Emettitore di Ticket

Serie TG558

35-58 mm

Manuale utente

COD. DOMI-TG558 REV. 1.14

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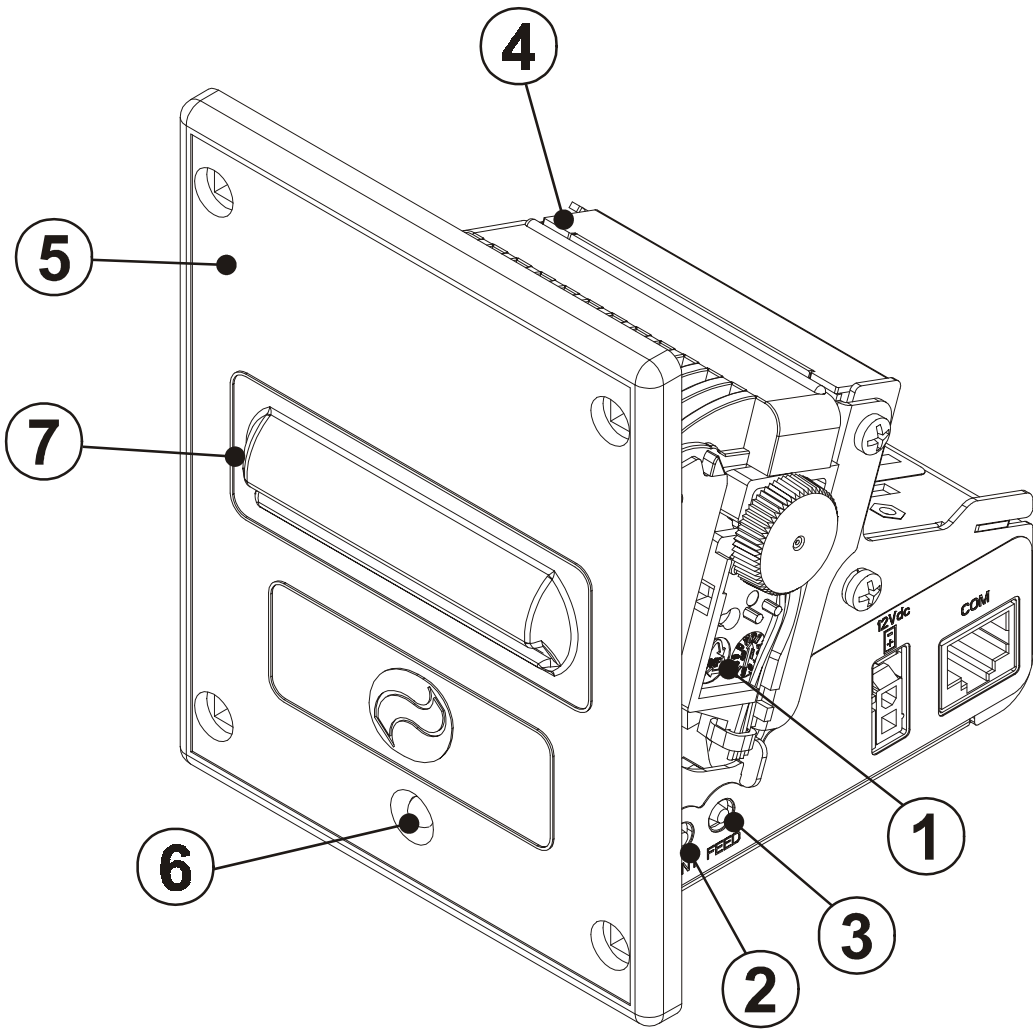
PARTI DELLA STAMPANTE

A. Vista esterna TG558 con frontale plastico
TG558-x35P [(1)],TG558-x58P [(1)], TG558-x35P-0001 [(2)], TG558-x58P-0001 [(2)]

1- Meccanismo di stampa
2- Tasto “PRINT”
3- Tasto “FEED”
4- Telaio
5- Pannello frontale
6- Led
7- Uscita carta

[(1)] *Il suffisso **x** indica i seguenti modelli :*
- TG558-S35P (versione 35mm con interfaccia seriale RS232)
- TG558-S58P (versione 58mm con interfaccia seriale RS232)
- TG558-T35P (versione 35mm con interfaccia seriale TTL)
- TG558-T58P (versione 58mm con interfaccia seriale TTL)

[(2)] *Il suffisso **0001** indica l’opzione real time clock.*

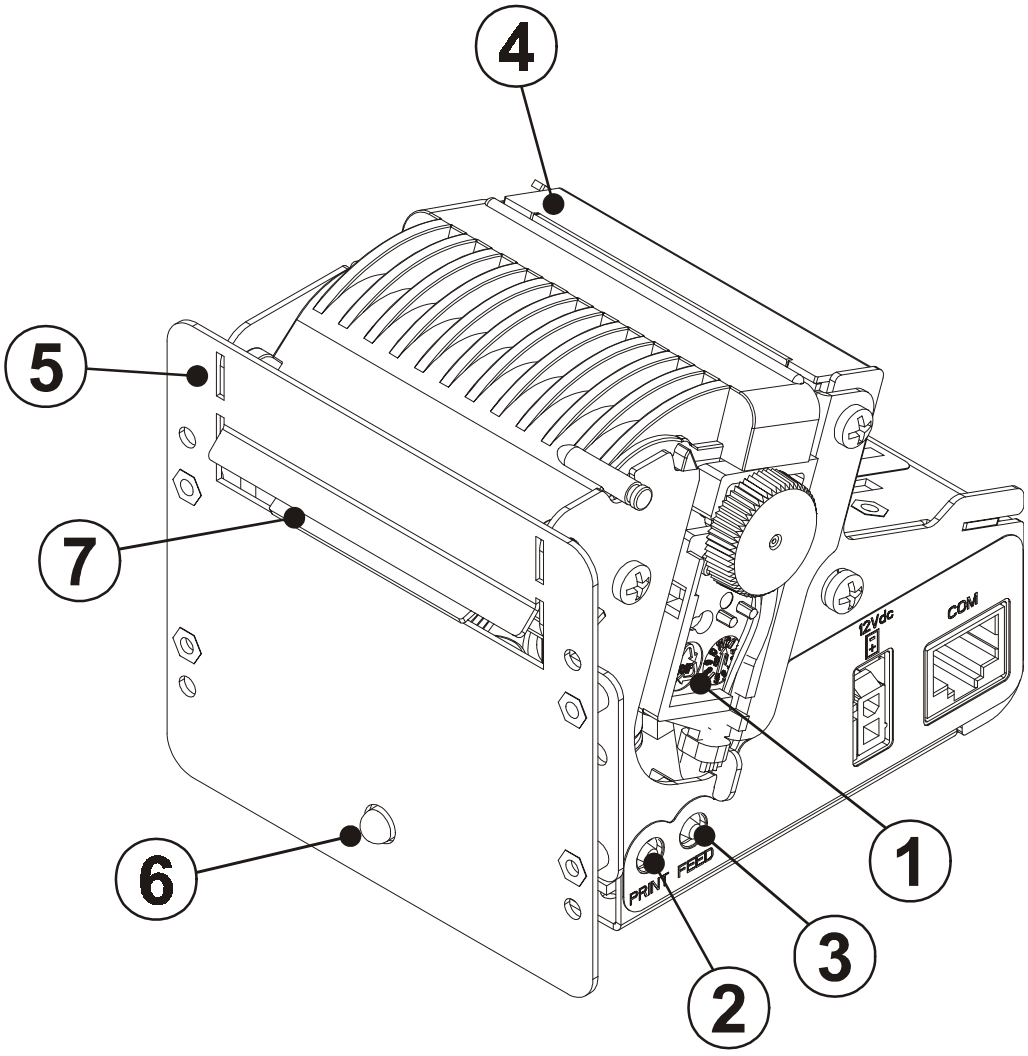


B. Vista esterna TG558 con frontale metallico
TG558-x35M [1],TG558-x58M [1], TG558-x35M-0001 [2], TG558-x58M-0001 [2]

1- Meccanismo di stampa
2- Tasto “PRINT”
3- Tasto “FEED”
4- Telaio
5- Pannello frontale
6- Led
7- Uscita carta

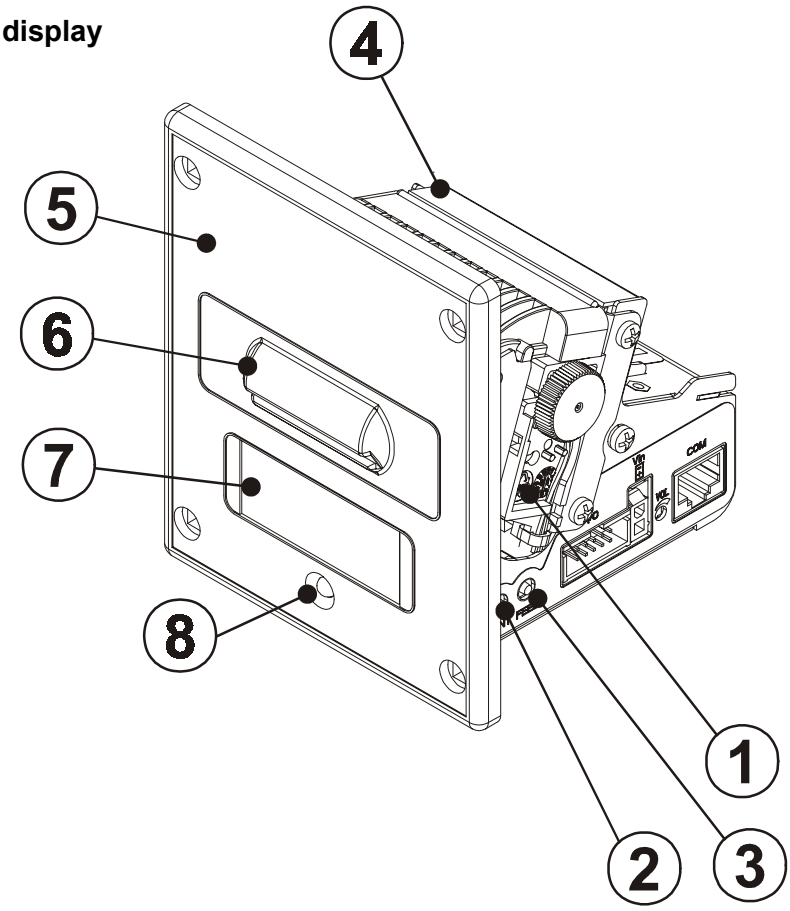
[1] *Il suffisso **x** indica i seguenti modelli :*
- TG558-S35M (versione 35mm con interfaccia seriale RS232)
- TG558-S58M (versione 58mm con interfaccia seriale RS232)
- TG558-T35M (versione 35mm con interfaccia seriale TTL)
- TG558-T58M (versione 58mm con interfaccia seriale TTL)

[2] *Il suffisso **0001** indica l’opzione real time clock.*



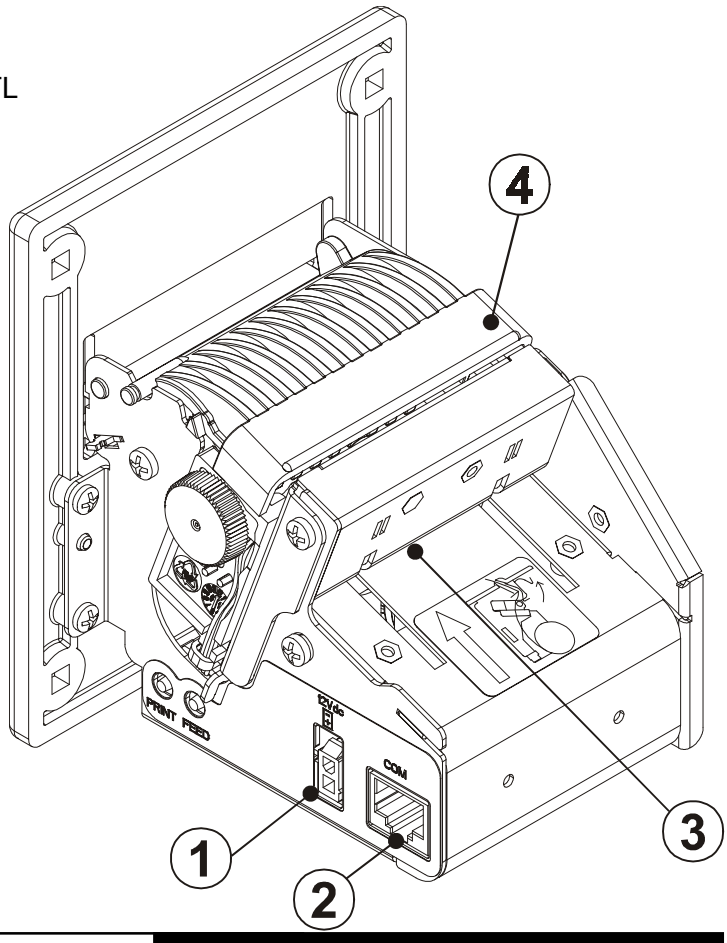
C. Vista esterna TG558 con display TG558-35D

1- Meccanismo di stampa
2- Tasto “PRINT”
3- Tasto “FEED”
4- Telaio
5- Pannello frontale
6- Uscita carta
7- Display
8- Led



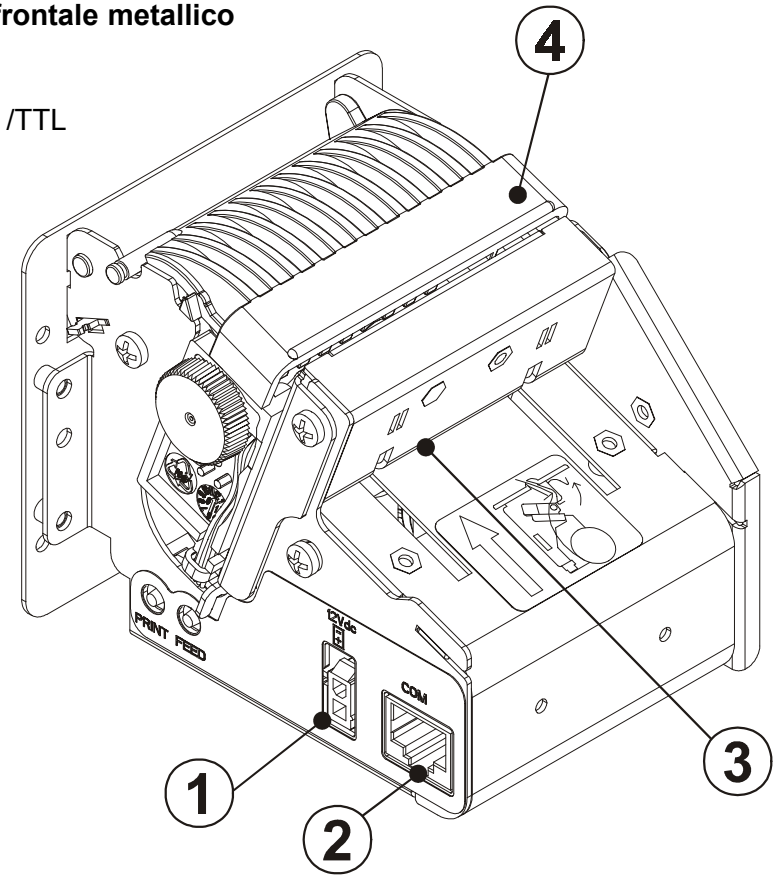
D. Vista posteriore TG558 con frontale plastico

1- Connettore di alimentazione
2- Connettore interfaccia seriale RS232 /TTL
3- Ingresso carta
4- Sportellino d’ispezione basculante



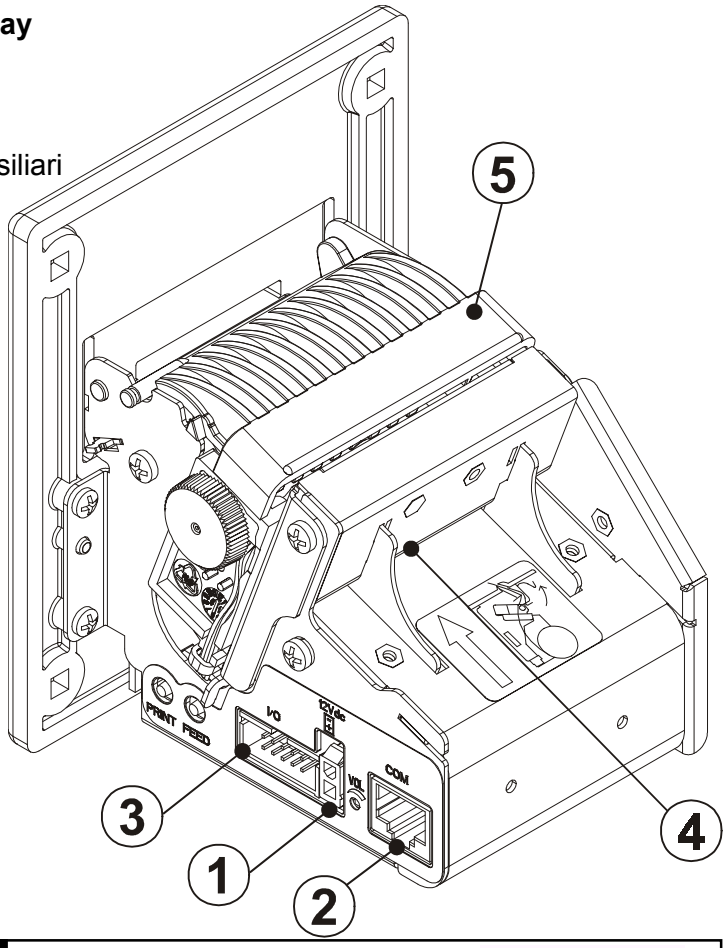
E. Vista posteriore TG558 con frontale metallico

1- Connettore di alimentazione
2- Connettore interfaccia seriale RS232 /TTL
3- Ingresso carta
4- Sportellino d'ispezione basculante



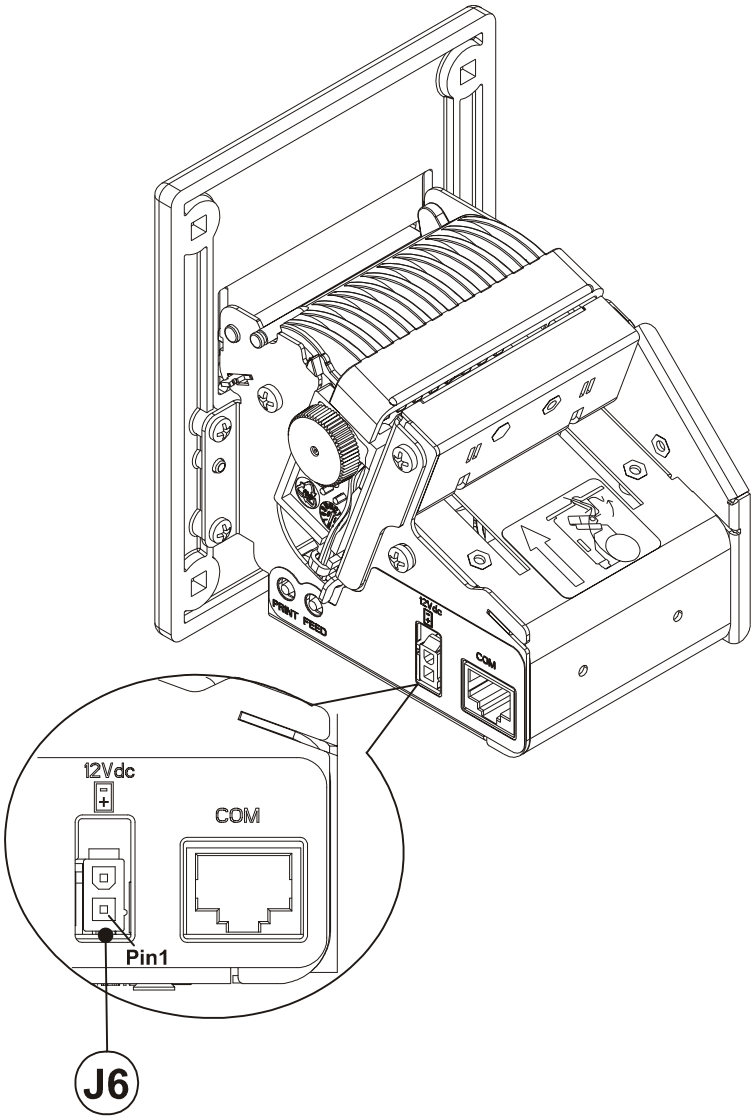
F. Vista posteriore TG558 con display

1- Connettore di alimentazione
2- Connettore interfaccia seriale TTL
3- Connettore di alimentazione e segnali ausiliari
4- Ingresso carta
5- Sportellino d'ispezione basculante



1.1 CONNESSIONI

(Fig.1.1)



1.1.1 Alimentazione

La stampante è dotata, per l'alimentazione (per tutti i modelli), di un connettore molex serie 5569 2 poli maschio 90° (J6). I segnali sui pin del connettore di alimentazione sono i seguenti :

Tipo connettore : Maschio : Molex serie 5569 Verticale (no. 39-30-1020)
Femmina : Molex serie 5557 (no. 39-01-3022)

PIN	SEGNALE	DESCRIZIONE
1	+ 12 V	Alimentazione
2	GND	Segnale di massa

(Tab.1.1)

ATTENZIONE:
Rispettare le polarità dell'alimentazione.

1.1.2 Connettore Input/Output per versione TG558 con display

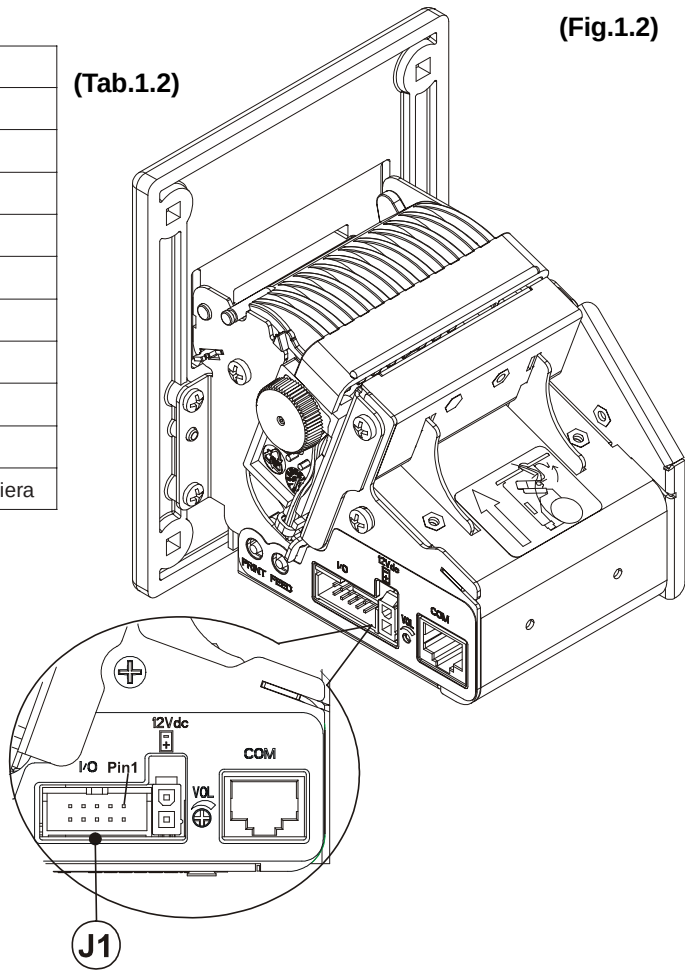
La stampante è dotata, per l'alimentazione della gettoniera ed altoparlanti, e per segnali ausiliari, di un connettore a 10 poli (J1). I segnali sui pin del connettore di alimentazione sono i seguenti :

Tipo connettore : Maschio : Connettore flat 10 poli 90° (passo 2.54mm)
Femmina : Cavo flat 10 poli (passo 2.54mm)

(Tab.1.2)

PIN	SEGNALE	DESCRIZIONE
1	GND	Segnale di massa
2	GND	Segnale di massa
3	+ 12 V	Alimentazione
4	USCITA AUSILIARIA	Open Collector
5	+ 12 V	Alimentazione
6	COIN-IN1	Ingresso gettoniera
7	ALT1	Uscita altoparlante
8	COIN-IN2	Ingresso gettoniera
9	ALT2	Uscita altoparlante
10	INIBIT	Uscita abilitazione gettoniera

(Fig.1.2)



1.2 CONFIGURAZIONE

La stampante permette la configurazione dei parametri di default (vedi fig. 1.2). I parametri influenzati nella configurazione sono:

* PRINT MODE *

- **Colonne:** 24 col.^{D} , 40 col. e 42 col.
- **Modo di stampa:** Normal^{D} o Reverse.
- **Dmensione carattere:** Piccolo^{D} , Doppia larghezza (2 x Width), Doppia altezza (2 x Height), Espanso.
- **Avanzamento automatico:** CR disattivato o CR attivato^{D}.
- **Auto Feed** [(1)]**:** attivato^{D}, disattivato.
- **Stampa in Rosso** [(2)]**:** 0,1,2,3,4,5^{D},6,7.

* SERIAL MODE *

- **Baud Rate:** 38400, 19200, 9600^{D}, 4800, 2400, 1200, 600.
- **Protocol:** 8, N,1^{D} (8 bit, senza parità, 1 bit di Stop)
  8, E,1 (8 bit, parità pari, 1 bit di Stop)
  8, O,1 (8 bit, parità dispari, 1 bit di Stop)
  7, N, 2 (7 bit, senza parità, 2 bit di Stop)
  7, E, 1 (7 bit, parità pari, 1 bit di Stop)
  7, O, 1 (7 bit, parità dispari, 1 bit di Stop)
- **Controllo di flusso:** CTS-RTS, XON-XOFF^{D}.

* REAL TIME CLOCK * [(3)]

- **Settaggio stampa secondi:** Abilita secondi, Disabilita secondi^{D}.
- **Settaggio DST** [(4)]**:** Abilita DST^{D}, Disabilita DST.

Note generali : I parametri indicati con il simbolo ^{D} sono quelli impostati di default.

[(1)] **NOTA:** Se la funzione è abilitata quando la stampante riceve un numero di caratteri pari al buffer di linea va a capo automaticamente.

[(2)] **NOTA:** utilizzando carta termica bicolore è possibile impostare varie tonalità di rosso.

[(3)] **NOTA:** Settaggio presente solo nelle versioni

con RTCK (Real Time Clock) e nella versione con display.

(4) NOTA: Questo parametro abilita il cambio automatico dell'ora solare-legale.

SET UP DEFAULT :

24 COLUMNS (font 16 x 24)
PRINT DIR. = NORMAL
PRINT MODE. = LITTLE
CR-LF HONOR CR
AUTO FEED = ENABLE
RED INTENSITY = 5
SERIAL PORT SELECTED
BAUD RATE = 9600
PROTOCOL = 8, N, 1
FLOW CONTROL = XON - XOFF
DISABLE SECONDS
ENABLE DST

1.2.1 Configurazione dai tasti PRINT e FEED

Se all'accensione della stampante vengono mantenuti premuti contemporaneamente i tasti **PRINT** e **FEED**, la stampante si dispone in modo configurazione e stampa il primo parametro modificabile. Ad ogni successiva pressione del tasto **PRINT** si ottiene la variazione del parametro e la stampa del valore corrente dello stesso. Ottenuto il valore desiderato, premendo il tasto **FEED** si passa al parametro successivo, e così via. La stampa di un messaggio, quando sono scorsi tutti i parametri, segnala il termine del settaggio.

1.3 AUTOTEST

L'autotest si ottiene mantenendo premuto il tasto **FEED** all'accensione della stampante. L'esecuzione dell'autotest provoca la stampa del font caratteri e del logo memorizzato all'interno della stampante.

1.4 MANUTENZIONE

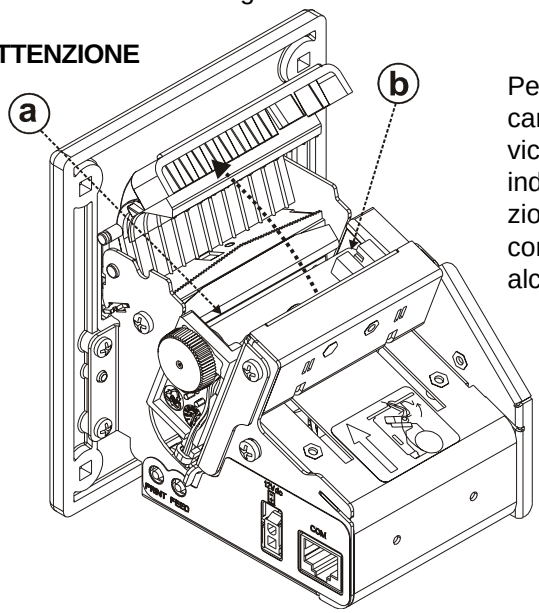
1.4.1 Cambio rotolo carta

(Fig.1.3)

Ad ogni cambio carta, facendo riferimento alla fig. 1.4, occorre verificare quanto segue :

• sollevando lo sportellino, ispezionare il vano carta in prossimità della testina, nella zona contrassegnata dalla lettera a) per eliminare eventuali ritagli di carta rimasti dal rotolo precedentemente esaurito.

ATTENZIONE



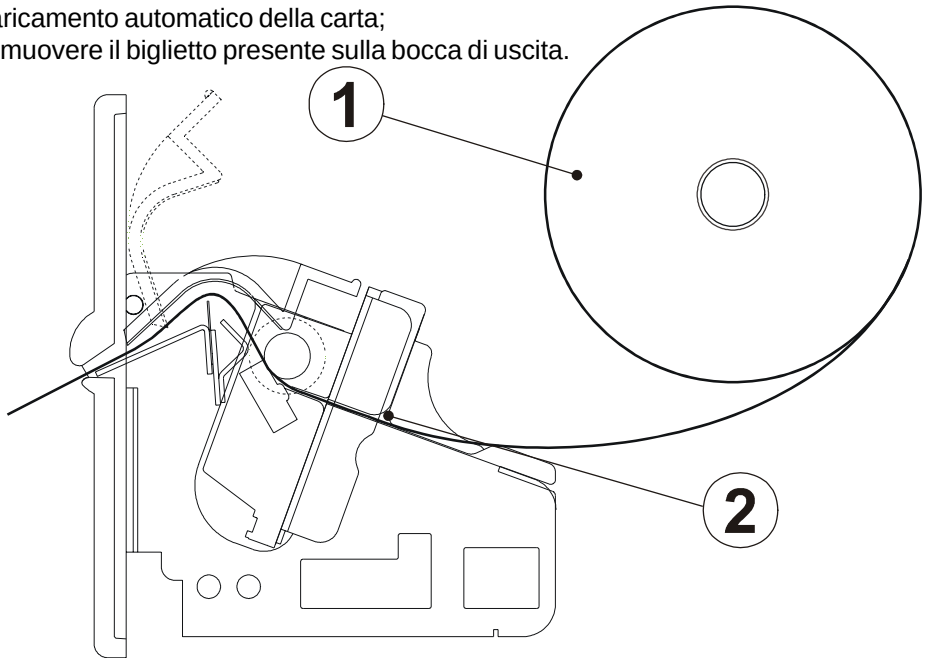
Periodicamente rimuovere l'accumulo di polvere di carta dal rullo di trascinamento carta e dalla zona vicina al sensore di uscita carta (vedi fig. 1.4 zona indicata dalla lettera b). Per effettuare questa opera zione non utlizzare solventi chimici aggressivi ma si consiglia l'uso di un panno morbido inumidito con alcohol .

Per cambiare il rotolo di carta nella stampante procedere nel seguente modo :

1) Posizionare il rotolo di carta (1) rispettando il verso di rotazione indicato (fig.1.5);
2) Inserire l'estremità del rotolo di carta nelle fessura sul meccanismo di stampa (2) ed attendere il

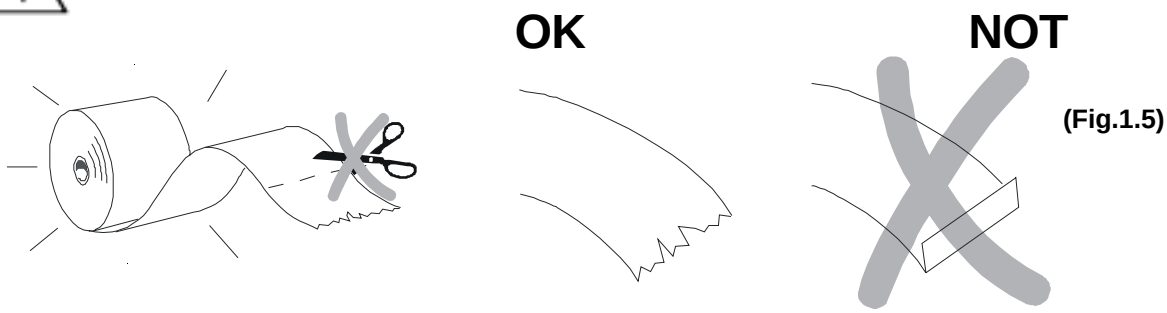
caricamento automatico della carta;

3) Rimuovere il biglietto presente sulla bocca di uscita.



(Fig.1.4)

ATTENZIONE:
Prima di inserire la carta assicurarsi che il taglio non sia regolare.

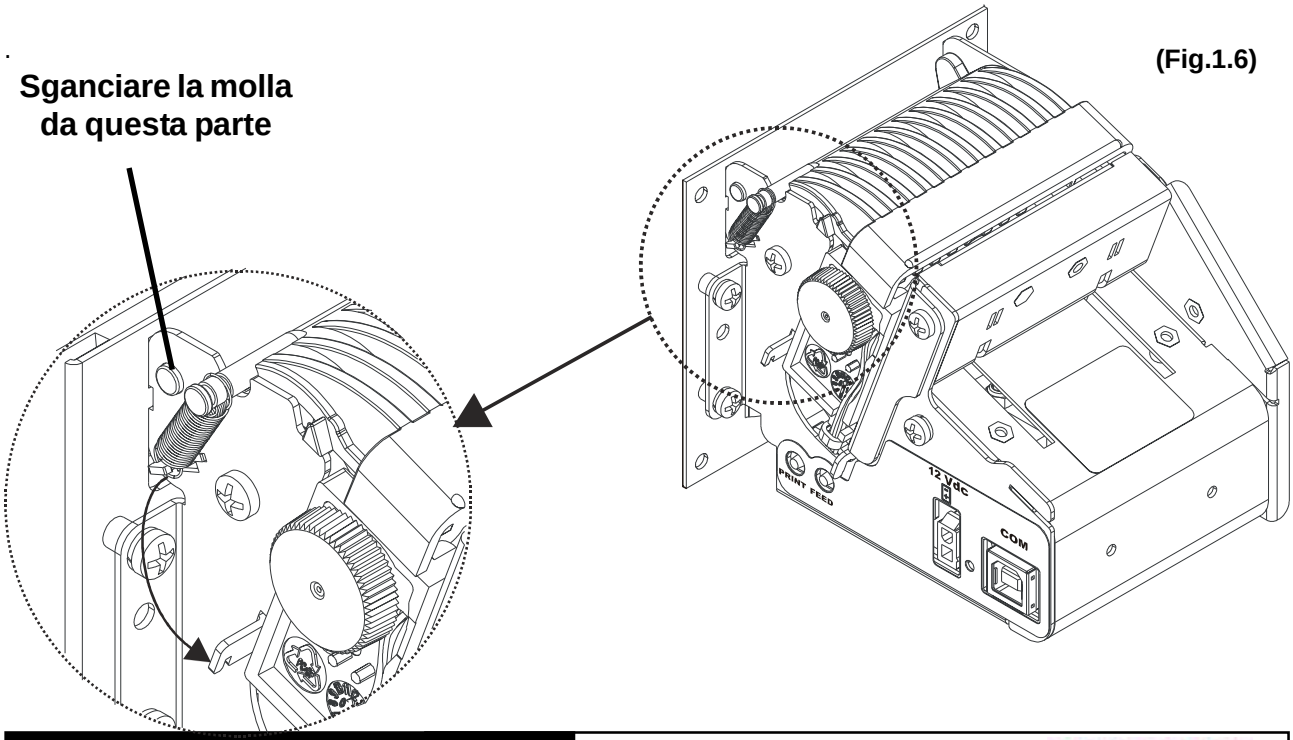


(Fig.1.5)

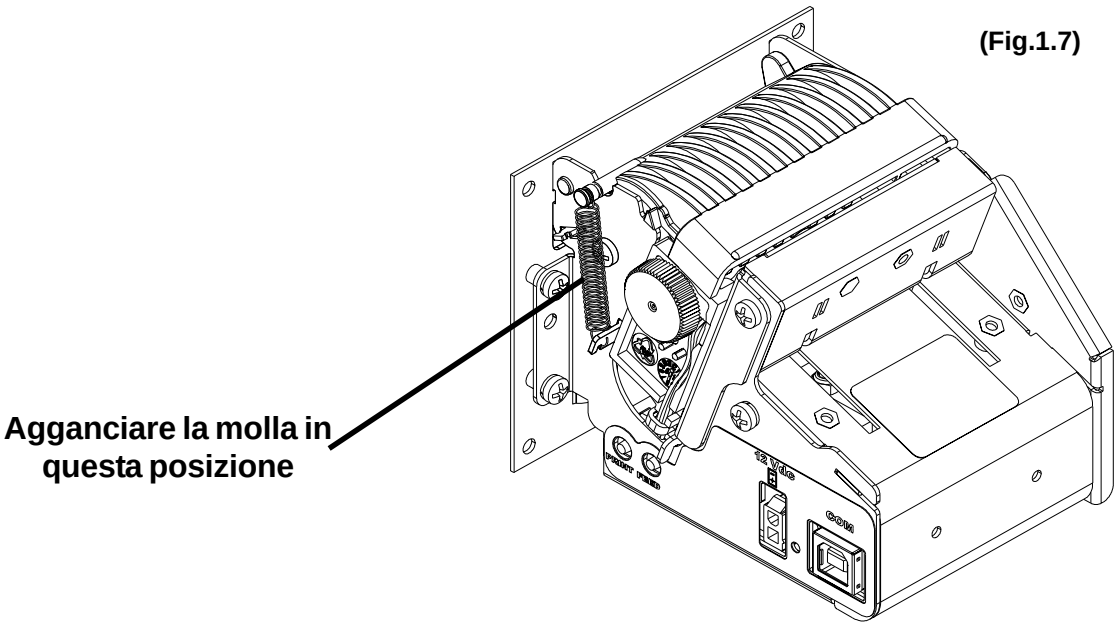
Per installare la stampante in posizione sottosopra procedere come segue :

1) Sganciare la molla come indicato in fig. 1.6 ed agganciarla nella nuova posizione come indicato in fig. 1.7;

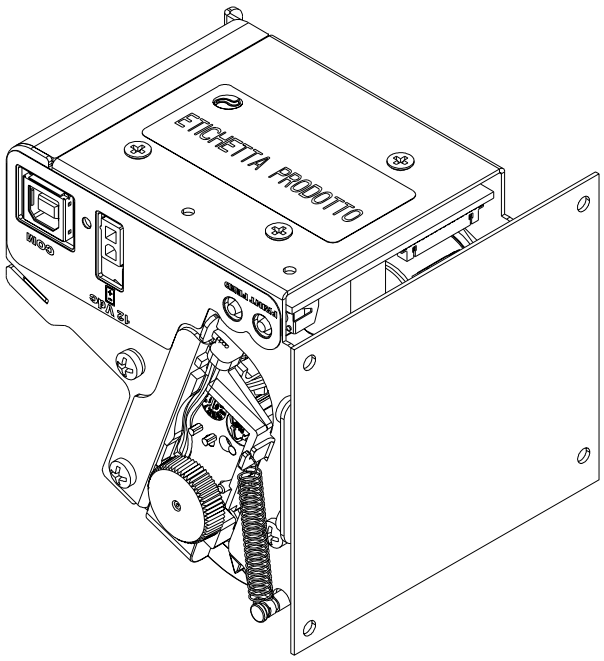
(Fig.1.6)



(Fig.1.7)



2) La stampante è pronta per essere installata in posizione sottosopra :

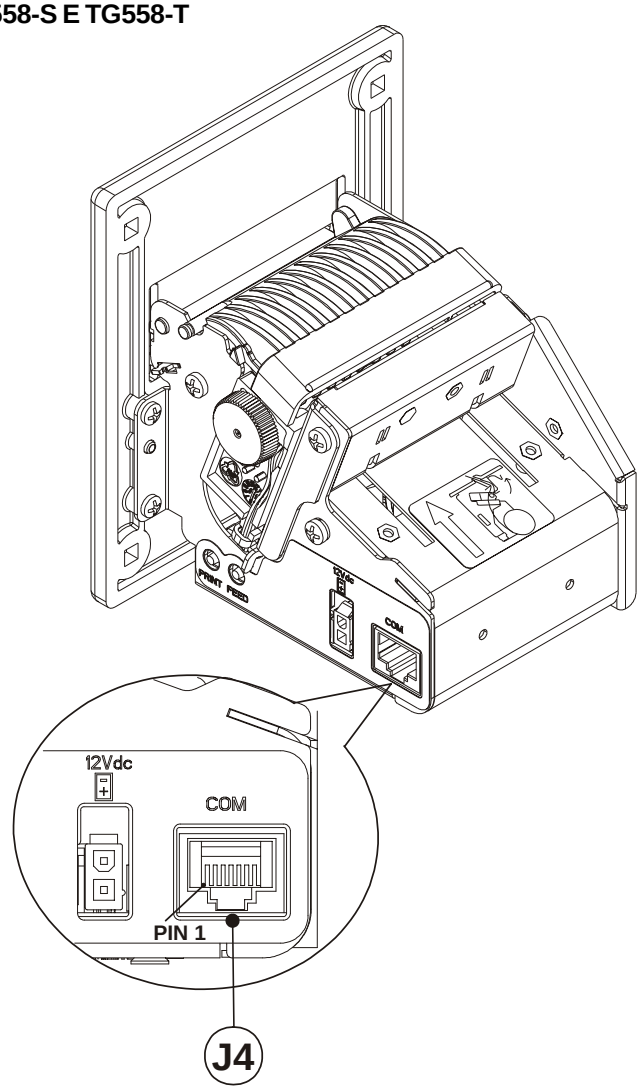


(Fig.1.8)

3) **NOTA:** Le operazioni descritte sono valide per tutti i modelli.

2.1 INTERFACCE MODELLI TG558-S E TG558-T

(Fig.2.1)



2.1.1 Seriale RS232/TTL

La stampante con interfaccia seriale RS232/TTL dispone di un connettore RJ45 (J4 rif. fig. 2.1). Nella seguente tabella vengono descritti i segnali presenti sul connettore:

(Tab.2.1)

PIN	SEGNALE	DESCRIZIONE
1	VCC	+ 5V
2	GND	Segnale Massa
3	TXD	Trasmissione dati
4	RXD	Ricezione dati
5	RTS	Pronto all'invio
6	+VIN	+ 12V
7	N.C.	Non connesso
8	N.C.	Non connesso

Nel protocollo seriale TTL, i segnali che caratterizzano la comunicazione sono TD, RD e RTS se è stato selezionato il protocollo RTS/CTS, mentre se è stato selezionato il protocollo XON/XOFF i segnali sono TD e RD.

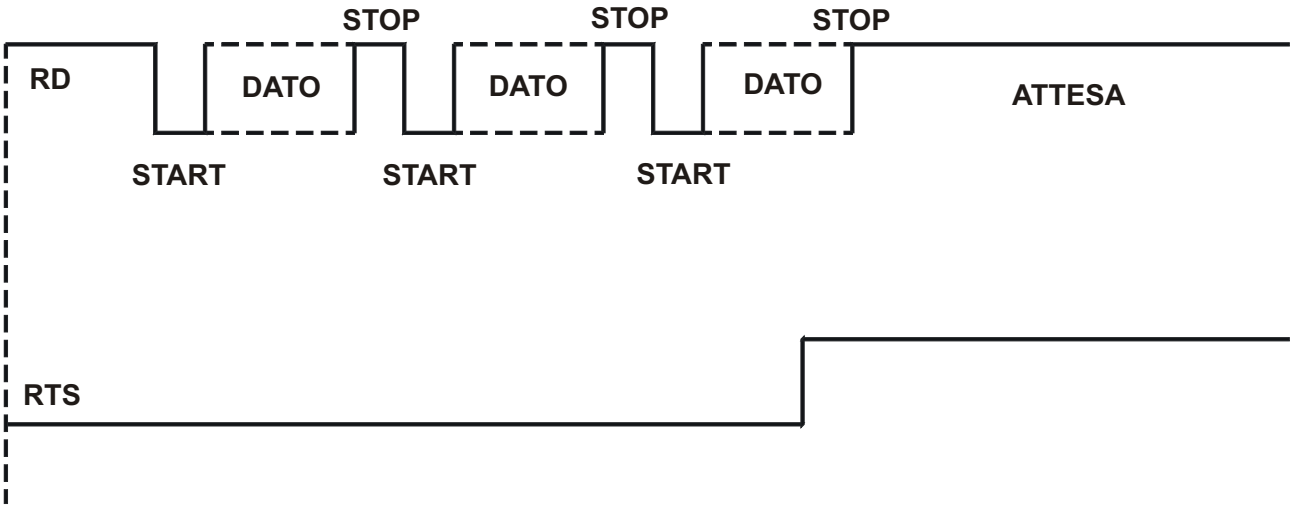
(Fig.2.2)

Formato di trasmissione

NOTE :
(1) **Bit 7** è presente solo se nel set-up è stato abilitato 8 bit per carattere (“lunghezza dati”).
(2) **Bit di parità** è presente solo se nel set-up è stata abilitata la parità.

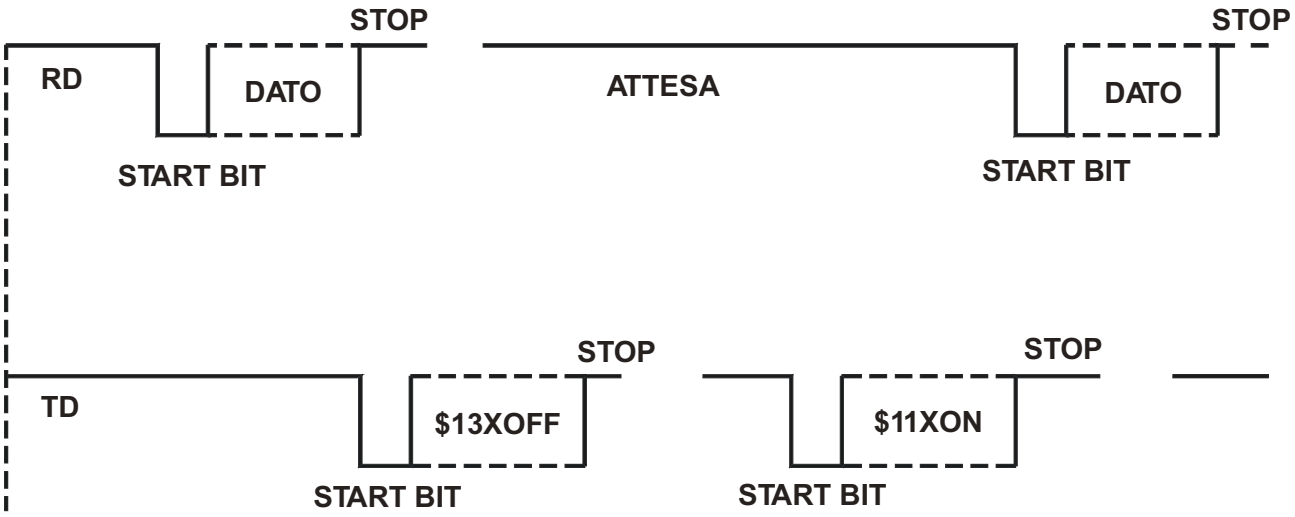
Protocollo RTS/CTS

(Fig.2.3)



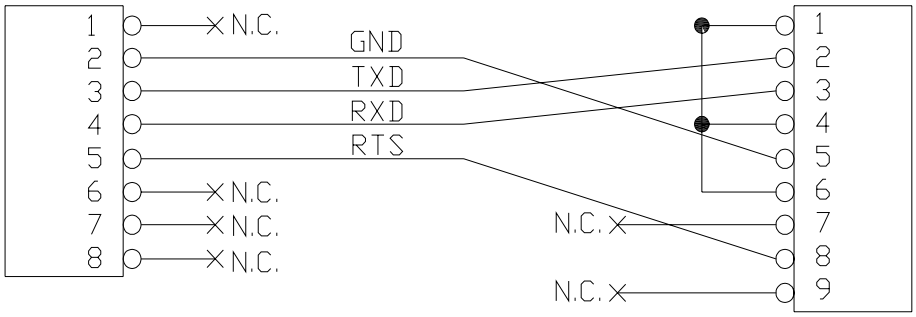
Protocollo XON/XOFF

(Fig.2.4)



1.1.4 Connessione stampante-PC

Il seguente schema mostra la connessione tra stampante e PC tramite un connettore lato stampante 8 poli RJ45 maschio e lato PC connettore a vaschetta 9 poli femmina.



Lato stampante **Lato PC**

3.1 CONTROL CHARACTERS

LEGEND :

Symbol	Function
$	indicates the representation of the command hexadecimal value (for example $40 means HEX 40).
{ }	indicates an ASCII character not performable.
n, m, t, x, y	are additionals/optional parameters that can have different values.

The command table lists all the commands for the management of the printer functions.
The commands can be transmitted to the printer at any moment, but they will only be carried out when the characters previously transmitted have been printed or the commands previously transmitted have been carried out. There are no commands with priority status; all the commands are carried out when the circular buffer is free to do so.

COMMAND TABLE **(Table 3.1)**

HEX	ASCII	Description	Notes
$00	NUL	Prints in small characters	
$01	SOH	Prints in double width	
$02	STX	Prints in double height	
$03	ETX	Expanded printing	
$04	EOT	Restores small character printing	
$08	BS	Moving back of one character	
$0A	LF	Forward feeds one line	
(n) $0B	VT	Forward feeds (n) line	
$0D	CR	Prints line buffer	
$0F	SI	Sets CRLF mode	
$10 $04 (n)	DLE EOT n	Real-time status transmission	
$11	DC1	Graphic mode	
$12	DC2	Prints time and date	TG558-D,RTCK opt.
$13	DC3	Sets time and date	TG558-D,RTCK opt.
$14	DC4	Transmits time and date in serial	TG558-D,RTCK opt.
$18	CAN	Cancel print data	
$1B $23 n	ESC # n	Transmit printer ID	
$1B $28 nL nH	ESC (v nL nH	Set relative vertical print position	
$1B $2D (n)	ESC - n	Turn underline mode on/off	
$1B $30	ESC 0	Select 1/8-inch line spacing	
$1B $32	ESC 2	Select 1/6-inch line spacing	
$1B $33 (n)	ESC 3 n	Set line spacing using minimum units	
$1B $40	ESC @	Resets the printer	
$1B $41	ESC A	Executes [n] dots line feed	
$1B $44	ESC D	Enters date in print buffer	TG558-D,RTCK opt
$1B $49	ESC I	Selects Font A	
$1B $4A (n)	ESC J n	Print and feed paper	
(dd) $1B $4D	(dd) ESC M	Writes value (dd) in print mode	
$1B $4E	ESC N	Sets normal mode printing	
$1B $51	ESC Q	Enables underlining	
$1B $52	ESC R	Sets reverse mode printing	
$1B $54	ESC T	Enters time in print buffer	TG558-D,RTCK opt
$1B $55	ESC U	Enters date (mm:dd:yy) in print buffer	TG558-D,RTCK opt
$1B $57	ESC W	Prints graphic line of 200 dpi	
$1B $58	ESC X	Prints in red	

HEX	ASCII	Description	Notes
$1B $61	(dd) ESC a	Selects justification	
$1B $62	(dd) ESC b	Selects number of dot spaces	
$1B $63	ESC c	Management of bar code printing	
$1B $64 (n)	ESC d n	Print and feed paper n lines	
$1B $68	ESC h	Selects Font B	
$1B $69	ESC i	Selects Font B	
$1B $6D	ESC m	Transmits print mode in serial	
$1B $71	ESC q	Disables underlining	
$1B $72 (n)	ESC r n	Set/reset red printing mode	
$1B $73	ESC s	Transmits next character in serial	
$1B $76	ESC v	Transmit printer status	
$1B $78 n	ESC x n	Select speed/current mode	
$1B $7B (n)	ESC { n	Set/cancel upside-down character printing	
$1B $F0	ESC { }	Transmission of printer real time clock	TG558-D,RTCK opt
$1B $F1	ESC { }	Setting of printer real time clock	TG558-D,RTCK opt
$1B $FA n xL xH yH yL	ESC { } n xL xH yH yL	Print logo	
$1D $24 n	GS $ n	Set absolute shift into a graphic line	
$1D $44 s1 s2 s3 s4	GS D s1 s2 s3 s4	Visualization on display of a string characters	Only for TG558-D
$1D $45 d1..d8	GS E d1..d8	Display management in graphic mode	Only for TG558-D
$1D $46 n	GS F n	Setting graphic display effects	Only for TG558-D
$1D $49 (n)	GS I n	Transmit printer ID	
$1D $4C n m t d1..dk	GS L n m t d1..dk	Receive graphic display effect from serial port	Only for TG558-D
$1D $57 nL nH	GS W nL nH	Set printing area width	
$1D $59 n	GS Y n	Sets height in printing	
$1D $5A n	GS Z n	Receive n bytes from serial port	
$1D $62 n	GS b n	Prints formatted barcode	
$1D $64 n	GS d n	Enable/Disable scrolling text	Only for TG558-D
$1D $6F n	GS o n	Management of output lines	Only for TG558-D
$1D $72 n	GS r n	Transmit status	
$1D $EB	GS { }	Receive, Save and Play melody	Only for TG558-D

NOTE: commands without specifications in the “Note” column are valid for all the models; otherwise the “Note” column indicate a command that is valid for a specific model as follows :
• TG558-D printer version with display;
• RTCK opt. printer version with real time clock option.

The following pages provide a more detailed description of each command.

$00

[Name] **Small character printing**

[Format] ASCII NUL
Hex 00
Decimal 0

[Description] The printer prints in small characters (normal)

[Notes] • The commands $00 - $04 do not cancel the print buffer
• The commands which modify the direction of the characters are only active at the beginning of the line
[Default] Setting the “Print mode” parameter in the printer set-up
[Reference] **$01, $02, $03, $04, $1D $21, $1B $4D**
[Example]

$01

[Name] **Double width printing**
[Format] ASCII SOH
Hex 01
Decimal 1
[Description] The printer prints in double width format
[Notes] • The commands $00 - $04 do not cancel the print buffer
• The commands which modify the direction of the characters are only active at the beginning of the line
[Default] Setting the “Print mode” parameter in the printer set-up
[Reference] **$00, $02, $03, $04, $1D $21, $1B $4D**
[Example]

$02

[Name] **Double height printing**
[Format] ASCII STX
Hex 02
Decimal 2
[Description] The printer prints in double height format.
[Notes] • The commands $00 - $04 do not cancel the print buffer
• The commands which modify the direction of the characters are only active at the beginning of the line
[Default] Setting the “Print mode” parameter in the printer set-up
[Reference] **$00, $01, $03, $04, $1D $21, $1B $4D**
[Example]

$03

[Name] **Expanded printing**
[Format] ASCII ETX
Hex 03
Decimal 3
[Description] The printer prints in expanded character mode
[Notes] • commands $00 - $09 do not cancel the print buffer
• the commands which modify the dimensions of the characters are only active at the beginning of the line
[Default] Setting the “Print mode” parameter in the printer set-up
[Reference] **$00, $01, $02, $04, $1D $21, $1B $4D**
[Example]

$04

[Name] **Restore small character printing**

[Format] ASCII EOT
Hex 04
Decimal 4

[Description] The printer resumes printing with small characters

[Notes] • The commands $00 - $09 do not cancel the print buffer
• the commands which modify the dimensions of the characters are only active at the beginning of the line

[Default] Setting the “Print mode” parameter in the printer set-up

[Reference] **$00, $01, $02, $03, $1D $21, $1B $4D**

[Example]

$07

[Name] **Cancel print data buffer**

[Format] ASCII BEL
Hex 07
Decimal 7

[Description] Deletes all the print data in the current print buffer.

[Notes] • If data that existed in the previously specified printing area also exists in the currently specified printing area, it is deleted.

[Default]

[Reference]

[Example]

BS

[Name] **Moving back of one character**

[Format] ASCII BS
Hex 08
Decimal 8

[Description] Moves print position to previous character.

[Notes] This command can put two characters at the same position.

[Default]

[Reference]

[Example]

$0A

[Name] **Forward feeds one line**

[Format] ASCII LF
Hex 0A
Decimal 10

[Description] Forward feeds one line equivalent to a line of print

[Notes] • This command brings about the printing of the contents of the line buffer

[Default]

[Reference] **$1B $32, $1B $33**

[Example]

(n) $0B

[Name]	**Forward feeds (n) lines**			
[Format]	ASCII	VT		
	Hex	0B		
	Decimal	11		
[Description]	Carries out the number of line feeds specified in (n)			
[Notes]	•The number must be ASCII and between 0 and 9 (when n=0 the command is ignored)			
	• This command clears the line buffer			
[Default]				
[Reference]	**$0A**			
[Example]	To forward feed fast, 5 lines at a time:			
	$35 $0B (or 5 and the command $0B)			

CR

[Name]	**Print and carriage return**			
[Format]	ASCII	CR		
	Hex	0D		
	Decimal	13		
[Description]	When autofeed is “CR enabled”, this command functions in the same way as **$0A**, otherwise it is disregarded.			
[Notes]	• Sets the print position to the beginning of the line.			
[Default]	See “Autofeed in setup” parameter.			
[Reference]	**$0A**			
[Example]				

$0F

[Name]	**Set CRLF mode**			
[Format]	ASCII	SI		
	Hex	0F		
	Decimal	15		
[Description]	Inhibits the command $0D maintaining enabled only the command $0A for printing			
[Notes]	• To disable this option, reset the printer			
	• This command clears the line buffer			
	• On switching on the default value is in the Option Register			
[Default]	Setting in the option register by means of the front keys			
[Reference]	**$0D**			
[Example]				

DLE EOT n

[Name]	**Real-time status transmission**			
[Format]	ASCII	DLE	EOT	n
	Hex	10	04	n
	Decimal	16	4	n
[Range]	$1 \leq n \leq 6$			
[Description]	Transmits the selected printer status specified by *n* in real time according to the following parameters:			

n = 1 transmit printer status
n = 2 transmit off-line status
n = 3 transmit error status
n = 4 transmit paper roll sensor status
n = 5 transmit paper sensors status
n = 6 transmit input/output status

[Notes]
• This command is executed when the data buffer is full.
• This status is transmitted whenever data sequence $10 $04 n is received ($1 \le n \le 6$).

[Default]

[Reference] See tables below.

[Example] n=1: Printer status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED
1	-	-	-	RESERVED
2	-	-	-	RESERVED
3	Off	00	0	On-line.
	On	08	8	Off-line.
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	Off	00	0	Drag paper motor off
	On	40	64	Drag paper motor on
7	-	-	-	RESERVED

n=2: Off-line status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED.
1	-	-	-	RESERVED.
2	Off	00	0	REPORT button not pressed
	On	04	4	REPORT button pressed
3	Off	00	0	FEED button not pressed
	On	08	8	FEED button pressed
4	-	-	-	RESERVED.
5	Off	00	0	Paper present.
	On	20	32	Paper end.
6	Off	00	0	No error.
	On	40	64	Error.
7	-	-	-	RESERVED.

n=3: Error status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED.
1	-	-	-	RESERVED.
2	-	-	-	RESERVED.
3	-	-	-	RESERVED.
4	-	-	-	RESERVED.
5	-	-	-	RESERVED.
6	Off	00	0	No auto-recoverable error.
	On	40	64	Auto-recoverable error.
7	-	-	-	RESERVED.

n=4: Paper roll sensor status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED.
1	-	-	-	RESERVED.
2	-	-	-	RESERVED.
3	-	-	-	RESERVED.
4	-	-	-	RESERVED.
5,6	-	-	-	RESERVED
7	-	-	-	RESERVED.

n=5: Paper sensor status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED.
1	-	-	-	RESERVED.
2,3	Off	00	0	Paper end sensor Paper present
	On	0C	12	The paper end is detected by the sensor
4	-	-	-	RESERVED.
5, 6	Off	00	0	Near Paper end sensor Paper present
	On	40	64	The near paper end is detected by the sensor
7	-	-	-	RESERVED.

n=6: Input/Output status

Bit	Off/On	Hex	Decimal	Function
0	-	-	-	RESERVED.
1	-	-	-	RESERVED.
2	Off	00	0	COIN 1 status at low level
	On	04	4	COIN 1 status at high level
3	Off	00	0	COIN 2 status at low level
	On	08	8	COIN 2 status at high level
4	-	-	-	RESERVED.
5	Off	00	0	INHGET status at low level
	On	20	32	INHGET status at high level
6	Off	00	0	AUXOUT status at low level
	On	40	64	AUXOUT status at high level
7	-	-	-	RESERVED.

$11

[Name] **Graphic mode**

[Format] ASCII DC1

Hex 11

Decimal 17

[Description] Enables graphic mode:

a line in 24 column mode corresponds to 144 horizontal dots divided into 24 blocks of 6 dots each; a line in 40 column mode corresponds to 240 horizontal dots divided into 40 blocks of 6 dots each.

[Notes] To obtain graphic printing, enter the command $11 at the beginning of each line. The format of the byte in graphic configuration is:

X	R	P6	P5	P4	P3	P2	P1
D7	D6	D5	D4	D3	D2	D1	D0

where:

X is not used (0 is recommended);

R must be fixed at level 1;

P1,...,P6 are the graphic dot data (1 prints, 0 does not print).

The P6 bit of the string of dots transmitted is printed on the left and the others follow from left to right (P5, P4, P3, P2, P1) as shown:

1st byte ➔	**2nd byte ➔**	**3rd byte ➔**
P6 P5 P4 P3 P2 P1	P6 P5 P4 P3 P2 P1	P6 P5 P4 P3 P2 P1

[Default]

[Reference]

[Example] To print a line of dots, transmit:

$11, n x $7F (where n is the number of characters per line), $0D.

To print an empty line, transmit:

$11, $40, $0D.

$12

[Name] **Print time and date**

[Format]

ASCII	-
Hex	12
Decimal	18

[Description] Prints the time and date in the following format:

hh : mm dd - mm -yy

If seconds printing is enabled, the format will be:

hh : mm : ss dd - mm -yy

[Notes]

- The command resets the line
- This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference] **$13, $14**

[Example]

$13

[Name] **Set time and date**

[Format]

ASCII	-
Hex	13
Decimal	19

[Description] This command sets the time and date in two possible ways :

the first uses 24 hour clock and the second the 12-hour am/pm clock. In the first case, transmits the 10 ASCII characters representing the time and the date followed by $13 and in the second case transmits the 10 ASCII characters representing the time and the date preceded by “A” or “P” and followed by $13.

[Notes]

- It is advisable to transmit the command $0D first, in order to empty the print buffer.
- This command is present only in the printer version with display (TG558-D) and with RTCK option.

[Default]

[Reference] **$12, $14**

[Example] To set the time 12:45 on 19-01-93, transmit

1	2	4	5	1	9	0	1	9	3	$13
$31	$32	$34	$35	$31	$39	$30	$31	$39	$33	$13

To set the time A 12:45 on 19-01-93, transmit

A	1	2	4	5	1	9	0	1	9	3	$13
$41	$31	$32	$34	$35	$31	$39	$30	$31	$39	$33	$13

$14

[Name] **Transmit the time and date in serial**

[Format]

ASCII	-
Hex	14
Decimal	20

[Description] Transmit the time and date on serial port with ASCII format (11 ASCII characters) :
hours/minutes/day/mont h/year + (CR) $0D

[Notes] • This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference] **$13, $14**

[Example]

$1B $23 n

[Name] **Transmit printer ID**

[Format]

ASCII	ESC	#	n
Hex	1B	23	n
Decimal	27	73	n

[Range] $1 \le n \le 3$, $49 \le n \le 51$

[Description] Transmits the printer ID specified by *n* follows:

n	Printer ID	Specification
1, 49	Printer model ID	$68 (58mm model) $69 (35mm model)
2, 50	Not used	Fixed on $00
3, 51	ROM version ID	Depends on version ROM (4 char)

[Notes] • This command is executed when the data is processed in the data buffer. Therefore, there could be a time lag between command reception and data transmission, depending on data buffer status.

[Default]

[Reference]

[Example]

$1B $28 $76 nL nH

[Name] Set relative vertical print position

[Format]

ASCII	ESC	(	v	nL	nH
Hex	1B	28	76	nL	nH
Decimal	27	10	118	nL	nH

[Range] 0 ≤ nL ≤ 255
0 ≤ nH ≤ 255

[Description] Sets the print vertical position based on the current position by using the horizontal or vertical motion unit.

• This command sets the distance from the current position to [(*nL* + *nH* x 256) x (horizontal or vertical motion unit)].

[Notes] • When the starting position is specified by N motion unit to the bottom:

nL + *nH* x 256=N

• When the starting position is specified by N motion unit to the top (negative direction), use the complement of 65536:

nL + *nH* x 256=65536 - N

• In standard mode, the vertical motion unit is used.

[Default]

[Reference]

[Example]

$1B $30

[Name] **Select 1/8-inch line spacing**.

[Format]

ASCII	ESC	0
Hex	1B	30
Decimal	27	48

[Description] Selects 1/8-inch line spacing.

[Notes]

[Default]

[Reference] **$1B $32, $1B $33**

[Example]

$1B $32

[Name] **Set line spacing at 1/6 inch**.

[Format]

ASCII	ESC	2
Hex	1B	32
Decimal	27	50

[Description] Selects 1/6 inch line spacing.

[Notes]

[Default]

[Reference] **$1B $30, $1B $33**

[Example]

$1B $33 n

[Name] **Set line spacing.**

[Format]

ASCII	ESC	3	n
Hex	1B	33	n
Decimal	27	51	n

[Range] 0 ≤ n ≤ 255

[Description] Sets the line spacing at [*n* × (vertical or horizontal motion unit)] inches.

[Notes] • Changing the horizontal or vertical motion unit does not affect the current line spacing.
• However, the value cannot be less than the minimum vertical movement amount.

• In standard mode, the vertical motion unit is used.
• The maximum line spacing is *n* = 255 (≅ 32mm).

[Default] n = 32 (1/6 inch)

[Reference] **$1B $30, $1B $32**

[Example]

ESC @

[Name] **Initialize printer**

[Format]

ASCII	ESC	@
Hex	1B	40
Decimal	27	64

[Description] Clears the data in the print buffer and resets the printer mode to that in effect when power was turned on.

[Notes] • The data in the receiver buffer is not cleared.
• The macro definitions are not cleared.

[Default]

[Reference]

[Example]

$1B $41 [nH] [nL]

[Name] **Executes [n] dots line feed**

[Format]

ASCII	ESC	A	nH	nL
Hex	1B	41	nH	nL
Decimal	27	65	nH	nL

[Description] Executes [N] dots line feed where N = 256 x *nL* + *nH*.

[Notes] • 1 mm is equivalent to 8 dot line.

[Default]

[Reference]

[Example] To executes a 40 mm of feed transmit :

$1B $41 $01 $40 (or the ESC A command and the value 40mm x8 dot).

$1B $44

[Name] **Enters the date in the print buffer**

[Format]

ASCII	ESC	D
Hex	1B	44
Decimal	27	68

[Description] Enters in the buffer the date of the calendar clock intsalled inside the printer, in the following format :dd - mm - yy .

[Notes] • The date is printed in 8 characters: if there is not enough space in the buffer, it will not be printed.
• It does not zero-set the line buffer
• This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference] **$1B $54, $1B $55**

[Example] If you wish to write :

DATE : 11-09-93 TEST OK

transmit DATE : $1B $44 TEST TEST OK $0D
to print just the date $1B $44 $0D

$1B $49

[Name] **Selects Font A**

[Format]

ASCII	ESC	I
Hex	1B	49
Decimal	27	73

[Description] After this command is received Font A is selected and the printer is ready to use this configuration. The number of columns by row is indicated as follows :

TG558	Font A
58mm model	24 columns
35mm model	17 columns

[Notes]

[Default]

[Reference] **$1B $69**

[Example]

$1B $4A n

[Name] **Print and feed paper.**

[Format]

ASCII	ESC	J	n
Hex	1B	4A	n
Decimal	27	74	n

[Range] $0 \leq n \leq 255$

[Description] Prints the data in the print buffer and feeds the paper [$n \times$ (vertical or horizontal motion unit) inches.

[Notes]
- After printing is over, this command sets the print starting position at the beginning of the line.
- The paper feed amount set by this command does not affect the values set by **$1B $32** or **$1B $33**.
- In standard mode, the vertical motion unit is used.
- The maximum paper feed amount is 31.8 mm.

[Default]

[Reference]

[Example]

(dd) $1B $4D

[Name] **Writes the value (dd) in the print mode.**

[Format]

ASCII	dH	dL	ESC	M
Hex	dH	dL	1B	4D
Decimal	dH	dL	27	77

[Description] Sets the print mode default parameters

$00 small characters

$01 double width printing

$02 double height printing

$03 expanded printing

[Notes]
- The setting is stored in EEPROM

[Default] Setting by means of the front keys
[Reference] **$1B $6D**
[Example] For double height printing, transmit :
$30 $32 $1B $4D

$1B $4E

[Name] **Set printing in NORMAL**
[Format] ASCII ESC N
Hex 1B 4E
Decimal 27 78
[Description] Selects printing in NORMAL mode.
[Notes] • Setting remains until next set.
[Default] Setting the “Print mode” parameter in the printer set-up.
[Reference] **$1B $52**
[Example]

$1B $51

[Name] **Enable underlined printing**
[Format] ASCII ESC Q
Hex 1B 51
Decimal 27 81
[Description] After this command has been received, the characters are printed underlined.
[Notes]
[Default]
[Reference] **$1B $71**
[Example]

$1B $52

[Name] **Set printing in REVERSE**
[Format] ASCII ESC R
Hex 1B 52
Decimal 27 82
[Description] Set printing in REVERSE mode: the ticket comes out from the printer with the strings straight and orientated from left to right .
[Notes]
[Default] Setting the “Print mode” parameter in the printer set-up.
[Reference] **$1B $4E**
[Example]

$1B $54

[Name] **Enters the time in the print buffer**
[Format] ASCII ESC T
Hex 1B 54
Decimal 27 84
[Description] Enters in the buffer the time of the calendar clock intsalled inside the printer, in the following format : hh : mm.
[Notes] • The time is printed in 5 characters: if the seconds option is enabled, in 8 characters: if

there is not enough space in the buffer, it will not be printed.

• It does not zero-set the line buffer

• This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference] **$1B $44, $1B $55**

[Example] If you wish to write :

HOUR : 16 : 45 TEST OK

transmit HOUR : $1B $54 TEST TEST OK $0D

to print just the time $1B $54 $0D

$1B $55

[Name] **Enters the date (mm - dd- yy) in the print buffer**

[Format]

ASCII	ESC	U
Hex	1B	55
Decimal	27	85

[Description] Enters in the buffer the date of the calendar clock installed inside the printer, in the American style format : mm-dd-yy.

[Notes] • The date is printed in 8 characters: if there is not enough space in the buffer, it will not be printed.

• It does not zero-set the line buffer

• This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference] **$1B $44, $1B $54**

[Example] If you wish to write :

DATE : 09-11-93 TEST OK

transmit DATE : $1B $55 TEST OK $0D

to print just the date $1B $55 $0D

$1B $57

[Name] **Prints a graphic line at 203 dpi**

[Format]

ASCII	ESC	W
Hex	1B	57
Decimal	27	87

[Description] After receiving this command, the printer waits for *n* bytes which correspond to an entire graphic line where n assumes :

n = 34byte for 35mm model

n = 48 bytes for 58mm model

[Notes]

[Default]

[Reference]

[Example]

$1B $58

[Name] **Prints in red**

[Format]

ASCII	ESC	X

	Hex	1B	58	
	Decimal	27	88	

[Description] After receiving this command, the printer prepares itself to print in red.

[Notes]

[Default]

[Reference]

[Example]

ESC a n

[Name] **Select justification**

[Format]	ASCII	ESC	a	n
	Hex	1B	61	n
	Decimal	27	97	n

[Range] $0 \le n \le 2$, $48 \le n \le 50$

[Description] Aligns all data in one line to the specified position, where *n* selects the type of justification as follows:

n	Justification
0, 48	Flush left
1, 49	Centered
2, 50	Flush right

[Notes]
- This command is only enabled when inserted at the beginning of a line.
- Lines are justified within the specified printing area.
- Spaces set by **HT**, **ESC $** and **ESC ** will be justified according to the previously entered mode.

[Default] n = 0

[Reference]

[Example]

Flush left	Centered	Flush right
ABC ABCD ABCDE	ABC ABCD ABCDE	ABC ABCD ABCDE

(dd) $1B $61

[Name] **Selects the number of dot spaces**

[Format]	ASCII	(dd)	ESC	b
	Hex	(dd)	1B	62
	Decimal	(dd)	27	98

[Description] (dd) are two ASCII characters which identify a hexadecimal byte and correspond to the number of dot lines between one print line and another.

[Notes]

[Default] = 0

[Reference]

[Example]

$1B $63

[Name] **Management of bar code printing**

[Format]	ASCII	ESC	c	[code] [height] [position] [options] [length] [data]
	Hex	1B	63	

Decimal 27 99

[Description] This command executes a barcode printing depending on the following parameters:

[code] = Type of bar code (ASCII character) The values are :

- I Interleved 2/5
- C Code 39
- B CodaBar
- e EAN8
- E EAN13

[height] = Number of dot lines in 1/8 mm units.

[position]= Left hand margin, expressed in 1/8 mm units.

[options] = Specify the bar code options through a byte. Listed in the following table are all the possible value of a single bit inside of byte :

Bit 0	Function	Description
0	Check digit is not printed	Check digit
1	Check digit is printed	

Bit 1	Function	Description
-	Not used	-

Bit 3	Bit 2	Function	Description
0	0	no	HRI position
0	1	above	
1	0	below	
1	1	above and below	

Bit 5	Bit 4	Function	Description
0	0	normal	barcode length
0	1	double	
1	0	triple	
1	1	Not used	

Bit 1	Function	Description
6	Not used	-
7	Not used	-

[maximum length] Specify the characters number to print through a byte; following are the maximum lengths allowed :

- Interleaved 2/5 = 12 characters
- Code 39 = 10 characters
- CodaBar = 10 characters
- EAN8 = 8 characters
- EAN13 = 13 characters

[data] = Expressed in ASCII.

[Notes]

[Default]

[Reference]

[Example] In the following example the command sequence to print a barcode is indicated :

$1B, 'N', $1B, 'c', 'C', $50, $3C, $14, $06, 'TG558'

where :

$1B, 'N'	(sets the printing in normal mode)
$1B, 'c',	(barcode printing command)
'C',	(barcode type= Code 39)
$50,	(barcode height = 10 mm)
$3C,	(starting position = 7,5 mm)
$14,	(HRI printing below, barcode width double)
$06,	(characters number to print)
'TG558'	(characters to print)

ESC d n

[Name] **Print and feed paper *n* rows**

[Format]

ASCII	ESC	d	n
Hex	1B	64	n
Decimal	27	100	n

[Range] $0 \leq n \leq 255$

[Description] Prints the data in the print buffer and feeds the paper *n* rows.

[Notes]
- Sets the print starting position at the beginning of the line.
- This command does not affect the line spacing set by **$1B $32** or **$1B $33**.
- The maximum paper feed amount is 200 rows. Even if a paper feed amount of more than 200 rows is set, the printer feeds the paper only 200 rows.

[Default]

[Reference] **$1B $32, $1B $33**

[Example]

$1B $68

[Name] **Selects Font B**

[Format]

ASCII	ESC	h	
Hex	1B	68	
Decimal	27	104	

[Description] After this command is received Font B is selected and the printer is ready to use this configuration. The number of columns by rows is indicated as follows :

TG558	Font B
58mm model	42 columns
35mm model	28 columns

[Notes]

[Default]

[Reference] **$1B $49, $1B $69**

[Example]

$1B $69

[Name] **Selects Font B**

[Format]

ASCII	ESC	i
Hex	1B	69
Decimal	27	105

[Description] After this command is received Font B is selected and the printer is ready to use this configuration. The number of columns by rows is indicated as follows :

TG558	Font B
58mm model	40 columns
35mm model	28 columns

[Notes]

[Default]

[Reference] **$1B $49, $1B $68**

[Example]

$1B $6B

[Name] **Transmits the second configuration register in serial**

[Format]

ASCII	ESC	k
Hex	1B	6B
Decimal	27	107

[Description] The value of the second configuration register is transmitted through the serial port, is in ASCII format and has two characters which represent the hexadecimal value.

[Notes]

[Default]

[Reference] **$1B $4B**

[Example] The response is on two bytes. E.g. if you receive :

$30 $39

it means that the default register is 00001001

$1B $6D

[Name] **Transmits the printing mode in serial**

[Format]

ASCII	ESC	m
Hex	1B	6D
Decimal	27	109

[Description] Transmits the printing mode configuration through serial port.

[Notes] • If the printer using a parallel protocol, it doesn't transmits anything.

[Default] Setting in the option register by means on the front keys

[Reference]

[Example] The response is in two bytes. E.g. if you receive :
$30 $32
it means that printing is in double height mode

$1B $70

[Name] **Transmits the configuration register in serial**

[Format]

ASCII	ESC	p	
Hex	1B	70	
Decimal	27	112	

[Description] Transmits the option register byte through serial port.

[Notes] • If the printer using a parallel protocol, it doesn't transmits anything

[Default]

[Reference] **$1B $47, $1B $4B, $1B $6B**

[Example] The response is in two bytes. E.g. if you receive :
$30 $39
it means that the default configuration is 00001001

$1B $72 n

[Name] **Set/reset red printing mode**

[Format]

ASCII	ESC	r	n
Hex	1B	72	n
Decimal	27	114	n

[Range] $0 \le n \le 1$, $48 \le n \le 49$

[Description] Sets and resets red printing mode.

n	Function
0, 48	Reset red printing mode
1, 49	Set red printing mode

[Notes] • The printer prints only entire lines in red, not individual characters.
• The printer prints red only if enabled (see Setup).

[Default] *n* = 0

[Reference]

[Example]

$1B $73

[Name] **Transmits the next character in serial**

[Format]

ASCII	ESC	s
Hex	1B	73
Decimal	27	115

[Description] Transmits the next character it receives from the serial port

[Notes]

[Default]

[Reference]

[Example] If you transmit : $1B $73 $41 the last character, A ($41), will not be printed but immediately transmitted on the serial line.

$1B $76

[Name] **Transmit paper sensor status**

[Format]

ASCII	ESC	v	
Hex	1B	76	
Decimal	27	118	

[Description] Trasmit the current paper sensor status upon receiving this command

[Notes] This commandi is executes immediately, even when the reception buffer is full (BUSY).
The status to be trasmitted is shown in the table bellow.

Bit	Off/On	Hex	Decimal	Function
0-3	off	00	00	Paper present
0-3	on	0F	15	Paper end
5	off	00	00	Cover close/no paper jam
5	on	20	32	Cover oper/Paper jam
6-7	-	-	-	RESERVED

[Default]

[Reference] **$10 $04**

[Example]

$1B $78

[Name] **Prints in black**

[Format]

ASCII	ESC	x	
Hex	1B	78	
Decimal	27	120	

[Description] After receiving this command, the printer prepares itself to print in black.

[Notes]

[Default] n = 0

[Reference]

[Example]

$1B $7B n

[Name] **Turn upside-down printing mode on/off**

[Format]

ASCII	ESC	{	n
Hex	1B	7B	n
Decimal	27	123	n

[Range] $0 \le n \le 255$

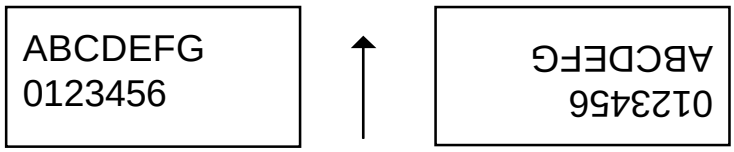
[Description] Turns upside-down printing mode on or off.
• When the LSB of *n* is 0, the upside-down printing mode is off.
• When the LSB of *n* is 1, the upside-down printing mode is on.

[Notes] • Only the LSB of *n* is effective.
• This command is valid only if entered at the beginning of a line.
• In upside-down printing mode, the printer rotates the line to be printed 180° and then prints it.

[Default] n = 0

[Reference]

[Example] Upside-down printing Off Upside-down printing On



Printing direction

$1B $F0

[Name] **Transmits the real time clock**

[Format]

ASCII		ESC	{}
Hex	1B	F0	
Decimal		27	240

[Description] Use this command, to read the printer's calendar clock (real time clock).

[Notes] • Transmit the time and date in 12 ASCII characters format :

HHmmSSDDMMYY

where :

HH -> hour
mm -> minutes
SS -> seconds
DD -> day
MM -> month
YY -> year

• This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference]

[Example]

$1B $F1 n0...n9

[Name] **Sets the real time clock**

[Format]

ASCII		ESC	{}	n0...	n9
Hex	1B	F1	n0...	n9	
Decimal		27	241	n0...	n9

[Description] Use this command, to set the printer calendar clock (real time clock).

[Notes] • Transmit the time and date in 10 ASCII characters format :

HHmmDDMMYY

where :

HH -> hour
mm -> minutes
DD -> day
MM -> month
YY -> year

• This command is present only in the printer version with display (TG558-D) and RTCK option.

[Default]

[Reference]

[Example]

$1B $FA n xH xL yH yL

[Name] **Print logo.**

[Format]

ASCII	ESC	{}	n	xH	xL	yH	yL
Hex	1B	FA	n	xH	xL	yH	yL
Decimal	27	250	n	xH	xL	yH	yL

[Range] n = 1, 49

$0 \le xH, xL, yH, yL \le 255$

[Description] Prints graphic logo stored into flash bank; n selects the graphic source as follows :

xL + *xH* × 256 specifies the starting dotline (1 ÷ *Nrow*) where

Nrow = 341 for 58mm model

Nrow = 512 for 35mm model

yL + y*H* × 256 specifies the number of lines to print.

[Notes] • If (*xL* + (*xH* × 256)) > *Nrow* the printer does not execute the command where

Nrow = 341 for 58mm model

Nrow = 512 for 35mm model

• If (*xL* + (*xH* × 256) + *yL* +(y*H* × 256))> *Nrow* the printer prints only *Nrow* - *xL* + (*xH* × 256) +1 dotline where

Nrow = 341 for 58mm model

Nrow = 512 for 35mm model

• The logo dimension is :

384 x 341 for 58mm model

256 x 512 for 35mm model

[Default]

[Reference]

[Example] To print from ram bank dotline 10 to dotline 64, send:

$1B $FA $00 $00 $0A $00 $40

$1D $21 n

[Name] **Select character size**

[Format]

ASCII	GS	!	n
Hex	1D	21	n
Decimal	29	33	n

[Range] $0 \le n \le 255$

[Description] Selects character height and width, as follows:

• Bits 0 to 3 low Nibble: to select character height (see table 2).

• Bits 4 to 7 High Nibble: to select character width (see table 1).

0bit	1bit	2bit	3bit	4bit	5bit	6bit	7bit
height				width			

Table 1 Select Character Width (high Nibble)

Hex	Width
0x	1 (normal width = 1x)
1x	2 (width = 2x)
2x	3 (width = 3x)
3x-Fx	1 (normal width = 1x)

Table 2 Select character height (Low Nibble)

Hex	Height
x0	1 (normal height = 1x))
x1	2 (height = 2x)
x2	3 (height = 3x)
x3-xF	1 (normal height = 1x)

[Notes] • This command is effective for all characters (except HRI characters).
• If *n* falls outside the defined range, this command is ignored.
• Characters enlarged to different heights on the same line are aligned at the baseline or topline.

[Default] n = 0

[Reference] **$00, $01, $02, $03, $04**

[Example]

$1D $24 n

[Name] **Set absolute shift into a graphic line.**

[Format]

ASCII	GS	$	n	
Hex	1D	24	n	
Decimal	29	36	n	

[Range] 0≤ n ≤ 47 for 58mm model
0≤ n ≤ 34 for 35mm model

[Description] Set the print beginning position into a graphic line based on the current value of n that indicate the byte number of shift from left margin.

[Notes] • Settings outside the specified printable area are ignored.

[Default]

[Reference]

[Example]

$1D $44 s1 s2 s3 s4

[Name] **Visualization on display a string of 4 characters.**

[Format]

ASCII	GS	D	s1	s2	s3	s4
Hex	1D	44	s1	s2	s3	s4
Decimal	29	68	s1	s2	s3	s4

[Range] 48 ≤ s1, s2, s3, s4 ≤ 57
65 ≤ s1, s2, s3, s4 ≤ 90

[Description] Visualizes a string of 4 characters on printer display.

[Notes] • This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example] To visualize the string “CIAO” on display send :

$1D	$44	$43	$49	$41	$4F

$1D $45 d1...d8

[Name] **Display management in graphic mode.**

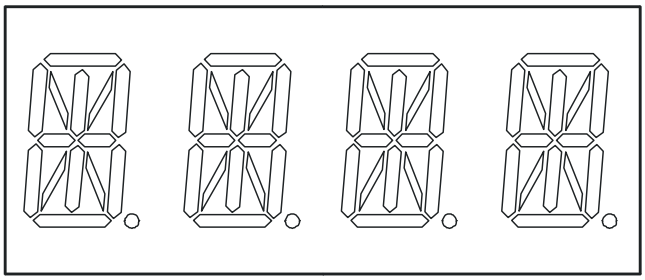
[Format]

ASCII	GS	E	d1...	d8
Hex	1D	45	d1...	d8
Decimal	29	69	d1...	d8

[Range] $0 \le d1 \le 255$

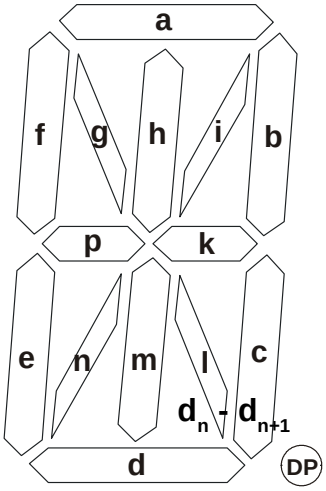
$0 \le d8 \le 255$

[Description] It's possible to customize the display visualization mode. Send 8 bytes (d1...d8) that identify the 4 digit present on display in the following mode :



1st digit		2nd digit		3rd digit		4th digit	
d1	d2	d3	d4	d5	d6	d7	d8

[Notes] • In the followimg figure are represented the display digits :



• Each pair of bytes identify a digit, and must be as follows :

7				dn			0	7				dn +1			0
N.U.	DP	k	p	n	m	l	i	h	g	f	e	d	c	b	a

• This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example] To visualize the character "+" on all 4 display digits send :

$1D $45 $34 $80 $34 $80 $34 $80 $34 $80

$1D $46 n

[Name] **Enabling graphic display effects.**

[Format]

ASCII	GS	F	n
Hex	1D	46	n
Decimal	29	70	n

[Range] $1 \le n \le 4$, $49 \le d8 \le 52$

[Description] Enables the graphic display effects. There are four effects already stored into the printer that can be reloaded in base of the n value.

[Notes] • This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example]

$1D $49 n

[Name] **Transmit printer ID**

[Format]

ASCII	GS	I	n
Hex	1D	49	n
Decimal	29	73	n

[Range] $1 \le n \le 3$, $49 \le n \le 51$

[Description] Transmits the printer ID specified by *n* follows:

n	Printer ID	Specification
1, 49	Printer model ID	$68 (58mm model) $69 (35mm model)
2, 50	Type ID	See table below
3, 51	ROM version ID	Depends on ROM version (4 character)

n = 2, Type ID

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	2-byte character codes not supported
1	Off	00	0	Autocutter not supplied
	On	02	2	Autocutter supplied
2	Off	00	0	Thermal paper w/o label
	On	04	4	Thermal paper w/label
3	-	-	-	RESERVED
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Notes] • This command is executed when the data is processed in the data buffer. Therefore, there could be a time lag between command reception and data transmission, depending on data buffer status.

[Default]

[Reference]

[Example]

$1D $4C n m t d1...dk

[Name] **Receive display effect from serial port**

[Format]

ASCII	GS	L	n	m	t	d1...	dk
Hex	1D	4C	n	m	t	d1...	dk
Decimal	29	76	n	m	t	d1...	dk

[Range] $1 \le n \le 4$, $49 \le n \le 52$

$0 \le m \le 63$

$0 \le d1 \le 255$, $0 \le dk \le 255$

[Description] Receives display effect from serial port.

• The *n* parameter indicates the effect display number to apply (see $1D $46 command).

• The *m* parameter indicates the frame number. If the m value exceeds the maximum value allowed then was automatically limited to 63.

• The *t* parameter indicates the display interval between one frame and another (the value is calculated in milliseconds).

[Notes] • The frame structure is the same as specified in the command $1D $45.

• The d1...dk bytes, that was sent to define the display effect, are calculated as follows :

k = m x 8 (where m is the frame number)

• After receiving this command a printer reset is executed.

• This command is present only in the printer version with display (TG558-D).

[Default]

[Reference] **$1D $45**

[Example]

$1D $57 n d1...dn

[Name] **Prints n byte of a 203 dpi graphic line**

[Format]

ASCII	GS	W	n	d1...	dn
Hex	1D	57	n	d1...	dn
Decimal	29	87	n	d1...	dn

[Range] $1 \le n \le 48$ for 58mm model

$1 \le n \le 34$ for 35mm model

$0 \le d1 \ldots dn \le 255$

[Description] Print n byte of a 203 dpi graphic line where :

• n specifies the number of byte to print;

• d1...dn specify the bytes to print.

[Notes] • If the bit image data input exceeds the number of dots to be printed on a line, the excess data are processed as printable characters.

• *d* indicates the bit image data. Set a corresponding bit to 1 to print a dot, or to 0 to not print the dot.

• This command is not affected by the emphasized, double-strike, underline (etc.) print modes and the upside-down mode.

[Default]

[Reference]

[Example] For printing 12 bytes the command sequence is :
$1D $57 $0C $FF $00 $FF $00 $FF $00 $FF $00 $FF $00 $FF $00

$1D $59 n

[Name] **Sets height in printing.**

[Format]

ASCII	GS	Y	n
Hex	1D	59	n
Decimal	29	89	n

[Description] Sets height during printing based on following values of n:
When you print a dot line if
n=0 height is set to one
n ≠ 0 (default value) height is set to two

[Notes] When n ≠ 0 (default value) each dotline is twice replicated

[Default] n ≠ 0

[Reference]

[Example]

$1D $5A n

[Name] **Receive n bytes from serial port**

[Format]

ASCII	GS	Z	n
Hex	1D	5A	n
Decimal	27	90	n

[Description] Receives n bytes from serial port and prints them in graphic mode

[Notes] Max value of n is n ≤ 48 for 58mm model
n ≤ 34 for 35mm model

[Default]

[Reference]

[Example]

$1D $62 m n

[Name] **Management of barcode printing.**

[Format]

① ② ③	ASCII	GS	b	m	n	
	Hex		1D	62	m	n
	Decimal		29	124	m	n

[Range]
① m = ‘p’, ‘P’ 1 ≤ n ≤ 3, 49 ≤ n ≤ 51
② m = ‘t’, ‘T’ 48 ≤ n ≤ 56
③ m = ‘c’, ‘C’ n = ‘z’, ‘Z’, ‘i’, ‘I’, ‘d’, ‘D’, ‘r’, ‘R’

[Description] ① This command prints a EAN13 barcode already formatted ; n specifies the formattation type as follows :

n	Barcode format
1, 49	DDMMYYHHmmSS
2, 50	DDMMY*n*HHmmSS
3, 51	DDMMYHHmm*nnn*

where :
DD -> day **MM** -> month **YY** -> year **HH** ->hour
mm -> minutes **SS** -> seconds ***n*** -> terminal number(0-9)
nnn -> progressive ticket number

② This command sets the terminal number that will be printed in the barcode if it was

selected the DDMMY*n*HHmmSS format.

• The terminal number value must be included between 0 and 9 (n).

After receiving this command the printer send a byte to host in the following format :

1° byte: ACK ($06) if the setting value is included in the interval

NAK ($15) if the setting value is not included in the interval

• The terminal number is stored into EEprom so this value still remains also after a reset command or printer shut-down.

③ This command is relative to the counter defined as progressive of ticket printed; n specifies the operation executed on counter as indicated in the following table :

n	Function
'z', 'Z'	Resets the progressive ticket counter
'i', 'I'	Increases the progressive ticket counter
'd', 'D'	Decreases the progressive ticket counter
'r', 'R'	Reads the progressive ticket counter

• The counter value is stored into RAM so when the printer resets or shut-down the counter is reset .

[Notes]

[Default]

[Reference]

[Example]

(1) $1D $64 $30, (2) $1D $64 $31 n d1...dk

[Name] **Enable / Disable scrolling text**

[Format]

①	ASCII	GS	d	0		
	Hex	1D	64	30		
	Decimal 29	100	0			
②	ASCII	GS	d	1	n	d1...dk
	Hex	1D	64	31	n	d1...dk
	Decimal 29	100	1	n	d1...dk	

[Range] ② 0 ≤ n ≤ 63, 0 ≤ d1 ≤ 255, 0 ≤ dk ≤ 255

[Description] ② This command disables scrolling text .

① This command visualizes on display a string , that was sent through serial port as scrolling text;

[Notes] ② • The *n* parameter indicates the length of a string. The maximum number length's 63 characters it will be.

• If the string containes a NULL character ($00) the next characters recpetion are aborted.

• This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example]

ù

$1D $6F n

[Name] **Management of output lines**

[Format]

ASCII	GS	o	n
Hex	1D	6F	n
Decimal	27	111	n

[Description] This command sets the output lines as follows :

bit 7	bit 6	bit 5	bit 4	bit 3	bit 2	bit 1	bit 0
AUXOUT				INIBIT			

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Out Inibit
	On	01	1	
1	-	-	-	RESERVED
2	-	-	-	RESERVED
3	-	-	-	RESERVED
4	Off	00	0	Out Auxout
	On	08	8	
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Notes] • This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example]

$1D $72 n

[Name] **Transmit status**

[Format]

ASCII	GS	r	n
Hex	1D	72	n
Decimal	29	114	n

[Range] n = 1, 49

[Description] Transmits the status specified by *n* as follows:

n	**Function**
1, 49	Transmits paper sensor status (as for **$1D $76**).

Paper sensor status (n = 1, 49)

Bit	Off/On	Hex	Decimal	Function
0,1	-	-	-	RESERVED
2,3	Off	00	0	Paper-end sensor: Paper present
	On	(0C)	(12)	Paper-end sensor: Paper not present
4	Off	00	0	Not used. Fixed to Off.
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Notes] • This command is executed when the data is processed in the data buffer. Therefore, there may be a time lag between receiving the command and transmitting the status, depending on data buffer status.

[Default]

[Reference] **$10 $04, $1B $76**

[Example]

$1D $EB

[Name] **Receive, save, execute melody**

[Format]

①	ASCII	GS	{}	N	k			
	Hex	1D	EB	4E	k			
	Decimal	29	235	78	k			
②	ASCII	GS	{}	w	k	mh	ml	n1t1..nmtm
	Hex	1D	EB	77	k	mh	ml	n1t1..nmtm
	Decimal	29	235	119	k	mh	ml	n1t1..nmtm

[Range] ① $1 \le k \le 4$, $49 \le k \le 52$

② $1 \le k \le 4$, $49 \le k \le 52$

$0 \le mH \le 255$, $0 \le mL \le 255$

[Description] ① • This command is used for receiving and saving a melody.

• The k parameter selects the melody to execute.

② • This command save a melody into flash.

• k parameter selects the melody to receive.

• mh and mL are the number of notes to receive (mH x 256 + mL).

• n indicates the note to play (see Note Table).

• t indicates the duration of playing note ; (the exactly duration of any note will be expressed in multiples of 5 ms).

In the following table are listed the usable notes and theirs hexedecimal value to send for playing note.

NOTES TABLE

Note	Value (Hex)	Description
NO_SOUND	$21	-
SOUND_ON	$20	-
RE_D_5	$30	RE # 5 Ottava
MI_5	$31	MI
FA_5	$32	FA
FA_D_5	$33	FA #
SOL_5	$34	SOL
SOL_D_5	$35	SOL #
LA_5	$36	LA
LA_D_5	$37	LA #
SI_5	$38	SI
DO_6	$39	DO 6 Ottava
DO_D_6	$3A	DO #
RE_6	$29	RE
RE_D_6	$3B	RE #
MI_6	$3C	MI
FA_6	$3D	FA
FA_D_6	$0E	FA #
SOL_6	$3E	SOL
SOL_D_6	$2C	SOL #
LA_6	$3F	LA
LA_D_6	$04	LA #
SI_6	$05	SI
DO_7	$25	DO 7 Ottava
DO_D_7	$2F	DO #
RE_7	$06	RE
RE_D_7	$07	RE #

[Notes] ② • The NO_SOUND note disable the tones generator must be used to end a melody.

• The SOUND_ON note enable the tones generator but no produce any music. This note must be used also when executes a pause.

• Every melody must start with the SOUND_ON note.

• This command is present only in the printer version with display (TG558-D).

[Default]

[Reference]

[Example]

Blank page

4.1 SPECIFICHE TECNICHE

La tabella 4.1 riporta le principali caratteristiche tecniche della stampante. **(Tab.4.1)**

Modello	**58 mm**			**35 mm**	
Colonne	24	40	42	17	28
Metodo di stampa	Termica				
Risoluzione	203 DPI (8 dot/mm)				
Caratteristiche carta					
Tipo di carta	Carta termica in rotolo Lato termico all'esterno del rotolo				
Tipo di carta consigliati	da 55 g/m^2 a 65 g/m^2 (KANZAN)				
Larghezza	57.5 mm ± 1 mm			35mm ± 0.5 mm	
Diametro anima interna rotolo	13mm				
Diametro esterno rotolo	max Ø80 mm (con staffa porta rotolo esterna)				
Tipo anima	Cartone o plastica				
Sensori	Temperatura testina, presenza carta, sensore inceppamento carta Opzionale : sensore quasi fine carta esterno, sensore prelevamento ticket				
Modo di scrittura	Diritto, Rovesciato				
Formati di stampa	Altezza / larghezza da 1 a 2, grassetto, negativo, sottolineato.				
Font di caratteri	ASCII standard, International				
Interfaccie standard	RS232/TTL				
Baud rate	Da 600 a 38400 bps				
Buffer di ricezione	750 bytes				
Flash memory	60 Kbytes				
Memoria grafica	1 logo da 384 x 341 dots			1 logo da 256 x 512 dots	
Driver di stampa	Windows™ 95, 98, ME, NT4, 2K, XP				
Alimentazione	12 Vdc ± 10%				
Consumo di corrente					
Corrente in stampa	2 A				
Corrente di stand by	0.1 A				
Peso stampante (1)	490 gr.				
Condizioni ambientali					
Temperatura di funzionamento	0°C ÷ 45°C				
Umidità relativa	10% ÷ 70% senza condensa				
Temperatura di stoccaggio / Umidità	-20 °C ÷ +70 °C / 10% ÷ 90%				

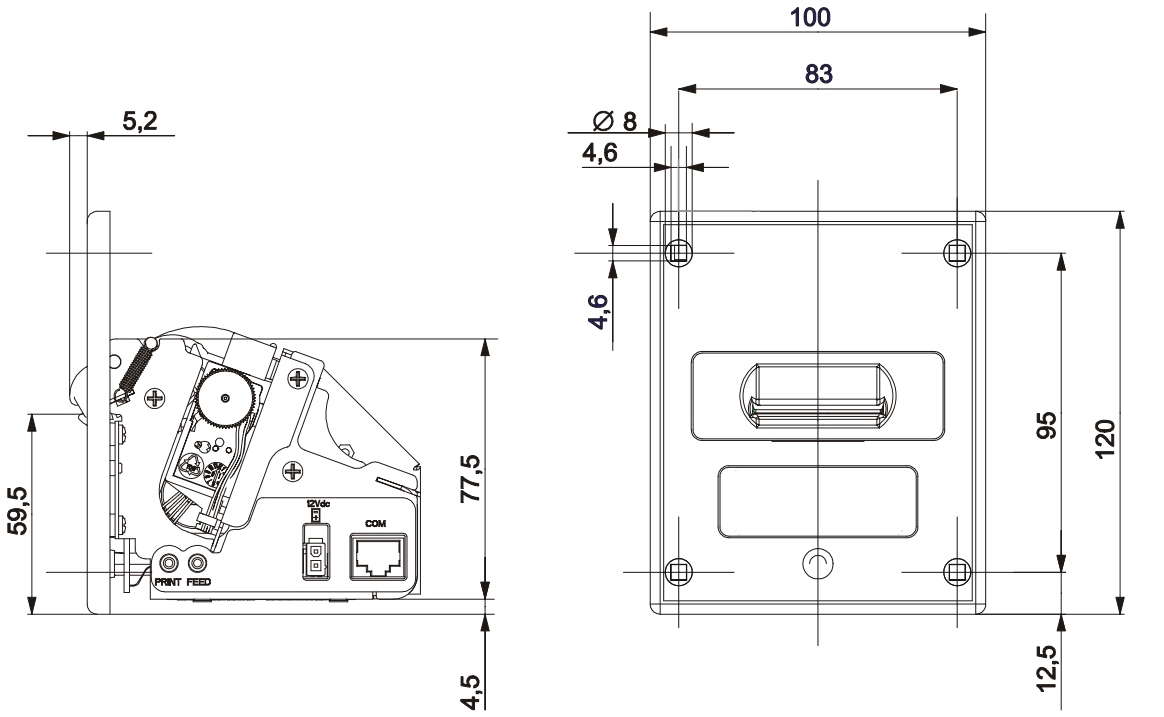
Note :(1) Riferito senza rotolo carta ed al modello con frontale plastico.

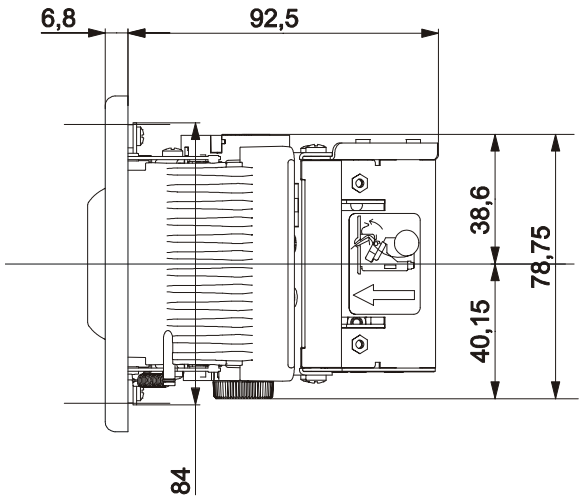
OPZIONI	- Staffa porta rotolo orientabile con sensore	
Colonne	24 (mod. 58mm) 17 (mod. 35mm)	40 (mod. 58mm) 28 (mod. 35mm)
Matrice di carattere	16 x 24	8 x 24
Velocità di stampa		
Linee / sec	16,25	16,25
Caratteri / sec	390	650
Carattere (L x H)		
Normale	2 x 3	1 x 3

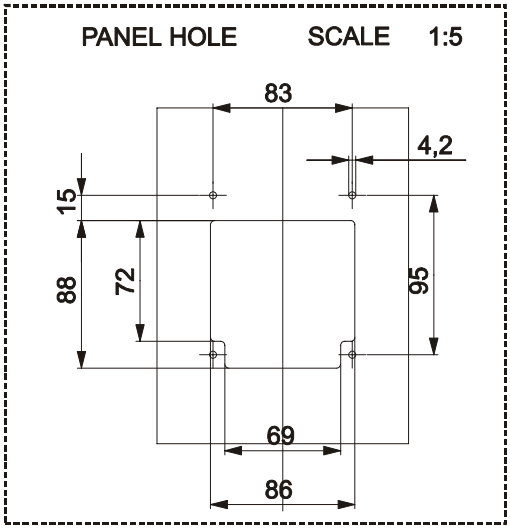
4.2 DIMENSIONI

4.2.1 Modello con frontale plastico

In figura 4.1 sono riportate le dimensioni della stampante con frontale plastico. **(Fig.4.1)**





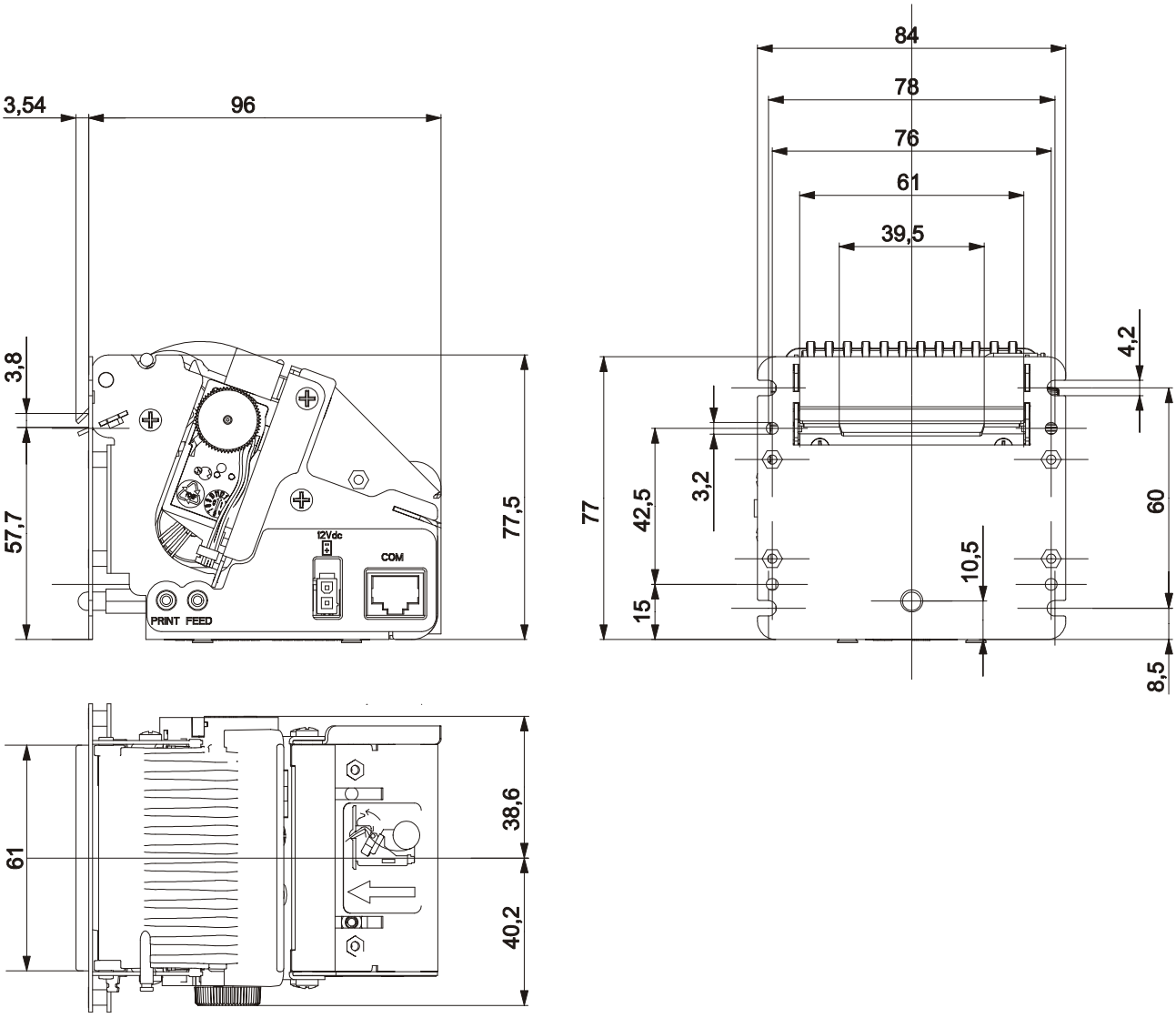


Piano di foratura per fissaggio stampante a pannello

4.2.2 Modello con frontale metallico

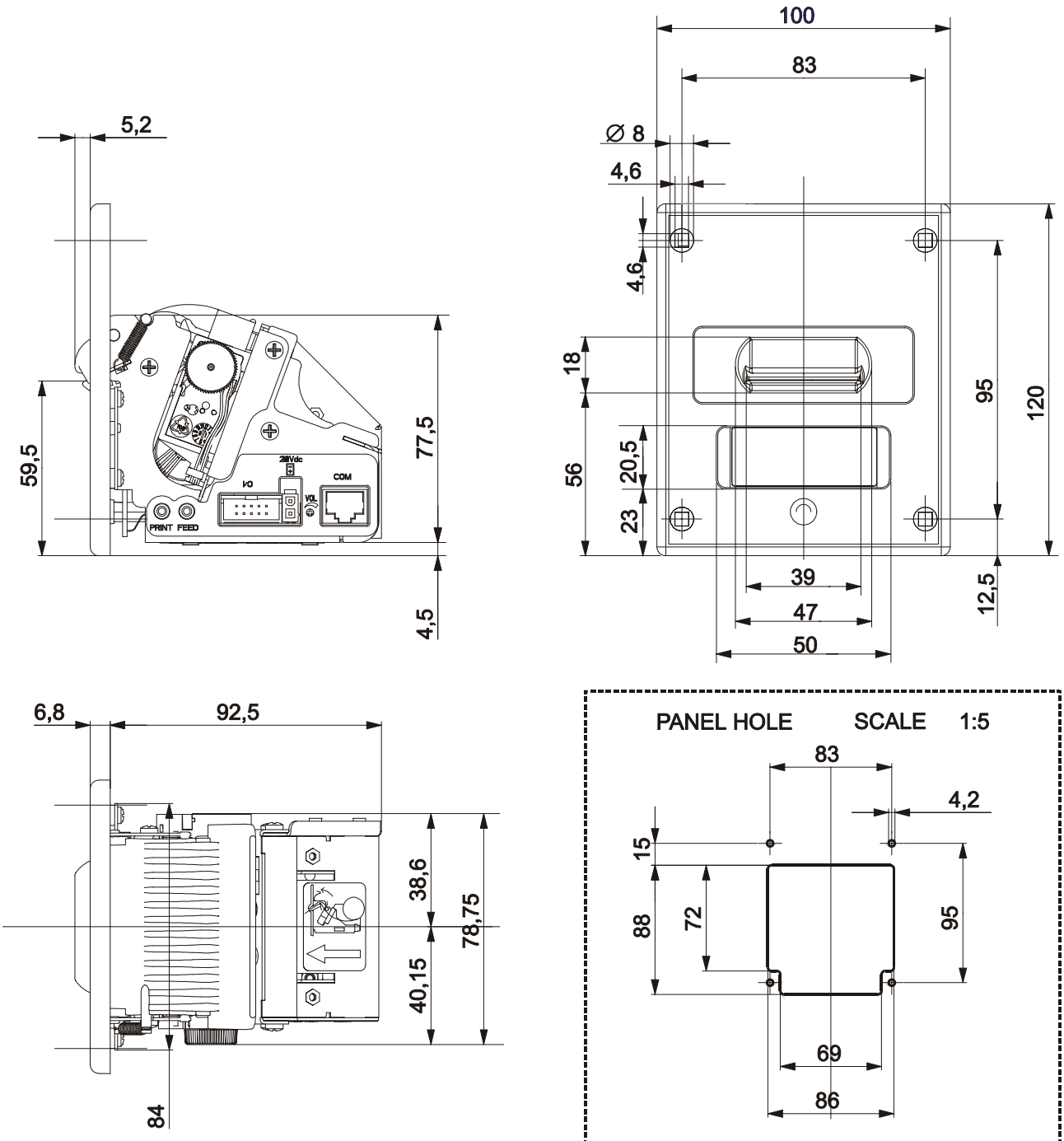
In figura 4.2 sono riportate le dimensioni della stampante con frontale metallico versione 35mm.

(Fig.4.2)



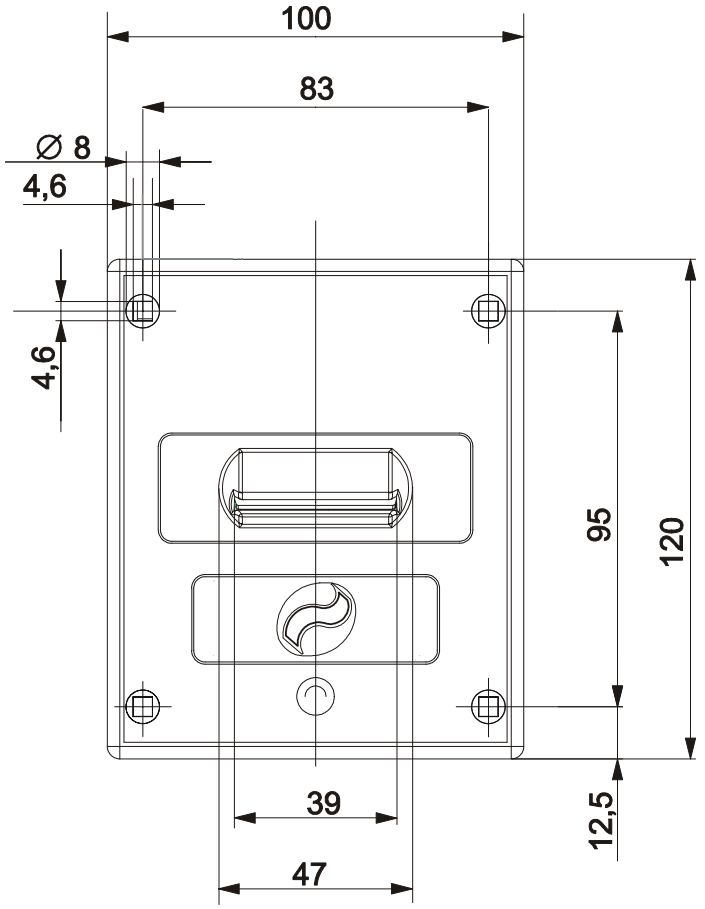
4.2.3 Modello con Display

In figura 4.3 sono riportate le dimensioni della stampante con display versione 35mm. **(Fig.4.3)**



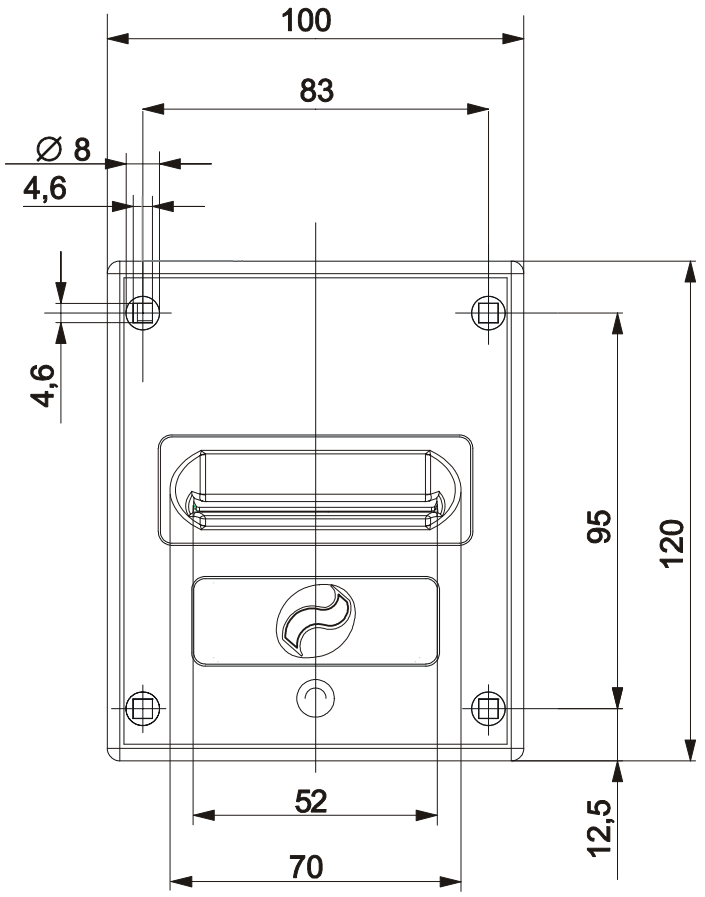
Piano di foratura per fissaggjo stampante a pannello

Le figure 4.4 e 4.5 riportano le dimensioni del pannello frontale della TG558.



Pannello frontale TG558 35 mm

(Fig.4.4)



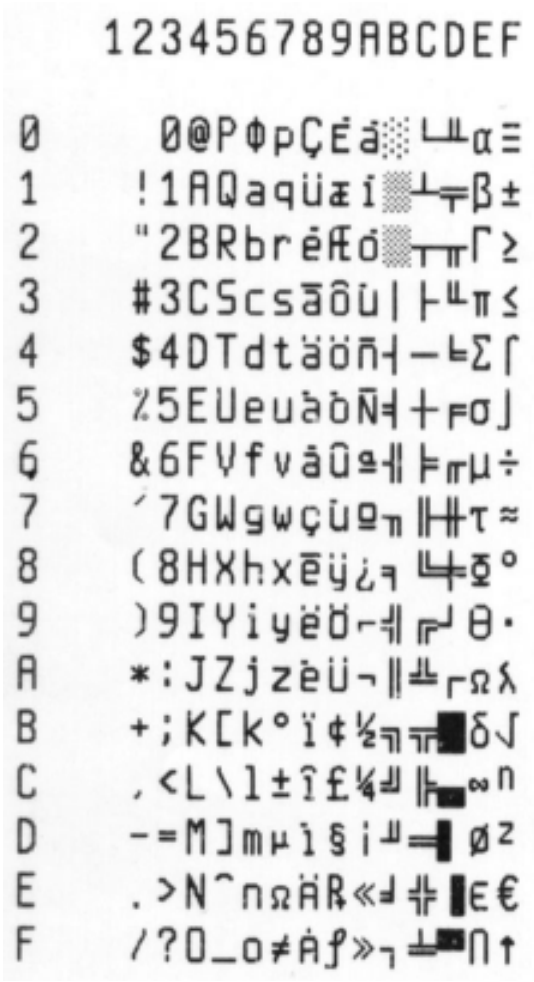
Pannello frontale TG558 58 mm

(Fig.4.5)

5.1 SET DI CARATTERI

La stampante dispone di due set di 224 caratteri ciascuno (font 1 e font 2). Nella seguente figura viene riportato un esempio.

24 COLUMNS (font 16 x24)



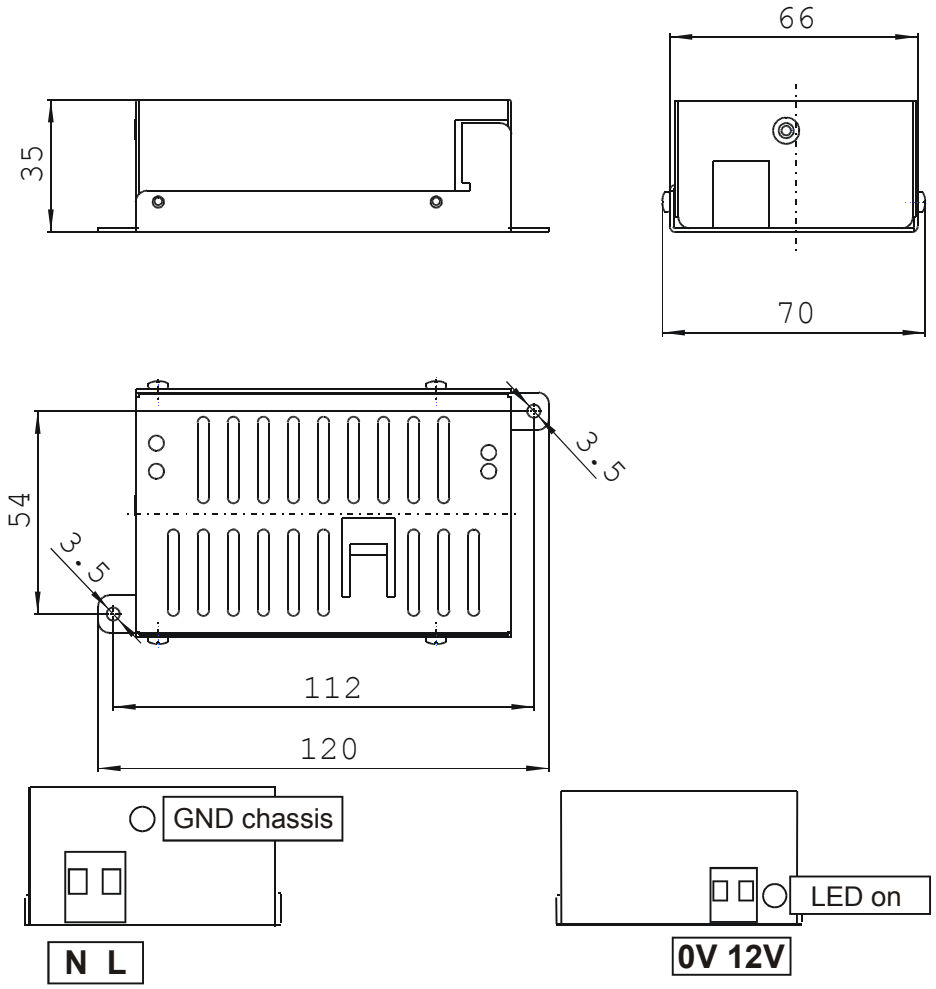
(Fig.5.1)

A.1 ACCESSORI

A.1.1 Alimentatore

La figura seguente mostra l'alimentatore 12V di produzione CUSTOM ENGINEERING SPA, utlizzabile per il funzionamento della stampante TG558.

(Fig.A.1)



(Tab.A.1)

Specifiche di ingresso	
Tensione di ingresso	100 Vac to 240 Vac
Frequenza di ingresso	50 Hz to 60 Hz

Specifiche di uscita		
Tensione di uscita		12 V
Corrente di uscita	Maximum	4 A
	Peak	6 A
	Short Circuit	6 A

A.1.2 Kit staffa portarotolo orientabile

La stampante dispone di un kit staffa porta rotolo orientabile (vedi fig. A.2 e A.3) per consentire l'utilizzo di rotoli carta con diametro maggiore (max 80mm).

(Tab.A.2)

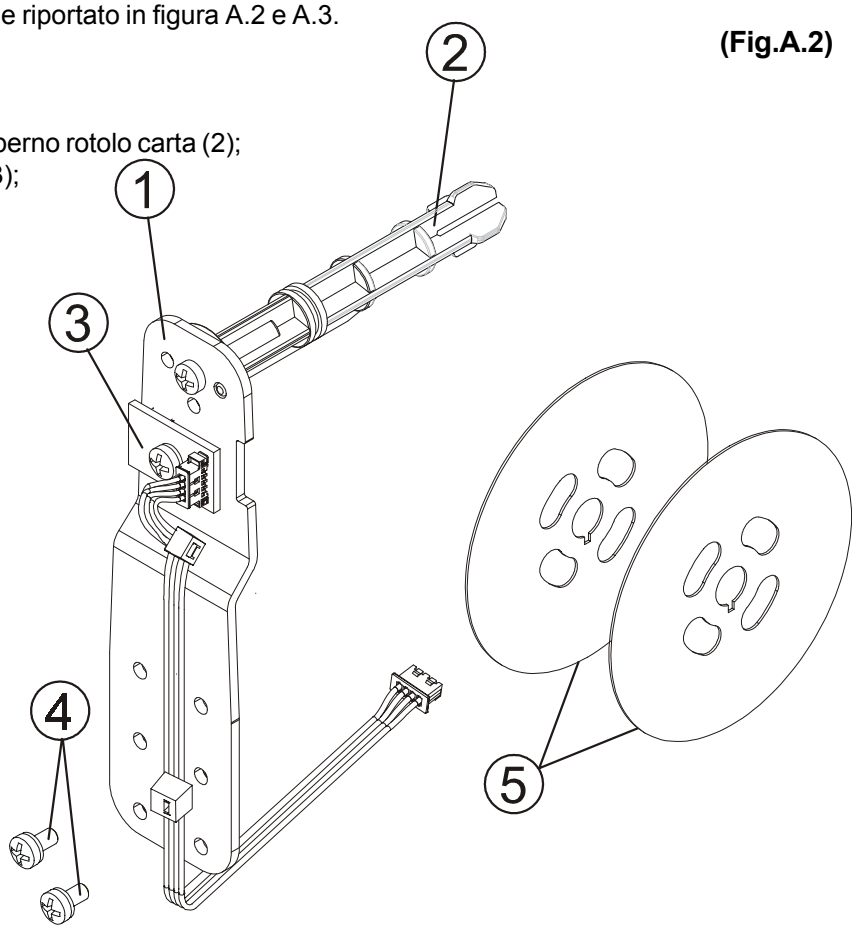
PCXSP-TG558-35	**Kit staffa porto rotolo per vers. 35mm con sensore QFC**
PCXSP-TG558-58	**Kit staffa porto rotolo per vers. 58mm con sensore QFC**

Il kit viene fornito già assemblato come riportato in figura A.2 e A.3.

(Fig.A.2)

Kit staffa vers. 58mm :

- Staffa portarotolo (1) assemblata al perno rotolo carta (2);
- Schedino sensore quasi fine carta (3);
- Due viti di fissaggio M3x6 (4);
- Due dischi di contenimento (5).

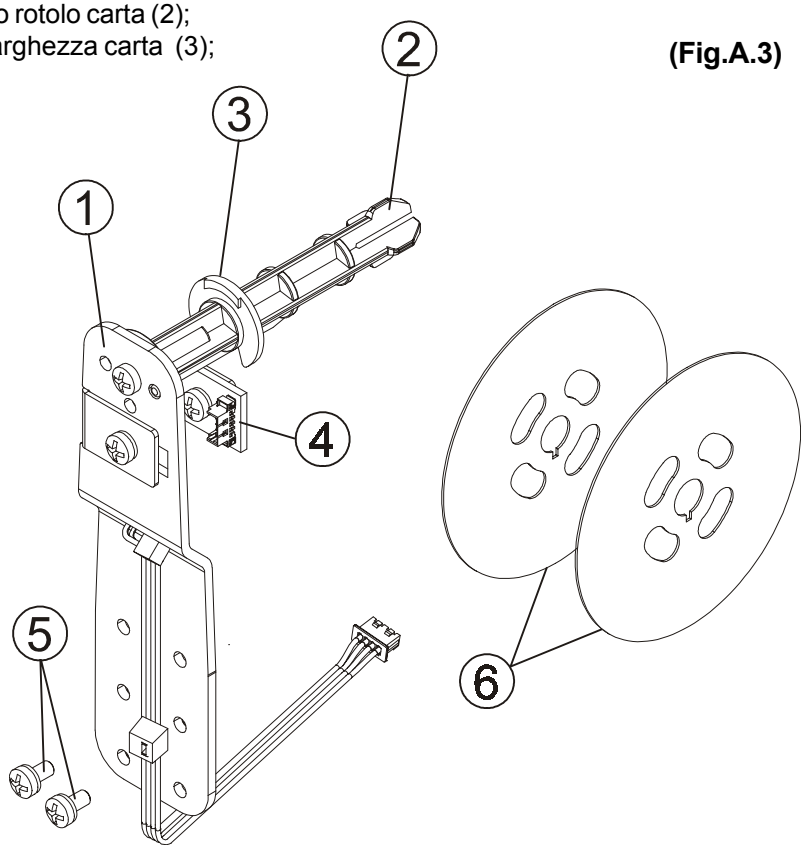


Kit staffa vers. 35mm :

- Staffa portarotolo (1) assemblata al perno rotolo carta (2);
- Anello di bloccaggio [1] per regolazione larghezza carta (3);
- Schedino sensore quasi fine carta (4);
- Due viti di fissaggio M3x6 (5);
- Due dischi di contenimento (6).

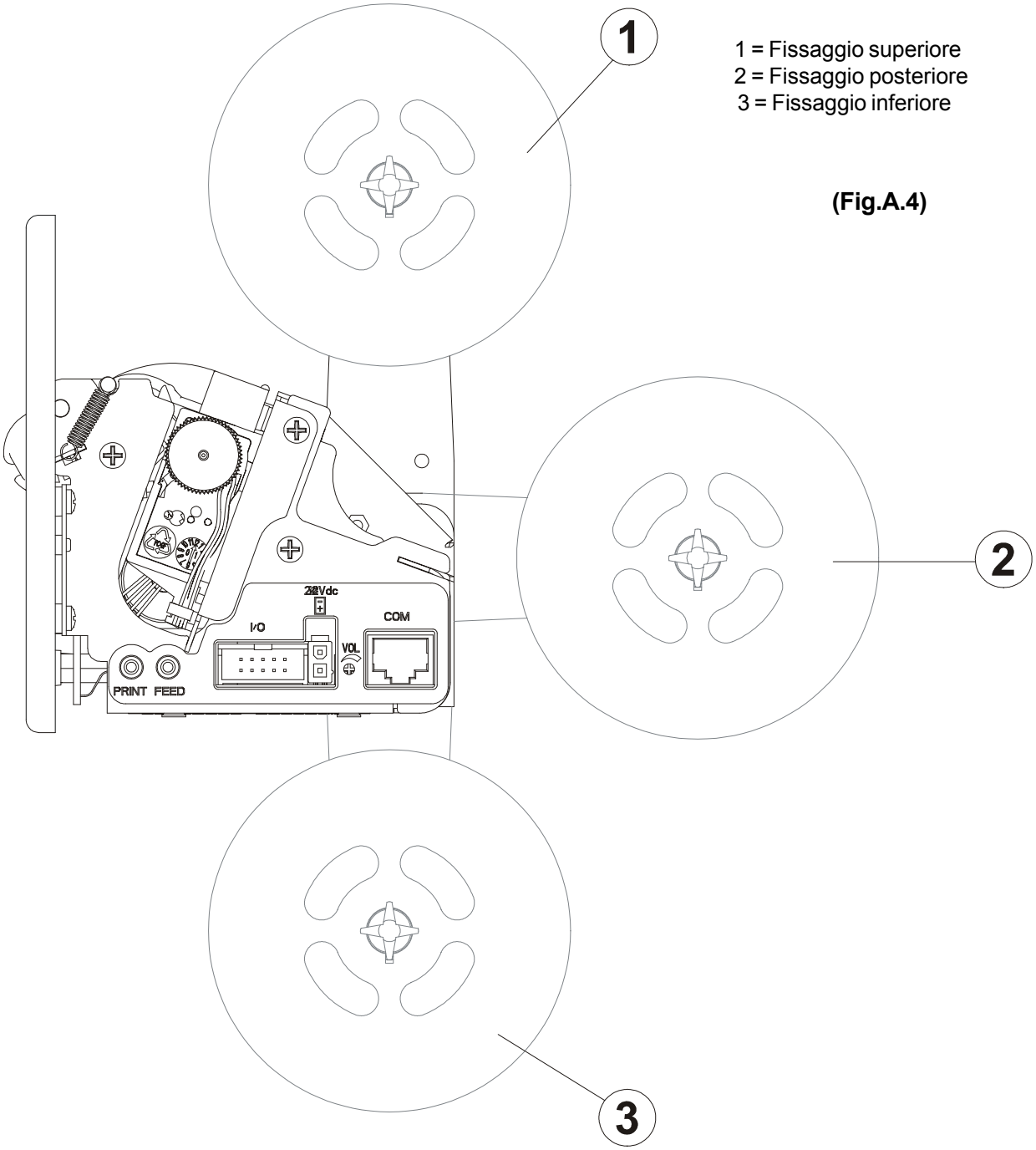
(Fig.A.3)

[1] **NOTA:** L'anello di bloccaggio è presente solo nella versione 35mm.



Istruzioni di montaggio

Il posizionamento della staffa porta rotolo non è fisso ma regolabile su 3 diverse posizioni: posteriore, inferiore e superiore come indicato in figura A.4.



1 = Fissaggio superiore
2 = Fissaggio posteriore
3 = Fissaggio inferiore

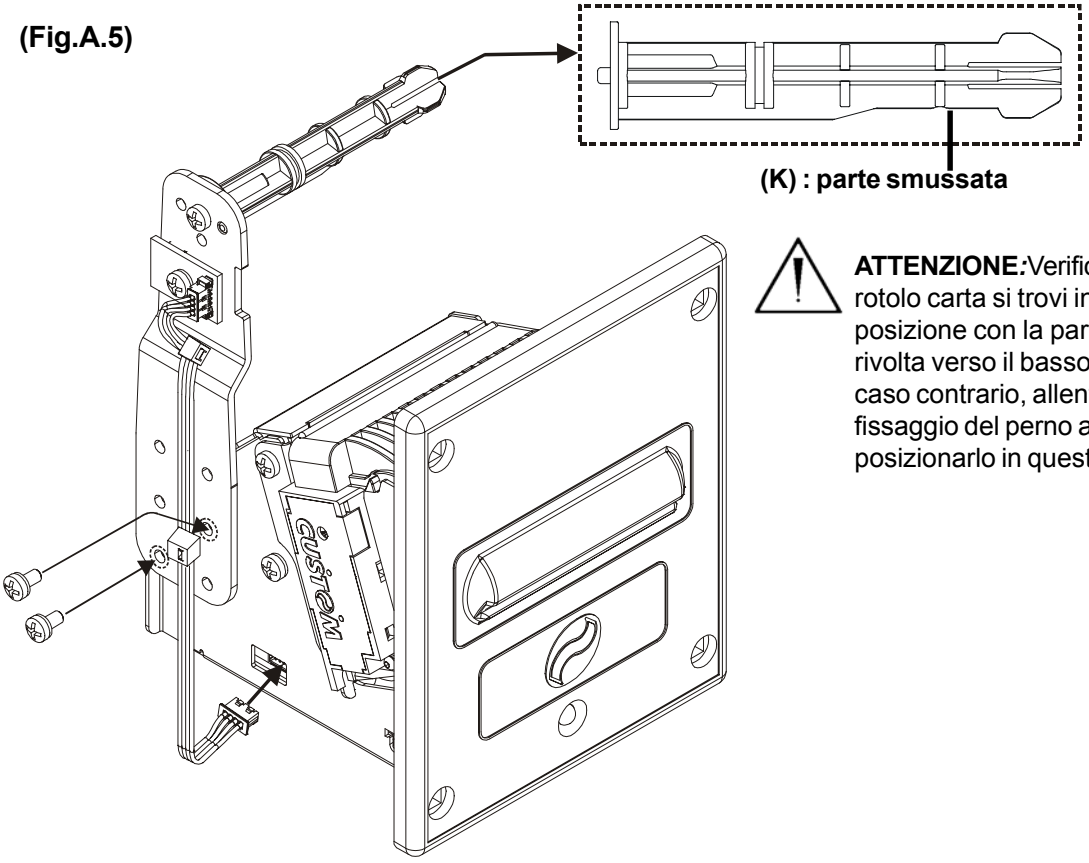
(Fig.A.4)

Fissaggio staffa superiore

Versione 58mm

1- Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.5.
2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.5.

(Fig.A.5)

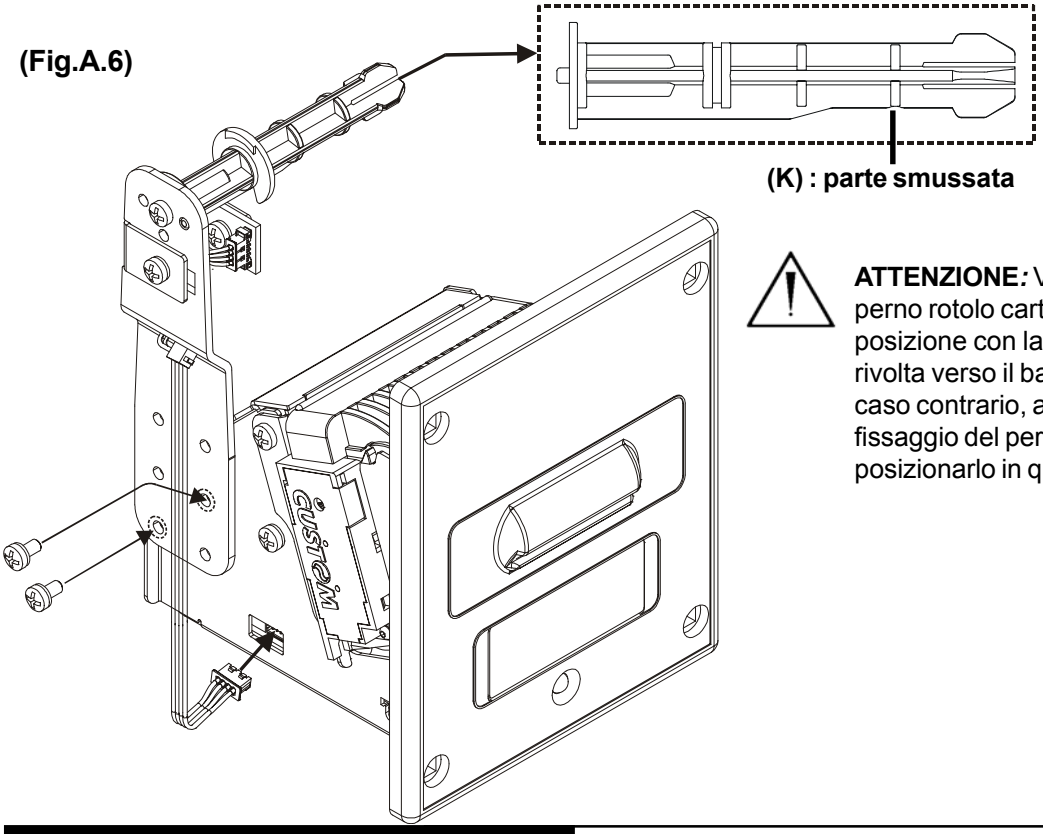


ATTENZIONE: Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

Versione 35mm

1 - Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.6.
2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.6.

(Fig.A.6)



ATTENZIONE: Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

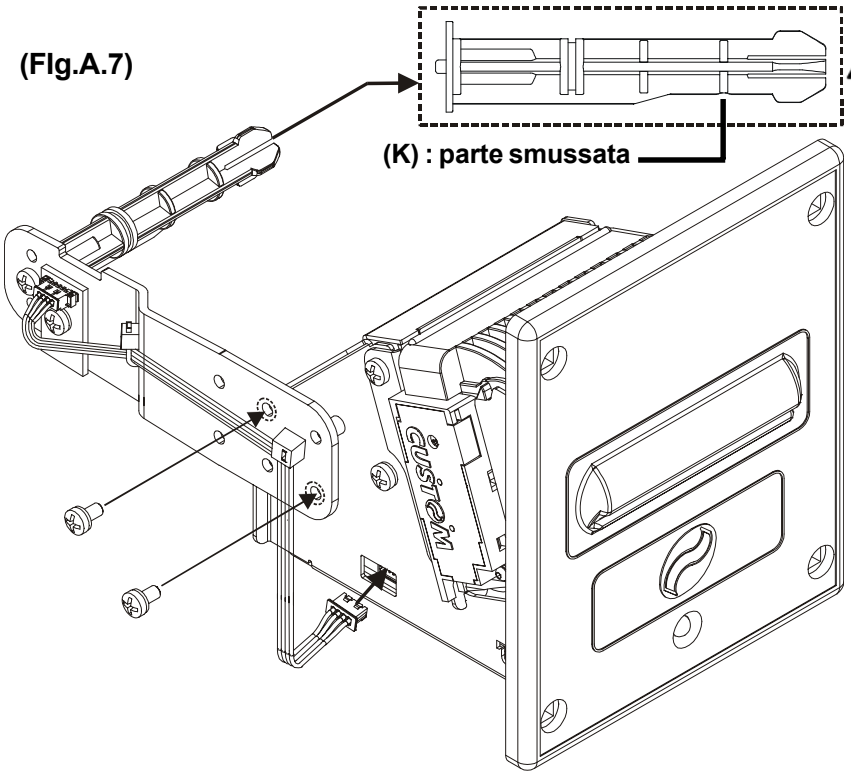
Fissaggio posteriore

Versione 58mm

1 - Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.7.

2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.7.

(Flg.A.7)



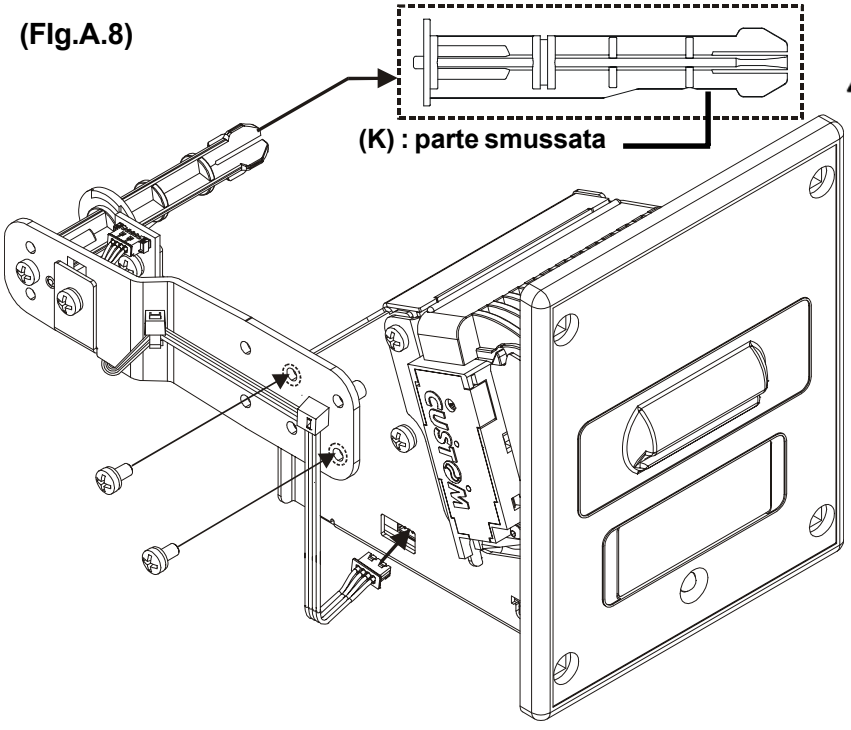
ATTENZIONE*:* Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

Versione 35mm

1 - Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.8.

2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.8.

(Flg.A.8)



ATTENZIONE*:* Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

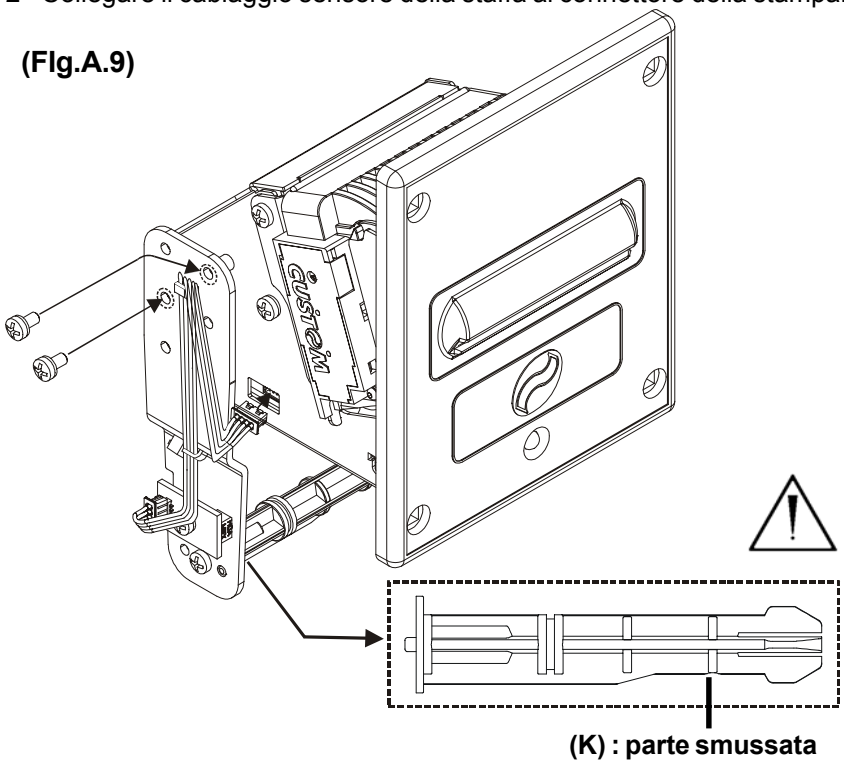
Fissaggio inferiore

Versione 58mm

1- Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.9.

2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.9.

(FIg.A.9)



ATTENZIONE*:* Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

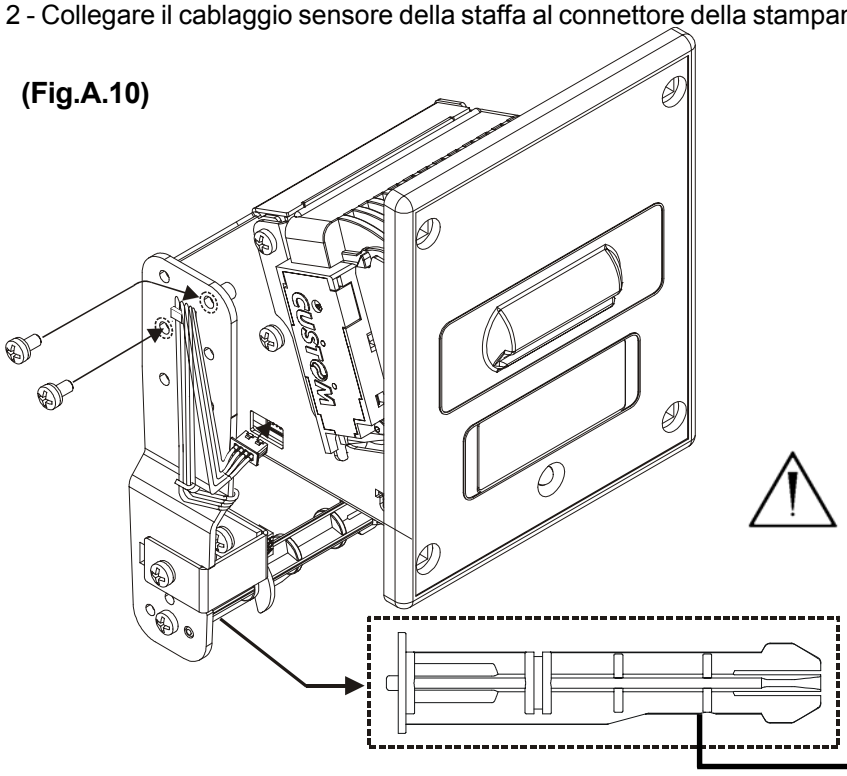
(K) : parte smussata

Versione 35mm

1 - Fissare la staffa al telaio della stampante con le due viti di fissaggio, presenti nel kit, nei due punti indicati in fig. A.10.

2 - Collegare il cablaggio sensore della staffa al connettore della stampante come indicato in fig. A.10.

(Fig.A.10)



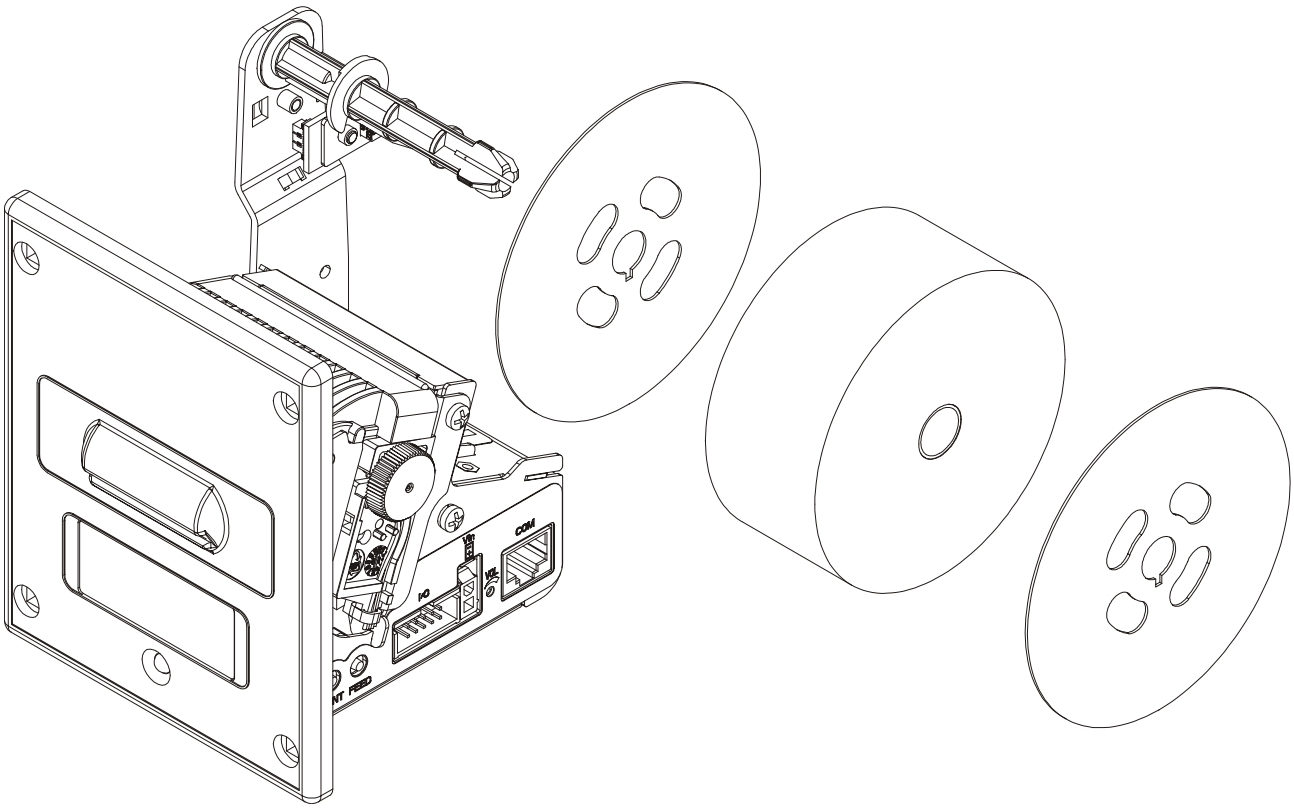
ATTENZIONE*:* Verificare che il perno rotolo carta si trovi in questa posizione con la parte smussata (k) rivolta verso il basso; altrimenti in caso contrario, allentando la vite di fissaggio del perno alla staffa, posizionarlo in questo modo.

(K) : parte smussata

Utilizzo dei dischi di contenimento

Nella seguente figura A.11 viene mostrato come assemblare i dischi di contenimento al perno del rotolo carta della la stampante.

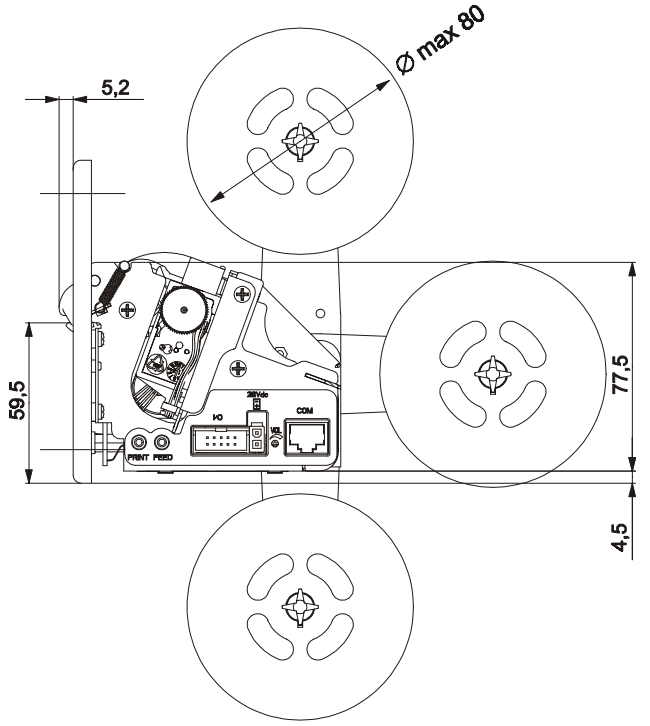
(2) **NOTA*:*** Il modello riportato in fig. A.11 è indicativo sul loro utilizzo; l'operazione descritta è valida per tutti i modelli.

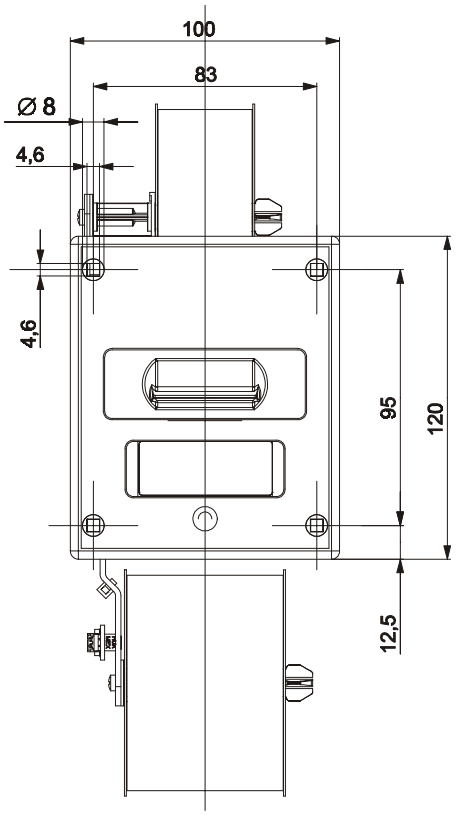


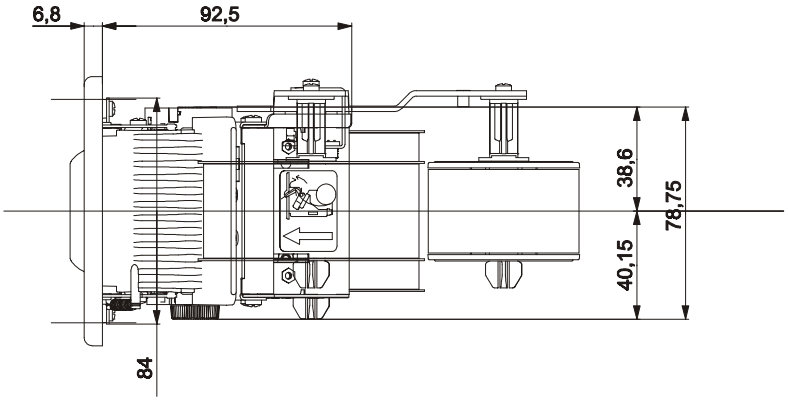
Dimensioni stampante con staffa porta rotolo

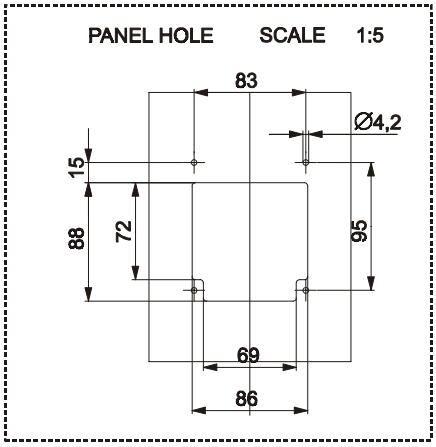
Modello con frontale plastico

(Fig.A.12)





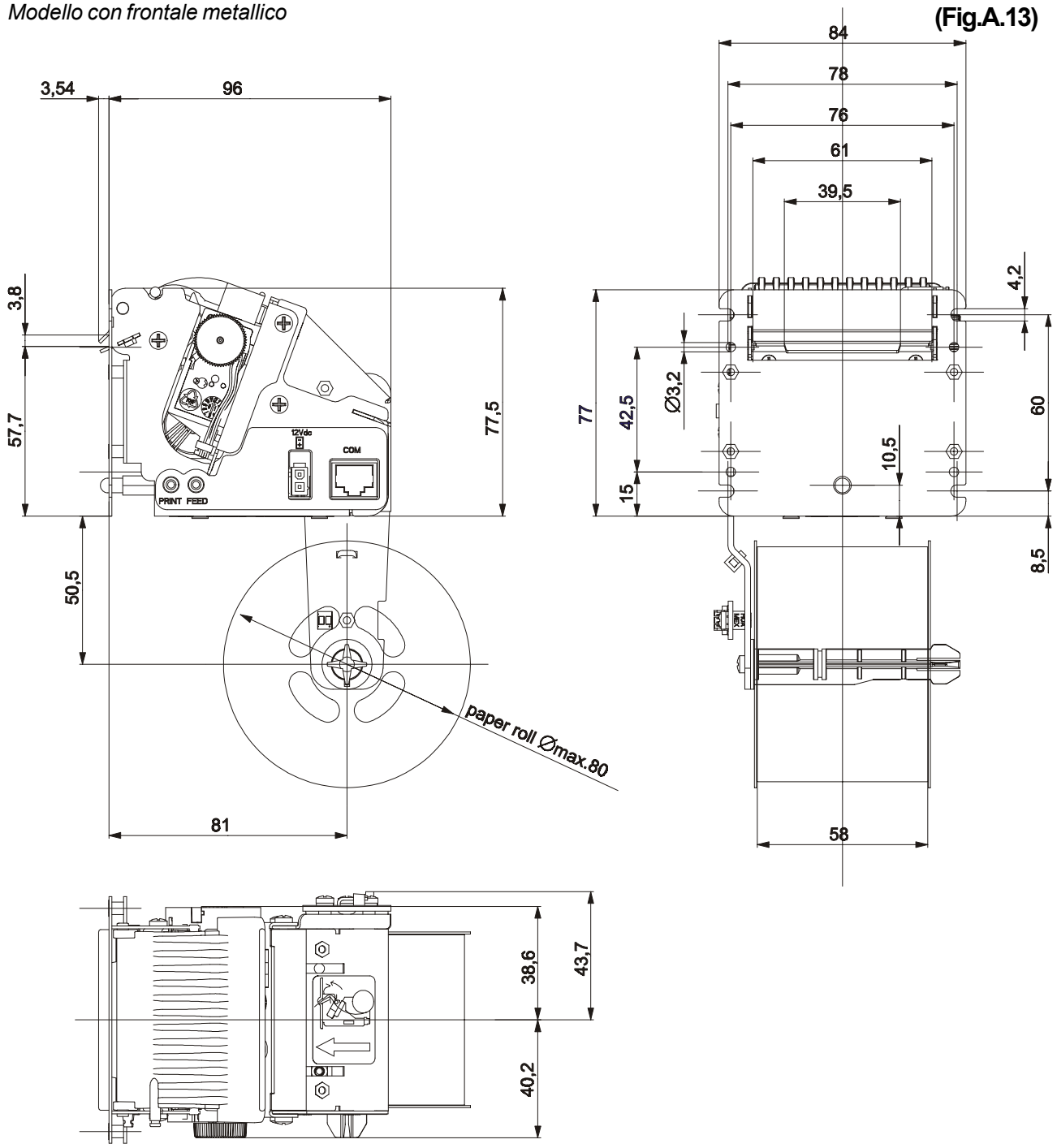




Piano di foratura per fissaggio stampante a pannello

Modello con frontale metallico

(Fig.A.13)



A.2 RICAMBI

Rotoli carta

RCT35X70-AF	Modello 35mm Rotolo carta termica Antifrode	**(Tab.A.4)**

RCT35X70-RS	Modello 35mm Rotolo carta termica Retrostampata	**(Tab.A.5)**
RCT58X70-RS	Modello 58mm Rotolo carta termica Retrostampata	
	Con l'acquisto di n° 2000 rotoli vi è la possibilità di personalizzare il retro della carta con un logo	