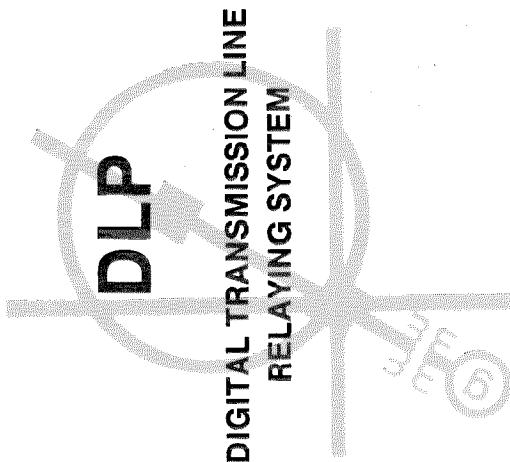


GE TECHNOLOGY.
TOUGH TO BEAT.



QUICK REFERENCE GUIDE



GE Meter and Control
205 Great Valley Parkway
Malvern, PA 19355

ERROR MESSAGE	MMI ERROR MESSAGES
VAL OUT OF RANGE	CAUSE OF ERROR Setting value either greater than upper limit or less than lower limit
SETT NUM INVALID	Setting number is not valid
Y/N NOT ENTERED	Setting value or response to a prompt had to be a YES or a NO but a 1/Y or 3/N key was not pressed.
REQUEST INVALID	Pressing any key that is invalid during a key sequence
CATEGORY INVALID	A wrong category number was entered for either an action or information item
BKR# INVALID	A breaker number greater than 2, or the number 0 was entered
DATE INVALID	The day, month and/or year are not valid
TIME INVALID	The hour, minute, and/or second are not valid
FAULT NUM INV	A fault number greater than 5, or the number 0 was entered
REMOTE LINK ACT	The remote communications link is in use, local access is denied
MMI KEY ERROR	The MMI received an invalid key code from the keyboard. (Hardware Error)
ACT INVALID NOW	The current action which the user is attempting to perform is invalid because the setting's CRC code is in error.
DLP SOFTWARE	
D-LINK	-Digital Relay Communication Software
DLPTEST	-DLP Test Software
DLPSET	-DLP Settings Calculation Program
DLP-DATA	-DLP Oscilloscopy Software (Optional)
PL1	-RS232 Communications Port
PL2	-RS232 Printer Port

REFER TO INSTRUCTION BOOK GEK-99346, OR GEK-100562 FOR MODELS WITH NO MMI, FOR COMPLETE RELAY INSTRUCTIONS AND INFORMATION

ACTIONS KEY	FUNCTIONS BY KEY
1) Disable Outputs	INFORMATION KEY (INF) 1) Request DLP Status Information
2) Enable Outputs	2) Request Fault Information
3) Trip	3) Request Present Values
4) Close	4) Request Events
5) Enter Date and Time	5) Request Password
6) Relay Test	6) Request DLP Model/Version
7) MMI Test	SETTINGS KEY (SET)
8) Fix-up settings CRC	Accesses all settings that are listed on the back of this guide.
PRINT KEY (PRT)	
Directs information to the printer instead of the display.	
NOTE: You must press "END" and then "ENTER" when you have finished making any setting changes.	
J1	JUMPER SETTINGS -Disables remote manual Trip/Close functions
J2	-Disables remote settings changes and Disable/Enable outputs (on the S version only, causes the encoded password to be displayed)
J3	-Baud Rate Setting (Used on S version only)
D-LINK Communications Software Menu	
LOGIN	
LOGOUT	
RELAY FUNCTIONS	
DLP ACTIONS	Change Password Manual Trip Manual Close Enable Outputs Disable Outputs Change Time and Date Fixup Settings Relay Test Mode Return to relay functions menu
DLP INFORMATION	Request DLP Information Request Present Values Request Fault Report Identification Request Fault Report Request Events Request Oscilloscopy Data Request DLP Status Request DLP Model Return to relay functions menu
DLP SETTINGS	Upload DLP Settings Print Settings View/Change Category of Settings View/Change Individual settings Download Settings to DLP End Settings Changes Save DLP Settings to File Return to relay functions menu
RETURN TO MAIN MENU	
LOCAL SETTINGS	
CONFIGURATION PARAMETERS	
HANG UP	
EXIT PROGRAM	

NOTE: IN - stands for the rated current; 1 or 5 Amps

CATEGORY: Z1DIST - Zone 1 Distance

SET#	DESCRIPTION	ABBREV.	RANGE
0101	Select zone 1 GROUND	SELZ1G	YES/NO
0102	Select zone 1 PHASE	SELZ1P	YES/NO
0103	Phase Reach (M1/MG1)	Z1R	0.01-(50)(5/1N)
0104	Ground Reach (M1/MG1)	Z1GR	0.01-(50)(5/1N)
0105	Select zone 1 gnd. unit -Mho	SELZ1U	0 - 1

0106	-Reactance		
	Reach setting of mho unit	Z1SU	0.01-(50)(5/1N)
0107	supv. reactance unit Zero seq. current compensation (K0)	Z1K0	1.0-7.0

CATEGORY: Z2DIST - Zone 2 distance/GDOC (Pilot Zone)

0201	Select zone 2 GROUND	SELZ2G	YES/NO
0202	Select zone 2 PHASE	SELZ2P	YES/NO
0203	Phase Reach (M2/MG2)	Z2R	0.01-(50)(5/1N)
0204	Ground Reach (M2/MG2)	Z2GR	0.01-(50)(5/1N)
0205	Select zone 2 gnd. unit - Mho	SELZ2U	0-2

- Gnd Directional OC

0206	Select zone 2 TIMERS	SELZ2T	YES/NO
0207	Phase timer setting	PULT2P	0.10-3.00
0208	Ground timer setting	PULT2G	0.10-3.00
0209	Phase characteristic Angle	Z2PANG	90, 105, 120

0210 Ground characteristic Angle

0210	Ground characteristic Angle	Z2GANG	90, 105, 120
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CATEGORY: Z3DIST - Zone 3 distance

0301	Select zone 3 GROUND	SELZ3G	YES/NO
0302	Select zone 3 PHASE	SELZ3P	YES/NO
0303	Phase Reach (M3/MG3)	Z3R	0.01-(50)(5/1N)
0304	Ground Reach (M3/MG3)	Z3GR	0.01-(50)(5/1N)
0305	Phase timer setting	PULT3P	0.10-10.00
0306	Ground timer setting	PULT3G	0.10-10.00
0307	Phase characteristic Angle	Z3PANG	90, 105, 120

0308 Ground characteristic Angle

0308	Ground characteristic Angle	Z3GANG	90, 105, 120
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CATEGORY: Z4DIST - Zone 4 distance

0401	Select zone 4 GROUND	SELZ4G	YES/NO
0402	Select zone 4 PHASE	SELZ4P	YES/NO
0403	Phase Reach (M4/MG4)	Z4R	0.01-(50)(5/1N)
0404	Ground Reach (M4/MG4)	Z4GR	0.01-(50)(5/1N)
0405	Phase offset reach	Z4OR	0.00 - 0.40
0406	Phase timer setting	PULT4P	0.10-10.00
0407	Ground timer setting	PULT4G	0.10-10.00
0408	Phase characteristic Angle	Z4PANG	80, 90, 95, 105, 110, 120
0409	Ground characteristic Angle	Z4GANG	80, 90, 95, 105, 110, 120
0410	Select Direction - Forward	SELZ4D	0 - 1
	- Reverse		1

CATEGORY: CURSUPVIS - Overcurrent Pilot/Supervision

SET #	DESCRIPTION	ABBREV.	RANGE
0501	Gnd. pilot trip OC (IPT)	PUIPT	(.10-1.00)(1N)
0502	Gnd. pilot block OC (IPB)	PIUPB	(.05-0.75)(1N)
0503	Trip supv. OC setting (IT)	PUIT	(.04-0.80)(1N)
0504	Block supv. OC setting (IB)	PIUB	(.04-0.40)(1N)

0601	Select phase inst. OC PH4	SELPH4	YES/NO
0602	Phase inst. OC setting	PUPH4	(.4-20.0)(1N)
0603	Select gnd. inst. OC IDT	SELIDT	YES/NO
0604	Directional control of IDT	SELIDT	YES/NO

0605	Gnd. inst. OC setting	PUIDT	(.1-16.0)(1N)
0606	Select gnd. time OC (TOC)	SELTOC	YES/NO
0607	Directional control of TOC	SELTOC	YES/NO
0608	Gnd. time OC setting	PUTOC	(.04-3.00)(1N)
0609	Gnd. time OC time dial	TDTOC	0.5-10.0

CATEGORY: BLK RECLUS - Reclosing

0701	All of the above	SELALL	YES/NO
0702	Out-of-step block	RB058	YES/NO
0703	All zone 2 phase units	RB3PH	YES/NO
0704	Gnd. time OC (TOC)	RBTOC	YES/NO
0705	Zone 2 Timers	RBZ2T	YES/NO
0706	Zone 3 Timers	RBZ3T	YES/NO
0707	Zone 4 Timers	RBZ4T	YES/NO

CATEGORY: CUTOSTEP - Out-of-step Blocking

0801	Select phase trip unit to coordinate with	SELPTZ	0 - 2
	- zone 2		0
	- zone 3		1
	- zone 4 (forward only)		2
0802	Characteristic angle	MOBANG	30-130
0803	Select block trip actions	SEL05B	0 - 2
	- block all tripping		0
	- block: channel trip		1
	+zone 1 trip		
	+zone 2 trip		
	+zone 3 trip		
	+zone 4 trip		
	- Block none		2

CATEGORY: LINERU - Line Pickup

0901	Select line pickup	SELLPU	YES/NO
0902	Select timer bypass	SELTBP	YES/NO
0903	Pos. Seq. OC setting (I1)	PUI1	(0.2-3.0)(1N)

CATEGORY: REMOTEOPEN - Remote Open Detector

1001	Select remote open detect	SELROD	YES/NO
1002	Time delay setting (TL20)	PULT20	10-100
1003	Fuse failure block	SELFFB	YES/NO

CATEGORY: LINE OVRD - Line Overload

1101	Select line overload	SELOVL	YES/NO
1102	Level 1 OC setting	PULV1	(1.0-4.0)(1N)
1103	Level 2 OC setting	PULV2	(2.0-8.0)(1N)
1104	Level 1 Time delay (TL31)	PULT31	10 - 990
1105	Level 2 Time delay (TL32)	PULT32	10 - 99

CATEGORY: SCHEMESEL - Scheme Selection

SET #	DESCRIPTION	ABBREV.	RANGE
1201	Select Scheme	SELSCM	0 - 4
	-Step Distance		0
	-Permissive Overreaching		1
	-Permissive Underreaching		2
	-Hybrid		3
	-Blocking		4

1202 Number of Receivers

1202	Number of Receivers	NUMRCVR	0, 1, 2
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CATEGORY: SCHEMELIN - Scheme Logic Timers

1301	Trip integrator pickup (TL1)	PULT1	1-50ms
1302	'b' contact coordination pickup (TL5) breaker 1	PULT5	0-200ms
1303	'b' contact coordination dropout (TL5) breaker 1	DOTL5	0-200ms
1304	'b' contact coordination pickup (TL6) breaker 2	PULT6	0-200ms
1305	'b' contact coordination dropout (TL6) breaker 2	DOTL6	0-200ms
1306	POTT/PUIT coordination pickup (TL4)	PULT4	0-50ms

1307 Weak infed trip pickup (TL16)

1307	Weak infed trip pickup (TL16)	PULT16	8-80ms
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CATEGORY: LINE QTY - Line Quantities

1401	Pos. seq angle of maximum reach (ZR1)	POSANG	45 - 90
1402	Zero seq. angle of max. reach (ZR0)	ZERANG	45 - 90

1403 Pos. seq. impedance

1403	Pos. seq. impedance	ZP	.01-(50)(5/1N)
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1404 Zero seq. current compensation for Z2, Z3, Z4 gnd. dist. (K0)

1404	Zero seq. current compensation for Z2, Z3, Z4 gnd. dist. (K0)	K0	1.0 - 7.0
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1405 Line length

1405	Line length	LINLEN	0-200mi
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CATEGORY: CONFIG - Configuration Settings

1501	Unit ID number	UNITID	0-9999
1502	System frequency	SYSFREQ	50, 60
1503	Number of breakers	NUMBRS	1, 2
1504	Trip circuit continuity	TRIPCIRC	0-3
	- None		0
	- Breaker 1		1
	- Breaker 2		2
	- Both		3

1505 Primary/secondary units for reports

1505	Primary/secondary units for reports	SELPRM	0-1
	- Primary		0
	- Secondary		1

1506 CT ratio

1506	CT ratio	CTRATIO	1-5000
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1507 PT ratio

1507	PT ratio	PTRATIO	1-7000
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1508 Units of distance for reports

1508	Units of distance for reports	DISTUNIT	0-Miles 1-Km
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1509 Communication baud rate

1509	Communication baud rate	BAUDRATE	300, 1200, 2400
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1510 Phase designation

1510	Phase designation	PHASEDESG	0-1
	- (A-B-C)		0
	- (A-C-B)		1

CATEGORY: SCADA DTA - SCADA DTA Interface

1601	Fault location lock	FLTLOCK	0.0-99.9 sec
1602	Fault location reset	FLTRESET	0-999 min