PROGRAMMING GUIDE

LITTLE GENIUS PLUS

ELMEASURE

Possibilities...Infinite

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Product & features at glance :

This Manual is applicable for the Models: **LG+AYXX** A indicates display parameters & Y indicates nos of rows and may be replaced by any one digit number from 1 to 9. XX indicates software variants without any change in hardware construction and may be replaced by any two digit number from 00 to 99.Throughout this manual, the following methods are used to highlight important information:

NOTE : Describes important considerations related to a device setup, feature or application.

CAUTION : Alerts you to a condition which could potentially cause damage to the device or other external equipment.

WARNING or DANGER: Warns you to avoid such conditions that could potentially cause serious personal injury and/or damage to equipment.

Preventive Measures :

- **Fuse:** To avoid the possibility of short circuit, use a fuse that has a rating (current and type) that is specified. When replacing a fuse, turn OFF the power and unplug the power cord. Never short the fuse holder.
- **Do Not Operate in an Explosive Atmosphere:** Do not operate the instrument in the presence of flammable liquids or vapors. Operation in such environments pose a safety hazard.
- **Do Not Remove Covers:** The cover should be removed by ElMeasure's qualified personnel only. Opening the cover is dangerous, because some areas inside the instrument have high voltages.
- **External Connection:** Securely connect the protective grounding before connecting to the product under measurement or to an external control unit. If you come in contact with circuit, make sure to turn OFF the circuit and check that no voltage is present.

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1. FEATURES

- STAR (Wye)/ DELTA/1 Phase Programmable
- Universal Auxiliary (80 - 300 VAC / DC) supply
- PT ratio / CT ratio programmable including CT secondary
- True RMS measurement
- Active energy, positive energy accumulation & reverse Lock
- 'OLD' register to store the previously cleared energy value
- User configurable (Editable) password
- Simultaneous sampling of Volts & Amps
- Universal Voltage Input: 50 - 550 VAC (for UL 50-520 VAC) and Current Secondary (0.05A to 5A) with overload of 20%
- Energy selection: Wh / VAh
- Simultaneous sampling of Volts & Amps

2. UNIQUE FEATURES

- 3/2 row, 6 digit displays on each row for better readability
- Optional Programmable relay output maximum 2 (up to six threshold parameters) and tripping time up to 180 seconds-LGP5310
- Two sure selectable parameters from basic (VLL, VLN, A, Hz) or W, VA, or PF
- Auto scrolling in both upward and downward direction
- Auto-scaling of kilo, mega & giga decimal point
- Energy display programmable-counter based or resolution based. Energy resetting at 999999KVAh*Multiplication factor
- Optional RS232 communication with module

Precautionary Measures to be taken while Wiring the Circuit:

- ❑ Turn OFF the power to the circuit, when wiring the circuit. Connecting or removing measurement cables while the power is turned ON is dangerous.
- ❑ Take special caution not to wire a current measurement circuit to the voltage input terminal or vice-versa.
- ❑ Strip the insulation cover of the measurement cable so that when it is wired to the input terminal, the conductive parts (bare wires) do not protrude from the terminal. It is recommended to use appropriate pre lug after crimping the wire. Also, make sure to fasten the input terminal screws securely so that the cable does not come loose.
- ❑ Use cables with safety terminals that cover the conductive parts for connecting to the voltage input terminals. Using a terminal with bare conductive parts is dangerous if the terminal comes loose.
- ❑ After connecting the measurement cable, attach the current input protection cover for your safety. Make sure that the conductive parts are not exposed from the protection cover.
- ❑ Use the suitable star screw driver and apply optimum torque to prevent damage to the meter terminals.

⚠ CAUTION : During normal operation of this instrument, hazardous voltages are present at the rear terminals, which can cause severe injury or death. These voltages are present throughout the potential transformer (PT), current transformer (CT) auxiliary supply, communication & Input / Output terminal. Installation, disconnection or removal of the meter should be carried out only by qualified, properly trained personnel, after de-energizing connected circuits. Improper installation, including improper wiring and/or improper grounding will void ElMeasure's warranty.

3. WIRING DIAGRAM

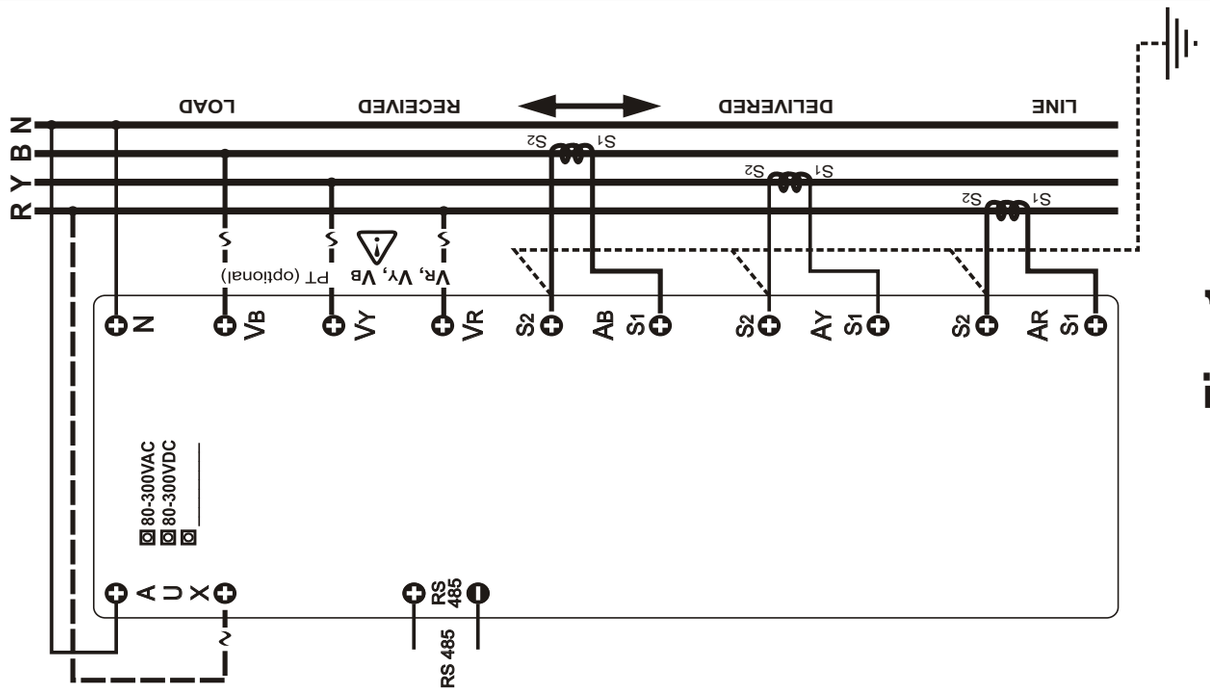


Fig. 1
Star Connection(3E)
3 Phase 4 Wire system

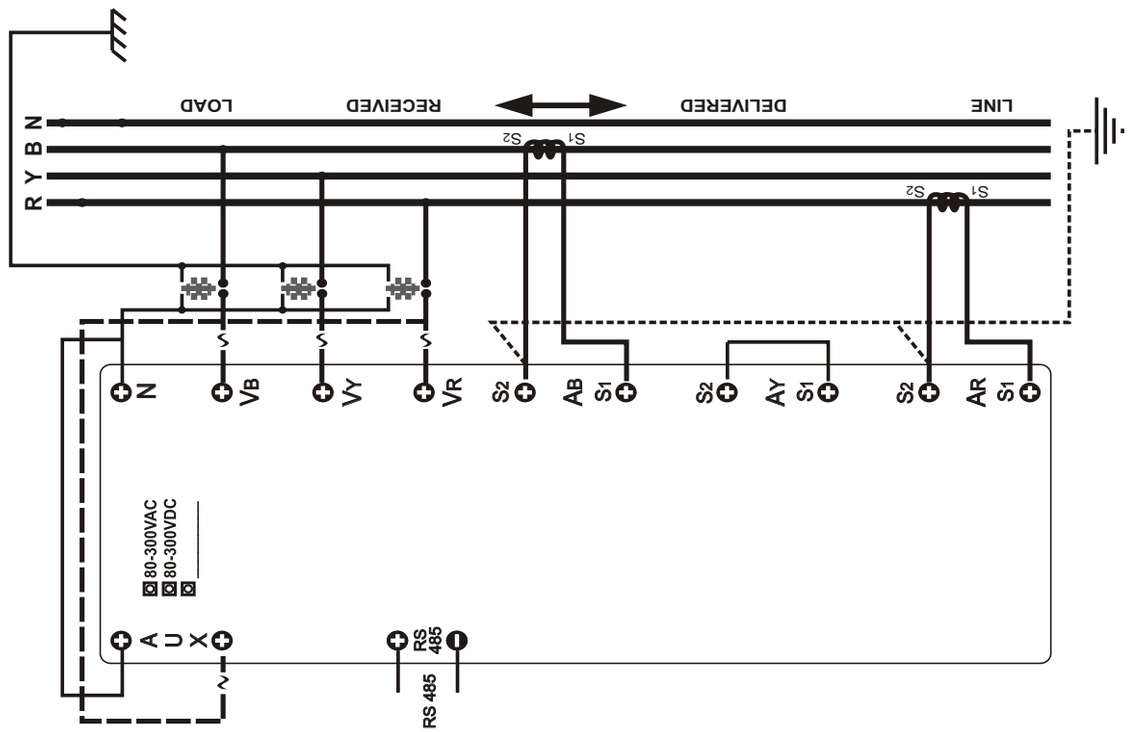
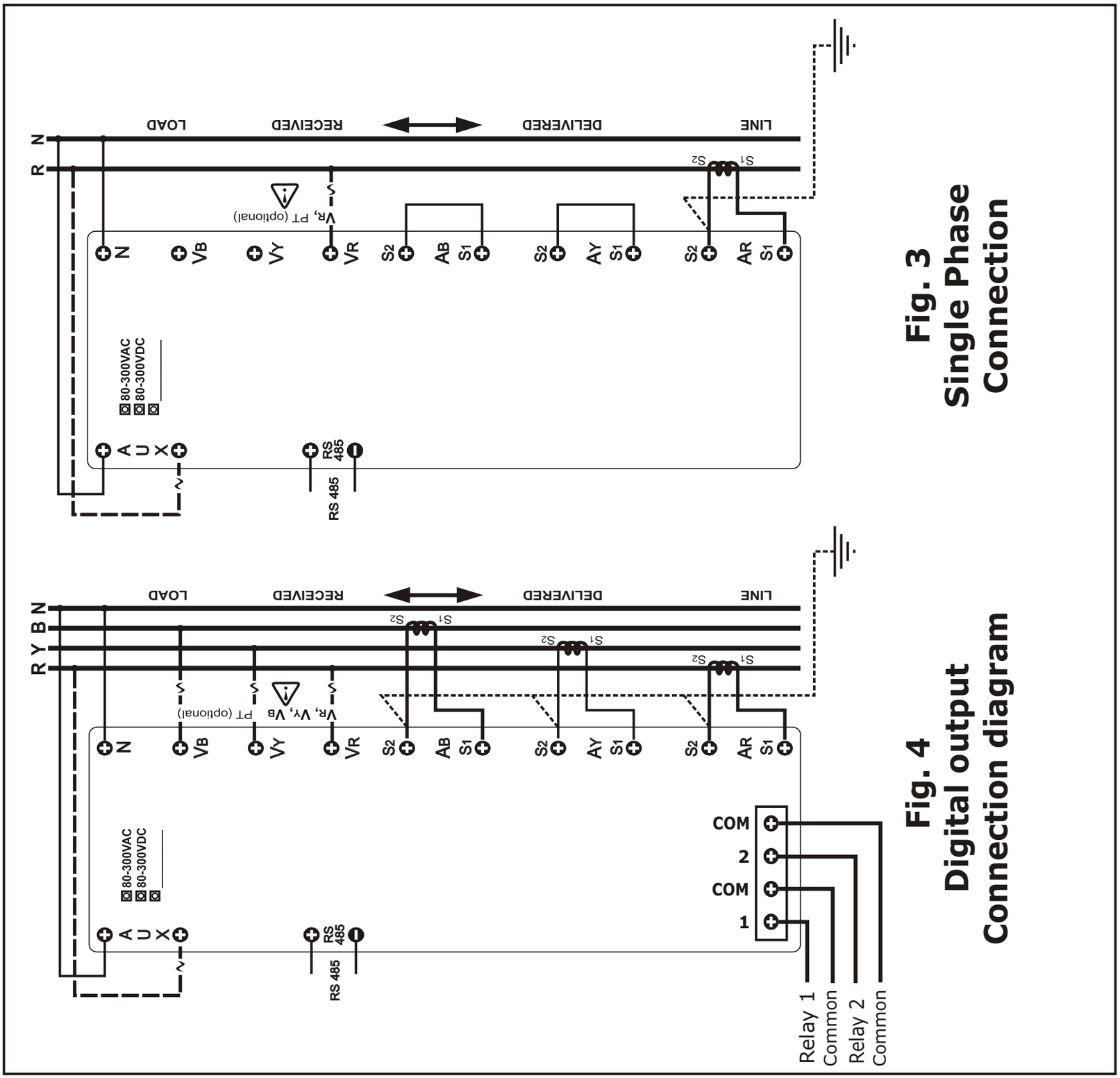


Fig. 2
Delta Connection (2E)
3 Phase 3 Wire system

Note: Wiring should be in accordance with the National Electrical Code and/or the Canadian Electrical Code, Part I.



Note: For DC Aux Voltage, +/- ve can be connected anyway.

4. KEY FUNCTIONS

Key	In SET (Programming) mode	In RUN (Measurement) mode
UP/Right	To select the value and accept the value (it act as a Right key in programming mode)	Up scroll pages to look at different parameters
DOWN	To edit the value/ system type down -ward in edit mode and scroll through the parameters	To scroll pages to look at different parameters

5. LED INDICATIONS:

LED status	Meaning
KILO - ON	Kilo
MEGA - ON	Mega
KILO & **M**EGA - ON	Giga
KILO & **M**EGA - OFF	Direct reading
Minus (**-**) ON	Lag/Minus
Minus (**-**) OFF	Lead/Plus
Old - ON	Old Readings (Cleared readings)

LED status	Meaning
I/O **1** - ON	Relay tripped (programmed parameter is out of range)
⎍⎍⎍- Blink	Reserved Pulse LED
 - ON	Communication ON

6. DISPLAY OF PARAMETERS:

DISPLAY	Meaning
LL	Voltage line to line
Ln	Voltage line to Neutral
ry	Voltage RY Phase
yb	Voltage YB Phase
br	Voltage BR Phase
A	Current Average
F	Frequency
UA	Total VA
-t	Watts Total

DISPLAY	Meaning
PF	Power Factor
Wh *	Active Energy Received
Ld.Hr/Lh	Load Hour
On.t	On Hours/Time
pr/y/b	Power Factor R Phase/Y Phase/B Phase
CLr	Clear
Sr/y/b	VA - R Phase/Y Phase/B Phase
P	Parity
Id	Identification number

* Conversions of alphabets used W (W)

WARNING : When using a modem interface between the host computer and any remote device(s), ensure that the host computer is not used to set the BAUD RATE parameter of any selected device outside the working range of the modem. Doing so will cause that meter to cease communicating. Re-establishing communication with that meter is possible through performing the following:

1. **Reset the baud rate of the remote device from its front panel to a value within the working range of the modem.**
2. **Set the computer to communicate at the baud rate at which the remote device has been set to communicate.**

7. ENTERING CONFIGURATION (SETUP) MODE

Step	Actions	Display Reads	Range/Options/ Comments
1	Press UP & DOWN keys together to enter SETUP	Row 1: 0000 with first digit "0" blinking Row 2: SEt.CLr (SETUP, CLEAR) Displayed.	Press DOWN key to decrement the first digit to "9" sequentially come to digit ".1"
2	Press UP key four times to accept the password.	Row 1: CLr (Clear) Row 2: Blank Row 3: blank (throughout the setup)	Defines the clearing option for the meter.
3	Press DOWN key to navigate	Row 1: StAr Row 2: ELEn (Element)	Defines the power system configuration. Options: STAR / DELTA/ 1 Phase

Note: If any other password is already set move up and down key to reach the right password

Step	Actions	Display Reads	Range/Options/ Comments
4	Press UP key to select STAR/DELTA/ 1. PHASE	Row 1: StAr Blinks StAr/ dELt/1.Phase Row 2: ELEn	(selected mode blinks) For selection press down key
5	Press UP key to accept STAR/ DELTA/1.PHASE	Row 1: selected mode Row 2: ELEn	
6	Press DOWN key to navigate next parameter	Row 1: xxxx (415.0 -default/ factory set) Row 2: P.Pr1 (PT Primary)	
7	Press UP key to set the PT primary value	Row 1: First digit blinking can be edited using DOWN key. Row 2: P.Pr1	

⚠ **CAUTION: To dismantle the meter remove the fuse from the voltage connections and Auxiliary connection. Short the external links for CT (S1 to S2).**

Step	Actions	Display Reads	Range/Options/ Comments
8	Press UP key to accept the edited value for first digit.	Row 1: Second digit blinking, can be edited using DOWN key. Press UP key to accept the edited value. Continue the same method till fourth digit. Row 2: P.Pr1	Program Range for PT Primary : 100V to 999kV

⚠ **CAUTION : Before wiring, de-energize the PT secondary by opening the circuit or removing the secondary fuse. Do not short the PT secondary. All wiring must confirm to any applicable local electrical codes/ engineering practices.**

⚠ **CAUTION : CT secondary circuits are capable of generating lethal voltages and currents when open circuited with their primary circuit energized. Standard safety precautions should be followed while performing any installation or service on the device (e.g. shorting CT secondaries, etc.)**

⚠ **CAUTION : Do not connect ground to the shield at both ends of a segment. Doing so allows ground loop currents to flow in the shield, inducing noise in the communication cable.**

Step	Actions	Display Reads	Range/Options/ Comments
9	Press UP key	Row 1: Decimal point blinking. Can be set at appropriate location using DOWN key. Ascertain the correct scale (Kilo/ Mega/Giga) is selected. Kilo/ Mega/Giga is placed on the right hand side of the display by Letter K/M/G. Press UP key to accept the edited value. Row 2 : P.Pr1	Eg: To set 11.00kV Set first four digits (1100)as explained above keep pressing DOWN key to place decimal point at appropriate location USE UP/DOWN KEY Letter K/M/G will indicate the Kilo/ Mega/Giga.

DANGER : PT secondary circuits are capable of generating lethal voltages and currents with their primary circuit energized. Standard safety precautions should be followed while performing any installation or service on the device (e.g. removing PT fuses, etc.)

Step	Actions	Display Reads	Range/Options/ Comments
10	Press DOWN key to go to the next parameter.	Row 1: xxxx (415.0 -default/ factory set) Row 2: P.SEC (PT Secondary). Follow the procedure as described in steps 7 to 9.	Range: 50V to 550V If value set is above the limit, display returns to the maximum PT sec value.
11	Press DOWN key	Row 1: xxxx (5.000-default/ factory set) Repeat steps 7 to 9 to change the settings. Row 2 : C.Pr1 (CT Primary)	Program Range for CT Primary 0.5A to 99kA

⚠ CAUTION : PTs are required for delta systems

NOTE: If value set is above this limit, display returns to the maximum PT sec value acceptable.

Step	Actions	Display Reads	Range/Options/ Comments
12	Press DOWN key	Row 1: xxxx (5.000 -default/ factory set) Row 2: C.SEC (CT Secondary). Repeat steps 7 to 9	Range: 0.5A to 6A
13	Press DOWN key	Row 1: no Row 2: rEV.L Revers Lock	Reverse lock - blocks energy accumulation in case the CT polarity reverse Option : NO/YES
14	Press DOWN key	Row 1: UEC.H (Vector harmonics) Row 2: VA.SL (Method of VA Selection).	Arithmetic (Arth), Vector harmonics (UEC.H). Vector (UECt) can be selected using DOWN key.
15	Press DOWN key	Row 1: dSbL. Row 2: d.IPr	1st digital output parameter can be selected using UP & DOWN key.

Step	Actions	Display Reads	Range/Options/ Comments
16	Press DOWN key	Row 1: 1000 Row 2: d1.th	Range : 0.000 to 999.9 Mega
17	Press DOWN key	Row 1: d5bL. Row 2: d2.Pr	2nd digital output parameter can be selected using UP & DOWN key.
18	Press DOWN key	Row 1: 1000 Row 2: d2.th	Range :0.000 to 999.9 Mega
19	Press DOWN key	Row 1: 3.000 Row 2: d.dEL (digital output trip delay time, default/ factory set : 3.000sec	Range: 1to 180 seconds
20	Press DOWN key	Row 1: xxxx (9600 default/ factory set) Row 2: bAUd (baud rate) communication speed.	Defines the baud rate. Option :2400,4800, 9600,19.20k

Step	Actions	Display Reads	Range/Options/ Comments
21	Press DOWN key	Row 1: EUEn Row 2: PrtY	EUEn (even)/ odd(odd)/ no(no parity) Internal communication error check
22	Press DOWN key	Row 1: 1000 Row 2: dUId (device ID)	Defines the (ID) communications identification number.1 to 247
23	Press DOWN key	Row 1: ---- Row 2: PYd (Password user definable). **CAUTION:** memorize the Password. Use the same Password for next time. Instruments will reject other Passwords.	Range: 1000-9999. CAUTION: Password can be re-setted only at the factory.

Step	Actions	Display Reads	Range/Options/ Comments
24	Press DOWN key	Row 1: rESL Row 2: ENEr	Energy value format i.e., the energy accumulated in the meter to be displayed in resolution (default) or counter format.
25	Press DOWN key	Row 1: 250.0 Row 2: POP.t	Pulse width defined for pulse output occurrence (if POP option enabled) Range: 50 to 500 ms
26	Press DOWN key	Row 1: Yh Row 2: ESEL	Energy Selection Option: Wh/VAh
27	Press DOWN key	Row 1: SAVE Y "Y" blinking.	If “n”(no) is selected then Meter enters into RUN mode without affecting any edited Values in the setup
28	Press DOWN key	Row 1 : xxxxLL Row 2 : xxxx A Row 3 : xxxx F	

⚠ CAUTION : In counter mode energy accumulation is visible depending on load.

Once the required parameter is programmed press the DOWN key continuously till it reaches SAVE page directly.

7.1 The List of parameters can be configured and the range is given below

Sl.No.	Parameter	Default setup	Range
1	Connection mode (ELEM)	**STAR**	STAR/ DELTA/ 1.Phase
2	PT Primary(PT.Prı)	**415.0**	100V- 999kV
3	PT Secondary (PT SEC)	**415.0**	50V - 550V
4	CT Primary(CT.Prı)	**5.000**	0.5A - 99kA
5	CT SECondary (CT SEC)	**5.000**	0.5A - 6A
6	VA selection (UA.SL)	**UEC.H (Vector harmonics)**	Arith (Arithmetic)/ UECt (vector)/ UEC.H (Vector Harmonics)
7	Digital delay	**3.000**	1 to 180 seconds
8	Digital o/p 1 Parameter (d1.Pr)	**dSbL**	*
9	Digital 1 Threshold Limit (d1.Hi)	**1000**	0.001 to 9999×10^6
10	Digital o/p 2 Parameter (d1.Pr)	**dSbL**	*

* S1.Ph, REV.A, DG[Over (VLL,A,F,W,Wh); Under (VLL,A,F,PF)
EB[Over (VLL,A,F,W,Wh); Under (VLL,A,F,PF)
Note: Programming is applicable as per displayed parameter.

Sl.No.	Parameter	Default setup	Range
11	Digital 2 Threshold Limit (d1.Hi)	**1000**	0.001 to 9999×10^6
12	Baud rate (bAUd)	**9600**	2400 to 19.2k
13	Parity (Prty)	**Even**	Even/ Odd/ no
14	Device Id (dEV.Id)	**1.000**	1.000 to 247.0
15	Reverse lock(rEU.L)	**no**	Yes/no
16	Password (PWd)	**1000**	1000 to 9999
17	EnEr (Energy)	**rESL**	rESL /COUП
18	POP ON time (POP.t)	**250.0**	50 to 500 milliseconds
19	Energy Selection (E.SEL)	**Wh**	Wh / VAh

8. CLEARING PARAMETERS:

To Clear parameters of the Little Genius *Plus* series from the front panel, Press UP and DOWN Keys together, and '**Set.CLr**' (Set-Clear) is shown on the display. Enter the Password (default password is 1000. Set up and clear has the same password) and it will display "**CLr**". Press UP Key for selecting (Integ Clear). Display will prompt to select '**y**' or '**n**'. Press DOWN key for changing '**y**' or '**n**' and Press the UP key to do the operation.

⚠ **CAUTIONS : Once the data is cleared (except energy) the value will not be retained.**

9. Enabling and disabling of Auto scrolling:

Enabling auto scrolling: Press UP key continuously for 5 seconds or until display shows **EnbL Auto.Sc** for upward scrolling. Press Down key continuously for 5 seconds or until display shows **EnbL Auto.Sc** for downward scrolling.

Disabling auto scrolling: Press any key (UP/DOWN), display show **dSbL Auto.Sc** and returns to normal mode.

10. Multiplication Factor

Energy Display programmable for counter based or Resolution based

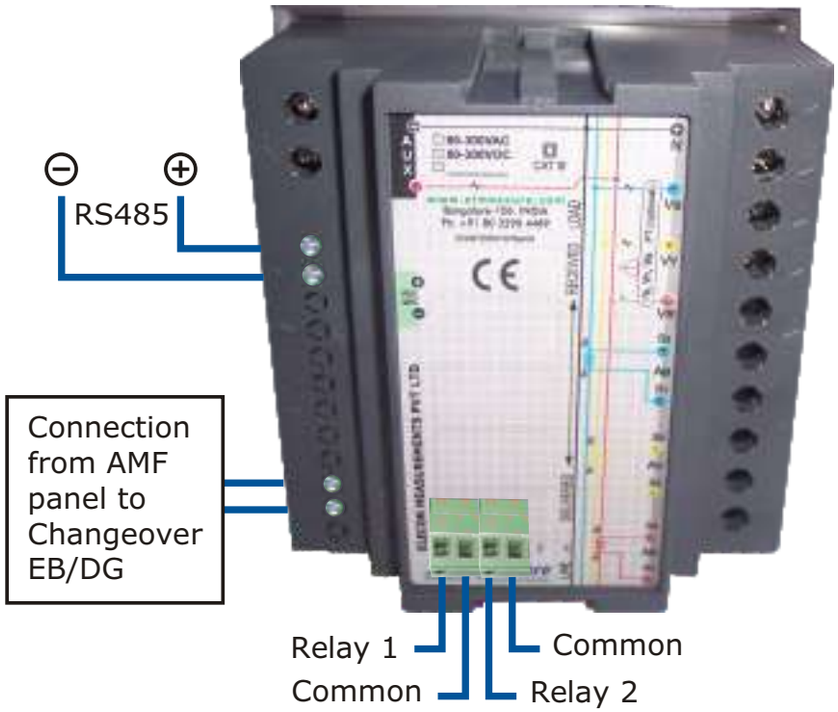
Multiplication factor for counter based energy mode							
• Full Scale kW $\sqrt{3}$ V Pri LL x A Pri / 1000	0.4 to 4.0	4.01 to 40	40.1 to 400	400.1 to 4,000	4Mega to 40 M	40 M to 400 M	400 M to 4000 M
• Multiplication Factor:	0.01	0.1	1.0	10	100	1000	10000

Note: 999999 kVAh × Multiplication Factor
Multiplication Factor is applicable only for designing energy reset.

11. Installation Procedure

Connection Diagram:

Connection Diagram for Little Genius Plus / Digital Output and RS 485

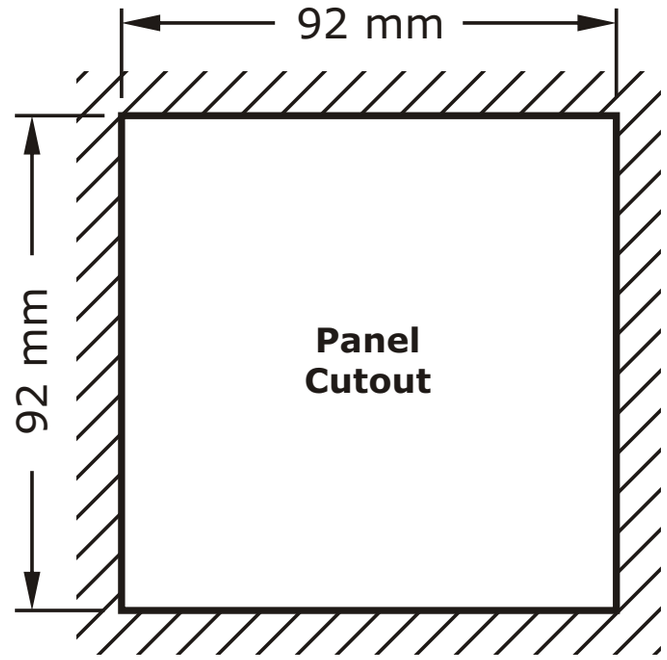


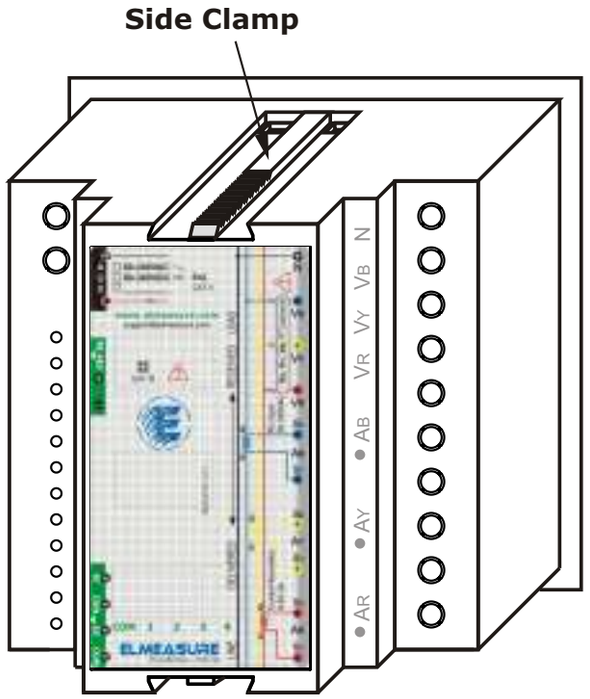
Note : Connections to the terminals located at the rear side of the unit is to be made by using preferably 12 to 14 SWG ($2.6mm^2$ to $2.6mm^2$) industrial grade wire. Relay rating No contact SPST. 250VAC / 30VDC @ 2 Amps resistive.

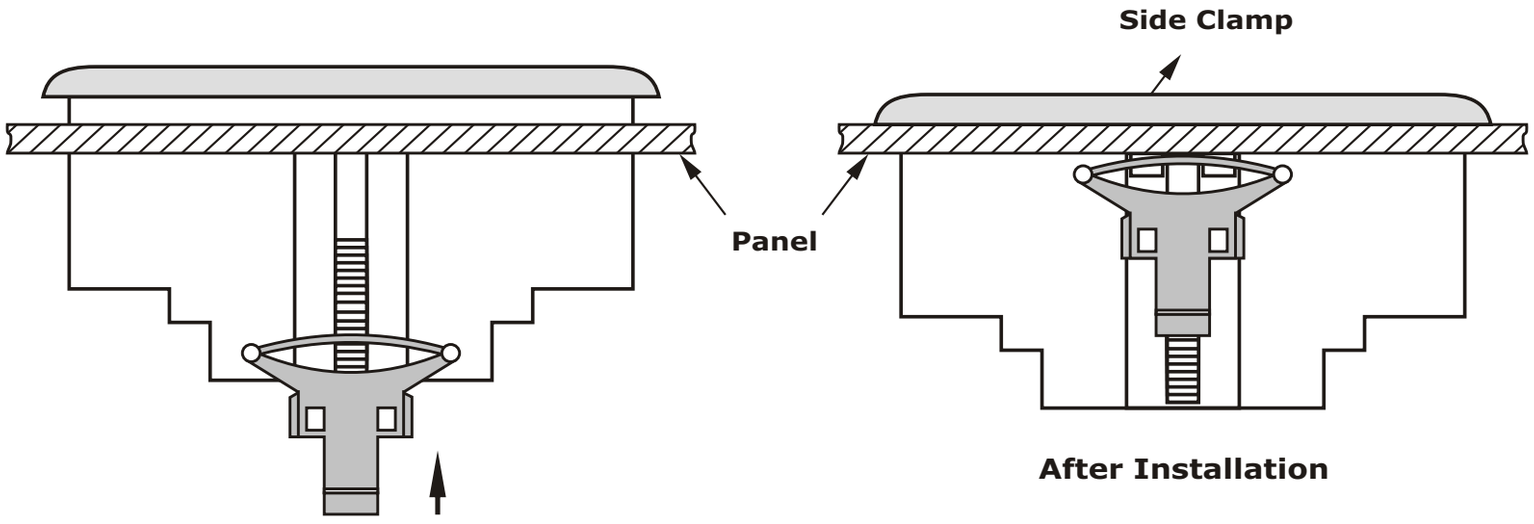
Safety Requirments:

- The warnings, cautions & notes specified in this guide shall be followed strictly (see the all pages).
- The specified safety regulations must be observed.
- Use dedicated fuse or circuit breaker in the Voltage and auxiliary circuit in all the elmeasure make meters for the safe operation.
- Fuse shall be used after PT.
- Fuse / circuit breaker is not part of the instruments (refer rare side of the TB Label). Recommended to use by the customer for safety requirements.

Mounting : The front bezel of the basic model is molded plastic. Bezel dimensions is 96x96mm. Depth 55mm behind the bezel.







CAUTION : Use MCB to connect and disconnect the device for auxiliary and measurement circuit.

12. COMMUNICATION REGISTER MAP:

This Communication map is for LG Plus. All the parameters declared in the communication map are either float or unsigned long and follows;

Standard : Modbus RTU protocol (Half Duplex)
Baudrate : 2400 / 4800 / 9600 / 19200
Parity : Even / Odd / No
Stopbit : 1 / 2
Modbus Function : 03 (Read holding register)

Sl.No.	Parameter	Data type	Address
1	Watts Total	float	40101
2	Watts R phase	float	40103
3	Watts Y phase	float	40105
4	Watts B phase	float	40107
5	VAR Total	float	40109
6	VAR R phase	float	40111
7	VAR Y phase	float	40113
8	VAR B phase	float	40115
9	PF Ave. (Inst.)	float	40117
10	PF R phase	float	40119
11	PF Y phase	float	40121

Sl.No.	Parameter	Data type	Address
12	PF B phase	float	40123
13	VA total	float	40125
14	VA R phase	float	40127
15	VA Y phase	float	40129
16	VA B phase	float	40131
17	VLL average	float	40133
18	Vry phase	float	40135
19	Vyb phase	float	40137
20	Vbr phase	float	40139
21	VLN average	float	40141
22	V R phase	float	40143
23	V Y phase	float	40145
24	V B phase	float	40147
25	Current Total	float	40149
26	Current R phase	float	40151
27	Current Y phase	float	40153
28	Current B phase	float	40155
29	Frequency	float	40157
30	Wh Received	float	40159
31	Load Hours Received	Unsigned long	40217

13. APPLICATION

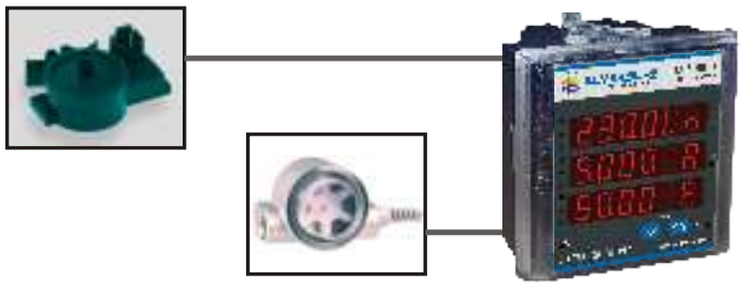
It is a common phenomenon that the equipments/motors often break down in any industry due to various reasons. Typically, the reasons could be poor incoming power quality, improper/ floated earthing, Process defects, loose connections in current route, poor safety measures, unskilled operators, natural calamities (lightening, flood) etc., The damages due to natural calamities is very hard to control by human beings.

Process Integration

Integration of process parameters such as temperature, Oil level, RPM, Pressure etc. giving greater flexibility to monitor them along with electrical parameters.

Control Features

2 user defined potential free digital output, upto 6 threshold parameters with programmable trip time to protect the equipment from electrical abnormalities.



14. TECHNICAL SPECIFICATIONS

Parameter	Range
Accuracy	Class 1 (Default) IEC 61036, CBIP 88, Class 0.5(Option)
Sensing/ Measurement	True RMS, 1 Sec update time, 2 Quadrant Power & Energy

14. TECHNICAL SPECIFICATIONS

Parameter	Range
Input voltage	4 Voltage inputs (VR, VY, VB, VN), Measuring Range: 50 to 520 VLL / 28 to 300 VLN Nominal @45 to 65 Hz Programmable Range: Primary 100V to 999 kV & Secondary 50V to 550VLL
Burden	0.2VA Max. per phase and CAT III
External Fuse Rating	AXIAL, Voltage Rating VAC:250V; Fuse Current:200mA; Breaking Capacity:10kA @ 125VAC; Fuse Size:5mm x 20mm; Blow Characteristic: Slow Blow; Body Material: Glass
Input Current	Current inputs (AR, AY, AB), Measuring Range: 0.05A to 5A (internal CT) / " <1V (SELV)" (external CT) Programmable Range: Primary 0.5A to 99 kA & Secondary 0.5A to 6A
Overload	With overload of 20%.
Burden	0.2VA Max. per phase
Aux-Supply (Control Power)	80 300V AC, 40-70Hz, 80 300V DC (Default) 5VA Max and CAT II
Burden	AXIAL, Voltage Rating VAC:250V; Fuse Current:200mA; Breaking Capacity:10kA
External Fuse Rating	@ 125VAC; Fuse Size:5mm x 20mm; Blow Characteristic: Slow Blow; Body Material: Glass

Parameter	Range
Display Resolution	2/3 Row, 6 digits (10mm height)
CT PT Ratio Max	2000 MVA Programmable
Protection Class	3
Humidity	5% to 95% non condensing
Pollution Degree	2 (As per IEC 61010)
Altitude	Below 2000 mts
Insulation	Double Insulation (As per IEC 61010-1)
Ingress Protection	IP 51 As per IEC 60529
Operating Temperature	-10^{O}C to + 55^{O}C (14^{O}F - 131^{O}F)
Storage Temperature	-25^{O}C to +70^{O}C (-13^{O}F - 158^{O}F)
Measurement Category	CAT III (As per IEC 61010)
Wire Gauge (connecting wires)	12-14 swg (2.6 to 2.0mm2) Factory wiring only. 2.5mm2 crimp terminals (U cut Lugs) with max strip length of 4mm. Insulated or Bare shall be used Torque 1N-m
Communication Baud rate Isolation	RS 485 serial channel connection Industry standard Modbus RTU protocol (RS232 optional) 2400 bps to 19200 bps (preferred 9600 bps) 2000 volts AC isolation for 1 minute between communication and other circuits.
Dimension Bezel	96 x 96 mm - Depth 55mm behind bezel
Panel Cutout	90^{+2}_{-0} X 90^{+2}_{-0} mm

TROUBLESHOOTING

Due to programming error, site conditions, some problems can cause the Meter malfunction. The fault symptoms and their remedial action for correction is given below.

1. If the display does not turn ON:

a) Check that there is at least 80 volts available to the power supply (L and N connections) on the Aux supply terminals. If the above steps do not solve the problem, Contact ElMeasure or your local ElMeasure representative and report the problem and results of the test.

2. If the voltage or current readings are incorrect:

a) Check that the Connection mode (star/delta) is properly programmed.

b) Check that the voltage and current ratios are properly set.

c) Check the output of the CT's and PT's being used.

3. If the kW or Power Factor readings are incorrect but voltage and current readings are correct:

a) Make sure that the phase relationship between voltage and current inputs are correct by comparing the wiring with the appropriate wiring diagram.

b) CT reversal can be observed by either seeing the phase wise kW. Negative kW is shown where the current polarity is reversed, need to be corrected. Model where kW information is not available, you may check Amps Phase angle.

4. If RS-485 communication does not work:

a) Check that the baud rate of the host computer/PLC is the same as Meter.

b) Check that the device ID of the meter are unique and should not replicate.

c) Check all communications wiring is complete.

d) Check that the number of data bits is set to 8, with one stop bit and even parity.

If the symptom persists after performing the specified steps, or if the symptom is not listed above, contact your local ElMeasure representative or the technical support / customer support department.

WARRANTY AND REGISTRATION

Every product of ElMeasure is warranted for 18 months from the date of invoice for the defects in materials and workmanship when products are used in normal specified conditions. The warranty is void to the product which has been damaged due to improper installation, improper handling, improper connections, neglect, misuse, accident, and abnormal conditions of operation and natural calamities or acts of god. Any attempt of dismantling and unauthorized repair or modifications shall also render the warranty null & void.

1. Failure of products during warranty In India

Customer shall report the failure to the nearest ElMeasure contact point or dealer at the earliest once noticed. ElMeasure shall replace the product failed due to workmanship or defects in materials against receipt of failed product. Burnt, blown, damaged products are not covered under warranty and hence no replacements shall be given.

In the event of product un-available for replacement at ElMeasure or dealer, same shall be arranged at the earliest. Replacement of product is solely at the discretion of dealer or the ElMeasure representative who receive the failed product.

ElMeasure SE may on a case to case basis, recommend for the advance replacement of product mentioning the reasons and justifications for doing so. Sales Manager shall approve advance replacement in genuine cases. The defective product shall be collected and sent to ElMeasure factory within 30 calendar days. Non compliance shall result in debiting cost of the product to the Customer.

Burnt, abused, damaged products shall be forwarded to ElMeasure's Service Center at Bangalore for investigation, transportation pre-paid. Upon investigation, If found the rectification is possible, an estimation for servicing is sent to the customer. Rectification shall be done on receipt of approval for the charges with advance payment only.

2. Failure of products outside warranty In India

The defective products shall be forwarded to ElMeasure Service Center at Bangalore for rectification, transportation pre-paid. Upon investigation, estimation for servicing is sent to the customer. Rectification shall be done on receipt of approval for the charges with advance payment only.

ElMeasure, as a policy, do not provide replacement for the products outside warranty.

For Distributor / Dealer's use only

Seal

Invoice No.: Date:

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A group of ElMeasure India Private Limited

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