INFOLLIANCE
INNOVATIVE ENERGY MANAGEMENT

No 6- 1F, Jalan AU 1A/4A, Taman Keramat Permai, 54200 Kuala Lumpur, Malaysia
Phone: + 603 4252 1501 Fax: + 603 4253 1502
E-mail: contact@infolliance.com Web: www.infolliance.com

PROGRAMMING GUIDE FOR iM SERIES

1. UNIQUE FEATURES

- STAR (Wye)/ Delta / Single Phase Programmable.
- Universal Auxiliary (80 - 300V AC/DC) supply.
- PT ratio / CT ratio programmable
- "OLD" Register for storing Cleared Energy.
- User configurable (Editable) password
- Universal Voltage Input (80 - 550 VAC) and Current Secondary (5A-1A)
- Compact size and light Weight.

2. WIRING DIAGRAM

Fig 1- 4 Wire Star (Wye)- 3 Element Direct Connection

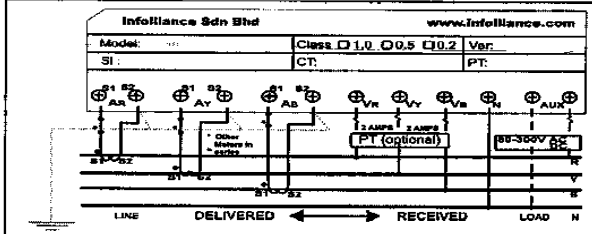
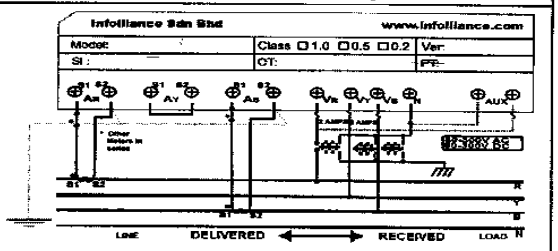


Fig 2– Three Wire Delta Systems



3. KEY FUNCTIONS

Key	In SET (Programming) mode	In Measurement mode
Right ▶	To select the value and to accept the value	No action
Down ▼	To edit the value/system type down-ward in edit mode and scroll through the parameters.	To scroll down the pages to look at different parameters

4. ENTERING CONFIGURATION (SETUP) MODE

To configure the setup parameters in iM series of meters through front panel keys, the following steps can be followed.

Step	Actions	Display Reads	Range/Options / comments
1.	Press RIGHT and DOWN keys together to enter the setup	CLr.SEt (setup/clear)	Press RIGHT and DOWN keys together
2.	Press DOWN key	0000 PS (Password) with first digit "0" blinking.	
3.	Press DOWN key in order to increment first digit to "1".	PASSWORD = 1000 (default/factory set).	0000 the corresponding digit blinks
4.	Press RIGHT key four times to accept the password.	CLr I	This option is to clear the energy press right key to clear ,Press down key to enter SETUP
5.	Press DOWN key to go to next page.	StAr. EL	StAr means STAR system. Meter would display the last set up value/ system.
6.	Press RIGHT key to select other option	"StAr. El" blinking. Now other options can be chosen.	Options : StAr (Star/Wye), dELt (Delta) /1.ph (Single Phase)
7.	Press DOWN key to change the system type	StAr / dELt /1.ph	
8.	Press RIGHT key to memorize the system type required.	Blinking stops. Displays steady system type.	
9.	Press DOWN key to go to next page.	xxxxP.P. (415.0 default setup)	Indicates the value in first four digits & PT primary in last two digits. Programmable range : 100V to 99kV
10.	RIGHT key to edit the value	Editable digit blinks.	
11.	Press DOWN key to select the required value.	Changed digit blinks.	
12.	Press RIGHT key to accept the changed value.	Blinking digit stabilizes.	Follow the same procedure to set the rest digits.
13.	Press DOWN keys	Decimal point blinks	Set Kilo, while setting decimal point. Eg : To set 11.00kV., Set first 4 digits (1100) as explained above. Keep pressing DOWN key to place Decimal point at appropriate location

			while Kilo LED should also come ON.
14.	Press RIGHT key to accept set the value	415.0V	
15.	Press Down key to go to next parameter.	xxxxP.S (415.0 default setup)	PT secondary. Follow the procedure as explained in Sl. No. 9 to 11 to edit. Range : 50V to 550V
16.	Press Down key to go to next parameter.	xxxxC.P (5.000 default setup)	CT primary. Follow the procedure as explained in Sl. No. 9 to 11 to edit. Range : 1A to 50kA
17.	Press Down key to go to next parameter.	xxxxC.S (5.000 default setup)	CT secondary. Follow the procedure as explained in Sl. No. 9 to 11 to edit. Range : 1A -6A
18.	Press Down key to go to next parameter.	no r.L	Reverse lock (blocks proportionate energy accumulation in case the CT polarity reverse Option : no (NO)/YES (default NO) Applicable for all meters accept LG 1100
19.	Press Down key to go to the next parameter.	ArthUA (Method of VA measurement).	Arithmetic (Arth)/ Vector harmonics (UEC.H)/ Vector (Uctr) can be selected using DOWN keys. Applicable for all meters accept LG 1100
20.	Press Down key to go to the next parameter.	xxxx.bA (9600- default setup)	Defines the baud rate. Option : 600, 1200, 2400, 4800, 9600, 19.20k (Communication speed)
21.	Press Down key to go to the next parameter.	EUEnPr (Even Parity).	EUEn (even)/odd (odd)/no (no parity) (Internal communication error check)
22.	Press Down key to go to the next parameter.	1.000dU	Defines the (ID) communications identification number. Option: 1-247
23.	Press Down key to go to the next parameter.	----PS.	Password user definable. **Caution :** If password other than the default is set, then Memorize it. Meter will reject programming if tried with wrong passwords. In such case meter need to be reset & recalibrated at factory only.
24.	Press Down key to go to the next parameter.	SAVE Y - Follow the procedure as explained in Sl. No. 9 to 11 to edit.	To save the setting made. Option : Y (YES) / n (NO)
25.	Press RIGHT key to memorize/store the changes done.	Display returns to run mode.	If "n"(no) is selected then Meter enters into RUN mode without secondary affecting any edited Values in the setup.

Once the required parameter is programmed press the down key continuously up to it reaches SAVE page to reach , SAVE page directly.

5. CLEARING THE INTEGRATOR (Applicable for Meter, that measure Energy)

To Clear parameters of the iM series from the front panel, Press RIGHT and DOWN Keys together, and CLr.SET is displayed and press RIGHT Key again 'CLr' (Clear) is shown on the display. Enter the Password (default password is 1000 Setup and Clear have the same password) and it will display. "CLr.I" (clear integrator). Press right key and meter will prompt to YES or No. Press DOWN key for changing Yes or No and Press RIGHT key to do the operation. The cleared value is transferred to OLD register for future references. Performing the clear operation twice will clear the data in OLD register also

6. Enabling and disabling of Auto scrolling

Enabling auto scrolling: Press Down key continuously for 5 seconds or until display shows **EnbL.Au** for scrolling.

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

7. LED INDICATIONS

LED status	Meaning
'KILO' ON	Kilo
'MEGA' ON	Mega
'KILO' & 'MEGA' ON	Giga
'KILO' & 'MEGA' OFF	Direct reading
'OLD'	Last cleared Energy

Note : Meter gives the indication of reversal of CT polarity, but do not affect the energy accumulation.

8. DISPLAY OF PARAMETERS

LL	Voltage line to line	A	Current Average
rY	Voltage RY Phase	Ar	Current R Phase
Yb	Voltage YB Phase	AY	Current Y Phase
br	Voltage BR Phase	Ab	Current B Phase
Ln	Voltage line to Neutral	Wt	Watts Total
Ur	Voltage R to Neutral	Wr	Watts R Phase
UY	Voltage Y to Neutral	WY	Watts Y Phase
Ub	Voltage B to Neutral	Wb	Watts B Phase
CLr	CLEAR	F	FREQUENCY

" Wh" is displayed with six digit resolution; no parameter name will be displayed.

Power Factor (PF) Optional: "of" – R Phase PF (similarly Y and b represents Y & B phase respectively.)