

KORG DP-80

Digital Piano

OWNER'S MANUAL

Thank you for purchasing the new KORG DP-80 DIGITAL PIANO. We at KORG are sure that you will find the DP-80 to be a valuable instrument for rehearsal, recording, and live performance. A simple, functional Front Panel layout, Touch Sensitive 76 Note Keyboard with 16 Preset Voices, built-in Chorus and MIDI capabilities are just a few of the many features of the DP-80. With two "Built-in" Speakers, Stereo Line Outputs and Headphone jack you can use the DP-80 in any situation or setting - at home, in the studio or on stage. Intelligent design and sturdy construction make the KORG DP-80 the ideal instrument for You and Your Music!

CONTENTS...

FEATURES	1
SAFETY NOTE	1
KEYBOARD LAYOUT	2
BUILT-IN SPEAKERS, HEADPHONE AND LINE OUTPUTS	3
VOICE SELECTION	3
DAMPER FUNCTION	4
FUNCTION BUTTON.....	4
TUNING.....	5
KEY TRANSPOSE	5,6
MUSIC BOX	6
MIDI.....	7
"ALL" Data or "NOTE ON/OFF" Data For MIDI INPUT.....	7
MIDI OMNI MODE.....	7
LOCAL CONTROL ON/OFF	8
MIDI RECEIVE CHANNEL	8
MIDI TRANSMIT CHANNEL.....	9
MIDI RESET.....	9
MIDI IMPLEMENTATION.....	10, 11
MIDI IMPLEMENTATION CHART	12
SPECIFICATIONS	13

FEATURES...

1. 76 KEY 8 VOICE POLYPHONIC TOUCH SENSITIVE KEYBOARD (VELOCITY)
2. 16 PRESET VOICES
3. BUILT IN TWIN STEREO SPEAKERS
4. OUTPUTS FOR EXTERNAL AMPLIFICATION
5. HEADPHONE OUTPUT
6. BUILT-IN CHORUS
7. KEY TRANSPOSE AND TUNING FUNCTION
8. EXTENSIVE MIDI CAPABILITIES
9. DAMPER PEDAL FUNCTION
10. "MUSIC BOX" AUTO PLAY SYSTEM WITH 4 PREPROGRAMMED MELODIES
11. STURDY, LIGHTWEIGHT DESIGN AND CONSTRUCTION

SAFETY NOTE...

■ Location

Do not use or leave this unit for extended periods of time, where it is exposed to:

- direct sunlight
- extremes of temperature or humidity
- sand or dust

■ Power Supply

- Use only with rated AC voltage. If you will be using this unit in a country having a different voltage, be sure to obtain the proper transformer to convert to rated voltage.
- To help prevent noise and poor sound quality, avoid using in the same outlet with other equipment, or branching off extensions shared by other equipment.

■ Input/Output Jacks and Connection Cords

Be sure to use standard cables with phone plugs for input and output connections to the rear panel of the DP-80. Never insert any other kind of plug into these jacks.

■ Handle Gently

Knobs and switches are designed to provide positive operation with a gentle touch. Do not use force.

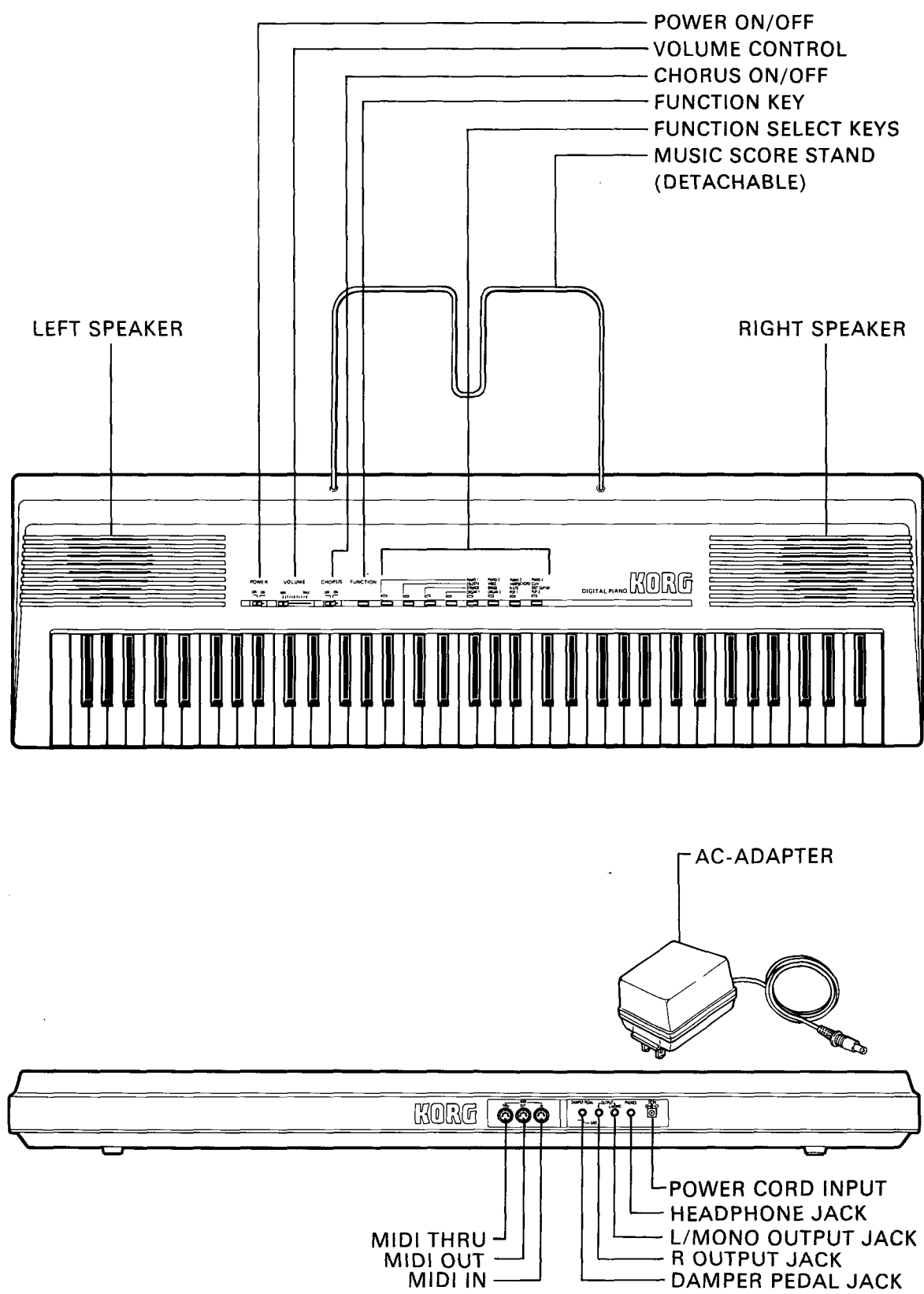
■ Maintenance

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

■ Keep This Manual

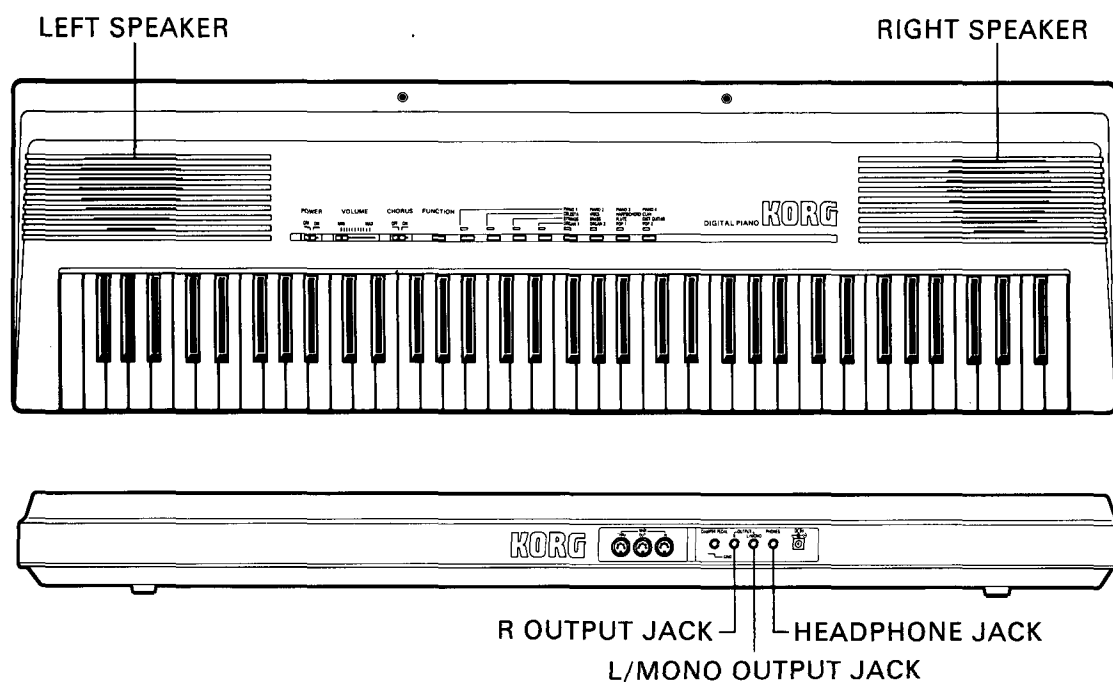
Store this manual in a safe place for future reference.

KEYBOARD LAYOUT.....



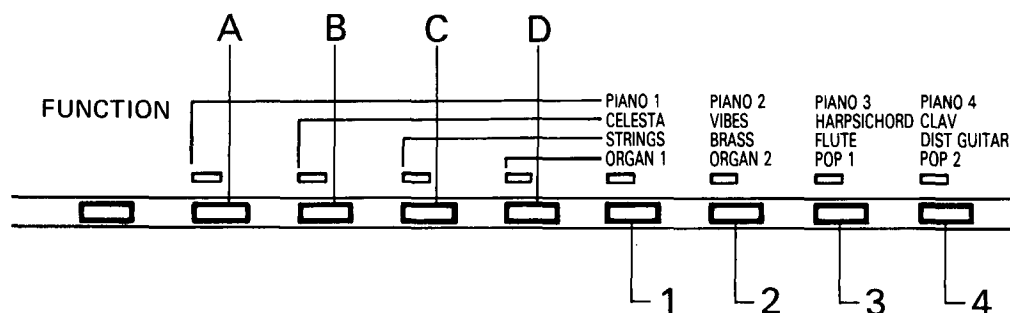
BUILT-IN SPEAKERS, HEADPHONE AND LINE OUTPUTS...

The KORG DP-80 has been designed for rehearsal and performance - on stage, in the studio, or at home. The DP-80 features two built-in speakers, stereo line outputs and a headphone jack. (See diagram below). The use of headphones automatically disables the internal speakers. The L/MONO and RIGHT Outputs are used to send the DP-80 signal to one or two (or a stereo) amplification system(s). Use L/MONO when playing through only one amplification system. When using line out(s) to external amplification, the built-in speakers continue to function. To avoid the possibility of acoustic feedback (especially at high volume levels), place the amplifier(s) well away from the DP-80. (Feedback may be entirely avoided by inserting a "dummy" plug into the headphone jack.)



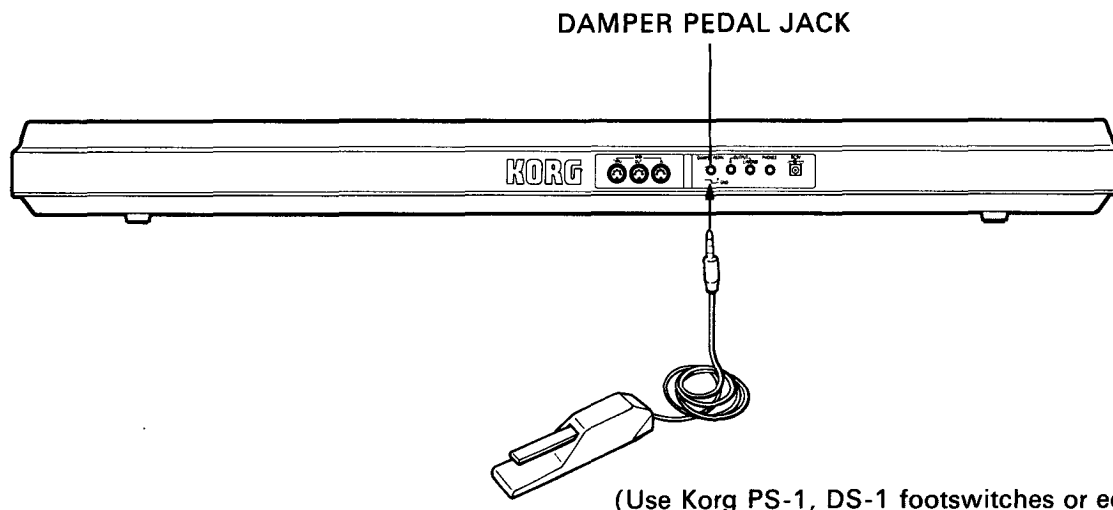
VOICE SELECTION...

The KORG DP-80 features 16 preset voices, which are divided into 4 groups. They are quickly accessed by 8 buttons designated A-D and 1-4 (see diagram below). To select a preset sound (for example, Dist. Guitar), simply press the proper letter button and proper number button (in this case, "C" and "4"). The order in which the buttons are pressed makes no difference. LEDs corresponding to the selected voice will illuminate. When selecting new voices, any sustaining notes will stop sounding until the keyboard is played again.



DAMPER FUNCTION...

The DP-80's Damper Function operates like an acoustic piano damper pedal. Stepping on the connected Damper footswitch sustains notes played on the keyboard, even after the keys are released. When the DP-80 is connected with an external MIDI instrument, the damper pedal information can be transmitted and received over MIDI. Both the DP-80 and the MIDI instrument damper pedals must be off to cancel the damping effect.



FUNCTION BUTTON...

The Function Button is used to access the following functions:

1. TUNING MODE
2. KEY TRANSPOSE MODE
3. MUSIC BOX
4. ALL Or NOTE ON/OFF For MIDI INPUT DATA
5. LOCAL CONTROL MODE
6. MIDI OMNI MODE
7. MIDI INPUT CHANNEL SELECT
8. MIDI OUTPUT CHANNEL SELECT

The Function Mode can be entered only under the following conditions:

1. No key on keyboard is pressed
2. Damper Pedal is off (when accessing MIDI functions)
3. Damper Pedal on MIDI side is off
4. No NOTE ON messages are being sent via MIDI

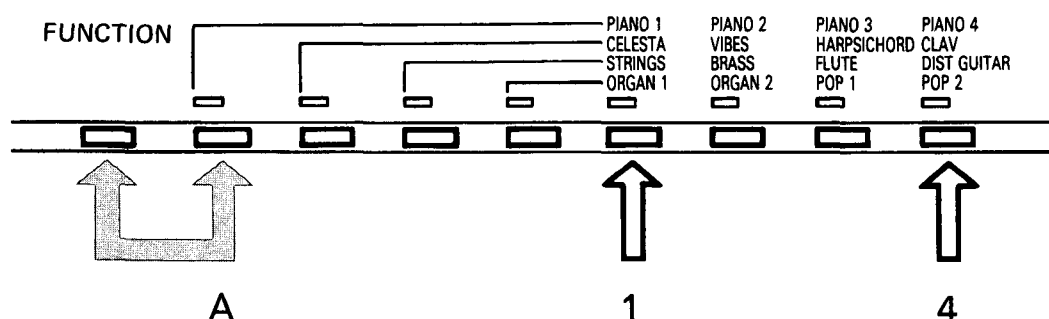
To enter the Function Mode, simply hold down the Function Button (LEDs will turn off if all above conditions are met) and, in turn, hold down one or more of buttons A-D (depending on the function that is desired).

NOTE:

To perform the above functions, Function Button and selected Letter or Number Button(s) must be Held Down.

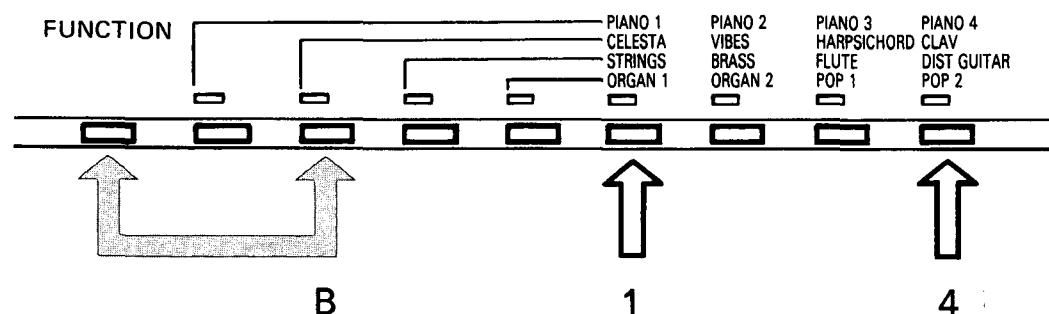
TUNING....

To tune the DP-80 to another instrument, press the FUNCTION and key "A" buttons simultaneously (see diagram below). The "A" LED will light, and LEDs 2 & 3 will flicker (indicating A-440 tuning). A-440 will be heard from the speakers. Pressing "1" lowers the pitch in 1.5 cent steps, while pressing "4" raises the pitch. When tuning is changed from A-440, the "1" or "4" LED lights indicating flat or sharp tuning, respectively. Total tuning range is -50 cents to +50 cents. Pressing "1" (DOWN) when at -50 cents will cause the pitch to jump to +50 cents; similarly, pressing "4" (UP) at +50 cents will change the pitch to -50 cents. When this change occurs, the opposite LED (1 OR 4) will light.



KEY TRANSPOSE....

To Transpose the DP-80 to another key, press the FUNCTION and "B" buttons together. LED "B" will light, and LEDs 2 and 3 will flash, indicating no transpose. A-440 will be heard from the speakers. Pressing "4" once will raise the pitch one half step. The "4" LED will light, indicating transposition upwards. Similarly, tapping "1" lowers the pitch in semitone steps, and the "1" LED indicates transposition downwards. You can transpose the DP-80 up a fourth (to D) and down a fifth (to D). Transposing beyond these limits causes the DP-80 to "wrap around" to the opposite pitch, and causes the opposite LED to light. For example, tapping "4" continuously, raises the pitch to "D" above A-440 in semitone steps, at which point the pitch will drop an octave to D below A-440 and the "1" LED will illuminate. The "4" Button will then continue to raise the pitch again through A-440 up to D in semitone steps, and so forth. Whenever A-440 is reached, the 2 and 3 LEDs will flash. All transpositions are relative to A-440. By raising, for example, A 440 to D, the DP-80 keyboard will be up a fourth in pitch, or in the key of F. (A up to D = C up to F and so on. See table below).



The table below displays the Actual Key obtained when transposing pitches in the Key Transpose Mode. As previously stated, the pitch changes by one halfstep each time Key 1 (DOWN) or Key 4 (UP) is tapped. The new pitch obtained however, is not the New Concert Key. The following table locates the New Concert Key (or the new pitch of the "C" keys on the DP-80 keyboard). Notice (for example) that when A440 is raised one halfstep, to A#, the New Concert Key becomes C#. When A 440 is lowered to E, the New Concert Key becomes G, and so on. In musical terms, the new pitch obtained is the 6th step (or root tone of the relative minor key) of the New Concert Key.

← Pitch down (Key 1)
→ Pitch up (Key 4)

Pitches obtained in Key Transpose Mode												
D	E ^b (D#)	E	F	G ^b (F#)	G	A ^b (G#)	A440	A# (B ^b)	B	C	C# (D ^b)	D
F	G ^b (F#)	G	A ^b (G#)	A	B ^b (A#)	B	C	C# (D ^b)	D	D# (E ^b)	E	F
C Key(s) Pitch (Concert Key)												

MUSIC BOX.....

The DP-80 contains four preprogrammed pieces which are accessed by holding down the Function key and the corresponding numbered key (1-4). The pieces are:

1. FUGUE
 2. PROMENADE
 3. SPRING
 4. FÜR ELISE

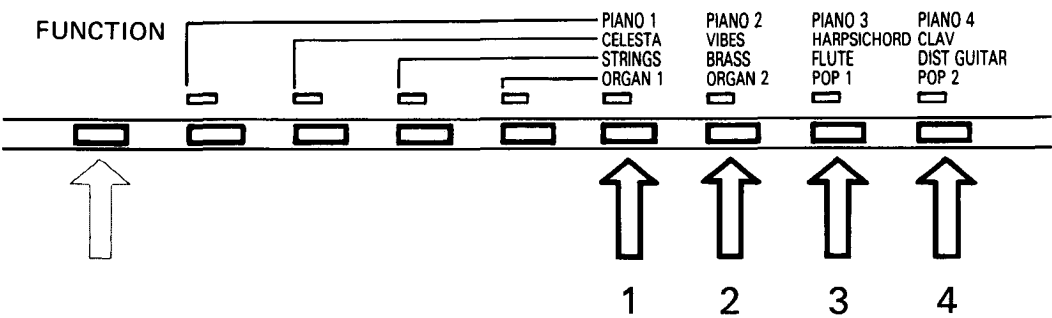
FUNCTION + KEY #1

FUNCTION + KEY #2

FUNCTION + KEY #3

FUNCTION + KEY #4

Any one of the 16 DP-80 voices may be selected for the Music Box pieces either before or during play. To stop the Music Box, hold keys 1, 2, 3 and 4 down simultaneously.



MIDI...

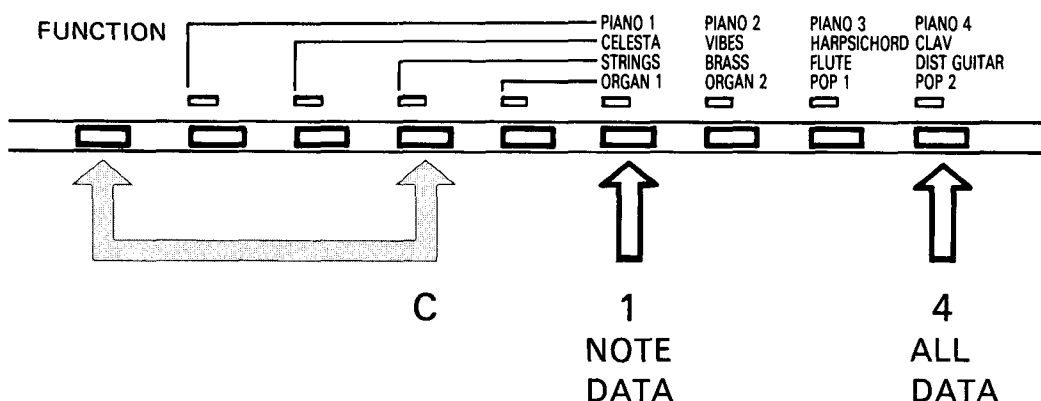
THIS MANUAL ASSUMES THAT YOU UNDERSTAND MIDI FUNCTIONS. IF MORE INFORMATION CONCERNING MIDI IS NEEDED, PLEASE CONSULT AN APPROPRIATE SOURCE.

NOTE:

Make sure proper MIDI connections for the following functions are made on rear panel.

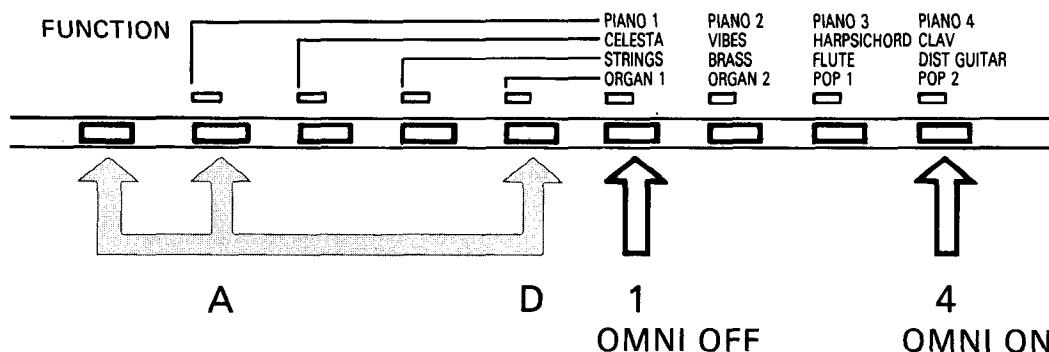
● “ALL” Data or “NOTE ON/OFF” Data For MIDI INPUT

This function selects whether the DP-80 will receive all MIDI data or just Note On/Off and Damper pedal data. To access, press FUNCTION and “C” buttons together. The “C” LED will light, along with either the “4” LED (indicating ALL DATA mode, the default mode) or the “1” LED (indicating NOTE ON/OFF DATA mode). Press “1” or “4” to change to the desired mode.



● MIDI OMNI MODE

This function determines whether the DP-80 will receive MIDI data on all MIDI channels (“OMNI ON”), or from only the MIDI channel designated by the MIDI RECEIVE CHANNEL setting (“OMNI OFF”). To access, press FUNCTION “A” and “D” buttons together. The “A” LED will light, along with either “1” (for OMNI OFF) or “4” (for OMNI ON, the default setting). To change modes, press the “1” or “4” button as desired.

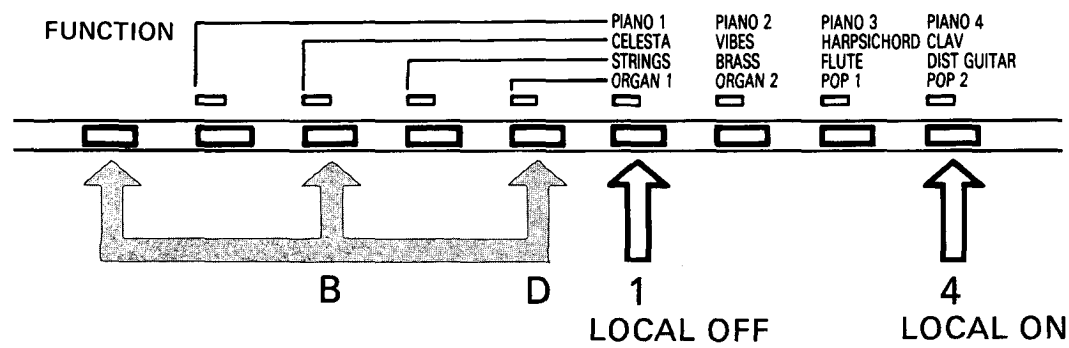


NOTE:

Each MIDI channel (1-16) can handle musical data. When OMNI mode is On, all 16 channels receive data. When OMNI mode is Off reception channel must be specified.

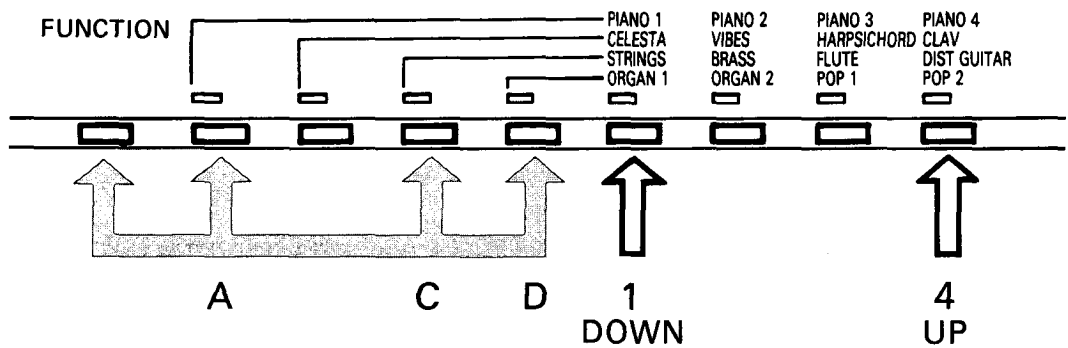
● LOCAL CONTROL ON/OFF

This function disconnects the DP-80 keyboard from the DP-80's internal sound generators, so that keyboard data can be output to another MIDI unit without producing sound from the DP-80 itself. (Signals coming into the DP-80's MIDI IN jack will produce sounds, however.) To access this function, press the FUNCTION "B" and "D" buttons together. The "B" LED will light, as well as either the "1" LED (for LOCAL OFF) or the "4" LED (for LOCAL ON, the default setting). To change modes, press the "1" or "4" button as desired.



● MIDI RECEIVE CHANNEL

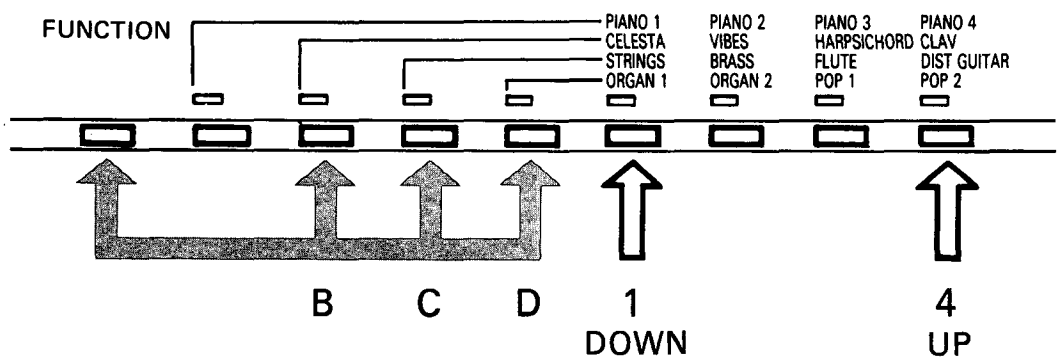
This function determines what MIDI channel the DP-80 will respond to when data is received via the MIDI IN jack. Channels 1 through 16 can be specified. (Note that the DP-80 will respond to ALL channels, regardless of the RECEIVE CHANNEL setting when in the OMNI ON Mode; see previous page.) To access, press the FUNCTION "A", "C" and "D" buttons simultaneously. The current Receive Channel is displayed via the 8 LED indicators according to the table below. Press "1" (Down) and/or "4" (Up) to change MIDI Channel. Pressing "2" or "3" selects channel 1 directly.



MIDI CH.	LED A-D	LED 1-4
01	A	1
02		2
03		3
04		4
05	B	1
06		2
07		3
08		4
09	C	1
10		2
11		3
12		4
13	D	1
14		2
15		3
16		4

● MIDI TRANSMIT CHANNEL

This function determines what MIDI channel the DP-80 will transmit data on via the MIDI OUT jack. The transmit channel should normally match the channel of the receiving unit(s) you desire to play with the DP-80's keyboard. (NOTE: by connecting several units all on different channels to the DP-80, you can select which unit to play by changing Transmit Channel setting.) To access, press the FUNCTION "B", "C" and "D" buttons simultaneously. The current Transmit Channel is displayed via the 8 LED indicators according to the table on the previous page. Press "1" (Down) and/or "4" (Up) to change MIDI Channel. Depressing "2" or "3" selects channel 1 directly.



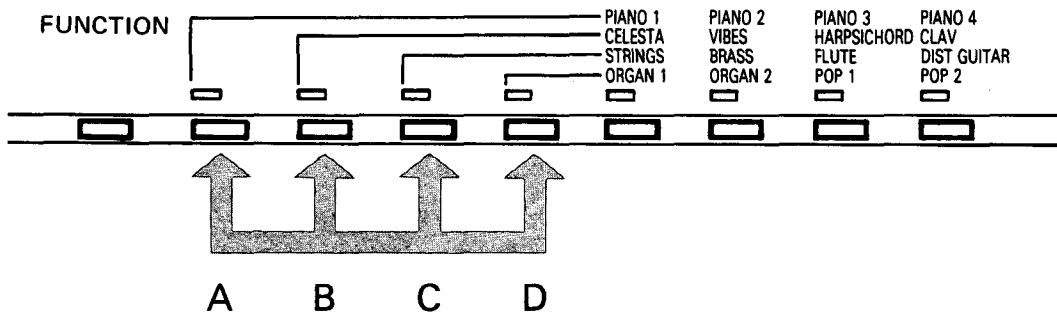
NOTE: When DP-80 is controlling another MIDI instrument, MIDI channel (1-16) must be specified.

● MIDI RESET

To access, hold down switches A, B, C and D simultaneously. MIDI RESET will carry out the following operations:

- 1. Turns NOTE to Off for all MIDI instruments
- 2. Turns LOCAL to ON
- 3. Disengages Running "Status"
- 4. Sets Master Volume to 7FH
- 5. Turns Damper to OFF for MIDI side
- 6. Resets Active Sensing

NOTE: The MIDI Reset Key operations are not carried out using FUNCTION MODE.



● MIDI IMPLEMENTATION

NOTE 1: *When mode is OMNI ON, data from all channels will be received. When mode is OMNI OFF, only data from the channel designated by the MIDI RECEIVE CHANNEL function will be received. MODE MESSAGES, however, must be sent on the channel designated by the MIDI RECEIVE CHANNEL, even in OMNI ON mode. When NOTE ON/OFF mode is selected, MIDI data other than Note On, Note Off, Damper On and Damper Off will not be transmitted or received.*

- *1. NOTE NUMBER (Okkk kkkk) = 21-108. If data above range is received, the data is ignored.
- *2. If program number is greater than 15, the number will be decreased by 16 and the remainder will be the program number.

NOTE 2: *nnnn = MIDI CHANNEL NUMBER (0000-1111)*

1. TRANSMITTED DATA

CHANNEL MESSAGES

Status	Second	Third	Description
1000 nnnn	Okkk kkkk	0100 0000	Note OFF
1001 nnnn	Okkk kkkk	0vvv vvvv	Note ON vvv vvvv = 1-127
1011 nnnn	0100 0000	0000 0000	DAMPER OFF
1011 nnnn	0100 0000	0111 1111	DAMPER ON
1100 nnnn	0000 pppp	---- ----	PROGRAM CHANGE pppp = 0-15

NOTE: *nnnn = MIDI CHANNEL NUMBER (0000-1111)*

- *1. NOTE NUMBER Okkk kkkk = 21-108

2. RECOGNIZED RECEIVE DATA

CHANNEL MESSAGES

Status	Second	Third	Description
1000 nnnn	0kkk kkkk	0xxx xxxx	NOTE OFF *1 velocity will be ignored.
1001 nnnn	0kkk kkkk	0vvv vvvv	NOTE ON *1 vvv vvvv = 1-127
1001 nnnn	0kkk kkkk	0000 0000	NOTE OFF *1
1011 nnnn	0000 0111	0vvv vvvv	VOLUME vvv vvvv = 0-127
1011 nnnn	0100 0000	0vvv vvvv	DAMPER OFF vvv vvvv = 0-63
1011 nnnn	0100 0000	0vvv vvvv	DAMPER ON vvv vvvv = 64-127
1011 nnnn	0111 1010	0000 0000	LOCAL CONTROL OFF
1011 nnnn	0111 1010	0111 1111	LOCAL CONTROL ON
1011 nnnn	0111 1011	0000 0000	ALL NOTE OFF
1011 nnnn	0111 1100	0000 0000	OMNI OFF
1011 nnnn	0111 1101	0000 0000	OMNI ON
1011 nnnn	0111 1110	0mmm mmmm	(ALL NOTE OFF) mmm mmmm = 0-16
1011 nnnn	0111 1111	0000 0000	(ALL NOTE OFF)
1100 nnnn	0ppp pppp	---- ----	PROGRAM CHANGE

NOTE:

nnnn = MIDI CHANNEL NUMBER (0000-1111)

*1. NOTE NUMBER 0kkk kkkk = 21-108

● MIDI IMPLEMENTATION CHART

Date : 4.JULY.1986

Version : 1.0

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1ch	1ch	
	Changed	1-16ch	1-16ch	
Mode	Default		Mode 1	
	Message		OMNI ON.OFF	
	Altered	*****		
Note Number		21-108	21-108	
	: True voice	*****	A0~C8	
Velocity	Note ON	O 9n.K.V=1-127	O 9n.K.V=0~127	9n.K,V=0 NOTE OFF
	Note OFF	X 8n.K,V=64	X 8n.K,V=0~127	K=21-108
After Touch	Key's	X	X	
	Ch's	X	X	
Pitch Bender		X	X	
Control Change	64	O 0=OFF 127=ON	O 0-63=OFF 64-127=ON	Damper
	7	X	O	Volume
Program Change		O 0-15 *****	O 0xxxpppp	xxx : ignored pppp=0-15
System Exclusive		X	X	
System Common	: Song Position	X	X	
	: Song Select	X	X	
	: Tune	X	X	
System Real Time	: Clock	X	X	
	: Commands	X	X	
Aux Message	: Local ON/OFF	X	O	
	: All Notes OFF	X	O	
	: Active Sense	X	O	
	: Reset	X	X	123-127
<p>When "NOTE" is designated, only recognized messages effecting NOTE ON, NOTE OFF and Damper ON, Damper OFF will be received/transmitted.</p>				

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

SPECIFICATIONS...

KEYBOARD : 76keys (E0 ~ G6 WITH TOUCH SENSE) NOTE
OUTPUT : POLYPHONIC : 8 Note
PRESET VOICES : 16
A-1 PIANO 1 B-1 CELESTA C-1 STRINGS D-1 ORGAN 1
A-2 PIANO 2 B-2 VIBES C-2 BRASS D-2 ORGAN 2
A-3 PIANO 3 B-3 HARPSICHORD C-3 FLUTE D-3 POP 1
A-4 PIANO 4 B-4 CLAV C-4 DIST GUITAR D-4 POP 2
EFFECT : STEREO CHORUS

FRONT PANEL : POWER SW. (ON/OFF) (SLIDE SW)
: VOLUME (MIN ~ MAX) (SLIDE VR)
: CHORUS SW (ON/OFF) (SLIDE SW)
: DISPLAY LED 8 (LED)
: PUSH SW x 9 (TACT SW)
FUNCTION A.B.C.D.1.2.3.4
: 12cm 5W 4Ω SPEAKER x 2 (MAIN AMP. 5W x 2)

BACK PANEL : LINE OUT L/MONO R (Regulation Normal jacks ø6.3)
(NOISE LEVEL less than -65dBm)
: PHONES : (Regulation STEREO Jacks ø6.3)
: DAMPER PEDAL JACK (Regulation Normal Jacks ø6.3)
: MIDI terminals : IN. OUT. THRU
: DC INPUT JACK : 9V 1A

FUNCTION CONTROLS : TUNING 1.5 cent Step \pm 50cents
: KEY TRANSPOSE -7 ~ +5 (Chromatic Interval)
: MIDI
MIDI INPUT DATA (ALL/NOTE)
MIDI LOCAL (ON/OFF)
MIDI OMNI (ON/OFF)
MIDI INPUT CHANNEL (1 ~ 16)
MIDI OUTPUT CHANNEL (1 ~ 16)
: MUSIC BOX PATTERNS
1. FUGUE
2. PROMENADE
3. SPRING
4. FÜR ELISE

POWER REQUIREMENTS : DC9: Type AC-ADAPTER
POWER CONSUMPTION : 11W

DIMENSIONS (W x H x D) : 1160 (W) x 100 (H) x 343 (D) mm (45 1/4" x 3 7/8" x 13 3/8")
WEIGHT : 8.9 kg, (19.6 lbs.)
STANDARD ACCESSORIES : MUSIC SCORESTAND
AC-ADAPTER
OPTIONAL ACCESSORIES : KORG PS-1 or DS-1 FOOTSWITCH

(Specifications subject to change without notice)

NOTICE

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

KORG[®] **KORG INC.**

15-12, Shimotakaido 1-chome, Suginami-ku, Tokyo, Japan.