

This protocol is for use with iLive systems loaded with firmware version V1.90 and later.

iLive supports third party TCP/IP control of some of its functions via its Network ports. This answers user request for control of iLive using industry standard touch panels and other controllers.

## The following functions may be controlled:

Fader levels	Input, Mix, FX send, FX return, DCA
Mutes	Input, Mix, FX send, FX return, DCA
Send levels	Aux, FX
DCA Assignments	
Input to Main Mix Assignments	
Preamp Gain	
Preamp Pad	
Preamp 48V	
Channel Name and Colour	
Scene Recall	
MIX select	

## Client Configuration

Clients should be configured to use TCP port **51325**

iLive can support up to 4 simultaneous client connections.

Connect to the MixRack you wish to control using its IP address.

## Messages

The control messages are based on the iLive MIDI protocol.

**Note** iLive MIDI channel number is used within the TCP/IP messages. Make sure the MIDI channel number used in the TCP/IP messages and the channel number set on the iLive using its **UTILITY / Configuration / MIDI** screen are the same.

All message **numbers** shown are hexadecimal.

Refer to the end of this specification for a table of message values for the variable parameters listed here.

## MIDI channel

**N**

MIDI channel 1 to 16 = **0** to **F**

For Dual-Rack:

**Slave** rack MIDI channel = **Master** rack MIDI channel + 1

## Channel numbers

**CH**

FX Send 1 to 8	=	<b>00</b> to <b>07</b>
FX Return 1 to 8	=	<b>08</b> to <b>0F</b>
DCA 1 to 16	=	<b>10</b> to <b>1F</b>
Input 1 to 64	=	<b>20</b> to <b>5F</b>
Mix 1 to 32	=	<b>60</b> to <b>7F</b>

Mix channels 1-32 follow the order of the current configuration:

- Mono Groups
- Stereo Groups
- Mono Auxes
- Stereo Auxes
- Main Mix (2 or 4 used)
- Mono Matrix
- Stereo Matrix

### Example – 1\_FOH-LRSub Template

<b>60</b>	1	Grp1	<b>70</b>	17	StAux1L
<b>61</b>	2	Grp2	<b>71</b>	18	StAux1R
<b>62</b>	3	Grp3	<b>72</b>	19	StAux2L
<b>63</b>	4	Grp4	<b>73</b>	20	StAux2R
<b>64</b>	5	StGrp1L	<b>74</b>	21	Main L
<b>65</b>	6	StGrp1R	<b>75</b>	22	Main R
<b>66</b>	7	StGrp2L	<b>76</b>	23	Main Sub
<b>67</b>	8	StGrp2R	<b>77</b>	24	-
<b>68</b>	9	Aux1	<b>78</b>	25	Mtx1
<b>69</b>	10	Aux2	<b>79</b>	26	Mtx2
<b>6A</b>	11	Aux3	<b>7A</b>	27	Mtx3
<b>6B</b>	12	Aux4	<b>7B</b>	28	Mtx4
<b>6C</b>	13	Aux5	<b>7C</b>	29	StMtx1L
<b>6D</b>	14	Aux6	<b>7D</b>	30	StMtx1R
<b>6E</b>	15	Aux7	<b>7E</b>	31	StMtx2L
<b>6F</b>	16	Aux8	<b>7F</b>	32	StMtx2R

**Note** The order depends on the current configuration and will change if the Mixer Config is changed.

## Mute control

Mute On **9N, CH, 7F, CH, 00**

On value = **40 to 7F**

Mute Off **9N, CH, 3F, CH, 00**

Off value = **01 to 3F**, 00 ignored

## Fader Level

**BN, 63, CH, 62, 17, 06, LV**

Fader value **LV** -inf to +10dB = **00 to 7F**

## Channel Assignment to Main Mix control

Mix On **BN, 63, CH, 62, 18, 06, 7F**

On value = **40 to 7F**

Mix Off **BN, 63, CH, 62, 18, 06, 3F**

Off value = **00 to 3F**

## AUX / FX Send Level

**BN, 63, CH, BN, 62, Snd, BN, 06, LV**

Where **Snd** for Mix 1 to 30 = parameter ID **20 to 3D**  
Send value **LV** -inf to +10dB = **00 to 7F**

Mix buses 1-30 follow the order of the current configuration:

Mono Groups  
Stereo Groups  
Mono FX  
Mono Auxes  
Stereo FX  
Stereo Auxes  
Main Mix

## DCA Assignment control

Assign On **BN, 63, CH, 62, 40, 06, DB**

Assign Off **BN, 63, CH, 62, 40, 06, DA**

On value **DB** = **40 to 4F** for DCA 1 to 16

Off value **DA** = **00 to 0F** for DCA 1 to 16

### Example – 1\_FOH-LRSub Template

20	1	Grp1	30	17	Aux3
21	2	Grp2	31	18	Aux4
22	3	Grp3	32	19	Aux5
23	4	Grp4	33	20	Aux6
24	5	StGrp1L	34	21	Aux7
25	6	StGrp1R	35	22	Aux8
26	7	StGrp2L	36	23	StAux1L
27	8	StGrp2R	37	24	StAux1R
28	9	FX1	38	25	StAux2L
29	10	FX2	39	26	StAux2R
2A	11	FX3	3A	27	Main L
2B	12	FX4	3B	28	Main R
2C	13	FX5	3C	29	Main Sub
2D	14	FX6	3D	30	-
2E	15	Aux1			
2F	16	Aux2			

Groups and Main mix do not have send levels and these messages are ignored.

**Note** The order depends on the current configuration and will change if the Mixer Config is changed.

## Channel Preamp Gain

This adjusts the Gain of the preamp mapped to the channel:

Gain **BN, 63, CH, 62, 19, 06, GV**

GAIN value **GV** min to max = **00 to 7F**

## Socket Preamp Gain

This adjusts the Gain of the preamp at a socket:

Gain **EN, MP, GV**

MixRack socket ID **MP** A1 to J8 = **00 to 4F**

Surface socket ID **MP** A1 to D8 = **50 to 6F**

GAIN value **GV** min to max = **00 to 7F**

## Socket Preamp Pad

This turns Pad on or off for the preamp at a socket

### To get Pad status from iLive:

Send... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 07, MP, F7

where MP = socket as above

Reply... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 08, MP, Pad, F7

where Pad Off = 00, On = 7F

### To set Pad:

F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 09, MP, Pad, F7

where Pad Off = 00, On = 7F

## Socket Preamp 48V

This turns 48V (Phantom Power) on or off for the preamp at a socket

### To get 48V status from iLive:

Send... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 0A, MP, F7

where MP = socket as above

Reply... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 0B, MP, 48V, F7

where 48V Off = 00, On = 7F

### To set 48V:

F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 0C, MP, 48V, F7

where 48V Off = 00, On = 7F

## Channel Name

This gets or sets the Name with up to 8 characters (up to 5 can be displayed on the iLive strip LCD)

### To get Name from iLive:

Send... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 01, CH, F7

Reply... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 02, CH, Name, F7

where Name = hex ascii characters

### To set Name:

F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 03, CH, Name, F7

where Name = hex ascii characters

## Channel Colour

This gets or sets the Colour with a choice of off or one of 6 colours

### To get Colour from iLive:

Send... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 04, CH, F7

Reply... F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 05, CH, Col, F7

where Col = 00 to 06 (see table)

### To set Colour:

F0, 00, 00, 1A, 50, 10, 01, 00, 0N, 06, CH, Col, F7

where Col = 00 to 06 (see table)

## Scene Recall

To recall one of the 250 Scenes (2 banks)

Also transmits this message when a Scene is recalled by TouchScreen or another method

For Scene 1 to 128: BN, 00, 00, CN, SS      Scene SS 1 to 128 = 00 to 7F

For Scene 129 to 250: BN, 00, 01, CN, SS      Scene SS 129 to 250 = 00 to 78

Scene SS 129 to 250 = 00 to 78

Select bank      Recall Scene

BN, 00, 01,      CN, SS

## MIX Select

**Sel** Bit 8 (least significant bit) sets the MIX on (selected) or off (unselected) 0 = MIX off, 1 = MIX on

**Sel** Bit 7 specifies if the channel is on Dual-Rack Master or Slave (inputs only) 0 = Master, 1 = Slave

**AN, CH, Sel**

where **Sel** 0 = MIX off

1 = MIX on (Masters and Inputs 1-64)

3 = Mix on (Inputs 65-128 Dual-Rack slave)

Refer to table on next page...

**Scene number**

	SS	Hex	Dec
1	00	Hex	129
2	01	Hex	130
3	02	Hex	131
4	03	Hex	132
5	04	Hex	133
6	05	Hex	134
7	06	Hex	135
8	07	Hex	136
9	08	Hex	137
10	09	Hex	138
11	0A	Hex	139
12	0B	Hex	140
13	0C	Hex	141
14	0D	Hex	142
15	0E	Hex	143
16	0F	Hex	144
17	10	Hex	145
18	11	Hex	146
19	12	Hex	147
20	13	Hex	148
21	14	Hex	149
22	15	Hex	150
23	16	Hex	151
24	17	Hex	152
25	18	Hex	153
26	19	Hex	154
27	1A	Hex	155
28	1B	Hex	156
29	1C	Hex	157
30	1D	Hex	158
31	1E	Hex	159
32	1F	Hex	160
33	20	Hex	161
34	21	Hex	162
35	22	Hex	163
36	23	Hex	164
37	24	Hex	165
38	25	Hex	166
39	26	Hex	167
40	27	Hex	168
41	28	Hex	169
42	29	Hex	170
43	2A	Hex	171
44	2B	Hex	172
45	2C	Hex	173
46	2D	Hex	174
47	2E	Hex	175
48	2F	Hex	176
49	30	Hex	177
50	31	Hex	178
51	32	Hex	179
52	33	Hex	180
53	34	Hex	181
54	35	Hex	182
55	36	Hex	183
56	37	Hex	184
57	38	Hex	185
58	39	Hex	186
59	3A	Hex	187
60	3B	Hex	188
61	3C	Hex	189
62	3D	Hex	190
63	3E	Hex	191
64	3F	Hex	192

**Fader level**

	LV	Hex	Dec
+10	7F	Hex	127
+5	74	Hex	117
0	6B	Hex	107
-5	61	Hex	97
-10	57	Hex	87
-15	4D	Hex	77
-20	43	Hex	67
-25	39	Hex	57
-30	2F	Hex	47
-35	25	Hex	37
-40	1B	Hex	27
-45	11	Hex	17
-inf	00	Hex	0

[[Gain+54]/64]\*7F

**SS**

	SS	Hex	Dec
65	40	Hex	193
66	41	Hex	194
67	42	Hex	195
68	43	Hex	196
69	44	Hex	197
70	45	Hex	198
71	46	Hex	199
72	47	Hex	200
73	48	Hex	201
74	49	Hex	202
75	4A	Hex	203
76	4B	Hex	204
77	4C	Hex	205
78	4D	Hex	206
79	4E	Hex	207
80	4F	Hex	208
81	50	Hex	209
82	51	Hex	210
83	52	Hex	211
84	53	Hex	212
85	54	Hex	213
86	55	Hex	214
87	56	Hex	215
88	57	Hex	216
89	58	Hex	217
90	59	Hex	218
91	5A	Hex	219
92	5B	Hex	220
93	5C	Hex	221
94	5D	Hex	222
95	5E	Hex	223
96	5F	Hex	224
97	60	Hex	225
98	61	Hex	226
99	62	Hex	227
100	63	Hex	228
101	64	Hex	229
102	65	Hex	230
103	66	Hex	231
104	67	Hex	232
105	68	Hex	233
106	69	Hex	234
107	6A	Hex	235
108	6B	Hex	236
109	6C	Hex	237
110	6D	Hex	238
111	6E	Hex	239
112	6F	Hex	240
113	70	Hex	241
114	71	Hex	242
115	72	Hex	243
116	73	Hex	244
117	74	Hex	245
118	75	Hex	246
119	76	Hex	247
120	77	Hex	248
121	78	Hex	249
122	79	Hex	250
123	7A	Hex	
124	7B	Hex	
125	7C	Hex	
126	7D	Hex	
127	7E	Hex	
128	7F	Hex	

**Gain value**

	GV	Hex	Dec
+65	7F	Hex	127
+55	67	Hex	103
+50	5C	Hex	92
+45	50	Hex	80
+40	45	Hex	69
+36	3C	Hex	60
+32	32	Hex	50
+28	29	Hex	41
+25	22	Hex	34
+22	1B	Hex	27
+18	12	Hex	18
+14	09	Hex	9
+10	00	Hex	0

[[Gain-10]/55]\*7F

**Input Channel number**

CH	Hex	CH	Hex	CH	Hex	CH	Hex
1	20	17	30	33	40	49	50
2	21	18	31	34	41	50	51
3	22	19	32	35	42	51	52
4	23	20	33	36	43	52	53
5	24	21	34	37	44	53	54
6	25	22	35	38	45	54	55
7	26	23	36	39	46	55	56
8	27	24	37	40	47	56	57
9	28	25	38	41	48	57	58
10	29	26	39	42	49	58	59
11	2A	27	3A	43	4A	59	5A
12	2B	28	3B	44	4B	60	5B
13	2C	29	3C	45	4C	61	5C
14	2D	30	3D	46	4D	62	5D
15	2E	31	3E	47	4E	63	5E
16	2F	32	3F	48	4F	64	5F

**Surface Preamp Socket**

Skt	MP	Hex	Skt	MP	Hex
A1	50	Hex	C1	60	Hex
A2	51	Hex	C2	61	Hex
A3	52	Hex	C3	62	Hex
A4	53	Hex	C4	63	Hex
A5	54	Hex	C5	64	Hex
A6	55	Hex	C6	65	Hex
A7	56	Hex	C7	66	Hex
A8	57	Hex	C8	67	Hex
B1	58	Hex	D1	68	Hex
B2	59	Hex	D2	69	Hex
B3	5A	Hex	D3	6A	Hex
B4	5B	Hex	D4	6B	Hex
B5	5C	Hex	D5	6C	Hex
B6	5D	Hex	D6	6D	Hex
B7	5E	Hex	D7	6E	Hex
B8	5F	Hex	D8	6F	Hex

**Mix Channel number**

Mix	CH	Hex	Mix	CH	Hex
1	60	Hex	17	70	Hex
2	61	Hex	18	71	Hex
3	62	Hex	19	72	Hex
4	63	Hex	20	73	Hex
5	64	Hex	21	74	Hex
6	65	Hex	22	75	Hex
7	66	Hex	23	76	Hex
8	67	Hex	24	77	Hex
9	68	Hex	25	78	Hex
10	69	Hex	26	79	Hex
11	6A	Hex	27	7A	Hex
12	6B	Hex	28	7B	Hex
13	6C	Hex	29	7C	Hex
14	6D	Hex	30	7D	Hex
15	6E	Hex	31	7E	Hex
16	6F	Hex	32	7F	Hex

**MixRack Preamp Socket**

Skt	MP	Hex	Skt	MP	Hex	Skt	MP	Hex	Skt	MP	Hex	Skt	MP	Hex
A1	00	Hex	C1	10	Hex	E1	20	Hex	G1	30	Hex	I1	40	Hex
A2	01	Hex	C2	11	Hex	E2	21	Hex	G2	31	Hex	I2	41	Hex
A3	02	Hex	C3	12	Hex	E3	22	Hex	G3	32	Hex	I3	42	Hex
A4	03	Hex	C4	13	Hex	E4	23	Hex	G4	33	Hex	I4	43	Hex
A5	04	Hex	C5	14	Hex	E5	24	Hex	G5	34	Hex	I5	44	Hex
A6	05	Hex	C6	15	Hex	E6	25	Hex	G6	35	Hex	I6	45	Hex
A7	06	Hex	C7	16	Hex	E7	26	Hex	G7	36	Hex	I7	46	Hex
A8	07	Hex	C8	17	Hex	E8	27	Hex	G8	37	Hex	I8	47	Hex
B1	08	Hex	D1	18	Hex	F1	28	Hex	H1	38	Hex	J1	48	Hex
B2	09	Hex	D2	19	Hex	F2	29	Hex	H2	39	Hex	J2	49	Hex
B3	0A	Hex	D3	1A	Hex	F3	2A	Hex	H3	3A	Hex	J3	4A	Hex
B4	0B	Hex	D4	1B	Hex	F4	2B	Hex	H4	3B	Hex	J4	4B	Hex
B5	0C	Hex	D5	1C	Hex	F5	2C	Hex	H5	3C	Hex	J5	4C	Hex
B6	0D	Hex	D6	1D	Hex	F6	2D	Hex	H6	3D	Hex	J6	4D	Hex
B7	0E	Hex	D7	1E	Hex	F7	2E	Hex	H7	3E	Hex	J7	4E	Hex
B8	0F	Hex	D8	1F	Hex	F8	2F	Hex	H8	3F	Hex	J8	4F	Hex

**DCA number**

DCA	CH	Hex
1	10	Hex
2	11	Hex
3	12	Hex
4	13	Hex
5	14	Hex
6	15	Hex
7	16	Hex
8	17	Hex
9	18	Hex
10	19	Hex
11	1A	Hex
12	1B	Hex
13	1C	Hex
14	1D	Hex
15	1E	Hex
16	1F	Hex

**DCA on/off**

DCA	DA	DB	on
1	00	40	
2	01	41	
3	02	42	
4	03	43	
5	04	44	
6	05	45	
7	06	46	
8	07	47	
9	08	48	
10	09	49	
11	0A	4A	
12	0B	4B	
13	0C	4C	
14	0D	4D	
15	0E	4E	
16	0F	4F	

**COLOUR**

Off	00
Red	01
Green	02
Yellow	03
Blue	04
Purple	05
Lt Blue	06

**FX Return**

CH	CH	Hex
1	08	Hex
2	09	Hex
3	0A	Hex
4	0B	Hex
5	0C	Hex
6	0D	Hex
7	0E	Hex
8	0F	Hex

**FX Send**

1	00
2	01
3	02
4	03
5	04
6	05
7	06
8	07

**MIDI channel**

Mix	N	Hex
1	0	Hex
2	1	Hex
3		