8 LIST OF CAMM-GL III INSTRUCTIONS

*1:
$$-(2^{26}-1)$$
 — $+(2^{26}-1)$ *2: 0 — $+(2^{26}-1)$ *3: $-(2^{26}-1)^{\circ}$ — $+(2^{26}-1)^{\circ}$ *4: $21_{(16)}$ — $3A_{(16)}$, $3C_{(16)}$ — $7E_{(16)}$

mode1

| Instruction | Format | Meaning of Parameter [Parameter | Range (Default)] | Explanation |
|-------------|-----------------------------------|--|----------------------|--------------------------------------|
| H | Н | None | | Move to User Origin |
| D | D x1, y1, xn, yn | xn: Absolute X-axis coordinate | [*1] | Cut Absolute Line |
| | | yn: Absolute Y-axis coordinate | [*1] | |
| M | M x1, y1xn,yn | xn: Absolute X-axis coordinate | [*1] | Tool-up to Absolute Coordinate Point |
| | | yn: Absolute Y-axis coordinate | [*1] | |
| I | I x1, y1, xn, yn | xn: Relative X-axis coordinate | [*1] | Cut Relative Line |
| | | yn: Relative Y-axis coordinate | [*1] | |
| R | R x, y | xn: Relative X-axis coordinate | [*1] | Tool-up Move to Relative Coordinate |
| | | yn: Relative Y-axis coordinate | [*1] | Point |
| L | Lp | p: Line pattern | [-5 — +5 (0)] | Specify Line Type |
| В | B 1 | 1: Pitch length | [*2 1.5% of (P2-P1)] | Specify Broke Line Pitch |
| X | X p,q,r | p: Coordinate axis | [0, 1] | Plot Coordinate System |
| | | q: Tick interval | [*1] | |
| | | r: Number | [1—32767] | |
| P | P c1c2cn | cn: Character | | Plot Character |
| S | S n | n: Character size | [0—127 (61)] | Set Character Size |
| Q | Q n | n: Rotation angle (90°as a unit) | [n = 0 - 3(0)] | Specify Character Rotate Angle |
| N | N n | n: Number of special symbol | [1—15] | Plot Special Symbol |
| C | C x, y, r, Ø1, Ø2(,Ød) | x, y: Center coordinates | [*1] | Cut Arc |
| | | r: Radius | [*1] | |
| | | Ø1•Ø2: Start angle • End angle | [*1] | |
| | | Ød: Chord tolerance | [*1 (5°)] | |
| E | E r, Ø1, Ø2(,Ød) | r: Radius | [*1] | Cut Arc from Tool Position |
| | | Ø1•Ø2: Start angle • End angle | [*1] | |
| | | Ød: Chord tolerance | [*1 (5°)] | |
| A | A x, y | x: Center x coordinate | [*1 (0)] | Specify G & K Center Coordinate |
| | | y: Center y coordinate | [*1 (0)] | |
| G | G r,Ø1, Ø2(,Ød) | r: Radius | [*1] | Cut Arc Around A-Instruction Center |
| | | Ø1: Start angle | [*1] | |
| | | Ø2: End angle | [*1] | |
| | | d: Chord tolerance | [*1 (5°)] | |
| K | K n, 11, 12 | n: Division line angle | [*1] | Plot Division Line |
| | | 11: Division line end point distance | [*1] | |
| | | 12: Division line start point distance | [*1] | |
| T | T n, x, y, d, t | n: Hatching pattern | [0—3] | Plot and Hatch Rectangle |
| | | x, y: Rectangle size | [*1] | |
| | | d: Hatching spacing | [*1] | |
| | | t: Hatching angle | [1—4] | |
| ٨ | [mode 2 instruction] [parameter], | | | Call mode 2 |
| | [parameter] [terminator] | | | |

mode2

| Instruction | Format | Meaning of Parameter [Parame | eter Range (Default)] | Explanation |
|-------------|------------------------|--|-------------------------|-------------------------|
| AA | AA x,y,Øc(,Ød); | x, y: Absolute center coordinates | [*1] | Arc Absolute |
| | | Øc:Center angle | [*1] | |
| | | Ød: Chord tolerance | [*1 (5°)] | |
| AR | AR x, y,Øc(,Ød); | x, y: Relative center coordinates | [*1] | Arc Relative |
| | | Øc: Center angle | [*1] | |
| | | Ød: Chord tolerance | [*1 (5°)] | |
| CA | CA n; | n: Character set No. | [0-4, 6-9, 30-39] | Alternate Character set |
| | CA; | | | |
| CI | CI r(,Ød); | r: Radius | [*1] | Circle |
| | | Ød: Chord tolerance | [*3 (5°)] | |
| CP | CP nx,ny; | nx: Number of characters in X-axis direction | [*1] | Character Plot |
| | CP; | ny: Number of characters in Y-axis direction | [*1] | |
| CS | CS n; | n: Character set number | | Standard Character Set |
| | CS; | | | |
| DF | DF; | None | | Default |
| DI | DI run, rise; | run: X-axis direction vector | [*1 (1)] | Absolute Direction |
| | DI; | rise: Y-axis direction vector | [*1 (0)] | |
| DR | DR run, rise; | run: X-axis direction vector | [*1 (1)] | Relative Direction |
| | DR; | rise: Y-axis direction vector | [*1 (0)] | |
| DT | DT t; | t: Label terminator | [[ETX]] | Define Label Terminator |
| EA | EA x, y; | x, y: Absolute XY coordinates of opposite angl | e of rectangle [*1] | Edge Rectangle Absolute |
| ER | ER x, y; | x, y: Relative XY coordinates of opposite ang | le of rectangle [*1] | Edge Rectangle Relative |
| EW | EW r, Ø1, Øc(,Ød); | r: Radius | [*1] | Edge Wedge |
| | | Ø1: Start angle | [*3] | |
| | | Øc: Center angle | [*3] | |
| | | Ød: Chord tolerance | [*3 (5°)] | |
| FT | $FT n(d(\emptyset));$ | n: Pattern | [1 - 5(1)] | Fill Type |
| | | d: Spacing | [*2 ((P2x-P1x) x 0.01)] | |
| | FT; | Ø: Angle | [*3 (0°)] | |
| IM | IM e; | e: Error mask value | [0 — 255 (223)] | Input Mask |
| | IM; | | | 1 - |
| IN | IN; | None | | Initialize |
| IP | IP P1x, P1y, P2x, P2y; | P1x, P1y: XY coordinates of P1 | [*1] | Input P1 & P2 |
| | IP; | P2x, P2y: XY coordinates of P2 | [*1] | |

| Instruction | Format | Meaning of Parameter [Parameter | Explanation | |
|-------------|----------------------------|--|---------------------------|---|
| IW | IW LLx, LLy, URx, URy; | LLx, LLy: lower left coordinates of window | Input Window | |
| | IW; | URx,URy: Upper right coordinates of window | | |
| LB | LB c1c2c3cn | c: Character string | | Label |
| | [label terminator] | | | |
| LT | LT n(,l); | n: Pattern number | [0 — 6 (solid line)] | Line Type |
| OA | LT; OA; | 1: 1 pitch length None | [*2 (1.5% of (P2-P1))] | Output Astrol Point |
| OC | OC: | None | | Output Actual Point Output Commanded Position |
| OE | OE; | None | | Output Error |
| OF | OF: | None | | Output Factor |
| OI. | 01, | When the PNC-950 receives an OF instruction fro | om the computer | output I detoi |
| | | "40,40 [TERM]" is output. | · | |
| OH | OH; | None | | Output Hard-Clip Limits |
| OI | OI; | None | | Output Identification |
| | | When the PNC-950 receives an OI instruction from | n the computer, | |
| | | "950 [TERM]" is output. | | |
| 00 | 00; | None | | Output Option Parameter |
| | | When the PNC-950 receives an OO instruction from | | |
| | | "0,0,0,0,1,0,0,0 [TERM]" is output. The "1" in the | his output indicates that | |
| | | circle and arc commands have been loaded | | |
| OP | OP; | None | | Output P1 & P2 |
| OS OW | OS; OW: | None None | | Output Status Output Window |
| | | 1 1 1 | (91) | |
| PA | PA x1, y1(,xn, yn); PA; | xn, yn: Absolute XY coordinates | [*1] | Cut Absolute |
| PD | PD x1, y1(,xn, yn); | xn, yn: XY coordinates | [*1] | Tool Down |
| PD | PD: x1, y1(,xn, yn); | xn, yn: X i coordinates | [*1] | 1001 Down |
| PR | PR 1, y1(xn, yn); | xn, yn: Relative XY coordinates | [*1] | Cut Relative |
| 110 | PR; | An, yn. Relative X1 coordinates | [1] | Cut Relative |
| PT | PT d; | d: Pen thickness (mm) | [0—5 (0.3)] | Pen Thickness |
| | PT; | | [()] | |
| PU | PU x1, y1(,xn, yn); | xn, yn: XY coordinates | [*1] | Tool Up |
| | PU; | | | - |
| RA | RA x, y; | x, y: Absolute XY coordinates of opposite angle of | | Shade Rectangle Absolute |
| RR | RR x, y; | x, y: Relative XY coordinates of opposite angle of | of rectangle [*1] | Shade Rectangle Relative |
| SA | SA; | None | | Select Alternate Set |
| SC | SC Xmin, Xmax, Ymin, Ymax; | Xmin, Ymin: User XY coordinates of P1 | [*1] | Scaling |
| | SC; | Xmax, Ymax: User XY coordinates of P2 | [*1] | |
| SI | SI w, h; | w: Character width (cm.) | [-128 — +127.99999 (3.8)] | Absolute Character Size |
| CI | SI; | h: Character height (cm.) tanØ: Character slant | [-128 — +127.99999 (5)] | CI (CI) |
| SL | SL tanØ; SL: | tang: Character stant | [*1 (0)] | Character Slant |
| SM | SM s; | s: Character or symbol | [*4 (Default: | Symbol Mode |
| 5101 | SM: | s. Character of symbol | Clears symbol mode)] | Symbol Wode |
| SR | SR w, h; | w: Character width (%) | [*1 (3.8)] | Relative Character Size |
| J.K | SR; | h: Character height (%) | [*1 (5.6)] | Size Size |
| SS | SS; | None | [1(8)] | Select Standard Set |
| TL | TL lp(,lm); | lp: Tick length in positive direction | [*2 (0.5%)] | Thick Length |
| I | TL; | lm: Tick length in negative direction | [*2 (0.5%)] | |
| UC | UC (c,) x, y,(c,) | c: Tool control value [-(67108863) | — -99, +99 — +(67108863)] | User Defined Character |
| | ,, xn, yn; | xn: Units of movement in X-axis direction | [-99< xn<+99] | |
| | UC; | yn: Units of movement in Y-axis direction | [-99< yn<+99] | |
| VS | VS v; | v: Tool speed (cm/sec.) | [1 — 40] | Velocity Select |
| | VS; | | | |
| WG | WG r, Ø1, Øc(,Ød); | r : Radius | [*1] | Shade Wedge |
| I | | Ø1 : Start angle | [*3] | |
| I | | Øc : Center angle | [*3] | |
| VT | VT. | Ød : Chord tolerance None | [*3 (5°)] | V Tiek |
| XT YT | XT; YT: | None None | | X-Tick Y-Tick |
| I I | 111, | INUIC | | 1-11CK |

• Instructions in mode1 and mode2

| Instruction | Format | Meaning of Parameter | [Parameter Range (Default)] | Explanation |
|-------------|--------------------|----------------------|-----------------------------|-------------|
| !NR | !NR [terminator] | None | | Not Ready |
| !PG | !PG n [terminator] | n: | [-24998 — +24998 mm] | Page Feed |
| !ST | !ST n [terminator] | n: | [0, 1] | Select Tool |

9 LIST OF DEVICE CONTROL INSTRUCTIONS

Device control instructions are used to determine the communication sequence between the PNC-950 and computer through RS-232C interface and update the computer the current PNC-950 state. Among them, some device control instructions set the output specifications of CAMM-GL III instructions.

Each device control instruction is organized with three letters: [ESC], "." and one uppercase letter. Device control instructions are of two types: one with parameters and the other without parameters.

Parameters can be omitted. A semicolon ";" is used as a delimiter to separate parameters if they are input in succession. A ";" without parameters means that parameters were omitted.

If parameters are omitted, the default value is set. For a device control instruction with parameters, a terminator needs to be input in order to signify the end of instructions. A colon ":" is used as the terminator which cannot be omitted.

| Output Remaining Buffer Capacity Set Handshake Capacity P3>(P4)>(P5>(P5>)(P6>) P2: Output tirginger character (P5) (P5) (P6)) P3: Output terminator (P5) (P5) (P6) (P6) (P5) (P6) (P6) (P6) (P6) (P6) (P6) (P6) (P6 | Instruction | Format | Parameter | Range ([] is default) | Explanation |
|---|--------------------|--|---------------------------------|----------------------------|--|
| Output Remaining Buffer Capacity ESC M [ESC].McP1> <p1: (1)="" cottput="" delay="" initi<="" initiator="" output="" p3:="" p4:="" p5:="" p6:="" specifications="" terminator="" th="" time="" treminator=""><th>Handshake Ins</th><th>tructions</th><th></th><th></th><th></th></p1:> | Handshake Ins | tructions | | | |
| Baffer Capacity BSC M BSC M BSC McP1> <p2> P1: Delay time P3 + SP4 + SP5 + SP6 + P5 P2: Output trigger character D (Sets nothing) (D Sets nothing) (D</p2> | ESC .B | [ESC].B | None | | Outputs the current remaining buffer capacity to the |
| ESC M | Output Remaining | | | | computer. |
| Set Handshake Output P3: Echo terminator P3: Echo terminator P4: Output tringer character P3: Echo terminator P5: Output terminator P6: Output initiator P5: Output terminator P6: Output initiator P6: Output P6: Output P7: | Buffer Capacity | | | | |
| Output Specifications (1) P3: Cutput terminator P4: Output terminator P5: Output terminator P6: Output terminator P6: Output terminator P6: Output initiator P7: P1: Intercharacter delay P2-P11 P2: P2: P1: Specifications (2) P3: *** *** *** *** *** *** *** *** *** * | ESC .M | [ESC].M <p1>;<p2>;</p2></p1> | P1: Delay time | 0—32767 (msec) [0 (msec)] | Sets handshake output specifications. |
| Specifications (1) P4: Output terminator P5: Output terminator P5: Output terminator P5: Output terminator P6: Output terminator P6: Output terminator P7: Output P7: | Set Handshake | <p3>;<p4>;<p5>;<p6>:</p6></p5></p4></p3> | P2: Output trigger character | [0 (Sets nothing)] | |
| PS: Output terminator PS: Output timitator PS: PS: Output timitator PS: PS: Output timitator PS: PS: Output terminator delay PS: PS: Output timitator PS: PS: Output terminator delay PS: PS: Output terminator PS: PS: Output terminator delay PS: PS: Output terminator delay PS: PS: Output terminator delay PS: PS: PS: Output terminator PS: | Output | | P3: Echo terminator | [0 (Sets nothing)] | |
| ESC .N [ESC].N Pi: Intercharacter delay Description Descr | Specifications (1) | | P4: Output terminator | [13 ([CR])] | Note: When you specify some values to <p4> and</p4> |
| ESC .N Set Handshake Output Specifications (2) ESC .H ESC .B | | | P5: Output terminator | [0 (Sets nothing)] | <p5>, always set 0 to <p6>. When you specify</p6></p5> |
| Set Handshake Output Specifications (2) ESC. H SEC. H SEN/ACK Handshake Mode! ESC] H=SEN/ACK HANDSHAME H=SEN/ACK HANDSHA | | | P6: Output initiator | [0 (Sets nothing)] | some value to <p6>, always set 0 to <p5>.</p5></p6> |
| Sec .H Controls Plandshake and ENQ/ACK Plandshake Mode2 Plandshake Mode2 Plandshake Mode2 Plandshake Mode3 Plandshake Mode3 Plandshake Mode4 Plandshake Mode4 Plandshake Mode5 Plandshake Mode5 Plandshake Mode5 Plandshake Mode6 Plandshake Mode6 Plandshake Mode6 Plandshake Mode6 Plandshake Mode6 Plandshake Mode6 Plandshake Mode7 Plandshake Mode7 Plandshake Mode7 Plandshake Mode7 Plandshake Mode8 Plands | ESC .N | [ESC].N <p1>;<p2>;</p2></p1> | P1: Intercharacter delay | 0—32767 (msec) [0 (msec)] | Sets an intercharacter delay, and also an Xoff |
| Immediate response character (for ENQ/ACK) ESC. H [ESC].H Sets ENQ/ACK CP3>; ************************************ | Set Handshake | <p3>; ••••• ;<p11>:</p11></p3> | P2-P11 | [All 0 (Sets nothing)] | character for performing the Xon/Xoff handshake. |
| ESC .H [ESC].H Bandshake Model (FSC].H Bernard (FSC).H Bernard (FSC).H Be | Output | | : Xoff character (for Xon/Xoff) | | |
| ESC. H | Specifications (2) | | Immediate response character | | |
| Sets ENQ/ACK Handshake Model P3: FNQ character P3-P12 ENQ character P3-P12 ENQ character P3-P12 ESC .I ESC].I-CP1>: P1: Limit of the remaining buffer capacity (for ENQ/ACK (mode2)) P2: ENQ character (for ENQ/ACK (mode2)) P3-P12 END/ACK (mode2)) P3-P12 END/ACK (mode2)) P3-P12 END/ACK (mode2)) P3-P12 END/ACK (mode2)) END/ACK (mode2)) P3-P12 END/ACK (mode2)) END/ACK (mode2)) P3-P12 END/ACK (mode2)) END/ACK (m | | | (for ENQ/ACK) | | |
| Handshake Model P2: ENQ character P3-P12 | ESC .H | [ESC].H <p1>;<p2>;</p2></p1> | P1: The number of bytes for | 0—15358 (byte) [80 (byte)] | When receiving the ENQ character set by <p2>,</p2> |
| P3-P12 | Sets ENQ/ACK | <p3>; •••••• ;<p12>:</p12></p3> | data block | [0 (Sets nothing)] | compares the value set by <p1> and the remaining</p1> |
| SACK character (only when | Handshake Mode1 | | P2: ENQ character | [All 0 (Sets nothing)] | buffer capacity, and returns the ACK character to |
| ESC .1 [ESC].1 Set Xon/Xoff Set Xon/Xof | | | P3-P12 | | the host computer when the remaining buffer |
| ESC .1 Set Xon/Xoff Handshake and ENQ/ACK Handshake Mode2 P3 > ; ********* < P12 >: P1: Limit of the remaining buffer capacity (for Xon/Xoff) The number of data block bytes (for ENQ/ACK (mode2)) P2: ENQ character (for ENQ/ACK (mode2)) P3-P12 : Xon character (for ENQ/ACK (mode2)) ACK character (for ENQ/ACK (mode2)) P3-P12 : Xon character (for ENQ/ACK (mode2)) ACK character (for ENQ/ACK (mode2)) P1: Ignored P2: DTR signal control P2: DTR signal control P2: DTR signal control P3-P12 Status Instructions Status Instructions ESC .0 Outputs the Status of Buffer, Pause ESC].0 None ESC].0 None ESC].0 O Data remaining in buffer. ESC].1 Data remaining buffer capacity (for Xon/Xoff) Controls the DTR signal (No. 20 pin of Face) P1: Ignored P2: DTR signal control P3-P12 Controls the DTR signal (No. 20 pin of Face) P3-P12 Controls the DTR signal to High without performing the hardware handshake. An odd number parameter (e.g. 0) always the parameter (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. | | | : ACK character (only when | | capacity is larger. The [ESC].H with no parameter |
| Set Xon/Xoff Handshake and ENQ/ACK Handshake Mode2 Hall O (Sets nothing)] Hall O (Sets nothing) Hall O (Sets | | | <p2> is set)</p2> | | performs a dummy handshake. |
| Handshake and ENQ/ACK Handshake Mode2 P2: ENQ character (for ENQ/ACK (mode2)) 0 (for Xon/Xoff) P3-P12 | ESC .I | [ESC].I <p1>;<p2>;</p2></p1> | P1: Limit of the remaining | 0—15358 (byte) [80 (byte)] | Used for performing the Xon/Xoff handshake and |
| Handshake and ENQ/ACK Handshake Mode2 P2: ENQ character (for ENQ/ACK (mode2)) 0 (for Xon/Xoff) P3-P12 | Set Xon/Xoff | <p3>; •••••• ;<p12>:</p12></p3> | buffer capacity (for Xon/Xoff) | | |
| ESC .@ Controls DTR Controls DTR Status Instructions ESC .O Outputs the Status of Buffer, Pause (for ENQ/ACK (mode2)) | Handshake and | | | | The [ESC].I instruction with no parameter performs |
| Handshake Mode2 P2: ENQ character (for ENQ/ACK (mode2)) | ENO/ACK | | _ | | |
| Controls DTR ESC .@ Controls DTR ESC .@ P1;P2: P1: Ignored P2: DTR signal control P2: DTR signal control P3-p12 P1: Ignored P2: DTR signal control P3-p13 P12 P13-p13 P13- | _ | | * | [0 (Sets nothing)] | always returns the ACK character to the host |
| Capacity, when receiving the ENQ character | | | | 0,1 | · · |
| P3-P12 [All 0 (Sets nothing)] | | | | | |
| ESC .@ [ESC].@ P1;P2: P1: Ignored P2: DTR signal control P2: DTR signal control P2: DTR signal control P3: DTR signal to High without performing to hardware handshake. An odd number param (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Status | | | | [All 0 (Sets nothing)] | arparay, managan and and an array |
| ACK character (for ENQ/ACK (mode2)) ESC .@ [ESC].@ P1;P2: P1: Ignored Controls DTR P2: DTR signal control P2: DTR signal control P2: DTR signal control P3: DTR signal control P4: DTR signal to High without performing the hardware handshake. An odd number param (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status Outputs the Status Outputs the status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. B Buffer empty. | | | | [| |
| ESC .@ [ESC].@ P1;P2: P1: Ignored P2: DTR signal control P2: DTR signal control P2: DTR signal control P3: DTR signal control P3: DTR signal control P4: DTR signal to High without performing the hardware handshake. An odd number parameter (e.g. 1) performs the hardware handshake at controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Pa | | | | | |
| ESC .@ [ESC].@ P1;P2: P1: Ignored P2: DTR signal control P3: DTR signal control P3: DTR signal control P4: DTR signal to High without performing that dware handshake. An odd number parameter (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. 8 Buffer empty. | | | | | |
| Controls DTR P2: DTR signal control P2: DTR signal control O—255 [1] An even number parameter (e.g. 0) always that without performing the hardware handshake. An odd number parameter (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. 8 Buffer empty. | ESC @ | [ESC] @ P1·P2· | | | Controls the DTR signal (No. 20 pin of RS-232C) |
| DTR signal to High without performing that hardware handshake. An odd number param (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. 8 Buffer empty. | | [250]. 0 11,12. | = | 0_255 [1] | |
| hardware handshake. An odd number paran (e.g. 1) performs the hardware handshake a controls the DTR signal according to the rebuffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. 8 Buffer empty. | Controls B 110 | | 12. 2 Tre signal condor | [1] | |
| (e.g. 1) performs the hardware handshake a controls the DTR signal according to the buffer capacity. Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning O Data remaining in buffer. B Buffer empty. | | | | | |
| Status Instructions ESC .O Outputs the Status of Buffer, Pause of Buffer, | | | | | • |
| Status Instructions ESC .O Outputs the Status codes of PNC-950 show the table below. Outputs the Status of Buffer, Pause Outputs the Status codes of PNC-950 show the table below. Code Meaning 0 Data remaining in buffer. 8 Buffer empty. | | | | | |
| Status Instructions ESC .O Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status of Buffer, Pause Outputs the Status of PNC-950 show the table below. Code Meaning O Data remaining in buffer. 8 Buffer empty. | | | | | |
| ESC .O Outputs the Status of Buffer, Pause Code Meaning | Status Instructi | ions | <u> </u> | <u> </u> | carret supacity. |
| Outputs the Status of Buffer, Pause Code Meaning | | | None | | Outputs the status codes of PNC-950 shown in |
| of Buffer, Pause Code Meaning 0 Data remaining in buffer. 8 Buffer empty. | | [230].0 | 1.010 | | _ |
| Code Meaning 0 Data remaining in buffer. 8 Buffer empty. | • | | | | |
| 8 Buffer empty. | of Bullet, I ause | | | | |
| | | | | | |
| 16 Data remaining in huffer PNC-0 | Į į | | | | 8 Buffer empty. |
| | | | | | Data remaining in buffer. PNC-950 being paused (Pause On being displayed). |
| 24 Buffer empty. PNC-950 being | | | | | |
| paused (Pause On being displayed | | | | | paused (Pause On being displayed). |

| Instruction | Format | Parameter | Range | ([] is default) | Explanation | |
|----------------------|---------|-----------|-------|------------------|--|--|
| ESC .E | [ESC].E | None | | | Outputs an error code related to RS-232C interface | |
| Output RS-232C | | | | | (see the table below), and clears the error | |
| Error Code | | | | | simultane | eously. At the same time, the error being |
| | | | | | displayed | is canceled. |
| | | | | | | |
| | | | | | Error | |
| | | | | | 0 | No I/O errors |
| | | | | | 10 | Cause: after execution of an output |
| | | | | | | command, other output instructions are |
| | | | | | | sent before the output was not completed. |
| | | | | | | Action: let the computer to read the PNC- |
| | | | | | | 950 output by the output instruction |
| | | | | | | and then send another output instruction. |
| | | | | | 11 | Cause: an error occurs in a device |
| | | | | | | control instruction. |
| | | | | | | Action: correct your program. |
| | | | | | 12 | Cause: incorrect parameter are set to a |
| | | | | | | device control instruction (the default |
| | | | | | | value is set to the erroneous parameter) |
| | | | | | 13 | Action: correct your program. Cause: parameters are overflowing. |
| | | | | | | Action: correct your program. |
| | | | | | 14 | Cause: the number of the parameters set |
| | | | | | | is more than specified or a colon ':' was |
| | | | | | | not used to terminate. |
| | | | | | | Action: correct your program. |
| | | | | | 15 | Cause: framing error, parity error or |
| | | | | | | over-run error at the time of data receipt. |
| | | | | | | Action: match the communication |
| | | | | | | protocols of both computer and PNC- |
| | | | | | | 950 (baud rate, data bit length, |
| | | | | | 16 | stop bit length). |
| | | | | | 16 | Cause: the I/O buffer overflows. Action: This error does not occur when |
| | | | | | | hardware handshake is performed, but |
| | | | | | | may occur when software handshake is |
| | | | | | | performed. If this error occurs, check |
| | | | | | | the remaining buffer capacity of the |
| | | | | | | PNC-950 and send less data than the |
| | | | | | | remaining buffer capacity. |
| | | | | | | |
| ESC .L | [ESC].L | None | | | PNC-950 | outputs the size of the I/O buffer to |
| Output I/O buffer | [] | | | | l | outer when receiving this instruction. |
| size | | | | | 1 1 | outputs 1024 (bytes). |
| Abort Instruction | ons | 1 | | | | |
| ESC .J | [ESC].J | None | | | Aborts bo | oth the currently executed device control |
| Abort Device Control | | | | | instructio | on and output. |
| Instruction | | | | | | |
| ESC .K | [ESC].K | None | | | Continue | s to execute the CAMM-GL III instruction |
| Abort CAMM-GLIII | | | | | in operati | ion, aborts other incoming CAMM-GL III |
| Instruction | | | | | | ons and clears the data buffer. |
| ESC .R | [ESC].R | None | | | Initializes all settings established by the device | |
| Initialize Device | | | | | control instructions. Execution of [ESC].R brings | |
| Control Instruction | | | | | | states as the following device control |
| | | | | | | ons are executed. |
| | | | | | | J, [ESC].M:, [ESC].N:, [ESC].H:, |
| | | | | | [ESC].I | and [ESC].@: |