



Operating Manual

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This operating manual is written and compiled by *Gary Stewart Hurst*

# 'KING MAJOR' MODEL

## GENERAL MIDI STANDARD ACCORDION MIDI UNIT

You have chosen to buy the **Musictech 'King Major' model** Accordion MIDI Unit! You made the right choice!

**Musictech** has been associated with accordion electronics for many years, and we are sure that your choice will be justified by the complete satisfaction you will experience the minute you play your accordion with this MIDI unit.

The unit has been developed from the well known KING MIDI Interface unit by an expert team of electronic engineers in collaboration with professional accordionists. Not the least important development over the KING unit is the use of a **Solid State contact System**. By means of this contact system **Musictech** has ensured that all the problems experienced with traditional systems such as inconstant or crackling contacts will be a thing of the past. By also adding several other important features with respect to the KING model, **Musictech** has produced a MIDI unit that is not only the very latest technology available today, but is above all exactly what the accordionist needs.

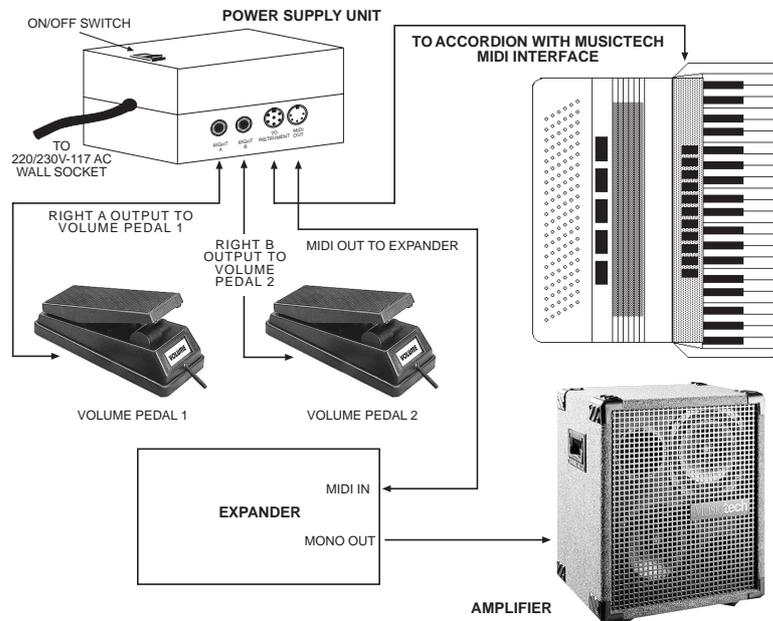
This manual has been prepared to inform you of the unit's characteristics, to explain how to make the various connections and how to programme the various functions. You will soon appreciate just how versatile the unit is and wonder how you managed without it.

**Musictech** would like to thank you for your choice and wish you many hours of pleasure in the 'World of MIDI'.

### TECHNICAL CHARACTERISTICS

- **Dynamic control of both the Timbre and Volume** by means of the bellows. The Dynamic control of the *Volume* is programmable to work both independently on the two keyboards or Globally, controlling all the MIDI channels of the instrument.
- **REVOLUTIONARY NEW SOLID STATE CONTACT SYSTEM**, eliminates all those annoying noisy and false contact problems, frequently caused by wear and dirt when a traditional contact system is employed.
- Transmits on all 16 MIDI channels; 5 of which can be active simultaneously.
- Two polyphonic channels for the right hand.
- Sound selection by means of **GENERAL MIDI COMMANDS** up to a consented maximum of 16,384 Sound Banks selectable with Control Change 0, Control Change 32.
- Start/Stop functions with Drum Tempo control and indication.
- Up/ Down function keys for Octave, Program Changes and Performances.
- Independent Volume Control for the two Right Hand sections by means of two separate Volume Pedals.
- Setting of maximum volume for all 5 sections with Volume pedal during programming.
- Possibility to memorize the performances with different MIDI channels.
- Can memorize 130 performances.
- Each performance can memorize DUE POLYPHONIC PRESETS on the right hand, one PRESET for the bass, one PRESET for the chords, PROGRAM CHANGE, OTTAVE, VOLUME and the DIFFERENT MIDI CHANNEL of the various sections.
- Possibility to recall **PREFERRED PERFORMANCES** from 25 banks memorized in 'Real Time'.
- PITCH BEND function (optional).

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**CONNECTIONS**

Make all the connections between the power supply unit and the accordion and expander (s) referring to the diagram above.

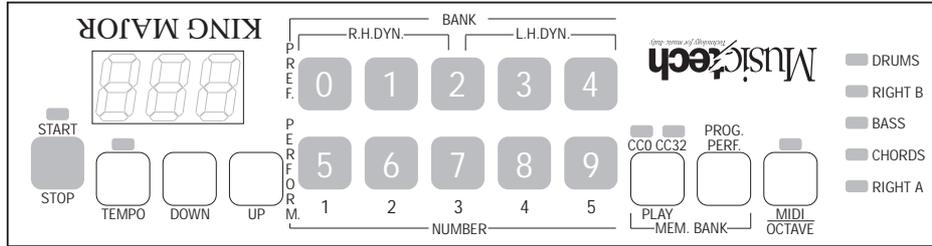
**While switching the power supply 'ON', make sure that the bellows of the accordion are fully closed during the time the leds on the display of the MIDI are rotating. This enables the air pressure inside the bellows to be electronically sampled and ensures that perfect dynamic control is obtained both when opening and closing the bellows.**

**Notes:-** a. The volume pedal connected to the RIGHT A socket of the power supply unit is used to preset the sound level in each of the sections in the programming stage.

Refer to HOW TO PROGRAMME A PERFORMANCE further ahead. Remember that two right hand sounds can be controlled separately in real time with two pedals connected to the RIGHT A and RIGHT B pedal sockets on the power supply. This means that the volume of two expanders can be individually controlled while playing enabling the perfect mixing of two sounds to be carried out for right hand playing.

b. Default settings are: RIGHT A - CH. 1; RIGHT B - CH. 4; CHORDS - CH. 2; BASS - CH. 3; DRUMS - CH. 10 and PROGRAM CHANGE 'OFF' in the RIGHT B, CHORD, BASS and DRUM sections and for VOLUME control. **Remember to abilitate the Program Change in these last sections by selecting 0 0 0 when the required MIDI Channel N° needs to be visualized on the display if changes to this are required in the programming of the various sections.**

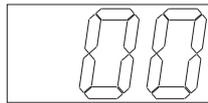
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**HOW TO PROGRAMME A PERFORMANCE**

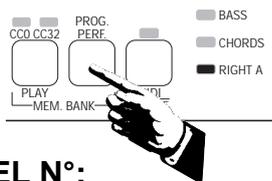
Programming is done by means of the keys on the control panel shown above. Before programming a performance, the performance number must be entered with the **UP/DOWN** keys or **Numeric keys** as follows:

1. For example, to enter performance number 00, press the **numeric keys 0; 0; 0**; and the display will then show:



**Note:** - To set Performance numbers from 0 to 9, first press **the numeric keys 0; 0**; and **then the relative numeric key**.  
 For Performance numbers from 10 to 99, press the **numeric key 0**; and **then the two relative numeric keys**.  
 For Performance numbers from 100 upwards, just **press the three relative numeric keys**. As an example, the RIGHT A section will be programmed as follows:

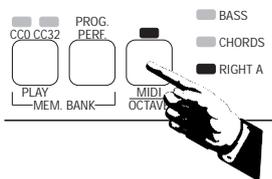
2. Press **PROG. PERF.** to select the section to programme. Press once to select **RIGHT A**.



The red indicator led for the section being programmed will turn 'On'. In this case **RIGHT A**.

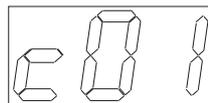
**To set the MIDI CHANNEL N°:**

1. Press **MIDI/OCTAVE**.



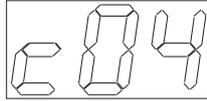
The red indicator led above this key will turn 'On'.

The display will show:



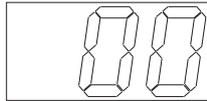
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This is the default MIDI channel. To change the channel number to, for example, Channel 4, press 0; 0; 4. The display will then show:



- Notes:**
- a. To set MIDI channel numbers from 1 to 9, first press the **numeric keys 0; 0;** and **then the numeric key corresponding to the channel number.**
  - b. To set MIDI channel numbers from 10 to 16 or to 'Off', first press **the numeric key 0;** and **then the two numeric keys** corresponding to the channel number required.
  - c. **To set the MIDI channel of any section to 'Off', that is deactivate it, enter a number higher than 16 (see point b above); three dashes will appear in the centre of the display showing that the section is 'Off'.**

2. Press **MIDI/OCTAVE twice.** The display returns to:



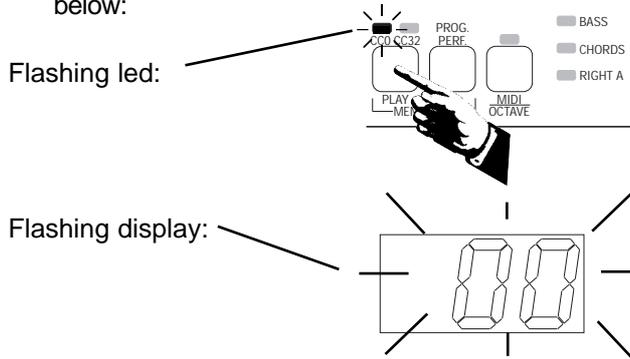
Showing the current Performance number which was selected previously.

## SOUND SELECTION

After setting the MIDI channel, select the sound to be played in the section you are programming, by doing as follows:

**If using an expander with only one bank of sounds or to select from BANK 1 of an expander with more than one bank, go to point 4 in this section.**

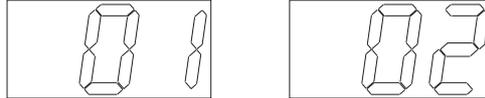
1. In the case of selection from a bank that is not Bank 1 in an expander with several banks, press **CC0,CC32** which will cause the CC0 led and the display to flash as below:



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2. You can now select the bank number required by pressing the respective keys, e.g. **0; 0; 1** for bank number 1 or **0; 0; 2** for bank 2 etc.

The display will show as in one of the two examples below:

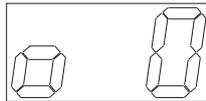


3. Press **CC0,CC32** twice, when the display will cease to flash.
4. Select the sound number with the **numeric keys** or the **UP/DOWN keys**. If using the numeric keys, three keys must always be pressed. For example, press **0; 6; 7** for sound number 67 or **0; 0; 8** for number 8 and so on.

## SETTING THE OCTAVE

The octave can be set for each section by following the procedure below:

1. Press the **MIDI/OCTAVE** *twice* to show a display as below:



This is showing the default setting with no octave change set if no previous change has been made.

2. Set the octave to between -1 to +2 octaves by means of the **UP/DOWN keys**.
3. Repress the **MIDI/OCTAVE** to turn off the led indicator above the key and the display will return to show the performance number previously selected.

## VOLUME SETTING

The sound level of the section can be preset during the programming procedure by using the Volume Pedal connected to the **RIGHT A** socket. This level will remain for this performance until it is modified and will be memorized with all the other settings. To achieve the setting, vary the Volume Pedal while playing the sound selected for the section until it is at the maximum level required. Leave the pedal in that position until pressing **PROG. PERF.** to programme another section (CHORDS, BASS, RIGHT B and DRUMS) when the setting will automatically be memorized. This same pedal will be used to vary the volume of the **Right Hand** sounds during playing in the normal way.

The CHORDS, BASS and RIGHT B sections can be programmed in the same way as the RIGHT A section above, after selecting the relative section by means of the **PROG. PERF.** Each section selected will be identified by the

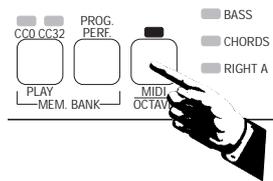
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### NOTES ON DRUM SECTION PROGRAMMING

MIDI control of the rhythm section of an expander can be programmed on the panel and this will enable the rhythm to be selected, the Tempo to be changed and the Start/Stop control to be carried out from the accordion.

1. The DRUM section should first be selected by **repeatedly** pressing the **PROG.PERF.** key. This will be confirmed by the led indicator next to this section name on the right of the panel.

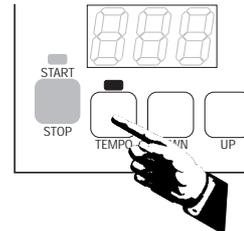
2. Press **MIDI/OCTAVE.**



The red indicator led above this key will turn 'On'.

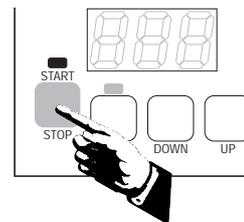
The default MIDI channel (CH. 10) programmed to this section or the last channel programmed in the relative performance will be shown on the display **only** if the Program Change is abilitated by selecting **0 0 0** with the numeric keys (see note b on page 4).

3. Set the channel number by means of the **numeric keys** (see notes in **To set the MIDI CHANNEL** on page 5) and then repress **MIDI/OCTAVE.**



4. To set the Tempo, press the **TEMPO** key. The indicator led will turn 'On'.

5. Use the **UP/DOWN keys** to set the TEMPO of the rhythm (shown on the display) in the performance you are programming. Press **START/STOP** to start the rhythm if you need to listen to this.



6. Return to PLAY mode by repressing **PROG. PERF.**

### VOLUME SETTING FOR DRUMS

The sound level of the Drums can be preset during the programming procedure, as for the other sections, by using the Volume Pedal connected to the **RIGHT A** socket on the Power Supply. This maximum level will remain for this performance until it is modified and will be memorized with all the other settings (see also page 7 - VOLUME SETTING).

After programming the Drum section, repress **PROG/PERF.** to memorize the settings and return to the normal playing mode.

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completed and further performances can be programmed in the same way by first selecting the Performance to be programmed, then proceeding by following the instructions from page 5 onwards.

**Note:** - The first 25 performances that are programmed will automatically be located in the PREFERRED PERFORMANCE locations, for example: BANK 0, POS.1; BANK 0, POS. 2; BANK 0, POS. 3 etc. Proceeding to BANK 1, 2, 3, and 4 depending on how many performances you programmed.

## DYNAMIC CONTROL

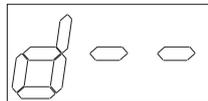
### DYNAMIC EXPRESSION (EXPRESSION WITH BELLOWS)

This type of dynamics varies the **expression** of the electronic sound by means of the bellows, which comes naturally to an accordion player, in the same way as the reed sounds. It can be activated for independent right and left hand operation or alternatively to operate globally on the whole accordion by programming the GLOBAL function (see page 11).

**The King Major MIDI transmits two systems of Dynamic Expression.**

**SYSTEM 1** - Dynamics transmission on the Right Hand in the RIGHT A section (normally programmed on MIDI channel 1). Dynamics transmission on the Left Hand in the CHORD section (normally programmed on MIDI channel 2) and the BASS section (normally programmed on MIDI channel 3).

**N.B. - To make this type of dynamics function, the GLOBAL transmission must be set to 'OFF' as in the display below:**



**see the GLOBAL DYNAMIC CONTROL paragraph - point 2 on page 11.**

### **SYSTEM 2 - GLOBAL Dynamics Transmission**

This system transmits dynamic control in all the sections of the instrument irrespective of how the MIDI channels have been programmed. Normally programmed to MIDI channel 16, this system is used by those who use a SOLTON expander or keyboard and more specifically the MS 40 - MS 50 - MS 60 and MS 100 models.

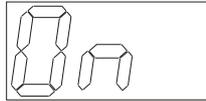
### RIGHT HAND OR GLOBAL DYNAMIC EXPRESSION ON/OFF

#### **1. To activate Dynamic Expression over the entire dynamic range:**

The Dynamic Expression for both the Right Hand or global function (see page 11) are activated to control the volume from **zero to maximum** by pressing both the **numeric keys 0 and 1**. The display will momentarily show as follows:

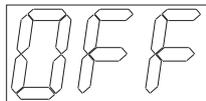
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This indicates that the selected type of Dynamic Expression has been activated, meaning that the electronic sounds will be controlled in exactly the same way as the reed sounds, with exactly the same expression possibilities. **A dot will also show to the right of the Performance number.**

**To deactivate** this function, repress both the **numeric keys 0 and 1**. The dot next to the performance will disappear and the display will momentarily show OFF as below:

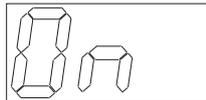


### 2. To activate the Dynamic Expression from a factory preset intermediate level:

As an alternative to the setting in point 1 above, the Dynamic Expression for both the right hand or global function can be activated for control, not from zero but from **a factory set intermediate level to maximum** by pressing both the **numeric keys 5 and 6, both to activate and deactivate** the function. This enables the instrument to be played at an acceptable volume level without having to move the bellows constantly, while enabling extra dynamic expression to be obtained from bellows movement when needed, for example in a solo.

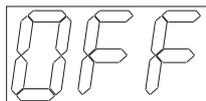
### LEFT HAND DYNAMIC EXPRESSION ON/OFF

**To activate** the Dynamic Expression for the left hand, press both the **numeric keys 3 and 4** when the display will momentarily show as below:



This indicates that the left hand Dynamic Expression has been activated, meaning that the electronic sounds of the chords and Bass buttons will be controlled in exactly the same way as the reed sounds, with exactly the same expression possibilities. **A dot will also show to the right of the Performance number.**

To deactivate this function, repress both the **numeric keys 3 and 4** when the display will momentarily show 'OFF' as below and the dot will disappear:



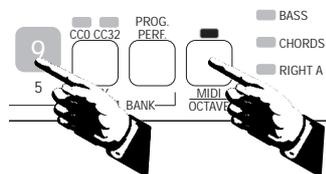
## GLOBAL DYNAMIC CONTROL

This function of the dynamic control system enables the bellows **to control all the MIDI channels of the expander** (including rhythm). This means that the volume of all the sections of the instrument will be affected by the movement of the bellows. Remember that the dynamic control must be set to ON by pressing either of the key combinations explained in the **RIGHT HAND/GLOBAL DYNAMIC EXPRESSION ON/OFF**.

### TO PROGRAMME THE GLOBAL FUNCTION

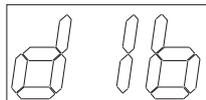
While in the normal **PLAY** mode:

1. Press **9** and **MIDI/OCTAVE** together.



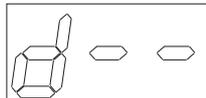
The red indicator led above this key will turn 'On'.

The display will show as below, in the case of MIDI channel 16:



Indicating the activation of the GLOBAL function on MIDI channel 16 (the usual one).

2. The channel number can be changed by means of the **numeric keys** (see **To set the MIDI CHANNEL** on page 5). To deactivate the GLOBAL function, **select a number higher than 16** when the display will show:



indicating that the function is "OFF" and that the dynamic expression control will now work on the right hand channels if previously activated with the **0/1** keys (see page 9).

3. To leave the GLOBAL function programming, repress **MIDI/OCTAVE**.

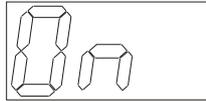
### TIMBRE DYNAMICS

This type of dynamics which controls the **timbre** of the sound is the same as that obtained by a dynamic keyboard, but in this case it is controlled by the bellows, which is more natural for an accordion player.

### RIGHT HAND TIMBRE DYNAMICS ON/OFF

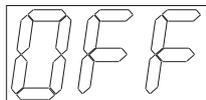
**To activate** the Timbre Dynamics on the right hand keyboard, press both the **numeric keys 1 and 2** when the display will momentarily show as follows:

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This indicates that the right hand Timbre Dynamics have been activated. **A dot will also show to the right of the Performance number.**

**To deactivate** this function, repress both the **numeric keys 1 and 2** when the display will momentarily show 'OFF' and the dot will disappear from the display:



### LEFT HAND TIMBRE DYNAMICS ON/OFF

**To activate** the Timbre Dynamics on the left hand buttons, press both the **numeric keys 2 and 3** when the display will momentarily show 'On' as for R.H. This indicates that the left hand button Timbre Dynamics have been activated. **A dot will also show to the right of the Performance number.**

**To deactivate** this function, repress both the **numeric keys 2 and 3** when the display will momentarily show 'OFF' and the dot will disappear from the display: The Timbre Dynamics will always be set to "OFF" when the instrument is switched 'On', therefore it will need to activated each time.

**Note: 1.** - You are advised to deactivate the Dynamic functions (*these will be seen to be active by the dot to the right of the Performance number*) before switching 'Off' the MIDI, as some expanders will memorize the Volume setting which will be determined by the bellows, meaning that this will be very low when you switch the unit 'On' again.

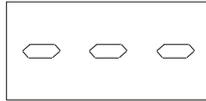
## IMPORTANT NOTE

### DEACTIVATION OF MIDI PROGRAM CHANGE AND VOLUME TRANSMISSION

In order to prohibit the MIDI transmission of Program Change when changing performances, and in this way transmit only the changes needed for the right hand, the CHORDS, BASS and DRUMS sections can be set in such a way that they remain constant for all performances. To do this, select the section with **PROG. PERF.** (the section led will turn 'On') and **then select a number higher than 127** on the display. This can be done by means of the **UP/DOWN keys** or the **numeric keys**.

The display will then show:

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This confirms that the Program Change command in the relative section will be "Off", meaning that no changes will be made to any settings in the expander for that section.

This facility will prove to be very useful when the external expander connected contains patches of arrangements already programmed. To set all the various sections in 'Receive Off' is a very complicated procedure, whereas in the '**King Major**' it is just a matter of setting a value of more than 127 in the sections that you want to leave unaltered when changing performances.

**Note:** The PROGRAM CHANGE for the CHORDS, BASS and DRUMS sections are set to 'OFF' by default from the factory or after carrying out a RESET function (see page 15).

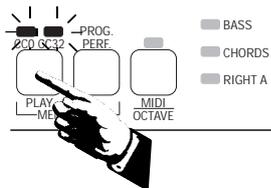
**HOW TO PROGRAMME THE PREFERRED PERFORMANCES**

The '**King Major**' gives the possibility to memorize up to 25 of your preferred performances (in 5 banks of 5) and recall these preferred performances with just one key while playing.

Suppose you have programmed 60 performances in the unit as already described, but you normally only use 20 of these for a particular gig. These can be programmed into the PREFERRED PERFORMANCE key positions as explained below.

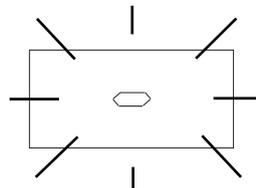
Remember that when programming the Preferred Performance positions, the **bank numbers** are recalled by the **numeric keys 0 - 4** and the **positions in the bank** by the **numeric keys 5 - 9** corresponding to the positions indicated by the **small numbers 1 - 5** under these keys.

1. First press **PROG. PERF.** and then while holding this down, press **CC0 CC32**.



The red indicator leds above this key will flash.

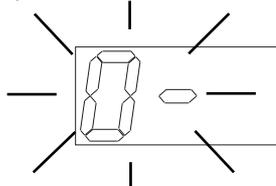
The display will show a dash flashing in the centre, as below:



This is showing that you have entered in the programming phase of the Preferred Performances.

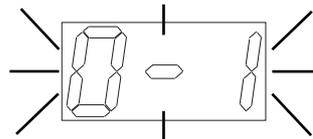
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2. Select the Performance that you want to store in a preferred position by means of the **UP/DOWN keys**. The number selected will flash on the display indicating that it is ready to be located in a Bank position.
3. Now press the number of the Bank that you want to programme. For example 0. The display will show as follows:



The Bank number and the dash will be flashing to indicate that the position in that Bank must be defined.

4. Enter the number of the position that you want the performance to occupy in the Bank selected in point 3.
5. All three digits will flash showing that both the Bank number and the position in that Bank have been entered.



**Note:-** The selected Performance number can still be changed if you made a mistake or change your mind by using the **UP/DOWN keys**, as nothing has yet been memorized.

6. Memorize the Bank number and position selected in points 3 and 4 by pressing **CC0 CC32** key.

**To memorize further Performances in preferred positions, follow the instructions in points 2 to 6.**

Once you have completed the memorizing of all the Preferred Performances, first press the **PROG. PERF.**, then while keeping this pressed, press the **CC0 CC32** key to leave the programming mode and return to the playing mode.

## TO RECALL PREFERRED PERFORMANCES

1. Press the **PLAY** key to enter into the Preferred Performances mode.
2. Both the leds above this key will turn 'On' and a dash will show in the centre of the display.
3. Select the Bank number by means of the **numeric keys 0 - 4** and the **positions in the bank** by the **numeric keys 5 - 9** corresponding to the positions indicated by the **small numbers 1 - 5** under these keys. Both the bank number and the position in the bank will be shown on the display.
4. Further performances in that Bank can be recalled by just pressing one numeric key (from 5 to 9, corresponding to the 5 Preferred Performances in the Bank; small numbers **1 to 5**).

## HOW TO RESET THE MIDI

As with all computerized produced there may come a time when it is necessary to reset the internal microprocessor. This might be evident from unusual readings on the display or from some other kind of bad functioning.

To reset or initialize the '**King Major**' MIDI Unit, do as follows:

1. Switch the unit 'Off'.
2. Hold down the **0; 2 and 4 numeric keys** and with these held down, switch the unit 'On'.
3. After about three seconds the keys can be released and the unit will have been reset perfectly and will be ready to resume normal operation.

## OTHER MUSICTECH PRODUCTS FOR THE ACCORDION

### MICROPHONE SYSTEMS

#### MT 04 model

'SENNHEISER' microphones and MUSICTECH professional experience.  
 Linear response from 20 Hz to 20Khz.  
 S/N ratio 58 dB.  
 This amplification is 9 Volt battery powered.

#### MT 06 model

Microphone system for the right and left hands.  
**With special MusicTech "Custom Design" capsules.**  
 Linear response from 20 Hz - 20Khz.  
 S/N ratio 58 dB.  
 9 Volt battery powered.

### AMPLIFIERS

#### MT 24 model

A 250 Watt RMS Amplified Mixer system with 6 separate channels, 3 with both balanced microphone input and line input and 3 auxiliary low sensitivity inputs. 15 Digital effects.  
 Weight: 20 Kg.



MT 24 control panel mounted at rear



Front view of MT 24 and MT 20 models

#### MT 20 model

Amplified speaker with a power output of 250 Watt RMS. Input with Volume control and output for connection to another powered speaker. Speakers and size as MT 24.  
 Weight 19 Kg.



Details of MT 20 rear mounted control panel

#### MT 12A model

Powered speaker with 120W RMS through an 8" woofer and compression tweeter. 8 Ω impedance with output jack for an auxiliary speaker enabling the connection of the MT12 passive speaker which gives a total output power of 160W RMS and better sound distribution. Two inputs (High/Low sensitivity) for instruments or expander and mixer. Buffered output for other powered speaker.  
 Weight: 8.5 Kg

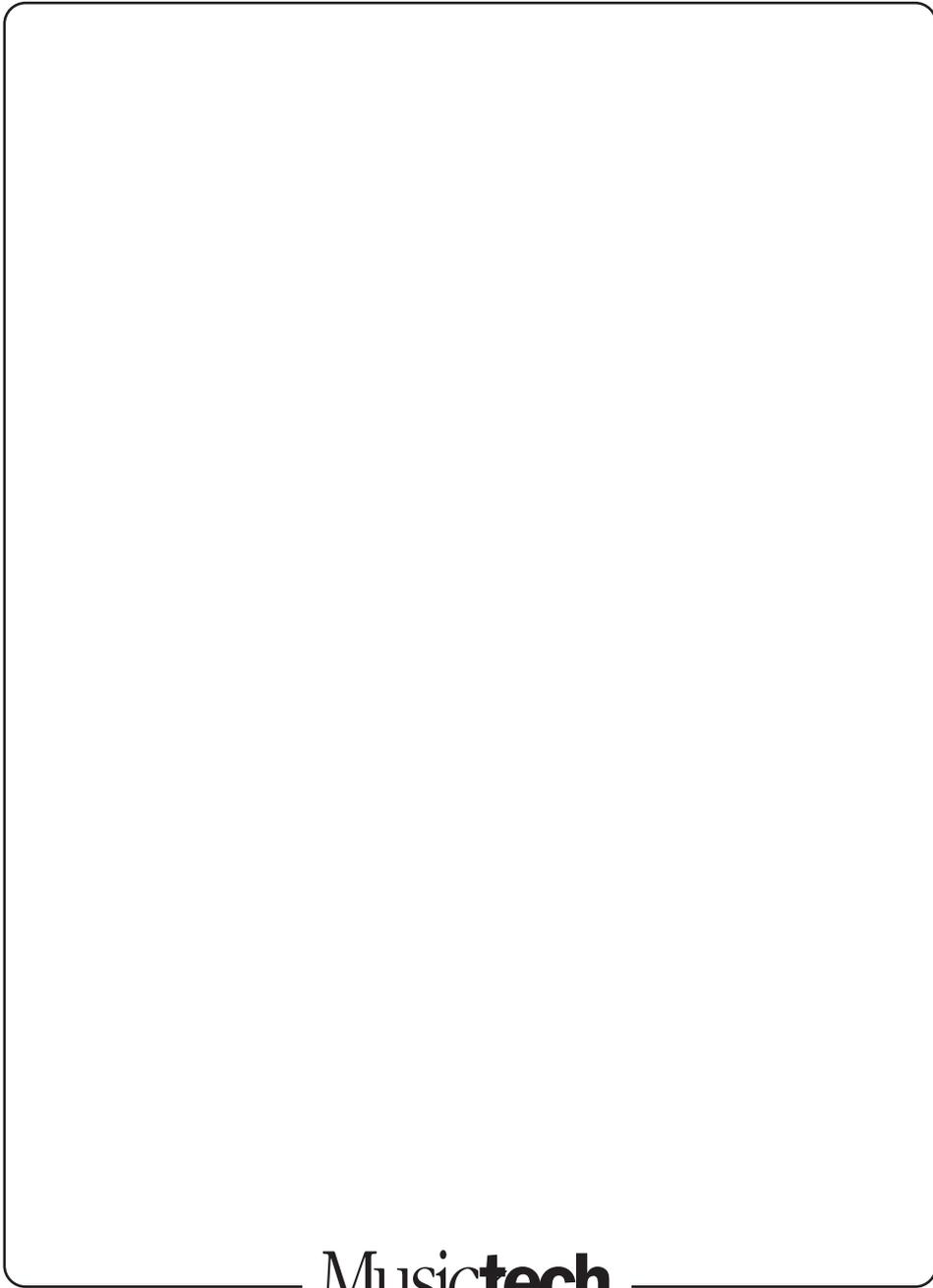
#### MT 12 model

Passive speaker for use with MT 12A for a total output power of 160W RMS. Crossover with protection. Same size as MT12A model.  
 Weight: 6.2 Kg.

MT 12A control panel mounted at rear







**Musictech**  
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