JBL
ENTERTAINMENT
by HARMAN

KX180

DIGITAL PROCESSOR

USER MANUAL

Table of Contents

Important Safety Instructions..... 03

Section 1: Introductions 04

Section 2: System Connection..... 08

Section 3: Menu Structure 09

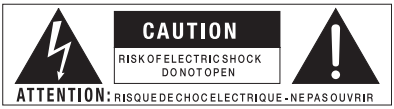
Section 4: Infrared Remote Control Codes..... 12

Section 5: Specifications..... 13

Section 6: Warranty 14

Section 7: Service..... 15

Important Safety Instructions



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

The cores in the mains lead are coloured in accordance with the following code:

GREEN & YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the units chassis.

CONDUCTOR		WIRE COLOUR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/YEL	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

WARNING FOR YOUR PROTECTION
READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Use only with the cart stand, tripod bracket, or table specified by the manufacture, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Refer all servicing to to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

POWER ON/OFF SWITCH: For products provided with a power switch, the power switch DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.

ABOUT JBL KX180

KX180 is a professional-grade digital processor designed for karaoke applications and provides a full set of audio processing for enhancing or fine-tuning music and voice. KX180 is equipped with three 6.5mm connectors for microphone input, two groups of RCA connectors and an optical connector for music input, and one pair of RCA connectors for recording out. It supports storage and recall of up to 10 presets and manual or auto control of Dance or Sing mode.

Echo, Reverb and Effect

KX180 offers five reverb effects: Room, Small Hall, Large Hall, Vocal and Custom.

In Custom effect mode, users are allowed to adjust the following parameters: Early Reflections Volume, Early Reflections Delay, Early Reflections HF Damping, Later Reflections Volume, Later Reflections Delay, Later Reflections HD Damping, Reverb Space, Reverb Density, Reverb HF Damping, etc.

Among all the parameters, the HF damping will affect the color of the sound, the higher its coefficient, the more presence of high frequency you will get.

Dance and Sing Mode

KX180 provides two operation modes - Dance and Sing, which can be engaged automatically or manually. Under Auto control, detection of any active microphone input will automatically switch the system to the Sing mode from the Dance mode. The two modes can also be selected manually through its graphic user interface.

Users are allowed to create unique Dance and Sing mode by adjusting parameters of Music, Main Out, Surround, Center and Sub.

Control Methods

KX180 can be fine-tuned through the tailor-designed graphic user interface or quick set up using the front panel controls. Connection with a VOD system can be realized through IR.

FEATURES

- Two groups of microphone inputs
- 15-band PEQ and compressor for each Mic Input
- Three levels of Feedback Inhibition for each Mic Input
- Independent control of Echo and Reverberation
- Two pairs of RCA connectors and an Optical connector for Music Input
- 15-band PEQ for Music Input
- Three levels of Excitement for Music Input
- Six output channels: Right, Left, Centre, Sub, Surround Right and Surround Left.

- 10-band PEQ for Right and Left Outputs
- 7-band PEQ for Surround and Centre Outputs
- 5-band PEQ for Subwoofer Output
- Compressor provided for each output channel
- Two independent REC channels can be paired into stereo
- Authority control for front panel controls
- Up to 10 presets can be saved
- Dance or Sing mode of each microphone input channel can be switched manually or automatically

UNPACKING

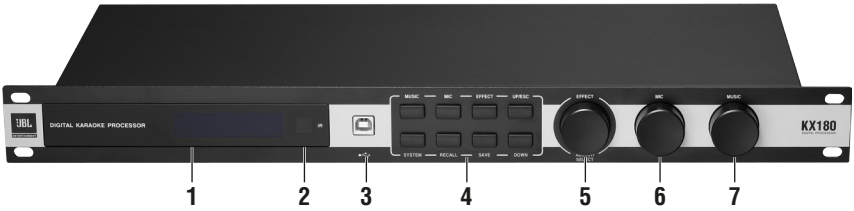
Please unpack and inspect your processor for any damage that may have occurred during transit. If damage is found, notify the transportation company immediately. Only you can initiate a claim for shipping damage. Save the shipping carton as evidence of damage for the shipper's inspection.

NOTE: Please save all packing materials for future transportation use. Never ship the unit without the factory pack.

PACKING LIST

- 1 x JBL KX180 Digital Processor
- 1 x Power Cord
- 1 x User Manual

FRONT AND REAR PANELS



Front Panel

1. **LCD Display:** displays the initial settings after boosting or parameters when any control is used.

2. **IR:** accepts IR signal sent through an IR remote or transmitter.

3. **USB Interface:** Type-B USB connector. Connects to a PC for GUI operation.

4. **Menu Buttons:** includes six parameter buttons (MUSIC, MIC, EFFECT, SYSTEM, RECALL & SAVE) and two navigation buttons (UP/ESC & DOWN).

    - **MUSIC:** press to visit or edit Music Input and Output paramters.
    - **MIC:** press to visit or edit parameters of Mic 1, Mic 2 and Mic 3.
    - **EFFECT:** press to visit or edit Effect Input EQ, Echo and Reverb paramters.
    - **SYSTEM:** press to visit or edit Signal Source, Initial Preset/Volume, Limit Volume, Data Save Mode, Music Excite, Microphone Feedback Inhibition, Keyboard and Authority Control, etc.
    - **RECALL:** press to recall data from a preset.
    - **SAVE:** press to save data to a preset.
    - **UP/ESC:** Short-press will navigate to the previous parameter or escape to the last screen. Long-press will navigate to the homescreen.
    - **DOWN:** press to navigate to the next parameter.

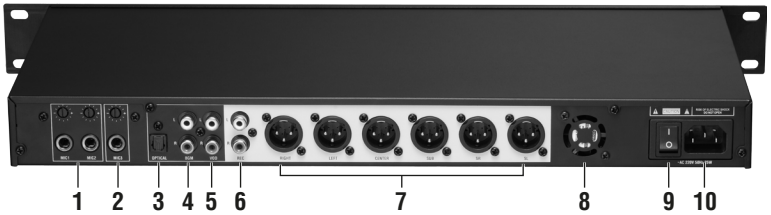
5. **EFFECT / ADJUST/SELECT:** this knob can be used for Effect Volume adjustment, unlocking the homescreen and parameter editing.

    - **To adjust Effect Volume:** when the LCD shows the homescreen, rotate the knob to adjust the EFFECT volume.
    - **To unlock the LCD homescreen:** when the LCD is locked, press and

rotate the knob to enter the 4-digit password and then press to confirm.

- **To edit paramters:** when the LCD is unlocked and any menu button (4) is pressed, short-press the knob to enter into the next level menu or parameter. Short-press the knob to select a parameter. The selected parameter will flash. Rotate the knob to edit the value.

6. **MIC:** rotate the knob to adjust microphone volume.
7. **MUSIC:** rotate the knob to adjust music volume.

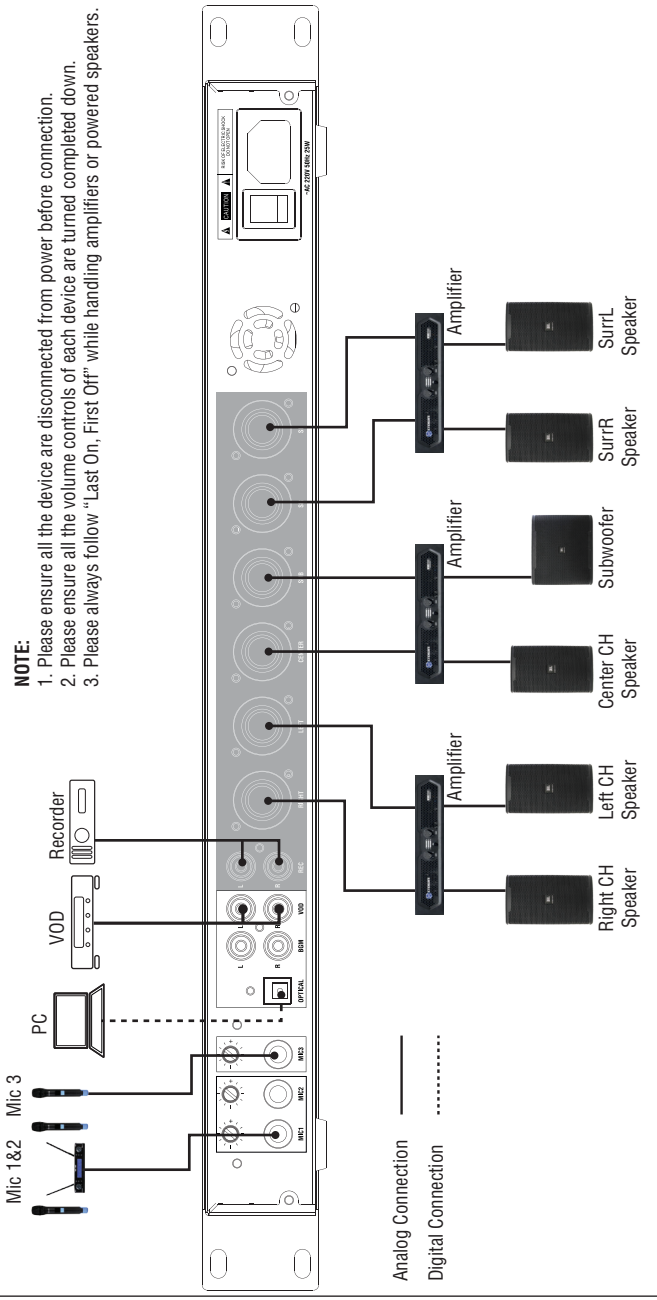


Rear Panel

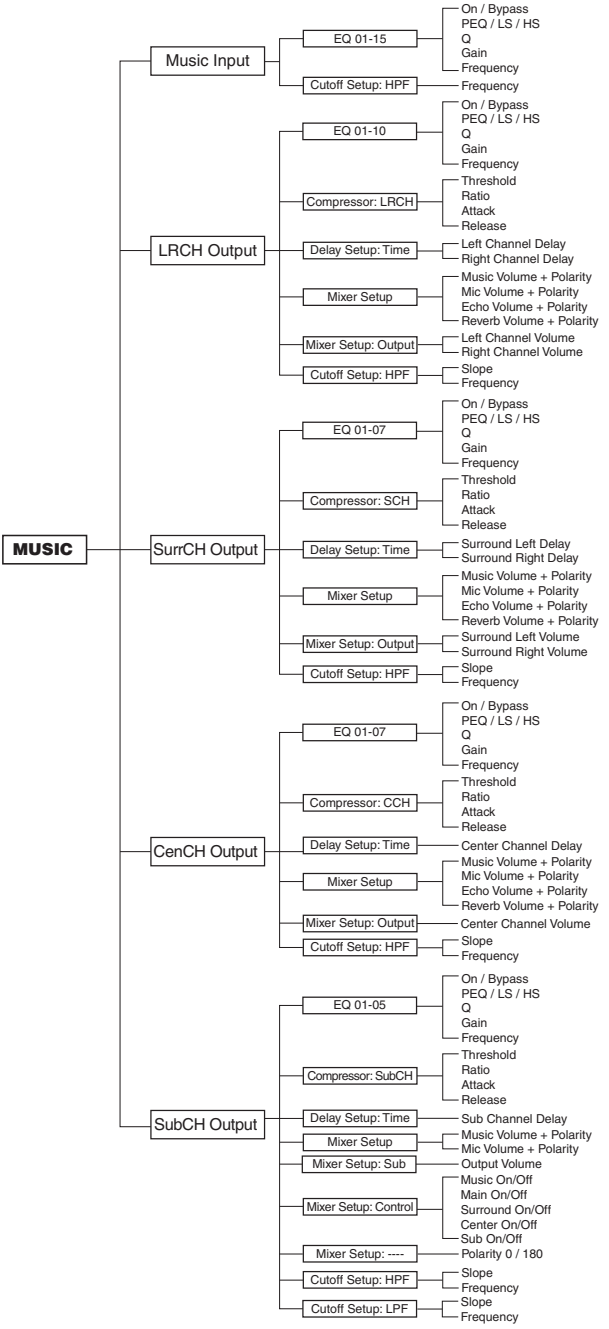
1. **MIC 1 & MIC 2:** accepts 1/4" (6.35mm) microphone jack plug. A seperate gain control is provided for each input.
2. **MIC 3:** accepts 1/4" (6.35mm) microphone jack plug. A gain control is provided.
3. **OPTICAL:** accepts digital signal input.
4. **BGM:** A pair of RCA connectors. Accepts analog input signal.
5. **VOD:** A pair of RCA connectors. Accepts analog input signal.
6. **REC:** A pair of RCA connectors. Connects to an audio recorder for karaoke recording.
7. **OUTPUT CHANNELS:** include Right, Left, Center, Sub, Surround Right and Surround Left output. All uses unbalanced XLR connectors to connect to professional amplifiers or powered speakers.
8. **VENTILATION OUTLET:** For cooling-air ventilation. Do not block!
9. **POWER SWITCH:** Press to turn on or off the device.
10. **POWER INLET:** Accepts AC power using the power cable provided. Power requirement: ~220VAC 50Hz.

SYSTEM CONNECTION

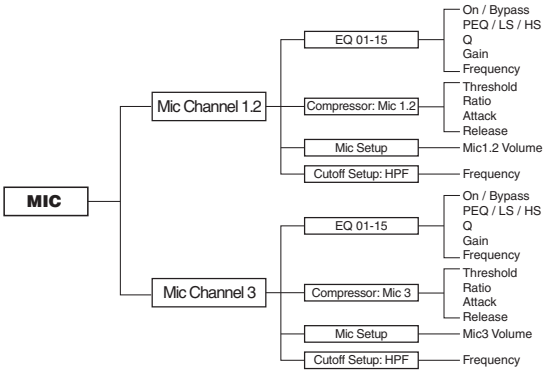
Please refer to the Typical Connection below to set up your audio system.

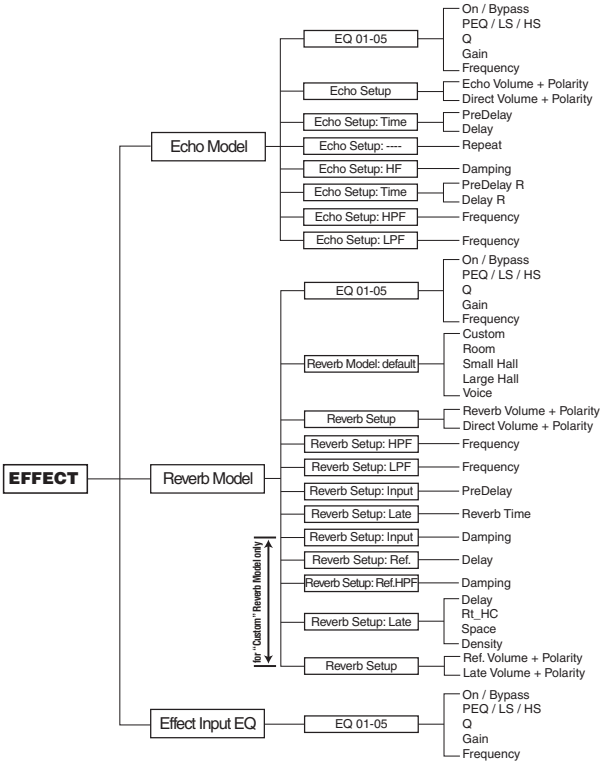


MENU STRUCTURE

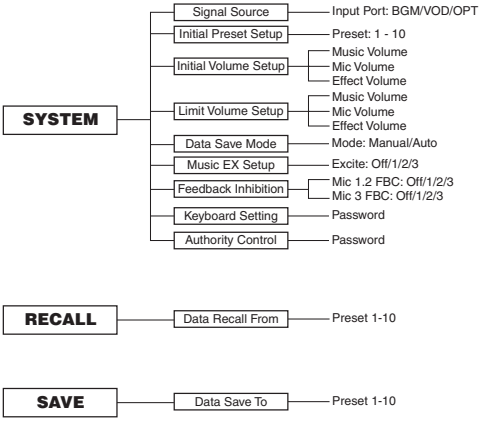


Section 3 - Menu Structure





Section 3 - Menu Structure



INFRARED REMOTE CONTROL CODES

IRDA: based on standard IRDA protocal

User code: DB

Volume					
Music +	0e	Mic +	00	Effect +	0f
Music -	1a	Mic -	03	Effect -	01
General Function					
Lock	09	Mode Select	0d		
Mute	1f	Input Select	19		

Section 5: Specifications

SPECIFICATIONS

Audio Inputs	
Mic input type	3 x 1/4” unbalanced
Impedance	7.5K Ohms
EIN	<-110dBu, 20KHz Bandwidth
Level control	–∞ to +0.8dBu
Line input type	RCA unbalanced, left & right
Impedance	10K Ohms
Audio Outputs	
XLR output type	Unbalanced
Level	0dBu Nominal, +14.2dBu Maximum
Impedance	50 Ohms
RCA output type	Unbalanced, left & right
Level	+17.6dBu Maximum@Mic input, +13.4dBu Maximum@Music input
Impedance	115 Ohms
Audio Performance	
Frequency response	20Hz~20KHz ≤ ±1.0dB
THD+N	<0.06% 20Hz to 20KHz
Dynamic range	>100dB
A/D conversion	24bit, 48KHz
DSP processor	High performance 32-bit/40-bit floating-point processor
Infrared Receiver	
Carrier frequency	38KHz
Format	NEC
Distance	Device dependent
Angle	Device dependent
Others	
Computer connection	USB 2.0
AC power supply	AC 220V/50Hz
Dimensions (W X D X H)	485 X 205 X 47mm
Net weight	2.8Kg
Gross weight	3.47Kg

To get more information about this product or to download its control software, please go to www.jblpro.com.

WARRANTY INFORMATION

The JBL Limited Warranty on KX180 Digital Processor is in effect for one (1) years from the date of the first consumer purchase.

Who Is Protected By This Warranty?

Your JBL Warranty protects the original owner and all subsequent owners so long as: A) Your JBL product has been purchased in China Sales Area (This Warranty does not apply to JBL products purchased elsewhere. Other purchasers should contact the local JBL distributor for warranty information.); and B) The original dated bill of sale is presented whenever warranty service is required.

What Does The JBL Warranty Cover?

Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

Who Pays For What?

JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

How To Obtain Warranty Performance?

If your JBL product ever needs service, please contact your local JBL distributor, authorized Harman Professional service center or Harman Professional China Service Center (Hotline: 400 166 7806). You'll need to present the original bill of sale to establish the date of purchase. Please do not ship your JBL product to our Customer Service Center without prior authorization. You are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.

Limitation of Implied Warranties

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

EXCLUSION OF CERTAIN DAMAGES

JBL'S LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL NOT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

SERVICE

PROFESSIONAL CONTACTS

Contact the JBL Professional Distributor in your area.

A complete list of JBL Professional international distributors is available at www.jblpro.com.

CUSTOMER SERVICE

400 166 7806

Monday - Friday

9:00am - 6:00pm

WEBSITE

www.jblpro.com

PRODUCT REGISTRATION

Register your product online at www.jblpro.com/registration.

KX180 Digital Processor
User Manual
09/2017