

THERMOCODE SERIES 2

SYSTEM VARIABLES (Descriptions & Limits)

ISSUE 6.2

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Foreword

System Variable Parameters

Shown within this manual are some internal software settings, they allow specific control of all the functions within the printer. Changing one or more variables may prove useful, for specialist applications.

NOTE!

Please do not change any of these settings, unless you are certain of what you are doing. Also make sure you have the latest version of firmware installed in your Printer.

Each command can be requested individually. When requesting a specific command name, the printer will respond by sending out the command name followed by the value that has been set. Check the named variable to ensure that you understand what the value represents, and how it will affect the printer performance.

General Programming Notes

1. All lines prefixed by an Escape code (character 27) and a zero (character 48)
2. All lines terminated by a line feed (character 10). A carriage return followed by line feed is also acceptable (character 13 followed by character 10).
3. Null lines allowed. (carriage return and line feed with no other data).
4. Any variables shown in red are not fully implemented.

ABURN = Actual Burn Value of last Print

Description: - All Printers

Returns the actual burn value used to print the last format. The received value will be different to the value in the format, due to the automatic adjustment for: - Ambient Temperature, Printhead Temperature, Printhead Resistance and Actual Speed being used.

NOTE! The value can only be received.

System Variable Name: -	=	SYSABURN
RecoverMode Identifier: -	=	ABURN
Termode Identifier: -	=	0XSYSABURN
Type of Units: -	=	Micro- seconds
Received Value: -	=	Value from Printer
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSABURN
Received String: -	=	Esc0XSYSABURN_1
Send Command: -	=	n/a

ACARRIAGE = Carriage length of the Printer.

Description: - Intermittent Printers

Returns the actual carriage length of the Printer between the "A" and "B" sensors in Dots.

A 107S printer returns 790 in Dots. Also see "ALEN" and "FORCET"

NOTE! The value can only be received.

System Variable Name: -	=	SYSACARRIAGE
RecoverMode Identifier: -	=	ACARRIAGE
Termode Identifier: -	=	0XSYSACARRIAGE
Type of Units: -	=	Dots
Received Value: -	=	Value from Printer
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSACARRIAGE 790 (790 FOR 107S)

Received String: - = **Esc0XSYSACARRIAGE 790 (790 FOR 107S)**
Send Command: - = **n/a**

ACOUNT = Number of Labels printed.

Description: - All Printers

Returns the actual Number of Labels that the selected format has printed.

NOTE! The value can only be received.

System Variable Name: - = **SYSACOUNT**
RecoverMode Identifier: - = **ACOUNT**
Termode Identifier: - = **0XSYSACOUNT**
Type of Units: - = **Numeric**
Received Value: - = **Value from Printer**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSACOUNT**
Received String: - = **Esc0XSYSACOUNT 0**
Send Command: - = **n/a**

AFGATST = Special Code for testing memory leaks.

Description: - Intermittent Printers

Used to test for memory leaks, designed for a specific Customer requirement.

Checks memory settings, and looking for changes.

System Variable Name: - = **SYSAFGATST**
RecoverMode Identifier: - = **AFGATST**
Termode Identifier: - = **0XSYSAFGATST**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSAFGATST**
Received String: - = **Esc0XSYSAFGATST 0**
Send Command: - = **Esc0XSYSAFGATST 0**

ALEN = Assumed Print Area.

Description: - Intermittent Printers

Used in conjunction with "FORCET" and "ACARRIAGE"

When forcing a printer type, this returns an area in Dots of the assumed printer being forced ie "FORCET 107S" returns a print area of 640 in Dots. Also see "ACARRIAGE"

NOTE! The value can only be received.

System Variable Name: - = **SYSALEN**
RecoverMode Identifier: - = **ALEN**
Termode Identifier: - = **0XSYSALEN**
Type of Units: - = **Dots**
Received Value: - = **Value from Printer**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSALEN 0**
Received String: - = **Esc0XSYSALEN 640 (640 FOR 107S)**
Send Command: - = **n/a**

ASPEED = Actual speed of the last print.

Description: - All Printers

This is very useful when checking the speed of the shaft encoder against the actual machine speed when there's a lot of machine speed fluctuation & or variation.

NOTE! The value can only be received.

System Variable Name: - = **SYSASPEED**
RecoverMode Identifier: - = **ASPEED**
Termode Identifier: - = **0XSYSASPEED**

Type of Units: - = Millimetres per second

Continued on next Page

Received Value: - = Value from Printer
Minimum Value: - = n/a
Maximum Value: - = n/a
Request Command: - = Esc0ZXSYSASPEED
Received String: - = Esc0XSYSASPEED 10
Send Command: - = n/a

ATEMP = Actual Print Head Temperature C°

Description: - All Printers
 Returns the actual print head temperature in Celsius.
NOTE! The value can only be received.

System Variable Name: - = SYSATEMP
RecoverMode Identifier: - = ATEMP
Termode Identifier: - = 0XSYSATEMP
Type of Units: - = Degrees Centigrade
Received Value: - = Value from the Printer
Minimum Value: - = n/a
Maximum Value: - = n/a
Request Command: - = Esc0ZXSYSATEMP
Received String: - = Esc0XSYSATEMP 22
Send Command: - = n/a

BARMT = UPCA & UPCE middle text variable



Description: - All Printers
 This variable you can change the font size used in the main/middle text off a UPCA and UPCE barcodes. The original size can be viewed in the variable "RBARMT"

System Variable Name: - = SYSBARMT
RecoverMode Identifier: - = BARMT
Termode Identifier: - = 0XSYSBARMT
Type of Units: - = Point Size
Received Value: - = Value from the Printer
Minimum Value: - = 0
Maximum Value: - = 16 (Send a to large point size will distort the barcode)
Request Command: - = Esc0ZXSYSBARMT
Received String: - = Esc0ZXSYSBARMT 0
Send Command: - = Esc0XSYSBARMT 0

BARST = UPCA & UPCE small text variable



Description: - All Printers
 This variable you can change the font size used on the outside text off a UPCA and UPCE barcodes. (The zero 0 and 5) The original size can be viewed in the variable "RBARST"

System Variable Name: - = SYSBARST
RecoverMode Identifier: - = BARST
Termode Identifier: - = 0XSYSBARST
Type of Units: - = Point Size
Received Value: - = Value from the Printer
Minimum Value: - = 0
Maximum Value: - = 16 (Send a to large point size will distort the barcode)
Request Command: - = Esc0ZXSYSBARST
Received String: - = Esc0ZXSYSBARST 0
Send Command: - = Esc0XSYSBARCT 0

BAUD = Printer Baud rate (Bits per second)

Description: - All Printers

This system variable "SYSBAUD" allows the baud rate to be changed using RecoverMode or Termode. This Variable will only work with EEPROM Version 6.3 and above. To activate the baud rate, the Printer has to be Re-Booted.

Continued on next Page

System Variable Name: -	=	SYSBAUD
RecoverMode Identifier: -	=	BAUD
Termode Identifier: -	=	0XSYSBAUD
Type of Units: -	=	Bits per second
Default Value: -	=	115200
Minimum Value: -	=	4800
Maximum Value: -	=	115200
Request Command: -	=	Esc0ZXSYSBAUD
Received String: -	=	Esc0XSYSBAUD 115200
Send Command: -	=	Esc0XSYSBAUD 115200

BFILE = Selecting a Different Burn File

Description: - All Printers

Do not try to use this command, unless you are sure you know what you are doing. This feature allows the use of additional burn files created to suit special applications. This is a very time consuming exercise, and would need extensive testing.

Please contact your local representative for full technical information.

Allows the user to select a different burn file from the file store.

System Variable Name: -	=	SYSBFILE
RecoverMode Identifier: -	=	BFILE
Termode Identifier: -	=	0XSYSBFILE
Type of Units: -	=	Integer
Received Value: -	=	Name of File
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSBFILE
Received String: -	=	Esc0XSYSBFILE (Name of File)
Send Command: -	=	Esc0XSYSBFILE (Name of File)

BLIFT = Not used, obsolete

BPDEL = Time in seconds the 24V Printhead Supply is on.

Description: - All Printers

When set to zero (0) the Printhead is only energised whilst printing.

Before changing this value, please consult your local dealer for more detailed information.

System Variable Name: -	=	SYSBPDEL
RecoverMode Identifier: -	=	BPDEL
Termode Identifier: -	=	0XSYSBPDEL
Type of Units: -	=	Second
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	10
Request Command: -	=	Esc0ZXSYSBPDEL
Received String: -	=	Esc0XSYSBPDEL 0
Send Command: -	=	Esc0XSYSBPDEL 0

BURN1 = Minimum burn value allowed

Description: - All Printers

The minimum burn value allowed, set within the Printer. Do not change these settings unless you know what you are doing, you could damage the Print Head.

System Variable Name: -	=	SYSBURN1
RecoverMode Identifier: -	=	BURN1
Termode Identifier: -	=	0XSYSBURN1
Type of Units: -	=	Micro- seconds
Default Value: -	=	50

Minimum Value: - = **50**
Maximum Value: - = **10000**

Continued on next Page

Request Command: - = **Esc0ZXSYSBURN1**
Received String: - = **Esc0XSYSBURN1 50**
Send Command: - = **Esc0XSYSBURN1 50**

BURN2 = **Maximum burn value allowed**

Description: - All Printers

The maximum burn value allowed, set within the Printer. Do not change these settings unless you know what you are doing, you could damage the Print Head.

System Variable Name: - = **SYSBURN1**
RecoverMode Identifier: - = **BURN20**
Termode Identifier: - = **0XSYSBURN2**
Type of Units: - = **Micro- seconds**
Default Value: - = **500**
Minimum Value: - = **400**
Maximum Value: - = **10000**
Request Command: - = **Esc0ZXSYSBURN2**
Received String: - = **Esc0XSYSBURN2 500**
Send Command: - = **Esc0XSYSBURN2 500**

CASS = **External Control of Cassette (No mini-terminal)**

Description: - All Printers

Special feature that allows the computer to talk to a printer and reset the cassette. You can then decide whether the ribbon qty is reset or not, when the cassette has been replaced. Valid Range 4-5
Read a value of 0, normal operation cassette ON and working.

Read a value of 1, Ribbon break.

Read a value of 2, cassette removed.

Read a value of 3, cassette replaced.

If the cassette is removed again the value will go back to 2.

Send a value of 4 if the ribbon has not been replaced,

Send a value of 5 if the ribbon has been replaced.

Value is not saved and will read as 0 once this has been done.

System Variable Name: - = **SYSCASS**
RecoverMode Identifier: - = **CASS**
Termode Identifier: - = **0XSYSCASS**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **5**
Request Command: - = **Esc0ZXSYSYSCASS**
Received String: - = **Esc0XSYSCASS 0**
Send Command: - = **Esc0XSYSCASS 0**

CCACTION = **Count Complete activating the Stop Relay.**

Description: - All Printers.

Allows the user to stop the Count Complete activating the Stop Relay (Relay 3) Useful when using a database, and you do not want the printer to stop a labeller etc. Range 0 to 1.

Set as 1 to de-activate the relay.

System Variable Name: - = **SYSCCACTION**
RecoverMode Identifier: - = **CCACTION**
Termode Identifier: - = **0XSYSCCACTION**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**

Request Command: - = **Esc0ZXSYSCCACTION**
Received String: - = **Esc0XSYSCCACTION 0**
Send Command: - = **Esc0XSYSCCACTION 0**

CEFIXED = Fixed burn calculation

Description: - Continuous Printers Only

CEFIXED allows the user to set a fixed speed of the shaft encoder enabling the calculation for the burn to be the same for every print. Used with intermittent Labelling Machines that have a fast start and stop acceleration's with a constant speed and the printer area over a 160mm in length.
 Range 0 - 1000mm/sec

System Variable Name: - = **SYSCEFIXED**
RecoverMode Identifier: - = **CEFIXED**
Termode Identifier: - = **0XSYSCEFIXED**
Type of Units: - = **Millimetres per second**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1000**
Request Command: - = **Esc0ZXSYSCEFIXED**
Received String: - = **Esc0XSYSCEFIXED 1000**
Send Command: - = **Esc0XSYSCEFIXD**

CEMAX = Maximum Continuous print speed

Description: - Continuous Printers Only

Maximum Continuous print speed, limits the maximum speed, if you have an erratic parent machine that is going over the required print speed. Set this value just above the required speed, this limits the printer from actually going above the required speed. Range 0 - 1000mm/sec

System Variable Name: - = **SYSCEMAX**
RecoverMode Identifier: - = **CEMAX**
Termode Identifier: - = **0XSYSCEMAX**
Type of Units: - = **Millimetres per second**
Default Value: - = **1000**
Minimum Value: - = **0**
Maximum Value: - = **1000**
Request Command: - = **Esc0ZXSYSCEMAX**
Received String: - = **Esc0XSYSCEMAX 1000**
Send Command: - = **Esc0XSYSCEMAX**

CEMCLR = Cancels any print signals (triggers)

Description: - Continuous Printers Only

Continuous only. Cancels any print signals (triggers) stored in memory if the speed goes below the value set in **CEMIN**

System Variable Name: - = **SYSCEMCLR**
RecoverMode Identifier: - = **CEMCLR**
Termode Identifier: - = **0XSYSCEMCLR**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSCEMCLR**
Received String: - = **Esc0XSYSCEMCLR 0**
Send Command: - = **Esc0XSYSCEMCLR 0**

CEMIN = Minimum Value at which the Encoder is Monitored.

Description: - Continuous Printers Only

Continuous only. When the Minimum set speed is reached this ignores all print and shaft encoder pulses. This is very useful when the substrate is moving or high vibration causing the shaft encoder to oscillate at low speed. Value 0 to 50mm / sec. Default 0

System Variable Name: - = SYSCEMIN
RecoverMode Identifier: - = CEMIN
Termode Identifier: - = 0XSYSCEMIN

Continued on next Page

Type of Units: - = Millimetres per second
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 50
Request Command: - = Esc0ZXSYSCEMIN
Received String: - = Esc0XSYSCEMIN 0
Send Command: - = Esc0XSYSCEMIN 0

CFRPT2 = Special Variable that allows Specific Controls on Changing Text Information.

“DO NOT ACTIVATE UNLESS YOU ARE SURE”

Description: - All Printers

The actual documents **“CFR21”** are a total minefield. New Hex code has been changed to suit the Customers interpretation of the requirements to be compliant to the FDA (Foods & Drug Administration U.S.A)

System Variable Name: - = SYSCFRPT2
RecoverMode Identifier: - = CFRPT2
Termode Identifier: - = 0XSYSCFRPT2
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 2
Request Command: - = Esc0ZXSYSYSCFRPT2
Received String: - = Esc0XSYSCFRPT2 0
Send Command: - = Esc0XSYSCFRPT2

Value's Set: -

CFRPT2 0 Standard Printer.

CFRPT2 1 When “Printer Locked” you cannot send or receive any information from any Computer. (Serial port is blocked)

CFRPT2 2 When “Printer Locked” you cannot send any information from any computer. If sending any data to the Printer an error message “Printer locked 142, 900” You can receive any information from Recovermode, Termode or Codesoft.

In either mode you can unlock the Printer by Pressing 1 on the keypad and entering the password “0” (Default 0) this will delete the format from the Print & Destination Memory.

To return the Printer to a standard Printer CFRPT2 0 you have to CINEW the Printer For more detailed information see Document **CFR21 Part II.doc**

CHARSET = Code page Western or Central European

Description: - All Printers

This variable allows the possibility to set a different code page at this moment these two.
 Value 1252 = Western
 Value 1250 = Central European

System Variable Name: - = SYSCCHARSET
RecoverMode Identifier: - = CHARSET
Termode Identifier: - = 0XSYSCCHARSET
Type of Units: - = Integer
Default Value: - = 1252
Minimum Value: - = n/a
Maximum Value: - = n/a

Request Command: - = Esc0ZXSYCHARSET
 Received String: - = Esc0XSYCHARSET 1252
 Send Command: - = Esc0XSYCHARSET 1252

CODOUBLE = Changing of the Resolution of a Printer in the "Y" axis

Special Variable that allows High Speed Printing utilising only 6 dots per Millimetre.

Description: - Continuous Printers Only

Special feature that allows changing of the resolution of a printer in the "Y" axis to 6 dots per millimetre. (Special applications Only) 0 = OFF, 1 = ON.

System Variable Name: - = SYSCODOUBLE
 RecoverMode Identifier: - = CODOUBLE
 Termode Identifier: - = 0XSYSCODOUBLE
 Type of Units: - = Integer
 Default Value: - = 0
 Minimum Value: - = 0
 Maximum Value: - = 1
 Request Command: - = Esc0ZXSYSCODOUBLE
 Received String: - = Esc0XSYSCODOUBLE 0
 Send Command: - = Esc0XSYSCODOUBLE 0

COENCSW = Ribbon Index Encoder Control

Description: - Continuous Printers Only.

Encoder Switch only, disables the automatic speed link to the printer. Set to 1 to disable the speed link, allows the ribbon indexing to be independent. "Default setting = 0 (automatic speed link)"

System Variable Name: - = SYSCCACTION
 RecoverMode Identifier: - = CCACTION
 Termode Identifier: - = 0XSYSCCACTION
 Type of Units: - = Integer
 Default Value: - = 0
 Minimum Value: - = 0
 Maximum Value: - = 1
 Request Command: - = Esc0ZXSYSCCACTION
 Received String: - = Esc0XSYSCCACTION 0
 Send Command: - = Esc0XSYSCCACTION 0

COFILT = This parameter is a filter for the shaft encoder input.

Description: - Continuous Printers Only

Continuous only. This parameter is a filter for the shaft encoder input.

The values are 1 to 5. (Default = 1) The higher the value the filtering is stronger.

It has been found with an error "**Burn Duty too High**" the machine speed was recorded at 1031mm/sec. This could be due to shaft encoder bounce or noise. The speed being logged using Termode from the variable "**SYASPEED**". The actual machine top speed was 580mm / sec. Make sure the encoder screen is tied to ground (earth).

System Variable Name: - = SYSCOFILT
 RecoverMode Identifier: - = COFILT
 Termode Identifier: - = 0XSYSCOFILT
 Type of Units: - = Integer
 Default Value: - = 1
 Minimum Value: - = 1
 Maximum Value: - = 5
 Request Command: - = Esc0ZXSYSCOFILT
 Received String: - = Esc0XSYSCOFILT 1
 Send Command: - = Esc0XSYSCOFILT 1

COHDEL = Ribbon De-acceleration in steps

NOTE: - This can help stopping scuffing marks on the product, being left from the actual ribbon.

Description: - Continuous Printers Only

This variable controls after finishing printing, where the ribbon starts de-accelerating. Incremented in Motor steps, Valid range = 0 – 100, dependent on Pressure and Printhead height.

Continued on next Page

Height	COHDEL Max Value
0.5	4
1.0	10
1.5	16
2.0	20
2.5	28
3.0	34

The above values work with all pressure ranges, from 20 to 35.

- System Variable Name:** - = **SYSCODEL**
- RecoverMode Identifier:** - = **COHDEL**
- Termode Identifier:** - = **0XSYSCOHDEL**
- Type of Units:** - = **Steps**
- Default Value:** - = **0**
- Minimum Value:** - = **0**
- Maximum Value:** - = **100**
- Request Command:** - = **Esc0ZXSYSCOHDEL**
- Received String:** - = **Esc0XSYSCOHDEL**
- Send Command:** - = **Esc0XSYSCOHDEL**

COMTRIG = Multi-image Printing Only

Description: - Continuous Printers Only

Multi - image Printers Only. This a special command that specifies the sequence and order of prints required, for a Multi-image Printer. For more information see Escape Sequences Manual Version 2. Command usually used within a format.

- System Variable Name:** - = **SYSCOMTRIG**
- RecoverMode Identifier:** - = **COMTRIG**
- Termode Identifier:** - = **0XSYSCOMTRIG**
- Type of Units:** - = **Integer**
- Default Value:** - = **see manual**
- Minimum Value:** - = **see manual**
- Maximum Value:** - = **see manual**
- Request Command:** - = **Esc0ZXSYSCOMTRIG**
- Received String:** - = **Esc0XSYSCOMTRIG**
- Send Command:** - = **Esc0XSYSCOMTRIG**

CONTACTINFO = Allows the user to change the information shown in Menu 7 of the Mini Terminal

Description: - All Printers

RecoverMode version 3.0.3 Firmware Version A305010x.hex & N305014x.hex and above

In RecoverMode double click on the variable CONTACTINFO

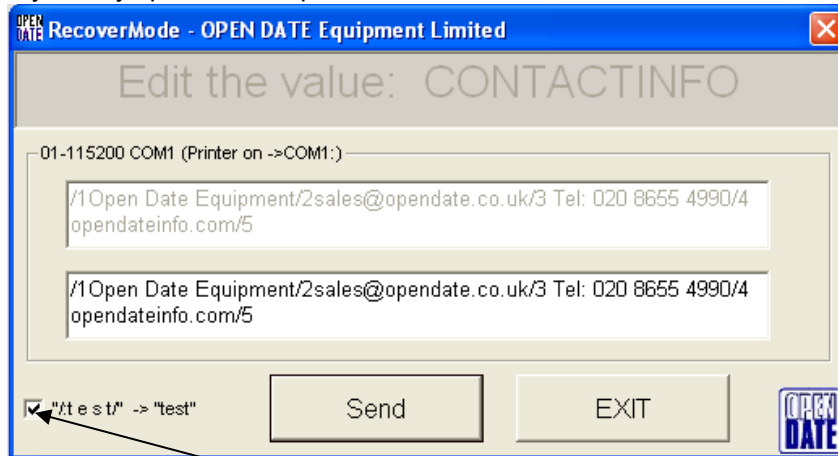
Uncheck the box

System Variables M



Continued on next Page

Type **/1** Then your text max **20/2** The second line **/3** third line **/4** fourth line **/5**
Max between 20
 Only twenty spaces and alphanumeric characters on each line



Used in conjunction with "CORNUM" Sets the actual pitch between prints

Set Pitch of prints (multi-print only) Please remember this value must be at least the format length + 30mm. (When CORFAST is on, this value must be the image length plus 3mm)

Minimum pitch would be dependent on speed, size of format and other system parameter settings.

See CORFAST

Continued on next Page

System Variable Name: -	=	SYSCORLEN
RecoverMode Identifier: -	=	CORLEN
Termode Identifier: -	=	0XSYSCORLEN
Type of Units: -	=	Millimetres
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	20
Request Command: -	=	Esc0ZXSYSCORLEN
Received String: -	=	Esc0XSYSCORLEN
Send Command: -	=	Esc0XSYSCORLEN

CORNOU = Real time updates not allowed.

Description: - Continuous Printers Only

When using Cross web Settings, does not allow time updates between prints of one print sweep.

0 = Off, 1 = ON.

System Variable Name: -	=	SYSCORNOU
RecoverMode Identifier: -	=	CORNOU
Termode Identifier: -	=	0XSYSCORLEN
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSCORLEN
Received String: -	=	Esc0XSYSCORLEN 0
Send Command: -	=	Esc0XSYSCORLEN 0

CORNUM = Sets the number of prints, which can be printed with one print signal input

Description: - Continuous Printers Only

Sets the number of prints, which can be printed with one print signal input. Maximum number of prints is 20. The System variable "DEFDEL / SYSDEFDEL" may need to be changed.

System Variable Name: -	=	SYSCORNUM
RecoverMode Identifier: -	=	CORNUM
Termode Identifier: -	=	0XSYSCORNUM
Type of Units: -	=	Numeric value
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	20
Request Command: -	=	Esc0ZXSYSCORNUM
Received String: -	=	Esc0XSYSCORNUM 0
Send Command: -	=	Esc0XSYSCORNUM 0

CORRNEW = Ribbon Gap Algorithm

Description: - Continuous Printers Only

Activates and optimises ribbon gaps, changes the algorithms (calculations)

0 = OFF, 1 = ON

System Variable Name: -	=	SYSCORRNEW
RecoverMode Identifier: -	=	CORRNEW
Termode Identifier: -	=	0XSYSCORRNEW
Type of Units: -	=	Integer
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSCORRNEW

Received String: - = **Esc0XSYSCORRNEW 0**
Send Command: - = **Esc0XSYSCORRNEW 0**

COUNTWB = Counter memory
Hex code A305084.HEX and N305085.HEX and above

Description: - All Printers

Set to one, the counter value for the next print job is stored in memory. If the last printed label was 1202. When the label is reselected from the storage, the next print would be 1203.

When you have two different counter fields in the same format changing one field say Counter1 Counter0 will restart from the last saved value.

If you need to Change say Counter1 and require Counter0 to maintain its last printed counted value, reselect the same format from the storage memory this will save the last printed value to memory, **do this before you edit Counter1.**

System Variable Name: - = **SYSCOUNTWB**
RecoverMode Identifier: - = **COUNTWB**
Termode Identifier: - = **0XSYSCOUNTWB**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSYSCOUNTWB**
Received String: - = **Esc0XSYSCOUNTWB 0**
Send Command: - = **Esc0XSYSCOUNTWB 0**

DATE = Set the Actual Printer Date

Description: - All Printers

The actual Printer Date

System Variable Name: - = **SYSDATE**
RecoverMode Identifier: - = **DATE**
Termode Identifier: - = **0XSYSDATE**
Type of Units: - = **String**
Received Value: - = **Date String**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSYSDATE**
Received String: - = **Esc0XSYSDATE 17/06/2005**
Send Command: - = **Esc0XSYSDATE 17/06/2005**

DAY = Day of the week

Description: - All Printers

The day of the week "**Monday**" This can be customized to suit the language required. And can be changed using Recovermode with a Customised File or with Termode.

System Variable Name: - = **SYSDAY**
RecoverMode Identifier: - = **DAY**
Termode Identifier: - = **0XSYSDAY**
Type of Units: - = **String**
Default Value: - = **Monday, Tuesday etc.**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSYSDAY**
Received String: - = **Esc0XSYSDAY Monday, Tuesday etc.**
Send Command: - = **Esc0XSYSDAY Monday, Tuesday etc.**

DAY1 = First Day of the Week**Description: - All Printers**

The day of the week "1" This can be customized to suit the customer. Monday = 1. The default settings are 1 to 7. And can be changed using Recovermode with a Customized File or with Termode.

Continued on next Page

System Variable Name: -	=	SYSDAY1
RecoverMode Identifier: -	=	DAY1
Termode Identifier: -	=	0XSYSDAY1
Type of Units: -	=	Alphanumeric String 1,2,3,4,5,6,7 or A, B, C etc.
Default Value: -	=	1,2,3,4,5,6,7
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSDAY1
Received String: -	=	Esc0XSYSDAY1 1,2,3,4,5,6,7
Send Command: -	=	Esc0XSYSDAY1 1,2,3,4,5,6,7

DAY3 = Day of the Week, 3 Alphabetical Characters**Description: - All Printers**

The day of the week "MON" This can be customized to suit the language required. And can be changed using Recovermode With a Customised File or with Termode.

System Variable Name: -	=	SYSDAY3
RecoverMode Identifier: -	=	DAY3
Termode Identifier: -	=	0XSYSDAY3
Type of Units: -	=	String
Default Value: -	=	MON, TUE, WED, THU, FRI, SAT, SUN
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSDAY3
Received String: -	=	Esc0XSYSDAY3 MON, TUE, WED etc.
Send Command: -	=	Esc0XSYSDAY3 MON, TUE, WED etc.

DEFAB = Default Burn A to B**Description: - All Printers**

The default value from direction A to B set within the Printer.

System Variable Name: -	=	SYSDEFAB
RecoverMode Identifier: -	=	DEFAB
Termode Identifier: -	=	0XSYSDEFAB
Type of Units: -	=	Micro- second
Default Value: -	=	170
Minimum Value: -	=	50
Maximum Value: -	=	500
Request Command: -	=	Esc0ZXSYSDEFAB
Received String: -	=	Esc0XSYSDEFAB
Send Command: -	=	Esc0XSYSDEFAB

DEFBA = Default Burn Value**Description: - All Printers**

The default value from direction B to A, set within the Printer.

System Variable Name: -	=	SYSDEFBA
RecoverMode Identifier: -	=	DEFAB
Termode Identifier: -	=	0XSYSDEFBA
Type of Units: -	=	Micro- second
Default Value: -	=	170
Minimum Value: -	=	50
Maximum Value: -	=	500
Request Command: -	=	Esc0ZXSYSDEFBA

Received String: - = **Esc0XSYSDEFBA**
Send Command: - = **Esc0XSYSDEFBA**

DEFD = Default date type

Description: - All Printers

Default date type: - 1 = dd/mm/yy, 2 = mm/dd/yy, 3 = yy/mm/dd

System Variable Name: - = **SYSDEFD**
RecoverMode Identifier: - = **DEFD**
Termode Identifier: - = **0XSYSDEFD**
Type of Units: - = **Integer**
Default Value: - = **1**
Minimum Value: - = **1**
Maximum Value: - = **3**
Request Command: - = **Esc0ZXSYSDEFD**
Received String: - = **Esc0XSYSDEFD 1**
Send Command: - = **Esc0XSYSDEFD 1**

DEFDEL = Default Print Delay

Description: - Continuous Printers Only

Continuous Printers, delay in millimetres from the Print Signal to the start of print.
 Cross web applications set too 20mm

System Variable Name: - = **SYSDEFDEL**
RecoverMode Identifier: - = **DEFDEL**
Termode Identifier: - = **0XSYSDEFDEL**
Type of Units: - = **Millimetres**
Default Value: - = **20**
Minimum Value: - = **18**
Maximum Value: - = **100**
Request Command: - = **Esc0ZXSYSDEFDEL**
Received String: - = **Esc0XSYSDEFDEL 20**
Send Command: - = **Esc0XSYSDEFDEL 20**

DEFHO = Default Home offset

Description: - Intermittent Printers Only

The default print position from the home sensor.

System Variable Name: - = **SYSDEFHO**
RecoverMode Identifier: - = **DEFHO**
Termode Identifier: - = **0XSYSDEFHO**
Type of Units: - = **Millimetres**
Default Value: - = **2**
Minimum Value: - = **0**
Maximum Value: - = **Dependent on the size of the Format and print area**
Request Command: - = **Esc0ZXSYSDEFHO**
Received String: - = **Esc0XSYSDEFHO 2**
Send Command: - = **Esc0XSYSDEFHO 2**

DEFLL = Default Peel Height

Description: - All Printers

Default Peel Height (Millimetres) This function allows the printhead to lift to the peel height, after printing but before the ribbon index. "On the Thermocode 2 Range not normally required."

System Variable Name: - = **SYSDEFLL**
RecoverMode Identifier: - = **DEFLL**

Termode Identifier: -	=	0XSYSDEFL
Type of Units: -	=	Millimetres
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	10
Request Command: -	=	Esc0ZXSYSDEFL

Continued on next Page

Received String: -	=	Esc0XSYSDEFL 0
Send Command: -	=	Esc0XSYSDEFL 0

DEF0 = Default Print Offset**Description: - Continuous Printers Only**

Continuous Printers Only. Default Print Offset. Range 0 - 999 Millimetres

System Variable Name: -	=	SYSDEFO
RecoverMode Identifier: -	=	DEFO
Termode Identifier: -	=	0XSYSDEFO
Type of Units: -	=	Millimetres
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	999
Request Command: -	=	Esc0ZXSYSDEFO
Received String: -	=	Esc0XSYSDEFO 0
Send Command: -	=	Esc0XSYSDEFO 0

DEFP = Default Pressure Value (Newton's)**Description: - All Printers**

Default Pressure Value (Newton's)

System Variable Name: -	=	SYSDEFP
RecoverMode Identifier: -	=	DEFP
Termode Identifier: -	=	0XSYSDEFP
Type of Units: -	=	Millimetres
Default Value: -	=	20
Minimum Value: -	=	0
Maximum Value: -	=	35
Request Command: -	=	Esc0ZXSYSDEFP
Received String: -	=	Esc0XSYSDEFP 20
Send Command: -	=	Esc0XSYSDEFP 20

DEFQ = Default Print Quantity**Description: - All Printers**

The number of prints required.

Used when using resident printer settings, also see Codesoft "Printer settings"

System Variable Name: -	=	SYSDEFQ
RecoverMode Identifier: -	=	DEFQ
Termode Identifier: -	=	0XSYSDEFQ
Type of Units: -	=	Numeric value
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	999999
Request Command: -	=	Esc0ZXSYSDEFQ
Received String: -	=	Esc0XSYSDEFQ 20
Send Command: -	=	Esc0XSYSDEFQ 20

DEFROT = Default Image Rotation**Description: - All Printers**

Rotates (0 or 180 degrees) all the formats stored in the storage memory.

Very useful when two Printers are back too back printing the same format, one left hand the other

right hand using the same format for both Printers. 0 = 0° rotation 2 = 180° rotation

System Variable Name: - = **SYSDEFROT**
RecoverMode Identifier: - = **DEFROT**
Termode Identifier: - = **0XSYSDEFROT**
Type of Units: - = **Integer**
Default Value: - = **0**

Continued on next Page

Minimum Value: - = **0**
Maximum Value: - = **2**
Request Command: - = **Esc0ZXSYSDEFROT**
Received String: - = **Esc0XSYSDEFROT 0**
Send Command: - = **Esc0XSYSDEFROT 0**

DEFS = Default Print Speed

Description: - Intermittent Printers Only.
 Default print speed

System Variable Name: - = **SYSDEFS**
RecoverMode Identifier: - = **DEFS**
Termode Identifier: - = **0XSYSDEFS**
Type of Units: - = **Millimetres per second**
Default Value: - = **100**
Minimum Value: - = **50**
Maximum Value: - = **400**
Request Command: - = **Esc0ZXSYSDEFS**
Received String: - = **Esc0XSYSDEFS 100**
Send Command: - = **Esc0XSYSDEFS 100**

DIREC = Default Single Print Direction.

Description: - Intermittent Printers Only
 Default print direction. 1 = single direction Printing. 2 = Bi- direction printing.
 Bi- direction is not used with this type of Printhead used in the Thermocode 2.

System Variable Name: - = **SYSDIREC**
RecoverMode Identifier: - = **DIREC**
Termode Identifier: - = **0XSYSDIREC**
Type of Units: - = **Integer**
Default Value: - = **1**
Minimum Value: - = **1**
Maximum Value: - = **2**
Request Command: - = **Esc0ZXSYSDIREC**
Received String: - = **Esc0XSYSDIREC 1**
Send Command: - = **Esc0XSYSDIREC 1**

DPEEL = Peel Height

Description: - Intermittent Printers
 Not to be confused with “DEFL” Default Peel Height;

Lifts the Printhead (in millimetres) above the ribbon, before indexing the foil. This stops the Printhead influencing the foil tracking and alignment. At the same time the Printhead goes back to the home position and does not return to the Printhead height until the index is complete. Maximum value is 20mm less the Printhead height. To activate this variable you have to set “PEELC” to 1
 Note! Using this variable could cause speed problems.

System Variable Name: - = **SYSDPEEL**
RecoverMode Identifier: - = **DPEEL**
Termode Identifier: - = **0XSYSDPEEL**
Type of Units: - = **Millimetres**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **20 (Less the Printhead Height)**

Request Command: - = Esc0ZXSYS DPEEL
 Received String: - = Esc0XSYS DPEEL 0
 Send Command: - = Esc0XSYS DPEEL 0

DSAVE = Day Light Saving

Description: - All Printers

Set the dates of the summer & winter times to correct the automatic printing of dates etc.
 The String is made up of the first date in this example 0330 = March 30th (MMDD) and
 1030 = October 30th (MMDD). The 1 = Backward 1 hour. 0 = Forward 1 Hour

System Variable Name: - = SYSDSAVE
 RecoverMode Identifier: - = DSAVE
 Termode Identifier: - = 0XSYS DSAVE

Type of Units: - = String MMDD, MMDD, 1
 Default Value: - = None
 Minimum Value: - = n/a
 Maximum Value: - = n/a
 Request Command: - = Esc0ZXSYS DSAVE
 Received String: - = Esc0XSYS DSAVE
 Send Command: - = Esc0XSYS DSAVE 0330,1030,1 (For the above example)

ENCADJ = Encoder Adjustment

Description: - Continuous Printers Only

Adjusts the size of the encoder roller.

Used with continuous trigger, ie SYSCOMTRIG running continuously and SYSCORNUM > 99.

System Variable Name: - = SYSENCADJ
 RecoverMode Identifier: - = ENCADJ
 Termode Identifier: - = 0XSYS ENCADJ

Type of Units: - = Percentage
 Default Value: - = 0
 Minimum Value: - = -10.00
 Maximum Value: - = 10.00
 Request Command: - = Esc0ZXSYS ENCADJ
 Received String: - = Esc0XSYS ENCADJ 1.0
 Send Command: - = Esc0XSYS ENCADJ 1.0

ENDEXT = Adds dots to the end of the printed image

Description: - All Printers

Adds dots to the end of the printed image. Range 0 to 120 dots. Intermittent Printer default value = 4
 Continuous Printer default value = 0

When used with a continuous printer, the ribbon is automatically adjusted to minimum.

System Variable Name: - = SYSENDEXT
 RecoverMode Identifier: - = ENDEXT
 Termode Identifier: - = 0XSYS ENDEXT

Type of Units: - = DOTS
 Default Value: - = 4 = Intermittent Printer, 0 = Continuous printer
 Minimum Value: - = 0
 Maximum Value: - = 120
 Request Command: - = Esc0ZXSYS ENDEXT
 Received String: - = Esc0XSYS ENDEXT 4
 Send Command: - = Esc0XSYS ENDEXT 4

ERRDEV = Controls how the error messages are displayed on the keypad

Description: - All Printers

Controls how the error messages are displayed on the keypad.

0 = All Text Strings and Error numbers.

1 = Just Text strings.

2 = Just Error numbers.

System Variable Name: - = SYSERRDEV

Continued on next Page

RecoverMode Identifier: - = ERRDEV
Termode Identifier: - = 0XSYSERRDEV
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 2
Request Command: - = Esc0ZXSYSERRDEV
Received String: - = Esc0XSYSERRDEV 0
Send Command: - = Esc0XSYSERRDEV 0

FASTFONT = Enables Caching of 3 Fonts

Description: - All Printers

This variable work best when using small size True Type Fonts, or any size SFP.

Instead of regenerating the font size for each image this is held in memory. Speeding up the print cycle time. Up to 3 font initialisations are cached. This feature can cause fm_ allocate problems with large fonts.

System Variable Name: - = SYSFASTFONT
RecoverMode Identifier: - = FASTFONT
Termode Identifier: - = 0XSYSFASTFONT
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 1
Request Command: - = Esc0ZXSYSFASTFONT
Received String: - = Esc0XSYSFASTFONT 0
Send Command: - = Esc0XSYSFASTFONT 0

FORCET = Forces a printer to the same or different model

Description: - All Printers

Used to force a printer to a different model i.e. 107M can be forced to a 107S. Accepts upper or lower case letter.

The printer area would be the size of a 107S. The printer on boot up does not measure the carriage distance between the A and B sensors. Activated after re-boot of the Printer.

This can also be used to force a 107S to a 107S again the Printer on boot up does not measure between Sensors. Also see "ALEN" and "ACARRIAGE"

System Variable Name: - = SYSFORCET
RecoverMode Identifier: - = FORCET
Termode Identifier: - = 0XSYSFORCET
Type of Units: - = String
Default Value: - = Blank
Minimum Value: - = 107s (Any Printer Model)
Maximum Value: - = 107S
Request Command: - = Esc0ZXSYSFORCET
Received String: - = Esc0XSYSFORCET
Send Command: - = Esc0XSYSFORCET

FORMATDONE = Used with Windows Driver

Description: - All Printers

Used with the Open Date Windows driver when spooling a database printer doesnt take anymore data until printing is fully done
 printer Firmware >= version 4.1.24

System Variable Name: - = **SYSFORMATDONE**
RecoverMode Identifier: - = **FORMATDONE**
Termode Identifier: - = **0XSYSFORMATDONE**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**

Continued on next Page

Request Command: - = **Esc0ZXSYSFORMATDONE**
Received String: - = **Esc0XSYSFORMATDONE 0**
Send Command: - = **Esc0XSYSFORMATDONE 0**

HDATE = Printhead date

Description: - All Printers
 Returns the date the Printhead was first used to print a label.
NOTE! The value can only be received.

System Variable Name: - = **SYSHDATE**
RecoverMode Identifier: - = **HDATE**
Termode Identifier: - = **0XSYSHDATE**
Type of Units: - = **STRING**
Received Value: - = **Date**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSHDATE**
Received String: - = **Esc0XSYSHDATE 12/10/2004**
Send Command: - = **n/a**

HDIST = Printhead Distance in Metres

Description: - All Printers
 Printhead distance in metres, the actual distance the printhead has travelled.
NOTE! The value can only be received.

System Variable Name: - = **SYSHDIST**
RecoverMode Identifier: - = **HDIST**
Termode Identifier: - = **0XSYSHDIST**
Type of Units: - = **STRING**
Received Value: - = **Metres**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSHDIST**
Received String: - = **Esc0XSYSHDIST 1342**
Send Command: - = **n/a**

HEIGHT = The Printhead Height Above the Substrate

Description: - All Printers
 Printhead height above the substrate in millimetres. Default Value dependent on the type of Printer.

System Variable Name: - = **SYSHEIGHT**
RecoverMode Identifier: - = **HEIGHT**
Termode Identifier: - = **0XSYSHEIGHT**
Type of Units: - = **Millimetres**
Default Value: - = **2** (Intermittent Printers 107)
Minimum Value: - = **0.5**
Maximum Value: - = **9.9**
Request Command: - = **Esc0ZXSYSHEIGHT**
Received String: - = **Esc0XSYSHEIGHT 2**
Send Command: - = **Esc0XSYSHEIGHT 2**

HID = Printhead Identification Number**Description: - All Printers**

Printhead Serial number

NOTE! The value can only be received.**System Variable Name: - = SYSHDIST**

Continued on next Page

RecoverMode Identifier: - = HDIST
Termode Identifier: - = 0XSYSHDIST
Type of Units: - = STRING
Received Value: - = Metres
Minimum Value: - = n/a
Maximum Value: - = n/a
Request Command: - = Esc0ZXSYSHDIST
Received String: - = Esc0XSYSHDIST 1342
Send Command: - = n/a

HOME = Printer Home position**Description: - Intermittent Printers Only**

Intermittent Printers Only. Printer Home position, 1 = A, 2 = B. (Always 1)

System Variable Name: - = SYSHOME
RecoverMode Identifier: - = HOME
Termode Identifier: - = 0XSYSHOME
Type of Units: - = Integer
Default Value: - = 1
Minimum Value: - = 1
Maximum Value: - = 2
Request Command: - = Esc0ZXSYSHOME
Received String: - = Esc0XSYSHOME
Send Command: - = Esc0XSYSHOME

HS = High Speed Mode "Intermittent Printers"**Description: - Intermittent Printers Only**

High Speed Printing. Automatically sets up a printer as High Speed Version, several different variables are updated automatically. Once you set this mode to 1, the printer must be re-started. "Normally only used on Thermocode 53 printers"

System Variable Name: - = SYSHS
RecoverMode Identifier: - = HS
Termode Identifier: - = 0XSYSHS
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 1
Maximum Value: - = 1
Request Command: - = Esc0ZXSYSHS
Received String: - = Esc0XSYSHS
Send Command: - = Esc0XSYSHS

ILEN = Image Length of Printers**Description: - Continuous Printers (Intermittent printer new Boards only)**

Multi-image Printers Only. This command allows you to set the maximum image length for Multi-image printers, set the image length you require in millimetres.

System Variable Name: - = SYSILEN
RecoverMode Identifier: - = ILEN
Termode Identifier: - = 0XSYSILEN
Type of Units: - = Millimetres

Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	Dependent on the printer type.
Request Command: -	=	Esc0ZXSYSILEN
Received String: -	=	Esc0XSYSILEN
Send Command: -	=	Esc0XSYSILEN

INUM = Number of Images

Description: - Continuous Printers Only

Multi-image Printers Only. This printer command tells you via Recovermode or Termode, how many different images you can have in the printer. The shorter the image the more images are available.

Example if a 107 machine has 4 images, then a 53 machine would have 8 images. The amount of images will be dependant how "ILEN" is set. Also see **COMTRIG**

NOTE! The value can only be received

System Variable Name: -	=	SYSINUM
RecoverMode Identifier: -	=	INUM
Termode Identifier: -	=	0XSYSINUM
Type of Units: -	=	Value
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSINUM
Received String: -	=	Esc0XSYSINUM
Send Command: -	=	n/a

IOFFSET = Image offset alignment (not used)

Description: - All printers

Image offset, used to Align the images on two direction printing.

Valid Range -1.00 - +1.00 "Not required as our printer are not bi directional"

System Variable Name: -	=	SYSIOFFSET
RecoverMode Identifier: -	=	IOFFSET
Termode Identifier: -	=	0XSYSIOFFSET
Type of Units: -	=	Value
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSIOFFSET
Received String: -	=	Esc0XSYSIOFFSET
Send Command: -	=	Esc0XSYSIOFFSET

IPADDR = IP Address (new boards only)

Description: - All Printers

TCP/IP, Transmission Control Protocol / Internet Protocols

Network Address of the Printer, when connected to the Ethernet.

See your Network Administrator for a spare address. Example "192.168.2.101"

(Once set, you must re-start the printer)

System Variable Name: -	=	SYSIPADDR
RecoverMode Identifier: -	=	IPADDR
Termode Identifier: -	=	0XSYSIPADDR
Type of Units: -	=	String
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a

Request Command: - = **Esc0ZXSYSIPADDR 192.168.2.101**
Received String: - = **Esc0XSYSIPADDR**
Send Command: - = **Esc0XSYSIPADDR 192.168.2.101**

IPGW = Default Gate Way Address (new boards only)

Description: - All Printers

TCP/IP, Transmission Control Protocol / Internet Protocols

Default Gate Way Address of the Printer, when connected to the Ethernet.

Continued on next Page

See your Network Administrator for correct address. Example "192.168.2.1"
 (Once set, you must re-start the printer)

System Variable Name: - = **SYSIPGW**
RecoverMode Identifier: - = **IPGW**
Termode Identifier: - = **0XSYSIPGW**
Type of Units: - = **String**
Default Value: - = **n/a**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSIPGW 192.168.2.1**
Received String: - = **Esc0XSYSIPGW**
Send Command: - = **Esc0XSYSIPGW 192.168.2.1**

IPMAC = Mac Address (new boards only)

Description: - All Printers

TCP/IP, Transmission Control Protocol / Internet Protocols

This identifier is dedicated to the Card installed on the Processor Board Each Card has its own unique identifier and cannot be changed. If this returns 000000000000 (Zeros) check the connector. (The address are automatically assigned by the manufacturer)

NOTE! The value can only be received

System Variable Name: - = **SYSIPADDR**
RecoverMode Identifier: - = **IPADDR**
Termode Identifier: - = **0XSYSIPADDR**
Type of Units: - = **String**
Default Value: - = **n/a**
Minimum Value: - = **000000000000**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSIPMAC XXXXXXXXXXXXX**
Received String: - = **Esc0XSYSIPMAC**
Send Command: - = **n/a**

IPMASK = Subnet Mask (new boards only)

Description: - All Printers

TCP/IP, Transmission Control Protocol / Internet Protocols

Network Mask when connected to the Ethernet. See your Network Administrator for the correct mask requirements. Example "255.255.255.0"
 (Once set, you must re-start the printer)

System Variable Name: - = **SYSIPMASK**
RecoverMode Identifier: - = **IPMASK**
Termode Identifier: - = **0XSYSIPMASK**
Type of Units: - = **String**
Default Value: - = **255.255.255.0**
Minimum Value: - = (Maximum value is most commonly used as shown)
Maximum Value: - = **255.255.255.0**
Request Command: - = **Esc0ZXSYSIPMASK 255.255.255.0**
Received String: - = **Esc0XSYSIPMASK**
Send Command: - = **Esc0XSYSIPMASK 225.225.225.0**

IPTEST = **Internal use only “Open Date”** (new boards only)

Description: - All Printers

Internal use only (Open Date) variable used to check the TCP_IP Card

When tested returns 1 = OK and defaults 0 after testing

NOTE! The value can only be received

Continued on next Page

System Variable Name: -	=	SYSIPTEST
RecoverMode Identifier: -	=	IPTEST
Termode Identifier: -	=	0XSYSIPTEST
Type of Units: -	=	String
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	0
Request Command: -	=	Esc0ZXSYSIPTEST 0
Received String: -	=	Esc0XSYSIPADDR 0
Send Command: -	=	n/a

ISIPTOUT = **TCIP Boards Time Out (new boards only)**

Description: - All Printers

This controls how long the TCIP boards are active, in seconds.

System Variable Name: -	=	SYSIPTOUT
RecoverMode Identifier: -	=	IPTOUT
Termode Identifier: -	=	0XSYSIPTOUT
Type of Units: -	=	Minutes
Default Value: -	=	2
Minimum Value: -	=	0
Maximum Value: -	=	10
Request Command: -	=	Esc0ZXSYSIPTOUT 2
Received String: -	=	Esc0XSYSIPTOUT 2

ISEL = **Multi printing (new boards only)**

Description: - Intermittent Printers Only.

Multi-image Printing Only. This a special command that specifies the sequence and order of prints required, and image memory to be used for a Multi-image printing.

See document Multi Image Printing

System Variable Name: -	=	SYSISEL
RecoverMode Identifier: -	=	ISEL
Termode Identifier: -	=	0XSYSISEL
Type of Units: -	=	
Default Value: -	=	
Minimum Value: -	=	
Maximum Value: -	=	
Request Command: -	=	Esc0ZXSYSISEL
Received String: -	=	Esc0XSYSISEL 10,12,13
Send Command: -	=	Esc0XSYSISEL 10,12,13

ISIP = **IP Card present (new boards only)**

Description: - All Printers

The ether net part of the Card has been recognised by the Processor Boards.

If this returns 0 (Zero) check the connector. Ensure the card is installed.

NOTE! The value can only be received

System Variable Name: -	=	SYSISIP
RecoverMode Identifier: -	=	ISIP
Termode Identifier: -	=	0XSYSISIP
Type of Units: -	=	String
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSISIP 1
Received String: -	=	Esc0XSYSISIP 1
Send Command: -	=	n/a
Send Command: -	=	Esc0XSYSIPTOUT 2

Continued on next Page

ISUSBIN = USB Card present (new boards only)

Description: - All Printers

The USB part of the Card has been recognised by the Processor Boards.

If this returns 0 (Zero) check the connector

NOTE! The value can only be received

System Variable Name: -	=	SYSISUSBIN
RecoverMode Identifier: -	=	ISUSBIN
Termode Identifier: -	=	0XSYSISUSBIN
Type of Units: -	=	String
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSISUSBIN
Received String: -	=	Esc0XSYSISUSBIN
Send Command: -	=	n/a

LANG = Mini Terminal Language

Description: 0 All Printers

All printers. Language Selection. 1 = English, 2 = German, 3 = French, 4 = Holland, 5 = Spanish, 6 = Italian. 7 = English (American Version)

System Variable Name: -	=	SYSLANG
RecoverMode Identifier: -	=	LANG
Termode Identifier: -	=	0XSYSLANG
Type of Units: -	=	Integer
Default Value: -	=	1
Minimum Value: -	=	1
Maximum Value: -	=	7
Request Command: -	=	Esc0ZXSYSLANG
Received String: -	=	Esc0XSYSLANG 1
Send Command: -	=	Esc0XSYSLANG 1

LOOPUSB = Communication test for the USB connection (new boards only)

Description: - All Printers

This is to check for interference on a USB to serial communication port.

One of our Customers reported a problem with the USB port.

It was found that a UPS (Uninterruptible Power Supply) was interrogating every USB port on the network, which interfered with the down loading of Formats to our printers.

To use this Variable: -

Start hyper terminal on the serial port and a second hyper terminal on the USB port.

Then type AAAAAA on the USB port

On the serial port you should see returned as Hex code: - 41,41,41,41,41

Or not if there is a problem.

System Variable Name: -	=	SYSLOOPUSB
RecoverMode Identifier: -	=	LOOPUSB
Termode Identifier: -	=	0XSYSLOOPUSB
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSLOOPUSB
Received String: -	=	Esc0XSYSLOOPUSB 1
Send Command: -	=	Esc0XSYSLOOPUSB 1

LSTEPS = Development Only

Description: - All Printers

All printers. Development Only. Writes the vertical motor step amount from the park position to the pressure position.

NOTE! The value can only be received

System Variable Name: -	=	SYSLSTEPS
RecoverMode Identifier: -	=	LSTEPS
Termode Identifier: -	=	0XSYSLSTEPS
Type of Units: -	=	Steps
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSLSTEPS
Received String: -	=	Esc0XSYSLANG 248
Send Command: -	=	n/a

MCPSLOW = Minimum Speed Too Slow

Description: - Continuous Printers Only

Requested by Open Date Germany, to stop the Parent machine if the value set in **MCSPEED** is reached or less than, and **MCPSLOW** is 1 and error message "Machine speed too slow" and the fault relay is de-activated.

System Variable Name: -	=	SYSMCSLOW
RecoverMode Identifier: -	=	MCSLOW
Termode Identifier: -	=	0XSYSMCSLOW
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSMCSLOW
Received String: -	=	Esc0XSYSMCSLOW 0
Send Command: -	=	Esc0XSYSMCSLOW 1

MCSPEED = Minimum Speed

Description: - Continuous Printers Only

This allows you to change the speed that the printer starts and stops printing. If set to 50 the printer will start printing at 50 mm/second & stop printing below 50 mm/sec.

System Variable Name: -	=	SYSMCSPEED
RecoverMode Identifier: -	=	MCSPEED
Termode Identifier: -	=	0XSYSMCSPEED
Type of Units: -	=	Millimetres per second

Default Value: - = **50**
Minimum Value: - = **0**
Maximum Value: - = **300**
Request Command: - = **Esc0ZXSYSMCSPEED**
Received String: - = **Esc0XSYSMCSPEED 50**
Send Command: - = **Esc0XSYSMCSPEED 50**

MINCUPD = **Variable field up dates in conjunction with MCSPEED**

Description: - Continuous Printers Only

Continuous Only. Update Setting for missed prints, due to the printer going below the minimum speed. (Set as 1 = updates memory always.) Set as 0 = no update for missed prints due to minimum speed reached. "Check value of MCSPEED Variable
This parameter is for up dating fields.

Continued on next Page

0 = No Update If the last count value was 6 on the next actual print, when the machine is up to speed the count would be 7

1 = Update Normally With every Print Signal the counter is incremented by + 1.
If there were 15 Print signals before the machine is up to speed the count Would be 16 on the next print job.

System Variable Name: - = **SYSMINCUPD**
RecoverMode Identifier: - = **MINCUPD**
Termode Identifier: - = **0XSYS MINCUPD**
Type of Units: - = **Integer**
Default Value: - = **1**
Minimum Value: - = **0**

Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSMINCUPD**
Received String: - = **Esc0XSYSMINCUPD 1**
Send Command: - = **Esc0XSYSMINCUPD 1**

MIRROR = **Mirror the Printer Image**

Description: - All Printers

Mirrors the printed image, once set all images are mirrored.

System Variable Name: - = **SYSMIRROR**
RecoverMode Identifier: - = **MIRROR**
Termode Identifier: - = **0XSYSMIRROR**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSMIRROR**
Received String: - = **Esc0XSYSMIRROR 0**
Send Command: - = **Esc0XSYSMIRROR 0**

MON1 = **Month of the Year, as 1 Single Character**

Description: - All Printers

The Month of the year "A" This can be customized to suit the customer. January = A. The default settings are A to L. And can be changed using Recovermode with a Customized File or with Termode.

System Variable Name: - = **SYSMON1**
RecoverMode Identifier: - = **MON1**
Termode Identifier: - = **0XSYSMON1**
Type of Units: - = **Alphanumeric String A,B,C,D,E,F,G,H,I,J,L 1,2,3 etc.**
Default Value: - = **A,B,C,D,E,F,G,H,I,J,L**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**

Request Command: - = **Esc0ZXSYSMON1**
Received String: - = **Esc0XSYSMON1 A,B,C,D,E,F,G,H,I,J,L**
Send Command: - = **Esc0XSYSMON1 A,B,C,D,E,F,G,H,I,J,L**

MON3 = Month of the Year 3 Alphabetical Characters

Description: - All Printers

The month of the year “**JAN**”

The default settings are **JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC**

This can be customized to suit the language required. And can be changed using Recovermode With a Customised File or with Termode.

System Variable Name: - = **SYSMON3**
RecoverMode Identifier: - = **MON3**

Continued on next Page

Termode Identifier: - = **0XSYSMON3**
Type of Units: - = **String**
Default Value: - = **JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP etc**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSMON3**
Received String: - = **Esc0XSYSMON3 JAN, FEB, MAR, APR, MAY, JUN etc**
Send Command: - = **Esc0XSYSMON3 JAN, FEB, MAR, APR, MAY, JUN etc**

MONTH = Month of the year “JANUARY”

Description: - All Printers

The month of the year “**JANUARY**”

The default settings are **JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST,**

SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER

This can be customized to suit the language required. And can be changed using Recovermode With a Customised File or with Termode.

System Variable Name: - = **SYSMONTH**
RecoverMode Identifier: - = **MONTH**
Termode Identifier: - = **0XSYSMONTH**
Type of Units: - = **String**
Default Value: - = **JANUARY,FEBRUARY,MARCH,APRIL,MAY,JUNE etc**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSMONTH JANUARY,FEBRUARY,MARCH etc**
Received String: - = **Esc0XSYSMONTH JANUARY,FEBRUARY,MARCH etc**
Send Command: - = **Esc0XSYSMONTH JANUARY,FEBRUARY,MARCH etc**

NETNUM = Open date Printer Network Number

Description: - All Printers

Open Date Printer Network Number (range 1 - 99) using RS485. Not Ethernet Connections

System Variable Name: - = **SYSNETNUM**
RecoverMode Identifier: - = **NETNUM**
Termode Identifier: - = **0XSYSNETNUM**
Type of Units: - = **String**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **99**
Request Command: - = **Esc0ZXSYSNETNUM**

Received String: - = **Esc0XSYSNETNUM 0**
Send Command: - = **Esc0XSYSNETNUM 0**

NOOVERFLOWMSG = Over or Under Flow faults

Description: - All Printers

Set to 1 any X or Y over or under flows in the format is chopped to fit the page size, and the printer gives no error message.

System Variable Name: -	=	SYSNOOVERFLOWMSG
RecoverMode Identifier: -	=	NOOVERFLOWMSG
Termode Identifier: -	=	0XSYSNOOVERFLOWMSG
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSNOOVERFLOWMSG 0
Received String: -	=	Esc0XSYS NOOVERFLOWMSG 0
Send Command: -	=	Esc0XSYSNOOVERFLOWMSG 0

NOTERM = Mini terminal Usage**Description All Printers: -**

Allows the Mini-Terminal (Keypad) to be disconnected from the printer permanently. All functions can then be set, by using dedicated software program using a computer. Also see "CASS"

System Variable Name: -	=	SYSNOTERM
RecoverMode Identifier: -	=	NOTERM
Termode Identifier: -	=	0XSYSNOTERM
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSNOTERM
Received String: -	=	Esc0XSYSNOTERM 0
Send Command: -	=	Esc0XSYSNOTERM 0

PASS0 = Password 0 "Zero"**Description: - All Printers**

Only used for the special "CFRPT2 Variable". The default password is 0 (Zero) Pressing 1 on the keypad and entering the password "0" this will delete the format from the Print & Destination Memory. Allowing the user to send another format to the printer. The password would have to be changed using Recovermode, Termode or Codesoft.

System Variable Name: -	=	SYSPASS0
RecoverMode Identifier: -	=	PASS0
Termode Identifier: -	=	0XSYPASS0
Type of Units: -	=	String
Default Value: -	=	0
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYSPASS0
Received String: -	=	Esc0XSYSPASS0 0,0000
Send Command: -	=	Esc0XSYSPASS0 0,0000

PASS1 = Password Level 1**Description: - All Printers**

Set the Level 1 Name and Password.

There are three parts to the password: - **1, OPERATOR, 1111**

1 = the password is activated; change to "**0**" = No password required (deactivated).

OPERATOR = password name can be changed as required (maximum 12 characters)

1111 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

The Password can also be changed or activated / deactivated using the Mini Terminal.
Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS1
RecoverMode Identifier: -	=	PASS1
Termode Identifier: -	=	0XSYSPASS1
Type of Units: -	=	String
Default Value: -	=	1111
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS0
Received String: -	=	Esc0XSYSPASS1 1,OPERATOR,1111
Send Command: -	=	Esc0XSYSPASS1 1,OPERATOR,1111

PASS2 = Password Level 2

Description: - All Printers
Set the Level 2 Name and Password.

There are three parts to the password: - **1, CHARGHAND , 2222**
1 = the password is activated; change to **"0"** = No password required (deactivated).
CHARGHAND = password name can be changed as required (maximum 12 characters)
2222 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

The Password can also be changed or activated / deactivated using the Mini Terminal.
Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS2
RecoverMode Identifier: -	=	PASS2
Termode Identifier: -	=	0XSYSPASS2
Type of Units: -	=	String
Default Value: -	=	2222
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS2
Received String: -	=	Esc0XSYSPASS2 1,CHARGHAND,2222
Send Command: -	=	Esc0XSYSPASS2 1,CHARGHAND,2222

PASS3 = Password Level 3

Description: - All Printers
Set the Level 1 Name and Password.

There are three parts to the password:- **1, ENGINEER, 3333**
1 = the password is activated; change to **"0"** = No password required (deactivated).
ENGINEER = password name can be changed as required (maximum 12 characters)
3333 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

The Password can also be changed or activated / deactivated using the Mini Terminal.
Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS3
RecoverMode Identifier: -	=	PASS3
Termode Identifier: -	=	0XSYSPASS3
Type of Units: -	=	String
Default Value: -	=	3333
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS3
Received String: -	=	Esc0XSYSPASS3 1,ENGINEER, 3333
Send Command: -	=	Esc0XSYSPASS3 1, ENGINEER,3333

PASS4 = Password Level 4

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password: - **1, MANAGER, 4444**

1 = the password is activated; change to **"0"** = No password required (deactivated).

MANAGER = password name can be changed as required (maximum 12 characters)

4444 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

The Password can also be changed or activated / deactivated using the Mini Terminal.

Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS4
RecoverMode Identifier: -	=	PASS4
Termode Identifier: -	=	0XSYSPASS4
Type of Units: -	=	String

Continued on next Page

Default Value: -	=	4444
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYSPASS4
Received String: -	=	Esc0XSYSPASS4 1,MANAGER, 4444
Send Command: -	=	Esc0XSYSPASS4 1,MANAGER, 4444

PASS5 = Password Level 5

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password:- **1, SUPERVISOR, 5555**

1 = the password is activated; change to **"0"** = No password required (deactivated).

SUPERVISOR = password name can be changed as required (maximum 12 characters)

5555 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

The Password can also be changed or activated / deactivated using the Mini Terminal.

Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS5
RecoverMode Identifier: -	=	PASS5
Termode Identifier: -	=	0XSYSPASS5
Type of Units: -	=	String
Default Value: -	=	5555
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYSPASS5
Received String: -	=	Esc0XSYSPASS5 1, SUPERVISOR,5555
Send Command: -	=	Esc0XSYSPASS5 1, SUPERVISOR,5555

PASS6 = Password Level 6

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password: - **1, OPENDATE, 6666**

1 = the password is activated; change to **"0"** = No password required (deactivated).

OPENDATE = password name can be changed as required (maximum 12 characters)

6666 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

This Password **cannot be changed or activated / deactivated** using the Mini Terminal.

Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS6
RecoverMode Identifier: -	=	PASS6
Termode Identifier: -	=	0XSYSPASS6
Type of Units: -	=	String

Default Value: -	=	6666
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS6
Received String: -	=	Esc0XSYPASS6 1, OPENDATE, 6666
Send Command: -	=	Esc0XSYPASS6 1, OPENDATE, 6666

PASS7 = Password Level 7

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password: - **1, PROGRAMMING, 7777**

1 = the password is activated; change to **"0"** = No password required (deactivated).

Continued on next Page

PROGRAMMING = password name can be changed as required. (maximum 12 characters)
7777 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

This Password **cannot be changed or activated / deactivated** using the Mini Terminal.
 Main Menu 9 Pass codes

System Variable Name: -	=	SYPASS7
RecoverMode Identifier: -	=	PASS7
Termode Identifier: -	=	0XSYPASS7
Type of Units: -	=	String
Default Value: -	=	7777
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS7
Received String: -	=	Esc0XSYPASS7 1, PROGRAMMING, 7777
Send Command: -	=	Esc0XSYPASS7 1, PROGRAMMING, 7777

PASS8 = Password Level 8

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password: - **1, TECHNICIAN, 8888**

1 = the password is activated; change to **"0"** = No password required (deactivated).

TECHNICIAN = password name can be changed as required (maximum 12 characters)

8888 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

This Password **cannot be changed or activated / deactivated** using the Mini Terminal.
 Main Menu 9 Pass codes

System Variable Name: -	=	SYPASS8
RecoverMode Identifier: -	=	PASS8
Termode Identifier: -	=	0XSYPASS8
Type of Units: -	=	String
Default Value: -	=	8888
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYPASS8
Received String: -	=	Esc0XSYPASS8 1, TECHNICIAN, 8888
Send Command: -	=	Esc0XSYPASS8 1, TECHNICIAN, 8888

PASS9 = Password Level 9

Description: - All Printers

Set the Level 1 Name and Password.

There are three parts to the password: - **1, SECURITY, 9999**

1 = the password is activated; change to **"0"** = No password required (deactivated).

SECURITY = password name can be changed as required (maximum 12 characters)

9999 = the password can be changed, to numerical characters. (1 – 4 numerical characters)

This Password **cannot be changed or activated / deactivated** using the Mini Terminal.
Main Menu 9 Pass codes

System Variable Name: -	=	SYSPASS9
RecoverMode Identifier: -	=	PASS9
Termode Identifier: -	=	0XSYSPASS9
Type of Units: -	=	String
Default Value: -	=	8888
Minimum Value: -	=	One numeric characters only
Maximum Value: -	=	Four numeric characters only
Request Command: -	=	Esc0ZXSYSPASS9
Received String: -	=	Esc0XSYSPASS9 1, SECURITY, 9999
Send Command: -	=	Esc0XSYSPASS9 1, SECURITY, 9999

PCENT = **Percentage of the Maximum Burn Value Allowed**

Description: - All Printers

Changes the allowable maximum burn values allowed (range 30 - 90)

System Variable Name: -	=	SYSPCENT
RecoverMode Identifier: -	=	PCENT
Termode Identifier: -	=	0XSYSPCENT
Type of Units: -	=	String
Default Value: -	=	60
Minimum Value: -	=	30
Maximum Value: -	=	90
Request Command: -	=	Esc0ZXSYSPCENT
Received String: -	=	Esc0XSYSPCENT 60
Send Command: -	=	Esc0XSYSPCENT 60

PDEL = **Print Delay Value**

Description: - All Printers

Print delay before printing. (Range 0 - 999 milliseconds)

System Variable Name: -	=	SYSPDEL
RecoverMode Identifier: -	=	PDEL
Termode Identifier: -	=	0XSYSPDEL
Type of Units: -	=	Milliseconds
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	999
Request Command: -	=	Esc0ZXSYSPDEL
Received String: -	=	Esc0XSYSPDEL 0
Send Command: -	=	Esc0XSYSPDEL 0

PEELC = **Activates DPEEL**

This variable activates “DPEEL” when set to 1

System Variable Name: -	=	SYSPEELC
RecoverMode Identifier: -	=	PEELC
Termode Identifier: -	=	0XSYSPEELC
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSPEELC
Received String: -	=	Esc0XSYSPEELC 0
Send Command: -	=	Esc0XSYSPEELC 0

PPM = **Prints/Minute**

Description: - All Printers

Prints per Minute, must run over a minute before the update is displayed correctly

NOTE! The value can only be received

System Variable Name: -	=	SYSPPM
RecoverMode Identifier: -	=	PPM
Termode Identifier: -	=	0XSYSPPM
Type of Units: -	=	minute
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSPPM
Received String: -	=	Esc0XSYSPPM 230
Send Command: -	=	n/a

PRESS1 = Minimum pressure in Newton's

Description: - All Printers

Minimum pressure value. Sets the Minimum Pressure, Default value 20, Valid Range 20 - 40

System Variable Name: -	=	SYSPRESS1
RecoverMode Identifier: -	=	PRESS1
Termode Identifier: -	=	0XSYSPRESS1
Type of Units: -	=	Newton's
Default Value: -	=	20
Minimum Value: -	=	20
Maximum Value: -	=	40
Request Command: -	=	Esc0ZXSYSPRESS1
Received String: -	=	Esc0XSYSPRESS1 20
Send Command: -	=	Esc0XSYSPRESS1 20

PRESS2 = Maximum Pressure in Newton's

Description: - All Printers

Maximum pressure value. Sets the Maximum Pressure, Default value 35, Valid Range 20 - 40

System Variable Name: -	=	SYSPRESS2
RecoverMode Identifier: -	=	PRESS2
Termode Identifier: -	=	0XSYSPRESS2
Type of Units: -	=	Newton's
Default Value: -	=	35
Minimum Value: -	=	20
Maximum Value: -	=	40
Request Command: -	=	Esc0ZXSYSPRESS2
Received String: -	=	Esc0XSYSPRESS2 35
Send Command: -	=	Esc0XSYSPRESS2 35

PSMTON = Programmable Mini terminal PSTM

Description: - All Printers

With the new Mini Keypad and the latest Keypad firmware installed you can select a different type of menu. You can edit variables without stopping the Printer or Parent machine until you are ready to send the data. (Beta only still being tested)

System Variable Name: -	=	SYSPSMTON
RecoverMode Identifier: -	=	PSMTON
Termode Identifier: -	=	0XSYSPSMTON
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSPSMTON
Received String: -	=	Esc0XSYSPSMTON 0
Send Command: -	=	Esc0XSYSPSMTON 1

RBARMT = UPCA & UPCE middle text variable**Description: - All Printers**

RBARST is read only variables returning the Font size used in the main/middle text off a UPCA and UPCE barcodes. The size can be changed using the variable BARMT.

System Variable Name: -	=	SYSRBARMT
RecoverMode Identifier: -	=	RBARMT
Termode Identifier: -	=	0XSYSRBARMT
Type of Units: -	=	Point Size
Received Value: -	=	12
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSRBARMT

Continued on next Page

Received String: -	=	Esc0ZXSYSRBARMT 12
Send Command: -	=	n/a

RBARST = UPCA & UPCE small text variable**Description: - All Printers**

RBARST Is read only variables returning the Font size used in the two outside small text off UPCA and UPCE barcodes. The size can be changed using the variable BARST.

System Variable Name: -	=	SYSRBARST
RecoverMode Identifier: -	=	RBARST
Termode Identifier: -	=	0XSYSRBARST
Type of Units: -	=	Point Size
Received Value: -	=	9
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSRBARST
Received String: -	=	Esc0ZXSYSRBARST 0
Send Command: -	=	n/a

REEL = Customer Ribbon Cassette Capacity**Description: - All Printers**

The ribbon capacity installed in the Printer: Range 100 -1000 metres.

System Variable Name: -	=	SYSREEL
RecoverMode Identifier: -	=	REEL
Termode Identifier: -	=	0XSYSREEL
Type of Units: -	=	Metres
Default Value: -	=	500
Minimum Value: -	=	100
Maximum Value: -	=	1000
Request Command: -	=	Esc0ZXSYSREEL
Received String: -	=	Esc0XSYSREEL 500
Send Command: -	=	Esc0XSYSREEL 500

REL1 = Relay 1 Operational Settings**Description: - All Printers**

The Relay has 3 connections Common (Com), Normally Open (N/O) and a Normally Closed (N/C) change over contacts.

Relay No 1 settings: -

0 = Stop Machine, 1 = Sequence (Default), 2 = Ready, 10 – 13 = Programmable.

0 = Stop Machine: Relay one is energized during the print cycle.

1 = Sequence: Relay one is energized during the complete print cycle.

2 = Ready: Relay one is energized when a format is ready for printing

3 =100ms Pulse: This de-energizes the relay for 100 milliseconds after completing the print cycle. This used with the cross web equipment.

Relay 1 can also be configured in real time by software. This allows the user to change or alter the relay state whilst running a custom program on an attached PC. To do this, send a value between 10 and 13 as shown below. The value sent will be activated immediately. However, you can also control the state of the relay at power ON by having the value saved to the store. For example:

Set REL1 = 11
Set REL1 = 12

Will set the relay to ON and save the value to the store and then turn the relay OFF. At power ON the relay will turn ON until changed by a new REL1 command.

Continued on next Page

- 10 = Relay 1 OFF, saved to store.
- 11 = Relay 1 ON, saved to store.
- 12 = Relay 1 OFF, not saved to store.
- 13 = Relay 1 ON, not saved to store.

System Variable Name: -	=	SYSREL1
RecoverMode Identifier: -	=	REL1
Termode Identifier: -	=	0XSYSREL1
Type of Units: -	=	Integer
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	13
Request Command: -	=	Esc0ZXSYSREL1
Received String: -	=	Esc0XSYSREL1 1
Send Command: -	=	Esc0XSYSREL1 1

REL2 = Relay 2 Operational Settings

Description: - All Printers

The Relay has 3 connections Common (Com), Normally Open (N/O) and a Normally Closed (N/C) change over contacts.

Relay No 2 settings: -
0 = Start Machine, 1 = Low Foil (Default), 2 = Ready, 3 = 100ms Pulse, 10 – 13 = Programmable.

- 0 = Start Machine: Relay two is energized after the print cycle.
- 1 = Low Foil: Relay two is de-energized when the ribbon reaches the level set in Ribbon settings for low ribbon. (See WARN)
- 2 = Ready: Relay two is energized when a format is ready for printing
- 3 = 100ms Pulse: This de-energizes the relay for 100 milliseconds after completing the print cycle. This used with the cross web equipment.

Relay 2 can also be configured in real time by software. This allows the user to change or alter the relay state whilst running a custom program on an attached PC.

To do this, send a value between 10 and 13 as shown below. The value sent will be activated immediately. However, you can also control the state of the relay at power ON by having the value saved to the store. For example:

Set REL1 = 11
Set REL1 = 12

Will set the relay to ON and save the value to the store and then turn the relay OFF. At power ON the relay will turn ON until changed by a new REL1 command.

- 10 = Relay 1 OFF, saved to store.
- 11 = Relay 1 ON, saved to store.
- 12 = Relay 1 OFF, not saved to store.
- 13 = Relay 1 ON, not saved to store.

System Variable Name: -	=	SYSREL2
RecoverMode Identifier: -	=	REL2
Termode Identifier: -	=	0XSYSREL2
Type of Units: -	=	Integer
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	13
Request Command: -	=	Esc0ZXSYSREL2
Received String: -	=	Esc0XSYSREL2 1
Send Command: -	=	Esc0XSYSREL2 1

REL3 = Relay 3 Operational Settings

Description: - All Printers

The Relay has 3 connections Common (Com), Normally Open (N/O) and a Normally Closed (N/C) change over contacts.

Relay No 3 settings. 0 = Fault, 1 = Fault & Ready (Default), 10 – 13 = Programmable.

0 = Fault: Relay one is de-energized when the printer incurs an error.
 1 = Fault Ready: Relay one is de-energized when printer incurs an error or the format is not ready for printing.

2=

3=100ms Pulse: This de-energizes the relay for 100 milliseconds after completing the print cycle. This used with the cross web equipment

Relay 3 can also be configured in real time by software. This allows the user to change or alter the relay state whilst running a custom program on an attached PC. To do this, send a value between 10 and 13 as shown below. The value sent will be activated immediately. However, you can also control the state of the relay at power ON by having the value saved to the store. For example:

Set REL1 = 11

Set REL1 = 12

Will set the relay to ON and save the value to the store and then turn the relay OFF. At power ON the relay will turn ON until changed by a new REL1 command.

10 = Relay 1 OFF, saved to store.

11 = Relay 1 ON, saved to store.

12 = Relay 1 OFF, not saved to store.

13 = Relay 1 ON, not saved to store.

System Variable Name: -	=	SYSREL3
RecoverMode Identifier: -	=	REL3
Termode Identifier: -	=	0XSYSREL3
Type of Units: -	=	Integer
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	13
Request Command: -	=	Esc0ZXSYSREL3
Received String: -	=	Esc0XSYSREL3 1
Send Command: -	=	Esc0XSYSREL3 1

RELDEL = Relay Delay, (Before or After Printing)

Description: - All Printers

Relay Delay in milliseconds. (-99 to 0 to + 99 milliseconds)

This allows the user to energize or de-energize depending on the relay settings

Start Machine, Stop Machine or Sequence. This could be before or after the end of the printed image.

If minus 50 milliseconds is set, the Sequence relay would be de-energized 50 milliseconds before completing the print cycle. This can be changed in the Mini Terminal Main Menu 6 Submenu 3 Delay

System Variable Name: - = **SYSRELDEL**
RecoverMode Identifier: - = **RELDEL**
Termode Identifier: - = **0XSYSRELDEL**
Type of Units: - = **Milliseconds**
Default Value: - = **0**
Minimum Value: - = **- 99**
Maximum Value: - = **+99**
Request Command: - = **Esc0ZXSYSRELDEL**
Received String: - = **Esc0XSYSRELDEL 0**
Send Command: - = **Esc0XSYSRELDEL 0**

REV = Reverse Ribbon

Description: - Continuous Printers Only

Reverse Ribbon added to ribbon amount normal indexed. Valid Range 1 - 10 millimetres.

System Variable Name: - = **SYSREV**
RecoverMode Identifier: - = **REV**
Termode Identifier: - = **0XSYSREV**
Type of Units: - = **Millimetres**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **10**
Request Command: - = **Esc0ZXSYSREV**
Received String: - = **Esc0XSYSREV 0**
Send Command: - = **Esc0XSYSREV 0**

RHEIGHT = Reset Printhead Height

Description: - All Printers

Resets the printhead height for individual products, and then resets the internal measured value in software etc. Ideal to command the printer to measure a product without having to completely reset the printer etc.

System Variable Name: - = **SYSRHEIGHT**
RecoverMode Identifier: - = **RHEIGHT**
Termode Identifier: - = **0XSYSRHEIGHT**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **0**
Request Command: - = **Esc0ZXSYSHEIGHT**
Received String: - = **Esc0XSYSRHEIGHT 0**
Send Command: - = **Esc0XSYSRHEIGHT 0**

RIBGAP = Ribbon Gap Between Prints

Description: - All Printers

Ribbon Gap (mm) you can add to the ribbon gap. Range 00.0 to 10.00 mm
 Default value =0 or 0.7mm depending on the firmware version installed in the Printer.

System Variable Name: - = **SYSRIBGAP**
RecoverMode Identifier: - = **RIBGAP**
Termode Identifier: - = **0XSYSRIBGAP**
Type of Units: - = **Millimetres**
Default Value: - = **0 Or 0.7**
Minimum Value: - = **0**
Maximum Value: - = **10**
Request Command: - = **Esc0ZXSYSRIBGAP**
Received String: - = **Esc0XSYSRIBGAP 0**

Send Command: - = Esc0XSYSRIBGAP 0

RIBINIT = Ribbon Index After Cassette Replaced

Description: - All Printers

This allows you to control the amount of ribbon being indexed, when replacing the magazine. Normally on a 107 machine it only indexes about 150 mm. Because the ribbon is wider it needs extra indexing to get the ribbon to acceptable state. Range 0 - 1000mm.

System Variable Name: - = SYSRIBINIT
RecoverMode Identifier: - = RIBINIT
Termode Identifier: - = 0XSYSRIBINIT
Type of Units: - = Millimetres

Continued on next Page

Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 1000
Request Command: - = Esc0ZXSYSRIBINIT
Received String: - = Esc0XSYSRIBINIT 0
Send Command: - = Esc0XSYSRIBINIT 0

RIBSAVE = Ribbon Save by printing across the Web (New Boards)

Description All Printers: -

Used to limit ribbon usage, the image is indexed along the width of the print head. The image prints multiple times, moving across the length of the head after each printed image. The ribbon does not index between prints. When the image reaches the right hand side of the head it comes back to the start and the ribbon is indexed.

System Variable Name: - = SYSRIBSAVE
RecoverMode Identifier: - = RIBSAVE
Termode Identifier: - = 0XSYSRIBSAVE
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 1
Request Command: - = Esc0ZXSYSRIBSAVE
Received String: - = Esc0XSYSRIBSAVE 0
Send Command: - = Esc0XSYSRIBSAVE 1

RIBTFR = Ribbon Transfer Compensation Value

Description All Printers: -

Printhead temperature compensation. Value for Ribbon Grade, Set at 85 for Wax/ Resin Ribbon. Set at 105 for Resin. Tested over a period of time will prove the settings. Range 60 – 120

System Variable Name: - = SYSRIBTFR
RecoverMode Identifier: - = RIBTFR
Termode Identifier: - = 0XSYSRIBTFR
Type of Units: - = Degrees Celsius
Default Value: - = 85
Minimum Value: - = 60
Maximum Value: - = 120
Request Command: - = Esc0ZXSYSRIBTFR
Received String: - = Esc0XSYSRIBTFR 85
Send Command: - = Esc0XSYSRIBTFR 85

RLEFT = Ribbon Left on Cassette

Description: - All Printers

Amount of Metres left on Ribbon Reel. Providing you have set the reel length correctly, and have ensured you have pressed the correct button on the mini-terminal. Then you will have correct information displayed.

NOTE! The value can only be received

System Variable Name: -	=	SYSRLEFT
RecoverMode Identifier: -	=	RLEFT
Termode Identifier: -	=	0XSYSRLEFT
Type of Units: -	=	Metres
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSRLEFT
Received String: -	=	Esc0XSYSRLEFT 397
Send Command: -	=	n/a

RLM = Last Stepper Motor Running

Description: - All Printers

The last working stepper motor, useful for optimizing print speeds

NOTE! The value can only be received

System Variable Name: -	=	SYSRLM
RecoverMode Identifier: -	=	RLM
Termode Identifier: -	=	0XSYSRM
Type of Units: -	=	String
Default Value: -	=	n/a
Minimum Value: -	=	n/a
Maximum Value: -	=	n/a
Request Command: -	=	Esc0ZXSYSRLM
Received String: -	=	Esc0XSYSRLM Vert
Send Command: -	=	n/a

ROLLER = Cassette Roller Diameter

Description: - Intermittent Printers Only

Cassette Roller Diameter in Millimetres Default Value 31.8mm, Valid Range 20.00mm - 40.00mm
Changing this diameter affects the amount of ribbon index and should be left at the default value

System Variable Name: -	=	SYSROLLER
RecoverMode Identifier: -	=	ROLLER
Termode Identifier: -	=	0XSYSROLLER
Type of Units: -	=	Millimetres
Default Value: -	=	31.83
Minimum Value: -	=	20.00
Maximum Value: -	=	40.00
Request Command: -	=	Esc0ZXSYSROLLER
Received String: -	=	Esc0XSYSROLLER 31.83
Send Command: -	=	Esc0XSYSROLLER 31.83

RTCOSPD = Speed display

Description: - Continuous Printers only

Set the variable RTCOSPD = 1, and the top line of the display will show the current speed updated every second. This is only for testing and my cause update problems. However, it might also show where the problems are coming from.

System Variable Name: -	=	SYSRTCOSPD
RecoverMode Identifier: -	=	RTCOSPD
Termode Identifier: -	=	0XSYSRTCOSPD
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0

Maximum Value: - = **2**
Request Command: - = **Esc0ZXSYSRTCOSPD**
Received String: - = **Esc0XSYSRTCOSPD 0**
Send Command: - = **Esc0XSYSRTCOSPD 0**

SECURITYOPTIONS = printing security

Description: - All Printers

on value: 0
no security

on value: 1
1/when switch on printer, current format is cancelled
And:
2/printing is impossible;
The printer is able to print again, only after validating all variables,

System Variable Name: - = **SYSSECURITYOPTIONS**
RecoverMode Identifier: - = **SECURITYOPTIONS**
Termode Identifier: - = **0XSYSSECURITYOPTIONS**
Type of Units: - = **String**

Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSSECURITYOPTIONS**
Received String: - = **Esc0XSYSSECURITYOPTIONS**
Send Command: - = **Esc0XSYSSECURITYOPTIONS**

```

THERMOCODE 107 L
1>[S]Print on line
2 [F]test00
3 Select Format

```

```

THERMOCODE 107 L
1>[S]Print on line
2 [f]test00
3 Select Format

```

flag on SMT Keypad screen:

when printing is enabled, the Format line looks like:

[F]FormatName

when printing is disabled, the Format line looks like:

[f]FormatName

SETTEMP = Development only Head temperature

Description: - All Printers

Special feature for testing only. Allows printhead temperatures to be forced to specific temperature.

Changing this could burn out the Print head.

System Variable Name: - = **SYSSETTEMP**
RecoverMode Identifier: - = **SETTEMP**
Termode Identifier: - = **0XSYSSETTEMP**
Type of Units: - = **String**

Continued on next Page

Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **0**
Request Command: - = **Esc0ZXSYSSETTEMP**
Received String: - = **Esc0XSYSSETTEMP**
Send Command: - = **Esc0XSYSSETTEMP**

SFG = Super Fast Graphic's

Description: - All Printers

This variable is for updating Graphic fields from a database. Must be used with a communication lead USB to USB. Used with **Beta Version 5012946.Hex**

System Variable Name: -	=	SYSSFG
RecoverMode Identifier: -	=	SFG
Termode Identifier: -	=	0XSYSSFG
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSSFG
Received String: -	=	Esc0XSYSSFG 0
Send Command: -	=	Esc0XSYSSFG 0

SHIFT = Shift Code, Number per Day & Name Settings**Description: - All Printers**

Automatic Shift Print Variable Fields Default values are S1,S2,S3,S4,S5,S6,S7 these can be customised using up to 5 alphanumeric characters with a maximum of 24 shift changes. For more information see "**Codesoft Overview Supplementary. doc**"

System Variable Name: -	=	SYSSHIFT
RecoverMode Identifier: -	=	SHIFT
Termode Identifier: -	=	0XSYSSHIFT
Type of Units: -	=	String
Default Value: -	=	S1,S2,S3,S4,S5,S6,S7
Minimum Value: -	=	See above
Maximum Value: -	=	See above
Request Command: -	=	Esc0ZXSYSSHIFT
Received String: -	=	Esc0XSYSSHIFT S1,S2,S3,S4,S5,S6,S7
Send Command: -	=	Esc0XSYSSHIFT S1,S2,S3,S4,S5,S6,S7

SINGLEF = Single Image Memory Storage Only**Description: - All Printers**

Set to: -

0 = Normal Memory working.

1 = Only 1 format can be in the printer. As you send a new format, its deletes the first one.

2 = With a format Activated, you can download to the printer memory as many formats as required.

When selecting a new format all formats except the selected one will be deleted.

System Variable Name: -	=	SYSSINGLEF
RecoverMode Identifier: -	=	SINGLEF
Termode Identifier: -	=	0XSYSSINGLEF
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	2
Request Command: -	=	Esc0ZXSYSSINGLEF
Received String: -	=	Esc0XSYSSINGLEF 0
Send Command: -	=	Esc0XSYSSINGLEF 0

SPEED1 = Minimum print speed**Description: - Intermittent Printers Only**

Minimum Speed Value (Intermittent Printers Only Valid Range 50 – 400)

System Variable Name: -	=	SYSSPEED1
RecoverMode Identifier: -	=	SPEED1
Termode Identifier: -	=	0XSYSSPEED1

Type of Units: - = **Millimetres**
Default Value: - = **50**
Minimum Value: - = **50**
Maximum Value: - = **1000**
Request Command: - = **Esc0ZXSYSPEED1**
Received String: - = **Esc0XSYSPEED1 50**
Send Command: - = **Esc0XSYSPEED1 50**

SPEED2 = Maximum Print Speed

Description: - Intermittent Printers Only

Maximum Speed Value (Intermittent Printers Only Valid Range 50 – 400)

System Variable Name: - = **SYSSPEED2**
RecoverMode Identifier: - = **SPEED2**
Termode Identifier: - = **0XSYSSPEED2**
Type of Units: - = **Millimetres**
Default Value: - = **400**
Minimum Value: - = **50**
Maximum Value: - = **1000**
Request Command: - = **Esc0ZXSYSPEED2**
Received String: - = **Esc0XSYSPEED2 400**
Send Command: - = **Esc0XSYSPEED2 400**

STATUSS = Status Screen display

Description: - All Printers

Allows the user to switch on the status screen. Could cause problems with High Speed printing or Automatic updates. Set 0 to switch off, Set 1 to switch on.

System Variable Name: - = **SYSSTATUSS**
RecoverMode Identifier: - = **STATUSS**
Termode Identifier: - = **0XSYS TATUSS**
Type of Units: - = **Integer**
Default Value: - = **0**
Minimum Value: - = **0**
Maximum Value: - = **1**
Request Command: - = **Esc0ZXSYSSTATUSS**
Received String: - = **Esc0XSYSSTATUSS 0**
Send Command: - = **Esc0XSYSSTATUSS 0**

TEST = Test and Development only

TIME = The actual printer time

Description: - All Printers

The actual time set in the printer. In the first instance the RTC (Real Time Clock) is set in the boot up menu.

From then on any changes made would normally be changed using the Mini Terminal, Main Menu 4, Submenu 1 Time/ Date.

System Variable Name: - = **SYSTIME**
RecoverMode Identifier: - = **TIME**
Termode Identifier: - = **0XSYSTIME**

Continued on next Page

Type of Units: - = **String**
Default Value: - = **n/a**
Minimum Value: - = **n/a**
Maximum Value: - = **n/a**
Request Command: - = **Esc0ZXSYSYTIME**
Received String: - = **Esc0XSYSYTIME 08:31**
Send Command: - = **Esc0XSYSYTIME 08:33**

TIMEOFF = Time Offset in minutes

Description: - All Printers

Time offset from Midnight, values in minutes. This allows the user to determine when a customer wants to change dates automatically. Can be plus or minus, Valid Range -720 to +720.

For more information see “**Codesoft Overview Manual. doc**”

System Variable Name: -	=	SYSTIMEOFF
RecoverMode Identifier: -	=	TIMEOFF
Termode Identifier: -	=	0XSYSTIMEOFF
Type of Units: -	=	Minutes
Default Value: -	=	0
Minimum Value: -	=	-720
Maximum Value: -	=	+720
Request Command: -	=	Esc0ZXSYSTIMEOFF
Received String: -	=	Esc0XSYSTIMEOFF 360
Send Command: -	=	Esc0XSYSTIMEOFF 360

TYPE = The Type of Printer Installed

Description: - All Printers

0 = Standard Printer Automatic sets pressure

1 = Direct Thermal Automatic sets pressure

2 = Not Used,

3 = Detects on every print the pressure. Ideal for cartons etc, works slower than Automatic

System Variable Name: -	=	SYSTYPE
RecoverMode Identifier: -	=	TYPE
Termode Identifier: -	=	0XSYSTYPE
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	3
Request Command: -	=	Esc0ZXSYSTYPE
Received String: -	=	Esc0XSYSTYPE 0
Send Command: -	=	Esc0XSYSTYPE 0

UPDTIME = Cross web variable field updates

Description: - Continuous Printer Only (Cross web Installations)

Delay before variable fields are updated or incremented, in cross web machines, in seconds.

Range 0 - 100 seconds.

System Variable Name: -	=	SYSUPDTIME
RecoverMode Identifier: -	=	UPDTIME
Termode Identifier: -	=	0XSYSUPDTIME
Type of Units: -	=	Seconds
Default Value: -	=	1
Minimum Value: -	=	0
Maximum Value: -	=	10
Request Command: -	=	Esc0ZXSYSUPDTIME
Received String: -	=	Esc0XSYSUPDTIME 0
Send Command: -	=	Esc0XSYSUPDTIME 0

UPERR = Returns Information back to the connected Computer

Description: - All Printers

Alternative to “**UPMOD**” Sets Action for talking back to a computer,

Set to: -

1 = Returns “**READY**” Dual image memory, but the printer will not work if the image memory has not been updated. Returns an error “**Print before image update, 139**” the same as

2 = Ignores all Print triggers until an image update has been received. Gives no error or error messages.

System Variable Name: -	=	SYSUPERR
RecoverMode Identifier: -	=	UPERR
Termode Identifier: -	=	0XSYSUPERR
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	2
Request Command: -	=	Esc0ZXSYSUPERR
Received String: -	=	Esc0XSYSUPERR 0
Send Command: -	=	Esc0XSYSUPERR 0

UPFAST = Update of Insertion Variable Fields

Description: - All Printers

Allows updating of Variables.

Utilising the "I" insert variable command. Updates a single memory plane ready for printing.

0 = Off,

1 = Single plane updating, and saves to the file store. **(Not recommended)**

2 = Single Plane Updating (no saving of update in the file store) When format is edited or the cassette removed/ribbon fail an update is done of all type 0 variables that have changed.

System Variable Name: -	=	SYSUPFAST
RecoverMode Identifier: -	=	UPFAST
Termode Identifier: -	=	0XSYSUPFAST
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	2
Request Command: -	=	Esc0ZXSYSUPFAST
Received String: -	=	Esc0XSYSUPFAST 0
Send Command: -	=	Esc0XSYSUPFAST 0

UPMOD = Returns Information back to the connected Computer

Description: - All Printers

Sets Action for talking back to a computer, **Set to: -**

1 = Returns **"DONE"** single memory

2 = Returns **"READY"** Dual image memory, no checking of image update when using databases etc.

3 = Returns **"READY"** Dual image memory, but the printer will not work if the image memory has not been updated. Returns an error **"Print before image update, 139,"**

4 = Outputs specific variable information **"Y Command"** to communications port after finished printing.

5 = Outputs specific variable information **"Y Command"** to communications port as printing.

See the example on the next page

System Variable Name: -	=	SYSUPMOD
RecoverMode Identifier: -	=	UPMOD
Termode Identifier: -	=	0XSYSUPMOD

Continued on next Page

Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	4
Request Command: -	=	Esc0ZXSYSUPMOD
Received String: -	=	Esc0XSYSUPMOD 0
Send Command: -	=	Esc0XSYSUPMOD 0

```

0FDocument1
0PSPEED 0100
0PBURN1 0230
0PBURN2 0230
0PPRESSURE 23
0PHOMOFF 03.0
0PROTATE 0
0EBatch 0QWERT12345
0EExpDate 012/12/13
0EPart_No 0ASY 252637
0Tarial Bold0115003508001Batch No: \0Batch\0
0Tarial Bold0115008108001Exp date: \0ExpDate\0
0Tarial Bold0115012908001Part No: \0Part_No\0
0Y00RETURN,\0Batch\0,\0ExpDate\0,\0Part_No\0
0Q000000
OK

```

Outputs

```

0Y00RETURN,QWERT12345,12/12/13,ASY 252637
OK

```

0Y01RETURN,\0Batch\0,\0ExpDate\0,\0Part_No\0

The above returns

```

Y01RETURN,QWERT12345,12/12/13,ASY 252637
6108:Print On Line;Qty:000000/000000/000503
OK

```

UPSLOW = Update of Insertion Variable Fields

Description: - All Printers

UPSLOW when set to 1, the READY output is sent after the image has started to print, to ensure very fast updates have not been missed by the system. (See: - UPMOD = 3 or UPERR = 1)

```

System Variable Name: - = SYSUPSLOW
RecoverMode Identifier: - = UPSLOW
Termode Identifier: - = 0XSYSUPSLOW
Type of Units: - = Integer
Default Value: - = 0
Minimum Value: - = 0
Maximum Value: - = 1
Request Command: - = Esc0ZXSYSUPSLOW
Received String: - = Esc0XSYSUPSLOW 0
Send Command: - = Esc0XSYSUPSLOW 0

```

VBURN = Automatic Compensation for Burn whilst Accelerating.

Description: - Intermittent Printers Only

Automatically the burn value is compensated during printing, whilst accelerating up to the required print speed. Compensation for Variable burns. 0 = Off, 1 = On

```

System Variable Name: - = SYSVBURN
RecoverMode Identifier: - = VBURN
Termode Identifier: - = 0XSYSVBURN
Type of Units: - = Integer
Default Value: - = 0

```

Continued on next Page

```

Minimum Value: - = 0
Maximum Value: - = 1
Request Command: - = Esc0ZXSYSVBURN
Received String: - = Esc0XSYSVBURN 0
Send Command: - = Esc0XSYSVBURN 0

```

VPMAX = Allows small image position adjustment.

Description: - Intermittent Printers Only

This is to allow small image position adjustment on intermittent printer with in the image memory.

Also see “**VPSET**”

Set “**VPMAX**” up to the maximum number of dots of adjustment allowed. This effectively increases the image size; this could cause problems when combined with big images and or fast printing.

System Variable Name: -	=	SYSVPMAX
RecoverMode Identifier: -	=	VPMAX
Termode Identifier: -	=	0XSYSVPMAX
Type of Units: -	=	Dots
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	30
Request Command: -	=	Esc0ZXSYSVPMAX
Received String: -	=	Esc0XSYSVPMAX
Send Command: -	=	Esc0XSYSVMAX

VPSET = Moves the image in the image memory in dots.

Description: - Intermittent Printers Only

This allows the user to move the image in dots from zero to the maximum of dots set in “**VPMAX**”

Used for very accurate printing when the substrate stop poison is incorrect. This does not move the Print head, only the Image in the image memory. Worked in conjunction with the parent machine.

Probably using optical positioning equipment, automatically sending the data to the printer.

System Variable Name: -	=	SYSVPSET
RecoverMode Identifier: -	=	VPSET
Termode Identifier: -	=	0XSYSVPSET
Type of Units: -	=	Dots
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	30
Request Command: -	=	Esc0ZXSYSVPSET
Received String: -	=	Esc0XSYSVPSET 0
Send Command: -	=	Esc0XSYSVSET 0

WACT = Stop Printing on Low Foil Warning

Description: - All Printers

Warning Action, to stop printing if low foil is reached. Set to 1 to activate the printer to stop printing if low foil is reached. "Default Value = 0"

System Variable Name: -	=	SYSWACT
RecoverMode Identifier: -	=	WACT
Termode Identifier: -	=	0XSYSWACT
Type of Units: -	=	Integer
Default Value: -	=	0
Minimum Value: -	=	0
Maximum Value: -	=	1
Request Command: -	=	Esc0ZXSYSWACT
Received String: -	=	Esc0XSYSWACT 0
Send Command: -	=	Esc0XSYSWACT 0

WARN = Ribbon Low Warning

Description: - All Printers

Ribbon Warning Length, In Metres the amount of ribbon that is left on the reel before the relay switches and displays a message on the mini-Terminal. Valid Range 0 - 100 Metres.

This can be changed in the Mini Terminal Main Menu 4, Submenu 5 Ribbon settings

System Variable Name: -	=	SYSWARN
RecoverMode Identifier: -	=	WARN
Termode Identifier: -	=	0XSYSWARN
Type of Units: -	=	Metres
Default Value: -	=	15
Minimum Value: -	=	0
Maximum Value: -	=	100
Request Command: -	=	Esc0ZXSYSWARN
Received String: -	=	Esc0XSYSWARN 15
Send Command: -	=	Esc0XSYSWARN 15