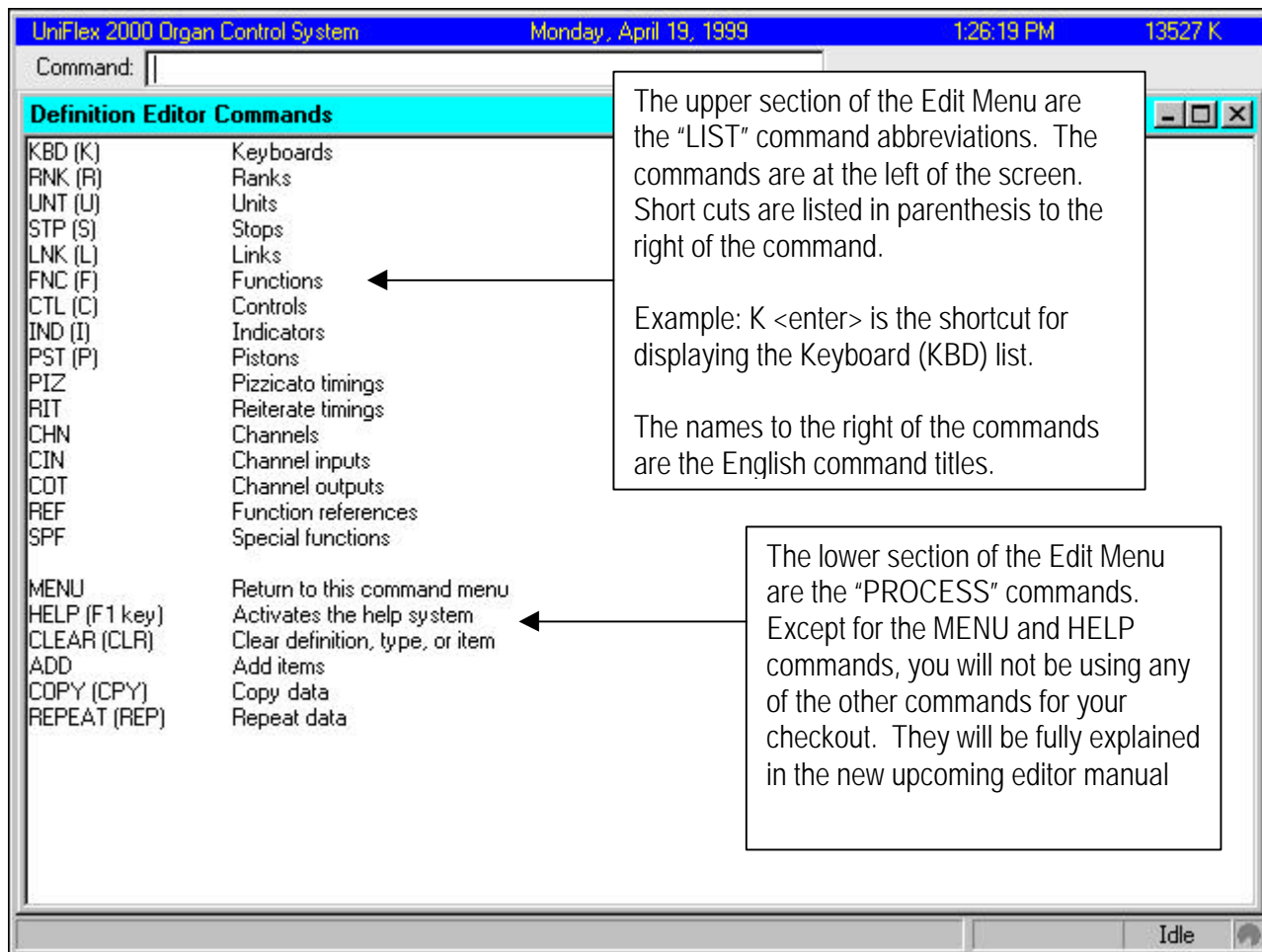


SECTION 2

CORRECTING DEFINITION AND WIRING ERRORS WITH THE UNIFLEX DEFINITION EDITOR:

If you are currently in the RUN mode, you must type: STOP <enter> before you can enter the system definition editor.

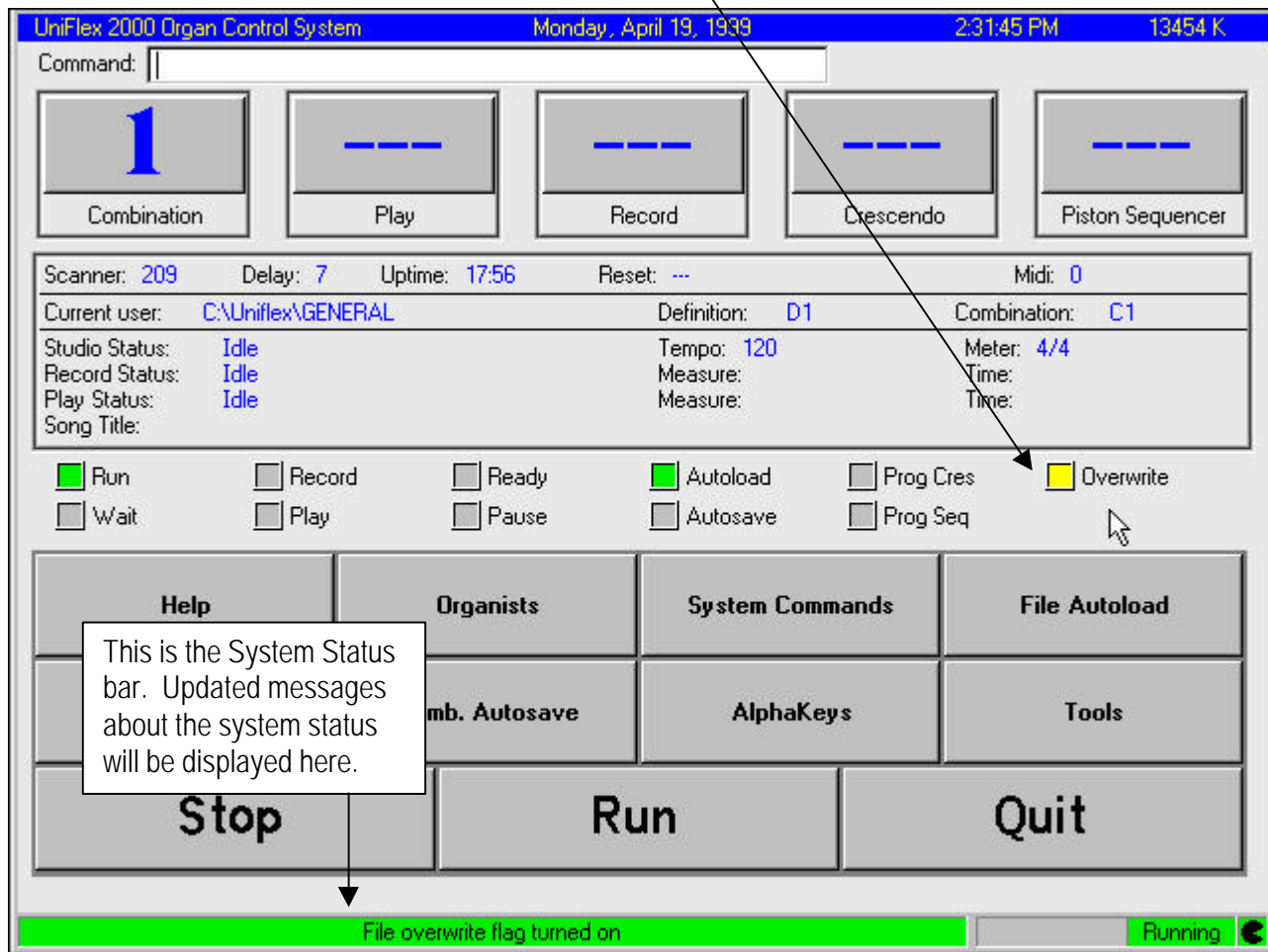
You access the editor by pressing the TAB key on the computer keyboard. The TAB key is usually located above the CAPS LOCK key on the left hand side of the keyboard. Sometimes it is labeled TAB, or on other keyboard is has two sets of arrows pointing in opposite directions, one above the other. When you tab into the editor you will see this screen:



This is the edit menu screen. You may return to this screen at any time while in the editor by typing: /MENU <enter>. The editor allows you to modify the current definition file that is resident in system memory. When the system booted up, it loaded the D1 file, as was set in the uniflex.ini file. This is the current active file in memory. Once you begin editing, you will be changing the file data in volatile memory. In order to preserve this data, and the changes you have made, you must either save the changes to the original file (not recommended for new users) or to a new file. If we don't save the changes to a file, when the system is turned off, all of the changes will be lost, and the electrons will be recycled.

Note: Your system has been set up so you cannot accidentally overwrite any existing files. You may only create new files. Once those files are created, they cannot be overwritten either.

To overwrite files, you must enable the temporary session overwrite. To enable the OverWrite, type: OW <enter>. You will notice on the screen that the yellow indicator next to "Overwrite" is now illuminated. Overwrite status is also indicated in the status bar at the bottom of the screen.



This is the System Status bar. Updated messages about the system status will be displayed here.

Typing OW <enter> again, will turn OFF the indicator, and all files will again be overwrite protected. You should leave the overwrite file indicator OFF until you need to overwrite a file.

Every time a file is overwritten, the system makes an automatic backup of the file. This gives you some insurance if you accidentally overwrote a file by mistake. This gives you ONE chance to recover the original file.

Should you accidentally overwrite a file, the backup file created will have the same name as the original, except the backup file will have a .bak extension.

Example: You intend to save the file D10. You accidentally save the file as D1 (a typo!). You don't realize this until after you press the enter key. Oh NO! Here is what happened. Before the system overwrote the D1 file, it first renamed the file (D1) to D1.BAK, a backup file. Then, the system saved the contents in memory as a new D1 (a new file).

To recover the original D1 file, here's what to do:

- 1) As a precaution, rename the D1 file to D100. You would type: `RENAME D1 TO D100 <enter>`
- 2) Now rename the D1.BAK to D1. You would type: `RENAME D1.BAK TO D1 <enter>`
- 3) Now, LOAD the recovered file. You would type: `DLOAD D1 <enter>`

- 4) Check the file. If you are satisfied that the file is OK, ERASE the D100 file. To do this, you type: ERASE D100 <enter>.
- 5) An erase verification screen will appear informing you of the erase action. Press the ESC key to clear the erase verification screen. Remember, you only get one shot at recovering an overwritten file. Please be careful.

Refer back to the Edit Menu on page one. The organ Definition you will be working with is made up of programmable objects, elements, items, tables and fields, The three-letter UPPER CASE abbreviations seen in the EDIT MENU are the COMMANDS you type in to access the different areas of the editor.

COMMAND TYPES:

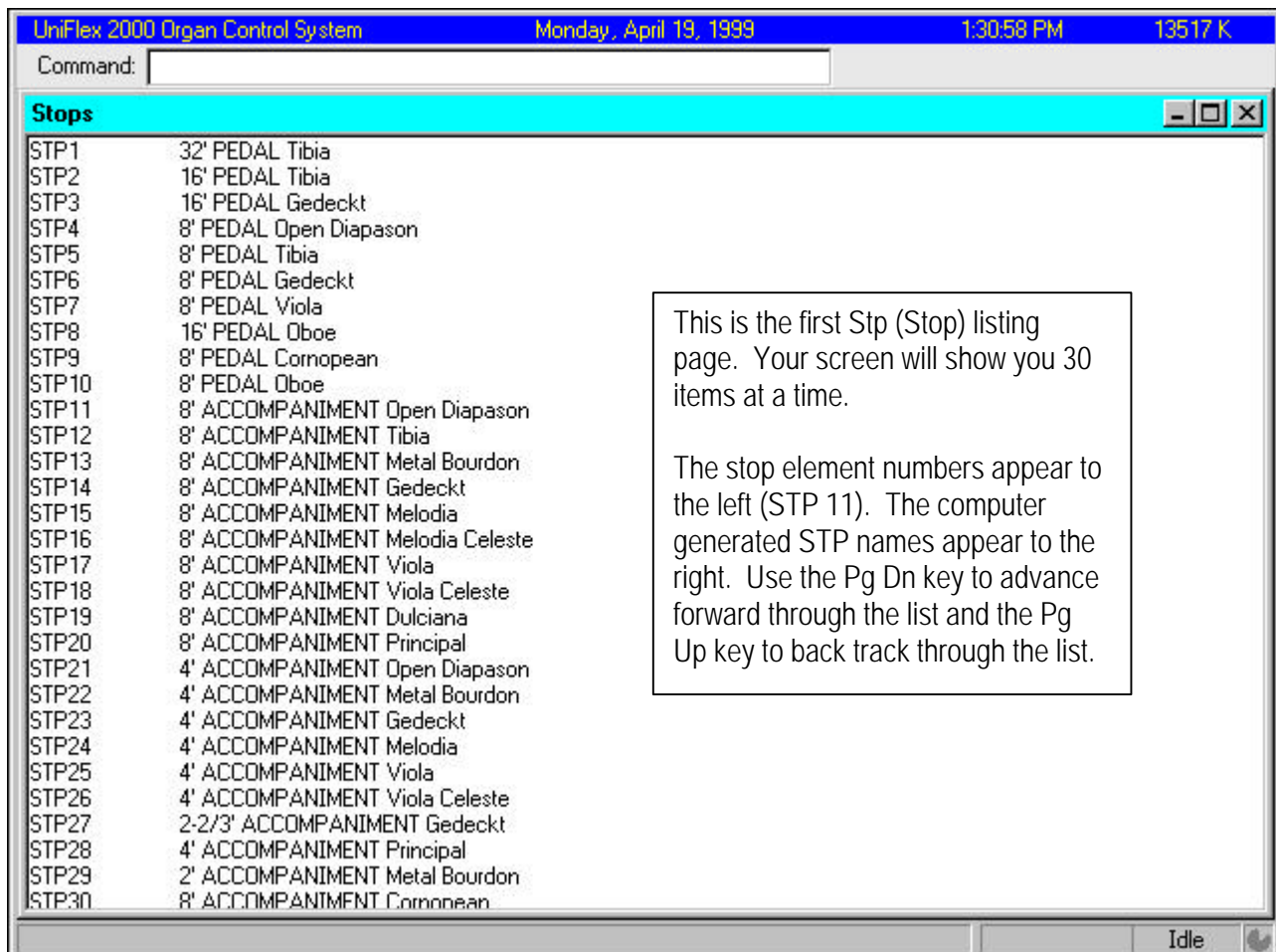
Refer back to the edit menu screen. There are three (2) different types of command that can be called from the editor:

- 1) PROCESS commands
- 2) LIST commands

1) PROCESS commands: CLEAR, CPY, ADD, REP are called PROCESS commands. These commands will be covered later in the EDITOR Manual. You will not need to use any of these commands in the check out of the organ.

2) LIST COMMANDS: KBD, UNT, LNK, CTL, PST, RIT, CIN, REF, RNK, STP, FNC, IND, PIZ, CHN, COT, and SPF all display LISTS of data on the screen. You might want to make a note of these on the screen page.

To see these lists for yourself, TAB into the editor and type any of the 3-letter LIST commands followed by <enter>. Example, if you were to type: STP <enter>, you would see something similar to this:



The Stop (STP) lists and the Function (FNC) lists are two of the longest lists in the system. As you can see, only the first 30 elements of the list are presented at one time. To continue searching through the list, you use the PAGE UP and PAGE DOWN keys. PAGE DOWN will take you forward through the listing. PAGE UP will take you back through the listings. The Page UP and Page DOWN keys are usually located above the arrow keys, in a cluster of buttons that include the INS (insert), DEL (delete), HOME, and END keys.

Refer back to the STP listing above. Note that beside each STP list reference is a number (STP-1). If you wanted to go further into the editor and look at a specific stop, you would use the three letter list command (STP), followed by the stop number (-1) you wanted to view or edit.

Example, if you wanted to see what was inside STP-1, You would type: STP1 <enter>. (leave out the "-" between STP and the number 2 to make the command easier to type).

You would see something similar to this:

The screenshot shows a terminal window titled "Stop 1" with the following configuration data:

```

Stop name:      32' PEDAL Tibia
Stop type:      Dual magnetic stop  Stop type 2
Stop contact address: AA-A1
ON magnet address: AA-A1
OFF magnet address: AA-A2
Indicator address: -----
Output function: -----
Debounce Time: -----
Combination status: Active
Record/play status: Active

1 Link Reference
(LNK-1)      32' PEDAL Tibia
    
```

Callouts in the image:

- A box on the left points to the "Stop 1" header: "This is the Stop list element NUMBER".
- A box on the right points to the "Stop type 2" text: "This is the stop Data field where the input and output addresses are defined".
- A red box highlights the "1 Link Reference" and "(LNK-1) 32' PEDAL Tibia" section.

Keep in mind that the list element NUMBER, not the name is how you access (go inside) list data to edit it. We are looking at the stop list element number **STP1**, not the computer generated name: 32' Pedal Tibia.

To look into the keyboards, you simply call up the list command for keyboards. Example: /KBD <enter> will list the keyboards.

The screenshot shows a terminal window titled "Keyboards" with the following list:

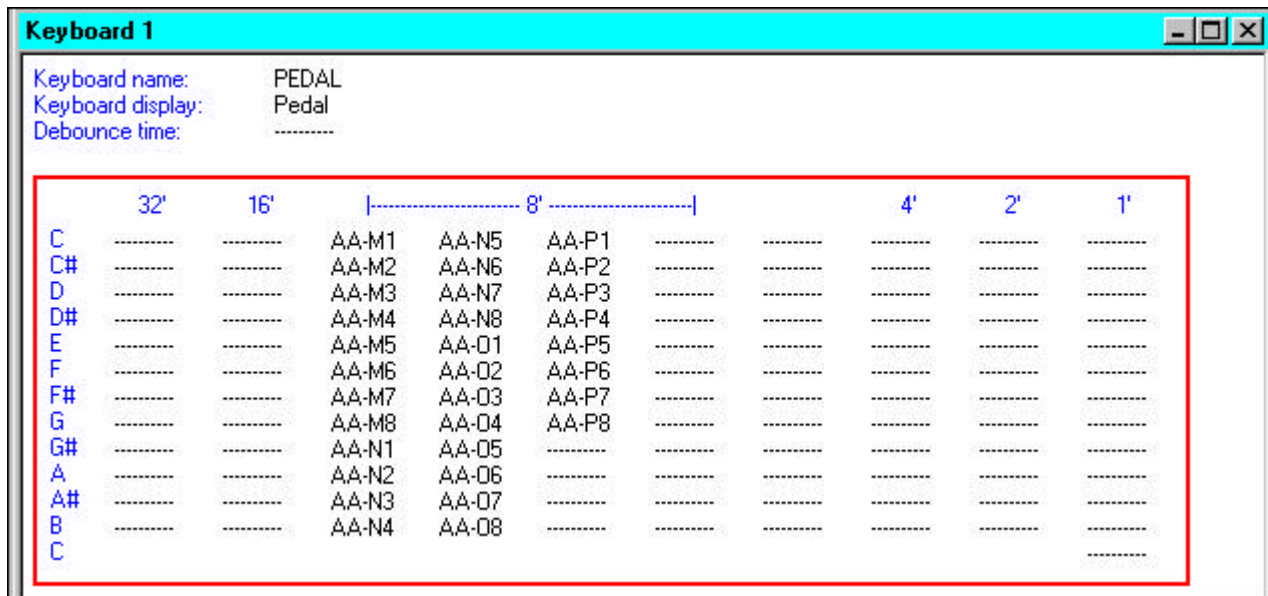
```

Keyboards
KBD1      PEDAL
KBD2      ACCOMPANIMENT
KBD3      SOLO
KBD4      Keyboard #4
KBD5      Keyboard #5
    
```

Callouts in the image:

- A box on the left points to the list items: "These are the Keyboard list element numbers".
- A box on the right points to the names: "These are the assigned keyboard reference names".

Type: /KBD1 <enter>. This will take you inside the KBD-1 (the pedal keyboard) data fields so you can edit the data contained within the address fields. Note: Type the forward slash (/) before the word KBD. Get into the habit of using the forward slash before all LIST and PROCESS commands. This will be explained in more detail later in the text.



In the Editor, you have complete access to the entire organ definition that is currently loaded into memory.

You can look at each of the lists in the system, or individual elements of the definition by first accessing the element lists, and then typing the element abbreviation followed by the element number.

Refer back to the Edit Menu Screen on page one. The upper 2/3 of the edit menu are list commands. The three letter abbreviations in CAPS are the list names the editor will deliver to the screen when the command is given. Example: When you typed: KBD <enter>. You were presented with a list of all the keyboards defined in the definition. Also note that you can also use the shorthand letter in parenthesis, "K" to call up the KBD list. All the LIST short cuts are listed on the edit menu screen in parenthesis.

The lower 1/3 of the edit menu (CLEAR, CPY, ADD, and REP) are advanced editing commands that you will not generally be using at this time.

If you need to make INPUT board address corrections from your console checkout, do them first. Once all the INPUTS have been corrected, correct OUTPUT board addresses.

We'll begin with the INPUTS.

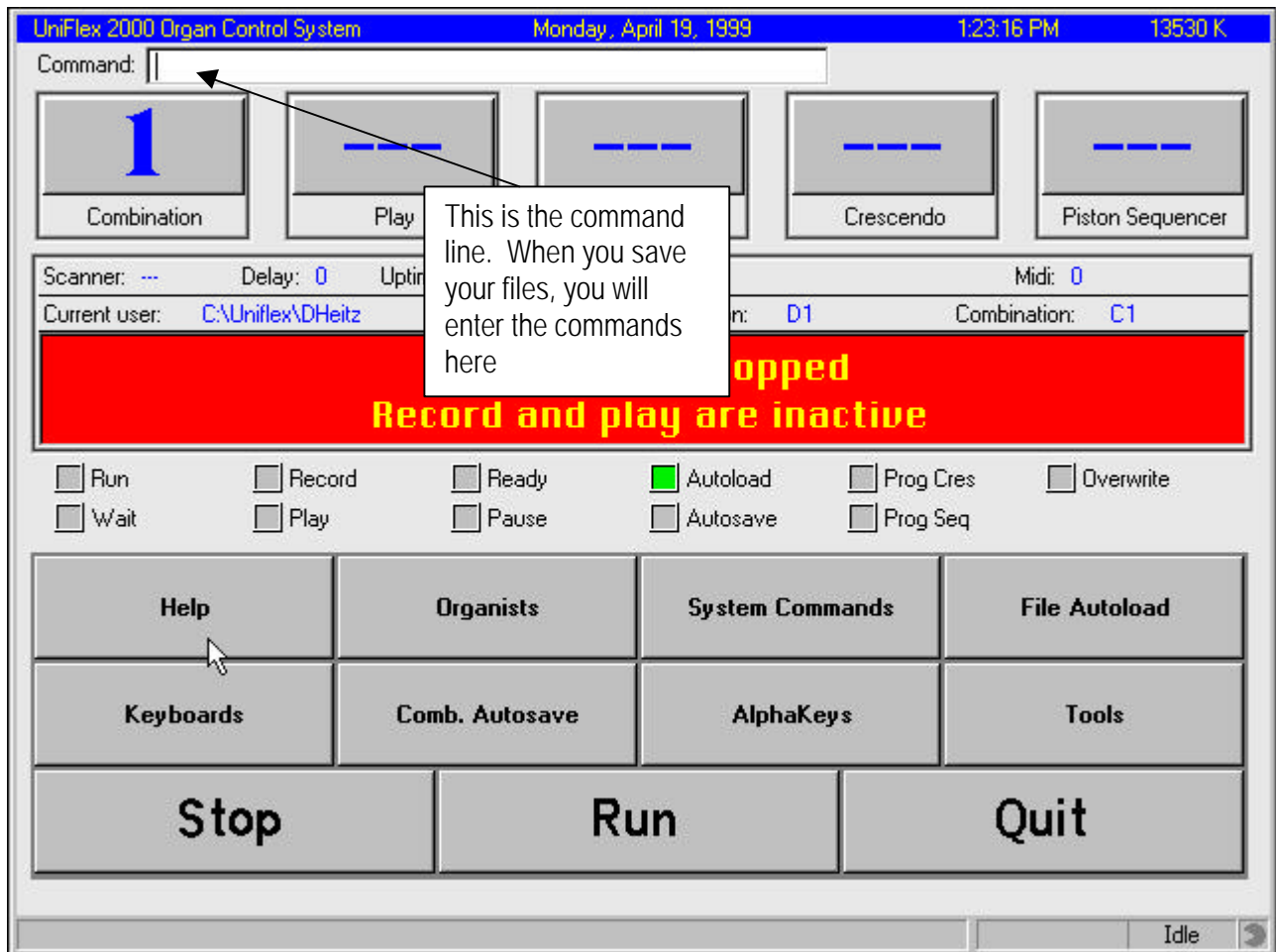
If everyone involved in the installation of the organ and relay system has done their job accurately; i.e. if you have wired the organ accurately and we have programmed the organ definition accurately, there shouldn't be many corrections to make in the editor. Expect a few, though. Just about every system has a few wiring or programming errors no matter how careful you are.

As you go through the system check out, if you do find some errors, the following section will show you how to correct them.

It is important to remember to frequently save the definition file if you make changes to it. If you spend an hour or so making corrections with out saving your work as you go, Murphy's law will always prevail, and something will happen and you will have to do all the changes over again.

At regular intervals, or when ever you make major changes, take the time to SAVE the file and then continue on with your editing.

To SAVE the active file, TAB out of the editor to get back to the STOPPED MENU.



Once you are at the STOPPED menu, you must decide what file you are going to save the changes in. Do NOT save your changes over the original D1 file while you are getting used to the system editor. There is the possibility of corrupting this file OR overwriting the file with some errors. While you are getting used to the system, always save your work in new files.

You should make a number of different work "save" files, and avoid saving you changes over the top of one single file, over and over again.

Here are some suggestions:

1) We will assume you are working with the D1 definition file. This is the default definition that loads automatically at system start up. There is an identical copy of you D1 that was sent to you on the installation disk called D2. The D2 file is called a "Backup Copy" of the D1 file. When you begin to edit your definition file to correct any errors, when you make programming address changes, start saving your changes in two new files called D5 and D6. You will have to create these files, and this is easy to do.

If you are not yet at the ORGAN STOPPED menu, TAB out of the Editor (press the TAB key so you return to the STOPPED screen.

To CREATE new DEFINITION files and SAVE to existing DEFINITION files, you must be at STOPPED MENU, NOT the RUN MENU. If you try and save a D file from the wrong screen, you will get a red banner error message at the bottom status line of the screen.

From the ORGAN STOPPED MENU, Type: DSAVE D5 <enter>. You will see Definition File Saved appear in the command line of the ORGAN STOPPED screen. Next, save another file and call it D6. To do this, type: DSAVE D6 <enter>.

You can do a DIR <enter> to verify that the files were indeed saved. To exit from the directory (dir screen) press the ESCAPE (ESC) key on the upper left hand side of the keyboard, or with your mouse, click on the DONE button at the bottom of the dir screen.

Each one of these new files are simply current "system memory saves" of the D1 file that was loaded into machine memory when the computer first booted up.

As soon as you do a save (Dsave D6 for example) D6 becomes the active working file. You'll notice that in the upper left hand area of the screen, just under the USER information, you will see: DEFINITON D6 as the current definition file. Just under that is C1 the current combination action file.

When you begin editing your definition, at regular intervals, you may either TAB back to the STOPPED screen and DSAVE the D5 or D6 files with any new changes, then a little later, DSAVE the D6, and after that, go back and DSAVE the D5 file. You will also have to turn on the file OVERWRITE, by either typing: OVERWRITE <enter> or left clicking on the File Overwrite button on the screen with your mouse.

The reason for saving the files in two alternate file numbers (D5 and D6) is if you happen to corrupt a file, or make a change that puts the system into a loop that crashes the system, or if you accidentally turn off the computer, all your edit changes ("eggs") will not be in one basket, but spread out over two.

If you spent 5 hours making changes and put all the changes in one file, and something happened to that file, you would have to go back and make all the changes over again. By saving the files in two or more "work files", if one file goes bad, you have a backup within a few minutes of your most recent changes to fall back on.

The important thing to remember here is "Backup your files frequently". Once you get familiar with the editor, you won't have to be so cautious; but during the initial learning stages of the editor, it is possible to foul a few files up, but that's what learning is all about.

You may also save the file directly from the editor. But first, you must turn on the OVERWRITE flag. Check the overwrite indicator in the indicator section of the stopped screen. If it is not illuminated (yellow) type OW <enter> to allow the files to be overwritten. You should save your changes between the D5 and D6 files about every 10 minutes. If you prefer, you can save your work without leaving the editor by typing: /save d5 <enter>. On the next save, type: /save d6 <enter>.

Note!: You must use the / (forward slash) located on the un-shifted "?" (question mark) key before the save command. The forward slash protects the data you are working on and differentiates a command (save) from input data. Each time you do a save, a green banner message will appear in the status line at the bottom of the screen, with the time it took to save the file.

You should also test your work files once in a while to see if the changes you have made are indeed correct, and to check the validity of the file. This will take some time getting used to, but if you spend the time working on and with the system, you will pick things up in a flash. Every once in a while, frequently at first, TAB out of the editor and go to the ORGAN STOPPED menu.

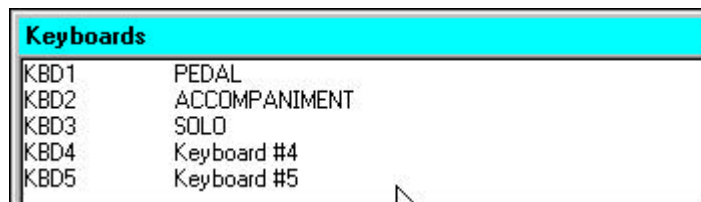
Type: (for example) DLOAD D5 <enter> to load the current backup file you have been saving your changes to.

Once the file is loaded, type: RUN <enter> and check some of your most recent changes.

If the organ will not go into RUN, and the system locks up, then you have done something to the file that has corrupted the file. Corrupting a file is NOT easy to do, but some have managed to do it, so try and be careful. We have tried to trap for errors, but sometimes one gets by us. If you find something that locks the system up, please let us know. If you can, try and retrace the steps you took to cause the system to lock up.

If you want to get back to the editor at this point (from your RUN testing) , type STOP <enter> to get back to the ORGAN STOPPED menu and press the TAB key to get back to your editing. When you TAB back into the editor, you will return to the area where you left off.

You should work on key and stop inputs first. To correct a keyboard problem, type: /KBD <enter>.

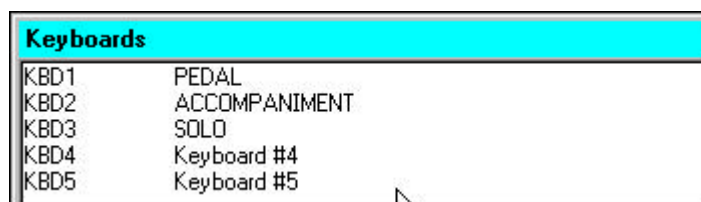


Keyboards	
KBD1	PEDAL
KBD2	ACCOMPANIMENT
KBD3	SOLO
KBD4	Keyboard #4
KBD5	Keyboard #5

A listing of all the keyboards will appear. Notice that we used the / (forward slash in front of KBD. This is something new that you must get into the habit of using while working in the editor. It was mentioned earlier when you save corrected information in your definition file, but will be explained in further detail here:

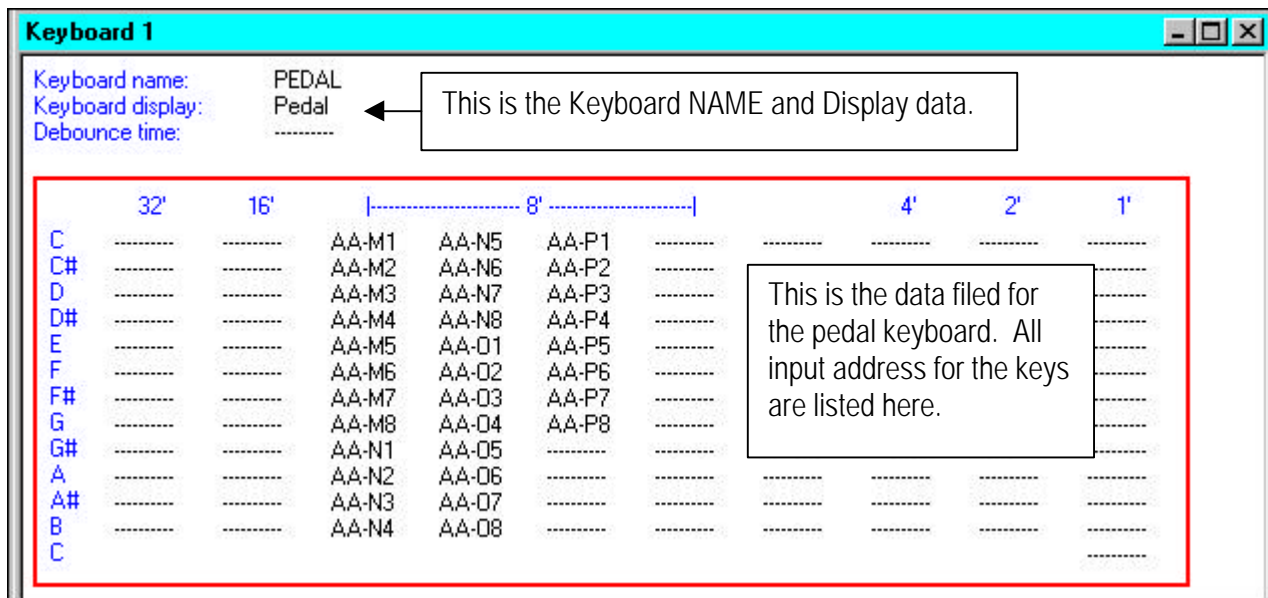
The / (forward slash located on the "?" question mark key) tells the computer to distinguish between "data" it must work with and a "command" to do certain work. Although the computer can often tell the difference by context, it is a good idea to always precede a command with the slash. Here is why. Often times, you will forget that you are in a data field, and not at the command line. If you are in a data field, the computer expects to receive data, not commands. The slash is like a protector from forgetfulness. By using the slash in front of a command, if you happen to be in a data field, the computer will excuse you from the field and act upon your command without changing any data. If you do not use the slash, and you are in a data field, your command could be interpreted as a new element name, or a wiring address and change some data with out you knowing about it! Always get into the habit of using the slash before a command, especially when your are in the editor.

Typing /KBD <enter> will produce a list of all the keyboards programmed to the system on the screen.

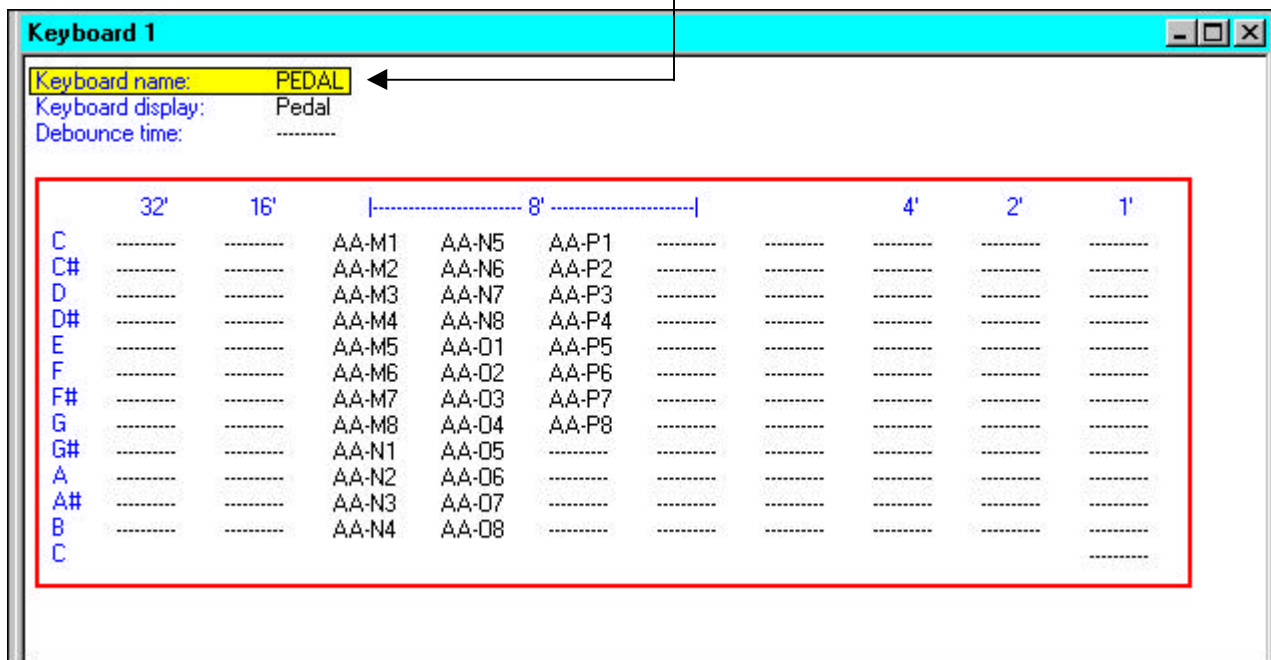


Keyboards	
KBD1	PEDAL
KBD2	ACCOMPANIMENT
KBD3	SOLO
KBD4	Keyboard #4
KBD5	Keyboard #5

Note the number of the keyboard containing the error. If this were keyboard 1 (the Pedal keyboard), you would be able to access the wiring and programming information of this keyboard by typing: /KBD 1 <enter>. This command will take to directly to the PEDAL Keyboard definition fields.

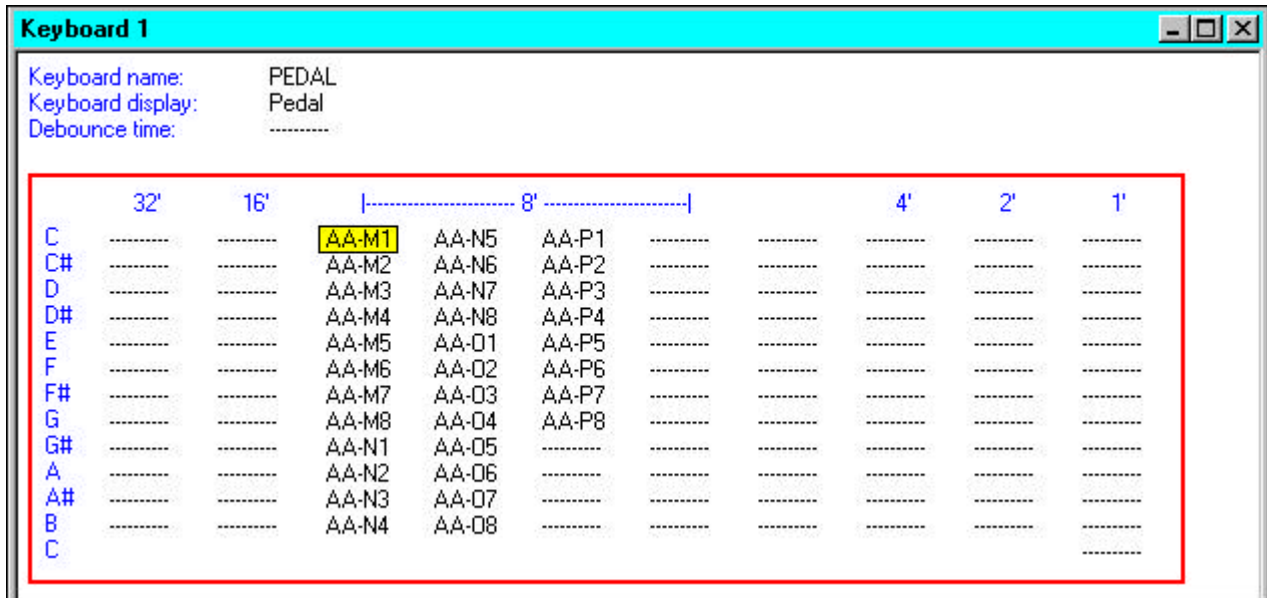


When you press the DOWN arrow key, a yellow highlighted **marker** box will appear to indicate your position.



The marker will surround the element or address you are working on. Pressing the DOWN arrow key the first time will take you from the command line to the Keyboard name.

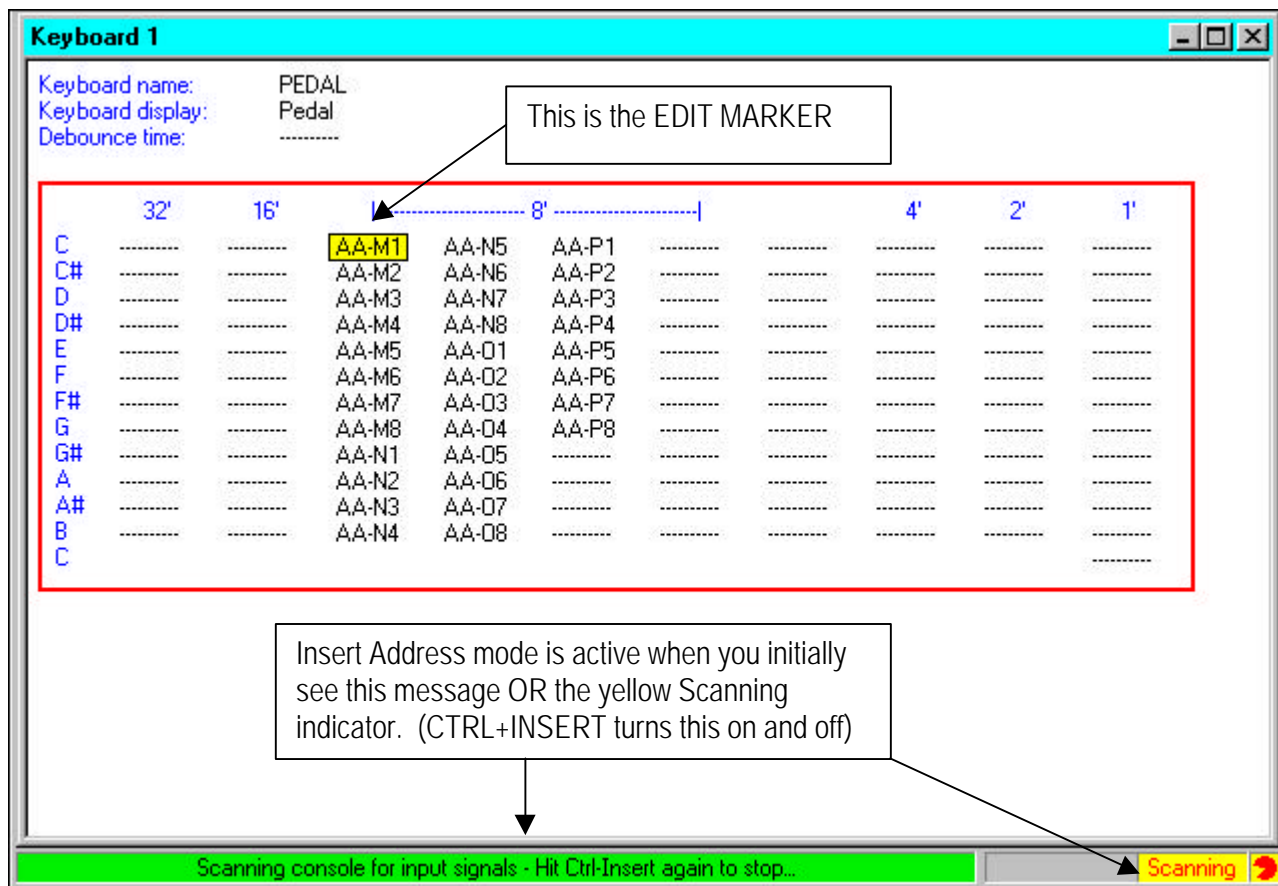
Press the down arrow key until the edit marker appears in the address field, starting at C of the 32' Octave.
 The RIGHT arrow key will move the pointer arrow toward the first programmed address; or in this example, 8' C AA-M1.



The down arrow key will move the pointer arrow DOWN the octaves, etc.

To change or correct an address, position the yellow edit marker at the offending address. If you wrote down the input address, element numbers and names when you did the console check out, you can cross reference where you need to move the arrow key in order to correct it.

Once you have the yellow edit marker pointing at the offending wiring address, you may either type in the correct address, if you know what it is, or you can press the CTRL+ INSERT (hold the CTRL key while pressing the INSERT key) on the computer keyboard. You'll see the following change in the screen status line:



This is called the INSERT ADDRESS mode. When you are in the insert address mode, you may go over to the organ keyboard and press the same keyboard key the yellow edit marker is pointing at (the key with the error) and the correct wiring address will "beep in", replacing the error address.

You might want to try this yourself. Type: /KBD1 <enter> to bring up KBD1 on the screen. Move the arrow to the C-8' wiring cell. In this example, the arrow will be pointing at AA-M1.

Press the CTRL+INSERT keys on the computer keyboard. At the bottom of the screen, the message "Scanning console for input signals....." will appear. Now, go over to the console and press any keyboard key. As soon as you press any key, the NEW wiring address of the key you selected and pressed will automatically appear or replace a previous address in the wiring address cell that the edit marker is highlighting. You will also hear a short "BEEP" from the computer speaker indicating that a valid input signal was received at the cell highlighted by the yellow edit marker. In addition to the "beep", you will also see a message in the status line telling you that a "console input (was) received". Now, go back and press the correct 8' C key and restore the correct address before you forget and move on to something else.

When ever the word SCANNING is highlighted in the right area of the status line, the INSERT address mode is active, even if you move the yellow edit marker to another input address cell. This can cause some problems if you are not paying attention to what is going on. Should you leave the address insert mode on, and forget it, you could activate some other console input and beep the WRONG address into the definition. SO, get in the habit of turning OFF the insert address mode when you have finished beeping in the address. To shut the insert mode off, press CTRL+INSERT a second time. You will see a corresponding message appear on the status line, and the yellow SCANNING indicator will turn to IDLE.

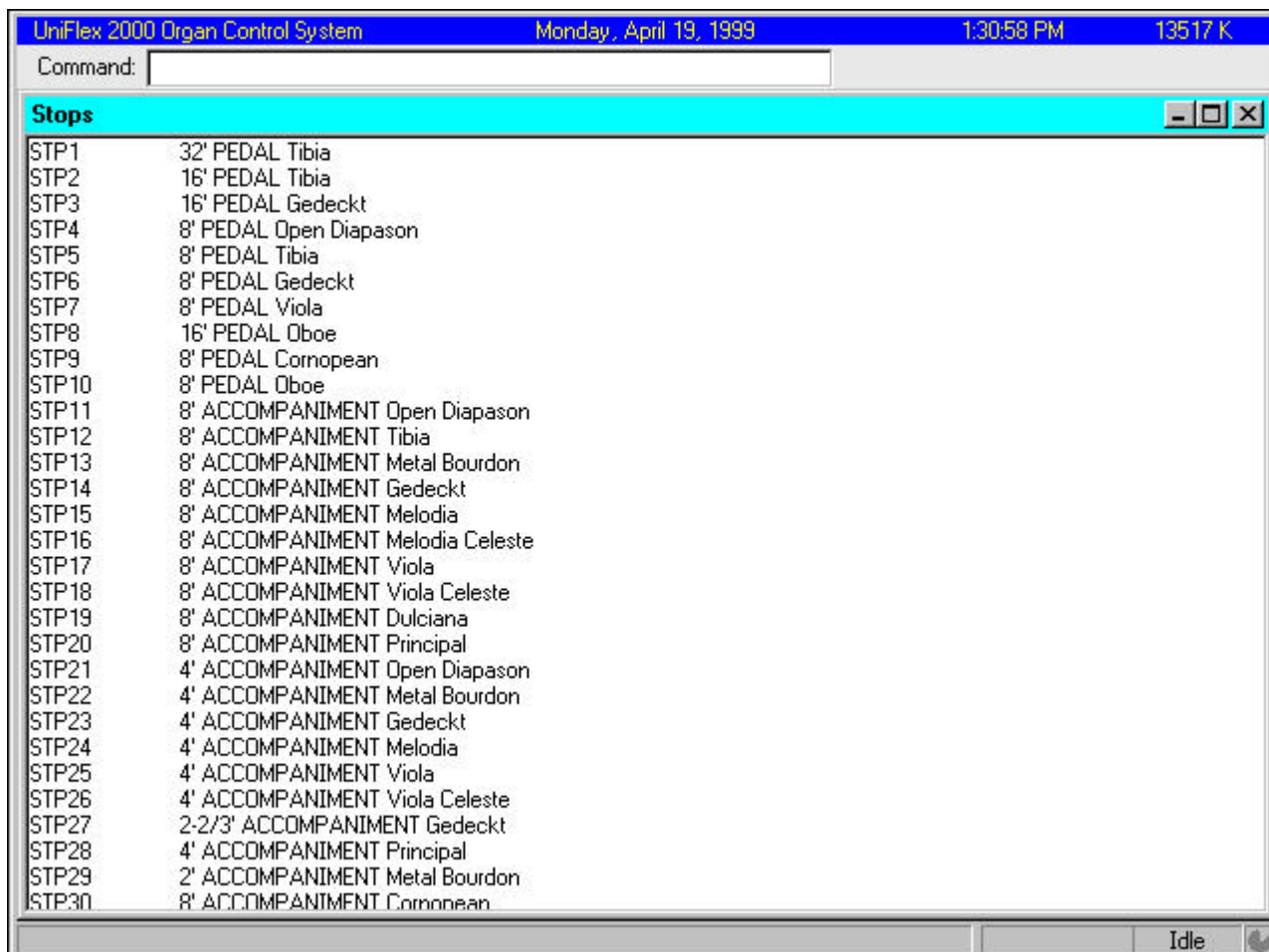
Should you beep in the wrong address, or hit the wrong key when beeping in an address, you may delete the input you just beeped in by pressing the DEL or DELETE key while the edit marker is point to the address. THE DEL or DELETE key will remove any element name or address the edit arrow is pointing to, so be careful when you use the DEL key. Note: You may only remove an address (input or output) with DEL or DELETE key.

You may move from one keyboard to another by either typing: /KBD # <enter> (/KBD followed by its element number <enter>) or by using the PAGE UP or PAGE DOWN keys. Page DOWN will take you to the next keyboard, Page UP will take you to the previous keyboard.

Once you have corrected the keyboards, save your changes in the D5 or D6 Work file(s). First, be sure that the file OverWrite indicator is ON, by tabbing out of the editor to the stopped screen. At the STOPPED screen, type: DSAVE D5 <enter> to save your work. When the file has been saved, tab back to the editor and continue.

Now, go to the STP (stop) listings and correct any input address errors discovered through your console scan tests. If you have the edit marker located on a programmable element of the definition (name, address, etc) be sure to remember to use the / (forward slash) in front of the command, or remember to press the ESC key to remove the edit marker from the programming field.

To move from the keyboards, type: /STP <enter> to see the stop listings.



You have discovered that there is a wiring error on the input of STP-1. To get to STP-1, type: /STP1 <enter>. The following stop information will appear.

Stop 1

Stop name:	32' PEDAL Tibia
Stop type:	Dual magnetic stop Stop type 2
Stop contact address:	AA-A1
ON magnet address:	AA-A1
OFF magnet address:	AA-A2
Indicator address:	-----
Output function:	-----
Debounce Time:	-----
Combination status:	Active
Record/play status:	Active

1 Link Reference

(LNK-1) 32' PEDAL Tibia

Use the UP and DOWN arrow keys to move the edit marker to the stop input address. Move the pointer arrow down to the stop contact address.

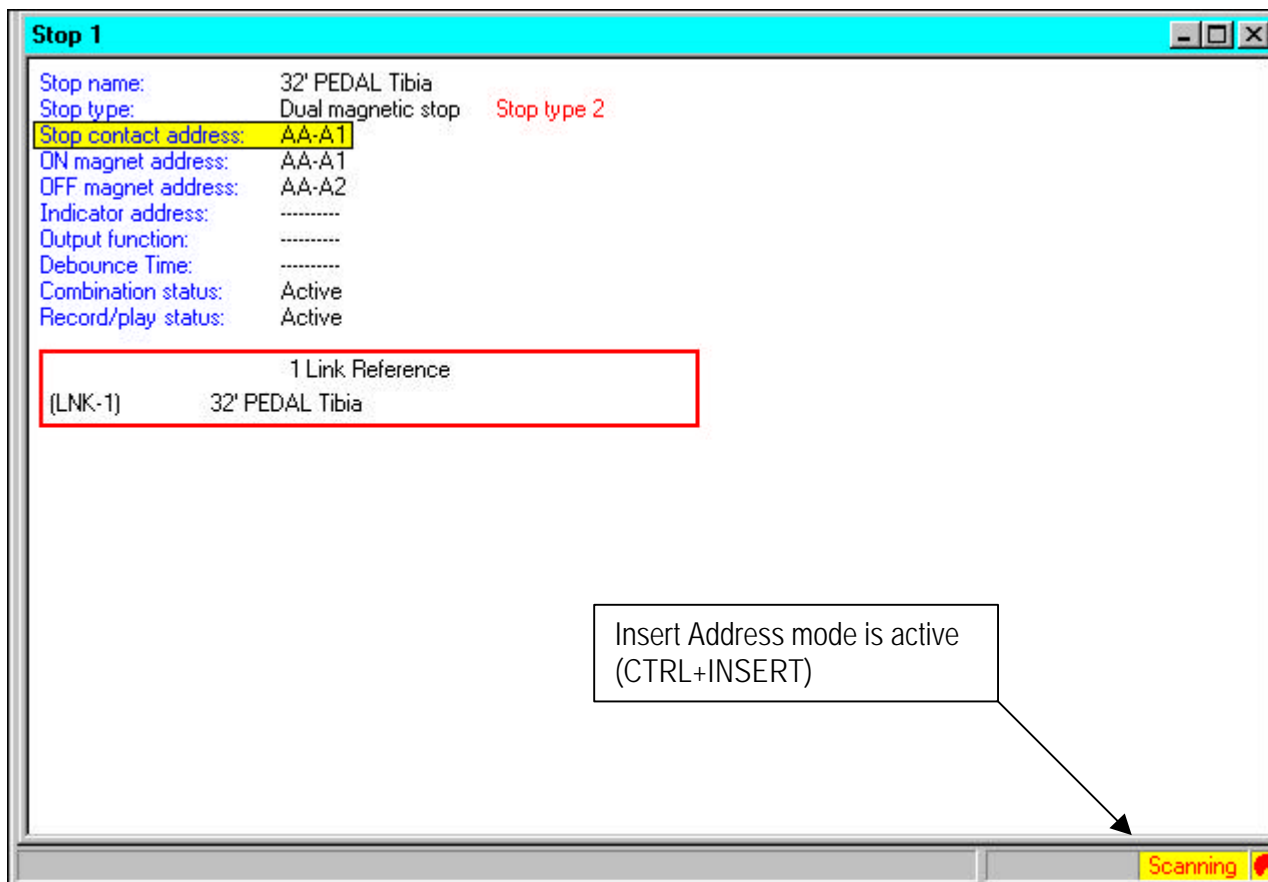
Stop 1

Stop name:	32' PEDAL Tibia
Stop type:	Dual magnetic stop Stop type 2
Stop contact address:	AA-A1
ON magnet address:	AA-A1
OFF magnet address:	AA-A2
Indicator address:	-----
Output function:	-----
Debounce Time:	-----
Combination status:	Active
Record/play status:	Active

1 Link Reference

(LNK-1) 32' PEDAL Tibia

The EDIT MARKER



You may either type in the correct address if you know it, or use the CTRL+INSERT keys to “beep in” the correct address directly by turning on the stop switch.

Make ALL the stop INPUT corrections first, then TAB back to the ORGAN STOPPED menu save the changes to the D6 Work file.

At the stopped screen, type: DSAVE D6 <enter> to save your current changes.

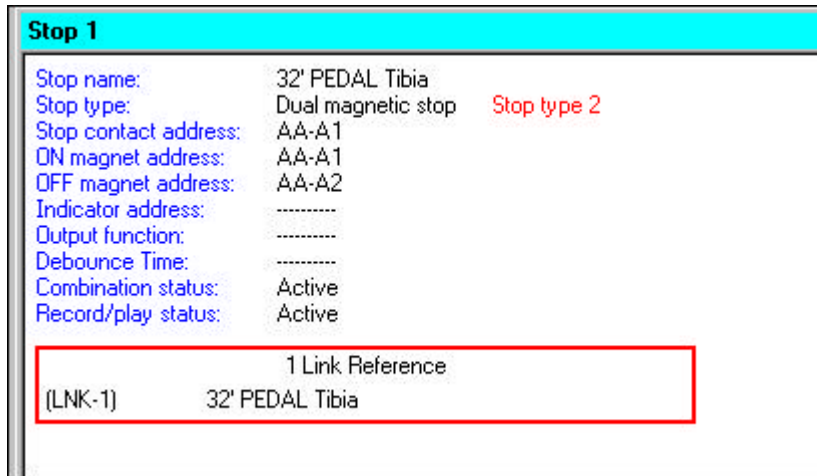
Now type: RUN <enter> and Check the stop switches you have corrected.
From the ORGAN STOPPED menu, Type: RUN <enter> and the organ will be playable.

We'll assume you will continue with your list and correct any and all wiring errors you encountered during the console check out.

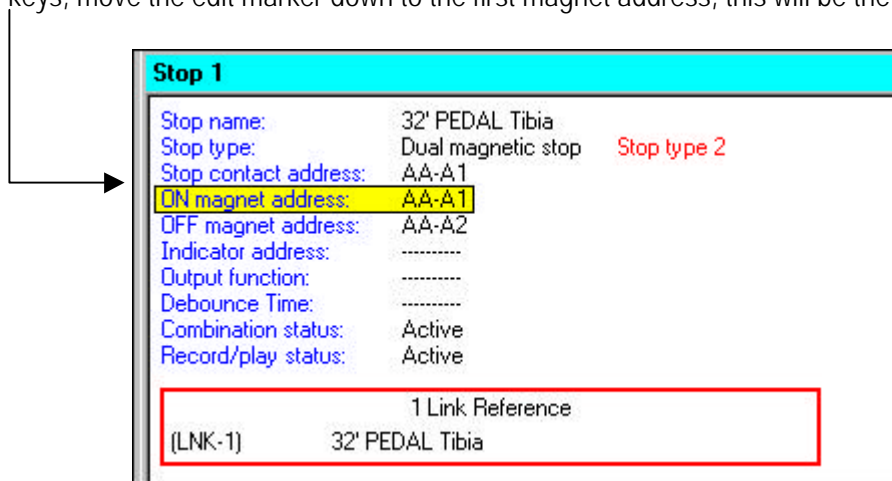
These instructions have so far been a bit lengthy, trying to cover the correction of errors, as well as some “how to’s” Generally only a few wiring errors will need correcting. Once you have completed all of the Console INPUT wiring errors, we will move on to the OUTPUT address corrections.

If you are still at the RUN Screen, type: STOP <enter> Tab back into the editor.

From the Edit menu, type: /STP1 <enter>. This will bring you to the first stop in the organ definition.

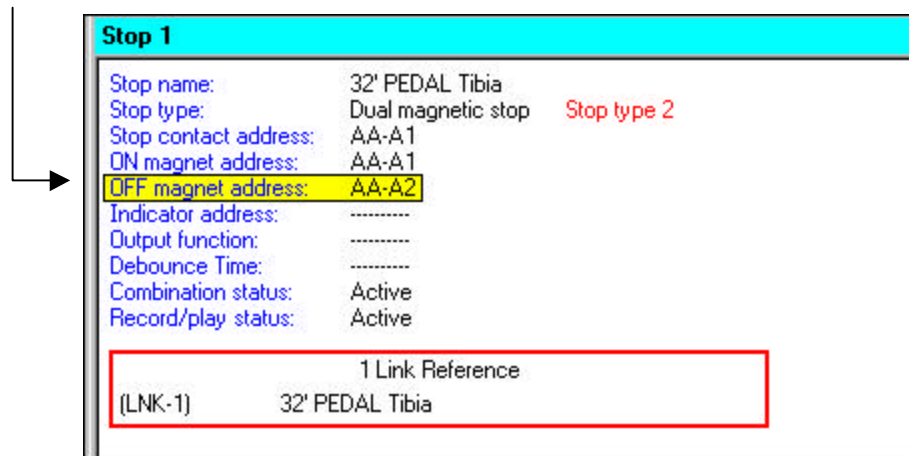


Using the arrow keys, move the edit marker down to the first magnet address, this will be the ON MAGNET ADDRESS.



As soon as the marker highlights the ON address, the stop will be energized and the stop should move to the ON position.

Next, press the down arrow again so the edit marker points to the OFF address.



As soon as the edit marker highlights the OFF magnet address, the OFF magnet coil will be energized and the stop should immediately turn OFF.

Cautions when activating stop action magnets:

There is one very important thing to remember, when you use the EDITOR . Once the edit marker highlights an OUTPUT address, it will be activated (turned on) for as long as the arrow points at the listed address. If you highlight the address with the edit marker and then type in another address, the new address becomes active. If you highlight an output address with the edit marker, and then decide to go have a cup of coffee, the output address will be ON until you get back. If this is a pipe magnet, that may be OK, but if this is a high current electric stop action magnet, this could be hazardous! Stop action magnets are only designed to be activated for very short periods of time. In this system, we pulse the stop action magnets for about 1/10th of a second in run time operations, but NOT when your in the editor. The output is continuous on console outputs. BE CAREFUL! If you are taking a break, always press the ESC key to clear the edit marker from any address and TAB out of the editor. This will clear any active outputs.

Generally, the Direct Electric stop action coil will draw about 1/2 Amp of current when active. Some draw more. You do not want to let the arrow linger on an address especially if the magnet coil draws more than 1/2 amp. This can overheat the magnet coil and possibly destroy it, or over heat it to a point that it will melt, or catch fire!

Overloading the magnet driver IC on the other hand can cause significant damage as well. If too much current is drawn for long periods of time the IC can overheat, short circuit, and the IC may explode. One other caution. If there are any short circuits in your output wiring, or on the stop action itself, and you activate the magnet with the output driver chip, the chip will destroy itself and release a modest cloud of smoke. If your stop action magnet wiring is in doubt, you should probably test the wiring for short circuits before activating the output boards.

The following editing procedures should be followed when editing the stop action magnets.

- 1) Start with ALL stops keys or drawknobs in their OFF positions
- 2) If not there already, TAB into the editor and bring STP-1 up on the monitor screen.
- 3) Move the arrow pointer to the ON address. The stop should move to the ON position.

If the stop does not move to the ON position, physically move the stop action by hand and check the stop to see if the OFF magnet is energized instead of the ON magnet . This would be a wiring pair reversal where the Off magnet was wired to the ON magnet address, and visa versa.

If the ON magnet works properly, move the arrow to the OFF magnet address. The stop should move back to the OFF position.

4) Move the edit marker back to the ON magnet address of STP-1. Now press the PAGE DOWN key. This will advance you to STP-2. STP-2 should move to the ON position. Press the PAGE DOWN key again, STP-3 should move to the ON position, etc.

5) Continue pressing the PAGE DOWN key until you have gone through all of the Type-2 Dual Magnetic stop definitions.

6) If you find a stop that does not move or the wrong stop moves, move the edit marker away from the magnet address line (you can move the edit marker UP to the INPUT address line) and make a note of the problem. Just get the power

off the magnet while you are writing down the stop number. Once you are ready to continue, move the edit marker back to the ON magnet address and continue the PAGE DOWN test.

7) Once you have gone through ALL the magnet ON addresses, position the edit marker on the OFF address of the last stop.

8) Now reverse the process by using the PAGE UP key to move backwards through the stops. As you press the PAGE UP key, you should see the stops moving back to their OFF positions until you get back to STP-1. Follow the same procedure outlined in step 6 if you find a stop wiring or programming error.

9) You can quickly change a wiring address by first moving the edit marker off the magnet address, then type in the new address (the address will be echoed back to you on the command line at the top of the screen). Move the edit marker back to the offending address, and quickly press the enter key. The command line will transfer the new wiring address to the address the edit marker is highlighting. The edit marker does not have to be highlighting the address you want to change when you type the new address on the command line, but you must move the arrow to the address line you want to change BEFORE you press the ENTER key.

If you find that your wiring address is off by one, or if you have a wire reversal, where the On magnet is wired to the Off magnet and visa versa, instead of typing in the entire address, you can use two short cut keys that will increment a highlighted address by one or decrement the highlighted address by one each time you press the proper keys. The two short cut keys are the + (Plus) key and the - (Minus) key located on the keypad at the very right of the computer keyboard. Usually the three farthest keys on the right hand edge of the keyboard are the + key, the - key and a second Enter key. When ever you have the edit marker placed on any programmable element of the definition; an output address, an input address, a rank element number, a keyboard element number, a function element number, etc. pressing either of these two keys will increment or decrement the element number.

10) Remember to save your definition changes at regular intervals as you make corrections to guard against loosing your changes caused by an unexpected power outage or if someone trips over that extension cord that is powering the computer that you have been meaning to take care of. Yep, we know.....It happens!

Other Non Moving Stop Controls and Buttons With Lighted Indicators:

Usually the definition files present all the dual magnetic (moving) stop action stops first, followed by other stop switches and buttons that are non moving, but may have lighted indicators. The following shows all the different stop types of the system. If your definition contains buttons or switches that have lighted indicators, you will have to move the marker arrow to the appropriate indicator address line of the stop definition to turn on the indicators.

Stop name:	Stop #1
Stop type:	Button or switch Stop type 1
Button contact address:	-----
Indicator address:	-----
Output function:	-----
Debounce Time:	-----
Combination status:	Active
Record/play status:	Active

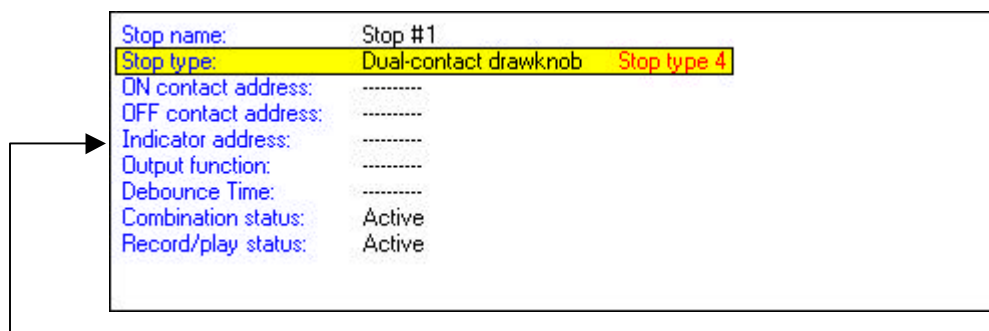
Stop Type ONE is a non moving button or switch. It has provisions for an indicator output address. Typical uses for this type of hardware is for semi blind stops that may be tied into the combination action. When the combination action activates the stop, the indicator will come on to let you know the stop has been turned on.

Stop name:	Stop #1
Stop type:	Dual magnetic stop Stop type 2
Stop contact address:	-----
ON magnet address:	-----
OFF magnet address:	-----
Indicator address:	-----
Output function:	-----
Debounce Time:	-----
Combination status:	Active
Record/play status:	Active

Stop Type TWO is the Dual Magnetic Stop control for moving stop actions and draw knobs previously covered in the text.

Stop name:	Stop #1
Stop type:	Reversible button Stop type 3
Button contact address:	-----
Indicator address:	-----
Output function:	-----
Debounce Time:	-----
Combination status:	Active
Record/play status:	Active

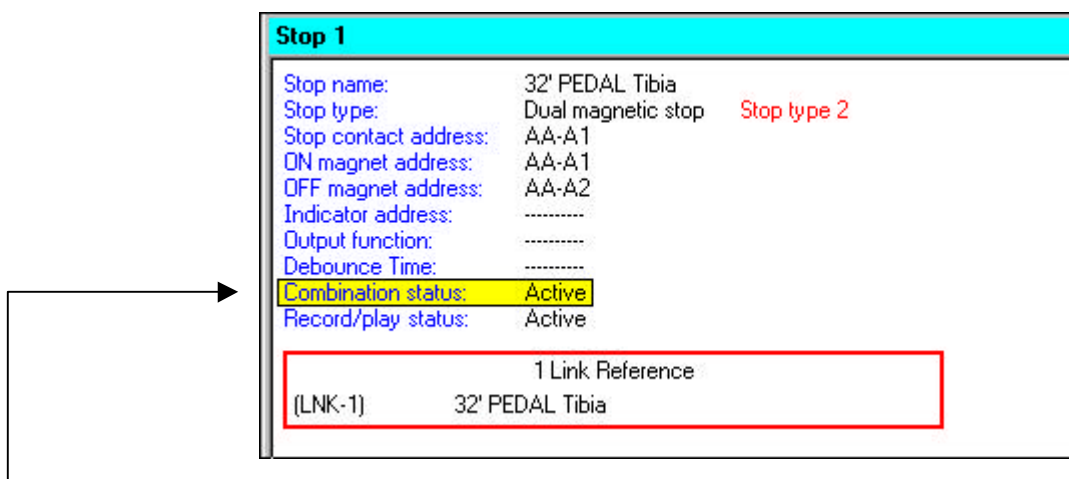
Stop Type THREE is the reversible button. This is a push on – push off action. When the action is ON, if an indicator has been wired to an output address listed in the indicator address line, the indicator will light. When the action is OFF the light will extinguish.



Stop Type FOUR is not often used. This is for a Dual-Contact (non moving) center sprung Lighted draw knob manufactured by Syndyne. These are economical draw knobs that you manually pull the draw knob stem to turn the stop on and push the draw knob stem to turn off. When the stop is pulled (turned on) the indicator address wired to the lamp inside the draw knob unit will illuminate the engraved face plate of the draw knob. When the stop is pushed (turned off) the indicator will extinguish. When the combination action pistons are pressed, instead of the draw knob moving, the engraved face plates of the unit light up.

Controlling the Combination Action Status and Record Play Status of the Stop Switches:

You may also make changes in how the system looks at stop switch hardware in relation to combination and record play control.



Notice that the edit marker is highlighting the Combination action status line. Generally, all normal operating stops are set to combination and record play status ACTIVE. If for some reason you wish to take one or more stops out of the combination action, or inhibit stops from being recorded or played back, you can easily change the active status. With the edit marker highlighting either combination or record play status, press the + (PLUS) or - (MINUS) keys on the number keypad at the far right of your computer keyboard. This will toggle the status between ACTIVE and INACTIVE.

Caution! Some control stops may have been defined in your definition with combination action status INACTIVE. These are controls that you do not want ranged or captured by the combination. These would be things like swell shoe couplers, combination action memory load switches, sforzando reversibles and other controls such as remote blower start stop controls, etc. If you see stop controls set to inactive status, do not change the status to active or you could have some problems, especially with the settable crescendo pedal.

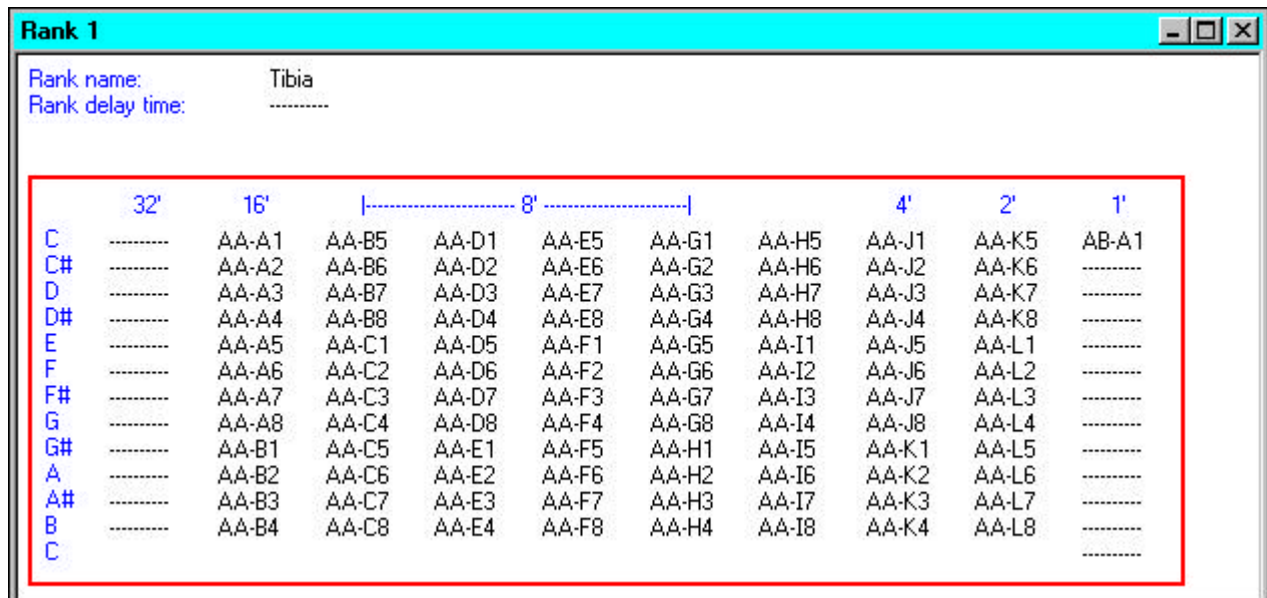
MAKING CHANGES TO THE CHAMBER OUTPUTS:

If not already there, TAB into the edit mode.

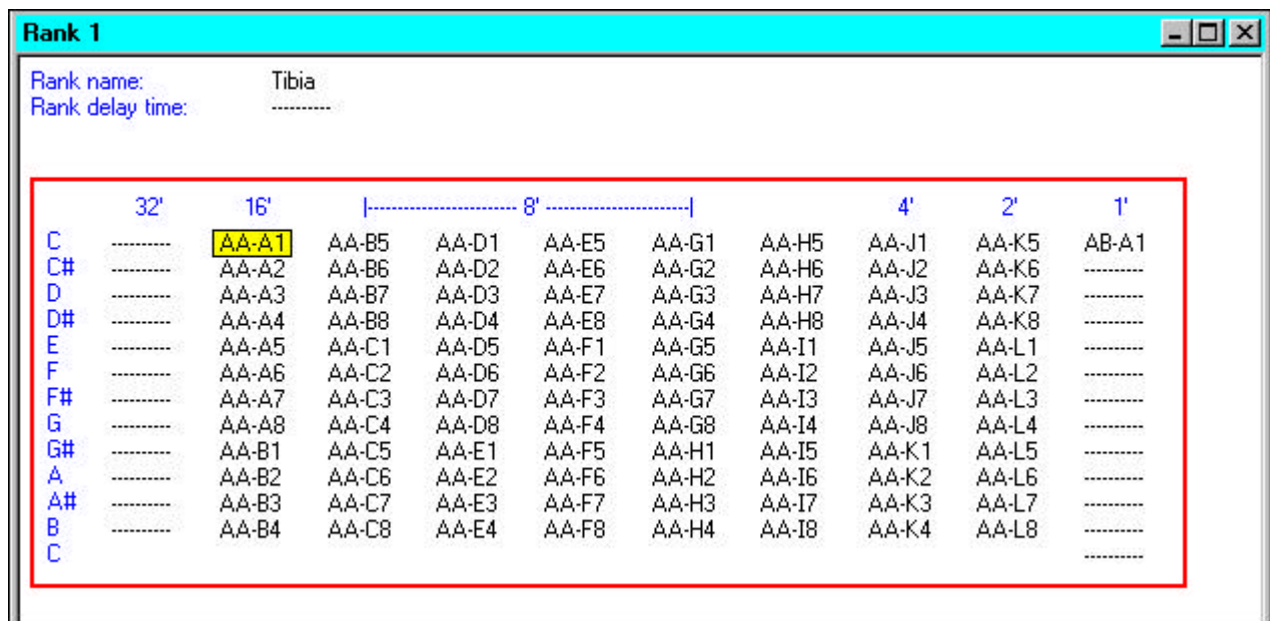
So far, we have concentrated our efforts in making corrections in the console. The system check out in the pipe chambers requires that you go through and check out two areas:

- 1) Ranks (RNK)
- 2) Units (UNT)

Begin with RNK-1 Type: /RNK-1 <enter>



Use the down arrow key to move the edit marker into the field, and then the right arrow key to move the edit marker over to the first address in the rank. As soon as the edit marker points to AA-A1, the note will play and continue playing until the marker is moved away from the address, or to a new address.



If you press the right arrow, you can move across the rank checking notes by octaves. If you use the down arrow, you can check the notes by chromatic scale. Pressing the down arrow key twice (quickly) will allow you to check the notes diatonically by skipping every other note on the chest.

Checking the outputs can be quickly accomplished by simply starting at rank one and going through each output address with the edit marker and listening to the notes as they play. The one trap to avoid is assuming you have a wiring error when the pipe is simply out of tune.

You may find that you will have to have an assistant verify some the pipes from the chamber. If you hear a wrong note, don't assume a wiring error until you have verified that it's not just the tuning !

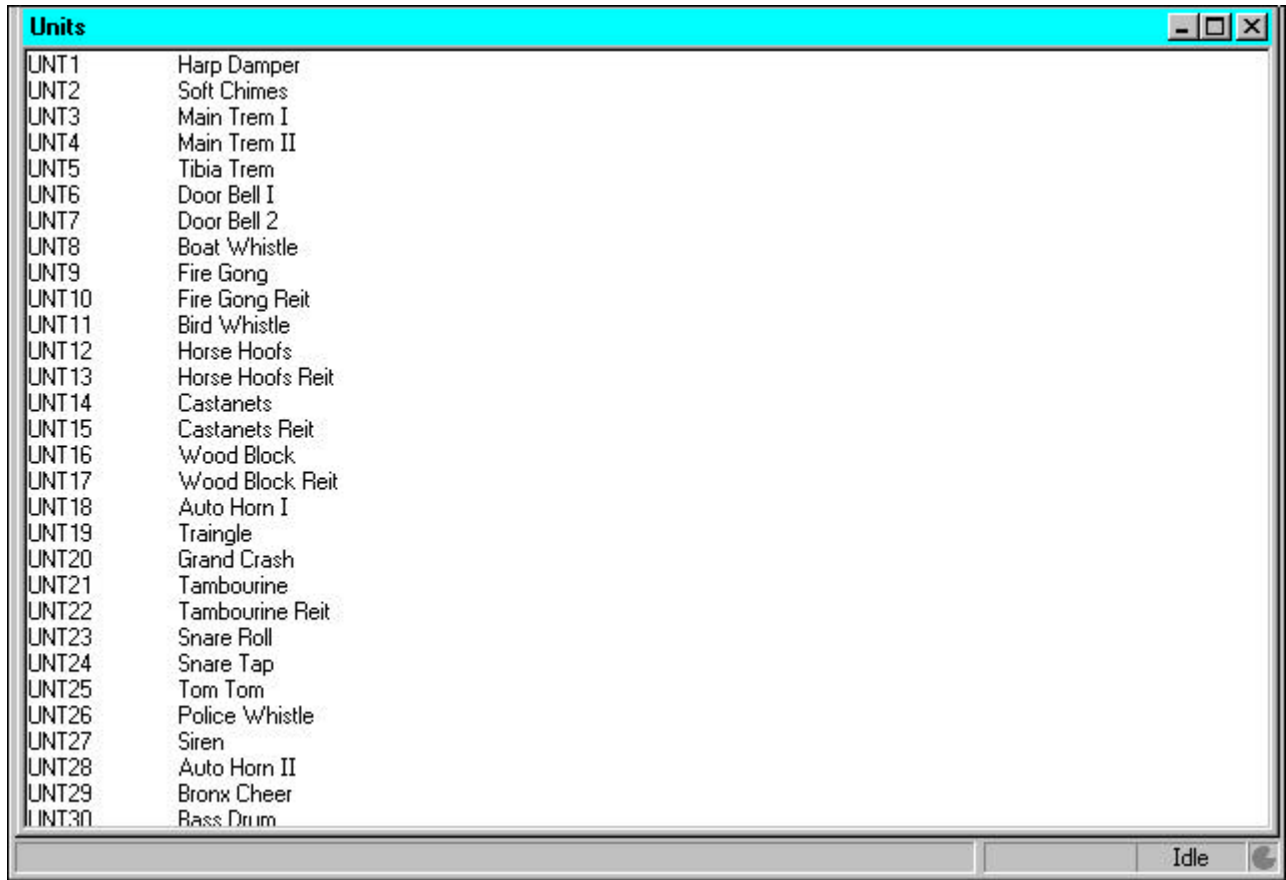
If you encounter a wiring or programming error, you can fix the error either by changing the physical wire at the output board (wire pair reversal), or you can cycle through the addresses and change the wiring output address by positioning the edit marker at the offending address and typing in the correct address, followed by the <enter> key.

The CTRL+INSERT mode will not work with OUTPUT addresses. If you have a wiring error, you will have to manually address the outputs into the correct order. If the instrument has not been tuned, and you cannot rely on the pitch of the pipes playing, you may require the help of an assistant verifying pipe order in the chamber while you change the addresses at the computer terminal.

Once you finish with RNK-1, you can either use the Pg-Dn (Page Down) key to advance to the next rank, etc. Before advancing to the next rank, you may want to move the edit marker back to the C-32' position, as changing ranks with the PG-DN key will keep the arrow place in the next rank, at top C where you left off with the previous rank.

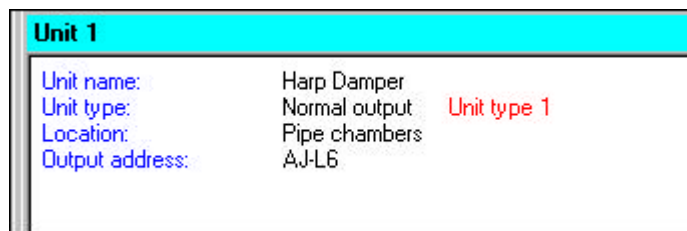
Once you finish checking out the ranks, go to the Units (UNT) where you will find the output addresses for the swell shades, tremes, traps, and effects.

Type: /UNT <enter>

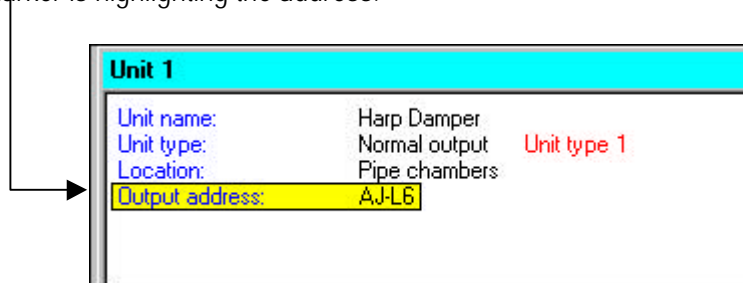


You will be presented with the first 30 units of the list.

To start checking the Units, Type: /UNT1 <enter>



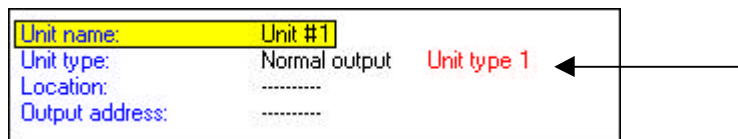
When the unit is displayed on the screen, move the arrow down to the output address, and the magnet will be energized for as long as the edit marker is highlighting the address.



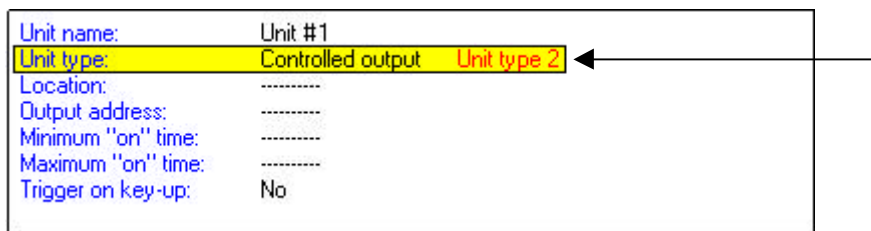
In this example, Harp Dampers; you may require the aid of an assistant to verify things you may not be able to hear, like the harp dampers. You could also go into the RUN mode, and check them while playing the harp.

With the arrow pointing at the output address, use the PG-DN key to move through all the rest of the units in the definition. There are several different types of units. As you Page Down through the unit definition listings, when you come to a different type of unit, the edit marker MAY change position and move off the output address. This is normal and at present there is nothing that can be done to “track” the edit marker to the output addresses of the different type of units.

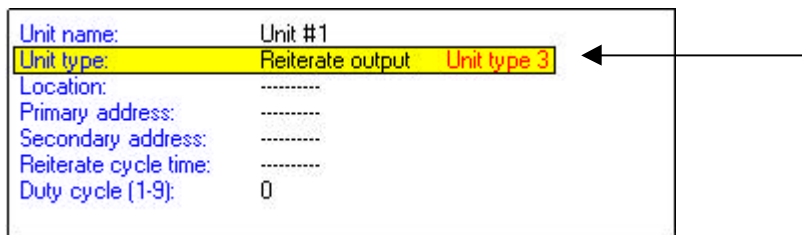
Listed below are the FIVE different types of UNITS likely to be found in definition files:



Unit Type ONE has only ONE output address. It's use is for things like the tremms, individual swell shade motors, bells and whistles, indicator lamps or LED's, etc.



Unit Type TWO has only ONE output address. The uses for this type of unit are for “one-shot” timed events requiring a minimum or maximum ON time, or for things like up beat traps, where the unit triggers when you release the key or switch rather than when the key or switch makes.



Unit Type THREE may have TWO output address. A primary output and a complementary secondary output address. This is used for reiteration of individual magnets or complementary pairs of magnets. Individual magnet usage would be for things like a reiterating tambourine, a dump box trem valve, etc. Dual complementary pair reiteration would be used for things like snare drum actuators, kettle drum or chins gong reiterating action magnets, etc.

Unit name:	Unit #1
Unit type:	Midi single note output Unit type 5
Midi channel:	0
Midi note:	0
Midi velocity:	0

Unit Type 5 has NO output board addresses at all. This is a midi single note output. It puts out midi note on and note off messages. If you don't have MIDI in your system, you will not see this type of unit.

Make any corrections necessary to the units, and remember to save your corrections by TABBING back to the RUN menu, and then typing STOP to get back to the STOPPED screen and save your definition changes to one of your work files.

Wrapping Up and Saving Your Final Changes:

This tutorial has assumed that you have had the system on this entire time, and have saved all your work into two files D5 and D6. Once you are finished with any changes you have made, and you have loaded your final work file to see that it will load and run, it is time to overwrite the original D1 definition file with your corrected definition file.

There are several ways of doing this.

- 1) You can erase the original D1 file and then RENAME the D5 or D6 file as D1. **NOT RECOMMENDED for newbie's**
- 2) You can preserve the original D1 file and rename the file from D1 to D99 and then DSAVE the D5 or D6 file as D1. **RECOMMENDED for newbie's**
- 3) You can DSAVE the D5 or D6 file as D1 and overwrite the original D1 file. **AS AN ALTERNATE method.**

The procedure for each of the three ways is as follows. We'll use the D5 file as the final corrected file saved from the active file in memory.

- 1) A. Type: ERASE D1 <enter>. B. Type: RENAME D5 to D1 <enter>
- 2) A. Type: RENAME D1 to D99 <enter> B. Type RENAME D5 to D1 <enter>
- 3) A. Type: DSAVE D1<enter>.

HELP is available from within the system.

Now that you have finished with the check out of the system, the organ should be playable. The following section has to do the system HELP files and with the normal operation and setup of the combination action system, and the different directories and commands used in normal system operation.

HELP FILES:

The system contains the beginnings of on line help. You can access the help menus in two ways. Pressing the F1 function key will bring up the help menu for the current application you are working in. If you are in the editor, this will bring up the EDIT help menu. If you are in the stopped mode, this will bring up the STOPPED mode help menu. If you are in run, this will bring up the RUN help menu. The second way of calling help is by typing: HELP <enter>. Once the help window opens, use the UP and DOWN arrows to scroll to the area you need help with, and then type HELP followed by the procedure. Another window will open with the help tips that are available. To close the help window, press the ESC key. Presently, HELP is available for the most commonly used functions and commands. A more detailed help system is under development and will be released as soon as possible.

SYSTEM COMMANDS:

You may view all of the system commands by typing COMMANDS <enter> or left clicking your mouse on the screen COMMANDS button . Once the commands list is on the screen, use the UP and DOWN arrows, or the Pg UP or Pg DOWN keys to take you through the list. To hide the commands window, press the ESC key. The commands list is also printed here:

UniFlex 2000 System Command List

AddArtist	Add a new artist
AllOff	Turn off all active midi notes on all channels
Artist	Change the current artist
ArtistPanel	Select a new artist from a button panel
Artists	Show list of defined artists
Autoload	Toggle the user definition/combination autoload feature on/off
Autorun	Execute the autorun function
Autosave	Toggle the combination autosave feature on/off
Base	Change the current base directory path
Beep	Toggle the Beep tone on/off
BeepFreq	Set the beep frequency
BeepTime	Set the beep time in milliseconds
CableTest	Run the cable diagnostic test (invalid)
CleanUp	Clean up temporary windows (Same as hitting the ESCAPE key)
Cload	Load a combination file
Color	Show the current color palatte
Commands	List all system commands
Console	Scan the console and display input signal changes
ControlButton	Simulate a hardware control button press
Copy	Copy one or more files
Csave	Save a combination file
Dir	List files in the current or a specific directory
DisplayKeyboards	Display the realtime graphic keyboards
Dload	Load a definition file
Dos	Shut down and exit to DOS
Down	Scroll current window display down one line
Dsave	Save a definition file
Dump	Dump a file record
End	Set current window display to END position
Erase	Erase one or more files
EraseTrack	Erase tracks within song files
F	Shorthand for "Finish"
FindRgb	Find the closest RGB value in the current palette
Finish	Finish current playback or recording
FlexTrack	Run the FlexTrack song file editor
Help	Bring up help for a command or system feature
Hog	Run the processor hog test
Home	Set current window display to Home position
Info	Display information about a song or track file

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IoCount	Display console and chamber signal counts
Kill	Kill current and all queued playback
Left	Scroll current window display left one character
List	List a definition, combination, song or track file
Load	Load a definition or combination file
Lock	Lock the computer keyboard with a password
Memory	Display the allocated memory
Merge	Merge song and track files
Meter	Set the current studio meter
MidiList	List available Windows 95 Midi devices
ML	Shorthand for "MidiList"
Option	Add to or modify the system option device codes
P	Shorthand for "Play"
PageDown	Scroll Current window display down one page
PageUp	Scroll current window display up one page
Panic	Panic-restart the relay from any mode
Parse	Command token parser and display
PC	Shorthand for "ProgCres" (program the crescendo)
Play	Play a recorded song or track
PlayMode	Set the playback mode
PM	Shorthand for "PlayMode"
ProgCres	Program the crescendo pedal
ProgramOff	Turn off crescendo programming mode
ProgSeq	Program the piston sequencer
PS	Shorthand for "ProgSeq"
Pstlst	List the pistons in a combination file
Quit	Shut down the UniFlex 2000 relay system
R	Shorthand for "Record"
Record	Record a song track
Rename	Rename a file
ReRecord	Re-record a song track
Reset	Disable the output reset line for 2 seconds
Restart	Restart the relay system
Right	Scroll current window display right one character
RR	Shorthand for "ReRecord"
RT	Run the relay logic timing test
Run	Run the organ relay system
SA	Shorthand for "ShowActive" signals
Save	Save a definition or combination file
SC	Set a crescendo pedal registration for a specific pedal position
ShowActive	Show the currently active output signals
ShowSignals	Show the input and output signals in realtime windows
ShowStartupLog	Show the system startup log window
SOD	Test the system option device
Split	Split a track file into individual tracks (inactive)
SS	Shorthand for "ShowSignals"
ST	Shorthand for "SystemTimes" (system timing)
Stop	Stop the organ relay system
SystemTimes	Display system timing values

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T	Shorthand for "Tempo"
Tempo	Set the current record/playback tempo
TestPattern	Run the background test pattern display window
TestWindow	TestWindow
Timit	Generic Debut Timing Test
Title	Change the title of a file
Touch	Calibrate the DynaPro Touch Screen input device
Trace	Run the relay logic debugging trace function
Translate	Translate a definition or combination file to an Ascii text file
Tstadr	Test input/output board address lines
Tstinp	Test an input board
TW	Shorthand for "TestWindow"
Unlock	Unlock the computer keyboard with a password
Up	Scroll current window display up one line
UpdateTimes	Display various screen update times
User	Shorthand for "Artist"
UT	Shorthand for "UpdateTimes"
Ver	Display the current system version number

Note that some of these commands are debugging or system test commands designed to put heavy testing loads on the system. You should be careful in the use of some of the "non-organ" control commands as they may put demands on the system that could result in erratic operation. DO NOT USE THE SYSTEM HOG command. This is a processor hog for testing and debugging and is not a normal operating command. The system will be very unstable or may lock up.