



JED MICROPROCESSORS PTY LTD

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List of included projector and flat panel drivers in code release V019

Acer (Code 70 hex), PD727, P1165, P1265, P5260, P5270, P5280, P5370

BenQ MP510, MP610, MP611, MP620, MP720P, MP721 (Code 38 hex),

BenQ MP622 (Code 39 hex), BenQ MP770 (Code 3A hex)

BenQ SP820, Optoma Group 3: EP771, EP772, EP774 projectors (Code 3B hex)

Epson VP21 projectors (Code 0C hex)

Typical models are: EMP 30/52/53/54/61/73/74/81/62/82/83/400W/600/800/810/811/820/821/822/828/830/835/830 / EMP 6100/6000/6110/1810/1815/1825/7800/7850/7900/7950/8300/9300/S1/S1H

Epson X5, X5E (etc) IR controlled projectors (Code A0 hex)

Models which run with this set of IR commands and IR modulation frequency of 38Khz are: EMP 740/745/737/732, EMP765/760/755/750/X3/ S3/S4. This family of projectors all use Device-code 8355h and use "NEC" format.

HP vp6320/6321/6325, xp8010/8020 (code 48 hex), ep7120/7122 (Code 49 hex)

Hitachi projectors (Code 44 hex, single audio control, Code 45, "by channel" audio)

Code 44 is used when there is an audio in for typically each RGB channel but one audio shared by all video inputs.

Typical code 44 are: 3M-MP8746/MP8747/MP8775, 3M-X45, 3M-X55, 3M-X75, 3M-X70, 3M-X80, ELMO EDP-S10, VIEWSONIC PJ510/PJ853/PJ656/PJ552/PJ562/PJ750/PJ862/PJ1165/PJ1172/PJ1065, also InfocusLP800 (Hitachi PJ-TX10 does have Code 44 audio.)

Code 45 is used when there are a number of audio inputs Typical Code 45 models are: CP-X2, CP-X6, CP-X200, CP-X205, CP-X251, CP-X253, CP-X245, CP-X255, CP-X256, CP-X260, CP-X265, CP-X268, CP-X300, , CP-X305, CP-X308, CP-X400, CP-X417, CP-X505, CP-X600, CP-X605, CP-X608, ED-X10, ED-X12, ED-X15, ED-X22 VIEWSONIC PJ759/PJ758/PJ760, PJ1158, 3M-X64, 3M-X90

Following have no audio so can use either code: PJ-TX100, TX200, TX300

InFocus projectors (Code 58 hex) (also ASK/Proxima A1100/A1200/A1300)

Currently only **IN2102/EP, IN2104/EP and IN2106/EP**, but possibly will drive other similar units.

LG LCD/Plasma display/TV (Code 18, 19, 1A and 1B hex)

There are over a 100 different displays in the "kb" LG family, and **codes 18 and 19** cover the "kb" codes group (see the manuals). There are several allocations used, but all use numbers in the 6 ... 9 range for RGB analog computer, so all these are drivable by the code, some may need manual (i.e. at setup time) allocation to constants 0 ... 3. AV1/2 code can vary too, but usually in the 0 ... 5 range. Devices are, LCD TV 32/37/42/47/52 LB9/LC7/LC2, and plasma TV 42/50/60 PB2/4/PC5/PY3. **Choice of codes 18 or 19 determines TV type, Analog or Digital.**

The newer "xb" family, with **codes 1A and 1B**, cover the LG3, LG5, LG6 and LG7 family and use a single hex byte after the ASCII select string, with the top 4 bits (5x, 9x, 2x, 4x) selecting an input type (AV, Component, etc) and the low 4 bits the input number (x0 or x1). **Choice of codes 1A or 1B determines TV type, Analog or Digital.**

(Another, older, group uses an "i" as a leading character; these are NOT drivable with the Code 18/19/1A/1B driver.)

Mitsubishi projector families: Codes 24 to 28 hex

For the absolute volume controlled projectors, there is a paragraph in the manual section or document called "Controlling the projector using a personal computer" called "Volume Commands". Look in there for the volume range, eg **00 – 31** in the box after the VL command definition. Select a control code from the following table:

Some model types for code group 24 hex, 00-21 range:

EX10U, ES-EX100U, HC100, S/XD420U, S/XD430U, HC900/E, WD2000, WL639U, XD435U, XD400U, XD450U, XD460U, XD470U, XD480U, XD490U, XD500, XD510U, XD520U, XD2000U, XL6U

Some model types for code group 25 hex, 00-31 range:

FL7000U, S/XL4U, XL5U, SL6U, XL8U, XL9U, S/XL25U, XL30U, X200E, S/XD200U, XD300U, XD350U, X390U, X400U, SX490U, X500U, XL550U, XL650U, XL1550U, XL2550U, XL5900U, XL5950U, XL5980U/LU, InFocus LP1200

Some model types for code group 26 hex, 00-60 range:

S/XL1U, S/XL2U, S/X50U, SA51U, X70/U, X80U

Some model types for code group 27 hex, 00-100 range:

SD105U, S/XD206U:

Some model types for code group 28 hex, no audio or inc/dec audio only range:

No audio: HC1100, HC1500, HC3000, HC3100, HC4900, HC5000, HD1000, HD4000

Inc/dec audio: X100E, S/X120E, S/X250U, S290U, X300U

NEC NLT-40/46FHD100, Sherwood LF-401-TB5 TV/LCD panel (Codes 1C and 1D), (Made by "indtek" in Korea as LC-401EB3 and LC-461EB3, also sold by Grundig.)

**NEC LCD: 3000/3210/4000/4010/4020/4610/4620/5220/5710/6520P/L, SC40/SC46,
NEC LCD: M40/M46 Old T1, Old T2, Multeos (new mode),
NEC Plasma: 42XC10/42XP10, 50XC10/50XP10, 60XC10/60XP10**

NEC Plasma PX-42/50/60/61, VM/VP/VR/XM/XR, 2/3/4/5/6 (Code: 14hex)

NEC projector families: GT60, HT,LT, LT30, NP40, LT60, LT80, MT70, NP1000, NP4000, WT, VT, (38,400 baud, Code 10 hex)

NEC projector families: VT70, VT80, VT90 (19,200 baud, Code 11 hex)

NEC old or at 9,600 baud (eg with long cable runs): Code 12 hex

Optoma Group 1: DS309, DX609, EP721, EP723, EP727, EP728, EP752, EP761, EP763 (Code 0D hex)

Optoma Group 2: EP766, EP782/W (Code 0E hex)

(Optoma Group 3: See BenQ SP820 for EP771/772 projectors (Code 3B hex))

Panasonic projectors (Codes \$30 to \$32)

Code \$30: (Group 1): No adr, OSH mute/PON unmute, abs audio, PT-L501/701, L502/702, L511/711/712, PT-L735, PT-F200, PT-LB50/51/55/60, PT-LC55/56/75/76/80, PT-P1SDE and a lot more;

Code \$31: (Group 2): No adr, OSH:1 mute/OSH:0 unmute, abs audio, PT-F100/F100NT/FW100NT, PT-F200/F200NT, PT-LB75/LB75NT, PT-LB80/LB80NT; and

Code \$32: (Group 3): No adr, OSH mute/PON unmute, NO audio, PT-AE900/AX100/AX200, PT-AE2000

(Currently only no-address models. Address models: PT-D3500, D4000, DW5100, D5700, DW7000, D7700, D/DW10000 not covered yet.)

Plus projector families: (Code 40 hex) Plus U5, U7 (not U6xxx or Taxan)

Sanyo LCD display/TV (Code 0A hex)

Sanyo LCD flat panel LCD42/47XR7

Sanyo, Eiki projectors (Code 02 hex, absolute audio, Code 03 hex, inc. audio, Code 04 hex, C07 video, Code 05 hex, C05 Computer 1)

Many **Eiki**, e.g. LC-SB, SD, SE, SX, W, WB, X (most, but not 3-digit ones), XA, XB, XE, XG, XGA, XT.

Not LC-EIP (see Sharp) or XIP2000 or XWP2000 (yet).

If absolute audio (Code 02) doesn't work, use Code 03, which sends incremental audio.

Sanyo projector PLC-WXU10N (Code 07 hex)

Sharp, EIKI EIP projectors (Code 20 hex, absolute audio)

Sony (Code 08 hex, Even Parity, Code 09 hex No Parity)

Even parity: SONY VPL-CX61/CX63/CX80/CX85/CX86/CX100/CX120/CX125/CX150/CX155, VPL-ES4/EX4
SONY_FE40/FX40/FX50/FX51/FX52/PX11/PX15/PX35/PX40/PX41: Code 08 hex

No parity: VPL-ES3/EX3: Code 09 hex

Toshiba (Codes \$50 to \$54 hex)

A good collection of protocol manuals is at:

<http://www.isd.toshiba.com.au/projectors/projectors/service-manuals.shtml>

Code \$50: (Group 1.1): TLP-S200/S201/S220/S221, TLP-T400/T401, TLP-T500/T501/T520/T521, TLP-T600/T601/T620/T621, and TLP-T700/T701/T720/T721;

Code \$51 (Group 1.2): TDP-MT200/MT400;

Code \$51 (Group 1.3): TDP-S20/S21/SC21/S25/SC25/SW25/S35/SC35/SW35, TDP-S80/SW80/S81/T90/TW90/T91/T99/TW99, and TLP-710/711;

Code \$51 (Group 1.4): TDP-S8/S10, SW20, TDP-T8/T9/T30/T40/T45/T80/T98, TLP-250/251/260/261/380/381/550/551/560/561/780/781/790/791, TLP-MT7E, TLP-X10U/11U/20U/21U;

Code \$51 (Group 1.5): TDP-D1/D2, TLP-S30/S40/S41/S70/S71, and TLP-T50/T60/T61/T70/T71;

Code \$52 (Group 1.6): TLP-450/451/470/471/650/651/670/671/680/681/, TLP-B2/U (RGB set only Ch 1).

Code \$54 (Group 2.1): TDP-T/TW95, T/TW100, TDP-T250/TW250, TDP-T300/TW300, TDP-T350/TW350, TDP-T355/TW355

Code \$54 (Group 2.2): TLP-X2000/XC2000/XD2000, TLP-X2500/XC2500, TLP-X3000/XC3000, TLP-WX2200,

Code \$54 (Group 2.3): TDP-ST20, TDP-EX20, TDP-EW25

Taxan projector families: (Code 42 hex)

Taxan PS101S/121X, PD121X (made by Kaga)