

ARK-2173

61-Key Multi-function Teaching-Type Digital Electronic Organ

OPERATION INSTRUCTIONS

Thank you very much for selecting Model ARK-2173 Teaching-type digital electronic organ!

Please carefully read this operation instruction before use for better performance and keep it properly for future reference.



61 STANDARD TOUCH PIANO KEYS
LED NIXIE TUBE DISPLAY
128 GM TONES + 8 NATIONAL TONES
128 SELECTED AUTO ACCOMPANIMENTS
30 DEMO SONGS AND 6 CHORDS
REAL-TIME RECORD AND PLAY
RHYTHM PROGRAM AND REPLAY
DEMO SONGS AND 2 GUIDE FUNCTIONS
SUSTAIN VIBRATO +/- TRANSPOSE +/-
TOUCH DUAL VOICE KEYBOARD
SPLIT METRONOME MIDI SWITCH
START/STOP INTRO/END FILL IN 1/2
SYN TEMPO RHYTHM SHIFT A/B
SINGLE CHORD FINGER CHORD BASS CHORD
INSTRUMENT CHORD CLEAR
POWER SWITCH VOLUME CONTROL RHYTHM VOLUME
DC 12V JACK MIDI JACK HEADPHONE JACK LEFT AND RIGHT CHANNEL AUDIO JACK

Caution

Please observe the following rules in use so as to avoid the possible hurt to operator and anybody else as well as damage to the electric organ and other peripheral equipment. The cautions needed but not limited to are as follows:

- ◆ Do not open the casing of electronic organ and try to disassemble any part of it, nor make any change to it. Should any abnormal function occur in use, please stop operating it immediately and send it for repair by qualified servicemen.
- ◆ Please use specified voltage of ~220V 50Hz, otherwise the electronic organ may be damaged, overheated or wow may occur.
- ◆ You shall close all power sources before connecting the electronic organ to other electronic appliances and adjust volume potentiometer.
- ◆ Do not place AC adapter or power cord near heating source such as central heating or heat radiator. Do not overbend wire and place heavy matters on wire or wind wire with other matters to avoid damaging wire.
- ◆ Do not connect the plug of electronic organ in blanket socket to avoid overheating socket. When you do not use it for a long term or in thunder days, close off the power and pull off the AC adapter or power plug. To pull out power plug, hold the plug proper instead of wire.
- ◆ Do not place the electronic organ in an environment of dusty, vibrating, low or high temperature (such as exposed to direct sunshine, near central heat or in the car exposed under sunshine) to avoid damaging appearance or internal part.
- ◆ Do not put the electronic organ in an unstable place to avoid falling. Do not sit or put heavy matters on the electronic organ.
- ◆ Protect the electronic organ from raining or wetting. Do not put any vessel holding liquid on the electronic organ to avoid liquid flowing in it and impairing internal part.
- ◆ Please pull out power plug first before cleaning the electronic organ. Do not insert or pull out power plug with wet hand. Regularly examine the power plug and clean the dirt on its surface.
- ◆ To clean the body of the electronic organ, wipe it with dry soft cloth. Do not use paint, dope, organic solvent or chemically impregnated cloth. Do not put vinyl products on it to avoid the panel or keyboard of electronic organ from fading.
- ◆ Do not perform the organ with the loudest or uncomfortable volume to avoid decline in hearing. The package shall be opened by adult to avoid the danger of suffocating infant or children. Please properly store or dispose the plastic package after unpacking.

- Specifications are subject to change without notice.
- Should any description of product function be not specified in detail or some typing error occur, please forgive us.

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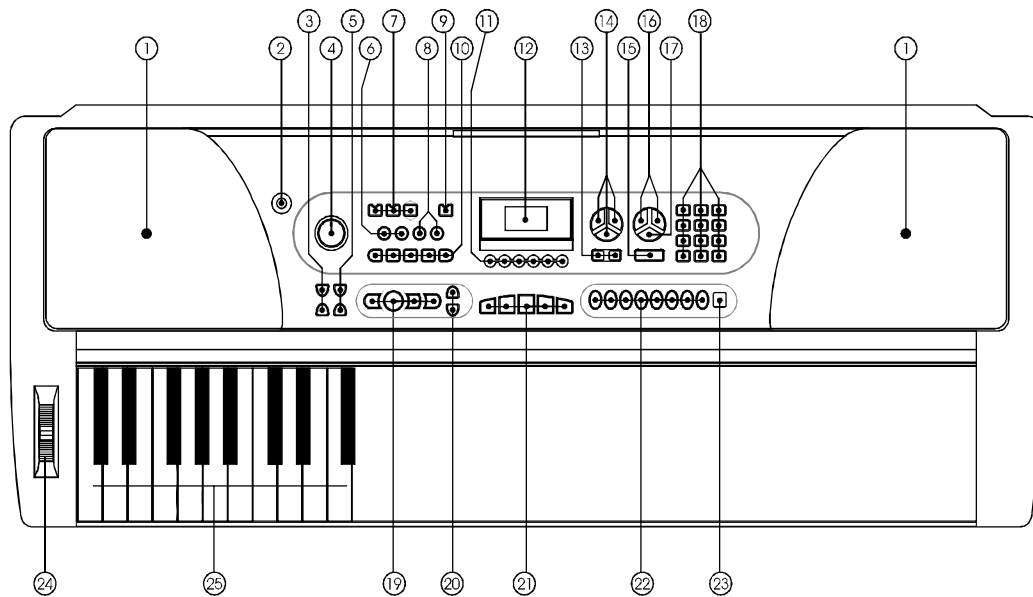
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- ◆ 61 standard touch piano keys
- ◆ LED NIXIETUBE display
- ◆ 128 GM tones + 8 national tones
- ◆ 128 selected auto accompaniments
- ◆ 30 demo songs and 2 guide functions
- ◆ 8 panel drums and 61 keyboard drums
- ◆ Real-time record and play, rhythm program and replay
- ◆ Single chord, Finger chord, bass chord, instrument chord, 6 chords
- ◆ Intro/end, Fill-in 1/2, Sync, Tempo adjustment, Rhythm shift
- ◆ Sustain, Vibrato, Transpose, Touch, Dual Voice, Keyboard Split, Metronome
- ◆ VOL KNOB, RHM VOL, CHORD VOL, PITCH BEND
- ◆ DC12V jack, MIDI jack, headphone jack, left and right channel audio jack

Description of LED NIXIETUBE Display

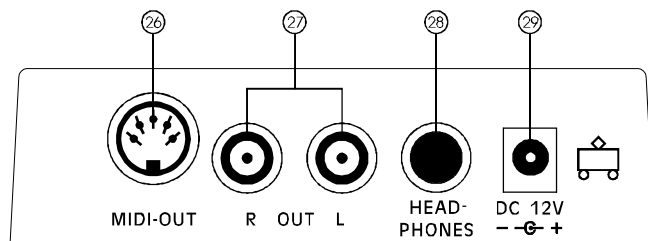
- 1) LED NIXIETUBE displays the number of tone and rhythm. After turning on the electronic organ, LED NIXIETUBE displays **000** (Tone).
- 2) When you adjust accompaniment volume and tempo, LED nixie tube displays the level current accompaniment volume and tempo value. The length of display does not exceed 5 seconds and will automatically convert to corresponding number of tone or rhythm.
- 3) When you select rhythm or song, LED nixie tube displays the number of current rhythm or song. When you play rhythm or song, the small round points of LED nixie tube flash in combination with different tempos.
- 4) When you press **SINGLE CHORD** button, LED nixie tube displays **000**; When you press **FINGER CHORD** button, LED nixie tube displays **000**. The length of display does not exceed 5 seconds and will automatically convert to corresponding number of tone or rhythm. When you exit from this mode, LED nixie tube displays **000**.
- 5) When you press **KEYBOARD SPLIT** button, LED nixie tube displays **000**. The length of display does not exceed 5 seconds and will automatically convert to corresponding number of tone or rhythm. When you exit from this mode, LED nixie tube displays **000**.
- 6) Under **RECORD** mode, LED nixie tube displays **000**. After record is full, LED nixie tube displays **000** indicating not recording afterwards. When you exit from this mode, LED nixie tube displays **000**. The length of display does not exceed 5 seconds and will automatically convert to corresponding number of tone or rhythm.
- 7) When you press other function buttons, LED nixie tube displays **000**. When you exit from this mode, LED nixie tube displays **000**. The length of display does not exceed 5 seconds and will automatically convert to corresponding number of tone or rhythm.

1. Panel Control:



- | | | |
|--------------------------------------|--|--|
| 1. Speaker | 10. Single chord, finger chord, bass chord, instrument chord | 18. numeric keyboard area |
| 2. Power switch | 11. 6 chords | 19. Syn, start/stop, fill in 1/2, intro/end |
| 3. Chord Vol. +/- | 12. LED nixie tube displaying window | 20. tempo +/- |
| 4. Vol. Knob | 13. transpose +/- | 21. Select, tone 1, tone 2, rhythm, rhythm shift |
| 5. Rhythm Vol. +/- | 14. vibrato +/-, sustain | 22. 8 panel drums |
| 6. Record, Play | 15. demo song button | 23. keyboard drums |
| 7. Touch, dual voice, keyboard split | 16. Guide A, Guide B | 24. pitch bend wheel |
| 8. Edit, replay | 17. metronome | 25. Auto Chord keyboard |
| 9. MIDI switch | | |

2. External Jacks:

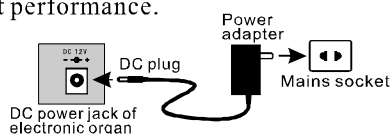


- | |
|--|
| 26. MIDI output jack |
| 27. left and right channel audio output jack |
| 28. headphone audio output jack |
| 29. DC 12V input jack |

1. Power Supply

① Use AC power adapter:

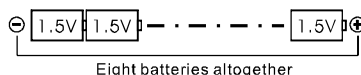
Please use the special AC power adapter provided with this electronic organ or the power adapter with DC 12V voltage and >1A input current and with central anode. Connect the DC plug of power adapter into the DC 12V power socket in the rear of electronic organ, then connect the other end into ~220V main socket (see that the input voltage of power adapter conform to the voltage of electric supply), finally turn on power switch and start performance.



Caution: When you do not use this electronic organ for a long term, you should pull out the plug of power adapter from main socket safely to avoid possible causing trouble of part or other accident in long-term charging.

② Use of Batteries:

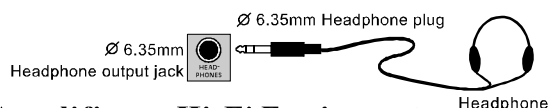
Open the battery lid in the bottom of electronic organ and load eight 1.5V Size D batteries, ensuring the polarity should conform to the direction marked on battery lid. Replace the lid after loading batteries.



Caution: Do not use batteries of different kinds and mix new and old batteries. Low batteries will cause low volume or poor timbre and replace batteries at that time. To avoid possible damage caused by battery liquid leakage, please take out batteries if you will not use the electronic organ for a long term.

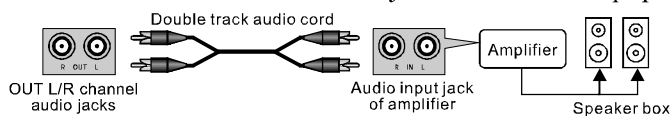
2. Use of Headphone:

Connect headphone plug into **HEADPHONE** jack in the rear of electronic organ. Now the internal speakers are automatically switched off. Use of headphone in performance does not interfere with anybody else, suiting personal monitor and exercising at night.



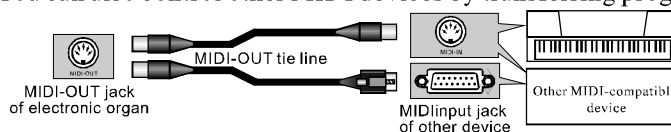
3. Connection with Amplifier or Hi-Fi Equipment :

This electronic organ has built-in speaker system. Alternatively, it can also be connected to any external amplifier or hi-fi equipment. First turn off the switch of electronic organ and external equipment, then insert one end of stereo audio cable into OUT L/R jacks in rear panel of electronic organ and connect the other end into LINE IN or AUX IN jack of other hi-fi equipment.



4. MIDI Output:

By linking MIDI tie line, you may connect MIDI-OUT jack to another MIDI-compatible device to transfer MIDI data of the electronic organ. When you perform a note, the corresponding MIDI data will be transferred. You can also control other MIDI devices by transferring program changing data.



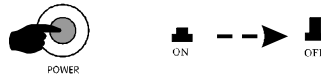
Basic Operation

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I. Basic Operation

1. Turn on power switch:

After having connected AC adapter well or installed batteries correctly, press **POWERSWITCH** button to turn on the electronic organ. To turn off the power, press it once again.



2. Adjustment of Volume:

You may adjust volume by rotating **VOLUME** Knob, clockwise to increase volume and counter clockwise to decrease volume, and mean while accompanying volume is correspondingly changed.



3. Adjustment of Rhythm Volume:

The default rhythm volume is 005. By pressing **RhyVol +/-** button, you can adjust 8 levels of rhythm volume. In the adjustment, LED nixie tube gives corresponding display. Press **RhyVol “+”** and “-” keys simultaneously to restore the default **RhyVol** setting automatically.



4. Adjustment of Chord Volume:

The default chord volume is 005. By pressing **CHORD VOLUME +/-** button, you can adjust 8 levels of chord volume. In the adjustment, LED nixie tube gives corresponding display. The adjustment of chord volume does not work on keyboard split volume. Press **CHORD VOLUME “+”** and “-” keys simultaneously to restore the default chord volume setting automatically.

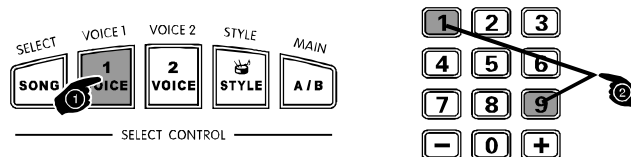


II. Voice and Effect

1. Select Voice:

This electronic organ has 136 voices (00~99) for your choice. For detailed information, refer to Appendix I.

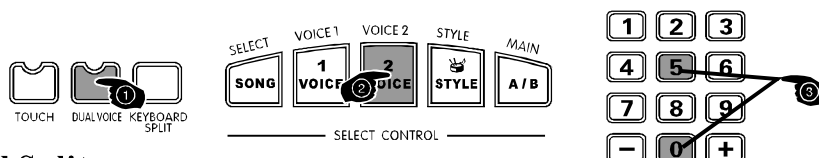
The default status at startup is **PIANO** and LED nixie tube displays current voice number **000**. If current status is not **VOICE**, you need to press **VOICE 1** button. To select a voice throughout 00~99, please input two digits with numeric keyboard; To select a voice throughout 100~136, press **VOICE 1** button once again and when 1-- is displayed, input the latter two digits. Select voice can also be realized by pressing “+”, “-” keys. With no input within two seconds, the system will restore current voice number. In the mode of single voice, **VOICE 1** button is the voice selecting button. (as shown in the figure: VOICE number is 19)



Basic Operation

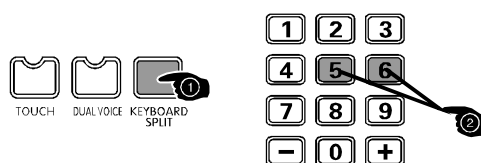
2. Dual Voices:

When you perform in the mode of dual voices, two different voices can be emitted simultaneously. Press **DUAL VOICE** button to enter the mode of dual voices. Now press **VOICE 1** button to select **VOICE 1** and press **VOICE 2** button to select **VOICE 2**. (as shown in the figure: VOICE 2 number is 50)



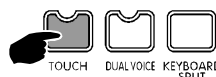
3. Keyboard Split:

Keyboard split mode divides keyboard into left and right areas. The left 24 keys upgrade 24 musical scales (from C2 to C4), making the keyboard into two keyboards started from C4. There is no function of dual voice in this mode. The left area keyboard voice is selected before starting keyboard split, but only right area keyboard voice can be selected after starting. All voice selection in left and right areas can be selected by **VOICE 1**. (as shown in the figure: right area voice number is 65)



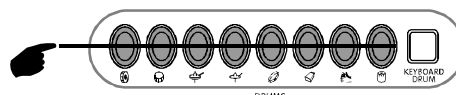
4. Keyboard Touch:

This electronic organ is provided with touch keyboard. Upon starting, touch function will be automatically started. Now when you perform the keyboard with different touches, the electronic organ will emit different volumes. By pressing **TOUCH** button, the touch function will be cancelled and LED nixie tube will display **OFF**. By pressing **TOUCH** button once again, the touch function will be restarted and LED nixie tube will display **OFF**.



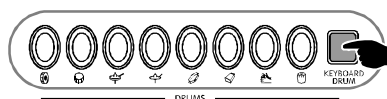
5. Panel drums:

Press **PANEL DRUM** (altogether eight panel drums as shown below or refer to Appendix V) to respond relevant drums and insert relevant drums according to your need to enhance performance effect.



6. Keyboard drums:

When you press **KEYBOARD DRUMS** button and LED nixie tube displays **OFF**, the keyboard is changed to keyboard drums. Each key corresponds to one drum (61 B/W keys correspond to 61 keyboard Drums as shown above keyboard or refer to Appendix VI). Press **KEYBOARD DRUMS** button once again to restore original voice and LED nixie tube displays **OFF**.



7. Pitch Bend:

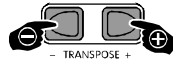
When you push **PITCH BEND** wheel during performance, the note emitted from keyboard will produce an effect of pitch bend. By pushing the wheel upwards or downwards, note will gradually change higher or lower. Loosen the wheel to restore original standard tone.

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8. Transpose:

By pressing **TRANPOSE +/-** buttons, you can heighten or lower a tone at ± 6 levels altogether. This function can only be effective in normal performance and normal tone is displayed as **FFF** on LED nixie tube. Press **TRANPOSE +/-** buttons simultaneously to restore default keyboard tone



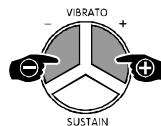
9. Sustain:

When you press **SUSTAIN** button to start Sustain function and LED nixie tube displays **fff**, performing keyboard will product Sustain effect. Press **SUSTAIN** button once again to cancel the function and LED nixie tube displays **FFF**.



10. Vibrato:

Press **VIBRATO +** button to make vibrato effect with 7 adjustable levels. Press **VIBRATO -** button to lower vibrato level until cancelling the function. When LED nixie tube displays **fff**, you can press **VIBRATO +/-** buttons to cancel the vibrato function.

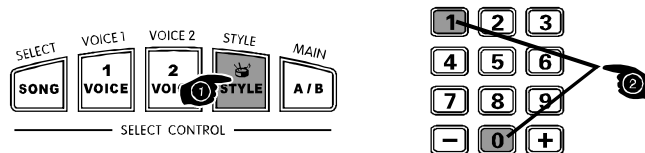


III. AUTO RHYTHM

1. Select Rhythm:

This electronic organ has 128 rhythms (00~99) for your choice. For detailed rhythm table, refer to Appendix II.

Press **RHYTHM** key to enter rhythm selection function. LED nixie tube displays current rhythm number **fff**. To select a rhythm throughout 00~99, input two digits; To select a rhythm throughout 100~128, you need press **RHYTHM** key once again and when 1-- is displayed, input the latter two digits. Selecting rhythm can also be realized by pressing "+, -" keys. (as shown in the figure: rhythm selected is 01)



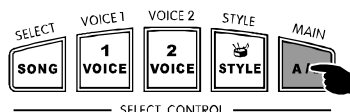
2. Play Rhythm:

After selecting rhythm, press **START/STOP** button to start rhythm. Press **START/STOP** button again to stop the rhythm. Under normal state of rhythm, without chord function, B/W key 1~19 produce normal tones. After starting chord function, B/W key 1~19 have turned to chord area keyboard (also as Sync function key area).



3. Rhythm Switch:

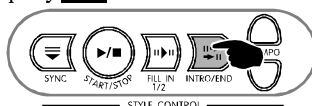
Rhythm A is used for normal playing rhythm. Press **RHYTHM SWITCH** button to switch main rhythm from Rhythm A to Rhythm B (switch after a measure is ended). Press **RHYTHM SWITCH** Button once again to return to Rhythm A.



Basic Operation

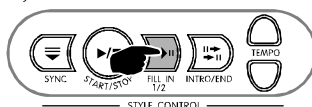
4.Intro/End:

When you press **INTRO/END** button, LED nixie tube will display **HEU**. When you press **START/STOP** button, an intro will be played, and then restore to normal rhythm play; when you press **INTRO/END** button during rhythm play, the rhythm play will be finished after an end is played and LED nixie tube will display **EFF**.



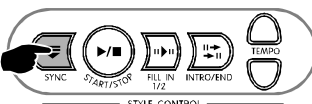
5.Fill In:

During rhythm play, fill-in 1 will be inserted and then restore to the former main rhythm play; Press **FILL IN 1/2** button once again, fill-in 2 will be inserted and then restore to the former main rhythm play.



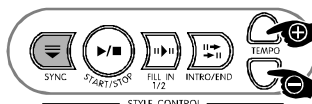
6.Function of Sync:

Press **SYNC** button to start sync accompaniment function and LED nixie tube will display **EFF**. If a rhythm is being played, press **SYNC** button to stop rhythm and start sync accompaniment function; if sync function has been started, press **SYNC** button to exit sync function and LED nixie tube will display **EFF**.



7.Tempo Regulation:

The default tempo of system is **127**. Under the mode of rhythm, song or metronome, you can regulate 32 levels of tempo by pressing **TEMPO +/-** buttons, and LED nixie tube will display the tempo value of current rhythm, song or metronome. Press **TEMPO +/-** buttons simultaneously to restore the default tempo of system.



IV. Auto Bass Chord

1.Single Chord:

When rhythm is started, press **SINGLE CHORD** button to enter the function of single auto bass chord. LED nixie tube will display **EFF**. Now in chord area, apply different fingerings to hear different chord accompaniments. Press **SINGLE CHORD** button once again to exit this function and LED nixie tube will display **EFF**.



② Press single fingering in chord area to start chord accompaniment

2.Finger Chord:

When rhythm is started, press **FINGER CHORD** button to enter the function of finger auto bass chord. LED nixie tube will display **EFF**. Now in chord area, apply different fingerings to hear different chord accompaniments. Press **FINGER CHORD** button once again to exit this function and LED nixie tube will display **EFF**.



② Press finger fingering in chord area to start chord accompaniment

Basic Operation

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3. Bass Chord:

Under chord state, press **BASS CHORD** button to shift bass chord modes in a cycle of four modes: bass chord 1→bass chord 2→bass chord 3→bass chord 4



4. Instrument Chord:

Under chord state, press **INSTRUMENT CHORD** button to shift chord background voice in a cycle of four voices: 000→001→026→006. Performers may adjust according to his/her needs.



5. Chord Clear:

Under chord state, press **CHORD CLEAR** button to stop chord accompaniment but not exit chord function and rhythm plays continuously. Under chord clear state, press a key in chord area to restore chord play.



6. CHORD:

Press **CHORD 1~6** to play a corresponding chord.



V. Record and Program

1. Record:

When you press **RECORD** button, LED nixie tube will display **REC**. Please set properly the state of tone, rhythm, tempo, auto chord before recording and minimize stopping in the course of record for setting. Performer may play freely according to his/her needs or press **FILL-IN 1/2** buttons and **INTRO/END** buttons to enhance performance effect. At most 124 notes can be recorded and after 124 notes are full recorded, no more notes will be recorded and LED nixie tube will display **FUL**. During recording, you may press **RECORD** button to stop the course and LED nixie tube will display **OFF**. Under record mode, panel drums can only produce sound but not be recorded.

After record is ended, press **RCC.PLAY** button to play recorded notes consequently. During recording, press **RCC.PLAY** button to stop recording and meanwhile play the recorded notes.



2. Rhythm Program:

Press **RHYTHM PROGRAM** button to enter the function of rhythm program. By pressing eight panel drums or pressing B/W keys under keyboard drums mode, you can record at most 16 drumbeats. When 16 drumbeats record is full, LED nixie tube will display **FUL** and automatically exit rhythm program. If 16 drumbeats are not fully recorded, recorded notes shall not be played. Under rhythm program mode, notes can not be recorded. After program is ended, press **RHY EDIT.PLAY** button to play programmed drums consequently and form a self-programmed rhythm. By adjusting **TEMPO +/-** button, you can obtain optimal rhythm effect. During rhythm program playing, press **PROGRAM** or **START/STOP** button to stop playing and LED nixie tube will display **OFF**.



VI. Demo Song Guide

1. Demo song playing and selection:

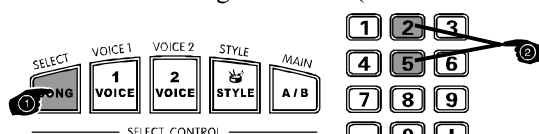
This electronic organ has 30 demo songs (00~29). For the table of demo songs, refer to Appendix III.

Press **DEMO SONG** key to play current demo song. LED nixie tube will display the number of current demo song. After a song comes to an end, it will play next song. During playing, press **DEMOSONG** key once again to stop playing. During playing, pressing **START/STOP** button does not work. This key is a sequential Key. Press once to play, once more to stop, once more again to play next demo song. During playing, you can select demo songs by numeric keyboard or +/- buttons. (as shown in the figure: selected demo song is 25)



2. Selection of Demo Song Voice:

When you press **SELECTION** button under the state of demo song playing, you may change the voice of demo song. To select a voice throughout 00~99, input two digits with numeric keyboard; to select a voice throughout 100~136, press **VOICE 1** button once again; you may also select voice by pressing +/- keys. Press **SELECTION** button once again to exit the mode of demo song voice selection and restore the mode of demo song selection. (as shown in the figure: selected voice of demo song is 25)



3. Metronome:

When you press **METRONOME** button, LED nixie tube will display **OFF**. The electronic organ will produce a beat and add an effect of metronome in the performance. Press **METRONOME** button once again to stop and LED nixie tube will display **OFF**. The operative loop is: play 1/4, 2/4→stop→play 3/4→stop→play 4/4→stop→..... You may press **TEMPO** +/- button according to the needs of performance.

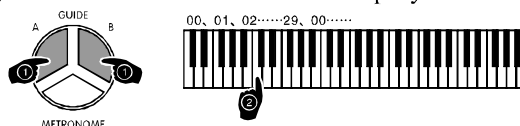


4. Intelligent Guide:

Press **GUIDE A** or **GUIDE B** button to enter guide function and LED nixie tube will display **OFF**. Now select song for guide in accordance with the B/W key number. Press **GUIDE A** or **GUIDE B** button once again to exit guide and LED nixie tube will display **OFF**. Under guide mode, panel drums do not work. After a guide comes to an end, the electronic organ will wait for B/W key selection for more guide.

Guide A: when you press any key, no matter correct or not, the electronic organ shall emit Correct melody note and repeat its accompaniment in One-Key-One-Note mode.

Guide B: when you press any key, melody will be blocked. If you do not press any key in 3 seconds, Melody will be restored for your guide and LED nixie tube will display the note of melody.



VII. MIDI Output:

Press **MIDI** button to start MIDI output function. LED nixie tube will display **OFF**. Press **MIDI** button once again to close MIDI output function and LED nixie tube will display **OFF**.



Appendix I. Table of Voice

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No.	Name of tone	No.	Name of tone	No.	Name of tone
	PIANO	046	Orchestral Harp	092	Pad 5(bowed)
000	Acoustic Grand Piano	047	Timpani	093	Pad 6(metallic)
001	Bright Acoustic Piano		ENSEMBLE	094	Pad 7(halo)
002	Electric Grand Piano	048	String Ensemble 1	095	Pad 8(swcep)
003	Honky-tonk Piano	049	String Ensemble 2		FX
004	Rhodes Piano	050	Synth Strings 1	096	FX 1 (rain)
005	Chorused Piano	051	Synth Strings 2	097	FX 2(soundtrack)
006	Harpsichord	052	Choir Aahs	098	FX 3(crystal)
007	Clavichord	053	Voice Oohs	099	FX 4(atmosphere)
	MALLET	054	Synth Voice	100	FX 5(brightness)
008	Celesta	055	Orchestra Hit	101	FX 6(goblins)
009	Glockenspiel		BRASS	102	FX 7(echoes)
010	Music box	056	Trumpet	103	FX 8(sci-fi)
011	Vibraphone	057	Trombone		ETHNIC
012	Marimba	058	Tuba	104	Sitar
013	Xylophone	059	Muted Trumpet	105	Banjo
014	Tubular Bells	060	French Horn	106	Shamisen
015	Dulcimer	061	BrassSection	107	Koto
	ORGAN	062	Synth Bass 2	108	Kalimba
016	Hammond Organ	063	Synth Bass 3	109	Bagpipe
017	Percussive Organ		OBOE	110	Fiddle
018	Rock Organ	064	Soprano Sax	111	Shanai
019	Church Organ	065	Alto Sax		PERCUSSIVE
020	Reed Organ	066	Tenor Sax	112	Tinkle Bell
021	Accordion	067	Baritone Sax	113	Agogo
022	Harmonica	068	Oboe	114	Steel Drums
023	Tango Accordion	069	English Horn	115	Woodblock
	GUITAR	070	Bassoon	116	Taiko Drum
024	Acoustic Guitar(nylon)	071	Clarinet	117	Melodic Tom
025	Acoustic Guitar(steel)		PIPE	118	Synth Drum
026	Electric Guitar(jazz)	072	Piccolo	119	Reverse Cymbal
027	Electric Guitar(clean)	073	Flute		SOUND EFFECTS
028	Electric Guitar (muted)	074	Recorder	120	Guitar FretNoise
029	Overdriven Guitar	075	Pan Flute	121	Breath Noise
030	Distortion Guitar	076	Bottle Blow	122	Seashore
031	Guitar Harmonics	077	Shakuhachi	123	Bird Tweet
	BASS	078	Whistle	124	Telephone Ring
032	Acoustic Bass	079	Ocarina	125	Helicopter
033	Electric Bass(finger)		LEAD	126	Applause
034	Electric Bass(pick)	080	Lead 1(square)	127	Gunshot
035	Fretless Bass	081	Lead 2(sawtooth)		CHINESE
036	Slap Bass 1	082	Lead 3(caliop lead)	128	SUNA
037	Slap Bass 2	083	Lead 4 (chiff lead)	129	PIPA
038	Synth Bass 1	084	Lead 5(charang)	130	RUAN
039	Synth Bass 2	085	Lead 6(voice)	131	BNDI
	STRINGS	086	Lead 7(fifths)	132	ERHU
040	Violin	087	Lead 8(bass+lead)	133	ZENG
041	SynthBass 1		PAD	134	XIAO
042	Cello	088	Pad 1(new age)	135	SENG
043	Contrabass	089	Pad 2(warm)		
044	Tremolo Strings	090	Pad 3(polysynth)		
045	Pizzicato Strings	091	Pad 4(choir)		

Appendix II. Table of Rhythm

No .	Name of Style	No .	Name of Style	No .	Name of Style	No .	Name of Style
	RHYTHM&BLUES	033	Epic Ballad	065	Jazz Samba	097	Foxtrot
000	R&B	034	6/8Ballad	066	Modern ChaCha	098	Jive
001	R&B Ballad		ROCK	067	Latin Rock		WORD
002	Fast Gospel	035	Hard Rock		CARIBBEAN	099	Cumbia
003	Gospel	036	Rock Boogie	068	Bluegrass	100	16Beat
004	6/8Blues	037	Rock Pop	069	Country Pop	101	Shuffle
005	Blues Shuffle	038	Rock Shuffle	070	Reaggae 16	102	Disco Party
006	Soul	039	6/8Rock	071	Quickstp	103	ShowPop
007	Funk	040	Rock Ballad		COUNTRY&WESTERN	104	Pop
008	Funk Shuffle		CONTEMPORARY JAZZ	072	Bluegrass	105	R&B Ballad
	DANCE	041	Bebop	073	Country Pop	106	Dance
009	EuroBeat	042	Jazz Ballad	074	Country Rock	107	Rock
010	Dance Pop	043	Jazz Waltz	075	Country Ballad	108	Polka
011	Casa	044	Fusion	076	Country Waltz	109	16Beat
012	Dance Shuffle	045	Fusion Shuffle	077	Country Shuffle	110	Tbig Ballad
013	Ground Beat		ROCK&ROLL	078	Western Shuffle	111	Boogie
014	Synth Boogie	046	Rock Classical		WORD MUSICO	112	Casa
	POP	047	Rock&Roll	079	Polka	113	Shuffle
015	16BeatPop	048	Boogie Woogie	080	Traditional Waltz	114	Euro Beat
016	8BeatPop	049	Twist	081	Sevillianas	115	Disco Funk
017	8BeatLight	050	Rockabilly	082	Bolcro Lento	116	8Beat
018	FolkRock	051	16beatRock&Roll	083	Rumba Espagnole	117	PopBallad
019	Detroit Pop		LATIN	084	Dangdut	118	Ground
020	PopShuffle	052	Mambo		MARCH	119	Disco Trop
021	PopRock	053	Merengue	085	Military March	120	Piano Ballad
022	Show Tune 1	054	Beguine	086	6/8March	121	Light
	DISCO	055	Bomba		BALLROOM LATIN	122	Disco Soul
023	Disco Party	056	Guaguanco	087	Rumba	123	Disco Pop
024	DiscoSoul		TRADITIONAL JAZZ	088	Samba	124	Epic Ballad
025	Disco Trop	057	Ragtime	089	Cha Cha	125	R&B
026	Disco Funk	058	Dixieland	090	Pasodoble	126	Slow Ballad
027	Disco Pop	059	Big Band	091	TARANTELLA	127	Folk
028	Polka Pop	060	Big Band Ballad		BALLROOM STANDARD		
	POP BALLAD	061	Swing	092	Slow Waltz		
029	16Beat Ballad	062	Swing Waltz	093	Tango Argentina		
030	PopBallad		LATINPOP	094	Tango Habanera		
031	BigBallad	063	Ska	095	Slow Fox		
032	Piano Ballad	064	Calpso	096	Vienesese Waltz		

Appendix III. Table of Demo Song









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000	QingRen	015	Susana
001	XiaoWei	016	Little brown jug
002	QiLiXiang	017	Espano
003	LiangZhu	018	LittleWhiteBoat
004	LiangZhiHuDie	019	Joy to the world
005	2002NianDeDiYiChangXue	020	LardesikMarch
006	QiTianQiShiJi	021	HungaryDance
007	CenJingZuiMei	022	Carmen
008	HouLai	023	MySun
009	S.H.E.SuperStar	024	RhythmOfTheRain
010	LaoShuAiDaMi	025	Mozart
011	WenBie	026	MozartNo.40
012	Dancermachine	027	YesterdayOnceMore
013	Auld lang syne	028	TurkishMarch
014	Smile polka	029	My heart will go on

Appendix IV. Mode of Chord

Finger chord				Single chord	
1	C	6	Cdim	1	C
2	C9	7	C7	2	Cm
3	Cm	8	Cm7	3	C7
4	Caug	9	CM7	4	Cm7
5	Csus				

Appendix V. Table of 8 Panel Drums

1		BassDrum	5		Tambourine
2		SnareDrum	6		CowBell
3		ClosedHi-Hat	7		HandClap
4		CrashCymbal	8		LowTom

No .	Onet	Graph	Keyboard drums	No .	Onet	Graph	Keyboard drums
01	C2		Bass Drum	32	G4		High Agogo
02	C2#		Side Stick	33	G4#		Low Agogo
03	D2		Acoustic Snare	34	A4		Cabasa
04	D2#		Hand Clap	35	A4#		Maracas 1
05	E2		Electric Snare	36	B4		Short Whistle
06	F2		Low Floor Tom	37	C5		Long Whistle
07	F2#		Closed Hi-Hat	38	C5#		Short Guiro
08	G2		High Floor Tom	39	D5		Long Guiro
09	G2#		Pedal Hi-Hat	40	D5#		Claves
10	A2		Low Tom	41	E5		Hi Wood Block
11	A2#		Open Hi-Hat	42	F5		Low Wood Block
12	B2		Low-Mid Tom	43	F5#		Mute Cuica
13	C3		Hi-Mid Tom	44	G5		Open Cuica
14	C3#		Crash Cymbal 1	45	G5#		Mute Triangle
15	D3		High Tom	46	A5		Open Triangle
16	D3#		Ride Cymbal 1	47	A5#		Sleigh
17	E3		Chinese Cymbal	48	B5		Shaker 2
18	F3		Ride Bell	49	C6		Carillon C6
19	F3#		Tambourine	50	C6#		Bell Tree
20	G3		Splash Cymbal	51	D6		Castanets
21	G3#		CowBell	52	D6#		Click808
22	A3		Crash Cymbal	53	E6		Dogloct
23	A3#		Vibraslap	54	F6		Gun
24	B3		Ride Cymbal 2	55	F6#		Fred Noise
25	C4		Hi Bongo	56	G6		Clock D5
26	C4#		Low Bongo	57	G6#		Large tangu
27	D4		Mute Hi Conga	58	A6		Punch loct
28	D4#		Open Hi Conga	59	A6#		Small ba
29	E4		Low Timbale	60	B6		Small Luo
30	F4		High Timbale	61	C7		Snare Verbl
31	F4#		High Agogo				

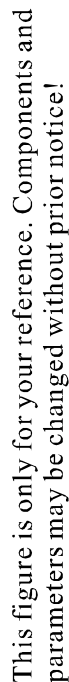
Appendix VII. Trouble Shooting

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Trouble	Possible reason/eliminating method
Accompanying a little noise in turning ON/OFF power.	Normal condition. Please do not worry.
After turning on power, press keyboard but no sound can be emitted.	Check whether volume control key is at proper position or headphone jack is held by other equipment to break off built-in speaker system.
Distorted or discontinued sound, or even system halted.	Using unqualified AC adapter or low batteries. Please use the AC adapter provided with this electronic organ or replace batteries.
The note and its tone for a same voice are a little different.	This is normal phenomenon caused by different voice sampling diapason.
When using Sustain function, some tones have long sustain but some have short sustain.	This is normal phenomenon since the sustains of different tones are set to optimum lengths.
Abnormal volume or accompaniment volume	Check whether volume control and accompaniment volumecontrol are in proper setting.
In SYNC status, auto accompaniment does not work.	Check whether Single chord or Finger chord is set, now pressing a note at left-hand keyboard area (19 keys in the left of keyboard)
When using mobile phone, the electronic organ will emit noise.	Mobile phone can disturb the electronic organ. To avoid the noise, turn off the mobile phone or use it far away.
When using AC adapter, the electronic organ does not emit sound after startup and indicating LED does not light up.	Check whether power socket is energized, AC adapter is well plugged, poor connection of power socket or inadequate power voltage.
When using batteries, the electronic organ does not emit sound after startup and indicating LED does not light up.	Check whether battery polarity is correct and batteries have run down.
The pitch of note is not correct.	Check whether the parameter of Transpose is "000".
In band concert, the pitch of electronic organ has a deviation from other musical instruments of the band.	Check whether the parameter of Transpose is "000", or read just Transpose function to match other musical instruments of the band.

Standard	GB/T12105-1998 GB8898-2001 GB13837-2003 GB17625.1-2003
Keyboard	61standard touch piano keys
Display	LED NIXIETUBE display
Tone	128 GM tones+8 national tones
Rhythm	128 selected auto accompaniments
Demo song	30 demo songs
Chord	6 chords
Effect control	Vibrato sustain、transpose、touch 、 dual voices、 keyboard split、 pitch bend
Record	Real-time record and play、 rhythm program and replay
Drums	61keyboard drums and 8 panel drums
Accompaniment control	Start/Stop 、 Sync 、Fill-in1/2、 Rhythm Switch、 Intro/End Tempo
Chord control	Single chord、 Finger chord、 Bass Chord、 Instrument Chord、 Chord Clear
Intelligent guide	Demo song、 metronome、 A/BGuide
Other controls	Power jack、 Volume control、 Rhythm volume、 Chord volume
External port	DC 12V jack、 MIDI jack、 headphone jack、 left and right channel audio jack
Diapason	C2~C7
Accuracy in musical tuning	≤3cent
Specifications	955×380×135 (mm)
Weight	5Kg
AC adapter	AC220V, DC12V
DV input	DC12V
Output power	6W×2
Quiescent current	108mA
Parts provided with electronic organ	AC adapter, music stand and Operation Instructions

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Operation Instructions Version: ARK-2173-SM-EN-1.1