PSD340

Music Practice & CD Recording System

OWNERS MANUAL

SUPERSCOPE®

PSD340
Music Practice
CD RECORDING SYSTEM

MIC

PLAY

OPEN ►

PUSH

MP3
CD-RW PLAYBACK

METRO REW/DLY TUNER VR

REC MODE A-B REPEAT SINGLE MENU/STORE

TR INC BALANCE DISP PROG CANCEL/DELETE

PROG RANDOM DIGITAL   L
REPEAT AUTO SYNC
1 A-B TOTAL TRACK   R
TOC
CD TEXT
CD-RW
STANDBY

POWER ► STANDBY — KEY — TEMPO

b # - +

SELECT

PUSH ENTER

ERASE FINALIZE

REC/PLAY
REC REVIEW

REC
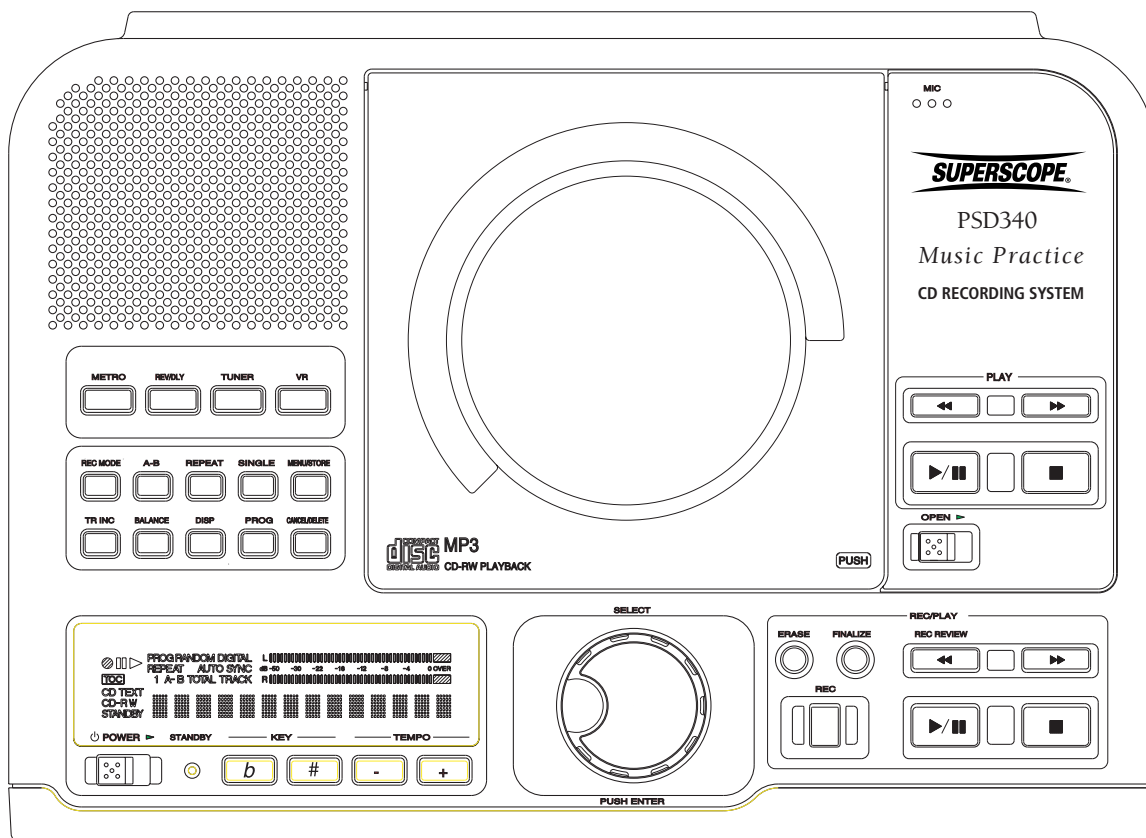
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
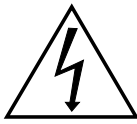KALSS 1 LASERAPPARAT

SUPERSCOPE®
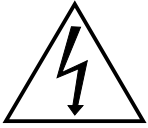
The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the p r o d u c t ' s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR EVITER LES CHOC ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determeined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving attenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

NOTE: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada.

This product is in conformity with the EMC directive and low-voltage directive.

This product complies with household power and safety requirements in your area.

Important Safety Instructions

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not use this apparatus near water.
7. To ventilate the unit, do not install it in a rack or bookshelf, and note the following: Do not insert objects beneath the unit. Do not block ventilation slots at the top of the unit. Do not place anything about 1 meter above the top panel. Make a space of about 8" (20 cm) around the unit.
8. Do not install near nay heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Information!
• This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
• Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
• When the switch is in the OFF position, the apparatus isn't completely switched-off from the MAINS.

CE MARKING

English

WARNINGS

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not insert anything into the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.
- Do not cover the ventilation with any items such as tablecloths, newspapers, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
- Do not place anything about 0.5 meter above the top panel.
- Make a space of about 0.5 meter around the unit.
- No objects filled with liquids, such as vases, shall be placed on the apparatus.
- When the switch is in the OFF position, the equipment is not completely switched off from MAINS.

Deutsch

WARNHINWEISE

- Das Gerät nicht Regen oder Feuchtigkeit aussetzen.
- Die Abdeckung nicht vom Gerät abnehmen.
- Keine Gegenstände durch die Belüftungsschlitze stecken.
- Das Netzkabel nicht mit feuchten oder nassen Händen anfassen.
- Decken Sie die Lüftungsöffnungen nicht mit einem Tischtuch, einer Zeitung, einem Vorhang usw. ab.
- Es dürfen keine Gegenstände mit offener Flamme, wie etwa brennende Kerzen, auf dem Gerät aufgestellt werden.
- Beachten Sie bei der Entsorgung der verbrauchten Batterien alle geltenden lokalen und überregionalen Regelungen.
- Darauf achten, daß über dem Gerät ein Freiraum von mindestens 0,5 meter vorhanden ist.
- Auf allen Geräteseiten muß ein Zwischenraum von ungefähr 0,5 meter vorhanden sein.
- Auf das Gerät dürfen keine mit Flüssigkeiten gefüllte Behälter, wie etwa eine Vase, gestellt werden.
- Wenn der Schalter ausgeschaltet ist (OFF-Position), ist das Gerät nicht vollständig vom Stromnetz (MAINS) abgetrennt.

Français

AVERTISSEMENTS

- Ne pas exposer l'appareil à la pluie ni à l'humidité.
- Ne pas essayer de retirer le boîtier de l'appareil.
- Ne rien insérer dans l'appareil par les orifices de ventilation.
- Ne pas manipuler le cordon d'alimentation avec les mains mouillées.
- Ne pas recouvrir les ouïes de ventilation avec un objet quelconque comme une nappe, un journal, un rideau, etc.
- Ne placer aucune source de flamme nue, comme une bougie allumée, sur l'appareil.
- Pour mettre au rebut les piles usées, respecter les lois gouvernementales ou les règlements officiels concernant l'environnement qui s'appliquent à votre pays ou région.
- Ne placez aucun object à moins de 0,5 mètre environ du panneau supérieur.
- Veiller à ce qu'aucun objet ne soit à moins de 0,5 mètre des côtés de l'appareil.
- Aucun objet rempli de liquide, un vase par exemple, ne doit être placé sur l'appareil.
- Lorsque l'interrupteur est sur la position OFF, l'appareil n'est pas complètement déconnecté du SECTEUR (MAINS).

Nederlands

WAARSCHUWINGEN

- Stel het apparaat niet bloot aan regen of vocht.
- Verwijder de afdekplaat van het apparaat niet.
- Duw niets door de ventilatieopeningen in het apparaat.
- Raak het netsnoer niet met natte handen aan.
- Bedek de ventilatieopeningen niet met enige voorwerpen, zoals tafelkleden, kranten, gordijnen, enz.
- Plaats geen brandende voorwerpen, zoals kaarsen, op het apparaat.
- Volg bij het weggooien van verbruikte batterijen de overheidswetgeving of milieuvoorschriften op die van kracht zijn in het land of de regio waarin u zich bevindt.
- Zorg dat er tenminste 0,5 meter vrije ruimte boven het toestel is.
- Zorg dat er 0,5 meter vrije ruimte rond het toestel is.
- Plaats geen voorwerpen met een vloeistof erin, zoals een bloemenvaas, op het apparaat.
- Als de schakelaar op OFF staat, is het apparaat niet volledig losgekoppeld van de netspanning (MAINS).

Español

ADVERTENCIAS

- No exponga el equipo a la lluvia ni a la humedad.
- No extraiga la tapa del equipo.
- No introduzca nada en el interior del equipo a través de los orificios de ventilación.
- No maneje el cable de alimentación con las manos mojadas.
- No cubra la ventilación con objetos como manteles, periódicos, cortinas, etc.
- No deben colocarse sobre el equipo elementos con fuego, por ejemplo velas encendidas.
- Cuando se eliminen baterías usadas, deben cumplirse las reglamentaciones oficiales o las normas de protección medioambiental aplicables en su país o en su zona.
- No ponga nada a menos de 0,5 metro por encima del panel superior.
- Deje un espacio de unos 0,5 metro alrededor de la unidad.
- No se deben colocar sobre el aparato recipientes que contengan líquidos, como por ejemplo jarrones.
- Cuando el interruptor está en la posición OFF, el equipo no está completamente desconectado de la alimentación MAINS.

Italiano

AVVERTENZE

- Non esporre l'apparecchio alla pioggia o all'umidità.
- Non rimuovere il coperchio dell'apparecchio.
- Non introdurre oggetti all'interno dell'apparecchio attraverso i fori di ventilazione.
- Non toccare il cavo di alimentazione con le mani bagnate.
- Non coprire le fessure di ventilazione con tovaglie, giornali, tende od oggetti analoghi.
- Non posare sull'apparecchio sorgenti di fiamme scoperte quali candele accese.
- Smaltire le pile usate in conformità alle norme governative o disposizioni ambientali vigenti nel proprio paese o zona.
- Non posare alcun oggetto sopra il pannello superiore, lasciando libero uno spazio di circa 0,5 m.
- Lasciare 0,5 metro liberi tutto intorno l'unità.
- Non mettere sull'apparecchiatura alcun contenitore di liquido, come ad esempio dei vasi.
- Quando l'interruttore è nella posizione OFF, l'apparecchiatura non è completamente scollegata da MAINS.

Português

ADVERTÊNCIAS

- Não exponha o equipamento à chuva nem à humidade.
- Não retire a tampa do equipamento.
- Não atire nada para dentro do equipamento através dos orificíos de ventilação.
- Não manuseie o cabo de alimentação com as mãos molhadas.
- Não cobrir os orifícios de ventilação com objectos tais como toalhas de mesa, jornais, cortinas, etc.
- Não colocar chamas abertas tais como velas acesas, sobre o aparelho.
- Ao deitar foras as pilhas usadas, favor observar os regulamentos governamentais ou as regras com respeito ao meio ambiente que se aplicam no seu país ou área de residência.
- Deixar um espaço completamente livre de cerca de 0,5 metro acima do painel superior.
- Deixar um espaço de cerca de 0,5 metro ao redor do aparelho.
- Não colocar recipientes com água, tal como vasos, sobre o aparelho.
- Quando o interruptor está na posição OFF, o equipamento não fica totalmente desligado de MAINS.

Svenska

VARNINGAR

- Utsätt inte utrustningen för regn eller fukt.
- Ta inte bort utrustningens hölje.
- För inte in föremål i utrustningen genom ventilationshålen.
- Hantera inte nätsladden med våta händer.
- Täck inte för ventilationsöppningarna med några föremål som till exempel bordsdukar, dagstidningar, gardiner e.d.
- Inga föremål med öppen låga, som till exempel tända stearinljus, bör placeras på utrustningen.
- Följ de lagar och miljöskyddsråd som gäller i det land eller område där du bor när du gör dig av med batterier.
- Placera inte någonting närmare än 0,5 meter ovanför apparaten eller enheten.
- Se till att det finns omkring 0,5 meter fri plats runt omkring enheten.
- Inga objekt som är fyllda med någon vätska, till exempel blomstervaser, bör placeras på apparaten.
- Även om strömbrytaren står i det avstängda läget OFF, så är utrustningen inte helt bortkopplad från det elektriska nätet (MAINS).

Table of Contents

Specifications

General

System...................... Compact Disc Digital Audio (CD-DA)
Number of channels.................................2 (stereo)
Applicable discs..CD, CD-R, CD-RW
Power requirements:
    /U1B...120V 60Hz,21W
    /N1B...230V 50Hz,21W
    /K1B...220V 50Hz,21W
Dimensions (maximum)
    Width.......................................11.625 inches (296 mm)
    Height..................................... 3.635 inches (92 mm)
    Depth.......................................8.75 inches (222 mm)
    Weight......................................7 pounds (3.2 Kg)

Audio

ADC...............................24 Bit Resolution 64x Oversampling
DAC.. 20 Bit Resolution
Overall frequency response...........................20Hz - 20kHz

CD-R drive output

Playback S/N..90dB
Playback Dynamic Range...90dB
Playback Total Harmonic Distortion............................0.01%
Output Voltage/Impedance (Line Output)...............2.0V/2.2K

CD drive output

Playback S/N..90dB
Playback Dynamic Range...90dB
Playback Total Harmonic Distortion...........................0.01%
Output Voltage 2.0V/2.2K

MIC/LINE analog input

LINE level
    S/N 85dB
    THD...0.05%
    Input Sensitivity/Impedance...........................500mV/6K
MIC level
    S/N 70dB
    THD 0.1%
    Input Sensitivity/Impedance 3.0mV/6K

AUX analog input

    S/N 85dB
    THD 0.01%
    Input Sensitivity/Impedance 500mV/50K

Digital Input

    Sample rate 32kHz/44.1kHz/48kHZ

Digital Output

    Output Level/Impedance 0.5Vp-p/75Ω

Headphone Output (10% THD)

    Level/Impedance......................................30mW/32Ω

Speaker Output (10% THD)

    Level/Impedance 2.0W/8Ω

Operating Temperature ....+5° C -+35°C (41°F -95°F)

Introduction

Congratulations on your purchase of the PSD340 Music Practice CD Recording System. The PSD340 is a combination CD player and CD recorder with special features designed for music teachers, choral directors, vocalists, musicians and sound engineers. Tune up, practice to the metronome, control the playback of CDs and MP3 files for custom accompaniment, and record directly to CD. It's convenient and easy with the PSD340.

Features for Music Practice

- Change the key of a song without affecting tempo (± one octave in half steps or finer increments)
- Change the tempo of a song without affecting musical pitch (-75% to +50%)
- Change key and tempo simultaneously
- Select A-B (Point A to Point B) repeat loops
- Reduce lead vocals from stereo recordings
- Use built-in metronome
- Use built-in chromatic tuner and 440Hz tone
- Play and manipulate MP3 audio files on a CD-R or CD-RW disc
- CD-G graphics output (with optional decoder)

Recording Features

- Direct recording to CD-R (write once) or CD-RW (rewritable) discs
- Recording of music manipulations such as key or tempo changes
- Built-in microphone preamplifiers
- Built-in condenser microphone
- Automatic Rec Level Control for "worry free" recording
- Record-Review which allows immediate playback of the last track recorded
- Mixing of CD or CD-MP3 (MP3 files on a disc) accompaniment with mic or instrument input
- Independent operation of the CD recording drive and CD player drive. Audio from the CD player can be mixed with other sources, processed, and routed back to the CD recording drive through the DIGITAL IN

Recommended Media

The PSD340 will record on computer CD-R or CD-RW data discs as well as "Music CD-R" discs. The most important factor in choosing CD-R or CD-RW media is a 1X speed rating. Choose brand name discs that are rated 1X (e.g. 1X - 40X) or imply 1X (e.g., "up to 40X"). We do not recommend using generic discs with the PSD340. If possible, test any brand before buying in bulk.
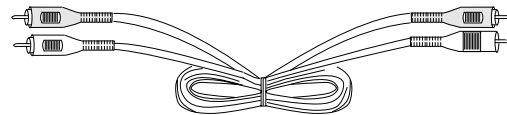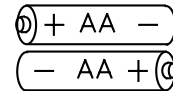
Package Contents
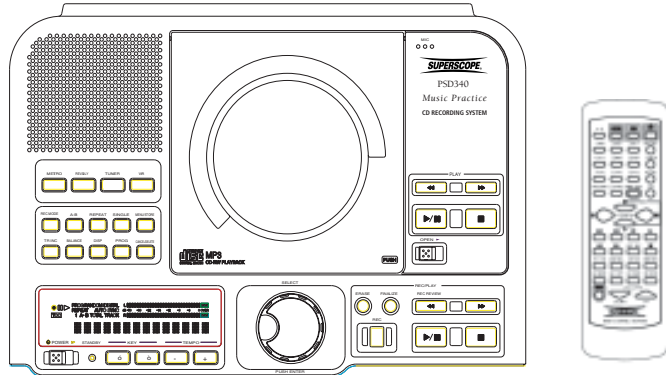
PSD340

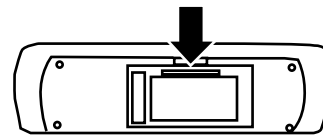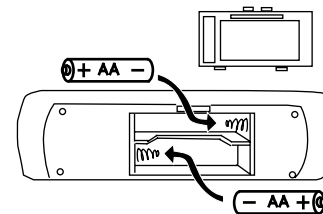Infrared (IR) Remote
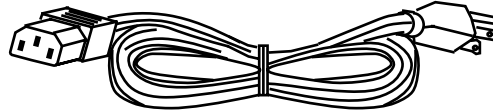
AC Power Chord

RCA Patch Cables

AA batteries (2)

Installing Remote Batteries

Press and lift at arrow to open the remote control battery compartment.
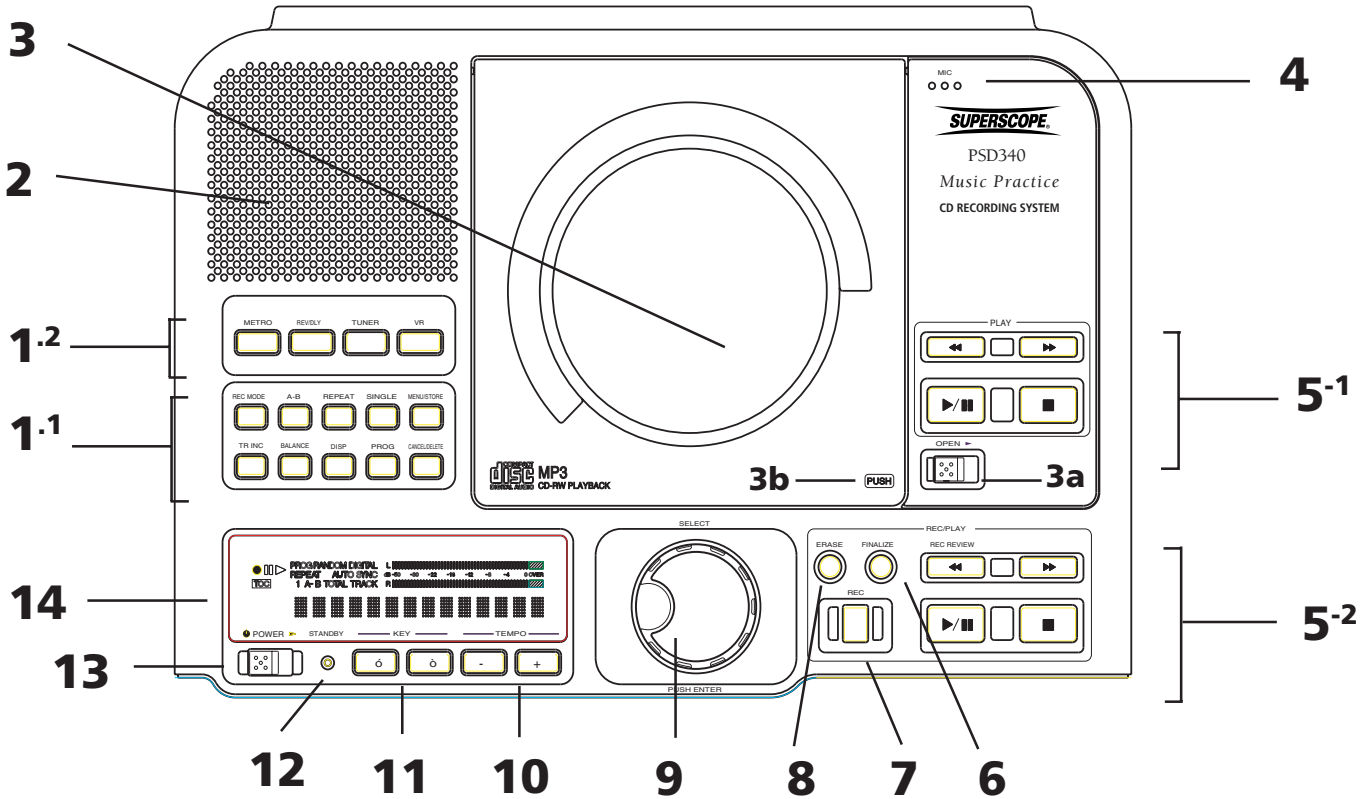
Install two AA batteries then replace compartment cover.

When disposing of used batteries, please comply with governmental and environmental regulations.
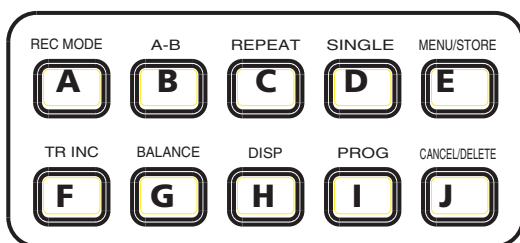
Features

Top of Unit

1 Control Buttons
2 Speaker
3 CD Player Drive
4 Internal Microphone
5 CD Player and CD Recorder Controls

6 Finalize Button
7 Record Button
8 Erase Button
9 Select Jog Wheel
10 Tempo Controls

11 Key Controls
12 Standby Light
13 Standby Power Button
14 Display

[1-1] Control Buttons

A. Record Mode
B. A-B Loop
C. Repeat
D. Single Track Play
E. Menu/Store

F. Track Increment
G. Balance
H. Display
I. Program
J. Cancel/Delete

A. **RECORD MODE (REC MODE) button**
With a CD-R or CD-RW disc in the CD Recording drive, press this button to enter Record mode. Turn the SELECT jog wheel to select the recording mode. Then press the SELECT jog wheel to choose that mode.

B. **A-B LOOP (A-B) button**
While a CD is playing in the CD player drive, press this button to start point A to point B repeat play (pg. 15).

C. **REPEAT button**
There are two Repeat modes: **Track** or **Entire CD**.

Track Repeat
While playing a CD in either drive press this button once to repeat only the track being played. The display reads "REPEAT 1."

Entire CD Repeat
Press the REPEAT button twice to repeat the entire CD. The display reads "REPEAT."

Press REPEAT a third time to exit Repeat mode.

D. **SINGLE TRACK PLAY (SINGLE) button**
Press the SINGLE button to toggle Single Track Play ON or OFF.

While in Single Track Play and when a track is selected with the SELECT jog wheel, the track does not automatically start playing. Instead, it is paused and cued up at the beginning of the audio and the PLAY/PAUSE button flashes.

Press the PLAY/PAUSE button to begin playback.

When the track is finished, the PSD340 will automatically pause, cued to music, at the beginning of the next track. (See pg. 27 on how to adjust the cue point).

E. **MENU/STORE button**
Press this button to enter Menu mode. Menu selections and changes are made using the SELECT jog wheel. Turn the SELECT jog wheel to scroll through the options. Press the SELECT jog wheel to select an option. Press the MENU/STORE button to store changes and exit Menu mode. (For a complete list of menu selections see pg. 22).

F. **TRACK INCREMENT (TR INC) button**
During recording, press this button to manually increment a new track. RECOMMENDED: When using this feature, set AUTO TRACK to OFF (See pg. 23).

G. **BALANCE button**
The BALANCE control allows you to adjust the right-left stereo balance of the line output and headphones and the R-L channel mix of the speaker. Press the BALANCE button, then turn the SELECT jog wheel to adjust the stereo balance.

When transcribing, you might want to zero in on a particular instrument in the stereo mix. If that instrument is located mostly in the right channel, you may turn the BALANCE control all the way to the right. However, this will remove all the sound from the left channel and left headphone. If you

prefer, you can use the OUTPUT feature to take audio from one channel and send it into both channels or both sides of your headphones. How to do this:

1. While the unit is stopped, press the MENU/ STORE button.
2. Turn the SELECT jog wheel until you see the option OUTPUT.
3. Press the SELECT jog wheel to enter.
4. If display reads "STEREO" turn the SELECT jog wheel to change the display to read "MONO."
5. Press the MENU/STORE button to store the new setting.

H. **DISPLAY (DISP) button**
While playing a CD in either drive, press the DISPLAY button once to display the remaining play time for the current track. The display reads "TRACK."

Press the button a second time to display the remaining play time for the entire CD. The display reads "TOTAL TRACK." Press the DISPLAY button again to return to the default display showing elapsed track time.

I. **PROGRAM (PROG) button**
Use this button to program a play list of tracks or MP3s (for the CD drive only.) (See pg. 19 for more information).

J. **CANCEL/DELETE button**
Press this button to delete tracks from a program, to delete text when entering CD text, to cancel menu changes, or to return to a higher level in the menu.

[1-2] Music Practice Controls

K. *Metronome*
L. *Reverb/Delay*
M. *Tuner*
N. *VR (Voice Reduction)*

METRO	REV/DLY	TUNER	VR
K	**L**	**M**	**N**
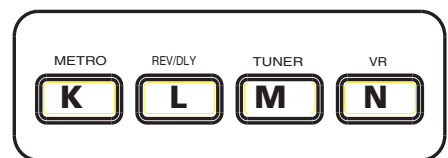
K. **METRONOME (METRO) button**
Press this button to turn the metronome ON/OFF and to adjust metronome settings (pg. 14).

L. **REVERB/DELAY (REV/DLY) button**
Press this button to add a Reverb or Delay effect to AUX IN, the left MIC/LINE/INST input and/or the right MIC/LINE/INT MIC input and to adjust Reverb/Delay settings (pg. 18).

M. **TUNER button**
Press this button to activate the built-in tuner and to adjust tuner settings (pg. 13).

N. **VOICE REDUCTION button (VR)**
Press this button to activate voice reduction. A special processor reduces the volume of centered lead vocals during playback of stereo CD or MP3 recordings (See pg. 16).

[2] Internal Speaker
The internal speaker allows listening to the PSD340 recording system without having to connect to other equipment for amplification.
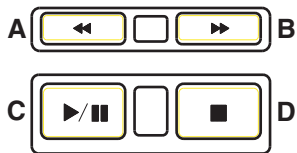
[3] CD Player Drive
The top loading CD drive is for playback only. The PSD340 can playback CD, CD-MP3, CD-R and CD-RW discs.

The CD drive is opened by the OPEN slide switch (**3a**), and closed by pushing on the corner marked PUSH (**3b**).

[4] Built-In Microphone (MIC)
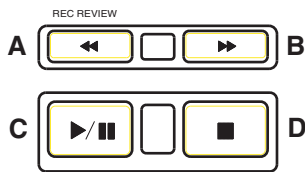Internal condenser microphone.

[5] Play controls

A ⊲⊲ B
C ▶/�II ■ D

(Fig. 5-1)

Play controls **(5⁻¹)** control playback of a disc in the CD player drive [3]. Another set of play controls **(5⁻²)** control playback of a disc in the CD-R drive (pg 9, #13).

A. FAST BACKWARD SEARCH button. Hold down to go backwards within an audio track. NOTE: Use the SELECT jog wheel to change tracks.

REC REVIEW
A ⊲⊲ B
C ▶/II ■ D

(Fig. 5-2)

RECORD-REVIEW button. For the CD-R drive, the FAST BACKWARD SEARCH button (A) also controls the RECORD REVIEW feature. Press this button while recording, or after the recording has been stopped, and the unit will stop and play back the last track recorded.

B. FAST FORWARD search button. Hold down to advance within an audio track.
C. PLAY/PAUSE button
D. STOP button

[6] FINALIZE button / light
Press this button to enter CD-R Finalize mode (pg. 21).

[7] RECORD (REC) button / light
Press this button to enter Record Pause mode. Press it to start recording when the unit is in Record Pause mode. Also used when finalizing.

[8] ERASE button / light
Use to enter Erase mode (CD-RW only) (pg. 21).

[9] SELECT jog wheel
This is the master control for the PSD340. Press the SELECT jog wheel to switch between drives. For most operations, you scroll through choices with the SELECT jog wheel and press it to accept your choice.
- In Program mode, turn to select a track, then press to program the track.
- In Play mode, turn to select a track.
- When recording, turn to adjust recording level.
- After the MENU/STORE button is pressed, turn the SELECT jog wheel to scroll through menu selections and make adjustments.

[10] Tempo Change buttons
Press the "**+**" button to increase or the "**-**" button to decrease the tempo of the disc in the CD drive (pg.15). The key will be unaffected.

[11] Key Change buttons
Press ♭ to lower or ♯ to raise the key (musical pitch) (pg. 15). The tempo will be unaffected.

[12] STANDBY light
STANDBY light is lit when power is switched OFF by the Standby POWER switch on the unit or remote.

[13] Standby POWER switch
Slide the Standby POWER switch to the right to turn power ON or OFF. The MASTER POWER button on rear of unit must be ON (the red STANDBY light must be lit).

[14] Display
1. **TOC -** Lit when TOC (disc table of contents) information is held in memory. The table of contents includes the total number of tracks, playback time and other CD text if provided.
2. **Record indicator -** Lit when recording.
3. **Pause indicator -** Lit when recording or when playback has been paused.
4. **Play indicator -** Lit during recording or playback.
5. **PROG indicator** - Lit during Programming mode (selecting track playback sequence).
6. **REPEAT indicator -** Lit during a repeat operation. NOTE: When the "1" indicator is also lit, only the currently playing track is repeated.

Front of Unit
(controls and connections)
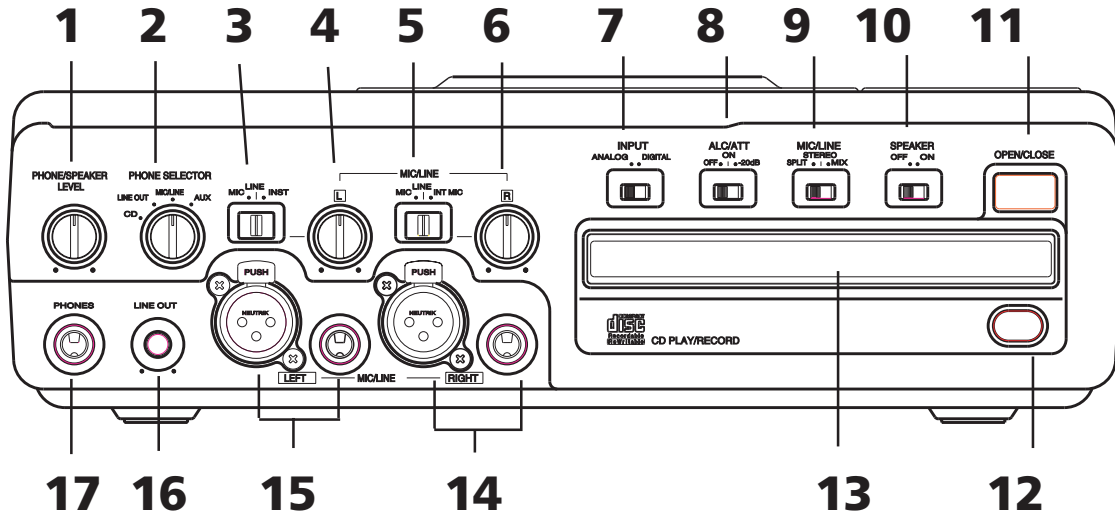
[1] PHONE/SPEAKER LEVEL control
Turn this knob to adjust the level (volume) of the built-in speaker or headphones plugged into the PHONE jack.

[2] PHONE SELECTOR knob
Select the audio source for the PHONE jack and INTERNAL SPEAKER by turning this knob to one of the following four settings:

    CD – CD player drive
    LINE OUT – Audio available at the LINE OUT jacks.
    MIC/LINE – Audio being input via the MIC/ LINE/INST and MIC/LINE/INT MIC input jacks.
    AUX – Audio being input via the AUX IN jack.

[3] LEFT LINE/MIC/ INSTRUMENT (INST) switch
Switch to LINE for a line level input, MIC for a microphone level input or INST for an instrument level input.

Note: Audio from the front inputs can be mixed with audio entering the stereo AUX input on the rear panel.

[4] Left level control
Turn this knob to adjust the Left Input signal level.

[5] Right LINE/MIC/INT MIC switch
Switch to LINE for a line level input, MIC for a microphone level input, or INT when using the internal microphone. When using an instrument in the right channel, select MIC and set the ALC/ATT switch to -15dB (See #8).

Note: When INTERNAL MIC is selected, both the LEFT level control and the RIGHT level control are active. Use the RIGHT and LEFT level control knobs to adjust the INTERNAL MIC level applied to each channel.

[6] Right level control
Turn this knob to adjust the Right Input signal level.

[7] INPUT ANALOG/DIGITAL switch
Select between analog or digital external input.

[8] ALC/ATT switch
Record level limiter or MIC/LINE/INST attenuator.
ON - Limits any analog input signal greater than -6 dB. Record balance and Record Level are inactive when ALC is on.
OFF - Set level using left and right MIC/LINE/INST (or INT MIC) level controls. Levels in excess of 0 dB may be recorded and may result in distorted recordings.
-15dB – Reduces right and left MIC levels by -15dB. Does not effect the internal mic.

[9] MIC/LINE SPLIT/STEREO/MIX switch
Determines how the signal from the CD drive and the signals from the MIC/LINE/INST (or INT MIC) inputs are recorded.
SPLIT - Left and right signals from the CD drive are sent to the left channel of the recording. Left and right signals from MIC/LINE/INST (or INT MIC) are sent to the right channel of the recording. Left and right signals from the AUX inputs are sent to the left and right channels of the recording.

STEREO - Left and right signals from the CD drive are sent to the left and right channels of the recording. Left and right signals from the MIC/LINE/INST (or INT MIC) and/or AUX inputs are sent to the left and right channels of the recording.

MIX - Left and right signals from the CD drive and the AUX inputs are sent to the left and right channels of the recording. MIC/LINE/INST (or INT MIC) inputs are mixed together and then sent to both channels of the recording.

[10] SPEAKER OFF/ON switch

Turns the built-in speaker ON or OFF.

[11] OPEN/CLOSE switch

Press to OPEN the CD-R drive. Press again to CLOSE the CD-R drive.

[12] Remote control sensor

Sensor for the supplied wireless remote control.

[13] CD-R drive (disc tray)

In this manual, this drive is referred to as the CD-R drive or CD Recording drive. It is used for recording and can record both CD-R and CD-RW discs. **NOTE: It cannot record in MP3 file format.**

The CD-R drive can also playback CD, CD-R and CD-RW discs. You can not use music practice features such as key and tempo controls with this drive.
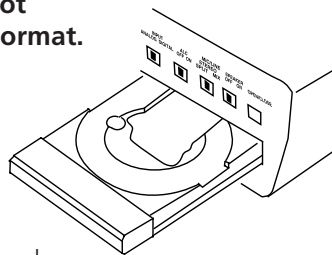
[14] Right XLR or 1/4" input jack

Plug in a microphone or line level audio source here to provide audio to the right stereo channel.

[15] Left XLR or 1/4" input jack

Plug in a microphone, instrument or line level audio source here to provide audio to the left stereo channel.

[16] LINE OUT level control

Turn this knob to adjust the output level of the LINE OUT jacks.

[17] PHONES jack

Plug stereo headphones in here. Adjust headphone volume with the PHONE/SPEAKER level control.

Remote Control

Most of the controls on the remote work identically to the controls on the unit. Special attention is given here for controls that are on the remote only or that function differently from controls on the unit.

Note: When using the remote to scroll through menus, use the forward search button >> to scroll forward and the backward search button << to scroll backward. Press the Enter button to confirm selections.

1) **CD-R select button.** Press to select the CD-R drive. When selected, buttons on this remote such as Play, Pause, Stop, and Search work on the CD-R drive.

2) **CD select button.** Press to select the CD player drive. When selected, buttons on this remote such as PLAY, PAUSE, STOP and SEARCH work on the CD player drive.

3) **TEMPO RESET button.** Pressing the TEMPO RESET button on the remote will reset the tempo to 0% (normal speed).

4) **VOLUME MUTE (VOL MUTE).** Press to mute the audio to the Line Output. This does not affect the built-in speaker.

5) **VOLUME UP/DOWN.** Press these buttons to control the volume of the audio sent to the Line Output.

6) **BALANCE LEFT/ BALANCE RIGHT buttons (BAL LEFT/ BAL RIGHT).** Press these buttons to control the right-left stereo balance of the Line Output and headphones, and the right-left channel mix of the speaker.

7) **BALANCE RESET (BAL RESET).** Press this button to return the right-left stereo balance of the Line Output and headphones, and the right-left channel mix of the speaker, to the center position (right and left channels equal).

8) **Alphanumeric keypad.** Performs some of the functions of the SELECT jog wheel. In Play and Program modes, press a number to select a track. Then press ENTER to enter the selection. When entering CD TEXT, press a number button once to select the first of the three letters, twice for the second and three times for the third. Press ENTER to enter the selected letter.

Back of Unit
(rear panel connections)
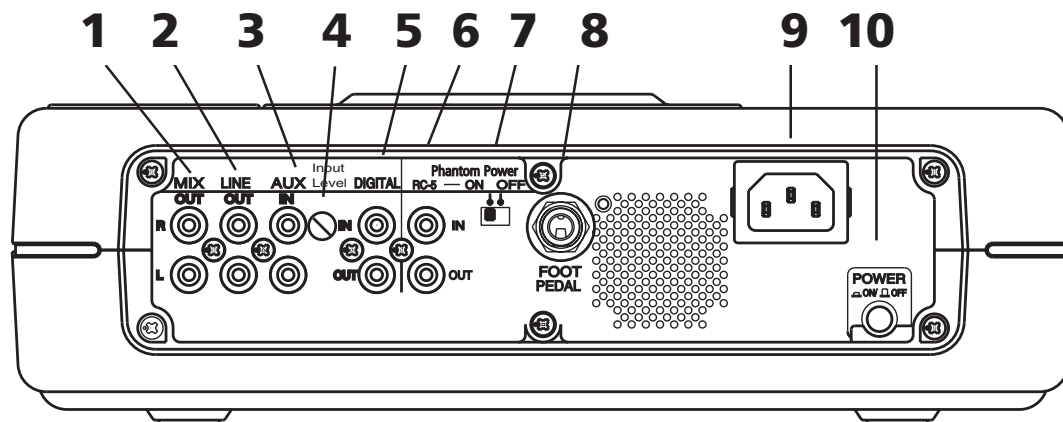
[1] MIX OUT jacks
Sound from the CD drive can be mixed with sound from the MIC/LINE/INST input, the MIC/LINE/INT MIC input, and the AUX IN jacks. The mixed signal is output through the MIX OUT jack as L-R line levels. This signal can be output to an external recorder, amplifier or powered speakers. This signal bypasses the CD-R drive, so it is available for output even if the CD-R drive is stopped.

[2] LINE OUT jacks
Sound from the CD-R drive is output as L-R line levels to an external recorder, amplifier or powered speakers. When the CD-R drive is not recording, the LINE OUT jacks output the MIX OUT signal. Unlike the MIX OUT signal, the LINE OUT signal can be adjusted by the LINE OUT level control and equalized with the OUTPUT EQ feature (pg. 22).

[3] AUX IN jacks
Use this stereo RCA connection for recording onto the CD-R drive from an external audio source such as a cassette deck. Audio from the AUX IN can be mixed with audio from the front panel inputs, the internal microphone and the CD player drive.

[4] AUX IN level control
Turn to adjust the input signal level of the AUX IN.

[5] DIGITAL IN and OUT jacks
Plug in RCA coaxial cables here to connect to the input and/or output of an external digital unit. Use DIGITAL IN for recording onto the CD-R drive from an external digital audio source. Use DIGITAL OUT for going to an external digital device.

[6] REMOTE RC-5 IN and OUT jacks
Plug in RCA coaxial cables here to connect to the input or output of an RC-5 remote control system.

For more information on the RC-5 system please contact Superscope Technologies.

[7] Phantom Power ON/OFF switch
Switch ON to apply 48V phantom power to XLR mic inputs. Switch OFF if the microphones being used do not require 48V phantom power.

[8] FOOT PEDAL jack
An optional foot pedal can provide Play/Pause control for the CD drive and Play/Pause or Record/Pause control for the CD-R drive. The FT200 Foot Pedal is available from Superscope Technologies Inc. NOTE: Use foot pedal menu selection to select which drive (CD or CD-R) the foot pedal is controlling. (See pg. 22 for this menu selection).

[9] Power plug
Plug one end of the supplied power cord in here and the other end into an AC outlet.

[10] MASTER Power switch
Press to turn power ON (in position). Press again to turn power OFF (out position).

To retain certain settings in memory, leave this switch ON and turn power ON and OFF with the Standby POWER slide switch on the top of the unit.

Set Up

Powering Up

1. Check that the AC power cord fits snuggly into the power cord jack on the back panel.
2. Make sure the back panel MASTER POWER switch is ON. The STANDBY light should now be ON. Slide the STANDBY POWER switch to the right. Upon power up, this light will dim and the display will come on.

TIP: **If you are switching power ON/OFF via the Remote or if you wish to retain certain settings in memory when powering off, leave the back panel MASTER POWER switch ON.**
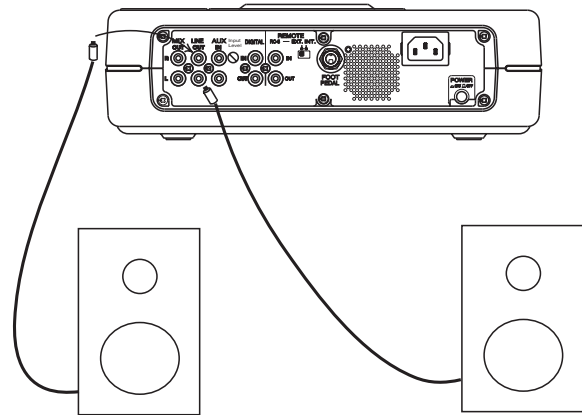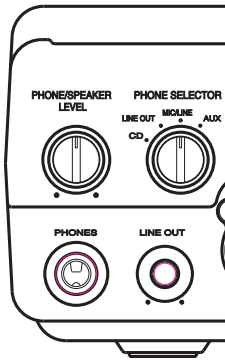
Setting Up Speakers

Headphones or Built-In Speaker

When using the built-in speaker, turn on the SPEAKER switch. Turn off the speaker when using headphones or when connecting to powered speakers or other sound equipment. Adjust volume of the headphones or speaker by using the PHONE/SPEAKER level knob.

The PHONE SELECTOR knob determines which audio path will be amplified/monitored through the headphones and built-in speaker. It does not affect any audio being recorded. Use it to monitor <u>one</u> of the following: CD, AUX inputs, MIC/LINE inputs, or LINE OUT which is a mix of the CD drive or CD-R drive, and front and rear panel inputs.

TIP: **Typically, you will want to leave the PHONE SELECTOR knob set on LINE OUT. Remember that the LINE OUT level control affects the volume of sound emanating from any external speakers.**

External Speakers

Connect external powered speakers to the rear panel RCA line outputs, making sure the Left channel line output is securely attached to the speaker's Left input and the Right channel line output is securely attached to the speaker's Right input. (see Figure A.)

Or, similarly connect the L-R channel line outputs to the L-R auxiliary or line inputs of a stereo amplifier that is attached to speakers.

Fig A. - Powered Speaker Set Up

Setting Up Instruments, Mics and other Sound Sources

The PSD340 is designed to work with microphones, instruments, and line level sources (e.g., mixers, external preamps). See the following diagrams for the setup that suits your application:

Microphones
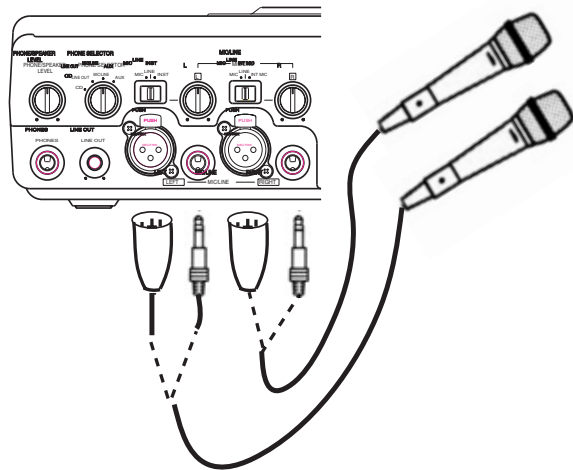
1. Set both front panel input switches to MIC. The left switch is labeled LINE/MIC/INST and the right switch is labeled LINE/MIC/INT MIC.
2. Plug microphones into either the XLR or 1/4" front panel inputs, depending on your mic type
3. For condenser microphones that use batteries, make sure the mic's batteries are fresh. When using microphones that require +48V phantom power, connect mics to the XLR inputs and make sure that the phantom power switch on the rear panel is ON.
4. See Setting Levels sidebar (pg. 12).

Internal Microphone

1. Set the Right LINE/MIC/INT MIC switch to "INT MIC."
2. When "INT MIC" is selected, both the left level control and the right level controls are active. Adjust both left and right level controls to determine how much signal is sent to either channel.
3. When using the INTERNAL MIC, it is recommended that the SPEAKER switch be turned OFF. If you need to monitor the incoming sound, use headphones. Using headphones avoids feedback--the nasty squeal that is heard when the mic picks up sound from the speaker and amplifies it, creating a feedback loop. Using the remote will also ensure that the INTERNAL MIC will not pick up the sound of any buttons being depressed.
4. See Setting Levels sidebar on this page.
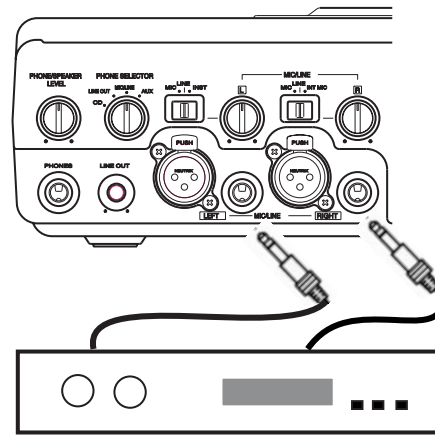
Instruments

1. Set the Left LINE/MIC/INST switch to "INST."
2. Plug an instrument into the Left 1/4" front panel input.
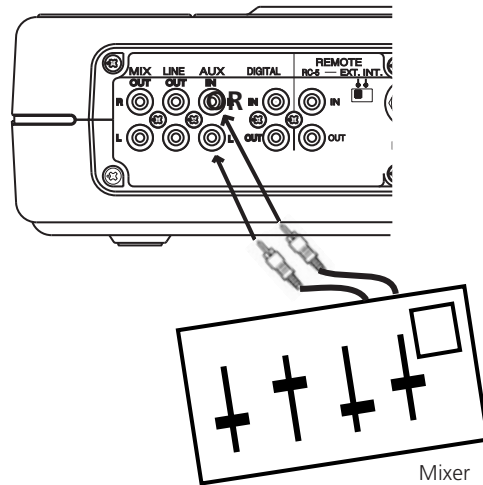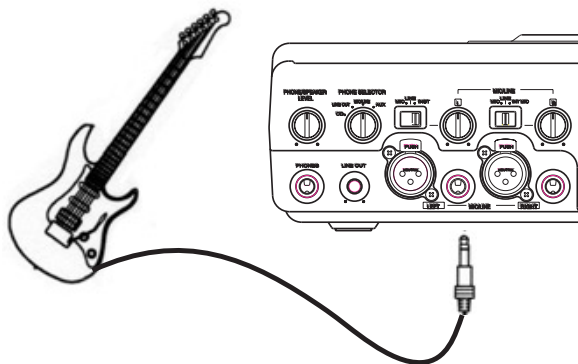3. Set the Right LINE/MIC/INT MIC switch to "LINE."
4. See Setting Levels sidebar on this page.

Line Level Sources

1. Set the Left LINE/MIC/INST switch to "LINE" and set the Right LINE/MIC/INT MIC switch to "LINE."
2. Line level equipment can be connected to the front panel Right and Left inputs ... OR ... to the rear panel RCA AUX inputs. Note: When connecting an auxiliary source into the rear panel AUX inputs, you can adjust the signal input level using the AUX IN control on the rear panel. Use the front panel inputs for individual control of Right and Left input levels.
3. See Setting Levels sidebar on this page.

Stereo Preamp

Mixer

SIDEBAR

Setting Levels

If you are setting levels while using the CD recorder drive, make sure to press RECORD first. This will place the unit in record pause mode. You may set levels at any time during CD player operation. As you sing or play your instrument, turn the Left and Right input-level control knobs clockwise while observing the display VU meters. When your performance is at its loudest, the VU meter should read close to 0 dB without going into the red zone. If the meter consistantly bounces into the red, adjust the level control knob counter clockwise to reduce the level. If your mics have higher than normal output, try switching the ALC/ATT switch to -15dB. Peaking at 0 dB will provide the greatest dynamic range while avoiding distortion.
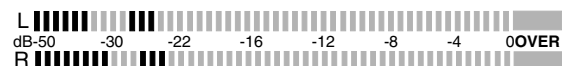
Music Practice & CD Playback

How to Use the Tuner

The PSD340 has two modes for tuning your instrument, *Chromatic Tuner* or *440Hz Tuning Tone.*

Using the Chromatic Tuner

The PSD340 Chromatic Tuner will pick up monophonic signals from the Left Mic/Line/Inst input, the Right Mic/Line input or the internal mic. The musical note corresponding to the incoming frequency is displayed in concert pitch as natural (no indication) or sharp (#). The Tuner operates on a wide range of pitches from A0 to C8. The CD and CD-R must be in Stop Mode for the Tuner to operate.
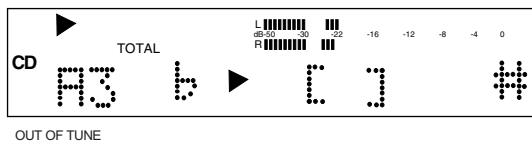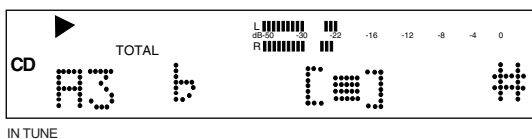
1. Press the TUNER button.
2. Turn the SELECT Jog Wheel until the display reads "Chromatic." Press the SELECT Jog Wheel to accept this selection. The chromatic tuner display will appear.
3. Play a note on your instrument and watch, as the unit will display the closest musical pitch.
4. Adjust the pitch of your instrument until the square indicator is in the center box. Right (sharp) or left (flat) arrows indicate an out of tune condition.

IN TUNE

OUT OF TUNE

5. Press the TUNER button to exit the Tuner.

How to Use the 440Hz Tuning Tone

1. Press the TUNER button.
2. If the display reads, "Chromatic",turn the SELECT jog wheel until the display reads "Tuner Tone."
3. Press the SELECT jog wheel to accept change. A 440Hz tone will sound in the speaker, headphones, and LINE OUT.
4. Play the appropriate tuning note on your instrument and adjust the instrument to match the 440Hz tone generated by the PSD340.

5. Press the TUNER button to stop the tone generator and exit the Tuner.

NOTE: The next time you press the TUNER button, the 440Hz tone will sound. This is because the PSD340 remembers which mode; Chromatic or Tuning Tone was used last. To switch back to the Chromatic Tuner, simply turn the SELECT jog wheel and select "Chromatic Tuner." The unit will return to the Chromatic Tuner display.

Adjusting the Tuning Tone

The Tuning Tone can be adjusted between 435 and 445Hz. Follow these steps for adjusting Tuner frequency.

1. While the Tone generator is active and the display shows your current Tone frequency and volume settings, press the SELECT jog wheel.
2. The display will now read "TUNER FREQ ADJ." Press the SELECT jog wheel to enter.
3. The current frequency setting will blink. Turn the SELECT jog wheel to adjust the frequency.
4. Press the SELECT jog wheel to confirm changes. The display will now show the current Tone frequency and volume settings.

To adjust the volume of the Tuning Tone:

1. While the tone generator is active and the display shows your current Tone frequency and volume settings, press the SELECT jog wheel.
2. The display will now read "TUNER FREQ ADJ." Turn the SELECT jog wheel until the display reads "TUNER VOL ADJ." Press the SELECT jog wheel to enter.
4. The current volume setting will now blink. Turn the SELECT jog wheel to adjust the volume.
5. Press the SELECT jog wheel to confirm changes. The display will show the current Tone frequency and volume settings.

How to Use the Metronome

The sound of the metronome will be output through the Line Out. When using the PSD340 with a separate amplifier or powered speakers (pg. 11), it may be best to turn down the LINE OUT level control knob on the front panel before starting the metronome and then turn the LINE OUT level control up to an appropriate listening level. If the PHONE SELECTOR knob is set for LINE OUT, the metronome will also be heard in the speakers and headphones. Therefore, you may also want to turn the PHONE/SPEAKER LEVEL knob down before starting the metronome and then turn the PHONE/SPEAKER LEVEL up to an appropriate listening level.

The METRONOME has four adjustable parameters,
• Tempo
• Metronome Volume
• Accent Beat
• Accent Beat Level

Tempo and Metronome Volume

1. Press the METRONOME (METRO) button. The metronome will start "clicking" and the tempo will be displayed.

```
L dB-50   -30   -22   -16   -12   -8   -4   0
R
METRO 120 BPM
```
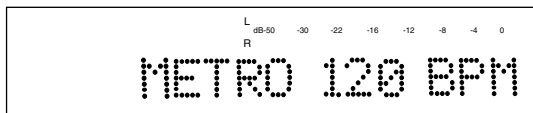
2. To change the tempo, press the SELECT jog wheel. The tempo will start to blink. Turn the SELECT jog wheel to adjust the tempo. Press the SELECT jog wheel to accept the change or wait 10 seconds and the PSD340 will automatically accept it.
3. The display will now show the new tempo. To adjust the metronome volume, turn the SELECT control until the display shows the current metronome volume setting.

```
L dB-50   -30   -22   -16   -12   -8   -4   0
R
METRO VOL  4
```
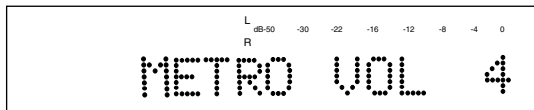
4. Press the SELECT jog wheel. The metronome volume will start to blink.
5. Turn the SELECT jog wheel to adjust metronome volume. Then press the SELECT jog wheel to accept the change.
6. Press the METRONOME button to stop the metronome.

Accent Beat and Accent Beat Levels

By designating a particular beat to play louder than others, the PSD340 metronome is able to imply different rhythmic meters. For instance, setting the Accent Beat to 3 will cause every third beat to sound louder than the other two. At moderate tempos, this will create a Waltz feel. Adjusting the Accent Beat volume will determine how much louder the Accent Beat will sound over the non-accented beats.

Follow these steps for adjusting Accent Beat and Accent Beat volume:

1. Press the METRO button. The metronome will start "clicking" and the tempo will be displayed.
2. Turn the SELECT jog wheel until the display shows the current Accent Beat setting. Press the SELECT jog wheel to enter.

```
L dB-50   -30   -22   -16   -12   -8   -4   0
R
ACENT  BEAT OFF
```
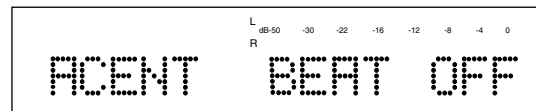
3. The Accent Beat value (abbreviated as ACENT) should be flashing. Turn the SELECT jog wheel to change the Accent Beat. The Accent Beat is adjustable from 1-6 or turned OFF for no accent. Press the SELECT jog wheel to enter the change.

```
L dB-50   -30   -22   -16   -12   -8   -4   0
R
ACENT BEAT   4
```
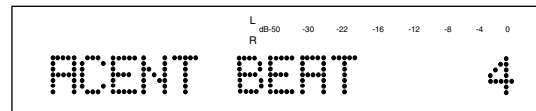
4. The display will now show the new Accent Beat. Turn the SELECT jog wheel until the display shows the current Accent Volume setting. Press the SELECT jog wheel to enter.
5. The current Accent Volume will be flashing. Turn the SELECT jog wheel to adjust the Accent Volume. Press the SELECT jog wheel to enter.

```
L dB-50   -30   -22   -16   -12   -8   -4   0
R
ACENT  VOL  9
```
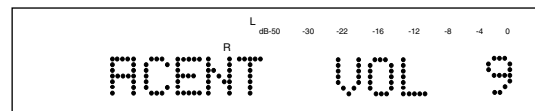
The display will show the new Accent Volume. After 10 seconds, the unit will return to the main metronome display.

NOTE: For the Accent Beat to be heard, the Accent Beat Volume must be higher than the Metronome Volume level. The PSD340 automatically adjusts the Accent Beat to a higher level than the Metronome Volume. However, you can adjust the volume difference by either increasing the Accent Beat Volume level or decreasing the Metronome Volume level.

Playing a CD

When placing a CD in the CD player drive, be sure to firmly push the CD onto the drive spindle so the CD snaps into the place and doesn't wobble. When you close the drive lid, after a moment the display will show the total number of tracks and total playing time on the CD.

```
                          L
                        dB-50  -30   -22   -16   -12   -8   -4   0
            TOTAL TRACK R
    CD      19      60:36
```
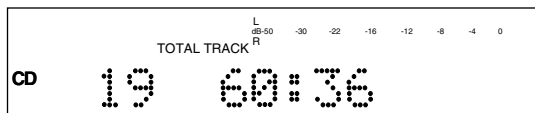
NOTE: You can always tell which drive is active (the CD player or CD recorder) by which set of control buttons are lit. You can change the active drive by pressing the SELECT jog wheel or pressing the Stop button of the drive to be activated.

In Play mode, change tracks by turning the SELECT jog wheel.

Selecting A-B Practice Loops

When practicing with a CD audio track in either drive, it is easy to continuously loop a section of music. Here are the steps:
1. While a CD is playing, press the A-B button when playback reaches the beginning of the segment you want to repeat (A point).
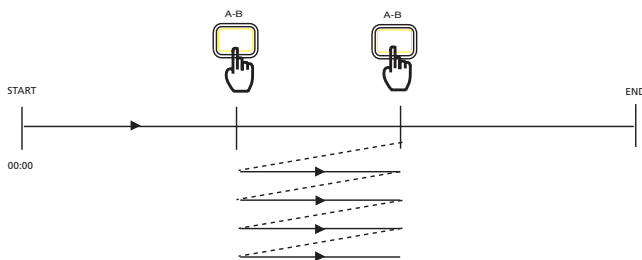2. Press the A-B button again when playback reaches the end of the segment you want to repeat (B point). Playback will automatically start again from the A point when the B point is reached.

ALTERING THE AB LOOP

1. You can make the B point the A point of the next loop by pressing the A-B button again. Let playback continue until you reach the end of the next segment you wish to loop, then press the A-B button again. In this way, you can select loops and step through an entire song.

2. At any time before or after you select an A-B loop, you can also use the other music practice features such as Key and Tempo changing.
3. To keep the A point but extend the loop to a new B point, press and hold the A-B button for one second. Press the A-B button again to set a new B point, while keeping the A point.

Changing Key & Tempo

The CD player drive allows control of key (musical pitch) and tempo of any CD or MP3 file on CD.

Changing Key
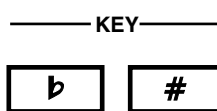
KEY control can change a music CD or MP3 on disc as much as an octave up or down. Press either of the Key Change buttons once to start key control.

The KEY control system works on the following musical principles:

> 100 cents = 1 half step
> 2 half steps = 1 whole step
> 12 half steps = 1 octave

There are two key change methods available, depending on how long you hold down the buttons.

Half Step Method: When playing a CD, press and hold to decrease or increase the key in half step increments. The display will read whole integers for each half step. (For example,1.00 = 1 half step)

12.5 Cent Increment Method. If Key control is active, and you press ♭ or ♯ without holding, the key will change by 12.5 cent increments. The display shows the increment rounded to 0.13 cents. (For example, 1.13 = 1 half step + 12.5 cents).

- Press both the ♭ and ♯ buttons at the same time to return to the original Key position (0.00).
- If the ♭ or the ♯ buttons are pressed while another display (such as CD-TEXT) is shown, the current position of the KEY control is shown first. Once one of the ♭ or ♯ buttons are pressed a second time the Key changes.
- Once the Key has been adjusted by pressing either the ♭ or ♯ button, it is possible to also adjust the tempo (CD or MP3 on disc playback speed). For a Key adjustment in the range of ±5.00 half steps or less, the Tempo can also be adjusted -50% to +50%.
- Pressing the STOP button during stop mode will reset the Key to the 0.00 position.

If your Key adjustment is greater than 5.00 half steps, then no tempo adjustment can be made. To adjust both Key and Tempo, you must first adjust Key and then adjust Tempo. Adjusting Tempo first will turn on the Fine Tune feature.

TEMPO control

TEMPO can be changed as much as +50% to -75%.

—— **TEMPO** ——

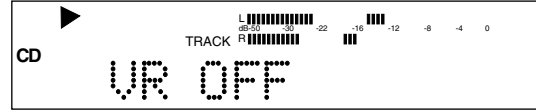| − | + |

- Pressing the "+" button increases the speed in increments of 1%.
- Pressing the "-" button decreases the tempo in steps of 1%.
- Holding down either a "+" or a "-" button causes the tempo adjustment to change in 5% increments. Pressing both the "+" and "-" buttons at the same time returns the **TEMPO** to 0% (original tempo).

Fine Tuning

Once the Tempo has been adjusted by pressing either the "-" or "+" button, it is possible to also "fine tune" the key (musical pitch). Fine tuning is useful when practicing an instrument because it lets you adjust the music practice source (CD drive only) to your instrument. (+/- 2% maximum adjustment.)

After the desired tempo change has been made, press ♭ to lower the key (musical pitch) or ♯ to raise it.

The ♭ button lowers the tuning in 0.1% increments and is displayed as a whole number with a "-" sign. For example, to lower the tuning by 0.8% the display should read "TUNING -0.8".

The ♯ button raises the tuning in 0.1% increments and is displayed as a whole number with a "+" sign. For example, to raise the tuning of the CD or MP3 by 1.5% the display should read "TUNING + 1.5."

Voice Reduction

In most commercial recordings, prominent elements such as lead vocals are mixed in the center of the stereo field (equal amounts on the right and the left channel). With this in mind, the VR feature is able to reduce the relative volume of lead vocals by cancelling certain elements in the center channel**.** This is useful for vocalists who want to blend their voices with a stereo recording containing prerecorded lead vocals.

NOTE: The results of this feature will vary. VR will be less

effective if the lead vocal in the recording was not originally mixed in the center of the stereo field or if a considerable amount of stereo processing such as reverb and delay has been added to the lead vocal track.

While the CD player drive is playing or paused, press the VR button. The display will show the VR status.

```
 ▶                    L ▌▌▌▌▌▌▌▌▌▌
                  dB-50    -30    -22    -16  ▌▌▌  -12    -8    -4    0
         TRACK   R ▌▌▌▌▌▌▌▌        ▌▌▌
 CD
         VR OFF
```

Pressing the VR button again switches the status of voice reduction. When voice reduction is ON, VR is displayed during play.

```
 ▶                  L
                dB-50    -30    -22    -16    -12    -8    -4    0
    TOTAL TRACK  R
 CD
      9       6:36       VR
```

NOTE: A-B Looping, Key, Tempo and Voice Reduction can only be applied to the CD being played in the top CD player drive.

When Voice Reduction is ON, the OUTPUT EQ feature will be not be available in the menu.

Recording

Making a Live Recording

We realize that one of the primary reasons you purchased a PSD340 is to record live to CD. That's why we've made the recording process as direct as possible. It shouldn't take long from the time you open the box to the time you record your first CD. Just follow these simple steps:

1. **Insert a disc.** The PSD340 can record onto any 1X or 2X compatible CD-R (write once), or CD-RW (rewritable) disc. *Just make sure you place the disc in the CD recording drive and not the CD player drive on top!*

2. **Connect your equipment**. If you've already set up the PSD340 for practice, you may be ready to move on. If not, see pages 11-12 for setting up microphones, instruments and line level sources.

3. **Set the INPUT switch to "ANALOG."** This switch is located above the CD recording drive. The INPUT switch tells the PSD340 what type of signal it will be recording. Microphones, instruments, and most mixers are analog sources. Don't let this switch confuse you. Even though you are making a digital CD recording, input sources are typically analog. The only time you would set this switch to DIGITAL, is if you were recording from the rear panel digital input. (see sidebar pg. 18)

4. **Press the RECORD button.** The first time you press RECORD, the PSD340 enters 'Record Pause Mode.' In this mode, you will now be able to adjust the Record Levels.

REC

5. **Set your record levels**. After a moment, the display will now prompt you to 'Push Rec Key.' But, you may want to first adjust your record levels. The overall record level is set by turning the SELECT jog wheel control. This level is adjustable from -78dB to +6dB. While monitoring record levels, we recommend using headphones. This helps to eliminate feedback. (See pg.12 for advice on how to set up the PSD340 to record optimal levels.)
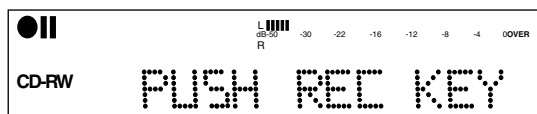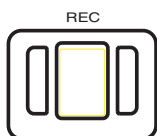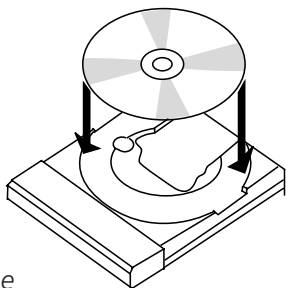
6. **Press RECORD again.** You are now recording. The level meters should respond to your Input signals (mics, instruments, etc.) and the counter should display the total elapsed time for the track you are recording. The red dot and triangular "PLAY" icon in the display indicate that a recording is in progress.
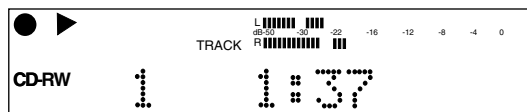
Press STOP to end the recording or press the REC REVIEW button on the unit or remote to listen back to the most recent track recorded. (See PLAY Controls pg. 7, [5].)

REC REVIEW

This CD will playback in the CD recording drive or the CD player drive. To playback this CD in other standard CD players, proceed to HOW TO FINALIZE (pg.21).

TIP: For standard stereo recording, make sure the MIC/LINE SPLIT switch is set for STEREO. This ensures that the left input is recorded to the left channel and the right input is recorded to the right channel. For MIC/LINE SPLIT/STEREO/MIX switch operation. (See pg. 8).

Independent Drive Operation

When you turn on the PSD340, by default the CD recording drive will operate *independently* from the CD playback drive. This allows you to start and stop either the CD player or CD recorder at any time during the recording process. When the INPUT ANALOG/DIGITAL switch is in the ANALOG position, the CD player audio will be channeled to the CD-R drive.

Track Increments

Creating New Tracks Manually

Every time you press STOP or PAUSE during the recording process, you will create a new track. To create new tracks during recording, press the TR INC button on the top panel or the IR remote. You can create up to 99 tracks on a CD-R or CD-RW disc.

Auto Track Mode

When copying prerecorded material from external sources, tracks can be set automatically by using AUTO TRACK Mode. Press the MENU/STORE button and select "AUTO TRACK." Change the AUTO TRACK status to

ON by turning the SELECT jog wheel. Press it to accept the change. Press the MENU/STORE button to exit and proceed with recording. The unit will then increment tracks when audio falls below a threshold of silence (-40dB) for a minimum of three seconds.

Minute Track Mode

MINUTE TRACK will automatically create a track increment every minute during recording. That means each track is one minute long, offering a quick and convenient way to locate a particular time in a recording. For example, Track 10 is ten minutes into the recording, and Track 17 is 17 minutes into the recording.

To access this mode press the MENU/STORE button, then select "AutoTrack." Select "MIN" and press ENTER.

Recording from the DIGITAL INPUT

Certain mixers and outboard effects processors are equipped with digital outputs. If you are recording with equipment that has a coaxial digital output, connect to the PSD340's DIGITAL IN. Follow the same recording steps from pg. 17, with the exception of step #3. When recording digital equipment, set the Input switch to "DIGITAL."

Effects Processor
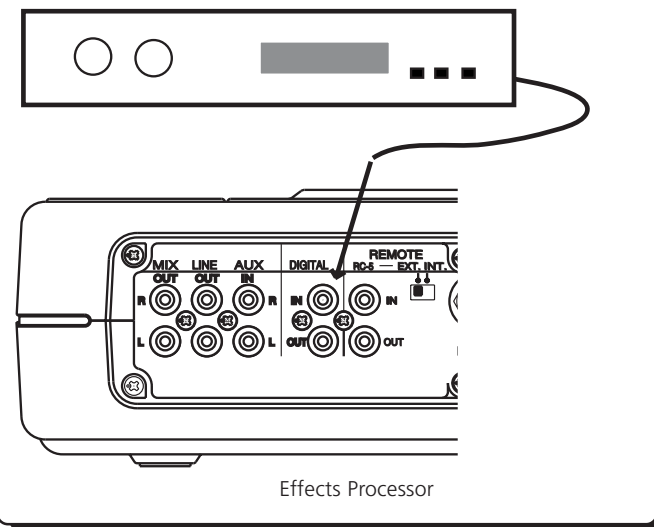
Adding Reverb or Delay

You can add a reverb or a delay effect to either input (right or left) on the front panel and the AUX IN. The PSD340 provides three effects presets: ROOM REVERB, HALL REVERB, and DELAY. Only one preset can be used at a time. After an effect preset is selected, you are then able to determine how much of the effect you want in each channel. This is known as the MIX parameter. Reverb cannot be added to recorded tracks.

1. **Press the REV/DLY button**.
2. **Turn effects ON.** The display should read "REV/DELAY OFF". Turn the SELECT jog wheel to change the display to "REV/DELAY ON." Press the SELECT jog wheel to enter.
3. **Select an effect preset**. As you turn the SELECT jog wheel, the display should indicate the different preset options, REVERB ROOM, REVERB HALL, and DELAY. Press the SELECT jog wheel to choose a preset.

   If you find the sound of the effect to be appropriate, press the REV/DLY to exit the effects menu and continue practicing or recording. If you would like to fine tune certain parameters, proceed to the following section.
4. **Adjust the Delay Time.** If you have chosen REVERB ROOM OR REVERB HALL, skip to step #5. If you have chosen DELAY, you will now be able to adjust delay time. When the display reads "DELAY TIME," press the SELECT jog wheel. The actual delay time value is now displayed in milliseconds and should be blinking. The PSD340 is capable of producing delay times up to 1 second. Turn the SELECT jog wheel to adjust the delay time and press the SELECT jog wheel to enter the change.
5. **Adjust the MIX levels**. For each preset, the PSD340 has default MIX settings designed to provide a moderate blend of processed and unprocessed sound. If you would like to hear more or less Reverb or Delay in either the right or left channel, adjust the MIX levels. Here's how:
   a. After completing steps 1-4, the display will read "MIX LEFT." Press the SELECT jog wheel to accept.
   b. The MIX percentage is now flashing. Turn the SELECT jog wheel to adjust the MIX level. As you turn the SELECT jog wheel, you should be able to hear the change in MIX level. Press the SELECT jog wheel to accept your setting. The display should read "MIX LEFT."
   c. If you do not need to adjust the RIGHT MIX level, press the REV/DLY button to return to the CD display. If you do need to adjust it, turn the SELECT jog wheel to change the display to "MIX RIGHT" and press the SELECT jog wheel to accept.
   d. The MIX percentage is now flashing. Turn the SELECT jog wheel to adjust the RIGHT MIX level. Press the SELECT jog wheel to accept your setting.
   e. Press the REV/DLY button to return to the CD display.

Here's how the MIX function works.

- A MIX setting of 100% means that all audio is processed through the Reverb/Delay effect.
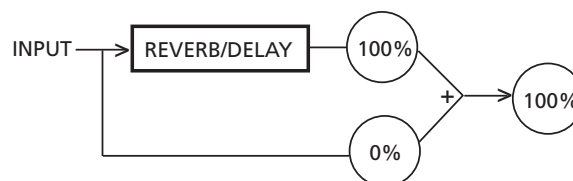
- A MIX setting of 50% means that half the audio is processed by the Reverb/Delay effect while the other 50% of audio bypasses the Reverb/Delay processor.

INPUT → REVERB/DELAY → 50% + 50% → 100%
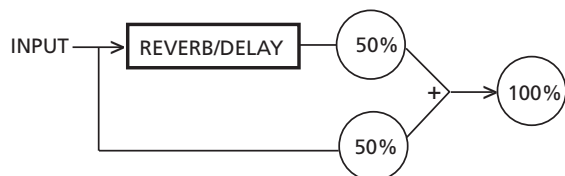
- A MIX setting of 0% means that you will only hear "dry," unprocessed audio.

INPUT → REVERB/DELAY → 0% + 100% → 100%
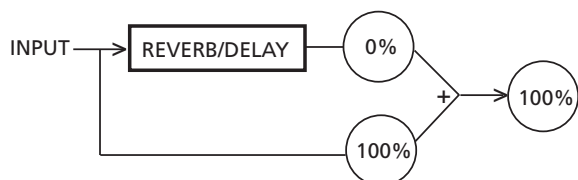
How to Record with a CD

Anytime you start the CD player drive during recording, audio from the CD player will be recorded. (Input switch must be set to analog). This allows you to:

- Record a mix of live musicians with prerecorded CD music accompaniment, and/or
- Record key and tempo changes and voice reduction to a CD-R/RW disc.
- Intersperse live recordings with tracks, or parts of tracks, copied from a CD. Simply locate the point in the CD that you want to copy and press the Pause button. During recording, release the Pause button on the CD player drive and you will begin recording CD audio from that point. To sync the CD player drive to the CD recorder drive see "How to Record a Song Segment." (pg. 20)

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Program a Playlist (Recording part of a CD)

If you plan to record only select tracks from the CD, follow these steps:

1. Press the PROGAM (PROG) button on top of the unit.
2. "PROG" will be flashing in the display showing no tracks programmed and no track time displayed. The letter "P" indicates programmed tracks.
3. Use the SELECT jog wheel to scroll to the track you wish to program. Press the SELECT jog wheel to accept the track, or, wait 3 seconds and the track will automatically be added to the playlist. The display will show one track programmed and its total playing time. Continue selecting tracks using the SELECT jog wheel. As you select tracks, the display will show total playing time for the selected tracks in the program. NOTE: You can program

tracks in any order.

4. Once all desired tracks have been selected, press the PROGRAM button to accept and exit the Program mode. Your tracks are now programmed. NOTE: Tracks can only be programmed in the CD drive. Once you take a CD out of the drive, the program is erased. You can also erase the program by pressing the CD player STOP button twice.
5. As you rotate the SELECT jog wheel, the display will now show only the programmed track numbers.

Key, Tempo & Voice Reduction Changes

Make any Key, Tempo, or Voice Reduction manipulations before putting the unit into "RECORD WITH CD" mode. (See next section for more detail).

For setting up Key changes" see page 15.
For setting up Tempo changes see page 15.
For setting up Voice Reduction see page16.

If you want to record with Voice Reduction activated, press the VR button twice while the REC button is flashing. You can turn Vocal Reduction ON and OFF any time while recording a CD in RECORD WITH CD mode.

When you are finished setting your music manipulations, press the SELECT jog wheel or the CD recorder drive's STOP button to activate the CD recorder drive. Any changes in Key and Tempo will be applied to your entire programmed playlist or the entire CD.

Activating "Record with CD" Mode

Select the "RECORD WITH CD" mode to sync the CD playback drive with the CD recorder. This means the CD recording drive will begin recording the same time CD player drive begins playing.

1. With a CD in the CD Player drive, place a blank CD-R or CD-RW disc in the CD recorder drive.
2. Press the RECORD MODE button located above the display.
3. "REC WITH CD" should appear in the display. Press the SELECT jog wheel to accept the RECORD WITH CD mode. After initialization, "PUSH REC KEY" will now appear in the display and the RECORD button will be flashing. [If you want to record a song segment see the next section before proceeding.]
4. Press the flashing red RECORD button to begin recording. Any music practice manipulations made to the CD player drive (i.e. Key or Tempo changes) will be recorded to the CD recorder drive.

How to Record a Song Segment

If you only want to record part of a CD audio track or a particular section of an MP3 file, the PSD340 makes it easy. Just follow these steps to utilize *Song Segment Recording.*

1. Follow steps 1- 3 in the section above, "**Activating "Record with CD" mode.**
2. The display will read "PUSH REC KEY". Next, press the SELECT jog wheel to switch to the CD player drive.
3. Use the SELECT jog wheel to scroll to the track you wish to record. Skip step #4 if you intend to start recording from the beginning of the track.
4. Fast forward or play a song until you reach the point in the track you wish to record, then pause when you get there.
5. Press the SELECT jog wheel to return to the CD-R drive.
6. Push the RECORD button. Recording will begin from the point at which you paused the CD or CD-MP3. NOTE: The recording will continue on to the next track, unless you are recording with the last track on a CD or you press the CD-R drive stop button.

How to Copy an Existing CD

The PSD340 provides several options for duplicating existing material. First, put a music CD or CD-MP3 into the CD player drive. If you are not copying the entire CD, you will need to program a playlist (see pg. 19)

NOTE: When copying CD+G discs, the PSD340 will copy the audio but not the graphics to a new disc.

Press the RECORD MODE button and turn the SELECT jog wheel to view the record modes. Press the SELECT Jog wheel to chose the mode that fits your needs based on the following descriptions. After a record mode is selected, the display will read "PUSH REC KEY."

COPY + LISTEN

This mode is used to digitally copy a CD or a programmed playlist in real-time while listening to it. This is an internal recording function that allows no inputs from outside sources.

An 80-minute CD will take 80 minutes to copy and then must be finalized in order to play in other CD drives.

COPY 2X

Digitally copy individual or programmed tracks or an entire disc. This is an internal recording function that allows no inputs from outside sources. An 80-minute CD will take approximately 40 minutes to copy and then must be finalized in order to play in other CD drives. You cannot listen to the CD as it is being copied.

NOTE: This copy mode does not work for MP3 files.

COPY 2X +FINAL

This is the quickest way to digitally copy individual programmed tracks or an entire disc. This is an internal recording function that allows no inputs from outside sources. An 80-minute CD will take approximately 40 minutes to copy and will automatically be finalized at the end of the recording session. The finalization takes approximately 2 minutes. You cannot listen to the CD as it is being copied.

NOTE: This copy mode does not work for MP3 files.

CONV HALFSPEED

This will record individual or programmed tracks at half speed. The converted recording will play one octave lower which provides a powerful tool for difficult music transcription. NOTE: This process requires twice the space on a disc as the original recording, thus 40 minutes is the maximum amount you can convert at half speed to a blank 80 minute CD-R or CD-RW disc.

NOTE: This copy mode does not work for MP3 files.

Converting MP3s to Red Book Audio

Note: **The PSD340 does not record or duplicate MP3 files**. **What it will do, is convert MP3 files to CD audio tracks.** If a disc of MP3 files is inserted into the CD Player drive and a copy mode is initiated, the PSD340 will convert the MP3 files to Red Book Audio format. This means that the finalized copy will be playable in standard CD players. Most CD-R and CD-RW discs store 80 minutes worth of CD quality audio. Since MP3 is a compressed file format, it is possible to store far more than 80 minutes worth of audio on a disc using MP3s. If you attempt to copy more than 80 minutes of MP3 audio to a blank 80-minute disc, the PSD340 will simply display "DOES NOT FIT." When copying MP3 files, be aware of the playing time for each file. Make sure that you are copying less than 80 minutes of audio.

Copying from an External Source

SYNC RECORD

This REC mode is used to automatically start the recording process from an outside digital or analog source including DAT, minidisc, cassette tape or LP for example. When this mode is selected, the PSD340 will display "PUSH REC KEY" as normal. When the RECORD button is pressed, the PSD340 will search for an input signal, either analog or digital depending on how the Input switch (pg. 8, #7) is set. When an input is detected, the recording will begin and the display counter will start to increment.

SYNC RECORD+FINAL

This mode operates similarly to SYNC RECORD mode except that in SYNC RECORD+FINAL mode, the disc will automatically be finalized at the end of the recording session. The finalization takes approximately 2 minutes. Before using this mode, change the AUTO STOP feature to ON (see pg. 23).

How to Finalize a Disc

Both drives of the PSD340 will play finalized or unfinalized CD-R and CD-RW discs. However, for recorded discs to play on other CD players, a disc must first be finalized.

To finalize a disc once you have stopped recording onto it, press the FINALIZE button.

CD-RW FINALIZE

"FINALIZE" is displayed for a couple of seconds. Then "PUSH REC KEY" is displayed.

CD-RW NOT POSSIBLE

Note: If the disc is blank or has already been finalized, "NOT POSSIBLE" flashes three times, then the previous display returns.

CD-RW PUSH REC KEY

Now press the RECORD button. Finalizing counts down for about 2 minutes and automatically stops.

CD-RW FINAL. 2:08
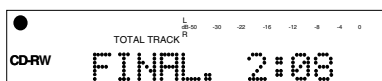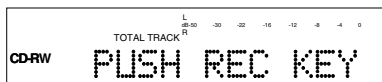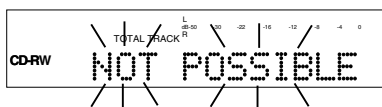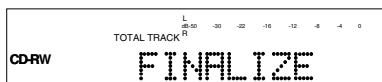
When done, the display shows the number of tracks and their total playing time

CD 19 60:37
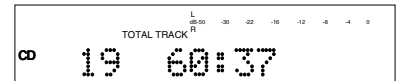
(example shown). Note: Once a CD-R or CD-RW disc is finalized the display will indicate that it is a "CD."

Once a CD-R disc is finalized it cannot be unfinalized or recorded on further.

How to Unfinalize a CD-RW disc

The CD-RW (rewritable) format provides a way to unfinalize a disc, erase the last track or erase an entire disc.

1. Push STOP on the CD-R drive.
2. Push ERASE three times. After the third push, "UNFINALIZE" is displayed for about three seconds, then "PUSH ENTER" is displayed.
3. Push the SELECT jog wheel. The timer counts down as the disc is unfinalized. When the display shows the number of tracks and their total playing time, the disc has been unfinalized but not erased.

How to Erase a CD-RW

You can only erase CD-RW discs. You can erase one or more tracks from the end of the CR-RW disc, or you can erase the entire disc. If finalized, erasing a track or the disc automatically unfinalizes the disc.

- To erase the **last track** of a disc, press the ERASE button **once**. "ERASE TRACK" is displayed. After 2-3 seconds, the display will read "PUSH ENTER." When you push the SELECT jog wheel, the last track will be erased.
- To erase the **entire disc**, press the ERASE button **twice** in succession. "ERASE DISC" is displayed. After 2-3 seconds the display will read "PUSH ENTER." When you push the SELECT jog wheel, the entire disc will be erased.

Menus

When you press the MENU/STORE button, you will be presented will options that change depending on whether the PSD340 is playing, recording, or stopped. Always turn the SELECT jog wheel to scroll through menu options. Press the SELECT jog wheel to select a menu option and press the MENU/STORE button to save settings. Observe these flowcharts for descriptions of the various menu options.

PLAY MENU

```
MENU/
STORE
```
PRESS

MIC
EQUALIZER
— SCROLL → CD
BALANCE
— SCROLL → FILTER
SELECT
— SCROLL → OUTPUT
— SCROLL → FOOT
PEDAL CTL
— SCROLL → OUTPUT
EQ
— SCROLL → CD LEVEL

Use the Mic Equalizer to adjust the level of high and low frequencies for the Mic/Line inputs.

This feature only works when the MIC/LINE SPLIT/STEREO/MIX button is set for SPLIT. In SPLIT mode, all CD audio is placed in the left channel,leaving the right channel open for recording. What the balance menu really controls, then, is how much of the right or left channel of the CD will be recorded to the CD-R drive.

Spin the the jog wheel all the way to the left, and only the left channel of the CD will be recorded. So, for example, if you have a "split track" CD, with piano exclusively in the right channel, and the CD balance is turned fully left, the piano in the right channel will not be recorded.

Allows you to add preset EQ curves to the MIC/LINE inputs. If you select the HIGH PASS option, low frequencies (below 100 Hz) will be cut. Selecting BAND PASS will cut low frequencies (below 100Hz) and high frequencies (above 10kHz).

Use the OUTPUT feature to determine whether the OUTPUT BALANCE will work in normal STEREO or MONO operation. (See pg. 6, G)

Select CD PLAY/PAUSE if the foot pedal (pg. 10, #8) is controlling the CD drive. Choose CDR REC/PAUSE if the foot pedal is controlling the CDR drive.

This option controls the level of LOW, MIDRANGE, and HIGH frequencies for the entire system. Level adjustments are heard at the LINE OUT, internal speaker, and headphones but not the MIX OUT.

Use this feature to adjust the output of the CD player drive.

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RECORD MENU

MENU/STORE

PRESS

SCROLL — AUTO TRACK

SCROLL — AUTO STOP

SCROLL — REC BALANCE

SCROLL

MIC EQ → CD BALANCE → FILTER SELECT → OUTPUT → OUTPUT EQ → CD LEVEL

(Detailed descriptions of these MENU items are outlined in the PLAY MENU.)

Turn this feature ON when you want the PSD340 to automatically increment tracks during recording. Turn this feature OFF when you want to manually increment tracks.

Turn this feature ON when you want the PSD340 to automatically stop recording after detecting a period of silence. (20 seconds for analog sources, 4 seconds for digital sources.) When using COPY+LISTEN, COPY2X, or CONV HALFSPEED mode, the recording will stop after detecting stop data from the disc in the CD drive.

This menu item allows you to adjust the right-left stereo balance for recording on the CD-R drive.

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STOP MENU

(See Play Mode)

MENU/
STORE

PRESS

(Text Edit, Text Erase and Text View only appear when an unfinalized disc is in the CD Recording drive)

TEXT
EDIT

SCROLL

This menu item allows you to add CD title and track titles to your unfinalized recordings.
(see pg. 28.)

TEXT
ERASE

SCROLL

This menu item allows to erase CD text from an unfinalized disc.
(see pg. 28.)

TEXT
VIEW

SCROLL

Before you finalize a disc, use this feature to review the CD text that has been entered.

MIC
EQ

CD
BALANCE

CHANGER
MODE

Turn this mode ON to produce continuous play between drives.
The CDR drive will automatically begin playing when the CD drive is finished. The CD drive will begin playing when the CDR drive is finished. Great DJ feature!

FILTER
SELECT

OUTPUT

FOOT
PEDAL
CTL

OUTPUT
EQ

CD_G

Turn this feature ON to pass CD Graphics through the digital output. (See pg. 29.) Enabling this feature will disable tempo control. Key control will still be active.
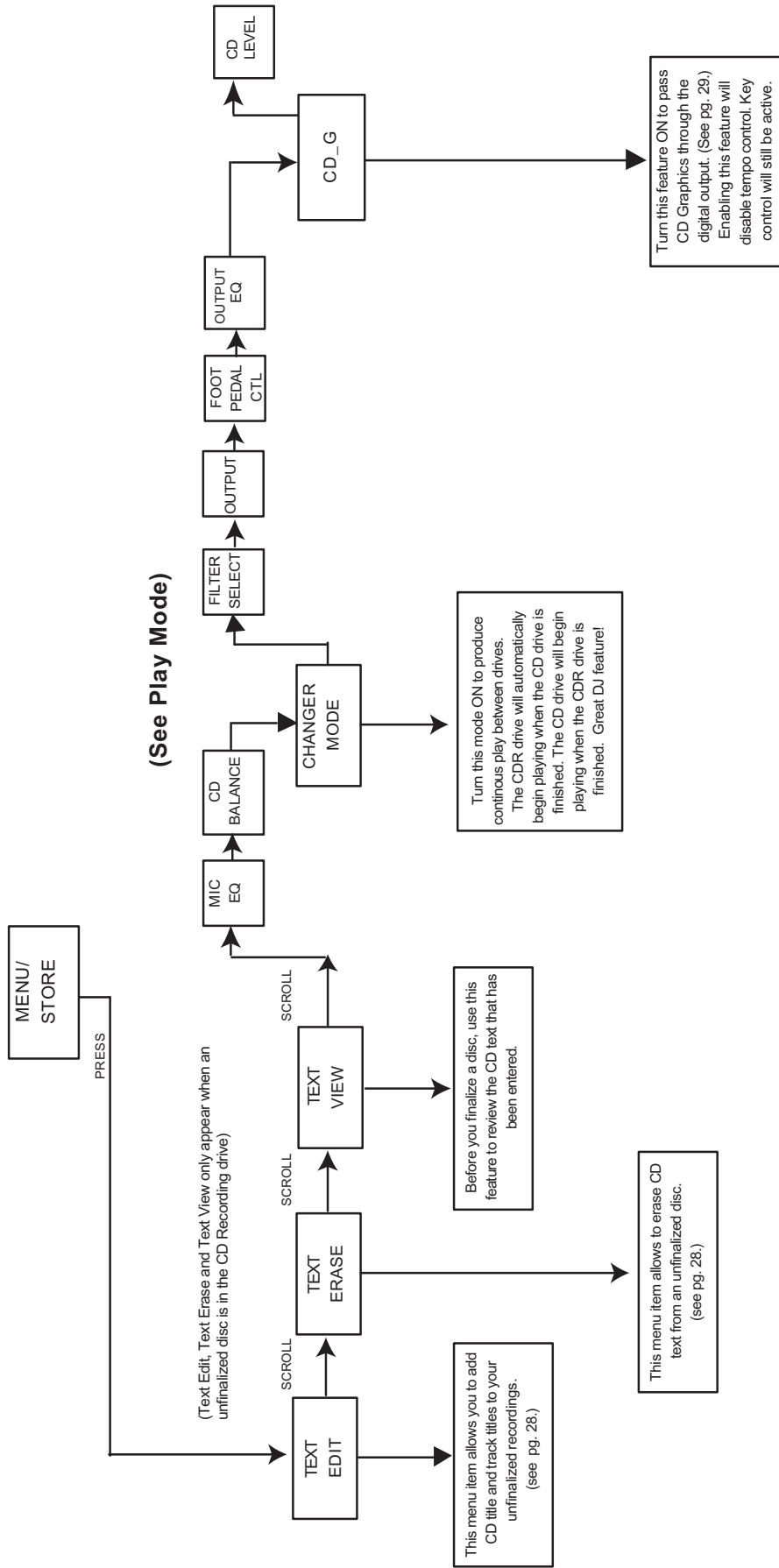
CD
LEVEL

Troubleshooting

General

No power

Check that the POWER switch on the back of the PSD340 is in the ON position. Check that the power cord is securely plugged in. If the STANDBY light is lit, slide the POWER switch to the right.

The chromatic tuner does not show the same note I am playing on my instrument

The Chromatic Tuner determines which frequency is being played and displays the corresponding note in concert pitch. Use this guide for transposing instruments.

When a Bb instrument plays:
D D# E F F# G G# A A# B C C#

or an Eb instrument plays:
A A# B C C# D D# E F F# G G#

or an F instrument plays:
G G# A A# B C C# D D# E F F#

The display will read:
C C# D D# E F F# G G# A A# B

Playback

No sound from CD player drive

1) If you wish to use the internal speaker, make sure the SPEAKER switch on the front panel is set to ON.
2) If you are listening through the internal speaker or headphones, set the PHONE SELECTOR switch on the front panel to LINE OUT and turn the PHONE/ SPEAKER LEVEL knob clockwise.
3) If you are listening through powered speakers connected to the LINE OUT, make sure to turn up the LINE OUT level control knob on the front panel.
4) Enter the menu and select "CD LEVEL." Confirm that CD level is set for 0dB.

No sound from CD recording drive

Make sure the PHONE SELECTOR switch is set to LINE OUT. This is the only setting that lets you monitor playback of the CD-R drive via headphones or the built-in speaker.

No CD Graphics when playing a CD+G disc

1 Confirm that the CD+G disc is in the CD player drive and not the CD recording drive.
2 Confirm proper connections (see pg. 29)
3 Make sure that CD+G function is set for ON (See pg 24)

Recording

Mics plugged in, no levels on the VU meters

1) Check the LINE/MIC/INST and LINE/MIC/INT MIC. These switches should be set for "MIC."
2) Check that the LEVEL control knobs are turned up.
3) If you are using a condenser mic, make sure the required power is provided, either by Phantom Power supply or batteries. Check your mic manufacturer's recommendations. If Phantom Power is required, switch the Phantom Power switch on the back panel to ON.
4) Check that controls for the CD player drive are lit. If control for the CD recorder drive is active, you must be in RECORD PAUSE mode to observe levels in the VU meters.

"Squealing" sound when recording with internal or external mics

You've created a feedback loop. Switch the SPEAKER switch on the front panel to OFF. To monitor accompaniment CDs when using "REC WITH CD" mode, use headphones.

Only recording to one channel

1) Find the front panel switch labeled "SPLIT/STEREO/ MIX." Chances are this switch is set for SPLIT or STEREO. If you want your mic or instrument to record to both channels equally, move this switch to the MIX position.
2) While in RECORD PAUSE mode, enter the menu to select "RECORD BALANCE." Confirm that the balance is set in the CENTER position.

The display reads "NOT POSSIBLE"

Check if the display also reads CD rather than CD-R. If the disc in the CD-R drive has been finalized or is not a CD-R/RW, the PSD340 will flash "NOT POSSIBLE" instead of entering record mode.

When attempting to copy MP3s the display reads "DOES NOT FIT"

The PSD340 records CD audio. It does not record to MP3 file format. This means that when you "copy" a disc of MP3 files using the PSD340, you are actually *decoding* the MP3 files and *rerecording* them as CD audio tracks. Since MP3 is a compressed file format, it is possible to store more than 80 minutes of MP3 audio on an 80-minute disc. If you attempt to "copy" more than 80 minutes worth of audio to a blank 80-minute disc, the PSD340 will display "DOES NOT FIT."

The display reads "NO SIGNAL"

Find the ANALOG/DIGITAL INPUT switch on the front panel. Chances are this switch is set for DIGITAL. This means the PSD340 is searching for a signal from the digital input and not finding one. Move this switch to the ANALOG position if you are recording a microphone, instrument, or line level source. If you are recording a digital signal, check the connection to the digital input on the back panel and confirm that the digital source equipment is functioning properly.

Distortion when playing back recordings

If distortion has been recorded to a CD, the PSD340 has no means of removing that distortion. When you place the unit in Rec/Pause mode, turn the SELECT jog wheel to adjust the Record level. If the record level was set too high, reduce the level to reduce distortion on future recordings. See "Setting Levels" (pg.12) for info on recording proper levels without distortion.

The unit flashes "CD ERROR"

The CD you are using may be corrupted or out of specification. Try a different CD. The PSD340 records in real time, therefore it is important that the disc you are recording is real time or "1X" speed compatible. If the disc you are using is only rated for high speed duplication, you may experience problems with the CD recording process.

The unit flashes "REC ERROR"

It is possible that the recording was interrupted as a result of transport failure due to shock or a bad sector on a disc. Replace the disc and try placing the unit on a piece of foam. This is a simple and effective way to prevent large sound pressure levels or room vibrations from disrupting the recording process.

Voice Reduction, Key, or Tempo manipulations aren't being recorded

COPY & LISTEN, COPY 2X, COPY 2X AND FINALIZE, and CONVERT HALF SPEED modes will not transfer key, tempo and vocal reduction changes. RECORD WITH CD mode is the prefered method for transferring these changes. If you are not recording any microphones or instruments along with the CD in the CD drive, simply turn the input level controls on the front panel OFF (counterclockwise).

Unable to change Key more than 5 half steps

You are combining Key and Tempo changes. When the PSD340 performs simultaneous Key and Tempo adjustments, the KEY control is limited to + or − 5.00 half steps, as opposed to the full octave that is allowed when the KEY control is used alone. Tempo can be adjusted −50% or +50% when key adjustments are made.

When using "REC with CD" mode to record a CD containing several tracks, the resulting CD-R only has one big track

AUTO TRACK is OFF. When the unit is in Rec/Pause mode, press the MENU/STORE button. Select the AUTO TRACK option. Change the AUTO TRACK status to ON and press the SELECT jog wheel to accept the change. Press the MENU/STORE button to exit and proceed with recording. The unit will then increment tracks when audio falls below a threshold of silence (-40dB) for a minimum of three seconds. If the CD in the CD player drive does not have the necessary silence gaps (for instance, if the recording is a medley or contains crowd noise), the PSD340 may not increment every track.

Further Information

Working with MP3 Files

MP3 files on a CD-R or CD-RW are either in the disc's root directory or in sub folders. Folders are identified as as "albums" by the PSD340. Albums are abbreviated as "AL" in the PSD340 display.

When the PSD340 recognizes a CD containing MP3 files, it will display the contents of the disc in the following format:

```
        9  AL   3
        |        |
        |    Total # of albums
   Total # of files
```

When playing a disc of MP3 files, the PSD340 will play files in order, starting with the first album. (The order of the albums are the same as the order of file folders on the disc.) When all the files in the first album have been played, the PSD340 begins playing the files from the second album and so on. The PSD340 can play a maximum of 253 albums and 253 files per album.

If there are files in the root directory, the PSD340 will consider those files to be in the first Album.

When using the SELECT jog wheel to choose tracks, the PSD340 will follow the same order, moving through all the files in the first album before moving on to the second, etc.

To advance through albums quickly, it is best to use the fast forward search and fast backward search buttons. Once the desired album is selected, use the SELECT jog wheel to move through files in that album.

Precautions for discs recorded using MP3 files

- The format of the files played have the ".mp3" or ".MP3" extension. Files with any other extension cannot be played.
- The Joliet file system, an extension to the ISO9660 file format, is supported as the write format. Both mode 1 (CD-ROM) and mode 2 (CD-ROM XA) are supported. MP3 file discs recorded using packet writing cannot be played.
- The recommended MP3 file sampling frequency is 44.1 kHz and the bit rate is 128 kbps. The sound may be interrupted when playing files with any other sampling frequency and bit rate.
- The maximum number of characters in the ID3 tag information that can be displayed by this player is 32.

Characters other than alpha-numerics will not be displayed properly.
- Digital signals are not output from the player while playing discs recorded using MP3 files.
- It may not be possible for CD-R/CD-RW discs on which MP3 files were recorded to be played properly depending on the environment of the personal computer used to record the files, the writing software program, and the CD-R/CD-RW discs concerned. Check the external components used.
- MP3 files on mixed CDs or enhanced CDs containing a mixture of the CD-DA format for music purposes and MP3 files cannot be played. Only the CD-DA format for music purposes will be played.
- This player also supports discs created by multisessions.
- It is recommended that the maximum number of sessions on a CD-R or CD-RW disc be 10; the maximum number of albums for all sessions be 20; and the maximum number of files be 200.

Functions not supported by MP3 play
The following functions are not supported when the player is to play discs recorded with MP3 files.
- A-B repeat
- Program play
- Auto cue
- Time mode changes

How to Cue-to-Music

Normally there is some silence between the beginning of a track (track ID position) and the beginning of the music (audio). Cue-to-music skips the silence so you can directly switch to audio from Play/Pause mode.

How to Adjust Cue Point

In Single Track mode, the PSD340 automatically turns on cue-to-music. Enter Single Track mode by pressing the SINGLE button. The cue point is set by the PSD340 when it detects audio.

To adjust:
1. With a CD in the CD player drive, press the SINGLE button.
2. Turn the SELECT jog wheel to choose the track and press the SELECT jog wheel to confirm.
3. The unit will be paused on that track.
4. Press the MENU/STORE button. The display switches to "CUE POINT ADJUST."
5. Press the SELECT jog wheel. The display shows "O FRAME."

6. Depending on the specific track, the FRAME adjustment can be from 75 to -75 (75 frames = 1 second).
7. Turn the SELECT jog wheel to change the audio start position. Then push and release the SELECT jog wheel to store the adjustment.
8. Press the MENU/STORE button to exit.

About CD Text

CD text, when present, provides text information such as the CD title, artist, track titles, and track artists.
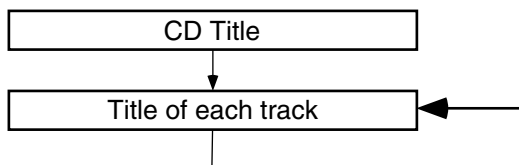
When a disc is inserted in the CD drive or CDR drive the PSD340 automatically detects if a disc has text information and automatically displays the CD title. The PSD340 can display 14 characters, if the text information is longer than that the text automatically scrolls from right to left.

Creating CD Text

Before finalization of a CD you can enter text information. Only the CD title and track titles can be entered.

With your unfinalized disc in the CDR drive and stopped.
1   Press the MENU/STORE button.
2   Turn the SELECT jog wheel until the display reads "TEXT EDIT."
3   Press the SELECT jog wheel to select. The display reads "CD TITLE."

```
┌─────────────────────────────┐
│          CD Title           │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│     Title of each track     │◄──┐
└─────────────────────────────┘   │
              └───────────────────┘
```

4   Turn the SELECT jog wheel to choose between editing CD TITLE or CD TRACK TITLE. Press to make your selection.
5   The first character of the title is flashing. Turn the SELECT jog wheel to select the character. Or from the remote with CDR selected, press alphanumeric keys to select each character.
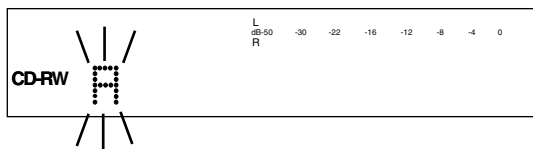
The SELECT jog wheel control presents the following characters in order:

ABCDEFGHIJKLMNOP
QRSTUVWXYZ
abcdefghijklmnop
qrstuvwxyz
0123456789 ⸺
! " # $ % & ' ( ) * + , - . / : ;
< = > ? @ [¥] ^ _ ` (|) →

After the final character is entered, press the MENU/STORE button.

NOTE: All CD TEXT entries are in short term memory until the CD is finalized. You can play, pause and stop, but if you turn off power, or open the CD-R drive your editing will be lost.

How to Erase CD Text

The TEXT ERASE menu item lets you delete CD TEXT that has been entered, prior to finalizing.

With your disc in the CD-R drive and stopped:
1   Press the MENU/STORE button.
2   Turn the SELECT jog wheel so "TEXT ERASE" is displayed.
3   Press the SELECT jog wheel to confirm the selection. The display reads "ALL TEXT." Now turn the SELECT jog wheel to choose between erasing CD TITLE or CD TRACK TITLE.
4   Press the SELECT jog wheel to confirm the selection. "ERASE?" is displayed briefly, then "PUSH ENTER" Is displayed.
5   Press the SELECT jog wheel to erase the selected text.

CD-G Operation

The PSD340 offers a way to play CD-G discs in the CD player drive, and output disc graphics via the digital output using an external graphics decoder box (available through Superscope Technologies).

Before working with CD-G, you need to turn the CD-G function ON. To do this, press the MENU/STORE button, then turn the SELECT jog wheel to until the display reads "CD-G." Press the SELECT jog wheel to select. Turn the SELECT jog wheel so the display reads, "ON," and press the jog wheel to activate CD-G.

During CD-G operation, Tempo control will be disabled, Key alterations will be audible through the LINE OUT and speaker.

Pressing RECORD at any time will enter Record Pause mode. Pressing RECORD again will record your karaoke performance. You may also use RECORD WITH CD mode to sync your player and recorder drive. (See pg. 19).
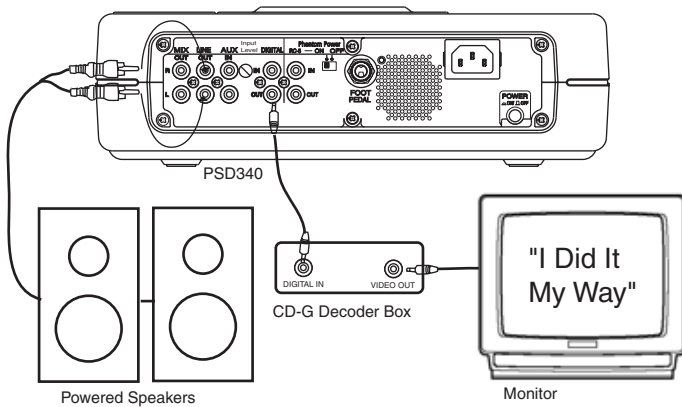

PSD340

"I Did It My Way"

CD-G Decoder Box

Powered Speakers

Monitor

Figure C

The above diagram (Figure C) illustrates how to connect equipment in order to view graphics on a monitor. Connect a coaxial cable from the PSD340's DIGITAL OUT to a CD-G decoder box's coaxial DIGITAL IN. Then connect the VIDEO OUT of the CD-G decoder box to a video monitor's VIDEO IN.

Independent Operation

Certain recording applications may demand the use of the PSD340's independent CD Player and CD Recorder drives.

For example, you may want to send CD audio to an external processor before recording. You may also need to send CD audio to a sound system to

accompany other vocalists or musicians before recording the total mix. This is all possible with the help of a digital mixer. With a CD in the CD drive, follow these steps:
1   Set the front-panel ANALOG/DIGITAL switch to "DIGITAL."
2   Connect the MIX OUT of the PSD340 to a stereo line INPUT on your digital mixer.
3   Connect the mixer's coaxial DIGITAL OUTPUT to the PSD340's DIGITAL INPUT.
4   Use the PSD340's controls to start or stop CD playback or CD recording whenever necessary. NOTE: If you only want to process your CD audio--and your processor has a digital output--connect the MIX OUT directly to a stereo line input of the processor and connect the coaxial DIGITAL OUTPUT of the processor to the DIGITAL INPUT of the PSD340.

PSD340

Effects Processor

SPEAKERS

Digital OUT

AMPLIFIER

Digital Mixer
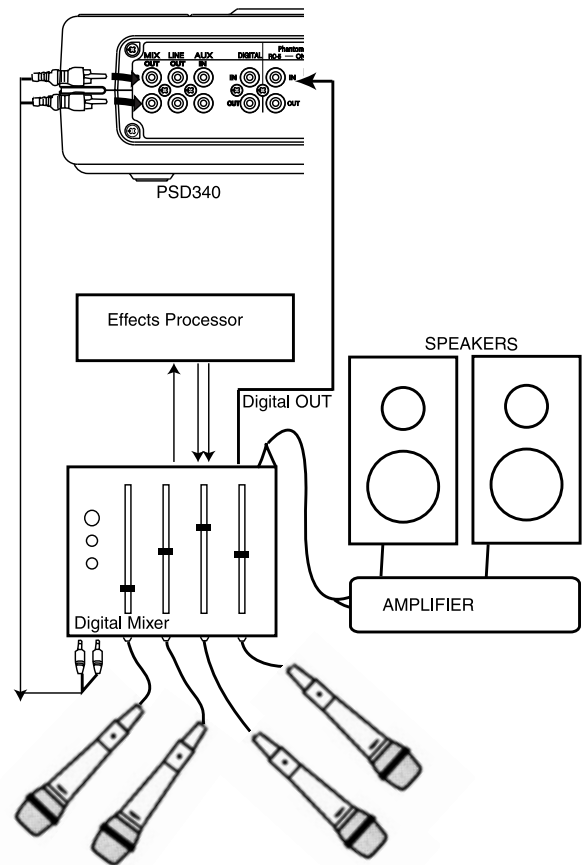
Precaution on Unfinalized Disc Playback in CD Player Drive

While the CD player drive is capable of playing unfinalized CD-R and CD-RW discs, tolerance specifications are very precise. The unit reads a provisional Table of Contents in a narrow band at the disc center. The presence of dirt or scratches could prohibit the laser from reading this area of the disc, making it impossible to read the unfinalized disc.

Warranty

One Year Limited Warranty:
Your Superscope PSD340 is warranted against manufacturer defects in material and workmanship for one year parts and labor.

Non-transferable warranty:

This warranty may be enforced only by the original purchaser.

The following are not covered under warranty:
1. Damage, deterioration, malfunction or failure to meet performance specifications resulting from:
   • accident, acts of nature, misuse, abuse, neglect or unauthorized product modification.
   • improper installation, removal or maintenance, or failure to follow supplied instructions.
   • repair or attempted repair by a non-Superscope authorized agent.
   • any shipment (claims must be presented to the carrier).
   • any cause other than a defect of manufacturing.
2. Cleaning, check-ups with no fault found.
3. Any product on which the serial number has be defaced, modified or removed.
4. Accessories, including but not limited to, cables and adaptors.
5. Product purchased outside of the United States, its possessions or territories.

The following are covered under warranty:

All labor and material expenses for items covered by the warranty.

To obtain service:

1. If your unit needs service contact Superscope at (630) 232-8900 Ext. 396. A service representative will advise you of how to obtain service. Please do not return the unit directly to Superscope Technologies, unless specified by our service representative.

2. You must pay any shipping charges if it is necessary to ship the product for service. If the necessary repairs are covered by the warranty, we will pay return shipping charges to your location anywhere in the United States.
3. Whenever warranty service is required, you must present the original dated sales receipt, or other proof of purchase.

Limitation of implied warranties

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

Exclusion of damages

Liability for any defective product is limited to repair or replacement of the product at Superscope's option. Superscope shall not be liable for damage to other products caused by any defects in Superscope products, damages based on inconvenience or loss of use of the product, or any other damages, whether incidental, consequential, or otherwise.

Some States do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

How State law relates to the warranty

This warranty gives you specific legal rights, and you may have other rights which may vary from State to State.

This warranty is enforceable only in the United States and its possessions or territories.