aitronic

LogiScan-600/800/1100
Standard Application 03000 v3.80
Technical Manual

Manual

LogiScan-800

LogiScan-600

LogiScan-1100

LogiScan-600/800/1100
Standard Application 03000 v3.80
Technical Manual

We don't deliver just our mobile Data Capturing Devices with Standard Software...

but also develop to customers specific

- Applications for this Devices
- PC Applications
- Hardware

and advise you on

- Creating concepts for mobile and stationary data collection
- Queries surrounding Bar Code and RFID
- Hardware problems

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Edition History

Edition	Changes
18.02.2010	Complete revision concerning layout, edition history and other Documents asserting with this one
07.02.2011	Extensions for LogiScan-1100
05.04.2011	Description SIO Command S (page 3-2) completed

Other Documents asserting with this one

- Operating Manual LogiScan-600/800/1100

1. Barcode Configuration 1-1

1. Barcode Configuration

SYMBOL Scan Engines SE-923 and SE-955

The function codes in this chapter are designated for both SYMBOL scan engines **SE-923** and **SE-955**. You can identify this scan engines by the small and sharp bordered laser beam.

INTERMEC Scan Engine EV15

The function codes in this chapter are **not** designated for INTERMEC scan engine EV15. You can identify this scan engine by the broad and diffuse laser beam.

For configuration of this scan engine special software is available, which enables you to generate the desired function codes. This software can be downloaded for free from the INTERMEC website:

www.intermec.com/support/downloads

There you must select the product „OEM: EV15", then you have to click the appropriated link to download the EasySet Setup Software.

General Information

► In order to obtain a good measure of scanning reliability and also scanning speed as few bar codes as possible should be activated.

► Use check digits if possible (the some bar code specifications are left it up to the user). Should this not be possible for some reason then at least one or more bar code length fixing should be made. Especially by Code 2 of 5 this is **strongly recommended**, either by a check digit or by length fixing or both. Otherwise the possibility of scanning errors is relatively high.

Loading and Saving Configuration

Up to Standard Program Version 2.0

Up to Standard Program version 2.0 only a reset to default configuration is possible.

After scanning in of „Set all defaults" it is absolutely necessary to scan function code „Send packeted decoded data"! Otherwise the internal communication between the Scan-Engine SE-923 and the processor does not function.
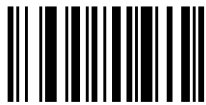
Set all
defaults

Send packeted
decoded data

From Standard Program Version 2.01

From Standard Program version 2.01 the user configuration is preset by the default configuration. During operation this configuration may be modified and stored again as user configuration.

Voreingestellte
Konfiguration laden

Anwender-
Konfiguration laden

Anwender-
Konfiguration speichern

Default parameters are marked with *****

Default Configuration

After scanning in of „Set all defaults" it is absolutely necessary to scan function code „Send packeted decoded data"! Otherwise the internal communication between the Scan-Engine SE-923 and the processor does not function.

Set all
defaults

Send packeted
decoded data

Default parameters are marked with *****

UPC/EAN

Enable/Disable UPC-A

*Enable UPC-A

Disable UPC-A

Enable/Disable UPC-E

*Enable UPC-E

Disable UPC-E

Enable/Disable UPC-E1

Enable UPC-E1

*Disable UPC-E1

Enable/Disable EAN-8

*Enable EAN-8

Disable EAN-8

Enable/Disable EAN-13

*Enable EAN-13

Disable EAN-13

Enable/Disable Bookland-EAN

Enable BOOKLAND-EAN

*Disable BOOKLAND-EAN

EAN/UPC Supplementals

Supplementals are additional appended characters (2 or 5) according to specific code format conventions (e.g. UPC-A + 2, UPC-E + 2, EAN-8 + 5). Three options are available:

- If "**UPC/EAN with supplemental characters**" is selected, UPC/EAN symbols without supplemental characters are not decoded.
- If "**UPC/EAN without supplemental characters**" is selected, and the SE-923 is presented with a UPC/EAN plus supplemental symbols, the UPC/EAN is decoded and the supplemental characters are ignored.
- Select „**Autodiscriminate UPC/EAN supplementals**" to decode bar codes with or without supplementals.

UPC/EAN with supplementals

*Ignore UPC/EAN with supplementals

Autodiscriminate UPC/EAN supplementals

UPC-A Check Digit

*Transmit UPC-A check digit

Do not Transmit UPC-A check digit

UPC-E Check Digit

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***Transmit UPC-E
check digit**

‖‖‖‖‖‖‖‖‖‖‖‖
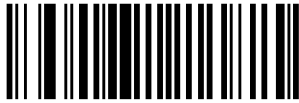
**Transmit UPC-E
check digit**

UPC-E1 Check Digit

‖‖‖‖‖‖‖‖‖‖‖‖

***Transmit UPC-E1
check digit**

‖‖‖‖‖‖‖‖‖‖‖‖

**Transmit UPC-E1
check digit**

UPC-A Preamble

For the preamble (lead in characters) of UPC-A symbols three options are available: transmit system character only, transmit system character and country code („0" for USA), and no preamble transmitted. The lead-in characters are considered part of the symbol.

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**No Preamble
(<Data>)**

‖‖‖‖‖‖‖‖‖‖‖‖

***System Character
(<System Char.><Data>)**

‖‖‖‖‖‖‖‖‖‖‖‖

**System Character & Country Code
(<Country Code><System Char.><Data>)**

UPC-E Preamble

For the preamble (lead in characters) of UPC-E symbols three options are available: transmit system character only, transmit system character and country code („0" for USA), and no preamble transmitted. The lead-in characters are considered part of the symbol.

No Preamble
(<Data>)

*System Character
(<System Char.><Data>)

System Character & Country Code
(<Country Code><System Char.><Data>)

UPC-E1 Preamble

For the preamble (lead in characters) of UPC-E1 symbols three options are available: transmit system character only, transmit system character and country code („0" for USA), and no preamble transmitted. The lead-in characters are considered part of the symbol.

No Preamble
(<Data>)

*System Character
(<System Char.><Data>)

System Character & Country Code
(<Country Code><System Char.><Data>)

Convert UPC-E to UPC-A

This parameter converts UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g. Preamble, Check Digit).

***Convert UPC-E
to UPC-A**

**Do not convert UPC-E
to UPC-A**

Convert UPC-E1 to UPC-A

This parameter converts UPC-E1 (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g. Preamble, Check Digit).

***Convert UPC-E1
to UPC-A**

**Do not convert UPC-E1
to UPC-A**

EAN Zero Extend

When this parameter is enabled five leading zeroes are added to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.

**Enable EAN
Zero Extend**

***Disable EAN
Zero Extend**

Convert EAN-8 to EAN-13 Type

When „**EAN Zero Extend**" is enabled, this parameter gives you the option of labeling the extended symbol as either an EAN-13 bar code, or an EAN-8 bar code.

*Type is EAN-13   **Type is EAN-8**

UPC/EAN Coupon Code

When enabled, this parameter decodes UPC-A, UPC-A with 2 supplemental characters, UPC-A with 5 supplemental characters, and UPC-A/EAN-128 bar codes. Autodiscriminate UPC/EAN supplementals must be enabled.

Enable UPC/EAN   ***Disable UPC/EAN**
Coupon Code   **Coupon Code**

Code 128

Enable/Disable USS-128

*Enable USS-128
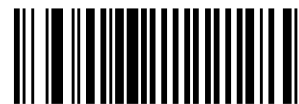
Disable USS-128

Enable/Disable EAN 128

*Enable EAN 128

Disable EAN 128

Enable/Disable ISBT 128

*Enable ISBT 128
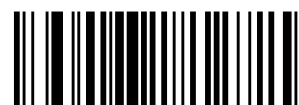
Disable ISBT 128

Code 39

Enable/Disable Code 39

*Enable Code 39

Disable Code 39

Enable/Disable Trioptic Code 39

Trioptic Code 39 contains always six characters. „**Trioptic Code 39**" and „**Code 39 Full ASCII**" should not be chosen simultaneously.

Enable Trioptic 39

*Disable Trioptic 39

Set Lengths for Code 39

Code lengths for Code 39 can be set to any length, one or two defined lengths or lengths within a specified range. The length of a code depends upon the number of characters, one or more check digit, which are included within the code itself. In the case of „**Code 39 Full ASCII**", „**Defined Length**" or „**All Lengths**" should be chosen as the recommended option.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.

One defined Length

Two defined Lengths
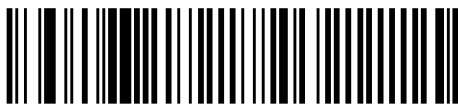
***Defined Length (default: 2...55)**

All Lengths

Code 39 Check Digit

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Enable Code 39
Check Digit

‖‖‖‖‖‖‖‖‖‖

*Disable Code 39
Check Digit

Transmit Code 39 Check Digit

‖‖‖‖‖‖‖‖‖‖

Transmit Code 39
Check Digit

‖‖‖‖‖‖‖‖‖‖

*Do not transmit Code 39
Check Digit

Enable/Disable Code 39 Full ASCII

When chosen, the ASCII character set assigns a code to letters, punctuation marks, numerals and most control keystrokes on the keyboard.

The first 32 codes are non-printable and are assigned to the keyboard control characters such as BACKSPACE and RETURN. The other 96 are printable characters because all but SPACE and DELETE produce visible characters.

Code 39 Full ASCII interprets the bar code special character ($ + % /) preceding a code 39 character and assigns an ASCII character value to this pair. The table on the following page shows this allocation.

Code 39 Full ASCII and Trioptic Code 39 should not be chosen simultaneously.

The Scanner does not discriminate between Code 39 and Code 39 Full ASCII.

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Enable Code 39
Full ASCII

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*Disable Code 39
Full ASCII

Code 39 Full ASCII Character Table

Code 39 Char.	Key-stroke	Code 39 Char.	Key-stroke	Code 39 Char.	Key-stroke	Code 39 Char.	Key-stroke
%U	CTRL 2	Space	Space	%V	@	%W	`
$A	CTRL A	/A	!	A	A	+A	a
$B	CTRL B	/B	"	B	B	+B	b
$C	CTRL C	/C	#	C	C	+C	c
$D	CTRL D	/D	$	D	D	+D	d
$E	CTRL E	/E	%	E	E	+E	e
$F	CTRL F	/F	&	F	F	+F	f
$G	CTRL G	/G	'	G	G	+G	g
$H	CTRL H	/H	(	H	H	+H	h
$I	CTRL I	/I	)	I	I	+I	i
$J	CTRL J	/J	*	J	J	+J	j
$K	CTRL K	/K	+	K	K	+K	k
$L	CTRL L	/L	,	L	L	+L	l
$M	CTRL M	-	-	M	M	+M	m
$N	CTRL N	.	.	N	N	+N	n
$O	CTRL O	/	/	O	O	+O	o
$P	CTRL P	0	0	P	P	+P	p
$Q	CTRL Q	1	1	Q	Q	+Q	q
$R	CTRL R	2	2	R	R	+R	r
$S	CTRL S	3	3	S	S	+S	s
$T	CTRL T	4	4	T	T	+T	t
$U	CTRL U	5	5	U	U	+U	u
$V	CTRL V	6	6	V	V	+V	v
$W	CTRL W	7	7	W	W	+W	w
$X	CTRL X	8	8	X	X	+X	x
$Y	CTRL Y	9	9	Y	Y	+Y	y
$Z	CTRL Z	/Z	:	Z	Z	+Z	z
%A	CTRL [	%F	;	%K	[	%P	{
%B	CTRL \	%G	<	%L	\	%Q	|
%C	CTRL]	%H	=	%M	]	%R	}
%D	CTRL 6	%I	>	%N	^	%S	~
%E	CTRL -	$J	?	%O	_	%T	undefined

Code 93

Enable/Disable Code 93

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Enable Code 93

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

*Disable Code 93

Code 93 Code Lengths

Code lengths for Code 93 can be to any length, one or two defined lengths or lengths set within a specific range. The length of a code is depends upon the number of characters, one or more check digits, which are included within the code itself.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.

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One defined Length

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

Two defined Lengths

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*Defined Length (default: 4...55)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

All Lengths

Code 2 of 5 Interleaved

Enable/Disable Code 2 of 5 Interleaved

Enable Code 2 of 5 Int.

*Disable Code 2 of 5 Int.

Code 2 of 5 Interleaved Code Lengths

Code lengths for Code 2 of 5 interleaved can be to any length, one or two defined lengths or lengths set within a specific range. The length of a code is depends upon the number of characters, one or more check digits, which are included within the code itself.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.

*One defined Length (default: 14)

Two defined Lengths

Defined Length

All Lengths

Code 2 of 5 Interleaved Ceck Digit

‖‖‖‖‖‖‖‖‖‖‖

*Disable

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USS Check Digit

‖‖‖‖‖‖‖‖‖‖‖

OPCC Check Digit

Transmit Code 2 of 5 Interleaved Check Digit

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**Transmit Code 2 of 5 Int.
Ceck Digit**

‖‖‖‖‖‖‖‖‖‖‖

***Do not Transmit
Code 2 of 5 Int. Ceck Digit**

Convert Code 2 of 5 Interleaved to EAN-13

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**Convert Code 2 of 5 Int.
to EAN-13**

‖‖‖‖‖‖‖‖‖‖‖

***Do not Convert Code
2 of 5 Int. to EAN-13**

Discrete 2 of 5

Enable/Disable Discrete 2 of 5

Enable Discrete 2 of 5   ***Disable Discrete 2 of 5**

Discrete 2 of 5 Code lengths

Code lengths for Discrete 2 of 5 can be to any length, one or two defined lengths or lengths set within a specific range. The length of a code is depends upon the number of characters, one or more check digits, which are included within the code itself.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.

* One defined Length (default: 12)

Two defined Lengths

Defined Lengths

All Lengths

Codabar

Enable/Disable Codabar

Enable Codabar   ***Disable Codabar**

Codabar Code Lengths

Code lengths for Codabar can be to any length, one or two defined lengths or lengths set within a specific range. The length of a code is depends upon the number of characters, one or more check digits, which are included within the code itself.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.

One defined Length

Two defined Lengths

*Defined Lengths (default: 5...55)

All Lengths

CLSI Editing

Enable CLSI Editing

*Disable CLSI Editing

NOTIS Editing
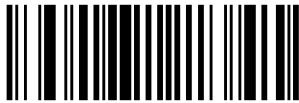
Enable NOTIS Editing

*Disable NOTIS Editing

MSI Plessey

Enable/Disable MSI Plessey

Enable MSI Plessey

*Disable MSI Plessey

MSI Plessey Code Lengths

Code lengths for MSI Plessey can be to any length, one or two defined lengths or lengths set within a specific range. The length of a code is depends upon the number of characters, one or more check digits, which are included within the code itself.

After choosing this parameter (except for „**All lengths**") one respectively two length values must be entered with the numerical bar codes (on page 1-26). A numerical value must be generally two digits (in case of values less than 10 a leading zero must be inserted). A non-conforming input can by scanning CANCEL be terminated.
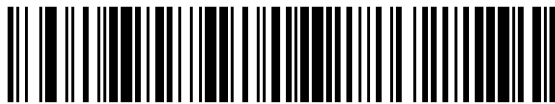
One defined Length

Two defined Lengths

*Defined Lengths (default: 6...55)

All Lengths

MSI Plessey Check Digits

***One MSI Plessey
Check Digit**

**Two MSI Plessey
Proof-cyphern**

Transmit MSI Plessey Check Digit

**Transmit MSI Plessey
Check Digit**

***Do not transmit MSI
Plessey Check Digit**

MSI Plessey Check Digit Algorithm

MOD 10/MOD 11

*MOD 10/MOD 10

Transmit Code ID Character

The Code ID identifies the code type of a scanned bar code. This is helpful, in order to determine an unknown code type. The code ID is inserted before the code. For simple code determination the symbol code ID character can be used which consists of a single character. The AIM-Code-ID-Identifier consists of 3 characters and delivers detailed information about the designated bar code.

Symbol Code ID   **AIM Code ID**

*None

Symbol Code ID Character

Code Character	Code-Typ
A	UPC-A, UPC-E, UPC-E1, EAN-8, EAN-13
B	Code 39, Code 32
C	Codabar
C	Code 128, ISBT 128
E	Code 93
F	Code 2 of 5 Interleaved
G	Discrete 2 of 5 or 2 of 5 IATA
J	MSI Plessey
K	UCC/EAN-128
L	Bookland EAN
M	Trioptic Code 39
N	Coupon Code

AIM Code ID Identifier

The AIM-Code-Identifier consists of the following 3 characters

]   Flag Character (ASCII 93)
c   Code Character (see AIM Code Character Table)
m   Modifier Character (see AIM Modifier Character Table)

AIM Code Character Table

Code Character	Code Type
A	Code 39
B	Code 128
E	UPC/EAN
F	Codabar
G	Code 93
H	Code 11
I	Code 2 of 5 Interleaved
M	MSI Plessey
S	Discrete 2 of 5 or 2 of 5 IATA
X	Trioptic Code 39, Bookland EAN

AIM Modifier Character Tabelle

Code Type	Option Value	Option
Code 39	0	No check digit or Full ASCII processed
	1	Check digit checked
	3	Check digit checked and not transmitted
	4	Full ASCII conversion performed
	5	Full ASCII conversion performed and Check digit checked
	7	Full ASCII conversion performed, check digit checked and not transmitted
Trioptic Code 39	0	No option specified, allways 0
Code 128	0	Standard data packet, no function code 1 at first position
	1	Function code 1 at first position
	2	Function code 1 at second position
Code 2 of 5 Int.	0	No check digit checked
	1	Check digit checked
	3	Check digit checked and not transmitted
Codabar	0	Keine Prüfziffer geprüft
	1	No check digit checked
	3	Check digit checked and not transmitted
Code 93	0	No option specified, allways 0
MSI Plessey	0	One check digit checked
	1	Two check digits checked
	2	One check digit checked and not transmitted
	3	Two check digit checked and not transmitted
Discrete 2 of 5	0	No option specified, allways 0
UPC/EAN	0	Standard data packet in full EAN country code format, that means 13 numerals for UPC-A and UPC-E (without supplementals)
	1	Two supplemental characters
	2	Five supplemental characters
	4	EAN-8 data packet
Bookland EAN	0	No option specified, allways 0

Numerical Function Codes

For configuration parameters which demand numerical values, the following codes are to be scanned. Depending on the numerical value, 2 digits are to be scanned (by values under 10 with leading 0). A non-conforming input can by scanning CANCEL be terminated.

0

1

2

3

4

5

6

7

8

9

CANCEL

2. Transponder Configuration

The transponder module may be configured by means of the ACG Reader Utility. This utility can be downloaded from the website www.aitronic.de under `Support/Downloads/Software/Configuration Software` and has then to be installed.

In order that the ACG-Reader-Utility can communicate with the transponder module the MDE device has to be set up as follows:
- Connect MDE device to PC.
- Perform a hardware reset, after „`Database: init.`" is shown, press key **SHIFT**.
- Wait until the system tests have performed and „`Protected Mode`" is shown.
- Select menu function `Admin/System` and press **SHIFT 9**.
- Execute menu function `RF-ID Port/Com0`.
  „`RF-ID – Config Mode`" will be shown.

Test and configuration with the ACG Reader Utility:
- Start ACG Reader Utility
- Select the appropriate COM port to which the MDE device is connected in the right hand window
- Click button „Open/Close Reader" in the right hand window
- In the left hand window the transponder module may be switched to continuous read mode with button „Cont.Read". If now a transponder tag will be hold in front of the reader, the transponder will be read continuously. The continuous read mode may be terminated with button „Stop C. Read".
- In the right hand window at the bottom on the right the „Operation Mode" can be selected. By clicking the different transponder types these may be selected respectively deselected. By clicking button „Apply Settings" the settings will be stored in the transponder module.

3. SIO Commands

By means of the SIO (Serial I/O) commands many MDE device functions can be controlled from a PC via the serial interface. The PC programs MTCON, MTWIN and the WINDOWS Terminal MT.TRM i.e. are using some SIO commands to execute the implemented functions from PC side without requiring any operation at the MDE device.

All SIO commands must be terminated with <CR>. Distinct commands can be provided with an optional **X**. In this case the XModem protocol is used for the data exchange which is initiated by this command. Should the MDE device receive data with XModem protocol, the **X** can be placed directly before the appropriate command or must be terminated with CR and sent before the command. Should the MDE device transmit data with XModem protocol there is only the possibility to terminate the **X** with CR and sent it before the command.

CLRMEM

Clear Data Memory
In case of state "`Data transmitted`" (refer to SIO command **T1**) the MDE device data memory can be deleted using this command.

D   Data Transmission
Data transmission can be performed with the PC program **MTCON,** WIN-DOWS Terminal in cunjunction with the delivered file MT.TRM or any other terminal emulation program (i.e. PROCOMM) or a special application.

After receiving command **D** the MDE device displays the message "`Data Transmission active`" and transmits the stored data. When completing data transmission "`DataTransmission completed`" is displayed.

The format of the transmitted data is:

```
%%STX-ssssss/rrrrr/tt.mm.jj/hh:mm:ss<CR><LF>
<article no.><HT><quantity><CR><LF>
          ⋮          ⋮       ⋮      ⋮     ⋮
<article no.><HT><quantity><CR><LF>
%%ETX-cccc<CR><LF>
```

rrrrr	Amount of following data records,
ssssss	Devices serial number (refer to name plate),
tt.mm.jj	Date of data transmission (only devices with real time clock),
hh:mm:ss	Time of data transmission (only devices with real time clock),
cccc	16-bit checksum in hex format. The checksum ist computed by adding any printable ASCII character (20 hex up to including 7E hex) from "%%STX" including "%%ETX-".

L   **Data Download**

This command serves to fill the MDE device data memory with data. All data lines have to be terminated with <CR><LF>. The last line has to be empty.

Data transmission can be performed with the PC Program MTWIN or a special application.

This command is not included in the standard software.

In case of a client specific application the data format of the table is determined by the application.

S   **Output Status**

After receiving this command the following status string is transmitted:

```
S/N:ssssss REC:rrrrr Tf<CR><LF>
```

ssssss	6 digit serial no.,
rrrrr	Amount of stored data records,
f	0 - Data not transmitted,
	1 - Data transmitted.
	2 - Data locked, because an applications action is not terminated yet.
	3 - Data locked and marked as transmitted

SETTIM:

Set Day of Week, Date and Time

Parameters to provide are day of week, date and time:
`SETTIM:`*`wwttmmjjhhmmss`*. Setting of day of week, *`ww`* (MO, TU, ... SU), date *`ttmmjj`* and time *`hhmmss`* of the internal real time clock.

T   Show Time

Outputs the day of week *ww* (MO, TU, ... SU), date *`ttmmjj`* and time *`hhmmss`* of the internal real time clock with the format: *`ww tt.mm.jj hh:mm:ss<CR><LF>`*.

T0   Reset Data Transmission Lock

The input mask "`Data transmitted`" changes to the standard program input mask. In this state a transmission of the stored data by means of the SIO Command **D** is possible one more time. Also continuing data capturing without deleting transmitted data is possible. <u>Notice that the data already been transmitted are transmitted once more at the next data transmission.</u>

T1   Set Data Transmission Lock

The standard program input mask changes to the input mask "`Data transmitted`". Now the data memory can be deleted.

V   Output Software Version

Outputs the device information to the serial interface:
- Device name and size of data memory,
- Application program name and version (AP),
- Operating System name and version (OS),
- Decoding Software name and version (DS),
- Boot Program name and version (BP),
- Library name and version (LB).

4. Technical Data and Device Identification

LogiScan-600

Display	128 x 64 pixels LCD, illuminated
Keypad	22 buttons (alphanumeric)
Program Memory	384 KB Flash ROM for operating system and application program
Data Memory	1 MB Flash ROM (Option 4 MB), 155 KB RAM
DECT Module (optional)	Transmitter/Receiver Frequency: 1800 to 1900 MHz Transmission Power: 10 mW Transmission Area: in open spaces ~300m, in buildings ~50m Europe wide approval
RFID Reader (optional)	**Working frequency 125 kHz** Hitag1, Hitag2, EM Marin H400x and MCRF 200/123 with different designs and types **Working frequency 13,56 MHz** GEM+, I-Code/Tag-it, Mifare ISO 14443A, Mifare ISO 14443A+B, ISO 15963
Bar Code Formats	EAN/UPC, CODE39, CODE128, CODE93, CODE 2/5, MSI Plessey
Operating Time	1000 Scans/Accumulator charge (can vary depending on specification)
Scanner (optional)	Wave Length: 650 nm Laser Safety Class: CDRH/IEC Klasse II Scan Rate: 40 Scans/Sec.

Resolution	Scanning Distance
7,5 mil	5,6 - 12,7 cm
10 mil	4,6 - 24,6 cm
13 mil	5,1 - 30,5 cm
20 mil	0 - 38,1 cm
40 mil	0 - 55,9 cm

CCD Scanner (optional)	Wave Length: 617 nm min. print density 0.1 mm / 4 mil Bar Code Width up to 18 cm / 7 in at 0.3 / 12 mil print density Scan Rate up to 500 Scans/Sec (auto-adapting) Reading Distance 0 up to 90 cm / 35.4 in
Power Supply	Li-Po Accumulator 3,6V 1000mAh, quick charging able
Dimensions/Weight	227 x 65 x 40 mm (L x B x H) / 350 g (can vary according to product type)

Environment	Operating temperature:	-20...50°C (without RF)
		5...50°C (with RF)
	Storage temperature:	-40...70°C
	Relative Humidity:	IP-65, no restrictions
Interface	RS-232, asynchronous, 300 – 19.200 Bd	

LogiScan-800

Display	128 x 64 pixels LCD, illuminated
Keypad	19 buttons (alphanumeric)
Program Memory	384 KB Flash ROM for operating system and application program
Data Memory	1 MB Flash ROM (Option 4 MB), 155 KB RAM
DECT RF module (optional)	Transmitter/Receiver Frequency: 1800 to 1900 MHz
	Transmitted power: 10 mW
	Transmitted area: in open spaces ~300m, in buildings ~50m
	Europe wide approval
Transponder Module (optional)	**Working frequency 125 kHz**
	Hitag1, Hitag2, EM Marin H400x and MCRF 200/123 with different designs and types
	Working frequency 13,56 MHz
	GEM+, I-Code/Tag-it, Mifare ISO 14443A, Mifare ISO 14443A+B, ISO 15963
Bar Code Formats	EAN/UPC, CODE39, CODE128, CODE93, CODE 2/5, MSI Plessey
Operating Time	min. 5000 Scans (with 100% charged accu)
Scanner	Wave length: 650 nm
	Laser-Safety Class: CDRH/IEC Klasse II
	Scanrate: 40 Scans/Sec.

Resolution	Scanning Distance
7,5 mil	5,6 - 12,7 cm
10 mil	4,6 - 24,6 cm
13 mil	5,1 - 30,5 cm
20 mil	0 - 38,1 cm
40 mil	0 - 55,9 cm

Power Supply	Li-Ion Accumulator 3,6V 700mAh, quick charging
Dimensions/Weight	178 x 88 x 39 mm (L x B x H) / 400g (can vary according to product type)
Environment	Operating temperature: -20...50°C (without RF), 5...50°C (with RF), Storage temperature: -40...70°C
	Relative Humidity: 5 to 95% not condensing, Protection Class IP-50
Interface	RS-232, asynchronous, 300 – 19.200 Bd

LogiScan-1100

Display	128 x 64 pixel LCD, illuminatable
Keypad	22 keys (alphanumerical)
Program Memory	384 KB Flash ROM operating system and application program
Data Memory	1 MB Flash ROM (optional 4 MB)
Interface	RS-232 (asynchronous, 300 – 19.200 Bd) and USB
Power Supply	Li-Ion battery 3,6V 1950 mAh, fast chargeable
Operating Time	min. 5000 scans (with 100% charged accumulator)
Laser Scanner	Wave length 650 nm, Laser Safety Class CDRH/IEC class II, Scan Rate 40 scans/sec., Depth of Field up to 55,9 cm / 22 in, scanning of all popular barcode types
CCD Scanner (optional)	Erfassung aller gängigen 1D-Barcodes, 2D-Barcodes: PDF417, Codablock, TLC39, Auflösung 0,1 mm, Barcodegröße bis zu 18 cm bei 0,3 mm Auflösung, min. Druckkontrast 25 %
2D Scanner (optional)	Scanning of all popular 1D barcodes, 2D barcodes: PDF417, Codablock, TLC39, resolution 0,1 mm/4 mil, barcode size up to 18 cm / 7 in at 0,3 mm / 12 mil resolution, min. print contrast 25 %
RFID Reader	**Working frequency 125 kHz** Hitag1, Hitag2, EM Marin H400x and MCRF 200/123, **Working frequency 134 kHz and 13,5 MHz** ISO: 15693, 14443A&B,SR176, Tagit, Icode, Mifare
WLAN Module (optional)	data communication via LAN per FTP or IP connection
GPRS Module (optional)	Data communication via FTP, E-Mail, SMS or per IP connection
DECT Module (optional)	Transmitter/Receiver Frequency: 1800 to 1900 MHz Transmitted power: 10 mW Transmitted area: in open spaces ~300m, in buildings ~50m
GPS Module (optional)	Capturing of GPS coordinates for position-fixing
Dimensions	153 x 66 x 38 mm (L x B x H, without hand grip)
Weight	ca. 200 g/240 g (without/with hand grip)
Environment	Operating temperature: -20...50°C (without wireless communicaton) 5...50°C (with wireless communicaton) Rel. humidity: 5 up to 95%, non condensing
Cradle	Loading of the integrated accus, communication via RS-232 and USB, optional: LAN or LAN/WLAN

Device Identification

The device ID is located with the
- **LogiScan-600/800** on the bottom of the device
- **LogiScan-1100** in the battery compartment under the battery.

The device identification contains:
- the model term (Mod.)
- the article no. (Art.)
- the 6 digit device no. (I/D)

5. Recycling Orders

Battery Order

Following the 'Verordnung über die Rücknahme und Entsorgung gebrauchter Batterien und Akkumulatoren' (shortcut: Batterieverordnung - BattV) BGBl I page 658 from 27.3.1998 manufacturers and distributors only may put batteries and accumulators containing poisonous material into circulation if they ensure that the consumer may return it back after usage. This Battery Order is also valid for salvage devices which contain fixed installed batteries and accumulators.

In the same manner the consumer is bound to recycle used batteries and accumulators following this Battery Order.

Therefore we offer a feeless returning back service (free to the door) for used batteries and accumulators coming from our devices and also for complete salvage devices coming from us which contain fixed installed batteries and accumulators to our clients.

Old electronic Devices and Accessories

According to the regulation 2002/95/EC of the European Union a producer of electronic products has to dispose old devices and accessories put on the market under his brand after the 13th August 2005 at his own expense. But in face of the date of purchase we offer to our customers to recycle all their devices they bought from the aitronic GmbH. We pay the costs of the disposal.

Please do not put old electric devices und accessories in the domestic waste or dispose it via any other kind of waste management. Just send us your old devices and accessories to the following address:

aitronic GmbH
Balhorner Feld 10
D-33106 Paderborn
GERMANY / ALLEMAGNE

Please mark your shipment as a delivery of old devices! If you have any questions do not hesitate to contact us.

fon   +49 5251 29816-0
email   info@aitronic.de