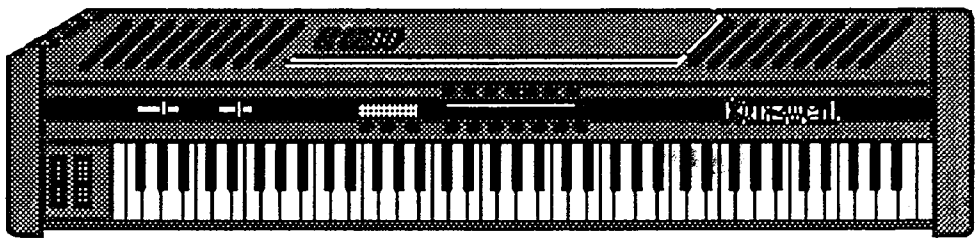
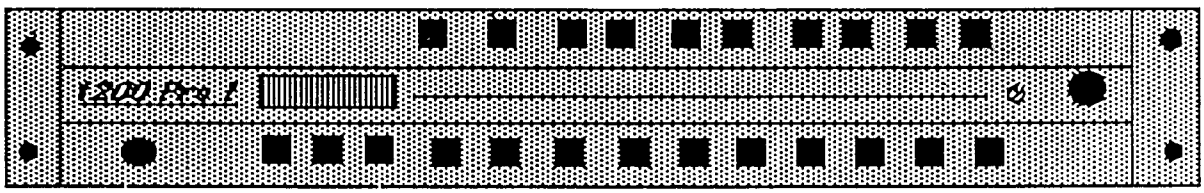
KURZWEIL™ 1200 SERIES OPERATION GUIDE

BY CHRIS MARTIRANO



FOR USE WITH MODELS K1200, PRO 76, & PRO I MODULE



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13336 Alondra Blvd., Cerritos, CA. 90701 310-926-3200

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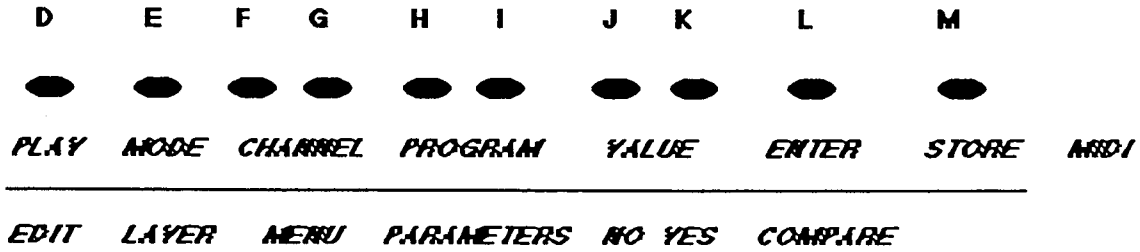
forward

The 1200 series products are great sounding very powerful synthesizers, and as such require patience, and time and some effort to get to know these instruments.

This guide is intended to assist people in their understanding and operations of the K1200, Pro 76, and Pro I modules. There are comments pointing out features worth noting. Editing and programming suggestions are in 'English' and we make no pretense, this guide is not designed to take you through the very deepest depths, - the more complex levels of editing.

To begin let's look at an illustration of the front panel and define the controls.



There are only (2) modes of operation: 1) Play and 2) Edit. To toggle back from one mode to the other press the D button.

In the *PLAY* Mode:

D = *PLAY*
E = *MODE*
F = *CHANNEL DOWN*
G = *CHANNEL UP*
H = *PROGRAM DOWN*
I = *PROGRAM UP*
J = *VALUE DOWN* (DEC)
K = *VALUE UP* (INC)
L = *ENTER*
M = *STORE*

In the *EDIT* mode:

D = *EDIT*
E = *LAYER*
F = *MENU BACKWARDS*
G = *MENU FORWARD*
H = *PARAMETERS BACKWARDS*
I = *PARAMETERS FORWARD*
J = *NO*
K = *YES*
L = *COMPARE*
M = *NO FUNCTION*

When the machine is in *PLAY* mode all the upper terms apply (see left column); when the machine is in the *EDIT* mode all the lower terms apply (see right column).

MIDI on the front panel identifies the MIDI indicator light.

: Looking at the rest of the control panel :

Directly underneath the display are (3) buttons: above the left button is the letter A, directly above the middle button is the letter B and over the right button appears the letter C. To the right of these (3) buttons are (10) buttons each with a number over them ranging from 0 - 9. We can use these button as our numeric keypad.

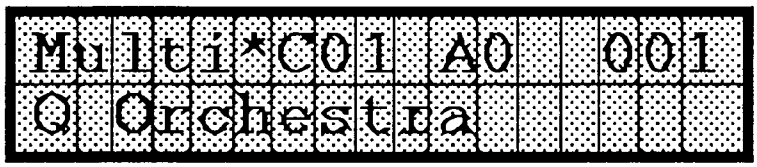
Note - Buttons A, B, and C - allow the user to select from 3 programmable program lists (Kurzweil refers to these as Programmable Bins covered in Section 4 of this guide) each list may contain up to (10) entries (you may call these pre-sets, stops, registrations, patches, sounds, etc.).

EXAMPLE - A -1 = Q. Orchestra, A - 2 = Nuageux, B-4 = Warm Organ etc.

Benefit = A person can program 30 of his or her favorite programs at the touch of maybe (2) buttons at most. Quick access to your most used sounds i.e. BIN A - jazz gig sounds, BIN B - Top 40 set, BIN C - Religious registrations, or however you wish to organize your programs.

Let's look at a typical program as it would appear in the display and define the letters and numbers:

1. 2. 3. 4. 5. 6.



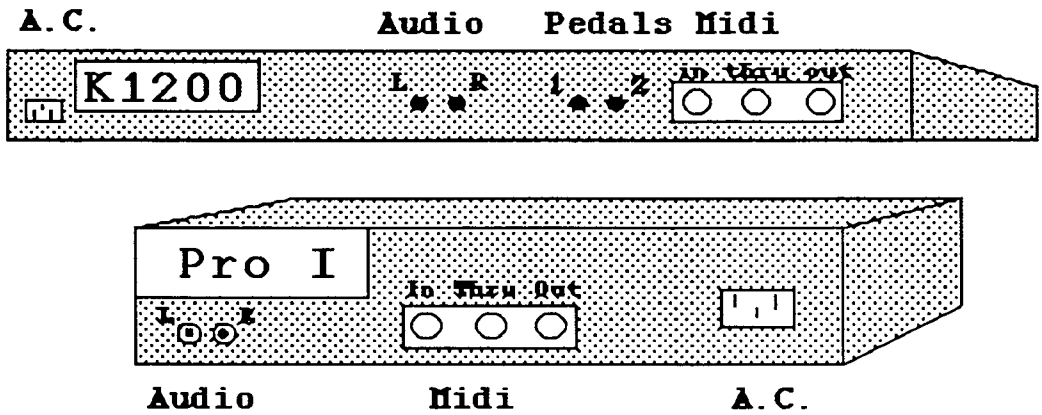
7.

: Defining the Display :

1. = MIDI mode (Multi, Poly and Omni)
2. = * Star indicates the basic MIDI channel the unit is set to send and recieve MIDI data.
3. = The MIDI channel set to transmit / recieve (K1200 sends on 3 MIDI channels at a time as a controller and recieves on all 16 channels multi-timbrally discussed later in more detail).
4. = Bin Selected (either A, B, or C).
5. = List entry - a selection is made by pressing a BIN (A,B, or C) then pressing one of the list entry numbered buttons (0-9).
6. = Program number.
7. = Program name.

One would read the above display as follows: "The instrument is in Multi MIDI mode; the basic channel is set to MIDI channel 1; we've selected MIDI channel 1 to transmit on, BIN A, entry #0, was the last BIN entry made; program # 001 named Q Orchestra is currently selected and ready to play". WHEW !

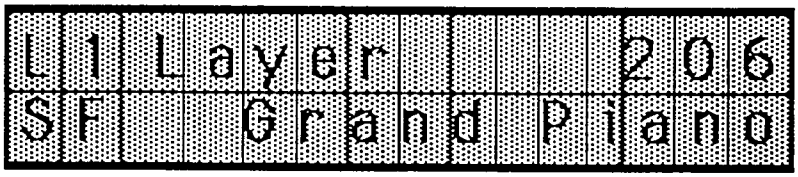
Rear Panel Views:



PLEASE USE (2) PEDALS - Both pedals are active programmable controllers. The factory default for the left pedal is sostenuto and for the right - sustain, and these operate the same way an acoustic piano's pedals function.

Let's press the Play / Edit button (D) and look at a typical display screen in the *EDIT* mode:

1. 2. 3.



4. 5.

: View of the Layer editor window :

1. - Field 1 shows the Layer # - there can be up to (4) layers / or splits in a program i.e. piano, strings, waveform, and steel string guitar.

2. - Field 2 shows the Menu name; as you change menus this title will change to reflect the newly chosen menu i.e. Amplifier Envelope, Master etc.

3. - Field 3 shows the Edit Menu # - in this case the Layer editor; i.e. the Master Menu is 000, the Program Menu is 100, these are only reference #'s; this is not the program #.

4. - Field 4 shows the name of a page (sub - menu) under the current menu shown. In this case the sub menu showing is a sound file or SF.

5. - Field 5 shows the parameter name or a numeric value to be adjusted when programming.

**** Assuming you want to know more about your instrument, you'll want to re-read pages i - iv. If you want to get started immediately, continue ****

Programming Made Easy - A direct approach -

This section will cover:

1). How to call up programs
A) Direct access, scrolling, or Bins

2). How to use the Bins
A) How to create, name, save and recall Bin maps

3). How to create split or layered programs
A) How to transpose / tune, adjust volume, set dynamic response, assign controllers (pitch and mod wheels, slider, and pedals).

4). How to select and edit Compiled or Modular effects.

5). How to create Performance Set-ups or "P-Set Ups"
A) How to create, name, save, and recall P-Set Ups.

6). How to change Master parameters.

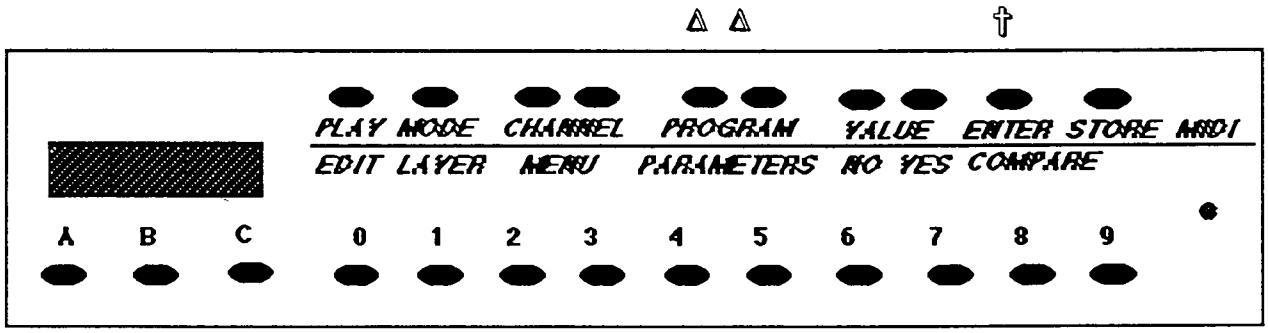
7). MIDI

8). How and what to play
A) What sounds good? What shows off the instrument?

Selecting Programs -

Piano # 201 will serve as our template (basic patch) or 'home base'.

1). To call up programs (sounds, patches etc.) immediately (direct access) Press the *ENTER* button (†) then select a program number from the list provided with your unit and press the numbered buttons that correspond. Press the *ENTER* button a second time (see diag. below).



I----------numbered buttons----------I

2). Or.... you can Scroll by pressing either of the Program buttons (▲).

3). The 3rd way to access sounds is by selecting one of the user programmable program lists we refer to as Bins.

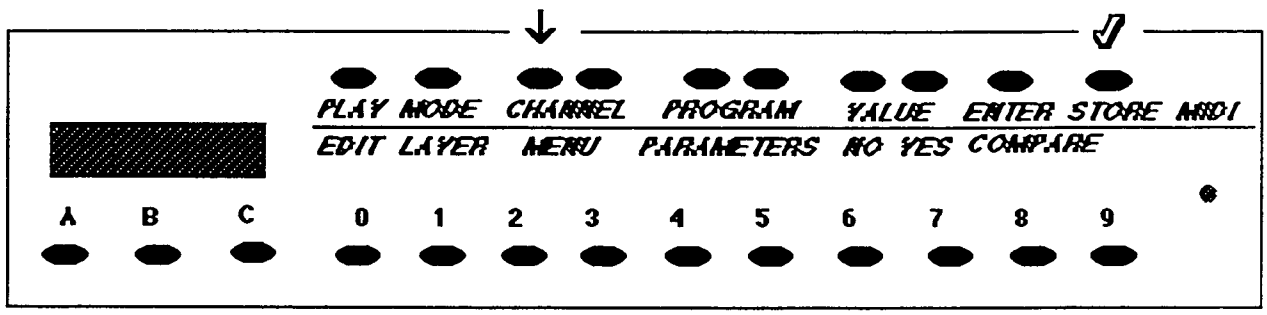
To select a sound from the pre existing factory BIN lists, press one of the buttons labeled A, B, or C. When you select A, B, or C, you are choosing a list with 10 programs which can be accessed by pressing one of the 10 numbered buttons. The proceedure is easy, press a letter than a number i.e. Press A, then 8 = Grand Strings, press B, then 0 = Echoplex Flute, etc.

In Short : How To Select A Program

- √ To select a program by direct access press the *ENTER* button 1 time.
- √ Enter the program number using the 10 numbered buttons.
- √ Press the *ENTER* button a second time, and the program is now ready to play.
- √ To select a program using the scroll method, press either of the *PROGRAM* buttons to scroll up or down through the complete program lists.
- √ To select a program using the BINS, press either the letter A, B, or C under the display, followed by one of the 10 numbered buttons to the right.

Creating BIN Maps -

1). First call up program 201 Grand Piano, (Press *ENTER*, then select 201 on the numbered buttons (or any other selection you may wish), press *ENTER* again.



2). To save this program to a BIN (either A, B, or C), and any list location (0 - 9 - the numbered buttons):

For the K1200 PRO 76 and PRO 88:

A). Press the *STORE* button (√), then press the left *CHANNEL* button (↓)

1). For the PRO I - Press the *STORE* button - it is not necessary to press the left *CHANNEL* button!

B). Press the Bin you want (A, B, or C) followed by a list location (0 - 9).

C). Press *STORE* Again.

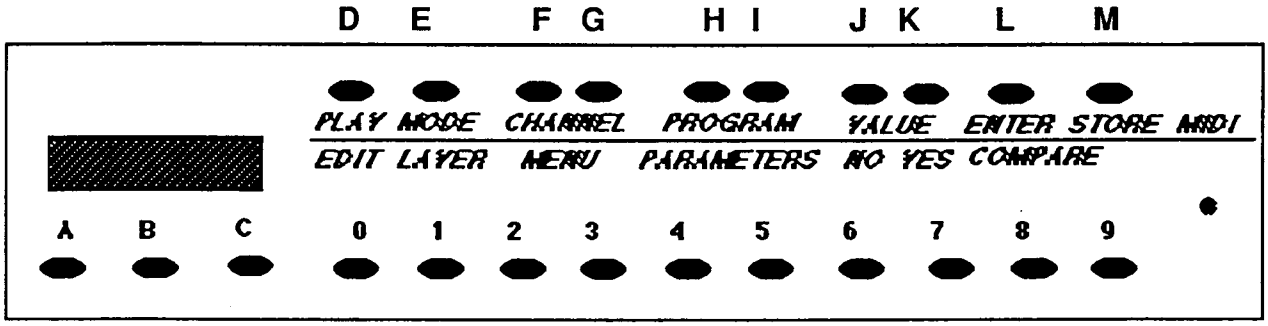
IN SHORT : - TO PROGRAM A BIN

√ Select a program.
√ Press *STORE*.
√ For K1200 models Press the left *CHANNEL* button, For PRO I, DON'T.
√ Press Letter A, B, or C, then Number 0 - 9.
√ Press *STORE* a second time.

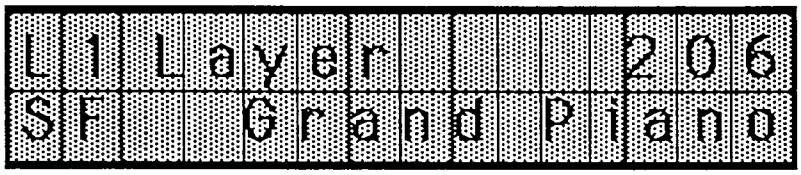
√√ 3 BINS X 10 PROGRAMS = 30 USER DEFINED PROGRAM SLOTS.

To Name, Save and Recall BIN Maps -

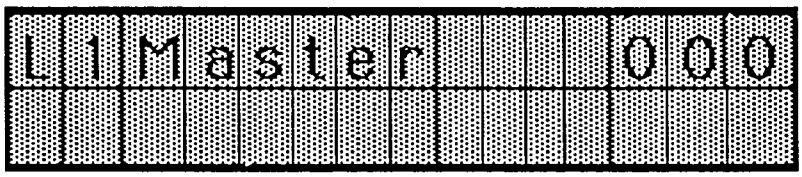
1). Press the *PLAY / EDIT* button (D):



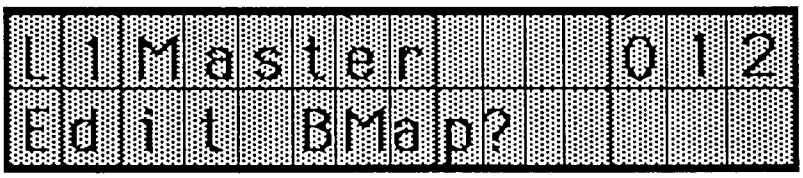
and look at a typical display screen:



2). Press the left *MENU* button (F), 2 times or unitil you come to the Master menu.



3). Press the right *PARAMETER* button (I), 12 times or until you see Edit BMap?



4). Press the *YES* button (K) 1 time.

5). Press the right *PARAMETER* button 1 time and you will see Name Bin Map?

6). Press *YES* button again.

7). *MENU* buttons work the cursor (the cursor which can be moved to the left or right with the left and right *MENU* buttons).

8). *PARAMETER* buttons change letters and characters.

9). When you have named your Bin, press *YES* again.

10). Press the right *PARAMETER* button 1 time and you will see Save Bin Map?

11). Press *YES* 1 time and you will see Save as ID# (a number between 1 and 9 will be located in the upper right hand corner of the display).

12). Press *YES* 1 time and you see Saved as Bin Map ID# (a number between 1 and 9), then returns to the previous screen.

13). Press *PLAY* button 2 times to exit the edit mode.

14). To recall a particular BIN Map Press the buttons numbered 0 and 1 at the same time and the display reads: Select Bin Map? Press the numbered button that corresponds to the Bin Map you wish to recall.

QUIRK... because there is no BIN # 0, you will select # 0 for BIN 1, #1 for BIN 2, #2 for BIN 3 etc.

The names you previously assigned to your custom BIN lists will appear in the display immediately after depressing the numbered button.

IN SHORT : - TO NAME, SAVE, and RECALL A BIN MAP

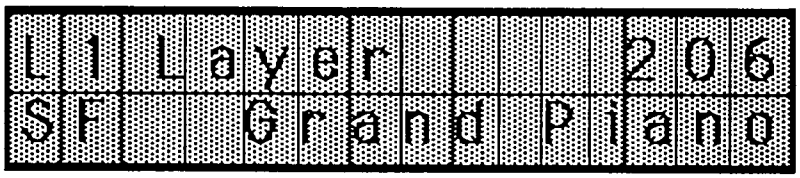
√ Press the *PLAY / EDIT* button.
√ Press the left *MENU* button 2 times.
√ Press the right *PARAMETER* button 12 times.
√ Press the *YES* button 1 time.
√ Press the right *PARAMETER* button 1 time.
√ Press the *YES* button 1 time.
√ Use *MENU* buttons to move cursor.
√ Use *PARAMETER* buttons to change characters and letters.
√ After naming Bin Press the *YES* button 1 time.
√ Press the right *PARAMETER* button 1 time.
√ Press the *YES* button 1 time.
√ Use *PARAMETER* buttons to overwrite old Bins or scroll ahead to open new unused storage.
√ When you have the ID# you want Press *YES* button 1 time.
√ Press the *PLAY / EDIT* button 2 times.
√ Press buttons 0 and 1 together.
√ Press the numbered button that corresponds to the Bin Map you wish to select (remember #0=BIN 1, #1=BIN 2, #2= BIN 3 etc.).

Creating A Split or Layered Program -

The same editing proceedure is used when creating split or layered programs. In the following exercise we will be creating a piano and slow string layered program.

1). First call up program 201 Grand Piano (Press *ENTER*, then select 201 on the numbered buttons, then press *ENTER* again).

2). Press the *PLAY / EDIT* button 1 time and the display will look like this:



There are (3) ways to choose the next Sound File (SF) to be added to the piano program, you can select:

'New Layer' - this allows the user to select a raw Sound File with no effects (Chorus, Vibrato etc.) or envelopes (slow attacks, long decays etc.).

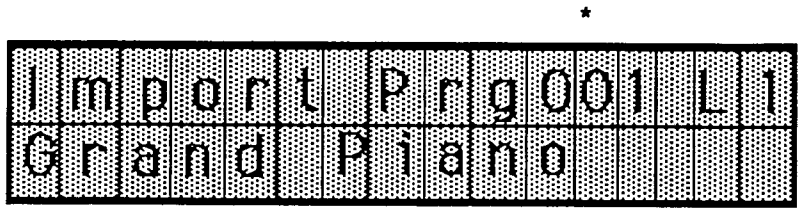
'Duplicate Layer' - this allows the user to copy an existing layer - in this case we would be copying the Grand Piano with all its' effects, and envelopes - this is useful in creating detuned piano, or flanged drums etc.).

'Import Layer' - this allows the user to select a Sound File with all its' effects, and envelopes - this is useful when you want to select for example Slow Strings to be added to the Grand Piano. You want to import the String Sound File and its' envelope (which creates the slow attack).

'Clean Layer' - is provided for those cases where you 'Imported a Layer', and you don't like the envelopes or effects you may select 'Clean Layer' which removes any effects, or envelopes reducing the layer to the raw Sound File data; the end result would be the same as though you had selected a 'New Layer", where you must create your own effects and envelopes.

3). Press the left *PARAMETER* button (3) times until you see Import Layer?

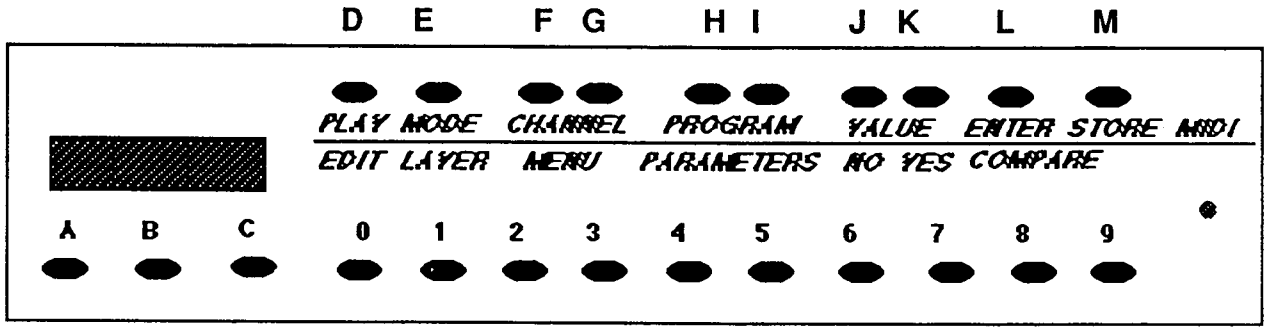
4). Press the *YES* button 1 time and the display will look like this:



5). Press the right hand *PARAMETER* button until the Prg number * reaches 90 (hint - pressing both *PARAMETER* buttons at the same time advances the programs in increments of 64), and the display looks like this:

Import Prg 090 L1
Slow Strings

6). Press the *YES* button 1 time. You now will hear Piano and Slow Strings both playing across the entire keyboard range. This is called a layer. To toggle back and forth through layers use the *LAYER* button (E).



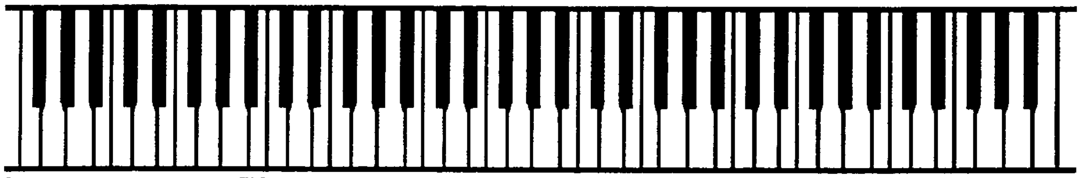
7). By pressing the *LAYER* button while observing the display you will notice the numbers changing in the upper left hand corner of the display. L1 to L2 indicating which layer you will be editing. Press the *LAYER* button until the display show L2 in the upper left hand corner of the display since we want to edit the strings on L2.

8). Press the right *PARAMETER* button and you will notice a variety of editing functions which include:

Volume - changes the layers' volume (boost or cut 48db).

Kbd Tilt - balances the volume of a Sound FIle across the keyboard range i.e. you may want Strings to be softer in the lower range of the keyboard, and louder in the upper range.

Set MIDI Range - this control is used to assign a Sound File to a particular range on the keyboard i.e. when making a split program, each layer can be set to its' own keyboard range see diagram below:



I____________ Piano___________ I - Layer 1

I______________Strings___________ I - Layer 2

Overlap I___________ I

Low Note / High Note- fine adjustments for layer ranges.

Transpose - 6 octaves up or down.

Detune - up to = or - 100 cents (half step).

Delay - up to 10 seconds.

FX - effects, either compiled (factory created) or modular (user created).

Chg FX Edit Lvl - the way a user toggles back and forth from Compiled and Modular effects.

Enable - this is the layer on / off control. You can assign any controllers (pedals, or wheels [also the data slider on the *K1200 and PRO 76 models*]) to any layer, allowing the player a variety of ways to mix and blend timbres (layers) , turning on or fading in different layers in real time. This is also useful in creating programs of interest i.e. Piano plays by itself on layer 1, and Strings (which may be assigned to the sostenuto pedal) only play when the sostenuto pedal is depressed. This really creates dramatic interaction between Strings and Piano not merely a 2 layer program.

Dynamics - if this control is set to - 0db - then the Sound File will respond like an organ ignoring velocity altogether; if this control is set to its' maximum of - 90db - the layer will be extremely velocity sensitive like a piano responing to touch.

By pressing either of the *VALUE / NO YES* buttons you can change the values of a particular parameter, or use the data slider (on the K1200 and PRO 76 only, not found on th PRO I).

There are so many other parameters which you can explore.

9). We're on Layer 2 and we're going to press the right *PARAMETER* button until we see Volume. Press the left *VALUE* button 7 times and the volume will now be decreased by 7db.

10). Press the right *PARAMETER* button 5 times until you see Transpose in the display. Press the left *VALUE* button (12) times and you will have transposed the strings up 1 octave.

11). Press the right *PARAMETER* button 5 times until you see Enable. Press the right *VALUE* button 35 times (or hold it in and it will automatically advance, or press both *VALUE* buttons to advance in larger increments) until you see Sost Pd (you can assign this layer to any controller, in this case the Sostenuto pedal has been selected).

Note - Make sure that the K1200 or PRO 76 have both pedals plugged in or if you're using the PRO I your Midi master controller has assignable pedals. We now have a Piano and Slow String program where the Piano plays solo until the Sostenuto Pedal is depressed at which time the Strings come in 1 octave higher.

In Short : To Create Split or Layered Programs

To create a layered program:

√ Select a program, either by direct access, scrolling, or from a BIN.
√ Press the *PLAY / EDIT* button 1 time.
√ Press the left *PARAMETER* buttons 3 times (Import Layer?).
√ Press the *YES* button 1 time - display shows Import Prog # and name.
√ Using the *PARAMETER* buttons, scroll to the desired sound you wish to import.
√ Press the *YES* button 1 time - Layer Imported

To create a split program continue:

√ Press the *LAYER* button until you see an L1 in the upper left hand corner of the display.
√ Press the right *PARAMETER* button 6 times or until the display reads: Set MIDI Range?
√ Press the *YES* button 1 time and the display will prompt: Strike 1st Key, now strike the lowest note you want that layer to be able to play.
√ The display will again prompt you to Strike 2nd Key, and you will now strike the highest key you want that layer to be able to play.
√ Repeat this proceedure for each layer in the program to create splits, and partial overlaps.
√ To name and save see next page.

Name, Save User Created Programs -

1). Now that you've created this program you'll want to save it so press the *PLAY / EDIT* button 1 time and the display reads:

L2 Program 102
Save Program?

2). Press the left *PARAMETER* button 1 time and the display reads:

L2 Program 102
Name Program?

3). Press the *YES* button 1 time and using your *MENU* buttons to move the cursor and your *PARAMETER* buttons to change letters and characters. Name the program.

4). Press the *YES* button 1 time

5). Press the right *PARAMETER* button 1 time and the display returns to:

L2 Program 102
Save Program?

6). Press the *YES* button 2 times and the display reads:

Prog 201 = ID# 1
Update ProgList?

In other words, do you want to write over the program 201 Grand Piano?

7). You will press the *NO* button 1 time indicating that you don't want to overwrite the factory program. Your new program will appear in the program #'s ranging from 401-499 (user created program slots).

8). Press the *PLAY / EDIT* button to exit the edit mode and note the program number of your newly created program in the upper right hand corner of the display.

9). For split programs set each layers' Set MIDI Range parameter to correspond to the placement of each Sound File on the keyboard.

10). When you are ready to assign a layer to the keyboard and you're looking at the parameter Set MIDI Range? Press the *YES* button 1 time and the display will prompt you to Strike 1st key (low note), then the 2nd key (high note), and these actions will assign the Sound FIle (layer) to that particular keyboard range.

Try creating other layered and split programs.

In Short : To Name and Save Programs

- √ Press the *PLAY / EDIT* button 1 time and display reads: Save Program?
- √ Press the left *PARAMETER* button 1 time - Name Program?
- √ Press the *YES* button 1 time, and name the program.
- √ Use the *CHANNEL* buttons to move the cursor, and the *PARAMETER* buttons to change characters and letters.
- √ When the program has been named, press the *YES* button 1 time.
- √ Press the right *PARAMETER* button 1 time and display reads: Save Program?
- √ Press the *YES* button 2 times - program saved as ID# (some 3 digit number).
- √ Press the *NO* button indicating that you don't want to write over the previous program, and your new program will be written to the next user program available (these appear in the 401-499 program # range).

Compiled and Modular Effects -

No IN SHORT : sections are provided in Section 8 as the information is presented in the most condensed fashion possible.

1). There are a number of effects available in 1200 series products. These are presented in 2 ways: Compiled effects (factory created) like Vibrato, or Tremolo etc., or Modular effects (user created), i.e. velocity controlled Chorusing, or Asymetrical Vibrato etc.

2). To audition the factory created effects (Compiled), we'll want to once again select our template program Grand Piano # 201. To do so:

A. Press the *ENTER* button followed by pressing the numbered buttons 2, 0, 1, and again pressing the *ENTER* button.
B. Press the *PLAY / EDIT* button 1 time to enter the edit mode.
C. Press the left *PARAMETER* button 2 times or until the display reads Clean Layer ?
D. Press the *YES* button 2 times to remove any effects that may have been previously assigned to Grand Piano # 201.
E. Press the right *PARAMETER* button 11 times (you may want to press both *PARAMETER* buttons simultaneously 2 times achieving the same results) or until the display reads:

L1 Layer 215
FX None

F. By pressing the *YES* button, you can scroll and audition the various factory Compiled effects: Vibrato, Dly Vib (Delayed Vibrato), Tremolo, Dly Trm, Leslie, Chorus 2, Tremolo 2, VibChr 2 (Vibrato & Chorus 2), Phaser 2, Leslie 2, Chorus 3, Echo 3, and back to None.

*** Certain effects reduce 1200 series products polyphony (voices - the number of notes one can play simultaneously) i.e. Chorus 2 (voices are stacked in pairs, and detuned, cutting polyphony from 24 notes to 12), and Chorus 3 (voices are stacked 3 times cutting polyphony to 8 notes at a time) etc. ***

G. For this excercise, let's select Chorus 2.
H. To edit this effect to your suit your own taste, press the right *MENU* button 1 time, changing the Chorus 2 page, from a page to a Menu heading.
I. By pressing the right *PARAMETER* button you can scroll through the various parameters that may be edited (these will vary depending on the effect you are editing).

J. Use the *YES / NO* buttons (or data slider) to change values.
K. Saving and Naming the edited program was covered earlier in section 7, pg. 10.

To switch from Compiled (factory created) to Modular (user created) effects:

L. Repeat steps A. - E. (Section 8 pg. 12).
M. Press the right *PARAMETER* button 1 time or until display reads: Chg FX Edit Lvl ? (In other words change from Compiled to Modular effects - you also select this page when you want to change from Modular to Compiled effects as well).
N. Press the *YES* button 3 times.
O. Press the left *PARAMETER* button 1 time and the display reads:

L1 Layer 215
FX Modular

P. By pressing the right *MENU* button you will see the following synthesizer modules including:

1. - LFO 1 - Low Frequency Oscillator - used to create modulation effects i.e vibrato, tremolo etc.
2. - LFO 2 - additional LFO.
3. - gLFO 1 - (g = global), affects all layers in a program.
4. - gLFO 2 - additional global LFO.
5. - ASR 1 - Delay, Attack, Sustsain, Release.
6. - ASR 2 - additional ASR.
7. - gASR 1 - global ASR affects all layers in a program.
8. - gASR 2 - additional gASR.
9. - MXR - Mixers are used when you want (2) controllers to effect the same parameters i.e. mono pressure and mod wheel both control modulation depth.
10. - INV / NEG - Invertor / Negator - used to change values easily Invertor = changes negative values to positive values or positive to negative, Negator = undoes a function.
11. - Amp ENV - Amplifier Envelopes allow the user to alter the characteristics of a sound affecting the sound's attack, sustain, decay, and release (different applications then ADR).
12. - ENV 2 - an alternate Amp ENV.
13. - ENV Ctl - where the user defines which controllers will affect the envelope and by what degree the envelope will change.

14. - Pitch Ctl - where the user defines which controllers will affect the pitch and by what degree the pitch will change.
15. - Amp Ctl - where the user defines which controllers will affect the amplitude (volume) and by what degree the amplifier will change.

For this excercise we will create a simple vibrato effect.

*** It is important to note that the 1200 series products are highly sophisticated modular synthesizers. Their earlier forerunners include the Arp 2600 and modular Moog designs; instead of using a myriad of patch cables all the patching is done electronically. If we go to the LFO 1 menu and edit the parameters of the LFO, we will notice no change in the sound, as the LFO hasn't been 'patched' into Pitch Control or Amplifier Control. It will take a while before you get used to editing a module and patching it into another. This powerful section won't be covered in great depth in this guide, but be assured there are years of experimenting one can look forward to.***

1). To begin, select program # 201 Grand Piano.
2). Follow steps A. - E. in Section 8 pg. 12.
3). Press the right *PARAMETER* button 1 time, or until the display reads: Chg FX Edit Lvl ?
4). Press the *YES* button 3 times.
5). Press the right *MENU* button 1 time, or until the display reads:

L1 LFO 1 410
(undefined)

6). By pressing the right *PARAMETER* button you will notice the following pages:

A). Delete LFO 1 ?
B). Min Rate 0.00 Hz
C). Max Rate 0.00 Hz
D). Rate Ctl - you can assign any controller from mod wheel to pedals to act as the controller (use *YES / NO* buttons to assign controllers).
E). Shape - LFO assignable waves include:

1. Sine	7. + Rise Saw	13. Dbl Pulse	19. White Noise
2. Cosine	8. + Fall Saw	14. Circle	20. Red Noise
3. + Sine	9. Square	15. Stair	21. Green Noise
4. + Cosine	10. + Square	16. + Stair	22. Blue Noise
5. Rise Saw	11. Triangle	17. Asym Triangle 1	
6. Fall Saw	12. + Triangle	18. Asym Triangle 2	

F). Phase - assignable - 0, 90, 270 degrees.

7. Press the right *PARAMETER* button until the Min page appears.
8. Set the Min Rate to 0.00 Hz
9. Press the right *PARAMETER* button 1 time until the Max page appears. Set the Max Rate to 5.80 Hz (pressing both *YES* and *NO* buttons simultaneously advances the values in larger increments).
9. Press the right *PARAMETER* button 1 time until the Rate Ctl page appears.
10. Set the Rate Ctl to On by pressing the *NO* button 1 time.

We have now set LFO 1. If we played the sound we wouldn't notice any modulation as we've not yet patched the LFO to either Pitch (creating a vibrato), or Amplitude (creating a tremolo).
We will now patch the LFO to Pitch. To do this:

11. Press the right *MENU* button 13 times or until the display reads:

L1 Pitch Ctl 920
(undefined)

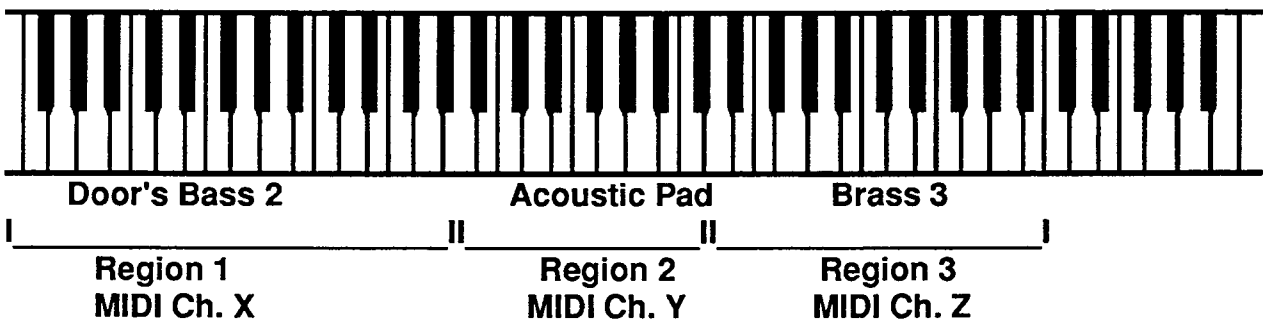
12. By pressing the right *PARAMETER* button you can scroll through the following pages:
    A. Delete Pitch Ctl ? - clears the menu.
    B. Mod Src 1 - Modulation Source 1 (in this case we would assign LFO 1 as the source using the *YES* button).
    C. ModDepth 1 - in this case we would assign this page to 'On' by pressing the *NO* button 1 time, if instead we pressed the *YES* button 1 time we would then be assigning the mod wheel to control the depth of modulation, there are many controllers or sources the user can assign as you will notice when continually pressing the *YES* button.
    D. MinDepth 1 - sets the minimum depth (in this example no value need be assigned).
    E. MaxDepth 1 - sets the maimum depth (in this example we would set the MaxDepth to 20 ct [cents] by pressing both the *YES* and *NO* buttons simultaneously 2 times, or just hold the *YES* button and let the machine automatically scroll). Values can be positive or negative (-100 to +100 cents). The higher the value represented in cents (100 cents = one half step), the greater / wider the effect.
    F. Src 2 - Source 2 - a second mod source can also be selected (in this example no value need be assigned).
    G. Min Src 2 - same as MinDepth 1 (in this example no value need be assigned).
    H. Max Src 2 - same as MaxDepth 1 (in this example no value need be assigned).
    I. To Name and Save your program see Section 7, pg. 10. Upon playing the instrument, we would now hear a vibrato piano.

Defining Performance Set- Ups -

1). It is possible to select up to 3 programs (remember each program may consist of up to 4 layers / splits [timbres]), and assign them to any of 3 user definable keyboard zones (zones can't overlap). We call these keyboard set ups 'Performance Set Ups' or P - Setups for short.

   A). Say for example you created a 4 layer program using Piano, Strings, and 2 waveforms, you named and saved it as " Acoustic Pad ", then you created a 2 layer program using a Rhodes and waveform split at middle C, named and saved it as " Door's Bass 2 ", finally you create a 3 layer program using tenor sax, trumpet and baritone horn overlapping each other named " Brass 3 ".

2). We may want to use all (3) of these programs (or others) to create a P - Setup. Your 88 or 76 note program map might look something like this:



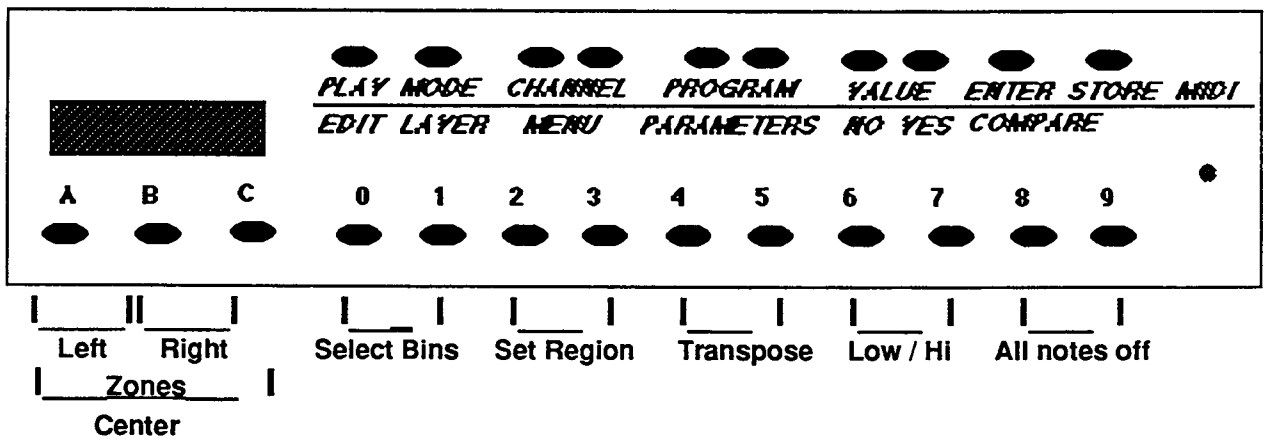
   A). Of course, you can transpose each region and adjust the split points.

   B). This mode is also used when using the K1200 88 or76 as a master MIDI controller sending on up to (3) MIDI channels at a time.

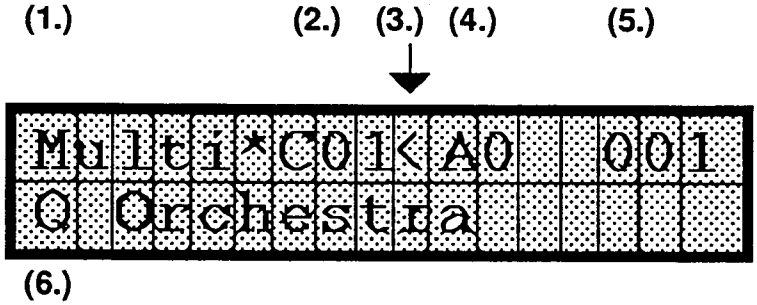
NOTE: Each of the (3) programmable keyboard zones sends on its' own user assignable MIDI channel. The user can enable or disable Local or MIDI control on a per zone basis, as well as, controller assignments (wheels, pedals, slider).

Programming P - Setups -

To create your own P - Setups:



1). **Select BIN A (press the A button), Entry 0 (press button number 0), then press the A and B buttons simultaneously. The display will look like this:**



The left arrow (3.) indicates the 'left' zone has been selected. It's necessary to use 3 consecutive MIDI channels, 1 for each zone; use the lowest numbered channel for the left zone the middle channel for the center region and the highest channel for the right region:

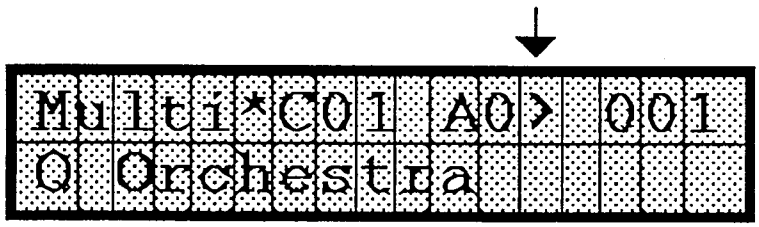
Left Zone <	**= MIDI channel 1**
Center Zone	**= MIDI channel 2**
Right Zone >	**= MIDI channel 3**

2). **Assign the lowest numbered MIDI channel (2.) using the *CHANNEL* buttons to select the lowest of 3 consecutive MIDI channels; by doing so you are assigning the left zone to a MIDI channel.**

3). **Next assign the program using the *PROGRAM* buttons or press the *ENTER* button, then enter the program # on the numeric buttons and press *ENTER* a second time (direct access).**

4). Press the A and C buttons simultaneously and the display shows NO arrows at all. You have just selected the center region. Select the middle of (3) consecutive MIDI channels and assign a program using the *PROGRAM* buttons.

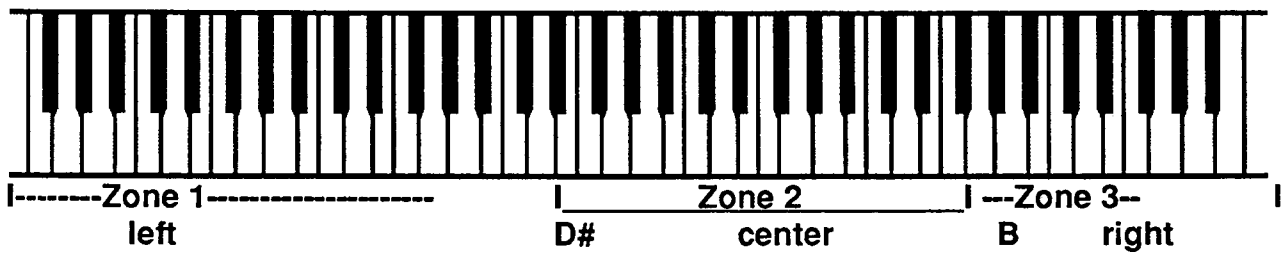
5). Press the B and C buttons simultaneously and the display looks like this:



Notice this time the right arrow appears indicating the right region has been selected.

6). Select the highest of the 3 consecutive MIDI channels, and assign a program.

7). All 3 zones have been assigned to consecutive MIDI channels and programs. We must now set the split points. This is done by pressing the A and C buttons simultaneously (you are selecting the center region). By defining the Low and Hi notes of the middle region , you are defining all 3 regions (see below).

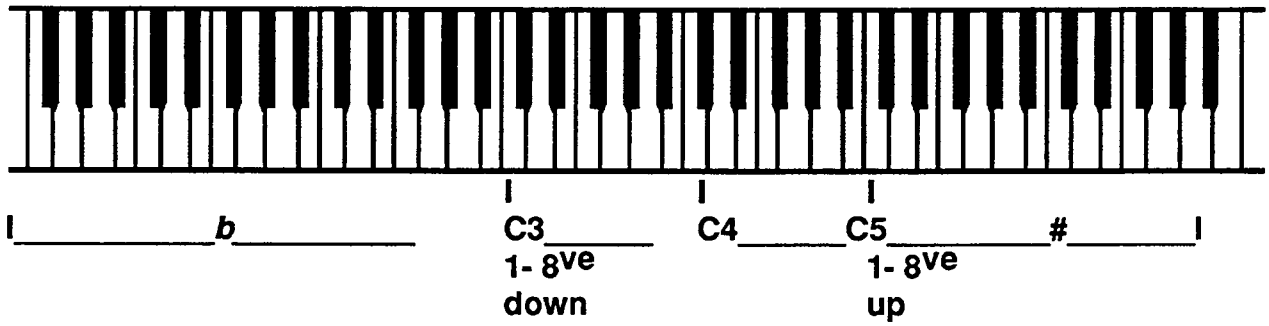


8). To define the split points press the numbered buttons 2 and 3 (see diagram on top of page 12). The display prompts " Strike 1st Key (Low Key) ", strike the key on the keyboard that will be the lowest note the center region will play (in the above example that would be D#) and the display will then prompt you to " Strike 2nd Key (Hi Key) ". Strike the highest note the center region will be able to play (in the above example that would be B). ZONES CAN NOT OVERLAP ! !

9). To transpose a region you must first select the region to be transposed; this is accomplished by pressing the appropriate A, B, or C button combinations:

Left Zone	=	A and B <
Center Zone	=	A and C
Right Zone	=	B and C >

10). To transpose a zone select a zone (see 9). above). After the zone has been selected, press the numbered buttons 4 and 5. The display will read "Strike Key" ; the key you strike above or below middle C (C4) will set the transposition range (see below):



In the example above if you strike C3 you will have transposed that region down 1 octave; if you had struck C5 you would have transposed this region up 1 octave.

That's all there is to it. Next, you'll want to know how to name, save and recall your P - Setups.

In Short : Programming P - Setups

- √ Press A and B buttons simultaneously to select left region.
- √ Select the lowest of 3 consecutive MIDI channels using the *CHANNEL* buttons.
- √ Select a program using the *PROGRAM* buttons or press the *ENTER* button, press the appropriate numbered buttons for the program you desire, Press the *ENTER* button again.
- √ Press A and C buttons simultaneously to select the center region.
- √ Select the middle of 3 consecutive MIDI channels using the *CHANNEL* buttons.
- √ Select a program using the *PROGRAM* buttons or press the *ENTER* button, press the appropriate numbered buttons for the program you desire, press the *ENTER* button again.
- √ Press A and C buttons simultaneously to select right region.
- √ Select the highest of 3 consecutive MIDI channels using the *CHANNEL* buttons.

- √ Select a program (sound, patch, whatever you call it) using the *PROGRAM* buttons or press the *ENTER* button, Key in program # using numbered buttons, Press the *ENTER* button again.
- √ Press the buttons numbered 2 and 3 simultaneously to set LO and HI note split points for center region.
- √ Strike 1st (LOW) Key and 2nd (HI) Key when display prompts setting split points.
- √ To Transpose - select region to be transposed (A+B = Left, A+C = Center, or A+C = Right).
- √ Press the buttons numbered 4 and 5 simultaneously to set transposition range of the region.
- √ Strike the key and the region will transpose # or *b* relative to middle C, (C4).
- √ Repeat transpose proceedure for each zone as desired (last 3 steps).

Naming, Saving, Recalling P - Setups -

1). To name and save your P - Setup you press the *PLAY / EDIT* button 1 time to enter the *EDIT* mode.

2). Press the left *CHANNEL* button 2 times (displays shows Master).

3). Press the Left *PARAMETER* button 2 times and the display reads: Name Setup ?

4). Press the *YES* button 1 time and the display goes mostly blank showing you a blinking cursor.

5). Use the *MENU* buttons to move the cursor to the right and left, and the *PARAMETER* buttons to change characters, letters, numbers and symbols.

6). When you have the name right in the display press the *YES* button 1 time.

7). Press the Right *PARAMETER* button 1 time and the display reads (as it did in step 1) - Save Setup ?

8). Press the *YES* button 1 time and the display quickly flashes Setup Saved as # (a number).

9). Store this set up to a BIN by pressing the *PLAY / EDIT* button until the display returns to the normal *PLAY* mode.

10).Press the *STORE* button 1 time, then press the A, B, or C button under the display 1 time (for BIN A, B, or ,C), and one of the 10 numbered buttons which will be the new location for your new P - Setup.

11). Press the *STORE* button once more to complete the save.

12). To recall your P - Setup , press the appropriate letter A, B, or C under the display to select the BIN you stored your P - Setup in, followed by the numbered button you previously selected when you saved your Setup, and you will have recalled your P - Setup.

IN SHORT : To Name, Save and Recall P - Setups

- √ Press *PLAY / EDIT* button 1 time - Save Setup ?
- √ Press the Left *PARAMETER* button 1 time - Name Setup ?
- √ Press the *YES* button 1 time - display changes - show blinking cursor.
- √ Use *MENU* buttons to move cursor left and right and the *PARAMETER* buttons to change letters and characters.
- √ After naming press the *YES* button 1 time.
- √ Press the Right *MENU* button 1 time - Save Setup ?
- √ Press the *YES* button 1 time - Setup Saved as # .
- √ Press the *PLAY / EDIT* button until you've exited the *EDIT* mode.
- √ Press the *STORE* button 1 time.
- √ Press the BIN letter A, B, or C followed by one of the 10 numbered buttons.
- √ Press the *STORE* button again.
- √ To recall your Setup press the appropriate BIN letter (A, B, or C) and numbered button (0 - 9).

Master Menu / Hard & Soft Reset -

This section will cover the master parameters, which are those parameters that affect the entire instrument for example master tunning, or touch response. From the normal *PLAY* mode one can enter the Master menu by:

1). Pressing the *PLAY / EDIT* button 1 time.
2). Press the left *MENU* button 2 times until display reads: Master.
3). Press the right *PARAMETER* button to scroll through the pages (and the *YES* and *NO* buttons to change values) which are:

A. Edit Channels ? - covered later in Section 13, pg. 24.
B. Reset Channels ? - resets any MIDI channel editing to factory defaults.
C. Xmit Prog Chg Ext - Transmit program changes over MIDI (use the *YES* button to scroll through the 3 choices, Ext = transmit extended program changes over MIDI; these are programs with numbers higher than 127, Off - won't transmit program changes over MIDI , or On - will transmit program changes over MIDI of programs # 1 - # 127 only).
D. Recv Prog Chg Ext - Recieve program changes over MIDI. Same 3 choices and explanations as C., except referring to recieving program changes.
E. RVel Map - Velocity Map - touch response, by pressing the *YES* button you will see the following factory velocity touch response maps: Hardest, Harder, Hard, Medium, Easy, Easier, Easiest, DX 7 Hard, DX 7 Medium, DX 7 Easy, Linear. My favorite is Easy. Any changes in the Master menu will be remebered when the unit is powered down and restarted.
F. Edit Rvel Map ? - allows the user to program his / her own touch map by striking the keyboard soft and then hard; 8 levels including ppp,pp,p mp, mf, f, ff, and fff can all be set to a value from off 0- - to full 127.
G. RPres Map - refers to the factory created pressure maps (aftertouch) and relates much the same way as the RVel Maps, only referring to pressure instead of velocity.
H. Edit RPres Map - refers to the user programmable pressure maps (aftertouch) and relates much the same way as the RVel Maps, only referring to pressure instead of velocity.
I. PList - there are 4 lists using the same programs but organized differently. The 1st and 2nd lists called Browser I & II (Prog. #'s 001 - 163) are a random organization of programs. Lists 3 and 4 are called Library I & II (Prog. #'s 201-363) and are organized by instrument families. The user can write over these lists and create 5 more lists in any organization he / she chooses. Programs which have been edited and any user created programs exist in the RAM Prog List (Prog. #'s 401-499).

I. PList - there are 4 lists using the same programs but organized differently. The 1st and 2nd lists called Browser I & II (Prog. #'s 001 - 163) are a random organization of programs. Lists 3 and 4 are called Library I & II (Prog. #'s 201-363) and are organized by instrument families. The user can write over these lists and create 5 more lists in any organization he / she chooses. Programs which have been edited (user created programs) exist in the RAM program list (Prog. #'s 401-499).

J. Edit PList ? - allows the user to edit programs in the list (re-organize the programs not edit them; patch re-mapping).

K. BMap - Bin Map - the user can create 10 Bin Maps.

L. Edit BMap ? - allows the user to edit programs in the Bins (re-organize the programs not edit them).

M. ITbl - Intonation Tables (many alternate tunings are provided)

N. Edit ITbl ? - allows the user to create his / her own tuning tables (within an octave, all the intervals may be varied within an octave).

O. Int Ref Key - the octave tone which must remain constant i.e. we use D, and adjust the tuning of the next 12 tones until we come to the next D.

P. MIDI Ref Key - refers to transmitting intonation table reference key.

Q. Basic Channel - Basic MIDI channel.

R. Tune - a fine tuning adjustment in cents not semi - tones.

S. Transpose - in semi - tones (half steps).

T. Mono Output - when 'On' allows either output to be a mono output.

U. Bend Range - 2 modes 1). Prog (the bend range set for each program remains), and 2). Setting an interval from - 6 ST (semi - tones) to + 6 ST, which overides the program settings.

V. IgnAll NtsOff - Ignore All Notes Off - set this command to 'On' when using Kurzweil products with Roland, or Technics products.

W. All Notes Off - a panic control which tells the unit, or other satellite MIDI devices to silence any sustaining locked on tones.

X. Dynam Adj - allows the user to set the dynamic response from 0 - 90 db (globally).

Y. Pressure - allows the unit to recieve either Mono or Poly pressure, or Both.

Z. Stealer - allows the user to modify the channel stealing algorhythm.

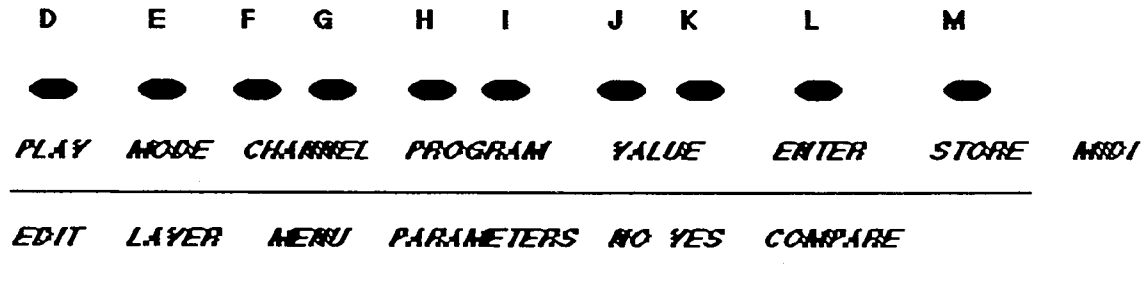
Aa. MIDI SysX ID - set the ID # of the unit.

Bb. MIDI Editing - allows the unit to be edited from SysX commands from another synth or from sequencer requests.

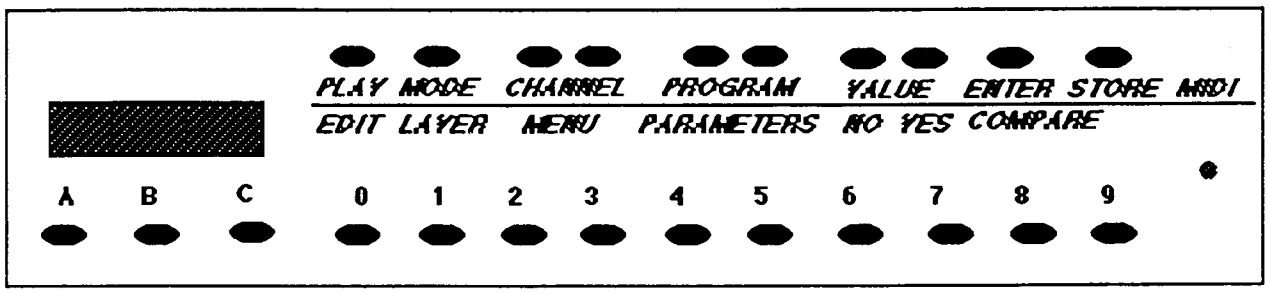
Cc. Confirmation - allows the user to turn off questios asking "Are you sure ?"

Dd. Show Version - shows the current software for both engines and set ups.
Ee. Chain Link - allows (2) or more 1200 series products to act as one large unit by cycling voices i.e. 2 Pro I's can function like one 48 voice machine.
Ff. Dump Prog ? - SysX dump - just programs.
Gg. Dump Master ? - SysX dump - just Master parameters.
Hh. Dump Memory ? - SysX dumps all info.
Ii. Delete Song ? - allows the user to delete song objects.
Jj. Delete All Prog. ? - erases all user created programs.
Kk. Reset 1000 ? - Hard reset.
Ll. Edit XPrs Map ? - allows the user to edit the pressure (mono) map which is being transmitted over MIDI.
Mm. Prs Map - factory created MIDI transmitted pressure maps.
Nn. Edit XVel Map ? - allows the user to edit the velocity map which is being transmitted over MIDI.
Oo. XVel Map - factory created MIDI transmitted velocity maps.
Pp. Local Ctl - Local Control turns 'On' and 'Off' the internal sounds when playing the keyboard (doesn't apply to the Pro I module).
Qq. Edit Dflt Ctls ? - Edit Default Controls - allows the user to determine what the wheels, pedals, and slider will be assigned to i.e. pitch bend wheel may be assigned to sustain etc.
Rr. Edit P - SetUp ? - allows the user to edit Performance set ups covered in Sections 10 and 11.
Ss. PSet - shows those P - SetUps in current memory.

4. To Soft reset a 1200 product (doesn't erase demo songs, user created programs, or anything, but can remove corruption in the system), press the *PLAY*, and both *VALUE* buttons simultaneously while the unit is 'On' (Buttons D, and J & K). The display will temporarily go blank and then return to the current state it was in prior to soft resetting the unit.



5. To Hard Reset the units (WARNING: This will erase all song demos except Nighnight [which is burned into Read Only Memory ROM], user created programs and restore the unit to factory status), turn the power 'Off'.



While holding the A and B Bin buttons, turn 'On' the power and continue holding the A and B buttons. The display will go blank and in @ 3 seconds the display will return to Q Orchestra Prog # 1 (see Kk on page 25 for an alternate method).

General MIDI Applications -

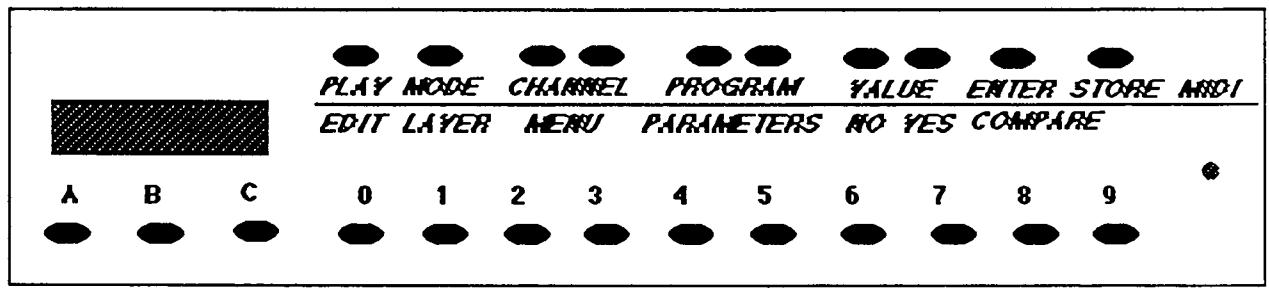
1). This section will cover A). Defining the 3 MIDI modes: Omni, Poly, and Multi, B). How to assign a program to a MIDI channel, C). How to change the basic MIDI channel, and D). How to set up a sequence mix using the MIDI channel editors.

A). MIDI Modes -

1). Omni - the unit sends on 1 channel, and recieves all 16 channels of MIDI data all merged to 1 channel; you can only access one sound, but it will play the information from all 16 channels (Early DX -7's were only supported Omni mode).
2). Poly - the unit sends MIDI on one of 16 channels and recieves on only 1 channel.
3). Multi - the unit sends on 1 of 16 MIDI channels and recieves on all 16 channels with each channel capable of having its' own particular program (sound).

B). Assigning a program to a MIDI channel is easy:

1. Use the *CHANNEL* buttons to select the MIDI recieve channel you want to assign a program to, and the *PROGRAM* buttons to select the program you wish to assign to that channel. It is not necessary to enter the *EDIT* mode to do this (see below).

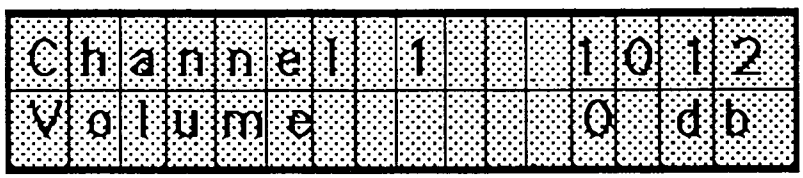


C). To change the basic MIDI channel:

1. Press the *PLAY / EDIT* button 1 time.
2. Press the left *MENU* button 2 times or until the display reads: Master.
3. Press the right *PARAMETER* button 17 times or until the display reads: Basic Channel.
4. Use the *NO / YES* buttons to change the channel.
5. Press the *PLAY / EDIT* button to exit this mode (this is remebered when power is turned off - see also Section 12, pg. 24, letter Q.).

D). When you are using the 1200 series products with a sequencer, and using several channels (Multi mode), one part on a particular channel may be too loud, or you may wish to pan a program on a particular channel to be 75% to the right output. These parameters and others may be edited in real time using the MIDI channel editors. To do this:

1. Press the *PLAY / EDIT* button 1 time.
2. Press the left *MENU* button 2 times or until the display reads: Master.
3. Press the right *PARAMETER* button 1 time or until the display reads: Edit Channels?
4. Press the *YES* button 1 time and the display looks like this:



5. Use the *YES / NO* to change the db level (can boost or cut up to 48 db).
6. Using the right *PARAMETER* button, you can advance through the following parameters:

   a). Pan Overide - when this is switched to 'Off', the program's panning information is unchanged. When it is in the 'On' position, you may adjust the panning information on a per MIDI channel basis affecting only incomming MIDI data, not editing any intrernal programs.

   b). Pan adjust screen shows the following display:

   Channel 1 1014
   Pn L--------* ---R

   Using the *YES / NO* buttons will pan the program on that channel to the left or right (provided the PAN Overide switch is set to ON - see 6, a).

   c). MIDI Range Off - When this is switched 'On' (using the *YES / NO* buttons), you will be able to set a particular note range that a particular MIDI channel will recieve on.

d). Set MIDI Range? - is the parameter to actually assign the LOW and HI note assignments (works the same as the Layer parameter Set MIDI Range?). Press the *YES* button to confirm that this is what you want to do, and the display will prompt 'Strike 1st (Low) Key'. Strike the lowest note you want that channel to be able to recieve and again the display will prompt 'Strike 2nd (Hi) Key', and you would then strike the highest note you want that channel to be able to recieve.

e). Low note - allows for fine tunning the ranges you set.

f). Hi note - allows for fine tunning the ranges you set.

g). Poly Limit - Allows you to 'hard assign' a fixed amount of voices that will be guaranteed for a particular MIDI channel. This is extremely usefull when a really busy sequence is playing and for some reason your Bass is leaving out certain notes (due to excessive channel stealing - say when 30 notes or more all play together). By assigning 1 or 2 voices to that channel, the Bass will not be involved in the channel stealing algorhythm. Use the *YES* button to set the number of voices.

h). Volume Control On (or Off) - is used to tell a particular MIDI channel whether it should respond to MIDI volume commands (MIDI parameter # 7), or ignore volumeinformation. Use the *YES / NO* buttons to enable or disable this feature.

i). Use the *CHANNEL* buttons to change to other MIDI channels. All channels have independent parameters.

j). Press the *PLAY / EDIT* button 2 times to exit this proceedure. These changes will be remembered when the unit is powered down.

In Short : To Use The MIDI Channel Editor

- √ To edit MIDI channels, press the *PLAY / EDIT* button 1 time.
- √ Press the left *MENU* button 2 times and display reads: Master.
- √ Press the right *PARAMETER* button 1 time and display reads: Edit Channels?
- √ Press the *YES* button 1 time.
- √ Use *PARAMETER* buttons to scroll to the menu you wish to edit.
- √ Use the *YES / NO* buttons to change values.
- √ Use the *CHANNEL* buttons to select the channels you wish to edit.
- √ Press the *PLAY / EDIT* button 2 times to exit this mode when you are finished.

Performance Suggestions -

1). The 1200 series products have some very unique features of which I wish to direct you to 5 of the most useable.

A). The ability to select a program, play and continue to hold down the keys, select another program and 'layer' another sound in real time.

benefit: You can create moods where one sound cascades into another, or create interesting and changing timbres without pre- programming; play what you feel, when you feel like it.

B). Having 6 programmable controllers (2-wheels, 2- pedals, data slider, and mono pressure). These can be assigned to allow the player to bring in layers, add effects, or blend timbres all in real time.

benefit: You can precisely control many aspects within a program, like layer balance, amount of effects and much more.

C). Having performance set ups where the keyboard may be split into 3 regions with each region having up to 4 layers / splits, for a total possibility of up to 12 instruments on the keyboard at a time.

benefit: You can create set ups i.e. a dual manual organ where your 88 note keyboard is divided into (2) - 44 note areas (manuals) each having up to 4 timbres per 44 note sections. Other suggestions include creating a brass section that uses many brass instruments tuned and assigned to specific keyboard ranges.

D). Programmable BINS for quick access to your favorite sounds.

benefit: You can program and recall 30 programs at the touch of as many as (2) buttons. Try setting up your BINS so you have alot of pad sounds where you have quick access to nice complimentary sounds that you can layer in real time.

E). Dynamic Voice Allocation and the industries best channel stealing algorhythm (method).

benefit: You can play more than 24 notes at a time (the 1200 series instruments are rated as having 24 voices) without hearing notes leaving or hiccoughing away. This is even more important when you are sequencing. Use the sostenuto pedal to lock voices on and prevent them from being stolen (i.e. Bass or Synth drones).

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