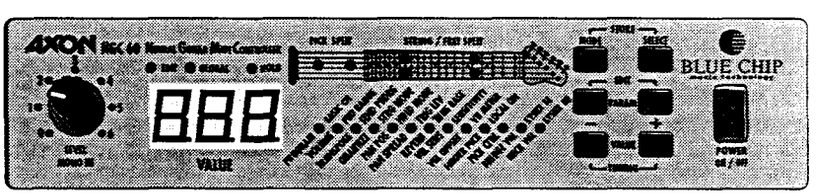
BLUE CHIP

music technology

AXON NGC 60

USER MANUAL



Version : 1.01 - 6 /96

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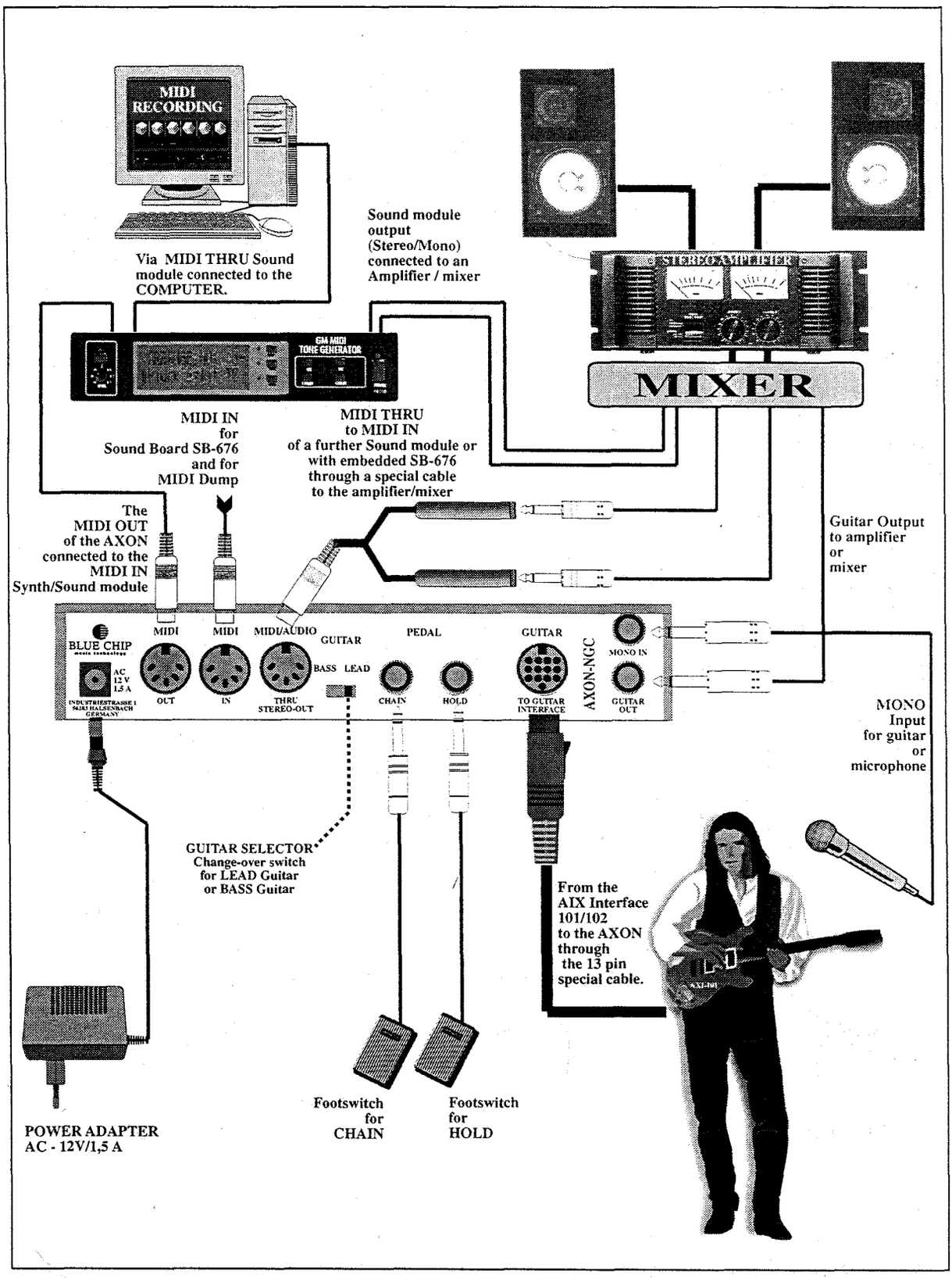
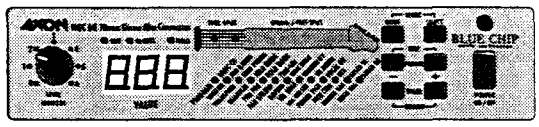
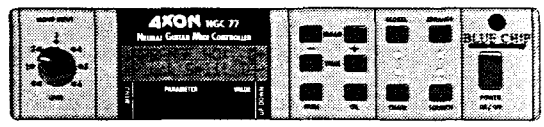
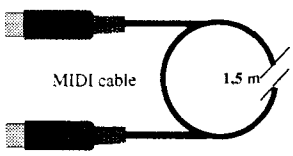


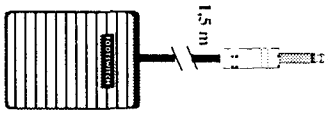




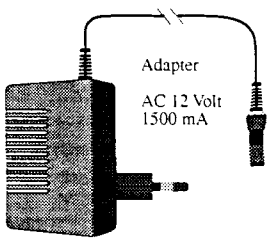
Accessories of the AXON NGC 60 and NGC 77



One MIDI cable with a length of 1.5 m (5')



One footswitch for Hold -or Chain function



One Power Adapter for the power supply of the AXON

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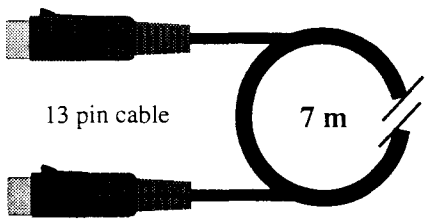
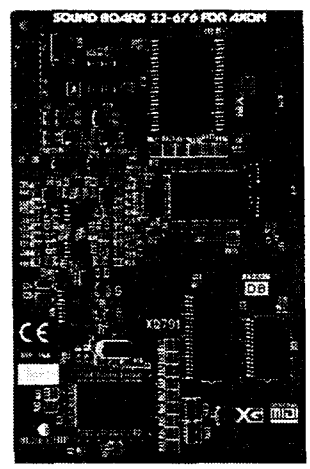
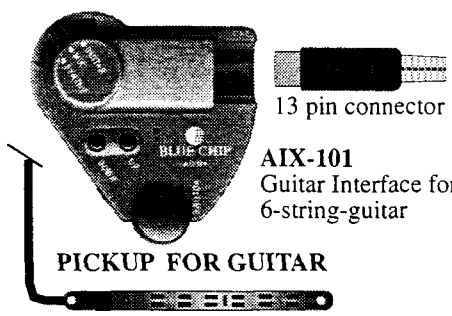
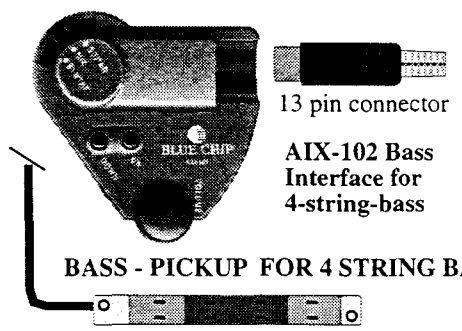
Optional accessories for the AXON



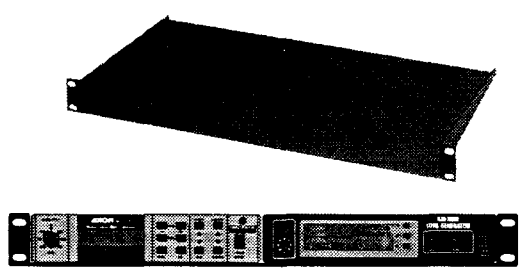


SB-676
GM / XG Sound card with 676 sounds, 11 reverbs, 41 effects, inclusive special cable for stereo output.

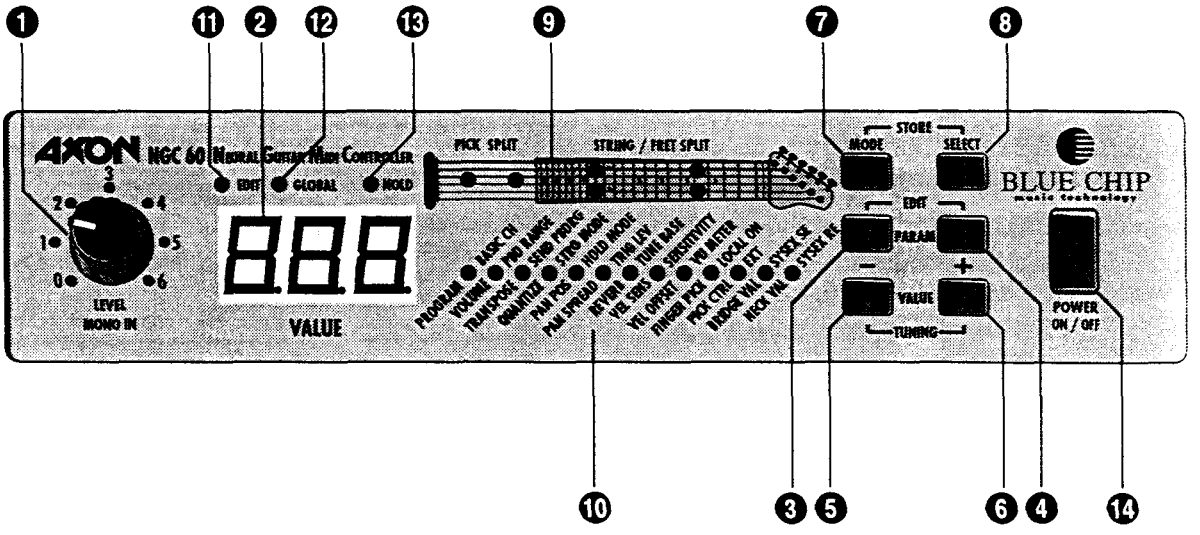




19" , 1HE rack carrier for AXON + Sound module



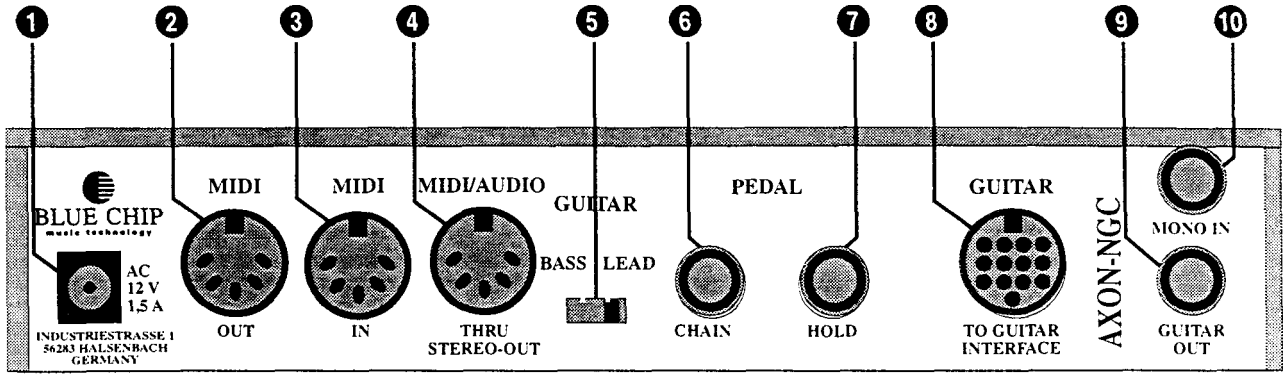
AXON NGC 60



Front Panel

1. Level of the MONO input.
2. Three-digit 7-segment display shows the current presets or the VALUE of a parameter.
3. 4. Parameter selection; the + button moves the cursor to the next, the - button moves the cursor to the previous parameter.
5. 6. In preset mode you select the presets with the + and - key. In edit mode the value of a parameter is increased by pressing the + button, and is decreased by pressing the - button. While pressing both keys at the same time, the tuning aid will be activated (also possible from the AIX Interface).
7. In edit mode, different split possibilities are selected.
8. In edit mode the splits, the hold function or the global parameters are chosen. Together with the MODE button it is used to copy and store presets.
9. The current split mode is immediately indicated by the LED in the guitar symbol.
10. List of all parameters. The upper line describes the Global parameters, the lower one the segment. The LED line serves also for displaying the loudness of a picking, or as a tuning indicator.
11. This LED shows the edit mode.
12. In edit mode you can access the global parameters.
13. In edit mode you can access the hold parameters.
14. Power ON / OFF switch.

AXON



Back Panel

1. Input for power adapter 12V, 1500 mA, AC.

2. MIDI OUT socket. The AXON sends out its MIDI data through this socket.

3. MIDI IN socket. The AXON receives program change commands as well as system exclusive data via this socket. System exclusive data can also be sent to the optional Sound Board SB-676 which is sold by BLUE CHIP, too.

4. MIDI THRU socket. All data arrive through MIDI IN and are transmitted further through this socket. At the unused pins of this socket, the stereo audio signals of the Sound Board are available. For that purpose, use the special cable which is included with the Sound Board.

5. Before turning on the AXON this switch has to be set to BASS or LEAD guitar.

6. CHAIN footswitch socket. It enables you to activate pre-programmed preset series at the NGC 77 respectively presets at the NGC 60 with an optional footswitch.

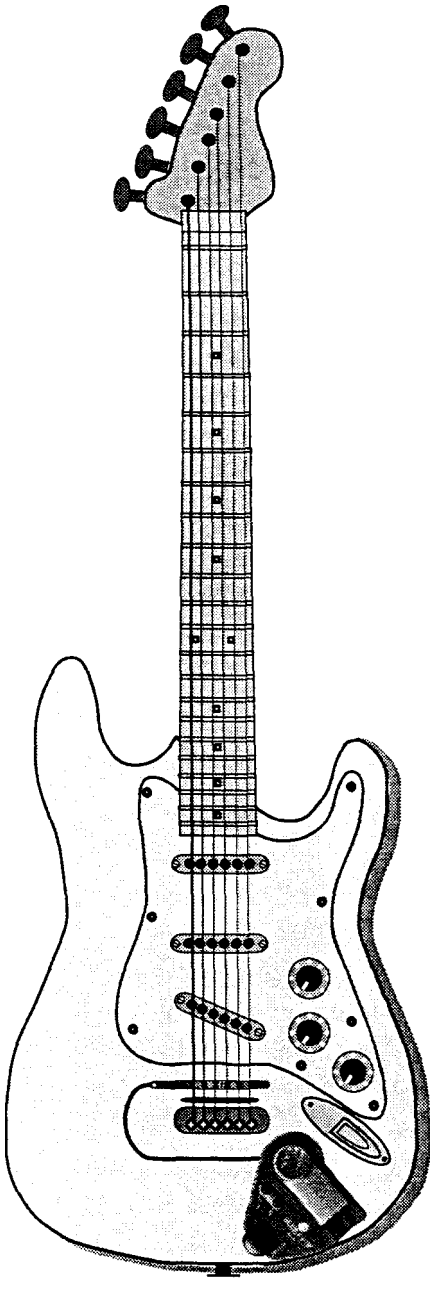
7. HOLD footswitch socket. The footswitch belongs to the delivery of the AXON and can be used for different functions of the hold mode which can be programmed.

8. INTERFACE connector socket. Please connect the 13 pin cable of your guitar or bass interface to this input.

9. GUITAR OUT socket. The pickup signals of your guitar can be unchanged transmitted from this socket.

10. MONO IN socket. It enables you to connect monophonic signals with line or microphone level.

Features of the AXON



Your AXON is fitted with a novel method of pitch recognition working so quickly and safely that you can use your AXON also with a bass guitar. At present, no comparable device offers you this feature.

The AXON is unique because it recognizes the pick position of each string, and the AXON offers you new possibilities to control your MIDI instrument.
Your AXON is able to reduce the MIDI output data stream as far as possible to a minimum. According to the setting of the preset parameter, further reliefs are the result. At previous devices, Pitch Bend data load the MIDI interface strongly.
If you did not work with a comparable device before, you will get to know some terms which are perhaps new for you. Therefore we would like to explain here the extraordinary possibilities you can use with your AXON.
The most interesting and the most extraordinary features of your AXON are undoubtedly the different split possibilities.

You can set a string split in order to divide the six strings of your guitar into two parts. In each part, your MIDI instrument could give out another sound. For that purpose you will fix a split point - in this case a string number - in order to set the border between the two parts.

Assign a fret split in order to divide the neck of your guitar into two parts.
Think of an accord accompaniment which you play in low-pitched registers with an optional sound. Then you change to a solo which is played in higher notes with another sound. In this case the split point is a fret number.

The most unique feature of the AXON NGC 60 is the possibility of pick splitting.

One split point can be defined to split the pick range between the pickup and the neck into two pick regions. An individual sound can be assigned to each of these regions.

At each of the three split possibilities you can additionally use the pick control function. You can change the value of each MIDI controller with the pick position. Keyboard players often use a modulation wheel in order to produce vibrato or filter effects. With the pick control function you have the same possibilities, only by changing the pick position.

How to use the Hold Pedal

The Hold Pedal can be used to play an additional, third sound of your MIDI instrument. In this case the current split becomes temporarily ineffective and you can use another sound. All notes which sound while releasing the pedal will sound until the next pressure on the Hold Pedal. Play a chord by depressed Hold Pedal. Without muting the chord, you release the Hold Pedal now and the Hold sound will be locked. You can play again with the current preset to your chord accompaniment. After pressing once more you can play a new chord, the old one will be replaced by a new one. Or you simply turn off the chord while pressing once the Hold Pedal shortly without playing at that time.
Additionally, the pick control function can be used as well for the Hold sound.

You can also send a pre-programmed MIDI controller to the MIDI instrument by pressing the Hold Pedal. This could be the controller No. 64 (Sustain), the controller No. 65 (Portamento) or even the controller No. 93 (Chorus).

After pressing the Hold Pedal you are moreover able to freeze the already played tones in order to play only on your guitar. Then all other MIDI sounds are suppressed. You can also realize a bypass function in order to hear temporarily your guitar sound alone.

How to use the Chain Pedal

If you connect a footswitch to the chain socket, you can call up successive presets. Pressing once the footswitch activates the next preset, hitting the footswitch quickly twice triggers the previous preset.

How to use the Mono Input

All instruments with pickups can be directly connected by a jack cable to the MONO input of your AXON. At the front of the AXON is the potentiometer which helps you to set the sensitivity of the MONO input. Please consider that not all features of the AXON are available when using the MONO input. The extremely fast pitch recognition is inactive. In this case you work with a pitch recognition which is a little bit slower. But it is comparable to devices which were already offered by competitors. String Split, Pick Split and the Pick Control function are no longer available.

The Fret Split depends now on the pitch because your AXON does not know anything about your frets. Think of a violin or think of instruments which you have to connect by a microphone. There are no limits to your imagination but you can not foresee the results in each case. We had already achieved good results using guitar and bass.

How to use the optional sound module

If your AXON is fitted by an embedded sound module, 128 GENERAL MIDI SOUNDS in excellent quality will immediately be available for you. Additionally, the sound module has an installed reverb as well as a chorus effect which can be called up by the AXON. Combined with a sequencer or similar devices you have access to 480 sounds. Furthermore, 11 different drumkits are available. The complete effect range consists of 11 reverb types, 11 chorus types as well as 42 variation programs. Please take details from the enclosed description of the sound module.

If you use a sequencer program, please connect the MIDI OUT of your AXON to the MIDI IN of your computer, and the MIDI IN of your AXON to the MIDI OUT of the computer. In this case the GLOBAL parameter "LOCAL" on the AXON has to be LOCAL OFF.

Special functions

Two special functions of your AXON are an exact tuning aid which is simple to use as well as level control that helps to avoid overload.

How to start

Before starting the AXON please make the necessary connections. Please consider that you must switch on the AXON after turning on your MIDI instrument first, because the AXON sends directly initializing data to your MIDI instrument. That is why you have to check the connections of your MIDI cable from the AXON to your MIDI instrument.

How to connect your guitar interface

The UP/DOWN buttons of your guitar interface are identical to the +/- value keys. You can use them to call up the different

presets of your AXON. Moreover it is possible to change the parameter values in edit mode from your guitar. By using the volume regulator of your guitar interface, you can control the volume of a sound at your MIDI instrument.

How to connect your MIDI Equipment

Please connect the MIDI OUT of your AXON to the MIDI IN of your MIDI instrument. For that purpose, use a 5 pin commercial DIN cable/ MIDI cable. If you employ a sequencer program, connect the MIDI OUT of your AXON to the MIDI IN of your computer as well as the MIDI IN of your MIDI instrument to the MIDI OUT of your computer.

How to mount an AXON in a 19 " rack

You can mount your AXON in a 19´´ rack by using the optional installation frame. In order to fix, use only the original screws. If you prefer another form of mounting, remove first the rubber foot from the bottom of the AXON. Please use only screws of the type M3 to fix the 19´´ rack with the bottom of the AXON and take care that the screws do not reach longer than 4 mm into the AXON. Longer screws can damage the inside of the device.

Parameters

All parameters are printed above and below the middle LED line in order to see immediately the current parameter. So you must not keep figures in mind which belong to some parameters. The GLOBAL parameters are above, the SPLIT and HOLD parameters are below the LED line.

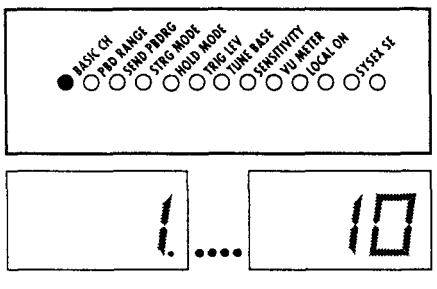
Global Parameter

If you use your AXON **for the first time** you have to check the settings of some global parameter in correspondence to your MIDI instrument:
Please check the basic MIDI channel and tune your guitar with the embedded tuning aid of your AXON. If you are in a hurry and if you would like to play immediately with your AXON, read the explanations in the sections BASIC CH and tuning of the guitar. You must ensure that the connected MIDI instrument receives Pitch Bend Range information, otherwise you set this value at your MIDI instrument to 12. Then you leap over all further parameters and you can test the factory presets.

In order to change one of the GLOBAL parameters switch your

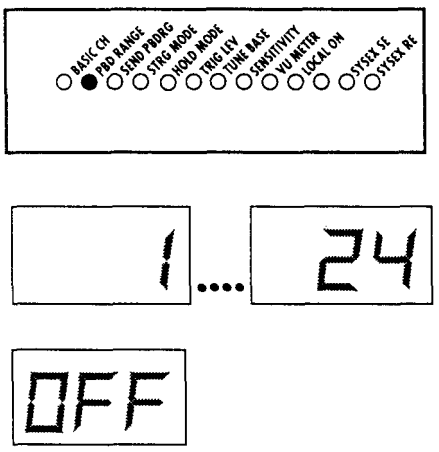
AXON in edit mode. Press the +/- PARAMETER buttons at the same time. The EDIT LED lights up and the AXON is now in edit mode. Please press the SELECT key several times until the LED shows the word GLOBAL. The first parameter LED appears and indicates you that you can change the first of the global parameter (basic MIDI channel). Press the +/- PARAMETER buttons until the LED of your desired parameter blinks. At the display, the current value of the optional parameter is always shown. Change the value of the wanted parameter by using the +/- value buttons. If you are ready with your settings, leave the edit mode while pressing the +/- PARAMETER keys at the same time. The EDIT LED becomes dark and you are in the preset mode again.

BASIC CH



Basic MIDI channel: Setting I... 10
Your AXON needs maximal seven successive MIDI channels in order to control a connected MIDI tone generator. One channel is necessary for each string and an additional channel is required if you would like to use the special function of the Hold Pedal. With the basic MIDI channel you assign the first of seven channels which will be used by your AXON. All further channels follow implicitly.

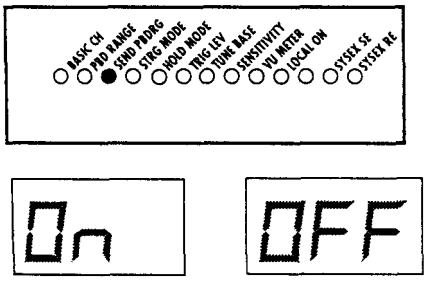
PBD RANGE



Pitchbend Range OFF/I...24
Since your connected MIDI instrument should convert the pitch changes of your guitar correctly, you have to set the Pitch Bend Range of your MIDI instrument to the same value as this one on the AXON. The value shows the maximum number of semitone steps that can be converted with Pitch Bend information, without triggering a new note on your MIDI instrument. If your MIDI instrument allows, this value should be set to at least 12 (one octave) or 24 for bass guitars (two octaves) .

OFF
Your AXON does not send Pitch Bend information to the MIDI instrument.

SEND PBDRG

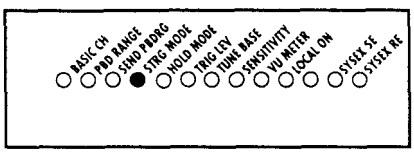


Send Pitchbend Range: Setting ON/OFF
If you are sure that the Pitch Bend Range of your connected MIDI instrument and of your AXON are set to the same value, you can switch this parameter OFF.

This parameter has to be set to ON if your MIDI instrument stores Pitch Bend Range in each preset separately. In this case the AXON

sends the Pitch Bend Range information after each program change immediately again. This is necessary by most KORG synthesizers. and probably by some other manufacturers. If your MIDI instruments store Pitch Bend Range globally, just like the AXON itself, this parameter should be OFF. If you are not familiar with your MIDI instrument, you should set this parameter to ON. Then your AXON will possibly give out some unnecessary MIDI data but you will hardly notice it.

STRGMODE



String Mode : How to set COMMON or SEPARATE

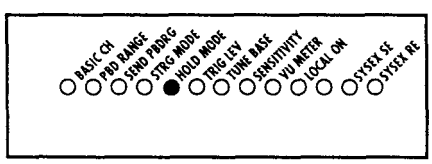
COMMON Mode
In common mode all strings of your guitar are assigned to the basic channel. In order to avoid conflicts with still sounding notes of the same channel, no Pitch Bend information is sent in this mode if you play more than one note. So a solistic play is possible although restrictive. If your MIDI instrument can only receive at one MIDI channel, you should use this mode.
In separate holdmode all data are given out at basic channel +1 while pressing the Hold Pedal.

SEPARATE Mode

Each string is assigned to an own MIDI channel:
E1 : Basic MIDI channel
B2 : Basic MIDI channel+1
G3 : Basic MIDI channel+2
D4 : Basic MIDI channel+3
A5 : Basic MIDI channel+4
E6 : Basic MIDI channel+5

The SEPARATE Holdmode is basic MIDI channel + 6. If your MIDI instrument can receive data on several channels, you should always use this mode. Restriction mentioned above in the COMMON mode is not valid here. The split functions can only be used in SEPARATE mode.

HOLD MODE



Hold mode (common/ separate/ sustain/ controller)
While pressing the Hold Pedal you can access four different functions:" Common, separate, sustain and controller".

COMMON
While pressing the Hold Pedal, no other MIDI data are sent. A previous chord will be kept frozen on your MIDI instrument as long

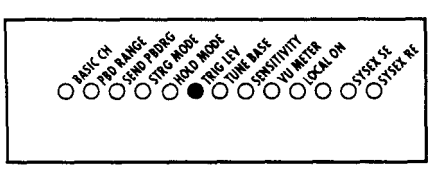
as you keep the pedal down. Herewith, you realize also a bypass function, i.e. as long as you press the Hold Pedal in this mode, your AXON doesn´t give out further MIDI data.

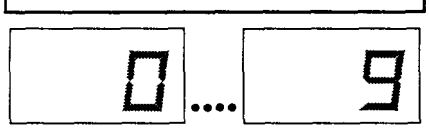
SEPARATE
A further MIDI channel is available. You can for example underlay a solo with an optional accompaniment. For that purpose you play a chord while pressing the Hold Pedal and releasing it then. You can play again your AXON now and at an additional channel the already played chord sounds. If you press the Hold Pedal again, all notes are turned off and you can play a new chord again.

SUSTAIN
While pressing the Hold Pedal, the controller 64 (Sustain) with a maximum value of 127 is given out. Play notes on your guitar. Every note you play as long as you have the Pedal pressed will be sustained, much like the sustain pedal on a piano. Leaving the pedal releases the sustained notes. The same controller (64) is given out again, but with the value 0. All played notes will sound then normally.

CONTROLLER : (0...127)
It is possible to call up one of the 128 MIDI controller. While pressing the Hold Pedal, the selected controller is given out with the maximum value 127 (7Fh). As you release the Hold Pedal again, the controller will be sent out with value 0. Appropriate controllers are Sustain (64), Portamento (65) or for example Chorus (93). In the appendix you can find a detailed list of all MIDI controllers.

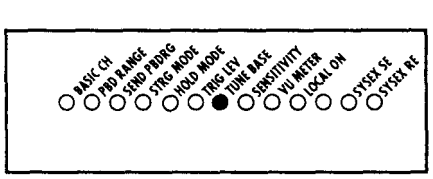
TRIGGER LEV

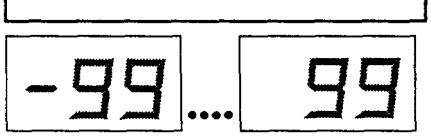




Trigger Level (0...9)
You assign by this parameter the weakest picking level that causes a NOTE ON event to be sent. A low value means that a weak picking triggers a tone; a high value means that a strong picking is required.

TUNE BASE

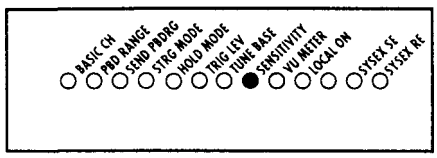




Tune Base -99...+99
Your AXON generates MIDI sounds relating to a tune base of 440 Hz plus a deviation which is set by this parameter. If your musicians play instruments which can only be tuned with great effort (for example a piano), it is better if you fit your AXON to this situation. We recommend the following procedure if the tune base deviates

from 440 Hz: You tune first the open A string carefully by ear on the basis of the instrument (for example a piano). While playing now the open A string, your AXON analyses the coming vibration and sets itself the Tune Base Parameter at the correct value. The deviation in cents is shown at the display. Naturally, you can change the value also with the +/- buttons, if you know exactly the value. Then you tune the remaining strings of your guitar with the embedded tuning aid of your AXON. If you play alone, you should set the tune base to the value 0.

SENS

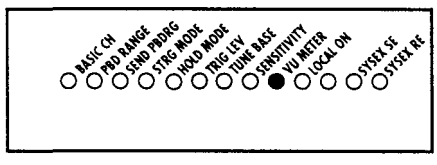


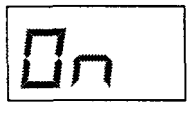
Sensitivity

The AXON converts audio signals into digital information. They are very sensitive to overloading. But you shouldn´t drive your AXON too low. By using the SENS function you can optimally prepare your guitar to play together with the AXON. While doing this, your AXON helps you. During play on your guitar, 6 vertical bars appear at the display. They correspond to the strings 1 to 6 of your guitar. As soon as you play on your guitar, those strings with vertical bars are indicated at the display for which your AXON had not found an optimal setting. Then you have to play the concerning string again. Generally, it is unimportant whether one string or more strings are picked at the same time. As soon as an optimal value is established the 'display shows - - -.

You can call up this function as often as you like, perhaps in order to increase the sensitivity later. For that purpose, you repeat the above mentioned procedure, but you play less powerful on your guitar. Your AXON will then increase the sensitivity. Please consider that you can overload your AXON later by playing loudly which can lead to faulty MIDI data.

VU METER

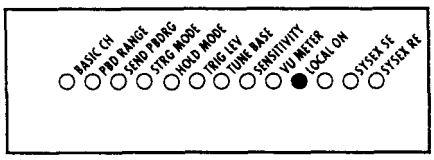




Volume Meter: OFF/ON

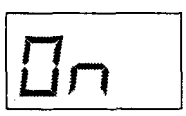
With this function you can turn on or off the optic level control. If you switch on the level control the amplitude value of the last picked string is indicated at the display by means of the horizontal LED line in 3dB steps.The left LED always lights red and signalizes that you turned on the level control. A possible overload of your AXON is indicated by a short blink of this LED. Additionally, the corresponding string number appears at the display which caused this overload, then the previous display is shown. You should not worry about an occasional overload. If overloads often happen, set the sensitivity again (GLOBAL parameter SENS) in order to guarantee a faultless functioning of your AXON.

LOCAL ON



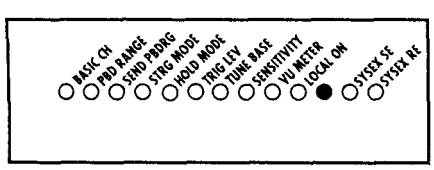
Local Mode : ON/OFF

OFF:
The MIDI data that are received by your AXON are directly transferred to the embedded sound module. Program change commands do not influence the presets of your AXON. You cannot receive System Exclusive Data for your AXON as well. Naturally. you can keep changing the presets of your AXON with the buttons. Concerning the receive, your AXON is now like a GM-expander. This function addresses especially to persons who work with a sequencer: All MIDI data, the AXON generates during play, are exclusively given out via MIDI OUT. The sequencer will send data through its MIDI OUT. Please connect the MIDI OUT of your sequencer to the MIDI IN of your AXON in order to direct it to your embedded sound module. The AUDIO OUT signals are transferred via the non-used pins of the MIDI THRU of your AXON. For that purpose, use the special cable included with your AXON.

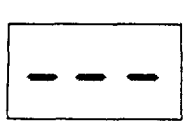


ON:
If you don't use a sequencer, you should set this parameter to ON. Your AXON controls now the embedded sound module and program change commands influence your AXON. Of course, your AXON keep sending data via MIDI OUT. Then, you can connect further MIDI instruments to the MIDI OUT. If you do not have an embedded sound module, you should set LOCAL to ON in order to benefit from preset changes via MIDI IN.

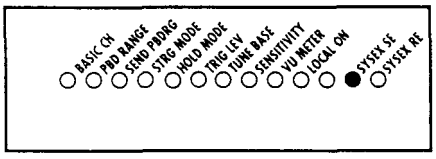
(Reserved)

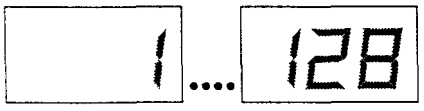


This parameter is planned for future extensions and has no function.



SYSEX SE

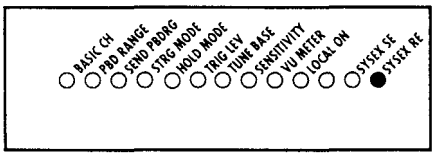


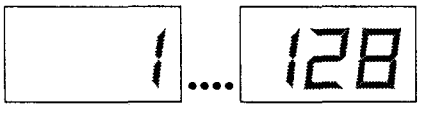


System Exclusive Send: I...128, ALL
Single or all presets of your AXON can be permanently stored and reloaded later via MIDI, for example in a sequencer program. Naturally you can copy data of your AXON in another AXON. Please ensure that your recorder (for example sequencer) can receive System Exclusive Messages. With the +/- value buttons, choose the preset of which data you would like to store.

If you want to save all presets, decrease the indicated value as far as : ALL appears at the display. Press the MODE and SELECT keys at the same time in order to transfer the corresponding data via MIDI.

SYSEX RCV





System Exclusive Receive: I...128, ALL
This function allows you to overwrite single or all presets of your AXON with new presets which you stored perhaps before in a sequencer or other devices. It could also be the preset data of another AXON which you would like to use in your AXON.

Choose the preset with the +/- value keys of which data you would like to overwrite.

If you want to overwrite all presets, decrease the indicated value as far as : ALL appears at the display. Press the MODE and SELECT (STORE) buttons at the same time in order to receive the desired data via MIDI. Your AXON is now able to receive. Trigger the sending of data for example at your sequencer by starting it. Naturally one track of the sequencer must contain necessary data. In order to receive presets of another AXON you must send the required data to the other AXON. For that purpose, see also SYSEX SE.

You set the GLOBAL parameter LOCAL ON to OFF. A reception of System Exclusive Messages is not possible then, since all received MIDI data are transferred to the embedded sound module.

How to tune your guitar

Your AXON has an embedded tuning aid which you should use to tune your guitar. Pressing the +/- VALUE keys (tuning) at the same time you can always call up the tuning aid. For that purpose, you can also use the UP/ DOWN buttons of your guitar interface. They are identical to the +/- VALUE keys. Play a string on your guitar. At the display the closest semitone is indicated. You see the deviation of the tuning at the display of the horizontal LED. If the string is tuned too sharp, your LED will light right from the middle LED. If the string is tuned too flat, your LED will light left from the middle LED. In case of exact tuning, the middle LED changes from red to green.
You can leave the tuning aid by pressing the +/- VALUE keys at the same time respectively the UP/ DOWN buttons of your interface.

How to call up the presets

After turning on the AXON it is in preset mode. Press the + or the - VALUE button in order to call up different presets. At the display, the current preset number is shown. The LEDs of the guitar symbol at the front panel of the AXON indicate the current split type which was stored in this preset.
You can use three different split possibilities in one preset but only one of three is active. If all LEDs light, no split will be used in the preset. That means you can play on your guitar with one sound.
Try the presets together with the different applications of the Hold pedal.

How to change presets

Your AXON is delivered with presets being only propositions. Each musician prefers other settings. You do not need all parameters in order to create a new preset or to change an existing preset but you should know about all possibilities of the AXON.
Press the + and - PARAMETER buttons in order to change your AXON in edit mode. The LED EDIT lights. By pressing these buttons again you can leave the edit mode.

In edit mode you can change the SPLIT and HOLD parameter according to your ideas. All changes that you made at the parameters do not overwrite the current preset. You must copy the new settings to the same or another preset which is freely chosen and which you would like to overwrite with new settings. After copying, you can continue to edit in edit mode.

Another possibility is to leave the edit mode by pressing the +/- parameter keys at the same time.
Note: If the preset number lights you will know that you changed one or more parameters of a current preset without saving these new settings. You can ignore this message by pressing the +/- PARAMETER buttons at the same time or you can store the new settings in a preset. In both cases the preset display returns to the previous state.

How to store or overwrite presets

After you changed parameters according to your ideas you would like to save them as presets. For that purpose you press the MODE and SELECT button at the same time. At the display the current preset number lights. You can overwrite the current preset with new data, press the above mentioned keys again.
If you want to overwrite another preset with new settings, choose your desired preset number with the +/- VALUE buttons at the display. Then press the MODE and SELECT buttons (STORE) at the same time and the indicated preset is overwritten by the settings. In both cases you are in edit mode. In order to leave the edit mode, press the + and - PARAMETER buttons at the same time and the EDIT LED will be inactive.

How to copy presets

If you want to copy an existing preset, press the MODE and SELECT button at the same time. The display of the current preset lights now. Then you search a free preset with the +/- VALUE keys, for example a preset that you would not like to use any more and press again the MODE and SELECT button at the same time in order to copy.

Split Parameter

By using splits you have got the possibility to assign different sounds on your guitar. Another advantage is the recognition of the picking position. According to the picking position you can call up for example another sound on your MIDI instrument.
You change to edit mode by pressing the +/- PARAMETER buttons at the same time. The LED EDIT lights. Choose one of the four split possibilities by pressing the mode button again and again. You see the split type on the guitar symbol at the front panel of the AXON. Please consider that a split is always separated into two parts, SPLIT 1 and SPLIT 2. Each split has to be defined.

STRING SPLIT

According to the split setting, either the upper two LEDs light (SPLIT 2) or the lower two LEDs (SPLIT 1) light.

FRET SPLIT :

According to the split setting, either the middle two LEDs light (SPLIT 1) or the right two LEDs (SPLIT 2) light.

PICK SPLIT :

According to the split setting, either the left LED (SPLIT 1)' or the right LED (SPLIT 2) lights at the picking position.

SPLIT OFF :

All splits are turned off. All LEDs light.

By using the SELECT button you call up successively the following edit or split possibilities:

The LEDs belonging to the split type light. Call up the desired parameter with the +/- PARAMETER buttons for SPLIT 1 or SPLIT 2 and change each with the +/- VALUE keys. Play your guitar until you find the setting that corresponds to your ideas.

SPLIT 1 :

SPLIT 2 :

SPLIT POINT :

The current splits belonging to the LEDs light alternately. At the display SPLIT 1 and SPLIT 2 of a split type is shown which can directly be changed with the +/- VALUE buttons. By pressing the SELECT key again, you can leave this function. The last indicated display value is now the new split point. The limit of the shown value depends on the split type. The split point range for a guitar with six strings is for example:
STRING SPLIT : This split type has a range from 1 to 6. 1 is the high El string and 6 is the deep E6 string. Set for example the split point to G3: SPLIT 1 goes now from El to G3 and SPLIT 2 goes from G3 to E6.
FRET SPLIT : This split type has a range from 1 to 24. 1 is the first fret after the nut and 24 is the fret at the base of the neck. Set for example the split point at 15: SPLIT 1 goes now from 1 to 15 and SPLIT 2 goes from 15 to 24.
PICK SPLIT : This split type has a range from 0 to 99. It goes from the bridge to the neck and is therefore the usual picking position of a guitar separated in 100 parts. Set for example the split point at 33: SPLIT 1 goes now from 0 to 33 and SPLIT 2 goes from 33 to 99.

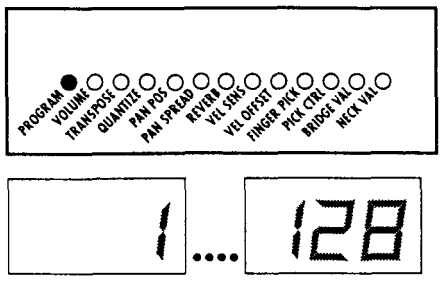
HOLD:

This function is only available if the GLOBAL parameter: HOLD MODE is set to SEPARATE. Please read in the section Hold parameter how to use and program the functions of the Hold pedal. Otherwise leap over this function and press again the SELECT key.

GLOBAL:

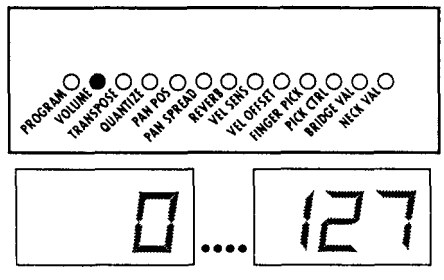
When this LED lights it indicates you to change now the GLOBAL parameter. If you do not want to change the GLOBAL parameters, leap over this function by pressing the SELECT key. Then SPLIT 1 is shown with the LEDs of the guitar symbol and you can change again the corresponding parameter of SPLIT 1.

PROGRAM



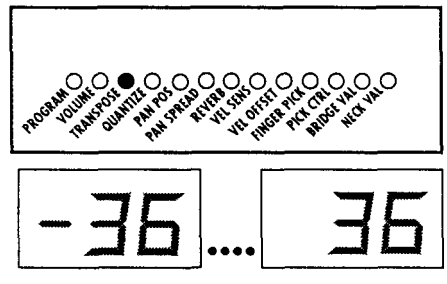
Program number of your MIDI instrument: Setting I... 128
Please choose your favourite sound on your MIDI instrument (or on your embedded sound module) with this parameter. Your AXON will send this program number to your MIDI instrument.

VOLUME



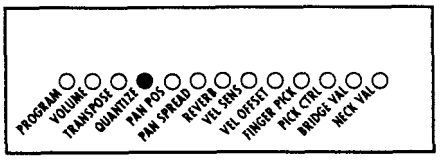
Volume (O... 127)
Perhaps the preset volume of your MIDI instrument is too low (or too loud). This parameter allows you to increase/ decrease the volume of your sound. Should the volume be too high for you, it is possible to decrease the volume of your MIDI instrument with the volume controller of your interface. For this reason you should set the value of this parameter as high as possible. A later increase with the volume controller of your interface is not possible.

TRANSPOSE



Transposing in semitones (-36...+36).
This parameter allows you to trigger notes at your MIDI instrument which you can´t reach with your guitar.

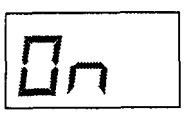
QUANTIZE



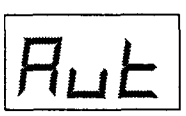
How to quantize pitches: Setting possibilities OFF/ON/AUTO

You determine by this parameter if pitch changes within a set pitch bend range should be converted with continous or step by step (quantized) pitch bend.

OFF:
All pitch changes (for example pulling strings, hammer on's or other playing techniques) are converted as exactly as possible (see also Global Parameter: Pitch bend range).

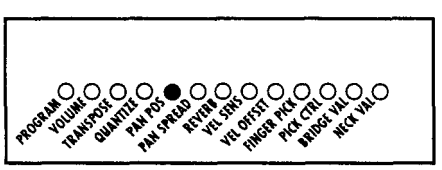


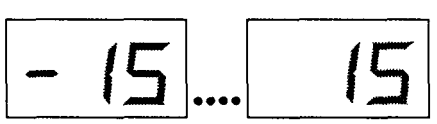
ON:
Each pitch change won´t be converted with pitch bend until the next semitone is reached; then another pitch bend value gives out the new pitch. Pulling strings continously and other playing techniques won´t be interpreted as expected. This setting is advantageous while playing chords exclusively, since insignificant pitch changes resulting from varying the string pressure have no influence any more. Especially organ and piano tones would then sound very unnaturally.



AUTO:
By this setting you make use of the unique possibility of the AXON, to recognize your intention how to play. The pitch quantization is switched on or off depending on the situation. Chords are now exactly played (without pitch bend), whereas the pitch quantization is for example turned off again for a solo with pulling string, hammer on's and similar playing techniques.

PAN POS

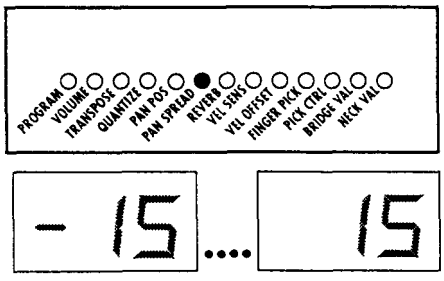




Panorama Position (OFF, -15 ... MID ...+15)
This parameter allows you to displace the sound of your MIDI instrument at the stereo panorama. The values 0 ... -15 mean that the current sound is more shifted to the left channel, the values 0 ... +15 move the sound more to the right channel. The value MID corresponds to the mid position. OFF expresses that your AXON won´t send this controller value to your MIDI instrument.

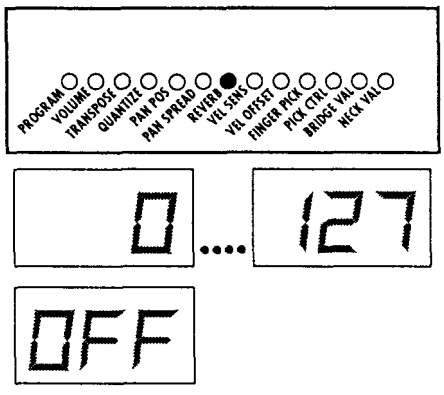
If your MIDI instrument has no panorama function, set this parameter to OFF.

PAN SPREAD



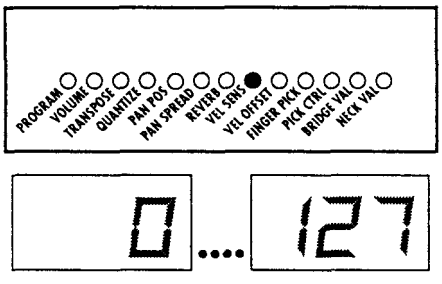
Panorama spread (-15...+15)
By using the parameter PAN POS, you assign the stereo position for all 6 strings. In order to avoid that all 6 strings are at the same stereo position, you can use this parameter to spread the single strings around the panorama position. Set the PAN POS value for example to MID (to the MID position). Play on your guitar and vary the PAN SPRD value.
Please consider that your MIDI instrument has to interpret panorama information. For that purpose, read the user manual of your MIDI instrument.

REVERB



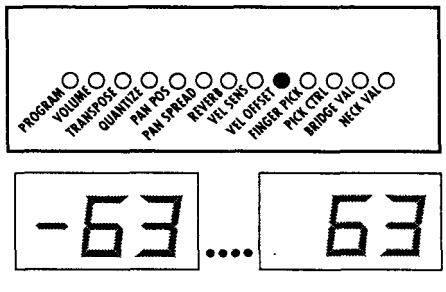
Reverb portion of a sound (MIDI controller 91) : OFF/ 0.. 127
If your MIDI instrument is fitted with an embedded Reverb, this parameter allows you to decide about the Reverb portion of your used sound. This parameter must set to OFF, if your MIDI instrument does not have an installed Reverb. Your AXON won´t transfer this controller via MIDI. The Reverb portion of the optional sound module will be controlled with this parameter, too.

VEL SENS



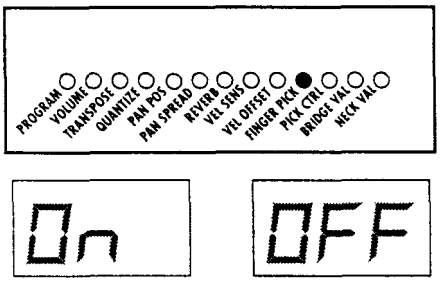
Velocity sensitivity (0...127)
You can restrict the dynamic response at your MIDI instrument by reducing the value of this parameter. If the value is 0, all played notes are given out of your AXON with the same velocity value (with a velocity value of 64) , independently of your dynamics. You get the greatest dynamic response at the value of 127.

VEL OFFSET



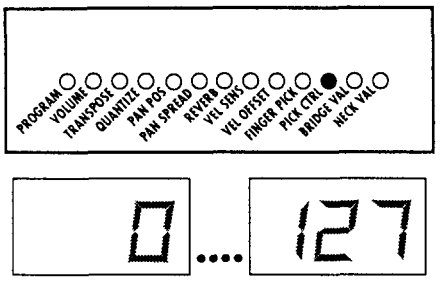
Velocity offset (-63...+63)
If the dynamics of your AXON is reduced by the Velocity Sensitivity parameter, the generated velocity values could be too high/ too low. This parameter allows you to increase/ decrease the velocity value again.

FINGER PICK



Finger picking : OFF/ON
This parameter switches on/ off several internal parameter, which can be used for the finger picking technique at your AXON. In this case, the pick split and the pick control function aren't available any more. Please ensure that you hadn´t used a pick split in the current preset. Also the pick controller must be turned off (OFF).

PICK CTRL

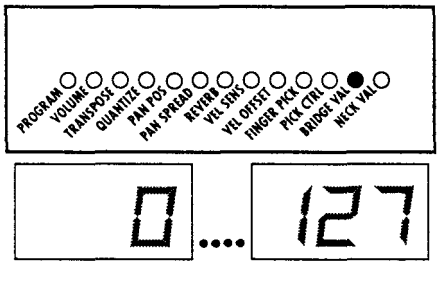


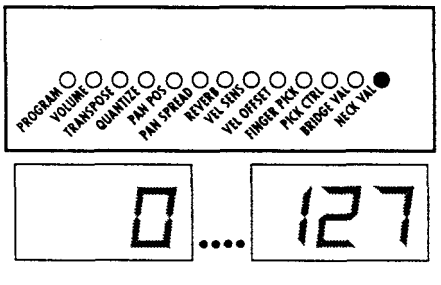
Pick Controller (OFF, O... 127)
As mentioned above, your AXON has the unique possibility to recognize the picking position. Additionally to a pick split you have got the possibility to assign this picking position to one of several MIDI controllers. Set the value for example to 1 and you can simulate the modulation wheel of a keyboard by the picking position. There are MIDI controllers which are worth while. For that purpose, look at the user manual of your MIDI instrument. Interesting controllers are for example 1 (mod wheel), 7 (volume) or 10 (panorama).

If you do not want to use the pick control function, set this parameter to OFF.

BRIDGE VAL

NECK VAL





Bridge value/Neck value : Setting 0..127
You assign the value range of the MIDI controller with the parameter bridge value and the parameter neck value. At both parameters the lowest value is 0 and the highest value is 127. It is also possible to set values between 0 and 127. To give an example: Choose one of the MIDI controllers which are listed at the GENERAL MIDI controller chart on page 37, for example number 7 (= volume). Then determine the bridge value of this MIDI controller for example to 15 (or minimally to 0) and the neck value of this MIDI controller to 80 (or maximally to 127). Now start playing at the bridge and move continously to the base of the neck and you will see that the tones become louder and louder.
Vice versa it is possible to assign the bridge value of the MIDI controller number 7 (volume) for example to 80 (or maximally to 127) and the neck value of this MIDI controller for example to 15 (or minimally to 0). Now start playing at the bridge and move

continously to the base of the neck and you will see that the tones become lower and lower.
Conclusively, the intensity of the MIDI controller depends on the picking position.

Hold Parameter

While pressing the Hold pedal the Hold parameters will be important if you set the GLOBAL parameter HOLD MODE to SEPARATE. In this case your AXON offers you another possibility to control your MIDI instrument.
Change the Hold parameter by switching your AXON in edit mode (Press the +/- PARAMETER buttons at the same time until the LED next to the expression EDIT lights.) Then press the SELECT button several times until the LED next to the expression HOLD lights. The first parameter LED blinks and the display shows the value of the first parameter (PROGRAM). You change it with the +/- VALUE keys or call up another parameter with the +/- PARAMETER buttons which can also be changed by the +/- VALUE keys. The same control possibilities are available. See the section split parameter.
In Hold mode the hold data are sent on an additional MIDI channel. Since the meanings of the Hold parameters are identical to the meanings of the SPLIT parameters, you can find a precise description of each parameter in the section split parameter. You can leave this function while pressing the SELECT button again in order to edit perhaps again the split parameters. You can leave the edit mode (EDIT) by pressing the +/- PARAMETER keys at the same time. Naturally you can use the MODE and SELECT key here in order to save your settings and to leave the edit mode. Please act in the same way as in the section "How to store presets".

Data exchange through MIDI System Exclusive

Please read in the description of the GLOBAL parameters: SYSEX SE or SYSEX RCV.

MIDI channel / string assignment

In addition to 6-string-guitars, you can also connect 4, 5 and 6-string-basses to your AXON (requiring a correspondent HEX pickup). The string assignment is:

MIDI channel offset	6 string guitar:	4 string bass:	5 string bass:	6 string bass:
0	E1	—	—	C1
1	B2	G2	G2	G2
2	G3	D3	D3	D3
3	D4	A4	A4	A4
4	A5	E5	E5	E5
5	E6	—	B6	B6

How to reload factory presets

You can always reload the original factory presets, but your current settings are lost. Please store your preset data with MIDI System Exclusive before. While turning on the AXON, keep pressing the + VALUE button and the display shows: "Inl".

Description of the factory presets

In the following the factory presets are listed with its parameters in a table. The sound description refers to GENERAL MIDI sounds. Please ensure that your MIDI instrument produces similar sounds to the given examples. The global parameters are identical for all presets.

Appendix

PRESET No. : 1 Beschreibung / Description

STRING SPLIT [X] OFF [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

FRET SPLIT [X] OFF [ ] 1...23

PICK SPLIT [X] OFF [ ] 1...99

	SPLIT 1	SPLIT 2	HOLD	NOTES
PROGRAM 0...127	26	-	31	
VOLUME 0...127	127	-	127	
TRANSPOSE -36...+36	0	-	0	
QUANTIZE On/Oft/Auni	Auto	-	Auto	
PAN POS Oft7L15/MID/R15	Off	-	Off	
PAN SPREAD -15...+15	-2	-	-15	
REVERB 0...127	Off	-	Off	
VEL SENS 0...127	105	-	105	
VEL OFFS -63...+63	10	-	10	
FINGER PICK On / OIT	Off	-	Off	
PICK CTRL Off/0...127	Off	-	Off	
BRIDGE VAL 0...99	0	-	0	
NECK VAL 0...127	127	-	127	

PRESET No. : 2 Beschreibung / Description

STRING SPLIT [ ] OFF [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

FRET SPLIT [X] OFF [ ] 1...23

PICK SPLIT [X] OFF [ ] 1...99

	SPLIT 1	SPLIT 2	HOLD	BEMERKUNGEN / NOTES
PROGRAM 0...127	27	33	61	
VOLUME 0...127	80	127	127	
TRANSPOSE -36...+36	0	-12	0	
QUANTIZE On / Off / Auto	Auto	Auto	Auto	
PAN POS Off / L15 / MID / R15	Off	Off	Off	
PAN SPREAD -15...+15	-2	-15	-15	
REVERB 0...127	Off	Off	Off	
VEL SENS 0...127	110	105	105	
VEL OFFS -63...+63	10	10	10	
FINGER PICK On/Off	Off	Off	Off	
PICK CTRL Off/0...127	Off	Off	Off	
BRIDGE VAL 0...99	0	0	0	
NECK VAL 0...127	127	127	127	

PRESET No. : 3 Beschreibung / Description

STRING SPLIT [X] OFF [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

FRET SPLIT [ ] OFF [9] 1...23

PICK SPLIT [X] OFF [ ] 1...99

	SPLIT 1	SPLIT 2	HOLD	BEMERKUNGEN/NOTES
PROGRAM 0...127	57	54	52	
VOLUME 0...127	86	127	127	
TRANSPOSE -36...+36	0	0	0	
QUANTIZE On/Off/Ami)	Off	Auto	Auto	
PAN POS Oft'/L15/MID/R15	Off	Off	Off	
PAN SPREAD -15 ... +15	2	2	-15	
REVERB 0...127	84	Off	Off	
VEL SENS 0...127	110	110	40	
VEL OFFS -63...+63	10	10	-40	
FINGER PICK On / OtT	Off	Off	Off	
PICK CTRL OIT/0...127	Off	Off	Off	
BRIDGEVAL 0...99	0	0	0	
NECKVAL 0...127	127	127	127	

PRESET No. : 4 Beschreibung / Description

STRING SPLIT [X] OFF [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

FRET SPLIT [X] OFF [ ] 1...23

PICK SPLIT [ ] OFF [30] 1...99

	SPLIT 1	SPLIT 2	HOLD	BEMERKUNGEN / NOTES
PROGRAM 0...127	30	25	61	
VOLUME 0...127	100	127	127	
TRANSPOSE -36...+36	0	0	0	
QUANTIZE On / Off / Auto	Off	Off	Auto	
PAN POS Off / L15 / MID / R15	Off	Off	Off	
PAN SPREAD -15 ...+15	3	2	-15	
REVERB 0...127	92	23	Off	
VEL SENS 0...127	110	110	110	
VEL OFFS -63...+63	10	10	10	
FINGER PICK On / Off	Off	Off	Off	
PICK CTRL Off/0...127	Off	Off	Off	
BRIDGEVAL 0...99	0	0	0	
NECKVAL 0...127	127	127	127	

PRESET No. : ☐ Beschreibung / Description

STRING SPLIT ☐ OFF ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

FRET SPLIT ☐ OFF ☐ 1...23

PICK SPLIT ☐ OFF ☐ 1...99

	SPLIT 1	SPLIT 2	HOLD		NOTES
PROGRAM 0...127					
VOLUME 0...127					
TRANSPOSE -36...+36					
QUANTIZE On / Off / Auto					
PAN POS Ot'f/L15/MID/R15					
PANSPREAD -15...+15					
REVERB 0...127					
VEL SENS 0...127					
VEL OFFS -63...+63					
FINGER PICK On / Oil'					
PICK CTRL Off/()... 127					
BRIDGEVAL O...W					
NECK VAL 0...127					

PRESET No. : ☐ Beschreibung / Description

STRING SPLIT ☐ OFF ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

FRET SPLIT ☐ OFF ☐ 1...23

PICK SPLIT ☐ OFF ☐ 1...99

	SPLIT 1	SPLIT 2	HOLD		NOTES
PROGRAM 0...127					
VOLUME 0...127					
TRANSPOSE -36...+36					
QUANTIZE On/Off/Auto					
PAN POS Off/L15/MlD/R15					
PANSPREAD -15 ...+15					
REVERB 0...127					
VEL SENS 0...127					
VEL OFFS -63...+63					
FINGER PICK On / Off					
PICK CTRL Off/0...127					
BRIDGE VAL 0...99					
NECK VAL 0...127					

Technical Data

Display
3 digit 7-segment display
LED line for display/ tuning aid

Connections (Back Panel)
Guitar IN, 13 pin special plug (GK)
Guitar Audio OUT, jack cable (6,3mm)
Hold Pedal, closing switch, jack cable (6,3 mm)
Chain Pedal, closing switch, jack cable (6,3 mm)
MIDI connectors, 5 pin DIN (IN, OUT, THRU)
AC/DC IN, 5,5/2,1 mm

Power supply
12V AC (AC Adapter with delivery of the AXON)
1500mA

Measures
Length: 21.5 cm
Width: 22 cm
Height: 4.4 cm (1 rack unit)

Weight
1.5kg

Accessories delivered with the AXON
User manual
AC Adapter
MIDI cable 1,5m
Footswitch

Optional accessories
AIX101 Interface with Hex pickup for guitar
AIX102 Interface with Hex pickup for bass
Special cable 13 pin, from Interface to AXON
Soundboard SB-676 with special cable
Footswitch

SYSTEM EXCLUSIVE IMPLEMENTATION

Received:
l.DUMP:

0: FOH	SYSTEM EXCLUSIVE
1:OOH	header for 3 byte manufacturer' s ID
2: 20H	1 st byte of manufacturer' s ID
3: 2DH	2nd byte of manufacturer's ID
4: 14H	AXON model ID
5:x	device number (not evaluated)
6:y	y= 1 :ALL, y=2:SCRATCH, y=3:ARRANGE
7:d	d=0: dump coming; d= 1: dump requested
8: lengthO	- lowest 7 bits of length
9: length1	- middle 7 bits of length
10: length2	- highest 7 bits of length
11:D[0].L	- low nibble of first byte
12: D[0].H	- high nibble of first byte
...D[N-1].L	- low nibble of last byte
...D[N-1].H	- high nibble of last byte
...CHS—	- checksum (modulo 128)
...F7H—	- end of exclusive

2. BULK DUMP REQUEST:

0: FOH	SYSTEM EXCLUSIVE
1:OOH	header for 3 byte manufacturer's ID
2: 20H	1st byte of manufacturer's ID
3: 2DH	2nd byte of manufacturer's ID
4: 14H	AXON model ID
5:x	device number (not evaluated)
6: 1	bulk dump (ALL)
7: 1	bulk dump requested
... F7H—	- end of exclusive

Transmitted:

l.DUMP: Same as Dump Received.

AXON MIDI Implementation Chart

AXON MIDI Implementation Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Channel	1 -10 1 - 10	X X	
Mode	Default Messages Altered	Mode 3,4 X X	X X X	
Note Number	True Voice	0 - 127 X	X X	
Velocity	Note On Note Off	09n v=l-127 08n v=10	X X	
After Touch	Key's Ch's	X X	X X	
Pitch Bender		O	X	
Control Change	7 10 64 32 121 100,38,101,6 0-127	O O O O O O O	X	Volume Panorama Hold 1 Bank 0,1 Reset Controllers Pitch Bend Range Assignable Pick Position Controller
Prog. Change	True #	O O	O	0 - 127
System Exclusive		O	O	
System Common	:Song Pos :Song Sel :Tune	X X X	X X X	
System Real Time	:Clock :Commands	X X	X X	
Aux Mes- sages	:Local On/Off :A11 Notes Off :Active Sence :Reset	X X X X	X X X X	
Notes				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO 0 : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO X : No

GENERAL MIDI (GM) charts

(Source : MIDI 1.0 Detailed Specification 4.2)

GENERAL MIDI Sound Set Groupings
(all channels except 10)

Pros #	Instrument Group	Prog#	Instrument Group
1-8	Piano	65-72	Reed
9-16	Chromatic Percussion	73-80	Pipe
17-24	Organ	81-88	Synth Lead
25-32	Guitar	89-96	Synth Pad
33-40	Bass	97-104	Synth Effects
41-48	Strings	105-112	Ethnic
49-56	Ensemble	113-120	Percussive
57-64	Brass	121-128	Sound Effects

GENERAL MIDI Sound Set
(MIDI Program Numbers 1 - 128; all channels except 10)

Pros #	Instrument	Pros #	Instrument	Pros #	Instrument	Pros #	Instrument
1.	Acoustic Grand Piano	33.	Acoustic Bass	65.	Soprano Sax	97.	FX 1 (rain)
2.	Bright Acoustic Piano	34.	Electric Bass (finger)	66.	Alto Sax	98.	FX 2 (soundtrack)
3.	Electric Grand Piano	35.	Electric Bass (pick)	67.	Tenor Sax	99.	FX 3 (crystal)
4.	Honkey-tonk Piano	36.	Fretless Bass	68.	Baritone Sax	100.	FX 4 (atmosphere)
5	Electric Piano 1	37.	Slap Bass 1	69.	Oboe	101.	FX 5 (brightness)
6.	Electric Piano 2	38.	Slap Bass 2	70.	English Horn	102.	FX 6 (goblins)
7.	Harpsichord	39.	Synth Bass 1	71.	Basson	103.	FX 7 (echoes)
8.	Clavi	40.	Synth Bass 2	72.	Clarine	104.	FX8(sci-fi)
9.	Celesta	41.	Violin	73.	Piccolo	105.	Sitar
10.	Glockenspiel	42.	Viola	74.	Flute	106.	Banjo
11.	Music Box	43.	Cello	75.	Recorder	107.	Shamisen
12.	Vibraphone	44.	Contrabass	76.	Pan Flute	108.	Koto
13.	Marimba	45.	Tremolo Strings	77.	Blown Bottle	109.	Kalimba
14.	Xylophone	46.	Pizzicato Strings	78.	Shakuhachi	110.	BagPipe
15.	Tubular Bells	47.	Orchestral Harp	79.	Whistle	111.	Fiddle
16.	Dulcimer	48.	Timpani	80.	Ocarina	112.	Shanai
17.	Drawbar Organ	49.	String Ensemble 1	81.	Lead 1 (square)	113.	Tinkle Bell
18.	Percussive Organ	50.	String Ensemble 2	82.	Lead 2 (sawtooth)	114.	Apogo
19.	Rock Organ	51.	Synth Strings 1	83.	Lead 3 (calliope)	115.	Steel Drums
20.	Church Organ	52.	Synth Strings 2	84.	Lead 4 (chiff)	116.	Woodblock
21.	Reed Organ	53.	Choir Aahs	85.	Lead 5 (charang)	117.	Taiko Drum
22.	Accordion	54.	Voice Oohs	86.	Lead 6 (voice)	118.	Melodic Tom
23.	Harmonica	55.	Synth Voice	87.	Lead 7 (fifths)	119.	Synth Drum
24.	Tango Accordion	56.	Orchestra Hit	88.	Lead 8 (bass+lead)	120.	Reverse Cymbal
25.	Acoustic Guitar (nylon)	57.	Trumpet	89.	Pad 1 (new age)	121.	Guitar Fret Noise
26.	Acoustic Guitar (steel)	58.	Trombone	90.	Pad 2 (warm)	122.	Breath Noise
27.	Electric Guitar (jazz)	59.	Tuba	91.	Pad 3 (polysynth)	123.	Seashore
28.	Electric Guitar (clean)	60.	Muted Trumpet	92.	Pad 4 (choir)	124.	Bird Tweet
29.	Electric Guitar (mute)	61.	French Horn	93.	Pad 5 (bowed)	125.	Telephone Ring
30.	Overdriven Guitar	62.	Brass Section	94.	Pad 6 (metallic)	126.	Helicopter
31.	Distortion Guitar	63.	Synth Brass 1	95.	Pad 7 (halo)	127.	Applause
32.	Guitar harmonics	64.	Synth Brass 2	96.	Pad 8 (sweep)	128.	Gunshot

(Channel 10)

MIDI Key	Drum Sound	MIDI Key	Drum Sound	MIDI Key	Drum Sound
35	Acoustic Bass Drum	51	Ride Cymbal 1	67	High Agogo
36	Bass Drum 1	52	Chinese Cymbal	68	Low Agogo
37	Side Stick	53	Ride Bell	69	Cabasa
38	Acoustic Snare	54	Tambourine	70	Maracas
39	Hand Clap	55	Splash Cymbal	71	Short Whistle
40	Electric Snare	56	Cowbell	72	Long Whistle
41	Low Floor Tom	57	Crash Cymbol 2	73	Short Guiro
42	Close Hi Hat	58	Vibraslap	74	Long Guiro
43	High Floor Tom	59	Ride Cymbal 2	75	Claves
44	Pedal Hi Hat	60	Hi Bongo	76	Hi Wood Block
45	Low Tom	61	Low Bongo	77	Low Wood Block
46	Open Hi Hat	62	Mute Hi Conga	78	Mute Cuica
47	Low Mid Tom	63	Open Hi Conga	79	Open Cuica
48	Hi Mid Tom	64	Low Conga	80	Mute Triangle
49	Crash Cymbal 1	65	High Timbale	81	Open Triangle
50	Hish Tom	66	Low Timbale		

GENERAL MIDI Controller Chart

Controller Number Decimal	Hex	Controller Function
0	00H	Bank Select
1	01H	Modulation wheel or lever
2	02H	Breath Controller
3	03H	Undefined
4	04H	FootController
5	05 H	Portamentotime
6	06H	Data entry MSB
7	07H	Channel Volume(formerly Main Volume)
8	08H	Balance
9	09H	Undefined
10	0AH	Pan
11	0BH	Expression Controller
12	0CH	Effect Control 1
13	0DH	Effect Control 2
14-15	0EH-0FH	Undefined
16-19	10-13H	General Purpose Controllers (#'s 1-4)
20-31	14-1FH	Undefined
32-63	20-3FH	LSB for values 0-31
64	40H	Damper Pedal (sustain)
65	41 H	Portamento On/Off
66	42H	Sostenuto
67	43H	Soft pedal
68	44H	Legato Footswitch (vv = 00-3FH:Normal, 40-7FH=Legato)
69	45H	Hold 2
70	46H	Sound Controller 1 (default: Sound Variation)
71	47H	Sound Controller 2 (default: Timbre / Harmonic Intensity)
72	48H	Sound Controller 3 (default: Release Time)
73	49H	Sound Controller 4 (default: Attack Time)
74	4AH	Sound Controller 5 (default : Brightness)
75-79	4BH-4FH	Sound Controller 6-10 (no defaults)
80-83	50-53H	General Purpose Controllers (#'s 5-8)
84	54H	Portamento Control
85-90	55-5AH	Undefined
91	5BH	Effects 1 Depth (formerly External Effects Depth)
92	5CH	Effects 1 Depth (formerly Tremolo Depth)
93	5DH	Effects 1 Depth (formerly Chorus Depth)
94	5EH	Effects 1 Depth (formerly Celeste (Detune) Depth)
95	5FH	Effects 1 Depth (formerly Phaser Depth)
96	60H	Data increment
97	61H	Data decrement
98	62H	Non - Registered Parameter Number LSB
99	63H	Non - Registered Parameter Number MSB
100	64H	Registered Parameter Number LSB
101	65H	Registered Parameter Number MSB
102-119	66-77H	Undefined
120-127	78-7FH	Reserved for Channel Mode Messages