DYB2200

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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. Depending on file types and compression ratios, about 8 minutes of quality audio snippets will fit on the DYB2200. The possibilities are endless. The DYB2200 will play MP3s and most WAV files. These can be downloaded from any computer that has a working USB port. 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.

The DYB2200 has four inputs. Each input can be set to accept NO or NC contacts. 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.
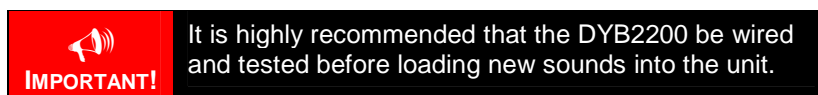
The DYB2200 has a powerful amplifier section that can drive four external eight ohm speakers (max. 2 ohm load) The volume is controlled using a potentiometer.

There is one line level output suitable for input into an amplifier system

There are four digital outputs for the control of external devices. The output can be set to last from ¼ of a second up to the length of the sound clip being played. Each Output is activated by an Input. (Output 1 by Input 1, Output 2 by Input 2 etc.) The output occurs directly after an input is received and just before the sound file plays.

Installation

IMPORTANT!	It is highly recommended that the DYB2200 be wired and tested before loading new sounds into the unit.

Software

Install the DYB2200 Software as follows:

1. Place the CD in an open CDROM drive. A pop up message box will ask if you want to install the software. Press OK. This may take a few minutes.

2. If the message box does not come up then browse to the **Root** directory on the CDROM. Run the program called **Setup.exe**..

3. This will install the program for loading songs into the door bell, the program for editing songs to length, the program for ripping songs from a CD and documentation.

4. There are extra hardware installation files located on the CD under the folder labeled Documentation
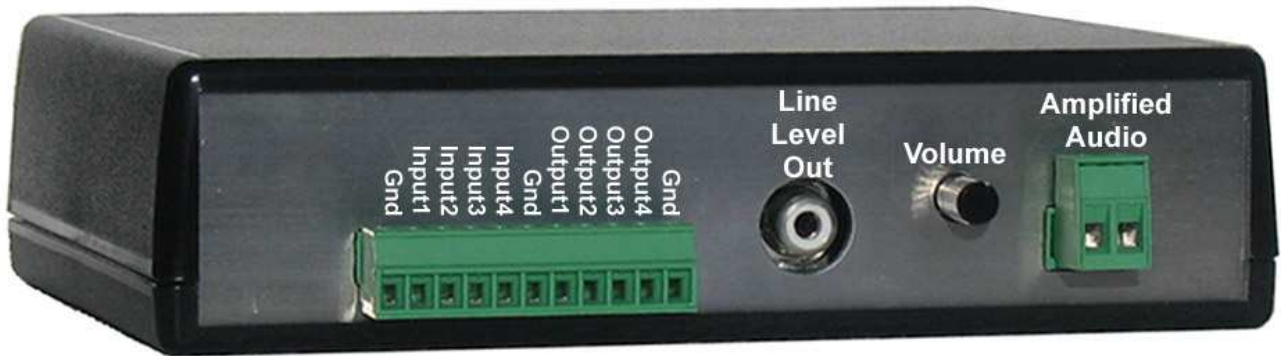
USB Driver

Install the DYB2200 USB driver as follows:

1. Plug the DYB2200 into a computer's USB Port or a USB Hub. The operating system will acknowledge new hardware.

2. When prompted, browse the New Hardware Wizard to the subdirectory **\USB_Driver** on the CDROM.

3. Select the file **FTD2xx.inf**. The operating system will then load the necessary files for the DYB2200 to work on the computer. The system will acknowledge the installation of the new hardware.

What to do if the operating system does not recognize the hardware when you first plug it in.

1. Make sure the Installation CD is in an available CD/DVD drive.

2. Plug the DYB2200 into a computer's USB Port or a USB Hub

3. Right mouse click on the "My Computer" icon located on the desk top. The Computer Management window will appear.

4. In the left pane click on Device Manager. A listing of your computer's assets will appear in the right pane.

5. Click on the + symbol next to Universal Serial Bus controllers. You will now see a complete list of the USB devices and controllers.

6. You should see one line item with a yellow exclamation point titled 100% Customizable Door Chime. Double click this item. This will pop up a properties window.

7. Select the Driver tab (at the top).

8. Click on Update Driver. This will bring up the Device Driver Wizard. Follow the instructions.

Hardware

Figure 1 – Hardware Overview Front
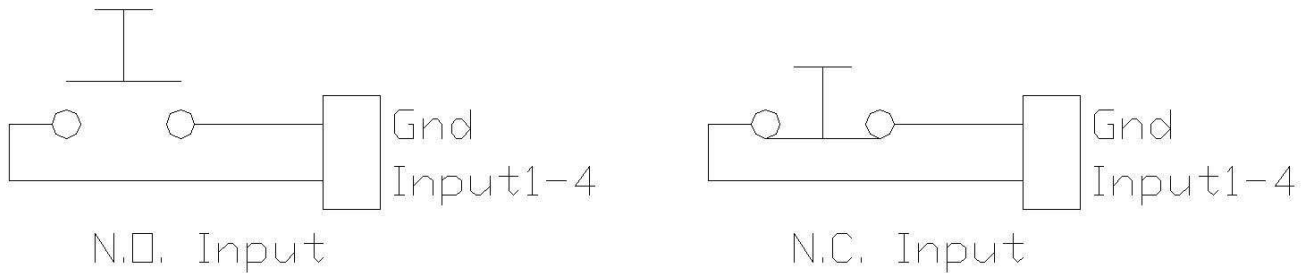

Figure 2 – Hardware Overview Rear

USB Input

The USB input is used for loading sound files onto the DYB2200, setting up the polarity of the inputs and adjusting the duration of the digital outputs. All of these features are accessible using the DYB2xxx_Programming software.
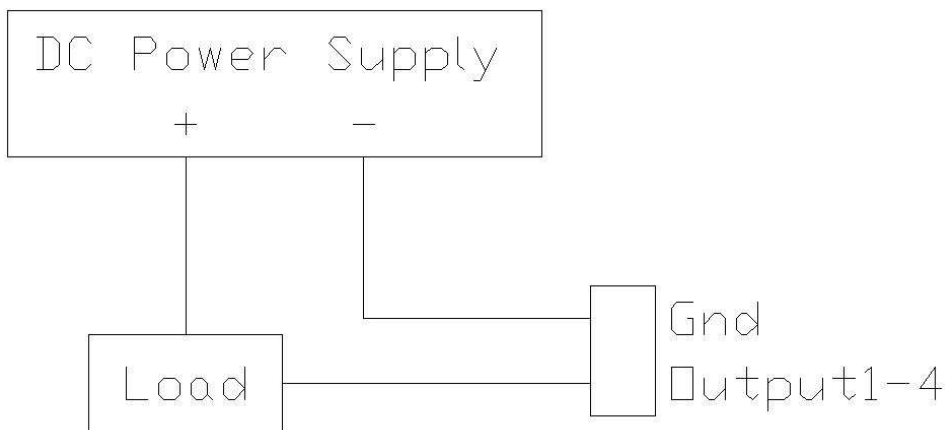
Digital Inputs

The digital inputs trigger the DYB2200 to play Each input is activated by a connection to a Gnd pin on the connector. Each input will register a 60 mSec or longer pulse. The inputs are protected to 100 Vdc. Each input can be set to accept NO or NC contacts. 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. The location of each output on the connector is shown in Figure 1.

Digital Outputs

The digital outputs can be used to control external devices such as to turn on a video recorder, mute an amplifier, turn on a light etc.. Each output is rated for a maximum 48Vdc at 2 amps. The outputs act like a switch to ground. The location of each output on the connector is shown in Figure 1.

Volume Control

Use this potentiometer to control the sound output levels. This will control the amplified audio output.

Amplified Audio Output

This connector allows for the driving of external speakers. It can drive up to four 8 ohm speakers in parallel or a maximum load of 2 ohms.

Power Input

The DYB2200 ships with a 16.5Vac power supply. The supply plugs in to the rear of the unit. See Figure 2. When power is applied to the DYB2200 a short beep will be played to verify that the unit has powered up in good fashion.

Absolute Maximum Ratings		
Parameter	**Value**	**Units**
Rated Input Voltage	16.5	Vac
Current - Active	1500	mA
Amplifier Load	2	Ohms
Digital Input Voltage	100	Vdc
Digital Output Voltage	48	Vdc
Digital Output Current	2	A

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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