

RS232 Protocol Convertor | USER MANUAL

₩ NighSecLabs

CONSOLE SIDE

RS232 Protocol Convertor User Manual

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Introduction

The HSL's FT10N-N is a protocol convertor from RS-232 to USB. This product allows serial – RS232 control of HSL's combiners and "M" line products that don't have a billed in serial control.

Installation

Installing the protocol convertor:

Cable Installation:

- Connect keyboard and mouse to console side
- Connect USB from PC side to KVM/Combiner console
- Connect RS232 cable from the controller to the 3-pin connecting block

Once connecting the USB cable from PC side to KVM/Combiner, the "ON" LED Will light up.

Programming the protocol convertor:

1.	RS232 parameters:
	Speed – 115200bps
	Data bits – 8
	Stop bits – 1
	Parity – None
	Flow Control – None

2. FT10N-N Commands:

All commands must start with # All HSL commands for Combiners and KVM starts with the following commands:

#ANATR – R CTRL | R CTRL #ANATL – L CTRL | L CTRL #ANATR F11 – R CTRL | R CTRL | F11 #ANATL F11 – L CTRL | L CTRL | F11

To complete the command, use the HEX characters form this table:

Command	Hex Code
#define KEY_NONE	00
#define KEY_A	04
#define KEY_B	05
#define KEY_C	06
#define KEY_D	07
#define KEY_E	08
#define KEY_F	09
#define KEY_G	0A
#define KEY_H	OB
#define KEY_I	OC
#define KEY_J	OD
#define KEY_K	OE
#define KEY_L	OF
#define KEY_M	10
#define KEY_N	11
#define KEY_O	12
#define KEY_P	13

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Command	Hex Code
#define KEY_8	25
#define KEY_9	26
#define KEY_0	27
#define KEY_RETURN	28
#define KEY_ESCAPE	29
#define KEY_BACKSPACE	2A
#define KEY_TAB	2B
#define KEY_SPACE	2C
#define KEY_MINUS	2D
#define KEY_EQUAL	2E
#define KEY_BRACKET_LEFT	2F
#define KEY_BRACKET_RIGHT	30
#define KEY_BACKSLASH	31
#define KEY_EUROPE_1	32
#define KEY_SEMICOLON	33
#define KEY_APOSTROPHE	34
#define KEY_GRAVE	35

Command	Hex Code
#define KEY_COMMA	36
#define KEY_PERIOD	37
#define KEY_SLASH	38
#define KEY_CAPS_LOCK	39
#define KEY_F1	3A
#define KEY_F2	3B
#define KEY_F3	3C
#define KEY_F4	3D
#define KEY_F5	3E
#define KEY_F6	3F
#define KEY_F7	40
#define KEY_F8	41
#define KEY_F9	42
#define KEY_F10	43
#define KEY_F11	44
#define KEY_F12	45
#define KEY_PRINT_SCREEN	46

Command	Hex Code
#define KEY_SCROLL_LOCK	47
#define KEY_PAUSE	48
#define KEY_INSERT	49
#define KEY_HOME	4A
#define KEY_PAGE_UP	4B
#define KEY_DELETE	4C
#define KEY_END	4D
#define KEY_PAGE_DOWN	4E
#define KEY_ARROW_RIGHT	4F
#define KEY_ARROW_LEFT	50
#define KEY_ARROW_DOWN	51
#define KEY_ARROW_UP	52
#define KEY_NUM_LOCK	53
#define KEY_KEYPAD_DIVIDE	54
#define KEY_KEYPAD_MULTIPLY	55
#define KEY_KEYPAD_SUBTRACT	56
#define KEY_KEYPAD_ADD	57

Command	Hex Code
#define KEY_KEYPAD_ENTER	58
#define KEY_KEYPAD_1	59
#define KEY_KEYPAD_2	5A
#define KEY_KEYPAD_3	5B
#define KEY_KEYPAD_4	5C
#define KEY_KEYPAD_5	5D
#define KEY_KEYPAD_6	5E
#define KEY_KEYPAD_7	5F
#define KEY_KEYPAD_8	60
#define KEY_KEYPAD_9	61
#define KEY_KEYPAD_0	62
#define KEY_KEYPAD_DECIMAL	63
#define KEY_EUROPE_2	64
#define KEY_APPLICATION	65
#define KEY_POWER	66
#define KEY_KEYPAD_EQUAL	67
#define KEY_F13	68

Command	Hex Code
#define KEY_F14	69
#define KEY_F15	6A
#define KEY_CONTROL_LEFT	EO
#define KEY_SHIFT_LEFT	E1
#define KEY_ALT_LEFT	E2
#define KEY_GUI_LEFT	E3
#define KEY_CONTROL_RIGHT	E4
#define KEY_SHIFT_RIGHT	E5
#define KEY_ALT_RIGHT	E6
#define KEY_GUI_RIGHT	E7

Command example:

Select channel 1: KVM Keyboard command – L CTRL | L CTRL | 1 FT10N-N command - #ANATL 1E

See a list of common commands for Combiner and KVM:

KB Hotkey		Description	Translator Code	
L CTRL L CTRL	1	Switch to channel 1	#ANATL	1E
L CTRL L CTRL	2	Switch to channel 2	#ANATL	1F
L CTRL L CTRL	3	Switch to channel 3	#ANATL	20
L CTRL L CTRL	4	Switch to channel 4	#ANATL	21
L CTRL L CTRL	5	Switch to channel 5	#ANATL	22
L CTRL L CTRL	6	Switch to channel 6	#ANATL	23
L CTRL L CTRL	7	Switch to channel 7	#ANATL	24
L CTRL L CTRL	8	Switch to channel 8	#ANATL	25
L CTRL L CTRL	F1	Load preset #1	#ANATL	3A
L CTRL L CTRL	F2	Load preset #2	#ANATL	3B
L CTRL L CTRL	F3	Load preset #3	#ANATL	3C
L CTRL L CTRL	F4	Load preset #4 (tile button preset)	#ANATL	3D
L CTRL L CTRL	F5		#ANATL	3E
L CTRL L CTRL	F6		#ANATL	3F
L CTRL L CTRL	F11 B	Set relative mouse mode	#ANATL F11	05
L CTRL L CTRL	F11 C	Reset relative mouse mode	#ANATL F11	06
L CTRL L CTRL	F11 M	Toggle dual-mouse-mode option	#ANATL F11	10

KB Hotkey		Description	Translator Code	
L CTRL L CTRL	F11 I	Toggle left/right control key	#ANATL F11	0C
L CTRL L CTRL	F11 E	Toggle enable/disable-external-switching option	#ANATL F11	08
L CTRL L CTRL	F11 H	Toggle enable/disable-cursor-parking option	#ANATL F11	ОВ
L CTRL L CTRL	F11 R	Reset to factory defaults	#ANATL F11	15
L CTRL L CTRL	U	User mode	#ANATL	18
L CTRL L CTRL	F11 F [16]	Toggle freeze-channel-layer option	#ANATL F11	09 (1E, 1F, 20, 21, 22, 23)
L CTRL L CTRL	F11 F R	Unfreeze all channel layers	#ANATL F11	09 15
L CTRL L CTRL	F11 L	Toggle cloning video output (Note 1)	#ANATL F11	OF
L CTRL L CTRL	F11 {J,K}{J,K}	Output source configuration (Note 2)	#ANATL F11	0D, 0E
L CTRL L CTRL	-	Decrease window scaling by one	#ANATL	2D
L CTRL L CTRL	+	Increase window scaling by one	#ANATL	2E
L CTRL L CTRL	Υ	Auto scale window exactly - not keeping aspect ratio	#ANATL	1C
L CTRL L CTRL	W	Auto scale window according to its least dimension	#ANATL	1A
L CTRL L CTRL	F	Maximize window	#ANATL	09
L CTRL L CTRL	Z	Undo maximize - accepted only immediately after	#ANATL	1D
CTRL L CTRL	Q	Quad tile windows	#ANATL	14
L CTRL L CTRL	U	Enter user mode	#ANATL	18
L CTRL L CTRL	0	Enter system mode	#ANATL	12
L CTRL L CTRL	S	Enter scale mode	#ANATL	16

Diagram





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