

Digital Audio Controller (DAC-2)



DAC-2

The purpose of the DAC-2 is to give the professional DJ real-world touch control to manipulate the PCDJ Software. This Controller combines the incredible working power of today's computers and hands-on workability with on-the-fly capabilities.

Connecting the DAC-2 Controller

Connecting the controller to your computer only requires a few simple steps:

Step 1. Put the PCDJ CD in your computers CD-ROM Drive. (If CD has been lost or damaged you can download DAC-2 drivers from www.pcdj.com support web page)

Step 2. A animated screen should appear, Now click on Dac-2 Driver button.



STEP 3. Plug the Power Cord into the DAC-2 Power Input connector.

STEP 4. Plug the **12V DC 500mA** Power Supply other end of the power cord into a wall socket. Dac-2 should power on then off.

STEP 5. Plug the USB Cable into the USB Port of your Computer.

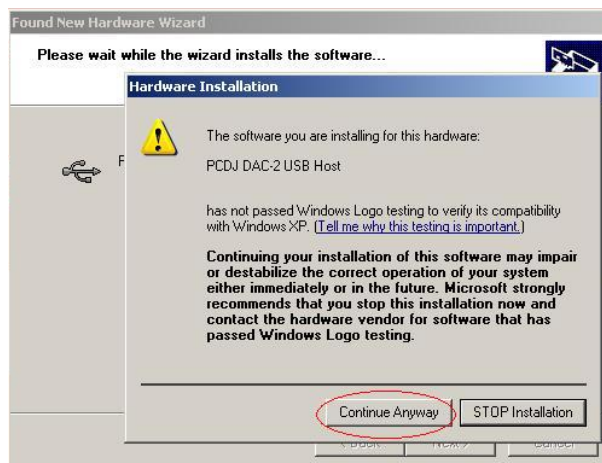
STEP 6. Plug the other end of the USB Cable into the USB Port of your Digital Audio Controller (DAC-2).

Step 7. An installation wizard should pop up at this time.

Step 8. Click Next to let Windows auto search for DAC-2 drivers located on PCDJ CD. If Windows cant find drivers click the back button and make sure CD is properly inserted in your CD-Rom Drive, then click next again. If this doesn't work click the back button and click Install from a list or specific location (Advanced)



Step 9. Windows should detect drivers and pop up a warning message that DAC-2 has not passed Windows Logo Testing. Just Click Continue Anyway. Then Click Finished on the next screen.



Step 10. A Second installation wizard should appear, Follow Steps 8 and 9 again to complete DAC-2 Instillation.

The DAC-2 is now connected to your computer, has power and should be ready to work with The PCDJ Software.

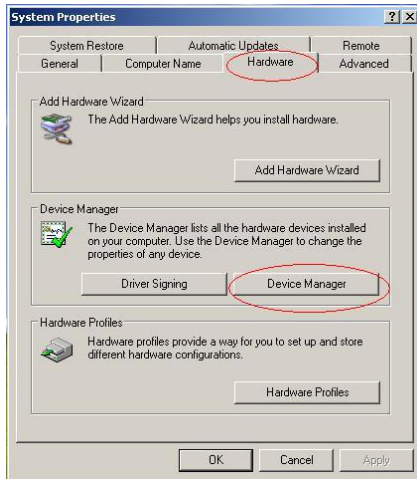
Connection Verification

It is necessary to verify that the DAC-2 is properly installed/ connected to your Computer and the PCDJ Software.


Step 1. Right Click on My Computer located on your Desktop or on your windows Start Menu.

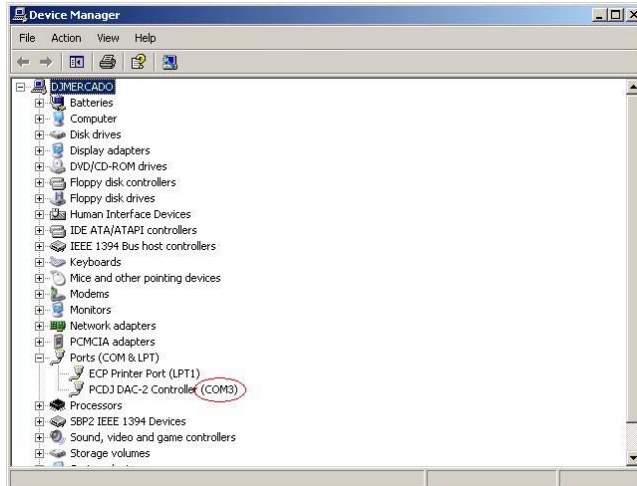


Step 2. System Properties window should appear, Click Hardware tab, then Click on the Device Manager Button.



Step 3. Device Manager Window Should Appear.
Look for Ports (Com & LPT) now click on the + symbol to expand tree. You should see PCDJ DAC-2 Controller Com # (Com port number # varies from computer to computer). Write this number down.

Now Close all windows by clicking on the X 
On the top right corner of Device manager and System properties.



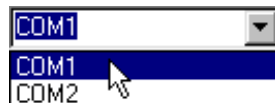
FYI: Usually, Com Port 3 and 4 are reserved for modems. This might cause connectivity problems with your controller which can be fixed by Manually changing the Com port number.



STEP 1. Open The PCDJ Software if it is not already started.

STEP 2. Click the “**CFG**” (Configuration) button to enter the Configuration mode.

STEP 3. The very first tab you come to is the Hardware TAB. At the very bottom of this screen you will see Controller Com Port Drop down menu.

This is were writing down the Comport number from the last installation steps comes in handy. Depending on which Com Port your computer assigned the DAC-2 will determine which Com Port (COM1, COM2, etc.) you will need to choose in the “Controller Com Port” drop down menu.



STEP 4. If you can't remember what Com Port your DAC-2 was on do this, choose the first port in the list by clicking the  (Down Arrow) to the right of the **Controller Com Port** text box. Then click the Test Controller button. If there is no resulting information showing in the  (Controller msg) text box, choose the next choice in the list in the same fashion, and so on, until you see DAC Found. text box, then click Ok to save changes and exit Configuration Editor.

The DAC-2 Features Diagram

The DAC-2 has many awesome features specifically designed to allow the DJ to reach new levels of dynamic performance and a higher realm of creativity. As you look at the front of this controller, you'll notice many controls which complete many functions. But depending on the mode that the PCDJ Software is in, these same controls will complete other tasks as well. Also, many of them, used in combination, will create even more effects. This section/manual will show you the different controls of the DAC-2, what they do and how to manipulate them in the different modes.

But before we move on to the diagram, it is important to first understand the difference between the Player mode and the Sampler mode. Read the next section and then proceed with the DAC-2 diagram.

Looping, Player and Edit Modes Defined

The PCDJ Software is actually two things in one: a sampler and a player. And within these devices are three working modes of operation:

The Looping Mode

A sampler is a device that copies a short piece of a larger audio track. These short pieces of audio are technically known as "samples". In the PCDJ Software, these samples are called "Loops". A Loop, by definition, is a short length of sound that can be used to work into a mix for creating greater effects of the music.

The Player Mode

The Player mode plays back the audio tracks and Loops in the Dual Players. It is selectively different than the Edit Mode in that it does not allow the setting, or editing, of Cue Points.

The Edit Mode

The Edit mode allows you to create and edit Cue Points.

Look at the following diagram and read about the controls to begin to become familiar with this powerful tool – the DAC-2.

Important NOTE: *In order to keep from getting too much subjective information at one time, look at (touch, play with, feel, etc.) the features on your DAC-2 Controller as you read about them in this section. You don't have to try to operate these features at this time, but get familiar with the "actual" controls instead of just pictures on a page.*



DAC-2 (Left Side)

NOTE: The controls of the left side of the DAC-2 are for Player “A” of the PCDJ Software and the equivalent controls on the right side are for Player “B”.

1. **Load:** This is the **Load** button. Pressing it in the Stop mode will load the selected track from the Recordcase of The PCDJ Software. This button is also used, in combination with other buttons, to execute more functions as well.
2. **Wait List:** Clicking the **Wait List** button will open the Wait List mode. When in this mode, any tracks that have been placed in the Wait List will then be shown in the Recordcase. This button is also used, in combination with other buttons, to execute other functions.
3. **Shift:** The Shift button works like a typical Shift key on a computer keyboard by allowing control (or button) combinations to execute more tasks. For example, holding down the **Shift** button and pressing the **Cue** button (Shift + Cue) will cause the Player that is playing a song to slow down to a complete stop (an effect that sounds like a turntable being turned off).
4. **Inner Jog Wheel:** When the Player is not playing a track – The inner wheel of the **Jog Wheel** will scroll up and down the track list in the Recordcase when you spin it clockwise and counter-clockwise.

When the Player is playing a track – you can temporarily bend the pitch of a song by turning the **Inner Jog Wheel** clockwise (pitch up) or counter-clockwise (pitch down) when a song is playing in the Player.

5. **Outer Jog Wheel:** When the Player is not playing a track – When you turn the outer wheel of the **Jog Wheel** all the way to the left or right, it will scroll through your Subgroups at the bottom of the Recordcase.

When the Player is playing a track – Turning the **Outer Jog Wheel** will cause the play position to swiftly track (or move) through the song. (This is also known as “Seeking”.)

6. **Cue Memory:** When the Player is not playing – These buttons scroll Right or Left through the Cue Point Indicator (in The PCDJ Software) to choose one of the cue memory positions for storing or playing Cue Points.
7. **Group:** This is the **Group** button. Each time you press it, it moves to the next group in the Group Listcase, scrolling up and down the list of groups.

- 8. Preview:** The Preview button takes you out a loop.

The Preview button also acts as a typical "Shift key on a computer keyboard, allowing more functions to work by combining itself with another control (or button).

- 9. Match:** The **Match** button will match the BPM (Beats Per Minute) of a song in one the Dual Players with the song that is in the other Player.

To further explain this: If the BPM of the track loaded in Player "A" is 122 and the BPM of the track loaded in Player "B" is 137, pressing the **Match** button of Player "A" would change the BPM of Player "A's" track to 137. This, of course, would be reversed if Player "B's" **Match** button were pressed: Player "B's" track's BPM would change to 122 to match Player "A's" BPM.

- 10. Pitch Control Slide:** This slide allows you to control the Pitch Control Slide of The PCDJ Software by hand.

- 11. Cue:** Clicking the **Cue** button will stop the Player from playing a track. If there is a Cue Point chosen, the Player will set its playing point back to this cue position instead of returning to the beginning of the song. In this "cued" mode, the red LED light above the Cue button will light up.

(Shift + Cue): Holding down the **Shift** button and pressing **Cue** will cause the Player to begin Braking in a Turntable style Brake. The speed of this brake is configurable in the CFG/Interface section.

- 12. Play:** The **Play** button will start the corresponding Player (A or B) when depressed, if the Player has a track loaded in it. The green LED light above the button will light up. If you press the Play button once more, the Player will go into a Pause mode and the green LED light will begin to blink. Pressing the button once again will cause the Player to resume playing from where it left off when it was paused.

- 13. Pitch Bend:** These two (– and +) buttons will bend the pitch of the song being played in one Player. This will speed it up or slow it down to synchronize it with the song in the other Player for as long as the button(s) is held down.

- 14. Display Window:** The green window that shows the status of many of the DAC-2's features.

More on the DAC-2

Now that you've become somewhat familiarized with the DAC-2 we can move on to learning how to operate many of its features. Continue reading, and as you go along, try the controls on the DAC-2 as you learn about them. This way, you will better retain what you are studying.

Pausing the Player

Press the **Play** button, then press it a second time and the Player goes in to the (silent) **Pause** mode.

Edit Mode

When in the Edit mode, you are able to search through a song with sound. For instance, if you want to find a place to set a Cue Point, you can seek forward or backwards with sound (you are able to hear the song skipping forward or backwards like it sounds with a CD player). The next two segments explain how to use and activate the **Edit Mode**.

Change Pitch Control Range

(Wait List + Match) - Holding down the **Wait List** button and pressing the **Match** button will change the “range” at which the pitch will change in the playing song when the Pitch Control Slide is moved.

For instance, every time the Match button is pressed while holding down the Wait List button, the range numbers in the Pitch Control Slide change (4, 8, 16, 32, and 54). The higher the number, the greater the change in pitch will be in the playing song as the Pitch Control Slide is moved. In other words, at the lowest range (4), moving the Pitch Control Slide approximately 1” (for example), would change the pitch (or speed) of the song playing in the Player much less than if it were set at the highest number (54).

Pitch Bend

Though you may have the BPMs of two songs that are in the Dual Players, you may occasionally need to temporarily speed up or slow down one of the songs in order to move their beats in sync. (There are a number of reasons why this might occur, but none of them are caused by The PCDJ Software.) This is where the Pitch Bend feature comes into play:

Using the Inner Jog Wheel – You can temporarily bend the pitch of a song by turning the **Inner Jog Wheel** clockwise (pitch up) or counter-clockwise (pitch down) when a song is playing in the Player. The faster you spin the Wheel, the greater the degree of bend that will occur.

Using the Pitch Bend buttons – You can also bend the pitch by holding down the **Pitch Bend** buttons. To bend the pitch to a greater degree, use the control combination: (**Shift + Pitch Bend**) hold down the **Shift** button and depress one of the **Pitch Bend** buttons (**minus**, to temporarily slow down the song and **plus**, to temporarily speed it up). The pitch will bend for as long as you hold down either of the Pitch Bend buttons.

Pitch Step

Sometimes it is necessary to be able to move the Pitch Control Slide minutely in order to better match-up a song with another, after having manually positioned the Pitch Control Slide to match the pitch (or speed) of one song with another.

An example would be: You’ve matched the pitch of one song in one Player with the pitch of another song in the other Player. But the song that you changed the pitch of

begins to drift off the beat of the other song. This is because the pitch was not precisely matched.

This is where the **Pitch Step** control becomes very useful. By holding down the **Load** button, while the Player is playing, and tapping the (–) or (+) **Pitch Bend** buttons, you can move the Pitch Control Slide in very small increments – (0.01%). This way, you will be able to perfectly match-up the two songs together.

Choosing a Position on the Cue Point Indicator

When the Player is in the Sampler mode – Simply press the left or right **Cue Memory** buttons to scroll up or down the Cue Point Indicator to choose one of the 20 cue memory positions for storing or playing Cue Points.

When the Player is in the player mode (but stopped) – You can hold down the **Match** button and press the left or right **Cue Memory** buttons to step forward or backwards in BPMs.

Different Ways to Set Cue Points

There are a number of ways to set Cue Points with the DAC-2. Below is one way to do this.

Set Cue Points with the Jog Wheel

STEP 1. Begin playing your track by pressing the **Play** button.

STEP 2. Press the **Play** button again at the point where you would like to save a Cue Point in memory.

STEP 3. Turn the **Inner Jog Wheel** clockwise to seek forward or counter-clockwise to seek backwards and the Repeating Pause mode is activated so you can hear exactly where your cue position is in the song.

You can also use the **Outer Jog Wheel** to seek as well. The further you turn it, the faster it will seek through the song.

STEP 4. To fine-tune the cue's position, hold down the **Shift** button and turn the **Inner Jog Wheel**. Holding the Shift button makes the linear movement of the seek function move in very small increments. This allows you to be precise with the positioning of the Cue Point.

STEP 5. Click the **Cue/Stop** button

Making a Cue Point on the fly

This way of setting a Cue point lets you do it on-the-fly.

STEP 1. Press the left or right **Cue Memory** buttons to choose a Cue position (for example, position 1 or 2 or 3 or 4, etc.).

STEP 2. While the song is playing, hold down the **Match** button.

STEP 3. Then, after listening to the song's beat, press the left **Cue memory** button at the position where you want to set a Cue Point in the song(LOOP IN). After a few seconds, press the right Cue memory button... this will set your LOOP OUT point and begin your player looping. Press and release the Loop/Preview button to exit this loop. You now have a cuepoint/Loop set at the point you wished.

NOTE: *Using the same combination of control buttons while the Player is stopped makes the DAC perform a completely different task. Check the "Other Combination Control Features"*

Edit a Cue Point

To put the Player into the Edit mode on-the-fly using the DAC-2, press the **Play** button to start the Player playing a track. Then hold down the **Shift** key and press the **Play** button again. You will begin to hear the **Repeating Pause** feature, which reveals the Cue Point's position in the song.

Beat Stepping

If you have a Cue Point set, and it is chosen (in the Cue Point Indicator), holding down the **Match** button and pressing the **Cue Memory** buttons will move the Cue Point exactly one beat per click. The left button moving backwards by one and the right one moving forward by one for each time you press it.

The **Beat Step** feature makes it easier to set a cue on-the-fly because you only need to listen to the beat of the song and set a cue on the beat. Then you can easily move the Cue Point forward or backwards as many beats as you wish. If there is a portion of a song that had no drum beat to follow (for example, if there's only talking or strings playing) you can set the Cue Point before or after this section and then move the Cue Point to include this section. Then, when the drum beat starts up again, it will be on the correct count.

NOTE: *To do Beat Stepping, the BPMs of a song must be entered prior to using this feature. If no BPMs are entered, there is no way the PCDJ Software can calculate the beat.*

The Wait List

To load tracks into the **Wait List** with the DAC-2, follow the steps below.

STEP 1. Select a track on the Recordcase (a highlight will show over the chosen track).

STEP 2. Hold down the **Waitlist** button and press the **Load** button.

STEP 3. Repeat steps 1 & 2 until you've built your desired playlist.

(To learn how to do more things with the Wait List such as play tracks and delete tracks, check back to Chapter IV under these topic headings.)

Turntable Break (Off)

Another cool feature in the DAC-2 is the **Turntable Break**. When you hold down the **Shift** button and press **Cue** (when the Player is playing), the PCDJ Software will slow down to a stop, creating a sound like a turntable being shut off.

Turntable Break (On)

When you hold down the **Shift** button and press **Play** (when the Player is stopped), the PCDJ Software will start playing from a complete stop and gradually speed up to normal play speed. The sound effect is like a turntable being turned on.

Creating Loops

A Loop is a short length of sound that can be used to work into a mix for creating greater effects of the music.

STEP 1. To create a Loop, first choose one of the cue positions in the Cue Point Indicator.

STEP 2. While playing a song, hold down the **Preview** button and press the **(-)** **Pitch Bend** button and a Loop will be created in the length of 4-beats. Each time you press the **(-)** button, the Loop will decrease in length.

If you want to lengthen the Loop, hold down the **Preview** button and press the **(+)** **Pitch Bend** button. Each time you press the **(+)** button, the Loop will increase its length by 4 beats.

Playing a Loop

To play a Loop, select a cue position that has a loop created earlier. Now just press the Loop/Preivew button and **Play** button at the same time. The Loop begins to play. You can also stutter the Loop by tapping the **Play** button repeatedly.

Press the **Preview** button for a seamless exit of the Loop. What is meant by "seamless" is, you don't have to worry about pressing the Play button at any "exact" time. This is because no matter when you press the button, the Loop will play to its end point and then automatically switch to the Player mode and start playing the track that is loaded in the Player. This gives a seamless bridge from the Loop to the song without missing a beat.

NOTE: You can switch between the different Loops that you've created by scrolling to the desired Cue Point Lights and playing them the same way as in the steps above.

Using Multiple Loops in the Mix

Now that you know how to create loops and play loops, you can learn how to use Loops in your mix.

STEP 1. You will now be able to scroll through your Loops, exclusively, in the Cue Point Indicator.

STEP 2. Choose a Loop to play by scrolling with the Cue Memory buttons.

STEP 3. Press the Loop / Preview button and **Play** button at the same time and the chosen Loop begins playing.

NOTE: *You can stutter by tapping Play quickly.*

STEP 4. Now scroll to the next Loop or cue position that you would like to play.

STEP 5. Press the **Play** button and the new Loop begins to play.

You can toggle between the two most recently played Loops by pressing the **Shift** button. You can quickly play each Loop, back-and-forth, by pressing Shift, Play, Shift, Play, and so on.

Note: Do Not get confused with Holding down Shift and Play at the same time to enable Turntable style start up.

Reverse Play or Reverse Loop Play

The DAC-2 will let you play a song backwards or a Loop backwards. This is done by holding down the **Match** button and pressing **Preview**.

Mixing Tracks

Your ability to mix songs with seamless precision with the PCDJ Software is simple. Follow the steps below to learn how to use the DAC-2 in mixing, beat matching and more.

Instant Beat Matching

NOTE: *The BPM must be set in both of the tracks that are loaded into the Players in order to be able to use this function.*

STEP 1. Load both Players with tracks (see, "Loading a Track Into the Player" in Chapter IV on how to load the Players).

STEP 2. If you want the BPM of the track in Player “A” to match the BPM of the track in Player “B”, press the **Match** button on the left side of the controller (this is Player “A” side of the Controller). The **LED light** to the right of the **Match** button will illuminate to show that the track in that Player has been Beat Matched.

You could, instead, match the BPM of the track in Player “B” to that of Player “A” by pressing the **Match** button on the right side (Player “B” side) of the controller.

NOTE: *The Instant Beat Matching feature works in any mode for instance, play mode, Sampler mode, etc., it also works with Loops as well.*

At this point, the Reference Player (the one that did not change its BPM) becomes the Master Player. In other words, it takes over the Pitch Control of both Players. When you move the Pitch Control Slide on the Controller of the Master Player, you will see both Slides move in Players “A” and “B”. This allows you to manipulate the speed of the songs in unison.

FYI: Move the **Pitch Control Slide** on the Controller of the Subordinate Player and you will see the **white dot** located to the right of the Slide’s handle on the PCDJ Software move. This dot simply shows you the position of the Controller’s Pitch Control Slide’s.

The LED light that is illuminated shows that the Player it represents is the subordinate (or slave) Player. If you were to change out the track in the Master Player with a new track, the LED light of the subordinate Player would begin to blink. This means that that Player’s Pitch Control is now independent of the Master Player but is still set to the previous pitch setting made by the Master Player.

To reset the subordinate Player’s Tempo Control, you only need to slide the **Control Slide** (of the subordinate Player) on the Controller to meet the Control Slide of the PCDJ Software. The blinking LED light will turn off, the white dot on the PCDJ Software will once again move with the Slide and the Control will be delegated back to the Player.

FYI: Another way to reset the Tempo Control back to the subordinate Player is by holding down the **Shift** button and pressing the **Match** button.

NOTE: *Resetting the Tempo Control should only be done when the affected Player’s output is in the monitor/headphones because the Tempo of the song would jump as you reset it, causing it to drastically change the speed/pitch of the song.*

The exception to this is to move the Controller’s Tempo Control Slide very slowly to the position of the PCDJ Software’s Slide handle. This way, there would be no noticeable change in speed/Tempo.

Other Functions of the DAC-2

Time Elapsed/Remaining Toggle

To change the running time dialog in the DAC Display Window, hold down the **Shift** button and press the **Load** button.

Stutter

(Stop/Cue + Play) - To create a stutter effect, hold down the **Stop/Cue** button and tap the **Play** button as fast or slow as you would like.

Stutter and Continue Playing

If you want the song to continue playing after you stutter, hold down the Play button (while still holding down the Stop/Cue button), take your finger off the Stop/Cue button and then remove your finger from the Play button.

“BPM to Pitch” Toggle

To switch the number in the DAC Display Window from the Pitch gauge to the BPM (Beats Per Minute) gauge, hold down the **Match** button and press **Shift**. Pressing it again will toggle it back to Pitch, etc.

A Final Note

VERY WELL DONE! You have completed the tutorial for the PCDJ Software. This is what music and mixing is all coming to – high tech. By adapting your DJ experience with the power and versatility of the computer and the PCDJ Software, you are positioning yourself to be a leader in your profession.

You now know how to utilize the advanced features of the PCDJ Software. These procedures will quickly become second nature to you after you have worked with them a few times.

The next chapter offers “Keyboard Shortcuts” for the PCDJ Software. Once you learn these shortcuts, you will be able to master the system.

From here forward for as long as needed, you should refer to this manual and work with the player until you know its features cold and can comfortably run it.

Do your homework *before* your gigs and have everything ready ahead of time. You shouldn't be making lists and arranging tracks in the Wait List during your performance. Also, use the Wait List and Auto Pilot together when performing live. This combination is so efficient; you'll wonder how you ever got along without it in the past.