

YourBell



Version 5.00



INEXPENSIVE, RELIABLE USB PRODUCTS

www.bcsideas.com

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General Information

Congratulations on your purchase of the YourBell. The door chime without limits. The YourBell can be completely personalized by the owner in just a few simple steps. The use of SD (Secure Digital) flash card technology allows for an almost unlimited number of quality audio snippets to play on the YourBell. The possibilities are endless. The YourBell will play MP3s. The songs can be acquired from the internet or ripped from your favorite CD. The songs can be edited to length and converted to MP3 format using the software package Audacity. Download it from the following website. <http://sourceforge.net/projects/audacity/files/>. Record your own creations using a microphone, a computer's sound card and Audacity. There are many examples residing on our website at http://www.bcsideas.com/support_ce.php.

Inputs

The YourBell has four inputs.

Inputs 1 & 2 support

- Push button.
- Electromechanical relay.
- Solid state relay.
- Ring, Ring Pro, SkyBell. **A Video Door Button interface is required.** They can be obtained on our website and are free with the purchase of a Yourbell.
- Lighted push button with incandescent bulb.
- Lighted push button with LED light.
- Various types of sensors.

Inputs 3 & 4 support

- Push button.
- Electromechanical relay.
- Solid state relay.
- Ring, Ring Pro, SkyBell. **A Video Door Button interface is required.** They can be obtained on our website and are free with the purchase of a Yourbell.
- Lighted push button with LED light.
- Various types of sensors.

Each input can be set to accept NO (normally open) or NC (normally closed) contacts.

Each input can be set to one of 3 modes :

INPUT

This is the default. Each input will play its own list of sounds. When an input is received the unit will play the next sound in the list for that input. It will continue to play to the end w/o interruption. If another input is received while the unit is playing it will be ignored. When the sound is done playing the YourBell will service the next input. If the input has a long duration (a door switch perhaps, the door is held open for awhile) it will not be seen as an input again until the input is reset first. The length of an input will not affect the servicing of the other inputs. The only time inputs are ignored is while the unit is playing. Inputs can also be set to play the sound file list in a random manner. Any designated input can change the season. A series of button presses is necessary to get the YourBell into the edit mode. At least one sound file must be assigned to an input for that input to cause the YourBell to play.

Season Select

When set to this mode the input will change the current season. When first pressed you will hear an electronic voice say the number of the current season. You will then continue pressing the input until you hear the number of the season you want. Wait 3 to 5 seconds and the season will load. You will know it is successful when you hear "Where's the Kaboom".

Reset

When set to this mode the input will reset the YourBell. The reset is the same as cycling power to the Yourbell. This is only necessary in the rare situation that several power anomalies have left the YourBell in a non functioning state.

Amplifier

The YourBell has a powerful amplifier section that can drive two 8 Ohm external speakers The volume is controlled using a potentiometer.

MicroSD Card

The SD card holder is accepts microSD cards. The card connector is mounted perpendicular to the board. Insertion and removal of the microSD card is much easier than conventional sockets. After inserting the microSD card you must press the reset switch on the circuit board.

Silent Mode

In the silent mode the YourBell will not play "Where's the Kaboom" on power up. The YourBell will still play "Where's the Kaboom" when the season has been changed.

Check our website at http://www.bcsideas.com/support_ce.php for the most up to date information and instructional videos.

Editing MicroSD Card

Editing the MicroSD card is fairly Straight forward. Insert the MicroSD card into the SD card carrier that comes with the YourBell. Place the SD carrier into the appropriate drive on your computer. Changes can then be made using drag & drop and simple edit commands.

The YourBell can be set to
Debug Mode
Silent mode.

Input polarity can be set to
NO
NC

Input function can be set to
Input
Season Select
Reset

Sound files can be
Added to a particular input in a particular season using drag & drop or copy
Deleted from a particular input in a particular season using drag & drop or delete

Video Tutorial

Go to the following web page : http://www.bcsideas.com/support_ce.php

Scroll down to the table labeled "**DYB2003**".

Under the heading "*Software Installation*".

































Go to the line labeled :

*"YourBell Firmware Version 4.03. No Software Needed
Changed for Drag & Drop of Sound Files"*

Click on the Video link.

MicroSD Card Structure

The MicroSD card comes with the following structure :

- >  _DBG
- >  IN_1
- >  IN_2
- >  IN_3
- >  IN_4
-  INSTR
- >  SSN_1
- >  SSN_2
- >  SSN_3
- >  SSN_4
- >  SSN_5
- >  SSN_6
- >  SSN_7
- >  SSN_8
- >  SSN_9
- >  SSN_10
- >  SSN_11
- >  SSN_12
- >  SSN_13
- >  SSN_14
- >  SSN_15
- >  SSN_16
- >  SSN_17
- >  SSN_18
- >  SSN_19
- >  SSN_20
- >  SSN_21
- >  SSN_22
- >  SSN_23
- >  SSN_24
- >  SSN_25
- >  SSN_26

The structure shown is set for Silent Mode

The folders IN_1 through IN_4 contain information pertaining to the inputs.

The folder INSTR contains the sound files used by the Yourbell.

The folders SSN_1 – SSN_26 contain the sound file information for each season arranged by input.

Silent/Debug mode

>  DBG

Debug Mode : The YourBell will play “Where's the Kaboom” every time the YourBell powers up. The YourBell will play “Where's the Kaboom” every time a new season is chosen.

>  _DBG

Silent Mode : The YourBell will play nothing every time the YourBell powers up. The YourBell will play “Where's the Kaboom” every time a new season is chosen.

Inputs

IN_1 through IN_4 may contain several folders. The following shows :

IN_1 – Input, NO button

IN_2 – Input, NO button

IN_3 – Reset, NO button

IN_4 – Season Select, NO button



Polarity

NO – Normally Open contacts

NC – Normally Closed contacts

If this folder is missing or is not labeled the YourBell will function as if the input device has NO contacts. Typical door buttons have NO contacts. If you are unsure contact support for guidance.

Mode

The modes were added so an external button could control these functions. The buttons can be located in a convenient place and eliminate the need to take down the YourBell to perform these functions.

SS – Season Select.

In this mode the input will only change the season. Press the button in this mode and you will hear an electronic voice say the current season number. Press it again and you will hear the next season number. Continue pressing the button until you hear the number you want. Wait 4 or 5 seconds and then you will hear “where’s the Kaboom”. This means the new season has been loaded successfully.

RST – Reset YourBell

In this mode the input will only reset the YourBell.. The reset is the same as cycling power to the YourBell.

If these two folders do not exist or the folder name is incorrect (**_SS, _RST**) then mode will default to Input.

Play Sequence

RNDM – Random Play.

Sound files will play in a random fashion.

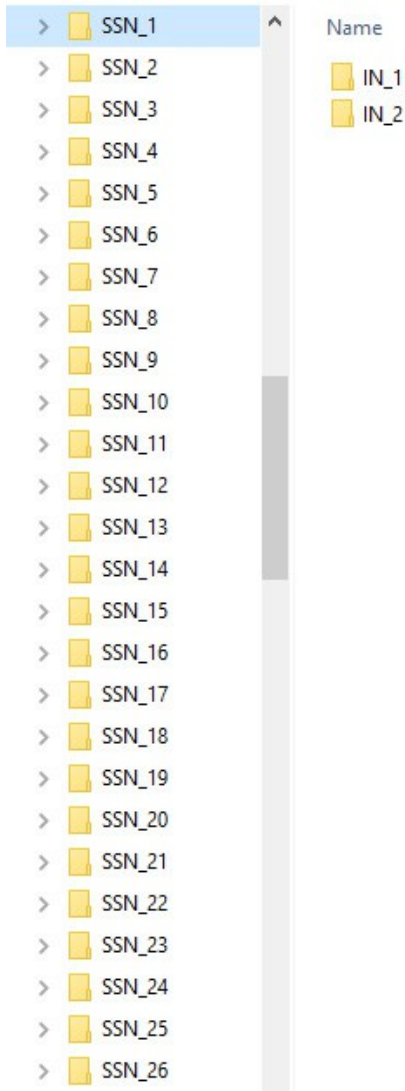
If this folder is missing or the folder name is incorrect (**_RNDM**) then the sound files will play in sequential fashion

Instructions

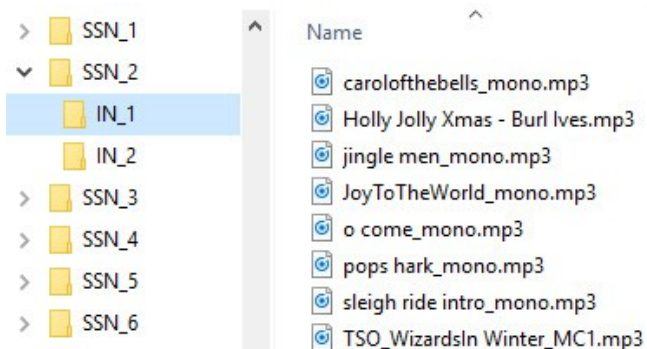
INSTR

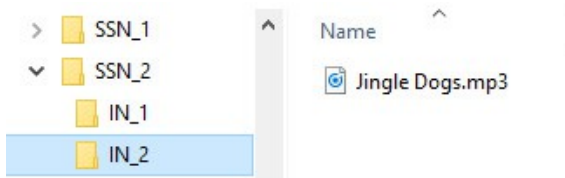
The Instruction folder contains various instructional sound files used by the YourBell. The names of these files must remain the same or they will not play. It is possible to replace any of these files with your own sound files. Once substituted make sure the name is changed to the original file name. It is recommended that one consults with BCS Ideas support staff before making changes in this folder. A copy of this folder can be found on the YourBell support page.

Seasons



The Season folders contain all of the user sound files. These folders hold a file or files for a particular season or occasion such as Christmas or Halloween. Each season folder has 2 sub folders labeled IN_1 and IN_2. This is where custom sound files are to be located. Sound files in IN_1 folder will play when Input one is activated. Sound files in IN_2 folder will play when input 2 is activated.





Either copy & paste or drag & drop your sound files into the season folder of your choice. Any seasonal sound files can also be deleted. Empty folders will not play anything. A folder with just one sound file will always play that sound file. A folder with multiple sound files will cycle through the sound files one at a time.

Audio editing software

We highly recommend Audacity. Download it from the following website.

<http://sourceforge.net/projects/audacity/files/>

Audacity Tutorials

Go to the following web page : http://www.bcsideas.com/support_ce.php

Scroll down to the table labeled "**Wiring, Installation & Programming**".

Look for the heading labeled "*General Information*".

Go to the line labeled "*Sound File Editing Tutorial*".

Click on the Video link.

Hardware



Figure 2 – Hardware Over View

Button Inputs

Each input can be set to respond to a NO (normally open) or NC (normally closed) button. This is set on the SD card.

Each input can be set to one of 3 modes. The modes are set on the MicroSD card.

Input

Season Select

Reset

Input Mode : In this mode an input can be used to cause the YourBell to play and it can be used to select a season/occasion. Select the season/occasion to play using the following steps.

1. Press door button.
2. Release the button. The YourBell should start to play.
3. Before the sound file finishes press and hold the door button. When the sound file finishes you will hear the Road Runner "Meep Meep" sound. Release the button.
4. Press the button 2 more times. Each time you will hear "Meep Meep". This will put the YourBell into the Season select mode. You have a maximum of approximately 4 seconds between button presses. Longer delay will return the YourBell to play mode.
5. Press the button again and you will hear a computer voice say "One". Press it again and it will say "Two". This will continue until it reaches the end of valid Season numbers. The next button press go back to "One".
6. Press the button until the number of the desired Season is announced. Wait several seconds until "Where's the Kaboom?" is played. The new Season has been chosen.

Season Select Mode : In this mode an input is dedicated to changing the season/occasion. Select the season/occasion to play using the following steps.

1. Press door button and you will hear an electronic voice say the number of the current season.
2. Press it again and it will say the number of the next season. This will continue until it reaches the end of valid Season numbers. The next button press go back to "One".
3. Press the button until the number of the desired Season is announced. Wait several seconds until "Where's the Kaboom?" is played. The new Season has been chosen.

Reset Mode : In this mode an input is dedicated to resetting the microprocessor. When you press the button the system will go through a power up cycle.

Volume Control

Use this potentiometer to control the sound output levels. This will control the built in speaker and any satellite speakers that are connected.

Satellite Speakers

This connector allows for the driving of external speakers. It can drive either one 4 ohm or two 8 ohm speakers.

Power Inputs

The YourBell was designed to be powered from a standard doorbell transformer or a 24 Vdc power supply.

Doorbell transformer :

16 Vac

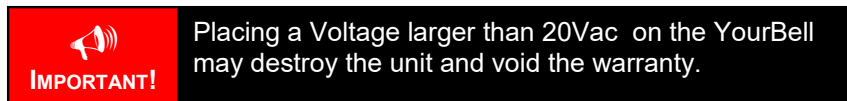
10 VA minimum

If you will also be powering a Ring, Ring Pro, SkyBell etc. with the same doorbell transformer as the YourBell the transformer **must be rated 20 VA or higher**.

24 Vdc power supply :

24 Vdc

1 Amp minimum



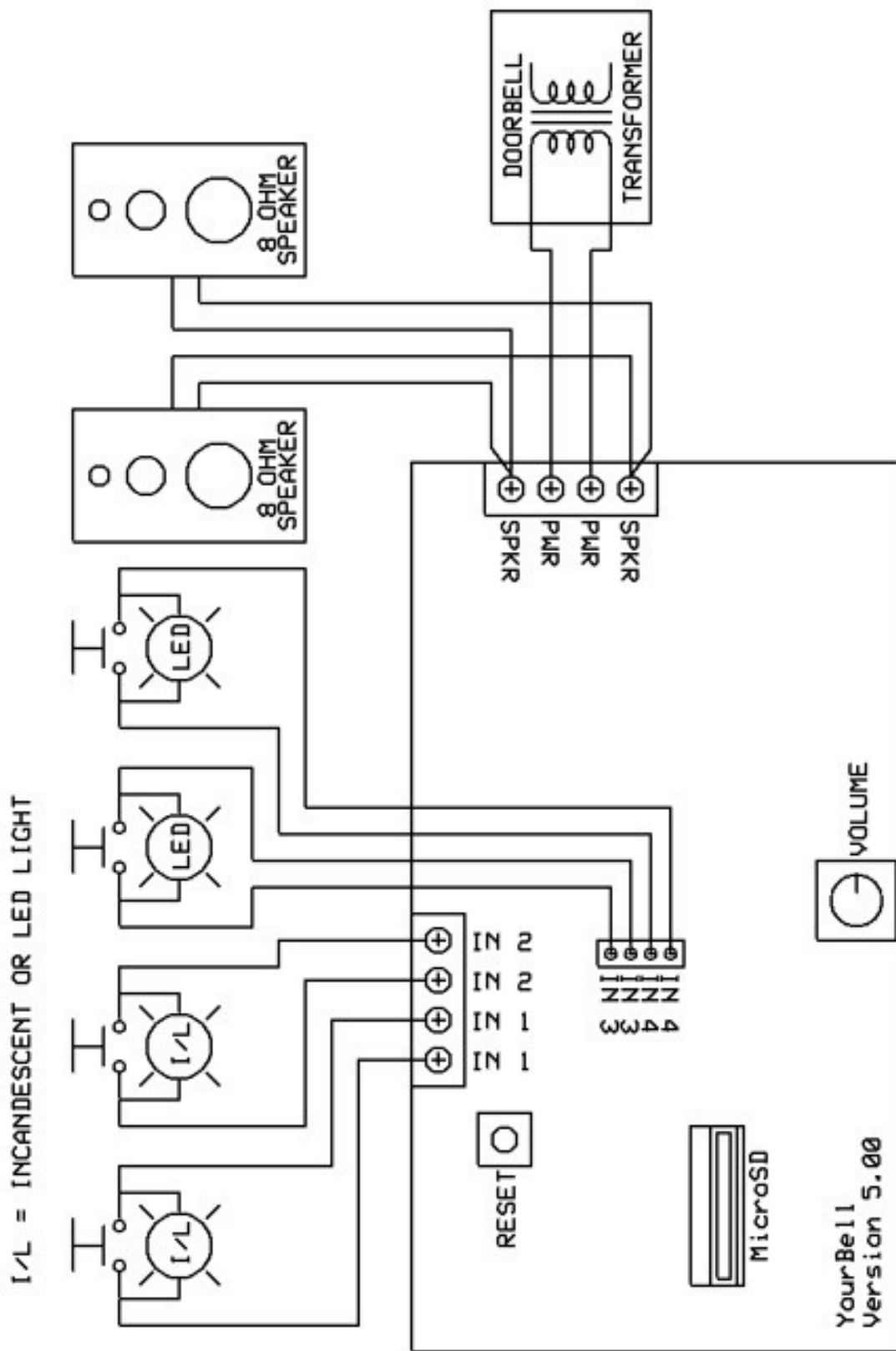


Figure 3 – AC Power, All Possible Components

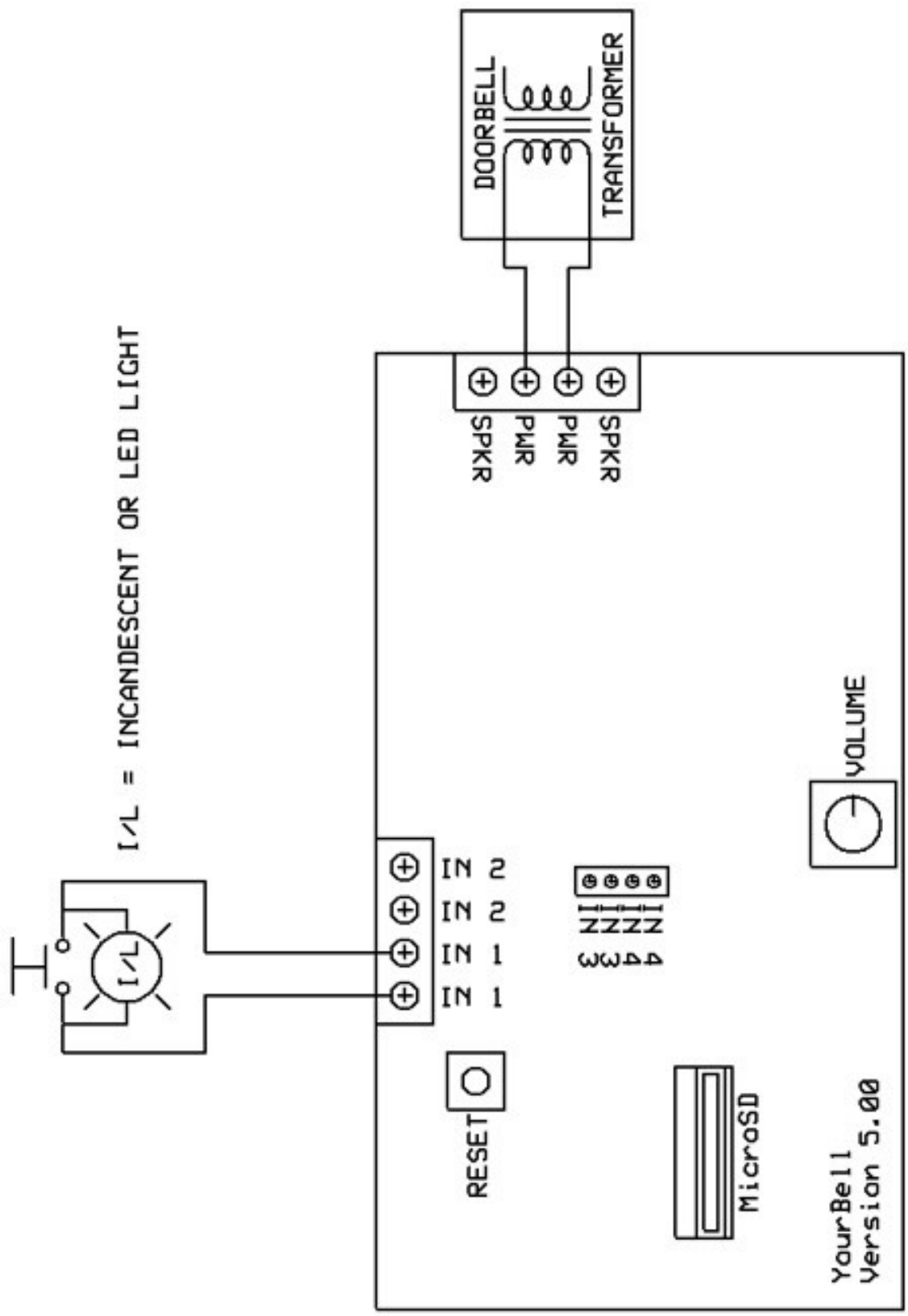


Figure 4 – AC Power, Minimum Components

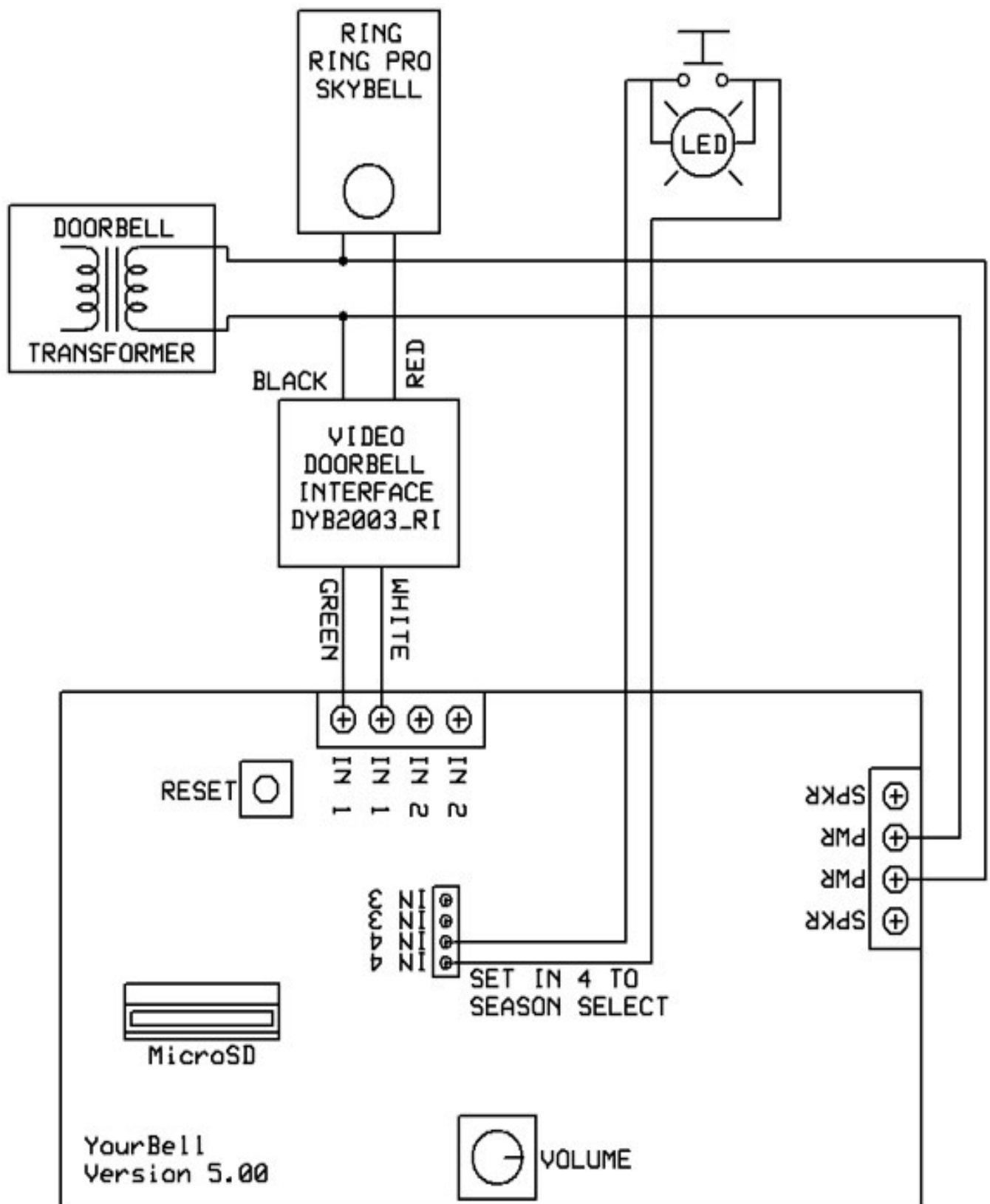


Figure 5 – AC Power, Video Door Button, Common Power Supply

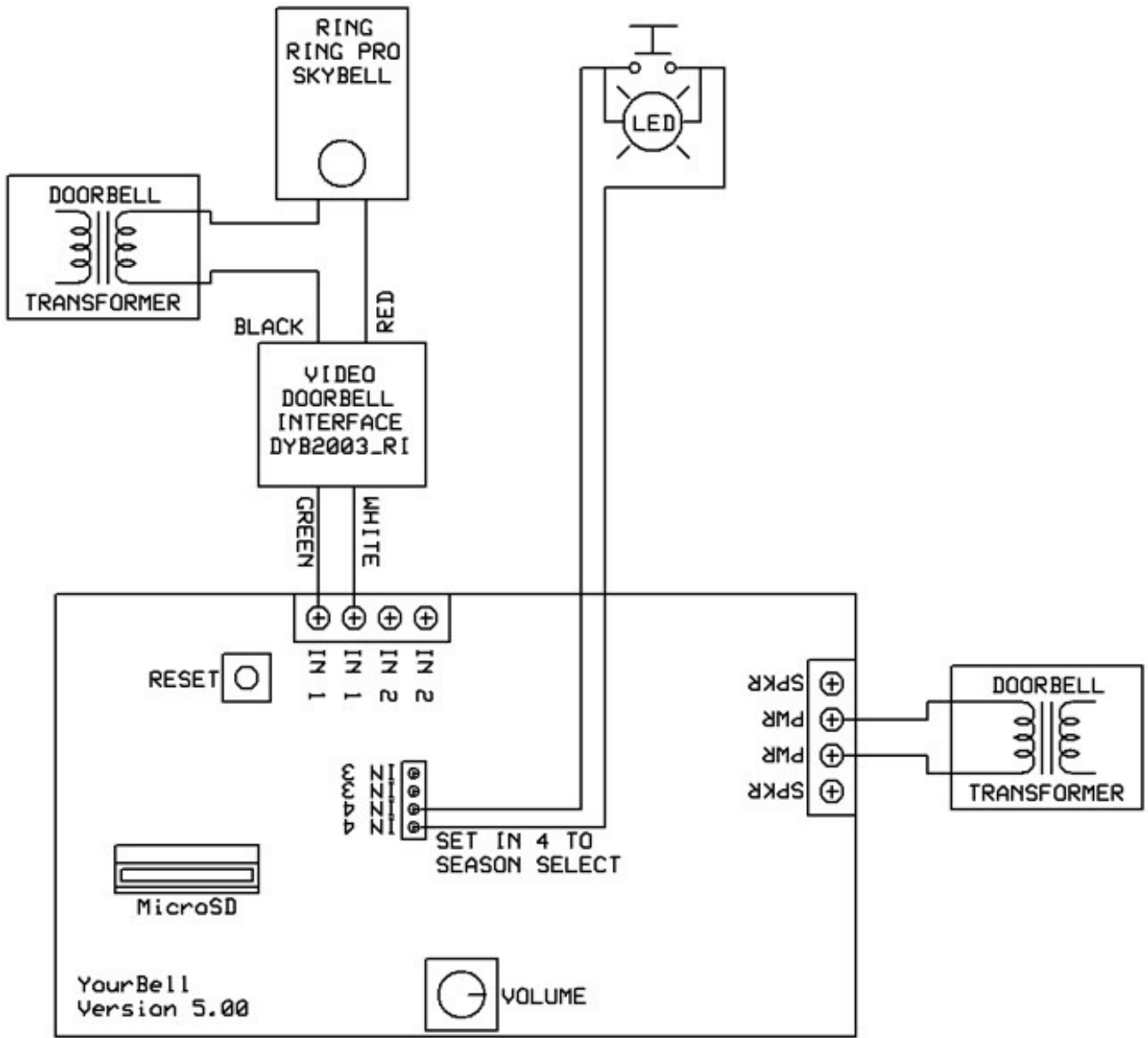


Figure 6 – AC Power, Video Door Button, Separate Power Supply

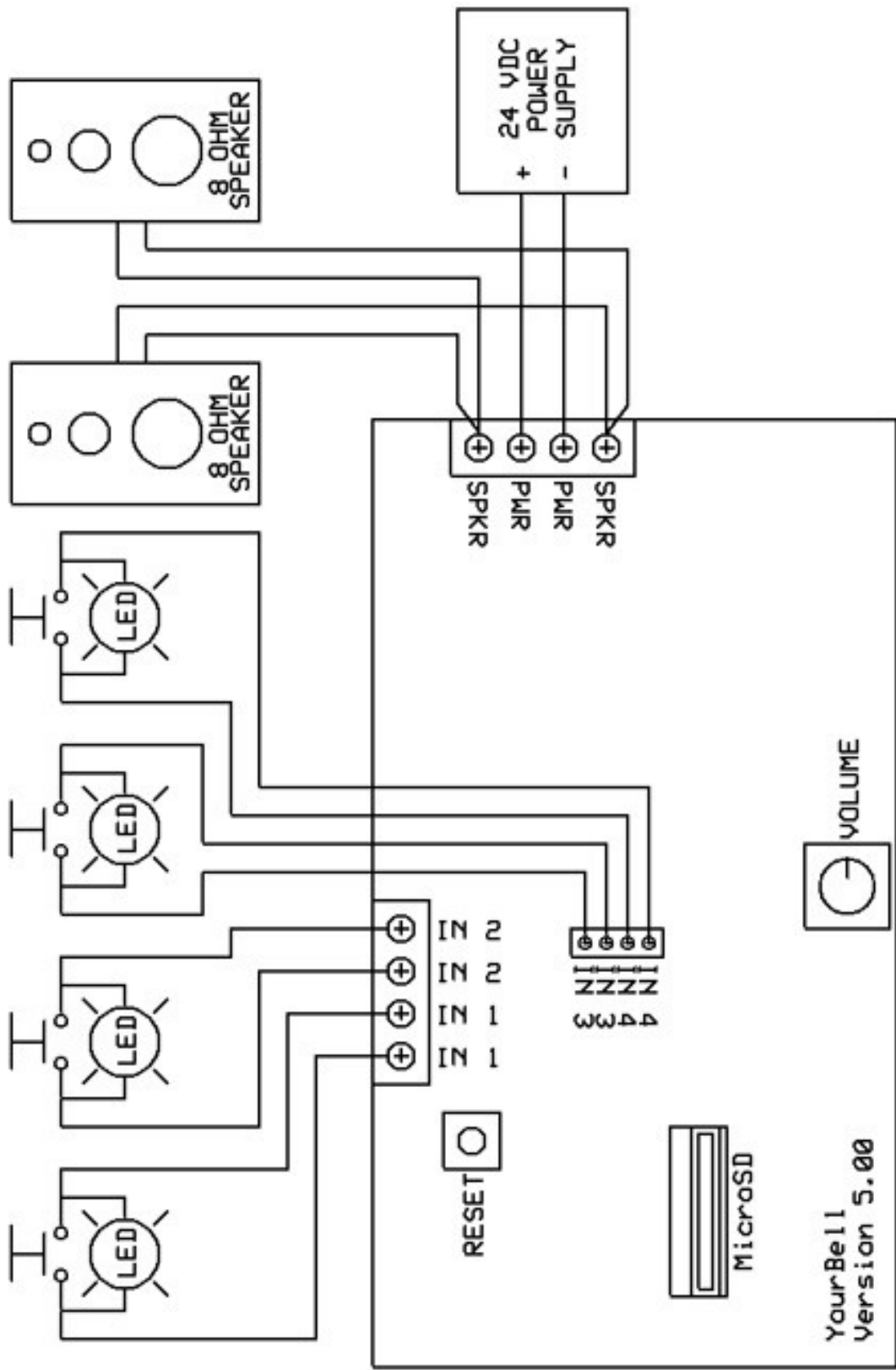


Figure 7 – DC Power, All Possible Components

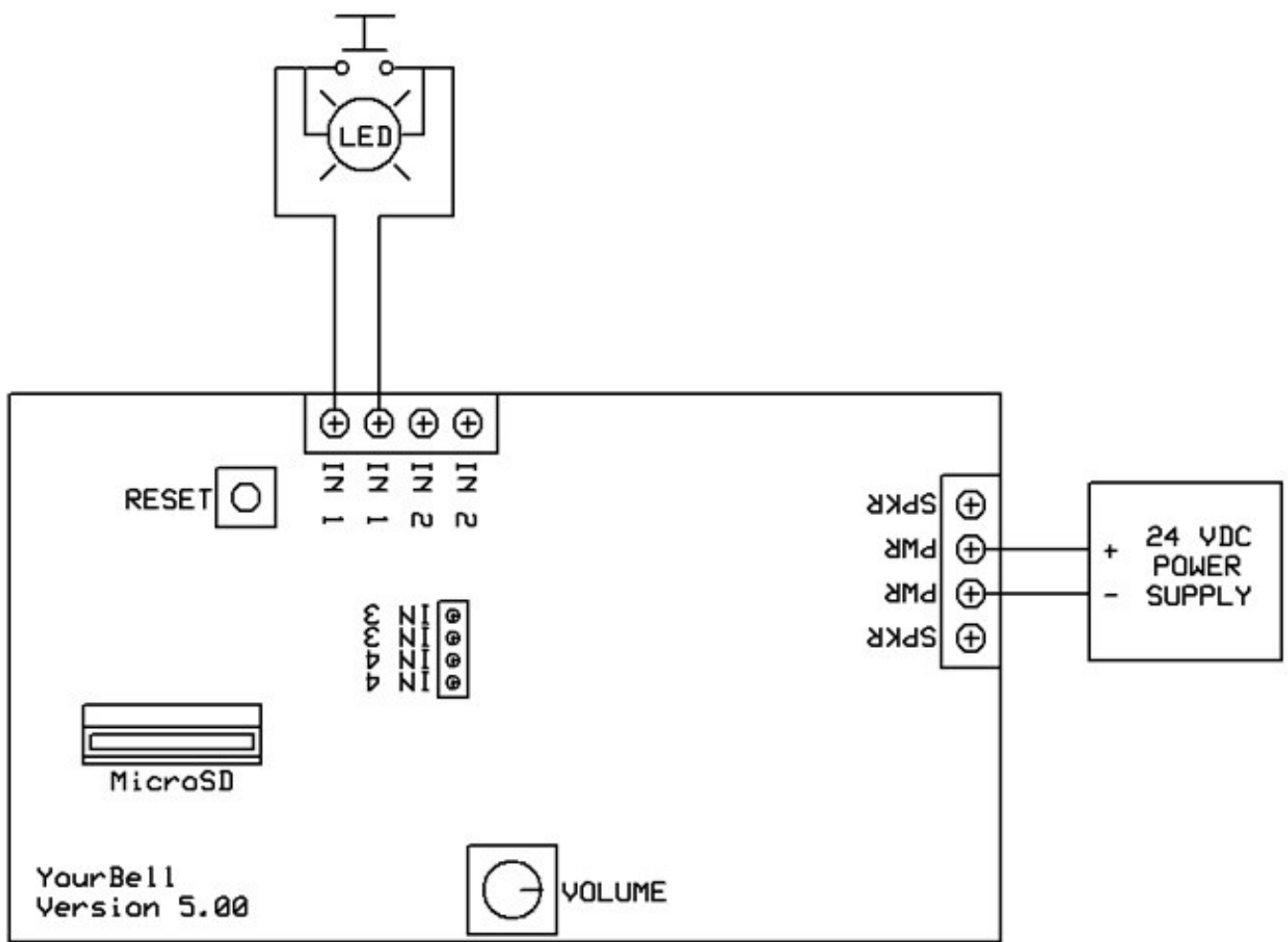


Figure 8 – DC Power, Minimum Components

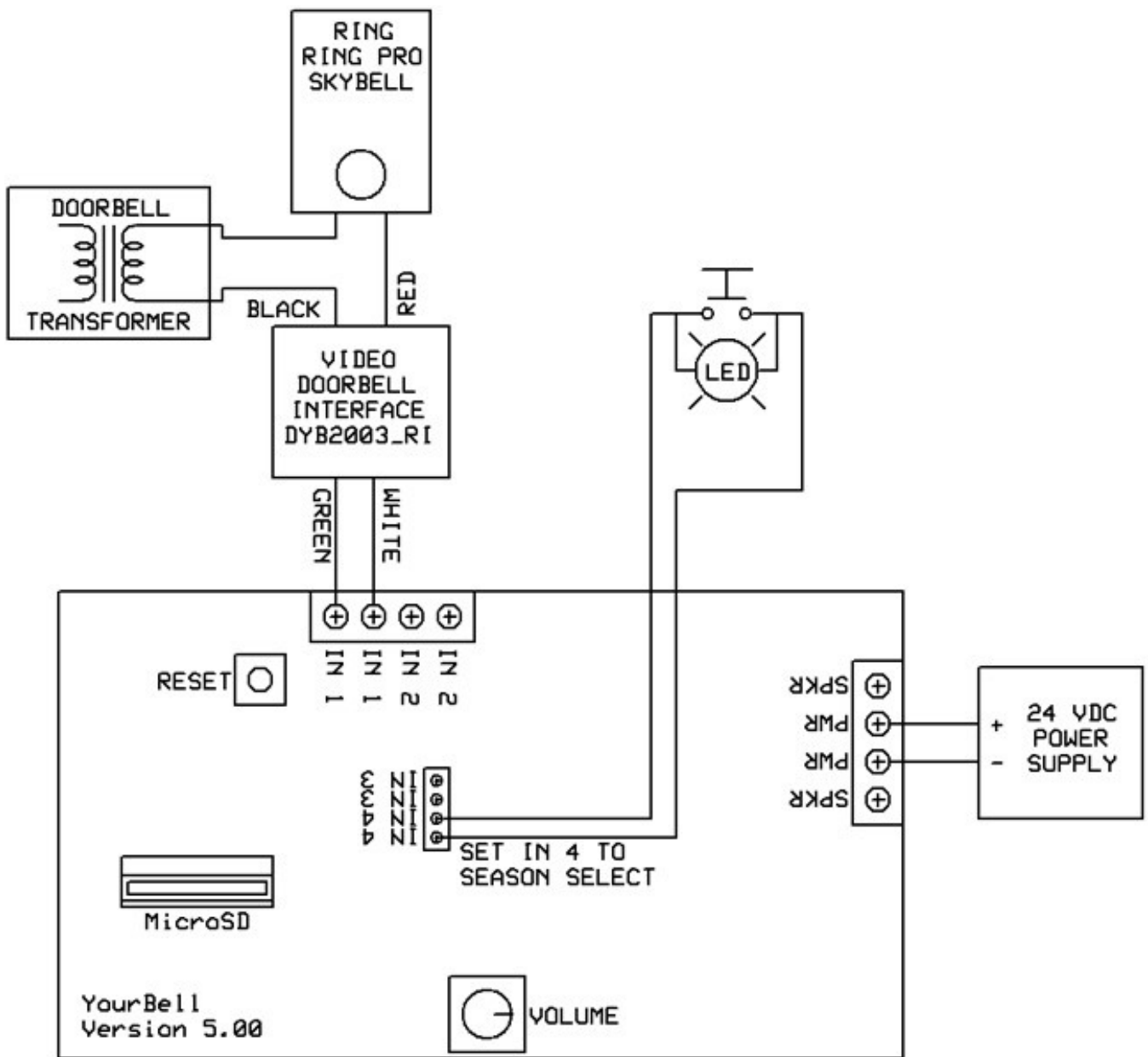


Figure 7 – DC Power, Video Door Button, Separate Power Supply

Door Bell Transformer

Absolute Maximum Ratings		
Parameter	Value	Units
Rated Input Voltage	20	Vac
Measured Input Voltage	28	Vac
Current - Active	1000	mA
Amplifier Load	4	Ohms

Electrical Characteristics				
Parameter	Min	Typ	Max	Units
Input Voltage	14	16	20	Vac
Current - Idle	20	35	50	mA
Current - Active	100		1000	mA
Button Input Isolation Voltage			3750	V(rms)

24 VDC Power Supply

Absolute Maximum Ratings		
Parameter	Value	Units
Rated Input Voltage	24	Vdc
Measured Input Voltage	30	Vdc
Current - Active	1000	mA
Amplifier Load	4	Ohms

Electrical Characteristics				
Parameter	Min	Typ	Max	Units
Input Voltage	18	24	30	Vdc
Current - Idle	20	35	50	mA
Current - Active	100		1000	mA
Button Input Isolation Voltage			3750	V(rms)

Warranty

The YourBell is warranted for 1 year. If within the first year of ownership the YourBell fails while being used within the specifications the unit will be replaced with a new one. The user will be responsible for shipping the old unit back to BCS Ideas Corporation. If it is determined that the board has been misused in any way the warranty will be void.



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