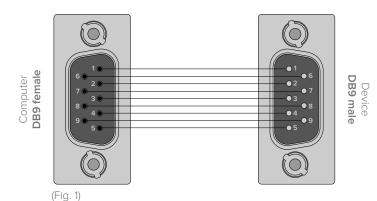


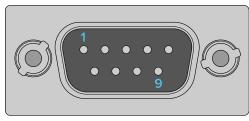
RS232 Command List

5000C | 6000K | 7000X

PROTOCOL SPECIFICATION

This document describes the hardware interface specification and software protocols of RS232 interface communication between LED, LCD, and PC, or other control unit with RS232 protocol.





(Fig. 2)

Protocol

| SERIAL PORT SETTINGS | |
|----------------------|-----------------|
| Baud Rate | 9600bps (fixed) |
| Data Bits | 8 (fixed) |
| Stop Bits | 1 (fixed) |
| Parity | None (fixed) |
| Flow Control | None (fixed) |

Communication Requirements

PIN DEFINITION Pin 2 is TXD. Pin 3 is RXD. Pin to Pin connection as above (Fig. 1) TV main board DB9 terminal (Fig. 2)

| SET COMMAND | S | | | | |
|----------------|---------|-------------------------------|--|---------|---------|
| TYPE | COMMAND | NAME | ID | RANGE | EXAMPLE |
| Power | 30 | 000: Backlight Off | 3A 30 31 53 30 30 30 30 0d | | |
| | 30 | 001: Backlight On | 3A 30 31 53 30 30 30 31 0d | | |
| | 30 | 002: Power Off | 3A 30 31 53 30 30 30 32 0d | | |
| | 30 | 003: Power On | 3A 30 31 53 30 30 30 33 0d | | |
| Treble | 31 | 000 ~ 100 | 3A 30 31 53 31 30 3 5 3 0 0d | 000-100 | 50 |
| Bass | 32 | 000 ~ 100 | 3A 30 31 53 32 3 1 3 0 3 0 0d | 000-100 | 100 |
| Balance | 33 | 000 ~ 100 | 3A 30 31 53 33 30 35 30 0d | 000-100 | 50 |
| Contrast | 34 | 000 ~ 100 | 3A 30 31 53 34 30 35 30 0d | 000-100 | 50 |
| Brightness | 35 | 000 ~ 100 | 3A 30 31 53 35 30 35 30 0d | 000-100 | 50 |
| Sharpness | 36 | 000 ~ 100 | 3A 30 31 53 36 30 31 30 0d | 000-100 | 10 |
| Sound Mode | 37 | 000: Movie | 3A 30 31 53 37 30 30 30 0d | | |
| | 37 | 001: Standard | 3A 30 31 53 37 30 30 31 0d | | |
| | 37 | 002: Custom | 3A 30 31 53 37 30 30 32 0d | | |
| | 37 | 003: Classroom | 3A 30 31 53 37 30 30 33 0d | | |
| | 37 | 004: Meeting | 3A 30 31 53 37 30 30 34 0d | | |
| V olume | 38 | 000 ~ 100 | 3A 30 31 53 38 30 35 30 0d | 000-100 | 50 |
| Mute | 39 | 000: Off | 3A 30 31 53 39 30 30 30 0d | | |
| | 39 | 001: On | 3A 30 31 53 39 30 30 31 0d | | |
| /ideo Source | 3A | 000 : VGA | 3A 30 31 53 3A 30 30 30 0d | | |
| | 3A | 001: HDMI1 | 3A 30 31 53 3A 30 30 31 0d | | |
| | 3A | 002: HDMI2 | 3A 30 31 53 3A 30 30 32 0d | | |
| | 3A | 003: AV | 3A 30 31 53 3A 30 30 33 0d | | |
| | 3A | 022: HDMI4 | 3A 30 31 53 3A 30 32 32 0d | | |
| | 3A | 021: HDMI3 | 3A 30 31 53 3A 30 32 31 0d | | |
| | 3A | 031: VGA2 | 3A 30 31 53 3A 30 33 31 0d | | |
| | 3A | 032: VGA3 | 3A 30 31 53 3A 30 33 32 0d | | |
| | 3A | 051: TV | 3A 30 31 53 3A 30 35 31 0d | | |
| | 3A | 101: Android | 3A 30 31 53 3A 31 30 31 0d | | |
| | 3A | 103: Slot in PC | 3A 30 31 53 3A 31 30 33 0d | | |
| | 3A | 007: Display Port | 3A 30 31 53 3A 30 30 37 0d | | |
| | 3A | 102: Android + | 3A 30 31 53 3A 31 30 32 0d | | |
| Aspect Ratio | 3B | 000: 16:9 | 3A 30 31 53 3B 30 30 30 0d | | |
| | 3B | 001: 4:3 | 3A 30 31 53 3B 30 30 31 0d | | |
| | 3B | 002: PTP | 3A 30 31 53 3B 30 30 32 0d | | |
| _anguage | 3C | 000: English | 3A 30 31 53 3C 30 30 30 0d | Android | |
| | 3C | 001: Français | 3A 30 31 53 3C 30 30 31 0d | | |
| | 3C | 002: Español | 3A 30 31 53 3C 30 30 32 0d | | |
| | 3C | 003: Chinese (traditional) | 3A 30 31 53 3C 30 30 33 0d | | |
| | 3C | 004: Chinese | 3A 30 31 53 3C 30 30 34 0d | | |
| | 3C | 005: Português | 3A 30 31 53 3C 30 30 35 0d | | |
| | 3C | 006: German | 3A 30 31 53 3C 30 30 36 0d | | |
| | 3C | 007: Dutch | 3A 30 31 53 3C 30 30 37 0d | | |
| | | | | | |

| SET COMMANDS | (CONTINUE | D) | | | |
|----------------|-----------|-----------------------------|----------------------------|---------|---------|
| TYPE | COMMAND | NAME | ID | RANGE | EXAMPLE |
| Language | 3C | 008: Polish | 3A 30 31 53 3C 30 30 38 0d | | |
| | 3C | 009: Russia | 3A 30 31 53 3C 30 30 39 0d | | |
| | 3C | 010: Czech | 3A 30 31 53 3C 30 31 30 0d | | |
| | 3C | 011: Danish | 3A 30 31 53 3C 30 31 31 0d | | |
| | 3C | 012: Swedish | 3A 30 31 53 3C 30 31 32 0d | | |
| | 3C | 013: Italian | 3A 30 31 53 3C 30 31 33 0d | | |
| | 3C | 014: Romanian | 3A 30 31 53 3C 30 31 34 0d | | |
| | 3C | 015: Norwegian | 3A 30 31 53 3C 30 31 35 0d | | |
| | 3C | 016: Finnish | 3A 30 31 53 3C 30 31 36 0d | | |
| | 3C | 017: Greek | 3A 30 31 53 3C 30 31 37 0d | | |
| | 3C | 018: Turkish | 3A 30 31 53 3C 30 31 38 0d | | |
| | 3C | 019: Arabic | 3A 30 31 53 3C 30 31 39 0d | | |
| | 3C | 020: Japanse | 3A 30 31 53 3C 30 32 30 0d | | |
| | 3C | 021: Ukraine | 3A 30 31 53 3C 30 32 31 0d | | |
| Picture Mode | 3D | 000: Standard | 3A 30 31 53 3D 30 30 30 0d | | |
| | 3D | 001: Bright | 3A 30 31 53 3D 30 30 31 0d | | |
| | 3D | 002: Soft | 3A 30 31 53 3D 30 30 32 0d | | |
| | 3D | 003: Customer | 3A 30 31 53 3D 30 30 33 0d | | |
| Hue (Color) | 3E | 000 ~ 100 | 3A 30 31 53 3E 30 33 30 0d | 000-100 | 30 |
| Backlight | 3F | 000 ~ 100 | 3A 30 31 53 3F 30 35 30 0d | 000-100 | 50 |
| Color Temp | 40 | 000: Cool | 3A 30 31 53 40 30 30 30 0d | | |
| | 40 | 001: Standard | 3A 30 31 53 40 30 30 31 0d | | |
| | 40 | 002: Warm | 3A 30 31 53 40 30 30 32 0d | | |
| Remote Control | 41 | 000: Vol + | 3A 30 31 53 41 30 30 30 0d | | |
| | 41 | 001: Vol - | 3A 30 31 53 41 30 30 31 0d | | |
| | 41 | 010: Remote UP | 3A 30 31 53 41 30 31 30 0d | | |
| | 41 | 011: Remote DOWN | 3A 30 31 53 41 30 31 31 0d | | |
| | 41 | 012: Remote LEFT | 3A 30 31 53 41 30 31 32 0d | | |
| | 41 | 013: Remote RIGHT | 3A 30 31 53 41 30 31 33 0d | | |
| | 41 | 014: Remote OK | 3A 30 31 53 41 30 31 34 0d | | |
| | 41 | 020: Remote Menu Key | 3A 30 31 53 41 30 32 30 0d | | |
| | 41 | 021: Remote Input Source | 3A 30 31 53 41 30 32 31 0d | | |
| | 41 | 022: Remote Exit | 3A 30 31 53 41 30 32 32 0d | | |
| | 41 | 031: Blank | 3A 30 31 53 41 30 33 31 0d | | |
| | 41 | 032: Freeze | 3A 30 31 53 41 30 33 32 0d | | |
| IR | 42 | 000: Enable | 3A 30 31 53 42 30 30 30 0d | | |
| | 42 | 001: Disable | 3A 30 31 53 42 30 30 31 0d | | |

| GET COMMAND | s | | | | |
|--------------|---------|-------------------------------|----------------------------|----------------------------|---------|
| TYPE | COMMAND | NAME | ID | RESPONSE | EXAMPLE |
| Power | 30 | 000: Backlight Off | 3A 30 31 47 30 30 30 30 0D | 3A 30 31 72 30 30 30 30 0D | |
| | 30 | 001: Backlight On | 3A 30 31 47 30 30 30 30 0D | 3A 30 31 72 30 30 30 31 0D | |
| | 30 | 002: Power Off | 3A 30 31 47 30 30 30 30 0D | 3A 30 31 72 30 30 30 32 0D | |
| Treble | 31 | 000 ~ 100 | 3A 30 31 47 31 30 30 30 0D | 3A 30 31 72 31 30 35 30 0D | 050 |
| Bass | 32 | 000 ~ 100 | 3A 30 31 47 32 30 30 30 0D | 3A 30 31 72 32 30 35 30 0D | 050 |
| Balance | 33 | 000 ~ 100 | 3A 30 31 47 33 30 30 30 0D | 3A 30 31 72 33 30 35 30 0D | 050 |
| Contrast | 34 | 000 ~ 100 | 3A 30 31 47 33 30 30 30 0D | 3A 30 31 72 34 30 35 30 0D | 050 |
| Brightness | 35 | 000 ~ 100 | 3A 30 31 47 35 30 30 30 0D | 3A 30 31 72 35 30 35 30 0D | 050 |
| Sharpness | 36 | 000 ~ 100 | 3A 30 31 47 35 30 30 30 0D | 3A 30 31 72 36 30 31 30 0D | 010 |
| Sound Mode | 37 | 000: Movie | 3A 30 31 47 37 30 30 30 0D | 3A 30 31 72 37 30 30 30 0D | |
| | 37 | 001: Standard | 3A 30 31 47 37 30 30 30 0D | 3A 30 31 72 37 30 30 31 0D | |
| | 37 | 002: Custom | 3A 30 31 47 37 30 30 30 0D | 3A 30 31 72 37 30 30 32 0D | |
| | 37 | 003: Classroom | 3A 30 31 47 37 30 30 30 0D | 3A 30 31 72 37 30 30 33 0D | |
| | 37 | 004: Meeting | 3A 30 31 47 37 30 30 30 0D | 3A 30 31 72 37 30 30 34 0D | |
| Volume | 38 | 000 ~ 100 | 3A 30 31 47 38 30 30 30 0D | 3A 30 31 72 38 30 35 30 0D | 050 |
| Mute | 39 | 000: Off | 3A 30 31 47 39 30 30 30 0D | 3A 30 31 72 39 30 30 30 0D | |
| | 39 | 001: On | 3A 30 31 47 39 30 30 30 0D | 3A 30 31 72 39 30 30 31 0D | |
| Video Source | 3A | 000: VGA | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 30 30 0D | |
| | 3A | 001 : HDMI1 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 30 31 0D | |
| | 3A | 002: HDMI2 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 30 32 0D | |
| | 3A | 003: CVBS / AV | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 30 33 0D | |
| | 3A | 022: HDMI4 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 32 32 0D | |
| | 3A | 021: HDMI3 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 32 31 0D | |
| | 3A | 031: VGA2 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 33 31 0D | |
| | 3A | 032: VGA3 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 33 32 0D | |
| | 3A | 051: TV | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 35 31 0D | |
| | 3A | 101: Android | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 31 30 31 0D | |
| | 3A | 103: Slot in PC | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 31 30 33 0D | |
| | 3A | 007: Display Port | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 30 30 37 0D | |
| | 3A | 102: Android + | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 31 30 32 0D | |
| | 3A | 104: Type-C1 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 31 30 34 0D | |
| | 3A | 105: Type-C2 | 3A 30 31 47 3A 30 30 30 0D | 3A 30 31 72 3A 31 30 35 0D | |
| Aspect Ratio | 3B | 000: 16:9 | 3A 30 31 47 3B 30 30 30 0D | 3A 30 31 72 3B 30 30 30 0D | |
| | 3B | 001: 4:3 | 3A 30 31 47 3B 30 30 30 0D | 3A 30 31 72 3B 30 30 31 0D | |
| | 3B | 002: PTP | 3A 30 31 47 3B 30 30 30 0D | 3A 30 31 72 3B 30 30 32 0D | |
| Language | 3C | 000: English | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 30 0D | Android |
| | 3C | 001: Français | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 31 0D | |
| | 3C | 002: Español | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 32 0D | |
| | 3C | 003: Chinese (traditional) | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 33 0D | |
| | 3C | 004: Chinese | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 34 0D | |
| | 3C | 005: Português | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 35 0D | |

| GET COMMANDS | (CONTINUE | D) | | | |
|----------------|-----------|----------------|----------------------------|----------------------------|-----|
| | 3C | 006: German | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 36 0D | |
| | 3C | 007: Dutch | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 37 0D | |
| | 3C | 008: Polish | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 38 0D | |
| | 3C | 009: Russia | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 30 39 0D | |
| | 3C | 010: Czech | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 30 0D | |
| | 3C | 011: Danish | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 31 0D | |
| | 3C | 012: Swedish | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 32 0D | |
| | 3C | 013: Italian | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 33 0D | |
| | 3C | 014: Romanian | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 34 0D | |
| | 3C | 015: Norwegian | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 35 0D | |
| | 3C | 016: Finnish | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 36 0D | |
| | 3C | 017: Greek | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 37 0D | |
| | 3C | 018: Turkish | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 38 0D | |
| | 3C | 019: Arabic | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 31 39 0D | |
| | 3C | 020: Japanse | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 32 30 0D | |
| | 3C | 021: Ukraine | 3A 30 31 47 3C 30 30 30 0D | 3A 30 31 72 3C 30 32 31 0D | |
| Picture Mode | 3D | 000: Standard | 3A 30 31 47 3D 30 30 30 0D | 3A 30 31 72 3D 30 30 30 0D | |
| | 3D | 001: Bright | 3A 30 31 47 3D 30 30 30 0D | 3A 30 31 72 3D 30 30 31 0D | |
| | 3D | 002: Soft | 3A 30 31 47 3D 30 30 30 0D | 3A 30 31 72 3D 30 30 32 0D | |
| | 3D | 003: Customer | 3A 30 31 47 3D 30 30 30 0D | 3A 30 31 72 3D 30 30 33 0D | |
| Hue (Color) | 3E | 000 ~ 100 | 3A 30 31 47 3E 30 30 30 0D | 3A 30 31 72 3E 30 33 30 0D | 030 |
| Backlight | 3F | 000 ~ 100 | 3A 30 31 47 3F 30 30 30 0D | 3A 30 31 72 3F 30 35 30 0D | 050 |
| Color Temp | 40 | 000: Cool | 3A 30 31 47 40 30 30 30 0D | 3A 30 31 72 40 30 30 30 0D | |
| | 40 | 001: Standard | 3A 30 31 47 40 30 30 30 0D | 3A 30 31 72 40 30 30 31 0D | |
| | 40 | 002: Warm | 3A 30 31 47 40 30 30 30 0D | 3A 30 31 72 40 30 30 32 0D | |
| Remote Control | 42 | 000: Enable | 3A 30 31 47 42 30 30 30 0D | 3A 30 31 72 42 30 30 30 0D | |
| | 42 | 001: Disable | 3A 30 31 47 42 30 30 30 0D | 3A 30 31 72 42 30 30 31 0D | |
| | | | | | |