

THERMOCODE 5775

Dos Programming using TLOAD6.EXE (Software Version TPHC5_1.A21)

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DOS PROGRAMMING USING TLOAD6.EXE**1.00 DOS COMMANDS**

Using standard DOS commands it is possible to edit, change or create files that control the Thermocode printer and Held Terminal software and functionality. Before sending any commands to the printer or Terminal, the serial port of the computer that is being used, must be set up to communicate correctly. Once the Printer program has been downloaded, you may then select which baud rate (Transmission speed) that you wish to use.

1.10 Serial Port set up

The command for setting up the Serial port is:- **MODE COM1: 9600,n,8,1,p** or **MODE COM1:19200,n,8,p**

Where:-MODE = DOS COMMAND

COM1: = SERIAL PORT 1, you may have to change to 2 (for COM2).

9600 = BAUD RATE (9600 or 19200)

n = NO PARITY

8 = DATA BITS

1 = STOP BITS

p = ALLOWS RETRY OF SENDING DATA

DO NOT FORGET THE SPACE CHARACTER BETWEEN, MODE & COM1.

1.30 TLOAD6.EXE PROGRAM

This dedicated "OPEN DATE" program has been developed to simplify operations when programming in DOS. TLOAD6.EXE executes hidden commands that would otherwise need a computer programmer to input. When accessing TLOAD6.EXE by typing the command TLOAD6 you must also specify which COM port the file has to transfer to. This is done by first leaving a space character after TLOAD6 and then entering the COM port number as shown below.

COM1 = Enter No. 0

COM2 = Enter No. 2

LPT1 = Enter No. 1

Once the correct command has been keyed into the computer, press the enter key, the computer display will now show a prompt of three dots...., now enter the name of the file to download to the Thermocode printer or Hand Held Terminal.

1.20 SERIAL CABLES

When programming you must ensure that the correct Serial cable is used for connecting to the Thermocode printer or Hand Held Terminal, These can be purchased from "OPEN DATE" and are specified as:-

COM1 = Normally 9 Way "D" connectors each end. (Part No. LEA 755021)

COM2 = Normally 25 way "D" computer to 9 way "D" printer (Part No. LEA 755019)

Drawings of these cables can be found at the back of this manual. (Page 27)

1.40 TERMINAL POWER SUPPLY MODULES

Two custom designed power modules with a choice of mains voltage (240 or 110), supply voltage to the Hand Held Terminal (5 Volt) whilst programming. One connection end accepts the above serial cables, whilst the other, the custom curly cable attached to the Hand Held Terminal.

240 Volt Module = Part No. POW 755025

110 Volt Module = Part No. POW 755026

2.00 PROGRAMMING THERMOCODE HEADS

1. Assemble Printhead in Standard Testing Frame and connect to power supply. Make sure that the cassette is fitted to initiate the cassette switch. (If the cassette switch is not activated it will not accept the programming).
2. Switch on mains supply and wait for 30 seconds,
3. Now study the LED's and decide which status the printhead is in.

All three LED's illuminated, there is no program in the printer, or if the cassette is fitted maybe the foil sensor is detecting the sprung arm due to loose foil or an incorrect foil sensor adjustment. (The red LED must not be illuminated as programs will not load).

4. Connect up the DOS programming lead, to the computer and printer. (Part No.LEA 755021)
5. Switch on the computer, once in DOS type the command:-

MODE COM1: 9600,n,8,1,p the baud rate setting must be correct to talk to the printer correctly, if unsure check status printout see section 4.5.

This command sets up the serial port with the correct settings to talk to the printer, if you are using COM2 change the above DOS command accordingly

6. Access the directory where the current printer software and settings are stored. (Check the Version of TPHC software is the latest Issue).

Software Version Now :- **TPHC5_1.A21**

7. With the printer switched on, perform an initialisation routine, this will be necessary to clear any fonts, settings and images from the printer memory.
8. To perform the initialisation type "TLOAD6 0" after a few seconds, at the prompt of three dots... type "INIT", then press enter. This command assumes COM1 is the programming port.

The printer should now respond, by only illuminating the green LED. This will indicate that all formats, fonts, graphics and settings have been erased.

9. Type the command " **COPY TPHC5_1.A21 COM1**" do not press enter yet!.
10. Switch off Thermocode.
11. After waiting for about 30 seconds, switch on the power to the Thermocode, and then during the next 5 seconds (Whilst the RED & GREEN LED'S) are illuminated press enter on the computer.
12. The program will now load to the Thermocode, normally this takes about three minutes and the red and green led's will stay illuminated whilst the program is loading. If for any reason the yellow led becomes alight, means the printer for some reason has stopped or not accepted the code.

13. Once the program has loaded, the printhead on the Thermocode will move to the vertical and linear Home position (A), and the green led will be illuminated only.
14. Now we must load the Factory settings to the machine, but first you may wish to check that the settings are defined correctly. Type "EDIT FACTORY" and press enter, the computer screen will now display the file Factory and will allow you if necessary to edit the file. Check the settings are as shown below the data-sheet provided for the Factory settings, if not amend accordingly. Press "ALTF" and then "X" if you changed.

2.10 Factory Settings

Esc V {pppppppp} {rrrr} {l} {d} {cccc} {tttt} {oooo} {ffff} {pppp} {aaaa} {bbbb} {D} {cccc} {W} {123} {B}

{pppppppp}	=	Factory password. (eight numbers/spaces, Terminal normally 12345678)
{rrrr}	=	Printhead resolution, Dots/mm. (usually 1180 = 11.8 dots/mm)
{l}	=	Country of operation. (usually set to 1, Terminal software dependant)
{d}	=	Date format. (1 = dd/mm/yy, 2 = mm/dd/yy, 3 = yy/mm/dd)
{cccc}	=	Cassette wind up core diameter in millimetres. (0335 = 33.5mm)
{tttt}	=	Ribbon thickness in microns. (0115 = 11.5 microns)
{oooo}	=	Outside diameter of Ribbon in millimetres. (0750 = 75.0mm)
{ffff}	=	Ribbon reel capacity in metres. (0500 = 500 metres)
{pppp}	=	Printhead pre-print position in millimetres. (0098 = 9.8mm)
{aaaa}	=	Reverse print sweep ribbon correction in dots. (0010 = 10 dots added to rewind, usually 0000)
{bbbb}	=	Max Duty cycle for burn values, % of print dot time. (0070 = 70% max)
{D}	=	One or two direction printing. 1 = single direction, return speed 150mm max. 2 = bi-directional printing, as programmed speed. 3 = single direction, return speed as print speed.
{cccc}	=	Reverse print image correction in dots, can be positive or negative. (0010 = positive, -010 = negative) normally 0000
{W}	=	Stop Printing upon low foil warning flag. (1 = Stop printing on Low foil indication) (0 = Continue printing, flash red LED)
{123}	=	Relay control flags, each number represents a relay in the Power supply (1 = Relay 1 in power supply) set at "0" for Stop Machine, or "1" for sequencing, "2" for Ready relay. (2 = Relay 2 in power supply) set at "0" for Start Machine or "1" to activate Low foil, "2" for Ready relay. (3 = Relay 3 in power supply) not implemented, set at "0"
{B}	=	Baud rate setting. (0 = 9600, 1 = 19200)

15. Type "TLOAD6 0" at the prompt of three dots... type "FACTORY" and press enter, on the computer screen see the file scroll through. On the printer at this stage you will see no change to the green led.

16. Next we must load the Service settings to the machine, in the service settings are the program parameters for the printhead resistance. Type "EDIT SERVICE" and once the file is displayed on the computer screen change to the values required to suit the printhead.

2.20 Service Settings

Esc W {pppppppp} {m} {ssss} {SSSS} {bbbb} {BBBB} {n} {pp} {PP} {oo} {OO} {h} {rrrr}

{pppppppp}	=	Service password. Eight numbers/spaces. (Usually 12345678)
{m}	=	Manager password flag. (Terminal software dependant, Normally 1)
{ssss}	=	Minimum print speed mm/sec. (usually 0030, 30mm/sec)
{SSSS}	=	Maximum print speed mm/sec (usually 0150, 150mm/sec)
{bbbb}	=	Minimum burn value for both print directions. (usually 0150)
{BBBB}	=	Maximum burn value for both print directions. (usually 1000)
{n}	=	Home position flag, whether to print from "A" or "B" (1 = A, 2 = B) usually "A".
{pp}	=	Minimum printhead pressure. (usually set to 17 = 1.7Kg)
{PP}	=	Maximum printhead pressure. (usually set to 38 = 3.8Kg)
{oo}	=	Minimum ribbon offset. (usually set to 00)
{OO}	=	Maximum ribbon offset. (usually set to 10)
{h}	=	Printhead counter rest flag. (1 = RESET, 2 = NO RESET) usually set to 2.
{rrrr}	=	Actual printhead resistance value in ohms.

16. Type "TLOAD6 0" at the prompt of three dots... type "SERVICE" and press enter, on the computer screen see the file scroll through. On the printer at this stage you will see no change to the green led.
17. Next we must load the Manager settings to the machine, in the manager settings are the program parameters for the time, date and year. Type "EDIT MANAGER" and once the file is displayed on the computer screen change to the values required to suit the current date.

2.30 Management Data

Esc M {pppppppp} {hh} {mm} {dd} {MM} {yy} {rrrr} {wwww} {ffffff} {ssss} {bbb1} {bbb2} {pppp} {oooo}

{pppppppp}	=	Manager password. (eight numbers/spaces, normally 12345678)
{hh}	=	Hour of the day. (24 hour clock format)
{mm}	=	Minute of the hour.
{dd}	=	Day of the month.
{MM}	=	Month of the year.
{yy}	=	Year, as last two digits. (1997 = 97)
{rrrr}	=	New Ribbon reel length in metres. (390 metres = 0390)

{www}	=	Low ribbon warning length in metres. (10 metres = 0010)
{ffffff}	=	CHANGETIME. Whilst the word "CHANGETIME" (capital letters) appears in the manager code, the Time & Date from the manager code string will be accepted by the printer. If you want to leave the current printer setup alone, just change any letter in "CHANGETIME" to another.
{ssss}	=	Manager speed setting. (usually 0030)
{bbb1}	=	Manager Burn setting "A to B". (usually 0150)
{bbb2}	=	Manager Burn setting "B to A". (usually 0150)
{pppp}	=	Manager Pressure setting. (usually 0017)
{oooo}	=	Manager Ribbon offset setting. (usually 0000)

Note!

If the manager setting values for speed, burn, pressure or ribbon offset are set to high, this can restrict or control normal format values, basically the manager takes preference if the format values are lower than the manager's.

18. Type "TLOAD6 0" at the prompt of three dots... type "MANAGER" and press enter, on the computer screen see the file scroll through. On the printer at this stage you will see no change to the green led, but the yellow LED is now flashing on and off.

19. Using the FONTS file load the default printer fonts to the printer using once again the TLOAD6.EXE program.

The maximum available memory for fonts is 228000KB

The maximum available memory for fonts and a full size graphic is 156000KB

Editing the FONT file allows you to change the selection of fonts which are to be loaded to the printer. simply remove or add the REM statement in front of the font Escape letter "A". (Check the size of all fonts to be loaded does not exceed the memory capabilities.

20. Type "TLOAD6 0" at the prompt of three dots... type "FONTS" and press enter, on the computer screen see the file scroll through and indicate which fonts are being loaded to the printer. (this can take several minutes for large Truetype fonts).

21. Now finally load the file TEST1 using the TLOAD6 program. (see 3.20 example)

22. Type "TLOAD6 0" at the prompt of three dots... type "TEST1" and press enter on the computer.


23. Once "TEST1 has loaded the yellow led should now illuminate, indicating that the printer has a format loaded awaiting a print instruction. Place testprint paper under printhead and press the TEST button on the power supply.

Check the printed data matches the format details of "TEST1".

PRINTING REFERENCE DATUMS

TEXT FIELDS

BATCH No. 123456


(Lower left Datum, rotation through 0, 90, 180, 270 degrees.)

GRAPHIC IMAGES



(Top left Datum, cannot rotate)

BARCODES



(Top left Datum, rotation through 0, 90, 180, 270 degrees)

LINES & BOXES



(Top left Datum, cannot rotate.)

2.40 Text Field (Maximum 40 fields per format)
(maximum 80 characters length) see page 22 for an example within a format.

Esc T {ffffffff} {xxxx} {yyyy} {ss} {o} {r} {t} {a..a}

- {ffffffff} = The name of the font: this field must be ten characters long with printable ASCII characters followed by trailing spaces.
- {xxxx} = horizontal position, in dots.
- {yyyy} = vertical position, in dots.
- {ss} = scaling factor (point size)
- {o} = orientation:- (Clockwise rotation)
 0 = 0°
 1 = 90°
 2 = 180°
 3 = 270°
- {r} = Reverse outline option (1 = ON; 0 = OFF)
- {t} = Type of text field:- (see separate data sheets)
- 0 = FIXED INFORMATION FIELD
 1 = VARIABLE INFORMATION FIELD.
 2 = DATE INFORMATION FIELD.
 3 = TIME INFORMATION FIELD.
 4 = SEQUENTIAL COUNTER FIELD/PALLET COUNTER
 5 = JULIAN DATE FIELD.
 6 = YEAR FIELD.
 7 = DATE & MONTH FIELD.
 8 = DAY FIELD.
 9 = SHIFT CODE.
 A = DATE DD/Month/YY.
 B = DATE Month/YY.
 C = DATE Month.
 D = DATE INFORMATION FIELD (Uses dots between fields)
 E = MONTH FIELD (Two numerical digits only)
 F = TIME FIELD (no colon between fields)
 G = DATE INFORMATION FIELD (uses single dot, year as 2 digits)
 H = DATE INFORMATION FIELD (Uses single dot, year as 4 digits)
 V = FIXED & VARIABLE INSERTION FIELDS.
- {a..a} = Content (alphanumeric). OR
 Date/Time option Offset in days OR
 Time option Offset in minutes OR
 Counter option Counter increment/Decrement,
 The number of digits in the increment/decrement will be the
 number of counter digits printed.

Note:- When using Date And Time automatic updating text fields, you must specify an offset amount. (even if the offset is zero)

Offsets for the Date, Julian Date, Year and Month Fields are in Days.

Offsets for the Time and Shift Code Fields are in minutes.

2.41 Specifying Rollover times of Automatic Date Fields

Normally automatic date fields always rollover (increment to next date) at midnight, it is now possible to change the actual time the specified format that is loaded to the printer will automatically update.

Rollover times are always set from midnight, either plus or minus in minutes. (-719 to + 720) range.

This does not change the actual time of the printer.

Example 1, Your Customer wants to print a normal date field type 2 with no day offsets but rollover the date at 10pm (2200) hours at night.

TARIALBD 005000501200**200,-120**

200 = Date type 2 with no day offsets.

-120 = Rollover offset minus 120 minutes from midnight.

2.42 Specifying Daylight Saving Dates

Customers can now program in the exact dates the Printer needs to adjust itself to allow for daylight savings. Customer must specify both dates at which the time clock should adjust automatically, and whether the first date specified has the clock going forward or backward.

It is assumed that any clock going forward will happen at 1am (0100 hours).

It is assumed that any clock going backward will happen at 2am (0200 hours).

The settings are made in the form of a variable as shown below, these can be set at any time but will only be relevant for the particular year that you set the date at.

escE_daysavingZday1,day2,fb

where:

day1 = is the first date when a change is to take place. (4 digits MMDD)

day2 = is the second date when a change is to take place. (4 digits MMDD)

fb = 0 to indicate that the first dates time will go FORWARDS by 1 hour.
1 to indicate that the first dates time will go BACKWARDS by 1 hour.

Note !

You must set the time in the Printer after sending the daysaving Variable.

TYPES	PRINTING INFORMATION & DESCRIPTION	EXAMPLE
0	FIXED INFORMATION TEXT FIELD (Maximum 80 Characters). Information not accessible from Hand Held Terminal. Can only be changed using a Computer. Alphabetical, Numerical and Punctuation Marks Etc.	ANY TEXT
1	VARIABLE INFORMATION TEXT FIELD (Maximum 80 Characters) Information edited from the Hand Held Terminal. Alphabetical, Numerical and Punctuation Marks Etc. Maximum Field length determined by Computer design.	ANY TEXT
2	AUTOMATIC DATE INFORMATION FIELD (dd/mm/yy) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	27/11/97
3	TIME INFORMATION FIELD (Current Printer time) Information not accessible from Hand Held Terminal. Check printer time is correct. Time offsets available in minutes. (010 will add 10 Minutes)	18:16
4	SEQUENTIAL COUNTER FIELD Information not accessible from Hand Held Terminal. Allows printing of an incrementing number, always starts or rolls over to "1". 0001 will increment sequentially in steps of one to 9999 and then repeat.	0001
5	JULIAN DATE FIELD (Prints Day number of Year) Information not accessible from Hand Held Terminal. 1st January will print "001". (29 February = day 366 during leap years) Offsets in days positive or negative.	295
6	YEAR FIELD (Prints the actual Year Specifically) Information not accessible from Hand Held Terminal. 1997 year can be printed as:- (1997, 97, 7) 64 = 1997, 62 = 97, 61 = 7 (No offsets allowed)	1997
7	DATE & MONTH FIELD (Prints Date and Month , eg "30/ 01") Information not accesable from Hand Held Terminal. Used for Marks and Spenser type date formats. Date offsets positive or negative. (02 will add 2 days to date)	30/11
8	DAY FIELD (Prints day number of Month numerically) Information not accessible from Hand Held Terminal. Typically used for Bakery type codes. Date offsets positive or Negative. (02 will add 2 days to date)	30
9	SHIFT CODE (Alpha Numeric single digit) Information not accesable from Hand Held Terminal. See page 16 for full description. Offsets in Minutes. Three shifts per Day.	E
A	AUTOMATIC DATE INFORMATION FIELD (dd/MON/yy) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	30JAN97
B	AUTOMATIC DATE INFORMATION FIELD (Prints ddMON) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	30JAN
C	AUTOMATIC DATE INFORMATION FIELD (Prints Month Only) Information not accessible from Hand Held Terminal. Prints Month as first three alphabetical digits. Offsets can be positive or negative. (02 will add 2 days to date)	JAN
D	AUTOMATIC DATE INFORMATION FIELD (dd:mm:yy) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	27:11:97

TEXT	
------	--

TYPES	PRINTING INFORMATION & DESCRIPTION	EXAMPLE
E	MONTH FIELD (Prints number of Month numerically) Information not accessible from Hand Held Terminal. Typically used for Bakery type codes. Date offsets positive or Negative. (02 will add 2 days to date)	08
F	TIME INFORMATION FIELD (Current Printer time, No Colon Between) Information not accessible from Hand Held Terminal. Check printer time is correct. Time offsets available in minutes. (010 will add 10 Minutes)	1816
G	AUTOMATIC DATE INFORMATION FIELD (dd/mm/yy) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	27.11.97
H	AUTOMATIC DATE INFORMATION FIELD (dd/mm/yyyy) Information not accessible from Hand Held Terminal. Configuration of Printed format is dependant on setup in Factory file. Offsets can be positive or negative. (02 will add 2 days to date)	27.11.1999
V	VARIABLE INSERTION FIELD Information accessible from Hand Held Terminal, actually listing Field Name See pages 9 & 10 for full programming description	ANY TEXT

2.50 Variable Insertion Fields (Maximum 10 per format)

The function of this code, is that a named text variable can be defined into a design format, which can then be inserted into a text or barcode field. When working on the Terminal, instead of directly editing the text or barcode, the variables can be edited. This would allow a text field which currently has to be edited as a complete entity to be edited as one or more variables, and display the actual variable name that is being edited. (Maximum 30 Characters for each insertion field)

Esc E {nnnnnnnnn} {x} {ttttttt...} \0 {LLLLL} \0 {HHHHH}

{nnnnnnnnn} = Name of the Variable insertion field, 10 alphanumerical characters.
(no punctuation characters allowed in name)

{x} = Check character.
0 = unchecked variable.
1 = Variable set up with high and low limits. (numerical text only)
X = Updating Variables only

{ttttttt} = Text to be printed (maximum 30 characters)

\0 = null character.

{LLLLL} = Lower limit of variable text.

\0 = null character.

{HHHHH} = Higher limit of variable field.

Example 1 (single variable insertion field)

```
F1TEST2 001
P00500400040000200000
ELot Number0123456
B010050001015004011v789034\0Lot Number\0
TSwiss 005002501200vLot:-\0Lot Number\0
Q001000000
REM END
```

The previous example prints an EAN13 Barcode with a single row of text below, the variable insertion field has been placed within the barcode and text line. To identify to the printer the barcode and text fields have inserted variable fields, the text type is "v" shown at the end of the text character string. Fixed information within the same text field is also permitted but must be identified, always put a "\0" before and after the variable insertion field.

Note! The variable insertion field name as shown above (Lot Number), would automatically be shown on the Hand Held Terminal as a prompt if the format is edited.

Example 2 (Two variable insertion fields)

```
F1TEST2 001
P00500400040000200000
ELot Number0123456
EYear 096
B010050001015004011v7890\0Lot Number\0\0Year\0
TSwiss 005002501200vLot:-\0Lot Number\0
TSwiss 005003201200vYear:-\0Year\0
Q001000000
REM END
```

The above example2 has two variable insertion fields within a barcode, do not forget to add the two "\0" between the variable insertion field names.

Example 3 (Two variable insertion fields, with limits)

```
F1TEST2 001
P00500400040000200000
ELot Number0123456
EYear 196\092\099
B010050001015004011v7890\0Lot Number\0\0Year\0
TSwiss 005002501200vLot:-\0Lot Number\0
TSwiss 005003201200vYear:-\0Year\0
Q001000000
REM END
```

The difference between example 2 and example 3 is only that the "Year" insertion field now has limits, the first character after the name has changed to "1" identifying that the field has upper and lower limits. by adding a "\" then the lower limit followed by another "\" and the upper limit. The limits will then be utilised by the Hand Held Terminal, to check if the codes you have entered when editing the format are valid.

Variable Insertion Counter Fields

This function is an addition to the Standard Variable Insertion fields that allows the user to specify:-

**Start Number
Increment
Pallet Count
Counter rollover
Stop Number**

The Counter variable fields can be used in Text and Barcode fields or both.

Variable Insertion Counter Fields

This function is an addition to the Standard Variable Insertion fields that allows the user to specify:-

**Start Number
Increment
Pallet Count
Counter rollover
Stop Number**

The Counter variable fields can be used in Text and Barcode fields or both.

Variable Counter field

Esc E {nnnnnnnnnn} {4} {sssssss.....} \0 {iiiiiii...} \0 {pppp..} \0 {rrrrrr...}

where:-

- Esc E = Escape Code to tell printer Variable Insertion Field.
- {nnnnnnnnnn} = Name of Variable Insertion Field, 10 Alphanumerical characters. (No punctuation characters allowed)
- {4} = Specifies Counter type Variable Insertion field.
- {sssssss..} = Counter start Number, leading zero's specify the maximum counter capacity and printability.

Spaces before the start number would allow the same length of printed field, and would be right hand justified when printed.

Spaces after the start number would allow the same length of printed field, and would be left hand justified when printing.

\0	=	null character.
{iiiiii...}	=	Increment amount, specify the amount each print has to advance.
\0	=	null character.
{pppp...}	=	Pallet Count/Repeating sequence Number, specifies the amount of the same prints required before incrementing to the next count.
\0	=	null character.
{rrrrrr....}	=	Roll - over number, specifies the last printed number before the counter resets to the original start number.

Specifying Stop Number

To specify the Number of Prints required, or stop number simply "edit" the Quantity line of the Format.

Example 1.

```
F1TESTPRINT 001
P00500450045000170000
ECOUNTER 4000001\01\01\000
TARIALBD 010000501200v\0COUNTER\0
Q001000000
REM END
```

This would print a six digit sequential number, starting at 1 with leading zero's, incrementing by 1 and advance until 999999 before restarting to 000001.

Example 2.

```
F1TESTPRINT 001
P00500450045000170000
ECOUNTER 4000001\01\01\099
TARIALBD 010000501200v\0COUNTER\0
Q001000000
REM END
```

This would print a six digit sequential number, starting at 1 with leading zero's, incrementing by 1 and advance until 000099 before rolling over the counter to 000001.

Example 3.

```
F1TESTPRINT 001
P00500450045000170000
ECOUNTER 4000001\01\02\030
TARIALBD 010000501200v\0COUNTER\0
Q001000000
REM END
```

This would print a six digit sequential number, starting at 1 with leading zero's, incrementing by 1 print each number twice "Pallet Count" and advance until 000030 before rolling over the counter to 000001.

Example 4.

```

F1TESTPRINT 001
P00500450045000170000
ECOUNTER 4000001\01\01\000
TARIALBD 010000501200v\0COUNTER\0
Q001000040
REM END

```

This would print a six digit sequential number, starting at 1 with leading zero's, incrementing by 1 and advance until 000040 before stopping the printer.

2.51 Updating Existing Variable fields (within existing Format loaded to printer)

It is now possible to update an existing variable field within a format already loaded to the Printer,

This will allow a much higher speed updating of a format, as you do not have to send again any fixed text fields, lines or graphics. Updated fields should not be longer than the original loaded within the format, but they can be shorter. (longer fields may overlap other printing fields)

Example1 (a typical format including an updating variable Lot No.)

```

F1TEST2 001
P00500400040000200000
ELot NumberX123456
B010050001015004011v789034\0Lot Number\0
TSwiss 005002501200vLot:-\0Lot Number\0
Q001000000
REM END

```

To update the Lot Number only you send:-

```

ELot NumberX334477
Q001000000

```

This would then upgrade the Lot number variable to 334477 instead of 123456

In this example I have shown the quantity being sent as well, this again is an option if you wish to set a new batch number quantity.

All types of variable text insertion fields can be updated this way.

2.60 Line / Box Field (Maximum 16 per format, see page 22 for an example within a format)

```
Esc L {xxxx} {yyyy} {www} {hhh} {vvv} {rrr}
```

{xxxx}	=	Horizontal position, in dots (X axis).	0000 - 0672
{yyyy}	=	Vertical position, in dots (Y axis).	0000 - 0885
{www}	=	Horizontal width, in dots (X axis).	000 - 672
{hhh}	=	Vertical height, in dots (Y axis).	000 - 885
{vvv}	=	Width thickness, in dots (X axis).	
{rrr}	=	Height thickness, in dots (Y axis)	

Together, these parameters may describe vertical lines, horizontal lines, filled blocks or boxes, with sides of different thickness.

Thick Lines or filled blocks are described by supplying width and height parameters as required and setting both thickness parameters set to at least half of the "x" and "y" respectively.

Boxes are described by supplying all parameters as required, where the thickness parameters set the thickness of the vertical and horizontal sides of the box respectively.

2.70 Graphics Field (Maximum 40 per Format)

Loading graphic images, (*.BMP files) direct from DOS to either the printer or Hand Held Terminal, is quite simple.

From the listing below you have first to specify the "X" and "Y" co-ordinates, and then the actual scaling factor. if you edit the file called "GRAPHIC1" you will also notice that the actual BMP file name is in the line above the "G" graphic escape command. By replacing this name with one of your own, and then saving the file under your own name, you can then load to the printer or Hand Held Terminal.

If you use the scaling factor, please take care as images that are too large or outside the print area will cause printer errors.

Esc G {xxxx} {yyyy} {www} {hhh} {s} {ffff} Esc {c {d...d}..c}

{xxxx}	=	Horizontal position, in dots.
{yyyy}	=	Vertical position, in dots.
{www}	=	TLOAD6.EXE automatically selects sizes
{hhh}	=	TLOAD6.EXE automatically selects sizes.
{s}	=	Scaling factor:- 0 = 1:1 1 = 2:1 2 = 4:1
{ffff}	=	TLOAD6.EXE automatically controls data.
{c}	=	TLOAD6.EXE automatically controls data.
{d...d}	=	TLOAD6.EXE automatically controls data.

Example of Graphic text file:-

```
F1Harley 001
P00500400040000200000
REM xyyyywwhhhsffff Harley.bmp
G00010001200099002415
Q001000000
REM END
```

Within the "REM" line is where you substitute the file name (Harley.bmp) for another if you require, do not to also change the format name and save.

If the Bit map image (*.bmp) file is not in the same directory as TLOAD6.EXE, the format design named the graphic will not load to the printer.

FOREWARD

The Thermocode can print up to 16 different types of Barcode styles, see the chart on page 12 for a dedicated style to suit the product range or customer preferences.

Customisation of the Barcode is simply achieved by way of changing the programming codes, the following features can be adjusted or altered as you program:-

- Position of Barcode on substrate.
- Height of Barcode Vertical Bars.
- Width of Barcode, (Ratio or Barwidth).
- Orientation of Barcode on Substrate.
- Human readable characters, (ON or OFF).
- Automatic Check Digit, (ON or OFF).
- Fixed information Barcode.
- Variable information Barcode.
- Sequential information Barcode.

BARCODE REFERENCE POINT

When programming the position and orientation of the Barcode, it must be remembered the reference position of the Barcode, is at the top left hand side of the Vertical bars. Most Barcodes print a specific character to represent the guard mark before and after the vertical bars, an allowance must be made when programming for the extra space needed. If an allowance is not given for the guard marks a Barcode may print incorrectly or not at all.

NARROW BAR WIDTHS

The thinnest bar on a Barcode can actually control the physical width of a complete Barcode, generally there are four different bar and space width modules that make this up. All of the four different width modules are a proportional increase of the thinnest bar.

By changing a single character in the Barcode string, the width of the thinnest bar and character size of the human readable text, will automatically be resized the next the format loads to the printer.

THERMOCODE BARCODE PROGRAMMING STYLES

TYPE	DESCRIPTION	INPUT LENGTH	CHARACTERS ENCODED	ADJUST RATIO
00	EAN8	7	N	NO
01	EAN13	12	N	NO
02	EAN128		N	NO
03	UPC - A	11	N	NO
04	UPC - E	11	N	NO
05	CODE 39	1 TO 30	N - U - P	YES
06	CODE 128	1 TO 30	N - U - L - P - C	NO
07	ITF CODES	2 TO 30	N	YES
08	EXTENDED CODE 39	1 TO 30	N - U - L - P - C	YES
09	CODABAR	1 TO 30	N	NO
10	MSI	1 TO 30	N	NO
11	CODE 93	1 TO 30	N - U - P	NO
12	EXTENDED CODE 93	1 TO 30	N - U - L - P	NO
13	UCC - 128	19	N	NO
14	HIBC	1 TO 30	N	NO
15	UPC - E (SYSTEM 0)	6	N	NO

CHARACTERS ENCODED:-

N = Numbers (0 - 9)

U = Upper Case (A - Z)

L = Lower Case (a - z)

P = Punctuation

C = Control Characters (below space character.)

BARCODE PROGRAMMING EXAMPLES

B	ss	xxxx	yyyy	hhh	o	b	r	h	c	t	Barcode Text
B	01	0050	0100	250	0	4	0	1	1	0	O54368787654

Where:-

- B = Indicates a Barcode field to printer.
- ss = Style or Type of Barcode to Print.
- xxxx = X Datum position in dots.
- yyyy = Y Datum position in dots.
- hhh = Height of Barcode in dots, Vertical Bars only does not include text.
- o = Orientation of Barcode, 0 = 0, 1 = 90, 2 = 180, 3 = 270 Clockwise rotation.
- b = Narrow bar width in dots. (Normally between 2 to 5) 4 = 100% Barcode Width
- r = Ratio:- 2 = 2:1, 1 = 2.5:1, 0 = 3:1.
- h = Human readable characters. 0 = OFF, 1 = ON, 2 = Special fonts only.
- c = Checksum digit. 0 = OFF, 1 = ON
- t = Type of Barcode. 0 = Fixed, 1 = Variable, etc see escape code specifications.
- Barcode Text = Characters that make up the barcode to be printed.

Barcode Field (Format Data)

Esc B {ss} {xxxx} {yyyy} {hhh} {o} {b} {r} {h} {c} {t} {nn....nn}

- | | | | |
|--------------|------------------|-------|--------------------|
| {ss} = Style | Symbology | Style | Symbology |
| 00 = | EAN 8 | 09 = | CODABAR |
| 01 = | EAN 13 | 10 = | MSI |
| 02 = | EAN 128 | 11 = | CODE 93 |
| 03 = | UPC-A | 12 = | EXTENDED CODE 93 |
| 04 = | UPC-E | 13 = | UCC - 128 |
| 05 = | CODE 39 | 14 = | HIBC |
| 06 = | CODE 128 | 15 = | UPCE (6, SYSTEM 0) |
| 07 = | ITF CODES | | |
| 08 = | EXTENDED CODE 39 | | |
-
- {xxxx} = horizontal position
 - {yyyy} = vertical position
 - {hhh} = height (including human readable characters)
 - {o} = orientation:- (Clockwise rotation)
 - 0 = 0°
 - 1 = 90°
 - 2 = 180°
 - 3 = 270°
 - {b} = Narrow Bar width in dots. (between 2 to 5)

{s}	=	styles (element thickness & ratios):- 0 = 3:1 ratio 1 = 2.5:1 ratio 2 = 2:1 ratio
{h}	=	Human readable option, (1 = ON, 0 = OFF, 2 = Special).
{c}	=	Checksum Digit Automatic, (1 = ON, 0 = OFF).
{t}	=	Type of Barcode. 0 = FIXED INFORMATION. 1 = VARIABLE INFORMATION OPTION. 2 = DATE OPTION. 3 = TIME OPTION. 4 = COUNTER OPTION. V = CAN UTILISE FIXED AND VARIABLE INSERTION FIELDS.
{n...n}	=	ASCII text:- Fixed information option. Content (alphanumeric) Variable information option. Content (alphanumeric) Date option. Date offset in days (dddd) Time option. Time offset in minutes (mmmmm)

For EAN type barcodes, the style parameter will be ignored.

The first value of the counter, during a print run, is the stated increment.

The date printed during a print run is the current date plus the stated date increment. The time printed during a print run is the current time plus the stated time increment.

BARCODE EXAMPLES

NOTE! Spaces shown between the characters groups are only for clarity, the brackets define each group of parameters.

STANDARD BARCODE FORMAT (Fixed data, no Terminal Access)

B01 {0100} {0020} {150} {0} {0} {0} {1} {1} {0} {123456789012}

VARIABLE BARCODE FORMAT (All characters accessible via terminal)

B01 {0100}{0020} {150} {0} {0} {0} {1} {1} {1} \ 0 \ 0 {123456789012}

VARIABLE BARCODE FORMAT (Fixed characters at the begining of the barcode, only the last characters behind the last backslash and ommitting the leading zero are accessable by the Terminal.)

B01 {0100} {0020} {150} {0} {0} {0} {1} {1} {1} {1234567} \ 0 \ 0 {89012}

VARIABLE BARCODE FORMAT (Fixed characters at the end of the barcode, the text between the backslash's without the zero is fixed at the end of the barcode and printed before the checksum digit.)

B01 {0100} {0020} {150} {0} {0} {0} {1} {1} {1} \ 0 {12} \ 0 {1234567890}

YOU CAN OF COURSE MIX THE DIFFERENT WAYS OF PROGRAMMING BARCODES TO HAVEFIXED INFORMATION AT THE FRONT AND REAR OF A BARCODE IF REQUIRED.

EAN 128 Barcodes Programming

To program EAN128 Barcodes utilising DOS commands, the installed printer software version of at least TPHC1_E.a21 or above, and loaded to the Thermocode printer.

The TLOAD6.EXE program must be used when sending formats to the Thermocode printer and Hand Held terminal, otherwise the Control and function codes utilised when specifying an EAN128 barcode will not be recognised or created correctly.

TYPICAL EAN128 BARCODE STRING

```
BBXXXXYYYYhhhoBRhct
B0200100010220040100\CC\FN10105011321156821
```

EXPLANATION OF SPECIAL CODES

```
\CA = Control Code A
\CB = Control Code B
\CC = Control Code C
\FN1 = Function Code 1
\FN2 = Function Code 2
\FN3 = Function Code 3
\SH = Shift Code
```

0105011321156821 = Actual bar code information.

Note the first two digits of the bar code information will be contained in standard brackets (signifying the barcode is EAN128) when printing a barcode with human readable text underneath. (Only when specifying the Barcode type 02 within the Dos commands)

EAN128 Barcodes can also be produced using the Code128 symbology, but you won't get the brackets around the first two digits.

Variable information Barcode (Access via the Terminal)

As Normal Barcode programming for variable Barcodes you have to add to the programming a "\0" to determine where the variable information starts and another "\0" which defines the amount of variable information. With the EAN128 Barcodes these control characters should be placed after the Control and Function codes.

Example 1 (Barcode number accessed by Edit on the Terminal)

```
B0200100010220040101\CC\FN1\0\00105011321156821
```

The above code allows access to:- 0105011321156821

Example 2 (Barcode number accessed by Edit on the Terminal)

```
B0200100010220040101\CC\FN1010501132\0\01156821
```

The above code allows access to:- 1156821

SEQUENTIAL BARCODE

As with the variable Barcodes you must enter the "\0" 's in the correct position and specify a Barcode type 4 at the end of the characters .

Example 3 (Incrementing Barcode)

```
B0200100010220040104\CC\FN10105011321156\0\0001
```

The above code increments the Barcode, only the last three characters change.

2.90 SHIFT CODES

Utilising the internal clock of the printer computer, it is possible to print a single character to represent a specific working shift.

The shift times used internally are:-

0600 hrs to 1400 hrs

1400 hrs to 2200 hrs

2200 hrs to 0600 hrs

Programming the character you wish to print, and offset the shift starting time to vary is a very simple operation.

Text field type 9 is the automatic Shift code, shown below is a typical format with no offsets:-

```
TARIALBD {0200} {0048} {12} {0} {0} {9} {ELN} {00}
```

Where:-{T} = Text Field Escape Code.

{ARIALBD} = Font in Printer.

{0200} = X axis co-ordinate.

{0048} = Y axis co-ordinate.

{12} = Point size of font.

{0} = Orientation of Text

{0} = Reverse Video off.

{9} = Text field identifier, Shift Code.

{ELN} = The characters to print for each shift.
(E = 0600am – 1400pm, L = 1400pm – 2200pm, N = 2200pm – 0600am)

{00} = Offset time in minutes, may be positive or negative. (00 = no offset)
(60) = add 60 minutes
(-60) = minus 60 minutes.

You may replace the letters {ELN} with any numerical or alphabetical character. The two zero's {00} after the {ELN} code, inform the computer that no offset in time is required for the shift starting times. If we put 60 after the {ELN} code the shift starting time would advance by 60 minutes, putting -60 would put the shift starting time back by 60 minutes.

3.00 SEQUENTIAL NUMBERING

Once programmed, the printer can print an incrementing or decrementing number, the specified amount is the increment or decrement value that will apply to each product, and reset to the start number when the upper limit is reached.

Example:- TARIALBD {0200} {0050} {12} {0} {0} {4} {001}

Where:-

- {T} = Text Field Escape Code.
- {ARIALBD} = Font in Printer.
- {0200} = X axis co-ordinate.
- {0050} = Y axis co-ordinate.
- {12} = Point size of font.
- {0} = Orientation of Text
- {0} = Reverse Video off.
- {4} = Sequential Counter Text Field.
- {001} = Sequential increment of 1 up to 999 before reset.

The software at present does not support specifying where a number can start, with this the printer will always start at the sequential start code. (eg {001} as above.

3.10 PALLET NUMBERING (modification of Sequential numbering)

Once programmed, the printer can print the same number on each specified product for a specified amount of times, and increment to the next number when the specified amount is reached.

Example:- TARIALBD {0200} {0050} {12} {0} {0} {4} {001} {,12}

Where:-

- {T} = Text Field Escape Code.
- {ARIALBD} = Font in Printer.
- {0200} = X axis co-ordinate.
- {0050} = Y axis co-ordinate.
- {12} = Point size of font.
- {0} = Orientation of Text
- {0} = Reverse Video off.
- {4} = Sequential Counter Text Field.
- {001} = Sequential increment of 1 up to 999 before reset.
- {,12} = Pallet count, prints each number 12 times before incrementing.

3.20 TYPICAL FORMAT EXAMPLE

Shown below is a typical format, specifying how it is created:-

F1TEST1 001	(Ref line 1)
P0050040004000020400000000	(Ref line 2)
TARIALBD 0050004512000Open Date Equipment.	(Ref line 3)
B0100500100150040110512345677651	(Ref line 4)
L00500055400010200005	(Ref line 5)
Q001000000	(Ref line 6)
REM END	(Ref line 7)

The comments in brackets are only for your reference.

(Ref line 1)	=	Print Format Description.	see pages 24 - 25
(Ref line 2)	=	Print Control parameters.	see page 25
(Ref line 3)	=	Text Field Information.	see pages 8 - 15
(Ref line 4)	=	Barcode Field Information.	see pages 17 -22
(Ref line 5)	=	Line/Box Field Information.	see page 15
(Ref line 6)	=	Print Quantity Description.	see page 26
(Ref line 7)	=	End of File Statement.	

A Typical format can have a maximum of:-

Text Fields	-	40 off
Barcode Fields	-	8 off
Graphic Fields	-	20 off
Line/Box Fields	-	10 off

3.30 PRINT FORMAT DESCRIPTION

This is always the first line of a Format design, indicating the Memory storage index No. and specified name of the design. The name given must 10 characters long (including spaces if required).

The Memory storage Index No. is the actual memory location of where the format will be stored, originally the printer was designed with four memory allocations, but we only use the first one.

Example of Format description:-

F {Index No.} {name} {001}

Where:- F = Escape code for Format.

{Index No.} = Memory location in printer.

{name} = Format Name, 10 alphanumerical characters (including spaces)
(no punctuation characters allowed in name)

{001} = Reference number of format, not used by printer, only for reference.

Typical Format Description Line:-

F1Open Date 001

Note! Always use "F1" when programming the Thermocode 5775.

3.40 PRINT CONTROL PARAMETERS

This code sequence sets the print control parameters for the format being loaded to the printer.

Example of Print Parameters Code:-

P {ssss} {bbb1} {bbb2} {pppp} {ph} {rr} {oooo}

Where:-P = Escape code for Print Parameters.

{ssss} = Print speed in millimetres per second. (0050 = 50mm/sec)

{bbb1} = Burn value of print "A" to "B". (micro-seconds)

{bbb2} = Burn Value of print "B" to "A". (micro-seconds)

{pppp} = Printhead pressure on substrate. (Newtons) 0020 = 20 newtons or

2Kg.

{ph} = Printhead peel height. (Millimetres) 50 = 5.0 mm (see note below)

{rr} = Ribbon offset. (millimetres) (see note below)

{oooo} = Print position offset. (dots) see below.

Notes:-

Printhead Peel height, this is a special feature of the Thermocode 5775 which allows the printhead to be lifted up a specified amount after printing an Image, whilst the thermal ribbon is wound on. This feature when used in conjunction with the Pre-Print height can allow higher printing speeds and still achieve optimum print quality. (Range 00 - 99)

Ribbon offset is normally set to zero, it was originally specified to allow for mechanical tolerances, and not normally required.

Print position offset. {oooo}

This feature allows the user to specify within a format an offset in dots from the programmed Home position of the printer. This could save having to move the printer on the "Y" axis of a frame but still achieve a new printing position of the format.

- 3.41** This Version of Software allows the user to decide whether to allow 8 dots extra printhead travel for settling of the Printhead whilst moving. By simply changing the first digit of the Pressure parameter to a "1" will remove the original 8 dots from the printed image and also speed up printing cycle times.

3.50 PRINT QUANTITY DESCRIPTION

Allows the user to set a pre-set batch or unlimited printing of the required format.

Example of Quantity line:-

Q {001} [000000}

Where:-Q = Escape code for Quantity line.

{001} = Memory storage Index No.

{000000} = Unlimited printing. (See Note Below)

Note! If you are required to set a batch quantity of printed products, you can replace the last six zero's with a batch size, up to a maximum figure of 999,999.

SPECIAL QUANTITY COMMAND

A few of our customers required automatically to print once the format was loaded to the printer. This is a special application and not normally used, shown below is the method of programming such a command:-

Example of Special Quantity line:-

Q {001} {-10000}

As you can see, all that is changed, is the way the original quantity was entered, the "-1" indicates to the printer to automatically print once loaded. The maximum batch quantity using this command is 9,999.

3.51 PRINTER OUTPUT TO SERIAL LINE

After a batch quantity of prints or an automatic print cycle, the printer replies on the Serial line with the following command:-

EscDONE\n

This is very usefull for automatically downloading the next print in a queue etc.

4.00 SOFTWARE CHANGES TO PREVIOUS ISSUED VERSION TPHC4_07.A21

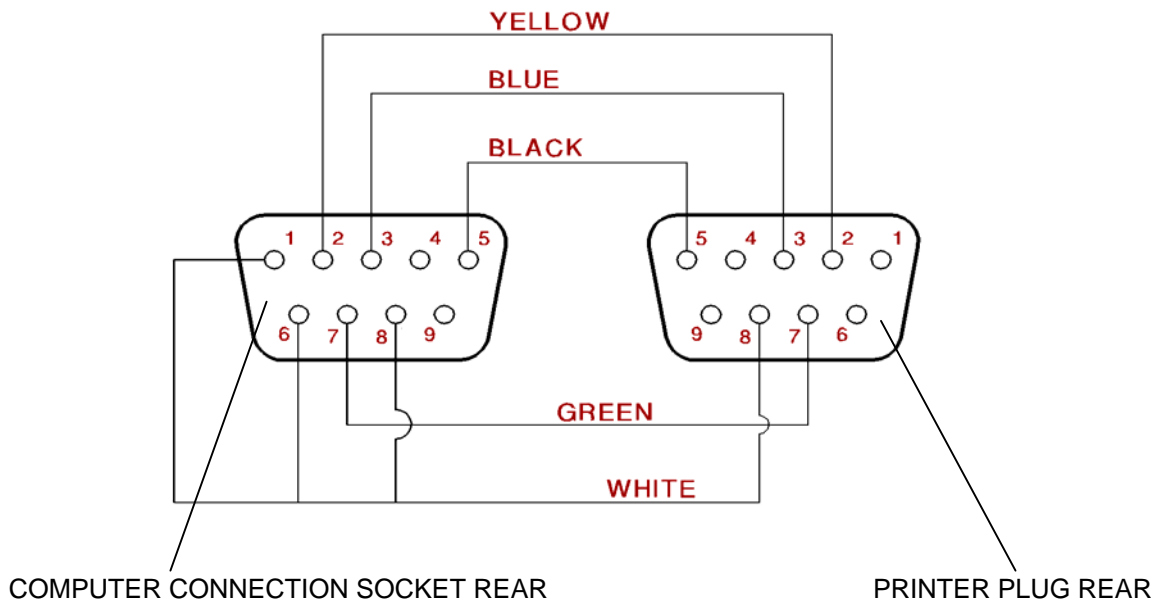
Formats that contained multiple graphic fields (above 8) caused printer malfunctions. Upon nvestigation it was found that not all the graphic fields were not being cleared from the printer Memory Correctly. This has now been corrected and added to our standard test procedures.

Added the following features:-

1. A choice of baud rate, either 9600 or 19200
2. Updating variable fields added.
3. Rollover date offsets added
4. Daylight saving times added.
5. Automatic Clock updating on label.
6. Added offsett from home parameter to Print parameters line.
7. Added output from Serial port.

COMPUTER COM1 CONNECTION LEAD

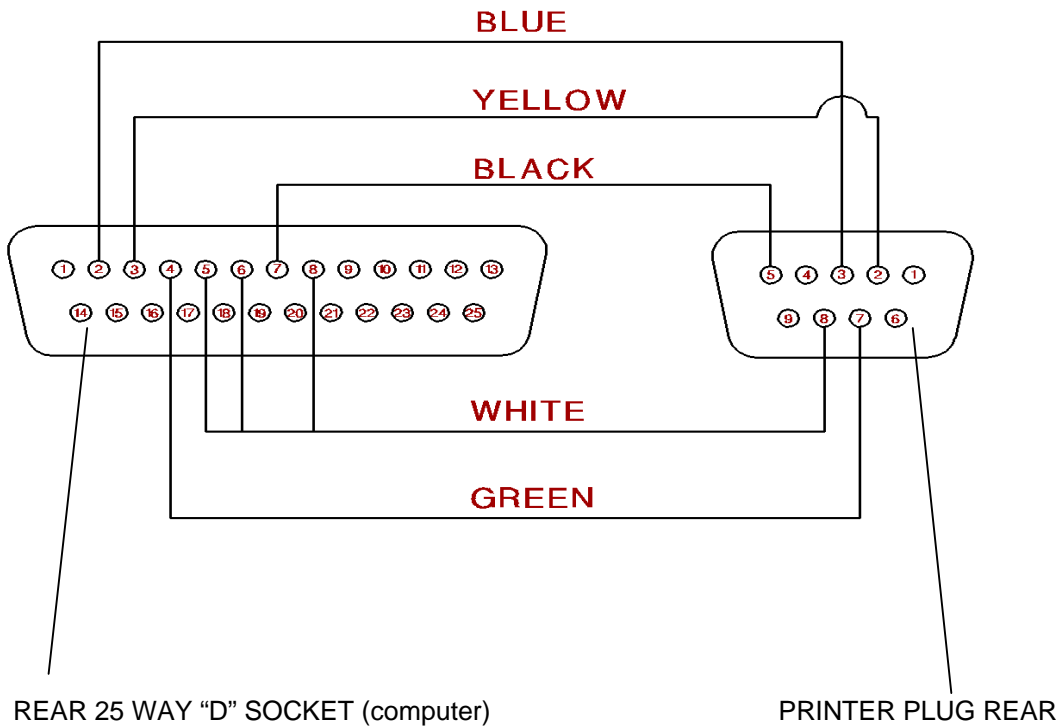
COMPUTER TO PRINTER 9 WAY "D" CONNECTOR (COM1)



PURCHASE PART No. LEA 755021

COMPUTER COM2 CONNECTION LEAD

COMPUTER 25 WAY "D" CONNECTOR (COM2) TO PRINTER 9 WAY "D" CONNECTOR



PURCHASE PART No. LEA 755019

THERMOCODE 5775

STANDARD RELAY CONFIGURATION

SOFTWARE VERSION TPHC5_1.A21	FAULT RELAY (Relay 3) NO / NC	START RELAY (Relay 2) NO / NC	STOP RELAY (Relay 1) NO / NC
NO POWER	NO / NC	NO / NC	NO / NC
POWER READY TO PRINT	NC / NO	NC / NO	NO / NC
WHILST PRINTING	NC / NO	NO / NC	NC / NO
AFTER PRINTING	NC / NO	NC / NO	NO / NC
CASSETTE REMOVED	NO / NC	NO / NC	NC / NO
RIBBON BROKEN OR OUT	NO / NC	NO / NC	NC / NO
PRINTER ERROR	NO / NC	NO / NC	NC / NO
RIBBON LOW	NC / NO	NC / NO	NO / NC

NC = NORMALLY CLOSED

NO = NORMALLY OPEN

THERMOCODE 5775

LOW FOIL RELAY CONFIGURATION

SOFTWARE VERSION TPHC5_1.A21	FAULT RELAY (Relay 3) NO / NC	LOW FOIL RELAY (Relay 2) NO / NC	STOP RELAY (Relay 1) NO / NC
NO POWER	NO / NC	NO / NC	NO / NC
POWER READY TO PRINT	NC / NO	NC / NO	NO / NC
WHILST PRINTING	NC / NO	NC / NO	NC / NO
AFTER PRINTING	NC / NO	NC / NO	NO / NC
CASSETTE REMOVED	NO / NC	NC / NO	NC / NO
RIBBON BROKEN OR OUT	NO / NC	NC / NO	NC / NO
PRINTER ERROR	NO / NC	NC / NO	NC / NO
RIBBON LOW	NO / NC	NO / NC	NC / NO

NC = NORMALLY CLOSED

NO = NORMALLY OPEN

THERMOCODE 5775 SEQUENCE RELAY CONFIGURATION

SOFTWARE VERSION TPHC5_1.A21	FAULT RELAY (Relay 3) NO / NC	LOW FOIL RELAY (Relay 2) NO / NC	STOP RELAY (Relay 1) NO / NC
NO POWER	NO / NC	NO / NC	NO / NC
POWER READY TO PRINT	NC / NO	NC / NO	NO / NC
WHILST PRINTING	NC / NO	NC / NO	NC / NO
AFTER PRINTING	NC / NO	NC / NO	NO / NC
CASSETTE REMOVED	NO / NC	NC / NO	NO / NC
RIBBON BROKEN OR OUT	NO / NC	NC / NO	NO / NC
PRINTER ERROR	NO / NC	NC / NO	NO / NC
RIBBON LOW	NO / NC	NO / NC	NO / NC

NC = NORMALLY CLOSED

NO = NORMALLY OPEN

THERMOCODE 5775 READY RELAY CONFIGURATION

Software Version TPHC5_1.A21

PRINTER STATUS	RELAY OUTPUT	LED CONDITIONS
No Power	N\O	No LED's on.
Power ON, No Format Loaded To Printer.	N\O	Green LED on.
Power ON, Format Loading To Printer.	N\O	Green LED on.
Power ON, Format Loaded Ready To Print.	N\C	Green LED on & Yellow LED on.
Power ON, Format Printing.	N\C	Green LED on & Yellow LED on.
Power ON, Format Quantity Reached.	N\O	Green LED on & Yellow LED flashing.
Power ON, Format Programming Errors.	N\O	Green LED on & Any Yellow LED sequence.
Power ON Mechanical Errors.	N\O	Green LED on & Any Red LED sequence.

SPECIAL CHARACTERS WHEN USING DOS PROGRAMMING

The Thermocode uses Windows styles of TrueType and Bitmap fonts. To print special characters when programming in DOS mode you must use the ALT key and the numeric keys on the right of the Keyboard. (Portable computers may use different display characters and special control commands)

ALT + Number	Printed Character	Possible Display	ALT + Number	Printed Character	Possible Display
163	£	□	221	Ý	█
188	¼	□	224	à	α
189	½	□	225	á	β
190	¾	□	226	â	Γ
192	À	¶	227	ã	π
193	Á	□	228	ä	Σ
194	Â	□	229	å	σ
195	Ã		230	æ	μ
196	Ä		231	ç	τ
197	Å	□	232	è	ϕ
198	Æ	□	233	é	⊙
199	Ç	□	234	ê	Ω
200	È	□	235	ë	δ
201	É	□	236	ì	∞
202	Ê	□	237	í	φ
203	Ë	□	238	î	ε
204	Ì	□	239	ï	η
205	Í	□	242	ò	≥
206	Î	□	243	ó	≤
207	Ï	□	244	ô	
210	Ò	□	245	õ	
211	Ó	□	246	ö	÷
212	Ô	□	249	ù	·
213	Õ	□	250	ú	·
214	Ö	□	251	û	√
217	Ù	↑	252	ü	n
218	Ú	□	253	ý	z
219	Û	□	255	ÿ	
220	Ü	□			

STATUS PRINTOUT OPERATION

1. Remove the Cassette from the Thermocode.
2. Place a piece of Thermal Fax paper under the printhead and hold in position.
3. Press the Cassette plunger in, and then press the Ribbon reset Button.
4. Release both buttons.
5. The printhead will after about 10 seconds produce the Status printout, and then return to its original home position.
6. Replace Cassette, you may have to wait a few seconds whilst the Printer re-generates the printing image, before carrying on with Production printing.

Note!

It may be necessary to clean the Printhead and Printing Pad to ensure that a good quality print is achieved.

Shown below is a typical Status printout Details:-

<p>Οπεν Δατε Εθουιπμεντ ζερσιον 5.1 Βυιλτ θυν 17 1999 B=9600 03/07/99 11:06 Ριβ λεν=390 τηκ=11.5 Ω λεν=10 Χ διαμ=33.5 Π διστ=15643Πρεπ=9.8 Ηεαδ P=1747 Φντ: ΗΥΜΒΔ14 ΗΥΜΒΔ09 Φντ: Σωισσ ΑΡΙΑΛΒΔ Φντ: ΟΧΡΒ Σωισχον8 Φμτ: ΧραχκερI</p>
--

The above text has vertical and horizontal lines around the text, allowing checking of any missing pixels or printhead damage.

Status Details

- Line 1 = Company name of Software owners. (Οπεν Δατε Εθουιπμεντ)
- Line 2 = Software Version Number. (ζερσιον ΤΠΗΧ5.1)
- Line 3 = Date Software compiled. (Βυιλτ θυν 17 1999)
- Line 3 = Baud rate setting of Printer (B = 9600)
- Line 4 = Date and time in Memory of printer. Format could be either DD/MM/YY or MM/DD/YY or YY/MM/DD dependant on factory settings. (03/07/99 11:06)
- Line 5 = Ribbon length in metres and thickness in microns. (Ριβ λεν=390 τηκ=11.5)
- Line 6 = Ribbon Warning length in metres and Cassette cardboard core outside diameter in millimetres. (Ω λεν=10 Χ Διαμ=33.5)
- Line 7 = Print Distance of Printhead in Metres and Preprint height of printhead.

(Π δισκ=15643 Πρεπ=9.8)

- Line 8 = Printhead Resistance in ohms. (Hεαδ P=1747)
- Line 9 = Lists font names loaded to printer. (HYMBΔ14 HYMBΔ09)
- Line 10 = Lists font names loaded to printer. (Σωισσ ΑΡΙΑΛΒΔ)
- Line 11 = Lists font names loaded to printer. (ΟXPB Σωισχον8)
- Line 12 = Name of Format Loaded to printer. (Χραχκερ1)

Note!

The amount of font names and lines listed will vary with each machine.

