

# American DJ AUDIO

Featuring:



**PROformer plus**

## IMPORTANT SAFETY ITEMS FOR U.S.A. & CANADA MODEL ONLY

### WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS CD PLAYER TO WATER OR MOISTURE

### CAUTION:

1. Handle the power supply cord carefully. Do not damage or deform; it may cause electric shock or malfunction when used. Hold plug attachment when removing from wall outlet. Do not pull on the cord.
2. To avoid electric shock, do not open the top cover when the unit is plugged in. If problems occur with the unit, call your local American DJ AUDIO dealer.
3. Do not place metal objects or spill liquid inside the CD player. Electric shock or malfunction may occur.

Please record and retain the model name and serial number from your rating label for future reference.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

### NOTE:

This CD player uses a semiconductor laser. It is recommended for use in a room at the following temperature: 41°F - 95°F / 5°C - 35°C

### CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE CAREFULLY INSERTED TO PREVENT BLADE EXPOSURE

### CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

### NOTE:

This unit may cause interference to radio and television reception.

## Line Voltage Selection

- The desired voltage may be set with the VOLTAGE SELECTOR switch on the rear panel (using a flat head screw driver).
- Do not force the VOLTAGE SELECTOR switch as this may cause damage
- If the VOLTAGE SELECTOR switch does not move smoothly, please contact a qualified service technician.



**CAUTION**

**Do not open - risk of electric shock**



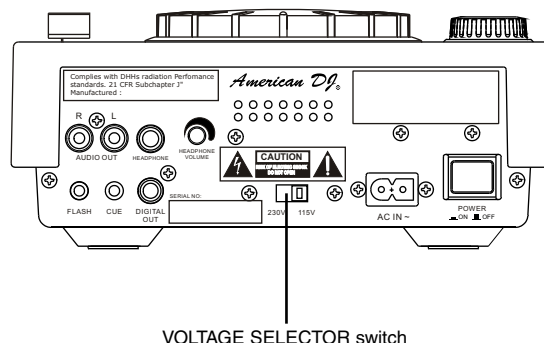
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER RACK. THERE ARE NO USER SERVICEABLE PARTS INSIDE REFER SERVICE TO YOUR AUTHORIZED AMERICAN DJ AUDIO DEALER.



The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non insulated "dangerous voltage" within the products enclosure, and may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the user manual accompanying the CD player.



## SAFETY INSTRUCTIONS

1. Read Instructions - All the safety and operating instructions should be read before the CD Player is operated.
2. Save Instructions - The safety and operating instructions should be saved for future reference.
3. Heed Warnings - All warnings on the CD Player and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and user instructions should be followed.
5. Water and Moisture - The player should not be used near water - for example, near a bath tub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. Ventilation - The CD Player should be situated so that its location or position does not interfere with its proper ventilation. For example, the CD player should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
7. Heat - The CD player should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
8. Power Sources - The CD player should be connected to a power supply only of the type described in the operating instructions or as marked on the CD Player.
9. Grounding or Polarization - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
10. Power-Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the CD Player.
11. Cleaning - The CD Player should be cleaned only as recommended by the manufacturer.
12. Non-use Periods - The power cord of the CD Player should be unplugged from the outlet when left unused for a long period of time
13. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
14. Damage Requiring Service - The Player should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the CD Player.
  - C. The CD Player has been exposed to rain or water.
  - D. The CD Player does not appear to operate normally or exhibits a marked change in performance.
  - E. The CD Player has been dropped, or the enclosure damaged.
15. Servicing - The user should not attempt to service the CD Player beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

# SET-UP

## 1. Checking the Contents

Be sure your Pro Scratch 1 was shipped with the following:

- 1) Pro Scratch 1 Professional CD player.
- 2) Operating instructions (this booklet).
- 3) One (1) set of RCA cables.
- 4) One (1) 1/8" mini plug.
- 5) Warranty card.

## 2. Installing the Units

Place your unit on a flat surface or mount it in a flat surface case

## 3. Connections

- 1) Be sure the power is disconnected.
- 2) Connect the included RCA cable from your Pro Scratch 1 outputs to the inputs on your mixer.
- 3) Use the supplied 1/8" mini plug cable to connect your Pro Scratch 1 to a mini jack connection (A or B) on a compatible American DJ "Fader Q Start" mixer. (This will enable the Fader "Q" Start function - See "Q" start control pg. 5)

### CAUTION:

- **Be sure to use the supplied control cables. Using other types of cable may result in unit damage**
- **Be sure the power is off when connecting the control cables, otherwise the units may not work properly.**

### CAUTION:

- The player will work normally when the main unit is mounted with the front panel within 15 degrees of the vertical plane. If the unit is tilted excessively, disks may not be loaded or unloaded properly.

(Figure 1)

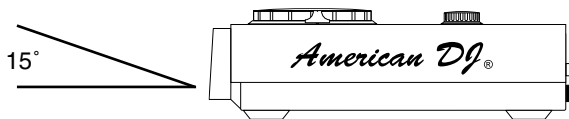


Figure 1

### CAUTION:

- The LCD is designed to be clearly visible within the angles shown in **Figure 2**. Mount the control unit so that the visual angle is within this range.

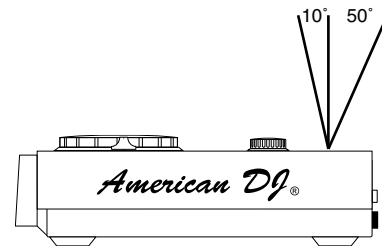


Figure 2

# GENERAL NOTES ON USE

- Avoid high temperatures. Allow for sufficient heat dispersion when installed in a case.
- Handle the power cord carefully.
- Hold the power cord from the plug when unplugging the cord. Never pull from the cable!
- Keep the unit free from moisture, water, and dust.
- Unplug the power cord when not using the unit for a long periods of time.
- Do not obstruct the ventilation holes. (For units with ventilation holes.)
- Do not allow foreign material to enter the unit.
- Do not let insecticides, benzene, or thinner come in contact with the surface of the unit.
- Never disassemble or modify your unit in any way, doing so will void your manufactures warranty.

## MAIN FEATURES

- 8 times over sampling 1 bit D/A converter
- Auto cue
- 1/75th second frame search
- Real time cue (“Cue on the Fly”)
- 4 different speed scan
- Pitch display
- 384 programmable Cue Points (128 x 3) **(f)**
- Digital RCA coaxial output
- Large bright Digital Screen can be viewed from wide angles.
- Fader “Q” Start Control **(a)**
- Seamless Loop (uninterrupted loop playback)
- Sampler (Forward & Reverse Sampling)
- Bop Effect **(b)**
- Flip-Flop (Relay Playback) **(c)**
- Adjustable Pitch Percentages: +/-8%, +/-12% or +/-16%
- Jog Wheel Pitch Bend +/-100%
- Memory Backup, Defaults to last setting **(e)**
- Instant Start within 10 ms (sound is produced immediately when the PLAY button is pressed)
- 3 Programmable Cue (Flash Start ) Buttons
- Slot Loading Drive - No more Transport Tray

- 
- (a) FADER “Q” START CONTROL:** This feature is used in conjunction with American DJ mixers that also feature “Fader Q Start” control. For best results use this feature with two (2) Pro Scratch 1 players. Connect your Pro Scratch 1’s as described in the set-up section of this manual. After set-up is completed load your players. By moving the mixer’s crossfader from left to right you can start and pause your Pro Scratch 1 playback functions. For Example, when using two (2) Pro Scratch 1 players and a Fader “Q” Start mixer, if your mixer’s crossfader is all the way to the left (player one is playing, player two is in cue or pause mode), and you move the fader at least 20% to the right, player two (2) will begin to play and player one (1) will return to cue mode. When the crossfader is to the right, and you move it 20% to the left, player one (1) will begin to play and player two (2) will return to its’ cue point. You can create great effects similar to scratching with this feature. After storing cue points on each side of the CD player, different songs or samples may quickly be recalled by moving the mixer crossfader back and forth. New cue points can be easily selected on the Pro Scratch 1 player **(see setting cue points page 13)**. “Q” Start control is easy to use and mastering this feature will help you create amazing effects with your music. Note: For proper “Q” Start operation be sure your mixers “Hamster” setting are set to 1/2 (Normal Setting).
- (b) BOP EFFECT:** The Bop Effect button serves two features. First, it is a stutter effect, creating a sound similar to a sampler. Second, it will return to the last Cue point in memory instantly. This will allow you to create great effects. To create the BOP Effect, see BOP Effect on page 15.
- (c) FLIP-FLOP:** This feature is used in conjunction with American DJ® mixers that also feature Fader “Q” Start. For FLIP-FLOP results you must use two (2) Pro Scratch 1 players. Connect your Pro Scratch 1’s as described in the set-up section of this manual. This feature will start the next player once one (1) player has ended. For example, if player one (1) is playing a disc and it ends, player two (2) will instantly begin to play. You may set FLIP-FLOP to play track to track or disc to disc. For more information on this feature, see FLIP-FLOP™ on page 18.
- (e) MEMORY BACKUP:** The Pro Scratch 1 has a five (5) year memory back-up, that will save your setting in case the power supply is accidentally disconnected. Pro Scratch 1 will remember your last setting (repeat, SGL, CTN, and effect parameters) even if you disconnect your main power. The Pro Scratch 1 will store your cue points in memory if you accidentally eject a disc or shut off the power. To store your settings into memory hold down the **MEMORY BUTTON (7)** for 5 seconds.
- (f) PROGRAMMABLE CUE POINTS:** The Pro Scratch 1 has three Flash Start Buttons (8). 128 Cue points can be stored in each of the **FLASH START BUTTONS (6)**, for a total of 384. These cue points can be stored into the unit’s internal memory and may be recalled at any time.

# GENERAL FUNCTIONS AND CONTROLS

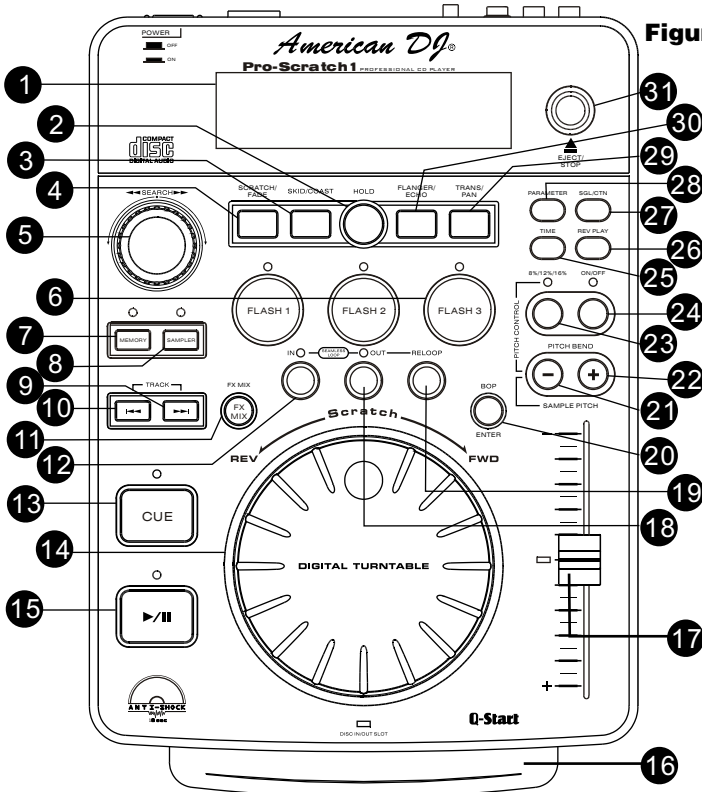


Figure 3

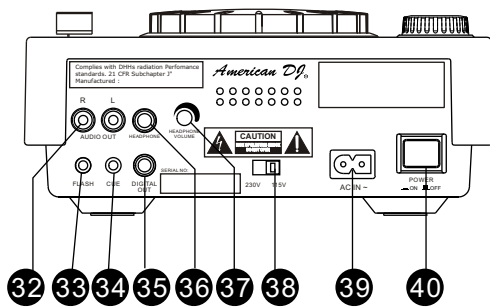


Figure 4

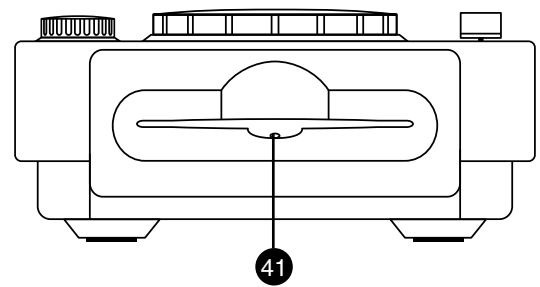


Figure 5

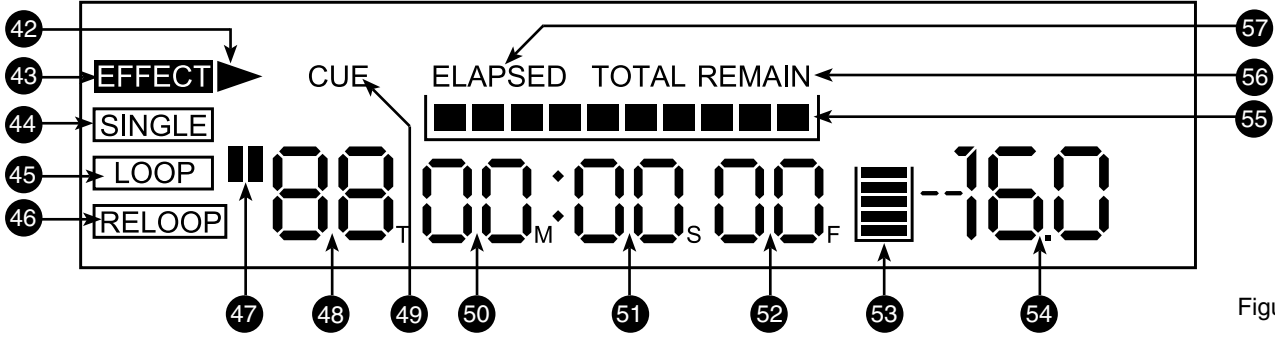


Figure 6

## A. TOP UNIT CONTROLS (FIGURE 3)

1. **LCD DISPLAY** - This high quality LCD display indicates all the functions, as they are occurring. This display is viewable at several comfortable angles (see page 4). The display ICONS will be explained in the section D.
2. **HOLD BUTTON** - This button allows you to set and lock any new parameters you set to the effects. This button will glow bright blue when the hold function is activated. If the hold function is not selected any changes to the effect parameters will be momentary.
3. **SKID/COAST BUTTON** - This button is used to activate and deactivate either the Skid or

- Coast effects. See built-in effects on page 22.
4. **SCRATCH/FADE BUTTON** - This button is used to activate and deactivate either the Scratch or Fade effects. See built-in effects on page 21.
5. **SEARCH WHEEL** - This wheel has four forward and four reverse speed positions allowing you to quickly scan through tracks. The more you turn the wheel in either direction, the faster your search.
6. **FLASH BUTTONS 1-3** - These buttons are used to store either three (3) cue points or three (3) samples. Each Flash Button can store either a sample or a cue point.

## GENERAL FUNCTIONS AND CONTROLS (Cont.)

**7. MEMORY BUTTON** - This button allows you to program up to 3 cue points or three samples in to the three **FLASH BUTTONS (6)**. You also use this button to recall samples.

**8. SAMPLER BUTTON** - This is used to activate the sampler function. When this function is activated a created sample will play in a continuous loop mode.

**9. ►►| TRACK BUTTON** - This buttons is used to select a track. Tapping this button will forward skip to the next track, holding down this button will rapidly forward skip through the tracks.

**10. |◄◄ TRACK BUTTON** - This buttons is used to select a track. Tapping this button will back skip on track, holding down this button will rapidly BACK SKIP through the tracks.

**11. FX MIX** - This button activates the FX-MIX mode This mode will automatically stop a playing track or sample and restart from a selected cue point.

**12. SEAMLESS LOOP IN BUTTON** - "CUE ON THE FLY" - This function allows you to set a CUE POINT (see CUE POINT page 11) without music interruption ("on the fly"). This button also sets the starting point of a seamless loop (see SEAMLESS LOOP).

**13. CUE** - Pressing the **CUE** button during playback immediately pauses playback and returns the track to the last set cue point (see setting a CUE POINT, page 13). The red CUE LED will glow when the unit is in cue mode The LED will also flash every time a new CUE POINT is set. The CUE button can be held down to momentarily play the CD. When you release the CUE button it instantly returns to the CUE POINT. You can also tap the CUE button to create a BOP EFFECT (for definition of BOP EFFECT, see page 5).

**14. JOG WHEEL** - This wheel has two functions.

- A.** The jog wheel will act as a frame search control when the CD is in pause or cue mode, allowing you to set a cue point.
- B.** The wheel also works as a pitch bend during playback. Turning the wheel clockwise will increase the pitch percentage up to 100%,

and turning the wheel in the counter-clockwise direction will decrease the pitch percentage up to -100%. The pitch bend will be determined on how long you turn the jog wheel continuously.

**15. PLAY/PAUSE BUTTON** - Each press of the PLAY/PAUSE BUTTON causes the operation to change from play to pause or from pause to play. While in play mode the green play LED will glow, and while in pause mode the green play LED will flash.

**16. TRANSPORT SLOT** - Trayless Design! A disc is loaded the same as a car CD player, simply insert the disc in to the slot and the unit will automatically load the disc in to the drive mechanism. ***Never attempt to force a disc into the slot when the power is turned off.***

**17. PITCH SLIDER** - This slider is used to adjust the playback pitch percentage. The slider is a set adjustment and will remain set until the pitch slider is moved or the pitch function has been turned off. This adjustment can be made with or without a disc in the drive. The pitch adjustment will remain even if a disc has been remove and will reflect on any other disc loaded into the player. That is to say, if you set a +2% pitch on one disc, remove that disc and insert another, that disc too will have a +2% pitch. The amount of pitch being applied will be displayed in the **LCD (1)**.

**18. OUT BUTTON** - This button is used to set the ending point of a loop. A loop is started by pressing the **IN BUTTON (12)**, pressing the **OUT BUTTON** set the loop ending point. The loop will continue to play until the **OUT BUTTON** is pressed once again.

**19. RELOOP BUTTON** - If a SEAMLESS LOOP has been made (see setting a SEAMLESS LOOP on page 11), but the CD Player is not actively in SEAMLESS LOOP mode (a loop is not playing), pressing the RELOOP BUTTON will instantly reactivate the SEAMLESS LOOP mode. To exit loop, press the **OUT BUTTON (18)**. LOOP and RELOOP will appear in the **LCD DISPLAY (1)** when the RELOOP function is available.

## GENERAL FUNCTIONS AND CONTROLS (Cont.)

**20. BOP** - During play mode, pressing the BOP button will instantly return play to the last set cue point without interruption of music. Use this function to create a stutter effect.

**21. (-) PITCH BEND BUTTON** - The (-) pitch bend function creates a momentary "Slow Down" in the CD's BPM's (Beats per minute) while it is playing. This will allow you to match the beats between two playing CD's or other playing music source. Remember, this is a momentary function. When you remove your finger from the pitch button, the BPM's will automatically return to **PITCH SLIDERS (17)** pitch value. Holding down this button will give a maximum of +100% pitch. Use this function to slow to another playing music source. Be sure to notice that this function is a momentary pitch adjustment, for a more precise adjustment use the **PITCH SLIDER (17)** to match the BPM's with another playing music source.

**22. (+) PITCH BEND Button** - The (+) pitch bend function creates a momentary "BUMP" in the CD's BPM's (Beats per minute) while it is playing. This will allow you to match the beats between two playing CD's or any other music source. Remember, this is a momentary function. When you remove your finger from this button, the BPM's will automatically return to **PITCH SLIDERS (17)** selected pitch. Holding down this button will give a maximum of +100% pitch.

**23. PITCH PERCENTAGE BUTTON** - This button will change the pitch percentage the **PITCH SLIDER (17)** will react to. The pitch percentage can be changed between 8%, 12%, and 16%. 8% will allow the least amount of pitch manipulation and 16% will allow the most amount of pitch manipulation. To adjust to the different values tap this button. The LED above the **PITCH PERCENTAGE BUTTON (24)** will indicate which pitch percentage mode you are in, glowing green for 8%, glowing orange for 12%, or glowing red for 16%. Note, the pitch button has to be turned on to get a LED reading.

**24. PITCH ON/OFF BUTTON** - This button is used to turn the **PITCH SLIDER (17)** function on and off. The **PITCH BUTTON**'s LED will indicate the pitch function has been activated.

**25. TIME BUTTON** - The TIME button will switch the time value described in the **TIME METER (56)** between ELAPSED PLAYING TIME, TRACK REMAINING TIME, and TOTAL REMAINING TIME.

**26. REV/PLAY** - This button activates reverse play mode. This function will play your track or sample in reverse. All pitch and effect functions will operate normally in this mode.

**27. SGL/CTN** - This function allows you to choose between single track play or continuous track play (all tracks in order). This function also operates in **PROGRAM** and **FLIP FLOP** modes.

**28. PARAMETERS** - This button activates the parameters mode. You use the parameters mode to adjust and customize your effects settings.

**29. TRANS/PAN EFFECT** - This button is used to activate and deactivate either the TRANS or PAN effects. See built-in effects on page 22.

**30. FLANGER/ECHO EFFECT** - This button is used to activate and deactivate either the FLANGER or ECHO effects. See built-in effects on page 22.

**31. EJECT/STOP** - Pressing this button will eject a CD. NOTE: The disc will not eject unless the player is in cue or pause mode, this prevents accidentally ejecting the disc when in play mode.

## B. REAR PANEL (FIGURE 4)

**32. AUDIO OUT R & L** - Audio out signals. Connect stereo RCA cable from AUDIO OUT to a mixer's line input.

**33. FLASH MINI JACK** - This jack will allow you to use the crossfader of a compatible American DJ "Q" series mixer to activate any of three samples that may be stored in the **FLASH BUTTONS (6)**. Connect the supplied mini-plug from FLASH jack on the rear of your unit to a compatible American DJ mixer's CONTROL out.

**34. CUE MINI JACK** - Connect the supplied mini-plug from CUE jack on the rear of your unit to a compatible American DJ mixer's CONTROL out. This feature is only available on American DJ's



## GENERAL FUNCTIONS AND CONTROLS (Cont.)

“Q” series mixers.

**35. DIGITAL OUT** - Use this connection to create near perfect copies of your disc to a Mini disc, CD-R, or any other digital recording device.

**36. HEADPHONE MONITOR** - Use this stereo jack to connect a pair of headphones.

**37. HEADPHONE VOLUME CONTROL** - This knob will control the volume output level of the **HEADPHONE JACK (36)**.

**38. VOLTAGE SELECTOR** - Because power supplies vary from location to location we have incorporated a selectable power supply. This switch can select a voltage input of 115V or 230V. Always disconnect the power plug before changing the voltage.

**39. POWER CONNECTOR** - This connection is used to connect your main power. Be sure that your local power matches the unit's required power.

**40. POWER SWITCH** - This switch is used to turn your unit's power on and off.

### C. FRONT PANEL (FIGURE 5)

**41. CD SLOT POWER INDICATOR** - This is the main power LED. This extremely bright Indigo LED will also aid in locating the CD slot in dark and club situations.

### D. LCD DISPLAY (FIGURE 6)

**42. PLAY INDICATOR** - This indicator will glow when the unit is in play mode.

**43. EFFECT INDICATOR** - This will glow when any of the four built-in effects are selected.

**44. SINGLE INDICATOR** - This indicates that the CD drive is in single play mode, the track will play once and return to CUE mode. If the single indicator is not on the unit is in continuous mode. In continuous mode the drive will play all the remaining tracks on the disc. Once the remaining tracks have ended the unit will return to cue mode.

**45. LOOP** - This icon will flash when you are in loop mode. This icon will glow when a loop has been created but is not actively playing.

**46. RELOOP INDICATOR** - Appears when LOOP is engaged or ready to be engaged.

**47. PAUSE INDICATOR** - This indicator will glow when the drive is in pause mode.

**48. TRACK INDICATOR** - This indicator describes which track is currently cued or is playing.

**49. CUE INDICATOR** - This indicator will glow when the unit is in CUE or mode and will flash every time a new CUE POINT is set.

**50, 51, 52. TIME METERS** - These indicators will detail the current Minutes, Seconds, and Frames. The meter will display either the elapse, total, or remaining time of a track or the entire disc. The display time will depend on the selected time function. The selected time function will be displayed above the **TIME METER** as **TOTAL REMAIN (57), REMAIN (57) OR ELAPSE (58)**.

**53. MEMORY BUCKET INDICATOR** - This indicates serves two functions. The red bucket outline details the cue memory status, a full bucket outline indicates the cue memory is full. The five bars in the memory bucket detail the anti-shock memory state. Each bar indicates 2 second of digital anti-shock.

**54. BPM/PITCH METER** - This meter will display either the BPM's or pitch percentage applied by the **PITCH SLIDER (17)**. The meters definition will be indicated by either **BPM** or **PITCH (55)**.

**55. TIME BAR INDICATOR** - This bar gives a visual approximation of a track's or disc's time. This bar will begin to flash when a track is ending. The flashing bar is great reminder, that time is running out to get that next track ready to go.

**56. TOTAL/REMAIN INDICATOR** - When **TOTAL** is indicated in the **LCD DISPLAY (1)** the **TIME DESCRIBED (50, 51, & 52)** in the LCD will define the total disc remaining time. When **REMAIN** is indicated in the **LCD DISPLAY (1)** the **TIME DESCRIBED (50, 51, & 52)** in the LCD will define the current track's remaining time.

**57. ELAPSE INDICATOR** - When this indicator is on it will define the time displayed in the **TIME METER (50, 51, & 52)** as the current track's elapse time.

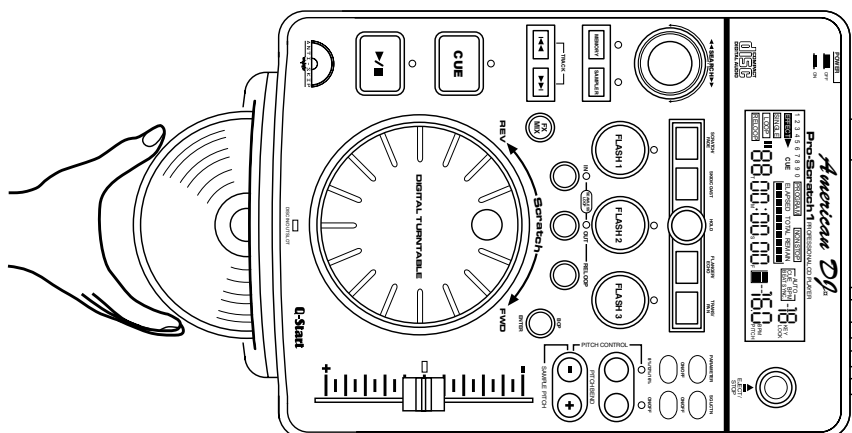
# BASIC OPERATIONS

## 1. LOADING/EJECTING DISCS

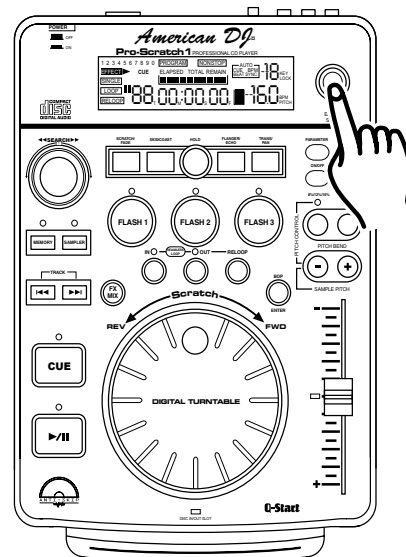
The Pro Scratch 1 can only play regular 5 inch CDs. 3 inch, odd shaped, and oval CDs are not compatible. When loading a CD into the player always hold the disc by its edge (see Figure 7). Load the disc label side up and slide it in the disc slot. Never touch the signal surface (the glossy side). To remove a disc from the slot press the **EJECT/STOP BUTTON (31)**, see Figure 8.

### CAUTION:

- **DO NOT** place any foreign objects in the disc slot.
- **NEVER** attempt to insert more than one disc at a time. Doing so may result in several damage to your unit.
- **DO NOT** force a disc into the slot when the power is off, this may damage the drive system.



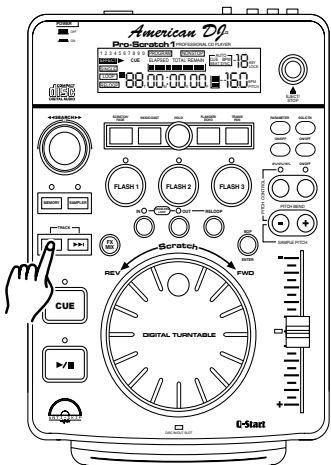
**Figure 7:** When inserting a disc always hold the disc by its edges and load the disc label side up.



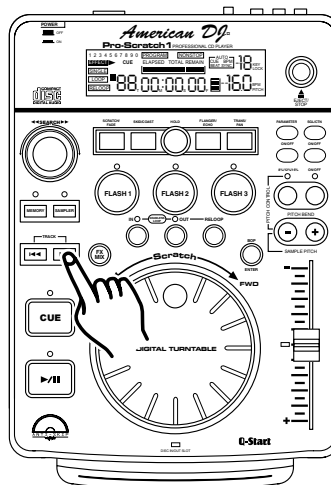
**Figure 8**

## 2. SELECTING TRACKS

Select a desired track by using either of the two **TRACK BUTTONS (9 & 10)**. Tapping the **TRACK BUTTONS (9 & 10)** once will select either the next higher or lower track. You may hold down the **TRACK BUTTONS (9 & 10)** to change tracks continuously at a faster speed. If you are using the **TRACK BUTTONS (9 & 10)** to select a new track during playback (a track is already in play mode) the new track you selected will immediately begin playback as soon as the search operation is completed.



**Figure 9:** When inserting a disc always hold the disc by its edges and load the disc label side up.



**Figure 10:** When inserting a disc always hold the disc by its edges and load the disc label side up.

## BASIC OPERATIONS (CONT.)

### 3. STARTING PLAYBACK - *Figure 11*

Insert an audio CD as describe on page 10 (*LOADING/EJECTING DISCS*). Pressing the **PLAY/PAUSE BUTTON (15)** with an audio CD inserted will immediately start playback. The **PLAY (41)** indicator will glow as soon as playback begins. The point at which playback starts (cue point) will automatically be stored in the memory as the cue point. The unit will return to this cue point (the point at which playback started) when the **CUE BUTTON (13)** or the **BOP BUTTON (20)** is pressed.

### 4. AUTO CUE

When a disc is loaded, the unit will automatically set a cue point to the first audio source, usually the beginning of track 1. If a new track is selected before the **PLAY BUTTON (15)** is pressed, a new CUE POINT will be set to reflect the new starting point.

### 5. STOPPING PLAYBACK - *Figures 11 & 12*

Stopping playback will not stop the drive mechanism, but merely pause or cue the track, this functions allows the unit to begin play instantly. The drive mechanism will only stop if a disc is ejected or the unit has gone in to sleep mode. There are two ways to stop (pause) playback:

- 1) Press the **PLAY/PAUSE BUTTON (15)** during playback. This will pause playback at the exact same point the **PLAY/PAUSE BUTTON (15)** was pressed.
- 2) Press the **CUE BUTTON (13)** during playback. This will pause playback and return the track to the last set cue point.

### 6. PAUSING - *Figure 11*

This function pauses playback at the exact same point the **PLAY/PAUSE BUTTON (15)** was pressed. Pressing the **PLAY/PAUSE BUTTON (15)** will switch between play and pause modes. When the unit is in pause mode the **PAUSE INDICATOR (46)** in the **LCD DISPLAY (1)** will glow. The green **PLAY/PAUSE BUTTON (15)** LED will also begin to flash repeatedly.

### 7. FRAME SEARCH

This feature allows you to scroll through a track frame by frame, allowing you to find and set a starting cue, sample, or loop point. To use the scroll function you must first be in Pause Mode (see section 5) or Cue Mode (see section 7). Once you are in Pause or Cue mode, turn the **JOG WHEEL (14)** to scroll through the track (Figure 13). Turning the wheel in a clockwise direction will advance the frame search and turning the wheel in a counter-clockwise direction rewinds the frame search. When you use the **JOG WHEEL (14)** the monitor (headphone level) function allows you to here what you are scrolling through. Once you reach your desired starting point you can set a cue (starting) point by pressing the **PLAY/PAUSE BUTTON (15)** as in Figure 11. Pressing the **CUE BUTTON (10)** as in Figure 12 will now return you to the point you just set.

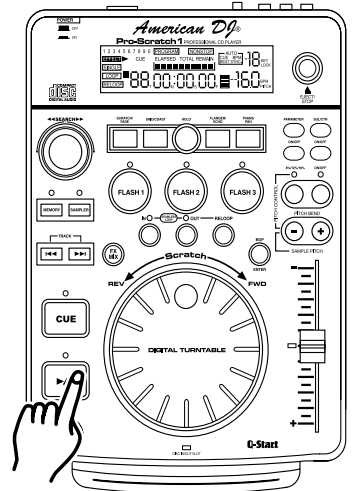


Figure 11

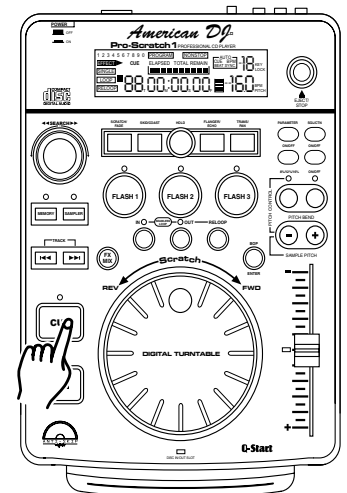


Figure 12

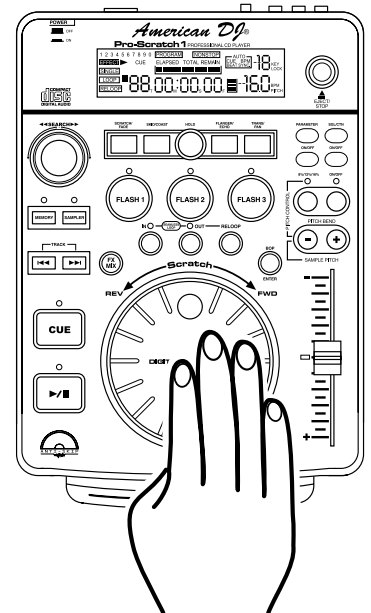


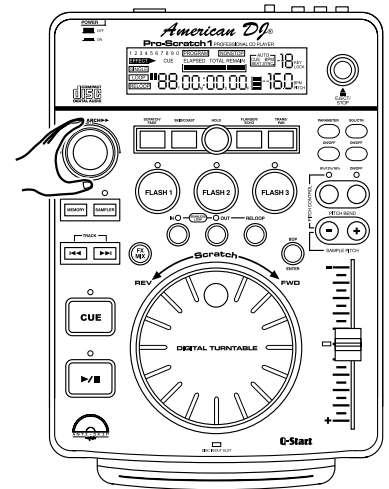
Figure 13

## BASIC OPERATIONS (CONT.)

### 8. SCANNING (FAST FORWARD / FAST REVERSE)

This function gives you a fast search through a disk or track. Turn the **SEARCH WHEEL (5)** in clockwise direction for fast forward or turn the wheel counterclockwise for fast reverse. You can scan in four different forward and four different reverse speeds depending on how much you rotate the wheel.

Figure 14



### 9. SETTING and STORING a CUE POINT:

#### Setting A Cue Point:

A cue point is the exact point playback will begin when the **PLAY/PAUSE (15)** is pressed. You may set your cue points anywhere on a disc or in a track. You may set up to four independent cue points per disk. Three cue points are stored in the **FLASH BUTTONS 1-3 (6)** and one in the **IN BUTTON (12)**. Figures 15 and 16 will detail the procedures for setting your custom cue points. There are two (2) ways to set a CUE point:

- 1) You may press the **IN BUTTON (12)** on the fly (while the disc is playing). This will set a CUE Point without music interruption. Pressing the **CUE BUTTON (13)** will now return you to the same point that you pressed the **IN BUTTON (12)**. You may now store this CUE Point in any of the **FLASH BUTTONS 1-3 (6)**. Pressing the **CUE BUTTON (13)**, **BOP BUTTON (20)** or the **IN BUTTON (12)** will now return you to this exact point.

Figure 15

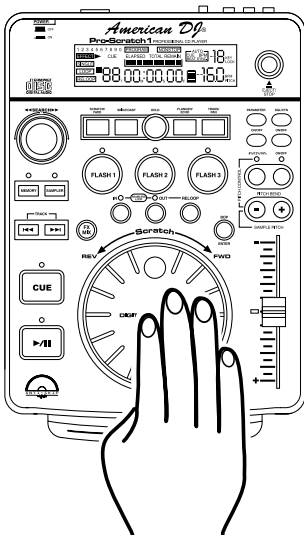
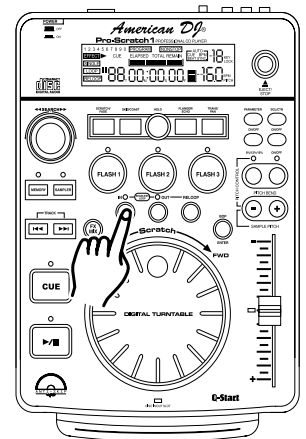


Figure 16

- 2) You may also use the **JOG WHEEL (14)** to set a cue point. While a disc is in **PAUSE** or **CUE** mode, use the **JOG WHEEL (14)** to scroll through a track to find your desired starting point. Once you have found your desired position press the **PLAY BUTTON (15)** to set your cue point. Pressing the **CUE BUTTON (13)** or the **IN BUTTON (12)** will now return you to this exact point.

## BASIC OPERATIONS (CONT.)

### Storing A Cue Point:

Once you have set your CUE Point by one of the two means listed on page 12, you may store your cue point in one of the **FLASH BUTTONS (6)**. Either a CUE POINT or a SAMPLE (See creating a sample loop on page 14) can be stored into a **FLASH BUTTONS (6)**, not both. Once you store this cue point in memory you may recall it at any time and you may even recall if the disc has been remove or power had been disconnected. You may store a maximum of three cue points per a disc and maximum of 384 cue points can saved in unit's memory. The **MEMORY BUCKET (53)** on the **LCD DISPLAY (1)** will approximate the available memory. **To Store a cue point:**

- 1) Press the **MEMORY CUE BUTTON (12)**, as in Figure 17. The red Memory Cue LED will glow indicating memory is ready to be stored. You may now press any one of the three **FLASH BUTTONS (6)** to store your cue point into memory (Figure 18). After pressing one of the **FLASH BUTTONS (6)**, the corresponding Flash Button LED will flash briefly. The LED will remain lit indicating either a sample or cue point is stored in memory. The red Memory Cue LED will now shut off.

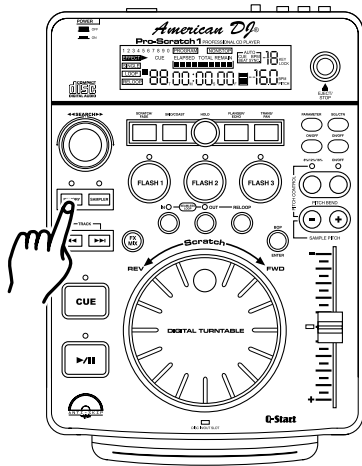


Figure 17

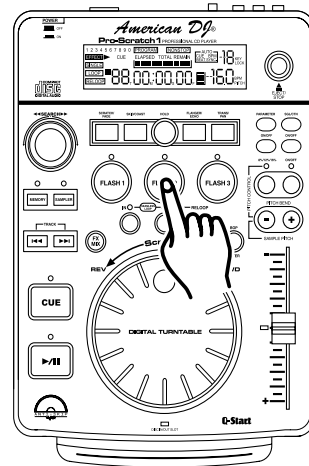
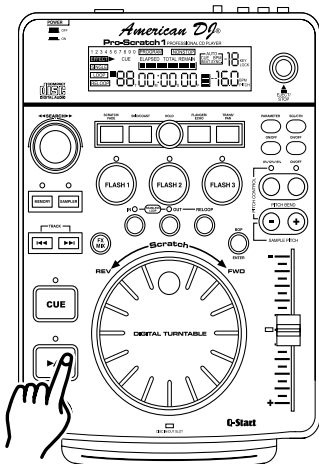


Figure 18

- 2) Repeat the above steps to store up to three Cue Points. Once all your three cue points have been stored you may access them at any time. The cue points will instantly start without any music interruption. Please note in order to access these cue point, the disc used to create the cue points must be in the drive.

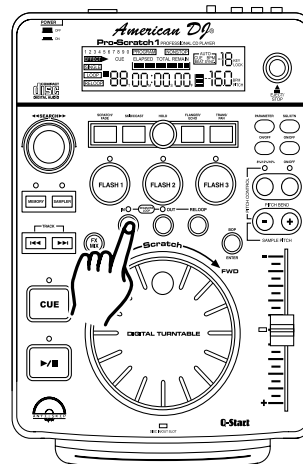
## 10. CREATING AND PLAYING A SEAMLESS LOOP

A seamless loop is a sound loop that plays continuously without sound interruption. You can use this loop to create dramatic effect in your mixing. This loop has no time limit and you could actually loop the entire length of disc. You create a seamless loop between two continuous points of a disc.



- 1) Press **PLAY/PAUSE BUTTON (15)** to activate playback mode

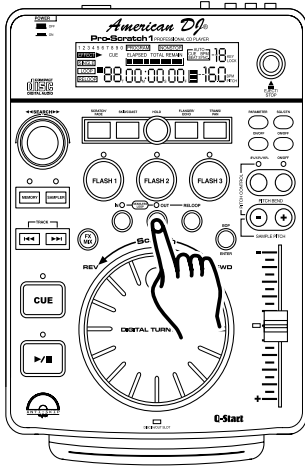
Figure 19



- 2) Press the **IN BUTTON (12)**. This will set the starting point of the SEAMLESS LOOP. The **IN BUTTON (12)** LED will light.

Figure 20

## BASIC OPERATIONS (CONT.)



- 3) Press the **OUT BUTTON (18)** to set the ending point for your SEAMLESS LOOP (Figure 13). The **IN BUTTON (12)** and **OUT BUTTON (18)** LEDs will begin to flash indicating SEAMLESS LOOP mode has been activated.

**LOOP INDICATORS** - During a seamless loop, the **LOOP (44)** and **RELOOP (45) INDICATORS** will light in the **LCD DISPLAY (1)** indication a loop is active.

Figure 21

**EXITING A LOOP** - To exit a SEAMLESS LOOP, press the **OUT BUTTON (18)**. The **IN BUTTON (12)** and **OUT BUTTON (18)** LEDs will remain on, but will stop flashing. Music playback will resume normal play (Figure 13). The **IN BUTTON (12)** and **OUT BUTTON (18)** LEDs will remain on to remind you that a loop is stored in memory.

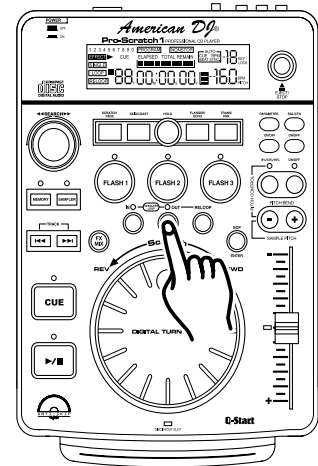
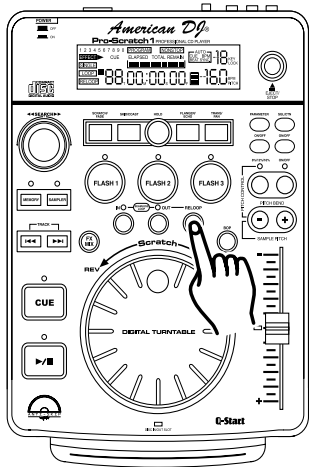


Figure 22



**REPLAY LOOP** - The **RELOOP (19)** function allows you to return to your stored loop at any time. The **IN BUTTON (12)** and **OUT BUTTON (18)** LEDs will indicate a loop is stored in memory, and may be played at any time. To replay the loop, press the **RELOOP BUTTON (19)**. The **IN BUTTON (12)** and **OUT BUTTON (18)** LEDs will again begin to flash indicating SEAMLESS LOOP mode has been activated (Figure 14) and your stored loop will immediately begin to play.

Figure 23

### 11. EDITING A LOOP:

Please note you can only edit the ending point of the loop. You may make your loop shorter or longer. Before you can edit your seamless loop you obviously must first have created a seamless loop to edit. If you haven't created a SEAMLESS LOOP, follow the instructions in step 10. If a SEAMLESS LOOP has already been created, press the **RELOOP BUTTON (19)** to activate your SEAMLESS LOOP (Figure 23) if it is not already playing. To edit your seamless loop's ending point:

- 1) Press the **OUT BUTTON (18)** to return to normal play from the loops cue point. (Figure 20). This will disengage the SEAMLESS LOOP mode and allows you to edit the loops ending point.
- 2) Press the **OUT BUTTON (18)** again when you reach your new ending point (Figure 21).
  - **FOR A SHORTER LOOP:** Press the **OUT BUTTON (18)** at sooner point in the track (Figure 21).
  - **FOR LONGER LOOP:** Press the **OUT BUTTON (14)** at later point in the track (Figure 21).

## BASIC OPERATIONS (CONT.)

### 12. Using the Built In Sampler:

Your Pro Scratch 1 comes with a built in sampler. You may store up to three samples on the three **FLASH BUTTON (6)**. Your sample can be a maximum of 6.5 seconds in length. A sample can be recalled while a CD is playing, while the CD drive is in PAUSE MODE, or even without the CD in the player. You may play your sample at anytime without music interruption. If you play your sample when the unit is already in playback mode you sample will over lap the current music source. You can also play your sample once or in a continuous loop. As with cue points you may store a maximum of 128\*3 sample per in a drives memory. The **MEMORY BUCKET (53)** on the **LCD DISPLAY (1)** will approximate the remaining memory.

#### To create a sample:

1) Initialize a loop (see looping page 13). *If your loop is longer than 6.5 seconds it can not be stored as a sample and will stored as a Cue Point.*

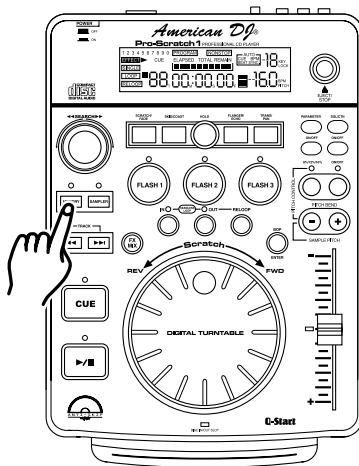


Figure 24

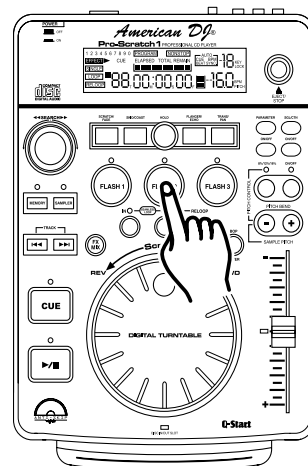


Figure 25

2) Press the **MEMORY BUCKET (7)**. The **MEMORY CUE BUTTON (1)** Red LED will glow indicating memory is ready to be stored.

3) Select one of the three **FLASH BUTTON (6)** you wish to store your loop in and press that button.

4) The red **MEMORY BUCKET (7)** LED will turn off, when your sample is locked into memory.

5) At this point your sample has been stored into memory. The original loop you used to create the sample will remain playing until the **OUT BUTTON (18)** is pressed (Figure 26).

6) Your sample can now be recalled at any time even when the unit is in PAUSE MODE. To recall the sample be sure the sample function is on, by pressing the **SAMPLE BUTTON (8)** until the red sample button LED turns on. To play your sample in a continuous loop leave the sample function on. To play your sample just once, turn the sample function off immediately after initiating your sample. With the sample function on the sample will continue to play until the sample function is turned off.

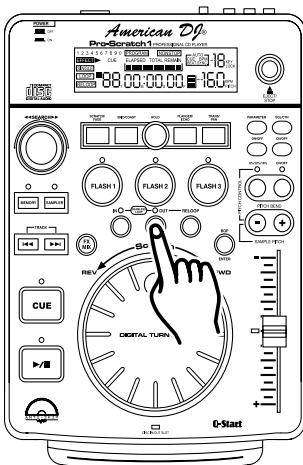


Figure 26

**7) Important Notice:** If you try to activate your sample without turning the sample function on, the **Flash button (6)** will act as cue points!

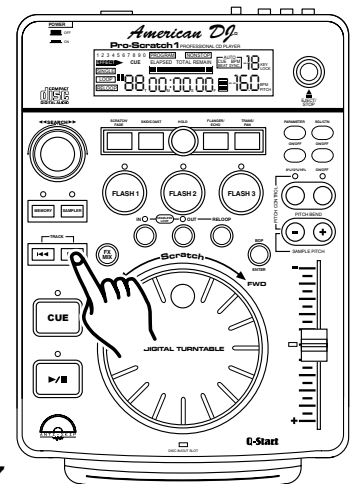


Figure 27

## BASIC OPERATIONS (CONT.)

### Changing the Sample Parameters:

Changing the sample parameters allows you to change the sample's volume and pitch. The parameters values for both the pitch and volume settings range from 00:00 to 20:00, 00:00 being the lowest value. A higher value will increase the pitch percentage or volume. It's important to understand that the pitch value is basic a speed adjustment and has nothing to do tonal quality. The values can be either a momentary change or set adjustment. The sample values are changed in three easy steps, while in sample playback mode:

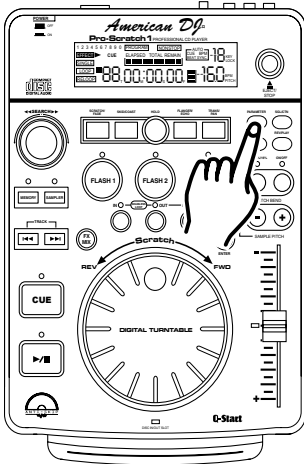


Figure 28

### Changing the Sample Parameters - Step 1:

While a sample is playing tap the **PARAMETERS BUTTON (28)**. One tap will display **SP 10 00** in the **LCD DISPLAY (1)**. If you tap the **PARAMETERS BUTTON (28)** again, **SV 10 00** will read out in the **LCD DISPLAY (1)**. **SP** will signify the pitch percentage and **SV** will signify the sample volume. **10 00** is your default setting - Normal playback. Any adjustments will be based on this default setting.

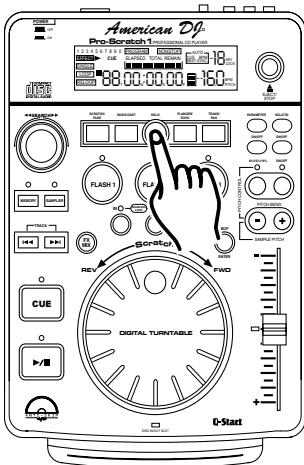


Figure 29

### Changing the Sample Parameters - Step 2:

Hold Function - This mode will allow you to save and lock your parameter adjustments, if the hold function is not activated all your parameter adjustments will be momentary. Once you are in the parameters mode you can begin to make your adjustments.

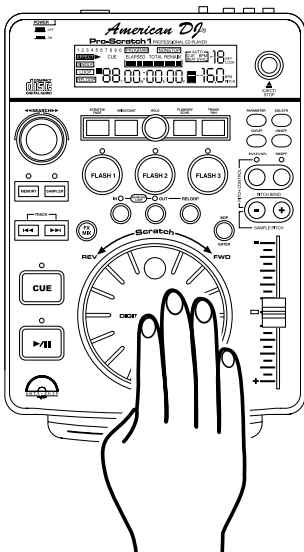


Figure 30

### Changing the Sample Parameters - Step 3:

Use the **JOG WHEEL (14)** to change your selected parameters. Turning the wheel in a clockwise rotation will increase your parameters - this will wither increase the volume or increase the pitch. Turning the wheel in counter-clockwise direction will decrease the parameters value - either decreasing the volume or decreasing the pitch. If you turn the **HOLD BUTTON (2)** in the previous step, you would turn the hold function off to save your settings.



## BASIC OPERATIONS (CONT.)

### 13. Reverse Play:

Reverse play allows you to play a track, loop, or sample backwards. This function is activated by pressing the **REV/PLAY BUTTON (26)** as in figure 31. This function will react differently to different playback modes:

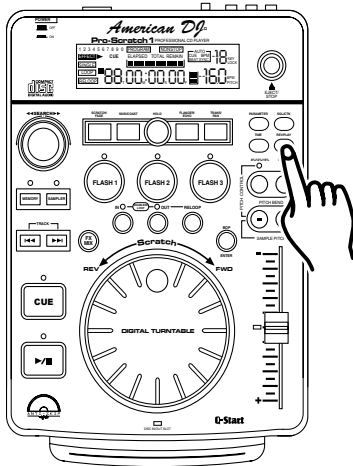
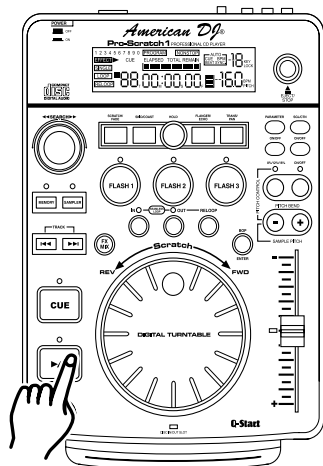


Figure 31

- **Reverse track/disc play.** In this mode the unit will playback in reverse until the reverse function is turned off. If the reverse function is not turned off the unit will continue to play the remainder of the disc in reverse mode until it reach the begging of the disc. When the unit comes to the beginning it will automatically cue to the first track. If the unit is paused in this mode it will continue to play in reverse when playback begins again.
- **Reverse loop play.** In this mode the loop will play in reverse once and turn off. If the reverse function is turned off at this point, the loop will continue in regular play. If the **OUT BUTTON (18)** is pressed during reverse loop playback mode, playback will continue in reverse until the reverse function
- **Reverse sample play.** In this mode the unit will play the sample in reverse continuously, until the reverse function is turned off. If another sample is selected that sample will also play in reverse mode. If a sample is activated over a track both the track and the sample will play in reverse until the reverse function is turned off.

### 14. Creating a BOP Effect:

The Bop Effect is a stutter effect that is similar to turntable scratching. You can use this effect to create tricks in your mixing. Creating a BOP effect is a simple process:



- 1) Press the **PLAY/PAUSE BUTTON (15)** so music is playing (Figure 32).

Figure 32

- 2) Press the **IN BUTTON (12)** (Figure 33) at the point you want your BOP to take place.

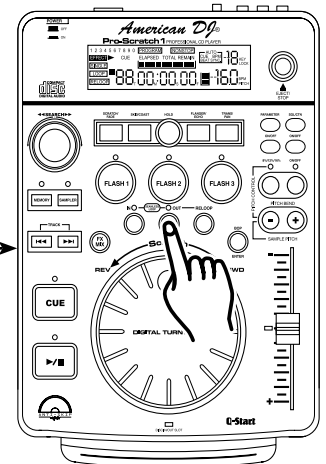
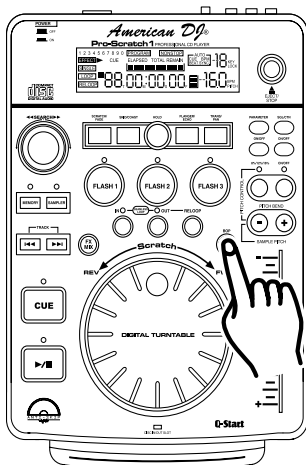


Figure 33



- 3) Now tap the **BOP BUTTON (20)**. It will produce a stutter effect as quickly as you tap on the **BOP BUTTON (20)**. See Figure 34.

Figure 34

- 4) When you discontinue the BOP effect normal playback will resume from the point you initial started your BOP.

## BASIC OPERATIONS (CONT.)

### 15. FLASH START BUTTONS (6):

These buttons are used to store your samples and cue points. Only a sample or a cue point can be stored in to each of these three banks. When a sample is stored in to these banks you may use the sample starting point as a cue point. The **FLASH BUTTONS** instantly recall and play any of your stored samples or cue points without interrupting music playback. When in sample mode (see "Using the Built-In Sampler" on page 15) during playback, pressing any of the **FLASH BUTTON** that has a sample stored in it and your sample will immediately begin to play without interruption of music. If the unit is in sample mode and the drive is in pause, pressing any of the **FLASH BUTTON** that has a sample stored in it will immediately begin to play the sample.

### 16. CHANGING THE TIME DISPLAY (49 & 50)/TIME BAR (51):

**DURING NORMAL PLAYBACK**, pressing the **TIME BUTTON (25)**, will change the time display information (49, 50, 56, & 57) in the LCD see figure 35. The following is a break down of the time settings and their definitions:

- 1) **ELAPSED (57)** - This describes the time in the LCD (49, 50, & 52) as the current TRACKS Elapse running time.
- 2) **REMAIN (56)** - This describes the time in the LCD (49, 50, & 52) as the current TRACKS remaining running time.
- 3) **TOTAL REMAIN (56)** - This describes the time in the LCD (49, 50, & 52) as the disc total remaining running time.

**TIME BAR INDICATOR** - Details the time defined in the **TIME METER (49 & 50)** as a visual bar icon. As with the **TIME METER (49 & 50)** this bar is also dependent on the selected time function [**TOTAL REMAIN (56)**, **REMAIN (56)** OR **ELAPSE (57)**]. This bar will begin to flash when a track is ending regardless of which time function you are in. Use the flashing bar as a visual reminder that a track is ending.

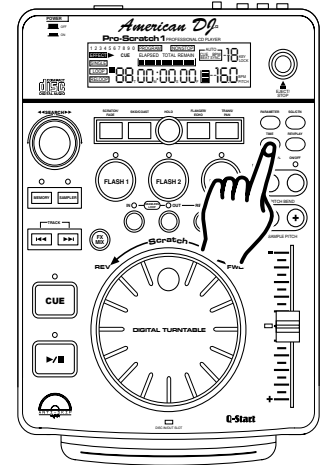


Figure 35

### 17. FLIP-FLOP™

This feature is kind of "auto pilot". When you are using two Pro Scratch 1™ players and an American DJ "Q" Deck™ mixer, you can have one player begin playback when the other ends. You can "Flip Flop™" single tracks, the entire disc, or a combination of the two.

#### To FLIP-FLOP™ single tracks:

- 1) Connect your system as described in the set up section on page 4.
- 2) Set your American DJ "Q" Deck™ mixer's crossfader to the center position.
- 3) Set your two Pro Scratch 1™ to playback in *single mode*, **SINGLE (43)** should be indicated in the **LCD DISPLAY (1)**.
- 4) Load your two Pro Scratch 1™ with audio disc.
- 5) After they have both cued, press the **PLAY/PAUSE BUTTON (15)** on one of your drives to begin playback.
- 6) After the first player's single track has ended the second player's track will immediately begin playback.
- 7) FLIP FLOP™ will continue until you stop it or power is interrupted.

#### To Flip Flop entire CDs:

Be sure your drives are both in continuous play mode, make sure **SINGLE MODE (43)** does not appear in the **LCD DISPLAY'S (1)** of both players. Follow all directions for single track FLIP FLOP™ above. When one player's disc ends the other player will immediately begin playback.

**Note:** You may combine FLIP FLOP™ single and continuously playback modes by selecting either single or continuous playback on your units.

Connecting your Pro Scratch 1™ to an American DJ "Q" Deck™ mixer for "Flip Flop™" control: Be sure to connect 1/8" mini plugs from the control connection on the rear your Pro Scratch 1 to the 1/8" control jack on the rear of American DJ "Q" series mixer. That's it, you'll be set for FLIP FLOP™

## BASIC OPERATIONS (CONT.)

### 17. PITCH BENDING:

This function will momentarily increase or decrease the tracks playback speed. There are two ways to operate this function with the (-) & (+) **PITCH BUTTONS (21 & 22)** or with the **JOG WHEEL (14)**. The maximum pitch bend percentage allowed is +/- 100%. The pitch bend function will work in conjunction with the **PITCH SLIDER (17)** pitch setting. The **PITCH SLIDER (17)** adjustment can be changed to range from +/-8%, +/-12%, or +/-16% (See changing "PITCH SLIDER PERCENTAGE RANGE" on page 20). For example, if the **PITCH SLIDER (17)** is set to a 2% pitch gain the pitch bending process will begin at 2% and will continue to the maximum of +/-100%.

#### PITCH BEND BUTTONS (21 & 22):

The (+) **PITCH BEND BUTTON (22)** will provide a speed bump and the (-) **PITCH BEND BUTTON (21)** will provide a slow down. The extent to which the speed changes is proportionate to the amount of time the button is pressed. For example, if the (+) **PITCH BEND BUTTON (22)** is held down continuously, the disc speed will increase and will continue to increase until reaches a maximum of 100% speed gain. When you release the (+) **PITCH BEND BUTTON (22)** the disc speed will automatically return to its previous speed.

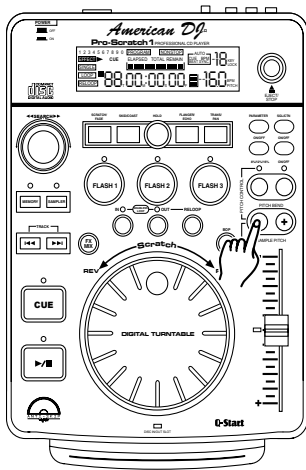


Figure 36

Holding down or tapping on the (+) **PITCH BEND BUTTON (22)** will provide a speed bump in the playback pitch.

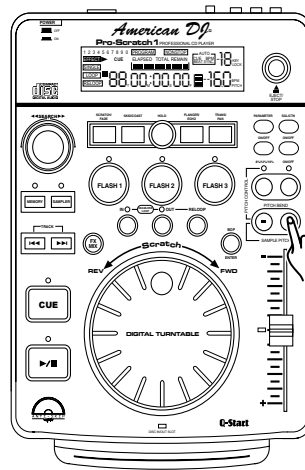


Figure 37

Holding down or tapping on the (-) **PITCH BEND BUTTON (21)** will provide a slow down in the playback pitch.

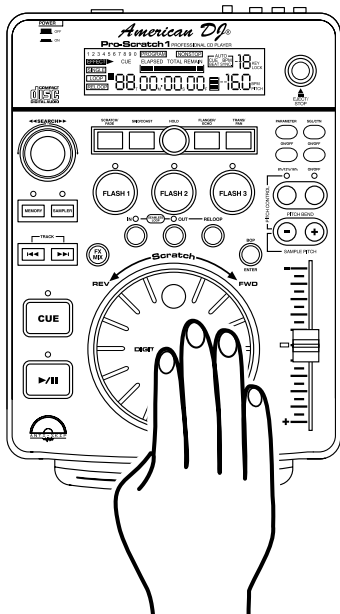


Figure 38

#### JOG WHEEL (14):

The **JOG WHEEL (14)** will temporarily bend the pitch if a track is in play mode. Rotating the wheel in a clockwise direction will increase your track pitch and rotating the wheel in a counter-clockwise direction will slow your track pitch. The speed you rotate the **JOG WHEEL (14)** will determine pitch bend percentage (%).

## BASIC OPERATIONS (CONT.)

### 18. PITCH ADJUSTMENTS:

This function will increase or decrease the tracks playback speed or "PITCH," this is not a momentary change as in "PITCH BENDING" on page 19. The maximum pitch bend percentage allowed is +/-16%. The **PITCH SLIDER (17)** is used to decrease or increase the playback pitch. If the slider is moved up (towards the top of the unit) the pitch will decrease, if the slider is moved down (towards the bottom of the unit) the pitch will increase. The **PITCH SLIDER (17)** adjustment can be changed to range from +/-8%, +/-12%, or +/-16% (See changing "PITCH SLIDER PERCENTAGE RANGE" figure 41 below). The pitch adjustments will effect playback, reverse playback, and your loops. The pitch adjustments will not effect your samples.

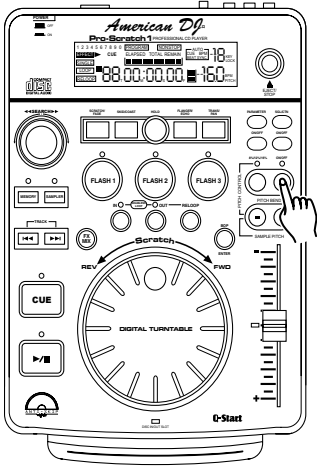


Figure 39

**Activating the Pitch Slider (17):** To activate the **PITCH SLIDER (17)** you must turn on the pitch adjustment function. Press the **ON/OFF BUTTON (24)** located in the pitch control section. The **ON/OFF BUTTON (24)** LED will glow when the function is activated. If the pitch function is not activated the **PITCH SLIDER (17)** will not function, however the pitch bend buttons will function normally.

**Using the Pitch Slider (17):** To use the pitch slider (17) slide the slider up and down. Down will increase the pitch and up will decrease the pitch. When the slider is in the center position, a green LED just left of the slider will glow. When this slider is glowing there is zero pitch being applied to the track, regardless if the pitch function is on or off.

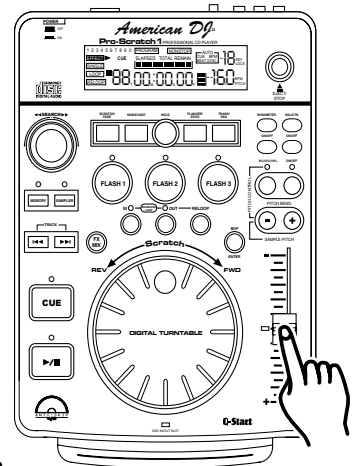


Figure 40

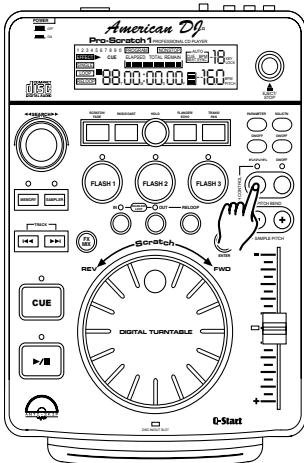


Figure 41

**Adjusting the Pitch Slider's Range (17):** You may change the pitch slider's (17) operating range. To change the operating range be sure the pitch function is turned on, see figure 39. The pitch percentage can be changed between 8%, 12%, and 16%. 8% will allow the least amount of pitch manipulation and 16% will allow the most amount of pitch manipulation. To adjust to the different values tap the 8% 12% 16% button (23). The LED above the **PITCH PERCENTAGE BUTTON** will indicate which pitch percentage mode you are in by, glowing green for 8%, glowing orange for 12%, or glowing red for 16%. Note, the pitch percentage must be activated to get a LED reading.

## BASIC OPERATIONS - BUILT-IN EFFECTS

The Pro Scratch 1™ comes with nine built in effects. These effects can be used one at a time or you may choose to overlap the effects and use up to four at a time. The Built-in effects include Scratch, Fade, Skid, Coast, Flanger, Echo, Robot, Transform, and Pan. It is important to understand that only one effect per an effect bank can be turned on at one time, but all four effects banks can be used at a time. For example the Flanger, Echo, and Robot are all stored in the same effects bank but only one can be used at a time. When any of the effects are activated, the **EFFECT (42)** icon will display in the **LCD (1)**. You can choose to use the effects with their default setting or you may choose customized each effect by changing the parameters. The parameters values for all the effects will range. Some effects will have more adjustable parameters than others. The parameters have two adjustable values, PR (Parameter Ratio) and PV (Parameter volume). All parameters will be reset to there default values when power is shut off.

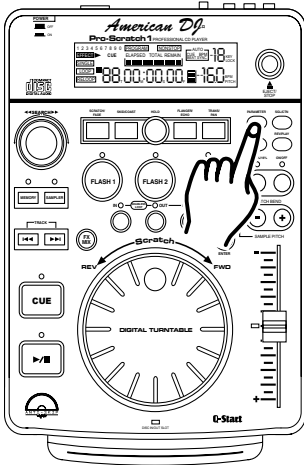


Figure 42

**HOLD BUTTON:** Use the **HOLD BUTTON (2)** to lock your customized parameters. If the hold button is not activated any changes to your parameters will be momentary. To activate the hold function press the **HOLD BUTTON (2)** as in figure 43. When the hold function becomes activated, the hold button will light up blue.

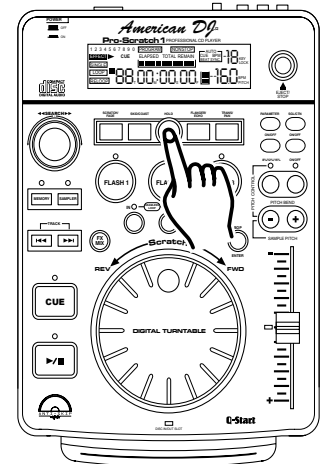


Figure 43

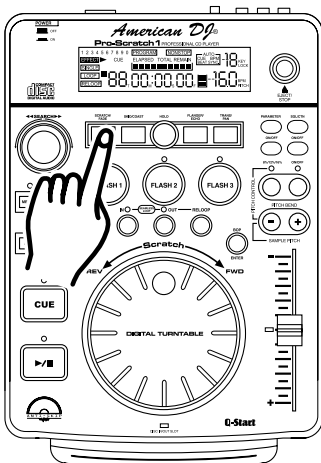


Figure 44

**SCRATCH/FADE EFFECT:** The Scratch effect simulates real time turntable scratching. The fade effect fade the volume in and out. Pressing **SCRATCH/FADE BUTTON (4)** once will activate the scratch effect (figure 43). When the Scratch Effect is activated the **SCRATCH/FADE BUTTON (4)** will glow. To activate the Fade Effect, be sure the scratch effect is off and press and hold the **SCRATCH/FADE BUTTON (4)** until it begins to flash. A flashing button will represent the Fade Effect is active. The fade effect will fade the music out and bring back in. The fade time can be adjusted in the parameters setting from 0010 to 9990. 9990 will give you the longest fade out time. The fade value ranges from 10ms to ten seconds.

## BASIC OPERATIONS - BUILT-IN EFFECTS

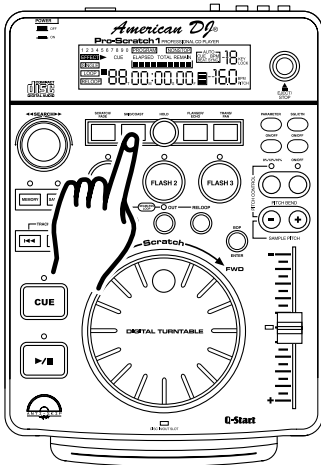


Figure 45

**SKID/COAST EFFECT:** The Skid effect simulates the sudden platter stop of a turntable, like pressing the stop button on a turntable. The COAST effect simulates a turntable slowly revving up to its proper speed, or slowly winding down to a stop, like tuning the power off when a turntable is running. When the SKID effect is selected the **SKID/COAST BUTTON (3)** will glow. When the COAST effect is selected the **SKID/COAST BUTTON (3)** will flash repeatedly. The fade effect will fade the music out and bring back in. Both the Skid and Coast time parameters can be adjusted from 0010 to 9990. 9990 will give you the longest Skid and Coast times. The SKID/COAST value ranges from a 10ms to ten seconds.

**FLANGER/ECHO/ROBOT EFFECT:** The flanger effect distorts the output signal and create an effect similar to the frequency phasing in and out of each other. The ECHO effect adds an echo to your output signal. The ROBOT effect distorts the output to simulates a sci-fi robot voice. When the FLANGER effect is selected the **FLANGER/ECHO BUTTON (30)** will glow. When the ECHO or ROBOT effect is selected the **FLANGER/ECHO BUTTON (30)** will flash repeatedly.

**ROBOT EFFECT:** The ROBOT effect is activated in the ECHO parameters. To activate the ROBOT effect select the ECHO effect. After the Echo effect is activated enter the PT Parameters and turn the hold function on. Set the Parameter Time (PT) value to 0010 and use the Jog Wheel to create the effect by adjusting the Parameter Ratio (PR).

**FLANGER EFFECT:** The FLANGER Effect has two adjustable parameters, Parameter Time (PT) and Parameter Ratio (PR). The PT will adjust the Flanger Mode and The PR will adjust the Flanger Frequency Range.

**ECHO EFFECT:** The ECHO Effect has two adjustable parameters, Parameter Time (PT) and Parameter Ratio (PR). The PR will adjust the length of the echo (drop off time), and the PT will adjust the echo gap length.

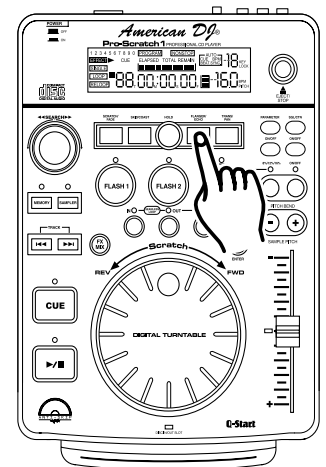


Figure 46

**TRANS/PAN EFFECT:** The TRANS effect simulates a real-time mixer transformer effect. The PAN effect allows you to pan the output from the left channel to the right channel. Pressing **TRANS/PAN BUTTON (29)** once will activate the TRANSFORMER effect (figure 47). When the TRANSFORMER effect is activated the **TRANS/PAN BUTTON (29)** will glow. To activate the PAN effect, press and hold the **TRANS/PAN BUTTON (29)** until it begins to flash. A flashing **TRANS/PAN BUTTON (29)** will represent the PAN effect. The fade time can be adjusted in the parameters setting from 0010 to 9990. 9990 will give you the longest fade out time. The Pan Value ranges from 10ms to ten seconds.

**TRANS EFFECT:** The TRANS Effect has two adjustable parameters, Parameter Time and Parameter Ratio. The PT will adjust the Trans Speed and The PR will adjust the Trans Audio Length. The lower the PT value the faster the TRANS effect (PT 0500 = 1/2 second, PT 1000 = 1 second).

**PAN EFFECT:** The PAN effect uses the PT value to pan left to Right. PT 0500 is the default setting which is center pan.

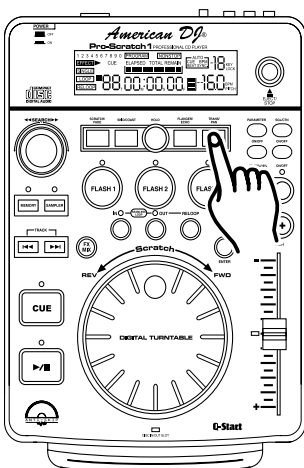
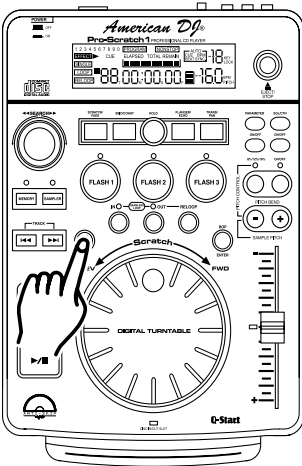


Figure 47

## BASIC OPERATIONS - FX MIX

**FX MIX MODE:** This function allows you to use the effects to transfer from one track to another, one track to a sample, or one sample to another. FX Mix uses the effects and the **FLASH BUTTONS (6)**. The FX Mix function will only work with samples and cue points programmed in the any of the three **FLASH BUTTONS (6)**. The procedure below list the steps to activate the FX Mix Mode. In the following example we will you the SKID Effect to transfer from one track to a programmed sample.



**STEP ONE:** Be sure you have created a sample and stored it in to the **FLASH 3 BUTTON (6)**(see creating a sample on page). After a sample has been created and store, begin playback on a track. Select the **FX MIX BUTTON (11)** to activate the FX Mix Mode.

Figure 48

**STEP TWO:** After you have activated FX Mix Mode, select an effect. In this example we will choose the SKID Effect. Choosing the SKID Effect we create a braking effect.

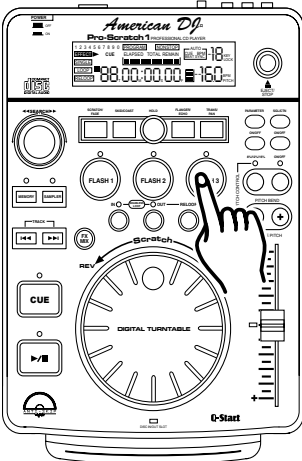


Figure 50

**STEP FOUR:** To initiate the FX Mix , tap the **BOP/ENTER BUTTON (20)**. At this point you may continue the FX with the current track. If you follow steps one and four, you will initiate the FX mix on the current track. For example; If you used the brake effect for your effects mix, following steps one and four will initiate a brake effect in current track and then continue with the track once the brake effect has ended. You must be in continuous play mode for this effect to operate properly.

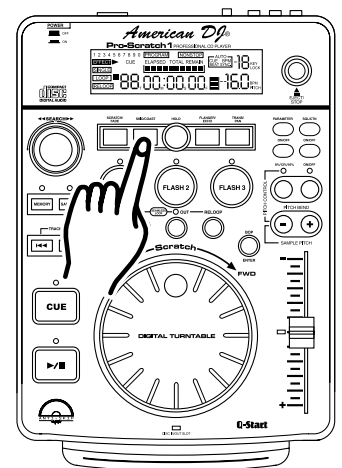


Figure 49

**STEP THREE:** When you are at the point in the track you wish to begin the sample, press the **FLASH BUTTON 3 (6)**. Pressing the **FLASH BUTTON 3 (6)** will now end the current track and beginning to play the sample stored in the Flash 3 bank. The track will end in a brake effect and then immediately being to play you stored sample in Flash Bank 3.

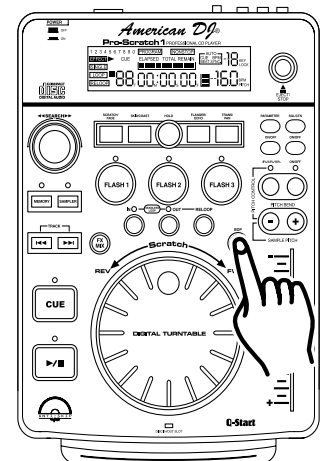
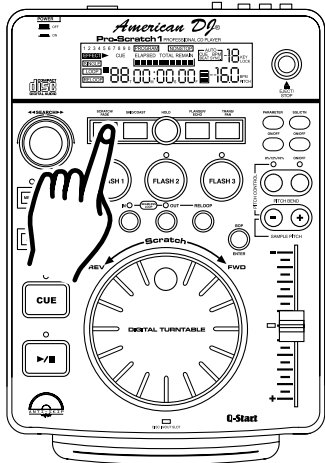


Figure 51

# BASIC OPERATIONS - FX MIX

**FX MIX - FADE CONTROL:** This function works with the FLANGER/ECHO and the TRANS/PAN effects. This function uses the time duration of the FADE effect. This functions plays the selected effect (FLANGER/ECHO and/or the TRANS/PAN) for the duration of the fade setting and then returns to normal play. During this function the FADE effect will have no function other than the use of its time parameter - *the track will not fade out.* The procedure below list the steps to activate the FX Mix - Fade Control. In the following example we will you the FLANGER and the TRANS effects.



**STEP ONE:** Be sure you are in continuous play mode, and a track is playing. Turn the FADE effect on. By pressing holding down the **SCRATCH/FADE BUTTON (4)** until it begins to flash as in figure 52.

Figure 52

**STEP TWO:** Select the **FX MIX BUTTON (11)** to activate the FX Mix Mode as in figure 53.

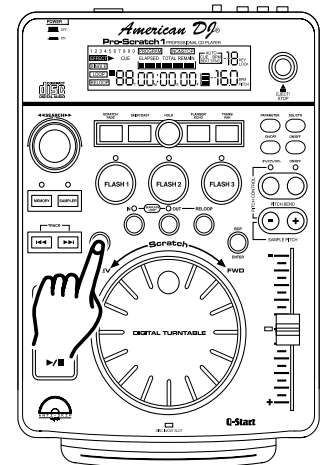


Figure 53

Figure 54

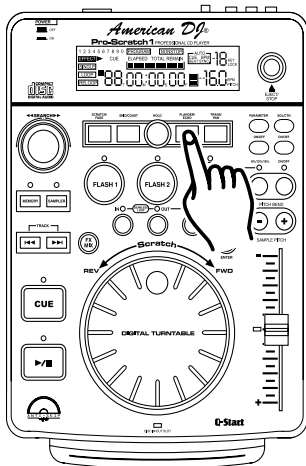
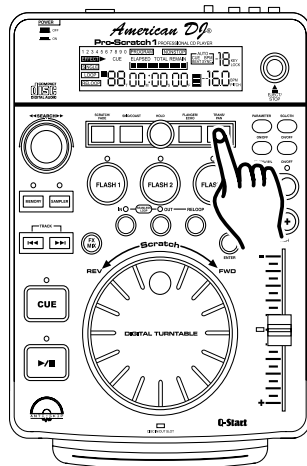


Figure 55



**STEP THREE:** After you have activated FX Mix Mode, select an effect. In this example we will choose the FLANGER and TRANS Effects.

**STEP FOUR:** To initiate the FX FADE Function, tap the **BOP/ENTER BUTTON (20)**. At this point the effects will play out for the length of the FADE value. When the effect has played out normal playback will resume from the point the effect ended. You must be in continue mode for this effect to operate properly, if the unit is in single play mode the track will cue when the effect has played out.

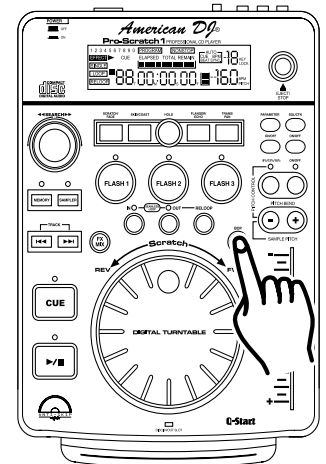
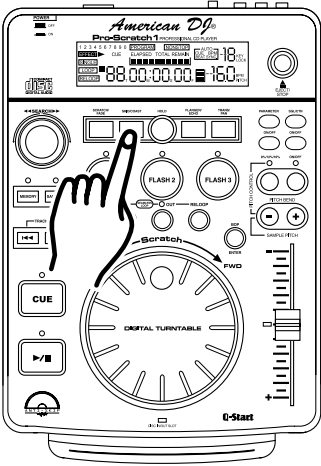


Figure 56



## BASIC OPERATIONS - FX MIX

**FX MIX - BOP CONTROL:** This function allows you to engage either the COAST or SKID effects at any point of a track during normal playback. The effect will play out according to its parameters and then resume normal playback. The procedure below list the steps to activate the FX Mix - BOP Control. In the following example we will you the SKID effect.



**STEP ONE:** Be sure you are in continuous play mode, and a track is playing. Turn the SKID effect on. By pressing down the **SKID/COAST BUTTON (5)** until it begins to glow as in figure 57.

Figure 57

**STEP TWO:** Select the **FX MIX BUTTON (11)** to activate the FX Mix Mode as in figure 58.

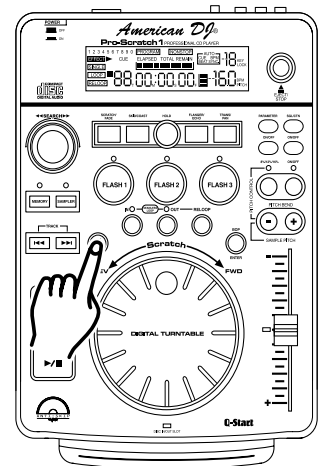
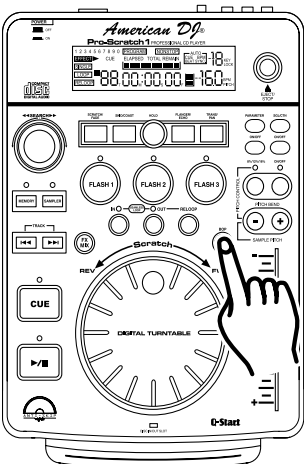


Figure 58



**STEP THREE:** To initiate the FX BOP Function, tap the **BOP/ENTER BUTTON (20)**. At this point the effects will play out for the length of the SKID value. When the effect has played out normal playback will resume from the point the effect ended. You can continue this effect at any time by repeating steps two and three. You must be in continuous play mode for this effect to operate properly, if the unit is in single play mode the track will cue when the effect has played out.

Figure 59

## **MATCHING THE BEATS PER MINUTE (BPM)**

Beat matching is the act of finding the BPM's (beats per a minute) of two different music sources, and matching them together. After you have matched the BPM's you use your mixer to fade the volume in and out of one song to the next without music interruption while retaining the same beat. Use the **PITCH SLIDER (17)** to match the BPM's of one PRO SCRATCH 1™ to that of another PRO SCRATCH 1™ or other music source. Use your mixer's crossfader to blend them in to each other seamlessly. This is a function that may take some practice.

## **COMPACT DISCS**

### **1. PRECAUTIONS ON HANDLING COMPACT DISCS**

- Do not allow fingerprints, oil or dust to get on the surface of the disc. If the disc is dirty, wipe it off with a soft dry cloth.
- Do not use benzene, thinner, water, record spray, electrostatic-proof chemicals, or silicone-treated cloths to clean discs.
- Always handle discs carefully to prevent damaging the surface; in particular when removing a disc from its
- Do not bend the disc.
- Do not apply heat.
- Do not enlarge the hole in the center of the disc.
- Do not write on the label (printed side) with a hard tipped implement such as a pencil or ball point pen.
- Condensation will form if a disc is brought into a warm area from a colder one, such as outdoors in winter. Do not attempt to dry the disc with a hair dryer, etc.

### **2. PRECAUTION ON STORAGE**

- After playing a disc, always unload it from player.
- Always store the compact disc in the jewel case, protecting from dirt or damage
- Do not place discs in the following areas:
  - a) Areas exposed to direct sunlight for a considerable time
  - b) Areas subject to accumulation of dust or high humidity.
  - c) Areas affected by heat from indoor heaters, etc.

# SPECIFICATIONS

## GENERAL

### Model: American DJ® Pro Scratch 1 - Professional Compact Disc Player

Type: Slot loading, digital compact disc audio player.  
 Disc type: Standard size compact discs only (5 in / 12 cm discs)  
 Dimensions: 3 1/4" ~ 4 1/2" H x 8 1/2" W x 10 3/8" L (217.5 mm x 81.8 mm x 306 mm)  
 Installation: Place on flat surface or mount in flat case  
 Weight: 4 1/2 Lbs. / 1 3/4 Kgs  
 Power supply: AC 115/230V, 50/60Hz  
 Power consumption: 14W  
 Environmental conditions: Operational temperature: 5 to 35°C (41 to 95°F)  
 Operational humidity: 25 to 85% (no condensation)  
 Storage temperature: -20 to 60°C (4 to 140°F)  
 Accessories: Connecting RCA Cable (2 sets for left and right channels)  
 Control 1/8" miniplug type (3 feet)

## AUDIO SECTION

Quantization: 16 bit linear per channel  
 Sampling rate: 44.1 kHz at normal pitch  
 Over sampling rate: 8 times  
 D/A conversion: 16 bit  
 Frequency response: +/- 1 dB 20 Hz to 20,000 KHz  
 Output level: 2.0V +/- 1dB  
 Load impedance: 47k ohm or more

## AUDIO CHARACTERISTICS (TEST DISC: TCD-782, LOAD=47Kohm)

ITEM	NOMINAL	LIMIT	CONDITION
Output level	2.0Vrms+/-1dB	2.0V+/-1dB	1KHz,0dB
Channel balance	0.5dB	1.0dB	1KHz,0dB
Frequency response	+/-0.5dB	+/-1.0dB	20Hz-20KHz,0dB
De-emphasis response	+/-2.5dB	+/-3dB	16KHz, -20dB
Channel separation*	82dB	75dB	1KHz,0dB
T.H.D. + NOISE*	0.02%	0.025%	1KHz,0dB
S/N ratio (IHF-A)*	84dB	75dB	1KHz,0dB
Phones max. output	10mW	8mW	1KHz,THD=10%

NOTE: \* With 20KHz low pass filter.

## SEARCHING TIME (TEST DISC: TCD-792)

ITEM	NOMINAL	LIMITS	CONDITION
Short access time	1.7sec	4sec	Play next track
Long access time	3sec	6sec	Track 1 ->Track 20 Track 20 ->Track 1

## PLAYABILITY

ITEM	NOMINAL	LIMIT	CONDITION
Interruption	1000um	700um	TCD-725
Black dot	1000um	600um	TCD-725
Finger prints	75um	65um	TCD-725
Eccentricity	210um	140um	TCD-712,713 NO TRACK JUMP
Vertical deviation	1mm	0.54mm	TCD-731R

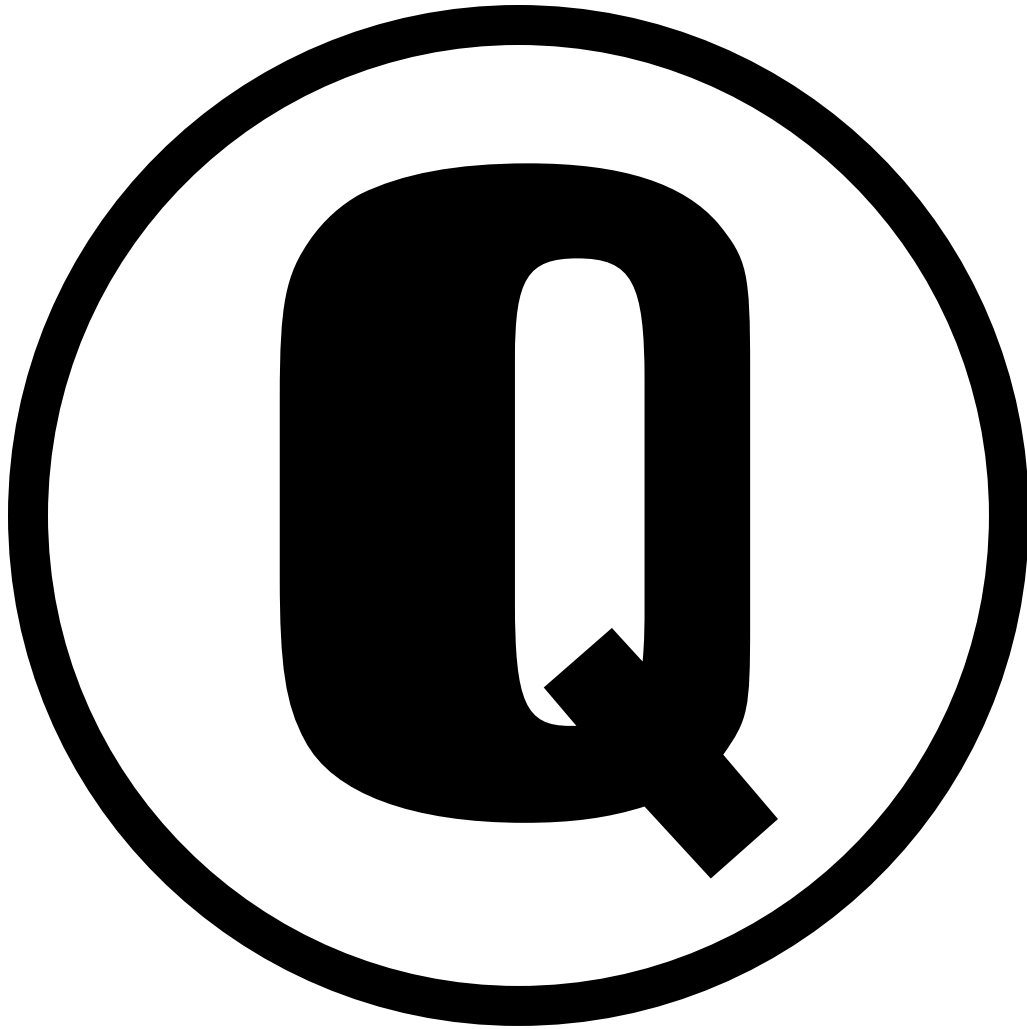
## PICK-UP

System: Object lens drive system optical pick-up  
 Object lens drive system: 2 dimensional parallel drive  
 Tracking detection: 3 spot beam detection  
 Optical source: Semiconductor laser  
 Wave length: 780nm

## NOTES:

**The specifications are subject to change to any improvement by negotiations in advance.  
 The parts are subject to change to any improvement within the range of the specifications.**





American DJ Audio World Headquarters:  
4295 Charter Street Los Angeles, CA 90058 USA  
Tel: 323-582-3322 Fax: 323-582-3311  
Web: [www.americandj.com](http://www.americandj.com) E-mail: [info@americandj.com](mailto:info@americandj.com)