

ALLEN&HEATH



MIDI Protocol

Issue 4

SQ Firmware V1.5.0 or later

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1. Introduction and setup

MIDI (**M**usical **I**nstrument **D**igital **I**nterface) is a standardised communication protocol that enables digital devices to communicate and allows one piece of equipment to control another.

The SQ sends and receives MIDI over USB (via the USB-B port) as well as over ethernet (using MIDI over TCP/IP via the network port).

These can be broken down into two sets of bi-directional messages. Those that are used with SQ mixing parameters (i.e. level control of SQ audio channels), and those used to control external software or equipment (i.e. to control a DAW).

1.1 Connection

When connected to a computer using the USB-B port, the SQ will appear as a MIDI input and output device. This can be used with software directly or through use of the [Allen & Heath MIDI Control](#) application.

To connect a computer to the SQ over a network, [Allen & Heath MIDI Control](#) can be used.

All other clients used for network communication should be configured to send messages to the SQ's IP address and use port 51325.



→ MIDI over TCP/IP (via network)

→ MIDI over USB (direct to computer)

1.2 MIDI channels

There are 16 MIDI channels available, and the SQ makes use of 2 of these, one for the mixer itself and one for the MIDI channel strips which can be used with [Allen & Heath MIDI Control](#) to emulate a DAW control surface.

Press the **'Utility'** screen key, then touch the **'General'** tab followed by the **'MIDI'** tab to view and adjust the MIDI channel setting. This screen also displays MMC (**MIDI Machine Control**) buttons for control of computer sequencers and DAW's.



- Touch the **'MIDI Channel'** value and use the touchscreen rotary to adjust.
- Touch the **'Apply'** or **'Cancel'** buttons to apply or disregard changes.
- Touch the **'NRPN Fader Law'** value to switch NRPN level control (to and from the SQ core) between Linear Taper or Audio Taper.

The channel used for MIDI DAW control (and therefore all MIDI fader strips) is always one higher than the MIDI Channel the SQ itself is set to. To use MIDI channel 1 for DAW control purposes, set the main SQ MIDI channel to 16.

The audio taper option allows the SQ level control to be used with external linear controls such as MIDI faders or pots and have them behave in the same way as SQ faders.

📌 See the [3.4 Levels](#) section for more information on Fader Laws.

Touching any of the MMC Controls sends standard MMC transport messages to **all** channels. These are also used by the DAW control driver to send transport messages for the control surface emulation being used.

1.3 Types of message

MIDI messages can be presented in different ways in various hardware and software, including plain text, binary, decimal and hexadecimal.

As an example, here are four representations of the same message:

| | |
|-------------|-------------------------------|
| Plain text | MIDI Channel 1, C-1, Note on |
| Binary | 1001 0000 0000 0000 0111 1111 |
| Decimal | 144 0 127 |
| Hexadecimal | 0x90 0x00 0x7F |

This document uses the representations you are most likely to come across for each kind of message when communicating with the SQ.

Note On/Off – The SQ uses a note on followed by a note off for MIDI strip keys and MIDI triggering of the SQ SoftKeys.

MMC – **MIDI Machine Control** is used to send transport control messages from the SQ.

i MMC messages are 'Real Time Universal System Exclusive' messages and are sent to all connected devices rather than being assigned to a single MIDI channel.

CC (Continuous Controller) – For each MIDI channel there are 128 continuous controllers, each of which can have a value between 0 and 127 (128 steps). These are used by MIDI strip faders, MIDI on Soft Rotaries and other parameters with more than just an on/off state.

NRPN (Non-Registered Parameter Number) – For high-resolution control (16384 steps) and access to many more parameters, NRPN messages are used to communicate with SQ to control levels, panning, mutes and assignments.

NRPN messages can be thought of as a specific string of CC messages, with MSB (**M**ost **S**ignificant **B**yte) and LSB (**L**east **S**ignificant **B**yte) representing a parameter number and data bytes representing parameter value.

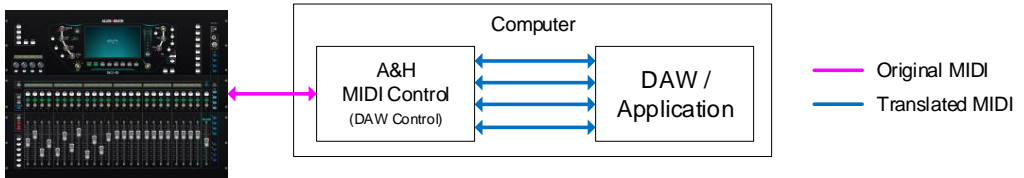
NRPNs can be used to set the absolute value of a parameter or to increment/decrement a parameter value.

These are displayed as hexadecimal values in this document and it should be noted that the '0x' prefix has been removed for brevity.

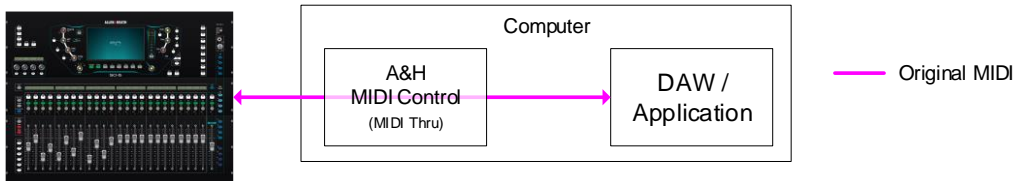
1.4 Allen & Heath MIDI Control and DAW Control

Previously known as the ‘DAW Control Driver’, **Allen & Heath MIDI Control** works by creating virtual MIDI ports in Mac OS or Windows and then facilitating a MIDI connection between these virtual ports and the SQ either with or without translation.

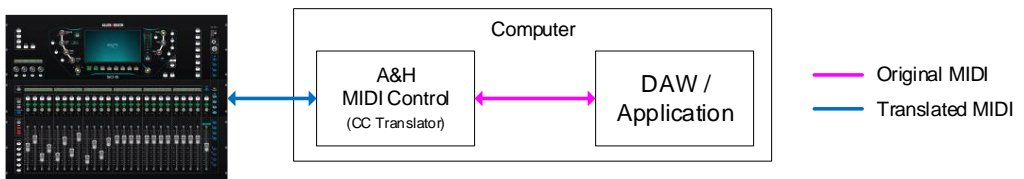
This enables MIDI channel strips and SoftKey options on the SQ to control DAW software on Mac OS or Windows by emulating popular HUI or Mackie Control protocols.



It can be used to send and receive MIDI control messages directly to and from the SQ core for remote control of mixing parameters, scene changes and other functions (as detailed in this document).



Simplified control of the most common mixing parameters using MIDI CC and Note On/Off messages from the computer is also made possible with the ‘CC Translator’ options.



Visit the Allen & Heath website (www.allen-heath.com) to download the latest version of Allen & Heath MIDI Control and refer to the Help document for information on setup and configuration.

2. MIDI Faders and Soft Controls

2.1 MIDI faders

The SQ has 32 freely assignable MIDI fader strips. Refer to the SQ Reference Guide for information on strip assignments.

Each strip sends and responds to the following messages sent on the 'MIDI DAW Control Channel':

| MIDI Strip | Mute Key | Sel Key | PAFL Key | Fader |
|------------|------------------|-----------------|-----------------|-------|
| 1 | C-1 Note ON/OFF | G#1 Note ON/OFF | E4 Note ON/OFF | CC#0 |
| 2 | C#-1 Note ON/OFF | A1 Note ON/OFF | F4 Note ON/OFF | CC#1 |
| 3 | D-1 Note ON/OFF | A#1 Note ON/OFF | F#4 Note ON/OFF | CC#2 |
| 4 | D#-1 Note ON/OFF | B1 Note ON/OFF | G4 Note ON/OFF | CC#3 |
| 5 | E-1 Note ON/OFF | C2 Note ON/OFF | G#4 Note ON/OFF | CC#4 |
| 6 | F-1 Note ON/OFF | C#2 Note ON/OFF | A4 Note ON/OFF | CC#5 |
| 7 | F#-1 Note ON/OFF | D2 Note ON/OFF | A#4 Note ON/OFF | CC#6 |
| 8 | G-1 Note ON/OFF | D#2 Note ON/OFF | B4 Note ON/OFF | CC#7 |
| 9 | G#-1 Note ON/OFF | E2 Note ON/OFF | C5 Note ON/OFF | CC#8 |
| 10 | A-1 Note ON/OFF | F2 Note ON/OFF | C#5 Note ON/OFF | CC#9 |
| 11 | A#-1 Note ON/OFF | F#2 Note ON/OFF | D5 Note ON/OFF | CC#10 |
| 12 | B-1 Note ON/OFF | G2 Note ON/OFF | D#5 Note ON/OFF | CC#11 |
| 13 | C0 Note ON/OFF | G#2 Note ON/OFF | E5 Note ON/OFF | CC#12 |
| 14 | C#0 Note ON/OFF | A2 Note ON/OFF | F5 Note ON/OFF | CC#13 |
| 15 | D0 Note ON/OFF | A#2 Note ON/OFF | F#5 Note ON/OFF | CC#14 |
| 16 | D#0 Note ON/OFF | B2 Note ON/OFF | G5 Note ON/OFF | CC#15 |
| 17 | E0 Note ON/OFF | C3 Note ON/OFF | G#5 Note ON/OFF | CC#16 |
| 18 | F0 Note ON/OFF | C#3 Note ON/OFF | A5 Note ON/OFF | CC#17 |
| 19 | F#0 Note ON/OFF | D3 Note ON/OFF | A#5 Note ON/OFF | CC#18 |
| 20 | G0 Note ON/OFF | D#3 Note ON/OFF | B5 Note ON/OFF | CC#19 |
| 21 | G#0 Note ON/OFF | E3 Note ON/OFF | C6 Note ON/OFF | CC#20 |
| 22 | A0 Note ON/OFF | F3 Note ON/OFF | C#6 Note ON/OFF | CC#21 |
| 23 | A#0 Note ON/OFF | F#3 Note ON/OFF | D6 Note ON/OFF | CC#22 |
| 24 | B0 Note ON/OFF | G3 Note ON/OFF | D#6 Note ON/OFF | CC#23 |
| 25 | C1 Note ON/OFF | G#3 Note ON/OFF | E6 Note ON/OFF | CC#24 |
| 26 | C#1 Note ON/OFF | A3 Note ON/OFF | F6 Note ON/OFF | CC#25 |
| 27 | D1 Note ON/OFF | A#3 Note ON/OFF | F#6 Note ON/OFF | CC#26 |
| 28 | D#1 Note ON/OFF | B3 Note ON/OFF | G6 Note ON/OFF | CC#27 |
| 29 | E1 Note ON/OFF | C4 Note ON/OFF | G#6 Note ON/OFF | CC#28 |
| 30 | F1 Note ON/OFF | C#4 Note ON/OFF | A6 Note ON/OFF | CC#29 |
| 31 | F#1 Note ON/OFF | D4 Note ON/OFF | A#6 Note ON/OFF | CC#30 |
| 32 | G1 Note ON/OFF | D#4 Note ON/OFF | B6 Note ON/OFF | CC#31 |

2.2 Soft Keys and Footswitch

The SQ-5 features 8 assignable Soft Keys, while the SQ-6 and SQ-7 both feature 16 assignable Soft Keys and all SQ models feature a dual footswitch input. Any of these can be assigned the following MIDI functions:

| Function | Option 1 | Option 2 |
|------------------|----------------------|---|
| MMC | - | Rewind, Play, Pause, Stop, FFwd, Record |
| DAW Control | - | Bank Up, Bank Down |
| MIDI note On/Off | MIDI Channel 1 to 16 | C-1 (0) to G9 (127) |
| Program Change | MIDI Channel 1 to 16 | 0 to 127 |

i Refer to the SQ Reference Guide for information on assigning Soft Key and footswitch functions.

2.3 Soft Rotaries

The SQ-6 and SQ-7 feature 4 and 8 Soft Rotaries respectively, with options for these to send the following messages:

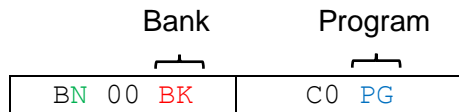
| Function | Option 1 | Option 2 | Key Option |
|----------------|----------------------|--------------|--|
| MIDI Absolute | MIDI Channel 1 to 16 | CC# 0 to 127 | Unassigned, Note On/Off C-1 (0) to G9 (127) |
| MIDI Relative | MIDI Channel 1 to 16 | CC# 0 to 127 | Unassigned, Note On/Off C-1 (0) to G9 (127) |
| Program Change | MIDI Channel 1 to 16 | 0 to 127 | Sends MIDI |

i Refer to the SQ Reference Guide for information on assigning Soft Rotary functions.

3. Control to and from the Mixer

3.1 Scene change

A scene change uses a bank change followed by a program change.



Where: **N** = MIDI Channel, **BK** = Bank, **PG** = Program

The bank change (**BK**) selects between three ranges of scenes:

Scenes 1 to 128 = Bank 1 = 00

Scenes 129 to 256 = Bank 2 = 01

Scenes 257 to 300 = Bank 3 = 02

The program change (**PG**) is then a value between 00 and 7F (decimal 0-127), which selects a scene in that range.

i Note that there is an offset of -1 between the SQ values and the MIDI values due to the SQ counting from 1 to 128 and MIDI counting from 0 to 127.

So scene 96 is bank change 00 (1) and program change 5F (95) and scene 264 is bank change 02 (3) and program change 07 (8).

The scene being recalled must exist as a saved scene in the SQ, blank scenes cannot be recalled.

Examples:

| Scene, MIDI Ch | Message |
|----------------|----------------|
| Scene 7, Ch1 | B0 00 00 C0 06 |
| Scene 120, Ch1 | B0 00 00 C0 77 |
| Scene 156, Ch1 | B0 00 01 C0 1B |
| Scene 156, Ch3 | B2 00 01 C0 1B |

3.2 Soft Keys

The SQ Soft Keys can be controlled using standard MIDI Note On/Off messages, allowing the control of many more internal functions of the SQ by proxy.

- ❗ The SQ does not send note on/off messages when a Soft Key is pressed unless the Soft Key is set to a MIDI note on/off function. See the [Soft Keys and Footswitch](#) section for more details.

A key press is triggered with note on and a release is triggered separately with a note off, this means it is possible to replicate a held key (i.e. for use with the talkback function).

Each Soft Key is controlled with a different sequential note starting at C3 (30).

| SoftKey | Note | HEX |
|---------|------|-----|
| 1 | C3 | 30 |
| 2 | C#3 | 31 |
| 3 | D3 | 32 |
| 4 | D#3 | 33 |

| SoftKey | Note | HEX |
|---------|------|-----|
| 5 | E3 | 34 |
| 6 | F3 | 35 |
| 7 | F#3 | 36 |
| 8 | G3 | 37 |

| SoftKey | Note | HEX |
|---------|------|-----|
| 9 | G#3 | 38 |
| 10 | A3 | 39 |
| 11 | A#3 | 3A |
| 12 | B3 | 3B |

| SoftKey | Note | HEX |
|---------|------|-----|
| 13 | C4 | 3C |
| 14 | C#4 | 3D |
| 15 | D4 | 3E |
| 16 | D#4 | 3F |

- ❗ The HEX values shown here are accurate, but some applications and hardware use different octave designations. i.e If C3 is not controlling SoftKey 1, try C2/C4.

Note On (Soft Key press)

On Note Velocity



Note Off (Soft Key release)

Off Note Velocity



Both where: **N** = MIDI Channel, **SK** = Soft Key Note

- ❗ The SQ will respond to both MIDI note off standards, i.e. a specific note off message or a note on message with zero velocity.

Examples:

| Soft Key, MIDI Ch | Message (Press) | Message (Release) |
|-------------------|-----------------|-------------------|
| Soft Key #1, Ch1 | 90 30 7F | 80 30 00 |
| Soft Key #7, Ch5 | 94 36 7F | 84 36 00 |

3.3 Mutes

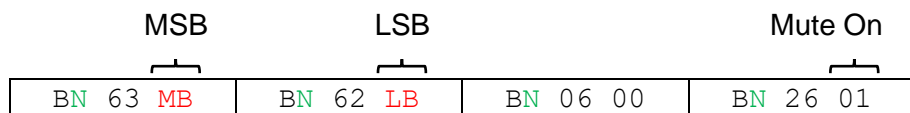
The SQ sends and receives absolute On or Off mute messages. It will also toggle the mute state when either an increment or decrement message is received.

MSB and LSB are a parameter number for the channel you wish to mute or unmute.

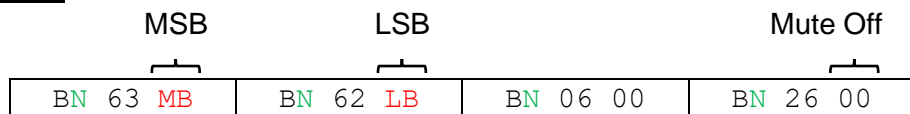
❗ MSB/LSB parameter numbers are shown in the [reference tables](#) section.

The last byte of the full message then represents a mute on or off.

Mute On



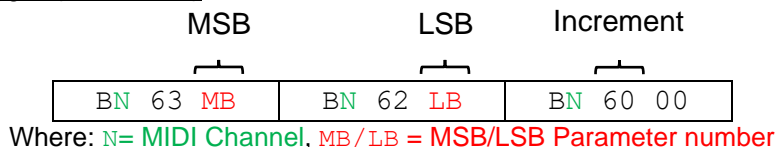
Mute Off



Both where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

When either a data increment or decrement message is received, the SQ will toggle between states, in the same way as pressing a mute key on the SQ does.

Mute Toggle (increment)



Examples:

| Channel, Cmnd, MIDI Ch | Message |
|--------------------------|-------------------------------------|
| lp1, Mute On, Ch1 | B0 63 00 B0 62 00 B0 06 00 B0 26 01 |
| LR mix, Mute Off, Ch1 | B0 63 00 B0 62 44 B0 06 00 B0 26 00 |
| Mute Grp 4, Mute On, Ch7 | B6 63 04 B6 62 03 B6 06 00 B6 26 01 |
| lp1, Mute Toggle, Ch1 | B0 63 00 B0 62 00 B0 60 00 |

3.4 Levels

Levels can be set using either absolute values or in relative 1dB increments/decrements.

MSB and LSB are a parameter number showing where the signal is being sent from and where it is being sent to.

❗ MSB/LSB parameter numbers are shown in the [reference tables](#).

An absolute level is represented with a combination of course and fine values.

| MSB | | LSB | | Value Coarse | | Value Fine | | | | | |
|-----|----|-----|----|--------------|----|------------|----|----|----|----|----|
| BN | 63 | MB | BN | 62 | LB | BN | 06 | VC | BN | 26 | VF |

Where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number, VC/VF = Value

NRPN Fader Law

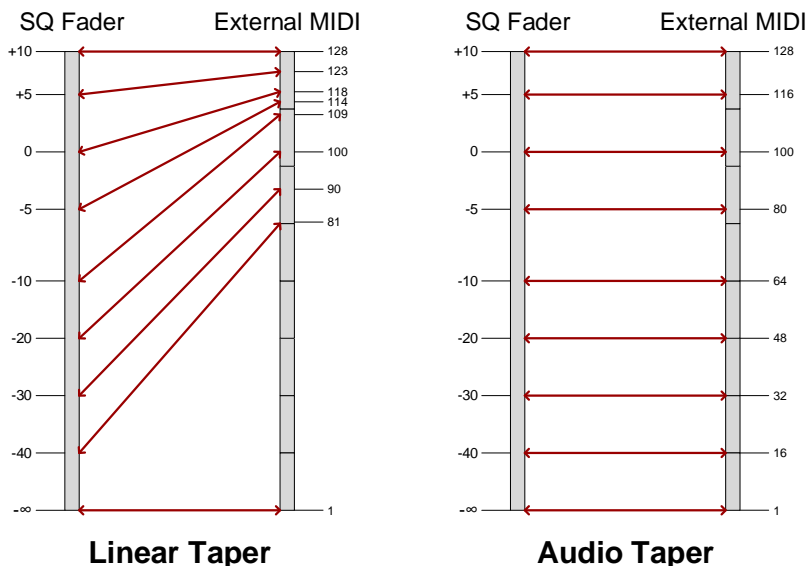
The way the SQ responds to and sends level messages can be switched between two modes.

Press the 'Utility' screen key, then touch the 'General' tab followed by the 'MIDI' tab to view and adjust this setting.



The standard mode is a high-resolution Linear Taper, with 16384 possible values.

Audio taper has a lower resolution, with 255 possible values, but allows mapped external linear controls (e.g. MIDI faders or pots) to work in a similar way to the SQ faders, with more control about the unity gain (0dB) position.



❗ See 'Example Linear Taper Level Values' and 'Approximate Audio Taper Level Values' in the [reference tables](#).

Standard (Linear) Examples:

| Address, Value, MIDI Ch | Message |
|--------------------------|-------------------------------------|
| lp1 to LR, 0dB, Ch1 | B0 63 40 B0 62 00 B0 06 76 B0 26 5C |
| lp1 to LR, -20dB, Ch1 | B0 63 40 B0 62 00 B0 06 63 B0 26 49 |
| lp40 to LR, -20dB, Ch1 | B0 63 40 B0 62 27 B0 06 63 B0 26 49 |
| lp40 to Aux5, -20dB, Ch1 | B0 63 44 B0 62 1C B0 06 63 B0 26 49 |
| lp40 to Aux5, -12dB, Ch4 | B3 63 44 B3 62 1C B3 06 6B B3 26 06 |
| Grp4 to Aux8, -24dB, Ch4 | B3 63 45 B3 62 2F B3 06 5F B3 26 57 |
| lp36 to FX3, -12dB, Ch14 | BD 63 4D BD 62 22 BD 06 6B BD 26 06 |

Audio Taper Examples:

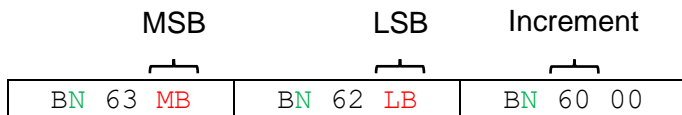
| Address, Value, MIDI Ch | Message |
|--------------------------|-------------------------------------|
| lp1 to LR, 0dB, Ch1 | B0 63 40 B0 62 00 B0 06 62 B0 26 00 |
| lp1 to LR, -20dB, Ch1 | B0 63 40 B0 62 00 B0 06 2E B0 26 40 |
| lp40 to LR, -20dB, Ch1 | B0 63 40 B0 62 27 B0 06 2E B0 26 40 |
| lp40 to Aux5, -20dB, Ch1 | B0 63 44 B0 62 1C B0 06 2E B0 26 40 |
| lp40 to Aux5, -12dB, Ch4 | B3 63 44 B3 62 1C B3 06 3B B3 26 00 |
| Grp4 to Aux8, -24dB, Ch4 | B3 63 45 B3 62 2F B3 06 28 B3 26 40 |
| lp36 to FX3, -12dB, Ch14 | BD 63 4D BD 62 22 BD 06 3B BD 26 00 |

A relative level message uses the same parameter number, but with an increment or decrement byte.

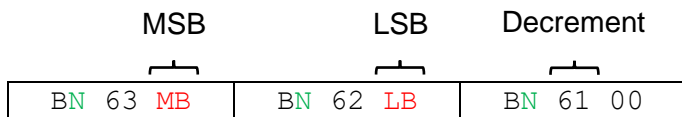
This raises or lowers a level in 1dB steps.

❗ The NRPN Fader Law setting has no effect on relative control.

+1dB (increment)



-1dB (decrement)



Both where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

Examples:

| Address, Inc/Dec, MIDI Ch | Message |
|---------------------------------|----------------------------|
| Ip1 to LR, Increment, Ch1 | B0 63 40 B0 62 00 B0 60 00 |
| Grp5 to LR, Decrement, Ch5 | B4 63 40 B4 62 34 B4 61 00 |
| FX2Rtn to Aux3, Increment, Ch12 | BB 63 46 BB 62 22 BB 60 00 |

3.5 Panning/Balance

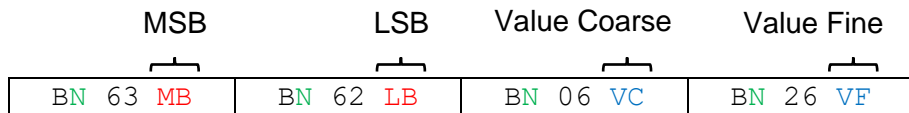
Panning (mono sources) or balance (stereo sources) can be set using either absolute values or in relative increments/decrements.

MSB and LSB represent a parameter number showing where the signal is being sent from and where it is being sent to.

❗ MSB/LSB parameter numbers are shown in the [reference tables](#).

Absolute values are set with a combination of coarse and fine values. Ranging from 00 00 (full left) to 7F 7F (full right), with centre being 3F 7F.

❗ See 'Example Pan/Balance Values' in the [reference tables](#).



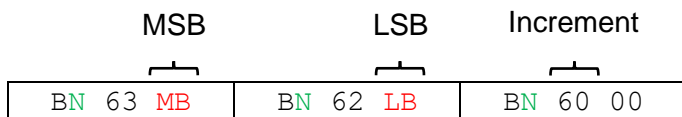
Where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number, VC/VF = Value

Examples:

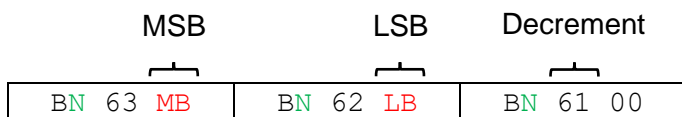
| Address, Value, MIDI Ch | Message |
|-------------------------|-------------------------------------|
| lp1 to LR, L100%%, Ch1 | B0 63 50 B0 62 00 B0 06 00 B0 26 00 |
| lp1 to LR, CTR, Ch1 | B0 63 50 B0 62 00 B0 06 3F B0 26 7F |
| lp24 to LR, R20%, Ch1 | B0 63 50 B0 62 17 B0 06 4C B0 26 65 |
| lp24 to Aux5, R20%, Ch1 | B0 63 52 B0 62 5C B0 06 4C B0 26 65 |
| lp24 to Aux5, L50%, Ch4 | B3 63 52 B3 62 5C B3 06 1F B3 26 7F |
| Grp3 to Aux2, L50%, Ch4 | B3 63 55 B3 62 1D B3 06 1F B3 26 7F |
| LR to Mtx3, R100%, Ch11 | BA 63 5E BA 62 26 BA 06 7F BA 26 7F |

A relative pan/balance message uses the same parameter number, but with an increment or decrement byte. Incrementing moves to the right and decrementing moves to the left.

Right one step (increment)



Left one step (decrement)



Both where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

Examples:

| Address, Left/Right, MIDI Ch | Message |
|------------------------------|----------------------------|
| lp1 to LR, Right, Ch1 | B0 63 50 B0 62 00 B0 60 00 |
| lp1 to LR, Left, Ch1 | B0 63 50 B0 62 00 B0 61 00 |
| lp37 to Aux8, Right, Ch1 | B0 63 53 B0 62 7B B0 60 00 |
| Aux5 to Mtx1, Right, Ch3 | B2 63 5E B2 62 33 B2 60 00 |

3.6 Mix Assignments

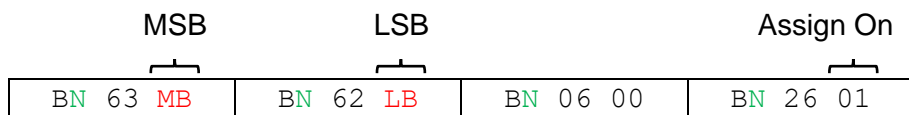
The SQ sends and receives absolute On or Off assign messages. It will also toggle the assign state when either an increment or decrement message is received.

MSB and LSB represent a parameter number showing where the signal is being sent from and where it is being sent to.

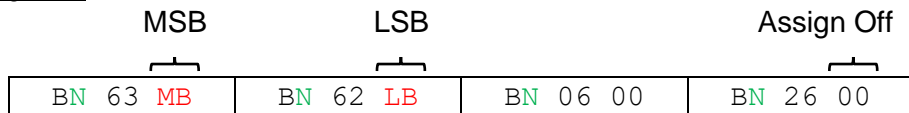
❗ MSB/LSB parameter numbers are shown in the [reference tables](#) section.

The last byte of the full message then represents assignment on or off.

Assign On



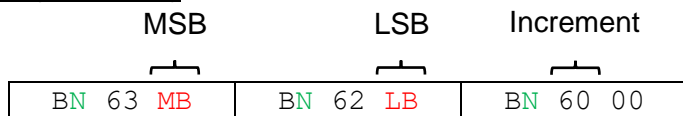
Assign Off



Both where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

When either a data increment or decrement message is received, the SQ will toggle between assign states, in the same way as holding the Assign key and pressing a Sel key on the SQ does.

Assign Toggle (increment)



Where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

Examples:

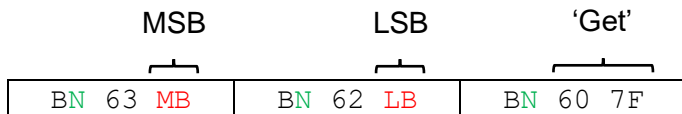
| Channel, Cmnd, MIDI Ch | Message |
|---------------------------|-------------------------------------|
| lp1 to LR, On, Ch1 | B0 63 60 B0 62 00 B0 06 00 B0 26 01 |
| lp1 to LR, Off, Ch1 | B0 63 60 B0 62 00 B0 06 00 B0 26 00 |
| FX1Rtn to Aux 7, On, Ch1 | B0 63 66 B0 62 1A B0 06 00 B0 26 01 |
| Grp1 to Aux3, Off, Ch2 | B1 63 65 B1 62 06 B1 06 00 B1 26 00 |
| Grp2 to Mtx2, Toggle, Ch4 | B3 63 6E B3 62 4F B3 60 00 |

3.7 Getting values

A 'get' command can be sent to the SQ in order to return the current value of any mute, level, pan/balance or assignment parameter listed in this document.

MSB and LSB represent the parameter number of the value being requested, followed by a data increment with value 7F (i.e. the same as a standard increment message but with a value of 7F instead of 00).

❗ All MSB/LSB parameter numbers are shown in the [reference tables](#), be sure to use the correct parameter number for either mute, level, panning/balance or assignments.



Where: N= MIDI Channel, MB/LB = MSB/LSB Parameter number

Examples:

| Parameter Requested, MIDI Ch | Message |
|-------------------------------|----------------------------|
| LR Mute, Ch1 | B0 63 00 B0 62 00 B0 60 7F |
| lp1 to LR Level, Ch1 | B0 63 40 B0 62 00 B0 60 7F |
| lp30 to Aux5 Pan, Ch1 | B0 63 53 B0 62 24 B0 60 7F |
| Aux7 to Mtx1 Balance, Ch5 | B4 63 5E B4 62 39 B4 60 7F |
| FX2Rtn to FX3Snd Assign, Ch12 | BB 63 6E BB 62 0A BB 60 7F |

4. Reference Tables

MIDI channels 1 to 16 (N)

| Channel | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| Hex | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |

SQ Value to Note to Hexadecimal (PG and other values from 1-128)

| VAL | HEX | Note |
|-----|-----|------|
| 1 | 00 | C-1 |
| 2 | 01 | C#-1 |
| 3 | 02 | D-1 |
| 4 | 03 | D#-1 |
| 5 | 04 | E-1 |
| 6 | 05 | F-1 |
| 7 | 06 | F#-1 |
| 8 | 07 | G-1 |
| 9 | 08 | G#-1 |
| 10 | 09 | A-1 |
| 11 | 0A | A#-1 |
| 12 | 0B | B-1 |
| 13 | 0C | C0 |
| 14 | 0D | C#0 |
| 15 | 0E | D0 |
| 16 | 0F | D#0 |
| 17 | 10 | E0 |
| 18 | 11 | F0 |
| 19 | 12 | F#0 |
| 20 | 13 | G0 |
| 21 | 14 | G#0 |
| 22 | 15 | A0 |
| 23 | 16 | A#0 |
| 24 | 17 | B0 |
| 25 | 18 | C1 |
| 26 | 19 | C#1 |
| 27 | 1A | D1 |
| 28 | 1B | D#1 |
| 29 | 1C | E1 |
| 30 | 1D | F1 |
| 31 | 1E | F#1 |
| 32 | 1F | G1 |

| VAL | HEX | Note |
|-----|-----|------|
| 33 | 20 | G#1 |
| 34 | 21 | A1 |
| 35 | 22 | A#1 |
| 36 | 23 | B1 |
| 37 | 24 | C2 |
| 38 | 25 | C#2 |
| 39 | 26 | D2 |
| 40 | 27 | D#2 |
| 41 | 28 | E2 |
| 42 | 29 | F2 |
| 43 | 2A | F#2 |
| 44 | 2B | G2 |
| 45 | 2C | G#2 |
| 46 | 2D | A2 |
| 47 | 2E | A#2 |
| 48 | 2F | B2 |
| 49 | 30 | C3 |
| 50 | 31 | C#3 |
| 51 | 32 | D3 |
| 52 | 33 | D#3 |
| 53 | 34 | E3 |
| 54 | 35 | F3 |
| 55 | 36 | F#3 |
| 56 | 37 | G3 |
| 57 | 38 | G#3 |
| 58 | 39 | A3 |
| 59 | 3A | A#3 |
| 60 | 3B | B3 |
| 61 | 3C | C4 |
| 62 | 3D | C#4 |
| 63 | 3E | D4 |
| 64 | 3F | D#4 |

| VAL | HEX | Note |
|-----|-----|------|
| 65 | 40 | E4 |
| 66 | 41 | F4 |
| 67 | 42 | F#4 |
| 68 | 43 | G4 |
| 69 | 44 | G#4 |
| 70 | 45 | A4 |
| 71 | 46 | A#4 |
| 72 | 47 | B4 |
| 73 | 48 | C5 |
| 74 | 49 | C#5 |
| 75 | 4A | D5 |
| 76 | 4B | D#5 |
| 77 | 4C | E5 |
| 78 | 4D | F5 |
| 79 | 4E | F#5 |
| 80 | 4F | G5 |
| 81 | 50 | G#5 |
| 82 | 51 | A5 |
| 83 | 52 | A#5 |
| 84 | 53 | B5 |
| 85 | 54 | C6 |
| 86 | 55 | C#6 |
| 87 | 56 | D6 |
| 88 | 57 | D#6 |
| 89 | 58 | E6 |
| 90 | 59 | F6 |
| 91 | 5A | F#6 |
| 92 | 5B | G6 |
| 93 | 5C | G#6 |
| 94 | 5D | A6 |
| 95 | 5E | A#6 |
| 96 | 5F | B6 |

| VAL | HEX | Note |
|-----|-----|------|
| 97 | 60 | C7 |
| 98 | 61 | C#7 |
| 99 | 62 | D7 |
| 100 | 63 | D#7 |
| 101 | 64 | E7 |
| 102 | 65 | F7 |
| 103 | 66 | F#7 |
| 104 | 67 | G7 |
| 105 | 68 | G#7 |
| 106 | 69 | A7 |
| 107 | 6A | A#7 |
| 108 | 6B | B7 |
| 109 | 6C | C8 |
| 110 | 6D | C#8 |
| 111 | 6E | D8 |
| 112 | 6F | D#8 |
| 113 | 70 | E8 |
| 114 | 71 | F8 |
| 115 | 72 | F#8 |
| 116 | 73 | G8 |
| 117 | 74 | G#8 |
| 118 | 75 | A8 |
| 119 | 76 | A#8 |
| 120 | 77 | B8 |
| 121 | 78 | C9 |
| 122 | 79 | C#9 |
| 123 | 7A | D9 |
| 124 | 7B | D#9 |
| 125 | 7C | E9 |
| 126 | 7D | F9 |
| 127 | 7E | F#9 |
| 128 | 7F | G9 |

Soft Key Notes and Hexadecimal Values (SK)

| SoftKey | Note | HEX | SoftKey | Note | HEX | SoftKey | Note | HEX | SoftKey | Note | HEX |
|---------|------|-----|---------|------|-----|---------|------|-----|---------|------|-----|
| 1 | C3 | 30 | 5 | E3 | 34 | 9 | G#3 | 38 | 13 | C4 | 3C |
| 2 | C#3 | 31 | 6 | F3 | 35 | 10 | A3 | 39 | 14 | C#4 | 3D |
| 3 | D3 | 32 | 7 | F#3 | 36 | 11 | A#3 | 3A | 15 | D4 | 3E |
| 4 | D#3 | 33 | 8 | G3 | 37 | 12 | B3 | 3B | 16 | D#4 | 3F |

Example Linear Taper Level Values (VC/VF)

| dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF |
|------|----|----|-----|----|----|-----|----|----|-----|----|----|----|----|----|-----|----|----|
| -inf | 00 | 00 | -45 | 4C | 7D | -29 | 5B | 69 | -19 | 65 | 0C | -9 | 6E | 2F | +1 | 77 | 53 |
| -89 | 24 | 16 | -40 | 51 | 4F | -28 | 5C | 60 | -18 | 66 | 03 | -8 | 6F | 26 | +2 | 78 | 49 |
| -85 | 27 | 71 | -38 | 53 | 3C | -27 | 5D | 56 | -17 | 66 | 7A | -7 | 70 | 1D | +3 | 79 | 40 |
| -80 | 2C | 42 | -36 | 55 | 2A | -26 | 5E | 4D | -16 | 67 | 70 | -6 | 71 | 14 | +4 | 7A | 37 |
| -75 | 31 | 14 | -35 | 56 | 21 | -25 | 5F | 44 | -15 | 68 | 67 | -5 | 72 | 0A | +5 | 7B | 2E |
| -70 | 35 | 65 | -34 | 57 | 17 | -24 | 60 | 3B | -14 | 69 | 5E | -4 | 73 | 01 | +6 | 7C | 24 |
| -65 | 3A | 37 | -33 | 58 | 0E | -23 | 61 | 31 | -13 | 6A | 55 | -3 | 73 | 78 | +7 | 7D | 1B |
| -60 | 3F | 09 | -32 | 59 | 05 | -22 | 62 | 28 | -12 | 6B | 4B | -2 | 74 | 6F | +8 | 7E | 12 |
| -55 | 43 | 5A | -31 | 59 | 7C | -21 | 63 | 1F | -11 | 6C | 42 | -1 | 75 | 65 | +9 | 7F | 08 |
| -50 | 48 | 2C | -30 | 5A | 72 | -20 | 64 | 16 | -10 | 6D | 39 | 0 | 76 | 5C | +10 | 7F | 7E |

Approximate Audio Taper Level Values (VC/VF)

| dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF | dB | VC | VF |
|------|----|----|-----|----|----|-----|----|----|-----|----|----|----|----|----|-----|----|----|
| -inf | 00 | 00 | -45 | 0C | 00 | -29 | 20 | 40 | -19 | 30 | 00 | -9 | 41 | 40 | +1 | 65 | 40 |
| -89 | 01 | 40 | -40 | 0F | 40 | -28 | 22 | 00 | -18 | 31 | 40 | -8 | 44 | 40 | +2 | 69 | 00 |
| -85 | 02 | 00 | -38 | 12 | 40 | -27 | 23 | 40 | -17 | 33 | 00 | -7 | 48 | 00 | +3 | 6C | 40 |
| -80 | 02 | 40 | -36 | 15 | 40 | -26 | 25 | 00 | -16 | 34 | 40 | -6 | 4B | 00 | +4 | 70 | 00 |
| -75 | 03 | 40 | -35 | 17 | 00 | -25 | 26 | 40 | -15 | 36 | 00 | -5 | 4E | 40 | +5 | 73 | 40 |
| -70 | 04 | 00 | -34 | 19 | 00 | -24 | 28 | 40 | -14 | 38 | 00 | -4 | 52 | 40 | +6 | 75 | 40 |
| -65 | 05 | 00 | -33 | 1A | 40 | -23 | 2A | 00 | -13 | 39 | 40 | -3 | 56 | 40 | +7 | 78 | 00 |
| -60 | 06 | 00 | -32 | 1C | 00 | -22 | 2B | 40 | -12 | 3B | 00 | -2 | 5A | 00 | +8 | 7A | 40 |
| -55 | 07 | 00 | -31 | 1D | 40 | -21 | 2D | 00 | -11 | 3C | 40 | -1 | 5E | 00 | +9 | 7D | 00 |
| -50 | 08 | 00 | -30 | 1F | 00 | -20 | 2E | 40 | -10 | 3E | 00 | 0 | 62 | 00 | +10 | 7F | 40 |

Example Pan/Balance Values (VC/VF)

| L/R | VC | VF | L/R | VC | VF | L/R | VC | VF | L/R | VC | VF | L/R | VC | VF |
|-------|----|----|------|----|----|------|----|----|------|----|----|-------|----|----|
| L100% | 00 | 00 | L50% | 1F | 7F | L10% | 39 | 4B | R15% | 49 | 4B | R60% | 66 | 32 |
| L90% | 06 | 33 | L40% | 26 | 32 | L5% | 3C | 65 | R20% | 4C | 65 | R70% | 6C | 65 |
| L80% | 0C | 66 | L30% | 2C | 65 | CTR | 3F | 7F | R30% | 53 | 18 | R80% | 73 | 18 |
| L70% | 13 | 19 | L20% | 33 | 18 | R5% | 43 | 18 | R40% | 59 | 4B | R90% | 79 | 4B |
| L60% | 19 | 4C | L15% | 36 | 32 | R10% | 46 | 32 | R50% | 5F | 7F | R100% | 7F | 7F |

Level Parameter Numbers – Inputs to LR (+Groups) and Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp1 | 40 | 00 | 40 | 44 | 40 | 45 | 40 | 46 | 40 | 47 | 40 | 48 | 40 | 49 | 40 | 4A | 40 | 4B | 40 | 4C | 40 | 4D | 40 | 4E | 40 | 4F |
| lp2 | 40 | 01 | 40 | 50 | 40 | 51 | 40 | 52 | 40 | 53 | 40 | 54 | 40 | 55 | 40 | 56 | 40 | 57 | 40 | 58 | 40 | 59 | 40 | 5A | 40 | 5B |
| lp3 | 40 | 02 | 40 | 5C | 40 | 5D | 40 | 5E | 40 | 5F | 40 | 60 | 40 | 61 | 40 | 62 | 40 | 63 | 40 | 64 | 40 | 65 | 40 | 66 | 40 | 67 |
| lp4 | 40 | 03 | 40 | 68 | 40 | 69 | 40 | 6A | 40 | 6B | 40 | 6C | 40 | 6D | 40 | 6E | 40 | 6F | 40 | 70 | 40 | 71 | 40 | 72 | 40 | 73 |
| lp5 | 40 | 04 | 40 | 74 | 40 | 75 | 40 | 76 | 40 | 77 | 40 | 78 | 40 | 79 | 40 | 7A | 40 | 7B | 40 | 7C | 40 | 7D | 40 | 7E | 40 | 7F |
| lp6 | 40 | 05 | 41 | 00 | 41 | 01 | 41 | 02 | 41 | 03 | 41 | 04 | 41 | 05 | 41 | 06 | 41 | 07 | 41 | 08 | 41 | 09 | 41 | 0A | 41 | 0B |
| lp7 | 40 | 06 | 41 | 0C | 41 | 0D | 41 | 0E | 41 | 0F | 41 | 10 | 41 | 11 | 41 | 12 | 41 | 13 | 41 | 14 | 41 | 15 | 41 | 16 | 41 | 17 |
| lp8 | 40 | 07 | 41 | 18 | 41 | 19 | 41 | 1A | 41 | 1B | 41 | 1C | 41 | 1D | 41 | 1E | 41 | 1F | 41 | 20 | 41 | 21 | 41 | 22 | 41 | 23 |
| lp9 | 40 | 08 | 41 | 24 | 41 | 25 | 41 | 26 | 41 | 27 | 41 | 28 | 41 | 29 | 41 | 2A | 41 | 2B | 41 | 2C | 41 | 2D | 41 | 2E | 41 | 2F |
| lp10 | 40 | 09 | 41 | 30 | 41 | 31 | 41 | 32 | 41 | 33 | 41 | 34 | 41 | 35 | 41 | 36 | 41 | 37 | 41 | 38 | 41 | 39 | 41 | 3A | 41 | 3B |
| lp11 | 40 | 0A | 41 | 3C | 41 | 3D | 41 | 3E | 41 | 3F | 41 | 40 | 41 | 41 | 41 | 42 | 41 | 43 | 41 | 44 | 41 | 45 | 41 | 46 | 41 | 47 |
| lp12 | 40 | 0B | 41 | 48 | 41 | 49 | 41 | 4A | 41 | 4B | 41 | 4C | 41 | 4D | 41 | 4E | 41 | 4F | 41 | 50 | 41 | 51 | 41 | 52 | 41 | 53 |
| lp13 | 40 | 0C | 41 | 54 | 41 | 55 | 41 | 56 | 41 | 57 | 41 | 58 | 41 | 59 | 41 | 5A | 41 | 5B | 41 | 5C | 41 | 5D | 41 | 5E | 41 | 5F |
| lp14 | 40 | 0D | 41 | 60 | 41 | 61 | 41 | 62 | 41 | 63 | 41 | 64 | 41 | 65 | 41 | 66 | 41 | 67 | 41 | 68 | 41 | 69 | 41 | 6A | 41 | 6B |
| lp15 | 40 | 0E | 41 | 6C | 41 | 6D | 41 | 6E | 41 | 6F | 41 | 70 | 41 | 71 | 41 | 72 | 41 | 73 | 41 | 74 | 41 | 75 | 41 | 76 | 41 | 77 |
| lp16 | 40 | 0F | 41 | 78 | 41 | 79 | 41 | 7A | 41 | 7B | 41 | 7C | 41 | 7D | 41 | 7E | 41 | 7F | 42 | 00 | 42 | 01 | 42 | 02 | 42 | 03 |
| lp17 | 40 | 10 | 42 | 04 | 42 | 05 | 42 | 06 | 42 | 07 | 42 | 08 | 42 | 09 | 42 | 0A | 42 | 0B | 42 | 0C | 42 | 0D | 42 | 0E | 42 | 0F |
| lp18 | 40 | 11 | 42 | 10 | 42 | 11 | 42 | 12 | 42 | 13 | 42 | 14 | 42 | 15 | 42 | 16 | 42 | 17 | 42 | 18 | 42 | 19 | 42 | 1A | 42 | 1B |
| lp19 | 40 | 12 | 42 | 1C | 42 | 1D | 42 | 1E | 42 | 1F | 42 | 20 | 42 | 21 | 42 | 22 | 42 | 23 | 42 | 24 | 42 | 25 | 42 | 26 | 42 | 27 |
| lp20 | 40 | 13 | 42 | 28 | 42 | 29 | 42 | 2A | 42 | 2B | 42 | 2C | 42 | 2D | 42 | 2E | 42 | 2F | 42 | 30 | 42 | 31 | 42 | 32 | 42 | 33 |
| lp21 | 40 | 14 | 42 | 34 | 42 | 35 | 42 | 36 | 42 | 37 | 42 | 38 | 42 | 39 | 42 | 3A | 42 | 3B | 42 | 3C | 42 | 3D | 42 | 3E | 42 | 3F |
| lp22 | 40 | 15 | 42 | 40 | 42 | 41 | 42 | 42 | 42 | 43 | 42 | 44 | 42 | 45 | 42 | 46 | 42 | 47 | 42 | 48 | 42 | 49 | 42 | 4A | 42 | 4B |
| lp23 | 40 | 16 | 42 | 4C | 42 | 4D | 42 | 4E | 42 | 4F | 42 | 50 | 42 | 51 | 42 | 52 | 42 | 53 | 42 | 54 | 42 | 55 | 42 | 56 | 42 | 57 |
| lp24 | 40 | 17 | 42 | 58 | 42 | 59 | 42 | 5A | 42 | 5B | 42 | 5C | 42 | 5D | 42 | 5E | 42 | 5F | 42 | 60 | 42 | 61 | 42 | 62 | 42 | 63 |
| lp25 | 40 | 18 | 42 | 64 | 42 | 65 | 42 | 66 | 42 | 67 | 42 | 68 | 42 | 69 | 42 | 6A | 42 | 6B | 42 | 6C | 42 | 6D | 42 | 6E | 42 | 6F |
| lp26 | 40 | 19 | 42 | 70 | 42 | 71 | 42 | 72 | 42 | 73 | 42 | 74 | 42 | 75 | 42 | 76 | 42 | 77 | 42 | 78 | 42 | 79 | 42 | 7A | 42 | 7B |
| lp27 | 40 | 1A | 42 | 7C | 42 | 7D | 42 | 7E | 42 | 7F | 43 | 00 | 43 | 01 | 43 | 02 | 43 | 03 | 43 | 04 | 43 | 05 | 43 | 06 | 43 | 07 |
| lp28 | 40 | 1B | 43 | 08 | 43 | 09 | 43 | 0A | 43 | 0B | 43 | 0C | 43 | 0D | 43 | 0E | 43 | 0F | 43 | 10 | 43 | 11 | 43 | 12 | 43 | 13 |
| lp29 | 40 | 1C | 43 | 14 | 43 | 15 | 43 | 16 | 43 | 17 | 43 | 18 | 43 | 19 | 43 | 1A | 43 | 1B | 43 | 1C | 43 | 1D | 43 | 1E | 43 | 1F |
| lp30 | 40 | 1D | 43 | 20 | 43 | 21 | 43 | 22 | 43 | 23 | 43 | 24 | 43 | 25 | 43 | 26 | 43 | 27 | 43 | 28 | 43 | 29 | 43 | 2A | 43 | 2B |
| lp31 | 40 | 1E | 43 | 2C | 43 | 2D | 43 | 2E | 43 | 2F | 43 | 30 | 43 | 31 | 43 | 32 | 43 | 33 | 43 | 34 | 43 | 35 | 43 | 36 | 43 | 37 |
| lp32 | 40 | 1F | 43 | 38 | 43 | 39 | 43 | 3A | 43 | 3B | 43 | 3C | 43 | 3D | 43 | 3E | 43 | 3F | 43 | 40 | 43 | 41 | 43 | 42 | 43 | 43 |
| lp33 | 40 | 20 | 43 | 44 | 43 | 45 | 43 | 46 | 43 | 47 | 43 | 48 | 43 | 49 | 43 | 4A | 43 | 4B | 43 | 4C | 43 | 4D | 43 | 4E | 43 | 4F |
| lp34 | 40 | 21 | 43 | 50 | 43 | 51 | 43 | 52 | 43 | 53 | 43 | 54 | 43 | 55 | 43 | 56 | 43 | 57 | 43 | 58 | 43 | 59 | 43 | 5A | 43 | 5B |
| lp35 | 40 | 22 | 43 | 5C | 43 | 5D | 43 | 5E | 43 | 5F | 43 | 60 | 43 | 61 | 43 | 62 | 43 | 63 | 43 | 64 | 43 | 65 | 43 | 66 | 43 | 67 |
| lp36 | 40 | 23 | 43 | 68 | 43 | 69 | 43 | 6A | 43 | 6B | 43 | 6C | 43 | 6D | 43 | 6E | 43 | 6F | 43 | 70 | 43 | 71 | 43 | 72 | 43 | 73 |
| lp37 | 40 | 24 | 43 | 74 | 43 | 75 | 43 | 76 | 43 | 77 | 43 | 78 | 43 | 79 | 43 | 7A | 43 | 7B | 43 | 7C | 43 | 7D | 43 | 7E | 43 | 7F |
| lp38 | 40 | 25 | 44 | 00 | 44 | 01 | 44 | 02 | 44 | 03 | 44 | 04 | 44 | 05 | 44 | 06 | 44 | 07 | 44 | 08 | 44 | 09 | 44 | 0A | 44 | 0B |
| lp39 | 40 | 26 | 44 | 0C | 44 | 0D | 44 | 0E | 44 | 0F | 44 | 10 | 44 | 11 | 44 | 12 | 44 | 13 | 44 | 14 | 44 | 15 | 44 | 16 | 44 | 17 |
| lp40 | 40 | 27 | 44 | 18 | 44 | 19 | 44 | 1A | 44 | 1B | 44 | 1C | 44 | 1D | 44 | 1E | 44 | 1F | 44 | 20 | 44 | 21 | 44 | 22 | 44 | 23 |
| lp41 | 40 | 28 | 44 | 24 | 44 | 25 | 44 | 26 | 44 | 27 | 44 | 28 | 44 | 29 | 44 | 2A | 44 | 2B | 44 | 2C | 44 | 2D | 44 | 2E | 44 | 2F |
| lp42 | 40 | 29 | 44 | 30 | 44 | 31 | 44 | 32 | 44 | 33 | 44 | 34 | 44 | 35 | 44 | 36 | 44 | 37 | 44 | 38 | 44 | 39 | 44 | 3A | 44 | 3B |
| lp43 | 40 | 2A | 44 | 3C | 44 | 3D | 44 | 3E | 44 | 3F | 44 | 40 | 44 | 41 | 44 | 42 | 44 | 43 | 44 | 44 | 44 | 45 | 44 | 46 | 44 | 47 |
| lp44 | 40 | 2B | 44 | 48 | 44 | 49 | 44 | 4A | 44 | 4B | 44 | 4C | 44 | 4D | 44 | 4E | 44 | 4F | 44 | 50 | 44 | 51 | 44 | 52 | 44 | 53 |
| lp45 | 40 | 2C | 44 | 54 | 44 | 55 | 44 | 56 | 44 | 57 | 44 | 58 | 44 | 59 | 44 | 5A | 44 | 5B | 44 | 5C | 44 | 5D | 44 | 5E | 44 | 5F |
| lp46 | 40 | 2D | 44 | 60 | 44 | 61 | 44 | 62 | 44 | 63 | 44 | 64 | 44 | 65 | 44 | 66 | 44 | 67 | 44 | 68 | 44 | 69 | 44 | 6A | 44 | 6B |
| lp47 | 40 | 2E | 44 | 6C | 44 | 6D | 44 | 6E | 44 | 6F | 44 | 70 | 44 | 71 | 44 | 72 | 44 | 73 | 44 | 74 | 44 | 75 | 44 | 76 | 44 | 77 |
| lp48 | 40 | 2F | 44 | 78 | 44 | 79 | 44 | 7A | 44 | 7B | 44 | 7C | 44 | 7D | 44 | 7E | 44 | 7F | 45 | 00 | 45 | 01 | 45 | 02 | 45 | 03 |

Level Parameter Numbers – Groups to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|-------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 40 | 30 | 45 | 04 | 45 | 05 | 45 | 06 | 45 | 07 | 45 | 08 | 45 | 09 | 45 | 0A | 45 | 0B | 45 | 0C | 45 | 0D | 45 | 0E | - | - |
| Grp2 | 40 | 31 | 45 | 10 | 45 | 11 | 45 | 12 | 45 | 13 | 45 | 14 | 45 | 15 | 45 | 16 | 45 | 17 | 45 | 18 | 45 | 19 | - | - | - | - |
| Grp3 | 40 | 32 | 45 | 1C | 45 | 1D | 45 | 1E | 45 | 1F | 45 | 20 | 45 | 21 | 45 | 22 | 45 | 23 | 45 | 24 | - | - | - | - | - | - |
| Grp4 | 40 | 33 | 45 | 28 | 45 | 29 | 45 | 2A | 45 | 2B | 45 | 2C | 45 | 2D | 45 | 2E | 45 | 2F | - | - | - | - | - | - | - | - |
| Grp5 | 40 | 34 | 45 | 34 | 45 | 35 | 45 | 36 | 45 | 37 | 45 | 38 | 45 | 39 | 45 | 3A | - | - | - | - | - | - | - | - | - | - |
| Grp6 | 40 | 35 | 45 | 40 | 45 | 41 | 45 | 42 | 45 | 43 | 45 | 44 | 45 | 45 | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp7 | 40 | 36 | 45 | 4C | 45 | 4D | 45 | 4E | 45 | 4F | 45 | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp8 | 40 | 37 | 45 | 58 | 45 | 59 | 45 | 5A | 45 | 5B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp9 | 40 | 38 | 45 | 64 | 45 | 65 | 45 | 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp10 | 40 | 39 | 45 | 70 | 45 | 71 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp11 | 40 | 3A | 45 | 7C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp12 | 40 | 3B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Level Parameter Numbers – FX Returns to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|--------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 40 | 3C | 46 | 14 | 46 | 15 | 46 | 16 | 46 | 17 | 46 | 18 | 46 | 19 | 46 | 1A | 46 | 1B | 46 | 1C | 46 | 1D | 46 | 1E | 46 | 1F |
| FX2Rtn | 40 | 3D | 46 | 20 | 46 | 21 | 46 | 22 | 46 | 23 | 46 | 24 | 46 | 25 | 46 | 26 | 46 | 27 | 46 | 28 | 46 | 29 | 46 | 2A | 46 | 2B |
| FX3Rtn | 40 | 3E | 46 | 2C | 46 | 2D | 46 | 2E | 46 | 2F | 46 | 30 | 46 | 31 | 46 | 32 | 46 | 33 | 46 | 34 | 46 | 35 | 46 | 36 | 46 | 37 |
| FX4Rtn | 40 | 3F | 46 | 38 | 46 | 39 | 46 | 3A | 46 | 3B | 46 | 3C | 46 | 3D | 46 | 3E | 46 | 3F | 46 | 40 | 46 | 41 | 46 | 42 | 46 | 43 |
| FX5Rtn | 40 | 40 | 46 | 44 | 46 | 45 | 46 | 46 | 46 | 47 | 46 | 48 | 46 | 49 | 46 | 4A | 46 | 4B | 46 | 4C | 46 | 4D | 46 | 4E | 46 | 4F |
| FX6Rtn | 40 | 41 | 46 | 50 | 46 | 51 | 46 | 52 | 46 | 53 | 46 | 54 | 46 | 55 | 46 | 56 | 46 | 57 | 46 | 58 | 46 | 59 | 46 | 5A | 46 | 5B |
| FX7Rtn | 40 | 42 | 46 | 5C | 46 | 5D | 46 | 5E | 46 | 5F | 46 | 60 | 46 | 61 | 46 | 62 | 46 | 63 | 46 | 64 | 46 | 65 | 46 | 66 | 46 | 67 |
| FX8Rtn | 40 | 43 | 46 | 68 | 46 | 69 | 46 | 6A | 46 | 6B | 46 | 6C | 46 | 6D | 46 | 6E | 46 | 6F | 46 | 70 | 46 | 71 | 46 | 72 | 46 | 73 |

Level Parameter Numbers – FX Returns to Groups (MB/LB)

| | Grp1 | | Grp2 | | Grp3 | | Grp4 | | Grp5 | | Grp6 | | Grp7 | | Grp8 | | Grp9 | | Grp10 | | Grp11 | | Grp12 | |
|--------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 4B | 34 | 4B | 35 | 4B | 36 | 4B | 37 | 4B | 38 | 4B | 39 | 4B | 3A | 4B | 3B | 4B | 3C | 4B | 3D | 4B | 3E | 4B | 3F |
| FX2Rtn | 4B | 40 | 4B | 41 | 4B | 42 | 4B | 43 | 4B | 44 | 4B | 45 | 4B | 46 | 4B | 47 | 4B | 48 | 4B | 49 | 4B | 4A | 4B | 4B |
| FX3Rtn | 4B | 4C | 4B | 4D | 4B | 4E | 4B | 4F | 4B | 50 | 4B | 51 | 4B | 52 | 4B | 53 | 4B | 54 | 4B | 55 | 4B | 56 | 4B | 57 |
| FX4Rtn | 4B | 58 | 4B | 59 | 4B | 5A | 4B | 5B | 4B | 5C | 4B | 5D | 4B | 5E | 4B | 5F | 4B | 60 | 4B | 61 | 4B | 62 | 4B | 63 |
| FX5Rtn | 4B | 64 | 4B | 65 | 4B | 66 | 4B | 67 | 4B | 68 | 4B | 69 | 4B | 6A | 4B | 6B | 4B | 6C | 4B | 6D | 4B | 6E | 4B | 6F |
| FX6Rtn | 4B | 70 | 4B | 71 | 4B | 72 | 4B | 73 | 4B | 74 | 4B | 75 | 4B | 76 | 4B | 77 | 4B | 78 | 4B | 79 | 4B | 7A | 4B | 7B |
| FX7Rtn | 4B | 7C | 4B | 7D | 4B | 7E | 4B | 7F | 4C | 00 | 4C | 01 | 4C | 02 | 4C | 03 | 4C | 04 | 4C | 05 | 4C | 06 | 4C | 07 |
| FX8Rtn | 4C | 08 | 4C | 09 | 4C | 0A | 4C | 0B | 4C | 0C | 4C | 0D | 4C | 0E | 4C | 0F | 4C | 10 | 4C | 11 | 4C | 12 | 4C | 13 |

Level Parameter Numbers – FX Sends (MB/LB)

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|------|--------|-------|--------|-------|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp1 | 4C 14 | 4C 15 | 4C 16 | 4C 17 | | | | |
| lp2 | 4C 18 | 4C 19 | 4C 1A | 4C 1B | | | | |
| lp3 | 4C 1C | 4C 1D | 4C 1E | 4C 1F | | | | |
| lp4 | 4C 20 | 4C 21 | 4C 22 | 4C 23 | | | | |
| lp5 | 4C 24 | 4C 25 | 4C 26 | 4C 27 | | | | |
| lp6 | 4C 28 | 4C 29 | 4C 2A | 4C 2B | | | | |
| lp7 | 4C 2C | 4C 2D | 4C 2E | 4C 2F | | | | |
| lp8 | 4C 30 | 4C 31 | 4C 32 | 4C 33 | | | | |
| lp9 | 4C 34 | 4C 35 | 4C 36 | 4C 37 | | | | |
| lp10 | 4C 38 | 4C 39 | 4C 3A | 4C 3B | | | | |
| lp11 | 4C 3C | 4C 3D | 4C 3E | 4C 3F | | | | |
| lp12 | 4C 40 | 4C 41 | 4C 42 | 4C 43 | | | | |
| lp13 | 4C 44 | 4C 45 | 4C 46 | 4C 47 | | | | |
| lp14 | 4C 48 | 4C 49 | 4C 4A | 4C 4B | | | | |
| lp15 | 4C 4C | 4C 4D | 4C 4E | 4C 4F | | | | |
| lp16 | 4C 50 | 4C 51 | 4C 52 | 4C 53 | | | | |
| lp17 | 4C 54 | 4C 55 | 4C 56 | 4C 57 | | | | |
| lp18 | 4C 58 | 4C 59 | 4C 5A | 4C 5B | | | | |
| lp19 | 4C 5C | 4C 5D | 4C 5E | 4C 5F | | | | |
| lp20 | 4C 60 | 4C 61 | 4C 62 | 4C 63 | | | | |
| lp21 | 4C 64 | 4C 65 | 4C 66 | 4C 67 | | | | |
| lp22 | 4C 68 | 4C 69 | 4C 6A | 4C 6B | | | | |
| lp23 | 4C 6C | 4C 6D | 4C 6E | 4C 6F | | | | |
| lp24 | 4C 70 | 4C 71 | 4C 72 | 4C 73 | | | | |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|------|--------|-------|--------|-------|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp25 | 4C 74 | 4C 75 | 4C 76 | 4C 77 | | | | |
| lp26 | 4C 78 | 4C 79 | 4C 7A | 4C 7B | | | | |
| lp27 | 4C 7C | 4C 7D | 4C 7E | 4C 7F | | | | |
| lp28 | 4D 00 | 4D 01 | 4D 02 | 4D 03 | | | | |
| lp29 | 4D 04 | 4D 05 | 4D 06 | 4D 07 | | | | |
| lp30 | 4D 08 | 4D 09 | 4D 0A | 4D 0B | | | | |
| lp31 | 4D 0C | 4D 0D | 4D 0E | 4D 0F | | | | |
| lp32 | 4D 10 | 4D 11 | 4D 12 | 4D 13 | | | | |
| lp33 | 4D 14 | 4D 15 | 4D 16 | 4D 17 | | | | |
| lp34 | 4D 18 | 4D 19 | 4D 1A | 4D 1B | | | | |
| lp35 | 4D 1C | 4D 1D | 4D 1E | 4D 1F | | | | |
| lp36 | 4D 20 | 4D 21 | 4D 22 | 4D 23 | | | | |
| lp37 | 4D 24 | 4D 25 | 4D 26 | 4D 27 | | | | |
| lp38 | 4D 28 | 4D 29 | 4D 2A | 4D 2B | | | | |
| lp39 | 4D 2C | 4D 2D | 4D 2E | 4D 2F | | | | |
| lp40 | 4D 30 | 4D 31 | 4D 32 | 4D 33 | | | | |
| lp41 | 4D 34 | 4D 35 | 4D 36 | 4D 37 | | | | |
| lp42 | 4D 38 | 4D 39 | 4D 3A | 4D 3B | | | | |
| lp43 | 4D 3C | 4D 3D | 4D 3E | 4D 3F | | | | |
| lp44 | 4D 40 | 4D 41 | 4D 42 | 4D 43 | | | | |
| lp45 | 4D 44 | 4D 45 | 4D 46 | 4D 47 | | | | |
| lp46 | 4D 48 | 4D 49 | 4D 4A | 4D 4B | | | | |
| lp47 | 4D 4C | 4D 4D | 4D 4E | 4D 4F | | | | |
| lp48 | 4D 50 | 4D 51 | 4D 52 | 4D 53 | | | | |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|-------|--------|-------|--------|-------|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 4D 54 | 4D 55 | 4D 56 | 4D 57 | | | | |
| Grp2 | 4D 58 | 4D 59 | 4D 5A | 4D 5B | | | | |
| Grp3 | 4D 5C | 4D 5D | 4D 5E | 4D 5F | | | | |
| Grp4 | 4D 60 | 4D 61 | 4D 62 | 4D 63 | | | | |
| Grp5 | 4D 64 | 4D 65 | 4D 66 | 4D 67 | | | | |
| Grp6 | 4D 68 | 4D 69 | 4D 6A | 4D 6B | | | | |
| Grp7 | 4D 6C | 4D 6D | 4D 6E | 4D 6F | | | | |
| Grp8 | 4D 70 | 4D 71 | 4D 72 | 4D 73 | | | | |
| Grp9 | 4D 74 | 4D 75 | 4D 76 | 4D 77 | | | | |
| Grp10 | 4D 78 | 4D 79 | 4D 7A | 4D 7B | | | | |
| Grp11 | 4D 7C | 4D 7D | 4D 7E | 4D 7F | | | | |
| Grp12 | 4E 00 | 4E 01 | 4E 02 | 4E 03 | | | | |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|--------|--------|-------|--------|-------|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 4E 04 | 4E 05 | 4E 06 | 4E 07 | | | | |
| FX2Rtn | 4E 08 | 4E 09 | 4E 0A | 4E 0B | | | | |
| FX3Rtn | 4E 0C | 4E 0D | 4E 0E | 4E 0F | | | | |
| FX4Rtn | 4E 10 | 4E 11 | 4E 12 | 4E 13 | | | | |
| FX5Rtn | 4E 14 | 4E 15 | 4E 16 | 4E 17 | | | | |
| FX6Rtn | 4E 18 | 4E 19 | 4E 1A | 4E 1B | | | | |
| FX7Rtn | 4E 1C | 4E 1D | 4E 1E | 4E 1F | | | | |
| FX8Rtn | 4E 20 | 4E 21 | 4E 22 | 4E 23 | | | | |

Level Parameter Numbers – Master Sends (MB/LB)

| | Mtx1 | | Mtx2 | | Mtx3 | |
|-------|-------|-------|-------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| LR | 4E 24 | 4E 25 | 4E 26 | | | |
| Aux1 | 4E 27 | 4E 28 | 4E 29 | | | |
| Aux2 | 4E 2A | 4E 2B | 4E 2C | | | |
| Aux3 | 4E 2D | 4E 2E | 4E 2F | | | |
| Aux4 | 4E 30 | 4E 31 | 4E 32 | | | |
| Aux5 | 4E 33 | 4E 34 | 4E 35 | | | |
| Aux6 | 4E 36 | 4E 37 | 4E 38 | | | |
| Aux7 | 4E 39 | 4E 3A | 4E 3B | | | |
| Aux8 | 4E 3C | 4E 3D | 4E 3E | | | |
| Aux9 | 4E 3F | 4E 40 | 4E 41 | | | |
| Aux10 | 4E 42 | 4E 43 | 4E 44 | | | |
| Aux11 | 4E 45 | 4E 46 | 4E 47 | | | |
| Aux12 | 4E 48 | 4E 49 | 4E 4A | | | |

| | Mtx1 | | Mtx2 | | Mtx3 | |
|-------|-------|-------|-------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 4E 4B | 4E 4C | 4E 4D | | | |
| Grp2 | 4E 4E | 4E 4F | 4E 50 | | | |
| Grp3 | 4E 51 | 4E 52 | 4E 53 | | | |
| Grp4 | 4E 54 | 4E 55 | 4E 56 | | | |
| Grp5 | 4E 57 | 4E 58 | 4E 59 | | | |
| Grp6 | 4E 5A | 4E 5B | 4E 5C | | | |
| Grp7 | 4E 5D | 4E 5E | 4E 5F | | | |
| Grp8 | 4E 60 | 4E 61 | 4E 62 | | | |
| Grp9 | 4E 63 | 4E 64 | 4E 65 | | | |
| Grp10 | 4E 66 | 4E 67 | 4E 68 | | | |
| Grp11 | 4E 69 | 4E 6A | 4E 6B | | | |
| Grp12 | 4E 6C | 4E 6D | 4E 6E | | | |

| | Output | |
|-------|--------|-----|
| | MSB | LSB |
| LR | 4F 00 | |
| Aux1 | 4F 01 | |
| Aux2 | 4F 02 | |
| Aux3 | 4F 03 | |
| Aux4 | 4F 04 | |
| Aux5 | 4F 05 | |
| Aux6 | 4F 06 | |
| Aux7 | 4F 07 | |
| Aux8 | 4F 08 | |
| Aux9 | 4F 09 | |
| Aux10 | 4F 0A | |
| Aux11 | 4F 0B | |
| Aux12 | 4F 0C | |

| | Output | |
|--------|--------|-----|
| | MSB | LSB |
| FX1Snd | 4F 0D | |
| FX2Snd | 4F 0E | |
| FX3Snd | 4F 0F | |
| FX4Snd | 4F 10 | |
| Mtx1 | 4F 11 | |
| Mtx2 | 4F 12 | |
| Mtx3 | 4F 13 | |

| | Control | |
|------|---------|-----|
| | MSB | LSB |
| DCA1 | 4F 20 | |
| DCA2 | 4F 21 | |
| DCA3 | 4F 22 | |
| DCA4 | 4F 23 | |
| DCA5 | 4F 24 | |
| DCA6 | 4F 25 | |
| DCA7 | 4F 26 | |
| DCA8 | 4F 27 | |

Panning/Balance Parameter Numbers – Inputs to LR (+Groups) and Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp1 | 50 | 00 | 50 | 44 | 50 | 45 | 50 | 46 | 50 | 47 | 50 | 48 | 50 | 49 | 50 | 4A | 50 | 4B | 50 | 4C | 50 | 4D | 50 | 4E | 50 | 4F |
| lp2 | 50 | 01 | 50 | 50 | 50 | 51 | 50 | 52 | 50 | 53 | 50 | 54 | 50 | 55 | 50 | 56 | 50 | 57 | 50 | 58 | 50 | 59 | 50 | 5A | 50 | 5B |
| lp3 | 50 | 02 | 50 | 5C | 50 | 5D | 50 | 5E | 50 | 5F | 50 | 60 | 50 | 61 | 50 | 62 | 50 | 63 | 50 | 64 | 50 | 65 | 50 | 66 | 50 | 67 |
| lp4 | 50 | 03 | 50 | 68 | 50 | 69 | 50 | 6A | 50 | 6B | 50 | 6C | 50 | 6D | 50 | 6E | 50 | 6F | 50 | 70 | 50 | 71 | 50 | 72 | 50 | 73 |
| lp5 | 50 | 04 | 50 | 74 | 50 | 75 | 50 | 76 | 50 | 77 | 50 | 78 | 50 | 79 | 50 | 7A | 50 | 7B | 50 | 7C | 50 | 7D | 50 | 7E | 50 | 7F |
| lp6 | 50 | 05 | 51 | 00 | 51 | 01 | 51 | 02 | 51 | 03 | 51 | 04 | 51 | 05 | 51 | 06 | 51 | 07 | 51 | 08 | 51 | 09 | 51 | 0A | 51 | 0B |
| lp7 | 50 | 06 | 51 | 0C | 51 | 0D | 51 | 0E | 51 | 0F | 51 | 10 | 51 | 11 | 51 | 12 | 51 | 13 | 51 | 14 | 51 | 15 | 51 | 16 | 51 | 17 |
| lp8 | 50 | 07 | 51 | 18 | 51 | 19 | 51 | 1A | 51 | 1B | 51 | 1C | 51 | 1D | 51 | 1E | 51 | 1F | 51 | 20 | 51 | 21 | 51 | 22 | 51 | 23 |
| lp9 | 50 | 08 | 51 | 24 | 51 | 25 | 51 | 26 | 51 | 27 | 51 | 28 | 51 | 29 | 51 | 2A | 51 | 2B | 51 | 2C | 51 | 2D | 51 | 2E | 51 | 2F |
| lp10 | 50 | 09 | 51 | 30 | 51 | 31 | 51 | 32 | 51 | 33 | 51 | 34 | 51 | 35 | 51 | 36 | 51 | 37 | 51 | 38 | 51 | 39 | 51 | 3A | 51 | 3B |
| lp11 | 50 | 0A | 51 | 3C | 51 | 3D | 51 | 3E | 51 | 3F | 51 | 40 | 51 | 41 | 51 | 42 | 51 | 43 | 51 | 44 | 51 | 45 | 51 | 46 | 51 | 47 |
| lp12 | 50 | 0B | 51 | 48 | 51 | 49 | 51 | 4A | 51 | 4B | 51 | 4C | 51 | 4D | 51 | 4E | 51 | 4F | 51 | 50 | 51 | 51 | 51 | 52 | 51 | 53 |
| lp13 | 50 | 0C | 51 | 54 | 51 | 55 | 51 | 56 | 51 | 57 | 51 | 58 | 51 | 59 | 51 | 5A | 51 | 5B | 51 | 5C | 51 | 5D | 51 | 5E | 51 | 5F |
| lp14 | 50 | 0D | 51 | 60 | 51 | 61 | 51 | 62 | 51 | 63 | 51 | 64 | 51 | 65 | 51 | 66 | 51 | 67 | 51 | 68 | 51 | 69 | 51 | 6A | 51 | 6B |
| lp15 | 50 | 0E | 51 | 6C | 51 | 6D | 51 | 6E | 51 | 6F | 51 | 70 | 51 | 71 | 51 | 72 | 51 | 73 | 51 | 74 | 51 | 75 | 51 | 76 | 51 | 77 |
| lp16 | 50 | 0F | 51 | 78 | 51 | 79 | 51 | 7A | 51 | 7B | 51 | 7C | 51 | 7D | 51 | 7E | 51 | 7F | 52 | 00 | 52 | 01 | 52 | 02 | 52 | 03 |
| lp17 | 50 | 10 | 52 | 04 | 52 | 05 | 52 | 06 | 52 | 07 | 52 | 08 | 52 | 09 | 52 | 0A | 52 | 0B | 52 | 0C | 52 | 0D | 52 | 0E | 52 | 0F |
| lp18 | 50 | 11 | 52 | 10 | 52 | 11 | 52 | 12 | 52 | 13 | 52 | 14 | 52 | 15 | 52 | 16 | 52 | 17 | 52 | 18 | 52 | 19 | 52 | 1A | 52 | 1B |
| lp19 | 50 | 12 | 52 | 1C | 52 | 1D | 52 | 1E | 52 | 1F | 52 | 20 | 52 | 21 | 52 | 22 | 52 | 23 | 52 | 24 | 52 | 25 | 52 | 26 | 52 | 27 |
| lp20 | 50 | 13 | 52 | 28 | 52 | 29 | 52 | 2A | 52 | 2B | 52 | 2C | 52 | 2D | 52 | 2E | 52 | 2F | 52 | 30 | 52 | 31 | 52 | 32 | 52 | 33 |
| lp21 | 50 | 14 | 52 | 34 | 52 | 35 | 52 | 36 | 52 | 37 | 52 | 38 | 52 | 39 | 52 | 3A | 52 | 3B | 52 | 3C | 52 | 3D | 52 | 3E | 52 | 3F |
| lp22 | 50 | 15 | 52 | 40 | 52 | 41 | 52 | 42 | 52 | 43 | 52 | 44 | 52 | 45 | 52 | 46 | 52 | 47 | 52 | 48 | 52 | 49 | 52 | 4A | 52 | 4B |
| lp23 | 50 | 16 | 52 | 4C | 52 | 4D | 52 | 4E | 52 | 4F | 52 | 50 | 52 | 51 | 52 | 52 | 52 | 53 | 52 | 54 | 52 | 55 | 52 | 56 | 52 | 57 |
| lp24 | 50 | 17 | 52 | 58 | 52 | 59 | 52 | 5A | 52 | 5B | 52 | 5C | 52 | 5D | 52 | 5E | 52 | 5F | 52 | 60 | 52 | 61 | 52 | 62 | 52 | 63 |
| lp25 | 50 | 18 | 52 | 64 | 52 | 65 | 52 | 66 | 52 | 67 | 52 | 68 | 52 | 69 | 52 | 6A | 52 | 6B | 52 | 6C | 52 | 6D | 52 | 6E | 52 | 6F |
| lp26 | 50 | 19 | 52 | 70 | 52 | 71 | 52 | 72 | 52 | 73 | 52 | 74 | 52 | 75 | 52 | 76 | 52 | 77 | 52 | 78 | 52 | 79 | 52 | 7A | 52 | 7B |
| lp27 | 50 | 1A | 52 | 7C | 52 | 7D | 52 | 7E | 52 | 7F | 53 | 00 | 53 | 01 | 53 | 02 | 53 | 03 | 53 | 04 | 53 | 05 | 53 | 06 | 53 | 07 |
| lp28 | 50 | 1B | 53 | 08 | 53 | 09 | 53 | 0A | 53 | 0B | 53 | 0C | 53 | 0D | 53 | 0E | 53 | 0F | 53 | 10 | 53 | 11 | 53 | 12 | 53 | 13 |
| lp29 | 50 | 1C | 53 | 14 | 53 | 15 | 53 | 16 | 53 | 17 | 53 | 18 | 53 | 19 | 53 | 1A | 53 | 1B | 53 | 1C | 53 | 1D | 53 | 1E | 53 | 1F |
| lp30 | 50 | 1D | 53 | 20 | 53 | 21 | 53 | 22 | 53 | 23 | 53 | 24 | 53 | 25 | 53 | 26 | 53 | 27 | 53 | 28 | 53 | 29 | 53 | 2A | 53 | 2B |
| lp31 | 50 | 1E | 53 | 2C | 53 | 2D | 53 | 2E | 53 | 2F | 53 | 30 | 53 | 31 | 53 | 32 | 53 | 33 | 53 | 34 | 53 | 35 | 53 | 36 | 53 | 37 |
| lp32 | 50 | 1F | 53 | 38 | 53 | 39 | 53 | 3A | 53 | 3B | 53 | 3C | 53 | 3D | 53 | 3E | 53 | 3F | 53 | 40 | 53 | 41 | 53 | 42 | 53 | 43 |
| lp33 | 50 | 20 | 53 | 44 | 53 | 45 | 53 | 46 | 53 | 47 | 53 | 48 | 53 | 49 | 53 | 4A | 53 | 4B | 53 | 4C | 53 | 4D | 53 | 4E | 53 | 4F |
| lp34 | 50 | 21 | 53 | 50 | 53 | 51 | 53 | 52 | 53 | 53 | 53 | 54 | 53 | 55 | 53 | 56 | 53 | 57 | 53 | 58 | 53 | 59 | 53 | 5A | 53 | 5B |
| lp35 | 50 | 22 | 53 | 5C | 53 | 5D | 53 | 5E | 53 | 5F | 53 | 60 | 53 | 61 | 53 | 62 | 53 | 63 | 53 | 64 | 53 | 65 | 53 | 66 | 53 | 67 |
| lp36 | 50 | 23 | 53 | 68 | 53 | 69 | 53 | 6A | 53 | 6B | 53 | 6C | 53 | 6D | 53 | 6E | 53 | 6F | 53 | 70 | 53 | 71 | 53 | 72 | 53 | 73 |
| lp37 | 50 | 24 | 53 | 74 | 53 | 75 | 53 | 76 | 53 | 77 | 53 | 78 | 53 | 79 | 53 | 7A | 53 | 7B | 53 | 7C | 53 | 7D | 53 | 7E | 53 | 7F |
| lp38 | 50 | 25 | 54 | 00 | 54 | 01 | 54 | 02 | 54 | 03 | 54 | 04 | 54 | 05 | 54 | 06 | 54 | 07 | 54 | 08 | 54 | 09 | 54 | 0A | 54 | 0B |
| lp39 | 50 | 26 | 54 | 0C | 54 | 0D | 54 | 0E | 54 | 0F | 54 | 10 | 54 | 11 | 54 | 12 | 54 | 13 | 54 | 14 | 54 | 15 | 54 | 16 | 54 | 17 |
| lp40 | 50 | 27 | 54 | 18 | 54 | 19 | 54 | 1A | 54 | 1B | 54 | 1C | 54 | 1D | 54 | 1E | 54 | 1F | 54 | 20 | 54 | 21 | 54 | 22 | 54 | 23 |
| lp41 | 50 | 28 | 54 | 24 | 54 | 25 | 54 | 26 | 54 | 27 | 54 | 28 | 54 | 29 | 54 | 2A | 54 | 2B | 54 | 2C | 54 | 2D | 54 | 2E | 54 | 2F |
| lp42 | 50 | 29 | 54 | 30 | 54 | 31 | 54 | 32 | 54 | 33 | 54 | 34 | 54 | 35 | 54 | 36 | 54 | 37 | 54 | 38 | 54 | 39 | 54 | 3A | 54 | 3B |
| lp43 | 50 | 2A | 54 | 3C | 54 | 3D | 54 | 3E | 54 | 3F | 54 | 40 | 54 | 41 | 54 | 42 | 54 | 43 | 54 | 44 | 54 | 45 | 54 | 46 | 54 | 47 |
| lp44 | 50 | 2B | 54 | 48 | 54 | 49 | 54 | 4A | 54 | 4B | 54 | 4C | 54 | 4D | 54 | 4E | 54 | 4F | 54 | 50 | 54 | 51 | 54 | 52 | 54 | 53 |
| lp45 | 50 | 2C | 54 | 54 | 54 | 55 | 54 | 56 | 54 | 57 | 54 | 58 | 54 | 59 | 54 | 5A | 54 | 5B | 54 | 5C | 54 | 5D | 54 | 5E | 54 | 5F |
| lp46 | 50 | 2D | 54 | 60 | 54 | 61 | 54 | 62 | 54 | 63 | 54 | 64 | 54 | 65 | 54 | 66 | 54 | 67 | 54 | 68 | 54 | 69 | 54 | 6A | 54 | 6B |
| lp47 | 50 | 2E | 54 | 6C | 54 | 6D | 54 | 6E | 54 | 6F | 54 | 70 | 54 | 71 | 54 | 72 | 54 | 73 | 54 | 74 | 54 | 75 | 54 | 76 | 54 | 77 |
| lp48 | 50 | 2F | 54 | 78 | 54 | 79 | 54 | 7A | 54 | 7B | 54 | 7C | 54 | 7D | 54 | 7E | 54 | 7F | 55 | 00 | 55 | 01 | 55 | 02 | 55 | 03 |

Balance Parameter Numbers – Groups to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | | | |
|-------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|---|---|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | | |
| Grp1 | 50 | 30 | 55 | 04 | 55 | 05 | 55 | 06 | 55 | 07 | 55 | 08 | 55 | 09 | 55 | 0A | 55 | 0B | 55 | 0C | 55 | 0D | 55 | 0E | - | - | - | - |
| Grp2 | 50 | 31 | 55 | 10 | 55 | 11 | 55 | 12 | 55 | 13 | 55 | 14 | 55 | 15 | 55 | 16 | 55 | 17 | 55 | 18 | 55 | 19 | - | - | - | - | - | - |
| Grp3 | 50 | 32 | 55 | 1C | 55 | 1D | 55 | 1E | 55 | 1F | 55 | 20 | 55 | 21 | 55 | 22 | 55 | 23 | 55 | 24 | - | - | - | - | - | - | - | - |
| Grp4 | 50 | 33 | 55 | 28 | 55 | 29 | 55 | 2A | 55 | 2B | 55 | 2C | 55 | 2D | 55 | 2E | 55 | 2F | - | - | - | - | - | - | - | - | - | - |
| Grp5 | 50 | 34 | 55 | 34 | 55 | 35 | 55 | 36 | 55 | 37 | 55 | 38 | 55 | 39 | 55 | 3A | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp6 | 50 | 35 | 55 | 40 | 55 | 41 | 55 | 42 | 55 | 43 | 55 | 44 | 55 | 45 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp7 | 50 | 36 | 55 | 4C | 55 | 4D | 55 | 4E | 55 | 4F | 55 | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp8 | 50 | 37 | 55 | 58 | 55 | 59 | 55 | 5A | 55 | 5B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp9 | 50 | 38 | 55 | 64 | 55 | 65 | 55 | 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp10 | 50 | 39 | 55 | 70 | 55 | 71 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp11 | 50 | 3A | 55 | 7C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp12 | 50 | 3B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Balance Parameter Numbers – FX Returns to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|--------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 50 | 3C | 56 | 14 | 56 | 15 | 56 | 16 | 56 | 17 | 56 | 18 | 56 | 19 | 56 | 1A | 56 | 1B | 56 | 1C | 56 | 1D | 56 | 1E | 56 | 1F |
| FX2Rtn | 50 | 3D | 56 | 20 | 56 | 21 | 56 | 22 | 56 | 23 | 56 | 24 | 56 | 25 | 56 | 26 | 56 | 27 | 56 | 28 | 56 | 29 | 56 | 2A | 56 | 2B |
| FX3Rtn | 50 | 3E | 56 | 2C | 56 | 2D | 56 | 2E | 56 | 2F | 56 | 30 | 56 | 31 | 56 | 32 | 56 | 33 | 56 | 34 | 56 | 35 | 56 | 36 | 56 | 37 |
| FX4Rtn | 50 | 3F | 56 | 38 | 56 | 39 | 56 | 3A | 56 | 3B | 56 | 3C | 56 | 3D | 56 | 3E | 56 | 3F | 56 | 40 | 56 | 41 | 56 | 42 | 56 | 43 |
| FX5Rtn | 50 | 40 | 56 | 44 | 56 | 45 | 56 | 46 | 56 | 47 | 56 | 48 | 56 | 49 | 56 | 4A | 56 | 4B | 56 | 4C | 56 | 4D | 56 | 4E | 56 | 4F |
| FX6Rtn | 50 | 41 | 56 | 50 | 56 | 51 | 56 | 52 | 56 | 53 | 56 | 54 | 56 | 55 | 56 | 56 | 56 | 57 | 56 | 58 | 56 | 59 | 56 | 5A | 56 | 5B |
| FX7Rtn | 50 | 42 | 56 | 5C | 56 | 5D | 56 | 5E | 56 | 5F | 56 | 60 | 56 | 61 | 56 | 62 | 56 | 63 | 56 | 64 | 56 | 65 | 56 | 66 | 56 | 67 |
| FX8Rtn | 50 | 43 | 56 | 68 | 56 | 69 | 56 | 6A | 56 | 6B | 56 | 6C | 56 | 6D | 56 | 6E | 56 | 6F | 56 | 70 | 56 | 71 | 56 | 72 | 56 | 73 |

Balance Parameter Numbers – FX Returns to Groups (MB/LB)

| | Grp1 | | Grp2 | | Grp3 | | Grp4 | | Grp5 | | Grp6 | | Grp7 | | Grp8 | | Grp9 | | Grp10 | | Grp11 | | Grp12 | |
|--------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 5B | 34 | 5B | 35 | 5B | 36 | 5B | 37 | 5B | 38 | 5B | 39 | 5B | 3A | 5B | 3B | 5B | 3C | 5B | 3D | 5B | 3E | 5B | 3F |
| FX2Rtn | 5B | 40 | 5B | 41 | 5B | 42 | 5B | 43 | 5B | 44 | 5B | 45 | 5B | 46 | 5B | 47 | 5B | 48 | 5B | 49 | 5B | 4A | 5B | 4B |
| FX3Rtn | 5B | 4C | 5B | 4D | 5B | 4E | 5B | 4F | 5B | 50 | 5B | 51 | 5B | 52 | 5B | 53 | 5B | 54 | 5B | 55 | 5B | 56 | 5B | 57 |
| FX4Rtn | 5B | 58 | 5B | 59 | 5B | 5A | 5B | 5B | 5B | 5C | 5B | 5D | 5B | 5E | 5B | 5F | 5B | 60 | 5B | 61 | 5B | 62 | 5B | 63 |
| FX5Rtn | 5B | 64 | 5B | 65 | 5B | 66 | 5B | 67 | 5B | 68 | 5B | 69 | 5B | 6A | 5B | 6B | 5B | 6C | 5B | 6D | 5B | 6E | 5B | 6F |
| FX6Rtn | 5B | 70 | 5B | 71 | 5B | 72 | 5B | 73 | 5B | 74 | 5B | 75 | 5B | 76 | 5B | 77 | 5B | 78 | 5B | 79 | 5B | 7A | 5B | 7B |
| FX7Rtn | 5B | 7C | 5B | 7D | 5B | 7E | 5B | 7F | 5C | 00 | 5C | 01 | 5C | 02 | 5C | 03 | 5C | 04 | 5C | 05 | 5C | 06 | 5C | 07 |
| FX8Rtn | 5C | 08 | 5C | 09 | 5C | 0A | 5C | 0B | 5C | 0C | 5C | 0D | 5C | 0E | 5C | 0F | 5C | 10 | 5C | 11 | 5C | 12 | 5C | 13 |

Balance Parameter Numbers – Master Sends (MB/LB)

| | Mtx1 | | Mtx2 | | Mtx3 | |
|--------------|------|-----|------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| LR | 5E | 24 | 5E | 25 | 5E | 26 |
| Aux1 | 5E | 27 | 5E | 28 | 5E | 29 |
| Aux2 | 5E | 2A | 5E | 2B | 5E | 2C |
| Aux3 | 5E | 2D | 5E | 2E | 5E | 2F |
| Aux4 | 5E | 30 | 5E | 31 | 5E | 32 |
| Aux5 | 5E | 33 | 5E | 34 | 5E | 35 |
| Aux6 | 5E | 36 | 5E | 37 | 5E | 38 |
| Aux7 | 5E | 39 | 5E | 3A | 5E | 3B |
| Aux8 | 5E | 3C | 5E | 3D | 5E | 3E |
| Aux9 | 5E | 3F | 5E | 40 | 5E | 41 |
| Aux10 | 5E | 42 | 5E | 43 | 5E | 44 |
| Aux11 | 5E | 45 | 5E | 46 | 5E | 47 |
| Aux12 | 5E | 48 | 5E | 49 | 5E | 4A |

| | Mtx1 | | Mtx2 | | Mtx3 | |
|--------------|------|-----|------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 5E | 4B | 5E | 4C | 5E | 4D |
| Grp2 | 5E | 4E | 5E | 4F | 5E | 50 |
| Grp3 | 5E | 51 | 5E | 52 | 5E | 53 |
| Grp4 | 5E | 54 | 5E | 55 | 5E | 56 |
| Grp5 | 5E | 57 | 5E | 58 | 5E | 59 |
| Grp6 | 5E | 5A | 5E | 5B | 5E | 5C |
| Grp7 | 5E | 5D | 5E | 5E | 5E | 5F |
| Grp8 | 5E | 60 | 5E | 61 | 5E | 62 |
| Grp9 | 5E | 63 | 5E | 64 | 5E | 65 |
| Grp10 | 5E | 66 | 5E | 67 | 5E | 68 |
| Grp11 | 5E | 69 | 5E | 6A | 5E | 6B |
| Grp12 | 5E | 6C | 5E | 6D | 5E | 6E |

| | Output | |
|--------------|--------|-----|
| | MSB | LSB |
| LR | 5F | 00 |
| Aux1 | 5F | 01 |
| Aux2 | 5F | 02 |
| Aux3 | 5F | 03 |
| Aux4 | 5F | 04 |
| Aux5 | 5F | 05 |
| Aux6 | 5F | 06 |
| Aux7 | 5F | 07 |
| Aux8 | 5F | 08 |
| Aux9 | 5F | 09 |
| Aux10 | 5F | 0A |
| Aux11 | 5F | 0B |
| Aux12 | 5F | 0C |

| | Output | |
|---------------|--------|-----|
| | MSB | LSB |
| FX1Snd | 5F | 0D |
| FX2Snd | 5F | 0E |
| FX3Snd | 5F | 0F |
| FX4Snd | 5F | 10 |
| Mtx1 | 5F | 11 |
| Mtx2 | 5F | 12 |
| Mtx3 | 5F | 13 |

Assignment Parameter Numbers – Inputs to LR/Aux (MB/LB)

| | LR | Aux1 | Aux2 | Aux3 | Aux4 | Aux5 | Aux6 | Aux7 | Aux8 | Aux9 | Aux10 | Aux11 | Aux12 |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB | MSB LSB |
| lp1 | 60 00 | 60 44 | 60 45 | 60 46 | 60 47 | 60 48 | 60 49 | 60 4A | 60 4B | 60 4C | 60 4D | 60 4E | 60 4F |
| lp2 | 60 01 | 60 50 | 60 51 | 60 52 | 60 53 | 60 54 | 60 55 | 60 56 | 60 57 | 60 58 | 60 59 | 60 5A | 60 5B |
| lp3 | 60 02 | 60 5C | 60 5D | 60 5E | 60 5F | 60 60 | 60 61 | 60 62 | 60 63 | 60 64 | 60 65 | 60 66 | 60 67 |
| lp4 | 60 03 | 60 68 | 60 69 | 60 6A | 60 6B | 60 6C | 60 6D | 60 6E | 60 6F | 60 70 | 60 71 | 60 72 | 60 73 |
| lp5 | 60 04 | 60 74 | 60 75 | 60 76 | 60 77 | 60 78 | 60 79 | 60 7A | 60 7B | 60 7C | 60 7D | 60 7E | 60 7F |
| lp6 | 60 05 | 61 00 | 61 01 | 61 02 | 61 03 | 61 04 | 61 05 | 61 06 | 61 07 | 61 08 | 61 09 | 61 0A | 61 0B |
| lp7 | 60 06 | 61 0C | 61 0D | 61 0E | 61 0F | 61 10 | 61 11 | 61 12 | 61 13 | 61 14 | 61 15 | 61 16 | 61 17 |
| lp8 | 60 07 | 61 18 | 61 19 | 61 1A | 61 1B | 61 1C | 61 1D | 61 1E | 61 1F | 61 20 | 61 21 | 61 22 | 61 23 |
| lp9 | 60 08 | 61 24 | 61 25 | 61 26 | 61 27 | 61 28 | 61 29 | 61 2A | 61 2B | 61 2C | 61 2D | 61 2E | 61 2F |
| lp10 | 60 09 | 61 30 | 61 31 | 61 32 | 61 33 | 61 34 | 61 35 | 61 36 | 61 37 | 61 38 | 61 39 | 61 3A | 61 3B |
| lp11 | 60 0A | 61 3C | 61 3D | 61 3E | 61 3F | 61 40 | 61 41 | 61 42 | 61 43 | 61 44 | 61 45 | 61 46 | 61 47 |
| lp12 | 60 0B | 61 48 | 61 49 | 61 4A | 61 4B | 61 4C | 61 4D | 61 4E | 61 4F | 61 50 | 61 51 | 61 52 | 61 53 |
| lp13 | 60 0C | 61 54 | 61 55 | 61 56 | 61 57 | 61 58 | 61 59 | 61 5A | 61 5B | 61 5C | 61 5D | 61 5E | 61 5F |
| lp14 | 60 0D | 61 60 | 61 61 | 61 62 | 61 63 | 61 64 | 61 65 | 61 66 | 61 67 | 61 68 | 61 69 | 61 6A | 61 6B |
| lp15 | 60 0E | 61 6C | 61 6D | 61 6E | 61 6F | 61 70 | 61 71 | 61 72 | 61 73 | 61 74 | 61 75 | 61 76 | 61 77 |
| lp16 | 60 0F | 61 78 | 61 79 | 61 7A | 61 7B | 61 7C | 61 7D | 61 7E | 61 7F | 62 00 | 62 01 | 62 02 | 62 03 |
| lp17 | 60 10 | 62 04 | 62 05 | 62 06 | 62 07 | 62 08 | 62 09 | 62 0A | 62 0B | 62 0C | 62 0D | 62 0E | 62 0F |
| lp18 | 60 11 | 62 10 | 62 11 | 62 12 | 62 13 | 62 14 | 62 15 | 62 16 | 62 17 | 62 18 | 62 19 | 62 1A | 62 1B |
| lp19 | 60 12 | 62 1C | 62 1D | 62 1E | 62 1F | 62 20 | 62 21 | 62 22 | 62 23 | 62 24 | 62 25 | 62 26 | 62 27 |
| lp20 | 60 13 | 62 28 | 62 29 | 62 2A | 62 2B | 62 2C | 62 2D | 62 2E | 62 2F | 62 30 | 62 31 | 62 32 | 62 33 |
| lp21 | 60 14 | 62 34 | 62 35 | 62 36 | 62 37 | 62 38 | 62 39 | 62 3A | 62 3B | 62 3C | 62 3D | 62 3E | 62 3F |
| lp22 | 60 15 | 62 40 | 62 41 | 62 42 | 62 43 | 62 44 | 62 45 | 62 46 | 62 47 | 62 48 | 62 49 | 62 4A | 62 4B |
| lp23 | 60 16 | 62 4C | 62 4D | 62 4E | 62 4F | 62 50 | 62 51 | 62 52 | 62 53 | 62 54 | 62 55 | 62 56 | 62 57 |
| lp24 | 60 17 | 62 58 | 62 59 | 62 5A | 62 5B | 62 5C | 62 5D | 62 5E | 62 5F | 62 60 | 62 61 | 62 62 | 62 63 |
| lp25 | 60 18 | 62 64 | 62 65 | 62 66 | 62 67 | 62 68 | 62 69 | 62 6A | 62 6B | 62 6C | 62 6D | 62 6E | 62 6F |
| lp26 | 60 19 | 62 70 | 62 71 | 62 72 | 62 73 | 62 74 | 62 75 | 62 76 | 62 77 | 62 78 | 62 79 | 62 7A | 62 7B |
| lp27 | 60 1A | 62 7C | 62 7D | 62 7E | 62 7F | 63 00 | 63 01 | 63 02 | 63 03 | 63 04 | 63 05 | 63 06 | 63 07 |
| lp28 | 60 1B | 63 08 | 63 09 | 63 0A | 63 0B | 63 0C | 63 0D | 63 0E | 63 0F | 63 10 | 63 11 | 63 12 | 63 13 |
| lp29 | 60 1C | 63 14 | 63 15 | 63 16 | 63 17 | 63 18 | 63 19 | 63 1A | 63 1B | 63 1C | 63 1D | 63 1E | 63 1F |
| lp30 | 60 1D | 63 20 | 63 21 | 63 22 | 63 23 | 63 24 | 63 25 | 63 26 | 63 27 | 63 28 | 63 29 | 63 2A | 63 2B |
| lp31 | 60 1E | 63 2C | 63 2D | 63 2E | 63 2F | 63 30 | 63 31 | 63 32 | 63 33 | 63 34 | 63 35 | 63 36 | 63 37 |
| lp32 | 60 1F | 63 38 | 63 39 | 63 3A | 63 3B | 63 3C | 63 3D | 63 3E | 63 3F | 63 40 | 63 41 | 63 42 | 63 43 |
| lp33 | 60 20 | 63 44 | 63 45 | 63 46 | 63 47 | 63 48 | 63 49 | 63 4A | 63 4B | 63 4C | 63 4D | 63 4E | 63 4F |
| lp34 | 60 21 | 63 50 | 63 51 | 63 52 | 63 53 | 63 54 | 63 55 | 63 56 | 63 57 | 63 58 | 63 59 | 63 5A | 63 5B |
| lp35 | 60 22 | 63 5C | 63 5D | 63 5E | 63 5F | 63 60 | 63 61 | 63 62 | 63 63 | 63 64 | 63 65 | 63 66 | 63 67 |
| lp36 | 60 23 | 63 68 | 63 69 | 63 6A | 63 6B | 63 6C | 63 6D | 63 6E | 63 6F | 63 70 | 63 71 | 63 72 | 63 73 |
| lp37 | 60 24 | 63 74 | 63 75 | 63 76 | 63 77 | 63 78 | 63 79 | 63 7A | 63 7B | 63 7C | 63 7D | 63 7E | 63 7F |
| lp38 | 60 25 | 64 00 | 64 01 | 64 02 | 64 03 | 64 04 | 64 05 | 64 06 | 64 07 | 64 08 | 64 09 | 64 0A | 64 0B |
| lp39 | 60 26 | 64 0C | 64 0D | 64 0E | 64 0F | 64 10 | 64 11 | 64 12 | 64 13 | 64 14 | 64 15 | 64 16 | 64 17 |
| lp40 | 60 27 | 64 18 | 64 19 | 64 1A | 64 1B | 64 1C | 64 1D | 64 1E | 64 1F | 64 20 | 64 21 | 64 22 | 64 23 |
| lp41 | 60 28 | 64 24 | 64 25 | 64 26 | 64 27 | 64 28 | 64 29 | 64 2A | 64 2B | 64 2C | 64 2D | 64 2E | 64 2F |
| lp42 | 60 29 | 64 30 | 64 31 | 64 32 | 64 33 | 64 34 | 64 35 | 64 36 | 64 37 | 64 38 | 64 39 | 64 3A | 64 3B |
| lp43 | 60 2A | 64 3C | 64 3D | 64 3E | 64 3F | 64 40 | 64 41 | 64 42 | 64 43 | 64 44 | 64 45 | 64 46 | 64 47 |
| lp44 | 60 2B | 64 48 | 64 49 | 64 4A | 64 4B | 64 4C | 64 4D | 64 4E | 64 4F | 64 50 | 64 51 | 64 52 | 64 53 |
| lp45 | 60 2C | 64 54 | 64 55 | 64 56 | 64 57 | 64 58 | 64 59 | 64 5A | 64 5B | 64 5C | 64 5D | 64 5E | 64 5F |
| lp46 | 60 2D | 64 60 | 64 61 | 64 62 | 64 63 | 64 64 | 64 65 | 64 66 | 64 67 | 64 68 | 64 69 | 64 6A | 64 6B |
| lp47 | 60 2E | 64 6C | 64 6D | 64 6E | 64 6F | 64 70 | 64 71 | 64 72 | 64 73 | 64 74 | 64 75 | 64 76 | 64 77 |
| lp48 | 60 2F | 64 78 | 64 79 | 64 7A | 64 7B | 64 7C | 64 7D | 64 7E | 64 7F | 65 00 | 65 01 | 65 02 | 65 03 |

Assignment Parameter Numbers – Inputs to Groups (MB/LB)

| | Grp1 | | Grp2 | | Grp3 | | Grp4 | | Grp5 | | Grp6 | | Grp7 | | Grp8 | | Grp9 | | Grp10 | | Grp11 | | Grp12 | |
|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp1 | 66 | 74 | 66 | 75 | 66 | 76 | 66 | 77 | 66 | 78 | 66 | 79 | 66 | 7A | 66 | 7B | 66 | 7C | 66 | 7D | 66 | 7E | 66 | 7F |
| lp2 | 67 | 00 | 67 | 01 | 67 | 02 | 67 | 03 | 67 | 04 | 67 | 05 | 67 | 06 | 67 | 07 | 67 | 08 | 67 | 09 | 67 | 0A | 67 | 0B |
| lp3 | 67 | 0C | 67 | 0D | 67 | 0E | 67 | 0F | 67 | 10 | 67 | 11 | 67 | 12 | 67 | 13 | 67 | 14 | 67 | 15 | 67 | 16 | 67 | 17 |
| lp4 | 67 | 18 | 67 | 19 | 67 | 1A | 67 | 1B | 67 | 1C | 67 | 1D | 67 | 1E | 67 | 1F | 67 | 20 | 67 | 21 | 67 | 22 | 67 | 23 |
| lp5 | 67 | 24 | 67 | 25 | 67 | 26 | 67 | 27 | 67 | 28 | 67 | 29 | 67 | 2A | 67 | 2B | 67 | 2C | 67 | 2D | 67 | 2E | 67 | 2F |
| lp6 | 67 | 30 | 67 | 31 | 67 | 32 | 67 | 33 | 67 | 34 | 67 | 35 | 67 | 36 | 67 | 37 | 67 | 38 | 67 | 39 | 67 | 3A | 67 | 3B |
| lp7 | 67 | 3C | 67 | 3D | 67 | 3E | 67 | 3F | 67 | 40 | 67 | 41 | 67 | 42 | 67 | 43 | 67 | 44 | 67 | 45 | 67 | 46 | 67 | 47 |
| lp8 | 67 | 48 | 67 | 49 | 67 | 4A | 67 | 4B | 67 | 4C | 67 | 4D | 67 | 4E | 67 | 4F | 67 | 50 | 67 | 51 | 67 | 52 | 67 | 53 |
| lp9 | 67 | 54 | 67 | 55 | 67 | 56 | 67 | 57 | 67 | 58 | 67 | 59 | 67 | 5A | 67 | 5B | 67 | 5C | 67 | 5D | 67 | 5E | 67 | 5F |
| lp10 | 67 | 60 | 67 | 61 | 67 | 62 | 67 | 63 | 67 | 64 | 67 | 65 | 67 | 66 | 67 | 67 | 67 | 68 | 67 | 69 | 67 | 6A | 67 | 6B |
| lp11 | 67 | 6C | 67 | 6D | 67 | 6E | 67 | 6F | 67 | 70 | 67 | 71 | 67 | 72 | 67 | 73 | 67 | 74 | 67 | 75 | 67 | 76 | 67 | 77 |
| lp12 | 67 | 78 | 67 | 79 | 67 | 7A | 67 | 7B | 67 | 7C | 67 | 7D | 67 | 7E | 67 | 7F | 68 | 00 | 68 | 01 | 68 | 02 | 68 | 03 |
| lp13 | 68 | 04 | 68 | 05 | 68 | 06 | 68 | 07 | 68 | 08 | 68 | 09 | 68 | 0A | 68 | 0B | 68 | 0C | 68 | 0D | 68 | 0E | 68 | 0F |
| lp14 | 68 | 10 | 68 | 11 | 68 | 12 | 68 | 13 | 68 | 14 | 68 | 15 | 68 | 16 | 68 | 17 | 68 | 18 | 68 | 19 | 68 | 1A | 68 | 1B |
| lp15 | 68 | 1C | 68 | 1D | 68 | 1E | 68 | 1F | 68 | 20 | 68 | 21 | 68 | 22 | 68 | 23 | 68 | 24 | 68 | 25 | 68 | 26 | 68 | 27 |
| lp16 | 68 | 28 | 68 | 29 | 68 | 2A | 68 | 2B | 68 | 2C | 68 | 2D | 68 | 2E | 68 | 2F | 68 | 30 | 68 | 31 | 68 | 32 | 68 | 33 |
| lp17 | 68 | 34 | 68 | 35 | 68 | 36 | 68 | 37 | 68 | 38 | 68 | 39 | 68 | 3A | 68 | 3B | 68 | 3C | 68 | 3D | 68 | 3E | 68 | 3F |
| lp18 | 68 | 40 | 68 | 41 | 68 | 42 | 68 | 43 | 68 | 44 | 68 | 45 | 68 | 46 | 68 | 47 | 68 | 48 | 68 | 49 | 68 | 4A | 68 | 4B |
| lp19 | 68 | 4C | 68 | 4D | 68 | 4E | 68 | 4F | 68 | 50 | 68 | 51 | 68 | 52 | 68 | 53 | 68 | 54 | 68 | 55 | 68 | 56 | 68 | 57 |
| lp20 | 68 | 58 | 68 | 59 | 68 | 5A | 68 | 5B | 68 | 5C | 68 | 5D | 68 | 5E | 68 | 5F | 68 | 60 | 68 | 61 | 68 | 62 | 68 | 63 |
| lp21 | 68 | 64 | 68 | 65 | 68 | 66 | 68 | 67 | 68 | 68 | 68 | 69 | 68 | 6A | 68 | 6B | 68 | 6C | 68 | 6D | 68 | 6E | 68 | 6F |
| lp22 | 68 | 70 | 68 | 71 | 68 | 72 | 68 | 73 | 68 | 74 | 68 | 75 | 68 | 76 | 68 | 77 | 68 | 78 | 68 | 79 | 68 | 7A | 68 | 7B |
| lp23 | 68 | 7C | 68 | 7D | 68 | 7E | 68 | 7F | 68 | 80 | 69 | 01 | 69 | 02 | 69 | 03 | 69 | 04 | 69 | 05 | 69 | 06 | 69 | 07 |
| lp24 | 69 | 08 | 69 | 09 | 69 | 0A | 69 | 0B | 69 | 0C | 69 | 0D | 69 | 0E | 69 | 0F | 69 | 10 | 69 | 11 | 69 | 12 | 69 | 13 |
| lp25 | 69 | 14 | 69 | 15 | 69 | 16 | 69 | 17 | 69 | 18 | 69 | 19 | 69 | 1A | 69 | 1B | 69 | 1C | 69 | 1D | 69 | 1E | 69 | 1F |
| lp26 | 69 | 20 | 69 | 21 | 69 | 22 | 69 | 23 | 69 | 24 | 69 | 25 | 69 | 26 | 69 | 27 | 69 | 28 | 69 | 29 | 69 | 2A | 69 | 2B |
| lp27 | 69 | 2C | 69 | 2D | 69 | 2E | 69 | 2F | 69 | 30 | 69 | 31 | 69 | 32 | 69 | 33 | 69 | 34 | 69 | 35 | 69 | 36 | 69 | 37 |
| lp28 | 69 | 38 | 69 | 39 | 69 | 3A | 69 | 3B | 69 | 3C | 69 | 3D | 69 | 3E | 69 | 3F | 69 | 40 | 69 | 41 | 69 | 42 | 69 | 43 |
| lp29 | 69 | 44 | 69 | 45 | 69 | 46 | 69 | 47 | 69 | 48 | 69 | 49 | 69 | 4A | 69 | 4B | 69 | 4C | 69 | 4D | 69 | 4E | 69 | 4F |
| lp30 | 69 | 50 | 69 | 51 | 69 | 52 | 69 | 53 | 69 | 54 | 69 | 55 | 69 | 56 | 69 | 57 | 69 | 58 | 69 | 59 | 69 | 5A | 69 | 5B |
| lp31 | 69 | 5C | 69 | 5D | 69 | 5E | 69 | 5F | 69 | 60 | 69 | 61 | 69 | 62 | 69 | 63 | 69 | 64 | 69 | 65 | 69 | 66 | 69 | 67 |
| lp32 | 69 | 68 | 69 | 69 | 69 | 6A | 69 | 6B | 69 | 6C | 69 | 6D | 69 | 6E | 69 | 6F | 69 | 70 | 69 | 71 | 69 | 72 | 69 | 73 |
| lp33 | 69 | 74 | 69 | 75 | 69 | 76 | 69 | 77 | 69 | 78 | 69 | 79 | 69 | 7A | 69 | 7B | 69 | 7C | 69 | 7D | 69 | 7E | 69 | 7F |
| lp34 | 6A | 00 | 6A | 01 | 6A | 02 | 6A | 03 | 6A | 04 | 6A | 05 | 6A | 06 | 6A | 07 | 6A | 08 | 6A | 09 | 6A | 0A | 6A | 0B |
| lp35 | 6A | 0C | 6A | 0D | 6A | 0E | 6A | 0F | 6A | 10 | 6A | 11 | 6A | 12 | 6A | 13 | 6A | 14 | 6A | 15 | 6A | 16 | 6A | 17 |
| lp36 | 6A | 18 | 6A | 19 | 6A | 1A | 6A | 1B | 6A | 1C | 6A | 1D | 6A | 1E | 6A | 1F | 6A | 20 | 6A | 21 | 6A | 22 | 6A | 23 |
| lp37 | 6A | 24 | 6A | 25 | 6A | 26 | 6A | 27 | 6A | 28 | 6A | 29 | 6A | 2A | 6A | 2B | 6A | 2C | 6A | 2D | 6A | 2E | 6A | 2F |
| lp38 | 6A | 30 | 6A | 31 | 6A | 32 | 6A | 33 | 6A | 34 | 6A | 35 | 6A | 36 | 6A | 37 | 6A | 38 | 6A | 39 | 6A | 3A | 6A | 3B |
| lp39 | 6A | 3C | 6A | 3D | 6A | 3E | 6A | 3F | 6A | 40 | 6A | 41 | 6A | 42 | 6A | 43 | 6A | 44 | 6A | 45 | 6A | 46 | 6A | 47 |
| lp40 | 6A | 48 | 6A | 49 | 6A | 4A | 6A | 4B | 6A | 4C | 6A | 4D | 6A | 4E | 6A | 4F | 6A | 50 | 6A | 51 | 6A | 52 | 6A | 53 |
| lp41 | 6A | 54 | 6A | 55 | 6A | 56 | 6A | 57 | 6A | 58 | 6A | 59 | 6A | 5A | 6A | 5B | 6A | 5C | 6A | 5D | 6A | 5E | 6A | 5F |
| lp42 | 6A | 60 | 6A | 61 | 6A | 62 | 6A | 63 | 6A | 64 | 6A | 65 | 6A | 66 | 6A | 67 | 6A | 68 | 6A | 69 | 6A | 6A | 6A | 6B |
| lp43 | 6A | 6C | 6A | 6D | 6A | 6E | 6A | 6F | 6A | 70 | 6A | 71 | 6A | 72 | 6A | 73 | 6A | 74 | 6A | 75 | 6A | 76 | 6A | 77 |
| lp44 | 6A | 78 | 6A | 79 | 6A | 7A | 6A | 7B | 6A | 7C | 6A | 7D | 6A | 7E | 6A | 7F | 6B | 00 | 6B | 01 | 6B | 02 | 6B | 03 |
| lp45 | 6B | 04 | 6B | 05 | 6B | 06 | 6B | 07 | 6B | 08 | 6B | 09 | 6B | 0A | 6B | 0B | 6B | 0C | 6B | 0D | 6B | 0E | 6B | 0F |
| lp46 | 6B | 10 | 6B | 11 | 6B | 12 | 6B | 13 | 6B | 14 | 6B | 15 | 6B | 16 | 6B | 17 | 6B | 18 | 6B | 19 | 6B | 1A | 6B | 1B |
| lp47 | 6B | 1C | 6B | 1D | 6B | 1E | 6B | 1F | 6B | 20 | 6B | 21 | 6B | 22 | 6B | 23 | 6B | 24 | 6B | 25 | 6B | 26 | 6B | 27 |
| lp48 | 6B | 28 | 6B | 29 | 6B | 2A | 6B | 2B | 6B | 2C | 6B | 2D | 6B | 2E | 6B | 2F | 6B | 30 | 6B | 31 | 6B | 32 | 6B | 33 |

Assignment Parameter Numbers – Groups to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|-------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 60 | 30 | 65 | 04 | 65 | 05 | 65 | 06 | 65 | 07 | 65 | 08 | 65 | 09 | 65 | 0A | 65 | 0B | 65 | 0C | 65 | 0D | 65 | 0E | - | - |
| Grp2 | 60 | 31 | 65 | 10 | 65 | 11 | 65 | 12 | 65 | 13 | 65 | 14 | 65 | 15 | 65 | 16 | 65 | 17 | 65 | 18 | 65 | 19 | - | - | - | - |
| Grp3 | 60 | 32 | 65 | 1C | 65 | 1D | 65 | 1E | 65 | 1F | 65 | 20 | 65 | 21 | 65 | 22 | 65 | 23 | 65 | 24 | - | - | - | - | - | - |
| Grp4 | 60 | 33 | 65 | 28 | 65 | 29 | 65 | 2A | 65 | 2B | 65 | 2C | 65 | 2D | 65 | 2E | 65 | 2F | - | - | - | - | - | - | - | - |
| Grp5 | 60 | 34 | 65 | 34 | 65 | 35 | 65 | 36 | 65 | 37 | 65 | 38 | 65 | 39 | 65 | 3A | - | - | - | - | - | - | - | - | - | - |
| Grp6 | 60 | 35 | 65 | 40 | 65 | 41 | 65 | 42 | 65 | 43 | 65 | 44 | 65 | 45 | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp7 | 60 | 36 | 65 | 4C | 65 | 4D | 65 | 4E | 65 | 4F | 65 | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp8 | 60 | 37 | 65 | 58 | 65 | 59 | 65 | 5A | 65 | 5B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp9 | 60 | 38 | 65 | 64 | 65 | 65 | 65 | 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp10 | 60 | 39 | 65 | 70 | 65 | 71 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp11 | 60 | 3A | 65 | 7C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Grp12 | 60 | 3B | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Assignment Parameter Numbers – FX Returns to LR/Aux (MB/LB)

| | LR | | Aux1 | | Aux2 | | Aux3 | | Aux4 | | Aux5 | | Aux6 | | Aux7 | | Aux8 | | Aux9 | | Aux10 | | Aux11 | | Aux12 | |
|--------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 60 | 3C | 66 | 14 | 66 | 15 | 66 | 16 | 66 | 17 | 66 | 18 | 66 | 19 | 66 | 1A | 66 | 1B | 66 | 1C | 66 | 1D | 66 | 1E | 66 | 1F |
| FX2Rtn | 60 | 3D | 66 | 20 | 66 | 21 | 66 | 22 | 66 | 23 | 66 | 24 | 66 | 25 | 66 | 26 | 66 | 27 | 66 | 28 | 66 | 29 | 66 | 2A | 66 | 2B |
| FX3Rtn | 60 | 3E | 66 | 2C | 66 | 2D | 66 | 2E | 66 | 2F | 66 | 30 | 66 | 31 | 66 | 32 | 66 | 33 | 66 | 34 | 66 | 35 | 66 | 36 | 66 | 37 |
| FX4Rtn | 60 | 3F | 66 | 38 | 66 | 39 | 66 | 3A | 66 | 3B | 66 | 3C | 66 | 3D | 66 | 3E | 66 | 3F | 66 | 40 | 66 | 41 | 66 | 42 | 66 | 43 |
| FX5Rtn | 60 | 40 | 66 | 44 | 66 | 45 | 66 | 46 | 66 | 47 | 66 | 48 | 66 | 49 | 66 | 4A | 66 | 4B | 66 | 4C | 66 | 4D | 66 | 4E | 66 | 4F |
| FX6Rtn | 60 | 41 | 66 | 50 | 66 | 51 | 66 | 52 | 66 | 53 | 66 | 54 | 66 | 55 | 66 | 56 | 66 | 57 | 66 | 58 | 66 | 59 | 66 | 5A | 66 | 5B |
| FX7Rtn | 60 | 42 | 66 | 5C | 66 | 5D | 66 | 5E | 66 | 5F | 66 | 60 | 66 | 61 | 66 | 62 | 66 | 63 | 66 | 64 | 66 | 65 | 66 | 66 | 66 | 67 |
| FX8Rtn | 60 | 43 | 66 | 68 | 66 | 69 | 66 | 6A | 66 | 6B | 66 | 6C | 66 | 6D | 66 | 6E | 66 | 6F | 66 | 70 | 66 | 71 | 66 | 72 | 66 | 73 |

Assignment Parameter Numbers – FX Returns to Groups (MB/LB)

| | Grp1 | | Grp2 | | Grp3 | | Grp4 | | Grp5 | | Grp6 | | Grp7 | | Grp8 | | Grp9 | | Grp10 | | Grp11 | | Grp12 | |
|--------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 6B | 34 | 6B | 35 | 6B | 36 | 6B | 37 | 6B | 38 | 6B | 39 | 6B | 3A | 6B | 3B | 6B | 3C | 6B | 3D | 6B | 3E | 6B | 3F |
| FX2Rtn | 6B | 40 | 6B | 41 | 6B | 42 | 6B | 43 | 6B | 44 | 6B | 45 | 6B | 46 | 6B | 47 | 6B | 48 | 6B | 49 | 6B | 4A | 6B | 4B |
| FX3Rtn | 6B | 4C | 6B | 4D | 6B | 4E | 6B | 4F | 6B | 50 | 6B | 51 | 6B | 52 | 6B | 53 | 6B | 54 | 6B | 55 | 6B | 56 | 6B | 57 |
| FX4Rtn | 6B | 58 | 6B | 59 | 6B | 5A | 6B | 5B | 6B | 5C | 6B | 5D | 6B | 5E | 6B | 5F | 6B | 60 | 6B | 61 | 6B | 62 | 6B | 63 |
| FX5Rtn | 6B | 64 | 6B | 65 | 6B | 66 | 6B | 67 | 6B | 68 | 6B | 69 | 6B | 6A | 6B | 6B | 6B | 6C | 6B | 6D | 6B | 6E | 6B | 6F |
| FX6Rtn | 6B | 70 | 6B | 71 | 6B | 72 | 6B | 73 | 6B | 74 | 6B | 75 | 6B | 76 | 6B | 77 | 6B | 78 | 6B | 79 | 6B | 7A | 6B | 7B |
| FX7Rtn | 6B | 7C | 6B | 7D | 6B | 7E | 6B | 7F | 6C | 00 | 6C | 01 | 6C | 02 | 6C | 03 | 6C | 04 | 6C | 05 | 6C | 06 | 6C | 07 |
| FX8Rtn | 6C | 08 | 6C | 09 | 6C | 0A | 6C | 0B | 6C | 0C | 6C | 0D | 6C | 0E | 6C | 0F | 6C | 10 | 6C | 11 | 6C | 12 | 6C | 13 |

Assignment Parameter Numbers – FX Sends (MB/LB)

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|------|--------|-----|--------|-----|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp1 | 6C | 14 | 6C | 15 | 6C | 16 | 6C | 17 |
| lp2 | 6C | 18 | 6C | 19 | 6C | 1A | 6C | 1B |
| lp3 | 6C | 1C | 6C | 1D | 6C | 1E | 6C | 1F |
| lp4 | 6C | 20 | 6C | 21 | 6C | 22 | 6C | 23 |
| lp5 | 6C | 24 | 6C | 25 | 6C | 26 | 6C | 27 |
| lp6 | 6C | 28 | 6C | 29 | 6C | 2A | 6C | 2B |
| lp7 | 6C | 2C | 6C | 2D | 6C | 2E | 6C | 2F |
| lp8 | 6C | 30 | 6C | 31 | 6C | 32 | 6C | 33 |
| lp9 | 6C | 34 | 6C | 35 | 6C | 36 | 6C | 37 |
| lp10 | 6C | 38 | 6C | 39 | 6C | 3A | 6C | 3B |
| lp11 | 6C | 3C | 6C | 3D | 6C | 3E | 6C | 3F |
| lp12 | 6C | 40 | 6C | 41 | 6C | 42 | 6C | 43 |
| lp13 | 6C | 44 | 6C | 45 | 6C | 46 | 6C | 47 |
| lp14 | 6C | 48 | 6C | 49 | 6C | 4A | 6C | 4B |
| lp15 | 6C | 4C | 6C | 4D | 6C | 4E | 6C | 4F |
| lp16 | 6C | 50 | 6C | 51 | 6C | 52 | 6C | 53 |
| lp17 | 6C | 54 | 6C | 55 | 6C | 56 | 6C | 57 |
| lp18 | 6C | 58 | 6C | 59 | 6C | 5A | 6C | 5B |
| lp19 | 6C | 5C | 6C | 5D | 6C | 5E | 6C | 5F |
| lp20 | 6C | 60 | 6C | 61 | 6C | 62 | 6C | 63 |
| lp21 | 6C | 64 | 6C | 65 | 6C | 66 | 6C | 67 |
| lp22 | 6C | 68 | 6C | 69 | 6C | 6A | 6C | 6B |
| lp23 | 6C | 6C | 6C | 6D | 6C | 6E | 6C | 6F |
| lp24 | 6C | 70 | 6C | 71 | 6C | 72 | 6C | 73 |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|------|--------|-----|--------|-----|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| lp25 | 6C | 74 | 6C | 75 | 6C | 76 | 6C | 77 |
| lp26 | 6C | 78 | 6C | 79 | 6C | 7A | 6C | 7B |
| lp27 | 6C | 7C | 6C | 7D | 6C | 7E | 6C | 7F |
| lp28 | 6D | 00 | 6D | 01 | 6D | 02 | 6D | 03 |
| lp29 | 6D | 04 | 6D | 05 | 6D | 06 | 6D | 07 |
| lp30 | 6D | 08 | 6D | 09 | 6D | 0A | 6D | 0B |
| lp31 | 6D | 0C | 6D | 0D | 6D | 0E | 6D | 0F |
| lp32 | 6D | 10 | 6D | 11 | 6D | 12 | 6D | 13 |
| lp33 | 6D | 14 | 6D | 15 | 6D | 16 | 6D | 17 |
| lp34 | 6D | 18 | 6D | 19 | 6D | 1A | 6D | 1B |
| lp35 | 6D | 1C | 6D | 1D | 6D | 1E | 6D | 1F |
| lp36 | 6D | 20 | 6D | 21 | 6D | 22 | 6D | 23 |
| lp37 | 6D | 24 | 6D | 25 | 6D | 26 | 6D | 27 |
| lp38 | 6D | 28 | 6D | 29 | 6D | 2A | 6D | 2B |
| lp39 | 6D | 2C | 6D | 2D | 6D | 2E | 6D | 2F |
| lp40 | 6D | 30 | 6D | 31 | 6D | 32 | 6D | 33 |
| lp41 | 6D | 34 | 6D | 35 | 6D | 36 | 6D | 37 |
| lp42 | 6D | 38 | 6D | 39 | 6D | 3A | 6D | 3B |
| lp43 | 6D | 3C | 6D | 3D | 6D | 3E | 6D | 3F |
| lp44 | 6D | 40 | 6D | 41 | 6D | 42 | 6D | 43 |
| lp45 | 6D | 44 | 6D | 45 | 6D | 46 | 6D | 47 |
| lp46 | 6D | 48 | 6D | 49 | 6D | 4A | 6D | 4B |
| lp47 | 6D | 4C | 6D | 4D | 6D | 4E | 6D | 4F |
| lp48 | 6D | 50 | 6D | 51 | 6D | 52 | 6D | 53 |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|-------|--------|-----|--------|-----|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 6D | 54 | 6D | 55 | 6D | 56 | 6D | 57 |
| Grp2 | 6D | 58 | 6D | 59 | 6D | 5A | 6D | 5B |
| Grp3 | 6D | 5C | 6D | 5D | 6D | 5E | 6D | 5F |
| Grp4 | 6D | 60 | 6D | 61 | 6D | 62 | 6D | 63 |
| Grp5 | 6D | 64 | 6D | 65 | 6D | 66 | 6D | 67 |
| Grp6 | 6D | 68 | 6D | 69 | 6D | 6A | 6D | 6B |
| Grp7 | 6D | 6C | 6D | 6D | 6D | 6E | 6D | 6F |
| Grp8 | 6D | 70 | 6D | 71 | 6D | 72 | 6D | 73 |
| Grp9 | 6D | 74 | 6D | 75 | 6D | 76 | 6D | 77 |
| Grp10 | 6D | 78 | 6D | 79 | 6D | 7A | 6D | 7B |
| Grp11 | 6D | 7C | 6D | 7D | 6D | 7E | 6D | 7F |
| Grp12 | 6E | 00 | 6E | 01 | 6E | 02 | 6E | 03 |

| | FX1Snd | | FX2Snd | | FX3Snd | | FX4Snd | |
|--------|--------|-----|--------|-----|--------|-----|--------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB | MSB | LSB |
| FX1Rtn | 6E | 04 | 6E | 05 | 6E | 06 | 6E | 07 |
| FX2Rtn | 6E | 08 | 6E | 09 | 6E | 0A | 6E | 0B |
| FX3Rtn | 6E | 0C | 6E | 0D | 6E | 0E | 6E | 0F |
| FX4Rtn | 6E | 10 | 6E | 11 | 6E | 12 | 6E | 13 |
| FX5Rtn | 6E | 14 | 6E | 15 | 6E | 16 | 6E | 17 |
| FX6Rtn | 6E | 18 | 6E | 19 | 6E | 1A | 6E | 1B |
| FX7Rtn | 6E | 1C | 6E | 1D | 6E | 1E | 6E | 1F |
| FX8Rtn | 6E | 20 | 6E | 21 | 6E | 22 | 6E | 23 |

Assignment Parameter Numbers – Matrix Sends (MB/LB)

| | Mtx1 | | Mtx2 | | Mtx3 | |
|-------|------|-----|------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| LR | 6E | 24 | 6E | 25 | 6E | 26 |
| Aux1 | 6E | 27 | 6E | 28 | 6E | 29 |
| Aux2 | 6E | 2A | 6E | 2B | 6E | 2C |
| Aux3 | 6E | 2D | 6E | 2E | 6E | 2F |
| Aux4 | 6E | 30 | 6E | 31 | 6E | 32 |
| Aux5 | 6E | 33 | 6E | 34 | 6E | 35 |
| Aux6 | 6E | 36 | 6E | 37 | 6E | 38 |
| Aux7 | 6E | 39 | 6E | 3A | 6E | 3B |
| Aux8 | 6E | 3C | 6E | 3D | 6E | 3E |
| Aux9 | 6E | 3F | 6E | 40 | 6E | 41 |
| Aux10 | 6E | 42 | 6E | 43 | 6E | 44 |
| Aux11 | 6E | 45 | 6E | 46 | 6E | 47 |
| Aux12 | 6E | 48 | 6E | 49 | 6E | 4A |

| | Mtx1 | | Mtx2 | | Mtx3 | |
|-------|------|-----|------|-----|------|-----|
| | MSB | LSB | MSB | LSB | MSB | LSB |
| Grp1 | 6E | 4B | 6E | 4C | 6E | 4D |
| Grp2 | 6E | 4E | 6E | 4F | 6E | 50 |
| Grp3 | 6E | 51 | 6E | 52 | 6E | 53 |
| Grp4 | 6E | 54 | 6E | 55 | 6E | 56 |
| Grp5 | 6E | 57 | 6E | 58 | 6E | 59 |
| Grp6 | 6E | 5A | 6E | 5B | 6E | 5C |
| Grp7 | 6E | 5D | 6E | 5E | 6E | 5F |
| Grp8 | 6E | 60 | 6E | 61 | 6E | 62 |
| Grp9 | 6E | 63 | 6E | 64 | 6E | 65 |
| Grp10 | 6E | 66 | 6E | 67 | 6E | 68 |
| Grp11 | 6E | 69 | 6E | 6A | 6E | 6B |
| Grp12 | 6E | 6C | 6E | 6D | 6E | 6E |