Product:	**IN3914 & IN3916**	

Title:	IR Codes & Documentation

INTRODUCTION:

IR (infrared) light can be used to send commands to and retrieve status information from many consumer devices. IR communication can be used for two-way data communication (mostly between computers and PDAs), though most display devices, including projectors, are configured to receive commands only. Commonly the IR capability of projectors is used in conjunction with the factory-provided remote control. However, if there are multiple devices that need control, you may wish to use a universal or learning remote.

Many universal remote controls can only control devices that the remote manufacturer has included in their table of pre-programmed codes. These types of universal remote controls aren't usually capable of controlling projectors and other less common equipment. A universal remote with a "Learning" function is suitable for use with projectors and other unique components (game consoles, media PCs & extenders, curtain/lighting controls, etc.). Many other programmable remotes are also able to work with projectors and other equipment.

If you need help setting up your universal "Learning" remote, please refer to the universal remote manufacturer's documentation.

The directions below are intended to help you set up a programmable remote, using the codes for your InFocus projector.

CONFIGURATION:

InFocus projectors use the NEC IR protocol

The customer code portion of the IR packet should use the hexadecimal value: 0x4E87

Please note that the letter O is not used in hexadecimal, only zeros are used.

SUPPORTED COMMANDS: The following table lists all of the currently designated infrared key codes

Key Name	Description	Decimal	Hexadecimal	Binary
Menu	Toggles menu state up or down	2	02h	0000 0010
Brightness Plus	Increases brightness	3	03h	0000 0011
Volume Minus	Decreases volume	4	04h	0000 0100
Brightness Minus	Decreases brightness	7	07h	0000 0111
Volume Plus	Increases volume	8	08h	0000 1000
Standby	Toggles standby state on or off	13	0Dh	0000 1101
Freeze	Toggles freeze state on or off	14	0Eh	0000 1110
Light	Enables backlighting on remote control (not transmitted)	15	0Fh	0000 1111
Source Select	Selects next available source	16	10h	0001 0000
Cursor Left	Moves menu cursor left	17	11h	0001 0001
Cursor Right	Moves menu cursor right	18	12h	0001 0010
Cursor Up	Moves menu cursor up	19	13h	0001 0011
Cursor Down	Moves menu cursor down	20	14h	0001 0100
Power	Toggles power state on or off	23	17h	0001 0111
Reset Bulb Counter	Resets lamp hour counter (not transmitted)	24	18h	0001 1000
Computer Toggle	Selects next available computer source	25	19h	0001 1001
Video Toggle	Selects next available video source	26	1Ah	0001 1010
Keystone Plus	Increases keystone	32	20h	0010 0000
Keystone Minus	Decreases keystone	33	21h	0010 0001
Next Slide	Moves to next slide in PowerPoint (sends PageUp via USB)	36	24h	0010 0100
Previous Slide	Moves to previous slide in PowerPoint (sends PageDn via USB)	37	25h	0010 0101
Zoom Plus	Increases zoom ratio	38	26h	0010 0110
Zoom Minus	Decreases zoom ratio	39	27h	0010 0111
Zoom Toggle	Toggles zoom state on or off	40	28h	0010 1000
New Mute	Mutes audio	41	29h	0010 1001
Effect	Activates programmed effect	43	2Bh	0010 1011
Presets	Toggles through available presets	44	2Ch	0010 1100
Source1	Selects programmed source	45	2Dh	0010 1101
Source2	Selects programmed source	46	2Eh	0010 1110
Source3	Selects programmed source	47	2Fh	0010 1111
Source4	Selects programmed source	48	30h	0011 0000
Blank	Toggles state of blank screen on or off	49	31h	0011 0001
Select	Selects current menu item	50	32h	0011 0010
Auto Image	Activates automatic image re-acquisition	51	33h	0011 0011
Resize	Toggles through available resize modes	52	34h	0011 0100
Overscan	Toggles overscan state on or off	53	35h	0011 0101
Contrast Plus	Increases contrast	54	36h	0011 0110
Contrast Minus	Decreases contrast	55	37h	0011 0111
Discrete Power Off	Commands the system to power down	57	39h	0011 1001
Discrete Power On	Commands the system to power up	58	3Ah	0011 1010
Discrete Resize Native	Selects the Native aspect ratio	59	3Bh	0011 1011
Discrete Resize 16:9	Selects the 16:9 aspect ratio	60	3Ch	0011 1100
Discrete Resize 4:3	Selects the 4:3 aspect ratio	61	3Dh	0011 1101
Discrete Resize Letterbox	Selects the Letterbox aspect ratio	62	3Eh	0011 1110
Discrete Resize Natural Wide	Selects the Natural Wide aspect ratio	63	3Fh	0011 1111
Discrete User Preset 1	Selects the User Preset 1	64	40h	0100 0000
Discrete User Preset 2	Selects the User Preset 2	65	41h	0100 0001
Discrete User Preset 3	Selects the User Preset 3	66	42h	0100 0010