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Operational Manual

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Wireless SCADA

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Note: This manual is under continuous updation. So be in touch to get/download the latest version on weekly basis.

Vocabulary

CEA – Client End Application
GPRS – General Packet Radio System
GSM – Global System of Mobile Communication
PF – Power Factor
SCADA – Supervisory Control & Data Acquisition
Unit – Wireless SCAD or Remote Data Logger or Wireless Data Logger
VTC – Vehicle Tracking System

Models

Three models of Wireless SCADA are available:

SB-Smart: This GPRS/GSM enabled Wireless SCADA system is having all the features such as energy monitoring, 8 nos. x sensor connectivity (4 Analogue & 4 Digital), 4 nos. x relay functions.

SB-Sensor: This GPRS/GSM enabled Wireless SCADA system has 8 nos. x sensor connectivity (4 Analogue & 4 Digital) facility so it can be used for remote data acquisition & has 4 nos. x relays only.

SB-Energy: This GPRS/GSM enabled Wireless SCADA system has only Energy parameter monitoring facility so can be used for remote energy monitoring & auditing. It can be used with any rating HT/LT electrical system.

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TECHNICAL SPECIFICATIONS

S. No.	Specifications	SB-Smart	SB-Sensor	SB-Energy
1	Supply Voltage	12VDC or 90 – 250 VAC, 50/60 Hz through SMPS	12VDC or 90 – 250 VAC, 50/60 Hz through SMPS	12VDC or 90 – 250 VAC, 50/60 Hz through SMPS
2	Consumption	Less than 750mA	Less than 750mA	Less than 750mA
3	Data Storage	On 2 GB Pen Drive	On 2 GB Pen Drive	On 2 GB Pen Drive
4	Phase	3 Phase & Neutral	N/A	3 Phase & Neutral
5	Current Sensing	Through Sensing CTs	N/A	Through Sensing CTs
6	Analogue Input	4 nos. (0-5V or 4-20mA)	4 nos. (0-5V or 4-20mA)	N/A
7	Digital Input	4 nos.	4 nos.	N/A
8	DAC	N/A	N/A	N/A
9	Relays	4 nos.	4 nos.	N/A
10	Relay Rating	@5 Amps	@5 Amps	N/A
11	Relay Contact	1 NO each	1 No each	N/A
12	Max. Sensor Inputs	8 nos.	8 nos.	N/A
13	LCD Display	128 x 64 Pixel resolution, mono graphic LCD	128 x 64 Pixel resolution, mono graphic LCD	128 x 64 Pixel resolution, mono graphic LCD
14	Operating Temperature	5 to 55 deg C	5 to 55 deg C	5 to 55 deg C
15	Storage Temperature	-25 to +75 deg C	-25 to +75 deg C	-25 to +75 deg C
16	Humidity	20 to 80% RH (non-condensing)	20 to 80% RH (non-condensing)	20 to 80% RH (non-condensing)
17	Enclosure Size	230 mm (L) x 125mm (B) x 100mm(H)	230 mm (L) x 125mm (B) x 100mm(H)	230 mm (L) x 125mm (B) x 100mm(H)
18	Weight	0.950 kg	0.950 kg	0.950 kg

FEATURES

The Wireless SCADA has following features:

1. **Monitor Electrical Parameters:** You can monitor electrical parameters of a system. The electrical parameters you can monitor are – Frequency, Line & Phase Voltage, Phase Current, PF, KW, KWH, KVA, KVAH. So the unit is best suited for remote energy monitoring & auditing.
2. **Monitor Mechanical Parameters:** You can monitor a number of mechanical parameters (analogue & digital) such as temperature, humidity, vibration, wind velocity, pressure, flow rate etc., by connecting their respective sensor with the unit. You can connect any analogue sensor with 0 – 5 V or 4 - 20 mA output with the Wireless SCADA and this data is displayed locally on its LCD display as well can be sent to a remote location through GPRS/GSM network (conditions apply). Counter pulse, reed switch, magnetic switch, tilt switch can also be connected to Wireless SCADA.
3. **Remote Switching:** You can do remote switching of machine from your laptop/PC of even from your mobile phone.
4. **Data Capture through RS-232**: You can capture data from any device with RS-232 port into the Wireless SCADA and this data can be transmitted to a remote control room. (On request and additional charges apply)

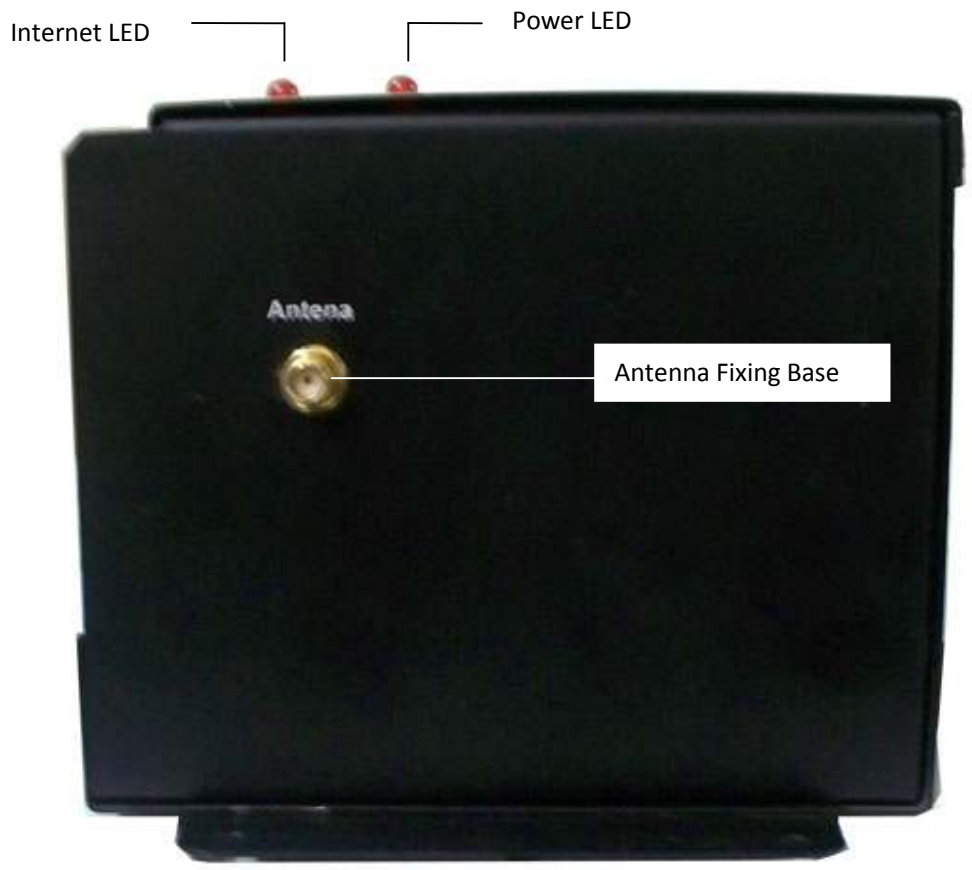
Applications

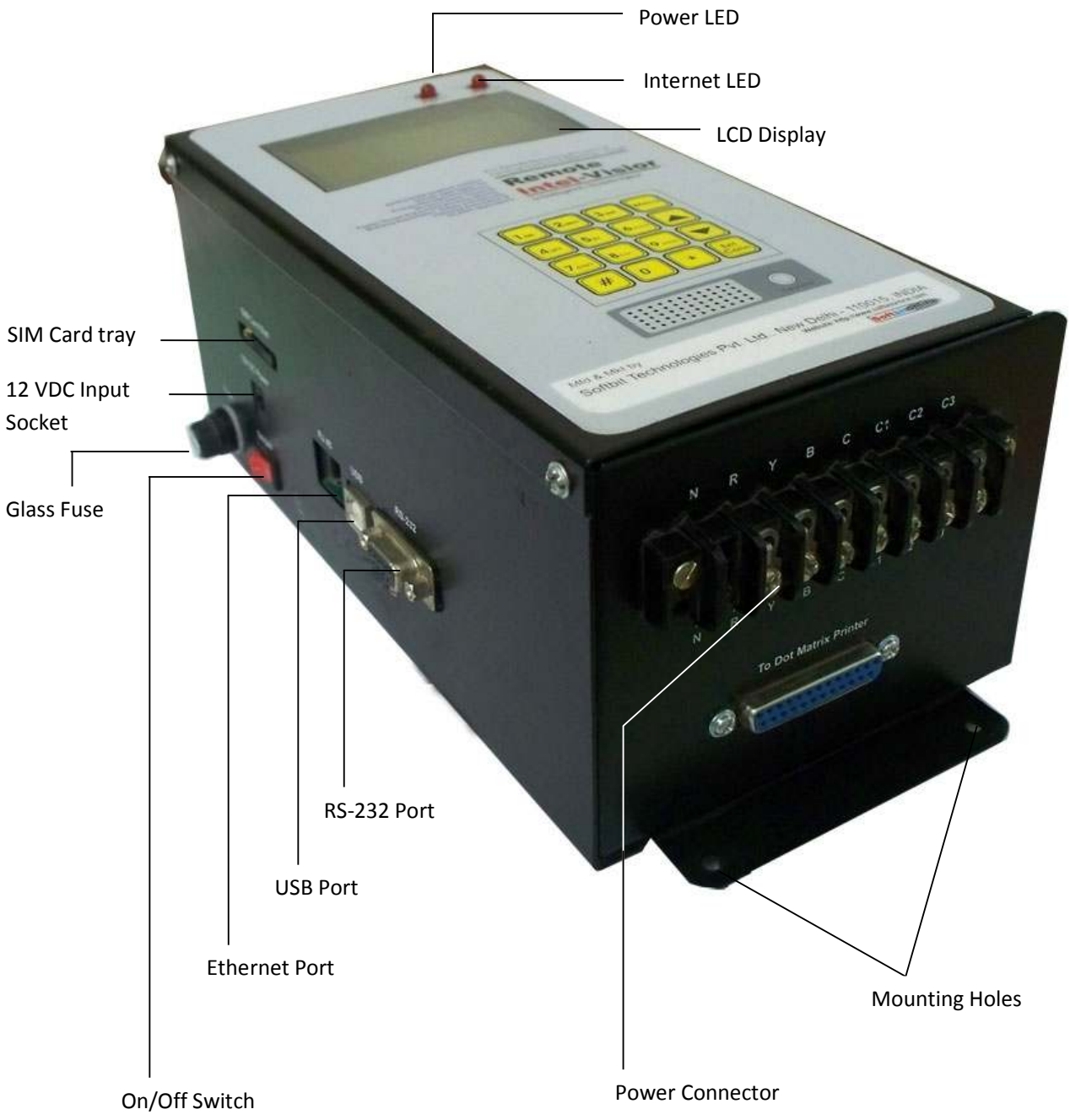
Wireless SCADA is a multiple application device which has applications in every industry & commercial establishment for industrial, process automation and building management system and building management system. To name a few application are:

- Pumping Stations – Clear Water, Sewage & Irrigation
- Electricity Generation, Distribution & Utility
- Chemical Industry
- Military and Defence
- Medical Sector
- Meteorological Applications
- Mining & Extraction Industry
- Oil, Gas and Petroleum Industry
- Any Manufacturing and Process Industry
- Survey Labs for Critical Data Collection & Analysis
- R & D Departments
- Engineering College Labs
- Remote Monitoring & Switching of Electrical System/Machines
- Monitoring of Refrigerated Vans and Cold Storage
- Building Automation & Management
- Building Security & Safety
- Remote Time Management Machine Monitoring
- Remote Monitoring of Cash Counters
- Remote Monitoring of batching plants, weighing machines, conveyor belts, vending machines, Food & Beverages Machines

Main Parts

a) *LCD Display:* 128 x 64 Pixel resolution mono graphic LCD.
b) *Power LED:* Glows to indicate the power input to unit.
c) *Internet LED:* Glows to indicate the internet connectivity. Fast flashing means no connectivity & slow flashing means unit is connected to internet and sending data to the central server.
d) *GPRS Antenna:* To send and receive modem signals to & from air.
e) *Fuse:* 1 Amp protection glass fuse.
f) *On/Off Switch:* To switch on and switch off the unit.
g) *DC input socket:* To give 12VDC input from SMPS to the unit.
h) *SIM card tray/ slot:* For placing/connecting a GPRS/GSM/VTS enabled data card in the unit.
i) *Ethernet Port:* For broadband connectivity.
j) *USB port:* For connecting a "Pen Drive" for data storage.
k) *RS-232 port:* For connecting to a PC in case local level configuration is required.
l) *Power connector strip:* For giving three phase & neutral input to unit & connecting micro CTs. This power connector is only used if the unit is being used for energy monitoring/auditing.
m) *Auxiliary connectors:* A pair of two connectors, total 12 pairs. 8 pairs for sensors inputs & 4 pairs for relay outputs @ 2 Amps each.




Power LED
Internet LED
LCD Display
SIM Card tray
12 VDC Input Socket
Glass Fuse
RS-232 Port
USB Port
Ethernet Port
On/Off Switch
Power Connector
Mounting Holes
To Dot Matrix Printer

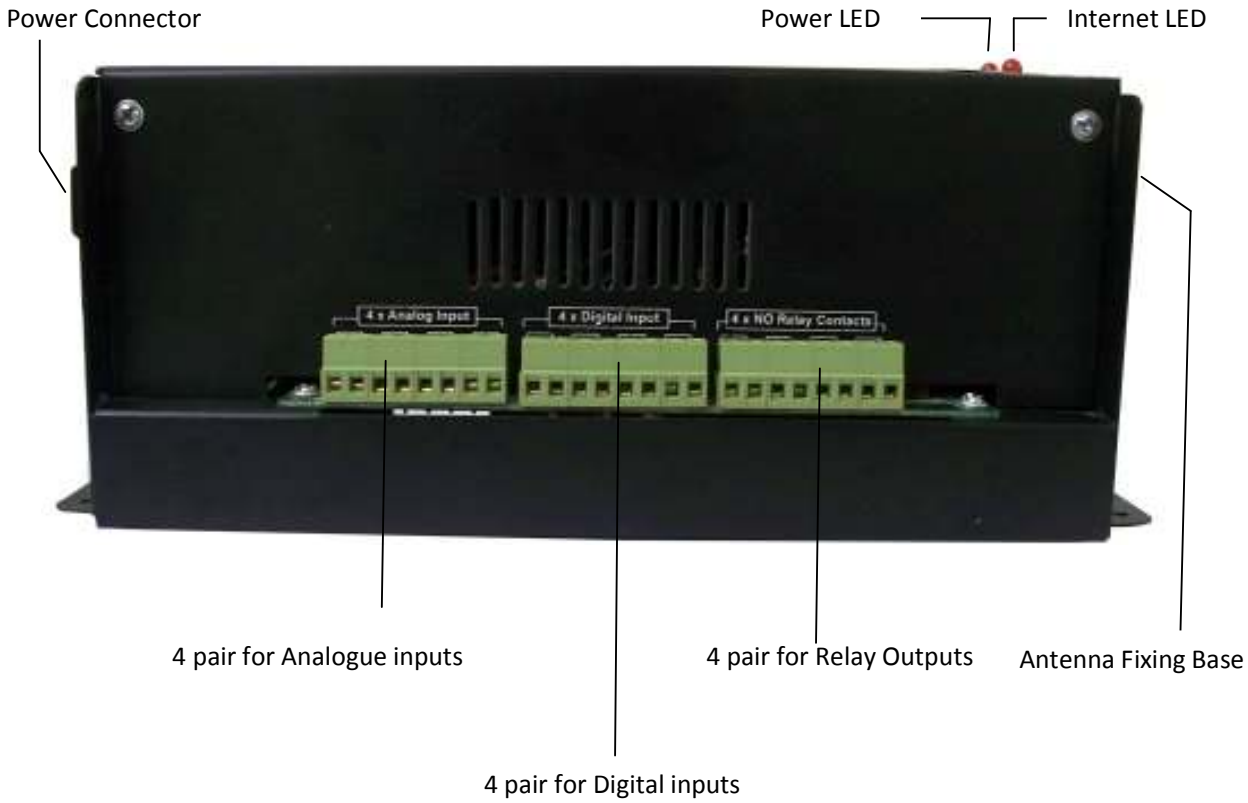


Fig.: xxxx Auxiliary Connectors

Accessories

1. Wireless SCADA unit..... 1 no.
2. 12 VDC SMPC power supply..... 1 no.
3. GPRS enabled antenna..... 1 no.
4. Data Cable (RS-232)..... 1 no.
5. Micro Current Sensing CTs.....3 nos.

3 nos. Micro CTs

RS-232 Data Cable

12 VDC SMPS Adapter

GPRS Antenna

INSTALLATION & COMMISSIONING

- Unpack the unit
- Place the unit on the wall or inside the panel near the machine which is to be connected with the Wireless SCADA for remote monitoring & control.
- Fix the unit by making holes & with the help of steel screws as shown in fig.: 01.
- Connect the GPRS antenna on the top & place it on the top of the unit. Its base is magnetic so it sticks to the unit top firmly.
- Insert a GPRS/VTS enabled data card in the slot on the left hand side of the unit. It is must if you are using the data logger (Wireless SCADA) for remote monitoring & control.

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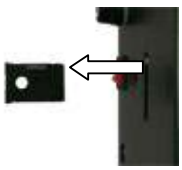
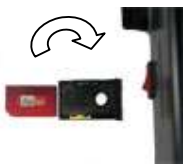
How to insert the GPRS/VTS Data Card

Press yellow pointer with a ball pin to take out the SIM tray

Remove the tray swiftly, place the SIM in the tray & slide back the tray in the slot with a soft push.



SIM tray outside the slot



SIM card with tray outside the slot

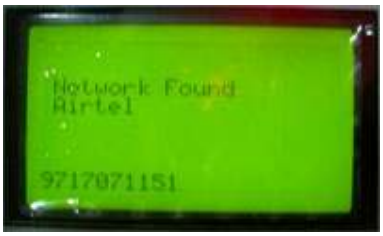
SIM card inside the tray

Face down the SIM within the tray and softly insert in the slot. Press gently to fix back.

Start the Unit:

- Connect the 12 VDC supply to the unit. On the other end, plug the SMPS power supply to a 230VAC / 110VAC, 50/60 Hz supply.
- Switch on the unit by pressing a red switch provided on the left hand side of the unit.
- As soon as power to the unit is switched on the power LED and the internet LED glows. The blinking rate of the internet LED is very fast until the unit is not connected to the mobile GPRS/GSM network.
- The LCD display starts showing all the functions being performed by the unit for self-check.

- In the beginning the unit searches available network and its signal strength.



- Generally the unit searches for the signals of the service provider whose SIM card (data card) has been used in the unit. For example, if you have inserted an **AirTel** SIM card then the unit will search for the availability of AirTel signals. Once the signals

are detected it will show on the LCD screen top as **AirTel** and its strength level on the left of **AirTel.**

- Now the unit does the remaining checks for different functions like Modem, Analogue, Digital & energy card etc. If any of the functions are not working the self check will show it on the screen.

- Now unit establishes a contact with the remote server through its modem. Once the connection is established it shows a cross (X) mark on the right side of the **AirTel.**
- Once all the self-checks are performed and found OK and connectivity to remote server is established, the unit starts sending data strings to remote server via mobile network towers.


Analog Sensor
ANVAL1 0.00
ANVAL2 0.00
ANVAL3 0.00
ANVAL4 0.00
Send ID OK!


Counter
INP1 0.00
INP2 0.00
INP3 0.00
INP4 0.00
Send Conf OK!


Relay Output
Relay 1 OFF
Relay 2 OFF
Relay 3 OFF
Relay 4 OFF
Send Conf OK!


R Phase
U=210.17 I=3.48
PF = 0.99 F=49.15
KW=0.72 KWH=16.35
KVA=0.73 KVAH=17.12
Send OK!

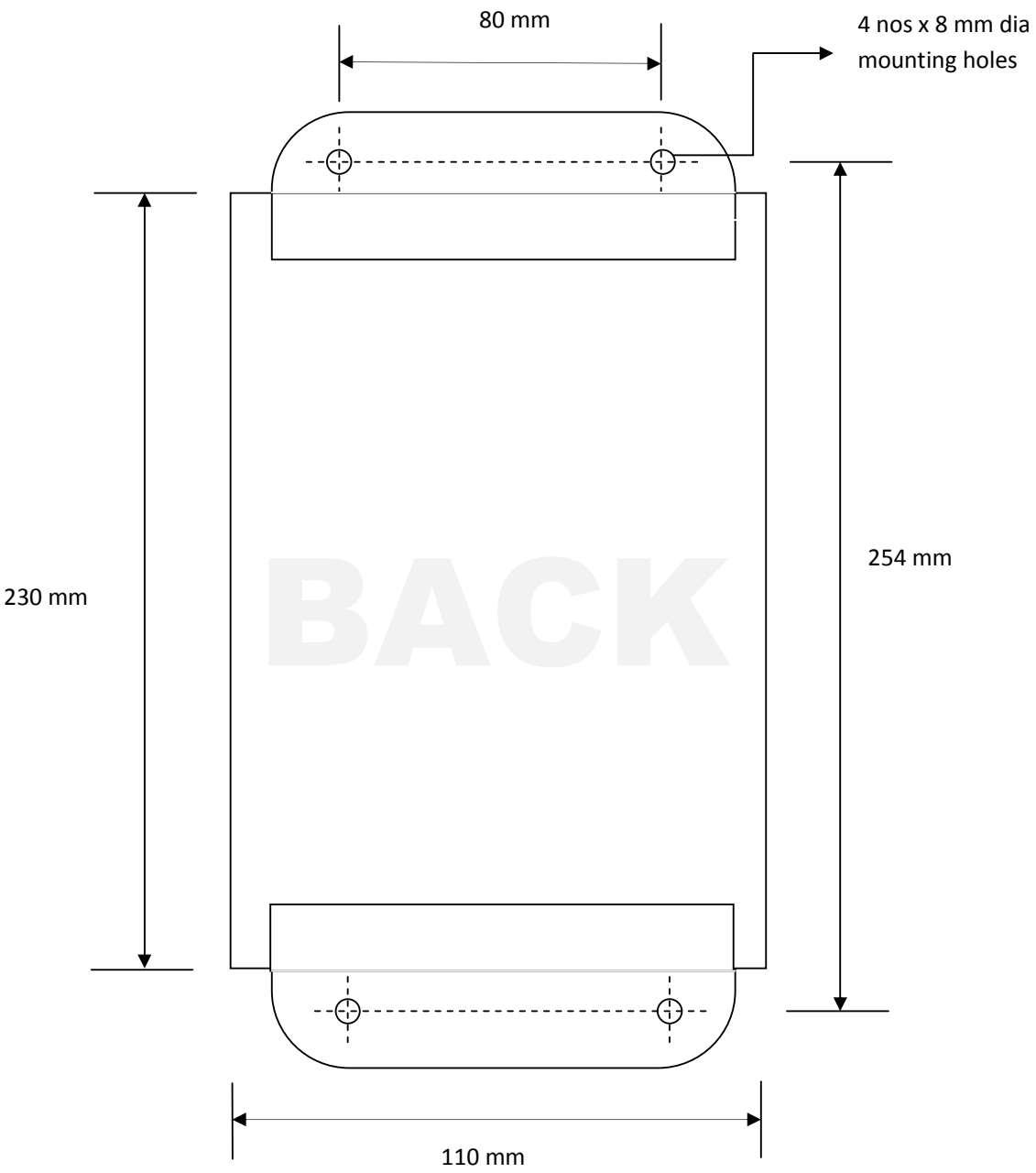


Fig.: 01

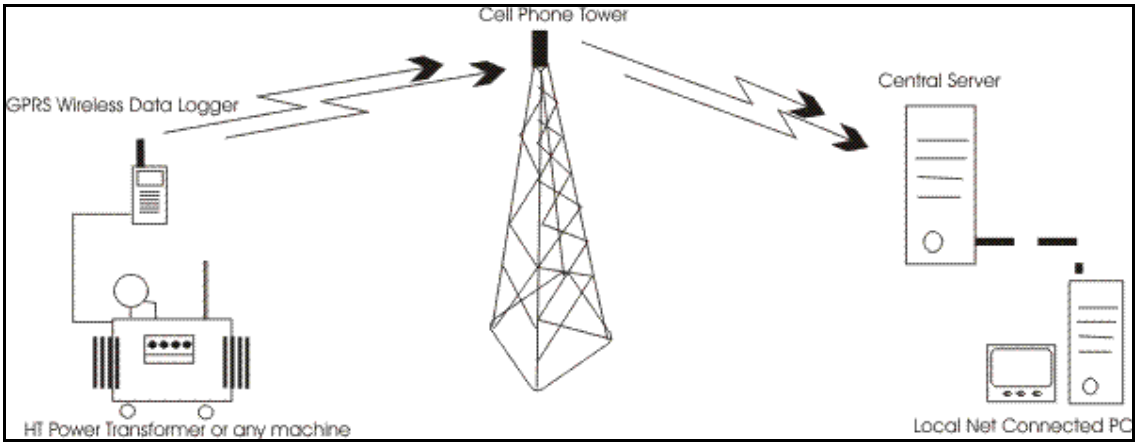
Multi-Option Internet Connectivity:

The unit (Wireless SCADA) can be connected to internet through:

1. GPRS/GSM/VTS enabled SIM card
2. Ethernet (Broadband connection via RJ-45) (On request & additional charges)

Working

Working of Wireless SCADA:



Wireless SCADA System

Client End Application (CEA) Software

The CEA is required to monitor & control your remotely installed machines. This is a free application and can be downloaded from our website http://www.softbitonline.com .

Configuration

If you are using the data logger for the first time then you need to configure it first before you can put it to use.

The configuration can be done:

- On Local Level
- From Remote

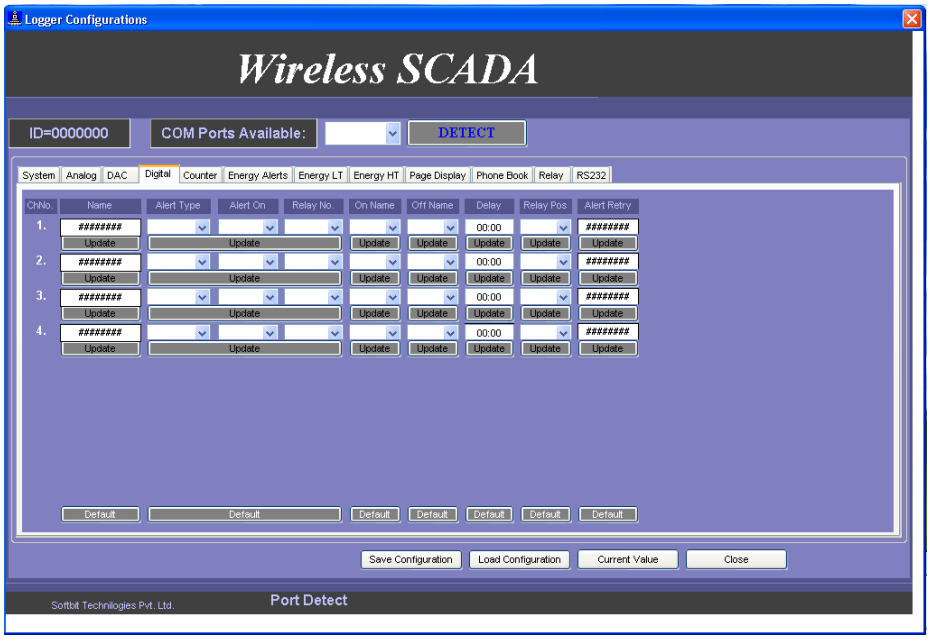
Local Level Configuration:
Local level configuration is required to enter or change the **APN number** of GPRS enabled SIM card. Every mobile operator has a different APN number. So while buying a new GPRS enabled SIM card please ask the operator about its APN no.

Follow the following instructions:

- Install the Client End Application (CEA) on a PC. CEA software can be downloaded from http://www.softbitonline.com/datalogger.html . Its a free SCADA software.
- Connect the unit (Wireless SCADA) through RS-232 data cable to the PC. A RS232 to USB converter can be used if you want to connect the data logger with your laptop for local configuration.
- Connect the unit to power supply through 12VDC SMPS power supply.
- Switch on the unit and let it initialize fully after the self-test.
- Now run the CEA by clicking upon the following icon on your desktop.

- Select the “Local” mode and click “OK”

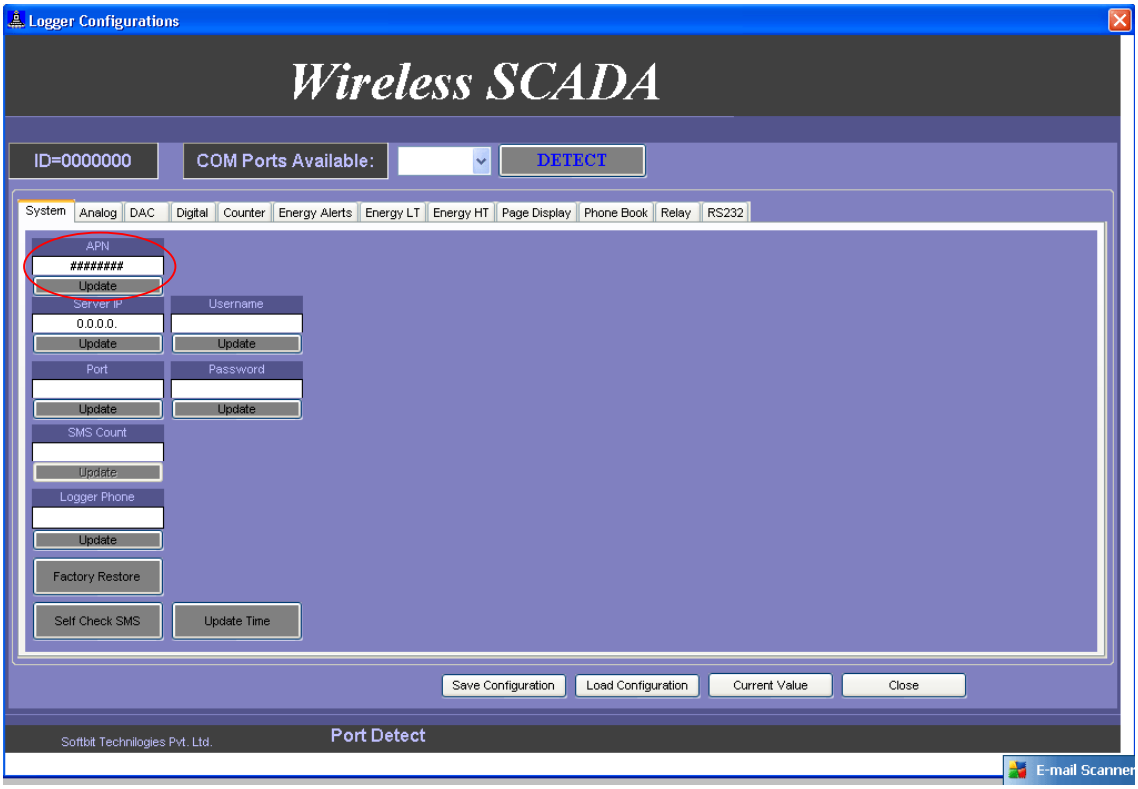
- You see the following interface on your screen



- Select a com-port from the drop down menu & press the “Detect” button to connect the data logger with.
- If the connectivity if proper you must get the ID of the data logger on the screen. If you do not get the ID then change the comport number and press the “Detect” button again. Try with all available com-ports in the drop down menu till you do

not see the data logger ID on the screen. Its must to change and store the APN number in the data logger.

- Finally if you get the logger ID it means you data logger is connected with the PC properly and can communicate with the PC
- Click upon “System” tab
- Enter the APN number of the mobile service operator in the left top text box.



Suppose you are using an Air Tel (A mobile Service Provider in India) SIM card. Its APN number is **airtelgprs.com**. So enter **airtelgprs.com** in the red encircled text box and press “**Update**” button.

*Always press the “**Update**” button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Likewise you can change the APN number of other service providers also. Now close the application, disconnect the data logger from the computer, remove RS232 cable. Switch off the power supply.

Insert the SIM card in the data logger as explained above. (**SIM card must be inserted after switching off the data logger. It’s a must condition. Else your SIM card may get damaged**.)

Switch on the power to data logger & wait for it to initialise and get ready for use.

If you see signal bars in top left, Service Provider name in the top middle of screen (LCD) and a cross sign on top right of the screen, it means you have entered & saved the right APN number in the data logger and its ready for use.

But remember you still have to set it and configure it for acquiring various values depending upon the sensors you connect, SMS alerts are still to be configured, relay activation is still to be set. All this can also be done from local level or you can do it remotely also after installing the logger.

Remote Configuration:

- To configure the data logger from remote location (control room) using CEA (Client End Application) run the CEA again.
- Now select "Remote" and then enter your login details (email ID as "Username" & password. Press "OK"
- Select any data logger from the left column and press "Connect" at top left.
- You need to go to the "Private" mode.
  Go to Menu bar
  Click "View"
  Select"Private:

  In the "Private" mode you see only data loggers which are registered and linked with your account only. In case you do not find any data logger in the list, check the following points:
  a) You have not purchased any data logger from Softbitonline so far. So you need to purchase a data logger to get it registered and linked with your account.
  b) You have purchased a data logger but it has not been activated and linked to your account by Softbitonline. In such a case contact support@softbitonline.com
  c) Your data logger activation time period has expired. Contact Softbitonline at support@softbitonline.com to reset the time period. Check if there is no any due towards you on account of annual server charges or SIM card charges.

- If you already have purchased a data logger from Softbitonline it will be displayed in the left hand side list of "Active Data Loggers". You can buy and get linked as many

data loggers as you need with a single online account. Click upon the data logger which you see in the list and which you want to configure from remote using your existing PC/laptop. Your PC/laptop must remain connected to internet as long as you are communicating with the remote data logger through CEA application.

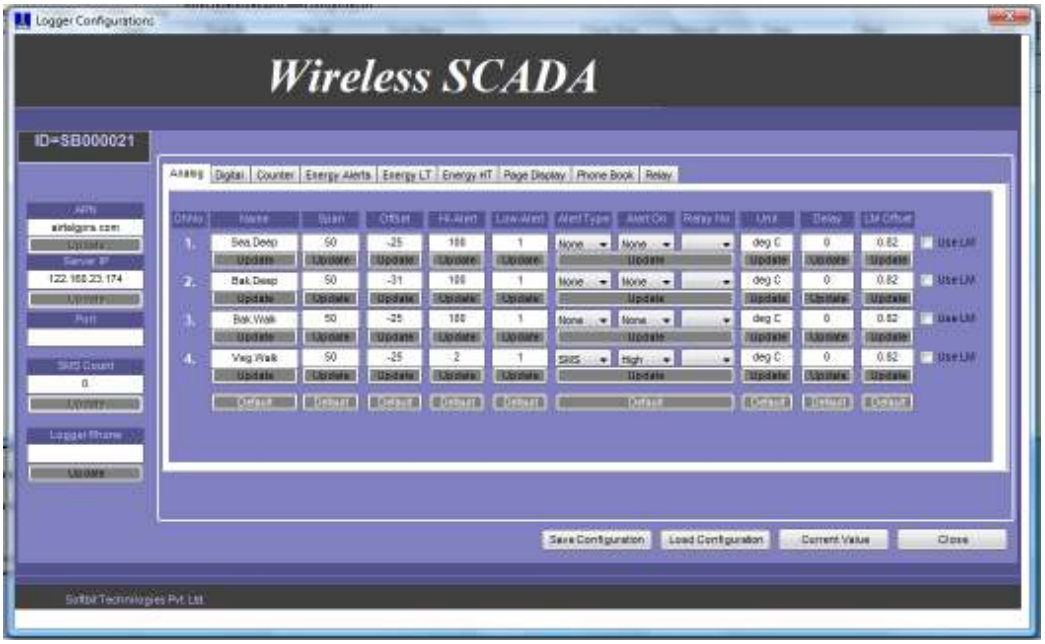
- For remote configuration now go to menu bar and click “Tool” & then click “Logger Setup”. You see the following interface:

- On the left side column it displays the remote data logger ID as “ID=SB000061”, APN of the service provider such as AirTel, Vodafone, Reliance, Tata, Idea and so..., Server IP, Port no., SMS count, Logger phone.
  On Right side of the screen there are tabs named as **Analogue, Digital, Counter, Energy Alerts, Energy LT, Energy HT, Page Display, Phone Book** and **Relay**.

Description of Tabs:

Analogue Tab: When we connect analogue inputs from analogue sensors such as temperature sensor, humidity sensor, pressure sensor, vibration sensor, noise sensor, level sensor, soil sensor, wind velocity sensor, rain sensor, these sensors give 0 – 5 VDC or 4 – 20 mA input to data logger. This input has to be calibrated to display exact value of the parameter. So this page gives you the facility to configure the

analogue input to display exact actual value of the parameter.



Under this tab you can specify a name to a analogue input in the “Name” column. Under the “Span” column you can set the range of the analogue sensor. Example: Suppose you connect a temperature sensor say, PT100 to the data logger (through a converter circuit only) to record the temperature of Deep Freezer installed in a 5 Star Hotel. The variation of temperature in that deep freezer is from -25 deg C to +25 deg C. So the span of reading is 50. Next comes, the “Offset”. This is the value which is to be added or subtracted from the “Span” to get the final value.

SMS Alert and Relay Activation:

“Hi-Alert” & “Low-Alert”: Now if you want a High or Low alert on a particular value (here temperature) then enter the values for “Hi-Alert” and “Low-Alert” in the respective text boxes.

“Alert Type”: This gives you the facility to select the alert type such as SMS alert or Relay activation or both (SMS and Relay).

“Alert On”: From this section you can select whether you want the alert activation (SMS and/or Relay) on “High” value or “Low” value or both (High & Low).

“Relay No”: If you have selected the “Alert Type” as relay also so which relay you want to assign with this alert. The relay which is assigned here with an alert gets automatically disabled for manual activation from main interface.

“Unit”: You can assign a unit to every parameter so that it is easy while monitoring the data to get clear picture of the data we are monitoring and what is its unit. For temperature you can type “deg C”, for humidity you can type “RH” and so...,

“Delay”: Here you can set the time in minutes after which an alert (SMS and/or Relay) would be activated and repeated on an Hi/Low abnormal value.

*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Digital Tab: When you connect a digital sensor such as reed switch, pulse sensor to the data logger, it sends pulses to the data logger. The data logger keeps on recording these pulses. And based upon these pulses we can display and send alerts as On/Off, Open/Close, True/False, Pass/Fail.
These alert names can be set from the columns "OFF Name" & "On Name"

Example: Suppose a digital sensor is connected with a Deep Freezer Door and we want to record how many times the freezer door is opened & closed and for how much time the door remain opened or closed. So we can install a magnetic sensor on the door and its output is connected to the digital input. From "On Name" you can select the value as "Open" so that when the door is open you can see on your screen as "Door Open". Similarly, from "Off Name" you can select the value as "Close" so that when the freezer door is close you can see on your screen as "Door Close". Here the "Door" is the name given to the digital sensor and entered in the first column "Name".
The log sheet which is automatically being prepared and saved by the data logger will display the time spans for which the freezer door remained open or closed. Also the log sheet shows the timings at which the door was closed or open. Similarly, you can use the digital sensor for any other such application.

*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Counter Tab: You want to measure the flow rate of water passing through a flow meter and that is fitted a pulse generator**.** Just connect the pulse output of the flow meter to the data logger and you start getting the readings**.**

You can set the name, pulse type, pulse rate, Hi/Low alert from the above interface.

*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Energy Alerts Tab: You can monitor electrical parameters of an electrical system such as DG set, Main Panel by using this remote data logger. This is best suited for energy auditors and power management engineers. Connect the unit with an electrical system as described above in section_____. Now configure the data logger to display exact values.
Click upon the "Energy Alerts" Tab. You get the following screen.

You can see the phase in the list box as R, Y, B. Select any of the phases. Below phase are displayed "Volts", Amps", "PF". So by selecting any of the phases you can set the Hi/Low alerts value for voltage, current and power factor.

Energy LT Tab: This tab is very important. Here you must set the CT ratio and the PT ratio. This facility makes this data logger workable with any rated electrical system.

How to set "CT-Ratio" – Suppose you have connected the data logger with an electrical system with connected load say, 390 Amps. Now this system is having three power CTs of ratio 800:5 each. Now you have to set a value in the text box labelled "CT-Ratio" to get the exact value of current passing through the load. Just divide 800 by 5 and you get 160. Now enter this value in the text box and press the button "Update" Had the power CT ration been 600:5 then. Enter 600/5 = 120 in the text box. Had it been 1000:5 then enter 1000/5= 200 and so on. This is the way how to get the value for "CT-Ratio".
Still if you get some wrong output values then use the corresponding text boxes such as "R Volt Offset", "R Amp Offset", R PF Offset".

Suppose the R phase voltage you measured with some other calibrated meter is say, 418 VAC and this data logger is showing the same as 422 VAC. The difference is 422 – 418 = 4 VDC. To get the output value as 418 just enter the "R Volt Offset" as -4 and press "Update" button. In case this data logger is showing the R phase voltage as 422 and other calibrated meter is showing the R phase voltage as 418 then you put +4 in the "R Phase Offset"

In the same way you can calibrate the data logger for other values such as Amps, PF etc., and for Y & B phase also.

*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

How to set "PT-Ratio": Suppose you have connected the data logger directly with 415 VAC system to monitor its electrical parameters without an intermediate PT. The PT-Ration in this case would be 1.
Suppose you want to connect the data logger to monitor an 11KV system. You cannot connect the data logger directly. You need an intermediate PT. Suppose the installed PT gives an output of 110 VAC and your want to display the voltage as 11000 VAC. Enter 11000/110 = 100 in the "PT-Ratio" text box.

Phase Fail Alert: Select the Ph. Fail Alert if you want to get phase failure alert on your Cell Phone. But your data logger must be enabled to send SMS and it must have credits to send SMS.

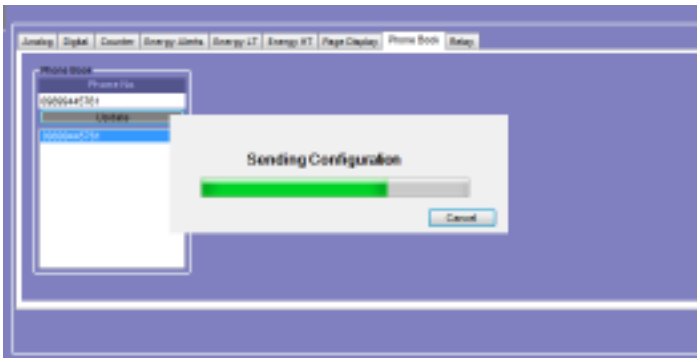
*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Page Display: Select the page you want that your data logger should show in rotation. In case any page is not important to you or that function is not enabled in the data logger itself so deselect the page.

Phone Book: If you want to get SMS Alerts then you need to store the mobile numbers of the persons to whom the SMSES are to be sent in case of an alert.

To enter a mobile number always prefix 0 (zero), i.e., 09899445761 .
Click below the “Update” button so that a selection is made. The blue highlighted portion below.

Enter the mobile number above the “Update” button. Prefix zero (0).



Press the update button to save the mobile number.
Follow the same procedure to save more numbers

*Always press the “**Update**” button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Relay: You can set the relay start and stop time to activate a relay for a particular operation.

*Always press the "**Update**" button below every set point to save this value in the remote data logger. If the values are not saved in the data logger then the alert system will not work.*

Monitoring & Control:

Monitoring:

Monitor Electrical Parameters:

If you want to use the unit for electrical parameter monitoring then connect three phase with neutral at the power connector and also connect the sensing CTs as shown below:

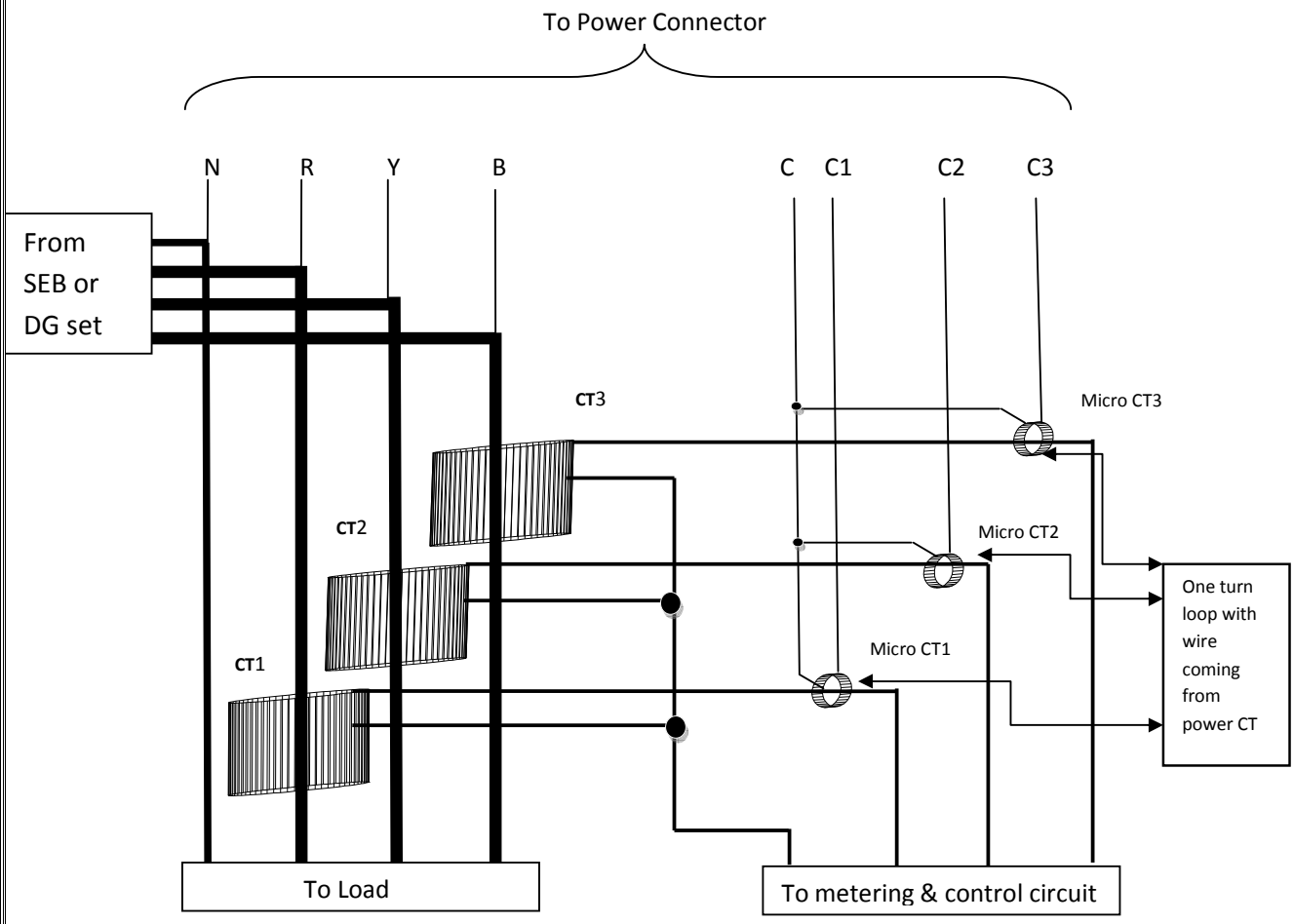


Fig.: 03

CT1, CT2 & CT3 are the power CTs of any ratio say 50:5 or 100:5 or 150:5 or 250:5 or 500:5 or 630:5 or 1000:5 or 2000:5 or 3000:5 or any intermediate ratio already fitted in the electrical system/panel.

Micro CT1, Micro CT2 & Micro CT3, are the micro current CTs supplied by **Softbitonline** with every Wireless SCADA unit. Make the connections as shown above in the Fig.: 02.

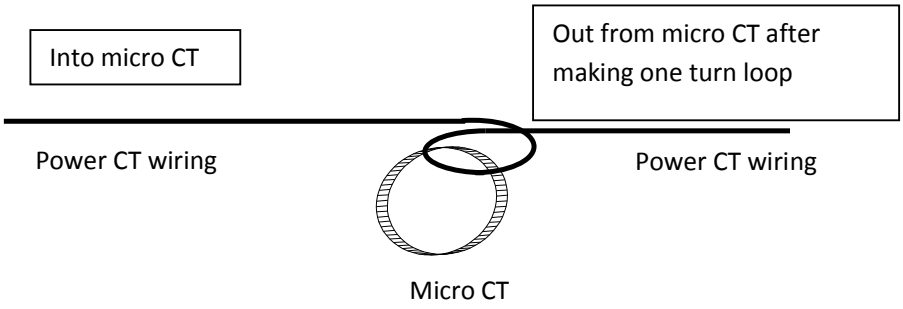


Fig.: 04

Important: *While passing the power CT wire from the micro CT, be sure to make one turn loop around the micro CT as shown above in Fig.: 03. It is must to measure & get right value of the current following through the system.*

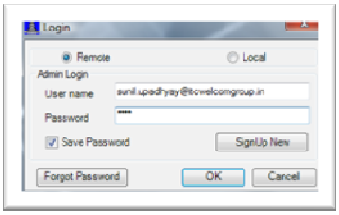
Care must be taken to connect R, Y and B phases at the respective terminals of the power connector. Also the micro CT placed in R-Phase must be connected at C1, Y-Phase CT must be connected at C2 and finally, the B-Phase CT must be connected at C3. If the sequence is not correct then the value of the PF will not be correct. So in case you find any problem with the PF value then first check the micro CT connections, if found wrong, correct them.

Real Time Online live monitoring: Now to monitor remote live data you must sign up an account with Softbitonline (Annual server charges applicable).

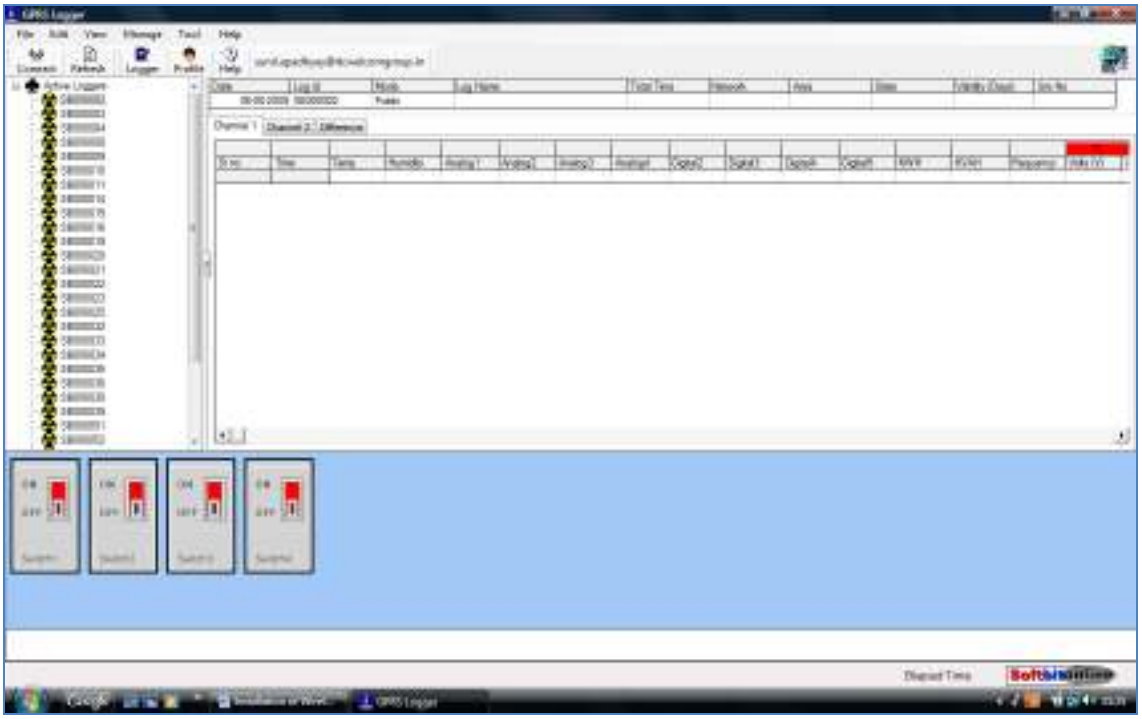
- To sign up, run the CEA and click upon the "SignUp New" button.
- A web form opens. Complete the form and press submit.
- After submitting, open your email account and verify your email ID by clicking upon the link you received in your inbox. Once the email has been verified, your account is

activated within 12 to 24 hours. Once your account is activated you get an email notification.

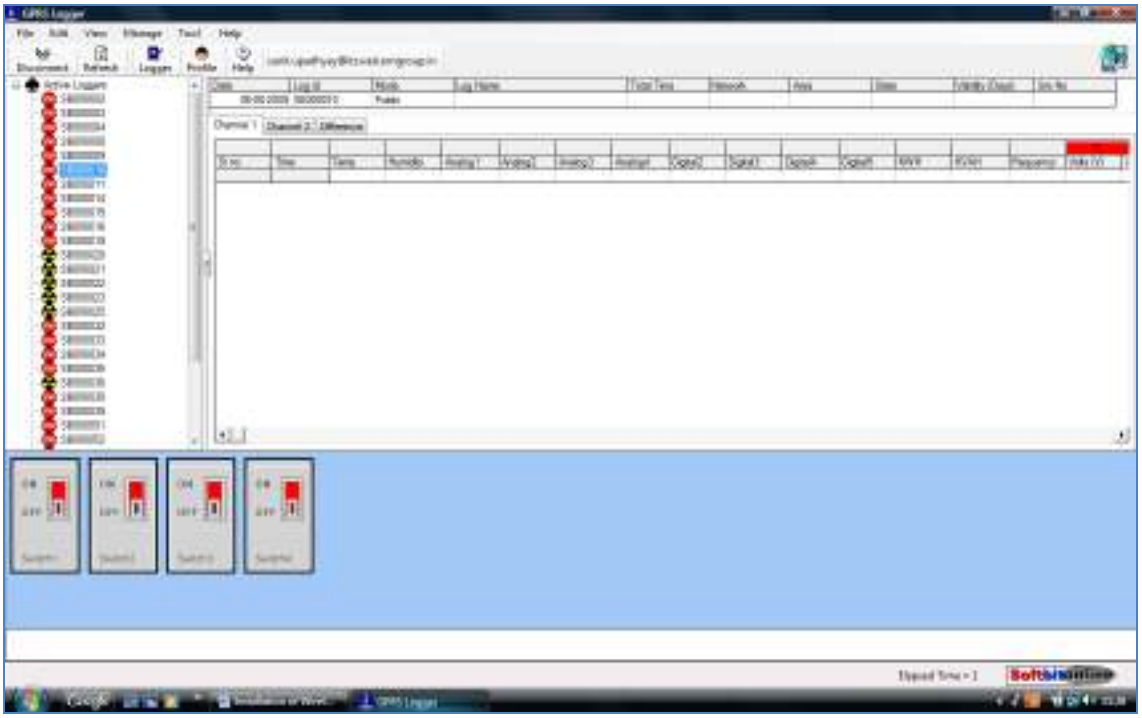
- Now run the CEA. Select the "Remote" mode and click "OK".



- You see the following interface on your screen. By default you are in the "Public" mode i.e. you see all the activated data loggers (Wireless SCADA) on the left hand side column of the software. But you can't have access about the client profile using a particular data logger (Wireless SCADA).



- Now select any of the data loggers from the Active Loggers list displayed on the left hand side and press "Connect".

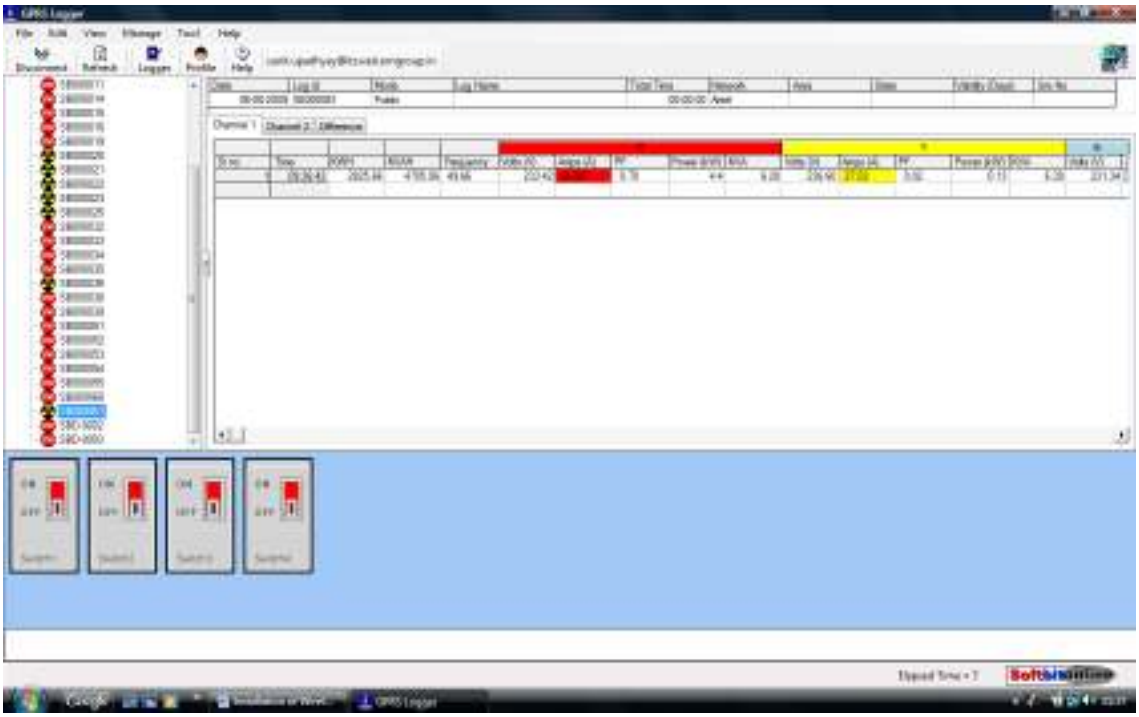


You see the red icons (stop) and yellow & black circled icons. Red icons mean the data loggers are registered in some client's name but are off or not working at present.

The yellow & black circled icons mean that these data loggers are working and connected with the server. You can monitor data of any of these connected data loggers from this application.

- To monitor data of any of the connected data logger, select any of the connected data loggers. At the right bottom near the Softbitonline logo a reverse counter starts from 60 in descanting order. Wait till it reaches the "1"

- You see the first record in the first row as shown below



Now data is being recorded and displayed every minutes and being added in the table record by record.

- To view all the columns (fields) of the table click the divider arrow(<) to hide the data logger list and you get the data of all the columns displayed as under

Monitor Mechanical Parameters:

How To Connect Sensors: You can connect any type analogue as well as digital sensors with the Wireless SCADA system.

Analogue Sensors: Any sensor that gives out 0 – 5 V or 4 – 20 mAmp output can be connected with our unit. The 0 – 5V sensor can be connected directly with the unit. But for connecting 4 – 20 mAmp Analogue Sensor you require a converter to be placed in between the sensor and the unit. Ask **Softbitonline** for such a converter.

DATA STORAGE

Apart from displaying the data on the local LCD the complete data can be stored on pen drive. A 2GB pen drive is recommended and it can store data up to one year. The data can be retrieved from CEA or the pen drive can be taken out and connected to a PC for downloading the saved files. The files are saved in *.txt format.

TROUBLE SHOOTING

The term “Unit” is to be referred as Data Logger or Wireless SCADA

S No.	Trouble Description	Remedy
1.	Unit Does not starts	1- (a): Check SMPS power supply and if defective replace it. Also check for any looseness at plug/socket. (b): If supply is through a battery then check battery status. 2- Check fuse 3- Check red switch 4- In case all above are found OK then contact Softbitonline/Sales Dealer
2.	Unit Starts but LCD display is not working properly. No display or half display or lines on the display.	1- Restart the unit else contact Softbitonline/Sales Dealer
3.	No signals on the LCD screen.	1- Check the antenna is fixed with the unit or not. Re-check for its tightness. It is must. 2- Check if the GPRS/VTS (Vehicle Tracking System) enabled SIM card is inserted, 3- If SIM card is already there in the slot check it should be inserted properly. 4- Check if the APN number of the SIM card (service provider is wrong). Correct it from configuration setup by running the CEA (Client End Application software). Though APN selection is automatic by the unit itself. 5- Unfold the antenna cable and place it away from the unit as far as the length of cable permits. Try placing it in all the directions. 6- Remove the unit from the existing

		location and place it at some distance from the existing location and check if the signals are available at new location. 7- Sometime the signals are not available in between for short durations so wait for some time for the signals to come back. 8- In case all above are found OK then contact Softbitonline/Sales Dealer
4.	Signals are received but unit does not connect to server	1- SIM card is not GPRS/VTS enabled. 2- APN not correct. 3- Server problem – Contact Softbitonline/Sales Dealer
5.	SMS are not being sent by the unit	1- SMS service is not activated on your unit. 2- SIM card is not activated for SMS 3- No SMS balance in the SIM card. Get it refilled from the SIM card dealer. 4- If all above are OK then check if the unit is configured for SMS form the CEA. If not, set it for sending the SMS for Hi/Low values. 5- In case all above are found OK then contact Softbitonline/Sales Dealer

Note: This manual is under continuous updation. So be in touch to get/download the latest version on weekly basis.

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