

IN3924/IN3926 RS232 Control Instructions

Serial Communication Configuration

To control this projector via RS232, connect a null modem cable and set the control system serial port settings to match the following communication configuration.

Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow Control	None
Emulation	VT100

Command Format

All commands consist of 3 alpha characters followed by a request, all enclosed in parentheses. The request can be a read request (indicated by a "?") or a write request (indicated by 1 to 4 ASCII digits).

Error Conditions

Not all commands are supported for all projectors. If a command is received that is not understood, a "?" character will be returned indicating the command was not understood.

Read Requests

A read command returns a text string or the range and the current setting, for example:

Function	Command	Returns
Volume	(VOL?)	(0-20, 12)
Source	(SRC?)	(0-3, 2)
Lamp Hours	(LMP?)	(0-9999, 42)
Max Lamp Life	(LIF?)	("5000")

Write Requests

Some commands have ranges, while others are absolute. If a number greater or less than the maximum range is received, it will return an error "?".

Function	Command	Response
Power on	(PWR1)	Turns the projector on
Source	(SRC3)	Switches to Source 3
Ceiling Set	(CEL1)	Turns on ceiling mode
Volume	(VOL+)	Increase volume 1 step

Write/Read Requests

add a read command after the write command has been processed. For example, (PWR1!) would be equivalent to entering (PWR1)(PWR?).

Function	Command	Response	Returns
Power on	(PWR0!)	Turns the projector off	(0-1,0)

Source	(SRC3!)	Switches to Source 3	(0-3,3)
Keystone	(DKH20!)	Sets keystone to +20	(-40-40,20)
Color Space	(CSM2!)	Sets Color Space to REC601	(0-4,2)

Timing Limitations

If you enter a command inside the timing parameters below, you may receive an error response and your command will not be processed.

- 10 second delay after lamp ignition
- 3 second delay after changing sources
- 10 second delay after a power down
- 5ms inter-command delay
- 2ms inter-character delay

RS232 Command list

Power	Command	Return code (ok)
Status ?	(PWR?)	(0-1,n) n=0,1
ON	(PWR1)	
OFF	(PWR0)	
ON & return	(PWR1!)	(0-1,1)
OFF & return	(PWR0!)	(0-1,0)

Menu (OSD) Status	Command	Return code (ok)
Status ?	(MNU?)	(0-1,n) n=0,1
ON	(MNU1)	
OFF	(MNU0)	
ON & return	(MNU1!)	(0-1,1)
OFF & return	(MNU0!)	(0-1,0)

Keypad	Command	Return code (ok)
Menu	(NAV0)	
Up	(NAV1)	
Down	(NAV2)	
Select	(NAV3)	
Left	(NAV4)	
Right	(NAV5)	

Auto Source	Command	Return code (ok)
Status ?	(ASC?)	(0-1,n) n=0,1
ON	(ASC1)	
OFF	(ASC0)	
ON & return	(ASC1!)	(0-1,1)
OFF & return	(ASC0!)	(0-1,0)

Blank Key	Command	Return code (ok)
Status ?	(BLK?)	(0-1,n) n=0,1
ON	(BLK1)	
OFF	(BLK0)	

ON & return	(BLK1!)	(0-1,1)
OFF & return	(BLK0!)	(0-1,0)

Blank Screen	Command	Return code (ok)
Status ?	(BSS?)	(0-6,n) n=0,3,4,5
Blue Screen	(BSS0)	
Black Screen	(BSS3)	
White Screen	(BSS4)	
Factory Logo	(BSS5)	
Blue Screen & return	(BSS0!)	(0-6,0)
Black Screen & return	(BSS3!)	(0-6,3)
White Screen & return	(BSS4!)	(0-6,4)
Factory Logo & return	(BSS5!)	(0-6,5)

Source	Command	Return code (ok)
Status ?	(SRC?)	(0-7,n) n=0-7
Next source	(SRC+)	
Last source	(SRC-)	
Computer1	(SRC0)	
Computer2	(SRC1)	
Video	(SRC2)	
S-video	(SRC3)	
HDMI	(SRC4)	
USB Type-A	(SRC5)	
USB Mini-B	(SRC6)	
LAN	(SRC7)	
Next source & return	(SRC+!)	(0-7,n) n=0-7
Last source & return	(SRC-!)	(0-7,n) n=0-7
Computer1 & return	(SRC0!)	(0-7,0)
Computer2 & return	(SRC1!)	(0-7,1)
Video & return	(SRC2!)	(0-7,2)
S-video & return	(SRC3!)	(0-7,3)
HDMI & return	(SRC4!)	(0-7,4)
USB Type-A & return	(SRC5!)	(0-7,5)
USB Mini-B & return	(SRC6!)	(0-7,6)
LAN & return	(SRC7!)	(0-7,7)

Auto Image	Command	Return code (ok)
execute	(AIM1)	

Keystone	Command	Return code (ok)
Status ?	(DKH?)	(-40,40,nnn) n=-40 ~ 40
Keystone +	(DKH+)	
Keystone -	(DKH-)	
Set keystone	(DKHnnnn) n=-40 ~ 40	
Keystone + & return	(DKH+!)	(-40,40,nnn) n=-40 ~ 40
Keystone - & return	(DKH-!)	(-40,40,nnn) n=-40 ~ 40

Set keystone & return	(DKHnnn!) n=-40 ~ 40	(-40,40,nnn) n=-40 ~ 40
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Aspect	Command	Return code (ok)
Status ?	(ARZ?)	(0-6, n) n=0,1,2,3,4,6
Auto	(ARZ0)	
Native	(ARZ1)	
4 x 3	(ARZ2)	
16 x 9	(ARZ3)	
Letterbox	(ARZ4)	
16 x 10	(ARZ6)	
Auto & return	(ARZ0!)	(0-6,0)
Native & return	(ARZ1!)	(0-6,1)
4 x 3 & return	(ARZ2!)	(0-6,2)
16 x 9 & return	(ARZ3!)	(0-6,3)
Letterbox & return	(ARZ4!)	(0-6,4)
16 x 10 & return	(ARZ6!)	(0-6,6)

Lamp Low Power (Eco Mode)	Command	Return code (ok)
Status ?	(IPM?)	(0-1,n) n=0,1
ON	(IPM1)	
OFF	(IPM0)	
ON & return	(IPM1!)	(0-1,1)
OFF & return	(IPM0!)	(0-1,0)

Volume	Command	Return code (ok)
Status ?	(VOL?)	(0,20,nn) n=0~20
Volume +	(VOL+)	
Volume -	(VOL-)	
Set volume	(VOLnn) n=0 ~ 20	
Volume + & return	(VOL+!)	(0,20,nn) n=0~20
Volume - & return	(VOL-!)	(0,20,nn) n=0~20
Set volume & return	(VOLnn!) n=0 ~ 20	(0,20,nn) n=0~20

Mute	Command	Return code (ok)
Status ?	(MTE?)	(0-1,n) n=0,1
ON	(MTE1)	
OFF	(MTE0)	
ON & return	(MTE1!)	(0-1,1)
OFF & return	(MTE0!)	(0-1,0)

Factory Reset	Command	Return code (ok)
execute	(RST1)	

Model Name	Command	Return code (ok)
Status ?	(MDL?)	(x) x = "IN3924", "IN3926"

Firmware Version	Command	Return code (ok)
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Status ?	(FVS?)	(nnnn) n="x.xx"
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Lamp Eco Hours	Command	Return code (ok)
Status ?	(LME?)	(0,9999,nnnn) n=lamp hours

Lamp Normal Hours	Command	Return code (ok)
Status ?	(LMO?)	(nnnn) n=lamp hours

Lamp Hours	Command	Return code (ok)
Status ?	(LMP?)	(nnnn) n=lamp hours

Total Eco Hours	Command	Return code (ok)
Status ?	(LTE?)	(nnnn) n=lamp hours

Total Normal Hours	Command	Return code (ok)
Status ?	(LTO?)	(nnnn) n=lamp hours

Total Hours	Command	Return code (ok)
Status ?	(LMT?)	(nnnn) n=lamp hours

Lamp Hours Reset Times	Command	Return code (ok)
Status ?	(LMR?)	(nnnn) n=number of resets

Lamp Hours Reset	Command	Return code (ok)
Status ?	(LRT1)	

Auto Time Off	Command	Return code (ok)
Status ?	(AOT?)	(0-6,n) n=0-6
Never	(AOT0)	
5 min	(AOT1)	
10 min	(AOT2)	
15 min	(AOT3)	
20 min	(AOT4)	
25 min	(AOT5)	
30 min	(AOT6)	
Never & return	(AOT0!)	(0-6,0)
5 min & return	(AOT1!)	(0-6,1)
10 min & return	(AOT2!)	(0-6,2)
15 min & return	(AOT3!)	(0-6,3)
20 min & return	(AOT4!)	(0-6,4)
25 min & return	(AOT5!)	(0-6,5)
30 min & return	(AOT6!)	(0-6,6)

Ceiling Set	Command	Return code (ok)
Status ?	(CEL?)	(0-1,n) n=0,1
ON	(CEL1)	
OFF	(CEL0)	

ON & return	(CEL1!)	(0-1,1)
OFF & return	(CELO!)	(0-1,0)

Color Space	Command	Return code (ok)
Status ?	(CSM?)	(0-4,n) n=0-4
RGB	(CSM0)	
REC709	(CSM1)	
REC601	(CSM2)	
RGB Video	(CSM3)	
Auto	(CSM4)	
RGB & return	(CSM0!)	(0-4,0)
REC709 & return	(CSM1!)	(0-4,1)
REC601 & return	(CSM2!)	(0-4,2)
RGB Video & return	(CSM3!)	(0-4,3)
Auto & return	(CSM4!)	(0-4,4)

Keypad	Command	Return code (ok)
Status ?	(KPE?)	(0-1,n) n=0,1
Enable	(KPE1)	
Locked	(KPE0)	
Enabled & return	(KPE1!)	(0-1,1)
Locked & return	(KPE0!)	(0-1,0)

Max Lamp Life	Command	Return code (ok)
Status ?	(LIF?)	(nnnn) n=lamp hours

Detect Film	Command	Return code (ok)
Status ?	(TTO?)	(0-1,n) n=0,1
ON	(TTO1)	
OFF	(TTO0)	
ON & return	(TTO1!)	(0-1,1)
OFF & return	(TTO0!)	(0-1,0)

Menu Location	Command	Return code (ok)
Status ?	(OFF?)	(0-4,n) n=0-4
Upper left	(OFF0)	
Upper right	(OFF1)	
Center	(OFF2)	
Lower Left	(OFF3)	
Lower Right	(OFF4)	
Upper Left & return	(OFF0!)	(0-4,0)
Upper Right & return	(OFF1!)	(0-4,1)
Center & return	(OFF2!)	(0-4,2)
Lower Left & return	(OFF3!)	(0-4,3)
Lower Right & return	(OFF4!)	(0-4,4)

Color Temp	Command	Return code (ok)
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Status ?	(TMP?)	(0-4,n) n=0-4
Warmest	(TMP0)	
Warm	(TMP1)	
Cool	(TMP2)	
Bright	(TMP4)	
Warmest & return	(TMP0!)	(0-4,0)
Warm & return	(TMP1!)	(0-4,1)
Cool & return	(TMP2!)	(0-4,2)
Bright & return	(TMP4!)	(0-4,4)

Language	Command	Return code (ok)
Status ?	(LAN?)	(0-21,n) n=0~21
English	(LAN0)	
French	(LAN1)	
German	(LAN2)	
Italian	(LAN3)	
Korean	(LAN5)	
Norwegian	(LAN6)	
Portuguese	(LAN7)	
Russian	(LAN8)	
Simplified Chinese	(LAN9)	
Spanish	(LAN10)	
Traditional Chinese	(LAN11)	
Swedish	(LAN12)	
Dutch	(LAN13)	
Polish	(LAN14)	
Turkish	(LAN15)	
Danish	(LAN16)	
Finnish	(LAN17)	
Arabic	(LAN19)	
Vietnamese	(LAN20)	
Indonesian Bahasa	(LAN21)	
English & return	(LAN0!)	(0-21,0)
French & return	(LAN1!)	(0-21,1)
German & return	(LAN2!)	(0-21,2)
Italian & return	(LAN3!)	(0-21,3)
Korean & return	(LAN5!)	(0-21,5)
Norwegian & return	(LAN6!)	(0-21,6)
Portuguese & return	(LAN7!)	(0-21,7)
Russian & return	(LAN8!)	(0-21,8)
Simplified Chinese & return	(LAN9!)	(0-21,9)
Spanish & return	(LAN10!)	(0-21,10)
Traditional Chinese & return	(LAN11!)	(0-21,11)
Swedish & return	(LAN12!)	(0-21,12)
Dutch & return	(LAN13!)	(0-21,13)
Polish & return	(LAN14!)	(0-21,14)
Turkish & return	(LAN15!)	(0-21,15)

Danish & return	(LAN16!)	(0-21,16)
Finnish & return	(LAN17!)	(0-21,17)
Arabic & return	(LAN19!)	(0-21,19)
Vietnamese & return	(LAN20!)	(0-21,20)
Indonesian Bahasa	(LAN21!)	(0-21,21)

Rear Set	Command	Return code (ok)
Status ?	(REA?)	(0-1,n) n=0,1
ON	(REA1)	
OFF	(REA0)	
ON & return	(REA1!)	(0-1,1)
OFF & return	(REA0!)	(0-1,0)

3D Set	Command	Return code (ok)
Status ?	(TDI?)	(0-1,n) n=0,1
ON	(TDI1)	
OFF	(TDI0)	
ON & return	(TDI1!)	(0-1,1)
OFF & return	(TDI0!)	(0-1,0)

Power Saving Mode	Command	Return code (ok)
Status ?	(SPS?)	(0-7,n) n=0,4
OFF	(SPS4)	
ON	(SPS0)	
OFF & return	(SPS4!)	(0-7,4)
ON & return	(SPS0!)	(0-7,0)

DCR	Command	Return code (ok)
Status ?	(DCR?)	(0-1,n) n=0,1
ON	(DCR1)	
OFF	(DCR0)	
ON & return	(DCR1!)	(0-1,1)
OFF & return	(DCR0!)	(0-1,0)

IR	Command	return code (OK)
Menu	(KEY2)	
Increases Brightness	(KEY3)	
Decreases Volume	(KEY4)	
Decreases Brightness	(KEY7)	
Increases volume	(KEY8)	
Displays help menu	(KEY10)	
Moves menu cursor left	(KEY11)	
Moves menu cursor right	(KEY12)	
Toggles freeze state on or off	(KEY14)	
Selects next available source	(KEY16)	
Moves menu cursor left	(KEY17)	
Moves menu cursor right	(KEY18)	

Moves menu cursor up	(KEY19)	
Moves menu cursor down	(KEY20)	
Toggles power state on or off	(KEY23)	
Selects next available computer source	(KEY25)	
Selects next available video source	(KEY26)	
Increases keystone	(KEY32)	
Decreases keystone	(KEY33)	
Moves to next slide in powerpoint (sends PageUp via USB)	(KEY36)	
Moves to previous slide in powerpoint (sends PageDn via USB)	(KEY37)	
Increases Magnify ratio	(KEY38)	
Decreases Magnify ratio	(KEY39)	
Toggles Magnify state on or off	(KEY40)	
Toggles audio mute state on or off	(KEY41)	
Toggles Audio Video mute	(KEY42)	
Performs programmed action of Custom Key	(KEY43)	
Toggles through available presets	(KEY44)	
Toggles state of blank screen on or off	(KEY49)	
Selects current menu item	(KEY50)	
Activates automatic image re-acquisition	(KEY51)	
Toggles through available resize modes	(KEY52)	
Toggles overscan state on or off	(KEY53)	
Increases contrast	(KEY54)	
Decreases contrast	(KEY55)	
Commands the system to power down	(KEY57)	
Commands the system to power up	(KEY58)	
Selects the Native aspect ratio	(KEY59)	
Selects the 16:9 aspect ratio	(KEY60)	
Selects the 4:3 aspect ratio	(KEY61)	
Selects the Letterbox aspect ratio	(KEY62)	
Turns off the blank screen	(KEY67)	
Turns on the blank screen	(KEY68)	
Selects the Auto aspect ratio	(KEY69)	
Selects the 16:10 aspect ratio	(KEY71)	