

JYZ-FF User Manual--Remote Overhead Fault Indicator

Over-head line	Document Version	Page
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Over-head line monitoring terminal User Manual





厦门四信智慧电力科技有限公司 Xiamen Four-Faith Smart Power Technology Co.,Ltd.



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Chapter 1 Brief Introduction of Product

1.1 General

JYZ-FF fault indicator monitoring terminal is a data acquisition and communication terminal device of fault detection and FLS distribution network system. It usually installed on the outdoor overhead line.

The device can collect the fault information and switch state information, analysis, and compile, and then transmit the information to the distribution network master station by GSM/GPRS/CDMA, to locate the fault position as quick as possible.



1.2 Features and Benefits

Function

- Short circuit fault upload: Receiving and upload fault information and fault current
- Ground fault upload: Receiving and upload fault information and fault current
- load current: Upload load current value, Timing or out-of-limit upload





- Receiving and upload Low battery alarm function
- Heartbeat function: Timing upload heartbeat information
- Fault indicator Status measurement: Active measurement switch status and load current.
- Remote management: Remote management fault indicator, such as parameters, reset etc.
- Local and remote maintenance: Have local and remote upgrade function
- ♦ Working mode: 2.5G/3G/4G
- WDT design, to ensure the stability of system

Performance parameter

- Power supply: DC18V, 15VA Solar power, 12V/8Ah rechargeable lithium backup battery
- Power consumption: less than 0.2VA
- ♦ Max power consumption : less than 5VA
- ♦ SOE: resolution ratio less than 2ms
- Wireless reception: short range wireless communication
- Weight: less than 5Kg
- Outline dimension: Φ355*293*255mm
- Service life: more than 8 years
- Protection level: IP55
- Number of reliable action: more than 2000 times
- Punctuality accuracy: less than 24h/2s
- MTBF: more than 70000h





1.3 Working Principle

SRAM& FLASH Indicator Lights RTC Module WDT Module WDT Module Cellular Module SIM/UIM Interface Power Module

The principle chart of the fault indicator monitoring terminal is as following:

1.4 Specifications

Dimensions	360mm×280mm×70mm
Shell	304 stainless steel+ RAL7305 grey, protection class IP55
Weight	Less than 5Kg
Standard Power	DC18V 、 15VA Solar power , 12V/8Ah rechargeable lithium backup battery
Standby	less than 0.2W
Data forwarding	2.5G/3G/4G
Working Time under Rainy Weather Conditions	>15 Days
Lithium Battery Service Life	5 Years
Solar panel	PMMA Protection, 30 Years' Service Life
Operating Temperature	-40~+75°C(-40~+167°F)
Storage Temperature	-40~+85°C(-40~+185°F)
Operating Humidity	95% (Non-condensing)





Chapter 2 Installation Introduction

2.1 General

The data concentrator of remote overhead fault indicator must be correctly installed to achieve the designed function.. Generally, the device must be installed under the guidance of qualified engineers that approved by our company.

Warning: Forbid to install when powered!

2.2 Encasement List

Name	Quantity	Remark





2.3 Installation and Cable Connection

2.3.1 Installation of SIM/UIM card:

- 1. Power off the device
- 2. Open the housing
- 3. Install the SIM card
- 4. Connect power
- 5. Close the housing

Warning: Forbid to install SIM/UIM card when powered!

2.3.2 Terminal Installation

6. Before installation: Firstly, discuss with the engineers to see if the time and location meet the operating requirements, and then confirm. After that, prepare the needed devices. The sub-station can not be fixed by the hoop in some places, but the No. 8 galvanized iron wire instead.

7. Installation. When arrives at the location, the installer need to check and confirm that the power supply of the sub-station is correctly connected; and the connection of GSM (GPRS or CDMA) and RF sucker antenna is stable. Then record the field information in the form (see appendix 1). If there is special circumstance, please explain in the notes. Finally, make sure to lock the door.

Warning: The solar panel can not be placed towards north, it must be vertically placed and pointing to the fault indicator!

Forbid to stand under the pole when installing.





Chapter 3 Configuration

3.1 Configuration Connection

Before configuration, it's necessary to connect the Over-head line monitoring terminal with the configure PC by the shipped RS232 conversion cable as following:



3.2 Configuration Introduction

There are one ways to configure the Over-head line monitoring terminal:

Configuration software tool: All the settings are configured through the shipped software tool. It's necessary to have one PC to run this tool.

3.3 Run the configure Tool: FaultIndicator.exe



FaultIndicator 1.0.1						
UserManage CommSetting De	viceManage Operation	n SendCommand	Maintenence	View		
a 🖪 🖉) 🧐	5	1	24		
com setting tcp setting initi	alize general interro	gation transparent	t transmission	load parameters	raw message	
avigation bar 🛛 📮 🗙						
TeleindicationDoc SOEDoc LoadRecordDoc LoadRecordDoc DeviceExceptionDoc operation TeleControlDoc CheckTimeDlg Parameter setting RunDoc IECDoc RemotePointDoc	Action Type	COM set COM C Baud 5 Bit 6 parity bit 7 Stop bit 5 Open	COM15 9600 3 None 1 Close	- 558g	e	
RemoteControlDoc PhoneNoDoc EndDeviceDoc	•			m		

On the serial port setting interface, there will be the parameters of present opened serial port. The default value is **COM1,9600.** If the parameters of the connected data concentrator is not conform with the default value, please select correct value in this configuration and open the serial port. If the button "close the serial port" on the right of serial parameter setting bar can be clicked, that means serial port opened, or please select the correct value in the configuration. When serial port opened, you can click on the initialization on the interface to test the link, if there is a returned message, that means the communication between the configuration tool and the data concentrator is normal. Then user can proceed the following settings.

3.4 Configuration

Before using the configuration tool to set the parameters, click the query button first to read all the data into the tool, so that you can view and modify the data easily.

3.4.1 GPRS Settings





FaultIndicator 1.0.1							
UserManage CommSetting De	eviceManage	e Operation Sendo	Command Maintenence Vie	ew)			
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To configure		apisooc x	. 1				F
Condition monitoring		query sad	/e			1	
TelemetryDoc	Seq	Туре	Name		Value	Memo	
TeleindicationDoc	1	Comm Par	IP Address			IP	
SOEDoc	2	CDDC Ctata	Port			N1 0+i	
LoadRecordDoc	4	GENS State	STATE STATE	e		Normal & exception	=
LocalOperateDoc	5		CSQ Value			Norman & exception	
DeviceExceptionDoc	6		Operating frequ	iency		1800MHZ&900MHZ	
- operation	7		Obtained IP Add	iress		IP	
TeleControlDoc	8	GPRS SMS	SMS Receive			Open & Close	
CheckTimeDla	9	GPRS Dial	Dial number				
- Parameter setting	11		Dial-un user n	ame			
RunDoc	12		Dial-up passwo	ord			
IECDoc	13		Authentication	mode		Auto&PAP&CHAP	
RemotePointDoc							
TelemetryPointDoc	1						
RemoteControlDoc	Maccana	information					
- PhoneNoDoc	wessage	T	7				* *
EndDeviceDoc	Action	Туре	Time	iviessage			
E GPRS setting							
GprsDoc							
Indicator setting							
IndicatorDoc							
	-						
-14-				III			•
<i>M</i> .56	-						CAP NUM SCRL

Communication Parameters

In order to make sure the data concentrator is connected to the IP and the port when using the TCP/IP for communication, set the server's IP address and the parameters of the port first.

♦ GPRS Status

The GPRS status can not be set. It is used to check the module conditions in the data concentrator, SIM card status, CSQ value, operating frequency and the IP address obtained by the card, etc.

Message send via GPRS

It is used to set the receiving of message, "0" means OFF, "1" means ON.

3.4.2 IEC Settings

For different customers' requirements, the user can set the specifications of 101 protocol. After the setting, user need to restart terminal for the setting to take effect. Specific settings are as follows:





FaultIndicator 1.0.1							
UserManage CommSetting De	eviceManage	e Operation SendCo	ommand Maintenence	View			
s 🕄 🔜 🛛	2	- 1		25			
com setting top setting initi	ialize ge	eneral interrogation t	ransparent transmission	load parameters	raw message		
Navigation bar 🌼 📮 🗙	. 4	GprsDoc X					Þ
⊡ To configure		query Save					
- Condition monitoring							
- TelemetryDoc	Seq	l lype	Name		Value	Memo	
- TeleindicationDoc	1	Comm Par	IP Addre:	SS		1P	
SOEDoc	2	CPRC State	Fort Hodule Ct.	sta		Normal & excention	
LoadRecordDoc	4	orno brate	SIM Stat	te		Normal & exception	E
LocalOperateDoc	5		CSQ Valu	10		Normar & Okcop Cron	
DeviceExceptionDoc	6		Operating fre	equency		1800MHZ&900MHZ	
⊡ operation	7		Obtained IP A	Address		IP	
TeleControlDoc	8	GPRS SMS	SMS Recei	ive		Open & Close	
CheckTimeDla	9	GPRS Dial	Uial numb	ber			
- Parameter setting	11		Dial-un user	name			
RunDoc	12		Dial-up pas	sword			
IECDoc	13		Authenticatio	on mode		Auto&PAP&CHAP	
RemotePointDoc							
TelemetryPointDoc							
RemoteControlDoc	1						
PhoneNoDoc	Message	information					¢ Χ
EndDeviceDoc	Action	Туре	Time	Message			
E GPRS setting							
GprsDoc	-						
E-Indicator setting							
IndicatorDoc							
	•			m			•
就绪	_						CAP NUM SCRL

• The bytes of link address, transmission reason, public address, and information carrier address means the length of corresponding numeric.

- ◆ Transmission Mode: equilibrium mode or non-equilibrium mode of 101 protocol.
- ◆ Automatic Report Mode

Initialization: Before data concentrator and configuration tool communicating with each other, it needs to be initialized or it will show that the server does not start.

When receiving the correct frame or more, the data concentrator can communicate with the configuration tool without initialization.





3.4.3 Phone Numbers Settings

erManage CommSetting Dev	riceManage O	peration SendCom	nand Maintenence	View			
om setting top setting initia	alize genera	l interrogation tran	sparent transmission	load parameters raw messa	ge		
gation bar 🛛 📮 🗙	4 Phor	neNoDoc x					
o configure			E				
Condition monitoring		query	save				
TelemetryDoc	Seq	Type		Name	Value	Memo	
	1	SMS	Number e	nable control word			
LoadBecordDoc	2		Phor	ne number 1		ASCII, Max 16 bit	
	3		Phor	ne number 2		ASCII, Max 16 bit	
DeviceExceptionDoc	4		Phor	ne number 3		ASCII, Max 16 bit	
- operation							
TeleControlDoc							
CheckTimeDlg							
- Parameter setting							
RunDoc							
IECDoc							
RemotePointDoc							
TelemetryPointDoc							
RemoteControlDoc	Message info	rmation					
EndDeviceDoc	Action Typ	be	Time	Message			
- GPRS setting							
GprsDoc							
Indicator setting							
IndicatorDoc							

• Phone numbers activate settings:Click the parameter settings, there will be a pop-ups of admin interface, and then select numbers to be activated.

• Phone Numbers: Enter the correct phone number and save. The number will be used for the settings of 101 protocol.

3.4.4 Telemetry Data Sheet

FaultIndicator 1.0.1				
: UserManage CommSetting Devi	iceManage Operation SendCo	mmand Maintenence	View	
com setting top setting initia) ilize general interrogation to	ansparent transmission	load parameters raw message	
Navigation bar 🌐 🗴	₫ TelemetryPointDoc ×			Þ
□ To configure ○ Condition monitoring □ Condition monitoring □ TelemetryDoc □ TelemetryDoc □ SOEDoc □ LoadRecordDoc □ LoadRecordDoc □ LoadRecordDoc □ DeviceExceptionDoc □ operation □ DeviceDoc □ operation	edit query Seq Address	save		
- Recontrolloc - CheckTimeDlg - RunDoc - ECDoc - RemotePointDoc - TelemetryPointDoc - TelemetryPointDoc				
- PhoneNoDoc	Message information			± ×
☐ EndDeviceDoc ☐ GPRS setting ☐ GprsDoc ☐ Indicator setting ☐ Indicator Doc	Action Type	Time	Message	
	<i>.</i>		m	
就绪				





here are four buttons on the data sheet interface: EDIT, QUERY, SAVE and SET. Following are the introduction of the four buttons' functions.

rManage CommSett	ting DeviceM	anage Operation SendCom	nand Maintenence View					
		100	11 N/2					
- -			30					
n setting tcp setting	g initialize	general interrogation tran	sparent transmission load parameters	raw message				
ation bar	a x 4	TelemetryPointDoc x						
configure								
Condition monitor	ing	edit query	save					
TelemetryDo	d'al-f-Di-						X	
Teleindicatio	altinfoDig	All Address						
SOEDoc						ок	cancel	
loadRecord								
- LocalOperate	Seq	Device Name	Name	Value	Info Address		<u>^</u>	
DeviceExcent	0		Collector unit battery voltage		4001			
operation	1		First way load current Ia		4011			
TeleCentrel	2		First way load current Ib		4012			
CharletingD	3		First way load current Ic		4013			
CheckrimeD	4		First way temperature Ia		4015			-
Parameter settin	5		First way temperature Ib		4016			
KunDoc	6		First way temperature Ic		4017			
IECDoc	7		First way acquisition unit a		4019		=	
RemotePoint	8		First way acquisition unit b		401a			
- TelemetryPo	9		First way acquisition unit c		401b			
RemoteCont	10		First way fault current Ia		401c			
PhoneNoDo	11		First way fault current Ib		401d			
EndDeviceDo	12		First way fault current Ic		401e			
GPRS setting	13		Second way load current Ia		4021			-
GprsDoc	14		Second way load current Ib		4022			
Indicator setting	15		Second way load current Ic		4023			
IndicatorDoc	16		Second way temperature Ia		4025			
	17		Second way temperature Ib		4026			
	18		Second way temperature Ic		4027			-
	19		Second way acquisition uni		4029			
	20		Second way acquisition uni		402a			
	21		Second way acquisition uni		402b			
	22		Second way fault current Ia		402c			-
	23		Second way fault current Ib		402d			
	24		Second way fault current Ic		402e			
	25		Third way load current Ia		4031		*	the second se

♦ EDIT

Click EDIT button and pop the above interface, double click the interface then pop the below interface to add and modify the device name, name and address of the under-surveillance object. This operation allows the customer to add the name of data sheet and the under-surveillance object address dynamically without modifying the tool.

Note: The edit only adds the name and under-surveillance object address supported by the data sheet. If customer want to select object information into the data concentrator, it also needs to enter the data sheet setting interface.

♦ QUERY、SAVE、SET

To query the telemetry data sheet that has already been set by the data concentrator.

After user finishing setting the data sheet, it can be saved to data concentrator.





	<u> </u>	9		20				2	2
ung tep setting	ditInfoDig								
nfigure							OK	cancel	
ndition monitor	Sea	Device Name		Name	Value	Info Address		,	Z
TelemetryDoc	0	D O THOU THAT TO	Collector un	t hatteny voltage		4001		1	
Teleindication	1		First way	load current Ia		4011			
SOEDoc	2		First way	load current Ih		4012			
LoadRecordDc	3		First way	load current Ic		4013			
LocalOperateD	4		First way	temperature Ia		4015			
DeviceExceptic	5		ModifyDataD	a					
eration	6			.9					
TeleControlDo	7							-	
CheckTimeDlg	8		Seria	0					
ameter setting	9					Modify			
RunDoc	10		Device	1					
IECDoc	11			F.).		Clean			
RemotePointD	12		name	Collector unit battery	voltage				
TelemetryPoint	13					Close			
RemoteContro	14		Address	4001					
PhoneNoDoc	15								
EndDeviceDoc	16								
S setting	17		Second way	/ temperature Ib		4026			
GorsDoc	18		Second way	temperature Ic		4027			
icator setting	19		Second way	acquisition uni		4029			
IndicatorDoc	20		Second way	acquisition uni		402a			
	21		Second way	acquisition uni		402b			
	22		Second way	/ fault current Ia		402c			
	23		Second way	fault current Ib		402d			3
	24		Second wa	y fault current Ic		402e			
	125		Third way	load current la		4031		Ľ	
C	-								
	_								

The user can select the address of under-surveillance object in the bar of general table, then add to the transmission bar; or select the address of under-surveillance object in the transmission bar and remove. The information of under-surveillance object in the transmission column need to be set into the address of under-surveillance object in the data concentrator. Click OK and go back to the data sheet interface, and then save. If there is returned confirmation message, which means the setting is successful, or it fails.

100×20101			
动作	类型	时间	报文
Tx	写文件	2017-03-28 10:09:36	68 2B 2B 68 F3 02 00 7D 01 0D 00 02 00 00 07 00 01 1C 01 40 11 40 12 40 13 40 15 40 16 40 17 40 19 40 1A 40 1B 40 1C 40 1D 4
Rx	确认	2017-03-28 10:09:37	10 00 01 00 01 16
Rx	段	2017-03-28 10:09:38	68 2B 2B 68 53 01 00 7D 01 0D 00 02 00 00 00 07 00 01 1C 01 40 11 40 12 40 13 40 15 40 16 40 17 40 19 40 1A 40 1B 40 1C 40 1D 4
Tx	确认	2017-03-28 10:09:38	10 80 02 00 82 16





3.4.5 Remote Communication Data Sheet

FaultIndicator 1.0.1	viceManage	Operation SendComm	and Maintenence View	or spectra the	in the s	ates Bra	
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avigation bar 🛛 📮 🗙	4 F	RemoteControlDoc x					
To configure		query	save				
E- Condition monitoring							
TeleindicationDoc	Seq	Туре	Name	e	Value	Memo	
SOEDoc	1	Clear SEO	Clear S	OE		Range (128-255)	
LoadRecordDoc	2	Clear load record	Clear load	record		Range (128-255)	
- LocalOperateDoc	3	GPRS power	GPRS pc	wer		Range (128-255)	
DeviceExceptionDoc	4	Battery activation	Battery act	ivation		Range (128-255)	
- operation	5	indicator	indicat	or			
TeleControlDoc							
CheckTimeDla							
- Parameter setting							
RunDoc							
IECDoc							
RemotePointDoc							
TelemetryPointDoc							
RemoteControlDoc							
PhoneNoDoc							
EndDeviceDoc							
- GPRS setting							
GprsDoc							
Indicator setting							
IndicatorDoc							
	Message i	information					
	Action	Туре	Time	Message			
	•				m		
							CAP NUM SC

The settings is the same as the telemetry data sheet.

3.4.6 Operational Parameters

♦ mode selection

Type of Terminal: include overhead RF and underground cable lines RF

Power mode: Real time and quasi-real time. When set to quasi-real time, device do not deal with network tasks.

Type of Device: local fault indicator or remote fault indicator

Type of Indicator: RF001 or RF003



		ieror merroganori - trans,	areni transmission	load parameters raw message					
igation bar 4 X	4 6	tunDoc X							
- Condition monitoring		query	save						
TelemetryDoc	Sec	Type		Name	Value	Memo			
- TeleindicationDoc	Jeq	Mada selection	Ta	real to me	value	Overhead DE9, eable DE			
SOEDoc	1	mode selection	De	minal type		Overhead Kr& cable Kr			
- LoadRecordDoc	2		PL	avice bype		Quasi real une & real une			
- LocalOperateDoc	4 5 Time parameter		Indicator type			RF001&RF003			
DeviceExceptionDoc									
operation 6		rine parameter	Indicator stati	is monitoring cycle					
TeleControlDoc	7		AD acquisition time (S) Upload heartbeat time (S)						
CheckTimeDlg	8								
Parameter setting Q			Timing upload telemetry time (S)						
-RunDoc 10			Teleindication retransmission time						
-IECDoc	11		Load data s	torage interval (S)					
RemotePointDoc	12		Battery sar	mpling interval (S)					
TelemetryPointDoc	13		When the pov	ver supply is unstabl					
RemoteControlDoc	14		Status repo	orting time (hour)					
PhoneNoDoc	15		Status rep	orting cycle (day)					
EndDeviceDoc	16		GPRS tu	S turn-on time (S) b station address					
GPRS setting	17	Other parameters	Sub s						
GprsDoc	18		RF communic	cation frequency band					
- Indicator setting	19		Absolute absolute value of telemetry						
IndicatorDoc	20	Temperature limit							
	" Marcana information								
	Action	Tune	Time	Mercane					
	Action	туре	Time	Message					

◆Time Parameter

Fault lockout time: When the fault occurs to the indicator, it will be reported. When the time is out, the fault will be cleared.

Indicator status monitoring period: the communication period between indicator and Concentrator Unit. When the time is out it will report the fault of the indicator.

AD collecting Time: Solar Cell & voltage acquisition interval time

Upload heartbeat time: heartbeat interval time

Load data save time interval: Period of load time& save time.

Battery Sampling time Interval: Collect the time interval when the battery is stable.

Sampling time interval under unstable power: Sampling time interval under unstable power.

Status Report Period, Status Report Time: The time interval of the status report.

GPRS Opening Time: Reserved.

♦ Other Parameters

Sub Station Address: sub-station 101 communication protocol address

RF communication Frequency: RF 433 communication Frequency.

Telemetry absolute limit, telemetry relative limit: when the telemetry reaches these two conditions, will upload the telemetry to the server station.

Temperature limit:Reserved.





3.4.7 Terminal Parameter

UserManage CommSetting De	wiceManage Opera	ition SendCommand Main	tenence View							
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com setting top setting init	ialize general int	errogation transparent tran	smission load p	arameters raw message						
avigation bar 🛛 📮 🗙	d EndDevid	eDoc x								
-To configure	query									
- Condition monitoring	Seq	Name		Content	Address					
- TeleindicationDoc	1	Terminal version			002A					
SOEDoc										
LoadRecordDoc										
LocalOperateDoc										
DeviceExceptionDoc										
operation										
- TeleControlDoc										
CheckTimeDlg										
Parameter setting										
RunDoc										
IECDoc										
RemotePointDoc										
TelemetryPointDoc										
PhoneNoDoc										
EndDeviceDoc										
F GPRS setting										
GprsDoc										
- Indicator setting										
IndicatorDoc	J									
	Message informat	Message information								
	Action Type	Time		Message						
	1									

Click on the query to check the the software version number of the Concentrator.

3.5 Operation

3.5.1 Time Revision

current time	2017/ 8/13 💌	21:29:38
Send	Check Time	Close





♦ Sending

The current time will be sent to the terminal, when the concentrator unit returns to confirm, ndicating that the time is sent successfully, otherwise failed.

♦ Time Synchronization

Use tools to obtain the system time and send it to Terminal Unit, when the concentrator unit returns to confirm the frame, indicating that the time is sent successfully, otherwise failed.

3.5.2

3.5.2 Remote

UserManage CommSetting De	viceManage	Operation SendComm	and Maintenence View	a grante class					
com setting top setting initi) alize ger	neral interrogation transp	parent transmission load p	arameters raw message					
vigation bar 🛛 📮 🗙	4 R	temoteControlDoc 🗙							
To configure Condition monitoring	query save								
TelemetryDoc	Seq	Туре	Name	e	Value	Memo			
- IeleindicationDoc - SOEDoc - LoadRecordDoc - LoadOperateDoc - DeviceExceptionDoc - operation	1 2 3	Clear SEO Clear load record GPRS power	Clear S Clear load GPRS po	DE record wer		Range (128-255) Range (128-255) Range (128-255)			
	4 5	Battery activation indicator	Battery act indicate	ivation pr		Range (128-255)			
CheckTimeDlg									
Parameter setting RunDoc IECDoc RemotePointDoc									
- RemoteControlDoc - PhoneNoDoc - EndDeviceDoc									
GPRS setting GprsDoc Indicator setting IndicatorDoc									
	Message i	nformation	1.	(
	Action	Туре	Time	Message					
	•				m				
							CAP NUM SC		

♦ Remote Operation

Double click the function of the remote control, the following dialog box pops up, and then click Execute to see the message field, the concentrator unit returns to response the remote command, indicating that the remote operation is successful, otherwise failed.





Pic 3.5.2 Remote Control

•Romote commands addition and modifition

Double click the remote control name, it will pop out a remote control dialog box. The name, remote control command, remote control point number could be modified and information body address in the data operation column; Similarly, you can also add and delete.

3.6 Indicator Parameter Query & Setting





erManage CommSetting Dev	iceManage Operation SendCommand Maintenence View	
a 🖪 🥻		
om setting top setting initia	lize general interrogation transparent transmission load parameters raw message	
rigation bar 🛛 📮 🗙	4 IndicatorDoc x	
To configure ⊟- Condition monitoring TelemetryDoc TeleindicationDoc SOEDoc	Parameter configuration Line 1 T Phase A T query Query varian	
LoadRecordDoc	Telemetry parameter Dattery parameters Other parameters	
LocalOperateDoc DeviceExceptionDoc	Upload Battery min Finite A	
- operation - TeleControlDoc	Upload min Low battery 0.1V Current duration ms	
CheckTimeDlg	Relative % Instantaneous z Charging -	
Parameter setting BunDoc	Absolute A Fernanent power S Flaw work	
IECDoc	Current A Unlimited number	
- TelemetryPointDoc	Current k Transient feult 9	
PhoneNoDoc EndDeviceDoc	heartbea nin Telesetry	
GPRS setting Gprs Doc	read Write in read Write in read	
- Indicator setting		
	Message information	
	Action Type Time Message	
	×	
法		CAP NI

• Reading of the Indicator Parameter

Select the line deviation and phase offset, you can specify to read the parameters of an indicator. Click the query in the parameter bar to inquire about the telemetry parameters, battery parameters and other parameters of the indicator.

Click on the remote measurement parameter bar to read or write, read or write the telemetry parameters of the read; battery parameters and other parameters are available.

Click the query version number to check version number of the indicator.





4. Environment Test of Data Transmission Test

4.1 Test Steps

1.Run FaultIndicator.exe software on the PC, fill in the corresponding IP and port in the GPRS parameters Setting. Click Save after setting (you can configure it to other ports if needed). Please click the query button before filling in IP and port.

	query s	ave		
Seq	Туре	Name	Value	Memo
1	Comm Para	IP Address	218.85.131.35	IP
2		Port	18090	
3	GPRS State	Module State	Normal	Normal & exception
4		SIM State	Normal	Normal & exception
5		CSQ Value	0	
6		Operating freq	1800MHZ	1800MHZ&900MHZ
7		Obtained IP Ad	0.0.0.0	IP
8	GPRS SMS	SMS Receive	Open	Open & Close

2.Communication is divided into serial and TCP two ways. If you choose the serial port, then select the correct serial port, and open it to test.

If you choose the TCP / IP connection, then follow the steps 1 to set the server's IP address and port, you can restart the terminal unit after your setting and then wait for the terminal to connect to the server. When the terminal is connected to the server, the software will indicate "terminal is connected." You can also observe the terminal by the light, if the communication indicator light is always on, indicating that the terminal has been connected to the server.



Web: en.four-faith.net



5. Appendix

Appendix 1: Concentrator Unit(Overhead Sub Station) Debug Installation Procedures on site

Concentrator Unit

1.Debugging tools

Whole set of toolbox, powerful magnet, test mobile phone, computer, sub station interface software set, multimeter, Phillips screwdriver, needle nose pliers and so on.

2. Debug before installation

2.1 Inventory the goods before installation to ensure that the number of sub-stations and indicators is accurate and the parts are complete.

2.2 measure the voltage of the battery. Before setting the parameters, measure the actual voltage of across the battery to ensure that it is above 12V

2.3 Set the sub-station parameters. Connect the sub-station and the computer with a whole set of a toolbox after the sub-station is powered on. Use the configuration software of sub-station to set the mobile phone numbers and one of the mobile phone numbers should be set to the main station monitoring number of the headquarters.

Commissioning staff on site could use the central station SIM card as a temporary test card and insert it into the portable mobile phone to improve the work efficiency.

After the parameters are set, fill in the information such as the communication terminal number, the center station mobile phone number, the test mobile phone number, the frequency number (channel number) and so on into the blanks of the case.



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- 2.4 Set the piont sheet number:
- 2.5 Format of the Sub-Station Message

The format of the line fault message is:

065 056 001 000 001

Among them:

065 056 is the start of the message

- 001 000 is the number of the point sheet
- 001 Displacement information
- 2.6 disconnect the power terminal, debugging is completed.

3.Test after Installation

Trigger the test tooling after the installation of the sub-station to see whether to receive a fault message within 3 minutes, check the address on the record to confirm if the number of mobile phone is right, if the sub-station receives and sends incorrectly, on site maintenance is needed. If the problem can not be eliminated for a short period of time, record the location and number of the sub-station and continue the installation of other sub-stations. After all the sub-station installation test is completed, take the failure sub-station back to do further examination.





Appendix 2: JYW-FF-HD Installation Record Sheet of

Concentrator Unit

Installation Record Sheet of Concentrator Unit									
Terminal model:									
Installation Time			Installati on Place						
Installation Person:		Terminal Address:	;	Status Report Interval:(days)					
Main Station Head Address(GPRS exclusive)		Port Number (GPRS exclusive)		Whether support Router					
Main Station Spare Address(GPRS exclusive)		Port Number (GPRS exclusive)		Sub-Station RF001Wireless Module Group Address:					
Number of the Indicator	Channel Number	Name of the Indicator installation line		Address of the Fault Indicator	Remar k				
1									
2									
3									
4									

