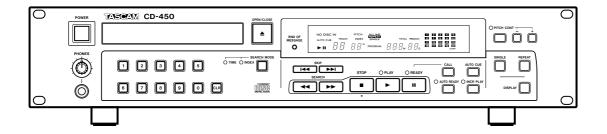
# TASCAN **TEAC Professional Division**

Compact Disc Player



# **OWNER'S MANUAL**



CAUTION



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 lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons...



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.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number

Serial number

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

# **Important Safety Precautions**

# Note for U.K. Customers

# DO NOT cut off the mains plug from this equipment.

If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

**IMPORTANT: DO NOT** make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol  $\frac{1}{2}$  or coloured GREEN or GREEN-and-YELLOW.

The wires in the mains lead on this product are coloured in accordance with the following code:

**BLUE** : NEUTRAL **BROWN** : LIVE

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

IF IN DOUBT — CONSULT A COMPETENT ELECTRICIAN.

### For U.S.A

### TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residental area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **CAUTION**

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

# For the consumers in Europe

### WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

### Pour les utilisateurs en Europe

### **AVERTISSEMENT**

Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

### Für Kunden in Europa

Dies is eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen versursachen ; in diesem Fall kann vom Betrieber verlang werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

# IMPORTANT SAFETY INSTRUCTIONS

### **CAUTION:**

- Read all of these Instructions.
- Save these Instructions for later use.
- Follow all Warnings and Instructions marked on the audio equipment.
- **1) Read Instructions** All the safety and operating instructions should be read before the product is operated.
- **2) Retain Instructions** The safety and operating instructions should be retained for future reference.
- **3) Heed Warnings** All warnings on the product and in the operating instructions should be adhered to.
- **4) Follow Instructions** All operating and use instructions should be followed
- **5) Cleaning** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning
- **6) Attachments** Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- **7) Water and Moisture** Do not use this product near water for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- **8)** Accessories Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- **9)** A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn

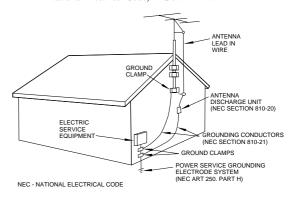


- **10) Ventilation** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. 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.
- **11) Power Sources** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- **12) Grounding or Polarization** This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- **13) Power-Cord Protection** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
- **14) Outdoor Antenna Grounding** If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

### "Note to CATV system installer:

This reminder is provided to call the CATV 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.

### Example of Antenna Grounding as per National Electrical Code, ANSI/NFPA 70



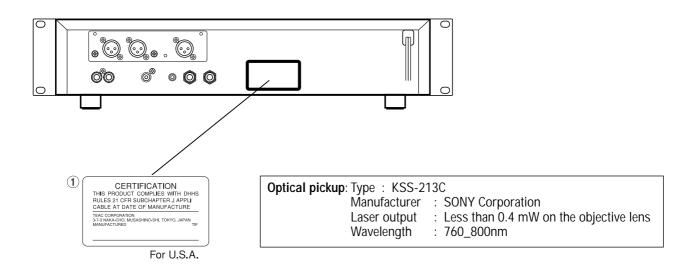
- **15) Lightning** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- **16) Power Lines** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- **17) Overloading** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in risk of fire or electric shock.
- **18) Object and Liquid Entry** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
- **19) Servicing** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- **20)** Damage Requiring Service Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- a) when the power-supply cord or plug is damaged.
- b) if liquid has been spilled, or objects have fallen into the product.
- c) if the product has been exposed to rain or water.
- **d)** if the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e) if the product has been dropped or damaged in any way.
- **f**) when the product exhibits a distinct change in performance this indicates a need for service.
- **21) Replacement Parts** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards
- **22) Safety Check** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- **23) Wall or Ceiling Mounting** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
- **24) Heat** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

### SAFETY INFORMATION =

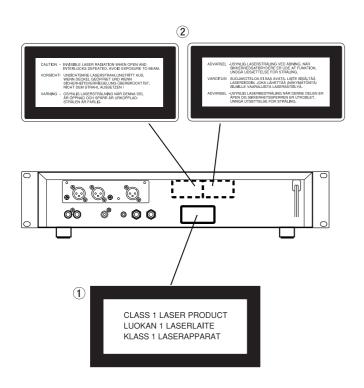
This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housinas.

The label required in this regulation is shown 1.

- DO NOT REMOVE THE PROTECTIVE HOUSING USING A SCREWDRIVER.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE
- IF THIS PRODUCT DEVELOPS TROUBLE, CONTACT YOUR NEAREST QUALIFIED SERVICE PERSONNEL, AND DO NOT USE THE PRODUCT IN ITS DAMAGED STATE.



### CAUTION ACHTUNG OBSERVERA ADVARSEL



- 1) THIS LABEL IS ATTACHED TO THE PLACE AS ILLUSTRATED TO INFORM THAT THE APPARATUS CONTAINS A LASER COMPONENT.
- ① DIESE AUFKLEBEMARKE IST AN DEM IN DER ABBILDUNG GEZEIGTEN ORT ANGEBRACHT UM DARAUF HINZUWEISEN, DASS IM INNERN DES
- 1 PÅSKRIFTEN SITTER PÅ APPARATEN SOM VISAS SOM UPPMANING OM ATT APPARATEN OMFATTAR EN INBYGGD LASERKOMPONENT.
- ① DETTE MÆRKAT ER ANBRAGT SOM VIST I ILLUSTRATIONEN FOR AT ADVARE BRUGEREN OM AT APPARATET INDEHOLDER EN LASERKOMPONENT.
- 2 DETTE MÆRKAT ER SOM VIST PÅ ILLUSTRATIONEN ANBRAGT PÅ INDERSIDEN AF TOPDÆKSLET FOR AT ADVARE BRUGEREN OM AT YDERLIGERE FREMTRÆNGEN VIL VÆRE FORBUNDET MED FARE FOR AT UDSÆTTE SIG FOR LASERSTRÅLING.

ADVARSEL — BETJENING AF ANDRE KONTROLLER OG REGULATORER ELLER BENYTTELES AF ANDRE FREMGANGSMÅDER END BESKREVET HERI ER FORBUNDET MED FARE FOR UDSÆTTELSE FOR LASERSTRÅLING.

VARING: APPARATEN INNEHÅLLER LASER LOMPONENT MED STRÅLNING ÖVERSTIGANDE KLASS 1.

"ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDG UDSAETTELSE FOR STRÅLING'

"VAROITUS! SUOJAKOTELOA EI SAA AVATA. LAITE SIS LASERDIODIN. JOKA L VAARALLISTA LASERS

ADVARSEL: USYNLIG LASERBESTRÅLING NÅR DENNE DELEN ER ÅPEN OG SIKKERHETSSPERREN ER UTKOBLET UNNGÅ UTSETTELSE FOR STRÅLING.

# **Before Getting Started**

Thank you for choosing the TASCAM CD-450 compact disc player.

To get the most out of your CD-450, spend some time now to read this manual. If you read this manual thoroughly at least once, you will know where to turn when you need answers.

This manual is divided into the following sections:

Important Safety Precautions2
Important Safety Instructions 3
Before Getting Started5
Specifications6
General Guide
Preference Settings
Operations

# **Optional Accessories**

### • RC-450C Remote Control Unit

There are some functions to which the RC-450C provides access but the CD-450 itself does not (see p.8).

### LA-450 Balanced Line Amp

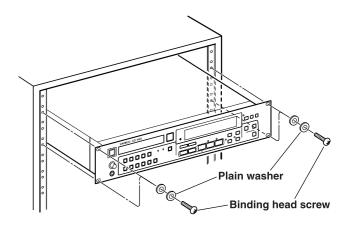
Mounted to the back of the CD-450, as shown on page 8, the LA-450 provides access to a pair of balanced analog L/R outputs and an AES/EBU format balanced digital output.

# **Handling Precautions**

- Never place this unit in locations subject to extremely high or low temperatures or to sharp temperature rise or drop.
- Do not drop this unit or subject it to severe impact. Internal circuits or the enclosure may be damaged.
- Place this unit on horizontal and solid surfaces.
   There is a risk this unit overturns if installed on unstable shelves or stands.
- When cleaning the exterior of this unit, use a soft cloth. To remove severe dirt, wipe it off with a soft cloth lightly moistened with neutral detergent and water. Never use any type of solvents such as benzine and thinner, which would damage the coating or erase legends.

# Mounting in a 19" Rack

This unit comes with a rack mount vis kit allowing the unit to be mounted in an EIA standard 19-inch rack, as shown.



# **Specifications**

8-cm/12-cm CD Disc: Audio channel: 2 channels **Quantization:** 16-bit linear 44.1 kHz

Sampling frequency:

Analog output level Line output (RCA)

Nominal output level: -10 dBv (load impedance

10kOhms, unbalanced)

Maximum output level: +6 dBv (2Vrms) Line output (XLR) [Optional LA-450]

Nominal output level: +4dBu (load impedance

10kOhms, balanced)

Maximum output level: +20 dBu

Headphone output (standard stereo phone jack):

25 mW at max. (load impedance 320hms)

**Digital output** 

Coaxial (RCA): IEC60958 home-use

(SPDIF)

Balanced (XLR) [Optional LA-450]:

IEC60958 broadcasting studios (AES/EBU)

# Power requirements:

120 V AC, 60 Hz (U.S.A./Canada model) 230 V AC, 50 Hz (Europe/U.K. model) 240 V AC, 50 Hz (Australia model)

Power consumption: 16 Watts

**External dimensions:** 482 x 104.5 x 310 mm

Weight: 5.1 kg

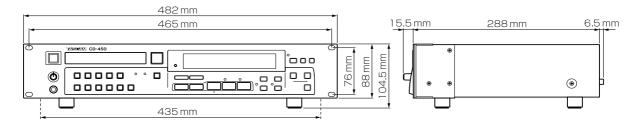
**Typical Performance** 

Frequency response: 20 Hz to 20 kHz (+/-1 dB)

Signal-to-Noise Ratio: Better than 90 dB **Distortion:** Less than 0.006% Channel separation: Better than 85 dB

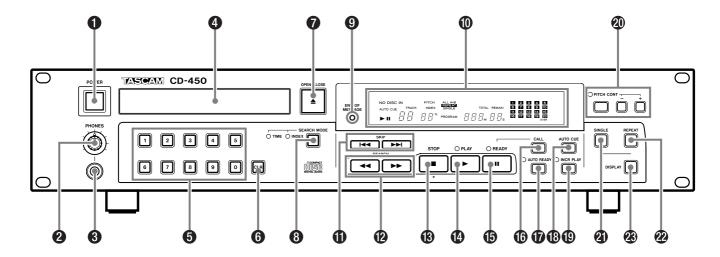
Pitch control: Within +/-12% (1% steps) Auto cue level: -72/-66/-60/-54 dB

# **External Dimensions**



<sup>\*</sup> Changes in specifications and features may be made without notice or obligation.

# **General Guide**



- **1** POWER Switch
- 4 Headphone Volume Control (PHONES)
- Headphone Jack
- Disc Tray

# **6** Numeric Keypad

This is used to enter tack numbers, index numbers and time points.

# **6** CLEAR Key

This key is used to clear wrong numbers you'll enter on the numeric keypad or to clear all your preference settings (p.9) at once.

# **7** Disc Tray OPEN/CLOSE Button

# SEARCH MODE Key

Three search modes are available: Track, Time, and Index, as selected with this switch. → Search Operations, p.9

### **9** END OF MESSAGE

This indicator lights when playing tracks near their end. → Preference Settings, p.9

# O Display

Shows what's going on during play and other various information.

# SKIP Keys

Used to skip directly to the beginning of the current track or to the beginning of the succeeding track.

### ② SEARCH Keys

Allow you to hear the disc play at high speeds in the forward direction or in reverse as long as you hold either of these keys down.

# **®** STOP Key

# **1** PLAY Key

# (B) READY Key

This key puts the deck into Ready-for-play mode.

# (6) CALL Key

The point where you press PLAY to leave the ready mode and start playing is stored in memory, and you can go back to that point by pressing this CALL key.

# **10** AUTO READY Key

When this key is pressed on, the deck goes into Ready mode at the beginning of each tack or at the beginning of an A-B loop.

# **®** AUTO CUE Key

When this key is pressed on and you perform a track search, the deck goes into Ready mode at the "first audio" of that track. The sensitivity of the auto cue circuit is adjustable. → Preference Settings, p.9

# (Incremental) PLAY Key

When this key is pressed on, each time you press PLAY during play, the next track starts playing. → p.10

### ② PITCH CONTrol

A pitch change of up to +12% and down to -12% is available in 1% steps.  $\Rightarrow$  p.10

# SINGLE Key

When this key is active and you start playing, only the current track is played back through.

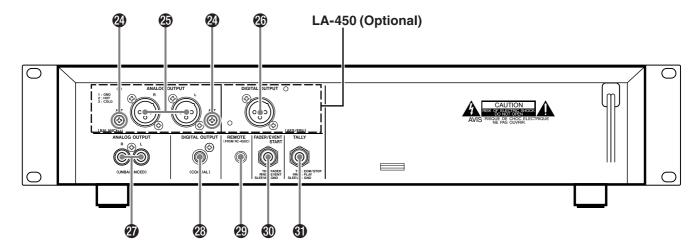
# **@** REPEAT Key

Enables the whole disc, or, used in conjunction with the SINGLE key, a single track, to play over and over again. →p.10

# DISPLAY Key

Selects ELAPSED, REMAIN or TOTAL REMAIN displays.

# **General Guide**



# ATTenuator — Optional

This reduces the balanced analog output level by 12 dB at maximum.

# ANALOG OUTPUT Connectors (BALANCED) — Optional

A +4 dBu analog output signal is available at these XLR-type connectors.

# ② DIGITAL OUTPUT Connector (AES/EBU) — Optional

This delivers the AES/EBU format digital signal.

# ② ANALOG OUTPUT Jacks (UNBALANCED)

A -10 dBV analog output signal is available at these RCA jacks.

# ② DIGITAL OUTPUT Connector (COAXIAL)

This is for connection of a coaxial digital cable.

### 2 REMOTE Jack

The optional remote control unit is connected here.

### **60 FADER/EVENT START Jack**

This 3-conductor (tip-ring-sleeve) jack is used to switch the deck between Play and Ready, as you operate an external switch connected to a mixer fader. Alternatively, this jack also allows this deck to be remotely controlled as an event. → p.11

## TALLY Jack

This 3-conductor (tip-ring-sleeve) jack is typically used for connection of LEDs to monitor the operating status of the deck at a distance. This jack operates through an open-collector current source; the collector current is 40 mA at maximum. The tip goes active at EOM or STOP time (as selected in the preference setting screen), and the ring goes active at PLAY. For the

wiring of these conductors, see illustration under the heading, "Fader Start," p.11.

# (RC-450C Remote Control Unit — Optional)

# ® PGM (Program) Key

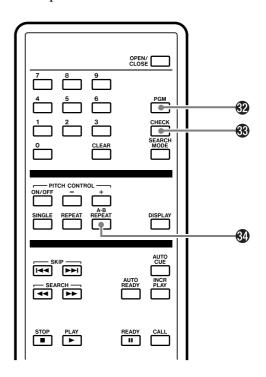
A maximum of 30 tracks can be programed to play in sequence.  $\Rightarrow$  p.10

# **®** CHECK Key

This is used to change tracks once programed in memory or check programed tracks.

# A-B REPEAT Key

Once you press this key during play, that point is stored in memory as the beginning point of a repeat loop, and a point where you press the key the second time is stored as the end of the loop. A third press clears the loop.



# **Preference Settings**

Settings you make here are stored in EEPROM so they become default settings.

- 1 Hold STOP and press POWER to enter a preference setting mode.
- 2 Use the SKIP keys to select the desired items.

E \$\overline{0.5} \varepsilon \text{F}\$ = EOSET: End-of-Message triggering time setting; 5 to 35 seconds, in 5-second steps.

fRLLY = TALLY: Tally signal output timing; at EOM or STOP time.

F - P E H = F-PCH: Fixed pitch; +/-12%

 $\Gamma P L R \mathcal{G} = \text{TPLAY: Timer controlled play; On or}$ 

Off.

R - E U E = A-CUE: Auto cue level; -72, -66, -60, -54 dB

They are factory preset to
OFF
EOM
OFF

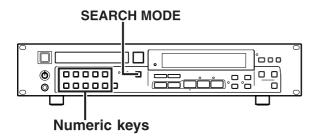
OFF -72 dB

respectively.

- 3 Set the necessary parameters with the SEARCH keys.
- 4 To terminate the preference settings, let "5 E nd" (SEnd) show by operating the SKIP keys, and then press any transport key (except for the SKIP keys). The deck will go into the mode pressed.
  - \* To reset all your settings and restore the factory presets, hold the **CLEAR** key and press the **POWER** switch once after turning the unit off.

# **Operations**

# **Search Operations**



### **Tracks**

- If either LED (TIME or INDEX) is lit to the left of the SEARCH MODE key, press this key to turn the LED off. When neither LED is lit, the deck is in the track search mode.
- 2 Enter the desired track number on the numeric keypad.

Playback starts from the beginning of the track specified if you let the search operation start from STOP.

- \*To specify track 5 for example, press 0 then 5.
- \* If you enter wrong numbers, press CLEAR before entering the correct numbers.

### Indexes

- 7 Press the SEARCH MODE key to let the INDEX LED light up.
- 2 Enter a track number then an index number on the numeric keypad.

The deck starts playing from the indexed point designated if you let the search operation start from STOP.

### **Time Points**

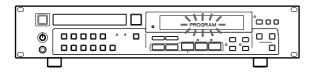
- 7 Press the SEARCH MODE key to let the TIME LED light up.
- 2 Enter a track number then a time point.

The deck starts playing from the time point designated if you let the search operation start from STOP.

# **Programed Play**

A maximum of 30 tracks can be programed.

1 Press the PGM key on the optional remote to let "PROGRAM" show in the display.



# 2 Enter the desired tracks on the numeric keypad.

\* To enter track 5 for example, press 0 then 5.

# To delete tracks from the program memory

Use the **CHECK** key to let the track number you want to delete blink, then press the **CLEAR** key.

### To add tracks

To add track 3 for example after track 9 already programed, let "9" blink with the **CHECK** key, then press 0, 3 on the numeric keypad.

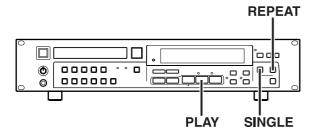
# To check the content of the program memory

While in STOP each time you press the **CHECK** key track numbers programed will show in the display in order of play.

Displayed to the right of the track numbers is total play time.

When the total play time exceeds 999 minutes 59 seconds, the display will read "ExxMxxS."

# **Repeat Play**



### All tracks

Press **REPEAT**, then press **PLAY**.

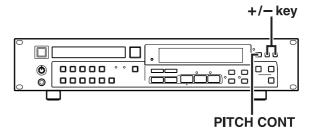
### A single track

Press the **SINGLE** key, then enter the desired track on the numeric keypad.

### **Two-point repeat**

During play, press the A-B REPEAT key at the desired start point of play loop, and again press the key at the desired end point of your loop.

# Changing the Pitch



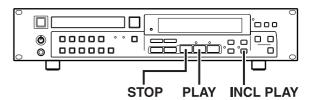
By operating the "+" and "-" keys of **PITCH CONT** you can change the pitch within the limits of  $\pm 12\%$  in 1% steps. The pitch percent value is shown in the INDEX display window.

Press the **PITCH CONT** switch to let its LED light up, then press **PLAY** to start play at the entered pitch.

Alternatively, you can press the **PITCH CONT** switch before changing the pitch with the "+" and "-" keys. But you cannot switch pitch changes on and off during play.

If you have set a fixed pitch on the preference setting screen, the PITCH CONT LED will blink when you switch on power to the deck, showing that the deck plays at a fixed pitch. If you then press the **PITCH CONT** switch, its LED will turn on solid, and you can further change the pitch. When you press the **PITCH CONT** switch again, the deck will switch back to your fixed pitch.

# **Incremental Play**



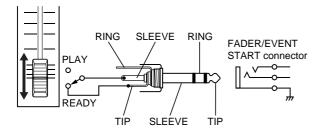
During incremental play, each time you press the **PLAY** key, play starts from the beginning of the next track.

If you press **STOP** instead of **PLAY** during play, the deck will go into Ready at the beginning of the next rack. In this case, the AUTO CUE feature comes on if previously enabled.

If you are using a fader switch, the deck goes into Ready at the beginning of the next track each time you switch the deck from Play to Ready.

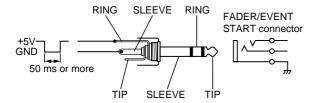
### **Fader Start**

You can let the deck go into Play or Ready, as controlled from a fader switch.



# **Event Start**

You can let this deck start playing by inputing a one-shot pulse signal from the exterior or by short-circuiting between the tip and sleeve of a stereo phone plug connected to the FADER/EVENT START jack.



### **CAUTION**

Do not modify or tamper with this deck. If you fail to observe this caution, you should prepare to accept responsibility for all consequences.

# **Backup Memory**

Each time you turn this unit off, the status of the following features are stored in backup memory, so that they are restored when you turn the unit on again.

- On/Off of REPEAT
- On/Off of SINGLE
- On/Off of INCR PLAY
- On/Off of AUTO READY
- DISPLAY mode (ELAPSED, REMAIN, or TOTAL REMAIN)
- On/Off of AUTO CUE
- SEARCH MODE

# TASCAM TEAC Professional Division CD-450

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