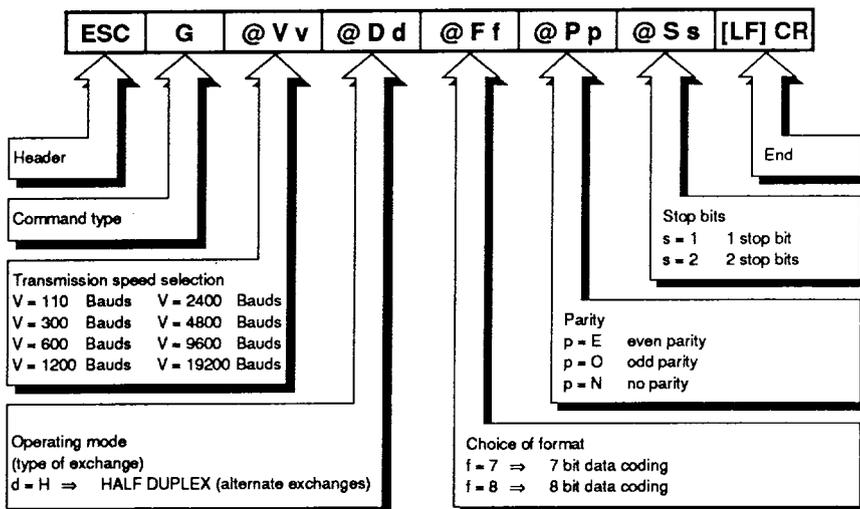


3 Selecting the operating modes

Selecting by command

- Complete configuration of the serial line parameters

Command syntax :



4 Storing the messages

4.1 Storage syntax

Storing the messages in the SRAM memory of the XBT-K8 requires a programming device to be connected via a serial link. This can be :

- a TSX T407 programming terminal (non-conversational storage)
- a visual display terminal (conversational storage)

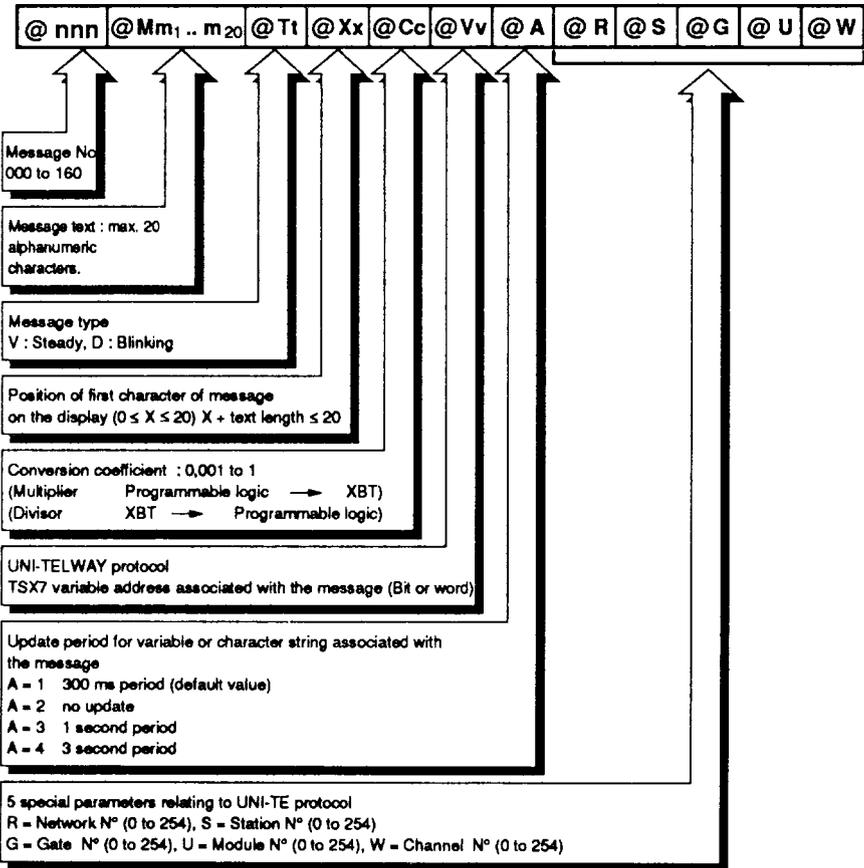
For these procedures consult user guide XBT-X63240.

- a PC, PS/2 compatible personal computer using the XBTEL creation and archiving program.

Storage syntax for XBT-K8 messages

When writing the messages into the XBT-K8 memory it is necessary to ensure that the parameters are coherent.

Storing of complete messages is as follows :



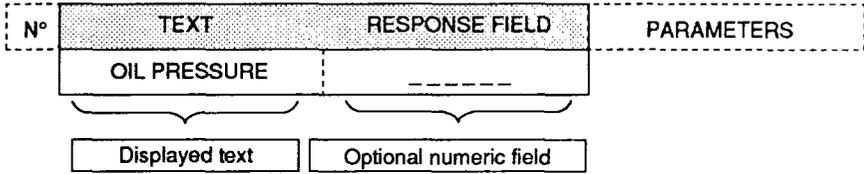
DEFAULT SETTINGS :

TYPE V, X = 00, Y = 1, R = 000, S = 254, G = 000, U = 254, W = 000

4 Storing the messages

Storage syntax

General rules for message composition :



- The length of the text and the numeric field should not exceed 20 characters.
- The optional numeric field should be defined by - (dashes) (ASCII character 5 F).
- Only the ASCII characters between 20 and 5F are accepted (lower case letters are refused).
- Commas (2C in ASCII) are not supported : use only decimal points (character 2E in ASCII).

Special rules for UNI-TE protocol

(for TSX 7 series PLCs)

- Messages associated with numeric variables :

The numeric field has a maximum length of :

- 6 characters (including sign) with the conversion coefficient $C = 1$,
- 5 characters (including sign) with the conversion coefficient $C \neq 1$ or when the TSX 7 PLC variable is a counter, a timer or a monostable,
- 1 character when the variable associated with the message is 1 bit.

Note :

- Positive values : the + sign is not displayed (space)
- Negative values : the - sign is displayed.

ALL MESSAGES WITH A NUMERIC FIELD MUST BE ASSOCIATED WITH A VARIABLE. OTHERWISE THE DASHES ARE CONSIDERED AS TEXT AND THE MESSAGE IS TREATED AS A 'V' TYPE WITHOUT ASSOCIATED VARIABLE

4 Storing the messages

Storage syntax

TSX7 PLC VARIABLES		TYPE OF MESSAGE	
DESIGNATION	SYNTAX	V	D
INTERNAL BIT	Bxxxx	X	X
WORD	Wxxxxx	X	X
CONSTANT WORD	CWxxxxx	X	X
COMMON WORD	COMxx,x	X	X
TIMER	Txxx,V (*) Txxx,P (*)	X	X
MONOSTABLE	Mxxx,V (*) Mxxx,P (*)	X	X
COUNTER	Cxxx,V (*) Cxxx,P (*)	X	X
DRUM	Dxxx,V (*)	X	X

(*) V = Current value P = Pre-set value X = Allowed

Note : The syntax limits for TSX7 variables depend on the type of PLC used.
(Refer to the various programming and installation manuals for TSX7 PLCs.).

COMPATIBILITY TABLE																									
TYPE	TEXT																				COL	COEF	VARIABLE	UPD.	COMMENTS
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	X	C	V	A	
STEADY V																					0 to 32	1			Display text
																					0 to 32	1	BIT	1 or 2 or 3 or 4	Display text and bit status (1 or 0)
																					0 to 32	1	ALL OBJECTS (except bits)	1 or 2 or 3 or 4	Display text and numeric value of variable
																					0 to 32	0,001 to < 1	ALL OBJECTS (except bits)	1 or 2 or 3 or 4	Display text and numeric value of variable
BLINK D																					0 to 32	1			Blink text
																					0 to 32	1	ALL OBJECTS (except bits)	1 or 2 or 3 or 4	Blink text and numeric value of variable
																					0 to 32	0,001 to < 1	ALL OBJECTS (except bits)	1 or 2 or 3 or 4	Blink text and numeric value of variable
																					0 to 32	1	BIT	1 or 2 or 3 or 4	Blink text and state of bit (1 or 0)

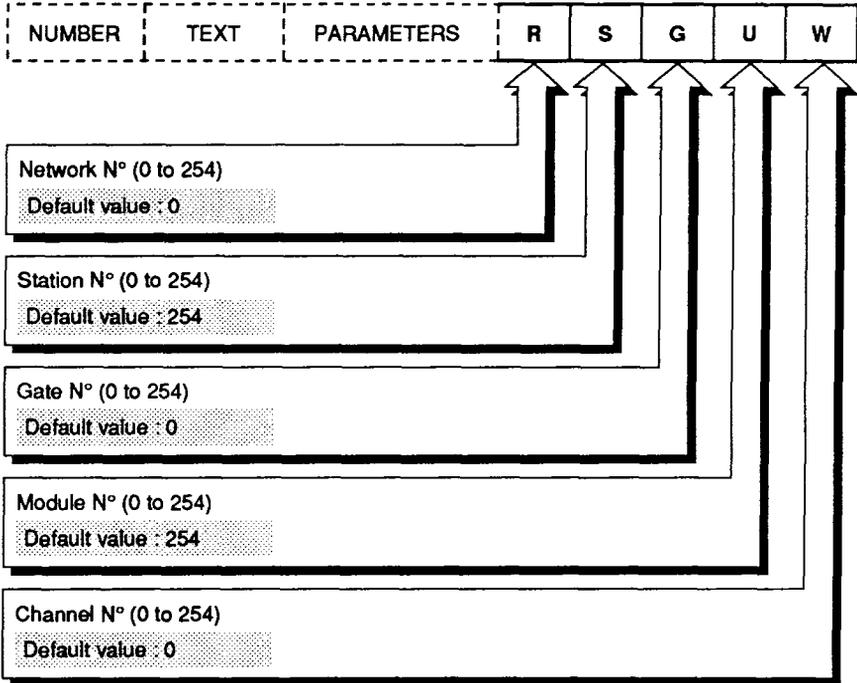
The numeric fields shown indicate maximum values.

4 Storing the messages

Storage syntax

Special rules for UNI-TELWAY protocol

When the XBT-K8 is connected to a UNI-TELWAY bus, the storage syntax for the messages should include the five parameters defining the UNI-TELWAY address of the equipment to which the TSX 7 variable associated with the message belongs (of the SERVER equipment).



4 Storing the messages

4.2 Storing the messages with a PC, PS/2

Storing the XBT-K messages is achieved when the XBT-K8 is in the OPERATING MODE ; it displays * RUNNING *

To store the messages (with their parameters), use the XBTEL program running on a PC, PS/2 computer. The following services are provided :

- Off-line creation and archiving of an application (floppy disk or hard disk),
- Transfer of an application to several terminals,
- Saving an existing application,
- Comparing the application,
- Printing the application (preparation of technical dossier).

• Creation

The XBTEL program presents (in addition to the language selection) a table for writing the messages with their parameters.

Saving is automatic (after 20 minutes) or initiated by the user.

• Transfer

To transfer the application to the XBT-K8 terminal, it is necessary to :

- 1- make a physical RS 232 C link between the PC, PS/2 (SERIAL PORT 1 to 3) and the XBT-K8. Refer to chapter 7 on CONNECTIONS,
- 2 - identify the transmission parameters between the XBT-K8 terminal and the PC, PS/2, by configuring the serial line. Refer to chapter 3 SELECTING OPERATING MODES.

ONLY THE RS 232C STANDARD MAY BE USED. ALL OTHER TYPES OF
CONNECTION RELEASE TELEMECANIQUE FROM ANY WARRANTY
OBLIGATION IN CASE OF DAMAGE

To configure the PLC link, go to TRANSFER RAM PC, PS/2 → XBT, and adjust the parameters (speed, format, parity and stop bits) to be compatible with the XBT-K8.

• Comparison

A comparison can be made between the application in the terminal and the application resident in the PC, PS/2.

• Printing

Printing can be requested from the TRANSFER menu of the XBTEL program :

- 1 - From the PC, PS/2 to the printer : Select RAM PC, PS/2 → PRINTER, select the parameters, and then start the operation.
- 2 - From the XBT-K8 via the PC, PS/2 to the printer : Go to XBT → PRINTER, select the parameters, and then start the operation.

The printer may have either a serial or a parallel interface.