Structure Registration Memory (Tyros 3)

# Structure

# SpfF chunk (Header)

* SpfF chunk: 22 bytes

|  |  |
| --- | --- |
| 53 70 66 46 | **SpfF** (ASCII coded) |
| 00 10 | number of following data bytes in this chunk |
| 0C 12 |  |
| 52 47 53 54 | **RGST** (ASCII coded) |
| 00 02 | could be: (according to SysEx messages)  Sub-ID #2 = General MIDI Off  type 1  Maj 7  Internal Clock Substatus  Lyrics Indication On/Off |
| 00 02 |  |
| 00 00 03 66 | number of bytes in the whole document; here: 870 bytes |
| 00 70 |  |

# BHd chunks (Sequence or Registration)

* Sequence chunk: 42 bytes
* thus: SpfF and sequence chunk take up 64 bytes (bytes 0x000 to 0x030)

|  |  |
| --- | --- |
| 42 48 64 | **BHd** (ASCII coded) |
| 00 / 01 | type: Registration or Sequence |
| 00 24 | number of bytes in this chunk 752 |
| … | Data |

## … Data for Sequence

* Sequence occurs only one time in the whole file

|  |  |
| --- | --- |
| FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF | * all data bytes filled up with FF: Registration Sequence disabled 🡪 end byte doesn’t matter * last byte: code for Sequence End * 00: Sequence End Stop * 01: Sequence End Top * 02: Sequence End Next Bank |

## … Data for Registration (GPm)

### GPm Header

|  |  |
| --- | --- |
| **47 50 6D** | GPm (ASCII coded) |
| **0B** | type |
| **00 2A** (42 Bytes following) | number of following data bytes in this chunk |

### GPm Data

**Drehregler:**

* Tyros: -64 bis 63
* Dezimal: 0 bis 127 (Mitte: 64)
* Hex: 00 bis 7F (Mitte: 40)

|  |  |  |  |
| --- | --- | --- | --- |
| **Funktion** | **Data-Byte** | **Wertebereich** | **Erklärung bzw. Wertbereich am Tyros** |
| **Title 01** | | | |
| Registration name | 1 | ASCII coded |  |
| **02** | | | |
|  | 1 | 7F | 02 bei Song Volumeänderung (von 52 auf 127) |
|  | 2 | 03 |  |
|  | 3 | 04 |  |
|  | 4 | 02 | 7F bei Song Volumeänderung /von 52 auf 51 und von 52 auf 127) |
|  | 5 | 06 |  |
|  | 6 | 06 |  |
|  | 7 | 07 |  |
|  | 8 | 02 |  |
|  | 9 | 05 |  |
|  | 10 | 06 |  |
| **Song 04** | | | |
| Volume | 1 | 00 - 7F | 0 - 127 |
| Channel 1 off / on | 2 | 01 / 02 | off / on |
| Channel 2 off / on | 3 | 01 / 02 | off / on |
| Channel 3 off / on | 4 | 01 / 02 | off / on |
| Channel 4 off / on | 5 | 01 / 02 | off / on |
| Channel 5 off / on | 6 | 01 / 02 | off / on |
| Channel 6 off / on | 7 | 01 / 02 | off / on |
| Channel 7 off / on | 8 | 01 / 02 | off / on |
| Channel 8 off / on | 9 | 01 / 02 | off / on |
| Channel 9 off / on | 10 | 01 / 02 | off / on |
| Channel 10 off / on | 11 | 01 / 02 | off / on |
| Channel 11 off / on | 12 | 01 / 02 | off / on |
| Channel 12 off / on | 13 | 01 / 02 | off / on |
| Channel 13 off / on | 2 | 01 / 02 | off / on |
| Channel 14 off / on | 2 | 01 / 02 | off / on |
| Channel 15 off / on | 2 | 01 / 02 | off / on |
| Channel 16 off / on | 2 | 01 / 02 | off / on |
|  | 18 | F0 |  |
| **Song 05** | | | |
|  | 1 |  |  |
|  | 2 |  |  |
| Dateipfad | ab 3 | 43 3A 2F … 2E 4D 49 44 | C:/… .MID |
| **Standard Style 07** | | | |
|  | 1 |  |  |
|  | 2 |  |  |
|  | 3 |  |  |
| Style-Part | 4 | 08, 09, 0A, 0B  00, 01, 02  10, 11, 12, 13  18  20, 21, 22 | A, B, C, D  Intro 1, Intro 2, Intro 3  A-Fill, B-Fill, C-Fill, D-Fill  Break  Ending 1, Ending 2, Ending 3 |
| ACMP an / aus | 5 | 7F / 00 | an / aus |
|  | 6 |  |  |
| Style-Nummer | 7 |  | 36 (90’s Disco) |
| Style-Nummer wiederholt | 8 |  |  |
|  | 9 |  |  |
| Style-Part | 10 | 08, 09, 0A, 0B | A, B, C, D |
| Sync Start | 11 | 7F / 00 | ein / aus |
| Sync Stop | 12 | 7F / 00 | ein / aus |
|  | 13 |  |  |
|  | 14 |  |  |
|  | 15 |  |  |
| **Style Attributes 08** | | | |
|  | 1 |  |  |
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|  | 3 |  |  |
|  | 4 |  |  |
|  | 5 |  |  |
|  | 6 |  |  |
|  | 7 |  |  |
| Channel on / off | 8 | FF | 00: All off  01: 1 on  02: 2 on  03: 2, 1 on  04: 3 on  05: 3, 1 on  06: 3, 2 on  07: 3, 1, 2 on  08: 4 on  09: 4, 1 on  0A: 4, 2 on  0B: 4, 1, 2 on  0C: 4, 3 on  0D: 4, 1, 3 on  0E: 4, 2, 3 on  0F: 4, 1, 2, 3 on  10: 5 on  11: 5, 1 on  12: 5, 2 on  13: 5, 1, 2 on  14: 5, 3 on  15: 5, 1, 3 on  16: 5, 2, 3 on  17: 5, 1, 2, 3 on  18: 5, 4 on  19: 5, 1, 4 on  1A: 5, 2, 4 on  1B: 5, 1, 2, 4 on  1C: 5, 3, 4 on  1D: 5, 1, 3, 4 on  1E: 5, 2, 3, 4 on  1F: 5, 1, 2, 3, 4 on  20: 6 on  21: 6, 1 on  40: 7 on  41: 7, 1 on  45: 7, 3 on  80: 8 on  81: 8, 1 on  82: 8, 2 on  85: 8, 1, 3 on  A0: 8, 6 on  FE: Rhytmus 1 off  FD: Rhythmus 2 off  FB: Bass off  7F: Phrase 2 off  FC: Rhythmus 1 and 2 off  F8: Rhythmus 1 and 2 and Bass off  …  FF |
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|  | 123 |  |  |
|  | 124 |  |  |
|  | 125 |  |  |
| **Voice global 0A** | | | |
|  |  |  |  |
| **Voices 0B / 0F / 17 (13 Left)** | | | |
| Aktiviert? | 1 | 00 / 7F | aus / ein |
| MSB | 2 | 00 |  |
| LSB | 3 | 73 (Dez: 115) |  |
| Programm | 4 | 00 |  |
| Portamento Time | 5 | 00 - 7F | 0 - 127 |
|  | 6 |  |  |
| Volume | 7 | 00 - 7F | 0 - 127 |
| Panpot | 8 | 00 und 01 / 40 / 7F  00 - 7F | links / mittig / rechts  L63 - R63 (L63 = L64) |
| Mono | 9/10 | 00 / 7F | aus / an |
| Harmonic Content | 11 | 00 - 7F | -64 - +63 |
|  | 12 |  |  |
| Brightness | 13 | 00 - 7F | -64 - +63 |
| Reverb | 14 | 00 - 7F | 0 - 127 |
| Chorus | 15 | 00 - 7F | 0 - 127 |
|  | 16 |  |  |
|  | 17 |  |  |
|  | 18 |  |  |
|  | 19 |  |  |
| EQ Low | 20 | 00 - 7F | -64 - +63 |
|  | 21 |  |  |
| EQ High | 22 | 00 - 7F | -64 - +63 |
|  | 23 |  |  |
|  | 24 |  |  |
|  | 25 |  |  |
| Pitch Bend Range | 26 | 00 – 0C | 0 - 12 |
| Tuning | 27 | 00 - 7F | -64 - +63 |
|  | 28 |  |  |
|  | 29 |  |  |
|  | 30 |  |  |
| Octave | 31 | 3E (62) / 3F (63) / 40 (64) / 41 (65) / 42 (66) | -2 / -1 / 0 / 1 / 2 |
|  | 32 |  |  |
|  | 33 |  |  |
|  | 34 |  |  |
|  | 35 |  |  |
|  | 36 |  |  |
|  | 37 |  |  |
|  | 38 |  |  |
|  | 39 |  |  |
|  | 40 |  |  |
|  | 41 |  |  |
|  | 42 |  |  |
| Basic 1B Reverb | | | |
|  | 1 | FF | 00 bei Änderung allgemein  00 bei Song Volumeänderung (von 52 auf 51 und von 52 auf 0 und von 52 auf 127)  00 bei Song Channeländerung |
|  | 2 | FB | FF wenn anderer Reverb  FD wenn nur Song abgespeichert wird  02 bei Änderung allgemein  04 bei Song Volumeänderung (von 52 auf 51 und von 52 auf 0 und von 52 auf 127)  04 bei Song Channeländerung  02 bei Style-Part Änderung (von A nach B) |
|  | 3 | FF |  |
|  | 4 | FF |  |
|  | **5** | 01 | **MSB** |
|  | **6** | 13 | **LSB** |
|  | 7 | 40 |  |
| Basic 1C Chorus | | | |
|  | 1 | FF | 00 bei Änderung allgemein  00 wenn anderer Reverb  00 bei Song Volumeänderung (von 52 auf 51 und von 52 auf 0 und von 52 auf 127)  00 bei Song Channeländerung |
|  | 2 | FB | 02 bei Änderung allgemein  02 wenn anderer Reverb  FF wenn anderer Chorus  04 wenn Song Volumeänderung (von 52 auf 51 und von 52 auf 0 und von 52 auf 127)  04 bei Song Channeländerung  02 bei Style-Part Änderung (von A nach B) |
|  | 3 | FF |  |
|  | 4 | FF |  |
|  | **5** | **41** | **MSB** |
|  | **6** | **00** | **LSB** |
|  | 7 | 40 |  |
| **Basic 1D** | | | |
|  | 1 | FF |  |
|  | 2 | FD | FB wenn Style-Part Änderung (von A nach B) |
|  | 3 | 00 |  |
|  | 4 | 00 |  |
|  | 5 | 00 |  |
|  | 6 | 03 |  |
|  | 7 | FF |  |
|  | 8 | FF |  |
|  | 9 | 62 |  |
|  | 10 | 11 |  |
|  | 11 | 00 |  |
|  | 12 | 7F |  |
|  | 13 | 40 |  |
|  | 14 | 00 |  |
|  | 15 | 2C | 1C wenn Style-Part Änderung (von A nach B) |
| **Basic 20** | | | |
|  | 1 | 00 |  |
|  | 2 | 7F | 00 wenn nur Song abgespeichert oder auch nicht? |
|  | 3 | 00 |  |
|  | 4 | 00 |  |
|  | 5 | 00 |  |
|  | 6 | 01 | 3E wenn Song Volumeänderung (von 52 auf 51)  0A wenn Song Volumeänderung (von 52 auf 127) |
|  | 7 | FF |  |
|  | 8 | FF |  |
|  | 9 | 63 | FF wenn Song Volumeänderung (von 52 auf 51)  62 wenn Song Volumeänderung (von 52 auf 127) |
|  | 10 | 10 | 11 wenn Song Volumeänderung (von 52 auf 51)  1A wenn Song Volumeänderung (von 52 auf 127) |
|  | 11 | 00 |  |
|  | 12 | 00 |  |
|  | 13 | 03 | 7F wenn Song Volumeänderung (von 52 auf 51)  (von 52 auf 51)  00 wenn Song Volumeänderung (von 52 auf 127) |
|  | 14 | FF |  |
|  | 15 | FA | FF bei Änderung allgemein  bei Änderung des Tempos  FD wenn nur Song abgespeichert  F9 wenn Song Volumeänderung (von 52 auf 51)  FF wenn Song Volumeänderung (von 52 auf 127) |
| **Basic 21** | | | |
|  | 1 | 00 |  |
|  | 2 | 7F |  |
|  | 3 | 00 |  |
|  | 4 | 00 |  |
|  | 5 | 00 |  |
|  | 6 | 09 | 0D wenn Song Volumeänderung (von 52 auf 127) |
|  | 7 | FF |  |
|  | 8 | FF |  |
|  | 9 | 15 |  |
|  | 10 | 00 | 10 wenn Song Volumeänderung (von 52 auf 127) |
|  | 11 | 00 |  |
|  | 12 | 00 |  |
|  | 13 | 01 |  |
|  | 14 | FF |  |
|  | 15 | FA | FF bei Änderung allgemein  bei Änderung des Tempos |
| **Basic 22** | | | |
|  | 1 | 00 |  |
|  | 2 | 7F |  |
|  | 3 | 00 |  |
|  | 4 | 00 |  |
|  | 5 | 00 |  |
|  | 6 | 15 |  |
|  | 7 | FF |  |
|  | 8 | FF |  |
|  | 9 | 42 |  |
|  | 10 | 10 |  |
|  | 11 | 00 |  |
|  | 12 | 00 |  |
|  | 13 | 02 |  |
|  | 14 | FF |  |
|  | 15 | FA | FF bei Änderung allgemein |
| **Tempo 29** | | | |
| Tempo ? | 1 / 2 | 00 05 - 01 F4 | 5- 500 |
| Tempo Song | 3 / 4 | 00 05 - 01 F4 | 5 - 500 |
| Tempo Style | 5 / 6 | 00 05 - 01 F4 | 5-500 |
|  | 7 | 00 / 7F | aus / ein  Vermutung: nur ein, wenn Tempo Song nicht gleich Tempo Style |
| **Basic 3E** | | | |
|  | 1 | 00 |  |
|  | 2 | 00 | 7F wenn Style-Part Änderung (von A nach B) |
|  | 3 | 00 |  |
|  | 4 | 00 |  |
|  | 5 | 00 |  |
|  | 6 | 00 | 03 wenn Style-Part Änderung (von A nach B) |
|  | 7 | FF |  |
|  | 8 | FF |  |
|  | 9 | 40 | 62 wenn Style-Part Änderung (von A nach B) |
|  | 10 | 00 | 11 wenn Style-Part Änderung (von A nach B) |
|  | 11 | 00 |  |
|  | 12 | 00 |  |
|  | 13 | 7F | 1B wenn Style-Part Änderung (von A nach B) |
|  | 14 | FF |  |
|  | 15 | F9 | FB wenn Style-Part Änderung (von A nach B) |

**scheint immer bei Änderung einzutreten**

Pos. 537 von FF auf 00  
538 von FB auf 02  
550 von FF auf 00  
551 von FB auf 02  
682 von FA auf FF

# Setting-Groups und GPm-Blöcke

| GPm | Style | Voice | Tune Tr. | Scale | Harm. | Tempo | Pedal | MPad | Song | MicS | LineO. |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 01 | X |  |  |  |  |  |  |  | X |  |  |
| 02 | X |  |  |  |  |  |  |  | X |  |  |
| 03 |  |  |  |  |  |  |  |  | X |  |  |
| 04 |  |  |  |  |  |  |  |  | X |  |  |
| 05 |  |  |  |  |  |  |  |  | X |  |  |
| 06 |  |  |  |  |  |  |  |  |  |  |  |
| 07 | X |  |  |  |  |  |  |  |  |  |  |
| 08 | X |  |  |  |  |  |  |  |  |  |  |
| 09 | X? |  |  |  |  |  |  |  |  |  |  |
| 0A |  |  |  |  |  |  |  |  |  |  |  |
| 0B |  |  |  |  |  |  |  |  |  |  |  |
| 0C |  |  |  |  |  |  |  |  |  |  |  |
| 0D |  |  |  |  |  |  |  |  |  |  |  |
| 0E |  |  |  |  |  |  |  |  |  |  |  |
| 0F |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |
| 13 | X |  |  |  |  |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |  |  |  |  |  |
| 15 | X |  |  |  |  |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |  |  |  |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |  |  |  |
| 19 |  |  |  |  |  |  |  |  |  |  |  |
| 1A |  |  |  |  |  |  |  |  |  |  |  |
| 1B | X |  |  |  |  |  |  |  | X |  |  |
| 1C | X |  |  |  |  |  |  |  | X |  |  |
| 1D | X |  |  |  |  |  |  |  | X |  |  |
| 1E | X |  |  |  |  |  |  |  | X |  |  |
| 1F | X |  |  |  |  |  |  |  | X |  |  |
| 20 | X |  |  |  |  |  |  |  | X |  |  |
| 21 | X |  |  |  |  |  |  |  | X |  |  |
| 22 | X |  |  |  |  |  |  |  | X |  |  |
| 23 |  |  |  |  |  |  |  |  |  |  |  |
| 24 |  |  |  |  |  |  |  |  |  |  |  |
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| 2A |  |  |  |  |  |  |  |  |  |  |  |
| 2B |  |  |  |  |  |  |  |  |  |  |  |
| 2C |  |  |  |  |  |  |  |  |  |  |  |
| 2D |  |  |  |  |  |  |  |  |  |  |  |
| 2E |  |  |  |  |  |  |  |  |  |  |  |
| 2F |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  |  |  |  |  |  |  |  |  |  |  |
| 31 |  |  |  |  |  |  |  |  |  |  |  |
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| 38 |  |  |  |  |  |  |  |  |  |  |  |
| 39 |  |  |  |  |  |  |  |  |  |  |  |
| 3A |  |  |  |  |  |  |  |  |  |  |  |
| 3B |  |  |  |  |  |  |  |  |  |  |  |
| 3C | X |  |  |  |  |  |  |  | X |  |  |
| 3D | X |  |  |  |  |  |  |  | X |  |  |
| 3E | X |  |  |  |  |  |  |  | X |  |  |

# Style Channel Numbers

| **Hex** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 00 |  |  |  |  |  |  |  |  |
| **RHY 1 (Channel 1)** | | | | | | | | |
| 01 | **X** |  |  |  |  |  |  |  |
| **RHY 2 (Channel 2)** | | | | | | | | |
| 02 |  | **X** |  |  |  |  |  |  |
| 03 | X | **X** |  |  |  |  |  |  |
| **Bass (Channel 3)** | | | | | | | | |
| 04 |  |  | **X** |  |  |  |  |  |
| 05 | X |  | **X** |  |  |  |  |  |
| 06 |  | X | **X** |  |  |  |  |  |
| 07 | X | X | **X** |  |  |  |  |  |
| **CHD 1 (Channel 4)** | | | | | | | | |
| 08 |  |  |  | **X** |  |  |  |  |
| 09 | X |  |  | **X** |  |  |  |  |
| 0A |  | X |  | **X** |  |  |  |  |
| 0B | X | X |  | **X** |  |  |  |  |
| 0C |  |  | X | **X** |  |  |  |  |
| 0D | X |  | X | **X** |  |  |  |  |
| 0E |  | X | X | **X** |  |  |  |  |
| 0F | X | X | X | **X** |  |  |  |  |
| **CHD2 (Channel 5)** | | | | | | | | |
| 10 |  |  |  |  | **X** |  |  |  |
| 11 | X |  |  |  | **X** |  |  |  |
| 12 |  | X |  |  | **X** |  |  |  |
| 13 | X | X |  |  | **X** |  |  |  |
| 14 |  |  | X |  | **X** |  |  |  |
| 15 | X |  | X |  | **X** |  |  |  |
| 16 |  | X | X |  | **X** |  |  |  |
| 17 | X | X | X |  | **X** |  |  |  |
| 18 |  |  |  | X | **X** |  |  |  |
| 19 | X |  |  | X | **X** |  |  |  |
| 1A |  | X |  | X | **X** |  |  |  |
| 1B | X | X |  | X | **X** |  |  |  |
| 1C |  |  | X | X | **X** |  |  |  |
| 1D | X |  | X | X | **X** |  |  |  |
| 1E |  | X | X | X | **X** |  |  |  |
| 1F | X | X | X | X | **X** |  |  |  |
| **PAD (Channel 6)** | | | | | | | | |
| 20 |  |  |  |  |  | **X** |  |  |
| 21 | X |  |  |  |  | **X** |  |  |
| 22 |  | X |  |  |  | **X** |  |  |
| 23 | X | X |  |  |  | **X** |  |  |
| 24 |  |  | X |  |  | **X** |  |  |
| 25 | X |  | X |  |  | **X** |  |  |
| 26 |  | X | X |  |  | **X** |  |  |
| 27 | X | X | X |  |  | **X** |  |  |
| 28 |  |  |  | X |  | **X** |  |  |
| 29 | X |  |  | X |  | **X** |  |  |
| 2A |  | X |  | X |  | **X** |  |  |
| 2B | X | X |  | X |  | **X** |  |  |
| 2C |  |  | X | X |  | **X** |  |  |
| 2D | X |  | X | X |  | **X** |  |  |
| 2E |  | X | X | X |  | **X** |  |  |
| 2F | X | X | X | X |  | **X** |  |  |
| 30 |  |  |  |  | X | **X** |  |  |
| 31 | X |  |  |  | X | **X** |  |  |
| 32 |  | X |  |  | X | **X** |  |  |
| 33 | X | X |  |  | X | **X** |  |  |
| 34 |  |  | X |  | X | **X** |  |  |
| 35 | X |  | X |  | X | **X** |  |  |
| 36 |  | X | X |  | X | **X** |  |  |
| 37 | X | X | X |  | X | **X** |  |  |
| 38 |  |  |  | X | X | **X** |  |  |
| 39 | X |  |  | X | X | **X** |  |  |
| 3A |  | X |  | X | X | **X** |  |  |
| 3B | X | X |  | X | X | **X** |  |  |
| 3C |  |  | X | X | X | **X** |  |  |
| 3D | X |  | X | X | X | **X** |  |  |
| 3E |  | X | X | X | X | **X** |  |  |
| 3F | X | X | X | X | X | **X** |  |  |
| **PHR 1 (Channel 7)** | | | | | | | | |
| 40 |  |  |  |  |  |  | **X** |  |
| 41 | X |  |  |  |  |  | **X** |  |
| 42 |  | X |  |  |  |  | **X** |  |
| 43 | X | X |  |  |  |  | **X** |  |
| 44 |  |  | X |  |  |  | **X** |  |
| 45 | X |  | X |  |  |  | **X** |  |
| 46 |  | X | X |  |  |  | **X** |  |
| 47 | X | X | X |  |  |  | **X** |  |
| 48 |  |  |  | X |  |  | **X** |  |
| 49 | X |  |  | X |  |  | **X** |  |
| 4A |  | X |  | X |  |  | **X** |  |
| 4B | X | X |  | X |  |  | **X** |  |
| 4C |  |  | X | X |  |  | **X** |  |
| 4D | X |  | X | X |  |  | **X** |  |
| 4E |  | X | X | X |  |  | **X** |  |
| 4F | X | X | X | X |  |  | **X** |  |
| 50 |  |  |  |  | X |  | **X** |  |
| 51 | X |  |  |  | X |  | **X** |  |
| 52 |  | X |  |  | X |  | **X** |  |
| 53 | X | X |  |  | X |  | **X** |  |
| 54 |  |  | X |  | X |  | **X** |  |
| 55 | X |  | X |  | X |  | **X** |  |
| 56 |  | X | X |  | X |  | **X** |  |
| 57 | X | X | X |  | X |  | **X** |  |
| 58 |  |  |  | X | X |  | **X** |  |
| 59 | X |  |  | X | X |  | **X** |  |
| 5A |  | X |  | X | X |  | **X** |  |
| 5B | X | X |  | X | X |  | **X** |  |
| 5C |  |  | X | X | X |  | **X** |  |
| 5D | X |  | X | X | X |  | **X** |  |
| 5E |  | X | X | X | X |  | **X** |  |
| 5F | X | X | X | X | X |  | **X** |  |
| 60 |  |  |  |  |  | X | **X** |  |
| 61 | X |  |  |  |  | X | **X** |  |
| 62 |  | X |  |  |  | X | **X** |  |
| 63 | X | X |  |  |  | X | **X** |  |
| 64 |  |  | X |  |  | X | **X** |  |
| 65 | X |  | X |  |  | X | **X** |  |
| 66 |  | X | X |  |  | X | **X** |  |
| 67 | X | X | X |  |  | X | **X** |  |
| 68 |  |  |  | X |  | X | **X** |  |
| 69 | X |  |  | X |  | X | **X** |  |
| 6A |  | X |  | X |  | X | **X** |  |
| 6B | X | X |  | X |  | X | **X** |  |
| 6C |  |  | X | X |  | X | **X** |  |
| 6D | X |  | X | X |  | X | **X** |  |
| 6E |  | X | X | X |  | X | **X** |  |
| 6F | X | X | X | X |  | X | **X** |  |
| 70 |  |  |  |  | X | X | **X** |  |
| 71 | X |  |  |  | X | X | **X** |  |
| 72 |  | X |  |  | X | X | **X** |  |
| 73 | X | X |  |  | X | X | **X** |  |
| 74 |  |  | X |  | X | X | **X** |  |
| 75 | X |  | X |  | X | X | **X** |  |
| 76 |  | X | X |  | X | X | **X** |  |
| 77 | X | X | X |  | X | X | **X** |  |
| 78 |  |  |  | X | X | X | **X** |  |
| 79 | X |  |  | X | X | X | **X** |  |
| 7A |  | X |  | X | X | X | **X** |  |
| 7B | X | X |  | X | X | X | **X** |  |
| 7C |  |  | X | X | X | X | **X** |  |
| 7D | X |  | X | X | X | X | **X** |  |
| 7E |  | X | X | X | X | X | **X** |  |
| 7F | X | X | X | X | X | X | **X** |  |
| **PHR 2 (Channel 8)** | | | | | | | | |
| 80 | X |  |  |  |  |  |  |  |
| 81 | X |  |  |  |  |  |  | **X** |
| 82 |  | X |  |  |  |  |  | **X** |
| 83 | X | X |  |  |  |  |  | **X** |
| 84 |  |  | X |  |  |  |  | **X** |
| 85 | X |  | X |  |  |  |  | **X** |
| 86 |  | X | X |  |  |  |  | **X** |
| 87 | X | X | X |  |  |  |  | **X** |
| 88 |  |  |  | X |  |  |  | **X** |
| 89 | X |  |  | X |  |  |  | **X** |
| 8A |  | X |  | X |  |  |  | **X** |
| 8B | X | X |  | X |  |  |  | **X** |
| 8C |  |  | X | X |  |  |  | **X** |
| 8D | X |  | X | X |  |  |  | **X** |
| 8E |  | X | X | X |  |  |  | **X** |
| 8F | X | X | X | X |  |  |  | **X** |
| 90 |  |  |  |  | X |  |  | **X** |
| 91 | X |  |  |  | X |  |  | **X** |
| 92 |  | X |  |  | X |  |  | **X** |
| 93 | X | X |  |  | X |  |  | **X** |
| 94 |  |  | X |  | X |  |  | **X** |
| 95 | X |  | X |  | X |  |  | **X** |
| 96 |  | X | X |  | X |  |  | **X** |
| 97 | X | X | X |  | X |  |  | **X** |
| 98 |  |  |  | X | X |  |  | **X** |
| 99 | X |  |  | X | X |  |  | **X** |
| 9A |  | X |  | X | X |  |  | **X** |
| 9B | X | X |  | X | X |  |  | **X** |
| 9C |  |  | X | X | X |  |  | **X** |
| 9D | X |  | X | X | X |  |  | **X** |
| 9E |  | X | X | X | X |  |  | **X** |
| 9F | X | X | X | X | X |  |  | **X** |
| A0 |  |  |  |  |  | X |  | **X** |
| A1 | X |  |  |  |  | X |  | **X** |
| A2 |  | X |  |  |  | X |  | **X** |
| A3 | X | X |  |  |  | X |  | **X** |
| A4 |  |  | X |  |  | X |  | **X** |
| A5 | X |  | X |  |  | X |  | **X** |
| A6 |  | X | X |  |  | X |  | **X** |
| A7 | X | X | X |  |  | X |  | **X** |
| A8 |  |  |  | X |  | X |  | **X** |
| A9 | X |  |  | X |  | X |  | **X** |
| AA |  | X |  | X |  | X |  | **X** |
| AB | X | X |  | X |  | X |  | **X** |
| AC |  |  | X | X |  | X |  | **X** |
| AD | X |  | X | X |  | X |  | **X** |
| AE |  | X | X | X |  | X |  | **X** |
| AF | X | X | X | X |  | X |  | **X** |
| B0 |  |  |  |  | X | X |  | **X** |
| B1 | X |  |  |  | X | X |  | **X** |
| B2 |  | X |  |  | X | X |  | **X** |
| B3 | X | X |  |  | X | X |  | **X** |
| B4 |  |  | X |  | X | X |  | **X** |
| B5 | X |  | X |  | X | X |  | **X** |
| B6 |  | X | X |  | X | X |  | **X** |
| B7 | X | X | X |  | X | X |  | **X** |
| B8 |  |  |  | X | X | X |  | **X** |
| B9 | X |  |  | X | X | X |  | **X** |
| BA |  | X |  | X | X | X |  | **X** |
| BB | X | X |  | X | X | X |  | **X** |
| BC |  |  | X | X | X | X |  | **X** |
| BD | X |  | X | X | X | X |  | **X** |
| BE |  | X | X | X | X | X |  | **X** |
| BF | X | X | X | X | X | X |  | **X** |
| C0 | X |  |  |  |  |  | X | **X** |
| C1 |  | X |  |  |  |  | X | **X** |
| C2 | X | X |  |  |  |  | X | **X** |
| C3 |  |  | X |  |  |  | X | **X** |
| C4 | X |  | X |  |  |  | X | **X** |
| C5 |  | X | X |  |  |  | X | **X** |
| C6 | X | X | X |  |  |  | X | **X** |
| C7 |  |  |  | X |  |  | X | **X** |
| C8 | X |  |  | X |  |  | X | **X** |
| C9 |  | X |  | X |  |  | X | **X** |
| CA | X | X |  | X |  |  | X | **X** |
| CB |  |  | X | X |  |  | X | **X** |
| CC | X |  | X | X |  |  | X | **X** |
| CD |  | X | X | X |  |  | X | **X** |
| CE | X | X | X | X |  |  | X | **X** |
| CF |  |  |  |  | X |  | X | **X** |
| D0 | X |  |  |  | X |  | X | **X** |
| D1 |  | X |  |  | X |  | X | **X** |
| D2 | X | X |  |  | X |  | X | **X** |
| D3 |  |  | X |  | X |  | X | **X** |
| D4 | X |  | X |  | X |  | X | **X** |
| D5 |  | X | X |  | X |  | X | **X** |
| D6 | X | X | X |  | X |  | X | **X** |
| D7 |  |  |  | X | X |  | X | **X** |
| D8 | X |  |  | X | X |  | X | **X** |
| D9 |  | X |  | X | X |  | X | **X** |
| DA | X | X |  | X | X |  | X | **X** |
| DB |  |  | X | X | X |  | X | **X** |
| DC | X |  | X | X | X |  | X | **X** |
| DD |  | X | X | X | X |  | X | **X** |
| DE | X | X | X | X | X |  | X | **X** |
| DF |  |  |  |  |  | X | X | **X** |
| E0 | X |  |  |  |  | X | X | **X** |
| E1 |  | X |  |  |  | X | X | **X** |
| E2 | X | X |  |  |  | X | X | **X** |
| E3 |  |  | X |  |  | X | X | **X** |
| E4 | X |  | X |  |  | X | X | **X** |
| E5 |  | X | X |  |  | X | X | **X** |
| E6 | X | X | X |  |  | X | X | **X** |
| E7 |  |  |  | X |  | X | X | **X** |
| E8 | X |  |  | X |  | X | X | **X** |
| E9 |  | X |  | X |  | X | X | **X** |
| EA | X | X |  | X |  | X | X | **X** |
| EB |  |  | X | X |  | X | X | **X** |
| EC | X |  | X | X |  | X | X | **X** |
| ED |  | X | X | X |  | X | X | **X** |
| EE | X | X | X | X |  | X | X | **X** |
| EF |  |  |  |  | X | X | X | **X** |
| F0 | X |  |  |  | X | X | X | **X** |
| F1 |  | X |  |  | X | X | X | **X** |
| F2 | X | X |  |  | X | X | X | **X** |
| F3 |  |  | X |  | X | X | X | **X** |
| F4 | X |  | X |  | X | X | X | **X** |
| F5 |  | X | X |  | X | X | X | **X** |
| F6 | X | X | X |  | X | X | X | **X** |
| F7 |  |  |  | X | X | X | X | **X** |
| F8 | X |  |  | X | X | X | X | **X** |
| F9 |  | X |  | X | X | X | X | **X** |
| FA | X | X |  | X | X | X | X | **X** |
| FB |  |  | X | X | X | X | X | **X** |
| FC | X |  | X | X | X | X | X | **X** |
| FD |  | X | X | X | X | X | X | **X** |
| FE | X | X | X | X | X | X | X | **X** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** | **Hex** | **Channel** |
|  |  |  |  |  |  |  |  | 00 |  |
|  |  |  |  |  |  |  | **X** | 01 | Channel 1 |
|  |  |  |  |  |  | **X** |  | 02 | Channel 2 |
|  |  |  |  |  |  | **X** | X | 03 |  |
|  |  |  |  |  | **X** |  |  | 04 | Channel 3 |
|  |  |  |  |  | **X** |  | X | 05 |  |
|  |  |  |  |  | **X** | X |  | 06 |  |
|  |  |  |  |  | **X** | X | X | 07 |  |
|  |  |  |  | **X** |  |  |  | 08 | Channel 4 |
|  |  |  |  | **X** |  |  | X | 09 |  |
|  |  |  |  | **X** |  | X |  | 0A |  |
|  |  |  |  | **X** |  | X | X | 0B |  |
|  |  |  |  | **X** | X |  |  | 0C |  |
|  |  |  |  | **X** | X |  | X | 0D |  |
|  |  |  |  | **X** | X | X |  | 0E |  |
|  |  |  |  | **X** | X | X | X | 0F |  |
|  |  |  | **X** |  |  |  |  | 10 | Channel 5 |
|  |  |  | **X** |  |  |  | X | 11 |  |
|  |  |  | **X** |  |  | X |  | 12 |  |
|  |  |  | **X** |  |  | X | X | 13 |  |
|  |  |  | **X** |  | X |  |  | 14 |  |
|  |  |  | **X** |  | X |  | X | 15 |  |
|  |  |  | **X** |  | X | X |  | 16 |  |
|  |  |  | **X** |  | X | X | X | 17 |  |
|  |  |  | **X** | X |  |  |  | 18 |  |
|  |  |  | **X** | X |  |  | X | 19 |  |
|  |  |  | **X** | X |  | X |  | 1A |  |
|  |  |  | **X** | X |  | X | X | 1B |  |
|  |  |  | **X** | X | X |  |  | 1C |  |
|  |  |  | **X** | X | X |  | X | 1D |  |
|  |  |  | **X** | X | X | X |  | 1E |  |
|  |  |  | **X** | X | X | X | X | 1F |  |
|  |  | **X** |  |  |  |  |  | 20 | Channel 6 |
|  |  | **X** |  |  |  |  | X | 21 |  |
|  |  | **X** |  |  |  | X |  | 22 |  |
|  |  | **X** |  |  |  | X | X | 23 |  |
|  |  | **X** |  |  | X |  |  | 24 |  |
|  |  | **X** |  |  | X |  | X | 25 |  |
|  |  | **X** |  |  | X | X |  | 26 |  |
|  |  | **X** |  |  | X | X | X | 27 |  |
|  |  | **X** |  | X |  |  |  | 28 |  |
|  |  | **X** |  | X |  |  | X | 29 |  |
|  |  | **X** |  | X |  | X |  | 2A |  |
|  |  | **X** |  | X |  | X | X | 2B |  |
|  |  | **X** |  | X | X |  |  | 2C |  |
|  |  | **X** |  | X | X |  | X | 2D |  |
|  |  | **X** |  | X | X | X |  | 2E |  |
|  |  | **X** |  | X | X | X | X | 2F |  |
|  |  | **X** | X |  |  |  |  | 30 |  |
|  |  | **X** | X |  |  |  | X | 31 |  |
|  |  | **X** | X |  |  | X |  | 32 |  |
|  |  | **X** | X |  |  | X | X | 33 |  |
|  |  | **X** | X |  | X |  |  | 34 |  |
|  |  | **X** | X |  | X |  | X | 35 |  |
|  |  | **X** | X |  | X | X |  | 36 |  |
|  |  | **X** | X |  | X | X | X | 37 |  |
|  |  | **X** | X | X |  |  |  | 38 |  |
|  |  | **X** | X | X |  |  | X | 39 |  |
|  |  | **X** | X | X |  | X |  | 3A |  |
|  |  | **X** | X | X |  | X | X | 3B |  |
|  |  | **X** | X | X | X |  |  | 3C |  |
|  |  | **X** | X | X | X |  | X | 3D |  |
|  |  | **X** | X | X | X | X |  | 3E |  |
|  |  | **X** | X | X | X | X | X | 3F |  |
|  | **X** |  |  |  |  |  |  | 40 | Channel 7 |
|  | **X** |  |  |  |  |  | X | 41 |  |
|  | **X** |  |  |  |  | X |  | 42 |  |
|  | **X** |  |  |  |  | X | X | 43 |  |
|  | **X** |  |  |  | X |  |  | 44 |  |
|  | **X** |  |  |  | X |  | X | 45 |  |
|  | **X** |  |  |  | X | X |  | 46 |  |
|  | **X** |  |  |  | X | X | X | 47 |  |
|  | **X** |  |  | X |  |  |  | 48 |  |
|  | **X** |  |  | X |  |  | X | 49 |  |
|  | **X** |  |  | X |  | X |  | 4A |  |
|  | **X** |  |  | X |  | X | X | 4B |  |
|  | **X** |  |  | X | X |  |  | 4C |  |
|  | **X** |  |  | X | X |  | X | 4D |  |
|  | **X** |  |  | X | X | X |  | 4E |  |
|  | **X** |  |  | X | X | X | X | 4F |  |
|  | **X** |  | X |  |  |  |  | 50 |  |
|  | **X** |  | X |  |  |  | X | 51 |  |
|  | **X** |  | X |  |  | X |  | 52 |  |
|  | **X** |  | X |  |  | X | X | 53 |  |
|  | **X** |  | X |  | X |  |  | 54 |  |
|  | **X** |  | X |  | X |  | X | 55 |  |
|  | **X** |  | X |  | X | X |  | 56 |  |
|  | **X** |  | X |  | X | X | X | 57 |  |
|  | **X** |  | X | X |  |  |  | 58 |  |
|  | **X** |  | X | X |  |  | X | 59 |  |
|  | **X** |  | X | X |  | X |  | 5A |  |
|  | **X** |  | X | X |  | X | X | 5B |  |
|  | **X** |  | X | X | X |  |  | 5C |  |
|  | **X** |  | X | X | X |  | X | 5D |  |
|  | **X** |  | X | X | X | X |  | 5E |  |
|  | **X** |  | X | X | X | X | X | 5F |  |
|  | **X** | X |  |  |  |  |  | 60 |  |
|  | **X** | X |  |  |  |  | X | 61 |  |
|  | **X** | X |  |  |  | X |  | 62 |  |
|  | **X** | X |  |  |  | X | X | 63 |  |
|  | **X** | X |  |  | X |  |  | 64 |  |
|  | **X** | X |  |  | X |  | X | 65 |  |
|  | **X** | X |  |  | X | X |  | 66 |  |
|  | **X** | X |  |  | X | X | X | 67 |  |
|  | **X** | X |  | X |  |  |  | 68 |  |
|  | **X** | X |  | X |  |  | X | 69 |  |
|  | **X** | X |  | X |  | X |  | 6A |  |
|  | **X** | X |  | X |  | X | X | 6B |  |
|  | **X** | X |  | X | X |  |  | 6C |  |
|  | **X** | X |  | X | X |  | X | 6D |  |
|  | **X** | X |  | X | X | X |  | 6E |  |
|  | **X** | X |  | X | X | X | X | 6F |  |
|  | **X** | X | X |  |  |  |  | 70 |  |
|  | **X** | X | X |  |  |  | X | 71 |  |
|  | **X** | X | X |  |  | X |  | 72 |  |
|  | **X** | X | X |  |  | X | X | 73 |  |
|  | **X** | X | X |  | X |  |  | 74 |  |
|  | **X** | X | X |  | X |  | X | 75 |  |
|  | **X** | X | X |  | X | X |  | 76 |  |
|  | **X** | X | X |  | X | X | X | 77 |  |
|  | **X** | X | X | X |  |  |  | 78 |  |
|  | **X** | X | X | X |  |  | X | 79 |  |
|  | **X** | X | X | X |  | X |  | 7A |  |
|  | **X** | X | X | X |  | X | X | 7B |  |
|  | **X** | X | X | X | X |  |  | 7C |  |
|  | **X** | X | X | X | X |  | X | 7D |  |
|  | **X** | X | X | X | X | X |  | 7E |  |
|  | **X** | X | X | X | X | X | X | 7F |  |
| **X** |  |  |  |  |  |  | **X** | 80 | Channel 8 |
| **X** |  |  |  |  |  | **X** |  | 81 |  |
| **X** |  |  |  |  |  | **X** | X | 82 |  |
| **X** |  |  |  |  | **X** |  |  | 83 |  |
| **X** |  |  |  |  | **X** |  | X | 84 |  |
| **X** |  |  |  |  | **X** | X |  | 85 |  |
| **X** |  |  |  |  | **X** | X | X | 86 |  |
| **X** |  |  |  | **X** |  |  |  | 87 |  |
| **X** |  |  |  | **X** |  |  | X | 88 |  |
| **X** |  |  |  | **X** |  | X |  | 89 |  |
| **X** |  |  |  | **X** |  | X | X | 8A |  |
| **X** |  |  |  | **X** | X |  |  | 8B |  |
| **X** |  |  |  | **X** | X |  | X | 8C |  |
| **X** |  |  |  | **X** | X | X |  | 8D |  |
| **X** |  |  |  | **X** | X | X | X | 8E |  |
| **X** |  |  | **X** |  |  |  |  | 8F |  |
| **X** |  |  | **X** |  |  |  | X | 90 |  |
| **X** |  |  | **X** |  |  | X |  | 91 |  |
| **X** |  |  | **X** |  |  | X | X | 92 |  |
| **X** |  |  | **X** |  | X |  |  | 93 |  |
| **X** |  |  | **X** |  | X |  | X | 94 |  |
| **X** |  |  | **X** |  | X | X |  | 95 |  |
| **X** |  |  | **X** |  | X | X | X | 96 |  |
| **X** |  |  | **X** | X |  |  |  | 97 |  |
| **X** |  |  | **X** | X |  |  | X | 98 |  |
| **X** |  |  | **X** | X |  | X |  | 99 |  |
| **X** |  |  | **X** | X |  | X | X | 9A |  |
| **X** |  |  | **X** | X | X |  |  | 9B |  |
| **X** |  |  | **X** | X | X |  | X | 9C |  |
| **X** |  |  | **X** | X | X | X |  | 9D |  |
| **X** |  |  | **X** | X | X | X | X | 9E |  |
| **X** |  | **X** |  |  |  |  |  | 9F |  |
| **X** |  | **X** |  |  |  |  | X | A0 |  |
| **X** |  | **X** |  |  |  | X |  | A1 |  |
| **X** |  | **X** |  |  |  | X | X | A2 |  |
| **X** |  | **X** |  |  | X |  |  | A3 |  |
| **X** |  | **X** |  |  | X |  | X | A4 |  |
| **X** |  | **X** |  |  | X | X |  | A5 |  |
| **X** |  | **X** |  |  | X | X | X | A6 |  |
| **X** |  | **X** |  | X |  |  |  | A7 |  |
| **X** |  | **X** |  | X |  |  | X | A8 |  |
| **X** |  | **X** |  | X |  | X |  | A9 |  |
| **X** |  | **X** |  | X |  | X | X | AA |  |
| **X** |  | **X** |  | X | X |  |  | AB |  |
| **X** |  | **X** |  | X | X |  | X | AC |  |
| **X** |  | **X** |  | X | X | X |  | AD |  |
| **X** |  | **X** |  | X | X | X | X | AE |  |
| **X** |  | **X** | X |  |  |  |  | AF |  |
| **X** |  | **X** | X |  |  |  | X | B0 |  |
| **X** |  | **X** | X |  |  | X |  | B1 |  |
| **X** |  | **X** | X |  |  | X | X | B2 |  |
| **X** |  | **X** | X |  | X |  |  | B3 |  |
| **X** |  | **X** | X |  | X |  | X | B4 |  |
| **X** |  | **X** | X |  | X | X |  | B5 |  |
| **X** |  | **X** | X |  | X | X | X | B6 |  |
| **X** |  | **X** | X | X |  |  |  | B7 |  |
| **X** |  | **X** | X | X |  |  | X | B8 |  |
| **X** |  | **X** | X | X |  | X |  | B9 |  |
| **X** |  | **X** | X | X |  | X | X | BA |  |
| **X** |  | **X** | X | X | X |  |  | BB |  |
| **X** |  | **X** | X | X | X |  | X | BC |  |
| **X** |  | **X** | X | X | X | X |  | BD |  |
| **X** |  | **X** | X | X | X | X | X | BE |  |
| **X** | **X** |  |  |  |  |  | X | BF |  |
| **X** | **X** |  |  |  |  | X |  | C0 |  |
| **X** | **X** |  |  |  |  | X | X | C1 |  |
| **X** | **X** |  |  |  | X |  |  | C2 |  |
| **X** | **X** |  |  |  | X |  | X | C3 |  |
| **X** | **X** |  |  |  | X | X |  | C4 |  |
| **X** | **X** |  |  |  | X | X | X | C5 |  |
| **X** | **X** |  |  | X |  |  |  | C6 |  |
| **X** | **X** |  |  | X |  |  | X | C7 |  |
| **X** | **X** |  |  | X |  | X |  | C8 |  |
| **X** | **X** |  |  | X |  | X | X | C9 |  |
| **X** | **X** |  |  | X | X |  |  | CA |  |
| **X** | **X** |  |  | X | X |  | X | CB |  |
| **X** | **X** |  |  | X | X | X |  | CC |  |
| **X** | **X** |  |  | X | X | X | X | CD |  |
| **X** | **X** |  | X |  |  |  |  | CE |  |
| **X** | **X** |  | X |  |  |  | X | CF |  |
| **X** | **X** |  | X |  |  | X |  | D0 |  |
| **X** | **X** |  | X |  |  | X | X | D1 |  |
| **X** | **X** |  | X |  | X |  |  | D2 |  |
| **X** | **X** |  | X |  | X |  | X | D3 |  |
| **X** | **X** |  | X |  | X | X |  | D4 |  |
| **X** | **X** |  | X |  | X | X | X | D5 |  |
| **X** | **X** |  | X | X |  |  |  | D6 |  |
| **X** | **X** |  | X | X |  |  | X | D7 |  |
| **X** | **X** |  | X | X |  | X |  | D8 |  |
| **X** | **X** |  | X | X |  | X | X | D9 |  |
| **X** | **X** |  | X | X | X |  |  | DA |  |
| **X** | **X** |  | X | X | X |  | X | DB |  |
| **X** | **X** |  | X | X | X | X |  | DC |  |
| **X** | **X** |  | X | X | X | X | X | DD |  |
| **X** | **X** | X |  |  |  |  |  | DE |  |
| **X** | **X** | X |  |  |  |  | X | DF |  |
| **X** | **X** | X |  |  |  | X |  | E0 |  |
| **X** | **X** | X |  |  |  | X | X | E1 |  |
| **X** | **X** | X |  |  | X |  |  | E2 |  |
| **X** | **X** | X |  |  | X |  | X | E3 |  |
| **X** | **X** | X |  |  | X | X |  | E4 |  |
| **X** | **X** | X |  |  | X | X | X | E5 |  |
| **X** | **X** | X |  | X |  |  |  | E6 |  |
| **X** | **X** | X |  | X |  |  | X | E7 |  |
| **X** | **X** | X |  | X |  | X |  | E8 |  |
| **X** | **X** | X |  | X |  | X | X | E9 |  |
| **X** | **X** | X |  | X | X |  |  | EA |  |
| **X** | **X** | X |  | X | X |  | X | EB |  |
| **X** | **X** | X |  | X | X | X |  | EC |  |
| **X** | **X** | X |  | X | X | X | X | ED |  |
| **X** | **X** | X | X |  |  |  |  | EE |  |
| **X** | **X** | X | X |  |  |  | X | EF |  |
| **X** | **X** | X | X |  |  | X |  | F0 |  |
| **X** | **X** | X | X |  |  | X | X | F1 |  |
| **X** | **X** | X | X |  | X |  |  | F2 |  |
| **X** | **X** | X | X |  | X |  | X | F3 |  |
| **X** | **X** | X | X |  | X | X |  | F4 |  |
| **X** | **X** | X | X |  | X | X | X | F5 |  |
| **X** | **X** | X | X | X |  |  |  | F6 |  |
| **X** | **X** | X | X | X |  |  | X | F7 |  |
| **X** | **X** | X | X | X |  | X |  | F8 |  |
| **X** | **X** | X | X | X |  | X | X | F9 |  |
| **X** | **X** | X | X | X | X |  |  | FA |  |
| **X** | **X** | X | X | X | X |  | X | FB |  |
| **X** | **X** | X | X | X | X | X |  | FC |  |
| **X** | **X** | X | X | X | X | X | X | FD |  |