AFTER TOUCH

THE OFFICIAL PUBLICATION OF THE YAMAHA USERS GROUP

THIRD ANNIVERSARY ISSUE
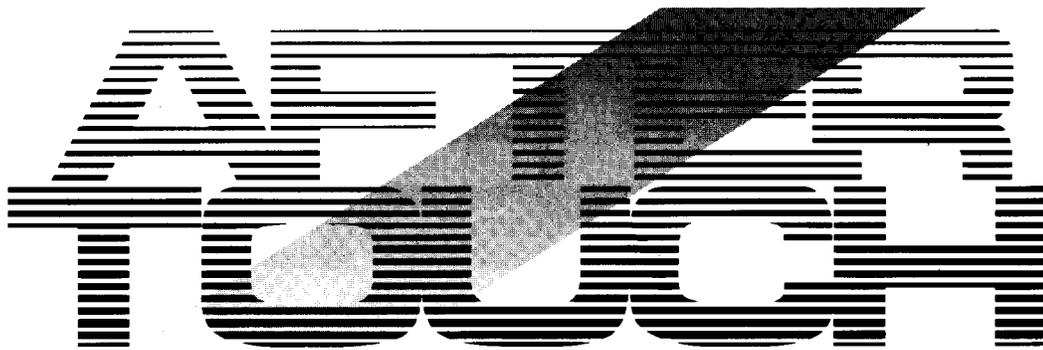
QX5FD

YAMAHA
DIGITAL SEQUENCE RECORDER QX5FD
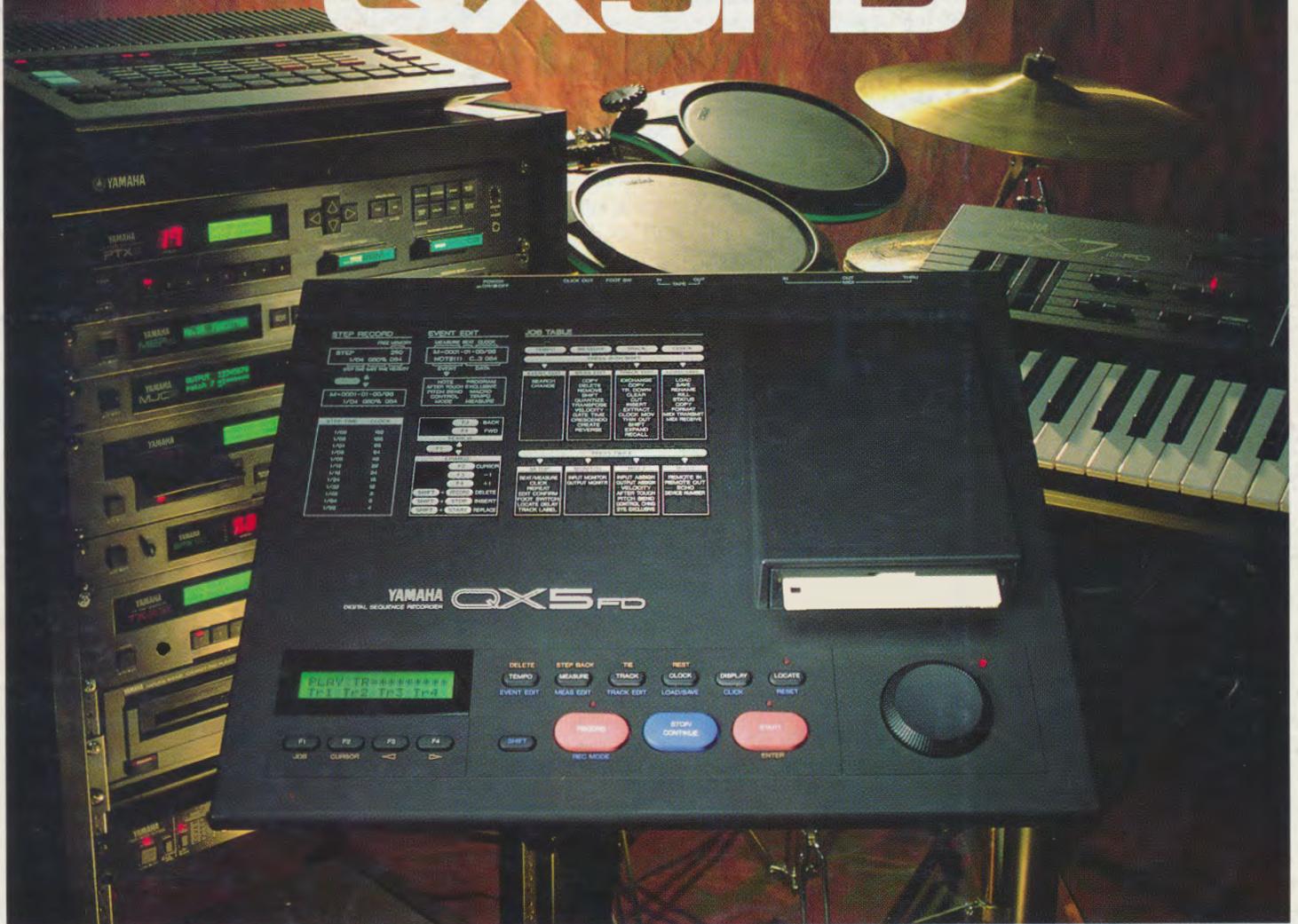
OCTOBER 1988

YAMAHA®

News & Information

DX7 II Function Sticker

All DX7 II users who want a quick reference guide to the many functions that can be accessed via the number buttons (1–32) in Edit mode should write to Yamaha and request a DX7 II function sticker. The sticker, which can be affixed to any DX7 II unit on the front panel area above the LCD display, is available for free directly from Yamaha. Write to: Yamaha Music Corporation USA, Digital Musical Instruments Division, Literature Department, P.O. Box 6600, Buena Park, CA 90622-6600.

DX11 System Operation Guide

Yamaha Music Corporation USA now offers an operations manual for its DX11 System. This new system, which is designed to take full advantage of the musical possibilities of MIDI without requiring the musician to understand MIDI's more arcane complexities, includes the following Yamaha gear: the DX11 multi-timbral FM digital synthesizer, the RX120 digital rhythm machine, the QX21 digital sequence recorder, the REX50 digital multi effector, the KM602 portable mixer, and two KS10 powered monitor speakers.

The Guide provides straightforward, step-by-step instructions to help you in every phase of use.

The 20-page DX11 System Operation Guide is available for free from your local authorized Yamaha Digital Musical Instruments dealer.

RX5 Edit Guide

Yamaha Music Corporation USA now offers an Edit Guide for the RX5 digital rhythm programmer. This detailed booklet provides clear explanations of the RX5's three most complex Edit modes (Voice Edit, Key Assign Edit, and Pattern Edit), and also gives step-by-step instructions to help you make the most of the musical possibilities offered by each Edit mode.

The 34-page RX5 Edit Guide is available for free from your local authorized Yamaha Digital Musical Instruments dealer.

QX3 Demosoft

Yamaha Music Corporation USA now offers a QX3 System Demosoft package. The data (an instructional material) in the package will allow you to demonstrate a complete Yamaha DMI (Digital Musical Instruments) system. This system Demosoft utilizes the QX3 digital sequence recorder, the RX5 digital rhythm programmer, the DX7 II FM digital synthesizer, the TX802 FM digital tone generator, and (optionally) the DMP7 digital mixing processor.

The package includes a 3.5" floppy disk, a voice/data cassette, and a 20-page set of instructions. The floppy disk contains all necessary voice data as a Bulk Chain. The cassette contains both digital system information for the RX5 and an audio version of the demo. The 20-page instruction manual offers complete, step-by-step guidelines for setting up, loading, and playing the musical performance provided in the QX3 Demosoft package.

This QX3 Demosoft material is available for free directly from Yamaha.

New TX16W Voice Library

The Yamaha sound library for the TX16W digital wave filtering stereo sampler has been increased by a new offering of disks, which expands the total Yamaha-created library to more than 100 disks. There are 76 new disks in all, grouped in eleven series (by instrument type). Here is a list of the series titles in Yamaha's new sound library for the TX16W:

100 Series: Strings (11 disks)
200 Series: Brasses (3 disks)
300 Series: Woodwinds (8 disks)
400 Series: Percussion (11 disks)
500 Series: Mallet (5 disks)
600 Series: Plucked String (4 disks)
700 Series: Vocal (3 disks)
800 Series: Keyboards (3 disks)
900 Series: Synthesizers (5 disks)
1000 Series: Performance (20 disks)
1100 Series: Sound Effects (3 disks)

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Questions & Answers

Answers To Questions From Readers.

I have an RX11 and have enjoyed its sounds. I bought an RX5 because of the extra sounds and flexibility, and decided to dump all of my RX11 patterns into the RX5 via MIDI. I had to make one adjustment, because the MIDI note assignment for the ride cymbal on the RX11 called up a bell sound on the RX5. Then I noticed that the tom tom sounds on the patterns were still RX11 sounds coming from the RX5. How could this be?

On closer listening, I noticed that the snare, bass, toms, and closed hi-hat sounds were all RX11, but that whenever I needed to change an accent or add an extra tom hit, the newly added sounds were all RX5. How can I control this situation, and dump all of those great RX11 sounds permanently into the RX5? I've

RX5 digital rhythm programmer.

tried to get help from Yamaha service people, but they cannot offer me much assistance in this area, as it is apparently not supposed to happen. Let me assure you, it has!

Let *us* assure *you*—it hasn't happened. It is absolutely impossible to load sounds from any other drum machine into the internal memory of the RX5. The only way to add extra voices to the RX5 is to plug a ROM cartridge of pre-recorded voices into the unit's ROM cartridge slot on the back panel.

There are a number of possible causes for the effects you think you are hearing. Without seeing and hearing the unit first hand, it is impos-

sible to decide exactly what is happening, but it is possible that the patterns loaded into the RX5 are calling on the basic sounds of the unit, while the accents and other extra notes that you are adding are being altered by changes made in the Key Assign mode. In any case, please be assured that all of the sounds coming from the RX5 are RX5 sounds.

I own an RX5. Is there any way to load a voice onto the WRC02 ROM cartridge from the original ROM cartridge, or vice-versa? If so, how? There are some patterns I want to write using voices from both cartridges.

What you want to do is currently impossible. However, the folks in the Yamaha Service Department are working on a system that would allow them to create custom ROM cartridges (from existing sounds) for RX5 users. The research is not yet complete, so there is no way to know how much this service would cost. If you are interested in this possibility, send a letter to the Yamaha Electronic Service Division (P.O. Box 6600, Buena Park, CA 90622-6600), and you will be informed when and if the service becomes available.

I am writing a patch editor/librarian for the FB-01, to be sold commercially. In order to complete my work, I need detailed working information about the FB-01, especially about the MIDI implementation. The owners manual should suffice, if it is similar in content to my TX7 owners manual. How can I obtain the FB-01 owners manual?

To obtain an owners manual for the FB-01, or for any Yamaha DMI product, contact your local authorized Yamaha Digital Musical Instrument dealer. They can order one for you, at no charge. Tell them to request the manual from the DMI Sales Division of Yamaha.

In order to write an editor/librarian program for the FB-01, you will need more information than that found in the unit's owners manual. The documentation you need is available from the Yamaha Electronic Service Division: Call 1-800-854-3619, and ask for extension 1.

DX7s digital FM synthesizer.

I recently purchased a Yamaha WX7 MIDI wind controller and a TX81Z. I have software update 1.6, which I thought would solve my problem, but it hasn't. What happens is a voltage surge when you change patches: The first note after a patch change sounds like it's attacked with great velocity; it seems to happen to all of the patches, single or multi. Even if you blow very lightly into the wind controller, the first note after a patch change comes out very loud.

Your problem has nothing to do with software version, but rather with the way the two instruments interact via MIDI. If the volume switch for WX7 is turned on, the TX81Z is in Performance mode, and volume levels in the Performance are set at 99, the following happens: When you first select any performance, no volume message has been received from the WX7, so the TX81Z's volume is set at the programmed of 99. When you play the first note, the TX81Z jumps quickly from the initial value of 99 to the volume leve it receives from the WX7.

There are only two solutions: either turn the volume switch off on the WX7, or don't use Performance mode on the TX81Z. Neither of these solutions is perfect, but they are the only ones available.

I have a KX5 controller and a TX81Z tone generator. The KX5 is set up to call up four banks of 8 sounds. The first 32 voices on my TX81Z are in the "I" bank. Can the KX5 be set up to call up other patches, including those in the Performance mode?

The KX5 sends out MIDI Program Change numbers 1–32. You can customize your TX81Z to respond to these Program Change numbers in any way you like, simply by modifying the unit's Program Change Table. The procedure is described in the TX81Z owners manual. A step-by-step explanation of the process can also be found in the Questions column in the August 1988 issue of AfterTouch.

I own a DX7s. Is it possible to load the Performance data from a DX7 II D/FD into my DX7s using a RAM or ROM cartridge?

No, it is not possible. The Performance memories of the DX7s are completely different from those of the DX7 II D/FD. The Voice memories are compatible, but the Performances cannot be: The DX7s is a single mode instrument (like the original DX7)–that is what the "s" stands for. Therefore, it is impossible to recreate the Split and Dual mode Performances of the DX7 II D/FD on the DX7s.

How can I get my RX17 drum unit to play notes on my DX7 II D? All I am looking for is a repetitive base line.

The procedure is described on pages 25–26 of the RX17 owners manual. Read the following sections of the manual: 5.2–MIDI Channel Messages On/Off; 5.4–MIDI Transmit Channel Assign; and 5.5–MIDI Note Number Assign.

I have a CX5M music computer with a 32K memory capacity. Is there any way to interface a second 32K of memory to the unit? Also, I use a YRM301 MIDI Recorder. After entering a performance, I find that it often needs editing. Using the quantize in the program just lines the Note On and Note Off signal at the same timing. What's wrong?

Yamaha never marketed an expansion kit for the CX5M; others were created, but we don't know of any that are still available.

As for the MIDI Recorder program: The editing in the YRM301 treats Note Ons and Note Offs the same kind of information. Therefore, if the quantizing is set for a half note and both the Note On and Note Off fall in the same half note, both events will be moved to the beginning of that half note. To avoid this problem, choose a smaller quantize value.

QX5FD Sequencer

An Introduction To Yamaha's Newest Digital Sequence Recorder: A QX5 With Disk Storage Capabilities.

WHEN YAMAHA FIRST INTRO-duced the QX5 digital sequence recorder, it set a new standard for inexpensive dedicated hardware sequencers. Although encased in a small, unassuming package, the QX5 offered very sophisticated MIDI recording and editing features.

The QX5's only limitations as a professional MIDI sequencer were its memory and storage capabilities: The original QX5 had an internal memory that could hold up to 20,000 notes of MIDI data (15,000 notes if velocity data was also recorded). However, the only way to save this data for future use was to store it to a data cassette using the unit's Cassette Store functions, or to store it to disk using an external MIDI data recorder.

The new QX5FD is equipped with a 3.5" disk drive, which gives it almost unlimited data storage capabilities. Even though any single bulk disk storage operation is limited by the QX5FD's internal memory capacity, the QX5FD's disk drive provides a straightforward and reliable way to save the contents of the QX5FD's memory at any time.

The QX5FD's internal memory, like that of the original QX5, is divided into 8 Tracks and 32 Macros, in which the QX5FD can store up to 20,000 notes (15,000 when velocity data is also recorded). Using this memory, it is possible to create and store data for as many as eight songs. A single Track is capable of storing MIDI data from 1 to 16 MIDI channels. Tracks can be given a one-character label (A-Z) to help you remember the contents. A Macro can be anything from a musical phrase or Program Change to a complete Track. (This means that, rather than repeating a phrase over and over as part of a Track, you can load it into memory as a Macro and "Call" it into the main sequence whenever necessary.)

The QX5FD's disk drive can store all of the song material (up to 8 Tracks and 32 Macros) plus the Setup Memory data associated that material, all in one disk file. Each disk file can be given a name of up to eight characters. A single disk can hold as many as 99 different files; of course, the actual number of files that can fit

on a disk will be determined by the amount of data in each file you save. The QX5FD uses 3.5" double-sided, double-density disks, with a capacity of 720 kilobytes per disk.

Although files are set up to store *all* data from the QX5FD's internal memory, it is also possible to store portions of the memory to disk in a file. For example, the 8 Tracks of a Song can be stored to one file, the 32 Macros to another file and the current Setup Memory to a third file.

As a matter of fact, any group of *continuous* memory units can be stored to a single file location. In other words, Tracks 1-4 can be stored in one file, while Tracks 5-8 are stored in another file; or, Tracks 1-8 plus Macros 1-4 can be stored in a single file location. However, it is not possible to store Tracks 1-4 plus Macros 1-2 in a single file (because they are not continuous memory locations). If you want to divide the memory this way for storage onto disk, simply use two files—one for Tracks 1-4 and another for Macros 1-2. Since the QX5FD's operating system allows for 99 different file locations per disk, there is plenty of room for such groupings.

Also, to speed up the data-entry/editing process, the new QX5FD has a front-panel Data Entry Dial, which can be used for quick entry of data, position, or settings.

Since the QX5 and QX5FD are so similar, it may be useful to describe the basic recording and editing features they have in common, followed by (in each area) a description of the features that are new to the QX5FD.

Recording

As with the QX5, there are three different Record modes to choose from on the QX5FD: 1) Real Time Record, 2) Punch In Record, and 3) Step Record. Real Time Record functions just like an analog tape recorder. It records everything you play, exactly as you play it in real time. Punch In Record is exactly like Real Time Record, except that you can set the punch-in and punch-out measures; the QX5FD will automatically do the punching for you. This is particularly useful when you need both hands to play a part and can't spare a hand for the QX5FD.

The Step Record mode allows step-by-step input of music data. Note length, gate time, and velocity can be set from the QX5FD front panel. Rests can be generated, and notes can be deleted and tied. Note data is input from a MIDI keyboard.

Also, the gate time, velocity, tie, and rest parameters can be assigned to any MIDI controller. This means that, for instance, you can assign the tie parameter to a Data Entry button—every time a tie is needed, you can use the Data Entry button instead of the QX5FD front panel. This makes it possible to control almost all of the necessary parameters in Step Mode from a master keyboard.

After you have finished recording, you are ready to take advantage of the QX5FD's extensive editing capabilities. There are actually three levels in the Edit Mode: 1) Track Edit, 2) Measure Edit, and 3) Event Edit.

Track Edit

Track Edit is where Track management takes place. Since recording and editing always take place on Track 1, you will find yourself wanting to do quite a bit of Track shuffling in order to make room for new material or to perform an edit.

The Track Edit section of the QX5FD includes 12 Jobs, as follows:

1) Exchange
2) Copy
3) Track Down
4) Clear
5) Cut
6) Insert
7) Extract
8) Clock Move
9) Thin Out
10) Shift
11) Expand
12) Recall

The first ten Jobs in the QX5FD's Track Edit mode are almost identical to those of the QX5. In the Track Edit mode, you can Clear a Track or Macro (Job 4), Exchange a Track with another Track or Macro (Job 1), or Copy a Track to another Track or Macro (Job 2). The Track Down command (Job 3) allows you to merge two Tracks together.

As part of the Track management function of Track Edit, there are three commands of the cut-and-paste variety. The Cut command (Job 5) gives you the ability to cut Track 1 at any measure and paste the deleted section into another Track. The Insert command (Job 6)

takes all of the data in Track 1 and inserts it into any other Track at the measure you specify. With the Extract command (Job 7), you can take virtually any MIDI data—including MIDI channel, control change, and tempo change data—and move it from Track 1 to another Track. This is helpful if a number of parts with different MIDI channel assignments have been merged to a Track and you want to separate one of the parts for editing.

Most of the remaining jobs in Track Edit are for changing data throughout a Track. Clock Move (Job 8) is for moving all of the events in a Track forward or backward in time. There are 96 clocks per quarter-note; so, for example, if you add 48 clocks to a Track, all events will start an eighth-note later. Thin Out (Job 9) is a useful feature for saving memory space. It cuts out about half of any specified continuous controller or pitch bend data. Since continuous controllers generate huge amounts of data, you can thin out more than once and still have smooth sounding changes. Shift (Job 10), makes it possible to shift channel, note, controller, or Macro data up or down. For instance, if you wanted two tone generators on different channels to play the same part, you could copy the original performance to Track 2, then shift Track 1 up or down to put it on another channel.

All of the above Jobs are common to both the original QX5 and the new QX5FD. The QX5FD also features two new Track Edit Job commands: Expand (Job 11) and Recall (Job 12).

Expand (Job 11) allows you to change the

QX5FD digital sequence recorder.

DX7 II

"Asythelium CSHarmnic." A New DX7 II Performance By Manny Fernandez.

Notes:

Play close-voiced chords in the low octave for great machine/ mood sounds. Play in the upper octaves for an ambient/ sampled pad. Activate Pan to vary the stereo location with note number, and to introduce a center-to-right-to-left-to-right panning of sustained notes.

Manny Fernandez programs exclusively for Sound Source Unlimited. For more information on the complete Sound Source product line, write to: Sound Source Unlimited, 6808 Los Olas Way, Malibu, CA 90265.

Asythelium CSHarmnic

voice mode   SINGLE
eg forced damp   ON
total volume   99

PAN
mode MIX
range 76
select NOTE

←—A+B—→
0   50   99

rate	
1	32
2	60
3	45
4	36

level	
1	99
2	0
3	99
4	50

[A] [B]

voice 132   A:Asythelium
note shift -12

sustain fs (64)	ON	ON
foot switch (65)	ON	ON PORTAMENTO
CS 1 [ctrl# 14]	ON	OFF OP5 FREQUENCY COARSE
CS 2 [ctrl# 15]	ON	OFF OP1 FREQUENCY COARSE
tuning select	OFF	OFF PO1 EQUAL TEMPER -

Asythelium   alg 8

transpose C 3
feedback 6
syno OFF

LFO
wave ⌐⌐ syno OFF pms 1
speed 99   pmd 30 .... ams ....
delay 3   amd 0   ①②③④⑤⑥
mode MULTI   0 0 0 0 0 0

FREQUENCY/OUTPUT

	on off	out lev	crs	fin	mode	det	vel sens
①	ON	93	13.60	×		+ 3	0
②	ON	99	0.50	×		+ 3	0
③	ON	99	1.00	×		- 2	0
④	ON	80	0.50	×		- 2	0
⑤	ON	48	5.00	×		- 2	0
⑥	ON	94	15.00	×		- 2	0

SCALING

	mode	left dep crv	break point	right crv dep
①	NORM	0 ╱	A-1	╲ 12
②	NORM	0 ╱	A 0	╲ 2
③	NORM	0 ╱	A-1	╲ 7
④	NORM	0 ╱	A-1	╲ 8
⑤	NORM	1 ╱	A#2	╲ 4
⑥	NORM	1 ╱	F 2	╲ 9

ENVELOPE

	R1	L1	R2	L2	R3	L3	R4	L4	RS
①	26	99	30	95	25	72	35	0	0
②	71	99	14	89	33	77	16	64	1
③	21	99	31	99	22	99	33	0	1
④	89	99	99	99	55	99	30	0	1
⑤	82	99	6	91	27	88	16	0	1
⑥	48	99	14	90	25	70	17	0	1
Ⓟ	99	51	99	50	99	50	66	50	0

p range 8oct   p vel sens OFF

Asythelium

key mode U POLY
unison detune 5

random pitch 2

pitch range 2
step 0
mode NORM

portamento
♩⌐⌐
mode RETAIN
step   0
time   0

fc1   cs1
□   =

	bc	at	mod	fc1	fc2	in
pitch mod	0	0	0	0	0	0
amp mod	0	0	0	0	0	0
eg bias	0	0	0	0	0	0
pitch bias	+ 0	+ 0	volume 0	0	0	

"Digital Dancer CSHar." A New DX7 II Performance By Manny Fernandez.

```
Digital Dancer CSHar

                    voice mode  SINGLE
                    eg forced damp    ON
                      total volume    92

          A   B

            voice 104          A: DANCER 4a
        note shift  + 0

     sustain fs (64)   ON    ON
     foot switch (65)  ON    ON  PORTAMENTO
     CS 1 [ctrl# 14]   ON    OFF OP2 FREQUENCY COARSE
     CS 2 [ctrl# 15]   ON    OFF OP6 FREQUENCY COARSE

       tuning select   OFF   OFF PO1 EQUAL TEMPER    -
```

```
PAN
   mode  A/B
   range 70
   select NOTE

      A and B
          0    50   99
 rate
  1 40
  2 79
  3 49
  4 99

 level
  1 96
  2  0
  3 50
  4 44
```

```
DANCER 4a    alg  7
transpose C 2
feedback  2                        6
sync  ON                     2  4  5
                             1  3
```

```
LFO
wave        sync OFF  pms 3
speed 18    pmd 17 ------- ams ----
delay  4    amd 0   1 2 3 4 5 6
  mode MULTI     0 0 0 0 0 0
```

```
FREQUENCY/OUTPUT
         on  out  ----freq----        vel
         off lev  crs fin mode  det  sens
     1   ON  93   3.00  x     + 0   2
     2   ON  94  18.56  x     + 0   2
     3   ON  99   1.00  x     + 0   2
     4   ON  78   1.00  x     + 0   1
     5   ON  69   9.00  x     + 0   1
     6   ON  94  19.38  x     + 0   0
```

```
SCALING
            left      break   right
     mode  dep crv    point   crv dep
  1  NORM   0  /      C 1      \   1
  2  NORM   0  /      G 1      \  20
  3  NORM   0  /      A-1      \   6
  4  NORM   0  /      G 1      \   7
  5  NORM   0  /      G 2      \   4
  6  NORM   0  /      D#1      \   0
```

```
ENVELOPE
      R1 L1  R2 L2  R3 L3  R4 L4  RS
  1   94 99  25 82  36  0  44  0   0
  2   86 99  44 10  26 90  30  0   0
  3   84 99  26 94  10 86  41  0   0
  4   41 95  25 99  18 63  31  0   0
  5   85 99  49 86  22  0  29  0   0
  6    2 45  33 99  37  0  34 99   0
  P   99 50  99 50  99 50  99 50   0
      p range 8oct   p vel sens OFF
```

```
DANCER 4a

                   pitch range  2           portamento
                          step  0
key mode U POLY    mode NORM
unison detune 4                             mode RETAIN
                      fc1    cs1             step  0
random pitch 1          =                   time  0

           bc    at    mod   fc1   fc2      in
pitch mod   0     0     0     0     0     0
amp mod     0     0     0     0     0     0
eg bias     0     0     0     0     0     0
pitch bias + 0   + 0  volume 0     0     0
```

David Bryan

An Interview With Bon Jovi's Talented Keyboardist. By Tom & Sibyl Darter.

DAVID BRYAN IS THE KEYBOARDIST for one of today's most popular rock bands—Bon Jovi. While David enjoys the "good life and fun" (translating, loosely, the band's name) of being a performer in a successful group, he also is proud of his training as a disciplined, educated musician. In an era where many musicians rely on the magic of MIDI to enhance their reputation, David stands firm as an advocate of traditional keyboard skills.

David has been very busy lately: The new Bon Jovi album, New Jersey, has just been released. In addition to preparing for a major world tour with the group, David found time to create an educational video for keyboardists (details below), and to play in an AIDS charity concert (Soundcheck '88) at the Universal Ampitheatre in Los Angeles. He also found time to share some moments with AfterTouch. David's incisive and enthusiastic thoughts on how the musician, MIDI, and the microchip interact in today's rock music make for great reading.

• • • •

Why don't you start by telling our readers a little of your history in music, and how you view your role as a keyboardist in Bon Jovi.

I'm a player/programmer. I mean, I'm a player first. That's my gig. I started piano at age seven. I took piano lessons from one guy for thirteen years. That was Mr. Hack (who was the head orchestra leader at NBC radio for sixteen years); he graduated from Juilliard and everything. I had to audition for this guy. He made it very clear that I was not there to play little songs. The message was, "If you don't practice and don't do good, get out of my face." He didn't want to waste his time or my time. That's the way I looked at it, and that is still how I approach my craft.

You have to practice. I still do Hanon every day. Still do. It just gets your fingers moving. And you know, on the back page it says that an hour is required for the whole book? I got it down to 37 minutes. I have it memorized, so I don't get slowed down by turning pages. I'm jammin'!

I use a DX7 II in my hotel room when I'm travelling. Some players are concerned about the touch response difference between a synthesizer and a piano. I used to feel that way, you know; but now, I think that to do Hanon on a different keyboard makes you stronger. On piano, I don't really like a light touch; I have a German Steinway at home. But I think it does make you stronger to be able to play Hanon on different kinds of keyboards.

When I was thirteen, I started off with my first band, Transition, with my friend Steve (we still hang out together). I had a Farfisa Deluxe Combo, with two Ampeg B-15s, and a Univox Piano/Honky-Tonk/Harpsichord unit.

To finish up the history, Jon and I have been together since we were sixteen. And then, the current band as we know it (and as you know it) got together in 1983. We were together for about six months before the first record came out. The latest record, New Jersey, just shipped out last Sunday (September 18th). I did some really neat stuff on the album this year.

Give us some examples.

I did a little traditional stuff. I used a Hammond organ, and found Jon Lord's guy to doctor it up and juice it up from hell, and I got it going through a Marshall stack and Leslies. I just used older keyboards. You know, sometimes technology (for me) is taking two steps back. I used a Wurlitzer, with the vibrato thing on; and then I put it through two SPX90s with different delays on it, and it sounded new. And then everybody says, "Wow, is that a D-50? Is that a DX7?" And I say, "No, it's the real thing."

Are you taking that gear on the road?

No, I am not going to travel with those things. On the road, they're not dependable at all. That's where sampling comes in. We'll sample the sounds they make, and bring them on the tour that way. The live world and the studio world are two different worlds. The studio world is a controlled atmosphere. Live is a non-controlled atmosphere.

What is your onstage setup like?

I do most of my playing on the KX88. I really like the KX88 because I'm a piano player; it works well for me as a master keyboard. On-

stage, I have two setups that are like mirror images of each other. On one side, I have a CP80, and then a KX88 with a DX7 II on top. On the other side, I have a Hammond C3, and then another KX88 with a DX7 II on top. And it all goes through MIDI patchers, so anything can control anything.

Backstage, I have a lot of units, connected with MIDI: two TX816 racks, two TX802s, a whole bunch of Yamaha TX16W samplers...

A whole bunch?

A whole bunch.

Four? Eight? Twenty?

A lot. I must have at least ten.

Anything else?

I use two Roland D-50s, a Casio sampler, and a Memorymoog (which is like a staple of my sound—I love Memorymoogs). And then a couple of different piano samplers.

Do you have any special uses for the DX7 IIs?

Even though I like to use the KX88s for most of my playing, it is useful to have the DX7 IIs on top. If there are a couple of different parts in a song, it's just easier to reach my hand up four inches; it also gives me more ways to step through programs.

On the DX7 IIs, I use mostly the Performance mode. After all, you get two DX7s in Performance mode. I may even start using the Panning effects, because now I'm going stereo live. I've entered the stereo realm, which is nice, because you can spread things out; for piano it's nice just to spread things out.

Have you ever thought about using a strap-on keyboard, or do you like the feeling of having the instrument sitting in front of you?

I like it in front of me. I'm a traditionalist. Let guitar players be guitar players, and keyboardists be keyboardists. I guess it's all right, but to try and emulate another instrument—why are you doing it?

I'm not putting anybody down. God Bless anybody who does anything they have in mind; I'm not the smartest kid on the block. I'm just saying that, for me, it's not right. I never could pick up the damn piano, you know!

Did it take you very long to get used to playing standing up after all the years of sitting at the piano?

Yeah, actually it did, but I've had everything moved up to the right level. The CP80 stand I have is not the one that came with it. I had it raised up. Last year on our tour, we did a song where I would just sit down and play a little bit of blues piano: Just put my butt down so I could control the pedal a little bit better. When you're standing, you've got to rest on your left leg to get some sustain happening.

Have there ever been times when nothing seemed
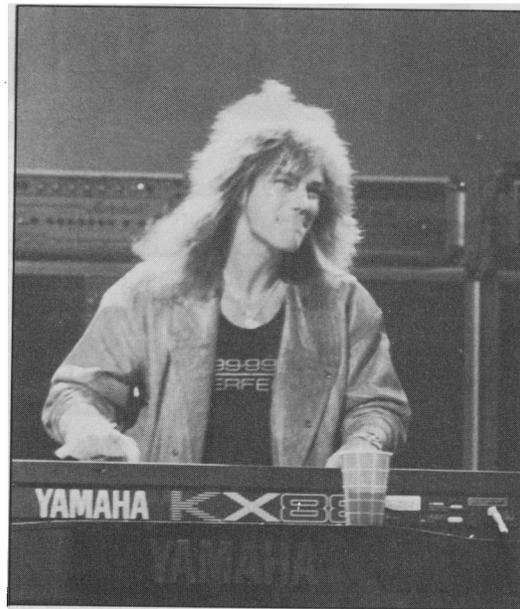
David Bryan playing in the Soundcheck '88 jam session. (Photo by Greg Allen.)

to go right with your setup on stage, and you still had to get through the gig?

No, everything goes perfect all the time! (*Laughs.*) I mean, of course things go wrong. But to me, that's the sport of it. To go out there and do 260 dates, there's a consistency level. It's like being a professional athlete. You're going to come out some days and have a bad day, but some of those bad days are when you pull it together and come out with your best game.

It's always the unknown. There are no givens here. If you have a past track record, it proves something. It proves a lot, but when you walk out on stage to play again, you can't rest on that. You'd better do your shit. That's where the piano technique and the practicing comes into play.

In my new video, "How To Play Keyboards in a Rock and Roll Band" (from Hot Licks Video), I deliberately start with piano technique, all those Hanon and Czerny exercises, just to get your fingers moving.

What are some of the subjects you cover after that?

I move on to how to build sounds, by just MIDIing keyboards together. The idea is to get close to what you want, and then stack different sounds together. If you want a bell/string sound, you just take two synthesizers—one has bells, and the other has strings—and with MIDI, you've got it.

And then I talk about how to blend keyboards and guitar, which has always been a tough thing. I finally came up with a formula that works (at least, with Richie and I it works): If you are comping, then the other one is doing a melody; and if the other one is comping, then

David Bryan

you're doing a melody. You can also both do melodies, and have counterpoint that way.

In other words, you don't both comp at the same time?

Sometimes, but then what you have to do is break up the rhythms. So, if we're both comping, when he's up, I'm down. And of course, sometimes we play unisons.

At the end of the Soundcheck concert, there were about six guitar players, there were two drummers, and then there was you. Was that fun, or did you feel like you were in Guitar Jam Hell?

No. Every opportunity I get to play, I have fun. I'm not worried about anybody else. I'm worried about getting out there and having fun, and making music. I mean, that's what music is all about. It's supposed to be a positive thing.

I'm not up there worrying about whether the audience can hear me. I'm up there having fun. I'm hearing myself. As long as you're there and you're connecting with people, it's a nice thing. That's what music's about. It's not about things like, "Whoa, can I stand up on a higher platform?"

Do you think a lot of people get involved with that kind of thought?

Yeah. People do. But I think the people that last are the people that don't.

Let's talk about MIDI. A lot of our readers are still struggling with it. When you first started to get involved with MIDI instruments, did it come easy to you right away, or did you have some difficulty with it?

Everybody has had some difficulty, but when I was in school I took a little bit of electronics. It's just a matter of following a flow chart, really. If you think about MIDI, it's just "What controls what." If you look at it that way, then it becomes easier.

People hear that MIDI can do so many different things, so instead of looking at what they might want it to do, they try to take it all in at once, and it's just a big jumble.

Yeah, that's true. First of all, you have to ask, "Why do I want these two things hooked up together?" Simple: One controls the other one. Then you have the various parameters, so you have to ask, "What things do I want to control?" Then you consider all of the pitch wheels, all of the modulation wheels. Do you want the unit to follow Program Changes from the one in control? From there, you work on

controlling volume through MIDI, and whatever else you want to do. MIDI makes things easier, really.

It's really not that hard. Especially with the MIDI mergers and the MIDI patch bays that are out now. Now, you just hook everything together, and you number them. 1 controls 5, 6, and 7; 2 controls 8. If you just look at it like the old flow charts, it really makes it easy.

But the flow charts now are for instruments, instead of synthesizer modules.

Right, which is basically the same kind of thing. You have a keyboard, and you have a brain (the part that makes the sound). Like a computer: you have the actual keyboard, and then the brain. With MIDI, it all depends on what keyboard you want to control what brain. If you thnk about it like that, it's a lot easier.

What advice do you have for young keyboardists out there who are trying to get started in rock music?

One thing that I see more and more with keyboardists is that there are fewer *players*. It's almost like everybody is just a programmer. Someone's got to *play* what somebody programs. I guess the advice is–traditionalism. You've still got to get up there on stage and be responsible for yourself. And, when you get up there on stage, you have to *play*.

That's a good point. With sequencers and the like, there are so many electronic ways to simulate playing these days.

There's the word: simulate. You've got to *actually* play. That's it in a nutshell.

Do you have advice on how to strive for success?

I wish I could give everyone a success formula in a bottle, but every formula and every bottle is different. Shit, if I think back about how this (Bon Jovi) was supposed to happen, it sure didn't happen the way it was supposed to happen! And for any person who hasn't made it yet, they've got a long way to go; but if I can make it, anybody can.

You just keep going and going and going until you make it, and that's it. You've got to be headstrong, and work real hard, to try to keep getting better at your craft. That's the most important part. I look at Horowitz; he's 82, and he's just getting better. He's 82, and can blow me away, so I got a long way to go.

There are so many ingredients. I mean, besides being the keyboard player, you've got to

Breath Controller

WITH THE INTRODUCTION OF THE WX7 and similar wind controllers for MIDI synthesizers, a whole new realm of exciting possibilities has opened to wind players. The current excitement over these new instruments is certainly justifiable, but what does it mean for keyboard players?

It is ironic that one of the most revolutionary and expressive complements to the keyboard synthesizer ever introduced has been largely overlooked. I am referring to the Yamaha breath controller (BC 1 or BC2), which I have been using since the introduction of the DX7 with much delight.

Even after all this time, it seems that DX7 owners have yet to discover the musical capabilities of this device. I never cease to be amazed at the wonderment of keyboardists when I play my brass or sax patches using the breath controller. I've had knowledgeable players search my synth stack for a hidden sampler, or even make furtive offers backstage to buy that "killer horn patch." Imagine their surprise when I tell them I'm using stock programs from the factory ROMs!

There's really no great secret, of course. Using the breath controller allows one to articulate a horn patch like a real wind player; this can transform a limp, unconvincing brass or sax patch into an amazingly realistic simulation!

You don't have to be a horn player to use a breath controller effectively, but it does take a little practice. The Yamaha implementation allows a lot of flexibility in what you can modulate with the breath controller; for example, you can use it as a "third hand" to introduce vibrato, much like a conventional mod wheel. The real fun begins, though, when you use it to control the EG bias of the carriers and their modulators, so that there will be no sound when you hold down a key until you blow into the breath controller. The factory patch SAX BC is a wonderful example of this. With the breath controller set to modulate EG bias all the way, you must blow into the breath controller and play the keyboard to produce sounds. The tone will also become raspier, like a real sax, if you blow with more pressure.

It's difficult to achieve realistic articulation by just "blowing," and this is why one must learn to use the tongue to start, stop, and regulate the flow of air into the controller (which is why horn players call it "tonguing"). Usually, the best way to start the flow of air into the controller is to pronounce the letter "T" (or say "ta"). If you bite down on the end of the stem and secure it with your teeth, you will be less likely to spit it out accidentally while you are playing. A good beginning exercise is to play whole note scales slowly, and practice coordinating your breath attack with your fingering; gradually, increase the frequency to half notes, quarter notes, and so on. For a less percussive, legato-like attack, try pronouncing the letter "D" (or saying "da").

Two different tonguing attacks can be combined in a technique called "double tonguing." Double tonguing is useful for rapid, punctuated attacks, and can enable techniques that are quite difficult to achieve using the keyboard alone. Begin with a standard "ta" attack; after the "ta" attack is complete, move the back of the tongue against the upper palate to form a "K" (or "ka") sound. The combination , "ta-ka-ta-ka," is quite natural and easy to perform, and it makes very rapid multiple attacks possible.

Double tonguing can be practiced like single tonguing, but great care must be taken to achieve consistency between the two attacks. A good preliminary exercise involves playing slow scales (as in the above drill) using only the "ka" attack, as it tends to be the less distinct member of the "ta-ka" pair. For legato double tonguing, combine the legato "D" (or "da") with a "G" (or "ga") sound, to create a "da-ga" pair.

Using tonguing in a musical way to articulate a passage can be vastly more expressive than simply blowing steadily while playing the keyboard, but even this is sometimes useful to achieve a slurred or legato effect between notes. Familiarize yourself with different techniques, because they are usually most effective when used in varying combinations.

An often overlooked nuance is the tongue cutoff. When playing short percussive passages,

A Primer For Keyboardists: How To Use The Yamaha Breath Controller. By Denver Smith.

Hot Tips

Reader Tips For The DX7 II FD, SPX90, And More.

SPX90 digital multi-effects processor.

Getting Two Effects At Once From One SPX90

By Matthew Gurman

Yes, it can be done. The key to this useful built-in bonus is in the pitch change function.

By far, the two most useful effects around are chorus and delay; when used together they can give you a polished and "produced" sound. The best sounding chorus is a harmonizer chorus, as it does not have a sweep time, and has a very focused sound. It just so happens that the trusty old SPX90 has adjustable delay settings on all the pitch change (harmonizer) presets.

This means that if you "detune" two pitches and set them +8 left and −8 right (which is the basic formula for pitch change chorusing), you can still add the delay information. Because the pitch is only being affected by microtones, the delay you add will still sound on pitch. Stereo delay is possible by setting two different delay times for left and right channels, and you get a stereo chorus effect at the same time!

This is a huge sound that would normally take at least two effects processors to achieve. The effect can also be used to mono, and these is also the option of multiple repeats (echo). The higher you set the balance level, the deeper both effects will be. Setting the balance too high can detune the delay.

Here are three setups that utilize this two-effects-in-one approach. In each case, I have described the effect, followed by the preset number from which it was constructed, and finally the relevant parameter and front panel values.

Stereo Chorus & Delay (from preset #23)
L Pitch: 0
L Fine: +8
L Delay: 60.0 ms
R Pitch: 0
R Fine: −8
R Delay: 180.0 ms
Base Key: C3
Balance: 30%
Output Level: 100%

Mono Chorus & Echo (from preset #21)
Pitch: 0
Fine: +8
Delay: 265.0 ms
F.B. Gain: 10%
Base Key: C3
Balance: 30%
Output Level: 100%

Chorus & Delay (from preset #22)
1 Pitch: 0
1 Fine: +8
1 Delay: 60.0 ms
2 Pitch: 0
2 Fine: −8
2 Delay: 200.0 ms
Base Key: C3
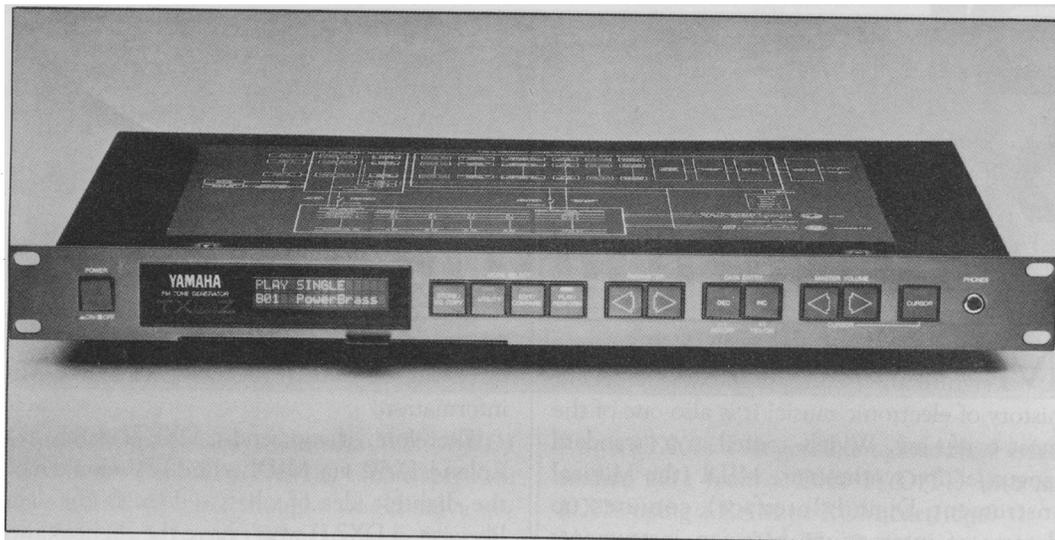Balance: 30%
Output Level: 100%

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Turn DX7 II Portamento On Without Using The Footswitch Pedal

By Alan Handley

I developed a lead-synth patch on my DX7 II FD that needs portamento to be on constantly (the sound is similar to that of the solo sound in "Lucky Man" by Emerson, Lake & Palmer). Problem: After setting the portamento time in the patch, it seems that you still have to use a
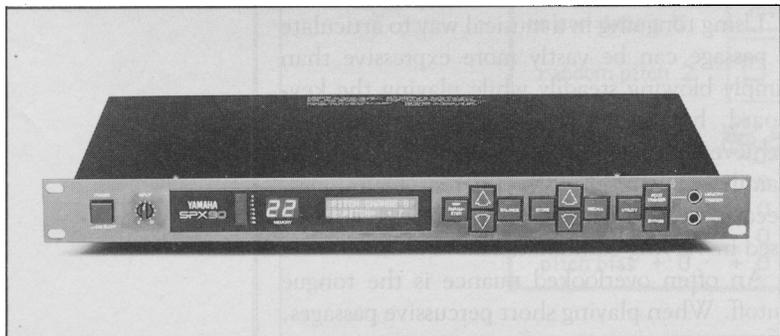
TX81Z FM *digital tone generator.*

pedal plugged into the Footswitch 2 jack to turn the portamento on (or plug in a dummy ¼" plug *after* switching to the desired patch). Since I use a strap-on keyboard controller and am physically away from my DX7 II, these options are not practical. I could assign one of the buttons on my keyboard controller to act like the footswitch via MIDI, but they are already being used for other things. I needed to switch to the patch via a MIDI Program Change command and have the portamento already on with the patch.

To solve the problem, you have to use a Performance memory. Enter Edit mode and press the FS/CS cutton (#27) until you reach the "Foot switch (64-67)" display. Now, the other available selections (of Sustain, Key Hold, and Soft) function as you would expect: "On" means that the effect does not function. Since Portamento is also in this group, you would expect it to function in the same way, right? Wrong! With Portamento, "On" means that the programmed Portamento effect operates only when the pedal is engaged, while "Off" means that the programmed Portamento effect operates constantly—no pedal required. So, to have constant Portamento, store your Performance memory with Portamento "Off" and you will have constant Portamento as soon as you switch to that sound.

One other note: Only one choice (Sustain, Portamento, Key Hold, or Soft) can be made for Footswitch 2, so the other (unchosen) possibilities are "Off" for that Performance. Therefore, choosing one of the other possibilities (Sustain, Key Hold, or Soft) will have the same effect on Portamento as choosing Portamento and turning it "Off" for the patch.

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Using The Note Assign Feature With A DX11 and A TX81Z

By Stephen C. Ogden

The Note Assign feature on the TX81Z provides a very effective way to use two units together and double the number of notes you have available. Using Note Assign, you can set one TX81Z to respond only to odd MIDI Note Numbers, and set the second TX81Z to respond only to even MIDI Note Numbers; then, both units can be set to the same patch, and will give you 16 notes of polyphony when responding to messages from the same MIDI channel.

I bought a DX11 to go with my TX81Z, and was very disappointed, initially, to find that the DX11 would not respond to Note Assign when playing internally. It only responds to its Note Assign setting when dealing with incoming MIDI note messages.

However, it is possible to take advantage of this function, using the DX11 as the controller in conjunction with one TX81Z, simply by adding a couple of MIDI cables.

First, set the DX11 and TX81Z up identically, including voice, performance, and setup data. Then, set one unit's Note Assign to "even" and set the other to "Odd." Finally, turn Local control "Off" on the DX11. Now attach MIDI cords connecting the MIDI OUT of the DX11 to the MIDI IN of the TX81Z, and connecting the MIDI THRU on the TX81Z to the MIDI IN of the DX11. You now have access to 16 notes of polyphony. Remember, though, that the DX11 is now responding to its own MIDI messages, so care must be taken to edit the Program Change Table accordingly.

MIDI Mixup

What Synthesizers Do Not Say To Each Other Via MIDI. By Tom Darter.

MIDI IS UNDOUBTEDLY the most significant development in the recent history of electronic music; it is also one of the most confusing. Widely touted as a "standard language" for synthesizers, MIDI (the Musical Instrument Digital Interface) conjures up dreams of interactions between instruments that are simply impossible. Even though MIDI allows all MIDI-equipped instruments to communicate with each other on some level, it does not change the fundamental characteristics of any of these instruments.

MIDI allows various electronic musical instruments to communicate on the level of what notes to play, and also allows them to share various kinds of information that transmits musical nuance (through Velocity data, Controller data, and the like). However, MIDI cannot make an Oberheim Matrix-12 act like a Yamaha DX7 II—although both are synthesizers, they create their sounds in essentially different ways. MIDI cannot (and does not) bridge this gap.

Since synthesizers can imitate so many different kinds of instruments, this point may need a little more explanation. Let's look at a few concrete examples. Both the Oberheim Matrix-12 and the Yamaha DX7 II have ways of imitating (or emulating) the sound of a trumpet or a brass ensemble; however, the two instruments accomplish this task in completely different ways, and must be programmed in completely different ways: One of the most important elements of the Matrix-12 is its multi-mode filter; the DX7 II, on the other hand, doesn't even have a filter (it creates comparable timbral changes using digital Frequency Modulation—digital FM).

A very important part of the MIDI specification (the MIDI language, if you will) involves what is called "System Exclusive" messages. These are messages that can only be understood by instruments of a specific type—they are "exclusive" to that set of instruments. If you transmit voice data from a DX7 II, you are transmitting a System Exclusive message. Only products that belong to the exclusive club of 6-operator, FM digital Yamaha instruments will be able to "understand" and use the information.

Therefore, if you send a DX7 II patch to a Roland D-50 via MIDI, the D-50 won't have the slightest idea of what to do with the data; likewise, a DX7 II won't have the slightest idea of what to do with a D-50 patch sent to it via MIDI. Once again, the two synthesizers create their sounds in essentially different ways—and MIDI cannot change that fact.

Even synthesizers that create their sounds in similar ways cannot share voice data over MIDI. If you sent a DX100 patch to a DX7 II via MIDI, the DX7 II won't understand the data. Both instruments use FM technology to create their sounds; however, the DX7 II is a 6-operator digital instrument, while the DX100 is a 4-operator digital instrument (and the envelope generators of the two units operate in essentially different ways).

In order for two synthesizers to share voice data, they have to create sounds in essentially the same way. That is why an original DX7 can share voice data with a DX7 II, and vice versa: Both units share the same basic approach to synthesis. Notice, however, that the DX7 II has a number of new features, including Performance memories, Microtuning, and the like. It is possible to send a Performance memory from one DX7 II to another via MIDI, but it is not possible to send it to an original DX7. Since the original DX7 is not equipped with Performance memories, it won't know what to do with the data.

In other words, MIDI is an amazing breakthrough in the history of electronic musical instruments; however, it is *not* more than that. It is not, for instance, a cosmic translation scheme that allows all electronic instruments to speak the same language on every level.

Still, MIDI is a system that allows two completely different instruments to share the same basic musical information. And, as said above, that is an amazing breakthrough.

MIDI Matchup

OKAY SO MIDI (THE MUSICAL Instrument Digital Interface) can't do everything. Once that message gets across, it is much easier to understand how to take advantage of the many things that MIDI *can* do. (For a short explanation of some of the things that MIDI *can't* do, see the "MIDI Mixup" column on the facing page.)

As David Bryan points out in this month's artist interview, MIDI is basically a system that allows one electronic instrument to control another electronic instrument. Using MIDI, it is possible to play a group of notes on the keyboard of one synthesizer and have another synthesizer also play those notes (as if the keyboard of the first synthesizer was also the keyboard of the second).

Even though this is just the most basic level of communication offered by MIDI, it is still incredibly important. Using only this most basic level of MIDI communication, it is possible for an electronic musician to create massive layers of sound (in which a number of different electronic voices combine in a perfectly-timed performance) in real time, without resorting to the difficult and time-consuming process of overdubbing the same musical phrase over and over to create the desired (layered) timbre.

The most basic effects made available by "MIDI Magic" require very little extra equipment, and very little technical knowledge. In order to take advantage of the basic MIDI controller/slave options, all you need are two MIDI-equipped electronic musical instruments and one or two MIDI cables. No matter what two MIDI synthesizers you own, the following tips should help you start taking advantage of the many possibilities they offer.

Start by picking one of your instruments as the MIDI master (which means that the other will be the MIDI slave). Then, make the basic (but important) MIDI connection: Using a MIDI cable, connect the MIDI OUT of your designated master keyboard to the MIDI IN of your designated slave instrument.

In the early days of MIDI, the next step might have been difficult (because early MIDI instruments sometimes had very vague instructions regarding MIDI implementation); these days, however, there should be no problem. Using the MIDI instructions in the owners manual of your "master" instrument, set the unit to *transmit* on MIDI channel 1. Then, using the MIDI instructions in the owners manual of your "slave" instrument, set that unit to *receive* on MIDI channel 1.

Now, when you play on the keyboard of your "master" instrument, the "slave" instrument should respond by producing the same notes. In other words, you are "playing" two different synthesizers from one keyboard (the keyboard of the "master" unit).

To clarify this process, let's use a concrete example: Let's assume that you are connecting two DX7 II synthesizers via MIDI, and outline the specific steps needed (after the initial MIDI cable connection). Starting with the "master" DX7 II unit, follow these steps:

1) Press the Edit button; then, press the MIDI 1 button (#31) until the "Channel messages" display appears.
2) Using the cursor keys, select the "Trns ch" parameter.
3) Using the data entry keys, set the "Trans ch" value to MIDI channel 1.

Next, follow these steps on the DX7 II "slave" unit:

1) Press the Edit button; then, press the MIDI 1 button (#31) until the "Channel messages" display appears.
2) Using the cursor keys, select the "Rcv ch" parameter.
3) Using the data entry keys, set the "Rcv ch" value to MIDI channel 1.

At this point, you should be able to "play" both instruments from the keyboard of the master DX7 II.

Of course, it is also possible to use MIDI to communicate in a number of other ways. These possibilities will be the subjects of future "MIDI Matchup" columns.

Some Basic MIDI Connections To Consider And Use. By Tom Darter.

QX5FD

total length (time) of a Track or Macro. It is possible to change the length of a Track or Macro from 50%-200%, in increments of 0.1%.

When you Record, Measure Edit, or Track Edit, the original data is saved in a Recall buffer. If you decide that your recording or editing was a mistake, you can use Recall (Job 12) to call back your original data.

In addition to these new Jobs, the Copy command (Job 2) also has a new feature. Using the Copy Notes feature, you can copy the note data of the source Track to the rhythms and velocity that already exist in the destination Track. One possible application of this feature would be to copy the notes from an accurate but unexpressive Track to an enthusiastically played but inaccurate Track.

Measure Edit

Measure Edit lets you edit specific regions within a Track. The Track Edit section of the QX5FD includes 11 Jobs, as follows:

1) Copy
2) Delete
3) Remove
4) Shift
5) Quantize
6) Transpose
7) Velocity
8) Gate Time
9) Crescendo
10) Create
11) Reverse

The first ten Jobs in the QX5FD's Track Edit mode are almost identical to those of the QX5. With Copy (Job 1), you can choose any measure or measures to be copied onto the end of the Track. So, if you want a four bar phrase to repeat eight times, you can record the first four bars and then use Copy to build up the Track. Delete (Job 2) takes selected measures out of the Track and moves all subsequent measures up to fill the gap.

Remove (Job 3) lets you specify just about any kind of MIDI data and take it out of selected measures. You can even remove all data if you like and, unlike Delete, the blank measures will remain. Along these same lines, Create (Job 10) inserts empty mesures of any time signature wherever you want in the Track.

Most of the remaining jobs in Measure Edit are for altering the recorded data: Shift (Job 4) lets you change all data of a specific type in specified measures. You can use Quantize (Job 5) to clean up any timing errors in a measure or group of measures. Transpose (Job 6) lets you change all MIDI note numbers in a Track up or down. Velocity (Job 7) lets you increase or decrease all velocity values. With Gate Time (Job 8), you can increase or decrease all note durations.

Crescendo (Job 9) is a very useful feature: It allows you to gradually change Note On velocities, either positive or negative, over a specified number of measures. "Repeat and fade" effects and panning effects between two MIDI sound generators can be created with Crescendo.

All of the above Jobs are common to both the original QX5 and the new QX5FD. The QX5FD also features a new Measure Edit Job command: Reverse (Job 11). This command allows you to invert data values within specified measures of Track 1. Using this command, it is possible to invert Note data, Velocity data, Aftertouch data, Pitch Bend data, and Control Change data.

In addition to this new Job, the Quantize command (Job 5) also has a new feature. Quantize Duration lets you control note durations in a very specific way. Normally, quantization keeps the duration of the original note, and simply moves the beginning and the end of the note the same distance. With this new feature, it is possible to quantize the duration of all notes, so that they will all be multiples of the same specified timing.

Event Edit

The Event Edit mode makes it possible to edit virtually any part of your performance. In this mode, you can individually edit notes, Aftertouch, Pitch Bend, Control change, Mode change, Program change, System Exclusive (this one can be fun), Macro calls, and Tempo changes, as well as move Measure marks.

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The QX5FD comes with an extensive owners manual that includes a comprehensive tutorial section. For more information, contact your local authorized Yamaha Digital Musical Instruments dealer.

Yamaha Survey

BOTH YAMAHA AND AFTERTOUCH put a very high priority on customer satisfaction. We are constantly striving to do a better job of meeting your musical needs. To help us continue to achieve this goal, we need to know more about you. Please help by taking a few moments to fill out the following questionnaire. When you have finished filling it out, simply pull it from the magazine, fold it together in thirds, tape it closed, and drop it in the mail. Be sure our address shows on the outside.

Everyone returning a *completed* questionnaire postmarked no later than **November 23rd** will be eligible for the AfterTouch Third Anniversary Prize—a DX11 multi-timbral FM digital synthesizer. The winner will be chosen by random drawing from all eligible entries. (Please, only one questionnaire per person—no facsimiles will be accepted). The Anniversary Prize winner will be announced in the January 1989 issue of AfterTouch.

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While we invite surveys from all AfterTouch readers, employees of Yamaha Music Corporation USA and its subsidiaries are not eligible for the AfterTouch Third Anniversary Prize drawing.

The AfterTouch Prize drawing is open to residents of the United States. Void where prohibited, restricted by law, license required, or subject to tax (other than tax on the prize awarded). All federal, state, and local taxes are the sole responsibility of the winner.

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1. Age:
   ☐ under 18 ☐ 35-44
   ☐ 18-24 ☐ 45-55
   ☐ 25-34 ☐ over 55
2. Sex:
   ☐ male
   ☐ female
3. City geographically closest to you:
   ☐ New York ☐ Miami
   ☐ Philadelphia ☐ San Francisco
   ☐ Atlanta ☐ Los Angeles
   ☐ Chicago ☐ Seattle
   ☐ Houston
4. Occupation (check one):
   ☐ Professional musician ☐ Educator
   ☐ Technician/Engineer ☐ Student
   ☐ Office/Sales worker ☐ Industrial worker
   ☐ Government employee ☐ Other _____
   ☐ Military (please specify)
5. Income (in 1987):
   ☐ under $15,000 ☐ 40,000-59,999
   ☐ $15,000-24,999 ☐ 60,000-74,999
   ☐ 25,000-39,999 ☐ 75,000 or more
6. Education:
   ☐ attended high school ☐ advanced degree
   ☐ high school diploma ☐ Other _____
   ☐ attended college (please specify)
   ☐ college degree
7. Music education:
   ☐ 1-2 years ☐ 6-10 years
   ☐ 3-5 years ☐ more than 10 years
8. Describe your electronic music background/education.

   _____

   _____

   _____

9. What types of music do you play most often (check all that apply)?
   ☐ Rock ☐ Blues/Soul
   ☐ Jazz ☐ New Wave
   ☐ Pop ☐ Other _____
   ☐ Classical (please specify)
   ☐ Country
10. What kinds of instruments do you own (check all that apply)?
    ☐ Synthesizer ☐ Bass Guitar
    ☐ Tone Generator ☐ Acoustic Drums/Percussion
    ☐ Sampler ☐ Acoustic Strings
    ☐ Electronic/Electric Piano ☐ Woodwind
    ☐ Acoustic Piano ☐ Brass
    ☐ MIDI Controller ☐ Other _____
    ☐ Drum Machine (please specify)
    ☐ Guitar
11. What kinds of accessories/effects do you own (check all that apply)?
    ☐ Mixer ☐ Harmonizer unit
    ☐ Sound/PA system ☐ MIDI multiple-effects device
    ☐ Instrument stand ☐ MIDI processor
    ☐ Reverb unit ☐ MIDI junction box
    ☐ Digital Delay unit ☐ Other _____
    ☐ Chorus unit (please specify)
    ☐ Phase/Flange unit
12. What is your primary use of this equipment?
    ☐ personal enjoyment only ☐ semi-professional musician
    ☐ mostly personal; some ☐ professional musician
    performance
13. Approximately how much did you spend in the last twelve months on musical instruments and equipment (check one)?
    ☐ Less than $1000 ☐ $5,000-$9,999
    ☐ $1,000-$2,999 ☐ $10,000-$19,999
    ☐ $3,000-$4,999 ☐ $20,000 or more
14. What kinds of music software do you own (check all that apply)?
    ☐ Patch Editor/Librarian ☐ Synchronization
    ☐ Sample Editor ☐ MIDI Monitor
    ☐ Sequencer ☐ Other _____
    ☐ Notation (please specify)
15. How much did you spend on software in the last twelve months?
    ☐ less than $50 ☐ $300-$500
    ☐ $50-$99 ☐ more than $500
    ☐ $100-$299
16. Of the following items, how important is each to you when buying a musical instrument?

	Very Important	Somewhat Important	Not at all Important
Price/Deal offered	☐	☐	☐
Manufacturer quality	☐	☐	☐
Sound quality	☐	☐	☐
Product availability	☐	☐	☐
Manufacturer warranty	☐	☐	☐
Service/Repair	☐	☐	☐
Brand name/reputation	☐	☐	☐
Product features	☐	☐	☐
Manufacturer support	☐	☐	☐
Product versatility	☐	☐	☐
Artist endorsement/usage	☐	☐	☐
East of use/versatility	☐	☐	☐
Other _____	☐	☐	☐
(please specify)			

17. Where do you get information on instruments you are thinking about purchasing (check all that apply)?
    ☐ Artist endorsement/usage ☐ Retail salespeople
    ☐ Dealer newsletters ☐ TV/Radio
    ☐ Magazine ads ☐ Music teacher
    ☐ Magazine articles/reviews ☐ Other _____
    ☐ Newspapers (please specify)
    ☐ Other musicians
18. Circle the most important source in the above list.

Continued

19. What music magazines do you read?

	monthly	6 times/yr.	once a year
Circus	☐	☐	☐
Electronic Musician	☐	☐	☐
Guitar Player	☐	☐	☐
Keyboard	☐	☐	☐
Keyboard World	☐	☐	☐
Modern Keyboard	☐	☐	☐
Music, Computers, Software	☐	☐	☐
Music Technology	☐	☐	☐
Musician	☐	☐	☐
Rolling Stone	☐	☐	☐
Spin	☐	☐	☐
Other _____	☐	☐	☐

(please specify)

20. Circle the magazine in the above list that is the most important to you.

21. What is most important to you in a music magazine?
   ☐ how-to columns   ☐ artist interviews
   ☐ advertisements   ☐ educational articles

22. Where did you get this issue of AfterTouch?
   ☐ I am a subscriber   ☐ Other _____
   ☐ I got it from a friend   (please specify)
   ☐ I got it at a music store

23. What do you do with your copy of AfterTouch when you are finished reading it?
   ☐ save for reference   ☐ Other _____
   ☐ give it to a friend   (please specify)

24. What features do you enjoy most in AfterTouch?
   ☐ new product articles   ☐ Questions column
   ☐ informational articles   ☐ Other _____
   ☐ patches   (please specify)
   ☐ Hot Tips column

25. What can AfterTouch do to help fulfill your music needs?

_____

_____

_____

_____

To be eligible for the AfterTouch 3rd Anniversary prize, please tell us:

_____
NAME

_____
ADDRESS

_____
CITY   STATE   ZIP CODE

LET US HERE FROM YOU! We want AfterTouch to be an information network for *all* users of Yamaha professional musical products, so please join in. We're looking for many different kinds of material.

Have you created an incredible patch or performance for the DX7 II, the TX81Z, or any of the other members of the Yamaha family of FM digital synthesizers and tone generators? How about a patch for the SPX90 II multi-effects processor, or a great voice edit or pattern for the RX5? If so, send them in. If we use your material, we'll give you full credit plus $25.00 for each item used.

Have you discovered a trick that increases the musical flexibility of one of the Yamaha professional musical products? Send it in to our "Hot Tips" column. If we use your tip, you'll receive full credit plus a check for $25.00.

Have you developed a new approach to one of the Yamaha professional musical products, or have you discovered an important secret regarding their use? Put it on paper and send it to us. Don't worry about your writing style—just get the information down. If we decide to use your material as a full article in AfterTouch, we'll write it up, put your name on it, and send you a check for $100.00 (An AfterTouch article always covers at least one magazine page—which translates to at least four double-spaced pages of typescript.)

By the way, we cannot assume liability for the safe return of unused ideas, patches, or manuscripts. We will only be able to return unused material if you enclose a self-addressed, stamped envelope with your submission.

And, if you just have a question regarding the use of Yamaha professional musical products, send it along too. We'll do our best to answer it in the pages of AfterTouch. (We regret that we won't be able to answer questions through the mail, but we will use all of your questions to guide us in your choice of future topics.)

Receive AfterTouch *Free* Every Month!

YOU CAN RECEIVE AFTERTOUCH for an entire year, absolutely free, just by asking. If you are not already on our mailing LIST and would like to be, fill out the attached postcard (between pages 2 & 3). Be sure to sign the card (a postal regulation); it lets us know that you really want to receive AfterTouch.

After you have filled in the relevant information, put a stamp on the postcard and mail it to us. When we receive the card, we'll put you on our permanent mailing list, and you will receive twelve issues of AfterTouch absolutely free! There is absolutely no obligation, and no other strings are attached.

(By the way, if you received *this* issue in the mail, you are already on our permanent mailing list, so you don't need to send in another card.)

BC

Continued from page 13

it is frequently desirable to cut a note short—sometimes forcefully and abruptly. This is accomplished by raising the tip of the tongue back to the upper front palate to cut off the flow of air right after the initial attack, as if saying "tut" or "tot." This dynamic control over the decay and sustain of a note is one of the characteristics unique to wind instruments, one that the breath controller allows keyboardists to enjoy.

Understanding the importance of exercising maximum control over the airstream, we can take another important clue from brass players. Do not puff out the cheeks when blowing into the breath controller, and try to push the air out from the diaphragm. The idea is to create a steady, consistent flow of air controlled by diaphragmatic pressure. When the cheeks are puffed out, the airstream must take a little

"detour" to fill the mouth cavity, until enough pressure builds for it to continue into the breath controller. This can actually slow response time enough to cause significant sluggishness. Try to avoid the habit, because it is a very hard one to break.

Hopefully, these tips will encourage you to experiment on your own. The keyboardist who has never played a wind instrument can, by becoming familiar with the use of the breath controller, acquire a perspective on musicality, articulation, and phrasing on the synthesizer that is simply not possible using a keyboard alone.

Come on, keyboard players! It's time to use that mysterious little plug next to the headphone jack. Try using a breath controller and breathe a little life into your music!

TIME DOES FLY! THIS IS AFTERTOUCH MAGAZINE'S THIRD ANNIVER-
sary issue. For three years, we have covered a wide range of topics concerning
Yamaha's growing family of Digital Musical Instruments. Readers have bombarded us with
techno/musical expressions in the form of patches, voice edits, hot tips, articles, ques-
tions, and comments.

We have heard from a wide range of DMI users: from the organist at a large Southern
church to the keyboardist in a Las Vegas trio, from "techno-busters" to "synth-destruc-
tors." We have always taken your many suggestions and requests to heart in our choice of
material for the magazine. We have come to think of our readers as eager, searching music
makers, and we want to facilitate your musical inventions when using Yamaha's fine Digi-
tal Musical Instruments.

Now, to celebrate AfterTouch's third anniversary, we are revising many aspects of the
magazine's content, based on the focus of your requests and suggestions. In addition, we
have designed a new look for AfterTouch, a look that is aimed at making the sometimes
complex material even easier to read and easier to comprehend.

So, what is new? First of all, there are additions to the regular column section. Since it
has become obvious that MIDI is both the most important and the most confusing
milestone in the recent history of electronic music, we have decided to add two regular
columns on the subject: "MIDI Matchup" will describe various ways to use MIDI to best
musical advantage, while "MIDI Mixup" wil explore and explain the various confusions
that MIDI has created in the world of music.

In addition, we plan to reconnect with those artists who make the most important
difference by teaching us how to turn a piece of electronic gear into a musical instrument.
While AfterTouch did feature artists in its early issues, there has been no consistent mate-
rial from performing artists. Beginning with this issue, we plan to inverview an important
electronic musical artist each month. Each interview will focus on musical matters, and
will offer concrete suggestions that will help you get more music out of your Yamaha
instruments.

Finally, starting with the next issue (November 1988), we will offer an informational,
users-group-oriented column devoted to the Yamaha C1 music computer.

Once again, welcome to our third anniversary issue. Keep in touch; after all, it is you
(the readers) who dictate the contents of AfterTouch. Thanks for your involvement and
support.

−Tom & Sibyl Darter

David Bryan

have the band. That's the strong thing for us.
There's a lot of session guys out there, but I'm
happy being with my friends, playing in a band.
And we all made it together: We all starved
together, and now we have fun together.

Any final thoughts?

The information age puts it all right at your
fingertips, but it can be so confusing. It would
be nice if more things were user-friendly. Right
now, there should be a black list for all of the
un-user-friendly instruments out.

If it's computer language, that's great for
computer people, but for musicians it's got to be

back to playing. If there's one thing I want to
stress, it's that. I mean, I don't care if you can
make the best bell sound in the world, if you
can't sit there and play a little bit of Beethoven
and Chopin, or at least Chopsticks, you're not
happening. Get out and broaden your horizons,
enlarge your spectrum.

That's it. Traditionalism is my key. It's
worked for me, and it can't hurt you. Know all
the facets. Come into rock and roll with jazz
and classical and blues influences: It just makes
for a better sandwich.