

CONDUCTOR SPECIFICATIONS:

CONDUCTOR: 28AWG TIN PLATED COPPER, 0.38MM [.015IN] DIAMETER
 INSULATION: PP, 0.74MM [.029IN] DIAMETER
 BEND RADIUS: 12X CABLE DIAMETER (SEE EXAMPLE) PER SPECIFICATIONS
 2014 NEC SECTION 300.34 CONDUCTOR BEND RADIUS
 2014 NEC SECTION 300.24 BENDING RADIUS

1. REFER TO PRODUCT MANUAL ON NI.COM FOR MORE DETAILS.
 NOTES: UNLESS OTHERWISE SPECIFIED.

BEND RADIUS: 12X CABLE DIAMETER
 CABLE DIAMETER: 7.6mm DIAMETER
 12(7.6) = 91.2mm BEND RADIUS

MINIMUM BEND RADIUS

TABLE 1	
LENGTH	TOLERANCE
<2M	+5 CM/-0 CM
2 TO 5M	+10 CM/-0 CM
>5M	+15 CM/-0 CM

METRIC

CUSTOMER DRAWING

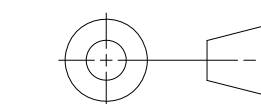
UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN MILLIMETERS
 AND [INCHES]
 DO NOT SCALE DRAWING
 THIRD ANGLE PROJECTION



NI.COM
 AUSTIN, TEXAS

TITLE
 LFH160 TO 4X50-PIN DSUB
 SWITCH CABLE

SIZE CODE IDENT NO. MM/DD/YYYY
 D 7U296 08/16/2023
 SCALE: 1/1 SHEET 1 OF 2



DSUB P1 PINOUT

PCB CONNECTOR PIN (REF/DES.PIN #)	CABLE LINE (CABLE #.COLOR)	DSUB P1 (DSUB #.PIN #)	SIGNAL NAME	FLH J1 PIN # ON PCB
J2.1	C1.WHITE/BLUE	P1.20	COM0-	159
J2.2	C1.BLUE/WHITE	P1.19	COM0+	160
J2.3	C1.WHITE/ORANGE	P1.2	CH0-	157
J2.4	C1.ORANGE/WHITE	P1.1	CH0+	158
J2.5	C1.WHITE/GREEN	P1.4	CH1-	155
J2.6	C1.GREEN/WHITE	P1.3	CH1+	156
J2.7	C1.WHITE/BROWN	P1.35	CH2-	153
J2.8	C1.BROWN/WHITE	P1.34	CH2+	154
J2.9	C1.WHITE/GRAY	P1.37	CH3-	151
J2.10	C1.GRAY/WHITE	P1.36	CH3+	152
J2.11	C1.RED/BLUE	P1.24	COM1-	82
J2.12	C1.BLUE/RED	P1.23	COM1+	81
J2.13	C1.RED/ORANGE	P1.6	CH4-	84
J2.14	C1.ORANGE/RED	P1.5	CH4+	83
J2.15	C1.RED/GREEN	P1.8	CH5-	86
J2.16	C1.GREEN/RED	P1.7	CH5+	85
J2.17	C1.RED/BROWN	P1.39	CH6-	88
J2.18	C1.BROWN/RED	P1.38	CH6+	87
J2.19	C1.RED/GRAY	P1.41	CH7-	90
J2.20	C1.GRAY/RED	P1.40	CH7+	89
J18	C1. BRAIDED SHIELD	P1 SHELL	SHIELD_GND1	161
J5.1	C2.WHITE/BLUE	P1.28	COM2-	79
J5.2	C2.BLUE/WHITE	P1.27	COM2+	80
J5.3	C2.WHITE/ORANGE	P1.10	CH8-	77
J5.4	C2.ORANGE/WHITE	P1.9	CH8+	78
J5.5	C2.WHITE/GREEN	P1.12	CH9-	75
J5.6	C2.GREEN/WHITE	P1.11	CH9+	76
J5.7	C2.WHITE/BROWN	P1.43	CH10-	73
J5.8	C2.BROWN/WHITE	P1.42	CH10+	74
J5.9	C2.WHITE/GRAY	P1.45	CH11-	71
J5.10	C2.GRAY/WHITE	P1.44	CH11+	72
J5.11	C2.RED/BLUE	P1.32	COM3-	2
J5.12	C2.BLUE/RED	P1.31	COM3+	1
J5.13	C2.RED/ORANGE	P1.14	CH12-	4
J5.14	C2.ORANGE/RED	P1.13	CH12+	3
J5.15	C2.RED/GREEN	P1.16	CH13-	6
J5.16	C2.GREEN/RED	P1.15	CH13+	5
J5.17	C2.RED/BROWN	P1.47	CH14-	8
J5.18	C2.BROWN/RED	P1.46	CH14+	7
J5.19	C2.RED/GRAY	P1.49	CH15-	10
J5.20	C2.GRAY/RED	P1.48	CH15+	9
J21	C2. BRAIDED SHIELD	P1 SHELL	SHIELD_GND2	161

CABLE C1 AND C2 NO CONNECTS	DSUB P1 NO CONNECTS
BLACK/BLUE	P1.17
BLUE/BLACK	P1.18
BLACK/ORANGE	P1.21
ORANGE/BLACK	P1.22
BLACK/GREEN	P1.25
GREEN/BLACK	P1.26
	P1.29
	P1.30
	P1.33
	P1.50

DSUB P2 PINOUT

PCB CONNECTOR PIN (REF/DES.PIN #)	CABLE LINE (CABLE #.COLOR)	DSUB P2 (DSUB #.PIN #)	SIGNAL NAME	FLH J1 PIN # ON PCB
J4.1	C3.WHITE/BLUE	P2.20	COM4-	149
J4.2	C3.BLUE/WHITE	P2.19	COM4+	150
J4.3	C3.WHITE/ORANGE	P2.2	CH16-	147
J4.4	C3.ORANGE/WHITE	P2.1	CH16+	148
J4.5	C3.WHITE/GREEN	P2.4	CH17-	145
J4.6	C3.GREEN/WHITE	P2.3	CH17+	146
J4.7	C3.WHITE/BROWN	P2.35	CH18-	143
J4.8	C3.BROWN/WHITE	P2.34	CH18+	144
J4.9	C3.WHITE/GRAY	P2.37	CH19-	141
J4.10	C3.GRAY/WHITE	P2.36	CH19+	142
J4.11	C3.RED/BLUE	P2.24	COM5-	92
J4.12	C3.BLUE/RED	P2.23	COM5+	91
J4.13	C3.RED/ORANGE	P2.6	CH20-	94
J4.14	C3.ORANGE/RED	P2.5	CH20+	93
J4.15	C3.RED/GREEN	P2.8	CH21-	96
J4.16	C3.GREEN/RED	P2.7	CH21+	95
J4.17	C3.RED/BROWN	P2.39	CH22-	98
J4.18	C3.BROWN/RED	P2.38	CH22+	97
J4.19	C3.RED/GRAY	P2.41	CH23-	100
J4.20	C3.GRAY/RED	P2.40	CH23+	99
J20	C3. BRAIDED SHIELD	P2 SHELL	SHIELD_GND3	161
J3.1	C4.WHITE/BLUE	P2.28	COM6-	69
J3.2	C4.BLUE/WHITE	P2.27	COM6+	70
J3.3	C4.WHITE/ORANGE	P2.10	CH24-	67
J3.4	C4.ORANGE/WHITE	P2.9	CH24+	68
J3.5	C4.WHITE/GREEN	P2.12	CH25-	65
J3.6	C4.GREEN/WHITE	P2.11	CH25+	66
J3.7	C4.WHITE/BROWN	P2.43	CH26-	63
J3.8	C4.BROWN/WHITE	P2.42	CH26+	64
J3.9	C4.WHITE/GRAY	P2.45	CH27-	61
J3.10	C4.GRAY/WHITE	P2.44	CH27+	62
J3.11	C4.RED/BLUE	P2.32	COM7-	12
J3.12	C4.BLUE/RED	P2.31	COM7+	11
J3.13	C4.RED/ORANGE	P2.14	CH28-	14
J3.14	C4.ORANGE/RED	P2.13	CH28+	13
J3.15	C4.RED/GREEN	P2.16	CH29-	16
J3.16	C4.GREEN/RED	P2.15	CH29+	15
J3.17	C4.RED/BROWN	P2.47	CH30-	18
J3.18	C4.BROWN/RED	P2.46	CH30+	17
J3.19	C4.RED/GRAY	P2.49	CH31-	20
J3.20	C4.GRAY/RED	P2.48	CH31+	19
J19	C4. SHIELDED BRAID	P2 SHELL	SHIELD_GND4	161

CABLE C3 AND C4 NO CONNECTS	DSUB P2 NO CONNECTS
BLACK/BLUE	P2.17
BLUE/BLACK	P2.18
BLACK/ORANGE	P2.21
ORANGE/BLACK	P2.22
BLACK/GREEN	P2.25
GREEN/BLACK	P2.26
	P2.29
	P2.30
	P2.33
	P2.50

DSUB P3 PINOUT

PCB CONNECTOR PIN (REF/DES.PIN #)	CABLE LINE (CABLE #.COLOR)	DSUB P3 (DSUB #.PIN #)	SIGNAL NAME	FLH J1 PIN # ON PCB
J7.1	C5.WHITE/BLUE	P3.20	COM8-	139
J7.2	C5.BLUE/WHITE	P3.19	COM8+	140
J7.3	C5.WHITE/ORANGE	P3.2	CH32-	137
J7.4	C5.ORANGE/WHITE	P3.1	CH32+	138
J7.5	C5.WHITE/GREEN	P3.4	CH33-	135
J7.6	C5.GREEN/WHITE	P3.3	CH33+	136
J7.7	C5.WHITE/BROWN	P3.35	CH34-	133
J7.8	C5.BROWN/WHITE	P3.34	CH34+	134
J7.9	C5.WHITE/GRAY	P3.37	CH35-	131
J7.10	C5.GRAY/WHITE	P3.36	CH35+	132
J7.11	C5.RED/BLUE	P3.24	COM9-	102
J7.12	C5.BLUE/RED	P3.23	COM9+	101
J7.13	C5.RED/ORANGE	P3.6	CH36-	104
J7.14	C5.ORANGE/RED	P3.5	CH36+	103
J7.15	C5.RED/GREEN	P3.8	CH37-	106
J7.16	C5.GREEN/RED	P3.7	CH37+	105
J7.17	C5.RED/BROWN	P3.39	CH38-	108
J7.18	C5.BROWN/RED	P3.38	CH38+	107
J7.19	C5.RED/GRAY	P3.41	CH39-	110
J7.20	C5.GRAY/RED	P3.40	CH39+	109
J23	C5. BRAIDED SHIELD	P3 SHELL	SHIELD_GND5	162
J8.1	C6.WHITE/BLUE	P3.28	COM10-	59
J8.2	C6.BLUE/WHITE	P3.27	COM10+	60
J8.3	C6.WHITE/ORANGE	P3.10	CH40-	57
J8.4	C6.ORANGE/WHITE	P3.9	CH40+	58
J8.5	C6.WHITE/GREEN	P3.12	CH41-	55
J8.6	C6.GREEN/WHITE	P3.11	CH41+	56
J8.7	C6.WHITE/BROWN	P3.43	CH42-	53
J8.8	C6.BROWN/WHITE	P3.42	CH42+	54
J8.9	C6.WHITE/GRAY	P3.45	CH43-	51
J8.10	C6.GRAY/WHITE	P3.44	CH43+	52
J8.11	C6.RED/BLUE	P3.32	COM11-	22
J8.12	C6.BLUE/RED	P3.31	COM11+	21
J8.13	C6.RED/ORANGE	P3.14	CH44-	24
J8.14	C6.ORANGE/RED	P3.13	CH44+	23
J8.15	C6.RED/GREEN	P3.16	CH45-	26
J8.16	C6.GREEN/RED	P3.15	CH45+	25
J8.17	C6.RED/BROWN	P3.47	CH46-	28
J8.18	C6.BROWN/RED	P3.46	CH46+	27
J8.19	C6.RED/GRAY	P3.49	CH47-	30
J8.20	C6.GRAY/RED	P3.48	CH47+	29
J24	C6. BRAIDED SHIELD	P3 SHELL	SHIELD_GND6	162

CABLE C5 AND C6 NO CONNECTS	DSUB P3 NO CONNECTS
BLACK/BLUE	P3.17
BLUE/BLACK	P3.18
BLACK/ORANGE	P3.21
ORANGE/BLACK	P3.22
BLACK/GREEN	P3.25
GREEN/BLACK	P3.26
	P3.29
	P3.30
	P3.33
	P3.50

DSUB P4 PINOUT

PCB CONNECTOR PIN (REF/DES.PIN #)	CABLE LINE (CABLE #.COLOR)	DSUB P4 (DSUB #.PIN #)	SIGNAL NAME	FLH J1 PIN # ON PCB
J9.1	C7.WHITE/BLUE	P4.20	COM12-	129
J9.2	C7.BLUE/WHITE	P4.19	COM12+	130
J9.3	C7.WHITE/ORANGE	P4.2	CH48-	127
J9.4	C7.ORANGE/WHITE	P4.1	CH48+	128
J9.5	C7.WHITE/GREEN	P4.4	CH49-	125
J9.6	C7.GREEN/WHITE	P4.3	CH49+	126
J9.7	C7.WHITE/BROWN	P4.35	CH50-	123
J9.8	C7.BROWN/WHITE	P4.34	CH50+	124
J9.9	C7.WHITE/GRAY	P4.37	CH51-	121
J9.10	C7.GRAY/WHITE	P4.36	CH51+	122
J9.11	C7.RED/BLUE	P4.24	COM13-	112
J9.12	C7.BLUE/RED	P4.23	COM13+	111
J9.13	C7.RED/ORANGE	P4.6	CH52-	114
J9.14	C7.ORANGE/RED	P4.5	CH52+	113
J9.15	C7.RED/GREEN	P4.8	CH53-	116
J9.16	C7.GREEN/RED	P4.7	CH53+	115
J9.17	C7.RED/BROWN	P4.39	CH54-	118
J9.18	C7.BROWN/RED	P4.38	CH54+	117
J9.19	C7.RED/GRAY	P4.41	CH55-	120
J9.20	C7.GRAY/RED	P4.40	CH55+	119
J25	C7. BRAIDED SHIELD	P4 SHELL	SHIELD_GND7	162
J6.1	C8.WHITE/BLUE	P4.28	COM14-	49
J6.2	C8.BLUE/WHITE	P4.27	COM14+	50
J6.3	C8.WHITE/ORANGE	P4.10	CH56-	47
J6.4	C8.ORANGE/WHITE	P4.9	CH56+	48
J6.5	C8.WHITE/GREEN	P4.12	CH57-	45
J6.6	C8.GREEN/WHITE	P4.11	CH57+	46
J6.7	C8.WHITE/BROWN	P4.43	CH58-	43
J6.8	C8.BROWN/WHITE	P4.42	CH58+	44
J6.9	C8.WHITE/GRAY	P4.45	CH59-	41
J6.10	C8.GRAY/WHITE	P4.44	CH59+	42
J6.11	C8.RED/BLUE	P4.32	COM15-	32
J6.12	C8.BLUE/RED	P4.31	COM15+	31
J6.13	C8.RED/ORANGE	P4.14	CH60-	34
J6.14	C8.ORANGE/RED	P4.13	CH60+	33
J6.15	C8.RED/GREEN	P4.16	CH61-	36
J6.16	C8.GREEN/RED	P4.15	CH61+	35
J6.17	C8.RED/BROWN	P4.47	CH62-	38
J6.18	C8.BROWN/RED	P4.46	CH62+	37
J6.19	C8.RED/GRAY	P4.49	CH63-	40
J6.20	C8.GRAY/RED	P4.48	CH63+	39
J22	C8. BRAIDED SHIELD	P4 SHELL	SHIELD_GND8	162

CABLE C7 AND C8 NO CONNECTS	DSUB P4 NO CONNECTS
BLACK/BLUE	P4.17
BLUE/BLACK	P4.18
BLACK/ORANGE	P4.21
ORANGE/BLACK	P4.22
BLACK/GREEN	P4.25
GREEN/BLACK	P4.26
	P4.29
	P4.30
	P4.33
	P4.50

NOTE: WIRE LIST COLORS MAY NOT BE ACCURATE
AS RAW CABLE TYPE MAY BE CHANGED DURING PRODUCTION.