

Falcon DT2 / Falcon DT4 Programmer's Manual



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Introduction

About EZPL

The EZPL (EZ Programming Language) is a high-level label definition and printer control language. Features of EZPL are as follows:

1. The data are stored to be processed and will not be printed out until the last printing instruction is received.
2. All the printing contents can be rotated.
3. Images can be downloaded and stored.

There are three types of commands in EZPL:

- ◆ **Setup commands** – It includes printer control instructions, configuration instructions and image downloading instructions.
- ◆ **Control commands** – It includes commands that can control the printer to take action immediately, such as cleaning memory, feeding label.
- ◆ **Label Format commands** - Define the format of data that will be presented on the label, such as Line, Rectangle, Barcode, Text and image.

Rules and syntax

EZPL commands include parameter strings associated with them:

1. The syntax of commands contains capital letters as the ID for each function.
2. The lower case letters in command represent parameters.
3. Control and Setup commands use the tilde (~) and caret (^) as prefix.
4. Label Format commands have no prefix.
5. The comma (,) is the delimiter to separate each parameter, and the CR (Carriage Return) signifies the end of every command.

Example: In “~En,name,size” command, “E” is an identity letter of this image downloading command; “n”, “name” and “size” are three parameters.

Setup Commands

^Bx - Set the backward length

| | |
|-------------|--------------------------------------|
| Syntax | ^Bx |
| Parameter | x = 0~1000 (unit: mm) |
| Description | Set the backward length of the paper |

^Cx - Number of copies per label

| | |
|-------------|--|
| Syntax | ^Cx |
| Parameter | x = 1 ~ 32767 |
| Description | Set the number of copies to print for a label. |

^D+dddd.hh - Date calculation function

| | | |
|-------------|---|--|
| Syntax | ^D+dddd.hh | |
| Parameter | dddd=days in 4 digits. Set how many days to be added to the current date. hh= hours in 2 digits. Set how many hours to be added to the current time. | |
| Description | This command will set the specified days and hours forward based on the printer's current date then print it. | |
| Example | <p>In this sample, the printer will print current time and count the date that is 5 days and 12 hours after current time.</p> <pre> ^Q40,0,0 ^W100 ^AT ^L Dy2-me-dd Th:m:s ~D01,01,05,12,00,00 AD,72,96,1,1,0,0,Manufactured Date: ^D ^T AD,72,190,1,1,0,0,Expiration Date: ^D+0005.12 E </pre> | <p>(current time of the printer) Manufactured Date: 06-JAN-01 12:00</p> <p>(5 days and 12 hours after current time) Expire Date: 06-JAN-07</p> |

^Dx - Number of labels per cut

| | |
|-------------|--|
| Syntax | ^Dx |
| Parameter | x = 0, disable the cutting. x = 1 ~ 32767, number of label per cut. |
| Description | Number of labels per cut (refer to page36) |

^Ex - Stop position setting

| | |
|-------------|---|
| Syntax | ^Ex |
| Parameter | x = 0~40 (unit: mm) |
| Description | Feed the paper to specific stop position. |

^Fname - Download label format to printer

| | |
|-------------|---|
| Syntax | ^Fname data |
| Parameter | name = the name of label format (up to 20 characters) data = the data containing the label formatting command for this stored format |
| Description | Download label format to the memory of printer. After the download is completed, the printer will beep once (refer to page39). <div style="text-align: center;"> </div> <p>Duplicate name inspection: If you use the same file name, the printer will print "REPEAT FILE NAME", and the format will not be stored to the memory.</p> |

^Gn - Enable/disable See-Through sensor

| | |
|-------------|---|
| Syntax | ^Gn |
| Parameter | n = 0, disable see-through sensor (default setting) n = 1, enable see-through sensor |
| Description | The reflective sensor may not be able to detect the label gap on special label materials. For example, when printing on labels with thick liner, colored liner, or back graphics, the see-through sensor would need to be enabled, since the reflective sensor may not work correctly. *When the see-through sensor is enabled, the moveable sensor must be placed in the center of the printer. |

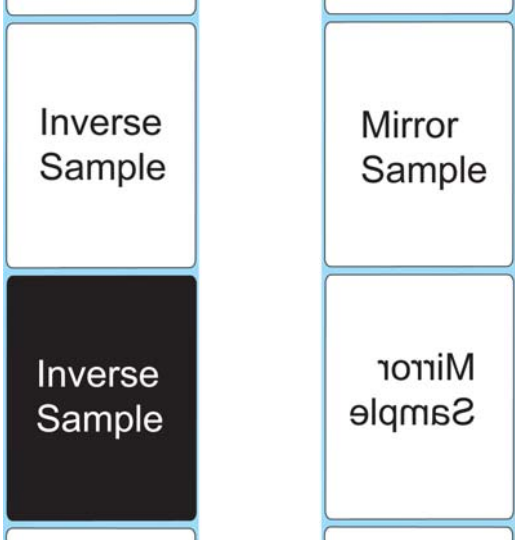
^Hx - Print darkness setting

| | |
|-------------|-------------------------------|
| Syntax | ^Hx |
| Parameter | x = 00 ~ 19 |
| Description | Set the darkness of printing. |

^Kname - Recall label format

| | |
|-------------|--|
| Syntax | ^Kname |
| Parameter | name = the name of recalled label format (up to 20 characters) |
| Description | Recall a label format stored in printer's memory (refer to page39) <div style="text-align: center;"> </div> |

^L - The start sign of label format

| | | |
|-------------|---|--|
| Syntax | ^L | |
| Parameter | Use ^L to do normal printing; ^LI to do inverse printing; ^LM to do Mirror printing. | |
| Description | Define the start sign of Label format. Commands to set up the label format should be listed after this command. | |
| Sample |  | |

^Mx - Set the forward length

| | |
|-------------|-------------------------------------|
| Syntax | ^Mx |
| Parameter | x = 0~1000 (unit: mm) |
| Description | Set the forward length of the paper |

^On - Stripper

| | |
|-------------|--|
| Syntax | ^On |
| Parameter | n = 0 , disable the stripper n = 1 , enable the stripper, disable the applicator |
| Description | Enable or disable the Stripper. When you use this command, it should be matched with ^Ex for setting the stop position. (For the stripper setting, please refer to page36) |

^PAx - Auto Print

| | | |
|-------------|--|-----------------------------------|
| Syntax | ^PAx | |
| Parameter | x=1~30000 | |
| Description | After the recall of label, printer will read variables and Serial Number and then print automatically for the number of copies that has been set. | |
| | ^Flabel1 ^Q40,0,0 ^PA3 ^L C0,0000001,+1,Counter V00,15,Variable AF,108,140,1,1,0,0,^C0 AE,122,278,1,1,0,0,^V00 E ^Klabel1 00001 Variable E | Printer will auto print 3 pieces. |

^Px - Number of pages printed

| | |
|-------------|--|
| Syntax | ^Px |
| Parameter | x = 1 ~ 32767 |
| Description | Set the amount of copies for a printing. The Serial Number will be reset for each time the command is implemented. |

^PI - Continuous printing

| | | |
|-------------|--|--|
| Syntax | ^PI | |
| Parameter | None | |
| Description | Printer will print immediately, until the "Cancel" key is pressed or the printer is turned off. | |
| Example | <pre> ^Flabel2 ^Q40,0,0 ^PI ^L C0,000001,+1,Counter V00,15,Product AF,108,140,1,1,0,0,^C0 AE,122,278,1,1,0,0,^V00 E ^Klabel2 00001 Apple E </pre> | |

^Qx,y(z±) - Label length

| | | |
|-------------|---|-----------------|
| Syntax | ^Qx,y(z±) | |
| | Gap label: (See fig. 1) x = Label length (unit: mm) y = Gap length (unit: mm) | |
| Parameter | EX. ^Q25,3 (x=25,y=3) mm | <p>Figure 1</p> |
| | Plain paper: x = Label length (unit: mm) y = 0 (constant) z = Feed paper length (unit: mm) | |
| | Black mark label: x = Label length (unit: mm) y = Black mark width (unit: mm) z = Black line to top of form position. Z+: When the position is outside the black mark. z-: When the position is within the black mark. | |
| | EX. ^Q25,4,3+ (x=25, y=4, z=3+) mm ^Q25,4,3- (x=25, y=4, z=3-) mm | <p>Figure 2</p> |
| Description | Set label size (length, gap length, [plain paper feed length]) | |

^Rx - Row column adjustment

| | |
|-------------|------------------|
| Syntax | ^Rx |
| Parameter | x = 0 ~ 399 dots |
| Description | Set left margin |

^Sx - Speed setting

| | |
|-------------|--------------------------|
| Syntax | ^Sx |
| Parameter | x=2 ~ 4 (unit: inch/sec) |
| Description | Set printing speed |

^T+hhh.mm - Time calculation function

| | | |
|-------------|--|--|
| Syntax | ^T+hhh.mm | |
| Parameter | hhh=hours in 3 digits (from 0 to 23 hours). Set how many hours to be added to the current time. mm=minutes in 2 digits. Set how many minutes to be added to the current time. | |
| Description | This command will set the specified time forward based on the printer's current time then print it. | |
| Example | This sample printer will print current time and counting after 10 hours and 30 minutes time and print: ^Q40,0,0 ^W100 ^H10 ^AT ^L ~D04,15,05,12,0,0 AF,600,102,1,1,0,0,^T AF,600,280,1,1,0,0,^T+010.30 AF,58,52,1,1,0,0,Manufactured Time : AF,54,228,1,1,0,0,Expire Time : E | (Printer's current time) Manufactured Time: 12:00:00 (10 hours and 30 minutes after current time) Expire Time: 22:30:00 |

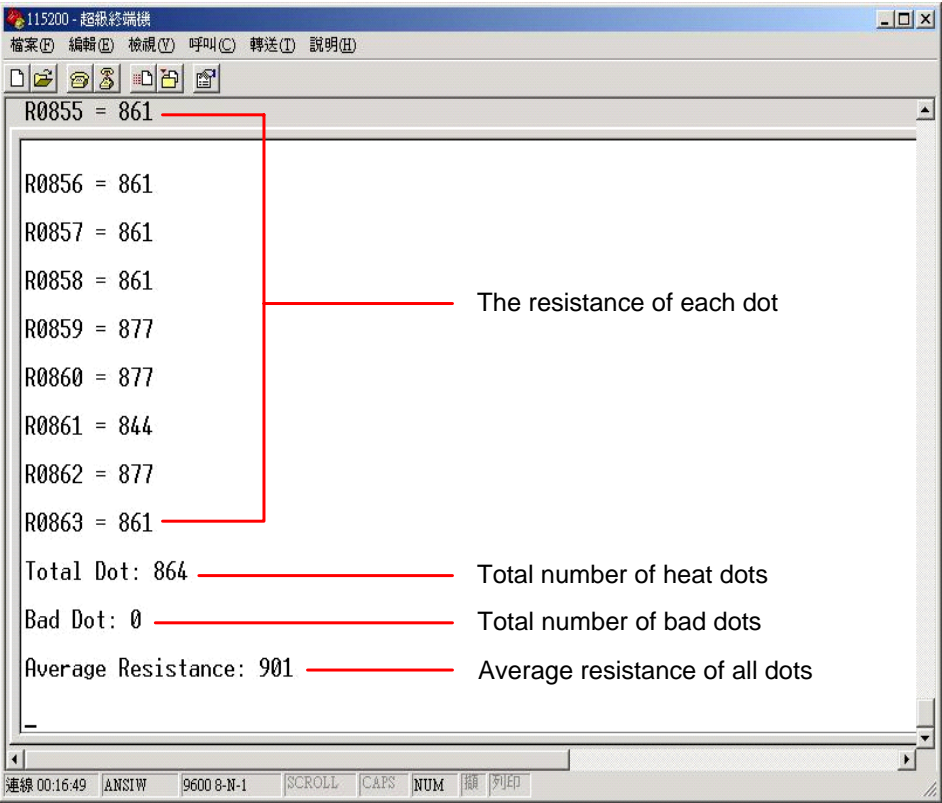
^Wx - Label width setting

| | |
|-------------|--|
| Syntax | ^Wx |
| Parameter | x=label width (unit: mm), the input range is defined by the specification of printer models. |
| Description | Label width setting |

^XGET,CONFIG - Return the configure status

| | |
|-------------|--|
| Syntax | ^XGET,CONFIG |
| Parameter | None |
| Description | The printer will return configure status (the content is same as Self Test page) from RS232 or USB and display it on Hyper Terminal. |

^XGET,TPHRESISTANCE - Dot detect

| | |
|-------------|--|
| Syntax | ^XGET,TPHRESISTANCE |
| Parameter | None |
| Description | Detect the resistance of each heat dot to check if there is any bad dot on thermal print head. |
| Example |  <pre> R0855 = 861 R0856 = 861 R0857 = 861 R0858 = 861 R0859 = 877 R0860 = 877 R0861 = 844 R0862 = 877 R0863 = 861 Total Dot: 864 Bad Dot: 0 Average Resistance: 901 </pre> <p>The resistance of each dot</p> <p>Total number of heat dots</p> <p>Total number of bad dots</p> <p>Average resistance of all dots</p> |

^XSET,ACTIVERESPONSE,n - Active response

| | |
|-------------|---|
| Syntax | ^XSET,ACTIVERESPONSE,n |
| Parameter | n=0, do not return the "ERRORxx" message to PC n=1, return the error message (default). When door open, paper out... or other error occur, the printer will return the "ERRORxx" message to PC |
| Description | Set the Active Response function on/off. |

^XSET,BUZZER,n - Set remind beep on/off

| | |
|-------------|---|
| Syntax | ^XSET,BUZZER,n |
| Parameter | n=0, remind beep function off n=1, remind beep function on |
| Description | This command can set printer remind beep on/off. When download graphic or font, printer will beep once. And use this command can turn off the remind beep function. But it can't set error beep on/off. |

^XSET,CODEPAGE,n - Select Code Page 850/852

| | |
|-------------|--|
| Syntax | ^XSET,CODEPAGE,n |
| Parameter | n= 0, code page 850 n= 1, code page 852 |
| Description | Set the code page |

^XSET,IMMEDIATE,n - Set immediate response on/off

| | |
|-------------|--|
| Syntax | ^XSET,IMMEDIATE,n |
| Parameter | n=0, set immediate response function off n=1, set immediate response function on (default) |
| Description | This command can set printer's immediate response function on/off. To implement commands that related to immediate response, the function should be turned on. |

^XSET,TOPOFFORM,n - Top of Form

| | |
|-------------|--|
| Syntax | ^XSET,TOPOFFORM,n |
| Parameter | n=0, disable Top of Form function n =1, enable Top of Form function |
| Description | Enable/Disable Top of Form function. |

^XSETCUT,DOUBLECUT,x - Double cut

| | | |
|-------------|--|--|
| Syntax | ^XSETCUT,DOUBLECUT,x | |
| Parameter | x=0, disable the doublecut x=offset length (offset length < Label length, unit: mm) | |
| Description | Set the printer to cut twice per label. | |
| Example | <pre> ^XSETCUT,DOUBLECUT,45 ^Q90,3 ^E20 ^P3 ^D1 ^L C0,001,+1,A1 AC,350,144,1,1,1,0,a^C0 AC,350,544,1,1,1,0,a^C0 E </pre> | |
| Note | This function may decrease the service life of cutter since the adhesive of label will stain the cutter. Hence it is not recommended to use this function. | |

^XSETRTC,ISOWEEKNUM,n - ISO Week

| Syntax | ^XSETRTC,ISOWEEKNUM,n | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|------------|------------|------------|------------|------------|------|------------|------------|------------|------------|------------|------------|------------|---|---|---|--|------------|------------|------------|------------|------------|------------|------------|--|------------|------------|------------|------------|------------|------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|---|---|-----|----|----|----|----|----|----|----|
| Parameter | n=0, disable the ISO Week (default) n=1, enable the ISO Week | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description | This command can set ISO week of the year to print. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Example | <p>The following figure shows the ISO Week for 1 January 2000 It is week 52 of year 1999, day 6 of the week, and day 1 of year 2000.</p> <table border="1"> <thead> <tr> <th>1999</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>2000</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> <tr> <th></th> <th><i>Mon</i></th> <th><i>Tue</i></th> <th><i>Wed</i></th> <th><i>Thu</i></th> <th><i>Fri</i></th> <th><i>Sat</i></th> <th><i>Sun</i></th> <th></th> <th><i>Mon</i></th> <th><i>Tue</i></th> <th><i>Wed</i></th> <th><i>Thu</i></th> <th><i>Fri</i></th> <th><i>Sat</i></th> <th><i>Sun</i></th> </tr> </thead> <tbody> <tr> <td>W44</td> <td>305</td> <td>306</td> <td>307</td> <td>308</td> <td>309</td> <td>310</td> <td>311</td> <td>W01</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>W45</td> <td>312</td> <td>313</td> <td>314</td> <td>315</td> <td>316</td> <td>317</td> <td>318</td> <td>W02</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>W46</td> <td>319</td> <td>320</td> <td>321</td> <td>322</td> <td>323</td> <td>324</td> <td>325</td> <td>W03</td> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>W47</td> <td>326</td> <td>327</td> <td>328</td> <td>329</td> <td>330</td> <td>331</td> <td>332</td> <td>W04</td> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> <tr> <td>W48</td> <td>333</td> <td>334</td> <td>335</td> <td>336</td> <td>337</td> <td>338</td> <td>339</td> <td>W05</td> <td>31</td> <td>32</td> <td>33</td> <td>34</td> <td>35</td> <td>36</td> <td>37</td> </tr> <tr> <td>W49</td> <td>340</td> <td>341</td> <td>342</td> <td>343</td> <td>344</td> <td>345</td> <td>346</td> <td>W06</td> <td>38</td> <td>39</td> <td>40</td> <td>41</td> <td>42</td> <td>43</td> <td>44</td> </tr> <tr> <td>W50</td> <td>347</td> <td>348</td> <td>349</td> <td>350</td> <td>351</td> <td>352</td> <td>353</td> <td>W07</td> <td>45</td> <td>46</td> <td>47</td> <td>48</td> <td>49</td> <td>50</td> <td>51</td> </tr> <tr> <td>W51</td> <td>354</td> <td>355</td> <td>356</td> <td>357</td> <td>358</td> <td>359</td> <td>360</td> <td>W08</td> <td>52</td> <td>53</td> <td>54</td> <td>55</td> <td>56</td> <td>57</td> <td>58</td> </tr> <tr> <td>W52</td> <td>361</td> <td>362</td> <td>363</td> <td>364</td> <td>365</td> <td>1</td> <td>2</td> <td>W09</td> <td>59</td> <td>60</td> <td>61</td> <td>62</td> <td>63</td> <td>64</td> <td>65</td> </tr> </tbody> </table> | | 1999 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 2000 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> | <i>Sun</i> | | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> | <i>Sun</i> | W44 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | W01 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | W45 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | W02 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W46 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | W03 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | W47 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | W04 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | W48 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | W05 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | W49 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | W06 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | W50 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | W07 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | W51 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | W08 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | W52 | 361 | 362 | 363 | 364 | 365 | 1 | 2 | W09 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| 1999 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 2000 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> | <i>Sun</i> | | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> | <i>Sun</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W44 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | W01 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W45 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | W02 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W46 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | W03 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W47 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | W04 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W48 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | W05 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W49 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | W06 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W50 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | W07 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W51 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | W08 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W52 | 361 | 362 | 363 | 364 | 365 | 1 | 2 | W09 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Program: with the ISO Week Date function | Remark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ~D1,1,0,0,0,0 ^XSETRTC,ISOWEEKNUM,1 ^Q50,0,0 ^L Dy4-mn-dd AC,58,32,1,1,0,0,Today is ^D Dwy1 AC,58,132,1,1,0,0,Week of year in one digit: ^D Dwy2 AC,58,194,1,1,0,0,Week of year in two digits: ^D E | Set the date and time Define the clock type Print the date Print the Week of year in one digit (Week of year in one digit: 52) Print the Week of year in two digits (Week of year in two digits: 52) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Program: without the ISO Week Date function | Remark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ~D1,1,0,0,0,0 ^XSETRTC,ISOWEEKNUM,0 ^Q50,0,0 ^L Dy4-mn-dd AC,58,32,1,1,0,0,NOT ISO week of year (^D) Dwy1 AC,58,132,1,1,0,0,Week of year in one digit: ^D Dwy2 AC,58,194,1,1,0,0,Week of year in two digits: ^D E | Set the date and time Define the clock type Print the date Print the Week of year in one digit (Week of year in one digit: 1) Print the Week of year in two digits (Week of year in two digits: 01) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

^XSETRTC,LANGUAGE,n - Different language layout

| | | |
|-------------|--|--|
| Syntax | ^XSETRTC,LANGUAGE,n | |
| Parameter | n=0-English 1-German 3-Spanish 2-French 4-Italian | |
| Description | This command can set the language of RTC. | |
| Example | <p>^XSETRTC,LANGUAGE,0 ^Q50,0,0 ^L AC,58,06,1,1,0,0,English Dw1 AC,58,046,1,1,0,0,Day-of-week 3 letter: ^D Dw2 AC,58,098,1,1,0,0,Day-of-week complete: ^D Dwn AC,58,144,1,1,0,0,Day-of-week number: ^D Dm1 AC,58,188,1,1,0,0,Month of year 3 letter: ^D Dm2 AC,58,240,1,1,0,0,Month of year complete: ^D Dmn AC,58,286,1,1,0,0,Month of year number: ^D E</p> <p>^XSETRTC,LANGUAGE,1 ^Q50,0,0 ^L AC,58,06,1,1,0,0,German Dw1 AC,58,046,1,1,0,0,Day-of-week 3 letter: ^D Dw2 AC,58,098,1,1,0,0,Day-of-week complete: ^D Dwn AC,58,144,1,1,0,0,Day-of-week number: ^D Dm1 AC,58,188,1,1,0,0,Month of year 3 letter: ^D Dm2 AC,58,240,1,1,0,0,Month of year complete: ^D Dmn AC,58,286,1,1,0,0,Month of year number: ^D E</p> | <p>English Day-of-week 3 letter: Thu Day-of-week complete: Thursday Day-of-week number: 4 Month of year 3 letter: Mar Month of year complete: March Month of year number: 03</p> <p>German Day-of-week 3 letter: Sam Day-of-week complete: Samstag Day-of-week number: 6 Month of year 3 letter: Nov Month of year complete: November Month of year number: 11</p> |

^XSET,SLASHZERO,n - Slashed zero

| | | |
|-------------|---|--|
| Syntax | ^XSET,SLASHZERO,n | |
| Parameter | n=0, without slash, n=1, with slash | |
| Description | Set all zero to be printed as slashed zero. | |
| Example | ^XSET,SLASHZERO,1 ^Q60,0,0 ^L AA,81,15,1,1,0,0,A0123 AB,81,41,1,1,0,0,B0123 AC,81,71,1,1,0,0,C0123 AD,81,111,1,1,0,0,D0123 AE,81,160,1,1,0,0,E0123 AF,81,230,1,1,0,0,F0123 AG,81,298,1,1,0,0,G0123 AH,81,396,1,1,0,0,H0123 E | A0123 B0123 C0123 D0123 E0123 F0123 G0123 H0123 |

^XSET,SMARTBACK,n - Smart backfeed

| | | |
|-------------|---|--|
| Syntax | ^XSET,SMARTBACK,n | |
| Parameter | n=0, OFF n=1, ON | |
| Description | This function can reduce the process time when the stripper or the cutter been used. Use this command, when the prior label is waiting for cut or strip, the partial contents of the next label will be printed. After the label has been cut or stripped, the printer will continue print the rest contents of the next label. | |
| Example | (For stripper) ^XSET,SMARTBACK,1 ^Q100,3 ^E30 ^O1 ^P3 ^L R18,18,750,774,10,10 E (For Cutter) ^XSET,SMARTBACK,1 ^Q100,3 ^E30 ^D1 ^P3 ^L R18,18,750,774,10,10 E | 1. Printer will print out first label and part of second label 2. After taking label away, printer continues printing second label and part of third label. 3. After taking label away, printer print out third label. |

^Yb,p,d,s - Serial Port communication setting

| | |
|-------------|--|
| Syntax | ^Yb,p,d,s |
| Parameter | b: Baud Rate (48 or 96 or 19 or 38 or 57 or 11); 48=4800bps; 96=9600bps; 19=19200bps; 38=38400bps; 57=57600bps; 11=115200bps p: Parity (N, O, E); N=none parity; O=odd parity; E=even parity d: Number of data bits (7 or 8) s: Number of stop bits (1 or 2) |
| Description | Serial Port communication setting |

Control Commands

~B - Display the version message from RS-232

| | |
|-------------|--|
| Syntax | ~B |
| Parameters | None |
| Description | Show the version number of firmware on Hyper Terminal. |

~Dm,d,y,h,i,s - Date/Time setting

| Syntax | ~Dm,d,y,h,i,s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|---|------|------|------|------|------|------|------|--|--|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| Parameter | m = Month (01 to 12) d = Date (01 to 31) y = Year (last two digits of year) | h = Hour (00 to 23) i = Minutes (00 to 59) s = Seconds (00 to 59) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description | Set real time clock of the printer. For format setting of the date, use the Daa bb cc command. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Example | ~D12,22,04,11,11,11 ^L Dwn AD,182,145,1,1,0,0,^D Dw2 AD,135,186,1,1,0,0,^D Dw1 AD,168,226,1,1,0,0,^D Dmn/dd/y2 AD,126,110,1,1,0,0,^D E | <p>The following form shows the date for December 2004.</p> <table border="1"> <thead> <tr> <th>Sun.</th> <th>Mon.</th> <th>Tue</th> <th>Wed.</th> <th>Thu.</th> <th>Fri.</th> <th>Sat.</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> </tr> <tr> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> </tr> <tr> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> </tr> <tr> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td>31</td> <td></td> </tr> </tbody> </table> <p>The print result as below.</p> <p>12/22/04 3 Wednesday Wed</p> | Sun. | Mon. | Tue | Wed. | Thu. | Fri. | Sat. | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | |
| Sun. | Mon. | Tue | Wed. | Thu. | Fri. | Sat. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

~En, name, size - Download graphic to memory

| | |
|-------------|---|
| Syntax | ~En, name, size |
| Parameters | n = P or p: PCX file n = B or b: BMP file name: Name of image (up to 20 character) size: Size of image (bytes), maximum 512K byte. |
| Description | Download monochrome image onto memory. Printer will beep once after downloaded completed. If the file name of graph is duplicated, the printer will show "REPEAT FILE NAME", and the download will not be accepted (refer to page38). |

~G - Graphic mode

| | |
|-------------|---|
| Syntax | ~G |
| Parameter | None |
| Description | Set the printer to image-receiving mode. The image data is sent directly from host to the printing buffer (refer to page37) |

~H,TTF,name,size<CR>data - Download true type font

| | |
|-------------|--|
| Syntax | ~H,TTF,name,size<CR>data |
| Parameter | name = font name, accepted values: from A to Z size = size of font in bytes data: TTF file |
| Description | True type font can be downloaded by QLabel IV. |

~H,TTF_TABLE,name,size<CR>data - Download Unicode Table

| | |
|-------------|--|
| Syntax | ~H,TTF_TABLE,name,size<CR>data |
| Parameter | name = font name, accepted values: from A to Z size = size of font in bytes data: TTF file |
| Description | Download the Unicode Table for printing True Type Font. |

~Jx - Bit-Mapped font download

| | | |
|-------------|---|------------------------------------|
| Syntax | ~Jx | |
| Parameters | x = character; From a ~ z or A ~ Z; the amount is up to 26 characters. | |
| Description | The command used for font loading is usually generated by QLabel label creation software. The printer will beep once after downloaded. If you use the same file name, the printer will show "REPEAT FILE NAME", and the download will not be accepted. The downloaded font is compatible with the HP Laser Jet II Plus (PCL-4). | |
| Example | Download the "HVR0OE1A.SFP" text file to external memory card. Use "A" to do the character code name. | |
| | ~JA | ; Define A as HVR0OE1A.SFP |
| | COPY HVR0OE1A.SFP PRN/B | ; Send the order with the DOS mode |

~Kn - Response from RS-232

| | |
|-------------|--|
| Syntax | ~Kn |
| Parameter | n = 0, disable. n = 1, enable. |
| Description | Respond a "Y" signal from RS-232 back to host after each printing is done. |

~L,DBASE,x,y - Download dBase III to Printer

| | |
|-------------|--|
| Syntax | ~L,DBASE,x,y data... |
| Parameter | x=database name y=database size (unit: byte) |
| Description | This command can download dBase III file to printer. |
| Example | ~L,DBASE,customer,364 ...(Data of customer.dbf) |

~L,SERIAL,name,data - Download serial file to printer

| | |
|-------------|--|
| Syntax | ~L,SERIAL,name,data... |
| Description | name = serial file name data = serial file data |
| Example | Download serial file to printer. |

~MDEL - Clear all memory of printer

| | |
|-------------|---|
| Syntax | ~MDEL |
| Parameter | None |
| Description | Clear all memory of printer (Asia font is not included) |

~MDELn,name - Delete specific file from memory

| | | |
|-------------|---|-----------------------------------|
| Syntax | ~MDELn,name | |
| Parameter | n= D, database A, Asia font C, TTF font E, Bit-Mapped font F, label form G, graphic S, serial file T, text B, Unicode Table name: The name of the graphic, form, Bit-Mapped font or others. *Note: The 'name' of Asia font, TTF font and Unicode Table is ID tag. | |
| Description | Delete specific file from printer's memory | |
| Example | ~MDELD,customer | Delete "customer" database. |
| | ~MDELG,Bus | The graphic "Bus" will be deleted |

~MDIR - Get memory state from printer

| | |
|-------------|---|
| Syntax | ~MDIR |
| Parameter | None |
| Description | Show the information of memory from printer |
| Example | |

~MGETS,name - Get Serial File information

| | |
|-------------|--|
| Syntax | ~MGETS,name |
| Parameter | name= serial file name |
| Description | Show the serial file information on Hyper Terminal |
| Example | <p>(Get the information of serial file "new" from printer)</p> <p>~MGETS,new</p> |

~MSETT,name<CR>nnnnnnnn<data> - Save the TXT. file to printer

| | |
|-------------|--|
| Syntax | ~MSETT,name<CR>nnnnnnnn<data> |
| Parameter | name= the name of saved nnnnnnnn= data size (8 digits) data= data of saved |
| Description | Save the TXT. file to printer. |

~MGETT,name<CR> - Read saved file

| | |
|-------------|---|
| Syntax | ~MGETT,name<CR> |
| Parameter | name= the name of saved |
| Description | Read the saved file from printer. |
| Example | <p>Use "~MSETT, text1<CR>00000015Text file test2" to save data to printer.</p> <p>Then use "~MGETT,name<CR>" command to read saved data</p> <p>Example: ~MGETT,text1</p> <p>Hyper Terminal will show: Text file test2</p> |

~Px - Print last label

| | |
|-------------|--|
| Syntax | ~Px |
| Parameter | x = 1 ~ 32767 |
| Description | This command will repeatedly print the specific copies of the last label format. |

~Q±x - Row Offset Adjustment

| | |
|-------------|--|
| Syntax | ~Q±x |
| Parameter | X=-100 ~ +100 |
| Description | If the printing does not appear in the same place on every label, this command instructs the printer to print label formats. The "+n" move the position that the format specifies upward, and the "-n" move the position downward. |

~Rx - Rotate printing

| | |
|-------------|--|
| Syntax | ~Rx |
| Parameter | x=label width (unit: mm), the input range is defined by the specification of printer models. |
| Description | Rotate the label format 180-degrees when printing (refer to page38). To return to the original print direction, set the x value greater than the max width of model's specification. |

~S,CHECK - Status immediate response command

| | |
|-------------|---|
| Syntax | ~S,CHECK |
| Parameter | None |
| Description | The HyperTerminal will show the status of printer in "aa,nnnnn<CR><LF>" format. aa = printer status information: 00 – Ready 01 – Paper out 02 – Paper jam or miss gap 03 – Ribbon out 04 – Print head is up 05 – Rewinder full 06 – Memory is full 07 – filename can not be found 08 – filename is repeat 09 – Syntax error 20 – Pause 21 – In Setting Mode 22 – In Keyboard Mode 60 – Printing job in queue nnnnn = number of remaining labels, the value is from 00000 to 99999 *Note: Before using this command, the "^XSET,IMMEDIATE" (Set immediate response on/off) command should be turned on. |

~S,n - Analogue press control keys

| | |
|-------------|---|
| Syntax | ~S,n |
| Parameter | n = FEED n = PAUSE n = UNPAUSE |
| Description | This command can analogously press function keys on the printer. Key in "~S,FEED" via COM port can generate the same action as pressing the "FEED" key. Key in "~S,PAUSE" via COM port and the printing will be paused. Key in "~S,UNPAUSE" via COM port and the printing will continue. |

~T - Print head testing

| | |
|-------------|---|
| Syntax | ~T |
| Parameter | None |
| Description | Print a pattern for the user to determine if the print head is damaged (refer to page40). |

~V - Print Self-Test page

| | |
|-------------|-------------------------------|
| Syntax | ~V |
| Parameter | None |
| Description | Print out the Self-Test page. |

~Xn - Print the available space and file information in the memory

| | |
|-------------|---|
| Syntax | ~Xn |
| Parameter | n = 1, print label format names and available space in memory. n = 2, print graphic names and available space in memory. n = 3, print Bit-Mapped font names and available space in memory. n = 4, print the name of the label formats, graphics, fonts, and available space in memory. n = 5, print Asia font names and available space in memory |
| Description | Print the available space in the memory (unit: bytes) |

~X7 - Print database information in memory

| | |
|-------------|--------------------------------------|
| Syntax | ~X7 |
| Parameter | None |
| Description | Print database information in memory |

~X8 - Print serial file name

| | |
|-------------|--------------------------------------|
| Syntax | ~X8 |
| Parameter | None |
| Description | Print serial file name from printer. |

~Z - Reset printer

| | |
|-------------|--|
| Syntax | ~Z |
| Parameter | None |
| Description | Reset the printer and the LED will flash once. |

Label formatting commands

At, x, y, x_mul, y_mul, gap, rotationInverse, data - Text

| Syntax | At, x, y, x_mul, y_mul, gap, rotationInverse, data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|-------------------------------|--------|------------|---|---|-------------------------------|---|---|-------------------------------|---|----|-------------------------------|---|----|-------------------------------|---|----|-------------------------------|---|----|-------------------------------|---|----|-------------------------------|---|----|-------------------------------|---|-------------------------------|--|---|------------|--|---|------------|--|--------|-----------------------|--|
| Parameter | <p>t: Font type, see table below.</p> <table border="1"> <thead> <tr> <th>Font</th> <th>Points</th> <th>Font style</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>6</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>B</td> <td>8</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>C</td> <td>10</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>D</td> <td>12</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>E</td> <td>14</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>F</td> <td>18</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>G</td> <td>24</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>H</td> <td>30</td> <td>CG Triumvirate, Code page 850</td> </tr> <tr> <td>I</td> <td colspan="2">16x26 dots for US ASCII 8 bit</td> </tr> <tr> <td>K</td> <td colspan="2">OCR-B font</td> </tr> <tr> <td>L</td> <td colspan="2">OCR-A font</td> </tr> <tr> <td>t = Zn</td> <td colspan="2">Asia font from 1 to 4</td> </tr> </tbody> </table> <p>x: Hori of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) y: Vert of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) x_mul: Horizontally magnified up to 8 times as large y_mul: Vertically magnified up to 8 times as large gap: Distance of the character (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) rotationInverse: The rotation of ASCII text from 0 to 3, the Asian text rotation form 0 to 7 0) 0° 1) 90° 2) 180° 3) 270° 4) 0° 5) 90° 6) 180° 7) 270° In addition, if the rotation parameter is followed with "I", the text will be printed in inverse font. data: Data string (up to 239 characters).</p> | Font | Points | Font style | A | 6 | CG Triumvirate, Code page 850 | B | 8 | CG Triumvirate, Code page 850 | C | 10 | CG Triumvirate, Code page 850 | D | 12 | CG Triumvirate, Code page 850 | E | 14 | CG Triumvirate, Code page 850 | F | 18 | CG Triumvirate, Code page 850 | G | 24 | CG Triumvirate, Code page 850 | H | 30 | CG Triumvirate, Code page 850 | I | 16x26 dots for US ASCII 8 bit | | K | OCR-B font | | L | OCR-A font | | t = Zn | Asia font from 1 to 4 | |
| Font | Points | Font style | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 6 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 8 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | 10 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | 12 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E | 14 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F | 18 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G | 24 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H | 30 | CG Triumvirate, Code page 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | 16x26 dots for US ASCII 8 bit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | OCR-B font | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | OCR-A font | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| t = Zn | Asia font from 1 to 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description | Prints an ASCII or ASIA text string (refer to page34). The ASCII text oriented form left to right, the Asian text from left to right or top to bottom. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Rotation Para 0</p> <p>Rotation Para 1</p> <p>Rotation Para 2</p> <p>Rotation Para 3</p> <p>Rotation Para 4</p> <p>Rotation Para 5</p> <p>Rotation Para 6</p> <p>Rotation Para 7</p> </div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Rotation Para 0</p> <p>Rotation Para 1</p> <p>Rotation Para 2</p> <p>Rotation Para 3</p> <p>Rotation Para 4</p> <p>Rotation Para 5</p> <p>Rotation Para 6</p> <p>Rotation Para 7</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">Text Rotation</div> <div style="text-align: center;">Rotation with Inverse</div> </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AT,x,y,w,h,g,r,d,m,data - Print built-in true type font

| | |
|---------------------|---|
| Syntax | AT,x,y,w,h,g,r,d,m,data |
| Parameter | x: Hori of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) y: Vert of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) w: The width of font (8~2000 dot) h: The height of font (8~2000 dot) g: Space between characters (0~200 dot) r: The rotation of font from 0 to 3 0) 0° 1) 90° 2) 180° 3) 270° d: DType → 0: ASCII A~Z: Unicode table m: m = 0 → width/height AspectRatio mode m = 1 → Average width mode (refer to Further Information) data: Data to be printed <i>*Portions of this software are copyright 2000-Feb-08 The FreeType Project (www.freetype.org).</i> |
| Description | Print built-in True Type Font (TTF). |
| Further Information | In width/height AspectRatio mode (m = 0): When the width (w) and the height (h) of TTF are equal, the printing result of TTF will be exactly the same with Windows font. There is a formula to calculate the Windows font size from TTF size: $TTFheightsize = WindowsFontsize * dpi / 72$ For example, if user want to print Windows font 72pt on 203dpi printer, then the $TTFheightsize = 72 * 203 / 72 = 203$. And the $TTFwidthsize$ should be equal to $TTFheightsize$, which is 203. As a result, when the width and height of TTF both are 203, the printout will be the same with Windows font 72pt. In Average width mode (m = 1): The height in dot is calculated the same as width/height AspectRatio mode, but the width is the average width in dots. If width=0, a 1:1 aspect ratio font is rendered. |

【Note】

For conversion: 1mm = 8 dots when printing with 203dpi printer; 1mm = 12 dots when printing with 300dpi printer.

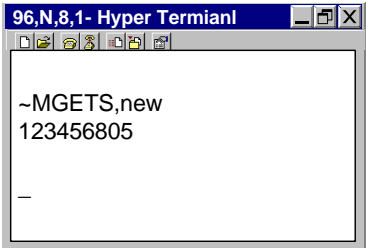
ATt,x,y,w,h,g,r,d,m,data - Print downloaded true type font

| | |
|---------------------|---|
| Syntax | ATt,x,y,w,h,g,r,d,m,data |
| Parameter | t: TTF type, accepted values: from A to Z x: Hori of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) y: Vert of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) w: The width of font (8~2000 dot) h: The height of font (8~2000 dot) g: Space between characters (0~200 dot) r: The rotation of font from 0 to 3 0) 0° 1) 90° 2) 180° 3) 270° d: DType → 0: ASCII A~Z: Unicode table m: m = 0 → width/height AspectRatio mode m = 1 → Average width mode (refer to Further Information) data: Data to be printed |
| Description | Print downloaded True Type Font. |
| Further Information | In width/height AspectRatio mode (m = 0): When the width (w) and the height (h) of TTF are equal, the printing result of TTF will be exactly the same with Windows font. There is a formula to calculate the Windows font size from TTF size: $TTFheightsize = WindowsFontsize * dpi / 72$ For example, if user want to print Windows font 72pt on 203dpi printer, then the $TTFheightsize = 72 * 203 / 72 = 203$. And the $TTFwidthsize$ should be equal to $TTFheightsize$, which is 203. As a result, when the width and height of TTF both are 203, the printout will be the same with Windows font 72pt. In Average width mode (m = 1): The height in dot is calculated the same as width/height AspectRatio mode, but the width is the average width in dots. If width=0, a 1:1 aspect ratio font is rendered. |

Bt,x,y,narrow,wide,height,rotation,readable,data - Barcode

| | | | | |
|-----------|---|---------------------------|------|------------------------------------|
| Syntax | Bt,x,y,narrow,wide,height,rotation,readable,data | | | |
| Parameter | t: Barcode type, see table below. | | | |
| | type | Barcode | type | Barcode |
| | A | Code 39 | P | Code 93 |
| | A2 | Code 39 with check digit | Q | Code 128 (auto subset A/B/C) |
| | B | EAN 8 | Q2 | Code 128 (subset A/B/C) |
| | C | EAN 8 - Add ON 2 | R | UCC 128 |
| | D | EAN 8 - Add ON 5 | S | Post NET |
| | E | EAN 13 | T | DUN 14 ONLY 90 |
| | F | EAN 13 – Add ON 2 | U | EAN 128 |
| | G | EAN 13 – Add ON 5 | V | RPS 128 |
| | H | UPC A | W | China Postal Code |
| | I | UPC A - Add ON 2 | X | HIBC |
| | J | UPC A - Add ON 5 | Y | Plessey |
| | K | UPC E | Z | I 2 of 5 with Shipping Bearer Bars |
| | L | UPC E - Add ON 2 | 1 | UCC/EAN-128 K-MART |
| | M | UPC E - Add ON 5 | 2 | UCC/EAN-128 RANDAN |
| | N | I 2 of 5 | 3 | Telepen |
| | N2 | I 2 of 5 with check digit | 4 | FIM |
| | O | Codabar | | |
| | <p>x: Hori. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots) y: Vert. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots) narrow (x dimension): narrow bar from 1 ~ 10 dots (0.125 ~ 1.25 mm) **DUN 14 narrow setting from 5 ~ 8 dots; UPC/EAN narrow setting from 2 ~ 4 dots ** wide: wide bar from 2 ~ 30 dots (0.25 ~ 0.5 mm) ; **CODE 39, 93, CODABAR & I 2 of 5** height: Barcode height in dots (24 ~ 1200 dots) rotation: rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° readable: 0 – human readable off 3 – below barcode, centered 6 – above right 1 – below barcode, left 4 – above barcode, centered 2 – above barcode, left 5 – below right data: barcode data.</p> | | | |

C#x,y,±value,z - Print count with serial file

| | | |
|-------------|---|--|
| Syntax | C#x,y,±value,z | |
| Parameter | X= counter index Y= serial file name ±value= ±value of serial variable (up to 12-digit) Z='0'~'9' or 'B' for decimal, 'A' for hexadecimal, 'C' for 0~9,A~Z | |
| Description | Set print count with serial file by this command. | |
| Example | ~L,SERIAL,new,123456795 | Download the new file to printer first |
| | Turn printer off Turn printer on. Print again. ^Q60,0,0 ^P5 ^L C#0,new,+1,0 AG,50,137,1,1,0,0,^C0 E | Print Result: 123456800 123456801 123456802 123456803 123456804 |
| | Key in ~MGETS,new in HyperTerminal |  |

Cx,ys,±value,prompt - Serial number setting

| | | |
|-------------|---|--|
| Syntax | Cx,ys,±value,prompt | |
| Parameter | <p>x: 0 to 9(up to10group), maximum combination up to 3 groups. y: select the decimal y = none, Decimal (0~9) y = A, Hexadecimal (0~9,A~F) y = C, 0~9, A~Z s: start value of serial variable (up to 13-digit). You can use the leading spaces to replace the leading zeros. ±value: ±value of serial variable (up to 12-digit) prompt: prompt of serial variable (up to 20 characters)</p> | |
| Description | Set the serial number (refer to page37) | |
| Example | <p>^Q50,0,0 ^W100 ^H10 ^P3 ^L Dy2-me-dd Th:m:s C0,000,+1,Prompt C1, 1,+1,Prompt C2,AEE,+1,Prompt1 C3,CZYY,+1,Prompt2 AC,80,10,1,1,0,0,decimal with leading zeros: ^C0 AC,80, 80,1,1,0,0,decimal with leading spaces: ^C1 AC,80,160,1,1,0,0,hexadecimal: ^C2 AC,80,240,1,1,0,0, 0~9 A~Z: ^C3 E</p> | <div data-bbox="1061 526 1394 705" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>decimal with leading zeros: 002 decimal with leading spaces: 3 hexadecimal: F0 0~9 A~Z: ZZ0</p> </div> <div data-bbox="1061 734 1394 913" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>decimal with leading zeros: 001 decimal with leading spaces: 2 hexadecimal: EF 0~9 A~Z: ZYZ</p> </div> <div data-bbox="1061 943 1394 1122" style="border: 1px solid black; padding: 5px;"> <p>decimal with leading zeros: 000 decimal with leading spaces: 1 hexadecimal: EE 0~9 A~Z: ZYY</p> </div> |

Daa|bb|cc - Define date layout

| | | | |
|-------------|---|---|---|
| Syntax | Daa bb cc | | |
| Parameter | <p>aa = Year y2: Year with two digits (such as 97) y4: Year with four digits (such as 1997)</p> <p>bb = Month me: Month in letters (JAN, FEB,) mn: Month in numeric (01, 02,)</p> <p>cc = day of 2 digits = Partition, can be any ASCII character from decimal 32 to 63.</p> <p>Djj1: Julian calendar format(YYDD) Djj2: Julian calendar format(YDDD) Dwy1: week of year format(W) Dwy2: week of year format(WW) Dwn: day-of-week as number value Dw1: day-of-week as 3 letter abbreviation Dw2: day-of-week as complete Dm1: month of the year as 3 letter abbreviation Dm2: month of the year as a complete name</p> | | |
| Description | Define the date layout for print out | | |
| Example | <p>^Q100,0,0 ^W100 ^L Dy2-me-dd AD,36,40,1,1,0,0,^D Djj1 AD,36,80,1,1,0,0,^D Dwy1 AD,36,120,1,1,0,0,^D Dw1 AD,36,160,1,1,0,0,^D Dm1 AD,36,200,1,1,0,0,^D</p> <p>Dy4/mn/dd AD,36,280,1,1,0,0,^D Djj2 AD,36,320,1,1,0,0,^D Dwy2 AD,36,360,1,1,0,0,^D Dw2 AD,36,400,1,1,0,0,^D Dm2 AD,36,440,1,1,0,0,^D Dwn AD,36,530,1,1,0,0,^D AC,228,82,1,1,0,0,julian date format AC,228,124,1,1,0,0,week of year format AC,228,166,1,1,0,0,day-of-week as 3 letter abbreviation AC,228,210,1,1,0,0,month of the year as 3 letter abbreviation AC,228,318,1,1,0,0,julian date format AC,228,360,1,1,0,0,week of year format AC,228,402,1,1,0,0,day-of-week as complete AC,228,446,1,1,0,0,month of the year as a complete name AC,228,532,1,1,0,0,day-of-week as number value AC,228,40,1,1,0,0,Date layout AC,228,274,1,1,0,0,Date layout E</p> | <p>05-APR-15 5105 15 Fri Apr</p> <p>2005/04/15 05105 15 Friday April</p> <p>5</p> | <p>Date layout Julian date format Week of year format Day of week as 3 letter abbreviation Month of the year as 3 letter abbreviation</p> <p>Date layout Julian date format Week of year format Day-of-week as complete Month of the year as a complete name</p> <p>Day of week as number value</p> |

E - Terminate label formatting mode and print label

| | |
|-------------|---|
| Syntax | E |
| Parameter | None |
| Description | End of formatting command; printer will print label after receiving this command. |

FILEDB,OPEN,name - Open database

| | |
|-------------|-------------------------------|
| Syntax | FILEDB,OPEN,name |
| Parameter | name=the name of the database |
| Description | Open a database for printing. |
| Example | FILEDB,OPEN,customer |

FILEDB,MOVE,n - Move data record

| | |
|-------------|--|
| Syntax | FILEDB,MOVE,n |
| Parameter | n: Move the point of record in demand. n = number n = FIRST, the first record n = LAST, the last record n = NEXT, the next record n = PRIOR, the prior record |
| Description | Use variable or counter to select a specific record from the database. |
| Example | FILEDB,MOVE,3 Move to third record FILEDB,MOVE,FIRST Move to first record FILEDB,MOVE,NEXT Move to next record |

FILEDB,FIND,x,y - Searching from database

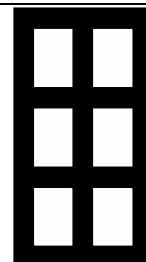
| | |
|-------------|---|
| Syntax | FILEDB,FIND,x,y |
| Parameter | x=Column name in database file y=Keyword for searching |
| Description | Select a specific record form database and print it. |
| Example | Download database "customer" : ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,PHONE,V00 FILEDB,FIND,NAME,Mary AC,79,120,1,1,0,0, Marry's phone: ^V00 E Find Mary's data and print it. |

Gwxxx - Graphic command

| | |
|-------------|---|
| Syntax | Gwxxx |
| Parameter | wxxx... w: byte number of image data xxx...: image data |
| Description | This command is a sub-command of ~G It is sent by binary data. W is the digits number byte of image data (refer to page37). For example, if the image file is 50 bytes, the command is G2xxx . (2: ASCII is 50 decimal) |

Hx,y,col_count,row_count,col_width,row_width,line_width - Table

| | |
|-------------|---|
| Syntax | Hx,y,col_count,row_count,col_width,row_width,line_width |
| Parameter | x: left-upper Hori .pos. (unit: dots) y: left-upper Vert. Pos. (unit: dots) col_count: numbe of columns row_count: number of rows col_width: column width row_width: row width line_width: line width |
| Description | Draw a table in the label. |
| Example | H20,20,2,3,20,30,10 |



La,x, y, x1, y1 - Line command

| | | |
|-------------|--|--|
| Syntax | La,x, y, x1, y1 | |
| Parameter | <p>a = o, overwrite the line on the bottom a = e, exclusive the line on the bottom x: left-up; per horizontal(Hori.) pos. (unit: dots; 1mm= 8dots or 12 dots) y: left-upper vertical (Vert.) pos. (unit: dots) x1: right-bottom Hori. Pos. (unit: dots) y1: right-bottom Vert. Pos. (unit: dots)</p> | |
| Description | Define a line to render in the label (refer to page35) *Note: The diagonal line draw is not available. | |


Mx, y, sno, nos, mode, ccode, zip, class, rotation, message - Maxicode

| | |
|-------------|---|
| Syntax | Mx, y, sno, nos, mode, ccode, zip, class, rotation, message |
| Parameter | <p>x: Hori. of left-bottom pos. of barcode (unit: dots). y: Vert. of left-bottom pos. of barcode (unit: dots). sno: symbol number, in set of symbols : 1 ~ 8. nos: number of symbols in set of symbols : 1 ~ 8 sets. mode: mode of maxicode 2, 3, 4 or 6. ccode: 3 digits country code. zip: postal code 9 digits for US style postal code. If there is a 5 digits zip code, 4 zeros must be padded 6 digits alphanumeric zip code for non-US style postal code. class: service class, 3 digits numeric. rotation: rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° message: 1 ~ 84 characters.</p> |
| Description | Print a 2 dimensional Maxicode (refer to page35) |

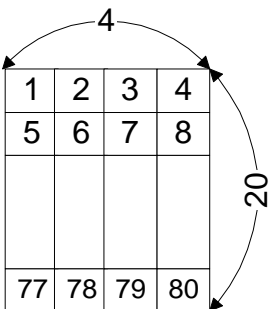
Px,y,w,h,r,c,ec,len - PDF 417

| | |
|-------------|--|
| Syntax | Px,y,w,h,r,c,ec,len Data |
| Parameters | <p>x= Hori. of left-bottom pos. of barcode (unit: dots) y= Vert. of left-bottom pos. of barcode (unit: dots) w= Width (x dimension) of the narrowest element (bar or space) in the barcode. h= Height (y dimension) of each barcode row in the symbol. r= number of barcode rows, from 3 to 90. If you key in 0, printer will count all the rows. c= number of barcode columns, from 1 ~ 30. If you key in 0, printer will count the all columns. ec= error correction level: 0 ~ 8. len= number of encoded data bytes, including carriage returns ↵ and line feed. Data= data to be encoded(the length of the data is equal to len; up to 1024 characters)</p> |
| Description | Print a 2 dimensional PDF417 code (refer to page35) |

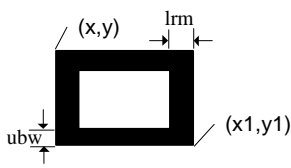
PCx,y,w,h,r,c,ec,max_len,rotation - PDF 417 with variable length data

| | | |
|-------------|---|---|
| Syntax | PCx,y,w,h,r,c,ec,max_len,rotation | |
| Parameter | x= Hori. of left-bottom pos. of barcode (unit: dots) y= Vert. of left-bottom pos. of barcode (unit: dots) w= Width (x dimension) of the narrowest element (bar or space) in the barcode. h= Height (y dimension) of each barcode row in the symbol. r= number of barcode rows, from 3 to 90. If you key in 0, printer will count all the rows. c= number of barcode columns, from 1 ~ 30. If you key in 0, printer will count the all columns. ec= error correction level: 0 ~ 8. max_len= max of number encoded data bytes, including carriage returns ␣ and line feed. rotation= rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° | |
| Description | To adjust the PDF 417 data length by this command | |
| Example | ^Q50,0,0 ^L PC141,104,3,5,3,3,3,50 &*0123456789 Line2 Line3 9876543210&* E | (Data read from CCD: 0123456789[CR][LF]Line2[CR][LF]Line3[CR][LF]9876543210)  |

Qx, y, width, height - Pattern command

| | | |
|-------------|--|---|
| Syntax | Qx, y, width, height Data... | |
| Parameters | x = Hori. of left-bottom pos. (unit: dots). y = Vert. of left-bottom pos. (unit: dots). width = width of graphic (unit: byte) height = height of graphic (unit: dots) (data length = width x height) | |
| Description |  | Data send out 1 2 3 477 78 79 80 width = 4 ; height = 20 (data length: 4x20 = 80) (refer to page38) |

Rx, y, x1,y1, lrw, ubw - Rectangle

| | | |
|-------------|---|--|
| Syntax | Rx, y, x1,y1, lrw, ubw | |
| Parameter | x = left-upper Hori .pos. (unit: dots) y = left-upper Vert. Pos. (unit: dots) x1 = right-bottom Hori. Pos. (unit: dots) y1 = right-bottom Vert. Pos. (unit: dots) lrw = thickness of left, right border (unit: dots) ubw = thickness of upper bottom border (unit: dots) |  |
| Description | Draw a rectangle in the label (refer to page35) | |

Th|m|s - Define time layout formatting

| | | |
|-------------|--|--|
| Syntax | Th m s | |
| Parameter | h = Hour format (2 digits, 00 ~ 23) m = Minute format (2 digits, 00 ~ 59) s = Second format (2 digits, 00 ~ 59) = Partition (It can be any separator between dec. 32 to 63 of ASCII). | |
| Description | Define the time layout for internal real-time clock (refer to page34) | |

V#ADD,name,size,prompt - Store variable with a name

| | | |
|-------------|---|---|
| Syntax | V#ADD,name,size,prompt | |
| Parameters | name= descriptive name size= number of character prompt= prompt of variable | |
| Description | The name of the variable can be defined by user. | |
| Example | <pre> ~MDELf,aaa ^Faaa ^Q50,0,3 ^AD ^L V#ADD,weight,10,Weight V#ADD,date,15,Date AE,7,46,1,1,0,0,Weight is ^(weight) AE,7,86,1,1,0,0,Date is ^(date) E ^Kaaa 16 kg 11/26/2004 E ~P1 </pre> | <pre> Weight is 16 kg Date is 11/26/2004 </pre> |

V#ADDCHKSUM,x - Add modulus 10 check code

| | | |
|-------------|---|--|
| Syntax | V#ADDCHKSUM,x | |
| Parameters | x= variable | |
| Description | Add the modulus 10 check code to x | |
| Example | <pre> Add modulus 10 check code to V00 ~MDELf,test ^Ftest ^Q60,0,0 ^L V00,16,Prompt V#ADDCHKSUM,V00 AE,47,57,1,1,0,0,Date: ^V00 E ^Ktest 111222333 E ~P1 </pre> | <pre> Print result Enter Variable value 111222333 Print result 1112223332 </pre> |

V#LINKDB,x,y - Set a Variable name for dBase data

| | | |
|-------------|--|--|
| Syntax | V#LINKDB,x,y | |
| Parameter | x= Column name of database y= Variable | |
| Description | Before using this command, a dBase data should opened first, and then can link dBase data to print designate data out. | |
| Example | Please refer to page42 | |

V#OPx,p1,p2,p3 - Variable calculation

| | | |
|-------------|---|---|
| Syntax | V#OPx,p1,p2,p3 | |
| Parameters | x=+, -, *, /, % ; p1,p2,p3= variable x=+, p1=p2+p3 x=-, p1=p2-p3 x=*, p1=p2*p3 x=/, p1=p2/p3 x=%, p1=p2%p3 | |
| Description | This command can calculate variables. (refer to page41) | |
| Example | V#OP+,V00,V01,V02 V#OP-,V00,V01,V02 V#OP*,V00,V01,V02 V#OP/,V00,V01,V02 V#OP%,V00,V01,V02 | V00=V01+V02 V00=V01-V02 V00=V01*V02 V00=V01/V02 V00=V01%V02 |

V#RENAME,name,x - Variable rename

| | | |
|-------------|---|---------------------------------------|
| Syntax | V#RENAME,name,x | |
| Parameters | name= new name of the variable (max 8 characters) x= variable | |
| Description | Rename the variable. | |
| Example | ~MDELf,aaa ^Faaa ^Q50,0,3 ^AD ^L V00,10,Prompt V01,10,Prompt V#RENAME,weight,V00 V#RENAME,date,V01 AE,7,46,1,1,0,0,Weight is ^(weight) AE,7,86,1,1,0,0,Date is ^(date) E ^Kaaa 16 kg 11/20/2004 E ~P1 | Weight is 16 kg Date is 11/20/2004 |

V#SET,UNPROMPT,x - Disable variable prompt

| | | |
|-------------|---|--|
| Syntax | V#SET,UNPROMPT,x | |
| Parameters | x= variable | |
| Description | This command can set the variable without prompt. | |
| Example | V#OP+,V00,V01,V02 V#SET,UNPROMPT,V00 | Use doesn't need to input the value of V00 |

V#STRCPY,x,y - Copy all of variable data

| | | |
|-------------|--|-----------------------------|
| Syntax | V#STRCPY,x,y | |
| Parameters | x= target variable y= source variable | |
| Description | Copy all data of y to x | |
| Example | V#STRCPY,V00,V01 | Copy all of V01 data to V00 |

V#STRSUB,x,y,first,length - Copy part of Variable value

| | | |
|-------------|---|---|
| Syntax | V#STRSUB,x,y,first,length | |
| Parameters | x= target variable y= source variable first= the position of first character length= the number of characters | |
| Description | Copy part of y value to x | |
| Example | Copy year, month and day values respectively from a whole date variable. ~MDELf,test ^Ftest ^Q60,0,0 ^L V00,16,PromptV0 V01,16,PromptV1 V02,16,PromptV2 V03,16,PromptV2 V#STRSUB,V01,V00,5,2 V#STRSUB,V02,V00,8,2 V#STRSUB,V03,V00,0,4 V#SET,UNPROMPT,V01 V#SET,UNPROMPT,V02 V#SET,UNPROMPT,V03 AE,47,57,1,1,0,0,Date:^V00 AE,38,115,1,1,0,0,Month:^V01 AE,38,155,1,1,0,0,Day:^V02 AE,38,205,1,1,0,0,Year:^V03 E ^Ktest 2005/01/31 E ~P1 | Print result: Date:2005/01/31 Month:01 Day:31 Year:2005 |

Vt, x, y, x_mul, y_mul, gap, rotationInverse, data - Print with downloaded character sets

| | | |
|-------------|---|----------------------|
| Syntax | Vt, x, y, x_mul, y_mul, gap, rotationInverse, data | |
| Parameter | t: the font name; from A ~ Z x: Hori of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) y: Vert of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) x_mul: Horizontally magnified up to 8 times as large y_mul: Vertically magnified up to 8 times as large gap: Distance of the character (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer) rotationInverse: The rotation of ASCII text from 0 to 3, the Asian text rotation form 0 to 7 0) 0° 1) 90° 2) 180° 3) 270° 4) 0° 5) 90° 6) 180° 7) 270° In addition, if the rotation parameter is followed with "I", the text will be printed in inverse font. data: Data string (up to 239 characters). | |
| Description | Download Bit-Mapped font to memory. All parameters are all the same with text command | |
| Example | VA,5,10,1,1,1,0,data | The name of font "A" |


Vxx, length, prompt - Store variable

| | | |
|-------------|--|--|
| Syntax | Vxx, length, prompt | |
| Parameters | xx = a code name of the variable, from 00 ~ 99 length = number of characters (up to 98characters). prompt = prompt of variable (maximum up to 60 characters) | |
| Description | Define variables for further use. (refer to page39) | |

Vxx,length,prompt,jnl - Variable alignment

| | |
|-------------|---|
| Syntax | Vxx,length,prompt,jnl |
| Parameter | xx = a code of the variable length= length of variable value prompt= prompt of variable j=Justification option n=l(for left), c(for center), r(for right) l=the length of entire string in millimeters |
| Description | Variable arrangement by appoint setting |

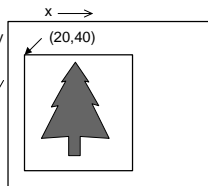
Wx,y,mode,type,ec,mask,mul,len,roatae - QR-code

| | | |
|-------------|--|--|
| Syntax | Wx,y,mode,type,ec,mask,mul,len,roatae | |
| Parameters | x= Hori. of left-bottom pos. of barcode (unit: dots) y= Vert. of left-bottom pos. of barcode (unit: dots) mode= barcode mode type= set original or enhanced ec= error correction level mask= masking factor mul= multiple (1-8) len= number of encoded data bytes, including carriage returns ↵ and line feed. roatae=rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° | |
| Description | Print QR-code by setting. | |
| Example | Q50,0,0 ^L W10,10,2,1,L,8,10,36,0 0123456789ABCDEFGHIJKLMNQRSTU WXYZ E | Data mode: 2 Model type: 1 Error level: L Masking factor: 8 Multiple:10 Data length: 36  |

Xx, y, z, data - DataMatrix Code
















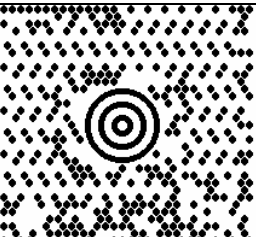










| | |
|-------------|---|
| Syntax | Xx, y, z, data |
| Parameters | x: Hori. of left-bottom pos. of barcode (unit: dots). y: Vert. of left-bottom pos. of barcode (unit: dots). z: Enlarge the DataMatrix Code 8 times (horizontally and vertically). data: bar-code data (up to 500 characters). |
| Description | Print DataMatrix code. (refer to page36) |

Yx, y, name - Graphics

| | | |
|-------------|---|--|
| Syntax | Yx, y, name | |
| Parameter | x: Hori. Pos. of left-upper of graphics (unit: dots) y: Vert. Pos. of left-upper of graphics (unit: dots) name: Name of graphics download | |
| Description | This command is for printing a graphic that has been previously stored in printer memory (refer to page38) | |
| Example: | A graphic in printer named "Graphic1", command Y20, 40; Graphic1 ↵ will put this graphic into label at position (20, 40). |  |

Examples

Barcode samples

| CODE | SAMPLE | CODE | SAMPLE |
|--------------------|---|-------------------|--|
| Code 39 |  CODE39 | UPC E Add on 2 |  0 234567 3 12 |
| EAN 8 |  1234 5670 | UPC E Add on 5 |  0 234567 3 12345 |
| EAN 8 Add on 2 |  1234 5670 12 | I 2 of 5 |  4321 |
| EAN 8 Add on 5 |  1234 5670 12345 | CODABAR |  ABCD |
| EAN 13 |  1 234567 890128 | Code 93 |  CODE 93 |
| EAN 13 Add on 2 |  1 234567 890128 12 | Code 128 |  CODE 128 |
| EAN 13 Add on 5 |  1 234567 890128 12345 | EAN 128 |  EAN 128 |
| UPC A |  1 23456 78901 | MAXICODE |  |
| UPC A Add on 2 |  1 23456 78901 2 12 | PDF 417 |  |
| UPC A Add on 5 |  1 23456 78901 2 12345 | UPC E |  0 234567 3 |
| DataMatrix Code |  | QR Code |  |
| UCC128 |  (12) 3 4567890 123456789 | DUN 14 |  1 23 45678 90123 1 |
| POST NET |  1 2 3 4 0 | RPS128 |  1234567890123456789017 |

Examples

How to construct a label using EZPL command:

To create a label, it must be an order command combination.

| | |
|--|---|
| Control command And Setup up command | |
| ^L | ^L is precedent for the beginning of label format |
| Label format command | } Label format command must be included between the ^L and E command |
| E | |
| | E is ending of label format |

** Control or setup commands to be used in the label command area will be ineffective.

Example:

The following example is printing a label with EAN8. The program is a text file. No matter what language you use in programming, simply send out the text file of the contents and you can control the printing with Falcon Series printers.

Save the following contents (command file named: EX1.TXT).

| Program command | Description |
|------------------------------|---|
| ^Q25,3 | Setting up the height 25mm, gap 3mm |
| ^W32 | Setting up the width 32mm |
| ^H10 | Setting up the darkness 10 |
| ^S6 | Setting up the speed 6 inches per second |
| ^P1 | Setting up the number of printing 1 |
| ^E10 | Setting up the paper advance length to 10 mm from the print head after printing. The label will move back 10 mm when the next label is printed. |
| ^C1 | Setting up the number of copies (start value is 1) |
| ^O0 | Setting up the auto stripper function to be turned OFF |
| ^R0 | Setting up the left margin 0 dot |
| ^D0 | Turning the cutting function off |
| ^L | The label content of start symbol |
| BB,42,39,2,5,100,0,1,1234567 | Select EAN8 label, data content is 1234567 |
| E | Label content of stop symbol |

The label can be created by the following MS-DOS command:

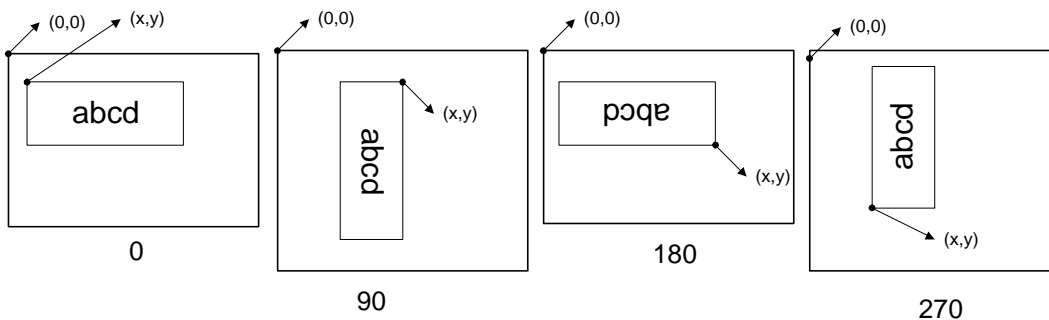
```
C:\>COPY EX1.TXT PRN.
```

To send the label to serial port by the following MS-DOS command:

```
C:\>MODE COM1 96,N,8,1
```

```
C:\>TYPE EX1.TXT >> COM1
```

Setting the x and y values:





1. Text

| Example | Result | Rotate printing | Result |
|--|----------------------------------|---|---|
| ^Q50,0,2 ^W50 ^S6 ^H10 ^R10 ~D8,27,00,8,39,36 ^L AC,10,10,1,1,1,0,PRINTER AC,10,50,1,1,1,0,^D AC,10,100,1,1,1,0,^T E | PRINTER AUG/27/00 08:39:36 | ^Q50,0,0 ^W50 ^S6 ^H10 ^L AC,100,30,1,1,1,0,ROTATION 0 AC,38,0,1,1,1,1,ROTATION 90 AC,260,150,1,1,1,2,ROTATION 180 AC,290,200,1,1,1,3,ROTATION 270 E | ROTATION 0 ROTATION 90 ROTATION 180 ROTATION 270 |
| Adjusting the character spacing | Result | Asia Font | Result |
| ^Q30,0,0 ^W50 ^S6 ^H10 ^L AC,10,10,1,1,10,0,PRINTER AC,10,100,1,1,1,0,PRINTER E | P R I N T E R PRINTER | ^L AZ,100,12,1,1,0,4,中文 AZ,223,65,1,1,0,5,中文 AZ,60,100,1,1,0,6,中文 AZ,90,144,1,1,0,7,中文 E | 中文 中文 中文 中文 |

The data output is a default setting and user can change it with ~D command (refer to page24).
 The time output format is a default setting and user can change it with T command.

2. Barcode

| Example | Result | Rotation of barcode | Result |
|---|---|---|---|
| ^H10 ^S6 ^Q30,0,2 ^W60 ^L BB,20,100,3,3,100,0,1,1234567 E |  | ^H10 ^S6 ^W25 ^Q30,0,2 ^L BE,100,20,2,4,80,1,1,123456789 012 E |  |

3. RTC Setting

| Change the date formatting | Result |
|----------------------------|-------------|
| Dy4-me-dd | 2000-MAY-29 |
| Dy4/mn/dd | 2000/05/29 |
| Dmn dd y4 | 05 29 2000 |
| Dy4 | 2000 |
| Dme | MAY |
| Ddd | 09 |
| Dy4-me | 2000-MAY |
| Dme-dd | MAY-29 |

4. Line printing

| Example | Description | Result |
|---|--|--------|
| ^Q50,3 ^W100 ^E32 ^H7 ^P1 ^S6 ^L Lo,212,45,311,53 Lo,244,11,252,128 Le,34,43,149,51 Le,72,8,80,121 E | ; Darkness= 7 ; Speed = 6 inch/second ; Label height = 50mm, gap = 3 mm ; Label width = 100mm | |

5. Rectangle printing

| Example | Description | Result |
|--|---|--------|
| ^H10 ^S6 ^Q50,2 ^W70 ^L R20,20,120,120,8,8 E | ; Darkness = 10 ; Speed = 6 inch/second ; Label height = 50mm, gap = 2 mm ; Label width= 70mm ; (x,y) = (20,20), (x1,y1) = (120,120) lrw = 8 dots, ubw = 8 dots | |


6. PDF417

| Example | Result |
|--|--------|
| ^Q50,0,3 ^W70 ^S6 ^H10 ^L P30,20,3,3,3,3,1,100 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 E | |

7. Maxicode

| Example | Result |
|---|--------|
| ^Q50,0,0 ^W70 ^S6 ^H10 ^L M30,20,1,1,2,840,068107317,8,0,123456 E | |

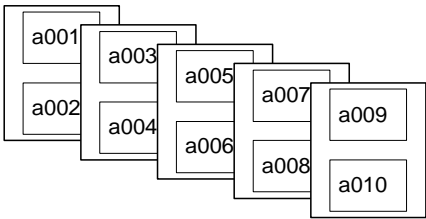
8. DataMatrix Code

| Example | Result |
|---|---|
| ^Q50,0,3 ^W90 ^S6 ^H10 ^L X30,20,5,123456789012345678901234567890 E |  |

9. Stripper setting

| Example | Result |
|--|--|
| ^Q50,2 ^W50 ^S6 ^O1 ^E10 ^P1 ^H10 ^L AD,20,20,1,1,3,0,Stripper Function E | ; Label height= 50mm, gap= 2mm ; Label width= 50mm ; Speed =6 inch/second ; Stripper enable ; Set stop position to 10 mm ; Printing one label ; Darkness = 10 ; Label format begin sign ; Label format end and begin print |

10. Cutter setting

| Example | Description | Result |
|---|---|--|
| ^Q20,0,0 ^H5 ^S2 ^P10 ^D2 ^C1 ^L R10,10,120,90,2,2 C0,001,+1,A1 AC,20,30,1,1,1,0,a^C0 E | ;plain paper length:20mm feed label length :0mm ;print 10 labels ;2 labels per cut |  |


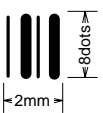
11. Serial number

| TEXT | | | |
|--|--|--|--|
| Example 1 | Result | Example 2 | Result |
| ^Q10,0,0 ^W30 ^S6 ^H10 ^P10 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,^C0 E | 0018 0016 0014 0012 0010 0008 0006 0004 0002 0000 | ~P10 If you want to continue printing 10 more serial numbers that is starting from 0018, enter the command “~P10”. With this command you do not have to re-enter all the command in example. | 0038 0036 0034 0032 0030 0028 0026 0024 0022 0020 |
| Example 3 | Result | Example 4 | Result |
| ^Q10,0,0 ^W30 ^S6 ^H10 ^P4 ^C2 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,^C0 E | 0006 0006 0004 0004 0002 0002 0000 0000 | ^Q10,0,0 ^W30 ^S6 ^H10 ^P8 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,abc^C0def E | abc0014def abc0012def abc0010def abc0008def abc0006def abc0004def abc0002def abc0000def |
| Barcode | | | |
| Barcode with serial number | | Result | |
| ^H10 ^S6 ^Q20,0,2 ^W50 ^P10 ^L C0,000,-1,A3 BE,20,100,3,3,100,0,1,111111^C0111 E | | | |



12. Graphic driver format

| Example | Description |
|---|---|
| ^Q20,2 ^W50 ^R20 ~G G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA G(AA E | ; Left margin = 20 dots For this example, ASCII “(“character is 40 decimal (=40 bytes). Total 14 lines, so the graphics height is 1.75mm (14 dots) |
| | Result |

13. Pattern command setting

| Example | Result |
|--|---|
| <pre> ^Q,20,0,0 ^W40 ^S6 ^D5 ^L Q40,10,2,8 GGGGGGGGGGGGGGGGGG E </pre> |  <p>Length: 2x8=16</p> |
| Description | |
| <pre> 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 0100011101000111 </pre> <p>HEIGHT = 8 DOTS</p> <p>← 1 BYTE → ← 1 BYTE →</p> <p>← WIDTH = 2 BYTES →</p> <p>G : 01000111 (binary)</p> |  |


14. Rotate label format for printing

| Example | Description | Result |
|--|---|---|
| <pre> ^Q40,2 ^W50 ^S6 ^H10 ~R50 ^L AC,153,42,1,1,1,2,ROTATE BB,156,112,2,5,50,2,1,1234567 E </pre> | <p>; Label size is 40 mm(h) x 50 mm(w); 2 mm gap</p> <p>; Rotate the label format 180° for printing</p> |  |
| <pre> ^Q50,0,0 ~R200 ^L AC,20,10,1,1,1,0,ROTATE BB,20,45,2,5,50,0,1,1234567 E </pre> | <p>; Disable the rotate function</p> |  |

15. Download graphic to printer's memory

Following the below steps to download graphic to printer.

1. Prepare a graphic file (file name: TREE.PCX, file size: 922 bytes).
2. Prepare two text files (TEST1.TXT and TEST2.TXT, see the following contents).

| TEST1.TXT | TEST2.TXT | Print Result |
|---|---|---|
| <pre> ~EP,TREE,922 </pre> | <pre> ^Q30,0,0 ^W50 ^S2 ^H5 ^L Y30,50,TREE E </pre> |  |

3. In DOS mode, running the following commands.




```

COPY TEST1.TXT PRN.␣
COPY TREE.PCX PRN/B.␣
COPY TEST2.TXT PRN.␣
                    
```

16. Download label and variable settings

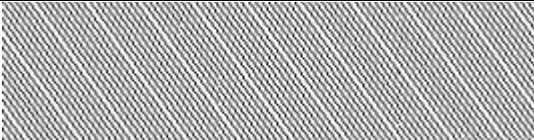
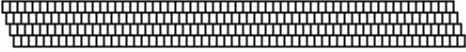
| Example | Description |
|---|---|
| ^Ftest ^Q50,0,15 ^W70 ^H10 ^S6 ^E12 ^L C0,0000,+1,serial no. V00,10,name V01,8,barcode V02,6,price AE,108,306,1,1,1,0,\$^V02 AC,39,27,1,1,1,0,S/N.^C0 AD,126,78,1,1,1,0,^V00 BA,108,135,2,5,100,0,1,^V01 E | ; Download label to memory card and the label name is "test". ; Setting serial number is C0 ; Setting three variables V00, V01, V02 |

17. Recall label format from memory

| Example 1 | Description | Result |
|---|--|--|
| ^Ktest 0000 Book 12345678 200.00 E ~P1 | Recall label format without changing the label format C0 = 0000 V00 = book V01 = 12345678 V02 = 200.00 | S/N.0000 book  * 12345678 * \$200.00 |
| Example 2 | Description | Result |
| ^Ktest 1111 Pencil 12345678 100.00 E ^Q35,0,0 ^S6 ^H10 ~P2 | Recall label format and change label format C0 = 1111 V00 = pencil V01 = 12345678 V02 = 100.00 Changing the size Changing speed to 6"/sec Changing darkness to 10 Printing the last label twice | S/N.1111 Pencil  * 12345678 * \$100.00 S/N.1112 Pencil  * 12345678 * \$100.00 |

Each time you change variable data or label format, repeat to send command from ^Kname to ~Px.

18. Print head test & Version list

| Example | Result |
|---------|---|
| ~T |  |
| ~V | <div style="border: 1px solid black; border-radius: 15px; padding: 10px; width: fit-content; margin: auto;"> <p>FalconXXXX : VX.XXX Serial port :96,N,8,1</p>  <p>1 DRAM installed Image buffer size : 1475K 000 FORM(S) IN MEMORY 000 GRAPHIC (S) IN MEMORY 000 FONT(S) IN MEMORY 000 ASIAN FONT(S) IN MEMORY 150K BYTES FREE MEMORY ^S6 ^H8 ^R000 ~R200 ^W100 ^Q100,3 Option : ^D0 ^O0 ^AD Gap Sensor AD : 129 162 195 (3)</p> </div> |

19. Use variable settings

| | Example | Result |
|--|--|---|
| 1. User input unit price and amount. Printer calculates total price. | <pre> ~MDELFL,test1 ^Ftest1 ^Q60,0,0 ^P1 ^L V00,10,Price V01,10,Amount V02,10,Total Price V#OP*,V02,V00,V01 V#SET,UNPROMPT,V02 AC,30,110,1,1,0,0,Price: ^V00 AC,30,189,1,1,0,0,Amount: ^V01 AE,30,273,1,1,0,0,Total Price: ^V02 E ^Ktest1 100 3 E ~P1 </pre> | <pre> Price: 100 Amount: 3 Total Price: 300 </pre> |
| 2. Calculation sample | <pre> ~MDELFL,test2 ^Ftest2 ^Q60,0,0 ^L V00,10,Input V00 V01,10,Input V01 V02,10,Input V02 V03,20,Input V03 V04,20,Input V05,20,Input V06,20,Input V#OP+,V02,V01,V00 V#OP-,V03,V01,V00 V#OP*,V04,V01,V00 V#OP/,V05,V01,V00 V#OP%,V06,V01,V00 V#SET,UNPROMPT,V02 V#SET,UNPROMPT,V03 V#SET,UNPROMPT,V04 V#SET,UNPROMPT,V05 V#SET,UNPROMPT,V06 AA,38,37,1,1,0,0,V00=^V00 AA,38,77,1,1,0,0,V01=^V01 AE,38,115,1,1,0,0,V1+V0=^V02 AE,38,165,1,1,0,0,V1-V0=^V03 AE,38,215,1,1,0,0,V1*V0=^V04 AE,38,265,1,1,0,0,V1/V0=^V05 AE,38,315,1,1,0,0,V1 MOD V0=^V06 E ^Ktest2 10 20 E ~P1 </pre> | <pre> V00=10 V01=20 V1+V0=30 V1-V0=10 V1*V0=200 V1/V0=2 V1 MOD V0 = 0 </pre> |

20. dBase III data setting

Example:

customer.dbf has following data

| NAME | ADDRESS | PHONE |
|---------|--------------------|----------|
| Tom | Address of Tom | 11111111 |
| Mary | Address of Mary | 22222222 |
| John | Address of John | 33333333 |
| Joe | Address of Joe | 44444444 |
| Bob | Address of Bob | 55555555 |
| Gilbert | Address of Gilbert | 66666666 |

| Example | Description | Result |
|--|-------------------------------|------------------------|
| ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,PHONE,V00 FILEDB,FIND,NAME,Mary AC,79,120,1,1,0,0, Mary's phone: ^V00 E | Print out Mary's phone number | Mary's phone: 22222222 |
| ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,ADDRESS,V00 FILEDB,FIND,NAME,John AC,79,120,1,1,0,0, ^V00 E | Print out John Address | Address of John |
| ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt V#LINKDB,NAME,V00 FILEDB,MOVE,LAST AC,79,120,1,1,0,0,Last Name is ^V00 E | Print out last person name | Last Name is Gilbert |
| ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt V#LINKDB,NAME,V00 FILEDB,MOVE,2 AC,79,120,1,1,0,0,Second Name is ^V00 E | 4.Print second person name | Second Name is Mary |

| | | |
|---|--|---|
| ^Q60,0,0 ^P3 ^L FILEDB,OPEN,customer C0,1,+1,DB Move C V00,10,name V01,10,phone V#LINKDB,NAME,V00 V#LINKDB,PHONE,V01 FILEDB,MOVE,C0 AC,79,120,1,1,0,0,^V00 Phone is ^V01 E | Print first, second and third person phone number | Tom Phone is 11111111 Mary Phone is 22222222 John Phone is 33333333 |
|---|--|---|

Appendix.

Barcode Details

1. Code 128

BQ2, X, Y, NARROW, WIDE, HEIGHT, RTATION, READABLE, DATA

Code 128 Subset A: Included the standard uppercase alphanumeric keyboard characters, control and special characters.

Code 128 Subset B: Includes the standard uppercase, lowercase alphanumeric keyboard characters and special characters.

Code 128 Subset C: Used for double density encoding of numeric data (the set of 100 digit pairs from 00 through 99).

| Example | |
|--|---|
| Subset A: BQ2,8,8,2,5,40,0,0,AAPPLE | To select Code 128 Subset A, place a ASCII A before the data to be encoded. |
| Subset B: BQ2,8,8,2,5,40,0,0,BAPPLE | To select Code 128 Subset B, place a ASCII B before the data to be encoded. |
| Subset C: BQ2,8,8,2,5,40,0,0,C1234 | To select Code 128 Subset C, place a ASCII C before the data to be encoded. |
| Special character handling: BQ2,8,8,2,5,40,0,0, ATEST&G | To encode FNC1 into a Code 128 Subset A, send the ASCII &G. |

| ASCII | 2 Character | Code A | Code B | Code C |
|-------|-------------|--------|--------|--------|
| 96 | &A | FNC3 | FNC3 | -NA- |
| 97 | &B | FNC3 | FNC2 | -NA- |
| 98 | &C | SHIFT | SHIFT | -NA- |
| 99 | &D | Code C | Code C | -NA- |
| 100 | &E | Code B | FNC | Code B |
| 101 | &F | FNC4 | Code A | Code A |
| 102 | &G | FNC1 | FNC1 | FNC1 |