

## ESSEX 485 KEYPAD – LRCC ADDENDUM

The two byte LRCC value is calculated using all the ASCII characters in the packet except the start character [:] and the end character [\*]. The ASCII value of each of these characters is added together using an 8 bit accumulator where the overflow is discarded. This 8 bit value becomes the LRCC value which is sent as 2 ASCII Hex digits.

Example-1: Packet Data To Get Current I/O From Keypad 01:

**0127**

Character	8Bit Accumulator
	0x00
<b>0</b> [0x30] + -->	0x30
<b>1</b> [0x31] + -->	0x61
<b>2</b> [0x32] + -->	0x93
<b>7</b> [0x37] + -->	<b>0xCA</b>

The LRCC Values for this packet is **0xCA** and sent as ASCII Chars "C" "A"  
The Complete Formatted Packet With LRCC = **:0127CA\***

Example-2: Packet Data To Turn Keypad 01 Red LED OFF:

**013140**

Character	8Bit Accumulator
	0x00
<b>0</b> [0x30] + -->	0x30
<b>1</b> [0x31] + -->	0x61
<b>3</b> [0x33] + -->	0x94
<b>1</b> [0x31] + -->	0xC5
<b>4</b> [0x34] + -->	0xF9
<b>0</b> [0x30] + -->	<b>0x29</b> (8 Bit Value, Carries Are Discarded)

The LRCC Values for this packet is **0x29** and sent as ASCII Chars "2" "9"

The Complete Formatted Packet With LRCC = **:01314029\***

Example-3: Packet Data To Force Keypad 1F Beeper ON:

**1F3168**

Character	8Bit Accumulator
	0x00
<b>1</b> [0x31] + -->	0x31
<b>F</b> [0x46] + -->	0x77
<b>3</b> [0x33] + -->	0xAA
<b>1</b> [0x31] + -->	0xDB
<b>6</b> [0x36] + -->	0x11 (8 Bit Value, Carries Are Discarded)
<b>8</b> [0x38] + -->	<b>0x49</b>

The LRCC Values for this packet is **0x49** and sent as ASCII Chars "4" "9"

The Complete Formatted Packet With LRCC = **: 1F316849\***