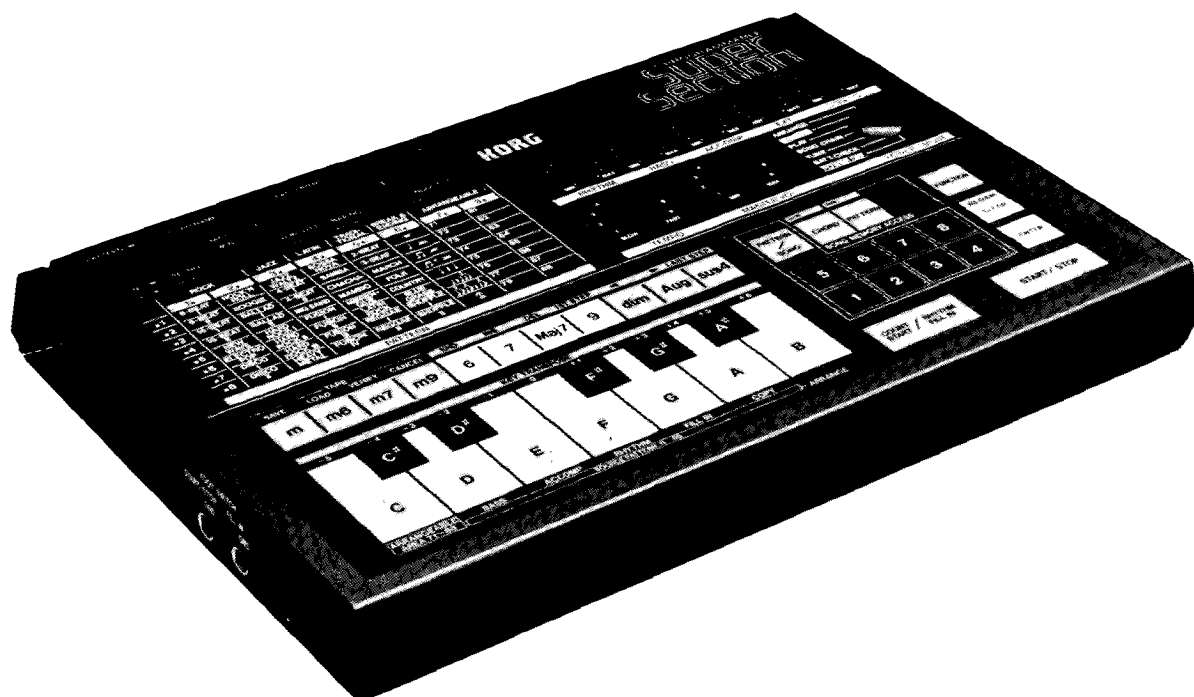# KORG®

SUPER SECTION

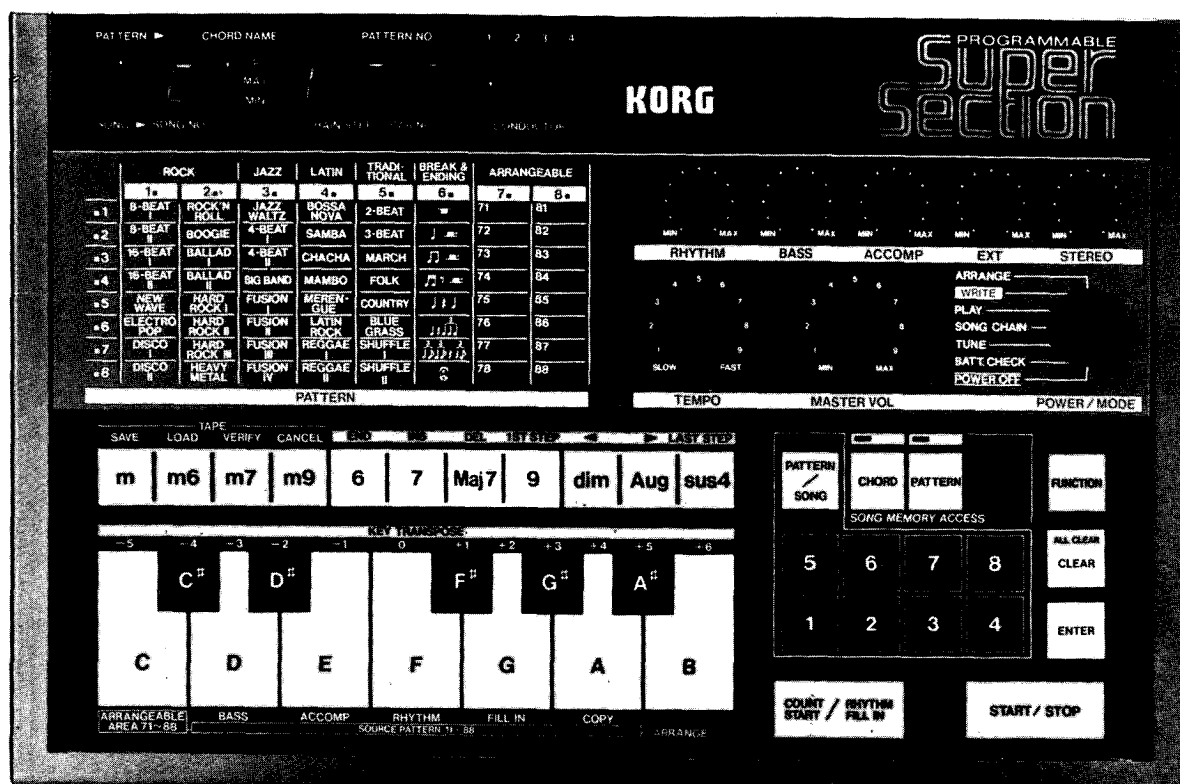# PSS-50

PROGRAMMABLE SUPER SECTION

OWNER'S MANUAL

SUPER SECTION
PSS-50
PROGRAMMABLE SUPER SECTION

Congratulations and thank you for purchasing the new KORG Super Section PSS-50.

With this computer controlled accompaniment system you can program back-up patterns consisting of drums, bass and instrumental accompaniment for eight different songs, all stored in internal RAM memory. On playback the PSS-50 works like a sequencer to play all the backup parts while you sing or play along on your instrument. It's like having your own session musicians always ready for practice, recording, or performance. Backup pattern and chord progressions are up to your imagination. You can even re-arrange the various parts of the 48 built-in patterns to multiply the musical possibilities. This manual has been specially written to give you an inside view of the musical potential built into this unique instrument. Please read it carefully to assure optimum performance and long-term reliability.

FEATURES

1 There are 40 preset backup patterns plus 8 break and ending options. You have a wide variety of styles to choose from including heavy metal and reggae.

2 Change backup patterns every bar and change chords (and fill-in timing) every half bar. Each of the eight song memories holds 80 bars so you can have up to 640 different bars of music at once, on board.

3 Link the eight song memories to form a chain of up to 16 steps, making a complete 1280-bar composition for automatic playback.

4 Break and ending patterns are included. Fill-ins can be programmed for extra variety.

5 New patterns can be arranged from the bass, drum, accompaniment, and fill-in parts of preset patterns.

6 Percussion sounds are amazingly accurate because the PSS-50 uses digital PCM technology for its percussion sound sources. Drum output is set in a stereo array for greater realism.

7 Tape interface lets you expand your song library infinitely. Entire PSS-50 memory contents can be changed in a few seconds. Parts of songs can be rearranged by using the versatile electronic editing facilities.

CONTENTS

How to Use the Rest of this Manual

If you have read this manual from the beginning, you now have an idea of what you can do with the PSS-50. The next section "OPERATION MODES" will go into more detail about the basic WRITE, PLAY, and CHAIN modes of operation. The succeeding "FURTHER APPLICATIONS" section will explain the more advanced aspects of the PSS-50, going into particular detail about the valuable editing features.

—PRECAUTIONS—

Please read and observe the following precautions to assure reliability and safety.

LOCATION

To avoid malfunction do not use this unit in the following locations for long periods of time:
* In direct sunlight.
* Exposed to extremes of temperature or humidity.
* In sandy or dusty places.

At freezing temperature (32 degrees F/0 degrees C) and below, parts of the control panel sheet may appear to warp or swell up. It may be palyed under these conditions and its appearance will return to normal when brought back to ordinary room temperature (68 degrees F/ 20 degrees C).

DIGITAL CIRCUIT PROTECTION

* As a digital device employing computer circuitry, the PSS-50 is subject to interference from other electrical devices and fluorescent lamps. Avoid use near other applicances, particularly those with motors. If operation becomes erratic, turn off power, then turn it back on.

* The PSS-50 body is made of ABS plastic which may pick up a static charge leading to erratic operation. Therefore, connect to an amp or other grounded device before turning on PSS-50 power.

MEMORY PROTECTION

* To protect your programmed memory contents, always leave batteries in the PSS-50, even if using an AC adaptor. Batteries back up the power supply to protect memory contents even when power is off. Memory contents may be erased if batteries become depleted or are not put in.

* Memory contents will remain protected if you do not take longer than five minutes to replace batteries.

* If you have saved your program data on tape, then you can always load that data if memory is erased. The demo data tape can be loaded in the same way.

HANDLE GENTLY

Knobs and switches are designed to provide positive operation with a light touch. Excessive force may cause damage.

MAINTENANCE

Wipe the exterior with a soft, dry cloth. Never use paint thinner, benzene or other solvents.

POWER SUPPLY

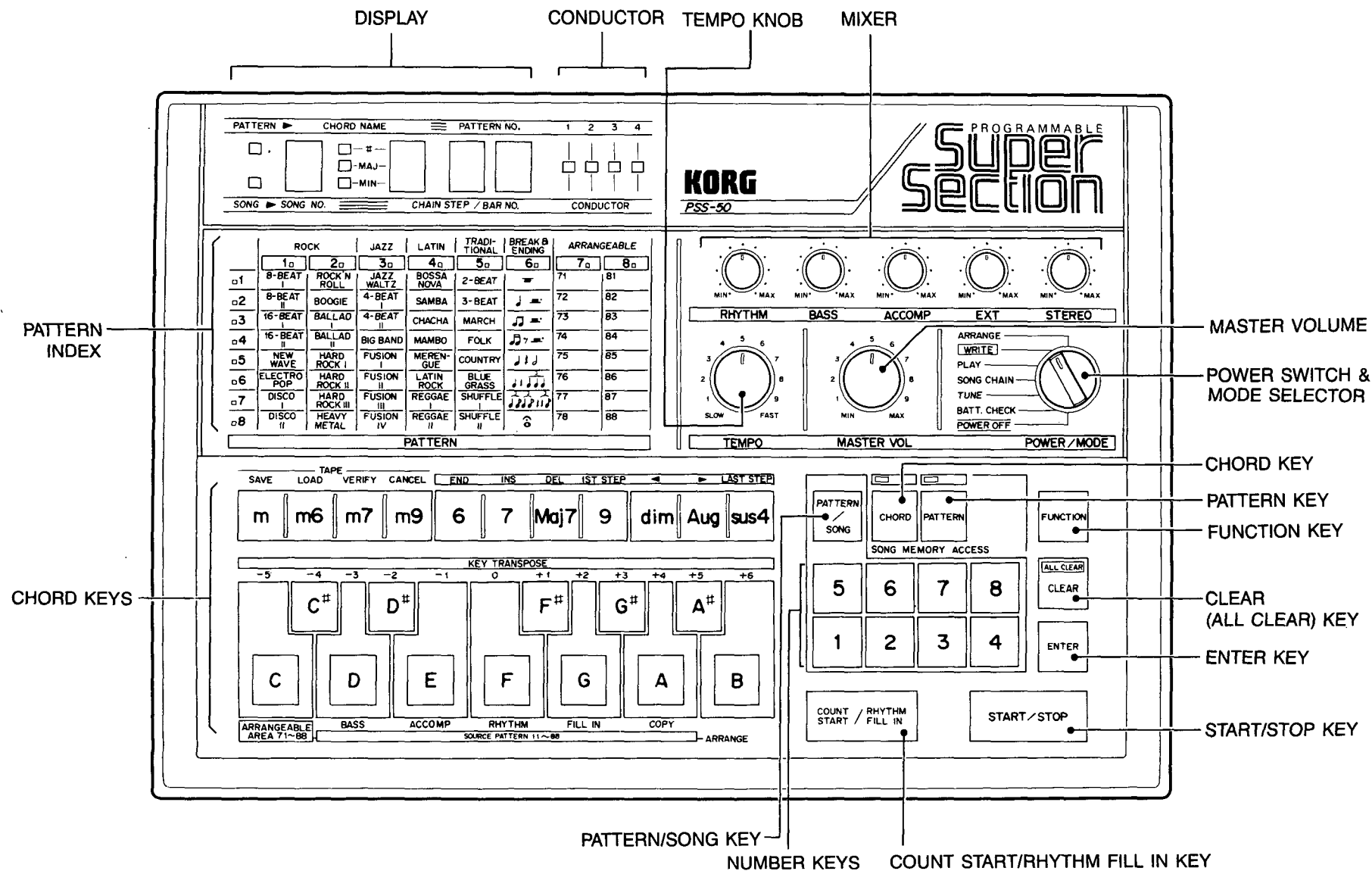Requires eight size SUM-3 (1.5V) batteries or supplied AC adaptor (KORG KAC-301 9V).

WARRANTY

For fullest warranty protection, return your properly filled in warranty card.

KEEP THIS MANUAL

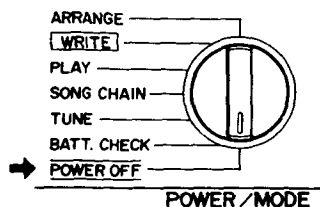Store this manual in a safe place for future reference.

DISPLAY CONDUCTOR TEMPO KNOB MIXER

PATTERN ▶ CHORD NAME PATTERN NO. 1 2 3 4

♯
MAJ
MIN

SONG ▶ SONG NO. CHAIN STEP / BAR NO. CONDUCTOR

KORG PSS-50

PROGRAMMABLE

Super Section

	ROCK		JAZZ	LATIN	TRADI-TIONAL	BREAK & ENDING	ARRANGEABLE	
	1□	2□	3□	4□	5□	6□	7□	8□
□1	8-BEAT I	ROCK 'N ROLL	JAZZ WALTZ	BOSSA NOVA	2-BEAT		71	81
□2	8-BEAT II	BOOGIE	4-BEAT I	SAMBA	3-BEAT		72	82
□3	16-BEAT I	BALLAD I	4-BEAT II	CHACHA	MARCH		73	83
□4	16-BEAT II	BALLAD II	BIG BAND	MAMBO	FOLK		74	84
□5	NEW WAVE	HARD ROCK I	FUSION I	MEREN-GUE	COUNTRY		75	85
□6	ELECTRO POP	HARD ROCK II	FUSION II	LATIN ROCK	BLUE GRASS		76	86
□7	DISCO I	HARD ROCK III	FUSION III	REGGAE I	SHUFFLE I		77	87
□8	DISCO II	HEAVY METAL	FUSION IV	REGGAE II	SHUFFLE II		78	88

PATTERN

PATTERN INDEX

RHYTHM BASS ACCOMP EXT STEREO
MIN MAX (×5)

TEMPO MASTER VOL POWER / MODE

SLOW FAST MIN MAX

ARRANGE
WRITE
PLAY
SONG CHAIN
TUNE
BATT. CHECK
POWER OFF

MASTER VOLUME

POWER SWITCH & MODE SELECTOR

TAPE
SAVE LOAD VERIFY CANCEL END INS DEL 1ST STEP ◄ ► LAST STEP

| m | m6 | m7 | m9 | 6 | 7 | Maj7 | 9 | dim | Aug | sus4 |

KEY TRANSPOSE
−5 −4 −3 −2 −1 0 +1 +2 +3 +4 +5 +6

C♯ D♯ F♯ G♯ A♯

C D E F G A B

ARRANGEABLE AREA 71~88 BASS ACCOMP RHYTHM FILL IN COPY
SOURCE PATTERN 11~88 ARRANGE

PATTERN / SONG

CHORD PATTERN FUNCTION

SONG MEMORY ACCESS

5 6 7 8
1 2 3 4

ALL CLEAR
CLEAR
ENTER

COUNT START / RHYTHM FILL IN

START / STOP

CHORD KEY
PATTERN KEY
FUNCTION KEY
CLEAR (ALL CLEAR) KEY
ENTER KEY
START/STOP KEY

CHORD KEYS

PATTERN/SONG KEY
NUMBER KEYS COUNT START/RHYTHM FILL IN KEY

−6−

—DEMONSTRATION—

First let's listen to the sound of the PSS-50.

Follow the steps below.

A) PREPARATION

1 Set selector to POWER OFF.

```
ARRANGE ─────────┐
[WRITE]──────────┤
PLAY ────────────┤
SONG CHAIN ──────┤    ╭───╮
TUNE ────────────┤    │ │ │
BATT. CHECK ─────┤    ╰───╯
➡ POWER OFF ─────┘
        POWER/MODE
```
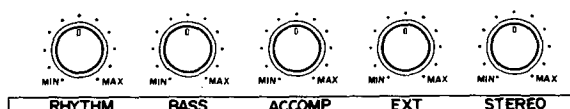
2 Make connections as shown in diagram.

Rear panel

```
┌─────────────────────────────────────────────────────┐
│    INST    ┌─OUTPUT─┐         TAPE   FROM   TO        │
│ EXT IN MIC─┐ ┌─LINE  R/MIX  L  PHONES DISABLE┌──LINE──LINE  ⊖-⊕-⊖
│                                        EAR PHONE  MIC  DC 9V │
│ ◎  ─▢▥▥─  ◎   ◎   ◎    ▥▥▥    ◉   ◉   ◉        │
└─────────────────────────────────────────────────────┘
```

AC Adaptor

Headphones

To Amp

Stereo Output

To Amp
(Mix/Monaural Output)
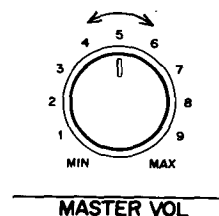
B) DEMO OPERATION

1 Confirm that rear panel TAPE switch is set to DISABLE.
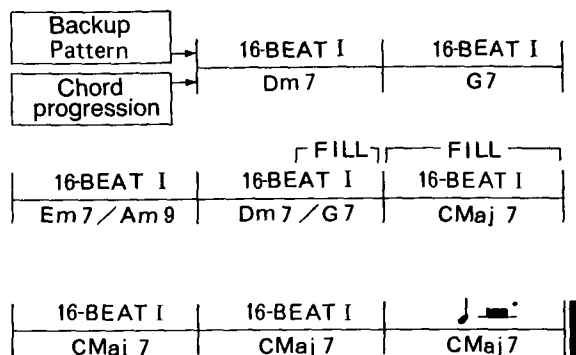
```
        TAPE
   DISABLE ┌──┐
   ──┤▥▥▥▥├──
```
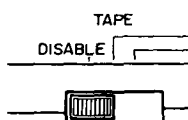
CAUTION:
This switch must be set to disable, otherwise no sound will be produced. See TAPE INTERFACE on page 37 for details.

2 Set POWER/MODE knob to SONG CHAIN.

```
ARRANGE ─────────┐
[WRITE]──────────┤
PLAY ────────────┤
➡ SONG CHAIN ────┤    ╭───╮
TUNE ────────────┤    │ ═ │
BATT. CHECK ─────┤    ╰───╯
POWER OFF ───────┘
        POWER/MODE
```

3 Set MIXER knobs to center positions as shown.

```
  ◯     ◯     ◯     ◯     ◯
MIN MAX MIN MAX MIN MAX MIN MAX MIN MAX
 RHYTHM   BASS   ACCOMP   EXT   STEREO
```

4 Set TEMPO knob to between 6 & 7.

```
      4  5  6
   3 ╭─────╮ 7
   2 │  │  │ 8
   1 ╰─────╯ 9
   SLOW    FAST
       TEMPO
```

5 Press [START/STOP] key to begin play.

6 Adjust MASTER VOLUME.

```
      4  5  6
   3 ╭─────╮ 7
   2 │  │  │ 8
   1 ╰─────╯ 9
   MIN     MAX
     MASTER VOL
```

7 The demonstration program is about 7-minutes long. Play stops automatically at the end of the program. If you wish to stop before the end, simply press the [START/STOP] key again.
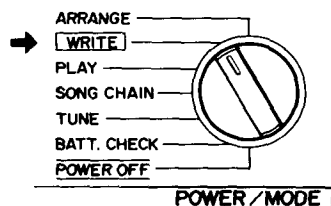
BASIC USE (How to WRITE & PLAY)

Introducing the WRITE and PLAY modes.
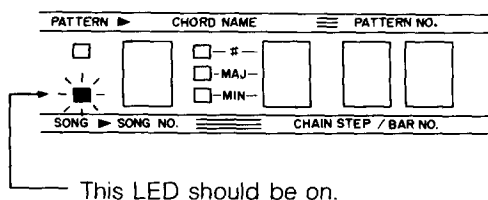As an example, we will "write" the song shown below.

Backup Pattern →	16-BEAT I	16-BEAT I
Chord progression →	Dm 7	G 7

	┌ FILL ┐	┌── FILL ──┐
16-BEAT I	16-BEAT I	16-BEAT I
Em7 / Am9	Dm 7 / G 7	CMaj 7

16-BEAT I	16-BEAT I	♩ ▬:
CMaj 7	CMaj 7	CMaj 7

1. Selecting backup pattern and chord sequences.

1 Set POWER/MODE knob to WRITE.

```
ARRANGE ──────
→ WRITE ────
  PLAY ──────
  SONG CHAIN ──
  TUNE ──────
  BATT. CHECK ──
  POWER OFF ────
        POWER / MODE
```

2 Confirm DISPLAY is as shown below.
(If not, press PATTERN/SONG key.)

```
PATTERN ►    CHORD NAME    ≡ PATTERN NO.
  □        [  ]  □-♯-  [ ][ ][ ]
  \ ╱           □-MAJ-
  ─■─           □-MIN-
  ╱ \
SONG ► SONG NO.  ≡≡≡  CHAIN STEP / BAR NO.

        └── This LED should be on.
```

3 Press one of the NUMBER keys [1] - [8].
(Here we'll press key number [1].)

4 Press the CHORD and PATTERN keys so the LEDs light up above both.

```
      ┌─────── These two LEDs should be on.
   ↓        ↓
  ─■─      ─■─
  ╱ \      ╱ \
 [CHORD] [PATTERN]

SONG MEMORY ACCESS
```
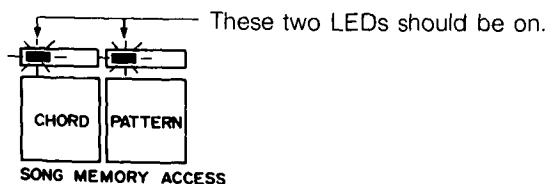
5 Press the CLEAR key while holding down the FUNCTION key. (There will be a click to tell you that the operation has been performed.)

6 Press the PATTERN/SONG key. DISPLAY should change to that shown below.

```
PATTERN ►    CHORD NAME    ≡ PATTERN NO.
  \ ╱
  ─■─      [  ]  □-♯-  [ ][ ][ ]
  ╱ \           □-MAJ-
  □            □-MIN-
SONG ► SONG NO.  ≡≡≡  CHAIN STEP / BAR NO.

 └────── This LED should be on.
```
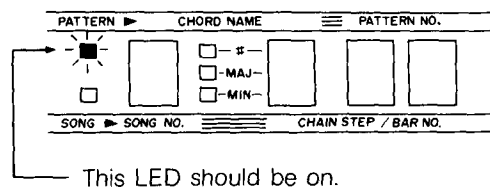
7 You have just cleared the memory contents of song number 1 and readied the PSS-50 for writing a sequence of backup patterns and chords.

1.1 WRITE OPERATION

① Following our example, find 16-BEAT I in the PATTERN INDEX. Its index number is 13 since it is at the intersection of the 1st column and the 3rd row.

	ROCK		JAZZ	LATIN	TRADI-TIONAL	BREAK & ENDING
	1□	**2□**	**3□**	**4□**	**5□**	**6□**
□1	8-BEAT I	ROCK'N ROLL	JAZZ WALTZ	BOSSA NOVA	2-BEAT	▬
□2	8-BEAT II	BOOGIE	4-BEAT I	SAMBA	3-BEAT	♩ ▬:
□3	16-BEAT I	BALLAD I	4-BEAT II	CHACHA	MARCH	♫ ▬:
□4	16-BEAT II	BALLAD II	BIG BAND	MAMBO	FOLK	♫♩ ▬:
□5	NEW WAVE	HARD ROCK I	FUSION I	MEREN-GUE	COUNTRY	♩♩♩
□6	ELECTRO POP	HARD ROCK II	FUSION II	LATIN ROCK	BLUE GRASS	♩♩♩♩
□7	DISCO I	HARD ROCK III	FUSION III	REGGAE I	SHUFFLE I	♫♫♫♫
□8	DISCO II	HEAVY METAL	FUSION IV	REGGAE II	SHUFFLE II	𝆏
	PATTERN					

② Press NUMBER keys to input index number.

Press [1], then [3].

③ Input the chord to be played in the first half of the first bar of the song.

Following our example: press [D], then [m7].
(The chord will sound.)

④ If you want drum fill-in for the whole bar, now press the COUNT/RHYTHM START/FILL IN key.

⑤ Press ENTER. This stores your data input for the first half of the first bar. (There will be a click to tell you that the operation has been performed.)

6 Input chord change for rest of bar. (Repeat step 3.)

* **This is not required if same chord is to be used. Go on to step 7.**

7 If you want drum fill-in only in second half of bar, now press ⎡COUNT / RHYTHM⎤ / ⎣START / FILL IN⎦ .

8 Press ⎣ENTER⎦. This stores your input data for the second half of the first bar. (There will be a click.)

9 Repeat steps 1-8 above for the rest of the song.

1.2 CORRECT PROCEDURE

* If you make a mistake while writing a pattern number, chord, fill-in, etc., procede as follows.

1 If you have not yet pressed ⎣ENTER⎦:

- If a pattern number, simply press the number keys for the correct pattern number.
- If a chord, simply press the keys for the correct chord.
- If a fill-in, press the keys for that bar's pattern number again. This will cancel the mistaken fill-in data. (For fill-in changes in the second half of a bar, press the ⎣CLEAR⎦ key, then enter pattern number again.)

2 If you pressed the ⎣ENTER⎦ key (so the data was written to memory):

- Press ⎣CLEAR⎦ key. This takes you back a half bar. Then write in the desired pattern number and chord.
- For fill-in mistakes, press the ⎣CLEAR⎦ key twice, then specify pattern number.

Example:

1st Bar: ————————————
1) Press ⎣ 1 ⎦ , then ⎣ 3 ⎦ .

2) Press ⎣ D ⎦ , then ⎣ m7 ⎦ .

3) Press ⎣ENTER⎦.

4) Press ⎣ENTER⎦.

2nd Bar: ————————————
1) Press ⎣ 1 ⎦, then ⎣ 3 ⎦.

2) Press ⎣ G ⎦ , then ⎣ 7 ⎦ (chord key, not number key).

3) Press ⎣ENTER⎦.

4) Press ⎣ENTER⎦.

3rd Bar: ————————————
1) Press ⎣ 1 ⎦ , then ⎣ 3 ⎦ .

2) Press ⎣ E ⎦ , them ⎣ m7 ⎦ .

3) Press ⎣ENTER⎦ .

4) Press ⎣ A ⎦ , then ⎣ m9 ⎦ .

5) Press ⎣ENTER⎦ .

4th Bar: ————————————
1) Press ⎣ 1 ⎦ , then ⎣ 3 ⎦ .

2) Press ⎣ D ⎦ , then ⎣ m7 ⎦ .

3) Press ⎣ENTER⎦ .

4) Press ⎣ G ⎦ , then ⎣ 7 ⎦ .

5) Press ⎡COUNT / RHYTHM⎤ / ⎣START / FILL IN⎦ .

6) Press ⎣ENTER⎦ .

5th Bar: ————————————
1) Press ⎣ 1 ⎦ , then ⎣ 3 ⎦ .

2) Press ⎣ C ⎦ , then ⎣ Maj7 ⎦ .

3) Press ⎡COUNT / RHYTHM⎤ / ⎣START / FILL IN⎦ .

4) Press ⎣ENTER⎦.

5) Press ⎣ENTER⎦.

6th Bar: ————————————
1) Press ⎣ 1 ⎦ , then ⎣ 3 ⎦ .

2) Press ⎣ C ⎦ , then ⎣ Maj7 ⎦ .

3) Press ⎣ENTER⎦ .

4) Press ⎣ENTER⎦ .

7th Bar:
1) Press ⌷1⌷ , then ⌷3⌷ .

2) Press ⌷C⌷ , then ⌷Maj7⌷ .

3) Press ⌷ENTER⌷ .

4) Press ⌷ENTER⌷ .

8th Bar:
1) Press ⌷6⌷ , then ⌷2⌷ .

2) Press ⌷C⌷ , then ⌷Maj7⌷ .

3) Press ⌷ENTER⌷ .

4) Press ⌷ENTER⌷ .

2. Now to play what you have written so far...

1 After finishing writing the last bar of the song, set the POWER/MODE knob to PLAY.

POWER/MODE
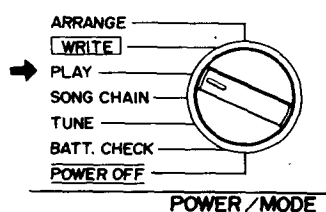
2 Confirm that LEDs are lit above both the ⌷CHORD⌷ and ⌷PATTERN⌷ keys. (If not lit, press to turn on.)

Both LEDs should be on.

CHORD PATTERN

SONG MEMORY ACCESS
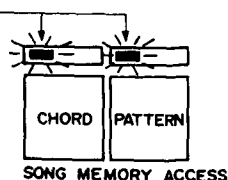
3 Press ⌷PATTERN/SONG⌷ key so DISPLAY appears as shown here.

This LED should be on.
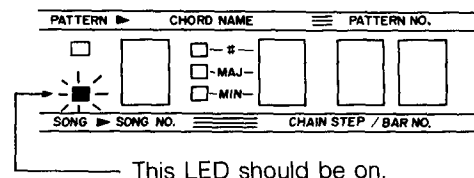
4 Press same NUMBER key as you selected before writing the song.
(In our example, this is key number ⌷1⌷ .)

5 Press ⌷COUNT/RHYTHM START/FILL IN⌷ or ⌷START/STOP⌗ key.

6 Adjust VOLUME and TEMPO.

TEMPO   MASTER VOL
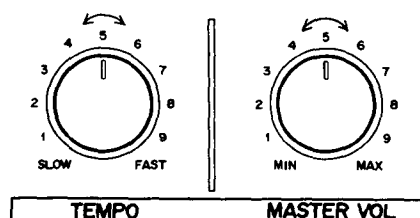
7 To stop play, press ⌷START/STOP⌗ key again.

IMPORTANT NOTE
If you want to go back to the WRITE mode and add to the previous short "song", you will need to know how to use the editing function keys (⌷FUNCTION⌷ key plus ⌷1ST STEP⌷ , ⌷LAST STEP⌷ , and ⌷ARROW⌷ keys). Otherwise you may find yourself writing at the beginning of the song. Read OPERATION MODES and FURTHER APPLICATIONS to discover the full potential of the PSS-50.

OVERVIEW

The PSS-50 represents both an evolution of preset rhythm machines and a welcome escape from their limitations. In this unit you have available every genre of rhythm section backup including bass and accompaniment as well as the usual drums and percussion. Each preset pattern is composed of three separate basic parts.

- **Drums: drums, and handclaps.**

- **Bass: electric bass.**

- **Accompaniment: guitar, organ, piano, keyboard, strings, brass, etc.**

You have 40 preset backup patterns plus 8 fill in (break and ending) patterns to choose from. Each has appropriate instrument accompaniment — distortion guitar for hard rock and banjo for bluegrass, for example.
On top of all this, you can rearrange the composite parts of the preset patterns to create new original patterns.

Once you have mastered the examples and explanations included in both principal sections of this manual (Basic Operation Modes and Further Applications) you will be able to take advantage of the PSS-50's full potential.

PATTERN	NO.	BACKUP PATTERN NAME	ACCOMPANIMENT INSTRUMENT SOUND
ROCK	11	8-BEAT I	Rock Guitar
	12	8-BEAT II	Piano
	13	16-BEAT I	Rock Guitar
	14	16-BEAT II	Strings
	15	NEW WAVE	Distortion Guitar
	16	ELECTRO POP	"Pico-Pico"
	17	DISCO I	Clav
	18	DISCO II	Short Brass
	21	ROCK'N ROLL	Short Piano
	22	BOOGIE	Honky-tonk Piano
	23	BALLAD I	Short Piano
	24	BALLAD II	Organ
	25	HARD ROCK I	Distortion Guitar
	26	HARD ROCK II	Distortion Guitar
	27	HARD ROCK III	Eelctric Guitar
	28	HEAVY METAL	Distortion Guitar
JAZZ	31	JAZZ WALTZ	Jazz Piano
	32	4-BEAT I	Jazz Piano
	33	4-BEAT II	Jazz Guitar
	34	BIG BAND	Big Band Brass
	35	FUSION I	Fazz Keyboard
	36	FUSION II	Fazz Keyboard
	37	FUSION III	Clav
	38	FUSION IV	Fazz Synthe
LATIN	41	BOSSA NOVA	Bossa Nova Guitar
	42	SAMBA	Samba Piano
	43	CHACHA	Chacha Guitar
	44	MAMBO	Clav
	45	MERENGUE	Clav
	46	LATIN ROCK	Clav
	47	REGGAE I	Clav
	48	REGGAE II	Clav
TRADI-TIONAL	51	2-BEAT	2 Beat Piano
	52	3-BEAT	Waltz Piano
	53	MARCH	March Brass
	54	FOLK	Flok Guitar
	55	COUNTRY	Folk Guitar
	56	BLUE GRASS	Banjo
	57	SHUFFLE I	Big Band Brass
	58	SHUFFLE II	Shuffle Synthe
BREAK & ENDING	61	𝅗𝅥	All instruments rest one bar
	62	♩ 𝄽·	Instrument accompaniment in these patterns will have the same sound as the backup pattern played before selection.
	63	♫ 𝄽·	
	64	♫ 𝄾 𝄽·	
	65	♩ 𝄾 ♩	
	66	♩ 𝄾 ♪♪♪	
	67	♪♪♪♪♪♪	
	68	𝅝	

I. OPERATION MODES

1 *MANUAL PLAY*

Instead of programming everything ahead of time, you can play the PSS-50 in real time. Any of the backup patterns 11—68 can be used.
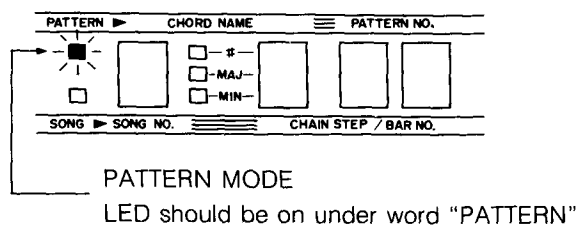
1 Set POWER/MODE knob to PLAY.

ARRANGE
WRITE
➡ PLAY
SONG CHAIN
TUNE
BATT. CHECK
POWER OFF

POWER/MODE
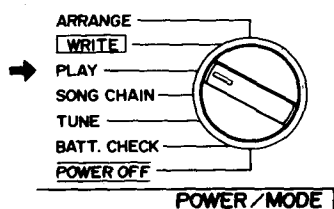
2 Press CHORD and PATTERN keys so the LEDs are off above both keys.

Both LEDs should be off.

CHORD | PATTERN

SONG MEMORY ACCESS
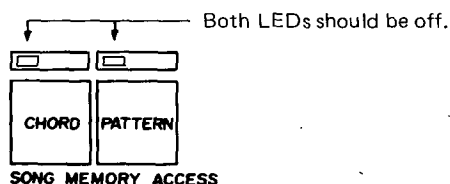
3 Press PATTERN/SONG key so PATTERN mode is indicated by DISPLAY.

PATTERN ▶ CHORD NAME ≣ PATTERN NO.

☐–#–
☐–MAJ–
☐–MIN–

SONG ▶ SONG NO. ≣ CHAIN STEP / BAR NO.

PATTERN MODE
LED should be on under word "PATTERN"

4 Select a backup pattern from the index and key in its number with NUMBER keys.

Example: Selecting 16-BEAT I.

1 16-BEAT I is pattern number 13 (1st row, 3rd column).

	1□ ROCK	2□	3□ JAZZ	L/
□1	8-BEAT I	ROCK'N ROLL	JAZZ WALTZ	B(N
□2	8-BEAT II	BOOGIE	4-BEAT I	S/
□3	16-BEAT I	BALLAD I	4-BEAT II	CH/
□4	16-BEAT II	BALLAD II	BIG BAND	MA/
□5	NEW WAVE	HARD ROCK I	FUSION I	MER GU
□6	ELECTRO POP	HARD ROCK II	FUSION II	LAT RO(

➡ 13

2 Input number 13 by pressing the NUMBER keys.

Press 1 , then 3 .

DISPLAY should show selected pattern number.

PATTERN ▶ CHORD NAME ≣ PATTERN NO.

☐–#–
☐–MAJ–
☐–MIN–

1 3

SONG ▶ SONG NO. ≣ CHAIN STEP / BAR NO.
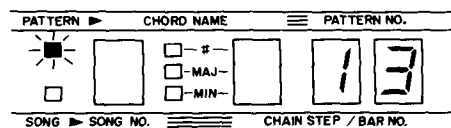
* If you make a mistake, press the CLEAR (ALL CLEAR) key and input the number again.

---

5 Select a chord by pressing the CHORD keys.

Example: Selecting CMaj7.

1. Press C key. (The chord will sound.)

2. Press Maj7 key. (The chord will sound.)

6 Press START/STOP key to begin play.

-12-

7 Adjust MIXER, VOLUME, and TEMPO knobs as desired.
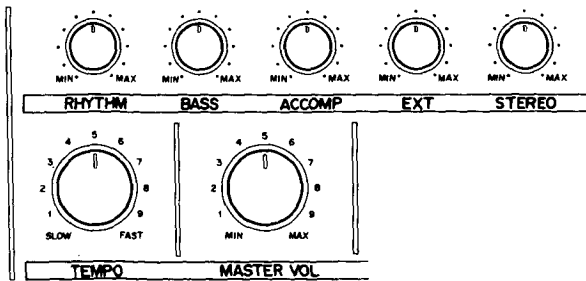
8 Press COUNT/RHYTHM START/FILL IN key when you want to insert fill-ins during play. Each pattern has its own different fill-in.

9 Use steps 4, 5, and 8, above, to try the different preset patterns 11—68 and practice selecting chords.

10 Press START/STOP again to stop play.

> **Note:**
> **Pattern number 61 is a 1-bar break so no sound is produced. However, the COUNT/RHYTHM START/FILL IN key will produce sound even with number 61.**
> **Also, pattern number "68" is a backup pattern very often used for jazz or rock endings. For most effective application refer to section on "Using ending pattern 68 in the CHAIN PLAY mode", on page 19.**

2 SONG WRITE

In the WRITE mode, you can store a sequence of backup patterns and accompanying chord progression. There are 8 "song memories" on the PSS-50. Each of these holds up to 80 bars (80 measures). The NUMBER keys are used to select song memories.

Song memory (or song number)	Maximum storage capacity
No. 1	80 bars
No. 2	80 bars
No. 3	80 bars
No. 4	80 bars
No. 5	80 bars
No. 6	80 bars
No. 7	80 bars
No. 8	80 bars

Input of backup patterns, chords, and fill-ins

Backup patterns can be changed every bar, chords every half bar.

	One Bar	
Backup pattern sequence	Select pattern number desired for that bar.	
Fill-in	Full bar fill-in.	
		Fill-in in last half of bar only.
Chord progression	Chord for first half of bar. 1st and 2nd beats of 4/4 or 3/4 pattern	Chord for second half of bar. 3rd and 4th beats of 4/4. 3rd beat of 3/4.

DISPLAY in the WRITE mode

In the WRITE mode you can check which bar you are on by switching the DISPLAY to the SONG mode. Press PATTERN/SONG key.

When the DISPLAY is in the PATTERN mode, dots appear in the PATTERN NUMBER section during writing or play of fill-ins.

Indicates PATTERN NUMBER

Indicates CHORDs.

Dots should be on.
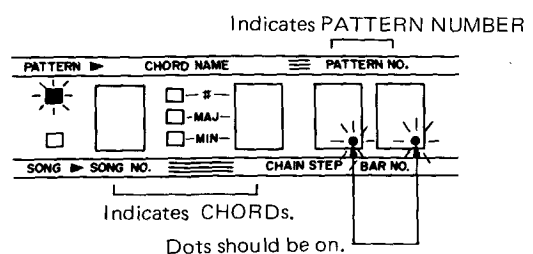
After you have written the first half of a bar, the 1st and 3rd CONDUCTOR LEDs will light up. This indicates that you can now write the second half of the bar.
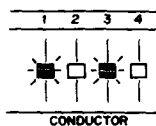
1st & 3rd LEDs are both on.

After writing the last half of the 80th bar, all four CONDUCTOR LEDs will light up. This means that that particular song memory is full and nothing more can be written into it.
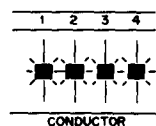
All four LEDs are on.

2.1 Using START/STOP in WRITE mode

In the WRITE mode you can press the [START/STOP] key to listen to one bar at a time of backup pattern and chords as you write it.

Example: Writing a bar with...

| Pattern number | → | 11 |
| Chord progression | → | Dm7 / G7 |

Writing the example

first half second half
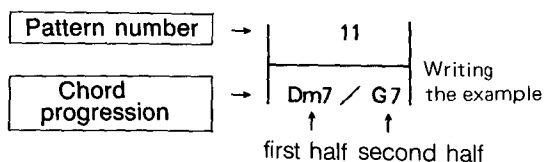
❶ After pressing [START/STOP] input pattern number 11 and chord Dm7. (Press [D], then [m7].)

You will hear pattern 11 with a Dm7 chord accompaniment.

11
Dm7
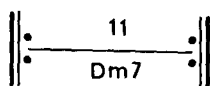
❷ Now input chord G7. (Press [G], then [7])

You will hear pattern 11 played repeatedly with the Dm7 chord followed by the G7 chord

11
Dm7 / G7
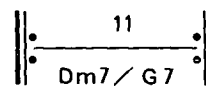
2.2 Using the WRITE Mode

2.2.1 PREPARATION: SELECTING SONG MEMORY NUMBER

1 Set the POWER/MODE selector to [WRITE].

ARRANGE
[WRITE]
PLAY
SONG CHAIN
TUNE
BATT. CHECK
POWER OFF

POWER/MODE
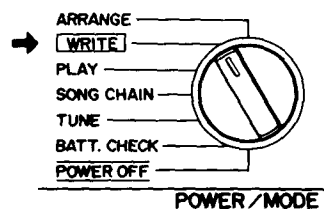
2 Confirm that LED is lit just above the word SONG in the left side of the DISPLAY. If it isn't, press the [PATTERN/SONG] key.

PATTERN ▶ CHORD NAME   PATTERN NO.

□-♯-
□-MAJ-
□-MIN-

SONG ▶ SONG NO.   CHAIN STEP / BAR NO.

SONG side's LED should be on.
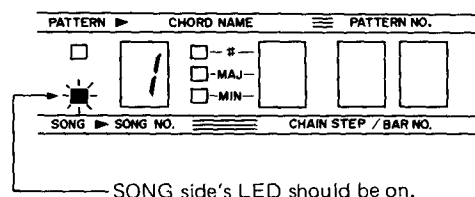
3 Press one of the NUMBER keys [1] — [8]. This selects the song number that you will work with.

Example: Press NUMBER key [1].

4 Press the [CHORD] & [PATTERN] keys together. LEDs should light up above both keys.

These LEDs should be on.

CHORD PATTERN

SONG MEMORY ACCESS
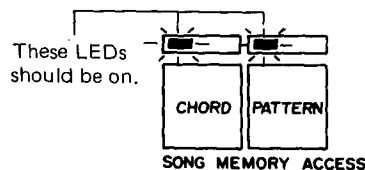
5 Press the [CLEAR] (ALL CLEAR) key while holding down the [FUNCTION] key. (There will be a click to tell you that the operation has been performed.)

6 Press the [PATTERN/SONG] key. An LED should light up in the DISPLAY section under the word "PATTERN". This changes the DISPLAY to the PATTERN mode.

PATTERN MODE

This LED should be on.
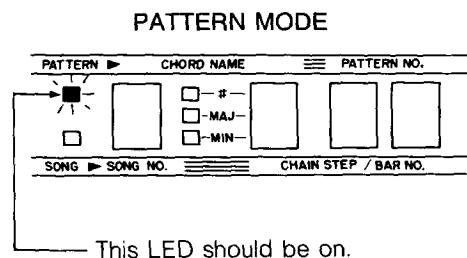
2.2.2 INPUTTING PATTERN AND CHORD DATA

SCORE:

1 Choose a backup pattern from the PATTERN INDEX for the first bar of your song. Key in the pattern number by pressing the NUMBER KEYS.

Example: 16-BEAT I.

Pattern number is 13. Press [1] then [3].

2 Press the [CHORD] keys to select chord for the first half of the first bar of your song.

Example: Dm7.

Press [D], then [m7]. (The chord will sound.)

At this point the DISPLAY should be as shown below.
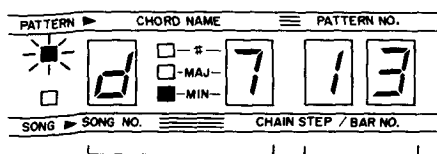
Shows chord **Dm7**.   Shows **pattern number 13**.

3 Press the [ENTER] key. (There will be a click.) This stores the backup pattern for the first bar and the chord for the first half bar of your song.

4 Put in the chord for the remaining half of the first bar. In our example the same chord is used throughout the first bar so there is no need to specify it again.

5 Press [ENTER] (There will be click.) This completes input for the first bar.

6 Repeat steps 1 through 5 to write the accompaniment patterns and chords for the example.

2.2.3 TO CONTINUE WRITING THE EXAMPLE SCORE, REFER TO THE DIRECTIONS BELOW

Writing bar 2

1. Specify PATTERN number. In our example this remains the same as the previous bar so there is no need to input it again.

2. Key in chord G7 for first half of second bar.

3. Press [ENTER] key to write first half of second bar to memory.

4. Chord is the same (G7) for second half of second bar so you don't have to key it in again. Just press the [ENTER] key.

Writing bar 3

1. PATTERN number is still 13 so go on to next step.

2. Input Em7 (Press [E], then [m7]) to input chord for first half of third bar.

3. Press [ENTER] key. (Writes input data to memory.)

4. Input Am9. (Press [A], then [m9].)

5. Press [ENTER]. (Writes Am9 to memory as second chord in third bar.)

Writing bar 4 ├──────────────────────

Here we will put a fill-in part in the second half of the bar.

1. PATTERN number is still 13 so we can skip input and go on to step 2.

2. Use CHORD keys to input Dm7.

3. Press ENTER . (Writes Dm7 to memory as first chord in fourth bar.

4. Input G7.

5. Press RHYTHM FILL IN key. This specifies fill-in for second half of bar.

6. Press ENTER . (Completes fourth bar.)

Note that to put in a fill-in part you must press the RHYTHM FILL IN key before pressing the ENTER key.

Writing bar 5 ├──────────────────────

This bar uses pattern 63 which is a "BREAK & ENDING" pattern. It also uses a fill-in part for the whole bar.

1. Use the NUMBER keys to input 63 as the pattern.

2. Use the CHORD keys to input CMaj7 as the chord for the first half of the 5th bar.

3. Press the RHYTHM FILL IN key. Pressing this key at this point makes the fill-in part continue for the whole bar.

4. Press ENTER .

5. The second half of pattern 63 is a rest so nothing is played. CMaj7 is also used for the second half of the bar so this does not need to be input again. Go on to step 6.

6. Press ENTER . (Completes fifth bar.)

Writing bar 6 ├──────────────────────

This bar uses BREAK & ENDING pattern number 68.

1. Use NUMBER keys to input pattern number 68.

2. Use the CHORD keys to input CMaj7.

3. Press ENTER . (Writes pattern and chord input data to memory.)

4. Second half of bar also uses CMaj7 so it does not need to be input again. Press ENTER again.

Writing bar 7 ├──────────────────────

This is exactly the same as the sixth bar. Go through the same steps as above.

Writing bar 8 ├──────────────────────

This bar uses pattern number 62.

1. Use NUMBER keys to input pattern number 62.

2. Use CHORD keys to input CMaj7.

3. Press ENTER . (Stores first half of bar 8 in memory.)

4. Nothing is played in the second half of pattern 62. Also the chord remains CMaj7 so you can go on to step 5.

5. Press ENTER . (Completes bar 8.)

Now that you have finished writing the last bar in our example, set the POWER/MODE switch to a different position.

NOTE:
During WRITE operations, you can correct input errors by simply inputting the desired pattern or chord after the mistake. If you accidentally press the RHYTHM FILL IN key, it can be cancelled by inputting the pattern number again.
However, this is possible only before you press the ENTER key. (To make corrections after pressing the ENTER key, you must use the CLEAR key to erase that section: then input the desired part again.)
For more specific details look up section "Correct Procedures" on page 9, or "EDIT" on page 30.

---

3 SONG PLAY

In this mode the PSS-50 automatically plays the accompaniments stored in the song memories. One song memory number can be selected at a time.
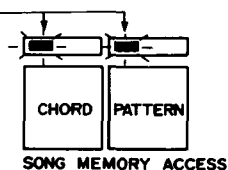
3.1 Using the PLAY mode
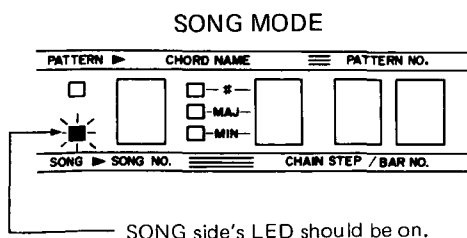
1️⃣ Set the POWER/MODE selector to PLAY.
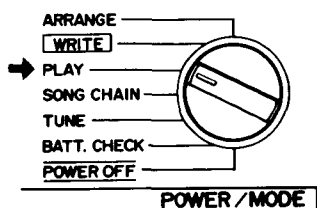
2️⃣ Confirm that LEDs are lit above the [CHORD] and [PATTERN] keys. If not lit, press [CHORD] and [PATTERN] keys to turn on LEDs.

These two LEDs should be on.

3️⃣ Press the [PATTERN/SONG] key. An LED should light up in the DISPLAY section above the word "SONG".

SONG MODE

SONG side's LED should be on.

4️⃣ Press one of the NUMBER keys [1] — [8]. This selects the song number that will be played.
In our example we wrote in song memory 1, so press key number [1].

5️⃣ Press the [COUNT/RHYTHM START/FILL IN] or [START/STOP] key to begin play. ([COUNT START] gives you a 1-bar count before beginning play of your song.)

6️⃣ Adjust VOLUME and TEMPO.

7️⃣ In the PLAY mode, the PSS-50 plays your selected song number repeatedly. To stop play, simply press the [START/STOP] key again.

Using the COUNT START/RHYTHM FILL IN key

If play is started by pressing the [COUNT/RHYTHM START/FILL IN] key, a one bar drumstick count will lead in to the song. If the same key is pressed after play has begun, a fill-in will be played within the bar in play. The kind of fill-in depends on the programmed pattern. This function is handy when playing with other musicians.

3.2 Using "ending pattern" 68 as last bar of song

Ordinarily songs are played repeatedly from start to finish. Pressing the [START/STOP] key will stop play. However, if you write pattern number 68 as the last bar of a song, only this last bar will be repeated. Then when you press [START/STOP] there will be a single drum beat and play will stop. This feature is useful for improvisation since you can play along for as long as like. The final drum beat adds extra realism to your performance (particularly for rock and jazz).

> **NOTE:**
> **If 68 is used in the middle of a song, it is handled like any other pattern: it is played for one bar and followed by the next programmed pattern.**
> **But, when pattern 68 is written into the last bar, along with a rhythm fill-in, then after playing out the final bar, play will start again from the first bar.**

Performance with 68 as last bar in song

❶ Plays everything as usual from first bar to bar before final bar.

⬇

❷ Repeatedly plays last bar (pattern number 68).

⬇

❸ When [START/STOP] is pressed, it plays a single drum beat as the ending phrase. Play then stops.

① First bar to bar before last. → ② Last bar "68" played repeatedly.

⬇
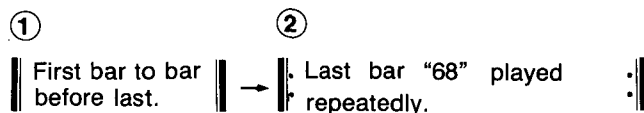
If [START/STOP] is pressed

③ It plays a single drum beat and stops.

4 SONG CHAIN

Song memories can be linked together for continuous play. There are eight song memories corresponding to NUMBER keys [1] — [8]. Both chain write and chain play operations are performed in the SONG CHAIN mode.

Song chain steps and DISPLAY

A song chain is composed of steps. Each step is selected from among the song memories. There can be up to 16 steps. Each song memory holds a maximum of 80 bars. That means a total possible song chain length of 1280 bars. Set the DISPLAY to the song mode to see the chain step indication.

When the number of steps written equals 16, all four of the CONDUCTOR LEDs light up. This warns you that you can not write any more steps.

4 LEDs should be light up.
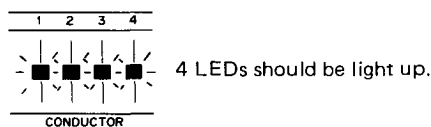
4.1 SONG CHAIN OPERATION

A) Chain write preparation.

Use ALL CLEAR (page 14, 1—5) to erase one of the song memory numbers (1—8). (See details about last bar in last step.)

B) Writing a song chain

1 Set the POWER/MODE selector to SONG CHAIN.
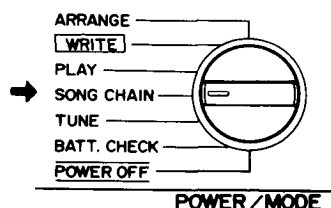
2 Confirm that LEDs are lit above both the [CHORD] key and the [PATTERN] key. If not lit, press keys to turn on LEDs.

These LEDs should be on.
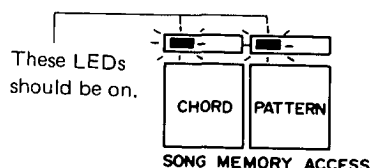
3 Confirm that DISPLAY is in SONG mode (LED lit above word "SONG" in left side of DISPLAY). If not, press [PATTERN/SONG] key to switch to SONG display mode.

Shows song memory number.

Shows step number.

This LED should be on.

Indicates that you are in the SONG CHAIN mode.
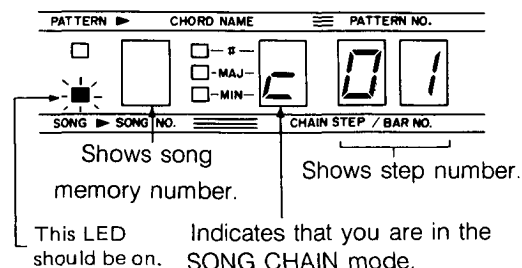
4 Press the [CLEAR] key while holding down the [FUNCTION] key. (There will be a click.)

5 Press one of the NUMBER keys [1] — [8] to select the song that will form the first part of your composition.

The DISPLAY should be as shown below.

This LED should be on.

Indicates the SONG NUMBER selected.
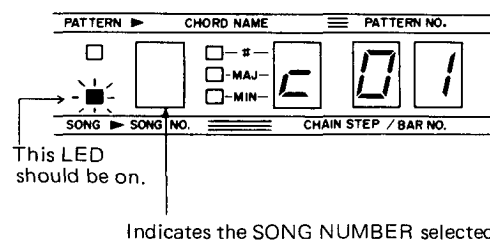
NOTE:
If you happen to make an input error here, first press the [CLEAR] key, then input the correct song number, and finally press the [ENTER] key once more.

6 Press the [ENTER] key. (This stores the information that your selected song number is the first "step" in the composition.)—(There will be a click.)

NOTE:
If you make a mistake, press the [CLEAR] key, then press the desired NUMBER key and finally the [ENTER] key.

7 Press one of the NUMBER keys to select the song memory that will be played as the second step in the chain.

8 Press the ENTER key. (This enters the second step to memory.)—(There will be a click.)

9 Repeat steps 5 & 6, writing in song numbers in the order that you want them played.

10 Finally, specify the all clear song memory number (A, above) and press ENTER . (There will be a click.) This completes setting of the playback order.

If you'd like immediate playback, after entering the necessary steps just press the COUNT START or START/STOP keys.
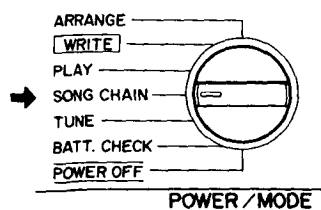
Last bar in last step

When using the chain write mode, the last bar in the last step should be pattern number 61 or 68 (without fill-in). If you do not have a song number that meets these final step requirements, then create one using "A) Chain write preparation" and "B) Writing a song chain, step 10."

How many steps or bars can be performed at once?

16 steps can be written. But if the one at the end has been emptied with the all clear funciton, then a total of 15 steps can be played, the equivalent of a maximum of 1200 bars (80 bars times 15 steps).

C) Playing a song chain.

1 Set the POWER/MODE selector to SONG CHAIN.

```
ARRANGE ───────┐
[ WRITE ] ──────┤
PLAY ──────────┤
→ SONG CHAIN ──(◎)
TUNE ──────────┤
BATT. CHECK ───┤
POWER OFF ─────┘
        POWER / MODE
```

2 Confirm that LEDs are lit above both the CHORD key and the PATTERN key. It not lit, press keys to turn on LEDs.

```
These LEDs
should be on

CHORD   PATTERN
SONG MEMORY ACCESS
```
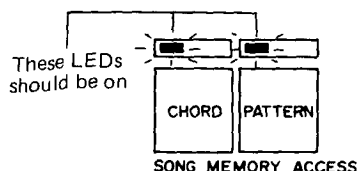
3 Press the COUNT/RHYTHM START/FILL IN or START/STOP key.
(COUNT START gives a one bar drumstick count to lead into the song.)

4 Song steps will be played in the order that you selected them. Play will stop automatically at the end. To stop in the middle, simply press the START/STOP key again.

Checking pattern numbers and chords during play

To check pattern numbers and chords during chain play, change the DISPLAY mode to the PATTERN mode by pressing the PATTERN/SONG key before you press the START/STOP or COUNT START key .

CAUTION:
1) The CHORD and PATTERN key LEDs should both be on during chain write and chain play operations.

```
                    ─── These LEDs should be on.

CHORD   PATTERN
```
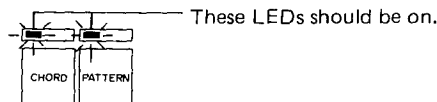
2) Be sure that the DISPLAY mode is set to SONG (LED above word "SONG" is on) during chain write operation.

```
PATTERN ►   CHORD NAME        ═══ PATTERN NO.
  □          □─#─
  ─■─        □─MAJ─
  /■\        □─MIN─
SONG ► SONG NO.  ═════  CHAIN STEP / BAR NO.

        This LED should be on.
```
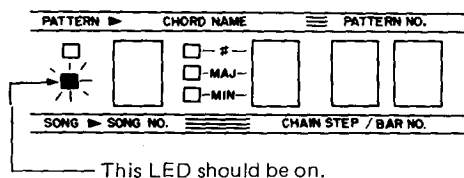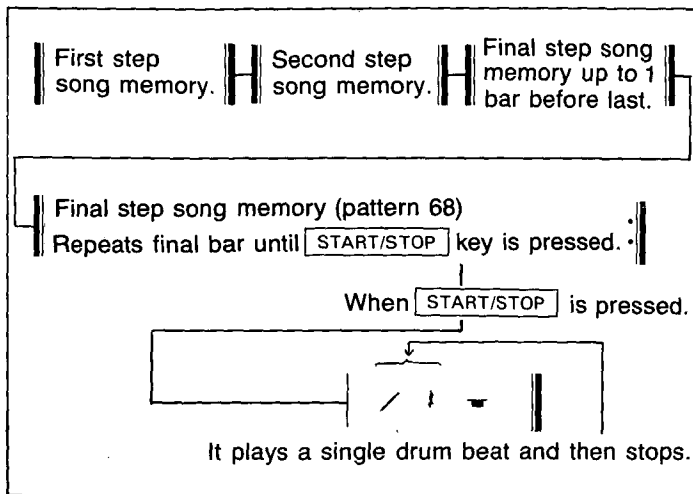

4.2 Using "ending pattern" 68 in the CHAIN PLAY mode

In the CHAIN PLAY mode, the chain of songs is played from start to finish. Play stops automatically at the end of the last step in the chain.
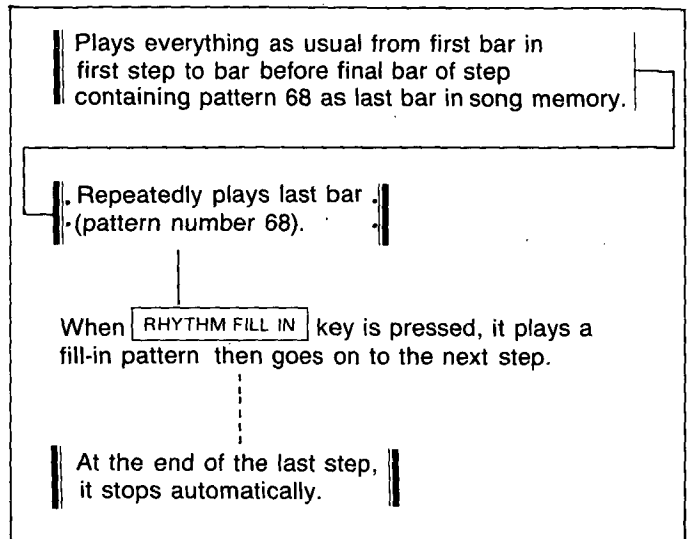
However, if pattern number 68 is used as the last bar of a song, then the play and stop operations vary from normal.

A) Pattern 68 as last bar in last step of chain

At the end of the last step in the chain, the PSS-50 will repeatedly play the final bar (pattern 68). Then when you press START/STOP there will be a single drum beat and play will stop.

First step song memory.	Second step song memory.	Final step song memory up to 1 bar before last.

Final step song memory (pattern 68) Repeats final bar until START/STOP key is pressed.

When START/STOP is pressed.

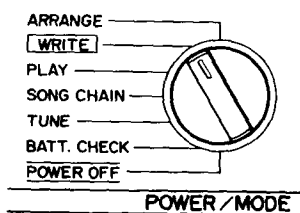It plays a single drum beat and then stops.

B) Pattern 68 as last bar in intermediate step of chain

If pattern 68 occurs as the last bar in a song memory before the last step then that bar will be repeated. To go on to the

next step, press the COUNT/RHYTHM START/FILL IN key. This will cause the PSS-50 to play a fill-in part and then go on to the next step in the chain.

Plays everything as usual from first bar in first step to bar before final bar of step containing pattern 68 as last bar in song memory.

Repeatedly plays last bar (pattern number 68).

When RHYTHM FILL IN key is pressed, it plays a fill-in pattern then goes on to the next step.

At the end of the last step, it stops automatically.

5 FUNCTIONS

FRONT PANEL

POWER/MODE SELECTOR

ARRANGE
WRITE
PLAY
SONG CHAIN
TUNE
BATT. CHECK
POWER OFF

POWER/MODE

Selects mode of operation and turns power on and off.

TEMPO
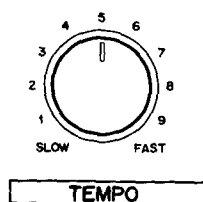
TEMPO

Adjusts speed of rhythm.

CONDUCTOR

1 2 3 4

CONDUCTOR
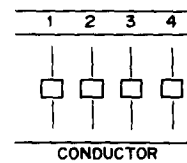
Shows tempo and which beat is being played. Indicates which part of bar is being written. Shows when song memory or chain has reached maximum length.

MIXER

RHYTHM BASS ACCOMP EXT STEREO
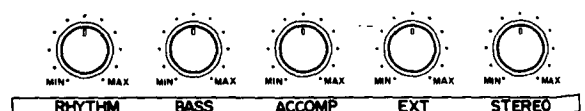
Separate knobs adjust relative volume balance of rhythm, bass, accompaniment, and external input. STEREO knob adjusts intensity of stereo effect produced when PSS-50 output is reproduced through two channels.
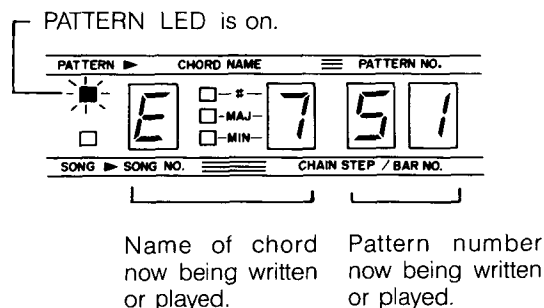
MASTER VOLUME

Adjusts overall volume.

DISPLAY

Shows song memory number, pattern number, chord name, etc. Switchable between SONG and PATTERN display modes.
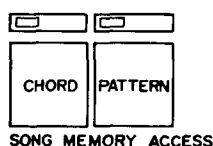
CHORD KEY, PATTERN KEY

These are SONG MEMORY ACCESS keys. When LEDs are on, you can write to and read from the memory. When off, operation is manual. Chord and pattern memory can be accessed independently so you can have one operating automatically and play the other manually.

NUMBER KEYS
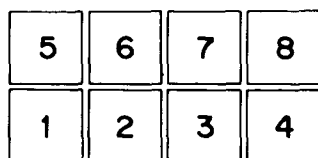
Used to select song memory number and pattern number.

PATTERN/SONG KEY

Changes DISPLAY and NUMBER key modes.

1 DISPLAY in the SONG mode.

Song memory number now being written or played.

Shows " ⌷ " when in SONG CHAIN mode.

Shows bar number or step number now being played.

2 DISPLAY in the PATTERN mode.

Name of chord now being written or played.

Pattern number now being written or played.

1) In SONG mode, the NUMBER keys are used to select song memory numbers. The DISPLAY shows song memory number and bar number.
2) In PATTERN mode, the NUMBER keys are used to select pattern numbers from the PATTERN INDEX. The DISPLAY shows pattern number and chord name.

CLEAR (ALL CLEAR) KEY

```
┌─────────────┐
│ ┌─────────┐ │
│ │ALL CLEAR│ │
│ └─────────┘ │
│   CLEAR     │
│             │
└─────────────┘
```

If you enter the wrong pattern number or song number, press this key, then enter the correct number.

If this key is pressed while holding down the function key, the entire contents of the specified song memory will be erased.

ENTER KEY

```
┌───────┐
│       │
│ ENTER │
│       │
└───────┘
```

This key is pressed after selecting chord names, pattern numbers, and (in the SONG CHAIN mode) song memory numbers. Pressing ENTER causes your input to be written to memory.

FUNCTION KEY

```
┌──────────┐
│          │
│ FUNCTION │
│          │
└──────────┘
```

Used with other keys to switch their functions.

START/STOP KEY

```
┌─────────────┐
│             │
│ START/STOP  │
│             │
└─────────────┘
```

Starts and stops play.

COUNT START/RHYTHM FILL IN KEY

```
┌─────────────────┐
│                 │
│ COUNT  / RHYTHM │
│ START  / FILL IN│
│                 │
└─────────────────┘
```
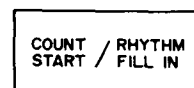
Gives a one bar drumstick lead-in before beginning play. If pressed during play, it produces a fill-in part.

CHORD KEYS
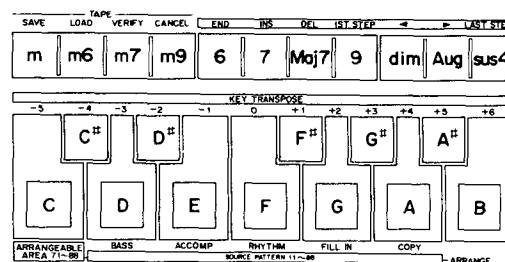
The piano key section is used to specify the root of the chord. Then the eleven upper keys are used to select the chord type. These can be used manually and when writing songs.

In the ARRANGE mode these keys are used to select BASS, RHYTHM, ACCOMPANIMENT, RHYTHM, and FILL IN parts.

REAR PANEL
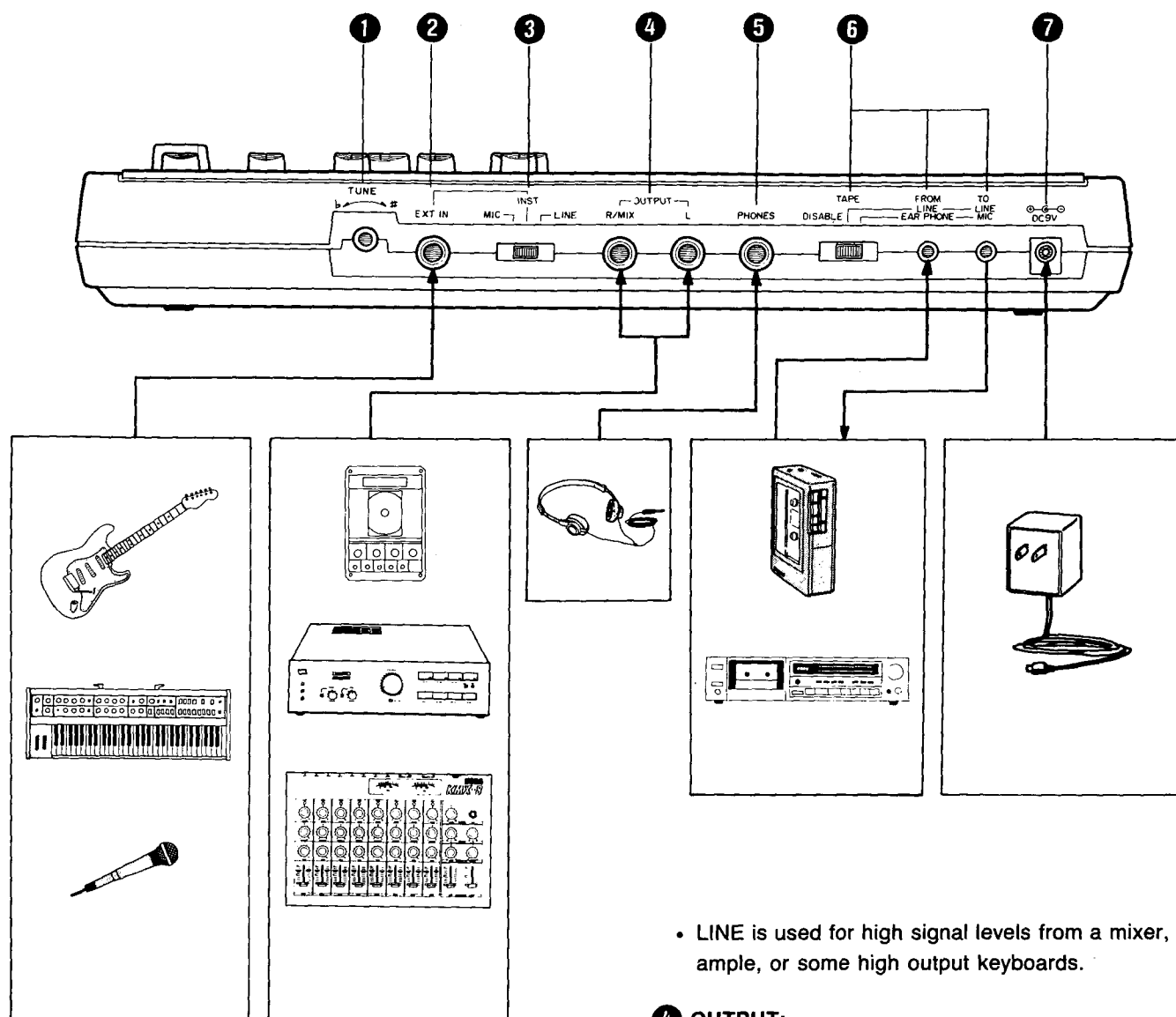
❶ TUNE:
Adjusts PSS-50 pitch so you can tune to other instruments.

❷ EXT IN:
Input jack for electric guitar, keyboard, microphone, etc. Front panel MIXER section EXT knob lets you adjust relative volume balance. External signal is mixed with PSS-50 accompaniment in the output signal.

❸ ATTENUATOR:
Can be set to match external input signal level.

• MIC position is used for microphone inputs.

• INST is used for electric guitars and keyboards.

• LINE is used for high signal levels from a mixer, for example, or some high output keyboards.

❹ OUTPUT:
L and R/MIX jacks permit stereo or mono output. For stereo, connect both jacks to your two amps or stereo reproduction system. For mono, use just the R/MIX jack.

❺ PHONES:
Stereo headphone jack.

❻ TAPE SWITCH and FROM, TO JACKS:
The TAPE switch is ordinarily set to DISABLE. The other two positions let you match the tape recorder's signal level requirements. FROM and TO jacks are for tape recorder connection. See TAPE INTERFACE section for details.

❼ DC9V:
For connection of supplied AC adaptor so you can power the PSS-50 from a wall socket.

SIDE PANEL
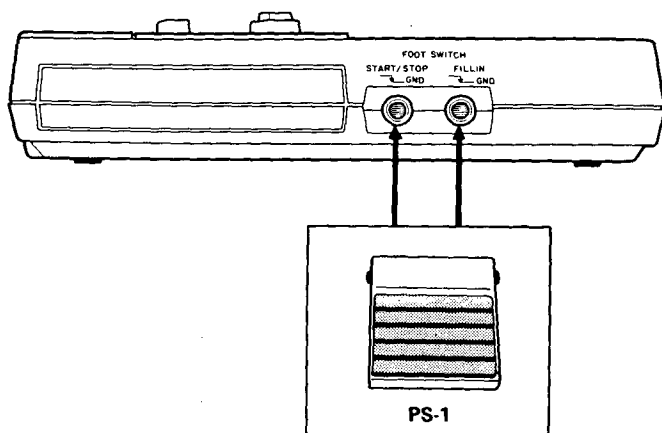
Korg foot switch PS-1, S2, etc.

FOOT SWITCH JACKS (START/STOP, FILL IN)

For connection of S-2 foot switch or other switching device. These let you control start/stop and fill-in functions by remote control.

⑥ *TUNING*

The rear panel tuning knob lets you adjust PSS-50 pitch to match that of other instruments. Follow the directions below.

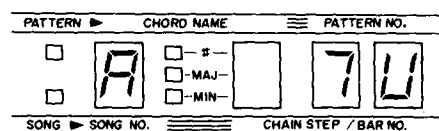1 Set POWER/MODE selector to TUNE.
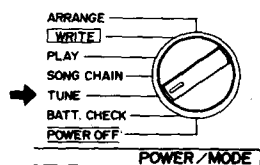
DISPLAY should appear as shown here.
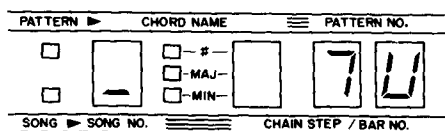
Shows "TU".

2 Use keyboard section of CHORD keys to select note that you want to tune.

Example: A   Press [A] key.

DISPLAY should appear as shown here.

Selected note name is displayed here.

(The PSS-50 will sound the note selected. If a different key is pressed, it will switch to that note.)

3 Turn rear panel TUNE knob to adjust PSS-50 pitch.
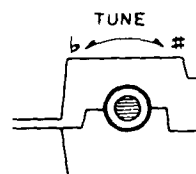
4 After adjustment, press the [CLEAR] (ALL CLEAR) key to complete the tuning procedure and stop production of note.

⑦ BATTERY CHECK & CHANGING BATTERIES

Battery Check

Battery life is about 8 hours of continuous use in the PLAY mode, 0—40 degrees C (SUM-3 batteries). (Slightly different when using headphones.)

1 Set POWER/MODE selector to BATT. CHECK position.

```
ARRANGE
WRITE
PLAY
SONG CHAIN
TUNE
BATT. CHECK
POWER OFF
              POWER/MODE
```
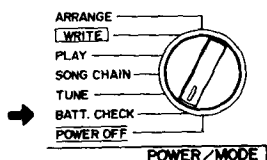
2 DISPLAY will now indicate battery condition.

Still okay.

"b" means BATT. CHECK mode.

"Gd" means good.

Need replacement.

"nG" means no good.

NOTE:
If you get the " n G **" indication, replace the batteries as soon as possible.**

Battery replacement procedure

1 Set POWER/MODE knob to OFF position.
(If using AC adaptor, unplug it from the wall socket.)

2 Take off battery compartment cover on underside of PSS-50.

3 Take out old batteries and replace with new ones. Be sure new batteries are inserted with correct polarity (+ & –). Use all the same kind of batteries and do not mix old batteries with new ones.

4 Put cover back on.

NOTE:
Memory contents will be protected if batteries are replaced within five minutes.
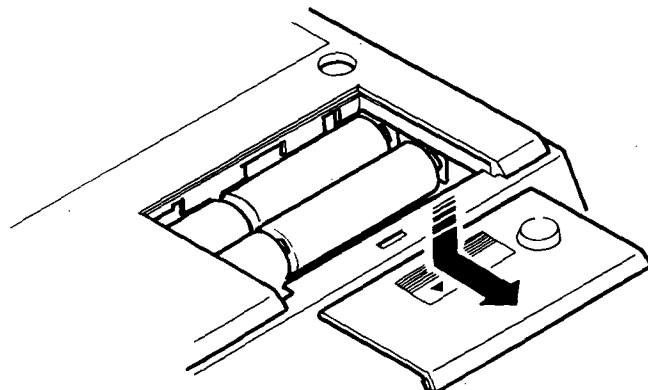
Take off battery compartment cover.

—II. FURTHER APPLICATIONS—

❶ ARRANGE

Each preset backup pattern consists of four parts: rhythm, bass, accompaniment, and fill-in. In the ARRANGE mode you can create new backup patterns by taking each of these four parts from any preset patterns that you like. Up to 16 such original patterns can be stored in the ARRANGEABLE area as pattern numbers 71 — 88.
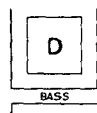
| .a G	ARRANGEABLE	
⌐	7□	8□
	71	81
:	72	82
:	73	83
⌐	74	84
	75	85
⌐	76	86
♩ ♪♪	77	87
	78	88

PATTERN INDEX

ARRANGEABLE area
SIXTEEN sample patterns, made using the ARRANGE mode, have been stored as pattern numbers 71—88. To hear these, use MANUAL PLAY (page 12)
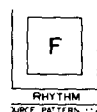
ARRANGE Keys

C	D	E	F	G	A
ARRANGEABLE AREA 71~88	BASS	ACCOMP	RHYTHM	FILL IN	COPY

SOURCE PATTERN ··~88 — ARRANGE

The seven white CHORD keys (C , D , E , F , G , A) change their functions when the POWER/MODE selector is set to the ARRANGE position.

ARRANGEABLE AREA KEY:

C
ARRANGEABLE AREA 71~88

Used when specifying ARRANGEABLE AREA pattern number (71—88) to store new pattern in memory.

BASS KEY:

D
BASS

Used to select the bass part of a pattern to be used in the new arrangement.

ACCOMPANIMENT KEY:

E
ACCOMP
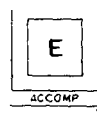
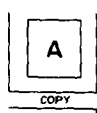Used to select the accompaniment part of a pattern.

RHYTHM KEY:

F
RHYTHM SOURCE PATTERN ···

Used to select the rhythm part of a pattern.

FILL IN KEY:

G
FILL IN ·88
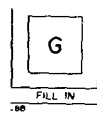
Used to select the fill-in part of a pattern.

COPY KEY:

A
COPY

Used to copy an entire preset pattern and store it in the ARRANGEABLE area memory. This is useful when you only want to change one or two parts of a pattern.
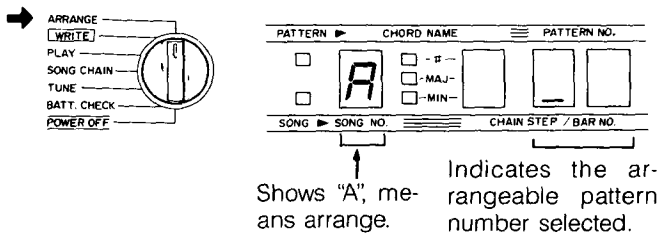
1.1. Using the ARRANGE mode

Here we will make a new backup pattern out of the different parts of various preset patterns as shown in the chart below.

Example 1:

	PATTERN NUMBER
ACCOMPANIMENT	16 (ELECTRO POP)
BASS	15 (NEW WAVE)
RHYTHM	38 (FUSION IV)
FILL IN	25 (HARD ROCK I)

1 Set the POWER/MODE selector to ARRANGE.

Shows "A", means arrange.

Indicates the arrangeable pattern number selected.

2 Use the NUMBER keys to select a number (71 — 88) from the two ARRANGEABLE columns in the PATTERN index.

Example: Here we will use number 71.
Press [7], then [1] .

3 Press [ENTER] . (There will be a click.)

NOTE:
Nothing will happen if you input a pattern number outside of the ARRANGEABLE area 71 — 88. The display will show "A".

4

① Select RHYTHM part.
1) Press the [RHYTHM] key ([F] on the keyboard).
2) Use NUMBER keys to select PATTERN number that you want for the rhythm part of the backup pattern.

Example: pattern number 38.
Press [3], then [8] .

3) Press [ENTER] . (There will be a click.)

② Select BASS part.
1) Press the [BASS] key ([D] on the keyboard).
2) Use NUMBER keys to select pattern from which you want to take BASS part.

Example: pattern number 15.
Press [1], then [5].

3) Press [ENTER] . (There will be a click.)

③ Select ACCOMPANIMENT part.
1) Press the [ACCOMP] key ([E] on the keyboard).
2) Use NUMBER keys to select PATTERN number that you want for the accompaniment (synth, guitar, etc.) part of the backup pattern.

Example: pattern number 16.
Press [1], then [6].

3) Press [ENTER] . (There will be a click.)

④ Select FILL IN part.
1) Press the [FILL IN] key ([G] on the keyboard).
2) Use NUMBER keys to select PATTERN number that you want for the fill-in sections of the backup pattern.

Example: pattern number 25.
Press [2], then [5] .

3) Press [ENTER] . (There will be a click.)

1.2 Now let's try a different arrangement.

Example 2:

	PATTERN NUMBER
ACCOMPANIMENT	17 (DISCO I)
BASS	25 (HARD ROCK)
RHYTHM	17 (DISCO I)
FILL IN	17 (DISCO I)

1 Assuming that the POWER/MODE selector is at the ARRANGE position, press the ARRANGEABLE AREA key and procede through steps 2 through 4 as in example 1.

2 Use the NUMBER keys to select a number (71 — 88) from the two ARRANGEABLE columns in the PATTERN index. This is the pattern number where your new arrangement will be stored.

Example: Here we will use number 72.
Press [7], then [2].

③ Press ENTER . (There will be a click.)

④ In example 2 only the bass part is different from one of the preset patterns. In cases like this, the COPY key can simplify matters.

● **Copying a backup pattern.**

In step 2, above, we specified where we wanted our new pattern stored. Now we must specify the preset pattern that we want copied to that number.

1) Press the COPY key (A on the keyboard).
2) Use NUMBER keys to select PATTERN number that you want copied to your selected ARRANGEABLE area pattern number.

Example: All parts except bass are pattern 17 so press 1 , then 7 .

3) Press ENTER key. (There will be a click.)

❷ **Changing one part of the copied pattern.**

First we must select the part that we want changed, then what we want it changed to.

Example: bass part changed to bass part in preset pattern number 25.

1) Press BASS key. (D)
2) Use NUMBER keys to select pattern from which you want to take BASS part.

Example: 25. Press 2 ; then 5 .

3) Press ENTER . (There will be a click.)

★ **If you want to hear the sound as you arrange, press the START/STOP key after selecting your new AR-RANGEABLE area pattern number and pressing the ENTER key (before step 4).**

★ **If you accidentally select the wrong pattern number for a part (rhythm, bass, accompaniment, or fill in) or if you want to change to a different pattern number, press the CLEAR key and input your desired pattern number before pressing the ENTER key.**

1.3 Practical Examples Using the AR-RANGE mode

1.3.1 Using 3-BEAT or JAZZ WALTZ as the RHYTHM part.

When a triple time pattern such as 3-BEAT or JAZZ WALTZ is used as the RHYTHM part of a new pattern, the other parts (BASS, ACCOMP, FILL IN) also become 3/4 time regardless of the time signatures of their preset patterns.

Example: Triple time bossa nova.

	PATTERN NUMBER
ACCOMPANIMENT	41 (BOSSA NOVA)
BASS	41 (BOSSA NOVA)
RHYTHM	52 (3-BEAT)
FILL IN	41 (BOSSA NOVA)

1.3.2. Arranging triplet patterns.

Interesting new arrangements can be made from the parts of triplet based preset patterns such as BALLAD I/II, BOO-GIE, HARD ROCK II/III, JAZZ WALTZ, 4-BEAT I/II, BIG BAND, REGGAE I, and SHUFFLE I/II.

Example: Triplet pattern.

	PATTERN NUMBER
ACCOMPANIMENT	47 (REGGAE I)
BASS	32 (4-BEAT I)
RHYTHM	27 (HARD ROCK III)
FILL IN	26 (HARD ROCK II)

1.3.3. Using BREAK pattern 61.

BREAK pattern 61 is useful when you want just drums and/or fill-in parts to be played. Such a situation is found in small jazz group styles ("4 bars").

Example: Drums only.

	PATTERN NUMBER
ACCOMPANIMENT	61 (▅▅)
BASS	61 (▅▅)
RHYTHM	18 (DISCO II)
FILL IN	18 (DISCO II)

Example: Jazz style.

	PATTERN NUMBER
ACCOMPANIMENT	61 (▅▅)
BASS	61 (▅▅)
RHYTHM	61 (▅▅)
FILL IN	32 (4-BEAT I)

★ **The use of pattern number 68 is also unusual. Please refer to these examples:**
SONG PLAY on page 17; SONG CHAIN on page 18.

★ **If selecting the backup pattern, using accompaniment with slow attack such as strings, from other backup patterns no need to worry about click sound occurred in the middle of play.**

---

2 KEY TRANSPOSE

On the PSS-50, songs and song chains can be played in a key other than the one in which they were written. For example, you could transpose a song from the key of C major to the key of F major.

Using the KEY TRANSPOSE keys

The KEY TRANSPOSE keys are numbered from −5 to +6. Hold down the FUNCTION key and press one of the KEY TRANSPOSE keys to shift the pitch up or down by the number of semitones marked. (Up semi a tone with +1; down half a tone with −1. Up or down a full tone with ±2, one and a semi tones with ±3, and so on to, up or down to four and a semi tones with ±6.)

KEY TRANSPOSE keys
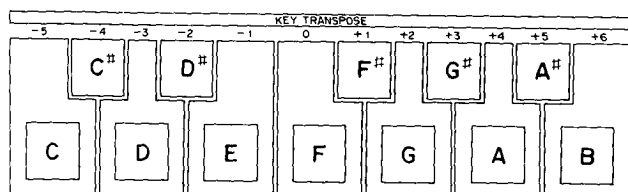
Example: Programmed chord progression is:

‖Cmaj7│Dm7│ G7│C7│~

↓

Transpose by pressing the +1 KEY TRANSPOSE key (F#) while holding down the FUNCTION key.

↓

This will change the chord sequence to:

‖C#Maj7│D#m7│ G#7│C#7│~

NOTE:
Chord names on the CHORD keys are irrelevant when using the KEY TRANSPOSE keys. In the above example pressing +1 above the F# does not mean the pitch will go up to F#, +1 means the pitch of the present key will go up by one semi-tone.

2.1 In the PLAY and SONG CHAIN modes

SONG PLAY	SONG CHAIN
1 Set POWER/ MODE knob to PLAY.	Set POWER/MODE knob to SONG CHAIN.
2 Press one of KEY TRANSPOSE keys while holding down FUNCTION key.	

NOTE:
In this case KEY TRANSPOSE is effective in the PLAY and SONG CHAIN modes as long as the POWER/ MODE selector is not turned to another setting. If it is set to a different mode and then brought back to PLAY or SONG CHAIN, the PSS-50 will play the song in its original key.

2.2 KEY TRANSPOSE in the WRITE mode

Changes made using KEY TRANSPOSE in the WRITE mode are stored in memory permanently (or until you make other changes) regardless of mode settings.

1 Set POWER/MODE knob to WRITE position.

2 Press CHORD key so its LED lights up.

NOTE:
CHORD key must be turned on to enable KEY TRANS-POSE operation. KEY TRANSPOSE will not work if LED above CHORD key is off.

3 DISPLAY should be in the SONG mode. If necessary, press PATTERN/SONG key so LED lights up above the word SONG in the left side of the DISPLAY.

4 Use NUMBER keys to select song number that you want to transpose.

5 Hold down FUNCTION key and press one of KEY TRANSPOSE keys to specify how much you want the pitch shifted up or down. (There will be a click.)

6 Turn POWER/MODE knob to another setting.

3 EDIT

Using the editing controls you can make changes in the chord and pattern sequences you have programmed in the WRITE and SONG CHAIN modes. EDIT controls also let you display the programmed song contents.

3.1 Checking written song contents.

3.1.1 Song memory contents (by bar number).

Bar number control keys

1ST STEP ◄	► LAST STEP
9	dim Aug sus4

1ST STEP key:
Press this key while holding down the [FUNCTION] key. DISPLAY shows first bar of the song.

◄ key:
Takes you one bar backward (toward start of song) when pressed while holding down [FUNCTION] key.

► key:
Advances display by one bar. Press while holding down [FUNCTION] key.

LAST STEP key:
Takes you to last bar in song. Press while holding down [FUNCTION] key.

About the ENTER and CLEAR keys

ENTER key:
Pressing this key advances memory contents by a half bar, as shown on DISPLAY.

CLEAR key:
Pressing this key takes you back one half bar in memory, as shown on DISPLAY.

Using the editing controls

Checking contents in PLAY mode	Checking memory contents in WRITE mode
1) Set POWER/MODE knob to PLAY.	**1)** Set POWER/MODE knob to WRITE.
2) Confirm that LEDs are on above both the ⎡CHORD⎤ and ⎡PATTERN⎤ key. (If off, press keys to turn on LEDs.)	**2)** LEDs should be off above the ⎡CHORD⎤ and ⎡PATTERN⎤ keys. (If on, press keys to turn off LEDs.)
3) Press ⎡PATTERN/SONG⎤ key so DISPLAY shows SONG mode.	**3)** If DISPLAY is not in the SONG mode press the ⎡PATTERN/SONG⎤ key.

4) Use number keys to select song number that you want to check.

5) Press ⎡PATTERN/SONG⎤ key to switch DISPLAY to PATTERN mode.

6) Without actually playing song, perform the following steps.

A: Press 1ST STEP ⎡ 9 ⎤ key while holding down ⎡FUNCTION⎤ key. (There will be a click.) ↓ DISPLAY will show 1st bar pattern number and 1st half bar chord name.	**D:** Press LAST STEP ⎡sus4⎤ key while holding down ⎡FUNCTION⎤ key. (There will be a click.) ↓ DISPLAY will show pattern number for last bar of song and chord name for first half of last bar of song.
B: Press ▶ ⎡Aug⎤ key while holding down ⎡FUNCTION⎤ key. (There will be a click.) ↓ DISPLAY will show pattern number for next bar and chord name for first half of next bar.	**E:** Press ⎡ENTER⎤ (There will be a click.) ↓ Advances display of memory contents by one half bar at a time.
C: Press ◀ ⎡dim⎤ key while holding down ⎡FUNCTION⎤ key. (There will be a click.) ↓ DISPLAY will show pattern number for previous bar and chord name for first half of previous bar.	**F:** Press ⎡CLEAR⎤. (There will be a click.) ↓ Moves display of memory contents back by a half bar at a time.

* Steps A through D above let you confirm memory contents and sequence for all bars of a song. * Use A through D together with E and F to check chord and fill-in data in second half of bar. * Change DISPLAY to SONG mode if you want to check bar number. (Press ⎡PATTERN/SONG⎤ key.)	**CAUTION:** Be sure that the ⎡CHORD⎤ and ⎡PATTERN⎤ key LEDs are OFF when checking memory contents in the WRITE mode. Otherwise, displayed pattern numbers and chords will be written to memory when the ⎡ENTER⎤ key is pressed.

3.1.2 Checking SONG CHAIN step order.

Step number selection keys

1ST STEP

$\boxed{9}$

1ST STEP key:
Press while holding down $\boxed{\text{FUNCTION}}$ key to see song number of first step in chain.

$\boxed{\text{dim}}$

◀ key:
Press while holding down $\boxed{\text{FUNCTION}}$ key to go back one step. DISPLAY will show song number used for that step.

$\boxed{\text{Aug}}$

▶ key:
Press while holding down $\boxed{\text{FUNCTION}}$ key to advance one step in chain. DISPLAY will show that step's song number.

LAST STEP

$\boxed{\text{sus4}}$

LAST STEP key:
Press while pressing $\boxed{\text{FUNCTION}}$ key.
DISPLAY will show song number of last step in song.

Checking SONG CHAIN memory contents

1) Set POWER/MODE knob to SONG CHAIN.

2) $\boxed{\text{CHORD}}$ and $\boxed{\text{PATTERN}}$ key LEDs should both be on. Press to turn on LEDs if necessary.

3) DISPLAY should be in SONG mode.
   Press $\boxed{\text{PATTERN/SONG}}$ key to switch to SONG mode if necessary.

4) Without playing the song chain, perform the following steps.

A: Press the 1ST STEP $\boxed{9}$ key while holding down the $\boxed{\text{FUNCTION}}$ key. (There will be a click.)

⬇

DISPLAY will show song number used as first step of chain.

B: Press the ▶ $\boxed{\text{Aug}}$ key while holding down the $\boxed{\text{FUNCTION}}$ key. (There will be a click.)

⬇

DISPLAY will show song number used as next step of chain.

C: Press the ◀ $\boxed{\text{dim}}$ key while holding down the $\boxed{\text{FUNCTION}}$ key. (There will be a click.)

⬇

DISPLAY will show song number used as previous step of chain.

D: Press the LAST STEP $\boxed{\text{sus4}}$ key while holding down the $\boxed{\text{FUNCTION}}$ key. (There will be a click.)

⬇

DISPLAY will show song number used as last step in song.

3.2 How to Edit

The edit keys (insert, delete, end).

END	INS	DEL
6	7	Maj7

INS

$\boxed{7}$

INS (insert) key:
Used to insert new bars or steps where something is lacking.

DEL

$\boxed{\text{Maj7}}$

DEL (delete) key:
Used to delete unwanted bars or steps.

END

$\boxed{6}$

END key:
Used when changing the final bar or step.

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3.2.1 Editing song memory

A) Procedure for changing pattern numbers and chords.

1. Set POWER/MODE Switch to WRITE.

2. Confirm that [CHORD] and [PATTERN] key LEDs are both off.

3. Press [PATTERN/SONG] key if DISPLAY is not already in SONG mode.

4. Use NUMBER keys to specify song number that you want to edit.

5. While holding down [FUNCTION] key, press bar number selection keys ([1ST STEP] ◀, ▶, [LAST STEP]) to specify bar that you want to edit. (There will be a click.)

6. Press [PATTERN/SONG] key to change DISPLAY to PATTERN mode.

7. Edit as follows:

Step 1. If you want to change the pattern number and/or fill-in, press the [PATTERN] key so that its LED lights up. If you want to change the chord, press the [CHORD] key so that its LED lights up.
(Press both keys to turn on both LEDs to enable editing of pattern number, fill-in, and chord data.)

| CHORD | PATTERN No. & FILL IN | PATTERN No., FILL IN & CHORD |
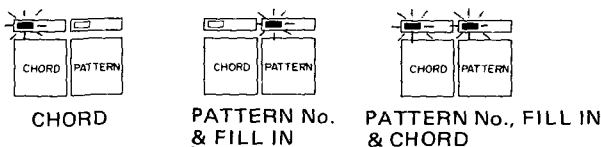
Step 2. Use number keys to select new pattern number.

Step 3. Press CHORD keys to specify chord for first half of bar.

Step 4. If you want fill-in through the whole bar, press [COUNT/RHYTHM START/FILL IN] now.
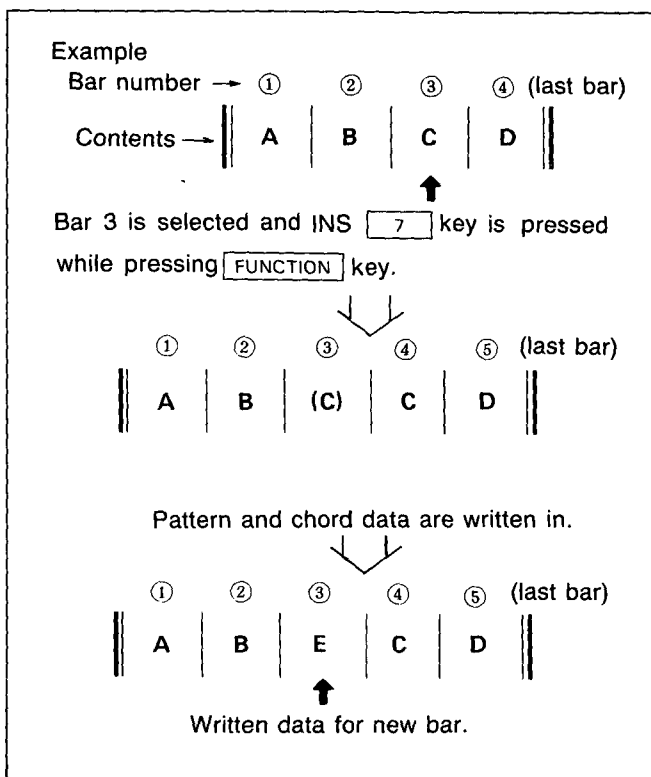(To cancel a fill-in, select a pattern number again.)

Step 5. Press [ENTER] to complete first half of bar. (There will be a click.)

Step 6. Press CHORD keys to select chord for second half of bar. (Skip this step if chord is same as chord in first half of bar.)

Step 7. If you want fill-in in second half of bar only, now press [RHYTHM FILL IN]

Step 8. Press [ENTER] to complete latter half of bar. (There will be a click.)

8. When finished editing, set POWER/MODE knob to a different position.

> ★ **If you want to quickly check and correct errors when in the WRITE mode, you can skip** 1 **through** 4 **above.**

B) Editing with the DEL [Maj7] key.
Used to remove unwanted bars from song.

1. Perform same 1 through 4 procedure as in "Editing song memory".

2. While holding down [FUNCTION] key, press bar number selection keys to find bar that you want to delete. (There will be a click.)

3. Press [CHORD] and [PATTERN] keys so both LEDs are on.

4. Press DEL [Maj7] key while holding down [FUNCTION] key. (There will be a click.)

One bar is deleted so the entire song length shrinks by one bar.

> **Example**
>
> Bar number → ① ② ③ ④ (last bar)
>
> Contents → ‖ A | B | C | D ‖
>
> ↑
>
> Bar 3 is selected and DEL [Maj7] key is pressed while pressing [FUNCTION] key.
>
> ↓↓
>
> ① ② ③ (last bar)
>
> ‖ A | B | D ‖

C) Editing with INS[7] key.

Used to add new bars anywhere in a song.

1. Set mode to WRITE and select song memory number as usual: 1 through 4 of "Editing song memory".

2. Hold down [FUNCTION] key and press LAST STEP [sus4] key. (There will be a click.) The display will show the number of the last bar in the song. (Insert editing is not possible if the last bar is number 80.)

3. While holding down [FUNCTION] key, press bar number selection keys to find bar number for insert. (There will be a click.) The new bar will be inserted before your selected bar number.

    Example: Select bar number 3 if you want to insert a new bar between your present bar 2 and bar 3.

4. Press [CHORD] and [PATTERN] keys so both LEDs are on.

5. Press the INS[7] key while holding down the [FUNCTION] key. (There will be a click.)

6. Perform following steps to write pattern number and chords.

Step 1. DISPLAY should be in PATTERN mode. Press [PATTERN/SONG] key to switch mode if necessary.

Step 2. Use NUMBER keys to select pattern number for inserted bar.

Step 3. Use [CHORD] keys to select chord for first half of inserted bar.

Step 4. If you want fill-in for the whole bar, press [COUNT/RHYTHM START/FILL IN] now.

Step 5. Press [ENTER] to complete first half of bar. (There will be a click.)

Step 6. Use [CHORD] keys to select chord for second half of inserted bar.

Step 7. If you want fill-in for only second half of bar, press [COUNT/RHYTHM START/FILL IN] key now.

Step 8. Press [ENTER] to complete inserted bar. (There will be a click.)

There is now a new bar inserted before your selected bar number. The song is now one bar longer than before.

Example

Bar number → ① ② ③ ④ (last bar)

Contents → ‖ A | B | C | D ‖

Bar 3 is selected and INS[7] key is pressed while pressing [FUNCTION] key.

① ② ③ ④ ⑤ (last bar)

‖ A | B | (C) | C | D ‖

Pattern and chord data are written in.

① ② ③ ④ ⑤ (last bar)

‖ A | B | E | C | D ‖

Written data for new bar.

★ **If you want to insert several measures of the same type, repeat procedure 5 as many times as necessary.**

D) Editing with the END[6] key.

This lets you set the end of a song to a point somewhere in the middle of song memory contents.

1. Go through 1 — 4 of "Editing song memory" instructions (to set WRITE mode and select song number).

2. Hold down [FUNCTION] key and press bar number selection keys to find bar that you want to make the end of the song.
(There will be a click.)

3. Set [CHORD] and [PATTERN] keys so both LEDs are on.

4. Press END[6] key while holding down [FUNCTION] key.
(There will be a click.)

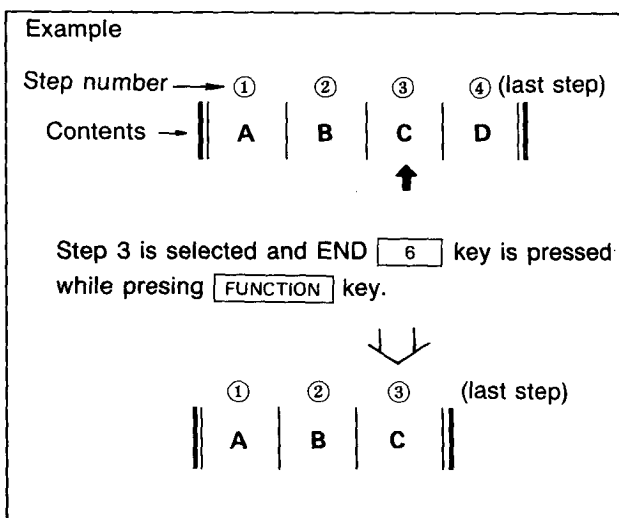Your specified bar has now become the last bar in the song.

Example

Bar number → ① ② ③ ④ (last bar)

Contents → ‖ A | B | C | D ‖

Bar 3 is selected and END [6] key is pressed while pressing [FUNCTION] key.

① ② ③ (last bar)

‖ A | B | D ‖
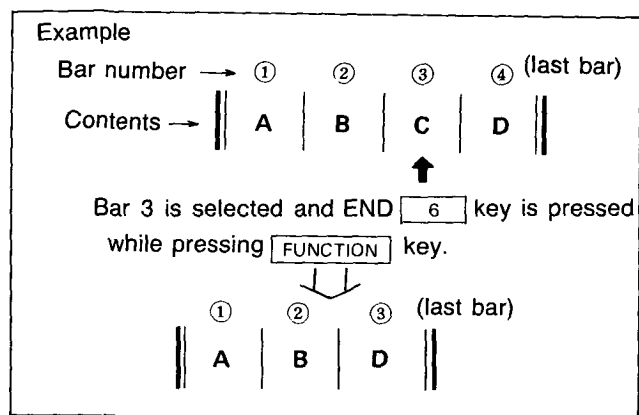
★ **Memory contents following new end of song remain unchanged. Using the END procedure again, you can restore the song to its original form.**

3.2.2 Editing song chains.

A) Editing written steps.

1 Set POWER/MODE knob to SONG CHAIN.

2 [CHORD] and [PATTERN] key LEDs should both be on.

3 DISPLAY should be in SONG mode. If not, press [PATTERN/SONG] key.

4 While depressing [FUNCTION] key, press step number selection keys (1ST STEP, [◄], [►], LAST STEP) to find step that you want to edit. (There will be a click.)

5 Use NUMBER keys to specify new song number.

6 Press [ENTER]. (There will be a click.)

★ **If you are already in the SONG CHAIN mode and you find something that you want to change, then of course you can skip operations 1 — 4 above.**

B) Editing with the DEL [Maj7] key.

This procedure takes out unwanted steps.

1 Perform same operations 1 — 3 as in "Editing written steps" above.

2 Hold down [FUNCTION] key and use step (bar) number selection keys to find step to be deleted. (There will be a click.)

3 Press DEL [Maj7] while depressing [FUNCTION] key. (There will be a click.)

Your specified step is now deleted so there is one less step in the chain.

Example

Step number → ① ② ③ ④ (last step)

Contents → ‖ A | B | C | D ‖ (song memory numbers)

Step 3 is selected and DEL [Maj7] key is pressed while pressing [FUNCTION] key.

① ② ③ (last step)

‖ A | B | C ‖
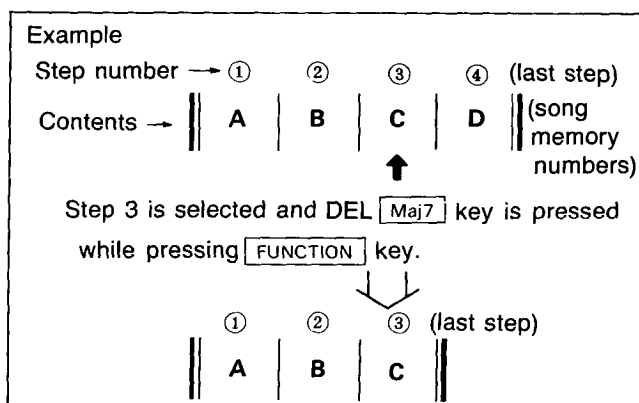
C) Editing with the INS [7] key.

1 Perform same operations 1 — 3 as in "Editing written steps" above.

2 Press LAST STEP [sus4] key while depressing [FUNCTION] key. (There will be a click.) INSERT editing is not possible if last step is 16.

3 Hold down [FUNCTION] key and use step (bar) number selection keys to find step following point where you want new step. (There will be a click.)

Example: To put a new step between step 2 and 3, specify step 3.

4. Press INS[7] key while holding down [FUNCTION] key.
(There will be a click.)

5. Use number keys to select song number that you want to insert.

6. Press [ENTER]. (There will be a click.)

You now have a new song number at your specified point in the chain. The chain is now one step longer than before.

Example
Step number ──► ① ② ③ ④ (last step)
Contents ──►‖ A │ B │ C │ D ‖
(song memory numbers)
⬆
Step 3 is selected and INS [7] key is pressed while pressing [FUNCTION] key.

⬇
① ② ③ ④ ⑤ (last step)
‖ A │ B │ (C) │ C │ D ‖

New step number is written in and [ENTER] is pressed.

⬇
① ② ③ ④ ⑤ (last step)
‖ A │ B │ E │ C │ D ‖
Song number for new step.
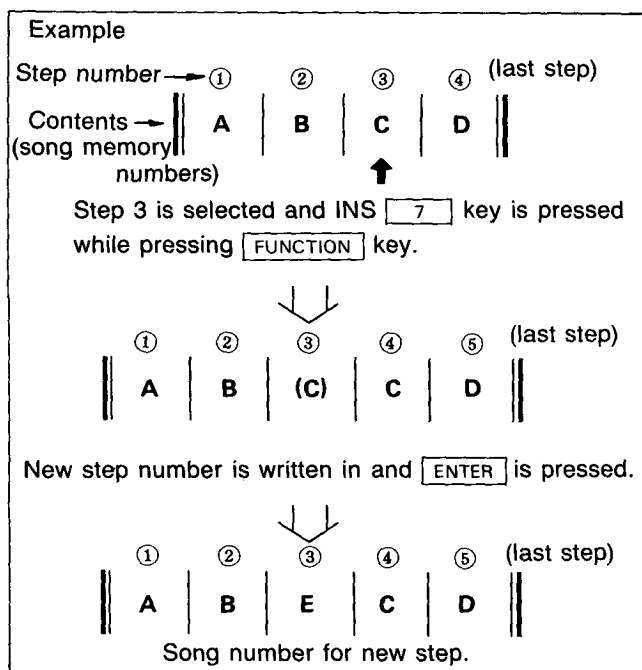
★ **If you want to insert several measures of the same type, repeat procedure 4 as many times as necessary.**

D) Editing with the END[6] key.

This lets you make song chain play stop at some point before the actual last step stored in memory.

1. Perform same operations 1 – 3 as in "Editing written steps" above.

2. Hold down [FUNCTION] key and use step (bar) number selection keys to find step where you want play to end. (There will be a click.)

3. Press END [6] key while depressing [FUNCTION] key. (There will be a click.)

Your specified step is now the last step in the chain.

Example
Step number ──► ① ② ③ ④ (last step)
Contents ──► ‖ A │ B │ C │ D ‖
⬆
Step 3 is selected and END [6] key is pressed while presing [FUNCTION] key.

⬇
① ② ③ (last step)
‖ A │ B │ C ‖

★ **Chain play will now stop at your specified step. However, the other steps are still in memory so you can restore the chain to its original form by using the END procedure again.**

4 CONTINUE START

In the SONG CHAIN and PLAY modes you can begin playback from a point in the middle of the song or chain. You can also stop playback and then continue from the same point.

4.1 Starting play from the middle.

4.1.1 From a particular bar in the PLAY mode.

1 Set POWER/MODE knob to PLAY.

2 Press [PATTERN/SONG] key to switch DISPLAY to SONG mode.

3 Set [CHORD] and [PATTERN] keys so that LEDs are on above both keys.

4 Use NUMBER keys to select song number to be played.

5 Hold down [FUNCTION] key and use bar number selection keys ([1ST STEP], [◄], [►], [LAST STEP]) to select bar number from which song will be played. (There will be a click.)

6 Hold down [FUNCTION] key and press [START/STOP] key or [COUNT START] key. Song will start playing from specified bar number.

4.1.2 From a particular step in the SONG CHAIN mode.

1 Set POWER/MODE knob to SONG CHAIN.

2 Set [CHORD] and [PATTERN] keys so LEDs are lit up above both keys.

3 If DISPLAY is not in SONG mode, press [PATTERN/SONG] key to switch it so SONG mode.

4 Hold down [FUNCTION] key and use step (bar) number selection keys ([1ST STEP], [◄], [►], [LAST STEP]) to find step from which you want play to begin. (There will be a click.)

5 Hold down [FUNCTION] key and press [START/STOP] key or [COUNT START] key. Song will start playing from specified step number.

4.2 Continuing play from the bar following that where play was stopped.

1 Press [START/STOP] to stop playback (during play in the PLAY or SONG CHAIN modes).
DISPLAY will show following bar number (or its contents).

2 Hold down [FUNCTION] key and press [START/STOP] key or [COUNT START] key. Song will start playing from displayed step number.

5 TAPE INTERFACE

All data stored in PSS-50 memory can be saved on cassette tape for future access. This includes song memory and chain memory contents as well as original patterns stored in the ARRANGEABLE AREA. Once this data has been stored on tape, it can be loaded back into PSS-50 memory whenever desired, and then played as usual. Therefore, you can create a library of all your songs (and chains) and all your original backing pattern arrangements.

TAPE keys (SAVE, LOAD, VERIFY, CANCEL)

TAPE keys

TAPE			
SAVE	LOAD	VERIFY	CANCEL
m	m6	m7	m9

SAVE

`m`

SAVE key:
Used when recording memory contents on tape.

LOAD

`m6`

LOAD key:
Used when playing back tape to load data into PSS-50 memory again.

VERIFY

`m7`

VERIFY key:
Used after the save procedure to check whether data has been properly recorded on the tape.

CANCEL

`m9`

CANCEL key:
Used to cancel save, load, or verify operations if an error occurs. This lets you quickly start over again.

5.1 SAVE PROCEDURE

This sends all memory contents to the output so you can record the data using a tape recorder connected to the rear panel TAPE jacks.

1 Set POWER/MODE knob to any position except off.

2 Connect rear panel TO (LINE, MIC) jack to tape recorder's input jack (MIC or LINE IN).

```
     FROM      TO
——— LINE ——— LINE
— EAR PHONE — MIC
```
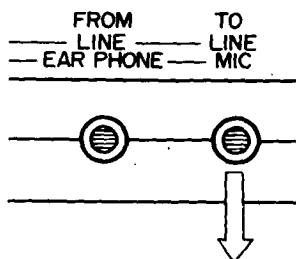
Connect to tape recorder input jack.

3 Set the tape recorder to the record mode and let the tape advance past the leader tape (since you cannot record anything on the leader tape). Then press the recorder's pause button.

4 Set the PSS-50 rear panel TAPE switch to TAPE or LINE, depending on the type of tape recorder input jack used.

Recorder input jack	TAPE switch position
LINE IN (AUX)	TAPE — DISABLE / LINE
MIC IN	TAPE — DISABLE / MIC

Display should now be as shown here.

PATTERN ▶	CHORD NAME	≡ PATTERN NO.
□ □	7	□—#— □—MAJ— □—MIN— —
SONG ▶ SONG NO.	≡≡	CHAIN STEP / BAR NO.

Shows "T" for tape.

(The tape interface can only be used when the rear panel switch is set to a position other than DISABLE.)

5 Press the SAVE key and adjust recording level on your tape recorder (if it has an input level control).

(If recorder has meters, set recording level so meter indicates around "0".)

6 Press CANCEL key.

7 Release tape recorder's pause button to start recording.

8 Press SAVE key.

The DISPLAY will then appear as shown here.

PATTERN ▶	CHORD NAME	≡ PATTERN NO.
□ □	7	□—#— □—MAJ— □—MIN— 5
SONG ▶ SONG NO.	≡≡	CHAIN STEP / BAR NO.

Shows "S" for save.

⑨ When DISPLAY appears as shown below, stop tape recorder.

Display should now be as shown here.

* For safety's sake, it is best to repeat steps 7 through 9 above, making several recordings of the same data. Leave 5-second spaces between recordings.

> **NOTE:**
> **The display may flicker during use of the tape interface. This is normal; it is not a malfunction.**

⑩ Return rear panel TAPE switch to DISABLE position.
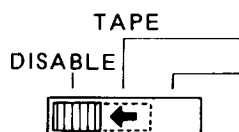
5.2 NOTE ABOUT SOUND OF RECORDED DATA.

If you are using a data recorder with a MONITOR function or if you play back the tape and listen to the recording, you will notice the following tones.

High pitched EEEEE: this is the leader tone (3 seconds).

⇩

Garbled noise sound: this is data.

⇩

Another EEEEE: the end tone (0.2 seconds).

During LOAD or VERIFY operations (tape playback), the leader tone tells the PSS-50's internal computer that data is coming. The data tone is the frequency keyed digital data signal. The end tone says that that's all.

5.3 VERIFY PROCEDURE

As soon as you finish the SAVE procedure, you should use VERIFY to be sure that the recorded program data matches the original (in PSS-50 internal memory). VERIFY also helps find the best playback output signal level setting for your tape recorder.

① Connect rear panel FROM (LINE, EARPHONE) jack to tape recorder's output jack.
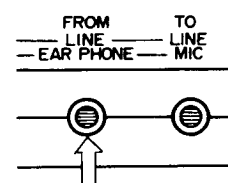
Tape recorder output jack.

Set the PSS-50 rear panel TAPE switch to LINE or EAR-PHONE, depending on which kind of tape recorder output is being used.

Recorder output jack	TAPE switch position
LINE OUT (AUX)	
HEADPHONES	

Display should now be as shown here.

② Rewind tape. Play it back and stop (or pause) where you hear the leader tone.

③ Set tape recorder volume control at center position. Tone (treble, bass) controls or switches should be set to center position (or whatever gives the most linear response).

④ Press VERIFY key.

DISPLAY will appear as shown here.

"V" for verify.

⑤ Begin tape playback. When the PSS-50 finds data, the DISPLAY will appear as shown below.

"V" for verify.   "F" for found.

⑥ If data from tape matches data in memory, then the DISPLAY will appear as shown below.

"Gd" for good.

If you get the 7 ‿ G d message, then you can stop the recorder.

If DISPLAY shows 7‿n G, follow steps below

Means "No Good"

❶ Press the CANCEL key.

❷ Repeat steps ② — ⑤ of the VERIFY procedure, above. Change the volume setting on the tape recorder.

❸ Keep trying different volume settings on the recorder until you find one that gives a 7‿G d indication on the DISPLAY. Make a note of that volume setting.

If DISPLAY does not change for more than 10 seconds after beginning playback, follow steps below

❶ Press CANCEL key.

❷ Repeat steps ② — ⑤ of the VERIFY procedure.

❸ Keep trying different volume settings on the tape recorder until you get a 7‿G d indication on the DISPLAY.
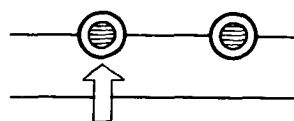
⑦ Set rear panel TAPE switch to DISABLE position.
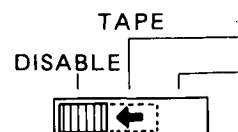
CAUTION:
★ VERIFY checks whether recorded data on the tape matches the data in the PSS-50 internal memory. Therefore, you will not get a $7\_\square d$ indication if you perform VERIFY after making any changes (accidental or intentional) in PSS-50 memory contents.

★ If you repeat the VERIFY procedure several times and still don't get a $7\_\square d$ indication, repeat the SAVE procedure using a different recording level. Then try VERIFY again.

5.4 LOAD PROCEDURE

This returns tape recorded data to PSS-50 internal memory.

1. Set POWER/MODE knob to any position other than POWER OFF.

2. Connect rear panel FROM (LINE EARPHONE) jack to tape recorder's output jack.

```
      FROM         TO
———— LINE ———— LINE
—— EAR PHONE —— MIC
```


Tape recorder output jack.

3. Set the rear panel TAPE switch to LINE or EARPHONE, depending on which kind of recorder output jack is used.

Recorder output jack	TAPE switch position
LINE OUT (AUX) HEADPHONES	
EARPHONE	

DISPLAY will appear as shown here.

4. Play tape and stop at leader tone. (Or set to pause.)

5. Set tape recorder volume and tone controls to center positions. If you have performed VERIFY procedure, set recorder volume (or output level) control to position that gave a $7\_\square d$ indication.

6. Press [LOAD] key. DISPLAY should appear as shown here.

"L" for load

7 Start tape playback. DISPLAY should appear as shown here.

PATTERN ▶   CHORD NAME   ☰   PATTERN NO.

☐   **7**   ☐—#— **L**   **-**   **F**
☐   ☐—MAJ—
       ☐—MIN—

SONG ▶ SONG NO.   ☰   CHAIN STEP / BAR NO.

"L" for load.   "F" for found. Means PSS-50 has found data

8 If data is loaded successfully, DISPLAY will show
7 - $G d$ (good).

PATTERN ▶   CHORD NAME   ☰   PATTERN NO.

☐   **7**   ☐—#—   **G** **d**
☐   ☐—MAJ— **-**
       ☐—MIN—

SONG ▶ SONG NO.   ☰   CHAIN STEP / BAR NO.

means "Good"

If you get the 7-Gd message, you can stop tape playback.

If DISPLAY shows 7 _ $n G$, **follow steps below**

PATTERN ▶   CHORD NAME   ☰   PATTERN NO.

☐   **7**   ☐—#—   **n** **G**
☐   ☐—MAJ— **-**
       ☐—MIN—

SONG ▶ SONG NO.   ☰   CHAIN STEP / BAR NO.

means "No Good"

❶ Press the | CANCEL | key.

❷ Rewind tape.

❸ Repeat steps **4** —**7** of the LOAD procedure, above. Change the volume setting on the tape recorder.

❹ Keep trying different volume settings on the recorder until you find one that gives a 7 _ $G d$ indication on the DISPLAY. Make a note of that volume setting.

If DISPLAY does not change for more than 10 seconds after beginning playback, follow steps below

PATTERN ▶   CHORD NAME   ☰   PATTERN NO.

☐   **7**   ☐—#—   **L** **-**
☐   ☐—MAJ—
       ☐—MIN—

SONG ▶ SONG NO.   ☰   CHAIN STEP / BAR NO.

"L" for load

❶ Press | CANCEL | key.

❷ Rewind tape.

❸ Repeat steps **4** — **7** of the LOAD procedure, above. Change the volume setting on the tape recorder.

❹ Keep trying different volume settings on the recorder until you find one that gives a 7_Gd indication on the DISPLAY. Make a note of that volume setting.

9 Set rear panel TAPE switch to DISABLE position.

SPECIFICATIONS

■ **TONE GENERATORS:** RHYTHM×8 (bass drum, snare drum, rim shot, open high-hat, closed high-hat, high tom, low tom, handclaps)
BASS (electric bass)
ACCOMPANIMENT (piano, electric piano, honky-tonk piano, distortion guitar, acoustic guitar, electric guitar, jazz guitar, clav, banjo, brass, synthesizer, organ, strings)

■ **BACKUP PATTERN:** 48 Patterns (8 beat I·II, 16 beat I·II, new wave, electro pop, disco I·II, rock'n roll, boogie, ballad I·II, hard rock I·II·III, heavy metal, jazz waltz, 4 beat I·II, big band, fusion I·II·III·IV, bossa noba, samba, cha-cha, mambo, merengue, latin rock, reggae I·II, 2 beat, 3 beat, march, folk, country, blue grass, shuffle I·II, break & ending×8)

■ **ARRANGEABLE AREA:** 16 Patterns

■ **CHORD:** Maj, m, m^6, m^7, m^9, 6, 7, Maj^7, 9, dim, Aug, sus 4 on each root (C—B)

■ **MEMORY BANK:** Song memory×8 (maximum 80 bars/bank), Song chain (maximum 16 steps)

■ **DISPLAY:** Chord name, Song/Pattern number, step number, bar number, battery check, tuning note, tape mode, conductor

■ **MIXER:** Rhythm volume, Bass volume, Accompaniment volume, External input volume, Stereo volume

■ **MASTER VOLUME:** MIN. — MAX.

■ **TEMPO:** SLOW — FAST

■ **POWER/MODE SELECTOR:** POWER OFF, BATT. CHECK, TUNE, SONG CHAIN, PLAY, WRITE, ARRANGE

■ **NUMERIC KEYS:** Pattern/Song (1 — 8)

■ **SONG MEMORY ACCESS:** Chord, Pattern

■ **FUNCTION:** Clear/All clear, Enter, Start/Stop, Count start/Rhythm fill in

■ **KEY TRANSPOSE:** 0, +1 — +6, −1 — −5

■ **KEY:** END, INS, DEL, 1ST STEP, ◄, ►, LAST STEP

■ **ARRANGE KEY:** ARRANGEABLE AREA 71 — 88, COPY, FILL IN, RHYTHM, ACC., BASS

■ **TAPE INTERFACE:** SAVE, LOAD, VERIFY, CANCEL

■ **TUNE:** ±50 sents

■ **INPUT SELECTOR:** MIC, INST, LINE

■ **TAPE SWITCH:** DISABLE/LINE IN, LINE OUT, EARHONE, MIC OUT

■ **INPUT JACKS:** EXT IN, FROM TAPE, DC IN, START/STOP (⊓_GND)
FILL IN (⊓_GND)

■ **OUTPUT JACKS:** OUTPUT (R/MIX, L), PHONES, TO TAPE

■ **POWER SUPPLY:** UM3×8/ DC 9V (AC adaptor)

■ **DIMENSIONS:** 310(W)×210(D)×50(H) mm

■ **WEIGHT:** 1.25kg (with battery)

■ **ACCESSORIES:** AC adaptor, Connection cord (2.5m×1), Batteries (SUM3×8)

NOTICE

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

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