Standard Universal Identity Request

non-realtime

port (7f=any)

identity request

send: f0 7e 7f 06 01 f7

Reply from “MIDIIN2 (Fishman Triple Play)” port (two replies)

recv: F0 7E 00 06 02 00 01 6E 00 01 00 02 01 55 01 00 F7

recv: F0 7E 10 06 02 00 01 6E 00 01 00 01 02 21 01 00 F7

identity reply packet

sysex channel returned 0, or 10

Mfr ID

Family code

Model Number

Version Number

Note two different sysex “channels” and version numbers.

When sent to “Fishman TriplayPlay” only the second one is returned.

MIDIIN2, send a patch header, patch number?

got a sysex reply that looks kind of

like a universal message, ack?

send: f0 00 01 6e 01 41 02 7f 00 18 1f 06 06 00 6e 20

02 00 00 00 00 00 18 00 14 0a 00 00 00 00 00 18

00 13 0a 00 00 00 00 00 18 00 14 0a 00 00 00 00

00 18 00 14 0a 00 00 00 00 00 18 00 14 0a 00 00

00 01 02 03 04 05 06 07 08 09 0a 0b 0c 0d 0e 0f

10 11 12 13 14 15 16 17 18 19 1a 1b 1c 1d 1e 1f

20 21 22 23 24 25 26 27 28 29 2a 2b 2c 2d 2e 2f

30 31 32 33 34 35 36 37 38 39 3a 3b 3c 3d 3e 3f

50 72 6f 67 72 61 6d 20 00 00 00 1b 68 f7

recv: F0 00 01 6E 01 12 F7

MIDIIN, send the other patch header, get same identity reply

send: f0 00 01 6e 01 41 03 7f 50 6f 6c 79 20 50 72 6f

67 72 61 6d 20 32 00 00 00 00 00 00 00 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 14 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 14

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

00 00 00 0c 2f f7

recv: F0 00 01 6E 01 12 F7

Given that a patch number follows the “function” byte of 21 in

all patch dumps I’ve seen, it looks like the the 12 is somehow

related. Here’s the two headers of the Poly Program #2 (patch #1)

that I’ve seen.

**F0 00 01 6E 01 21 00 01**

**F0 00 01 6E 01 21 02 01**

So, maybe these are the “function” bytes

41 = patch dump to controller

12 = ack from controller

21 = patch request reply from controller

22 =? Error from controller ?

F0 00 01 6E 01 22 00 01 04 42 41 3F 08 08 02 00 01 00

20 00 08 08 06 04 01 02 20 03 49 F7

So, let’s try various request numbers, with a patch number of 00 01

F0 00 01 6E 01 xx 00 01 f7

**IT FUCKING WORKED.**

This is a patch request for the main part of Hardware Poly Program #2,

which is patch #1, in bank #2:

**F0 00 01 6E 01 01 02 01 f7**

**F0 00 01 6E 01 01 00 01 f7**

Which returns this:

F0 00 01 6E 01 21 00 01 00 18 1F 06 06 00 6E 20 02 00

00 00 00 00 18 00 14 0A 00 00 00 00 00 18 00 14 0A 00

00 00 00 00 18 00 14 0A 00 00 00 00 00 18 00 14 0A 00

00 00 00 00 18 00 14 0A 00 00 00 01 02 03 04 05 06 07

08 09 0A 0B 0C 0D 0E 0F 10 11 12 13 14 15 16 17 18 19

1A 1B 1C 1D 1E 1F 20 21 22 23 24 25 26 27 28 29 2A 2B

2C 2D 2E 2F 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D

3E 3F 50 72 6F 67 72 61 6D 20 00 00 00 1A 4B F7

Now I just have to see if I can really write a patch, with a change.

I change the function 0x21 to “write patch” 0x41, and note that the

Checksum must change by 0x20 (32 decimal) (more research).

I will also verify that the patch matches the above in my existing

program / patch dump from the FTP program before trying to send the

Message. I will change a specific parameter, the value of the

dynamics offset for split #1 from it’s default value of 0x0a (middle, 10)

to 0x02 very close to the bottom, for a corresponding change to the

Checksum of -8 … so I think I add 24 decimal to the checksum of 1A 4B

== 1A 63

**CHANGE DYNAMIC OFFSET PATCH**

F0 00 01 6E 01 41 00 01 00 18 1F 06 06 00 6E 20

02 00 00 00 00 00 18 00 14 0A 00 00 00 00 00 18

00 14 02 00 00 00 00 00 18 00 14 0A 00 00 00 00

00 18 00 14 0A 00 00 00 00 00 18 00 14 0A 00 00

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F

20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F

30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F

50 72 6F 67 72 61 6D 20 00 00 00 1A 63 F7

Well that didn’t work with 41, though it returned what looked

Initially looked like an ack, maybe 0x11 is an error?

F0 00 01 6E 01 11 F7

01 = patch request to controller

11 = ? error from controller ?

12 = ack from controller

21 = patch request reply from controller

22 = ? Error from controller ?

41 = patch dump to controller

So, I continued trying it, this time with a made up

Request code of 0x02 … and I got the following reply, where

Maybe 22 is an error from the controller too.

F0 00 01 6E 01 22 00 01 04 42 41 3F 08 08 02 00 01 00

20 00 08 08 06 04 01 02 20 03 49 F7

Maybe the checksum is wrong

F0 00 01 6E 01 41 00 01 00 18 1F 06 06 00 6E 20

02 00 00 00 00 00 18 00 14 0A 00 00 00 00 00 18

00 14 02 00 00 00 00 00 18 00 14 0A 00 00 00 00

00 18 00 14 0A 00 00 00 00 00 18 00 14 0A 00 00

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F

20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F

30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F

50 72 6F 67 72 61 6D 20 00 00 00 1A 63 F7

When I changed the checksum to 1a62, I got a 12 reply

F0 00 01 6E 01 41 00 01 00 18 1F 06 06 00 6E 20

02 00 00 00 00 00 18 00 14 0A 00 00 00 00 00 18

00 14 02 00 00 00 00 00 18 00 14 0A 00 00 00 00

00 18 00 14 0A 00 00 00 00 00 18 00 14 0A 00 00

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F

20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F

30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F

50 72 6F 67 72 61 6D 20 00 00 00 1A 62 F7

F0 00 01 6E 01 12 F7

Now a readback check again.

**F0 00 01 6E 01 01 00 01 f7**

No Joy. The dynamic

offset has not changed. Interesting. Trying

a variety of values for the checksum, 61, 60,

64, 65, the only one that gives an 11 response

is the calculated checksum 1a63. Maybe it’s

right somehow? 12 is not an ack? 11 is better?

Previous

I THINK THIS IS THE STRUCTURE OF A PATCH. IT COMES IN TWO PACKETS.

THIS IS POLY PATCH #1 (patch **0**, **Poly Program 1**)

**Bold red – I suspect this is the patch number**

**Bold blue – the name of the patch**

**Green Bold – this is the word “Program”, maybe followed by a space**

**Bold Purple – this appears to be the Program Change, Bank LSB, and Bank MSB**

**for the hardware patches associated with the Pedal, Split1,Split2,Split3,**

**and Split4 respectively.**

**I suspect this is a 1’s compliment checksum**

THIS IS POLY PATCH #2 (patch **1**, **Poly Program 2**)

recv 0000 F0 00 01 6E 01 21 00 **01** 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 04 00 **58 58 59** 00 18 00 14 0A 00 **54 54 55** 00 18 ..**XXY**......**TTU**..

0020 00 14 0A 00 **55 55 56** 00 18 00 14 0A 00 **56 56 57** ....**UUV**......**VVW**

0030 00 18 00 14 0A 00 **57 57 58** 00 18 00 14 0A 00 00 ......**WWX**.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 **50 72 6F 67 72 61 6D 20** 00 00 00 24 **5F F7** **Program** ...$\_.

recv 0000 F0 00 01 6E 01 21 02 **01** 0E **50 6F 6C 79 20 50 72** ...n.!...**Poly Pr**

0010 **6F 67 72 61 6D 20 32** 00 00 00 00 00 00 00 00 00 **ogram 2**.........

0020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0040 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0050 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0060 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0070 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................

0080 00 00 00 00 00 00 00 00 00 00 00 0B **10 F7** ..............

CONTINUING ANALYSIS – only the first packet seems to change

Here is the first packet, from above, repeated for program start:

recv 0000 F0 00 01 6E 01 21 00 **01** 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 04 00 **58 58 59** 00 18 00 14 0A 00 **54 54 55** 00 18 ..**XXY**......**TTU**..

0020 00 14 0A 00 **55 55 56** 00 18 00 14 0A 00 **56 56 57** ....**UUV**......**VVW**

0030 00 18 00 14 0A 00 **57 57 58** 00 18 00 14 0A 00 00 ......**WWX**.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 **50 72 6F 67 72 61 6D 20** 00 00 00 24 5F F7 **Program** ...$\_.

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 04 01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24 5F F7 Program ...$\_.

PARAMETRIC ANALYSIS – change Split1 PolyMode from POLY to MONO

appears in Byte(0011) changing from 01 to 00, and the checksum

changed from 5F to 5E

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 04[00]58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5E]F7 Program ...$^.

Note that all other splits took on the MONO setting,

so I think there is only one POLY/MONO setting per patch.

PARAMETRIC ANALISYS – lower touch sensitivity by one click (of 5)

Byte(0010) changed from 4 to 3 and checksum changed to 5D

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010[03]00 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5D]F7 Program ...$].

PARAMETRIC ANALSYS – lower touch sensitivity by two more clicks (of 5)

As expected, Byte(0010) changed from 3 to 1 and checksum changed

by two

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010[01]00 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5B]F7 Program ...$[.

CHANGE sensitivity style from PICK to FINGERSTYLE. Had to also change the touch sensitivity (to lowest setting, 0), to get the program to reload the patches from the controller. From this I deduce that PICK vs FINGERSTYLE is not part of the patch, and so the controller didn’t care that I changed it.

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010[00]00 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5A]F7 Program ...$Z.

CHANGE split3 to POLY mode, and as expected it changed the same byte 0x11

(POLY==1 MONO==0)

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 00[01]58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5B]F7 Program ...$[.

CHANGE split3 touch sensitivity to 3, as expected it changes byte 0x10, and the setting applies to all splits in the patch

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010[02]01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 00 14 0A 00 55 55 56 00 18 00 14 0A 00 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 00 57 57 58 00 18 00 14 0A 00 00 ......WWX.......

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 24[5D]F7 Program ...$].

CHANGE split1 MIDI VOLUME checked, split2 MIDI REVERB checked, split3 both checked, split4, both checked and sliders moved about half way (reverb slightly higher). Missed the 25, change at 0x8b … maybe it’s bitwise there

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020[01]14 0A 00 55 55 56 00 18 00 14 0A[01]56 56 57 ....UUV......VVW

0030 00 18[01]14 0A[01]57 57 58 00 18[41]14 0A[51]00 ......WWX..A..Q.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00[25 73]F7 Program ...%s.

TRY SOME OTHER VOLUME/REVERB RANGES – is the low nibble used?

split1 = volume as little above 0 as possible NOTICE ITS EVEN,

split2 = reverb a little more,

split3 = max both, WEIRDNESS THEY’RE ZERO,

split4 = as close to 100% as possible

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020[06]14 0A 00 55 55 56 00 18 00 14 0A[0A]56 56 57 ....UUV......VVW

0030 00 18[00]14 0A[00]57 57 58 00 18[77]14 0A[7E]00 ......WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00[02 02 26 66]F7 Program ...&f.

CONFIRM, set split3 a little off MAX reverb and volume and we get 7x numbers:

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 14 0A 00 55 55 56 00 18 00 14 0A 0A 56 56 57 ....UUV......VVW

0030 00 18[77]14 0A[75]57 57 58 00 18 77 14 0A 7E 00 ..w..uWWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00[00 00 28 4E]F7 Program ...(N.

Then set only volume to max, reverb as close as possible:

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 01 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 14 0A 00 55 55 56 00 18 00 14 0A 0A 56 56 57 ....UUV......VVW

0030 00 18[00]14 0A[7E]57 57 58 00 18 77 14 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00[02]00[27 62]F7 Program ...'b.

Reverb/Volume Conclusion: checking the box sets to 1, increasing

up until 7e or 7f, full is functionally equivilant to not checked?

How does the program know the difference … it does …

Continued reverb/volume. JUST UNCHECK VOLUME ON SPLIT3. Nothing reloaded, so I changed POLY to MONO Note the change at byte 0x89 from 2 to zero

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02[00]58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 14 0A 00 55 55 56 00 18 00 14 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 7E 57 57 58 00 18 77 14 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00[00]00 27[5F]F7 Program ...'\_.

Anyways. CHANGE split1 lower dynamics sensitivity from MAX to somewhere in middle.

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06[0E]0A 00 55 55 56 00 18 00 14 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 7E 57 57 58 00 18 77 14 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27[59]F7 Program ...'Y.

Dynamics sensitivity has 11 clicks in the UI. Change to following

Split1: 5, split2:4, split3:3, split4:2, pedal:0

SOMETHING WEIRD HAPPENED. I GOT A BUNCH OF TRUNCATED COPIES OF THE PATCH

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 14 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0E 0A 00 55 55 56 00 18 00 14 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 14 0A 7E 57 57 58 00 18 77 14 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27 59 F7 Program ...'Y.

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00[0A]0A 00 53 54 55 00 18 ..XXY......STU..

0020 06[0F]0A 00 55 55 56 00 18 00[0E]0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00[0D]0A 7E 57 57 58 00 18 77[0C]0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19[17 18 19 1A 1B 1C ................

0060 1D 1E 1F 20 21 22 23 24 25 26 27 28 29 2A 2B 2C ... !"#$%&'()\*+,

0070 2D 2E 2F 30 31 32 33 34 35 36 37 38 39 3A 3B 3C -./0123456789:;<

0080 3D 3E 3F 50]72[6F 67 72 61 6D 20 00 00 00 27 3B =>?Program ...';

0090 F7 .

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0F 0A 00 55 55 56 00 18 00 0E 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 0D 0A 7E 57 57 58 00 18 77 0C 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19[1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67]72[61 6D 20 00 00]20 00 00 00 27 3B Program .. ...';

0090 F7 .

recv 0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0F 0A 00 55 55 56 00 18 00 0E 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 0D 0A 7E 57 57 58 00 18 77 0C 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00[00 27 3B F7 Program ...';.

ADDING A NUMBERING SCHEME TO THE PROGRAM - RESTART

(001)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0F 0A 00 55 55 56 00 18 00 0E 0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00 0D 0A 7E 57 57 58 00 18 77 0C 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27 3B F7 Program ...';.

CHANGE

split1 dynamic sensitivity to MAX

split2 MAX-1

split3 MAX-2

split4 MAX-3

(002)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06[14]0A 00 55 55 56 00 18 00[13]0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00[12]0A 7E 57 57 58 00 18 77[11]0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27[4F]F7 Program ...'O.

CHANGE

Split1 dynamics sensitivity MIN,

Split2 MIN+1

Split3 MIN+2

Split4 MIN+3

(003)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06[0A]0A 00 55 55 56 00 18 00[0B]0A 0A 56 56 57 ....UUV......VVW

0030 00 18 00[0C]0A 7E 57 57 58 00 18 77[0D]0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27[33]F7 Program ...'3.

Dynamic Sensitivity Conclusion: it goes from 0x0A (10) to 0x14 (20)

CHANGE split1 dynamic offset to MIN split2 to MAX.

(009)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0A[00]00 55 55 56 00 18 00 0B[14]0A 56 56 57 ....UUV......VVW

0030 00 18 00 0C 0A 7E 57 57 58 00 18 77 0D 0A 7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27 33 F7 Program ...'3.

Change split3 dynamic offset to 5 (of 20) and split4 to 15

(010)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 18 ..XXY......STU..

0020 06 0A 00 00 55 55 56 00 18 00 0B 14 0A 56 56 57 ....UUV......VVW

0030 00 18 00 0C[04]7E 57 57 58 00 18 77 0D[11]7E 00 .....~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27[34]F7 Program ...'4.

TURN OFF MUTE ON SPLIT3 = No change – not on controller or in other buffer

TRANSPOSE split1+1, split2+2, split3+24, split4-1

(019)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 19 ..XXY......STU..

0020 06 0A 00 00 55 55 56 00 1A 00 0B 14 0A 56 56 57 ....UUV......VVW

0030 00 30 00 0C 04 7E 57 57 58 00 17 77 0D 11 7E 00 .0...~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27 4E F7 Program ...'N.

PITCHBEND split1(unchanged auto) split2(smooth) split3(trigger) split4(stepped)

(022)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 58 58 59 00 18 00 0A 0A 00 53 54 55 00 19 ..XXY......STU..

0020 06 0A 00 00 55 55 56[01]1A 00 0B 14 0A 56 56 57 ....UUV......VVW

0030[03]30 00 0C 04 7E 57 57 58[02]17 77 0D 11 7E 00 .0...~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27[54]F7 Program ...'T.

Initial Analysis:

IDENTIFYING HEADER and CLOSING F7

**Touch Sensitivity -** **0..4** (per patch)

**Mono/Poly Mode - 0=Mono, 1=Poly** (per patch)

Pedal, Split1, Split2, Split3, and Split4 sections

Pgm Change, Bank LSB, Bank MSB - 0..7f

Pitch bend - 0=auto, 1=smooth, 2=stepped, 3=trigger

Transpose – 0x18(24) = no transpose, 24 +/- 24

Midi Volume – 0=not checked, 1=checked MIN, 7F=Max

Midi Reverb – 0=not checked, 1=checked MIN, 7F=Max

(022)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 **02** **00** 58 58 59 00 18 00 0A 0A 00 53 54 55 00 19 ..XXY......STU..

0020 06 0A 00 00 55 55 56 01 1A 00 0B 14 0A 56 56 57 ....UUV......VVW

0030 03 30 00 0C 04 7E 57 57 58 02 17 77 0D 11 7E 00 .0...~WWX..w..~.

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 27 54 F7 Program ...'T.

**18 byte header including**

Midi Header

**Bank? + patch number**

**Unknown Bytes**

**Touch Sensitivity -** **0..4** (per patch)

**Mono/Poly Mode - 0=Mono, 1=Poly** (per patch)

**0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20**

**0010 02 00**

**Five 0 byte Split sections** (Pedal, Split1, Split2, Split3, Split4)

**Pgm Change, Bank LSB, Bank MSB** - 0..7f

**Pitch bend** - 0=auto, 1=smooth, 2=stepped, 3=trigger

**Transpose** – 0x18(24) = no transpose, 24 +/- 24

**Midi Volume** – 0=not checked, 1=checked MIN, 7F=Max

**Dynamics Sensitivity** 0x0A..0x14 (10..20)

**Dynamics Offset** (0..20)

Midi Reverb – 0=not checked, 1=checked MIN, 7F=Max

**0012 58 58 59 00 18 00 0A 0A 00**

**001B 53 54 55 00 19 06 0A 00 00**

**0024 55 55 56 01 1A 00 0B 14 0A**

**002D 56 56 57 03 30 00 0C 04 7E**

**0036 57 57 58 02 17 77 0D 11 7E**

**A zero and a bunch of (64) sequential bytes**

003f 00

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

The word **Program** (followed by a space and null terminator),

some **zeros**, a (two byte?) **checksum**, and the closing F7

0080 **50 72 6F 67 72 61 6D 20** **00 00 00** **27 54** F7 **Program** ...'T.

Continuing ….

(002)0000 F0 00 01 6E 01 21 00 01 03 18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 31 32 33 00 11 00 0A 14 00 21 22 23 00 13 ..123......!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 10 23 13 F7 Program ...#..

Only the Pedal Patch has a Pedal Mode Section

Hold (up), Alternate, Hold (down), and Loop.

Here we change from HoldDown(3) to HoldUp(2) …

(003)0000 F0 00 01 6E 01 21 00 01[02]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 31 32 33 00 11 00 0A 14 00 21 22 23 00 13 ..123......!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 10 23[12]F7 Program ...#..

And now to Loop(6) …

(004)0000 F0 00 01 6E 01 21 00 01[06]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 31 32 33 00 11 00 0A 14 00 21 22 23 00 13 ..123......!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 10 23[16]F7 Program ...#..

And Alternate(4):

(005)0000 F0 00 01 6E 01 21 00 01[04]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 31 32 33 00 11 00 0A 14 00 21 22 23 00 13 ..123......!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 10 23[14]F7 Program ...#..

HoldUp(2)

HoldDown(3)

Alternate(4)

Loop(6)

Feels like it’s bitwise down=0x01, hold=0x02, alt=0x4 and loop is

like hold + alt

WHAT about a patch with no pedal – you get an additional checkbox

“Block additional notes” per split … removing the Pedal split

Reset the pedal\_mode byte at 0x08 and restored the familiar

“00 00 00 00 18 00 14 0A 00” pattern for the pedal split

(006)0000 F0 00 01 6E 01 21 00 01[00]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00[00 00 00]00[18]00[14 0A]00 21 22 23 00 13 ...........!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 10[22 01]F7 Program ..."..

The Block Additional Notes is checked by default. Unchecking it on Split1

Caused the pedal mode to be set to 1, and the 0x10 right before the

Checksum to be set to zero. All splits inherited it, so it looks like

An additional pedal mode (zero and one)

(007)0000 F0 00 01 6E 01 21 00 01[01]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 00 00 00 00 18 00 14 0A 00 21 22 23 00 13 ...........!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00[00 21 72]F7 Program ...!r.

Rechecking it did not return to the previous state. It DID set the pedal mode byte to zero, but the 10 before the checksum did not return.

(008)0000 F0 00 01 6E 01 21 00 01[00]18 1F 06 06 00 6E 20 ...n.!........n

0010 02 00 00 00 00 00 18 00 14 0A 00 21 22 23 00 13 ...........!"#..

0020 1C 0C 11 6C 21 22 23 01 18 44 0E 0E 44 21 22 23 ...l!"#..D..D!"#

0030 02 1D 67 0F 0A 1E 21 22 23 03 1F 7C 11 05 00 00 ..g...!"#..|....

0040 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F ................

0050 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F ................

0060 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F !"#$%&'()\*+,-./

0070 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 0123456789:;<=>?

0080 50 72 6F 67 72 61 6D 20 00 00 00 21[71]F7 Program ...!q.