YAMAHA

Personal Digital Piano

PDP-100

Owner's Manual
Bedienungsanleitung
Mode d'emploi
Manual de instrucciones

IMPORTANT

Check Your Power Supply

Make sure that your local AC mains voltage matches the voltage specified on the name plate on the bottom panel. In some areas a voltage selector may be provided on the rear panel. Make sure that the voltage selector is set for the voltage in your area.

WICHTIG

Netzspannung überprüfen

Vergewissern Sie sich vor dem Anschließen an das Stromnetz, daß die örtliche Netzspannung den Betriebsspannungswerten auf dem Typenschild an der Unterseite des Instruments entspricht. In bestimmten Verkaufsgebieten ist das Instrument mit einem Spannungswähler an der Rückwand neben der Netzkabeldurchführung ausgestattet. Falls vorhanden, muß der Spannungswähler auf die örtliche Netzspannung eingestellt werden.

IMPORTANT

Vérifiez la source d'alimentation

Vérifiez que la tension spécifiée sur le panneau arrière correspond à la tension du secteur. Dans certaines régions, l'instrument peut être équipé d'un sélecteur de tension situé sur la face arrière du clavier à proximité du cordon d'alimentation. Vérifiez que ce sélecteur est bien réglé en fonction de la tension secteur de votre région.
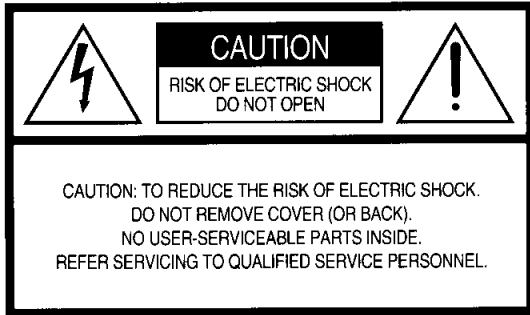
IMPORTANTE

Compruebe la alimentación de su área

Asegúrese de que la tensión de alimentación de CA de su área corresponde con la tensión especificada en la placa de características situada en el panel posterior. Asegúrese de que el selector de tensión esté ajustado a la tensión de su área.

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded/stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated in the safety instruction section.

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

See bottom of Keyboard enclosure for graphic symbol markings

The exclamation point with the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.
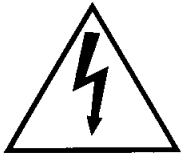
The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

ENVIRONMENTAL ISSUES: Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

Battery Notice: This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

Warning: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

Disposal Notice: Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc.

NOTICE: Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.
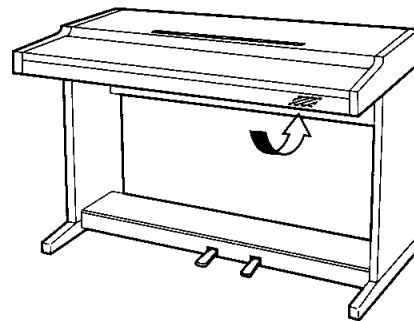
Model _____

Serial No. _____

Purchase Date _____

PDP-100

Owner's Manual	**English**

Bedienungsanleitung	**Deutsch**

Mode d'emploi	**Français**

Manual de instrucciones	**Español**

Introduction

Thank you for choosing a Yamaha Personal Digital Piano. Your PDP-100 is a fine musical instrument that employs advanced Yamaha music technology. With the proper care, your PDP-100 will give you many years of musical pleasure.

- ● AWM (Advanced Wave Memory) tone generator system offers 128 rich, realistic voices, plus an exciting DRUMS voice.
- ● A maximum of 28-note polyphony permits use of sophisticated playing techniques.
- ● Touch sensitive keys provide extensive expressive control and outstanding playability.
- ● Split play mode allows 2 voices to be played individually with the left and right hands.
- ● 99 exciting accompaniment styles can be used to provide rhythm-only accompaniment or fully-orchestrated rhythm, bass, and chord accompaniment.

- ● Full-keyboard ABC (Auto Bass Chord) provides accompaniment as you play across the entire keyboard.
- ● Solo Styleplay makes it simple to produce rich, complex harmonies.
- ● Performance memory records and plays back your keyboard performances.
- ● MIDI compatibility, GM voices, and a range of MIDI functions make the PDP-100 useful in a range of advanced MIDI music systems.

In order to make the most of your PDP-100's performance potential and features, we urge you to read this Owner's Manual thoroughly, and keep it in a safe place for later reference.

Contents

Your PDP-100 will give you years of playing pleasure if you observe the simple rules given below:

1. Avoid Humidity & Heat
Avoid placing the PDP-100 in areas that are subject to excessive humidity or heat. Do not leave the instrument near heaters or in a car exposed to direct sunlight, for example.

2. Avoid Dust & Moisture
Avoid locations in which the instrument is likely to be exposed to excessive dust or moisture.

3. Power-off Before Connecting
Connections between the PDP-100 and any other device must be made with both pieces of equipment turned off.

4. Handle With Care
Never apply excessive force to the controls, connectors or other parts of your PDP-100, and avoid scratching or bumping it with hard objects. Further, always turn the [POWER] switch off after use, and cover the instrument with the dust cover provided.

5. Clean Carefully
Clean the cabinet and keys of your PDP-100 only with a clean, slightly damp cloth. A neutral cleanser may be used if desired. Never use abrasive cleansers, waxes, solvents or chemical dust cloths since these can dull or damage the finish.

6. Never Tamper With the Internal Circuitry
Never open the PDP-100 cabinet and touch or tamper with the internal circuitry. Tampering with the circuitry can result in electrical shock!

7. Electric Interference
Since the PDP-100 contains digital circuitry, it may cause interference if placed too close to radio or television receivers. If this occurs, move the instrument further away from the affected equipment.

8. Check Your Power Supply
Make sure that your local AC mains voltage matches the voltage specified on the name plate on the bottom panel. In some areas a voltage selector may be provided on the rear panel. Make sure that the voltage selector is set for the voltage in your area.

9. Name Plate Location
The PDP-100 name plate, including the unit's serial number, is located on the bottom panel of the main unit.

10. Memory Backup
The data you record on the PDP-100 will be erased if you record new data or if you remove the AC plug from AC wall outlet.
(The data is retained as long as AC plug is inserted into an AC wall outlet even if the power is turned off.)
For safe long-term storage of important data, use the Bulk Dump function (described on page 33) to save the data to a MIDI storage device.
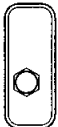
OPTIONAL IN AUX OUT
R L R L+R

30 **31** (rear panel)

1 **2** **4** **3** **6** **5** **7** **12** **15** **13** **14** **16** **17** **19** **20** **21**

8 **9** **10** **11** **18**

DEMO MIDI/TRANSPOSE AUTO ACCOMPANIMENT AUTO BASS CHORD STYLE METRONOME VOICE

YAMAHA PDP-100

REVERB LEFT PEDAL FUNCTION

MASTER VOLUME
MIN ——————— MAX

G A B C D E F

POWER

E0 F0 G0 A0 B0 C1 D1 E1 F1 G1 A1 B1 C2 D2 E2 F2 G2 A2 B2 C3 D3 E3 F3 G3 A3 B3 C4 D4 E4 F4 G4 B

26

HEADPHONES

29

(bottom panel)

27

28

MIDI
IN   OUT

32 (rear panel)

22 23   24 25

B4 | C5 | D5 | E5 | F5 | G5 | A5 | B5 | C6 | D6 | E6 | F6 | G6

Preparation ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

■ The Music Stand ━━━
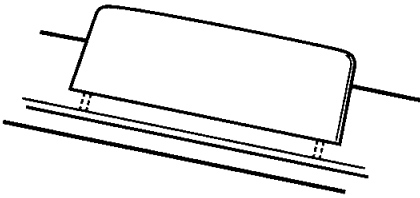
If you will be using sheet music with your PDP-100, insert the music stand into the holes provided on the top panel.

■ The Power Switch ━━━
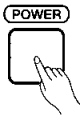
After making sure that the PDP-100's AC plug is properly inserted into a convenient AC wall outlet, press the **[POWER]** switch located to the left of the keyboard once to turn the power on. Press the **[POWER]** switch again to turn the power off.

When the power is initially turned on, the **PIANO** voice selector LED will light, and the **POP 1** style selector LED will light.

■ Headphones ━━━
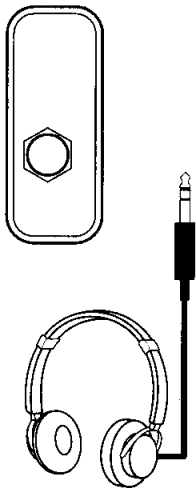
One standard pair of stereo headphones can be plugged in here for private practice or late-night playing. The internal speaker system is automatically shut off when a pair of headphones is plugged into the **HEADPHONES** jack (left bottom panel).

The PDP-100 has several volume controls that give
you extra versatility in creating the required sound.
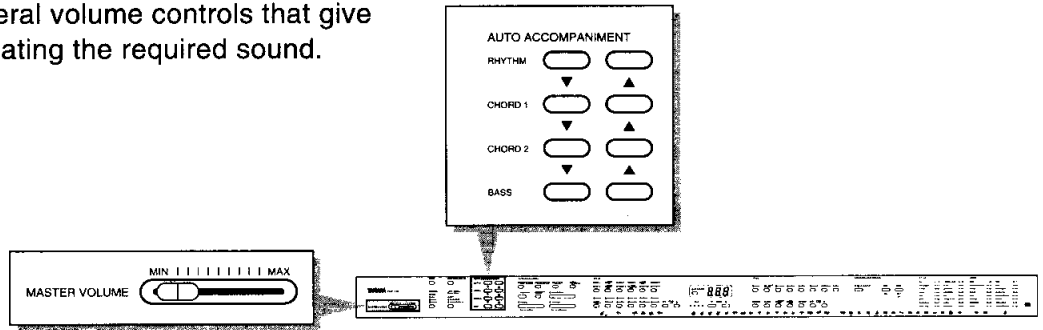
● Master.Volume ....

The **MASTER VOLUME** control adjusts the overall volume of sound pro-
duced by the PDP-100. It also adjusts headphone volume when a pair of head-
phones is plugged into the **HEADPHONES** jack.

Initially set the **MASTER VOLUME** control about half way between the
"MIN" and "MAX" settings. Then, when you start playing, adjust the control for
the most comfortable listening level.

● Auto Accompaniment ....
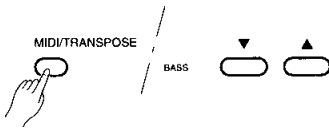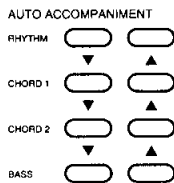
Separate volume controls are provided for the **RHYTHM, CHORD 1,
CHORD 2**, and **BASS** sound. These volume controls let you set up the best bal-
ance between the various accompaniment parts when the **AUTO BASS CHORD**
(ABC) is used, and the **RHYTHM** volume control can be used to balance the key-
board and rhythm sound when only rhythm accompaniment is used.

Press the corresponding [▼] and [▲] buttons to set the volume value. The value
(0-24) will appear on the **TEMPO** display during operation.

The power-on setting can be recalled at any time by pressing the [▼] and [▲]
buttons simultaneously.

The volume of the keyboard can be independently adjusted by using the **BASS**
control while holding the **[MIDI/TRANSPOSE]** button.

NOTES • If any or all of the Auto Accompaniment volume controls are set to their minimum
values, no sound will be produced by the corresponding parts.

**The Internal Amplifier &
Speaker System**

*The PDP-100 features a high-performance stereo amplifier delivering 10 watts per channel
to a pair of 16-cm speaker units.*

Demonstration Playback

The PDP-100 features 5 demonstration tunes that effectively demonstrate its sound and accompaniment capabilities. Here's how you can select and play the demo tunes.
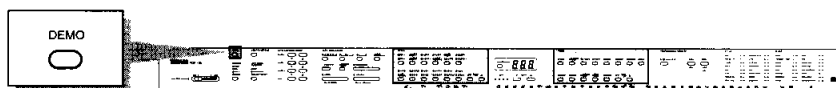
1 Select a Demo Tune
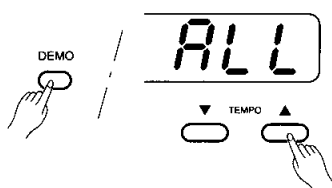
While holding the **[DEMO]** button, use the **TEMPO [▲]** and **[▼]** buttons to select a demo tune.

The selected demo tune number will appear on the **TEMPO** display. If you select "*ALL*", all five demo tunes will playback repeatedly, and if you select one tune from "*d - 1*" to "*d - 5*", only the selected tune will playback repeatedly.

Playback will start immediately when you release the **[DEMO]** button. During playback, you can change the demo tune by pressing the **TEMPO [▲]** and **[▼]** buttons.

2 Adjust the Volume

Use the **MASTER VOLUME** control to adjust the volume, and play along on the keyboard if you like.

3 Stop Playback

Press the **[DEMO]** button again when you want to stop demo playback and return to the normal mode.

The Demo Tunes

	COMPOSER	SONG TITLE
d - 1	J.S.Bach	Italienisches Konzert (Italian Concerto) BWV 971 3rd movement
d - 3	I.Albeniz	Asturias
d - 5	Grieg	Piano Concerto in A minor, op.16

* The demonstration pieces listed above are short excerpts from the original compositions.
d - 2 and *d - 4* are original (© 1993 by Yamaha Corporation).

The PDP-100 has a total of 128 different voices plus DRUMS. DRUMS enables a "Keyboard Percussion" mode that let's you play a range of drums and percussion instruments on the keyboard.
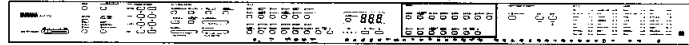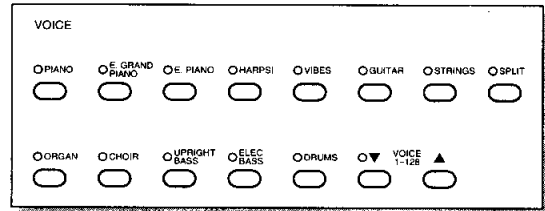
■ Selecting the 128 Voices and DRUMS

● Panel Voice Selection
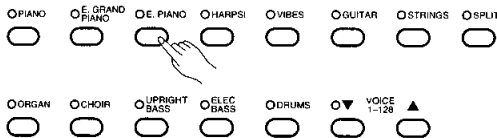
Of the PDP-100's 128 voices and **DRUMS** voice, 11 and DRUMS are "panel voices" which can be directly accessed by pressing the corresponding **VOICE** selector. When a voice selector is pressed the corresponding indicator will light.

● The VOICE 1-128 [▲] and [▼] Buttons

Use the **VOICE 1-128 [▲]** and **[▼]** buttons to select any voice number between 1 and 128. Press either button briefly to select the next voice number in the specified direction, or hold the button for continuous scrolling in the specified direction. The **VOICE 1-128** indicator will light and the voice number will appear on the **TEMPO** display during selection.

If a panel voice is currently selected, the last selected voice in the 1-128 range can be instantly re-selected simply by pressing either **VOICE1-128 [▲]** or **[▼]** button.

Here is the list of the 1-128 voices

Voice Number	Voice Name	Voice Number	Voice Name	Voice Number	Voice Name	Voice Number	Voice Name
	Piano		**Organ**		**Bass**		**Ensemble**
01	Acoustic Grand Piano	17	Drawbar Organ	33	Acoustic Bass	49	Strings Ensemble 1
02	Bright Acoustic Piano	18	Percussive Organ	34	Electric Bass (finger)	50	Strings Ensemble 2
03	Electric Grand Piano	19	Rock Organ	35	Electric Bass (pick)	51	Synth Strings 1
04	Honky-tonk Piano	20	Church Organ	36	Fretless Bass	52	Synth Strings 2
05	Electric Piano 1	21	Reed Organ	37	Slap Bass 1	53	Choir Aahs
06	Electric Piano 2	22	Accordion	38	Slap Bass 2	54	Voice Oohs
07	Harpsichord	23	Harmonica	39	Synth Bass 1	55	Synth Voice
08	Clavi	24	Tango Accordion	40	Synth Bass 2	56	Orchestra Hit
	Chromatic Percussion		**Guitar**		**Strings**		**Brass**
09	Celesta	25	Acoustic Guitar (nylon)	41	Violin	57	Trumpet
10	Glockenspiel	26	Acoustic Guitar (steel)	42	Viola	58	Trombone
11	Music Box	27	Electric Guitar (jazz)	43	Cello	59	Tuba
12	Vibraphone	28	Electric Guitar (clean)	44	Contrabass	60	Muted Trumpet
13	Marimba	29	Electric Guitar (muted)	45	Tremolo Strings	61	French Horn
14	Xylophone	30	Overdriven Guitar	46	Pizzicato Strings	62	Brass Section
15	Tubular Bells	31	Distortion Guitar	47	Orchestral Harp	63	Synth Brass 1
16	Dulcimer	32	Guitar Harmonics	48	Timpani	64	Synth Brass 2

Voice Number	Voice Name
	Reed
65	Soprano Sax
66	Alto Sax
67	Tenor Sax
68	Baritone Sax
69	Oboe
70	English Horn
71	Bassoon
72	Clarinet
	Pipe
73	Piccolo
74	Flute
75	Recorder
76	Pan Flute
77	Blown Bottle
78	Shakuhachi
79	Whistle
80	Ocarina

Voice Number	Voice Name
	Synth Lead
81	Lead 1 (square)
82	Lead 2 (sawtooth)
83	Lead 3 (calliope)
84	Lead 4 (chiff)
85	Lead 5 (charang)
86	Lead 6 (voice)
87	Lead 7 (fifth)
88	Lead 8 (bass+Lead)
	Synth Pad
89	Pad 1 (new age)
90	Pad 2 (warm)
91	Pad 3 (polysynth)
92	Pad 4 (choir)
93	Pad 5 (bowed)
94	Pad 6 (metallic)
95	Pad 7 (halo)
96	Pad 8 (sweep)

Voice Number	Voice Name
	Synth Effects
97	FX 1 (rain)
98	FX 2 (soundtrack)
99	FX 3 (crystal)
100	FX 4 (atmosphere)
101	FX 5 (brightness)
102	FX 6 (goblins)
103	FX 7 (echoes)
104	FX 8 (sci-fi)
	Ethnic
105	Sitar
106	Banjo
107	Shamisen
108	Koto
109	Kalimba
110	Bagpipe
111	Fiddle
112	Shanai

Voice Number	Voice Name
	Percussive
113	Tinkle Bell
114	Agogo
115	Steel Drums
116	Woodblock
117	Taiko Drum
118	Melodic Tom
119	Synth Drum
120	Reverse Cymbal
	Sound Effects
121	Guitar Fret Noise
122	Breath Noise
123	Seashore
124	Bird Tweet
125	Telephone Ring
126	Helicopter
127	Applause
128	Gunshot

NOTES

- The voice order from 1 through 128 is base on the GM System Level 1 standard.
- When the DRUMS voice is selected only the keys with drum or percussion symbols printed above them will sound.
- The PIANO voice is automatically selected when the power is initially turned on.
- The panel voices except DRUMS are actually same as some voices among voices 1-128.

The correspondences are:

Panel Voice	Corresponding 1-128 voice	
PIANO	01	Acoustic Grand Piano
E. GRAND PIANO	03	Electric Grand Piano
E. PIANO	05	Electric Piano 1 (makes new sounds)
HARPSI	07	Harpsichord
VIBES	12	Vibraphone
GUITAR	26	Acoustic Guitar (steel)
STRINGS	49	Strings Ensemble 1
ORGAN	20	Church Organ
CHOIR	53	Choir Aahs
UPRIGHT BASS	33	Acoustic Bass
ELEC BASS	34	Electric Bass (finger)
DRUMS	/	KEYBOARD PERCUSSION function

■ Keyboard Percussion

When the **DRUMS** voice selector is pressed (its indicator will light), you can play 41 different drum and percussion instruments on the keyboard. The percussion instruments played by the various keys are marked by symbols above the keys (keys with no symbols produce no sound).

| NOTES | • The Transpose and Pitch functions described on page 16 do not affect the DRUMS sound.

Drum & Percussion Key Assignments

Key	Instrument
F#2	BRUSH ROLL
G#2	HI-HAT CLOSED HEAVY
A#2	CRASH CYMBAL LIGHT
B2	BASS DRUM LIGHT
C3	SNARE DRUM + RIM HEAVY
C#3	RIDE CYMBAL CUP
F3	BASS DRUM
F#3	RIM SHOT
G3	SNARE DRUM HEAVY
G#3	BRUSH SHOT
A3	SNARE DRUM LIGHT
A#3	HI-HAT PEDAL
B3	SNARE DRUM ECHO
C4	TOM 4

Key	Instrument
C#4	HI-HAT CLOSED
D4	TOM 3
D#4	HI-HAT OPEN
E4	TOM 2
F4	TOM 1
F#4	RIDE CYMBAL
G4	ELECTRIC TOM 3
G#4	CRASH CYMBAL
A4	ELECTRIC TOM 2
B4	ELECTRIC TOM 1
C5	CONGA LOW
C#5	CABASA
D5	CONGA HIGH
D#5	METRONOME

Key	Instrument
E5	BONGO HIGH
F5	TIMBALES LOW
F#5	CLAVES
G5	TIMBALES HIGH
G#5	CASTANETS
A5	CUICA LOW
A#5	COWBELL
B5	CUICA HIGH
C6	HAND CLAPS
C#6	AGOGO LOW
D#6	AGOGO HIGH
E6	BONGO LOW
F#6	TAMBOURINE

The SPLIT mode lets you play different voices with the left and right hands — bass with the left and piano with the right, for example. You can assign any of the PDP-100's voices to the left and right-hand sections of the keyboard.
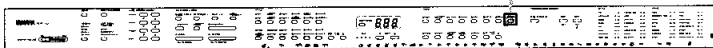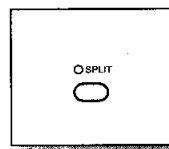
■ Engaging the Split Mode
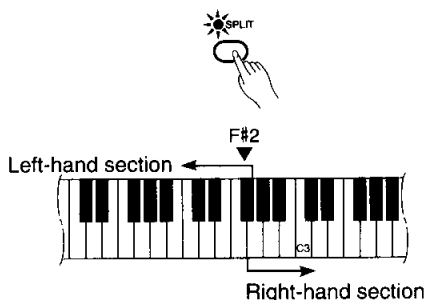
When the [SPLIT] button is pressed and its indicator lights, the keyboard is split into left- and right-hand sections and different voices can be assigned to each. The split point is initially set at the F#2 key when the power is turned on, and the **UPRIGHT BASS** voice is initially assigned to the left-hand section of the keyboard (all keys up to and including F#2). The voice that was selected when the **SPLIT** mode was engaged is assigned to the right-hand section of the keyboard. The current settings are retained if the **SPLIT** mode is turned off (press the [SPLIT] button again) and on while the power remains on.

Left-hand section ← F#2
Right-hand section

■ Changing the Split Voices
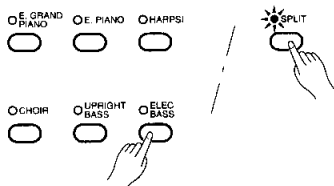
The right-hand voice can be changed simply by pressing the appropriate voice selector.

The left-hand voice can be changed by pressing a voice selector while holding the [SPLIT] button.

NOTES
• All voices except the following are shifted up one octave when assigned to the lower section of the keyboard.

Panel Voices
UPRIGHT BASS
ELEC BASS
DRUMS

1-128 Voices
Voices 33 ~ 40, 44, 48, 59, 68

■ Changing the Split Point
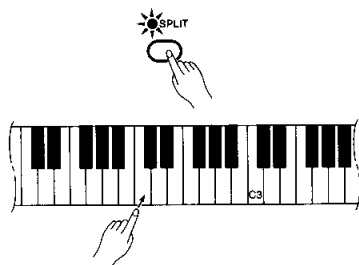
The split point can be set at any key by pressing the desired key while holding the [SPLIT] button. The split point key name will appear on the **TEMPO** display while the [SPLIT] button is held.

Example: *A-1   A#-1   C2   C#2*

    A-1   A#-1   C2   C#2

The default split point — F#2 — will always be set automatically whenever the power is initially turned on.

■ Damper Pedal Operation in the Split Mode
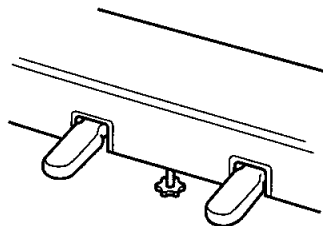
The damper pedal (the right pedal — see "The Pedals" on page 15) can be assigned to the left voice only, the right voice only, or to both voices in the **SPLIT** mode.

■ **Right Voice Only (default):** Press the right (damper) pedal while holding the **[SPLIT]** button.

■ **Left Voice Only:** Press the left (soft) pedal while holding the **[SPLIT]** button.

■ **Both Voices:** Press both the right and left pedals while holding the **[SPLIT]** button.

> **NOTES**
> • *In split mode the soft pedal function applies to both the left- and right-hand voices.*
>
> • *When the ABC Single Finger mode (page 24) and the Split mode are used simultaneously, the left-hand voice will be accompanied by the appropriate ABC chord voices.*

🔢 *Digital Reverb Effects*

The [REVERB] button provides a number of digital effects that you can use for extra depth and expressive power.
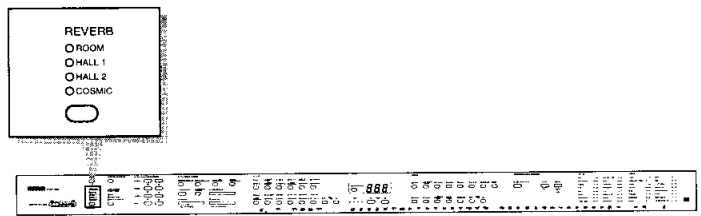
■ Selecting a Reverb Effect

Each time the **[REVERB]** button is pressed the next effect on the reverb "list" is selected and the corresponding indicator will light. No effect is selected when no indicator is lit.

OFF (No indicator lit)
No effect is produced.

ROOM
This setting adds a reverb effect to the sound that is similar to the type of acoustic reverberation you would hear in a medium-size room.

HALL 1
For a more spacious reverb sound, use the HALL 1 setting. This effect simulates the natural reverberation of a medium-size concert hall.

HALL 2
HALL 2 simulates the reverb of a very large concert hall.

COSMIC
"COSMIC" is an echo effect in which the sound seems to "bounce" around in the stereo sound field.

> **NOTES** • The ROOM effect is automatically selected when the [POWER] switch is turned on.

■ Reverb Depth Control
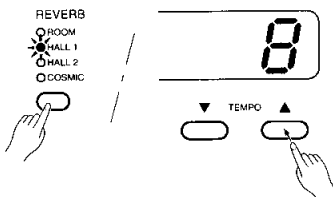
The depth of the selected reverb effect can be increased or decreased by pressing the **TEMPO [▲]** or **[▼]** button while holding the **[REVERB]** button. The reverb depth is shown on the **TEMPO** display while the **[REVERB]** and **[▲]** or **[▼]** buttons are held. The reverb depth range is from "0" (no effect) to "15" (maximum depth).

> **NOTES** • The power-on settings for each reverb effect can be recalled during reverb depth selection by pressing the TEMPO [▲] and [▼] buttons simultaneously.
> • The TEMPO [▲] and [▼] buttons allow two-speed scrolling: press lightly to scroll through the values slowly, or press firmly to scroll rapidly.

The PDP-100 can play up to 28 individual notes at the same time (i.e. it has a maximum "polyphony" of 28). This number includes all voices used: split, rhythm, Auto Bass Chord and Performance Memory. If the maximum polyphony of the PDP-100 is exceeded, the excess notes will be truncated (they will not sound).

Another feature affecting polyphony is the fact that some PDP-100 voices actually use two voices at once, as shown in the voice list below. The effective maximum polyphony of the PDP-100 is correspondingly reduced when these voices are used.

> **NOTES**
> • *The voice list includes the MIDI program numbers that control each voice when the PDP-100 is played from an external MIDI device. For the DRUMS voice, bank MSB is 02, bank LSB is 00 and MIDI program number is 0. For all other voices, bank MSB is 00, bank LSB is 00 and the MIDI program number is as given.*

Panel Voices

MIDI Program Number	Voice Name	Number of Voices Used
0	PIANO	1
2	E. GRAND PIANO	2
4	E. PIANO	2
6	HARPSI	1
11	VIBES	1
25	GUITAR	1
48	STRINGS	1
19	ORGAN	2
52	CHOIR	2
32	UPRIGHT BASS	1
33	ELEC BASS	1
0	DRUMS	1

Internal Voices (1-128)

Voice Number	MIDI Program Number	Voice Name	Number of Voices Used
		Piano	
01	0	Acoustic Grand Piano	1
02	1	Bright Acoustic Piano	1
03	2	Electric Grand Piano	2
04	3	Honky-tonk Piano	2
05	4	Electric Piano 1	2
06	5	Electric Piano 2	2
07	6	Harpsichord	1
08	7	Clavi	1
		Chromatic Percussion	
09	8	Celesta	1
10	9	Glockenspiel	1
11	10	Music Box	2
12	11	Vibraphone	1
13	12	Marimba	1
14	13	Xylophone	1
15	14	Tubular Bells	1
16	15	Dulcimer	2
		Organ	
17	16	Drawbar Organ	2
18	17	Percussive Organ	2
19	18	Rock Organ	2
20	19	Church Organ	2
21	20	Reed Organ	1
22	21	Accordion	2
23	22	Harmonica	1
24	23	Tango Accordion	2
		Guitar	
25	24	Acoustic Guitar (nylon)	1
26	25	Acoustic Guitar (steel)	1
27	26	Electric Guitar (jazz)	1
28	27	Electric Guitar (clean)	2
29	28	Electric Guitar (muted)	1
30	29	Overdriven Guitar	1
31	30	Distortion Guitar	1
32	31	Guitar Harmonics	1
		Bass	
33	32	Acoustic Bass	1
34	33	Electric Bass (finger)	1
35	34	Electric Bass (pick)	1
36	35	Fretless Bass	1
37	36	Slap Bass 1	1
38	37	Slap Bass 2	1
39	38	Synth Bass 1	1
40	39	Synth Bass 2	1
		Strings	
41	40	Violin	1
42	41	Viola	1
43	42	Cello	1
44	43	Contrabass	1
45	44	Tremolo Strings	2
46	45	Pizzicato Strings	2
47	46	Orchestral Harp	1
48	47	Timpani	1

Voice Number	MIDI Program Number	Voice Name	Number of Voices Used
		Ensemble	
49	48	Strings Ensemble 1	1
50	49	Strings Ensemble 2	1
51	50	Synth Strings 1	2
52	51	Synth Strings 2	2
53	52	Choir Aahs	2
54	53	Voice Oohs	1
55	54	Synth Voice	1
56	55	Orchestra Hit	1
		Brass	
57	56	Trumpet	1
58	57	Trombone	1
59	58	Tuba	1
60	59	Muted Trumpet	1
61	60	French Horn	1
62	61	Brass Section	1
63	62	Synth Brass 1	2
64	63	Synth Brass 2	2
		Reed	
65	64	Soprano Sax	1
66	65	Alto Sax	1
67	66	Tenor Sax	1
68	67	Baritone Sax	1
69	68	Oboe	1
70	69	English Horn	1
71	70	Bassoon	1
72	71	Clarinet	1
		Pipe	
73	72	Piccolo	1
74	73	Flute	1
75	74	Recorder	1
76	75	Pan Flute	1
77	76	Blown Bottle	2
78	77	Shakuhachi	1
79	78	Whistle	1
80	79	Ocarina	1
		Synth Lead	
81	80	Lead 1 (square)	2
82	81	Lead 2 (sawtooth)	2
83	82	Lead 3 (calliope)	2
84	83	Lead 4 (chiff)	2
85	84	Lead 5 (charang)	2
86	85	Lead 6 (voice)	2
87	86	Lead 7 (fifth)	2
88	87	Lead 8 (bass+Lead)	2
		Synth Pad	
89	88	Pad 1 (new age)	2
90	89	Pad 2 (warm)	2
91	90	Pad 3 (polysynth)	2
92	91	Pad 4 (choir)	2
93	92	Pad 5 (bowed)	2
94	93	Pad 6 (metallic)	2
95	94	Pad 7 (halo)	2
96	95	Pad 8 (sweep)	2

Internal Voices (1-128)

Voice Number	MIDI Program Number	Voice Name	Number of Voices Used	Voice Number	MIDI Program Number	Voice Name	Number of Voices Used
Synth Effects				Percussive			
97	96	FX 1 (rain)	2	113	112	Tinkle Bell	2
98	97	FX 2 (soundtrack)	2	114	113	Agogo	1
99	98	FX 3 (crystal)	2	115	114	Steel Drums	2
100	99	FX 4 (atmosphere)	2	116	115	Woodblock	1
101	100	FX 5 (brightness)	2	117	116	Taiko Drum	1
102	101	FX 6 (goblins)	2	118	117	Melodic Tom	1
103	102	FX 7 (echoes)	2	119	118	Synth Drum	1
104	103	FX 8 (sci-fi)	2	120	119	Reverse Cymbal	1
Ethnic				Sound Effects			
105	104	Sitar	1	121	120	Guitar Fret Noise	1
106	105	Banjo	1	122	121	Breath Noise	1
107	106	Shamisen	1	123	122	Seashore	2
108	107	Koto	1	124	123	Bird Tweet	2
109	108	Kalimba	1	125	124	Telephone Ring	1
110	109	Bagpipe	2	126	125	Helicopter	2
111	110	Fiddle	1	127	126	Applause	2
112	111	Shanai	1	128	127	Gunshot	1

NOTES

* The following voices use only one voice in the indicated ranges: 46 (Pizzicato Strings): all notes below C#2 and above F5. 110 (Bagpipe): all notes above A#2.

The PDP-100 also offers keyboard touch response, so the volume and timbre of notes played can be controlled according to how "hard" you play the keys. The amount of variation available depends on the selected voice.

■ Touch Sensitivity

The keyboard touch sensitivity can be adjusted in four stages from light to heavy.
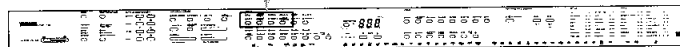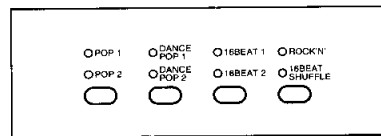
● While holding the [MIDI/TRANSPOSE] button, press the [POP 1], [DANCE POP 1], [16BEAT 1], or [ROCK'N'] button so that its indicator lights. The touch sensitivity is assigned as follows.
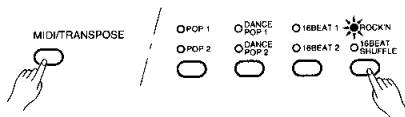
[POP 1] (indicator lights).....................lightest (allows maximum loudness to be produced with relatively light key pressure.)

[DANCE POP 1] (indicator lights) ....
[16BEAT 1] (indicator lights) ....
[ROCK'N'] (indicator lights) ....heaviest (Requires the keys to be played quite hard to produce maximum loudness.)

● You can also set "touch sensitivity off" (i.e. produce equal volume regardless of how hard you play). While holding the [MIDI/TRANSOPSE] button, press the [POP 1], [DANCE POP 1], [16BEAT 1] or [ROCK'N'] button whose indicator is lit, so that its indicator goes out (consequently none of the four indicator will be lit).

NOTES
* The [16BEAT 1] (indicator lights) setting is automatically selected when the power is turned on.

The PDP-100 has two pedals. These offer a range of advanced expressive capabilities.
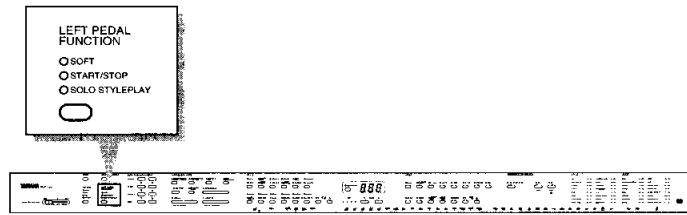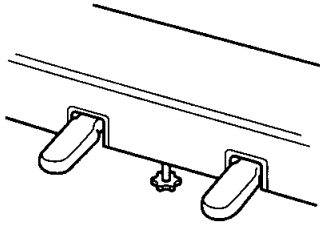
■ Right Pedal (Damper Pedal)

The damper pedal functions in the same way as a damper pedal on an acoustic piano. When the damper pedal is pressed notes played have a long sustain. Releasing the pedal immediately stops (damps) any sustained notes.

■ Left Pedal (Multi-function)
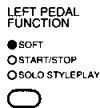
The left pedal has a number of functions which can be selected using the [LEFT PEDAL FUNCTION] button and indicators. Each time the [LEFT PEDAL FUNCTION] button is pressed the next function on the LEFT PEDAL FUNCTION "list" is selected and the corresponding indicator will light.

● Soft

Pressing the soft pedal subtly reduces the volume and slightly changes the timbre of notes played. The SOFT function is automatically selected whenever the [POWER] switch is turned on.

● Start/Stop

For details on the START/STOP function, refer to the "Accompaniment" section on page 21-23.

● Solo Styleplay

For details on the SOLO STYLEPLAY function see "Solo Styleplay" on page 28 (the SOLO STYLEPLAY pedal function can only be selected when the SOLO STYLEPLAY feature is in use).

NOTES • *The Damper and Soft Pedal functions do not affect the DRUMS voice.*

The PDP-100's TRANSPOSE function makes it possible to shift the pitch of the entire keyboard up or down in semitone intervals up to a maximum of six semitones. "Transposing" the pitch of the keyboard makes it easier to play in difficult key signatures, and you can simply match the pitch of the keyboard to the range of a singer or other instrumentalist.
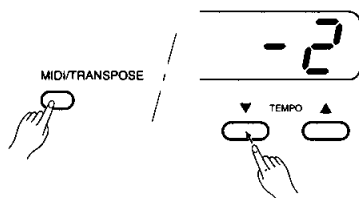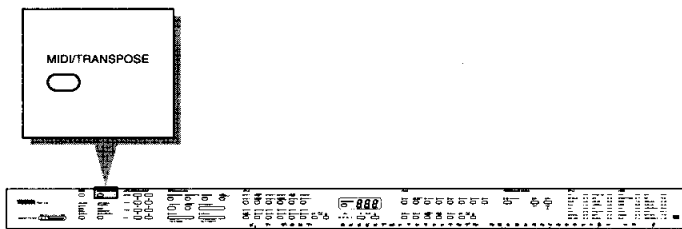
● Use the **TEMPO [▲]** and **[▼]** buttons to select the desired degree of transposition while holding the **[MIDI/TRANSPOSE]** button.
The amount of transposition selected is shown on the **TEMPO** display as follows:

Display	Transposition	Display	Transposition
-6	-6 semitones	0	Normal
-5	-5 semitones	1	+1 semitone
-4	-4 semitones	2	+2 semitones
-3	-3 semitones	3	+3 semitones
-2	-2 semitones	4	+4 semitones
-1	-1 semitone	5	+5 semitones
0	Normal	6	+6 semitones

NOTES

• Press the [▲] and [▼] buttons simultaneously while holding the [MIDI/TRANSPOSE] button to restore normal keyboard pitch.

• Transpose is always set to Normal when the power is turned on.

• The Transpose function does not affect the DRUMS sound.

• The TEMPO [▲] and [▼] buttons allow two-speed scrolling: press lightly to scroll through the values slowly, or press firmly to scroll rapidly.

■ *Pitch Control*

Pitch control makes it possible to tune the PDP-100 over a ±50-cent range (approximate) in approximately 3.1-cent intervals. A hundred "cents" equals one semitone, so the tuning range provided allows fine tuning of overall pitch over a range of approximately a semitone. Pitch control is useful for tuning the PDP-100 to match other instruments or recorded music.
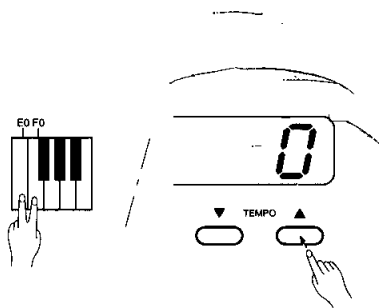
● Hold the **E0** and **F0** keys simultaneously (**E0** and **F0** are the two lowest white keys on the Keyboard) and press the **TEMPO [▲]** or **[▼]** button until the desired pitch is reached.
The **TEMPO** display shows the degree from "- *1b* (-50 cents)" through " *1b* (+50 cents)". (1 step is approximately equal to a 3.1-cent interval.) To restore standard pitch, hold the **E0** and **F0** keys simultaneously and press the **TEMPO [▲]** and **[▼]** buttons simultaneously.
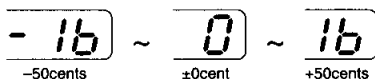
* Standard pitch (A3 = 440 Hz) is automatically set whenever the **[POWER]** switch is initially turned on.

- *1b*	~ *0*	~ *1b*
-50cents	±0cent	+50cents

NOTES
• The Pitch function does not affect the DRUMS sound.

• The TEMPO [▲] and [▼] buttons allow two-speed scrolling: press lightly to scroll through the values slowly, or press firmly to scroll rapidly.

The PDP-100 has 99 "styles" that can be used as a basis for rhythm accompaniment, or fully orchestrated rhythm, bass, and chord accompaniment (see "Auto Bass Chord" on page 24).
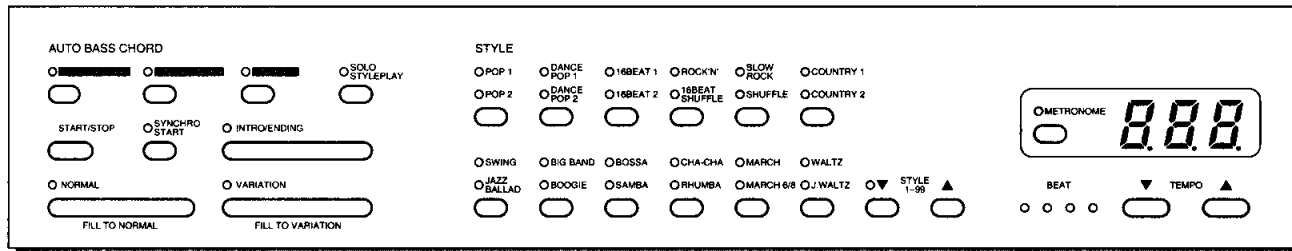
■ Selecting the 99 Styles

● Panel Styles Selection
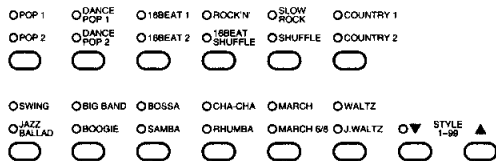
Of the PDP-100's 99 styles, 24 are "panel styles" which can be directly accessed by pressing the corresponding **STYLE** selectors. Note that each style selector has two indicators and style names above it. These two styles are selected alternately each time the selector is pressed.

● The STYLE 1-99 [▲] and [▼] Buttons
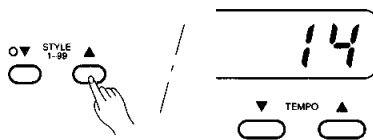
Use the **STYLE 1-99 [▲]** and [▼] buttons to select any style number between 1 and 99. Press either button briefly to select the next style number in the specified direction, or hold the button for continuous scrolling in the specified direction. The **STYLE 1-99** indicator will light and the style number will appear on the **TEMPO** display during selection.

If a panel style is currently selected, the last selected style in the 1-99 range can be instantly re-selected simply by pressing either the **STYLE 1-99 [▲]** or [▼] button.

NOTES
* Use the RHYTHM volume control to adjust the volume of the rhythm sound.
* The POP 1 style is automatically selected when the power is initially turned on.

■ Style List

#	Name	Rhythm	Comments
Pop			
01	16-Beat Pop	16-Beat	Contemporary 16-beat pop.
02	8-Beat Pop	8-Beat	Bright piano/guitar-based '70s pop.
03	8-Beat Light	8-Beat	Eight-beat easy-listening style with arpeggiated piano part.
04	FolkRock	16-Beat	Guitar-based folk-rock.
05	Detroit Pop	12-Beat	Motown-style rhythm, with modern touches.
06	Pop Shuffle	12-Beat	'70s European pop-shuffle.
07	Pop Rock	12-Beat	Upbeat, fast pop-rock. Try using your own chords in the intro and ending.
08	Showtune	8-Beat	Bouncy, fully orchestrated style from '40s/'50s musicals. Use SYNCHRO START and press desired starting key for elaborate intro.
Pop Ballad			
09	16-Beat Ballad	16-Beat	Warm, romantic American soul ballad style.
10	Pop Ballad	8-Beat	Romantic pop ballad.
11	Big Ballad	8-Beat	Slow ballad with full arpeggios and fancy organ fills.
12	Piano Ballad	8-Beat	Piano-based ballad with slow arpeggios. Huge drum fills in Intro and Fill In.
13	Epic Ballad	8-Beat	Pop ballad style from the '60s and '70s, featuring gentle strings accompaniment in Normal and full orchestra in Variation.
14	6/8 Ballad	Six-Eight	Slow rock ballad with triplet feel and classical overtones.
Dance			
15	Eurobeat	16-Beat	Fast, 16-beat Eurobeat sound, for disco and house music.
16	Dance Pop	16-Beat	'80s English disco sound.
17	Casa	16-Beat	Italian house music.
18	Dance Shuffle	24-Beat	Rap/dance feel, especially for one-chord songs. Try playing with CHORD 1 off.
19	Groundbeat	24-Beat	Contemporary soul ballad with funky bass.
20	Synth Boogie	Six-Eight	Fast, machine-like 6/8 computer groove with synth bass.
Disco			
21	Disco Party	16-Beat	Big band disco party style, hugely popular in Europe.
22	Disco Soul	16-Beat	Philadelphia disco style from the '70s.
23	Disco Tropical	16-Beat	Disco sound with a Latin feel — echoes of American TV themes from the '80s.
24	Disco Funk	16-Beat	Late '70s New York disco style.
25	Disco Pop	16-Beat	The world-famous (and recently revived) '70s Swedish disco sound.
26	Polka Pop	8-Beat	Updated Polka style.
Rhythm & Blues			
27	R&B	8-Beat	Eight-beat rhythm and blues from the '60s .
28	R&B Ballad	16-Beat	Upbeat West Coast soul ballad.
29	Fast Gospel	8-Beat	Bright and brassy '60s Chicago Rhythm & Blues style.
30	Gospel	Six-Eight	Gospel ballad groove for slow tempo songs.
31	6/8 Blues	Six-Eight	New Orleans R&B from the '50s.
32	Blues Shuffle	12-Beat	Chicago-type blues shuffle.
33	Soul	8-Beat	Simple-but-effective Memphis R&B groove.
34	Funk	16-Beat	Oakland's East Bay funk style, with fat horn section and big finale for ending.
35	Funk Shuffle	24-Beat	Funky guitar and funky brass stabs in a funky organ-driven shuffle. Funky!
Rock			
36	Hard Rock	8-Beat	Fast, hard-driving rock.
37	Rock Boogie	12-Beat	Hard-driving boogie with distorted guitar.
38	Rock Pop	8-Beat	Mid-tempo guitar-based rock.
39	Rock Shuffle	12-Beat	Smooth pop-rock style. Try bringing in the instrument parts one by one.
40	6/8 Rock	Six-Eight	Slow rock pattern with triplet feel and "House of the Rising Sun"-style arpeggios.
41	Rock Ballad	8-Beat	Slow rock ballad. Take out CHORD 2 (guitars) for smoother sound.
42	Rock Classical	16-Beat	Classical instruments like harpsichord and strings over a pop music rhythm section.

#	Name	Rhythm	Comments
Rock & Roll			
43	Rock & Roll	12-Beat	Old-time '60s Rock&Roll.
44	Boogie Woogie	12-Beat	Late '50s piano-based rock 'n' roll, with boogie woogie bass.
45	Twist	8-Beat	Straight-eight boogie, with a "Twist."
46	Rockabilly	12-Beat	Simple, updated version of the Memphis "Sun" sound.
47	16-beat Rock & Roll	16-Beat	Hard rock & roll — bringing the "Bo Beat" into the '90s. Bring in more complex guitar, brass comping by playing more complex chords.
Traditional Jazz			
48	Ragtime	8-Beat	Turn-of-the-century piano style.
49	Dixieland	12-Beat	Old-time New Orleans jazz.
50	Big Band	12-Beat	Big Band orchestra style and instrumentation.
51	Big Band Ballad	12-Beat	Slowly swaying Big Band sound. Use in medley with Jazz Ballad to switch to piano/guitar quartet.
52	Swing	12-Beat	European big-band swing style. Good for all mid-tempo swing tunes.
53	Swing Waltz	Nine-Eight	Mid-tempo 9/8 waltz.
Contemporary Jazz			
54	BeBop	12-Beat	'40s New York fast Bepop style. Good also for instantly adding a double-time feel to any style!
55	Jazz Ballad	12-Beat	Slow jazz style with piano, guitar, bass and brush drums.Use in medley with Big Band Ballad to change orchestration.
56	Jazz Waltz	Nine-Eight	Swing style in 3/4 time for playing jazz waltz standards.
57	Fusion	16-Beat	Latin flavored 16-beat fusion.
58	Fusion Shuffle	24-Beat	West Coast type funk shuffle.
Latin			
59	Mambo	8-Beat	Contemporary Latin dance music.
60	Merengue	8-Beat	High-energy Latin style with lots of percussion and punchy brass.
61	Beguine	8-Beat	Slow rhumba rhythm, a la "Begin the Beguine."
62	Bomba	16-Beat	Puerto Rican dance rhythm, cousin to the Merengue.
63	Guaguanco	16-Beat	Another high-powered Latin dance style, usually played with drums/percussion only.
Latin Pop			
64	Pop Bossa	8-Beat	Soft, electric-piano based Latin pop sound.
65	Bossa Nova Slow	8-Beat	Mellow and jazzy Bossa Nova style, good for mid to slow tempos.
66	Jazz Samba	16-Beat	Traditional Brazilian samba with an added drum set.
67	Modern Cha Cha	16-Beat	Afro-Cuban dance style for medium slow tempos.
68	Latin Rock	16-Beat	Contemporary Cha Cha with electric bass and drum kit.
Caribbean			
69	Ska	8-Beat	Ska rhythm. Minor keys add doubled "skank."
70	Calypso	16-Beat	Traditional Jamaican Calypso music from the '60s.
71	Reggae 16	16-Beat	Modern Jamaican Reggae rhythm with fat synth bass.
72	Reggae 12	12-Beat	Reggae shuffle.
Country & Western			
73	Bluegrass	16-Beat	Bluegrass featuring banjo.
74	Country Pop	8-Beat	Contemporary country style.
75	Country Rock	8-Beat	Soft country style with pedal steel sound. Guitar voicings are most authentic for simple chords, like major, minor, 7th, etc.
76	Country Ballad	8-Beat	Especially suited to slow tempos.
77	Country Waltz	Nine-Eight	Simple, versatile country style with acoustic guitar. Guitar voicings are most authentic for simple chords, like major, minor, 7th, etc.
78	Country Shuffle	12-Beat	Traditional country style using acoustic guitar. Guitar voicings are most authentic for simple chords, like major, minor, 7th, etc.
79	Western Shuffle	12-Beat	Down-home Country and Western shuffle, with a modern touch.

Accompaniment

■ Style List

#	Name	Rhythm	Comments
World Music			
80	Polka	8-Beat	Traditional Polka style with acoustic instruments. Try altering the arrangement by bringing the accordion and the horn parts in and out.
81	Traditional Waltz	Three-Four	European waltz with guitar, accordion, clarinet, bass, drums and a string pad.
82	Sevillianas	Three-Four	Fast waltz time — almost flamenco style.
83	Bolero Lento	8-Beat	Guitar-based style, quite romantic. Bolero Lento is related to Rhumba and can be used as a slower variation.
84	Rhumba Espagnole	16-Beat	Spanish guitar style, with relatively full orchestration.
85	Dangdut	8-Beat	Contemporary Indonesian pop sound.
March			
86	Military March	8-Beat	Traditional march style.
87	6/8 March	Six-Eight	Marching brass band. Change chords during the drum intro to add brass accents.
88	Tarantella	Six-Eight	Named after the Tarantula spider, whose bite might cause one to dance in this style, this rhythm is used in the popular song "Funiculi Funicula."
Ballroom Standard			
89	Slow Waltz	Three-Four	This slow waltz (or English waltz) style has been arranged in the style of a small band.
90	Tango Argentina	8-Beat	Traditional ballroom style Tango.
91	Tango Habanera	8-Beat	Latin rhythm best known from the opera "Carmen."
92	Slowfox	12-Beat	A standard ballroom dance. This style is suitable for many ballads and slow mellow jazz or swing tunes.
93	Viennese Waltz	Three-Four	Relaxed, ballroom waltz.
94	Foxtrot	12-Beat	Strict tempo Foxtrot for ballroom dancing.
95	Jive	12-Beat	Jive (or Boogie) is a fast ballroom dance.
Ballroom Latin			
96	Rhumba	8-Beat	Rhumba played in the style of a ballroom orchestra. Related to Beguine and Bolero Lento.
97	Samba	16-Beat	Standard ballroom Samba.
98	Cha Cha	8-Beat	Strict tempo ChaCha style for ballroom dancing.
99	Pasodoble	8-Beat	Flamenco-style rhythm, featuring Spanish guitar.

NOTES
- The panel styles are actually the same as some styles among styles 1-99.
  The correspondences are:

Panel Style	Corresponding 1-99 styles			Panel Style	Corresponding 1-99 styles	
POP1	13	EPIC BALLAD		SWING	52	SWING
POP2	33	SOUL		JAZZ BALLAD	55	JAZZ BALLAD
DANCE POP1	15	EURO BEAT		BIG BAND	50	BIG BAND
DANCE POP2	28	R&B BALLAD		BOOGIE	44	BOOGIE
16BEAT1	9	16BT BALLAD		BOSSA	65	SLOW BOSSA
16BEAT2	1	16BEAT POP		SAMBA	66	JAZZ SAMBA
ROCK'N'	45	TWIST		CHA-CHA	98	CHA-CHA
16BEAT SHUFFLE	19	GROUNDBEAT		RHUMBA	96	RHUMBA
SLOW ROCK	40	6/8 ROCK		MARCH	86	MARCH
SHUFFLE	78	COUNTRY SHUFFLE		MARCH 6/8	87	6/8 MARCH
COUNTRY1	74	COUNTRY POP		WALTZ	81	TRAD WALTZ
COUNTRY2	75	COUNTRY ROCK		J. WALTZ	56	JAZZ WALTZ

■ Tempo Control
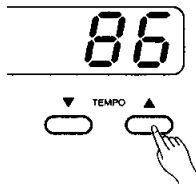
Whenever you select a different style, the "suggested" tempo for that style is also selected, and the tempo is displayed on the **TEMPO** display in quarter-note beats per minute (unless the accompaniment is playing, in which case the same tempo is maintained).

You can change the tempo to any value between 40 and 240 beats per minute, however, by using the **TEMPO [▲]** and **[▼]** buttons. This can be done either before the accompaniment is started or while it is playing. Press either button briefly to decrement or increment the tempo value by one, or hold the button for continuous decrementing or incrementing. Press lightly for slow, or harder for fast decrementing or incrementing.

> **NOTES** • _The suggested tempo for the selected style can be recalled at any time by pressing both the [▲] and [▼] buttons simultaneously._

■ Starting the Accompaniment

There are several ways to start the accompaniment:

● Straight Start ....

Press the **[START/STOP]** button in the **AUTO BASS CHORD** section.
Each of the styles also has a variation that can be selected by pressing the **[VARIATION/FILL TO VARIATION]** button (its LED will light) before pressing the **[START/STOP]** button. Normally the **[NORMAL/FILL TO NORMAL]** button LED will be lit (or you can select it if the variation is selected), indicating that the normal pattern is selected.

Normal straight start = (NORMAL/FILL TO NORMAL) ⟶ (START/STOP)
Variation straight start = (VARIATION/FILL TO VARIATION) ⟶ (START/STOP)

● Start With an Introduction ....
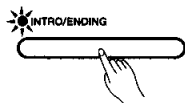
Press the **[INTRO/ENDING]** button.
If you press the **[NORMAL/FILL TO NORMAL]** or **[VARIATION/FILL TO VARIATION]** button while holding the **[INTRO/ENDING]** button, the rhythm will start with an appropriate fill and then go to the normal rhythm or variation rhythm, respectively.

         :☼: (Flashing)
Intro start   = (INTRO/ENDING) ⟶ (START/STOP)

                     :☼: (Flashing)
Fill start to normal   = (INTRO/ENDING) + (NORMAL/FILL TO NORMAL) ⟶ (START/STOP)

                     :☼: (Flashing)
Fill start to variation = (INTRO/ENDING) + (VARIATION/FILL TO VARIATION) ⟶ (START/STOP)

The selected start mode can be disengaged prior to starting the accompaniment by pressing the selected button (flashing indicator) a second time.

● **Synchronized Start** ....

Any of the start types described above can be synchronized to the first note or chord played on the keyboard by first pressing the [SYNCHRO START] button so that its indicator lights. When the keyboard is SPLIT or AUTO BASS CHORD SINGLE FINGER or FINGERED mode is used, the first note played on the left-hand section of the keyboard will start the accompaniment (i.e. keys to the left of and including the split-point key — normally F#2). Once the synchronized start mode has been selected, use the [NORMAL/FILL TO NORMAL], [VARIATION/FILL TO VARIATION] and/or [INTRO/ENDING] buttons to select the type of start you want.

The first dot of the BEAT display will flash at the current tempo when a synchronized start mode has been selected.

After pressing (SYNCHRO START)

Normal start	= (NORMAL/FILL TO NORMAL) —► Play key
Variation start	= (VARIATION/FILL TO VARIATION) —► Play key
Intro start	= (INTRO/ENDING) —► Play key
Fill start to normal	= (INTRO/ENDING) + (NORMAL/FILL TO NORMAL) —► Play key
Fill start to variation	= (INTRO/ENDING) + (VARIATION/FILL TO VARIATION) —► Play key

The synchronized start mode can be cancelled by pressing the [SYNCHRO START] button a second time so that its indicator goes out.

BEAT

1st. Beat	●	○	○	○
2nd. Beat	○	●	○	○
3rd. Beat	○	○	●	○
4th. Beat	○	○	○	●
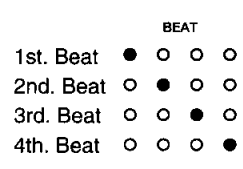
● **The Beat Display**

The four LED dots of the BEAT display provide a visual indication of the selected tempo. The leftmost (red) dot flashes on the first beat of each measure, the second dot flashes on the second beat, and so on (all dots except the leftmost dot are green). When a 3/4-time rhythm is selected, only the first three dots will flash.

> **NOTES** • When the SLOW ROCK (=40 6/8 ROCK) is selected the fourth dot flashes three times for the fourth, fifth and sixth beats.

■ Fill-ins

The PDP-100 provide two types of automatic "fill-ins."
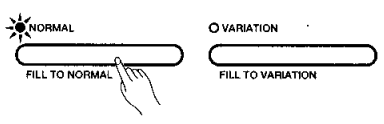
■ **Fill To Normal:** Press the [NORMAL/FILL TO NORMAL] button during playback to produce a fill-in and go to the normal rhythm.

■ **Fill To Variation:** Press the [VARIATION/FILL TO VARIATION] button during playback to produce a fill-in and go to the variation pattern.

If you hold one of the FILL buttons, the fill-in will repeat until the end of the measure in which button is released.

■ Stopping the Accompaniment
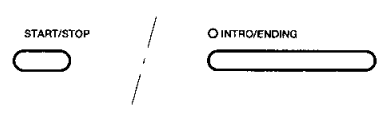
The accompaniment can be stopped at any time by pressing the [START/STOP] button in the AUTO BASS CHORD section. Press the [INTRO/ENDING] button if you want to go to the ending pattern and then stop.

> **NOTES** • If the left pedal is switched to START/STOP operation, it performs the same function as the panel [START/STOP] buttons in the Auto Bass Chord section (press to START, press again to STOP).

■ Metronome
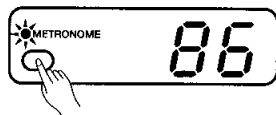
The PDP-100 also offers a **METRONOME** function that is ideal for practice.

To select the metronome, press the **[METRONOME]** button so that its indicator lights. If you use the **[START/STOP]** button in the **AUTO BASS CHORD** section to start/stop the metronome, the accompaniment sounds along with the metronome. To get the metronome sound only, set the **RHYTHM, CHORD 1, CHORD 2** and **BASS** volume to 0.

The metronome volume can be controlled via the **MASTER VOLUME** control. Press the **[METRONOME]** button again to de-select the metronome.

The PDP-100 includes a sophisticated auto-accompaniment system (Auto Bass Chord — ABC) that can provide automated rhythm, bass and chord backing in a number of ways.
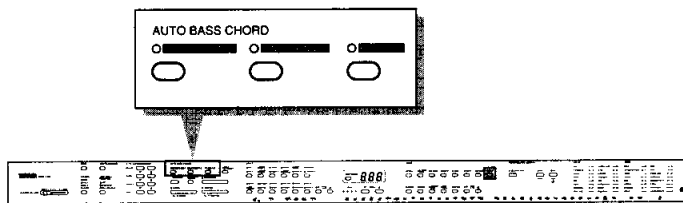
■ Single-finger Accompaniment

SINGLE FINGER accompaniment makes it simple to produce accompaniment using major, seventh, minor and minor-seventh chords by pressing a minimum number of keys in the ABC section of the keyboard. The automatic accompaniment consists of rhythm, bass and chords.

1 Select SINGLE FINGER ....

Press the **[SINGLE FINGER]** button to select the **SINGLE FINGER** mode (the **SINGLE FINGER** indicator will light).
Synchro start is automatically selected when the ABC mode is entered.

2 Select a Style ....

Select the desired accompaniment using the style selectors (see "Selecting the 99 Styles" on page 17).

3 Set the Tempo ....

Use the **TEMPO [▲]** and **[▼]** buttons to set the desired accompaniment tempo if necessary (see "Tempo Control" on page 21).

4 Start the Accompaniment and Play ....
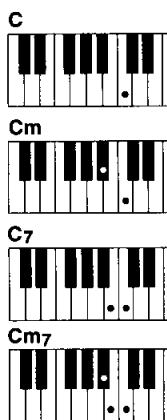
Start the accompaniment in desired way (see "Starting the Accompaniment" on page 21).
Pressing any key on the ABC section of the keyboard (up to the split point — normally the F#2 key) will cause the automatic chord and bass accompaniment to begin. If you press a "C" key, for example, a C-major accompaniment will be played. Press another key in the ABC section of the keyboard to select a new chord. The key you press will always determine the "root" of the chord played (i.e. "C" for a C chord) .

● **Playing Minor, Seventh, and Minor-seventh Chords in the Single-finger Mode**

• For a minor chord, press the root key and a black key to its left.

• For a seventh chord, press the root key and a white key to its left.

• For a minor-seventh chord, press the root key and both a white and black key to its left.

5 Stop the Accompaniment ....
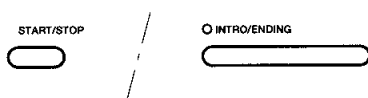
Press the **[START/STOP]** or **[INTRO/ENDING]** button in the **AUTO BASS CHORD** section to stop the accompaniment.

> **NOTES** • Press the [SINGLE FINGER] button so that its indicator goes out when you want to exit from the Single Finger mode.

■Fingered Accompaniment _____

The **FINGERED** mode is ideal if you already know how to play chords on a keyboard, since it allows you to supply your own chords for the Auto Accompaniment feature.

❶ Select FINGERED ....

Press the **[FINGERED]** button to select the **FINGERED** mode (the **FINGERED** indicator will light).
Synchro start is automatically selected when the ABC mode is entered.

❷ Select a Style ....

Select an accompaniment style using the style selectors (see "Selecting the 99 Styles" on page 17).

❸ Set the Tempo...

Use the **TEMPO [▲]** and **[▼]** buttons to set the desired accompaniment tempo if necessary (see "Tempo Control" on page 21 for more details).

❹ Start the Accompaniment and Play ....

Start the accompaniment in desired way (see "Starting the Accompaniment" on page 21).
As soon as you play any chord (up to 4 notes) on the lower keyboard (up to the split point — normally the F#2 key), the PDP-100 will automatically begin to play the chord along with the selected rhythm and an appropriate bass line .
The PDP-100 will accept the following chord types:

Example for "C" chords

Major [M]	1 - 3 - 5
Major sixth [M6]	1 - 3 - 5 - 6
Major seventh [M7]	1 - 3 - (5) - 7
Major seventh sharp eleventh [M7#11]	1 - (2) - 3 - #4 - (5) - 7
Major add ninth [Madd9]	1 - 2 - 3 - 5
Major ninth [M9]	1 - 2 - 3 - (5) - 7
Major sixth add ninth [6 9]	1 - 2 - 3 - (5) - 6
Augmented [aug]	1 - 3 - #5
Minor [m]	1 - ♭3 - 5
Minor sixth [m6]	1 - ♭3 - 5 - 6
Minor seventh [m7]	1 - ♭3 - (5) - ♭7
Minor seventh flatted fifth [m7♭5]	1 - ♭3 - ♭5 - ♭7
Minor add ninth [madd9]	1 - 2 - ♭3 - 5
Minor ninth [m9]	1 - 2 - ♭3 - (5) - ♭7
Minor eleventh [m11]	1 - (2) - ♭3 - 4 - 5 - (♭7)
Minor major seventh [mM7]	1 - ♭3 - (5) - 7
Minor major ninth [mM9]	1 - 2 - ♭3 - (5) - 7
Diminished [dim]	1 - ♭3 - ♭5
Diminished seventh [dim7]	1 - ♭3 - ♭5 - 6
Seventh [7]	1 - 3 - (5) - ♭7
Seventh suspended fourth [7sus4]	1 - 4 - 5 - ♭7
Seventh ninth [7 9]	1 - 2 - 3 - (5) - ♭7
Seventh sharp eleventh [7#11]	1 - (2) - 3 - #4 - (5) - ♭7
Seventh thirteenth [7 13]	1 - 3 - (5) - 6 - ♭7
	or 2 - 3 - 5 - 6 - ♭7
Seventh flatted ninth [7♭9]	1 - ♭2 - 3 - (5) - ♭7
Seventh flatted thirteenth [7♭13]	1 - 3 - 5 - ♭6 - ♭7
Seventh sharp ninth [7#9]	(1) - #2 - 3 - (5) - ♭7
Major seventh augmented [M7aug]	1 - 3 - #5 - 7
Seventh augmented [7aug]	(1) - 3 - #5 - ♭7
Suspended fourth [sus4]	1 - 4 - 5
One plus two plus five [1+2+5]	1 - 2 - 5

[NOTES] • *Notes in parentheses can be omitted.*

• *A perfect fifth produces accompaniment based only on the root and fifth which can be used with many major and minor chords.*

• *An octave produces accompaniment based only on the root.*

• *If three adjacent keys are played simultaneously (white and black keys), chord accompaniment will be cancelled and only the rhythm accompaniment will sound.*

• *The chord fingerings listed are all in "root position", but other inversions can be used — with the following exceptions:*

* *M6 chords are only recognized in root position. All other inversions are interpreted as m7.*
* *6 9 chords are only recognized in root position. All other inversions are interpreted as m11.*
* *m6 chords are only recognized in root position. All other inversions are interpreted as m7 ♭5.*
* *1+2+5 chords are only recognized in root position. All other inversions are interpreted as sus4.*
* *With aug and dim7 chords the lowest note played is assumed to be the root.*
* *With 7#11 chords the lowest note played is assumed to be the root or ♭7.*

● The **[INTRO/ENDING]**, **[NORMAL/FILL TO NORMAL]**, and **[VARIA-TION/FILL TO VARIATION]** buttons can be used in the ABC mode to create pattern variations in the same way that they are used with rhythm patterns (refer to the "Accompaniment" section on page 21, 22 for details).

5 Stop the Accompaniment ....
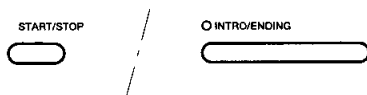
START/STOP / O INTRO/ENDING

Press the **[START/STOP]** or **[INTRO/ENDING]** button in the **AUTO BASS CHORD** section to stop the accompaniment.

[NOTES] ·• *Press the [FINGERED] button so that its indicator goes out when you want to exit from the Fingered mode.*

■ Full-keyboard ABC _____

The Full-keyboard ABC mode can be engaged by pressing the **[FULL KEY-BOARD]** button (the **FULL KEYBOARD** indicator will light). In this mode the split point is de-activated and notes played anywhere on the keyboard are detected and used to determine the harmonization of the accompaniment. In the Full-keyboard ABC mode, chord detection is possible when at least three notes are played anywhere on the keyboard.

[NOTES] • *The Split mode can be used with Full-keyboard ABC.*
• *The Full-keyboard ABC mode will be disengaged and the Fingered mode will be engaged if Solo Styleplay is turned on.*
• *Solo Styleplay will automatically be turned off whenever the Full-keyboard ABC mode is engaged.*
• *Press the [FULL KEYBOARD] button so that its indicator goes out when you want to exit from the Full-keyboard ABC mode.*

■ Volume Control
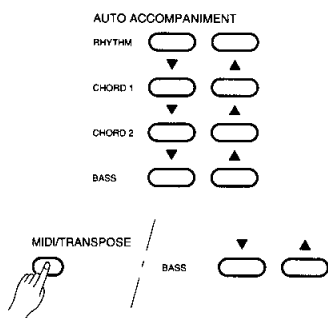
The **RHYTHM, CHORD 1, CHORD 2**, and **BASS** volume controls can be used to adjust the volume of the corresponding accompaniment parts when using ABC. In general, **CHORD 1** controls rhythmic chords while **CHORD 2** controls more decorative chords (arpeggios, etc.). The volume of the keyboard can be independently controlled by using the **BASS** volume control while holding the **[MIDI/TRANSPOSE]** button.

Press the corresponding [▼] and [▲] buttons to set the volume value. The value (0-24) will appear on the **TEMPO** display during operation.

The power-on setting can be recalled at any time by pressing the [▼] and [▲] buttons simultaneously.

■ Changing the ABC Split Point
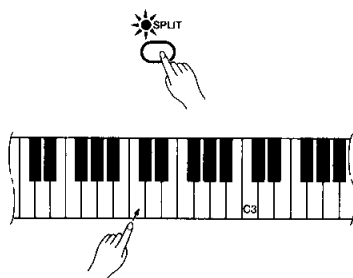
The ABC split point can be set at any key by pressing the desired key while holding the **[SPLIT]** button.

The default split point — F#2 — will always be set automatically whenever the power is initially turned on.

This sophisticated feature not only provides automatic rhythm, bass and chord accompaniment, but it also adds appropriate harmony notes to a single-note melody you play on the upper keyboard.

■ Using Solo Styleplay

❶ Turn Solo Styleplay ON ....

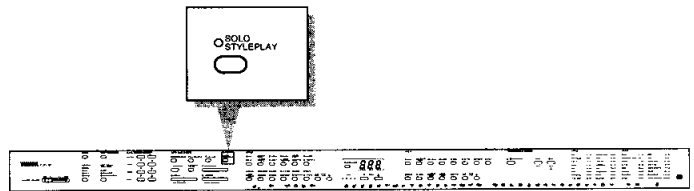Press the [SOLO STYLEPLAY] button to turn the **SOLO STYLEPLAY** mode on. The **SINGLE FINGER** mode is automatically selected when **SOLO STYLEPLAY** is turned on, unless the **FINGERED** mode is already selected. If a **FULL KEYBOARD** mode is selected, the **FINGERED** mode will automatically be selected since Solo Styleplay cannot be used with the **FULL KEYBOARD** modes.

❷ Select a Style ....

Select an accompaniment style using the style selectors (see "Selecting the 99 Styles" on page 17).

❸ Set the Tempo ....

Set the desired tempo if necessary using the **TEMPO [▲]** and **[▼]** buttons (see "Tempo Control" on page 21).

❹ Start the Accompaniment and Play ....

Start the accompaniment and play the required chords (**SINGLE FINGER** or **FINGERED**) on the ABC section of the keyboard while playing a single-note melody line on the upper keyboard (only one note can be played at a time on the right-hand section of the keyboard in the **SOLO STYLEPLAY** mode).

❺ Stop the Accompaniment ....

Press [START/STOP] or [INTRO/ENDING] in the **AUTO BASS CHORD** section to stop the accompaniment.

❻ Turn Solo Styleplay OFF ....

Press the [SOLO STYLEPLAY] button again to turn the function off.

■ The Left Pedal & Solo Styleplay

LEFT PEDAL
FUNCTION
○ SOFT
○ START/STOP
● SOLO STYLEPLAY

If the **LEFT PEDAL FUNCTION** is set to **SOLO STYLEPLAY** after the **SOLO STYLEPLAY** mode is selected, harmonization of notes played on the right-hand section of the keyboard only occurs when the left pedal is pressed. This allows you to combine normal ABC type performance with **SOLO STYLEPLAY** as required.

> **NOTES** • The Solo Styleplay mode will be disengaged if the ABC Fingered or Single Finger mode is turned off.

The PDP-100 features a built-in "sequencer" which is very simple to operate. There are two [REC] buttons (i.e. [SOLO] and [SOLO+ABC]) for solo performance and performance with auto accompaniment.

● **Memory Backup**
The data you record on the PDP-100 will be erased if you record new data or if you pull off the AC plug from AC wall outlet. (The data remains as long as AC plug is inserted into an AC wall outlet even if the power is turned off.)
For safe long-term storage of your important data, use the Bulk Dump function (described on page 33) to save the data to a MIDI data storage device.
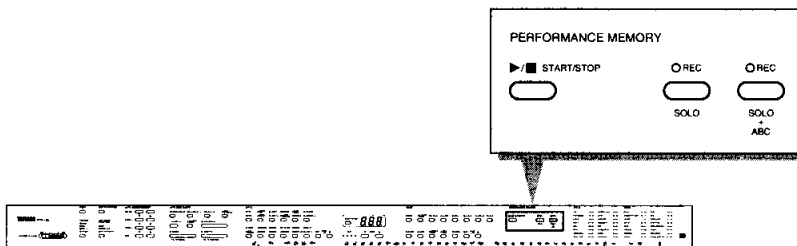
SOLO Recording & Playback

● **Memory Capacity**
In SOLO recording, up to approximately 1600 notes can be recorded. This figure is reduced as other functions (pedal operation etc.) are used. If the memory becomes full during recording, the **REC [SOLO]** indicator goes out and subsequent data will not be recorded. (The data up to that point will remain.)

1 Select a Voice ....

Use the **VOICE** selectors to select the voice you want to record with. You can try out the selected voice on the keyboard before proceeding.

> **NOTES**
> • *Split mode can not be used when recording.*
> • *During SOLO recording, the Auto Accompaniment features can not be used.*
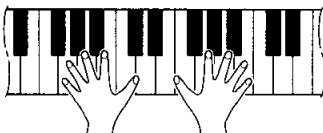
2 Engage the Record Ready Mode ....

Press the **REC [SOLO]** button so that its indicator lights.
The first dot of the **BEAT** indicator will begin to flash.

> **NOTES**
> • *You can exit from record ready mode at this point by pressing the REC [SOLO] button again so that its indicator goes out.*

3 Start Recording ....

Play on the keyboard. Recording will begin automatically as soon as you start playing. (Or you can start recording by pressing the [▶/■ START/STOP] button in the **PERFORMANCE MEMORY** section).
The **BEAT** indicators begin to flash alternately when you start recording.

> **NOTES**
> • *If you start recording by pressing the [▶/■ START/STOP] button in the Performance Memory section, and quickly stop recording by pressing the same button again without doing anything, no sound will occur when playback.*

4 Stop Recording ....

Stop recording by pressing the [▶/■ START/STOP] button in the **PER-FORMANCE MEMORY** section.
When recording has finished the **REC [SOLO]** indicator will go out.

5 Play Back the Recording ....

Press the [▶/■ START/STOP] button in the **PERFORMANCE MEMORY** section to play back your recording. Play along on the keyboard if you like.
You can also change the playback tempo via the **TEMPO [▲]** and [▼] buttons.

6 Stop Playback ....

Playback will stop automatically when the end of the recording is reached, or you can press the [▶/■ START/STOP] button in the **PERFORMANCE MEMORY** section to stop it anytime.

NOTES
• *While playing back a SOLO recording, the Auto Accompaniment features and REVERB (type and depth) can not be operated.*

• *The following data will be recorded in SOLO recording.*
* *Key on/off*
  (i.e. notes played on the keyboard.)
* *Key velocity*
  (i.e. how hard you play each note.)
* *Voice number*
* *Keyboard volume*
  (i.e. the operation of adjusting the BASS volume control while holding the [MIDI/ TRANSPOSE] button [see page 5])
* *REVERB type and depth (REVERB type is not changeable during recording.)*
* *Damper and soft pedal operation.*

■ Using the Metronome

When you record, you can use the **METRONOME** function. After pressing the **REC [SOLO]** button to engage the record ready mode, if you press the [METRO-NOME] button the metronome will begin to sound immediately. Adjust the tempo if necessary, then start to play to record along with the metronome.
The metronome sound will not be recorded (only your performance will be recorded).

SOLO + ABC Recording & Playback

● **Memory Capacity**
In SOLO + ABC recording, up to approximately 1600 events (notes and chord changes in total) can be recorded. This figure is reduced as other functions (pedal operation etc.) are used. If the memory becomes full during recording, the **REC [SOLO + ABC]** indicator goes out and subsequent data will not be recorded. (The data up to that point will remain.)

1 Set All Performance Features As Required ....

Set up all necessary performance features as required: voice, style tempo, ABC mode, etc. Try out the features as you select them to check that you have the right overall sound.

2 Engage the Record Ready Mode ....

Press the **REC [SOLO + ABC]** button so that its indicator lights. The first dot of the **BEAT** indicator will begin to flash at the currently set tempo.

If you have not selected on ABC mode in step 1 above, an ABC mode and synchro start mode are automatically engaged, and you can change the ABC mode as needed. You can not, however, exit from ABC mode or disengage the synchro start mode.

> **NOTES** • You can exit from record ready mode at this point by pressing the REC [SOLO +ABC] button again so that its indicator goes out.
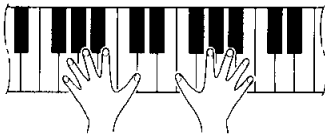
3 Start Recording ....

Play on the keyboard. Recording will begin automatically as soon as you start playing.

You can also start recording by pressing the **[▶/■ START/STOP]** button in the **PERFORMANCE MEMORY** section or the **[START/STOP]** button in the **AUTO BASS CHORD** section.

The **BEAT** indicators begin to flash alternately when you start recording.

> **NOTES** • If you start recording by pressing the [▶/■ START/STOP] button in the Performance Memory section and quickly stop recording by pressing the same button again without doing anything, no sound will occur when playback.

4 Stop Recording ....

Stop recording by pressing the **[▶/■ START/STOP]** button in the **PERFORMANCE MEMORY** section.

When recording has finished the **REC [SOLO + ABC]** indicator will go out.

5 Play Back the Recording ....

Press the **[▶/■ START/STOP]** button in the **PERFORMANCE MEMORY** section to play back your recording. Play along on the keyboard if you like.

You can also change the playback tempo via the **TEMPO [▲]** and **[▼]** buttons.

6 Stop Playback ....

Playback will stop automatically when the end of the recording is reached, or you can press the **[▶/■ START/STOP]** button in the **PERFORMANCE MEMORY** section to stop it anytime.

> **NOTES** • Using the metronome
> You can use the Metronome function in SOLO + ABC recording in the same way as in SOLO recording.
>
> • While playing back a SOLO + ABC recording, the Auto Accompaniment features and REVERB (type and depth) can not be operated.
>
> • The following data will be recorded in SOLO + ABC recording in addition to the data recordable in SOLO recording (see page 29).
> * Chord changes
> * Intro, Normal, Variation, Fill in & Ending
> * Accompaniment volume
> * Tempo
> * Style number

MIDI, the Musical Instrument Digital Interface, is a world-standard communication interface that allows MIDI-compatible musical instruments and equipment to share musical information and control one another. This makes it possible to create "systems" of MIDI instruments and equipment that offer far greater versatility and control than is available with isolated instruments.

The PDP-100 has 6 MIDI functions that are accessed by pressing the appropriate VOICE selector while holding the [MIDI/TRANSPOSE] button. The MIDI functions accessed by the various VOICE selectors are shown in the following chart:

Function	Selector
Right Send Channel Select	PIANO
—	E. GRAND PIANO
Right Local ON/OFF	E. PIANO
Left Send Channel Select	HARPSI
—	VIBES
Left Local ON/OFF	GUITAR
—	STRINGS
MIDI Clock Select	ORGAN
—	CHOIR
Bulk Dump	UPRIGHT BASS
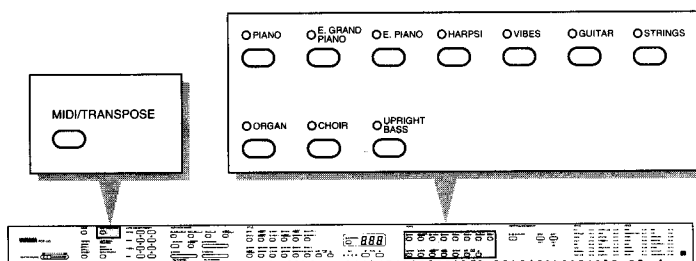
The available settings and procedure for each MIDI function are described below.

NOTES
- *Always use a high-quality MIDI cable to connect MIDI OUT to MIDI IN terminals. Never use MIDI cables longer than about 15 meters, since cables longer than this can pick up noise which can cause data errors.*
- *When using the PDP-100 with other MIDI equipment, always refer to the MIDI specifications (implementation chart and MIDI data format) of the equipment used to ensure compatibility.*

■ Right and Left Send Channel Select

In any MIDI control setup, the MIDI channels of the transmitting and receiving equipment must be matched for proper data transfer (there are 16 MIDI channels). The PDP-100 can set the send channel for the right-hand and left-hand section of the keyboard independently. When the keyboard is not split, the right send channel is effective for the entire keyboard.
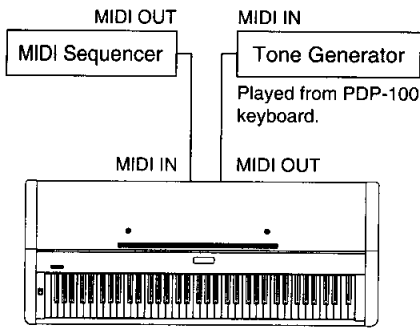
S 1......S 16

1 Hold [MIDI/TRANSPOSE] and press [PIANO] to set the right send channel or [HARPSI] to set the left send channel.

2 Use TEMPO [▲] and [▼] buttons to select the desired channel (the selected channel number is shown on the TEMPO display).
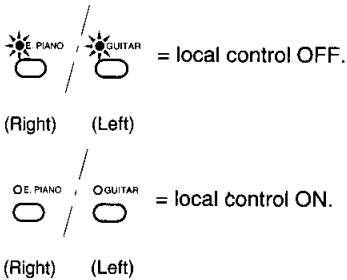
3 Release [MIDI/TRANSPOSE].

NOTES
- *When the power is initially turned ON, the transmit channel is set to 1.*
- *The PDP-100's MIDI receive channel setting complies with the GM System Level 1 standard.*

■ Right and Left Local Control ON/OFF

MIDI OUT   MIDI IN

MIDI Sequencer		Tone Generator

Played from PDP-100
keyboard.

MIDI IN   MIDI OUT

PDP-100
Local control OFF. Played from MIDI Sequencer.

E. PIANO / GUITAR = local control OFF.

(Right)   (Left)

OE. PIANO / OGUITAR = local control ON.

(Right)   (Left)

"Local Control" refers to the fact that, normally, the PDP-100 keyboard controls its internal tone generator, allowing the internal voices to be played directly from the keyboard. This situation is "Local Control ON" since the internal tone generator is controlled locally by its own keyboard.

Local control can be turned off, however, so that the PDP-100 keyboard does not play the internal voices, but the appropriate MIDI information is still transmitted via the **MIDI OUT** connector when notes are played on the keyboard. At the same time, the internal tone generator responds to MIDI information received via the **MIDI IN** connector. This means that while an external MIDI sequencer, for example, plays the PDP-100's internal voices, an external tone generator can be played from the PDP-100 keyboard. Local Control is automatically turned ON when the power is initially turned on.

The PDP-100 can set the Local Control ON/OFF for the right-hand and left-hand section of the keyboard independently. When the keyboard is not split, the right Local Control Setting is effective for the entire keyboard.

1 Hold [**MIDI/TRANSPOSE**] and press [**E. PIANO**] for the Right Local Control setting or [**GUITAR**] for the Left Local Control setting.

2 Release [**MIDI/TRANSPOSE**].

■ MIDI Clock Select

This function determines whether the PDP-100's rhythm and ABC timing is controlled by the PDP-100's own internal clock or an external MIDI clock signal received from external equipment connected to the **MIDI IN** connector. The Clock Mode is automatically set to INTERNAL when the power is initially turned on.

ORGAN = EXTERNAL.
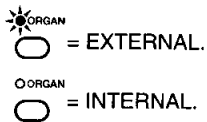
OORGAN = INTERNAL.

1 Hold [**MIDI/TRANSPOSE**] and press [**ORGAN**].

2 Release [**MIDI/TRANSPOSE**].

[NOTES] • If clock reception is enabled but no MIDI clock signal is received for more than 100 milliseconds, external clock reception is automatically disabled and normal internal clock operation resumes.

■ Bulk Data Dump

This function is used to transmit all data stored in the Performance Memory to a MIDI data storage device or MIDI compatible computers.
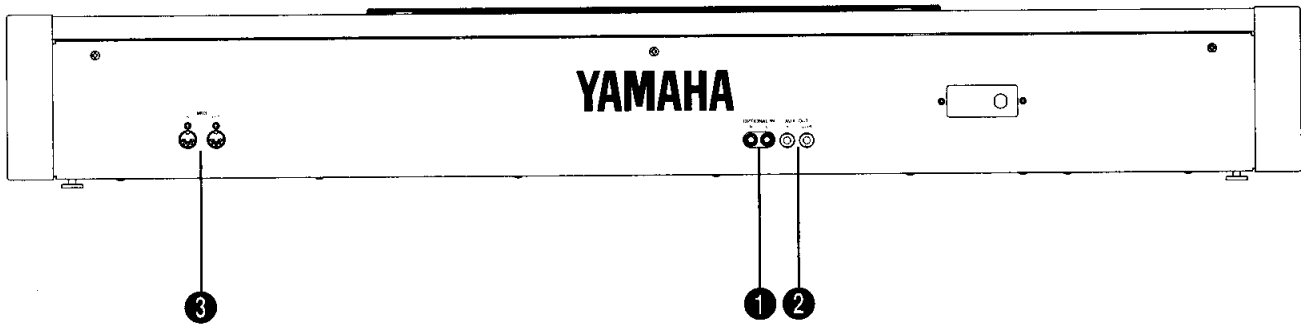
1 Hold [**MIDI/TRANSPOSE**] and press [**UPRIGHT BASS**].
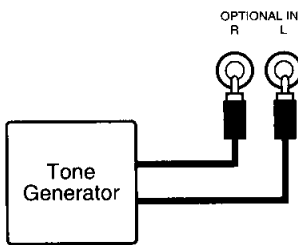
2 Release [**MIDI/TRANSPOSE**].

[NOTES] • The UPRIGHT BASS voice selector LED will remain lit while the data is being sent.

Although the PDP-100 is a self-contained musical instrument that can simply be plugged into the AC mains outlet and played, it also features a number of connectors for system expansion.

❶ OPTIONAL IN L/R Jacks...

OPTIONAL IN
R   L

Tone
Generator

These jacks are intended primarily for use with external synthesizers or tone generator modules.

For example, the outputs of the synthesizer/tone generator can be to the PDP-100 **OPTIONAL IN** jacks, allowing the sound of the synthesizer/tone generator to be reproduced via the PDP-100's internal amplifier and speaker system.

NOTES • The input signal from the OPTIONAL IN jacks is delivered to the AUX. OUT jacks, but the PDP-100's volume control or reverb effect does not affect the input signal.

❷ AUX. OUT R and L/L+R Jacks...

AUX. OUT
R   L/L+R

Stereo System
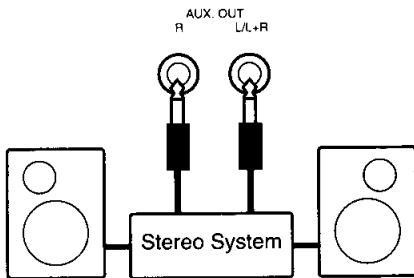
The **AUX. OUT R** and **L/L+R** jacks deliver the output of the PDP-100 for connection to an instrument amplifier, mixing console, PA system, or recording equipment. If you will be connecting the PDP-100 to a monaural sound system, use only the **L/L+R** jack. When a plug is inserted into the **L/L+R** jack only, the left- and right-channel signals are combined and delivered via the **L/L+R** jack so you don't lose any of the PDP-100's sound.

NOTES • The AUX. OUT jack signal must never be returned to the OPTIONAL IN jacks, either directly or through external equipment.

❸ MIDI IN and OUT Connectors...

MIDI
IN   OUT
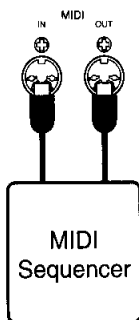
MIDI
Sequencer

The **MIDI IN** connector receives MIDI data from an external MIDI device (such as a synthesizer, sequencer, music computer, etc.) which can be used to control the PDP-100. The **MIDI OUT** connector transmits MIDI data generated by the PDP-100 (e.g. note and velocity data produced by playing the PDP-100 keyboard).

More details on MIDI are given in "MIDI Functions" on page 32.

If you encounter what appears to be a malfunction, please check the following points before assuming that your PDP-100 is faulty.

1. No Sound When the Power is Turned On
Is the AC plug properly connected to an AC wall outlet? Check the AC connection carefully. Is the **MASTER VOLUME** control turned up to a reasonable listening level?

2. No Rhythm, ABC, or Performance Memory Sound
Check the Auto Accompaniment volume control settings. No sound is produced if these are set to their minimum positions.

3. The PDP-100 Reproduces Radio or TV Sound
This can occur if there is a high-power transmitter in your vicinity. Contact your Yamaha dealer.

4. Intermittent Static Noise
This is usually due to turning on or off a household appliance or other electronic equipment which is fed by the same AC mains line as your PDP-100.

5. Interference Appears On Radio or TV Sets Located Near the PDP-100
The PDP-100 contains digital circuitry which can generate radio-frequency noise. The solution is to move the PDP-100 further away from the affected equipment, or vice versa.

6. Distorted Sound When the PDP-100 is Connected to An External Amplifier/Speaker System
If the PDP-100 is connected to a stereo system or instrument amplifier and the sound is distorted, reduce the setting of the PDP-100 volume control to a level at which the distortion ceases.

■ *Options* ————————————————————

● **Options**

BC-7 Bench
A comfortable bench styled to match your Yamaha PDP-100.

HPE-6 Stereo Headphones
High-performance lightweight dynamic headphones with extra-soft ear pads.

KC-763 Key Cover
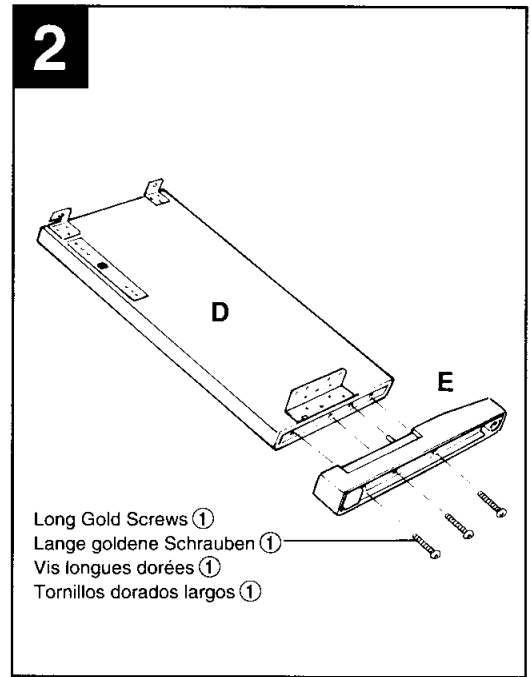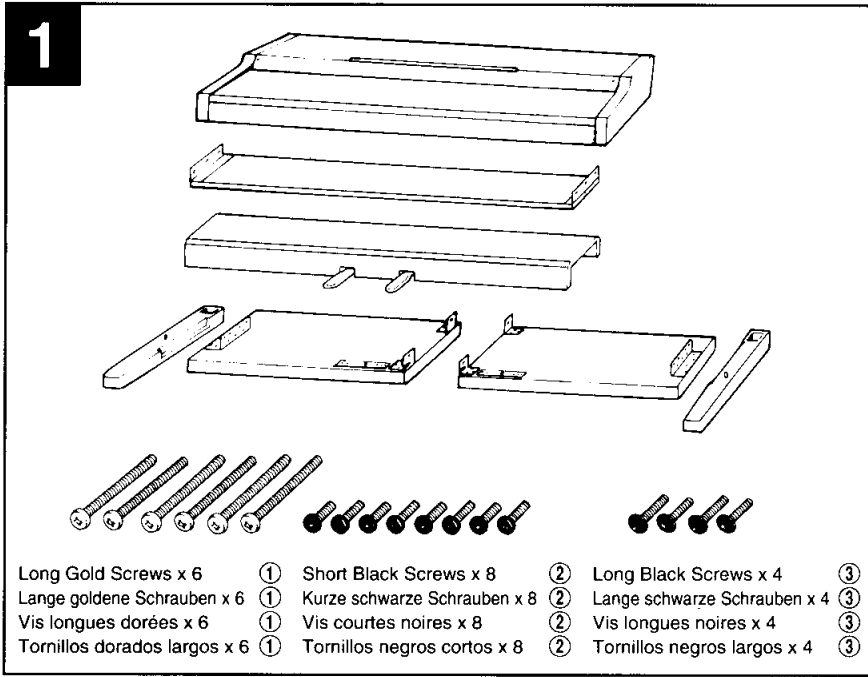A convenient way to keep your keyboard clean and dust-free.

[⬚ NOTES] • *Some items may not available in certain areas.*

1

Long Gold Screws x 6 ① | Short Black Screws x 8 ② | Long Black Screws x 4 ③
Lange goldene Schrauben x 6 ① | Kurze schwarze Schrauben x 8 ② | Lange schwarze Schrauben x 4 ③
Vis longues dorées x 6 ① | Vis courtes noires x 8 ② | Vis longues noires x 4 ③
Tornillos dorados largos x 6 ① | Tornillos negros cortos x 8 ② | Tornillos negros largos x 4 ③

2

Long Gold Screws ①
Lange goldene Schrauben ①
Vis longues dorées ①
Tornillos dorados largos ①

Keyboard Stand Assembly

📋 **NOTES** • We do not recommend attempting to assemble the PDP-100 alone. The job can be easily accomplished, however, with only two people.

1 Open the box and remove all the parts.

On opening the box you should find the parts shown in the illustration to the above. Check to make sure that all the required parts are provided.

2 Assemble the side panels (D) and feet (E).

Secure the feet (E) to the side panels (D) with the long gold-colored screws ① (3 each), making sure that the cut-outs on the feet face the bracket side of the side panels.

3 Attach the center panel (B) to the side panels (D).

The center panel (B) is installed between the side panels (D) with the brackets on each end toward the rear of the stand assembly. Place the square holes in the center-panel brackets over the lugs extending from the side panels, then slide down. Each side of the center panel is attached using two short black screws ②.

4 Attach the side panels (D) to the pedal box (C).

Before installing the pedal box: remove the bundled cord from the bottom of the pedal box, remove the plastic cover and cord binder, then straighten out the cord.

Place the pedal box on top of the brackets attached to the side panels (D), and attach using the four long black screws ③ on each side. Make sure the pedals extend in the same direction as the feet.

Zusammenbau und Aufstellung

📋 **HINWEIS** • Wir raten davon ab, das PDP-100 alleine zusammenzubauen und aufzustellen. Zwei Personen können diese Arbeit jedoch problemlos ausführen.

1 Öffnen Sie den Karton und nehmen Sie alle Teile heraus.

Im Karton sollten die oben abgebildeten Teile enthalten sein. Prüfen Sie zunächst bitte, ob alle Teile vollständig vorhanden sind.

2 Schrauben Sie die Seitenwände (D) und die Füße (E) zusammen.

Machen Sie die Füße (E) mit den langen goldenen Schrauben ① (jeweils 3 Schrauben) so an den Seitenwänden fest, daß der Ausschnitt am jeweiligen Fuß unter dem Winkelblech an der Seitenwand zu liegen kommt.

3 Schrauben Sie die Rückwand (B) an die beiden Seitenwände (D).

Die Rückwand (B) wird mit den Winkelblechen an beiden Enden nach hinten weisend an den Seitenwänden (D) befestigt. Lassen Sie dabei die Führungsnasen an den Seitenwänden in die Schlitzbohrungen in den beiden Winkelblechen greifen, und drücken Sie die Rückwand dann nach unten. Sichern Sie die Rückwand dann mit jeweils zwei kurzen schwarzen Schrauben ② an den Seitenwänden.

4 Schrauben Sie den Pedalkasten (C) an den Seitenwänden (D) fest.

Vorbereitender Schritt: Zunächst nehmen Sie das im Pedalkasten gebündelte Kabel heraus, entfernen die Kunststoffabdeckung sowie den Kabelbinder und ziehen das Kabel dann gerade aus.

Setzen Sie den Pedalkasten auf die Winkelbleche der beiden Seitenwände (D), und schrauben Sie ihn dann mit den vier langen schwarzen Schrauben ③ an beiden Seiten fest. Achten Sie dabei darauf, daß die Pedale in dieselbe Richtung weisen wie die vorspringenden Teile der Füße.
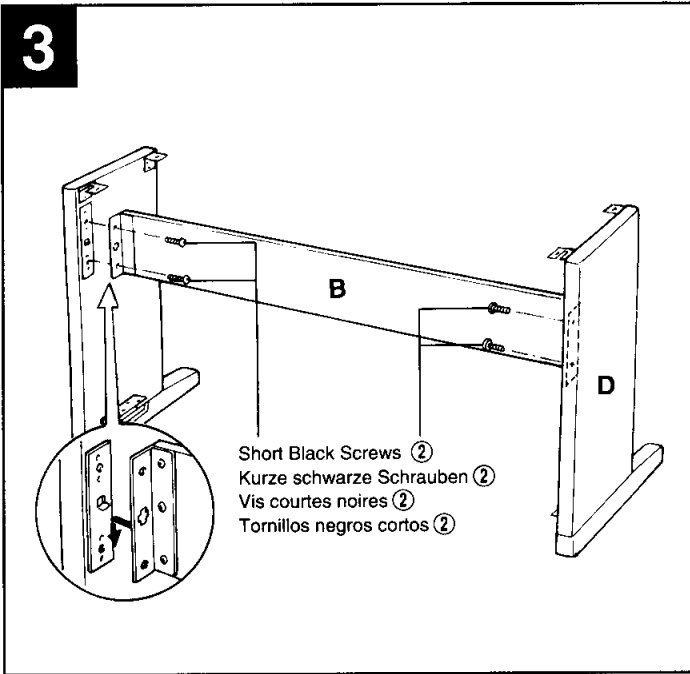
3

Short Black Screws ②
Kurze schwarze Schrauben ②
Vis courtes noires ②
Tornillos negros cortos ②

B

D

4

D

C

Long Black Screws ③
Lange schwarze Schrauben ③
Vis longues noires ③
Tornillos negros largos ③

Assemblage du support de clavier

🗨 REMARQUE
• Nous ne vous conseillons pas d'essayer d'assembler le PDP-100 seul. Toutefois, ce travail peut être facilement exécuté par deux personnes.

▊ Ouvrez le carton et retirez toutes les pièces

Les pièces indiquées sur l'illustration devraient toutes se trouver dans le carton. Vérifiez qu'il n'en manque aucune.

▊ Montez les panneaux latéraux (D) sur les supports inférieurs (E)

Fixez les supports inférieurs (E) aux panneaux latéraux (D) à l'aide des vis longues dorées ① (3 chacun) et veillez à ce que le bord découpé de chaque support soit dirigé vers le côté ferrure des panneaux latéraux.
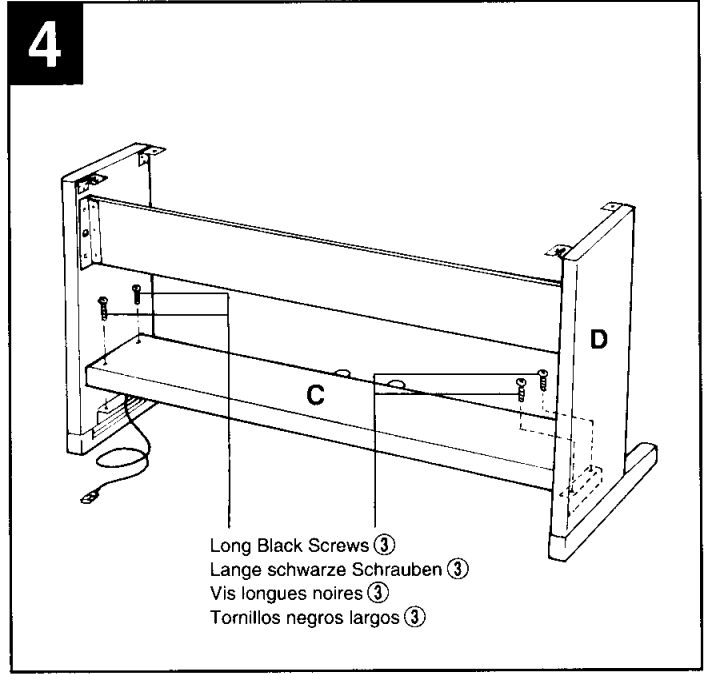
▊ Fixez le panneau central (B) aux panneaux latéraux (D)

Le panneau central (B) doit être posé entre les panneaux latéraux (D) en prenant soin de diriger la ferrure située à chaque extrémité vers l'arrière du support. Placez les orifices carrés des ferrures du panneau central sur les languettes dépassant des panneaux latéraux et faites glisser vers le bas. Chaque côté du panneau central doit être fixé à l'aide de deux vis courtes noires ②.

▊ Fixez les panneaux latéraux (D) au pédalier (C)

Avant de poser le pédalier, retirez le cordon de la partie inférieure du pédalier, retirez le cache en plastique et l'attache et déroulez ensuite le cordon.

Placez le pédalier sur les ferrures fixées aux panneaux latéraux (D) et fixez de chaque côté à l'aide de quatre vis longues noires ③. Veillez à ce que les pédales et la partie qui dépasse des supports inférieurs soient dirigées dans le même sens.

Conjunto del soporte del teclado

🗨 NOTA
• No le recomendamos que intente montar la PDP-100 usted solo. El trabajo puede ser realizado fácilmente entre dos personas.

▊ Abra la caja y extraiga todas las partes.

Al abrir la caja deberá encontrar todas las partes mostradas en la ilustración. Compruebe para asegurarse que se proporcionan todas las partes necesarias.

▊ Monte los paneles laterales (D) y las patas (E).

Asegure las patas (E) en los paneles laterales (D) con los tornillos dorados largos ① (3 cada uno), asegurándose de que los cortes de las patas quedan encarados con el lado de la ménsula de los paneles laterales.

▊ Acople el panel central (B) en los paneles laterales (D).

El panel central (B) se instala entre los paneles laterales (D) con las ménsulas de cada extremo encaradas hacia la parte posterior del conjunto del soporte. Coloque los orificios cuadrados de las ménsulas del panel central por encima de las lengüetas que se extienden desde los paneles laterales, después deslice hacia abajo. Cada lado del panel central se acopla usando dos tornillos negros cortos ②.

▊ Acople los paneles laterales (D) en la caja de pedales (C).

Antes de instalar la caja de pedales: extraiga los cables agrupados desde la parte inferior de la caja de pedales, extraiga la cubierta de plástico y el colocador del cable, después estire bien el cable.

Coloque la caja de pedales en la parte superior de las ménsulas acopladas a los paneles laterales (D) y acople usando los cuatro tornillos negros largos ③ en cada lado. Asegúrese de que los pedales se extienden en la misma dirección que las patas.

5

Short Black Screws ②
Kurze schwarze Schrauben ②
Vis courtes noires ②
Tornillos negros cortos ②
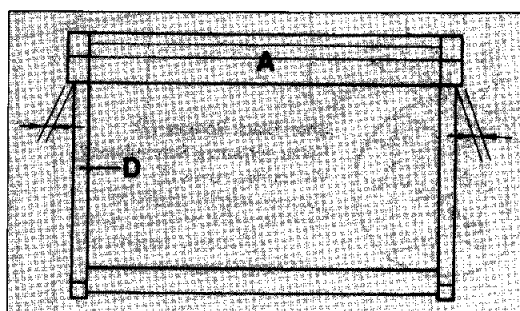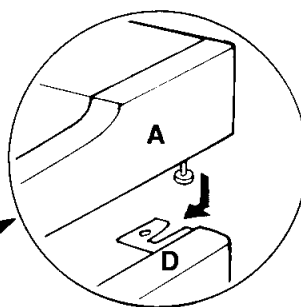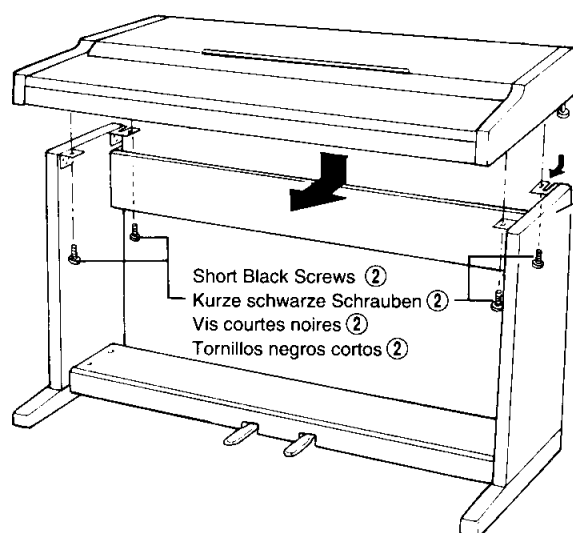
5 Install the main unit (A).

Place the main unit on the side panels (D) with the screws on its bottom panel (toward the rear of the main unit) just behind the grooves in the bracket located at the top of the side panels (D), then slide the keyboard forward until it stops. **WATCH YOUR FINGERS WHEN DOING THIS!!**

Align the holes in the bottom panel of the main unit with the holes in the brackets on the side panels (also center the main unit to produce equal clearance on the left and right sides, as shown in the illustration), then screw in and securely tighten the four short black screws ②.

6 Connect the pedal cord.

Pass the pedal cord through the two cord holders on the side panel. The plug can be plugged into the corresponding connector on the bottom of the main unit (A). The plug only goes in one way (the lug on the connector should face the rear of the unit, as shown in the illustration), so don't try to force it in the wrong way around.

7 Be sure to set the adjuster.

For stability, an adjuster is provided on the bottom of the pedal box (C). Rotate the adjuster until it comes in firm contact with the floor surface. The adjuster ensures stable pedal operation and facilitates pedal effect control. If the adjuster is not in firm contact with the floor surface, distorted sound may result.

* *Check once more to make sure that all screws have been securely tightened.*

5 Montieren Sie die Tastatureinheit (A).

Setzen Sie die Tastatureinheit (A) so auf den fertigen Ständer, daß die beiden Schrauben an ihrer Unterseite hinter den Winkelblechen mit Führungsschlitz an der Hinterseite des Ständers zu liegen kommen. Schieben Sie die Tastatureinheit dann bis zum Anschlag in die Schlitze. **KLEMMEN SIE IHRE FINGER DABEI NICHT EIN!!**

Richten Sie die Schraubenbohrungen an der Unterseite der Tastatureinheit mit den Bohrungen der Winkelbleche aus (achten Sie auch darauf, daß sie mittig auf dem Ständer steht, wie in der Abbildung gezeigt). Schrauben Sie die Tastatureinheit dann mit den vier kurzen schwarzen Schrauben ② am Ständer fest.

6 Schließen Sie das Pedalkabel an.

Sichern Sie das Pedalkabel in den beiden Kabelhaltern an den Seitenwänden. Der Stecker wird an die zugehörige Buchse an der Unterseite der Tastatureinheit (A) angeschlossen. Der Stecker paßt nur in einer Richtung in die Buchse (mit der Führungsnase zur Rückseite des Instruments weisend — siehe Abbildung). Versuchen Sie nicht, den Stecker falsch herum mit Gewalt in die Buchse zu drücken!

7 Justieren Sie schließlich noch den Höhenversteller.

Zur Stabilisierung ist an der Unterseite des Pedalkastens (C) ein Höhenversteller vorgesehen. Schrauben Sie den Höhenversteller heraus, bis er fest auf dem Fußboden steht. Der Höhenversteller sorgt für stabile Pedalbetätigung und ermöglicht eine präzise Regelung des Betätigungshubs. Wenn er nicht fest auf dem Boden steht, können beim Treten der Pedale Klangverzerrungen auftreten.

* *Vergewissern Sie sich abschließend noch einmal davon, daß alle Schrauben fest angezogen sind.*

6

Cord holder
Kabelhalter
Support de cordon
Soporte del cable

7
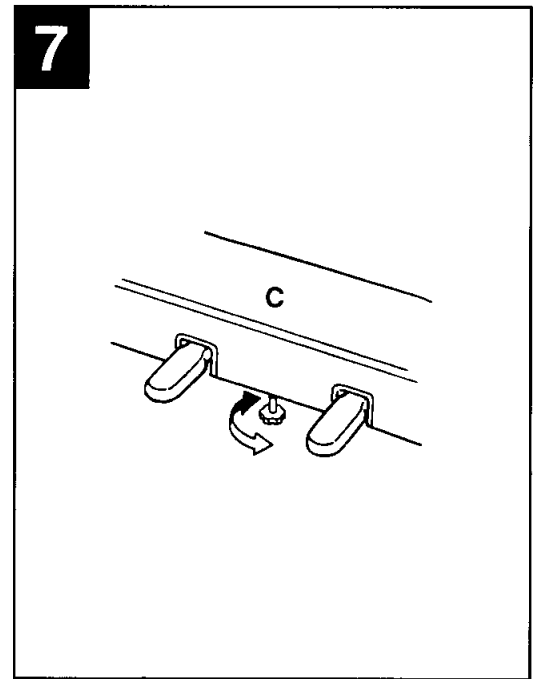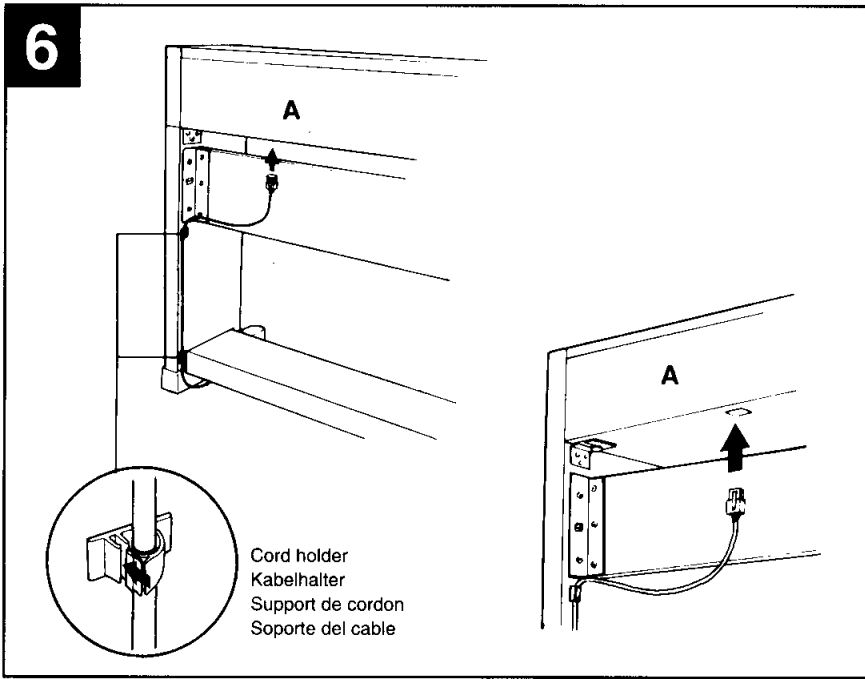
5 Posez le clavier (A)

Placez le clavier sur les panneaux latéraux (D), avec les vis de son panneau inférieur (situées vers l'arrière du clavier) placées immédiatement derrière les rainures des ferrures situées à la partie supérieure des panneaux latéraux (D), puis faites glisser le clavier vers l'avant jusqu'à ce qu'il vienne en butée. **FAITES ATTENTION A VOS DOIGTS EN EXECUTANT CETTE OPERATION!!**

Alignez les trous du panneau inférieur du clavier sur les trous des ferrures des panneaux latéraux (centrez également le clavier de manière à avoir un jeu identique de chaque côté) puis posez et serrez à fond les quatre vis courtes noires ②.

6 Connectez le cordon du pédalier

Faites passer le cordon du pédalier dans les deux supports de cordon situés sur le panneau latéral. La prise doit être branchée au connecteur correspondant situé à la partie inférieure du clavier (A). La prise ne peut être branchée que dans un seul sens (la languette de la prise doit être dirigée vers l'arrière du clavier, comme montré sur l'illustration) et n'essayez donc pas de la forcer pour la mettre en place du mauvais côté.

7 N'oubliez pas de régler la hauteur du pédalier

Pour assurer la stabilité du pédalier (C), un dispositif de réglage a été prévu à sa partie inférieure. Tournez ce dispositif jusqu'à ce qu'il soit en contact ferme avec la surface du sol. Ce dispositif assure la stabilité du pédalier lors de son utilisation et facilite la commande au pied des effets. Si ce dispositif n'est pas en contact ferme avec le sol, il pourra se produire une distorsion du son.

* Vérifiez que toutes les vis sont bien serrées à fond.

5 Instale la unidad principal (A).

Coloque la unidad principal en los paneles laterales (D) con los tornillos de su panel inferior (hacia la parte posterior de la unidad principal) justo detrás de las ranuras de la ménsula ubicada en la parte superior de los paneles laterales (D), después deslice el teclado hacia adelante hasta que se pare. **¡TENGA CUIDADO CON SUS DEDOS MIENTRAS LO HACE!**

Alinee los orificios del panel inferior de la unidad principal con los orificios de las ménsulas de los paneles laterales (también centre la unidad principal para producir una holgura igual en los lados derecho e izquierdo, como se muestra en la ilustración), después enrosque y apriete bien los cuatro tornillos negros cortos ②.

6 Conecte el cable de los pedales.

Pase el cable de los pedales a través de los dos soportes de cable del panel lateral. La clavija puede enchufarse en el conector correspondiente de la parte inferior de la unidad principal (A). La clavija se enchufa sólo en una dirección (la lengüeta del conector debe estar encarada hacia la parte posterior de la unidad, como se muestra en la ilustración), por eso no la fuerce en la dirección errónea.

7 Asegúrese de ajustar el ajustador.

Para la estabilidad del aparato, se proporciona un ajustador en la parte inferior de la caja de pedales (C). Gire el ajustador hasta que contacte firmemente con el suelo. El ajustador asegura una operación estable de los pedales y facilita el control del efecto de los pedales. Si el ajustador no contacta firmemente con el suelo, puede resultar en sonido distorsionado.

* Compruebe una vez más para asegurarse de que todos los tornillos se han apretado bien.

Date: 1993. 6. 15

Model: PDP-100 | MIDI Implementation Chart | Version: 1.00

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1~16 CH 1~16 CH	1~16 CH 1~16 CH	The keyboard information is transmitted on the channel 1 by default.
Mode	Default Messages Altered	Mode 3 × *****************	Mode 3 × ×	
Note Number	: True voice	0~127 *****************	0~127 0~127	
Velocity	Note on Note off	O 9nH, v=1~127 × 9nH, v=0	O 9nH, v=1~127 × 9nH, v=0 or 8nH	
After Touch	key's Ch's	× ×	× O (*1)	
Pitch Bender		O	O	
Control Change 0, 32 1 6, 38 7 10 11 64 66 67 84 90 91 96 97 100, 101 120 121		O (*2) × O O O × O × O × × O × × × O ×	O (*3) O O O O O O O O O (*4) O O O O O (*5) O O (*6)	Bank select MSB, LSB Modulation depth Data entry MSB, LSB Volume Pan Expression Sustain Sostenuto Soft Pedal Portamento control Reverb send level RPN data increment RPN data decrement RPN MSB, LSB All sound off Reset all controllers
Program Change	: True #	O 0~127 *****************	O 0~127 0~127 (*7)	
System Exclusive		O (*8)	O (*8)	
System Common	: Song Position : Song Select : Tune	× × ×	× × ×	
System Real Time	: Clock : Commands	O ×	O (*9) ×	
Aux Messages	: Local ON/OFF : All Notes Off : Active Sense : Reset	× × O ×	× O O ×	

Mode 1: OMNI ON, POLY   Mode 2: OMNI ON, MONO   O: Yes

Mode 3: OMNI OFF, POLY   Mode 4: OMNI OFF, MONO   ×: No

*1.   Channel pressure handled as vibrato.

*2.   For bank selection transmission only the MSB changes.
      The LSB is fixed at 00H.

*3.   Bank select reception.
      The bank select MSB is used for melody voice and rhythm voice
      switching.
      The bank select LSB is ignored.
          MSB 00H: GM melody voice.
          MSB 7FH: GM rhythm voice.

      The default for all the channels excepting channel 10 is 00H. Bank
      select reception with channel 10 is not possible since channel 10
      is assigned to the rhythm accompaniment. However, bank select
      reception with channel 10 will be possible when you do the follow-
      ing operation: turning the POWER back on while holding the C1
      key down.
      When the bank select MSB is 01H ... 7EH, all subsequent key-ons
      received will be ignored.
      No voice change will occur when only a bank select is received.
      When a program change is received the latest bank select value is
      used.

*4.   Portamento control is effective only when Reception is set in the
      Multi mode.

*5.   RPN receives the following data:
      Pitch bend sensitivity: BnH, 64H, 00H, 65H, 00H
                                  Default: 02H, 00H
      Fine tuning: BnH, 64H, 01H, 65H, 00H
                                  Default: 40H, 00H
      Coarse tuning: BnH, 64H, 02H, 65H, 00H
                                  Default: 40H, 00H
      Null: BnH, 64H, 7FH, 65H, 7FH

*6.   Reset all controllers.
      Pitch bend, channel pressure, modulation, expression, sustain,
      and sostenuto are returned to their default values.
      All RPN data is set to NULL.
      Portamento is reset.

*7.   GM melody voices 0 through 127 become panel voices 1 through
      128.

*8.   Exclusive.

      <GM1 System ON>   F0H, 7EH, 7FH, 09H, 01H, F7H
          All parameters except MIDI Master Tuning are reset to their
          default values.

      <MIDI Master Volume>   F0H, 7FH, 7FH, 04H, 01H, ll, mm, F7H
          Allows the volume of all channels to be changed simultaneously
          (universal system exclusive).
          mm is used as the MIDI Master Volume value (ll is ignored).
          The default value for mm is 7FH.
          This message is receive-only.

      <MIDI Master Tuning>
                    F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, ll, cc, F7H
          Allows the pitch of all channels to be changed simultaneously
          (panel tuning).
          mmll is used as the MIDI Master Tuning value, an the actual
          tuning is shown by the expression:
                    T=Mx200/256-100
          Where T is the actual tuning value in cents. M is decimal value
          represented by 1-byte using bits 0...3 of mm as the MSB and
          bits 0...3 of ll as the LSB.

          The default values of mm and ll are 07H and 0FH, respectively.
          n and cc are also recognized.
          This value is not reset by a GM System ON or Reset All Con-
          trollers message.
          This message is transmitted and received.

      <Bulk Dump>
          bl and bh represent the total byte count as bl+bh*128.
          CS: Checksum.
          Song memory: F0H, 43H, 76H, 18H, bl, bh, <Data>, cs, F7H

      <Panel Control>
          Dual data change: F0H, 43H, 76H, 19H, 04H, <Data>, F7H
          Dual ON/OFF: F0H, 43H, 76H, 19H, 05H, <Data>, F7H
          Harmony/Effect: F0H, 43H, 76H, 19H, 0EH, <Data>, F7H
          DSP type: F0H, 43H, 76H, 19H, 0EH, 00H, 01H, <Data>, F7H
          Chord/Bass: F0H, 43H, 76H, 19H, 0BH, <Data>, F7H

*9.   Internal/external clock selectable.

■ GM System Level 1

The existing MIDI protocol allows performance and other data to be transferred between different instruments, even if they are from different manufacturers. This means, for example, that sequence data that was originally created to control a tone generator from manufacturer A can also be used to control a different tone generator from manufacturer B. Since the voice allocation in different devices from different manufacturers is usually different, however, appropriate program change data must be transmitted to select the right voices.

The General MIDI protocol was developed to minimize confusion and the need for re-programming when playing software created by one MIDI device on another. This has been achieved by defining a standard voice allocation in which the same or similar voices are accessed by the same program change numbers or MIDI channels. The current standard recognized by the International MIDI Association is known as "GM System Level 1." The PDP-100 voice allocation complies with the GM System Level 1 standard.

Das Kommunikationsprotokoll des MIDI-Standards garantiert problemlosen Austausch von Spieldaten und allgemeinen Daten zwischen kompatiblen Instrumenten und Geräten, auch wenn sie von unterschiedlichen Herstellern stammen. Dies wiederum bedeutet, daß beispielsweise Sequenzdaten, die ursprünglich zur Steuerung eines Tongenerators von Hersteller A aufgezeichnet wurden, auch zur Steuerung eines Tongenerators von Hersteller B verwendet werden können. Da jedoch die Stimmen-Programmwechselzuordnung geräte- und herstellerspezifisch unterschiedlich ist, müssen Programmwechseldaten bei der Übertragung in Werte umgesetzt werden, die vom Zielgerät verstanden und zur Wahl der richtigen Stimme genutzt werden können.

Das "General MIDI"-Protokoll wurde ins Leben gerufen, um beim Einsatz von Software, die mit einem Gerät eines anderen Herstellers erstellt wurde, eine größere Verwirrung zu vermeiden und erforderliche Umprogrammierarbeiten auf ein Minimum zu beschränken. Als Grundlage dient eine Standard-Stimmenzuordnung, gemäß der über allgemein definierte Programmwechselnummern bzw. MIDI-Kanäle auf identische bzw. ähnliche Stimmen zugegriffen werden kann. Der gegenwärtig vom internationalen MIDI-Verband anerkannte Standard trägt die englische Bezeichnung "GM System Level 1". Die Stimmenzuordnung im PDP-100 entspricht diesem Standard.

Le protocole MIDI existant permet le transfert des données d'exécution et autres entre plusieurs instruments, même s'ils ne sont pas de la même marque. Ceci signifie, par exemple, qu'un générateur de marque A peut être utilisé pour commander un générateur de sons de marque B. Du fait que l'assignation des voix est généralement différente d'une marque à l'autre, il est nécessaire de transmettre des données de changement de programme appropriées pour sélectionner la voix qui convient.

Le protocole "General MIDI" a été mis au point pour éliminer la confusion et la nécessité de reprogrammer en cas de reproduction sur un appareil MIDI d'un logiciel créé sur un autre appareil. Ceci a été réalisé en définissant une assignation de voix standard dans laquelle des voix identiques ou similaires sont accédées par les mêmes numéros de changement de programme ou de canal MIDI. La norme actuelle, reconnue par l'association MIDI internationale, est appelée "GM System Level 1". L'assignation des voix du PDP-100 est conforme à la norme "GM System Level 1".

El protocolo existente de MIDI permite la transferencia de los datos de interpretación y otros entre instrumentos distintos, aunque sean de marcas diferentes. Esto significa que, por ejemplo, los datos de secuencia que se crearon originalmente para controlar un generador de tonos del fabricante A pueden también usarse para controlar otro generador de tonos del fabricante B. Puesto que normalmente la asignación de voces es distinta en cada aparato de distintas marcas diferentes, deben transmitirse los datos de cambio de programa para seleccionar las voces correctas.

El protocolo MIDI General fue desarrollado para minimizar la confusión y la necesidad de reprogramar cuando se reproducen los programas creados por un aparato MIDI en otro aparato. Esto se ha logrado definiendo una asignación estándar de vcoes en la que las mismas voces o voves similares se acceden por los mismos números de cambio de programa o canales MIDI. La norma actual reconocida por la asociación MIDI internacional se conoce como "GM System Level 1". La asignación de voces del PDP-100 satisface la norma del 'GM System Level 1'.

		PDP-100
KEYBOARD		76 KEYS (E0 — G6)
TONE GENERATOR		AWM (Advanced Wave Memory)
VOICE SELECTORS & CONTROLS		PIANO, E. GRAND PIANO, E. PIANO, HARPSI, VIBES, GUITAR, STRINGS, ORGAN, CHOIR, UPRIGHT BASS, ELEC BASS, DRUMS, VOICE 1 - 128 ▲/▼, SPLIT (for voice list, refer to page 7, 8.)
AUTO BASS CHORD & CONTROLS		FULL KEYBOARD, SINGLE FINGER, FINGERED, SOLO STYLEPLAY, RHYTHM VOLUME, CHORD 1 VOLUME, CHORD 2 VOLUME, BASS VOLUME
STYLE SELECTORS & CONTROLS		POP 1/2, DANCE POP 1/2, 16 BEAT 1/2, ROCK'N', 16 BEAT SHUFFLE, SLOW ROCK, SHUFFLE, COUNTRY 1/2, SWING, JAZZ BALLAD, BIG BAND, BOOGIE, BOSSA, SAMBA, CHA-CHA, RHUMBA, MARCH, MARCH 6/8, WALTZ, J. WALTZ, STYLE 1-99 ▲/▼ (for style list, refer to page 18~20.) START/STOP, SYNCHRO START, INTRO/ENDING, NORMAL/FILL TO NORMAL, VARIATION/ FILL TO VARIATION, TEMPO ▲/▼, TEMPO Display, BEAT LED, METRONOME
KEYBOARD PERCUSSION		41 instruments (refer to page 9)
REVERB		ROOM, HALL 1, HALL 2, COSMIC
PERFORMANCE MEMORY		▶/■ START/STOP, REC [SOLO], REC [SOLO + ABC]
PEDAL CONTROLS	RIGHT	DAMPER
	LEFT	SOFT (START/STOP, SOLO STYLEPLAY)
OTHER CONTROLS		MASTER VOLUME, MIDI/TRANSPOSE, DEMO, POWER
JACKS & CONNECTORS		HEADPHONES, AUX. OUT R and L/L + R, OPTIONAL IN R/L, MIDI IN/OUT
INPUT & OUTPUT LEVEL/IMPEDANCE		AUX. OUT: 600 Ω OPTIONAL IN: 10 kΩ / -10dBm (for nominal output level)
MAIN AMPLIFIERS		20 W (10 W x 2)
SPEAKERS		16 cm (6-5/16") x 2
DIMENSIONS (W x D x H)	without Music stand	1215 mm x 472 mm x 795 mm (47-3/4" x 18-1/2" x 31-1/4")
	with Music stand	1215 mm x 472 mm x 979 mm (47-3/4" x 18-1/2" x 38-1/2")
WEIGHT		40 kg (88 lbs.)

* *Specifications subject to change without notice.*
* *Änderungen ohne Vorankündigung vorbehalten.*
* *Sous toute réserve de modification des caractéristiques sans préavis.*
* *Especificaciones sujetas a cambios sin previo aviso.*

FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!
This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance

with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

Wichtiger Hinweis für die Benutzung in der Bundesrepublik Deutschland.
Bescheinigung des Importeurs
Hiermit wird bescheinigt, daß der/die/das
Personal Digital Piano Typ: PDP-100

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der

VERFÜGUNG 1046/84

(Amtsblattverfügung)

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Yamaha Europa GmbH
Name des Importeurs

• Dies bezicht sich nur auf die von der Yamaha Europa GmbH vertriebenen Produkte.

CANADA

THIS DIGITAL APPARATUS DOES NOT EXCEED THE "CLASS B" LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS SET OUT IN THE RADIO INTERFERENCE REGULATION OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

LE PRESENT APPAREIL NUMERIQUE N'EMET PAS DE BRUITS RADIOELECTRIQUES DEPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMERIQUES DE LA "CLASSE B" PRESCRITES DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE EDICTE PAR LE MINISTERE DES COMMUNICATIONS DU CANADA.

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

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

• This applies only to products distributed by Yamaha Canada Music Ltd.
• Ceci ne s'applique qu'aux produits distribués par Yamaha Canada Musique Ltée.

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:
        BLUE   : NEUTRAL
        BROWN : LIVE
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured makings identifying the terminals in your plug proceed as follows:

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

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

Making sure that neither core is connected to the earth terminal of the three pin plug.

• This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd.

Dit produkt is gefabriceerd in overeenstemming met de radiostoringsvoorschriften van de Richtlijn van de Raad (82/499/EEG).

ΑΥΤΗ Η ΣΥΣΚΕΥΗ ΑΝΤΑΠΟΚΡΙΝΕΤΑΙ ΣΤΙΣ ΑΠΑΙΤΗΣΕΙΣ ΤΩΝ ΟΔΗΓΙΩΝ ΤΗΣ ΕΥΡΩΠΑΙΚΗΣ ΟΙΚΟΝΟΜΙΚΗΣ ΚΟΙΝΟΤΗΤΑΣ 82/499/Ε.Ο.Κ..

Este produto está de acordo com o radio de interferencia frequente requiridos do Conselho Diretivo 82/499/EEC.

Dette apparat overholder det gaeldende EF-direktiv vedrørende radiostøj.

Cet appareil est conforme aux prescriptions de la directive communautaire 87/308/CEE.

Diese Geräte entsprechen der EG-Richtlinie 82/499/EWG und/oder 87/308/EWG.

This product complies with the radio frequency interference requirements of the Council Directive 82/499/EEC and/or 87/308/EEC.

Questo apparecchio è conforme al D.M.13 aprile 1989 (Direttiva CEE/87/308) sulla soppressione dei radiodisturbi.

Este producto está de acuerdo con los requisitos sobre interferencias de radio frequencia fijados por el Consejo Directivo 87/308/CEE.

YAMAHA CORPORATION

OBSERVERA!

Apparaten kopplas inte ur växelströmskällan (nätet) så länge som den ar ansluten till vägguttaget, även om själva apparaten har stängts av.

ADVARSEL: Netspæendingen til dette apparat er IKKE afbrudt, sålæenge netledningen siddr i en stikkontakt, som er t endt — også selvom der er slukket på apparatets afbryder.

VAROITUS: Laitteen toisiopiiriin kytketty käyttökytkin ei irroita koko laitetta verkosta.

IMPORTANT SAFETY INSTRUCTIONS

INFORMATION RELATING TO PERSONAL INJURY, ELECTRICAL SHOCK, AND FIRE HAZARD POSSIBILITIES HAS BEEN INCLUDED IN THIS LIST.

WARNING- When using any electrical or electronic product, basic precautions should always be followed. These precautions include, but are not limited to, the following:

1. Read all Safety Instructions, Installation Instructions, Special Message Section items, and any Assembly Instructions found in this manual BEFORE marking any connections, including connection to the main supply.

2. Main Power Supply Verification: Yamaha products are manufactured specifically for the supply voltage in the area where they are to be sold. If you should move, or if any doubt exists about the supply voltage in your area, please contact your dealer for supply voltage verification and (if applicable) instructions. The required supply voltage is printed on the name plate. For name plate location, please refer to the graphic found in the Special Message Section of this manual.

3. This product may be equipped with a polarized plug (one blade wider than the other). If you are unable to insert the plug into the outlet, turn the plug over and try again. If the problem persists, contact an electrician to have the obsolete outlet replaced. Do NOT defeat the safety purpose of the plug.

4. Some electronic products utilize external power supplies or adapters. Do NOT connect this type of product to any power supply or adapter other than one described in the owners manual, on the name plate, or specifically recommended by Yamaha.

5. WARNING: Do not place this product or any other objects on the power cord or place it in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended! If you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG. NOTE: The smaller the AWG number, the larger the current handling capacity. For longer extension cords, consult a local electrician.

6. Ventilation: Electronic products, unless specifically designed for enclosed installations, should be placed in locations that do not interfere with proper ventilation. If instructions for enclosed installations are not provided, it must be assumed that unobstructed ventilation is required.

7. Temperature considerations: Electronic products should be installed in locations that do not significantly contribute to their operating temperature. Placement of this product close to heat sources such as; radiators, heat registers and other devices that produce heat should be avoided.

8. This product was NOT designed for use in wet/damp locations and should not be used near water or exposed to rain. Examples of wet/damp locations are; near a swimming pool, spa, tub, sink, or wet basement.

9. This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by the manufacturer. If a cart, rack, or stand is used, please observe all safety markings and instructions that accompany the accessory product.

10. The power supply cord (plug) should be disconnected from the outlet when electronic products are to be left unused for extended periods of time. Cords should also be disconnected when there is a high probability of lightening and/or electrical storm activity.

11. Care should be taken that objects do not fall and liquids are not spilled into the enclosure through any openings that may exist.

12. Electrical/electronic products should be serviced by a qualified service person when:
    a. The power supply cord has been damaged; or
    b. Objects have fallen, been inserted, or liquids have been spilled into the enclosure through openings; or
    c. The product has been exposed to rain; or
    d. The product does not operate, exhibits a marked change in performance; or
    e. The product has been dropped, or the enclosure of the product has been damaged.

13. Do not attempt to service this product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

14. This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist. IMPORTANT: The louder the sound, the shorter the time period before damage occurs.

15. Some Yamaha products may have benches and/or accessory mounting fixtures that are either supplied as a part of the product or as optional accessories. Some of these items are designed to be dealer assembled or installed Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using. Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

PLEASE KEEP THIS MANUAL

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