RS-232C Interface — Command Table —

| Lower Order→ Higher Order↓ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Α | В | С | D | E | F |
|-------------------------------|-------------------|--------------------------------------|-----------|-----------------|------|-----------------|-----------------|-----------------|------------------|----------------------|--------------------|--------------|------|--------------------|-----------------------|--------------------|
| 0 | | Complete | Error | Cassette Out | | Not Target | | | | | ACK | NAK | | | | |
| 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | VCR Selection | | | | | | | | DVD Selection | | Play | | | | | Stop |
| 4 | | | | | | | | | | | | | | | | Still |
| 5 | | | | | | | Clear | | | | | | | | | |
| 6 | Chapter Sense | Title Sense | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | Chapter Search | Title Search | | | | | | | | | | | | | Date Preset | Clock Preset |
| 9 | Finalize | Cancel- Disc Finaliza- tion | DiscErase | TOP MENU | MENU | NEXT CHAPTER | PREV CHAPTER | Setup | SET | UP | DOWN | RIGHT | LEFT | Next Title | Prev Title | Remote Data |
| Α | Standby On | Standby Off | | Eject | | | | | | | | FF | REW | Fwd Field Step | Rev Field Step | |
| В | Viss Fwd | Viss Rev | | | | Fwd Shtl | Rev Shtl | | Select Preset | Select Sense | | | | | Date Data Sense | ClockData Sense |
| С | | | | | | | | | | | Rec | Rec Pause | | | | |
| D | | | | | | | | Status Sense | Tc Data Sense | CTL Data Sense | | | | JVCStatus Sense | | |
| E | | | | | | | | | | | | | | | | |
| F | Command Target | | | | | | | | | | Rec/Dub Request | | | | | |

RS-232C Interface — Specifications —

• 9PIN D-Sub

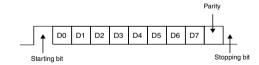
This unit

| PIN No. | Signal | Operation | Direction of signal |
|---------|--------|------------------|---------------------|
| 2 | TxD | Transmit data | This unit→PC |
| 3 | RxD | Receive data | This unit←PC |
| 5 | GND | Signal grounding | |

Mode : Non-synchronous

Character length : 8 bits Parity : Odd Start bit : 1 Stop bit : 1 : 9600bps Data rate

Bit configuration



NOTES:

- When using the Serial Command Connector, the cable to be used should be a RS-232C interface cable (straight type).
- It takes about 10 seconds for the communication to be established after turning on the unit.
- During command transmission, a minimum interval of 50 mm/second is required between each command.

RS-232C Interface — Command —

Operation Commands

Commands for operating functions such as PLAY and REC on the DVD and VCR deck.

| Command | Description |
|---------|---|
| 3A | Plays the selected deck. |
| 3F | Stops the selected deck. Resume will be cleared when this is pressed while in the Stop mode. (DVD Deck) Rec Request will be cleared. |
| 4F | Switches the selected deck to the Still mode. |
| 80 | Searches the specified chapter and starts playback from the beginning. (DVD Deck) See page 76 for data format. |
| 81 | Searches the specified title and starts playback from the beginning. (DVD Deck) See page 76 for data format. |
| 8E | For setting the date. See page 76 for data format. |
| 8F | For setting the time. See page 76 for data format. |
| 90 | Finalizes the disc. (DVD Deck) |
| 91 | Cancels disc finalization. (DVD Deck) |
| 92 | For erasing rewritable discs. (DVD Deck) |
| 93 | Displays/Closes the top menu of a disc. (DVD Deck) |
| 94 | Displays/Closes the disc menu. (DVD Deck) |
| 95 | Advances to the next chapter. Functions like the ►►I button on the remote control. (DVD Deck) |
| 96 | Returns to the previous chapter. Functions like the I◄◄ button on the remote control. (DVD Deck) |
| 97 | Displays/Closes the Main Menu and Library Database DVD Navi screen. 97 → 30: Closes the screen. 97 → 31: Displays the Main Menu screen. 97 → 32: Displays the Library Database DVD Navi screen. (DVD Deck) |
| 98 | Functions as a confirmation key. |
| 99 | Functions as an up key. |
| 9A | Functions as a down key. |
| 9B | Functions as a right key. |
| 9C | Functions as a left key. |
| 9D | Advances to the next title. Functions like the ▶►I button on the remote control. (DVD Deck) |
| 9E | Returns to the previous title. Functions like the I◄◄ button on the remote control. (DVD Deck) |
| 9F | Issues the same codes as the wired remote control via RS-232C. Prolonged keypress for VCR deck operations are not allowed. See page 77 for the remote control codes. |
| A0 | Power On |
| A1 | Power Off |
| A3 | Eject: DVD Deck: Opens/Closes tray. VCR Deck: Removes cassette. |
| AB | FF: DVD Deck: Functions only during playback. Activates forward search. For details on the search speed, refer to "Variable Speed Search" (FS pg. 21). VCR Deck: Fast forward. Search Fwd during playback. For details on the search speed, refer to "Variable Speed Search" (FS pg. 34). |
| AC | REW: DVD Deck: Functions only during playback. Activates reverse search. For details on the search speed, refer to "Variable Speed Search" (Par pg. 21). VCR Deck: Rewind. Search Rev during playback. For details on the search speed, refer to "Variable Speed Search" (Par pg. 34). |

| Command | Description |
|---------|--|
| AD | Functions as a key for advancing (FWD) a frame. When this command is received during still mode, the unit advances the still picture by one frame (or field) in the FWD direction. |
| AE | Functions as a key for reversing (REV) a frame. When this command is received during still mode, the unit reverses the still picture by one frame (or field) in the REV direction. |
| В0 | Viss Fwd: Fast forwards to the start position. (VCR Deck) |
| B1 | Viss Rev: Rewinds to the start position. (VCR Deck) |
| B5 | Fwd Shtl: Functions only during playback. Activates forward search. DVD Deck: B5 → 30: STILL B5 → 31: FWD SLOW at a slower speed. B5 → 32: FWD SLOW at a slow speed. B5 → 33: FWD SLOW at a fast speed. B5 → 36: FWD SEARCH at a fast speed. B5 → 37: FWD SEARCH at a faster speed. B5 → 38: FWD SEARCH at the fastest speed. B5 → 39: FWD SEARCH at the most fastest speed. VCR Deck: B5 → 30: STILL B5 → 31: FWD SLOW at a slow speed. B5 → 33: FWD SLOW at a fast speed. B5 → 35: 1x B5 → 36: FWD SEARCH at a fast speed. B5 → 37: FWD SEARCH at a fast speed. B5 → 37: FWD SEARCH at a fast speed. B5 → 37: FWD SEARCH at a fast speed. B5 → 38: FWD SEARCH at a faster speed. |
| В6 | Rev Shtl: Functions only during playback. Activates reverse search. DVD Deck: B6 → 30: STILL B6 → 31: REV SLOW at a slower speed. B6 → 32: REV SLOW at a slow speed. B6 → 33: REV SLOW at a fast speed. B6 → 35: -1x B6 → 36: REV SEARCH at a fast speed. B6 → 37: REV SEARCH at the fastest speed. B6 → 39: REV SEARCH at the most fastest speed. VCR Deck: B6 → 30: STILL B6 → 31: REV SLOW at a slow speed. B6 → 33: REV SLOW at a fast speed. B6 → 35: -1x B6 → 36: REV SEARCH at a fast speed. B6 → 37: REV SLOW at a fast speed. B6 → 37: REV SEARCH at a fast speed. B6 → 37: REV SEARCH at a fast speed. B6 → 37: REV SEARCH at a fast speed. B6 → 37: REV SEARCH at a fast speed. |
| B8 | For setting the input, recording mode, audio language selection and subtitle selection. See pages 78 - 80 for data format. |
| CA | Rec: Starts recording at the selected deck when a Rec Request is received. |
| СВ | Rec Pause: Switches the selected deck to the Rec Pause mode when a Rec Request is received. |
| F0 | Command Target: F0 → 30: For selecting VCR deck. F0 → 38: For selecting DVD deck. |
| FA | Rec Request: For issuing approval for recording. This can be cleared using STOP. |

80: Chapter Search

| | 1st Byte | 2nd Byte | 3rd Byte |
|-----------------------|----------|----------|----------|
| Chapter Search | Hundreds | Tens | Ones |
| ASCII codes (30 - 39) | 3* | 3* | 3* |
| E.g. (012) | 30 | 31 | 32 |

E.g.: When searching the 12th chapter.

81: Title Search under "ORIGINAL"

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte |
|-------------------------|----------|----------|----------|----------|
| Title Search (ORIGINAL) | 30 | Hundreds | Tens | Ones |
| ASCII codes (30 - 39) | 30 | 3* | 3* | 3* |
| E.g. (045) | 30 | 30 | 34 | 35 |

E.g.: When searching the 45th title.

81: Title Search in "PLAY LIST"

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte |
|--------------------------|----------|----------|----------|----------|
| Title Search (PLAY LIST) | 38 | Hundreds | Tens | Ones |
| ASCII codes (30 - 39) | 38 | 3* | 3* | 3* |
| E.g. (028) | 38 | 30 | 32 | 38 |

E.g.: When searching the 28th play list.

8E: Date Preset

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte |
|----------------------|------------|------------|------------|------------|-----------|-----------|
| Date Preset | Mth (Tens) | Mth (Ones) | Day (Tens) | Day (Ones) | Yr (Tens) | Yr (Ones) |
| ASCII code (30 - 39) | 3* | 3* | 3* | 3* | 3* | 3* |
| E.g. (01.17.2006) | 30 | 31 | 31 | 37 | 30 | 36 |

E.g.: When setting the date to January 17 2006.

8F: Clock Preset

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte |
|----------------------|-----------|-----------|------------|------------|------------|------------|
| Clock Preset | Hr (Tens) | Hr (Ones) | Min (Tens) | Min (Ones) | Sec (Tens) | Sec (Ones) |
| ASCII code (30 - 39) | 3* | 3* | 3* | 3* | 3* | 3* |
| E.g. (12:34:56) | 31 | 32 | 33 | 34 | 35 | 36 |

E.g.: When setting the time to 12 hrs 34 min and 56 sec.

9F: Remote Data

The remote control codes for controlling the VTR (similar to wired remote control) via RS-232C are as shown in the following table. The codes apply to both DVD and VCR deck unless otherwise stated.

| Code | Items | Remarks | Code | Items | Remarks |
|------|--------------------------|---------------|------|----------------------------|---------------|
| 03 | STOP/CLEAR | | 88 | TBC ON/OFF | VCR Deck only |
| 04 | EJECT | VCR Deck only | 8E | ON SCREEN | |
| 06 | S.FWD/SLOW+ | - | 90 | MEMORY/MARK | DVD Deck only |
| 07 | S.REV/SLOW- | | 96 | CM SKIP | |
| 08 | FWD SLOW 1/6 | VCR Deck only | 97 | DV INPUT | DVD Deck only |
| 0B | POWER ON/OFF | | AF | REV FRAME | |
| 0C | PLAY/SELECT | | B0 | -SLOW D | DVD Dardarah |
| 0D | PAUSE | | B1 | SHUTTLE -C | DVD Deck only |
| 14 | NEXT/▶►I/INDEX +1 | | B2 | SHUTTLE -B | |
| 15 | PREVIOUS/I◀◀/INDEX -1 | | В3 | SHUTTLE -A | |
| 17 | AUDIO | | B4 | SHUTTLE -2 | |
| 18 | INPUT – | | B5 | SHUTTLE -1 | |
| 19 | INPUT + | | В6 | -SLOW B | |
| 1E | ON SCREEN | VCR Deck only | B7 | -SLOW C | |
| 20 | TEN KEY 0/AUX/SPACE | • | B8 | +SLOW C | |
| 21 | TEN KEY 1 | | B9 | +SLOW B | |
| 22 | TEN KEY 2/ABC | | ВА | SHUTTLE +1 | |
| 23 | TEN KEY 3/DEF | | BB | SHUTTLE +2 | |
| 24 | TEN KEY 4/GHI | DVD Deck only | ВС | SHUTTLE +A | |
| 25 | TEN KEY 5/JKL | • | BD | SHUTTLE +B | |
| 26 | TEN KEY 6/MNO | | BE | SHUTTLE +C | |
| 27 | TEN KEY 7/PQRS | | BF | +SLOW D | DVD Deck only |
| 28 | TEN KEY 8/TUV | | C0 | ANGLE/LIVE CHECK | - |
| 29 | TEN KEY 9/WXYZ | | C4 | SUBTITLE | DVD Deck only |
| 31 | REMAIN/REC MODE | | CC | REC | |
| 36 | CANCEL | | CD | REC PAUSE | |
| 37 | SET UP | | CE | INDEX +1 | |
| 38 | DISPLAY | | CF | INDEX -1 | VCR Deck only |
| 39 | COUNTER RESET | VCR Deck only | D0 | REV SLOW 1/6 | |
| 3C | ENTER | | D4 | RETURN | |
| 3D | FINALIZE | DVD Deck only | D6 | VCR/DVD | |
| 40 | AUTO TRACKING ON/ OFF | V0D D | D8 | JOG –1 | |
| 41 | TRACKING + | VCR Deck only | D9 | JOG -1/2 | DVD Deck only |
| 42 | TRACKING - | | DA | JOG +1/2 | |
| 43 | VCR DECK | DVD Deck only | DB | JOG +1 | |
| 44 | DVD DECK | | DC | INSTANT REPLAY | |
| 7C | SP | VCR Deck only | E0 | TOP MENU/NAVIGATION | DVD Deck only |
| 7D | LP | | E1 | L1 Y/C INPUT SELECT | |
| 80 | CURSOR ▷ | | E2 | L1 COMPOSITE INPUT SELECT | |
| 81 | MENU | DVD Deck only | EA | AUX(L-1) SELECT | VCR Deck only |
| 82 | CURSOR △ | | EC | F-1 Y/C INPUT SELECT | |
| 84 | CURSOR ⊲ | | ED | FWD FRAME | |
| 86 | CURSOR ▽ | | EE | F-1 COMPOSITE INPUT SELECT | |
| 87 | OPEN/CLOSE | DVD Deck only | | | |

B8: Input Selection

| | | 1st Byte | 2nd Byte |
|--------------------------|-------------|----------|----------|
| | L-1 VIDEO | 30 | 31 |
| | L-1 S-VIDEO | 30 | 39 |
| External input selection | F-1 VIDEO | 30 | 35 |
| | F-1 S-VIDEO | 30 | 3D |
| | DV | 30 | 34 |

B8: Recording Mode Selection

| | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte |
|-------|----------|----------|-------|----------|----------|----------|----------|----------|
| XP | 34 | 30 | FR150 | 34 | 93 | FR265 | 34 | AA |
| SP | 34 | 31 | FR155 | 34 | 94 | FR270 | 34 | AB |
| LP | 34 | 32 | FR160 | 34 | 95 | FR275 | 34 | AC |
| EP | 34 | 33 | FR165 | 34 | 96 | FR280 | 34 | AD |
| DV | 34 | 38 | FR170 | 34 | 97 | FR285 | 34 | AE |
| FR60 | 34 | 81 | FR175 | 34 | 98 | FR290 | 34 | AF |
| FR65 | 34 | 82 | FR180 | 34 | 99 | FR295 | 34 | В0 |
| FR70 | 34 | 83 | FR185 | 34 | 9A | FR300 | 34 | B1 |
| FR75 | 34 | 84 | FR190 | 34 | 9B | FR305 | 34 | B2 |
| FR80 | 34 | 85 | FR195 | 34 | 9C | FR310 | 34 | ВЗ |
| FR85 | 34 | 86 | FR200 | 34 | 9D | FR315 | 34 | B4 |
| FR90 | 34 | 87 | FR205 | 34 | 9E | FR320 | 34 | B5 |
| FR95 | 34 | 88 | FR210 | 34 | 9F | FR325 | 34 | В6 |
| FR100 | 34 | 89 | FR215 | 34 | A0 | FR330 | 34 | В7 |
| FR105 | 34 | 8A | FR220 | 34 | A1 | FR335 | 34 | B8 |
| FR110 | 34 | 8B | FR225 | 34 | A2 | FR340 | 34 | В9 |
| FR115 | 34 | 8C | FR230 | 34 | A3 | FR345 | 34 | ВА |
| FR120 | 34 | 8D | FR235 | 34 | A4 | FR350 | 34 | BB |
| FR125 | 34 | 8E | FR240 | 34 | A5 | FR355 | 34 | ВС |
| FR130 | 34 | 8F | FR245 | 34 | A6 | FR360 | 34 | BD |
| FR135 | 34 | 90 | FR250 | 34 | A7 | FR420 | 34 | C9 |
| FR140 | 34 | 91 | FR255 | 34 | A8 | FR480 | 34 | D5 |
| FR145 | 34 | 92 | FR260 | 34 | A9 | <u> </u> | | |

B8: Audio Language Selection

| | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte |
|-----------|----------|----------|----|----------|----------|----|----------|----------|
| ENGLISH | 39 | 11 | HI | 39 | 3F | RM | 39 | 6D |
| GERMAN | 39 | 12 | HR | 39 | 40 | RN | 39 | 6E |
| FRENCH | 39 | 13 | HU | 39 | 41 | RO | 39 | 6F |
| ITALIAN | 39 | 14 | HY | 39 | 42 | RU | 39 | 70 |
| SPANISH | 39 | 15 | IA | 39 | 43 | RW | 39 | 71 |
| DUTCH | 39 | 16 | IE | 39 | 44 | SA | 39 | 72 |
| SWEDISH | 39 | 17 | IK | 39 | 45 | SD | 39 | 73 |
| NORWEGIAN | 39 | 18 | IN | 39 | 46 | SG | 39 | 74 |
| FINNISH | 39 | 19 | IS | 39 | 47 | SH | 39 | 75 |
| DANISH | 39 | 1A | IW | 39 | 48 | SI | 39 | 76 |
| JAPANESE | 39 | 1B | JI | 39 | 49 | SK | 39 | 77 |
| AA | 39 | 1C | JW | 39 | 4A | SL | 39 | 78 |
| AB | 39 | 1D | KA | 39 | 4B | SM | 39 | 79 |
| AF | 39 | 1E | KK | 39 | 4C | SN | 39 | 7A |
| AM | 39 | 1F | KL | 39 | 4D | SO | 39 | 7B |
| AR | 39 | 20 | KM | 39 | 4E | SQ | 39 | 7C |
| AS | 39 | 21 | KN | 39 | 4F | SR | 39 | 7D |
| AY | 39 | 22 | КО | 39 | 50 | SS | 39 | 7E |
| AZ | 39 | 23 | KS | 39 | 51 | ST | 39 | 7F |
| BA | 39 | 24 | KU | 39 | 52 | SU | 39 | 80 |
| BE | 39 | 25 | KY | 39 | 53 | SW | 39 | 81 |
| BG | 39 | 26 | LA | 39 | 54 | TA | 39 | 82 |
| ВН | 39 | 27 | LN | 39 | 55 | TE | 39 | 83 |
| BI | 39 | 28 | LO | 39 | 56 | TG | 39 | 84 |
| BN | 39 | 29 | LT | 39 | 57 | TH | 39 | 85 |
| ВО | 39 | 2A | LV | 39 | 58 | TI | 39 | 86 |
| BR | 39 | 2B | MG | 39 | 59 | TK | 39 | 87 |
| CA | 39 | 2C | MI | 39 | 5A | TL | 39 | 88 |
| CO | 39 | 2D | MK | 39 | 5B | TN | 39 | 89 |
| CS | 39 | 2E | ML | 39 | 5C | ТО | 39 | 8A |
| CY | 39 | 2F | MN | 39 | 5D | TR | 39 | 8B |
| DZ | 39 | 30 | МО | 39 | 5E | TS | 39 | 8C |
| EL | 39 | 31 | MR | 39 | 5F | TT | 39 | 8D |
| EO | 39 | 32 | MS | 39 | 60 | TW | 39 | 8E |
| ET | 39 | 33 | MT | 39 | 61 | UK | 39 | 8F |
| EU | 39 | 34 | MY | 39 | 62 | UR | 39 | 90 |
| FA | 39 | 35 | NA | 39 | 63 | UZ | 39 | 91 |
| FJ | 39 | 36 | NE | 39 | 64 | VI | 39 | 92 |
| FO | 39 | 37 | OC | 39 | 65 | VO | 39 | 93 |
| FY | 39 | 38 | OM | 39 | 66 | WO | 39 | 94 |
| GA | 39 | 39 | OR | 39 | 67 | XH | 39 | 95 |
| GD | 39 | 3A | PA | 39 | 68 | YO | 39 | 96 |
| GL | 39 | 3B | PL | 39 | 69 | ZH | 39 | 97 |
| GN | 39 | 3C | PS | 39 | 6A | ZU | 39 | 98 |
| GU | 39 | 3D | PT | 39 | 6B | | | 30 |
| | | | | | | | | |
| HA | 39 | 3E | QU | 39 | 6C | | | |

See "Language Code List" (r pg. 70).

B8: Subtitle Selection

| | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte | | 1st Byte | 2nd Byte |
|-----------|----------|----------|----|----------|----------|----|----------|----------|
| OFF | 3C | 10 | НА | 3C | 3E | QU | 3C | 6C |
| ENGLISH | 3C | 11 | HI | 3C | 3F | RM | 3C | 6D |
| GERMAN | 3C | 12 | HR | 3C | 40 | RN | 3C | 6E |
| FRENCH | 3C | 13 | HU | 3C | 41 | RO | 3C | 6F |
| ITALIAN | 3C | 14 | HY | 3C | 42 | RU | 3C | 70 |
| SPANISH | 3C | 15 | IA | 3C | 43 | RW | 3C | 71 |
| DUTCH | 3C | 16 | IE | 3C | 44 | SA | 3C | 72 |
| SWEDISH | 3C | 17 | IK | 3C | 45 | SD | 3C | 73 |
| NORWEGIAN | 3C | 18 | IN | 3C | 46 | SG | 3C | 74 |
| FINNISH | 3C | 19 | IS | 3C | 47 | SH | 3C | 75 |
| DANISH | 3C | 1A | IW | 3C | 48 | SI | 3C | 76 |
| JAPANESE | 3C | 1B | JI | 3C | 49 | SK | 3C | 77 |
| AA | 3C | 1C | JW | 3C | 4A | SL | 3C | 78 |
| AB | 3C | 1D | KA | 3C | 4B | SM | 3C | 79 |
| AF | 3C | 1E | KK | 3C | 4C | SN | 3C | 7A |
| AM | 3C | 1F | KL | 3C | 4D | SO | 3C | 7B |
| AR | 3C | 20 | KM | 3C | 4E | SQ | 3C | 7C |
| AS | 3C | 21 | KN | 3C | 4F | SR | 3C | 7D |
| AY | 3C | 22 | КО | 3C | 50 | SS | 3C | 7E |
| AZ | 3C | 23 | KS | 3C | 51 | ST | 3C | 7F |
| BA | 3C | 24 | KU | 3C | 52 | SU | 3C | 80 |
| BE | 3C | 25 | KY | 3C | 53 | SW | 3C | 81 |
| BG | 3C | 26 | LA | 3C | 54 | TA | 3C | 82 |
| BH | 3C | 27 | LN | 3C | 55 | TE | 3C | 83 |
| BI | 3C | 28 | LO | 3C | 56 | TG | 3C | 84 |
| BN | 3C | 29 | LT | 3C | 57 | TH | 3C | 85 |
| ВО | 3C | 2A | LV | 3C | 58 | TI | 3C | 86 |
| BR | 3C | 2B | MG | 3C | 59 | TK | 3C | 87 |
| CA | 3C | 2C | MI | 3C | 5A | TL | 3C | 88 |
| CO | 3C | 2D | MK | 3C | 5B | TN | 3C | 89 |
| CS | 3C | 2E | ML | 3C | 5C | ТО | 3C | 8A |
| CY | 3C | 2F | MN | 3C | 5D | TR | 3C | 8B |
| DZ | 3C | 30 | MO | 3C | 5E | TS | 3C | 8C |
| EL | 3C | 31 | MR | 3C | 5F | TT | 3C | 8D |
| EO | 3C | 32 | MS | 3C | 60 | TW | 3C | 8E |
| ET | 3C | 33 | MT | 3C | 61 | UK | 3C | 8F |
| EU | 3C | 34 | MY | 3C | 62 | UR | 3C | 90 |
| FA | 3C | 35 | NA | 3C | 63 | UZ | 3C | 91 |
| FJ | 3C | 36 | NE | 3C | 64 | VI | 3C | 92 |
| FO | 3C | 37 | OC | 3C | 65 | VO | 3C | 93 |
| FY | 3C | 38 | ОМ | 3C | 66 | WO | 3C | 94 |
| GA | 3C | 39 | OR | 3C | 67 | XH | 3C | 95 |
| GD | 3C | 3A | PA | 3C | 68 | YO | 3C | 96 |
| GL | 3C | 3B | PL | 3C | 69 | ZH | 3C | 97 |
| GN | 3C | 3C | PS | 3C | 6A | ZU | 3C | 98 |
| GU | 3C | 3D | PT | 3C | 6B | | | |

See "Language Code List" (pg. 70).

• System Commands
Commands relating to RS-232C control system.

| Command | Description |
|---------|--|
| 01 | Complete: Issued by the VTR upon completing all specified operations by commands such as Title Search. |
| 02 | Error: Issued by the VTR when receiving invalid commands in the context. In such cases, commands that are sent will not be accepted. However, a return command will be issued but only to the Status Sense. To clear the Error status, perform command 56 (Clear). |
| 05 | Not Target: Issued by the VTR when specified operations by commands such as Title Search cannot be completed properly. |
| 0A | ACK: A return command issued when a defined command is received. |
| 0B | NAK: A return command issued when an undefined or possibly nonexistent command is received. |
| 56 | Clear: Clears the Error status. |

• Response Commands

Commands for acquiring information such as deck status.

| Command | Description |
|---------|--|
| 03 | Cassette Out: Issued by the VCR deck when the cassette is ejected after ejecting is performed. |
| 60 | Chapter Sense: For acquiring the current chapter number.* (DVD Deck) |
| 61 | Title/Track Sense: For acquiring the current title number under "ORIGINAL" or in the "PLAY LIST".* (DVD Deck) |
| В9 | Select Sense: For acquiring the status of the inputs, recording mode, audio language selection and subtitle selection.* |
| BE | Date Data Sense: For acquiring the currently configured year, month and day.* |
| BF | Clock Data Sense: For acquiring the currently configured hour, minute and second.* |
| D7 | Status Sense: For acquiring the deck information.* |
| D8 | TC Data Sense: For acquiring the total remaining time in the current recording mode when there is a media in the selected deck.* |
| D9 | CTL Data Sense: For acquiring the lapse counter when there is a media in the selected deck.* |
| DD | JVC Status Sense: Returns data from the unit.* |

^{*} See pages 81 - 84 for data format.

Chapter Sense

| | 1st Byte | 2nd Byte | 3rd Byte |
|---------------|----------|----------|----------|
| Chapter Sense | Hundreds | Tens | Ones |
| 60 | 3* | | 3* |
| E.g. (012) | 30 | 31 | 32 |

E.g.: When the current chapter is the 12th chapter.

Title/Track Sense under "ORIGINAL"

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte |
|------------------------------|----------|----------|----------|----------|
| Title/Track Sense (ORIGINAL) | 30 | Hundreds | Tens | Ones |
| 61 | 30 | 3* | 3* | 3* |
| E.g. (045) | 30 | 30 | 34 | 35 |

E.g.: When the current title under "ORIGINAL" is the 45th title.

Title/Track Sense in "PLAY LIST"

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte |
|-------------------------------|----------|----------|----------|----------|
| Title/Track Sense (PLAY LIST) | 38 | Hundreds | Tens | Ones |
| 61 | 38 | 3* | 3* | 3* |
| E.g. (028) | 38 | 30 | 32 | 38 |

E.g.: When the current title under "PLAY LIST" is the 28th title.

Select Sense

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte |
|-------------------|--------------------------|----------|--------------------------|--------------------------|--------------------|
| Select Sense | External input selection | _ | Recording mode selection | Audio language selection | Subtitle selection |
| B9 | 3* | 2D | ** | ** | ** |
| E.g. (392D311112) | 39 | 2D | 31 | 11 | 12 |

E.g.: When the selection status of the VTR is as follows:

External input selection → L-1 S-VIDEO

Recording mode selection → SP

Audio language selection → ENGLISH

Subtitle selection → GERMAN

For response data for B9, see data format for B8 (Select Preset) on pages 78 - 80.

Date Data Sense

For acquiring the currently configured year, month and day in ASCII codes.

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte |
|-------------------|------------|------------|------------|------------|-----------|-----------|
| Date Sense | Mth (Tens) | Mth (Ones) | Day (Tens) | Day (Ones) | Yr (Tens) | Yr (Ones) |
| BE | 3* | 3* | 3* | 3* | 3* | 3* |
| E.g. (01.17.2006) | 30 | 31 | 31 | 37 | 30 | 36 |

When the current date is not set, the value is fixed as "-" (0x2D).

Clock Data Sense

For acquiring the currently configured hour, minute and second in ASCII codes.

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte |
|-----------------|-----------|-----------|------------|------------|------------|------------|
| Clock Sense | Hr (Tens) | Hr (Ones) | Min (Tens) | Min (Ones) | Sec (Tens) | Sec (Ones) |
| BF | 3* | 3* | 3* | 3* | 3* | 3* |
| E.g. (12:34:56) | 31 | 32 | 33 | 34 | 35 | 36 |

When the current time is not set, the value is fixed as "-" (0x2D).

Status Data Sense

| D7 STATUS SENSE | 1byte | | 2byte | | 3byte | |
|--------------------|--|--|----------------------------------|----------------------------------|-----------|---|
| | VCR | DVD | VCR | DVD | VCR | DVD |
| bit7 | 0 (Fixed) | 1 (Fixed) | Video EE | Video EE | 0 (Fixed) | 0 (Fixed) |
| bit6 | 1 (Fixed) | 1 (Fixed) | Audio EE | Audio EE | 0 (Fixed) | 0 (Fixed) |
| bit5 | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit4 | Record Forbidden | Record Forbidden | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit3 | Cassette Not Inserted | Disc Not Inserted | Occurrence of abnormality in VTR | Occurrence of abnormality in VTR | 0 (Fixed) | 0 (Fixed) |
| bit2 | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | During Repeat Playback (Including PAUSE) |
| bit1 | 0 (Fixed) | 0 (Fixed) | Start sensor | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit0 | RS-232C command error status. Clear using 56 (Clear). | RS-232C command error status. Clear using 56 (Clear). | End sensor | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |

| D7 STATUS SENSE | 44 | pyte | 5byte | | | |
|--------------------|--|--|---|---|--|--|
| | VCR | DVD | VCR | DVD | | |
| bit7 | During PLAY (Including STILL and search) | During PLAY (Including STILL and search) | During PAUSE | During PAUSE | | |
| bit6 | During FF | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | | |
| bit5 | During REW | 0 (Fixed) | During Forward Shuttle Search (Excluding STILL) | During Forward Shuttle Search (Excluding STILL) | | |
| bit4 | During STOP | During STOP | During Reverse Shuttle Search (Excluding STILL) | During Reverse Shuttle Search (Excluding STILL) | | |
| bit3 | During STANDBY (Unit Power Off) | During STANDBY (Unit Power Off) | SPEED CODE 3 | SPEED CODE 3 | | |
| bit2 | During CASSETTE EJECT | 0 (Fixed) | SPEED CODE 2 | SPEED CODE 2 | | |
| bit1 | During REC (Including REC PAUSE) | During REC (Including REC PAUSE) | SPEED CODE 1 | SPEED CODE 1 | | |
| bit0 | 0 (Fixed) | 0 (Fixed) | SPEED CODE 0 | SPEED CODE 0 | | |

If the status of the VTR matches to that stated in the above tables, the value returned is "1". Otherwise, the value "0" is returned. For details on SPEED CODE 0 - 3, refer to the SPEED CODE table on page 84.

SPEED CODE

| | DVD | | | | VCR | | | |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | SPEED CODE 3 (bit3) | SPEED CODE 2 (bit2) | SPEED CODE 1 (bit1) | SPEED CODE 0 (bit0) | SPEED CODE 3 (bit3) | SPEED CODE 2 (bit2) | SPEED CODE 1 (bit1) | SPEED CODE 0 (bit0) |
| STILL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FWD/REV SLOW at a slower speed | 0 | 0 | 0 | 1 | | | | |
| FWD/REV SLOW at a slow speed | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| FWD/REV SLOW at a fast speed | 0 | 0 | 1 | 1 | | | | |
| 1x/-1x | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| FWD/REV SEARCH at a fast speed | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 4 |
| FWD/REV SEARCH at a faster speed | 0 | 1 | 1 | 1 | 0 | Į | ļ | ı |
| FWD/REV SEARCH at the fastest speed | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| FWD/REV SEARCH at the most fastest speed | 1 | 0 | 0 | 1 | | U | | 0 |

TC Data Sense

For acquiring the remaining time in the current recording mode in hours, minutes and seconds for DVD, and hours and minutes for VCR.

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte | 7th Byte | 8th Byte |
|-----------------|-----------|-----------|------------|------------|------------|------------|-----------------|-----------------|
| TC Data Sense | Hr (Tens) | Hr (Ones) | Min (Tens) | Min (Ones) | Sec (Tens) | Sec (Ones) | Frame (Tens) | Frame (Ones) |
| D8 | 3* | 3* | 3* | 3* | 3* | 3* | 2D | 2D |
| E.g. (01:23:45) | 30 | 31 | 32 | 33 | 34 | 35 | 2D | 2D |

E.g.: When remaining time is 1 hr 23 min 45 sec. VCR (hr and min only)

DVD (hr, min and sec only) Frame is fixed as "—" (0x2D).

CTL Data Sense

For acquiring lapse counter of selected deck in hours, minutes and seconds.

| | 1st Byte | 2nd Byte | 3rd Byte | 4th Byte | 5th Byte | 6th Byte | 7th Byte | 8th Byte |
|-----------------|-----------|-----------|------------|------------|------------|------------|-----------------|-----------------|
| CTL Data Sense | Hr (Tens) | Hr (Ones) | Min (Tens) | Min (Ones) | Sec (Tens) | Sec (Ones) | Frame (Tens) | Frame (Ones) |
| D9 | 3* | 3* | 3* | 3* | 3* | 3* | 2D | 2D |
| E.g. (01:23:45) | 30 | 31 | 32 | 33 | 34 | 35 | 2D | 2D |

E.g.: When time lapse counter is 1 hr 23 min 45 sec. Frame is fixed as "—" (0x2D).

JVC Status Sense

| DD JVC SENSE | 1byte | | 2byte | | 3b | pyte | 4byte | |
|-----------------|---|-----------|-----------|------------------------|---|---|---|---|
| | VCR | DVD | VCR | DVD | VCR | DVD | VCR | DVD |
| bit7 | 1 (Fixed) | 1 (Fixed) | 0 (Fixed) | 0 (Fixed) | 1 (Fixed) | 1 (Fixed) | 1 (Fixed) | 1 (Fixed) |
| bit6 | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 1 (Fixed) | 1 (Fixed) |
| bit5 | 0 (Fixed) | 0 (Fixed) | 1 (Fixed) | 1 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit4 | During Playback of EP Recorded Tape | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit3 | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | | 0 (Fixed) | 0 (Fixed) | During dubbing (Including PAUSE) | During dubbing (Including PAUSE) |
| bit2 | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | Refer to the | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit1 | 0 (Fixed) | 0 (Fixed) | 1 (Fixed) | DISC TYPE table below. | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) | 0 (Fixed) |
| bit0 | 1 (Fixed) | 1 (Fixed) | 0 (Fixed) | | During dubbing (Including PAUSE) | During dubbing (Including PAUSE) | 0 (Fixed) | 0 (Fixed) |

DISC TYPE

| | bit3 | bit2 | bit1 | bit0 |
|---------|------|------|------|------|
| DVD | 0 | 0 | 0 | 0 |
| DVD-RAM | 0 | 0 | 0 | 1 |
| DVD-R | 0 | 0 | 1 | 0 |
| DVD-RW | 0 | 0 | 1 | 1 |
| DVD+R | 0 | 0 | 0 | 0 |
| DVD+RW | 0 | 0 | 0 | 0 |
| VCD | 0 | 1 | 1 | 0 |
| CD | 0 | 1 | 1 | 1 |
| | | | | |
| No disc | 1 | 1 | 1 | 1 |