

## OnQ-ALC - (Individual Lighting Switches)

**OnQ ALC** is a low voltage "wired" lighting technology utilizing a central ALC Master Controller Interface communicating to light switches and scene switches over a RS-485 proprietary network. An OnQ ALC Serial interface is required for interfacing the Master Controller Interface with the ELK-M1XSP, and then into the M1 line of controls. The M1XSP supports 31 ALC modules (dimmers, switches on each of 4 branches for a total of 124 individually addressable ALC devices. The M1XSP also supports ALC 4 button scene switches, provided they are wired and connected on ALC branch 1.

Integration with the M1 is accomplished by "mapping" the ALC addresses and operation to M1 Lighting devices. For example: ALC devices 1-31 on ALC branch 1 are mapped to M1 Lighting devices 1-31. Additional ALC devices may be added by the additional of an ALC "branch" expander board in which case..... ALC devices 1-31 on ALC branch 2 are mapped to M1 Lighting devices 33-63. ALC devices 1-31 on ALC branch 3 are mapped to M1 Lighting devices 65-95. ALC devices 1-31 on ALC branch 4 are mapped to M1 Lighting devices 97-127. M1 Lighting devices 32, 64, 96, and 128 are reserved for activation of the ALC "Virtual Scenes" 1 thru 4 respectively. The chart on the next page shows the M1 Lighting devices and their corresponding ALC device mapping.

### Components required for OnQ ALC integration:

- An ELK-M1 or ELK-M1EZ8 Controller.
- One (1) ELK-M1XSP Serial Port Expander. NOTE: Firmware updates may be downloaded from the ELK M1 Dealer Web site.
- One (1) OnQ ALC Master Controller #364644-01 and one (1) ALC Serial Interface #364698-01. \*\* See NOTE below.
- One or more ALC Lighting devices.

### Limitations:

The M1XSP can only support ALC 4 button scene switches wired and connected on ALC branch 1.

### Setting up the M1XSP and the M1 to communicate with OnQ ALC

1. Install the ELK-M1XSP per the instructions on page 3. Be sure to enroll the device into the M1.
2. Connect the RJ45 modular to 9-pin female serial cable supplied with the OnQ ALC Serial Interface to the male DB9 9 pin serial connector (J2) on the ELK-M1XSP. The OnQ Lighting Controller is then connected to the OnQ Serial Interface. Note: An optional expansion module OnQ part #364726-01 is required to obtain the full capacity of 124 Switches.
3. Set the **MODE** Jumpers on the M1XSP as follows: **S4="1" (UP), S5="1" (UP), S6="1" (UP), S7="0" (DN), S8="0" (DN)**. NOTE: Some units do not have jumper S4.
4. Set the M1XSP Jumper **JP3="232"**. The position of BAUD jumpers S1,S2,S3 does not matter.
5. Be sure to set the address switches on the ALC switches and use the OnQ Software to program the features.
6. Power up all the devices.
7. Program the M1 Lighting device attributes utilizing the ElkRP software. Only the specific devices to be used for ALC need to be programmed. For each individual address program the M1 Lighting device as: **"Format=Serial Expander" and "Type=Dimmer" (Type may also be programmed as "On/Off Switch" if the device isn't dimmable)**.

When a M1 Light device is activated from a rule or from the M1 Keypad "Automation" menu, the corresponding device command will be sent from the M1XSP to the ALC Serial Interface.

\*\* NOTE: As of the release date of this manual OnQ had announced plans to produce a single module designated the "Elk Interface". While not yet officially released the OnQ part number is believed to be **364864-01**. This new part combines the OnQ ALC Interface, the ALC Serial Interface, and the ELK-M1XSP, essentially replacing three components with a single component. More information will be released once this product is available.

## OnQ-ALC - (continued)

M1 Lighting Devices Mapped to OnQ ALC											
											The PLC column is for reference only.
ELK Light Device #	PLC (X-10) Ref.	OnQ-ALC Branch / Switch	ELK Light Device #	PLC (X-10) Ref.	OnQ-ALC Branch / Switch	ELK Light Device #	PLC (X-10) Ref.	OnQ-ALC Branch/Node/SS Scene Switch	ELK Light Device #	PLC (X-10) Ref.	OnQ-ALC Branch/Node/SS Scene Switch
1	A01	B1 Switch 1	65	E01	B3 Switch 1	129	I01	B1/Node1/SS 2	193	M01	B1/Node22/SS 3
2	A02	B1 Switch 2	66	E02	B3 Switch 2	130	I02	B1/Node1/SS 3	194	M02	B1/Node22/SS 4
3	A03	B1 Switch 3	67	E03	B3 Switch 3	131	I03	B1/Node1/SS 4	195	M03	B1/Node23/SS 2
4	A04	B1 Switch 4	68	E04	B3 Switch 4	132	I04	B1/Node2/SS 2	196	M04	B1/Node23/SS 3
5	A05	B1 Switch 5	69	E05	B3 Switch 5	133	I05	B1/Node2/SS 3	197	M05	B1/Node23/SS 4
6	A06	B1 Switch 6	70	E06	B3 Switch 6	134	I06	B1/Node2/SS 4	198	M06	B1/Node24/SS 2
7	A07	B1 Switch 7	71	E07	B3 Switch 7	135	I07	B1/Node3/SS 2	199	M07	B1/Node24/SS 3
8	A08	B1 Switch 8	72	E08	B3 Switch 8	136	I08	B1/Node3/SS 3	200	M08	B1/Node24/SS 4
9	A09	B1 Switch 9	73	E09	B3 Switch 9	137	I09	B1/Node3/SS 4	201	M09	B1/Node25/SS 2
10	A10	B1 Switch 10	74	E10	B3 Switch 10	138	I10	B1/Node4/SS 2	202	M10	B1/Node25/SS 3
11	A11	B1 Switch 11	75	E11	B3 Switch 11	139	I11	B1/Node4/SS 3	203	M11	B1/Node25/SS 4
12	A12	B1 Switch 12	76	E12	B3 Switch 12	140	I12	B1/Node4/SS 4	204	M12	B1/Node26/SS 2
13	A13	B1 Switch 13	77	E13	B3 Switch 13	141	I13	B1/Node5/SS 2	205	M13	B1/Node26/SS 3
14	A14	B1 Switch 14	78	E14	B3 Switch 14	142	I14	B1/Node5/SS 3	206	M14	B1/Node26/SS 4
15	A15	B1 Switch 15	79	E15	B3 Switch 15	143	I15	B1/Node5/SS 4	207	M15	B1/Node27/SS 2
16	A16	B1 Switch 16	80	E16	B3 Switch 16	144	I16	B1/Node6/SS 2	208	M16	B1/Node27/SS 3
17	B01	B1 Switch 17	81	F01	B3 Switch 17	145	J01	B1/Node6/SS 3	209	N01	B1/Node27/SS 4
18	B02	B1 Switch 18	82	F02	B3 Switch 18	146	J02	B1/Node6/SS 4	210	N02	B1/Node28/SS 2
19	B03	B1 Switch 19	83	F03	B3 Switch 19	147	J03	B1/Node7/SS 2	211	N03	B1/Node28/SS 3
20	B04	B1 Switch 20	84	F04	B3 Switch 20	148	J04	B1/Node7/SS 3	212	N04	B1/Node28/SS 4
21	B05	B1 Switch 21	85	F05	B3 Switch 21	149	J05	B1/Node7/SS 4	213	N05	B1/Node29/SS 2
22	B06	B1 Switch 22	86	F06	B3 Switch 22	150	J06	B1/Node8/SS 2	214	N06	B1/Node29/SS 3
23	B07	B1 Switch 23	87	F07	B3 Switch 23	151	J07	B1/Node8/SS 3	215	N07	B1/Node29/SS 4
24	B08	B1 Switch 24	88	F08	B3 Switch 24	152	J08	B1/Node8/SS 4	216	N08	B1/Node30/SS 2
25	B09	B1 Switch 25	89	F09	B3 Switch 25	153	J09	B1/Node9/SS 2	217	N09	B1/Node30/SS 3
26	B10	B1 Switch 26	90	F10	B3 Switch 26	154	J10	B1/Node9/SS 3	218	N10	B1/Node30/SS 4
27	B11	B1 Switch 27	91	F11	B3 Switch 27	155	J11	B1/Node9/SS 4	219	N11	B1/Node31/SS 2
28	B12	B1 Switch 28	92	F12	B3 Switch 28	156	J12	B1/Node10/SS 2	220	N12	B1/Node31/SS 3
29	B13	B1 Switch 29	93	F13	B3 Switch 29	157	J13	B1/Node10/SS 3	221	N13	B1/Node31/SS 4
30	B14	B1 Switch 30	94	F14	B3 Switch 30	158	J14	B1/Node10/SS 4	222	N14	
31	B15	B1 Switch 31	95	F15	B3 Switch 31	159	J15	B1/Node11/SS 2	223	N15	
32	B16	Virtual Scene 1	96	F16	Virtual Scene 3	160	J16	B1/Node11/SS 3	224	N16	
33	C01	B2 Switch 1	97	G01	B4 Switch 1	161	K01	B1/Node11/SS 4	225	O01	
34	C02	B2 Switch 2	98	G02	B4 Switch 2	162	K02	B1/Node12/SS 2	226	O02	
35	C03	B2 Switch 3	99	G03	B4 Switch 3	163	K03	B1/Node12/SS 3	227	O03	
36	C04	B2 Switch 4	100	G04	B4 Switch 4	164	K04	B1/Node12/SS 4	228	O04	
37	C05	B2 Switch 5	101	G05	B4 Switch 5	165	K05	B1/Node13/SS 2	229	O05	
38	C06	B2 Switch 6	102	G06	B4 Switch 6	166	K06	B1/Node13/SS 3	230	O06	
39	C07	B2 Switch 7	103	G07	B4 Switch 7	167	K07	B1/Node13/SS 4	231	O07	
40	C08	B2 Switch 8	104	G08	B4 Switch 8	168	K08	B1/Node14/SS 2	232	O08	
41	C09	B2 Switch 9	105	G09	B4 Switch 9	169	K09	B1/Node14/SS 3	233	O09	
42	C10	B2 Switch 10	106	G10	B4 Switch 10	170	K10	B1/Node14/SS 4	234	O10	
43	C11	B2 Switch 11	107	G11	B4 Switch 11	171	K11	B1/Node15/SS 2	235	O11	
44	C12	B2 Switch 12	108	G12	B4 Switch 12	172	K12	B1/Node15/SS 3	236	O12	
45	C13	B2 Switch 13	109	G13	B4 Switch 13	173	K13	B1/Node15/SS 4	237	O13	
46	C14	B2 Switch 14	110	G14	B4 Switch 14	174	K14	B1/Node16/SS 2	238	O14	
47	C15	B2 Switch 15	111	G15	B4 Switch 15	175	K15	B1/Node16/SS 3	239	O15	
48	C16	B2 Switch 16	112	G16	B4 Switch 16	176	K16	B1/Node16/SS 4	240	O16	
49	D01	B2 Switch 17	113	H01	B4 Switch 17	177	L01	B1/Node17/SS 2	241	P01	
50	D02	B2 Switch 18	114	H02	B4 Switch 18	178	L02	B1/Node17/SS 3	242	P02	
51	D03	B2 Switch 19	115	H03	B4 Switch 19	179	L03	B1/Node17/SS 4	243	P03	
52	D04	B2 Switch 20	116	H04	B4 Switch 20	180	L04	B1/Node18/SS 2	244	P04	
53	D05	B2 Switch 21	117	H05	B4 Switch 21	181	L05	B1/Node18/SS 3	245	P05	
54	D06	B2 Switch 22	118	H06	B4 Switch 22	182	L06	B1/Node18/SS 4	246	P06	
55	D07	B2 Switch 23	119	H07	B4 Switch 23	183	L07	B1/Node19/SS 2	247	P07	
56	D08	B2 Switch 24	120	H08	B4 Switch 24	184	L08	B1/Node19/SS 3	248	P08	
57	D09	B2 Switch 25	121	H09	B4 Switch 25	185	L09	B1/Node19/SS 4	249	P09	
58	D10	B2 Switch 26	122	H10	B4 Switch 26	186	L10	B1/Node20/SS 2	250	P10	
59	D11	B2 Switch 27	123	H11	B4 Switch 27	187	L11	B1/Node20/SS 3	251	P11	
60	D12	B2 Switch 28	124	H12	B4 Switch 28	188	L12	B1/Node20/SS 4	252	P12	
61	D13	B2 Switch 29	125	H13	B4 Switch 29	189	L13	B1/Node21/SS 2	253	P13	
62	D14	B2 Switch 30	126	H14	B4 Switch 30	190	L14	B1/Node21/SS 3	254	P14	
63	D15	B2 Switch 31	127	H15	B4 Switch 31	191	L15	B1/Node21/SS 4	255	P15	
64	D16	Virtual Scene 2	128	H16	Virtual Scene 4	192	L16	B1/Node22/SS 2	256	P16	