

# DYB2200 V02.11



INEXPENSIVE, RELIABLE USB PRODUCTS

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Congratulations on your purchase of the DYB2200. The door chime without limits. The DYB2200 can be completely personalized by the owner in just a few simple steps. The use of MMC/SD (MultiMediaCard)/Secure Digital) flash card technology allows for an almost unlimited number of quality audio snippets to play on the DYB2200. The possibilities are endless. The DYB2200 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 that is part of the installation. 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](http://www.bcsideas.com/support_ce.php).

### Base Unit

**Eight inputs.** Each input can be set to accept NO or NC contacts. All inputs support a lighted push button. This function works best with LED push buttons. Each input will play its own list of sounds. Each input is limited to 255 sound files. 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 DYB2200 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. If more than one input is received simultaneously then a sound will be played for each input in succession.

**Line Level Out.** Suitable for input in to an amplifier system.

**Trigger Out.** Suitable for amplifier systems that require a trigger to make a particular input active. 0Vdc when inactive, 12Vdc when active.

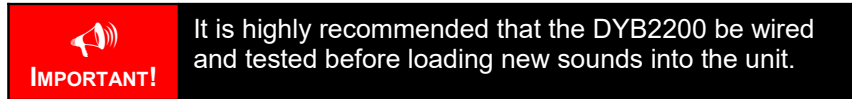
**Occasion Select Button.** Used to select from any of the 24 possible programmed seasons or occasions..

### Expansion Slot

There is one expansion slot. This slot will accept an amplifier card.

### Expansion Card

**DYB2202.** 10 Watt amplified output. The amplifier can drive up to four 8 ohm speakers in parallel. The amplifier's volume is controlled by the potentiometer. The amplifier is purchased separately.



## Software

### Audio editing software

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

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

### Video Tutorials

Scroll down to the table labeled :

*"Documentation"*.

#### Programming Software Tutorial

Go to the line labeled

*"Tutorial on using Programming Software Version 3.00*

*New format SD/MMC card on the Mac or PC*

*This video applies to Yourbell SD/MMC (DYB2003) purchased After May 2015"*

Click on the Video link.

#### Audacity Tutorial

Go to the line labeled

*"Audacity Example Video"*

Click on the Video link.

### Editing SD Card

Editing the SD card is fairly Straight forward. Place the SD Card into the appropriate drive on your computer.

Changes can then be made using drag & drop and simple edit commands.

Input polarity can be set to

NO

NC

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

## SD Card Structure

The SD card comes with the following structure :

- IN\_1
- IN\_2
- IN\_3
- IN\_4
- IN\_5
- IN\_6
- IN\_7
- IN\_8
- 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
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- SSN\_21
- SSN\_22
- SSN\_23
- SSN\_24
- SSN\_25
- SSN\_26

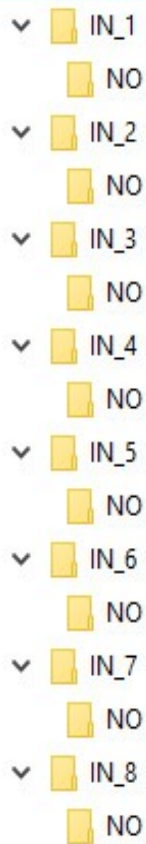
The folders IN\_1 through IN\_8 contain information pertaining to the inputs.

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.

## Inputs

IN\_1 through IN\_4 may contain several folders. The following shows :  
All inputs ship set to NO.



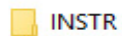
### Polarity

**NO** – Normally Open contacts

**NC** – Normally Closed contacts

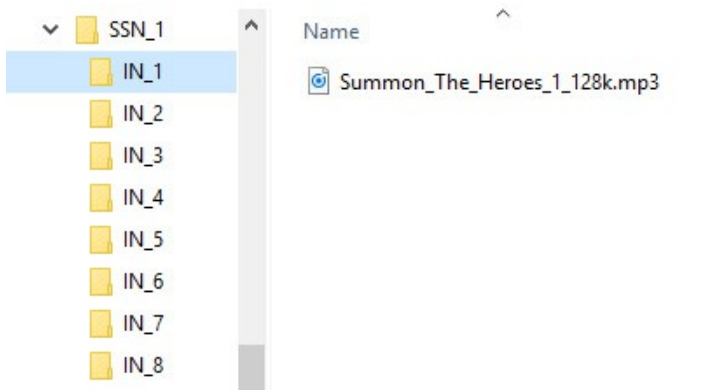
If this folder is missing or is not labeled the YourBell will function as if the input device has NO contacts. Typical door buttons have NO contacts. See the Hardware section for more information.

## Instructions



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 can have 9 sub folders labeled IN\_1 and IN\_8. 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.

## Hardware

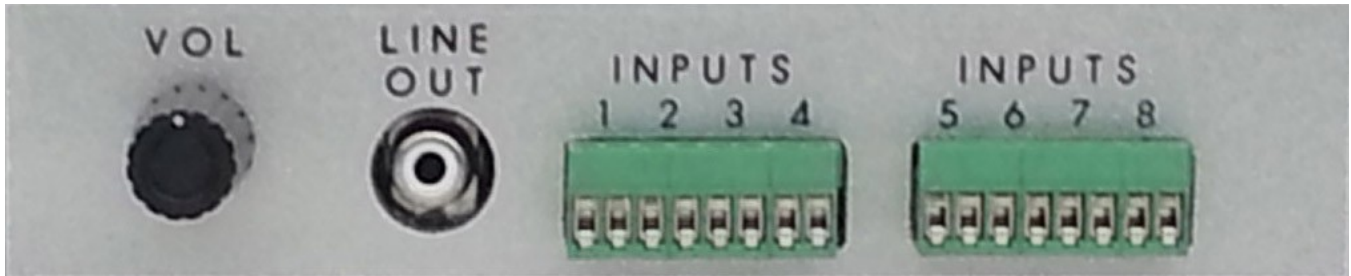


Figure 1 – Hardware Overview Front

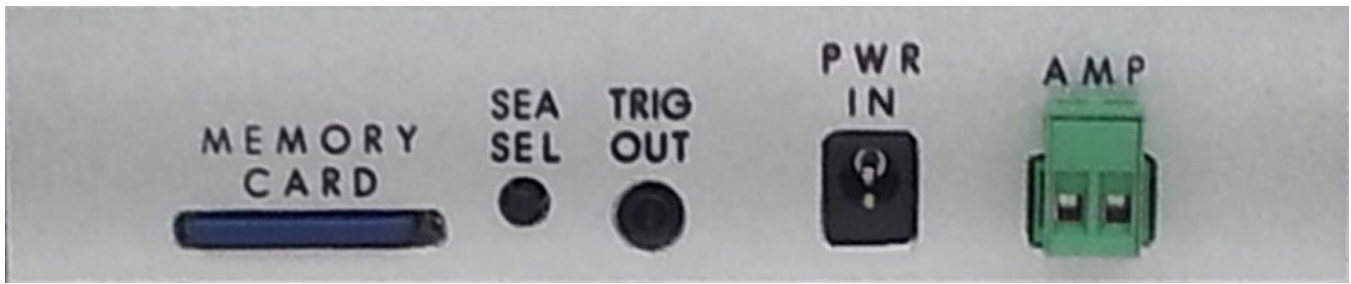


Figure 2 – Hardware Overview Rear

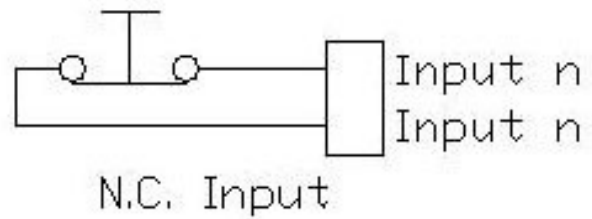
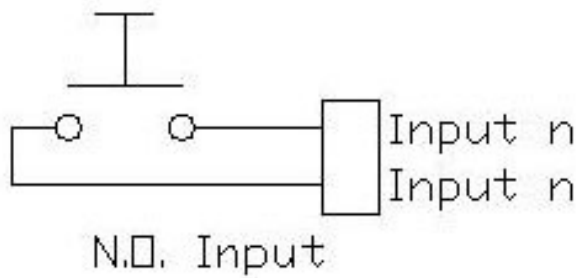
### Trigger Output

The trigger output is used to tell an amplifier that the audio in is active. The signal is 12Vdc when active. The signal is generated immediately after an input is received and just before the sound file starts playing. The time between trigger and start of sound file is several milliseconds. Some amplifiers have a delay between when the trigger is received and when the amplifier switches to that audio input. In those cases a short blank period may need to be added to the beginning of the sound files.

### Inputs

The digital inputs trigger the DYB2200 to play. Each normally open (NO) input is activated by shorting the 2 input pins on the connector. Each normally closed (NC) input is activated by opening the 2 input pins on the connector. Each input will register a 60 mSec or longer pulse. The inputs are protected to 100 Vdc. 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 DYB2200 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. If more than one input is received simultaneously then a sound will be played for each input in succession.





Each input can be set to accept NO or NC contacts. This is done with the programming software.

### Power Input

The DYB2200 ships with a 15 Vdc power supply. The supply plugs in to the front of the unit. See Figure 1. Apply power to the DYB2200 :

Memory card installed – There will be a 4 – 10 second delay. After that Marvin the Martian will say “Where’s the kaboom?” This signifies the DYB2200 has powered up correctly.

Memory card uninstalled – There will be a short beep. This signifies the DYB2200 could not find the memory card.

### Line Level Out

This output allows the user to route the DYB2200 audio output to an amplifier. It is a mono signal through a typical RCA jack.

### SD/MMC Card Slot

Accepts a MMC card up to 1 Gbyte, SD card up to 2 Gbyte. Each DYB2200 ships with a memory card.

### Occasion Select Button

The memory card can hold up to 24 different seasons or occasions. Each season/occasion holds the sound files for each input. So Christmas, Halloween, spring summer, football season, anniversary, birthday etc. can be programmed. This button allows the user to select which season/occasion will be current. Press the button and an electronic voice will say the number of the current season/occasion. Press it again and the number of the next season/occasion is announced. Continue pressing until you hear the preferred number. Wait 5 – 10 seconds and you will hear Marvin the Martian say “Where’s the Kaboom”?. This signals that the season/occasion has loaded successfully.

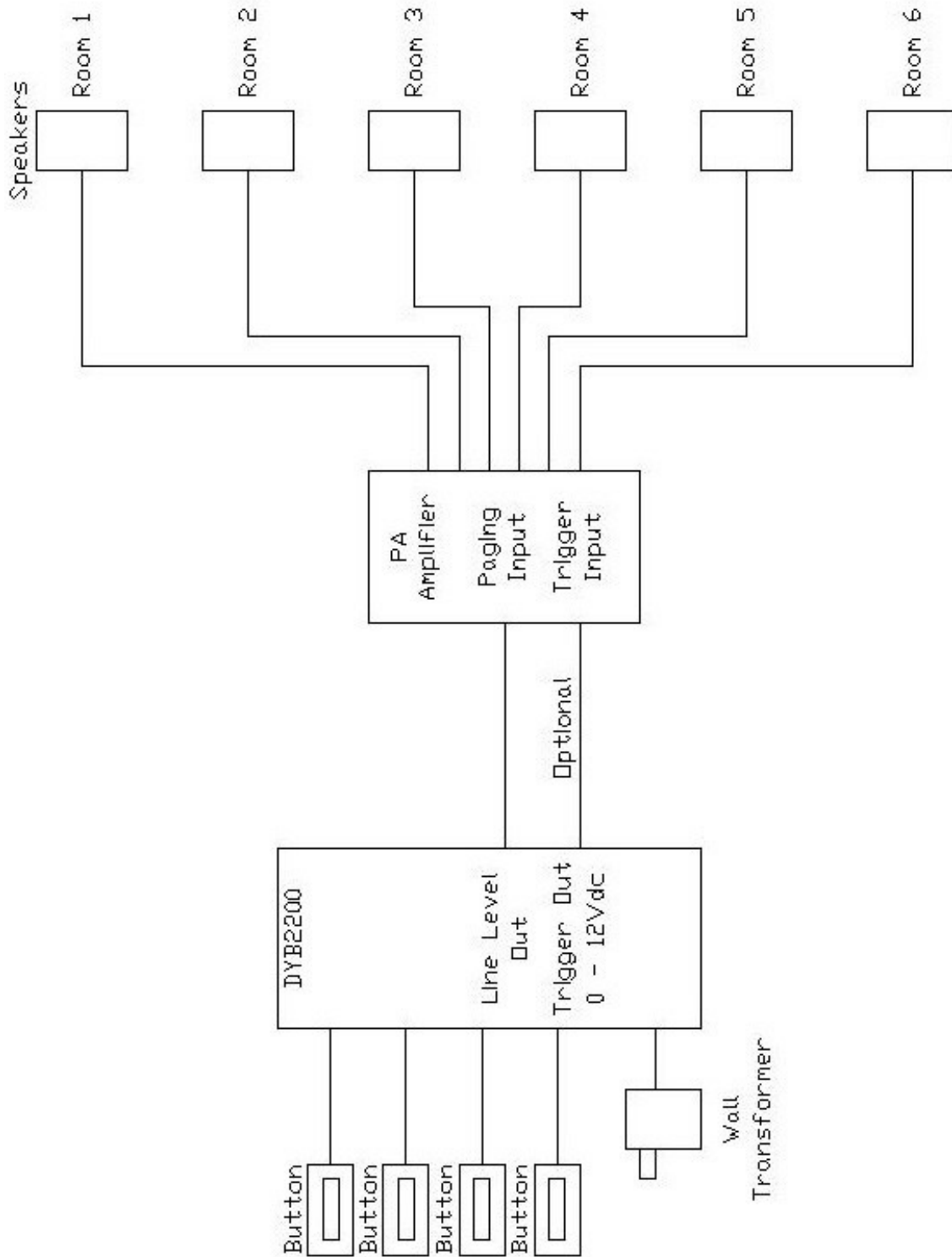


Figure 3 – Wiring DYB2200 to Amplifier

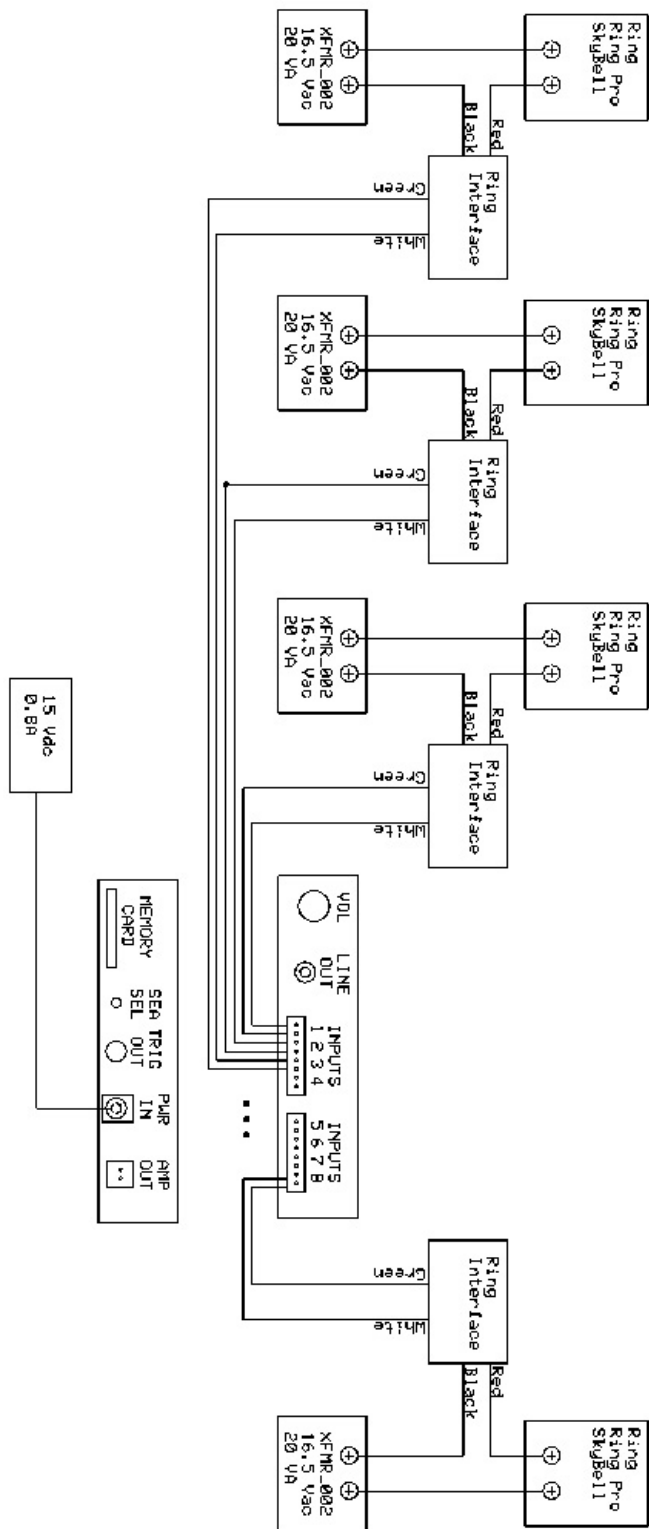


Figure 4 – Wiring DYB2200 to Ring, Ring Pro, SkyBell

# Electrical Description

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Absolute Maximum Ratings – Base Unit		
Parameter	Value	Units
Input Voltage	18	Vdc
Current - Active	800	mA
Input Voltage	100	Vdc

## Warranty

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The DYB2200 is warranted for 1 year. If within the first year of ownership the DYB2200 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. If it is determined that the unit has been misused in any way the warranty will be void.



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