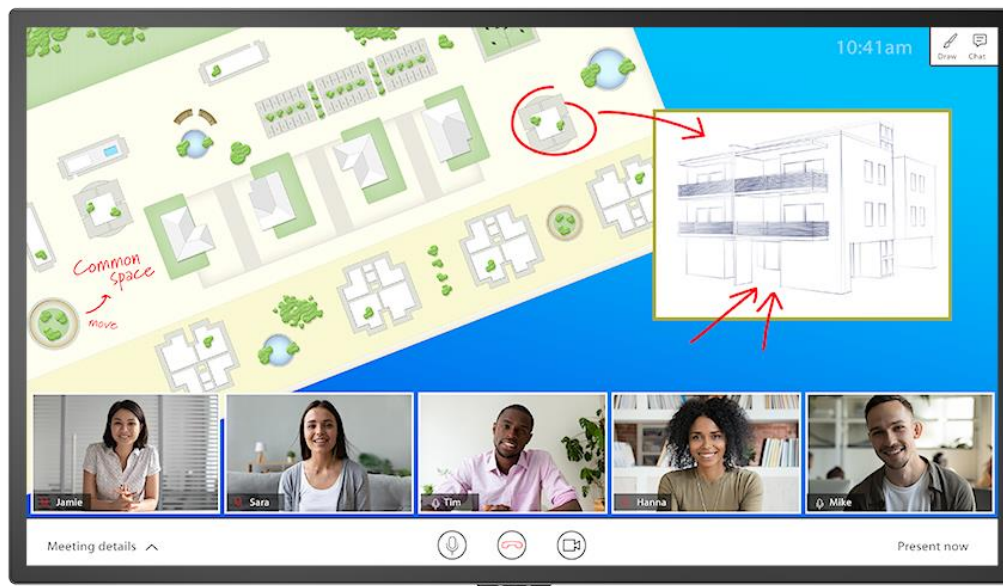


Planar® HB Series Huddle Board



HB75
HB86

Planar utilizes HDMI® standards in this product.

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Part Number: 020-1393-00A

Table of Contents

RS232 Codes	4
1. RS232 Command Format	4
2. Connection Setting.....	5
3. Command Tables	6
4. Example.....	8
Accessing Planar’s Technical Support Website	9

RS232 Codes

RS232 control is not necessary for operation but is a convenient way to control displays from a computer at a distance. Most things you can do with the remote, you can do with RS232 commands. Plus, you can send inquiries to the displays and find out the current settings and values.

1. RS232 Command Format

Commands sent to the display have the following format:

XX YY ZZ

Where:

- “XX” is the command code.
- “YY” is an address byte. For this product, YY = “00”.
- “ZZ” is the data byte, in hex. If ZZ = “ff”, the command is a read command. Otherwise, the command is a write command.

Responses from the display use the same format as commands. The response data is as follows:

- For commands that are in an invalid format or are unrecognized by the display, no response will be sent by the display.
- For valid write commands, the display will respond with the same command data. Example power on command:

[Command to display] ka 00 01
[Response from display] ka 00 01

- For valid read commands, the display will respond with the same command data but with “ZZ” above replaced with the actual setting value. Example input source read command when currently set to HDMI 1:

[Command to display] kb 00 ff
[Response from display] kb 00 09

2. Connection Setting

The RS232 connection must use the following settings:

Baud Rate	Data Bit	Parity Bit	Stop Bit	HW (RTS/CTS) or SW (XON/XOFF)
38400	8	None	1	None

The display's RS232 connector is wired in the straight through configuration, with the pinout as follows:

- Pin 2: Tx out
- Pin 3: Rx in
- Pin 5: Ground
- Shell: Ground
- All other pins: No connect

By default, RS232 functionality is disabled in the display. To enable RS232 functionality, change the display's **RS232C Control** setting to On. For details, refer to the **More Features** menu in the *Planar HB Series Huddle Board User Manual*.

Note: RS232 commands over LAN can be achieved by opening a TCP connection on Port 4660 to the display.

Note: The Power Management setting in the OSD controls the behavior of LAN commands in standby. Reference the Planar HB Series Huddle Board User Manual for more details.

- If Power Management is set to Standby Mode, LAN support is disabled in standby.
- If Power Management is set to Networked Standby Mode, the display will only recognize a Wake-on-LAN packet in standby. Use the Wake-on-LAN packet to power on the display, instead of the regular Power On serial command.
- If Power Management is set to Fast Startup, full LAN support is available in standby.

3. Command Tables

Note: Certain commands are only available in later versions of firmware. Please upgrade to the latest firmware version if unsupported commands are encountered.

Setting	Description	Command	Value	Command String (Hex)	Command String (ASCII)
Power	Off	ka	00	6B 61 20 30 30 20 30 30	ka 00 00
	On	ka	01	6B 61 20 30 30 20 30 31	ka 00 01
	Read	ka	ff	6B 61 20 30 30 20 66 66	ka 00 ff
Source	Home	kb	00	6B 62 20 30 30 20 30 30	kb 00 00
	OPS	kb	07	6B 62 20 30 30 20 30 37	kb 00 07
	Front HDMI	kb	08	6B 62 20 30 30 20 30 38	kb 00 08
	HDMI 1	kb	09	6B 62 20 30 30 20 30 39	kb 00 09
	HDMI 2	kb	0a	6B 62 20 30 30 20 30 61	kb 00 0a
	DP	kb	0c	6B 62 20 30 30 20 30 63	kb 00 0c
	VGA	kb	05	6B 62 20 30 30 20 30 35	kb 00 05
	AV	kb	02	6B 62 20 30 30 20 30 32	kb 00 02
Aspect Ratio	Read	kb	ff	6B 62 20 30 30 20 66 66	kb 00 ff
	16:9	kc	01	6B 63 20 30 30 20 30 31	kc 00 01
	4:3	kc	02	6B 63 20 30 30 20 30 32	kc 00 02
	Native	kc	05	6B 63 20 30 30 20 30 35	kc 00 05
Color Temp	Read	kc	ff	6B 63 20 30 30 20 66 66	kc 00 ff
	3200K	ku	00	6B 75 20 30 30 20 30 30	ku 00 00
	5500K	ku	01	6B 75 20 30 30 20 30 31	ku 00 01
	6500K	ku	02	6B 75 20 30 30 20 30 32	ku 00 02
	7500K	ku	03	6B 75 20 30 30 20 30 33	ku 00 03
	9300K	ku	04	6B 75 20 30 30 20 30 34	ku 00 04
	Read	ku	ff	6B 75 20 30 30 20 66 66	ku 00 ff
Contrast	0 ~ 100 (Example: 50)	kg	32	6B 67 20 30 30 20 33 32	kg 00 32
	Read	kg	ff	6B 67 20 30 30 20 66 66	kg 00 ff
Brightness	0 ~ 100 (Example: 50)	kh	32	6B 68 20 30 30 20 33 32	kh 00 32
	Read	kh	ff	6B 68 20 30 30 20 66 66	kh 00 ff
Sharpness	0 ~ 100 (Example: 50)	kk	32	6B 6B 20 30 30 20 33 32	kk 00 32
	Read	kk	ff	6B 6B 20 30 30 20 66 66	kk 00 ff
Saturation	0 ~ 100 (Example: 50)	ki	32	6B 69 20 30 30 20 33 32	ki 00 32
	Read	ki	ff	6B 69 20 30 30 20 66 66	ki 00 ff
Freeze	Off	kz	00	6B 7A 20 30 30 20 30 30	kz 00 00
	On	kz	01	6B 7A 20 30 30 20 30 31	kz 00 01
	Read	kz	ff	6B 7A 20 30 30 20 66 66	kz 00 ff
Mute	Off	ke	00	6B 65 20 30 30 20 30 30	ke 00 00
	On	ke	01	6B 65 20 30 30 20 30 31	ke 00 01
	Read	ke	ff	6B 65 20 30 30 20 66 66	ke 00 ff

Setting	Description	Command	Value	Command String (Hex)	Command String (ASCII)
Volume	0 ~ 100 (Example: 50)	kf	32	6B 66 20 30 30 20 33 32	kf 00 32
	Read	kf	ff	6B 66 20 30 30 20 66 66	kf 00 ff
Volume Increment	Down	kv	00	6B 76 20 30 30 20 30 30	kv 00 00
	Up	kv	01	6B 76 20 30 30 20 30 31	kv 00 01
Remote Control	Power	mc	80	6D 63 20 30 30 20 38 30	mc 00 80
	Menu	mc	95	6D 63 20 30 30 20 39 35	mc 00 95
	Left	mc	8f	6D 63 20 30 30 20 38 66	mc 00 8f
	Up	mc	8d	6D 63 20 30 30 20 38 64	mc 00 8d
	OF	mc	8c	6D 63 20 30 30 20 38 63	mc 00 8c
	Right	mc	90	6D 63 20 30 30 20 39 30	mc 00 90
	Down	mc	8e	6D 63 20 30 30 20 38 65	mc 00 8e
	Exit	mc	96	6D 63 20 30 30 20 39 36	mc 00 96
	Source	mc	ac	6D 63 20 30 30 20 61 63	mc 00 ac
Info	Action	kd	01	6B 64 20 30 30 20 30 31	kd 00 01
Factory Reset	Action	kl	01	6B 6C 20 30 30 20 30 31	kl 00 01
IR Sensor	Off	ms	00	6D 73 20 30 30 20 30 30	ms 00 00
	On	ms	01	6D 73 20 30 30 20 30 31	ms 00 01
	Read	ms	ff	6D 73 20 30 30 20 66 66	ms 00 ff
OSD Key Lock	Off	mo	00	6D 6F 20 30 30 20 30 30	mo 00 00
	On	mo	01	6D 6F 20 30 30 20 30 31	mo 00 01
	Read	mo	ff	6D 6F 20 30 30 20 66 66	mo 00 ff
MCU Version	Read	mu	ff	6D 75 20 30 30 20 66 66	mu 00 ff

Note: The MCU Version command is supported only in standby.

4. Example

Power Control

Turn monitor power on

[Command]: ka 00 01

[Response]: ka 00 01

Turn monitor power off

[Command]: ka 00 00

[Response]: ka 00 00

Read the monitor's power status when monitor is powered on

[Command]: ka 00 ff

[Response]: ka 00 01

Display Adjustment

Set brightness to 65

[Command]: kh 00 41

[Response]: kh 00 41

Other Control

Invalid command code

[Command]: za 00 75

[Response]: [None]

Accessing Planar's Technical Support Website

Go to www.planar.com/support to locate the following support documents and resources:

- User Guide
- RS232 User Manual
- Touchscreen drivers
- Standard warranties
- Planar support hotline number and email