

# MeinEnigma Commands Quick Reference

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For software version 0.93

Serial port settings: 38400 bps, 8n1, no hardware handshaking or software flow control.

Commands can be in upper or lower case and abbreviated to fewer letters (shown below in bold).

Keyboard input is not echoed.

A colon followed by arguments will set the value.

Entering alphabetic characters (A-Za-z) will input text to encrypt/decrypt. Enter spaces for grouping.

## Keyboard Keys in Model Mode

C - toggle clock mode

L - lamp test (turn on all displays and LEDs)

O - odometer, show total number of characters

T - toggle text to speech output

K - toggle the keyboard and rotor click sounds

M - toggle Morse code output

S - display serial number

V - show software version

## Serial Port Commands

**?** Help, display list of available commands

**!SETTINGS** Shows the current settings

**!MODEL:[EN I|M3|M4]** Displays or sets Enigma model.

**!UKW:[UKWA|UKWB|UKWC|UKWBT|UKWCT]** Displays or sets reflector.

**!ROTOR:[1,2,3,4,5,6,7,8,G,B]** Display or set rotor. Specify 3 or 4 rotors, depending on model.

**!RING:[A,B,C,D]** Displays or sets rotor rings. Specify 3 or 4 values, depending on model.

**!PLUGBOARD:[AB CD EF GH]** Displays or sets plugboard. Specify up to 10 letter pairs.

**!START:ABC** Displays or sets rotor start position. Specify 3 or 4 rotors, depending on model.

**!GROUPSIZE:4|5|6** Displays or sets group size.

**!SAVE:1-15** Save current settings. Settings 1-4 can be recalled by pressing the appropriate rotor button on powerup.

**!LOAD:1-15** Load a saved setting.

**!LOGLEVEL:0-2** Display or set log level. Higher levels display more information.

**!TIME:hhmmss** Display or set real-time clock (hours, minutes, seconds).

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

# Example of Decoding a Real Message

(taken from <http://enigmaworldcodegroup.freeforums.net/thread/75/enigma-challenge-2016>)

Encrypted message (Enigma model M3 with UKW B reflector):

[EWGC2016]

XTS WWK

YNUAL FXBLJ PVARC AUEFD IQKFE VYCXN FRBBE HJJAN JDCRI GMJZC MSTAL WFSPB  
YUNFG UUDYL DZJIG XQCSK QPURI EKMVO PDWKG IXBLH RVLYQ LBAPT PWGNU UGINK  
RWYYI IFCQC XZSRZ MDQBM JHUNY LVLXN OAEVZ WSVAT FTVZT YOECZ HEOTB UUAPG  
UHKD GMNGR ADTEO IISNA ZOHZC WJWNP HLCPH PBTOW

Entry from keysheet for 1 May 2016:

Tag	Walzenlage	Ringstellung	Steckerverbindungen	Kennguppen
01	I V III	24 21 05	AT BG CN EP FI HQ JS KZ OU XY	VWX YNU GUJ GGB

Set machine as follows:

Model: M3

Reflector: UKWB

Rotor: 1,5,3

Plugboard: AT BG CN EP FI HQ JS KZ OU XY

Rotor Rings: X U E (24 = X, 21 = U, 05 = E)

Set rotor positions to first key in message: XTS

Type second key of message: WWK, decrypts to JZU

Now set rotor positions to: JZU

Look at first group in message, YNUAL.

Confirm YNU is a valid keygroup for the day.

Ignore last two characters (AL).

Enter rest of message on keyboard:

FXBLJ PVARC AUEFD IQKFE VYCXN FRBBE HJJAN JDCRI GMJZC MSTAL WFSPB  
YUNFG UUDYL DZJIG XQCSK QPURI EKMVO PDWKG IXBLH RVLYQ LBAPT PWGNU UGINK  
RWYYI IFCQC XZSRZ MDQBM JHUNY LVLXN OAEVZ WSVAT FTVZT YOECZ HEOTB UUAPG  
UHKD GMNGR ADTEO IISNA ZOHZC WJWNP HLCPH PBTOW

Decrypts to:

WITHS OMEME SSAGE SCAPT UREDI NMAYO FNINE TEENF ORTYA SWEDI SHMAT  
HPROF ESSOR SPENT TWOWE EKSTO DECIP HERED ANDRE VERSE ENGIN EERED ANEAR  
LYVER SIONO FTHES IEMEN SANDH ALSKE TFIFT YTWOA LSOKN OWNAS THEGE HEIMF  
ERNSC HREIB ERXWH ATWAS HISNA MEQUE STION MARKX

Adding spaces and punctuation:

WITH SOME MESSAGES CAPTURED IN MAY OF NINETEEN FORTY A SWEDISH MATH PROFESSOR  
SPENT TWO WEEKS TO DECIPHERED AND REVERSE ENGINEERED AN EARLY VERSION OF THE  
SIEMENS AND HALSKE T FIFTY TWO ALSO KNOWN AS THE GEHEIMFERNSCHREIBER. WHAT WAS HIS  
NAME?

Serial port session for above:

**!MODEL:M3**

%MODEL:M3

**!GROUPSIZE:5**

%GROUP:5

**!UKW:UKWB**

%UKW: UKWB

**!ROTOR:1,5,3**

%ROTOR: I - V - III

**!RING:X,U,E**

%RING: - X U E

**!PLUGBOARD:AT BG CN EP FI HQ JS KZ OU XY**

%PLUGBOARD: AT BG CN EP FI HQ JS KZ OU XY

**!START:XTS**

%START: - X T S

**WWK**

>JZU

**!START:JZU**

%START: - J Z U

**FXBLJ PVARC AUEFD IQKFE VYCXN FRBBE HJJAN JDCRI GMJZC MSTAL WFSPB**

>WITHS OMEME SSAGE SCAPT UREDI NMAYO FNINE TEENF ORTYA SWEDI SHMAT

**YUNFG UUDYL DZJIG XQCSK QPURI EKMVO PDWKG IXBLH RVLYQ LBAPT PWGNU UGINK**

>HPROF ESSOR SPENT TWOWE EKSTO DECIP HERED ANDRE VERSE ENGIN EERED ANEAR

**RWYYI IFCQC XZSRZ MDQBM JHUNY LVLXN OAEVZ WSVAT FTVZT YOECZ HEOTB UUAPG**

>LYVER SIONO FTHES IEMEN SANDH ALSKE TFIPT YTHWA LSOKN OWNAS THEGE HEIMF

**UHKDK GMNGR ADTEO IISNA ZOHZC WJWNP HLCPH PBTOW**

>ERNSC HREIB ERXWH ATWAS HISNA MEQUE STION MARKX