

FieldScan Handheld Sensor Reader [MultiSense Version] User Manual





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1 Customer Support

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2 Introduction

2.1 Brief

The FieldScan Series - MultiSense is a handheld readout device for use with all soil moisture sensors and environmental monitoring sensors made or sold by INFWIN. It interfaces with sensor with digital signal to obtain instantaneous results. This manual covers all MultiSense functions and capabilities.

Feature

- Use with soil moisture/EC/temperature or many other sensor
- Data can be read out/saved manually or automatically
- Utility software for data download/export through WiFi
- Internal realtime clock
- Battery-powered for field application
- Auxiliary power input through USB Type-C

Applications

- Industrial Monitoring
- Environment Monitoring
- Scientific Research
- Agriculture
- Horticulture



Parameters		
Sensor Input	1 Channel Sensor Input	
Power Supply	Two options when ordering,Both support USB type C (5V DC) auxiliary power input	
	■ 3*AA Battery	
	■ 3.7V Chargeable lithium battery	
Data Readout	Manually/Automatically	
and Save		
Data Storage and	Two options when ordering, Data can be download through WiFi	
Export	■ 256 Items Storage	
	100,000 Items Storage	
Realtime Clock	Supported	
Display	160*128 Color LCD	
Operation	-10~50	
IP Rating	IP20 NEMA1	
Dimensions	170*80*40mm	
Supported	Soil Moisture/Temperature sensor: MS10/MS20/MT10RB	
Sensors	Soil Moisture/EC/Temperature sensor: MEC10/MEC20/MT10RA	
	Soil Moisture/EC/Temperature/NPK sensor: SIS10	
	Substrate Moisture/EC/Temperature sensor: SlabSense	
	Rugged Temperature sensor: DigiTEMP	
	Air Temperature/Humidity/Dew sensor: DigiTH	
	Air Temperature/Humidity/Dew/Barometric sensor: DigiTHP	
	Air Temperature/Humidity/Dew/Barometric/Vapor Pressure sensor: DigiTHP-Gen2	
	Ambient Light sensor: ALS20	
	Solar Radiation sensor: PYR20	
	Leaf Wetness sensor: LWS10	
	Refer to: 《FieldScan handheld sensor reader (MultiSense) sensor list》 for more	
	information	

3 Ordering Code and Package List

3.1 Ordering Code

Parameters	Code	Comments
Code 1:	FieldScan(MS)-	FieldScan series handheld sensor reader (MultiSense Version)
Product Series		
Code 2:	А	3*AA battery, support USB type C (5V DC) auxiliary power input
Battery	В	3.7V Chargeable lithium battery(3000mAh), support USB type C (5V
		DC) auxiliary power input
Code 3:	А	256 Items Storage
Data Storage	В	100,000 Items Storage
Code 4:	А	No customization
Other Customization	Х	Customization
Code 5:	002	2 meters
Sensor Cable Length	XXX	Customization
Code 5:	-SensorType	Soil Moisture/Temperature sensor: MS10/MS20/MT10RB
Sensor Type		Soil Moisture/EC/Temperature sensor: MEC10/MEC20/MT10RA
		Soil Moisture/EC/Temperature/NPK sensor: SIS10
		Substrate Moisture/EC/Temperature sensor: SlabSense
		Rugged Temperature sensor: DigiTEMP
		Air Temperature/Humidity/Dew sensor: DigiTH
		Air Temperature/Humidity/Dew/Barometric sensor: DigiTHP
		Air Temperature/Humidity/Dew/Barometric/Vapor Pressure sensor:
		DigiTHP-Gen2
		Ambient Light sensor: ALS20
		Solar Radiation sensor: PYR20
		Leaf Wetness sensor: LWS10
		Refer to: 《FieldScan handheld sensor reader (MultiSense) sensor list》
		for more information
Ordering Code Example: FieldScan(MS)-ABA002-MEC10		
Product Series: FieldScan series handheld sensor reader (MultiSense Version)		
Battery: 3*AA battery, support USB type C auxiliary power input		
Data Storage: 100,000 Items Storage		
Other Customization: No customization		
Sensor Cable Length: 2 meters		
Sensor Type: Soil Moisture/EC/Temperature sensor: MEC10		



3.2 Package List

Item	Quantity	Comment
FieldScan(MultiSense)	1	FieldScan(MultiSense) main part
Sensor	1	As ordered
Product certification card	1	Product certification card



4 Dimension, Parts and Attentions

4.1 Dimension



Unit: mm

4.2 Display

The device uses a color LCD as display part, please set backlight according to your ambient light to ensure the longer duration of battery use.



4.3 Key

Icon	Key Name	Comments
	POWER	Power On / Power Off
	HOME	Main Page/ Switch
\bigcirc	FUNCTION	System Setting / Back
\bigotimes	ENTER	ENTER / OK
	UP	UP
\bigcirc	DOWN	DOWN
	LEFT	LEFT
	RIGHT	RIGHT

4.4 Battery and Auxiliary Power Input

The device support two battery type, please refer to the ordering code. Please set date and time after you the battery replacement.

■ 3*AA battery, support USB type C (5V DC) auxiliary power input

■ 3.7V Chargeable lithium battery(3000mAh),support USB type C (5V DC) auxiliary power input, it can also be used as charger power input, the RED led will be lighted when charging, the GREEN led will be lighted when charging done.

4.5 Attentions

- Avoid impact when using or transporting.
- Place the instrument in a dust-free, clean and dry place.
- If not used for a long time, remove the alkaline battery, Li-Battery should be fully charged.
- Disassembling the instrument is deemed as a waiver of the warranty right.



5 Operation

5.1 Main Screen and Quick Reference





5.1.1 Power On / Power Off

Screen	Steps
FieldScan V2.0 Welcome Initializing Init. Done	 Power ON: In the power off state, press and hold the POWER key for more than 3 seconds, and display the main interface after initialization.
Ready Image: Connect Sensor. 2023-05-08 18:16:18 Msg. Connect Sensor. Msg. Connect Sensor.	
MECIO Cotil 2 Shut down Goodbye	 Power OFF: In the main screen, press and hold the POWER key for more than 3 seconds to display the shutdown screen, and then the device will shut down.



5.1.2 Enable / Disable Data Log

Screen	Steps
Ready Enable	/ Disable the Data Log:
2023-05-08 18:16:18	is "Data Log" enable/disable button
Msg. Connect Sensor.	
In the	main interface, press the LEFT or RIGHT key to highlight
the "Dat	a Log" button, and then press the ENTER key to
enable/c	isable the data log.
Brody When	the Data Log function is ON, the Data Log button appears
2 ^{MISg} orange-	ed.
Tota Log ON	
The da	ata log enable/disable function cannot be modified during
continuo	ously measurement. Please stop the continuous
measure	ment function first and then enable/disable the data log
function	
Keady 📼	
2023-05-08 18:16:18	
Msg. Connect Sensor.	
Ready Msg	
2 Data Log OFF	



5.1.3 Start Single Measurement

Screen	Steps
Ready 📼	Start Single Measurement:
2023-05-08 18:16:18	• " is "Start Single Measurement" button.
Msg. Connect Sensor	In the main screen, press LEFT or RIGHT key to highlight the "Single measurement" button, press ENTER key to start the single measurement, and display the measurement value after the
	measurement is completed.
Rodu 2 Start Single Meas.	• In the main screen, if more measured values cannot be displayed in a screen, press the UP or DOWN key to switch between the values.
	• After starting a single measurement, the instrument will continuously power the sensor until the measurement done.
2023-05-08 18:16:39	
VWC : 39. 98%	
Ready	Exception When Start Single Measurement:
2 Msg	If the sensor is not connected or the sensor is abnormal, you need
Start Failed,	to check the sensor connection or start the measurement to retry
Connect or	again.
Check Sensor	

5.1.4 Start Single Measurement and Save Data

Screen	Steps
Beady 🗩	Start Single Measurement and Save Data:
2023-05-08 18:16:18	" """ is "Start Single Measurement" button.
Msg. Connect Sensor	
Wing. Connoor Connor.	• If the data log function is enabled when starting a single
	measurement, the data can be stored after the measurement. At this
	time, the TAG input screen for the data record will be prompted,
	which can be filled in by the user as a note.
Ready Mag	
Chant Cingle	In the main screen, press the LEFT or RIGHT key to highlight
	the "Single measurement" button, press the ENTER key to start the
Ivieas. & Save	single measurement. After the measurement is completed, IAG
	TAG user can modify the TAG as needed
	TAO, user can mourry the TAO as needed.
Input Data Tag	In the TAG input screen, you can use the HOME key to switch
& ^ ; , _ z x i abcdefghljkl	the soft keyboard mode (capital letters, lower case letters,
@sc){}[]: mnopqrstuvwx < > == < < > yZ < > == < < × <	numbers, symbols).
Input Data Tag	
TAG0000006 TAG0000006	In the TAG input screen, highlight the \checkmark in the soft keyboard and
ABCDEFGHTJKL 1 2 3 M MNOPQRSTUVWX 7 8 9 4	press ENTER key to save the measurement data; highlight X in the
YZ < > 🕅 🕿 x v +/- 0 · · < >	soft keyboard and then press ENTER key to discard saving.
Ready -	Exception When Start Single Measurement and Save Data:
Msg 🗧	If the sensor is not connected or the sensor is abnormal, you need
Start Failed.	to check the sensor connection or start the measurement to retry
Connect or	again.
Chook Soncon	
UIEUK BEIISUI	

5.1.5 Start / Stop Continuously Measurement

Screen	Steps
Ready 🗩	Start Continuously Measurement:
2023-05-08 18:16:18	• " is "Start Continuously Measurement" button.
Msg. Connect Sensor.	In the main screen, press LEFT or RIGHT key to highlight the "Continuous measurement" button, and press ENTER key to start
	the continuous measurement. After the continuous measurement
	starts, the measurement data will be refreshed in real time, and the
^R Msg	" ^[2] " to indicate that the continuous measurement is in progress.
Start Cont. Meas.	
	In the main screen, if more measured values cannot be displayed in a screen, press the UP or DOWN key to switch between the values.
Ready -	• After starting the continuous measurement, the instrument will
2 Msg	continuously power the sensor until it is switched off after the
Cont. Meas.	continuous measurement is stopped.
Started	
	Please set the Auto Power Off time to "Never" before starting
	the continuous measurement.
MEC10 Soil	
2023-05-08 18:16:39	
TEMP : 23.60°C	
VWC : 39.98%	
EC : 3686us/cm	
	Stop Continuously Measurement:
s Msg	In the main screen, when the continuous measurement is in
Stop Cont. Meas.	progress, press the LEFT or RIGHT key to highlight the
	"continuous measurement" button, then press the ENTER key to
	stop the continuous measurement, and then the "continuous
	measurement" button is restored to "



5.1.6 Start / Stop Continuously Measurement and Save Data

Screen	Steps
Ready 🗩	Start Continuously Measurement and Save Data:
2023-05-08 18:16:18	"LD" is "Start Continuously Measurement" button.
Msg. Connect Sensor.	If the data log function is enabled when the continuous measurement is started, the data will be recorded according to the time interval set in the "Auto Log Interval" in the system settings. Refer to "System Settings-Data Storage-Auto Log Interval".
Rradu 2 Msg 2 Start Cont. Meas. & Save	 In the main screen, press LEFT or RIGHT key to highlight and select "continuous measurement" button and press ENTER key to start continuous measurement, then refresh the measurement data in real time; the "continuous measurement" button will flash between "`` and "`` to indicate ongoing continuous measurement
MEC10 Soil 📼	neusurement.
2023-05-08 18:16:39 TEMP : 23.60°C VWC : 39.98% EC : 3686us/cm	■ The Data Record button will flash between " ⊕ " and " ™ (full cycle) or between " ⊕ " and " ™ (full stop) to indicate that the data record is being recorded. See Settings in "System Settings-Data Storage-Data Log Mode".
	• After starting the continuous measurement, the instrument will continuously power the sensor until it is switched off after the continuous measurement is stopped.
	Please set the Auto Power Off time to "Never" before starting the continuous measurement.



5.1.7 Check Device Status

Screen	Steps
Current Status	Check Device Status:
FieldScan v2.0	In the main screen, press the HOME key to enter the "Curerent
BAT:4.2V	Status" screen.
MEM:16.60%(100k)	In the "Curerent Status" screen, press the FUNC key to return to
2023-05-07 12:34:56	the main screen.
DevID:244CABCDEFEF	Devie name and version: FieldScanv2.0
	Battery Voltage: 4.2V
	Storage Usage: 16.60%(100k)
	DateTime: 2023-05-07 12:34:56
	DevID: Device Unique ID

5.1.8 System Settings

Screen	Steps
Ready Image: Connect Sensor.	 Enter into System Settings: """ is "System Settings" button. In the main scren, press the LEFT or RIGHT key to highlight the "Sectors Settings" better and encer the ENTED have to enter the
System Settings Exit Data Storage WLAN Settings Value Unit	 "System Settings" button, and press the ENTER key to enter the system setting. Or in the main screen, press the FUNC key to enter the system Setting.



5.2 System Settings – Data Storage

Screen	Steps
System Settings	Enter into Data Storage Settings:
Exit	In the "System Settings" screen, press the UP or DOWN key to
Data Storage	highlight the "Data Storage" button, and press the ENTER key to
WLAN Settings	enter the "Data Storage" screen.
Value Unit	= In the "Date Storage" error you can view the date set the auto
Date Time	In the Data Storage screen, you can view the data, set the auto
Auto Power Off	log mervar, set the data log mode, and crase an data.
Backlight	
Sensor Comm.	
Language	
Sensor List	
About	
Data Storage	
Exit	
Data Review	
Auto Log Interval	
Data Log Mode	
Erase All Data	

5.2.1 Review, Update and Delete Data

Screen	Steps
Data Storage	Data Review:
Exit	In the "Data Storage" screen, press the UP or DOWN key to
Data Review	highlight the "Data Review" button, and press the ENTER key to
Auto Log Interval	enter the "Data Review" screen.
Data Log Mode	
Erase All Data	







Delete Current Data:

• " is "Delete Current Data" button.

■ In the data review screen, press the LEFT or RIGHT key to highlight the "Delete Current Data" button and press the ENTER key.

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• When the confirmation dialog appears, press LEFT or RIGHT button to select "OK" or " Cancel", then press ENTER key to confirm the operation.

After data deletion, the data displays with the deletion flag "**b**".

5.2.2 Set Auto Log Interval

Screen	Steps
Data Storage	Auto Log Interval:
Exit	In the "Data Storage" screen, press the UP or DOWN key to
Data Review	highlight the "Auto Log Interval" button, and press the ENTER
Auto Log Interval	key to enter the "Auto Log Interval" screen.
Data Log Mode Erase All Data	In the Auto Log Interval screen, press UP or DOWN button to modify the log interval, and press ENTER key to save the settings.
Auto Log Interval 1 Minute	The Auto Log Interval can be set to 1-60 seconds or 1-1440 minutes.
Msg. Saved	

5.2.3 Set Data Log Mode

Screen	Steps
Data Storage	Set Data Log Mode:
Exit	In the "Data Storage" screen, press the UP or DOWN key to
Data Review	highlight the "Data Log Mode" button, and press the ENTER key
Auto Log Interval	to enter the "Data Log Mode" screen.
Data Log Mode Erase All Data	In the Data Log Mode screen, press UP or DOWN button to modify the log mode, and press ENTER key to save the settings.
	Data Log Mode can be set as following:
	FULL STOP: When the memory is full, the new data will not be stored.
	FULL CYCLE: When the memory is full, the earliest data will be
	gradually overwritten.



5.2.4 Erase All Data

Screen	Steps
Data Storage	Erase All Data:
Exit	In the "Data Storage" screen, press the UP or DOWN key to
Data Review	highlight the "Data Erase" button, and press the ENTER key.
Auto Log Interval	
Data Log Mode	When the confirmation dialog appears, press LEFT or RIGHT
Erase All Data	button to select "OK" or " Cancel", then press ENTER key to confirm the operation.
Data Storage	
E Msg.	It will take about 60 seconds to erase all data, Please wait
All Data will be	patiently
A Removed!	
OK Cancel Erase All Data	

5.3 System Settings – WLAN Settings

Screen	Steps
System Settings	Enter into WLAN Settings:
Exit Data Storage WLAN Settings Value Unit Date Time Auto Power Off Backlight Sensor Comm. Language Sensor List	 In the "System Settings" screen, press the UP or DOWN key to highlight the "WLAN Settings" button, and press the ENTER key to enter the "WLAN Settings" screen. In the WLAN Settings screen, press UP or DOWN key to highlight the corresponding function, press ENTER key to enter or press FUNC key to exit. Because WLAN related functions consume large power when connected to WiFi network, it is suggested to connect 5V DC through the USB Type-C interface on the instrument as auxiliary
About	power supply.
WLAN Settings	
Exit	
Network Service	
WiFi Config	
WLAN Info.	

5.3.1 WiFi Config

Screen	Steps
WiFi Config	Connect WiFi network:
N/A	In the WiFi Settings screen, users can configure and save four
N/A	WiFi networks, the unconfigured networks are displayed as "N/A".
N/A N/A	• "Construction" is "Edit Network" button
	■ Highlight the network item to be edited by pressing the UP or
WIFI Config	DOWN key, and highlight the "Edit Network" button through the
M Exit	LEFT or RIGHT key, press the ENTER key to pop up the dialog
N Searching WiFi	box to select "Search Network" and "Manual Input", or press the
N/ Dear ching with	FUNC key to exit without saving.
📊 Manual Input 🛛 🗖	
	Highlight the "Search Network" or "Manual Input" through the



	UP or DOWN key, press the ENTER key to confirm the selection,
	or press the FUNC key to exit; By choosing "Search Network" you
	can search the currently available WiFi network to enter the
	password, network information will be saved after successful
	connection: By choosing "Manual Input" you can input the SSID
	and password to directly connect the WiFi network and save
	network information.
Soonahing Notworks	Connect and Save WiFi network through "Search Network"
Searching Networks	Connect and Save with Thetwork through Search Pietwork
	By highlighting the "Search Network" and press the ENTER key
	to confirm the selection, the system will automatically search and
	list all available WiFi networks
	ist an available with thetworks.
	- Highlighting the WiFi network in the list through the UP or
	DOWN key and press the ENTER key to confirm and the input
	bown key and press the ENTER key to commin, and the input
MyWiFi	password dralog box will pop up.
MyWiFi1	- In the password input server, you can use the UOME has to
MyWiFi2	In the password input screen, you can use the HOME key to
MyWiFi3	switch the soil keyboard mode (capital letters, lower case letters,
MyWiFi4	numbers, symbols).
Input Password Input Password	
1234567890 1234567890	In the password input screen, highlight the $\sqrt{10}$ in the soft
+ - • - • • ! ? # < > @ s () { } [] ; " mnopqrstuvwx	keyboard and press ENTER key to confirm the password;
	highlight X in the soft keyboard and then press ENTER key to
Input Password Input Password	discard saving.
ABCDEFGHIJKL 1 2 3	
MNOPQRSTUVWX 7 8 9 4 YZ< > = 4 × 4 +/- 0 · 5 >	After confirming the password input, the system will save the
WiEi Config	WiFi connection information and automatically connect to this
Press ENTER to exit	WiFi network to test the connection.
Connecting WiFi	
	During the connection process, if the password is wrong or the
Please wait.	signal is weak, it may not connect to the network, please press the
	ENTER key to exit the connection.
Input SSID Input SSID	Connect and Save WiFi network through "Manual Input"
MyWiFi MyWiFi	
+ - * = % ! ? # < > @ \$ () { } [] : " mnopqrstuvwx	By highlighting the "Manual Input" and press the ENTER key to
	confirm the selection, the SSID input dialog will pop up for SSID
Input SSID Input SSID MvWiFi MvWiFi	input.
ABCDEFGHIJKL 1 2 3 ■	r
MNOPQRSTUVWX 7 8 9 4	In the SSID input screen, you can use the HOME key to switch
	= in the SSTD input serven, you can use the HOIVIE Key to Switch





the soft keyboard mode (capital letters, lower case letters, numbers, symbols).

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In the SSID input screen, highlight the \checkmark in the soft keyboard and press ENTER key to confirm the password; highlight X in the soft keyboard and then press ENTER key to discard saving.

■ In the password input screen, you can use the HOME key to switch the soft keyboard mode (capital letters, lower case letters, numbers, symbols).

In the password input screen, highlight the \checkmark in the soft keyboard and press ENTER key to confirm the password; highlight X in the soft keyboard and then press ENTER key to discard saving.

5.3.2 Set Default WiFi

Screen	Steps
WiFi Config	Set Default Network:
MyWiFi	• " Set As Default Network" button.
N/A	- In the WiT: Catting a second highlighting the material to he
N/A	In the wiff Settings screen, highlighting the network to be
N/A	edited through UP or DOWN key, and highlighting the "Set As
	Default Network " button through LEFT or RIGHT key, and then press the ENTER key to set the selected WiFi network as the
WiFi Config	default connection.
(*)MyWiFi	
N/A	The default WiFi network will automatically connect when the
N/A	system requires WiFi networking.
N/A	



5.3.3 Connect / Disconnect WiFi





5.3.4 Delete Saved WiFi Network

Screen	Steps
WiFi Config	Delete Saved WiFi Network:
(*) MyWiFi MyWiFi1	• " is "Delete the selected WiFi Network" button.
	■ In the WiFi Settings screen, highlighting the network to edit through the UP or DOWN key, and highlighting the "Delete the selected WiFi Network" button through the LEFT or RIGHT key,
Msg.	and then press the ENTER key to delete the selected WiFi network.
DELETE?	• When the confirmation dialog appears, press LEFT or RIGHT button to select "OK" or " Cancel", then press ENTER key to confirm the operation.
WiFi Config N/A (*)MyWiFi1 N/A N/A	If the default network is deleted, the system automatically sets the default WiFi network to the next available WiFi in the list.

5.3.5 Network Service

Screen	Steps	
WLAN Settings	Network Service:	
Exit	■ In the WLAN setting screen, press the UP or DOWN key to highlight the "Network Service" button and press the ENTER key	
Network Service	to enter.	
WiFi Config		
WLAN Info.	If there's a default WiFi network configured in the network settings the system will automatically connect to the default WiFi	
WLAN Settings Press ENTER to exit	network, after the successful connection, the network service will be started and IP address is listed. Users can use this IP address to	
Connecting WiFi,	connect the device in the FieldScanUtility software.	
Please Wait.	Press ENTER key to exit the network service.	



5.3.6 WLAN Information

Screen	Steps	
Screen WLAN Info SSID: MyWiFi IP: 192.168.1.106 DNS: 123.123.123.123 GW: 192.168.1.1 MAC: 244CABCDEFEF ENC: WPA_WPA2_PSK CHNL: 8	Steps WLAN Information: In the WLAN information screen, you can check the network information for the current connection. All the information is N / A when there is no connection. SSID: Connected WiFi name IP: Device IP address DNS: DNS IP address GW: Gateway IP address MAC: Device MAC address	
	ENC: Connected WiFi network encryption mode CHNL: Connected WiFi network channel	



5.4 System Settings - Value Unit

Screen	Steps	
System Settings	Set Value Unit:	
Exit Data Storage WLAN Settings Value Unit Date Time Auto Power Off Backlight Sensor Comm. Language Sensor List	 In the "System Settings" screen, press the UP or DOWN key to highlight the "Value Unit" button, and press the ENTER key to enter the "Value Unit" screen. In the data unit screen, press UP or DOWN key to highlight the corresponding unit setting button (such as "Air temperature"), and press ENTER button to enter the "Air temperature" unit setting screen. In "Air temperature" unit setting screen, press ENTER key to save the settings, or press FUNC key to exit without saving. 	
Value Unit Exit Air Temperature Temperature Humidity Dew Point		
B °C		
₽ °F		
Msg. Saved		



5.5 System Settings – Set Date Time

Screen	Steps	
System Settings	Set Date Time:	
Exit	In the "System Settings" screen, press the UP or DOWN key to	
Data Storage	highlight the "Date Time" button, and press the ENTER key to	
WLAN Settings	enter the "Date Time" screen.	
Value Unit	- In the data time correspondences the LEET or DICUT have to	
Date Time	in the date time elements to be set such as year month day.	
Auto Power Off	time minute and second	
Backlight		
Sensor Comm.	• When highlight the time element to set, press the UP or DOWN	
Language	key to increase or decrease the time element.	
Sensor List		
About	Press ENTER key to save the settings, or press FUNC key to exit	
Date/Time	without saving.	
Date(YYYY-MM-DD)		
2023 05 08		
Time(hh:mm:ss)		
15 56 08		
x		
Msg.		
E Saved		
E		
_		

5.6 System Settings – Set Auto Power Off

Screen	Steps
System Settings	Set Auto Power Off Time:
Exit	• When there is no keyboard operation in a set time, the system
Data Storage	will automatically shut down to save energy. When the instrument
WLAN Settings	is in the "Continuous Measurement and Save Data" or "Network
Value Unit	Service" function, the auto power off function is temporarily
Date Time	disabled.
Auto Power Off	- In the "System Settings" sources, gauge the UD or DOWN have to
Backlight	In the System Settings screen, press the UP of DOWN key to highlight the "Auto Power Off" button and press the ENTEP key
Sensor Comm.	to enter the "Auto Power Off" screen
Language	to enter the Thito I ower on screen.
Sensor List	In the auto power off screen, press UP or DOWN key to
About	highlight the auto power up time, press ENTER key to save the
	settings, or press FUNC key to exit without saving.
X Exit	
Never	
1 Minute	
R 2 Minutes	
Msg	
Saved	
E	
c	

5.7 System Settings – Set Backlight

Screen	Steps	
System Settings	Set Backlight:	
Exit	Please set backlight according to your ambient light to ensure the	
Data Storage	longer duration of battery use.	
WLAN Settings		
Value Unit	In the "System Settings" screen, press the UP or DOWN key to	
Date Time	highlight the "BackLight" button, and press the ENTER key to	
Auto Power Off	enter the BackLight screen.	
Backlight	In the backlight screen, press UP or DOWN key to highlight the	
Sensor Comm.	screen brightness, press ENTER key to save the settings, or press	
Language	FUNC key to exit without saving.	
Sensor List	e e e e e e e e e e e e e e e e e e e	
About		
Y Evit		
D 10%		
20%		
₿ 30%		
Msg		
E Saved		
k i		
F		

5.8 System Settings – Config Sensor Communication

Screen	Steps	
System Settings	Sensor Communication Parameters Config:	
Exit	In the "System Settings" screen, press the UP or DOWN key to	
Data Storage	highlight the "Sensor Comm." button, and press the ENTER key to	
WLAN Settings	enter the "Sensor Comm." screen.	
Value Unit	- In the senser commence of a senser mass LID or DOWN have to	
Date Time	in the sensor comm. coming screen, press OP of DOWN key to highlight the corresponding function setting press ENTER key to	
Auto Power Off	enter or press FUNC key to exit	
Backlight		
Sensor Comm.	Do not modify the sensor communication parameters unless you	
Language	understand the settings, otherwise it may cause the sensor	
Sensor List	communication failure!!!	
About		
Sensor Comm.		
Exit		
Salve Address		
Baudrate		
Data Format		
Data i of mat		
Timeout		
warmup rime		
Slave Address	Set Slave Address:	
1	In the slave address screen, press UP or DOWN key to modify the slave address ranges from 0.255 press ENTER key to save or	
	ness EUNC button to exit without saving	
	press rorve button to exit without saving.	
	Slave Address Range: 0-255	
× Exit	Set Baudrate:	
D 1000 1	In the baudrate screen, press UP or DOWN key to select the	
H 1200 bps	baudrate, press ENTER key to save, or press FUNC button to exit	
a 2400 bps	without saving.	
4800 bps	Baudrate Range:	
	1200bps,2400bps,4800bps,9600bps,19200bps,38400bps,57600bps,	
	115200bps	



¥ Evit	Set Data Format:
	In the data format screen, press UP or DOWN key to select the
B 8 N 1	format, press ENTER key to save, or press FUNC button to exit
B 8 0 1	without saving.
B 8 E 1	Data Format Range:
	8N1: 8 databits,1 stopbit,None Parity
	8O1: 8 databits,1 stopbit,Odd Parity
	8E1: 8 databits,1 stopbit,Even Parity
	8N2: 8 databits,2 stopbit,None Parity
	8O2: 8 databits,2 stopbit,Odd Parity
	8E2: 8 databits,2 stopbit,Even Parity
Timeout(MilliSeconds)	Set Communication Protocol:
2000	In the protocol screen, press UP or DOWN key to select the
	protocol, press ENTER key to save, or press FUNC button to exit
	without saving.
	Protocol Range: Modbus-RTU
× Exit	Set Read Timeout:
	In the timeout screen, press UP or DOWN key to select the
Modbus-RIU	timeout, press ENTER key to save, or press FUNC button to exit
	without saving.
	Timeout Range:100-5000 milliseconds
	Sat Warm Un Time:
warmup Time (Second)	Before reading the sensor data the sensor will be powered up by
	the instrument for a "Warm Un Time"
	In the warm up time screen press UP or DOWN key to select the
	warm up time press ENTER key to save or press EUNC button to
	exit without saving
	Warm Un Time Range: 1-300 Second
	= warm op mile Range.1-500 Second.

5.9 System Settings – Language

Screen	Steps
System Settings	Set Language:
Exit	In the "System Settings" screen, press the UP or DOWN key to
Data Storage	highlight the "Language" button, and press the ENTER key to
WLAN Settings	enter the "Language" screen.
Value Unit	
Date Time	In the Language screen, press UP or DOWN button to highlight
Auto Power Off	the item, press ENTER button to save settings, or press FUNC
Backlight	button to exit.
Sensor Comm.	When the confirmation dialog appears press LEET or RIGHT
Language	button to select "OK" or " Cancel", then press ENTER key to
Sensor List	confirm the operation. Please select "OK" to restart the device to
About	apply the changes.
× Exit	
■中文(Chinese)	
■English(英文)	
Msg.	
ERestart to apply ()	
Changes?	
OK Cancel	



5.10 System Settings – Sensor List

Screen	Steps	
System Settings	The sensor list allows you to view all of the supported sensors:	
Exit	In the "System Settings" screen, press the UP or DOWN key to	
Data Storage	highlight the "Sensor List" button, and press the ENTER key to	
WLAN Settings	enter the "Sensor List" screen.	
Value Unit		
Date Time	In Sensor List screen, press FUNC key to exit.	
Auto Power Off		
Backlight		
Sensor Comm.		
Language		
Sensor List		
About		
Sensor List		
DigiTH Air Humidity/Te.		
DigiTHP Air Humidity/Te.		
MEC10 Soil Moisture/EC.		
MS10 Soil Moisture/T.		
PYR20 Solar Radiation.		



5.11 System Settings – About Device

Screen	Steps	
System Settings	About Device:	
Exit	In the "System Settings" screen, press the UP or DOWN key to	
Data Storage	highlight the "About" button, and press the ENTER key to enter	
WLAN Settings	the "About" screen.	
Value Unit	= In About comon proce EUNCTION how to ovit	
Date Time	In About screen, press FUNCTION key to exit.	
Auto Power Off	Device Name and Version:FieldScanv2.0	
Backlight	DevID: Device Unique ID	
Sensor Comm.	SN: Device Serial Number	
Language	Storage Usage: 6.88%(100k)	
Sensor List	Company: DaLian Endeavour Technology Co., Ltd.	
About	Website: www.infwin.com	
	Telephone:+86-411-66831953	
About	EMail:infwin@163.com	
FieldScan v2.0		
DevID:244CABCDEFEF		
SN:2305080026		
MEM:6.88%(100k)		
DaLian Endeavour Technology		
www.infwin.com		
+86-411-66831953		
infwin@163.com		



6 FieldScanUtility Software

6.1 Brief

FieldScanUtility Can connect the handheld instrument through the LAN, user can download data, upgrade firmware, export data to excel file.

6.2 Functionality

6.2.1 Connect to device

■ In the WLAN setting screen, press UP or DOWN button to highlight "Network Service", then press ENTER key to startup the network service, the network server address, such as "192.168.1.106" will be displayed.



Startup the FieldScanUtility software on the computer, click the "Connect device" button in the toolbar, enter the device IP address, and connect to the device.

INFWIN [®] Unleash Your Imagination	http://www.infwin.com
🔢 FieldScan Utility	- 🗆 X
🚰 Connect 🕑 Doanload Data 嶡 Data Export 杰 Firmware Upgrade 🌏 Language(i	吾言) 🚹 About
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narao in	
Device Connection X	
Connection	
Device IP 192.168.1.105	
Device: Disconnected	.:

🔡 FieldScan Utility			×						
🗧 Connect 🔮 Doanload Data ស Data Export 🕢 Firmware Upgrade 🌏 Language(语言) 👔 About									
DataGrid									
Device: FieldScap v2.0. SN=230501, DevID=R4844485EE8, DataStorage=105536 items									
Device: FieldScan V2.0, SIN=230501, DeVID=B48AA485FF8, DataStorage=105536 items									



6.2.2 Download and Export Data

• When connected, you can click the "download data" button in the toolbar to download the data record file.

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•	2023-06-02 17:47:52	TAG0000000	27.9	38.15	12.33										
	2023-06-02 17:48:02	TAG0000001	27.91	38.34	12.42										
	2023-06-02 17:48:12	TAG0000002	27.92	38.58	12.52										
	2023-06-02 17:48:2	Data Down	load									×			
	2023-06-02 17:48:3														
	2023-06-02 17:48:4	Save As	C:\Users\Admi:	nistrator\Des	ktop\FieldSc	can, 2	2023060	02175532	2. dat						
	2023-06-02 17:48:5														
	2023-06-02 17:49:0								Downl	oad	Cance	1			
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	2023-06-02 17:49:22	TAG0000009	27.94	38.89	12.66										
	2023-06-02 17:49:32	TAG0000010	27.94	38.76	12.61										
	2023-06-02 17:49:42	TAG0000011	27.94	38.76	12.61										
	2023-06-02 17:49:52	TAG0000012	27.94	38.89	12.66										
	2023-06-02 17:50:02	TAG0000013	27.95	38.98	12.71										
	2023-06-02 17:50:12	TAG0000014	27.94	39.07	12.73										
	2023-06-02 17:50:22	TAG0000015	27.94	39.16	12.77										
	2023-06-02 17:50:32	TAG0000016	27.95	39.22	12.8										
Devi	ce: FieldScan v2.	0, SN=23	30501, Dev	ID=B48AA	485FF8, D	Data	aSto	rage=	10553	86 iten	าร				.::

■ This data record file can be loaded into the data table, exported to the EXCEL or CSV file through the "Data Export" button in the toolbar.

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🖳 FieldScan Utility		- 🗆	×
🚍 Connect 🔮 Doanload Data 遲 Data Export 🕢 Firmware Upgrade 🌏 Language	狺) 🚹 About		
DataGrid			
Data Export	×		
● To DataGrid ○ To CSV ○ To Excel			
Data File C:\Users\Administrator\Desktop\FieldScan.20230602175532.dat			
Output File C:\Users\Administrator\Desktop\FieldScan.xls			
OK	Cancel		
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	2023-06-02 17:48:02	TAG0000001	27.91	38.34	12.42						
	2023-06-02 17:48:12	TAG0000002	27.92	38.58	12.52						
	2023-06-02 17:48:22	TAG0000003	27.92	38.76	12.6						
	2023-06-02 17:48:32	TAG0000004	27.93	38.98	12.69						
	2023-06-02 17:48:42	TAG0000005	27.93	38.95	12.68						
	2023-06-02 17:48:52	TAG0000006	27.93	38.89	12.65						
	2023-06-02 17:49:02	TAG0000007	27.93	38.89	12.65						
	2023-06-02 17:49:12	TAG0000008	27.93	38.92	12.66						
	2023-06-02 17:49:22	TAG0000009	27.94	38.89	12.66						
	2023-06-02 17:49:32	TAG0000010	27.94	38. 76	12.61						
	2023-06-02 17:49:42	TAG0000011	27.94	38. 76	12.61						
	2023-06-02 17:49:52	TAG0000012	27.94	38.89	12.66						
	2023-06-02 17:50:02	TAG0000013	27.95	38.98	12. 71						
	2023-06-02 17:50:12	TAG0000014	27.94	39.07	12. 73						
	2023-06-02 17:50:22	TAG0000015	27.94	39.16	12.77						
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Devic	ce: FieldScan V2.	0, SIN=23	iusur, Dev	ID=B48AA	405FF8, D	atastor	age=10553	6 items			

6.2.3 Firmware Upgrade

The firmware upgrade operation can be performed through the "firmware upgrade" button in the toolbar, and the instrument will automatically restart to apply the new firmware once the upgrade done.

🖳 Fie	eldScan Utility									—	×
5	Connect 🛃 Doa	anload Dat	a 🔊 Dat	a Export 🕢	Firmware	Upgrade	💫 Lang	uage(语言)	About		
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	2023-06-02 17:48:52	TAG									
	2023-06-02 17:49:02	TAG						Upgrade	Cancel		
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	2023-06-02 17:49:22	TAG0000009	27.94	38.89	12.66						
	2023-06-02 17:49:32	TAG0000010	27.94	38. 76	12.61						
	2023-06-02 17:49:42	TAG0000011	27.94	38.76	12.61						
	2023-06-02 17:49:52	TAG0000012	27.94	38.89	12.66						
	2023-06-02 17:50:02	TAG0000013	27.95	38.98	12. 71						
	2023-06-02 17:50:12	TAG0000014	27.94	39.07	12. 73						
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	2023-06-02 17:48:2	Firmware U	lpgrade						×			
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Appendix

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Revision

Date	Version	Comment	Updated by
2023-06-05	V1.0	Initial Creation	fg49597