side of the circuit and connect a wire to the input terminal on PA Commander. Connect the ground terminal to the ground (neutral) side of the circuit. Set PA Commander input to be a voltage detector, and to speak when the input is activated.

Drawing 6.4

SOURCE

12V LAMP
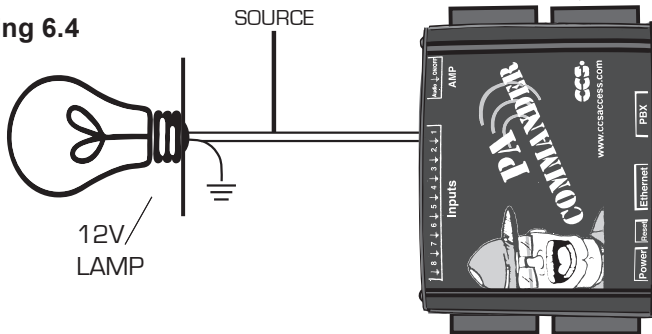
6.5 Connection To An Existing High-Voltage Output

If the voltage level of the existing circuit is out of PA Commander's operating range, an isolation relay can be used to allow the device to connect to PA Commander. The voltage to-be-detected is connected to the coil side of the relay. The contact side of the relay is connected to an input on PA Commander. Set PA Commander input to be a contact-closure, and to speak when the input is activated.

**Drawing 6.5**

PUMP

ISOLATION RELAY
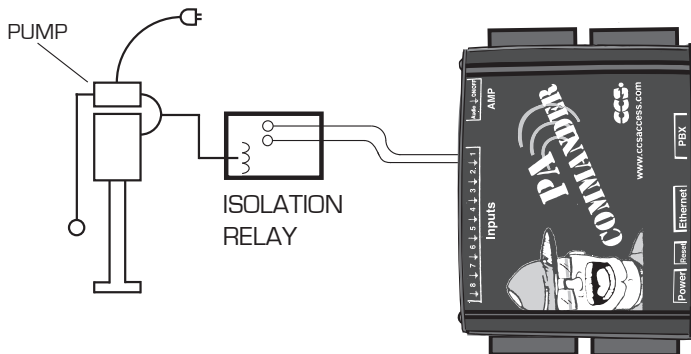
6.6 Connection To Detect An Open Door or Window

To program PA Commander to detect an open door, first connect a contact sensor to the door/window, such as the magnetic type that are commonly used in home security systems. Connect the two leads from the sensor to the input 1 and ground terminals on the PA Commander. Set the following configuration settings in the PA Commander's web interface:

1. In the "View/Modify Inputs" screen, select the "contact closure" radio button for input 1 and click "Submit". With the door closed, the input should register as high. You can open the door and press the refresh button on the screen to verify the input goes low when the door is opened.

2. In the "Edit phrase 1" screen, select "Activate This Entry."

3. Type "Door open." in the "Phrase" text box.

4. Select "Speak when input low" because the contact closure sensor is normally high.

5. Change input number to 1

6. Select the "Speak any time" option.

7. Change the "Disable" value to 0 so the input will always be active.

8. Click Submit.

Drawing 6.6



CONTACT CLOSURE
WINDOW LOCK
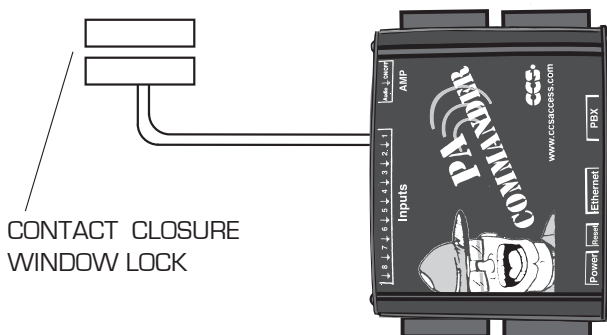
6.7 Tap Into An Existing Alarm Sensor

PA Commander can be connected to an existing alarm sensor. Several things must be verified before connecting:

1. The voltage at the point that is being tapped into changes when the sensor is activated.

2. The voltage at this point is always within the limits specified in the PA Commander specifications.

3. You have access to a ground terminal on the sensor or on the security system's command unit. This may be a second wire of the sensor, or it may be a terminal on the command unit.

After verifying these conditions, connect a wire from the point in the sensor previously determined, to the input terminal on PA Commander. Connect the ground terminal on PA Commander to the ground point previously determined. Configure the PA Commander's input to be a voltage detector. PA Commander should be set to speak when the input becomes active if the sensor is normally low, or to speak when the input becomes deactivated if the sensor is normally high.
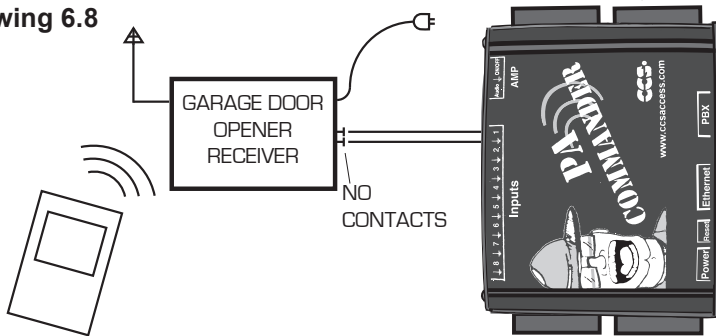
Drawing 6.7
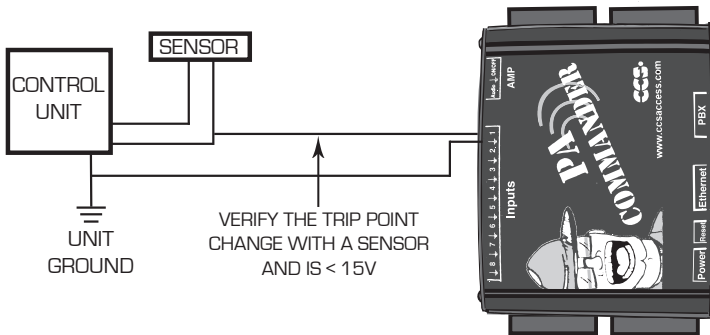
6.8 Connect To A Remote-Controlled Device

A remote-controlled device, such as a garage door opener, can also be detected by PA Commander. Connect the two terminals on a PA Commander input to the remote control detect pins on the garage door opener receiver. Set the PA Commander input to be a contact-closure. If the contacts are normally open, set the phrase to speak when input becomes active. If the contacts are normally closed, set the phrase to speak when the input becomes deactivated.
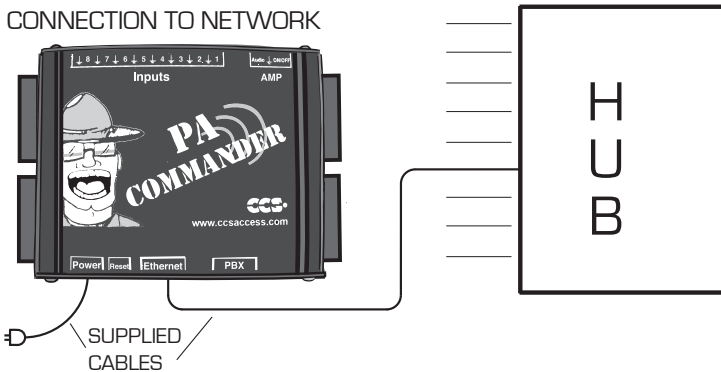
Drawing 6.8

6.9 Connection To A Network

To connect to an existing Ethernet network, use the supplied straight-through CAT-5 cable and connect the Ethernet port on the PA Commander to a switch or hub on the network.
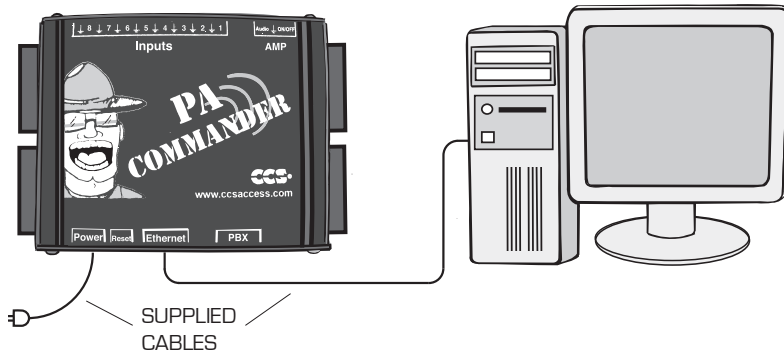
Drawing 6.9

6.10 Direct Connect To A Single PC

To connect to the PA Commander to single PC (not a network), a crossover CAT-5 cable (not included) is needed. Connect the Ethernet port on the PA Commander to the Ethernet port on the PC.

Drawing 6.10

SUPPLIED CABLES

WARRANTY

Warrenty of Hardware:

1-Year Guarantee:

CCS Guarantees all hardware products for any manufacturing defects within 1-year of purchase date. Defective hardware will be refunded or replaced. Any replacement items will be shipped UPS ground by CCS; if customer requires a different shipping method than aformentioned, customer agrees to pay the difference.

Please contact your distributor for repair/replacement options.

Out of Warranty:

CCS will repair or replace most malfuntioning products (of the same model/revision only) for a fixed price of $45.00 For out of warranty repairs outside of regular malfunctions, a quote will be issues before repair occurs.

- Customer agrees to pay shipping both ways. This is not included in the fixed price for repair or replacement.

- If CCS is not able to find a defect, or if only a firmware was updated, the customer will only be charged shipping to return the product.

Contact Customer Service at sales@ccsaccess.com or (262)522-6500, x55

For Technical Assistance, please contact CCS Support at support@ccsinfo.com or at

(262) 522-6500, x52