

Sparklike[®]

SPARKLIKE HANDHELD

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Sparklike[®]

SPARKLIKE HANDHELD FAST INSTRUCTION MANUAL



WARNING:

- The instrument uses high voltage, therefore the device should NEVER be used near computers nor other sensitive electronic devices.
- Persons with heart conditions or who use pacemakers should not use this device.
- The high voltage discharge should never be directed at humans or at animals either directly or through a conductive material such as wires or metal structures.
- The Sparklike Handheld should NEVER be used to measure any flammable substances nor be used in any flammable environment. Also make sure that the insulating glass unit does not contain any flammable substances. (Such as Isopropanol, Alcohol, Acentone, Xylen, Thinner)
- The device should never be used in wet or in humid conditions.
- Never use the instrument while standing on unsteady surfaces.
- The device is a precision measuring instrument and should be handled accordingly. Please, handle the device with care.
- Always turn off the power when instrument is not in use.
- Keep fingers and other body parts clear of the high voltage area when using the device. Do not keep the device connected to your computer nor other electronic devices while performing measurements.
- Do not open the Sparklike Handheld casing. In such case calibration is void and no safety guarantee can be granted.
- Do not use any other battery charger than charger provided by the manufacturer.
- Do not use any other power source for the Sparklike Handheld than the battery provided with the device.

1. DELIVERED WITH THE DEVICE

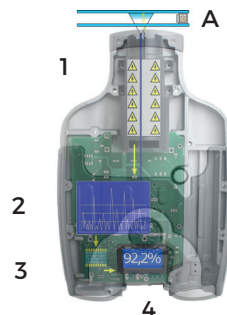


1. Sparklike Handheld device
2. Neck strap
3. Calibration data and fast instructions
4. Battery
5. USB Cable
6. Battery charger and power cord
7. Carry case
8. Protective cap

Software, Drivers and Instruction manuals can be downloaded at sparklike.com/handheld

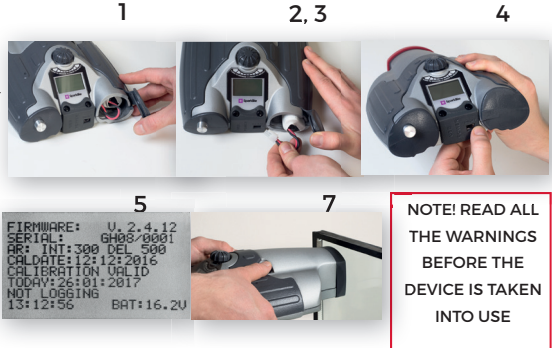
2. HOW DOES IT WORK

A high voltage spark (1) is ignited inside the IG unit (A). This high voltage spark causes the argon atom to emit light to a spectrometer (2), which measures the light. A microprocessor (3) interprets the information of the spectrometer and calculates an argon percent, which it outputs to a display (4).



3. HOW TO USE SPARKLIKE HANDHELD AND STARTING UP FOR THE FIRST TIME

1. Open the battery hatch
2. Insert the battery
3. Connect it to the battery socket
4. Turn on the device from the ON/OFF switch
5. Device settings will show on the screen
6. Register your device to activate the device at sparklike.com/register
7. The device is ready for use



4. HOW TO USE THE SPARKLIKE HANDHELD ENCODER BUTTON

Press down to:

1. Enter MENU
2. Confirm a selection



Turn to:

3. Scroll in the MENU
4. Name a log file



5. IN BRIEF, FACTORS TO CONSIDER WHEN MEASURING

Factors affecting the optics:

- Coloured glass
- Tinted glass (minimal effect)
- Strong background light measurement (against the sun or other source)
- Dirt on the glass (minimal effect)
- Dirt on the front optical fibre
- Mistreated front optical fibre or electrode

Factors making it easier for the spark to "jump":

- High argon fills
- Metallic coating on surface 3
- Thin glass (6mm or less)
- Thin air space (20mm or less)
- Metallic or other conductor on surface 3, such as low-e coating
- Metallic spacer bar

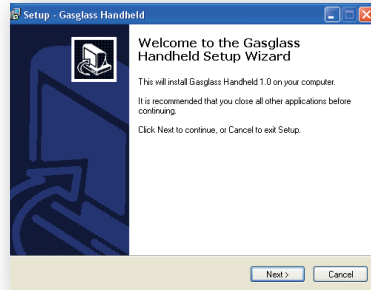
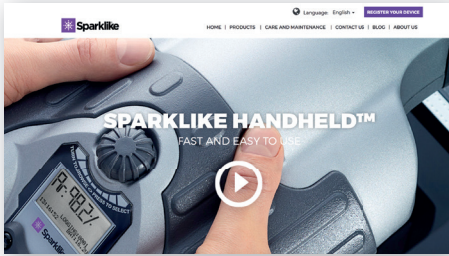
Factors affecting the spark:

- Thick glass (over 6 mm)
- Plastic films on glass 1 (laminated glass, coatings, etc.)
- Metallic films on glass 1
- Metallic components in glass 1
- Low Argon fill (less than 80%)
- Wide spacer (over 20mm)
- Electrode is not in contact with the glass surface
- Handheld is not evenly pressed against the glass
- Non-metallic spacers

Correct conditions:

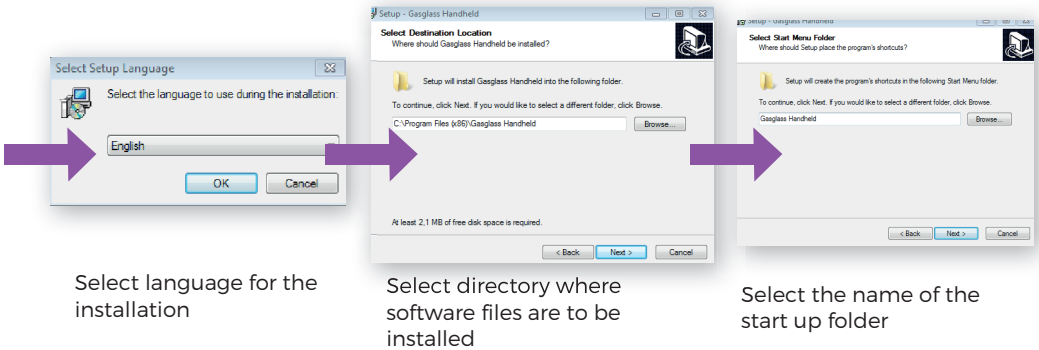
- Stable dark background light
- Hand unit NOT moved during measurement

6. INSTALLING THE SOFTWARE



Download the software from sparklike.com/handheld

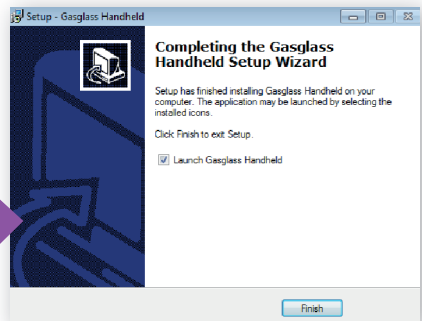
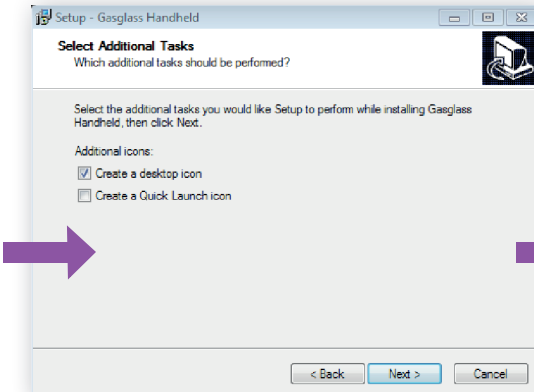
Install wizard start up



Select language for the installation

Select directory where software files are to be installed

Select the name of the start up folder



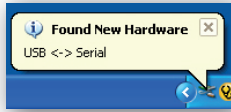
Installation completed

NOTE: the appearance of the windows will vary according to your computer

7. INSTALLING THE USB DRIVERS



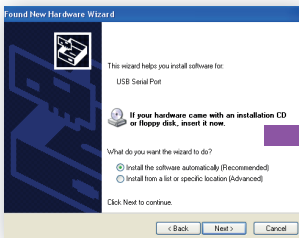
Connect Sparklike Handheld to your computer



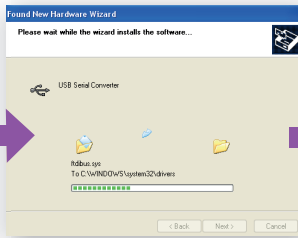
Found new hardware sign will occur



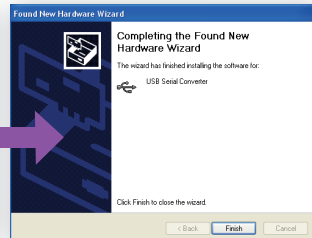
Windows will ask if it can be updated. Tag "No"



Windows will ask if it can install automatically. Tag "Yes"



The installation status bar will occur when driver files are found

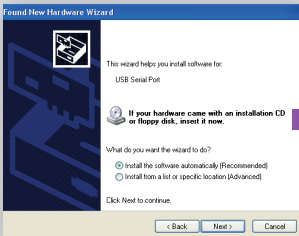


The first stage of installation is completed

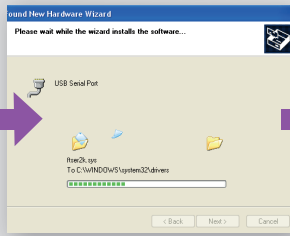
Found new hardware sign will occur



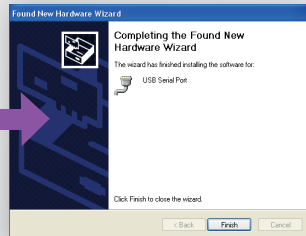
Windows will ask if it can be updated. Tag "No"



Windows will ask if it can install automatically. Tag "Yes"



The installation status bar will occur when driver files are found

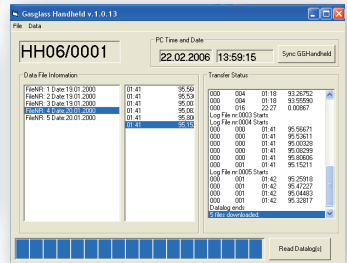


The installation is completed

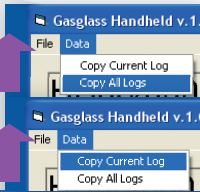
8. HOW TO CONNECT TO YOUR COMPUTER

The software for Sparklike Handheld can be downloaded at sparklike.com/handheld. Please make sure that all needed software and drivers are installed before attempting to connect Sparklike Handheld with your computer.

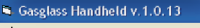
1. Connect the provided USB cable to the USB socket in Sparklike Handheld. Connect the provided USB cable to your computer.
2. Start up Sparklike Handheld
3. Enable the connection between your computer and Sparklike Handheld from the device by selecting "PC connection".
4. Start the software.
5. Press the "Sync SHandheld"
6. Press the "Read Datalogs"



Software window after a successful download

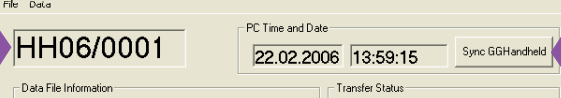


Copies all log files to clipboard



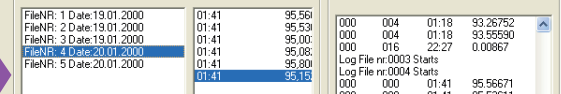
Copies selected log files to clipboard

Sparklike Handheld serial number



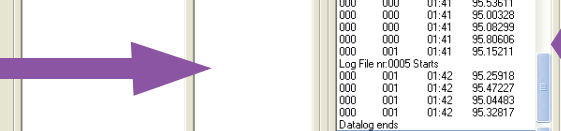
Syncs and updates time and date on Sparklike Handheld

Downloaded log files



Shows all transferred data

Information from selected log file



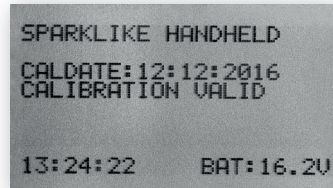
Retrieves all logs from Sparklike Handheld



Status of transfer

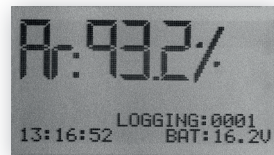
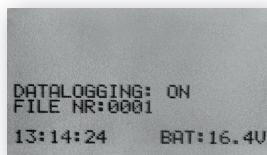
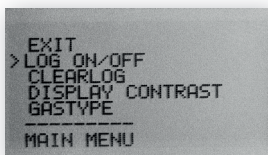
9. USING SPARKLIKE HANDHELD LCD SCREEN

1. When the ON/OFF button is switched ON, Sparklike Handheld will perform a self test where it checks itself for errors.
2. The screen will automatically change when all is tested OK
3. The first fixed screen after start up is a device information screen.
4. This screen will be important when communicating with the manufacturer.
5. . The information screen shows:
 - Revision of the device
 - Last calibration date
 - Current time
 - Battery charge status
6. Device is now ready to use
7. When the button is pressed for the first time after start up, the measurement result will show.
8. The current time and battery charge status can be seen on the screen.
9. It will also indicate that the measurement has not been logged. (see: How to create a log file)



10. HOW TO CREATE A LOG FILE

1. From the main menu scroll, by turning the encoder button, to the LOG ON/OFF menu.
2. Select this by pressing the encoder button once.
3. The next screen shows that the logging is to be started.
4. The device will suggest the following free log name (number) available. If the suggested number is OK, simply press the encoder button to confirm.
5. By turning the encoder button the number of the log file can be changed. One click will increase or decrease the number with one.
6. When measuring a text is displayed showing that the logging mode is on and it will also display the log file number.

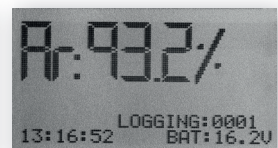


11. HOW TO ERASE THE LAST LOGGED FILE

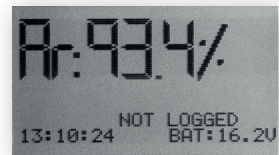
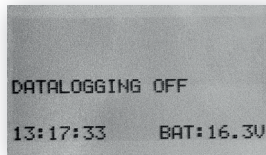
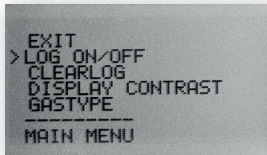
When the log mode is on and a measurement has been taken but the operator feels that the measurement was an error measurement, it is possible to erase this measurement. This is done to prevent faulty log files on your computer.

If the measurement is not satisfying:

1. Press down the encoder button and keep it pressed down for at least 2 sec.
2. The log value will be deleted permanently.



12. HOW TO TURN OFF THE LOG MODE

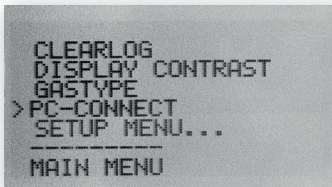


1. From the main menu scroll, by turning the encoder button, to the LOG ON/OFF menu.
2. Select this by pressing the encoder button once.
3. A screen will display that the log mode has been turned off.
4. When measuring, a text is displayed that the measurements have not been logged.
5. To create a new log file with a new name, repeat procedure explained in chapter 10.

NOTE! When Sparklike Handheld is connected to a computer and the log files have been retrieved, the log memory will be deleted from Sparklike Handheld device. This is the only way of emptying the memory and should be done every now and then to prevent the memory from overfilling.

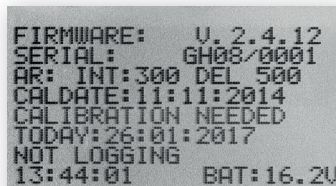
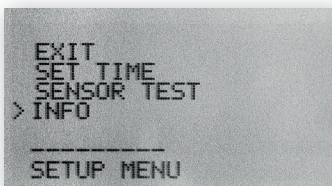
13. ENABLING THE CONNECTION WITH YOUR COMPUTER

Sparklike Handheld log data can be downloaded to your computer. In order to do this, Sparklike Handheld has to open its communication port to your computer. This is performed before enabling the connection from the computer.

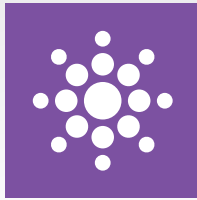


1. From the main menu scroll, by turning the encoder button to the PCCONNECT menu
2. Select by pressing the encoder button once.
3. A screen will display that the PC communication is enabled.
4. Sparklike Handheld is open for communication with the PC.

14. INFORMATION DISPLAY



You can retrieve the device serial number and calibration information through SETUP >> INFO.



Sparklike

Like any valued equipment, Sparklike Handheld devices require maintenance to keep their accuracy and reliability at highest level. Sparklike recommends users to calibrate their product once a year.

Sign up for Sparklike CARE and let Sparklike professionals take care of your calibration and maintenance needs. For more information:

sparklike.com/care

For customers without service agreement, contact your nearest calibration centre in Finland or in USA. For more information:

sparklike.com/calibration

Sparklike Oy

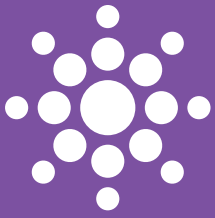
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+358 10 387 7707

sparklike@sparklike.com

www.sparklike.com



Sparklike[®]

SPARKLIKE HANDHELD KURZHANDBUCH



ACHTUNG:

- Das Gerät nutzt Hochspannung. Daher sollten Sie das Gerät niemals in der Nähe von Computern oder anderen sensiblen elektronischen Geräten betreiben.
- Personen mit Herzfehlern oder Herzschrittmachern sollten das Gerät nicht verwenden.
- Die Hochspannung sollte niemals auf Menschen oder Tiere gerichtet werden, auch nicht auf gut leitende Materialien, wie bspw. Kabel oder metallene Strukturen.
- Das Sparklike Handheld sollte niemals in der Nähe entzündlicher Materialien benutzt werden oder um entzündliche Materialien zu messen.
- Das Gerät sollte niemals in nassen oder feuchten Umgebungen verwendet werden.
- Das Gerät sollte nicht auf unebenen Oberflächen genutzt werden.
- Das Gerät ist ein Präzisionsmessgerät und sollte entsprechend verwendet werden. Bitte behandeln Sie das Gerät sorgfältig.
- Schalten Sie das Gerät ab, wenn Sie es nicht verwenden.
- Halten Sie Finger und sonstige Körperteile niemals in die Nähe des Hochspannungsbereichs. Schließen Sie das Gerät nicht an Ihren Computer oder sonstige Geräte an, solange Sie Messungen durchführen.
- Öffnen Sie bitte nicht das Gehäuse des Sparklike Handhelds. In einem solchen Falle stimmt die Kalibrierung nicht mehr und es kann die Sicherheit des Geräts nicht mehr garantiert werden.
- Benutzen Sie kein anderes Ladegerät als das mitgelieferte.
- Nutzen Sie keine andere Stromversorgung für den Sparklike Handheld, als die mitgelieferte Batterie.

1. LIEFERUMFANG

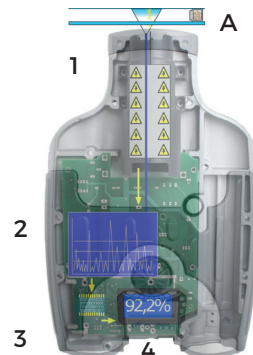
1. Sparklike Handheld Gerät
2. Tragegurt
3. Kalibrierungsdaten und Kurzhandbuch
4. Batterie
5. USB-Kabel
6. Ladegerät und Netzkabel
7. Tragetasche
8. Schutzkappe

Software, Treiber und Anleitungen können hier heruntergeladen werden: sparklike.com/handheld



2. WIE DAS GERÄT ARBEITET

Ein Hochspannungsfunke (1) wird innerhalb der Isolierglaseinheit (A) gezündet. Dieser Funke regt Argon-Atome an, deren Emission mit dem Spektrometer (2) gemessen wird. Ein Mikroprozessor (3) interpretiert diese Messung und berechnet daraus den Argon-Füllgrad, der dann anschließend am Display (4) angezeigt wird.



3. BENUTZUNG DES SPARKLIKE HANDHELD UND ERSTE INBETRIEBNAHME

1. Öffnen der Batterieabdeckung
2. Batterie einlegen
3. Anschließen der Batterie an das Kabel
4. Schalten Sie das Gerät am An-/Aus-Schalter ein.
5. Die Einstellungen werden nun am Display angezeigt
6. Registrieren Sie Ihr Gerät zur Aktivierung unter: sparklike.com/register
7. Sie können das Gerät nun verwenden.



4. BENUTZUNG DES DREHKNOPFS DES SPARKLIKE HANDHELDS

Drücken Sie den Drehknopf, um:

1. einen Menüpunkt auszuwählen
2. um Ihre Auswahl zu bestätigen



Drehen Sie den Drehknopf, um

3. im Menü zu blättern
4. einen Dateinamen zu erstellen.



5. KURZÜBERSICHT DER FAKTOREN, DIE DIE MESSUNG BEEINFLUSSEN

Faktoren, die die Optik betreffen:

- Gefärbtes Glas
- Getöntes Glas (Minimaler Effekt)
- Helle Hintergrundbeleuchtung (Gegenlicht der Sonne oder einer anderen Quelle)
- Schmutz auf dem Glas (minimaler Effekt)
- Schmutz auf der Optik des Geräts
- **Abgenutzte Optik oder Elektrode des Geräts**

Faktoren, die den Funkenprung begünstigen:

- Hohe Argon-Füllgrade
- Dünnes Glas (6mm oder weniger)
- Geringer Scheibenzwischenraum (20mm oder weniger)
- Metallische oder andere leitende Beschichtungen auf der Oberfläche 3, wie z.B. Low-E-Beschichtung
- Metallischer Abstandhalter

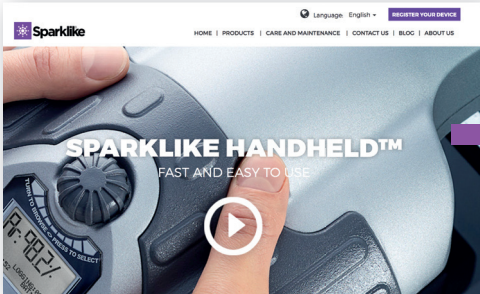
Faktoren, die den Funken beeinflussen:

- Dickes Glas (6mm und mehr)
- Plastikbeschichtung auf der Scheibe 1 (Laminiertes Glas, Beschichtungen, etc.)
- Metallische Beschichtungen auf der Scheibe 1
- Metallische Komponenten in der Scheibe 1
- Geringe Argon-Füllgrade
- Große Scheibenzwischenräume (15mm und mehr)
- Die Elektrode ist nicht mit der Glasoberfläche in Kontakt
- Der Sparklike Handheld wird nicht gleichmäßig auf die Glasoberfläche aufgedrückt
- **Kein metallischer Abstandhalter**

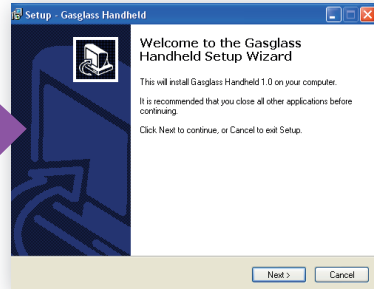
Korrekte Bedingungen:

- **Gleichmäßige, relativ dunkle Hintergrundbeleuchtung. Das Gerät wird während der Messung nicht bewegt.**

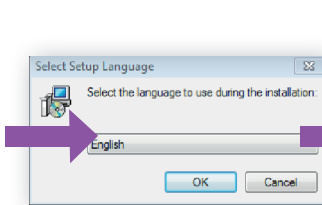
6. INSTALLATION DER SOFTWARE



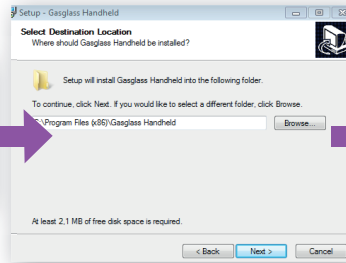
Download der Software unter:
sparklike.com/handheld



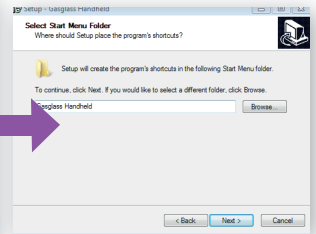
Installation des Startup-Wizard



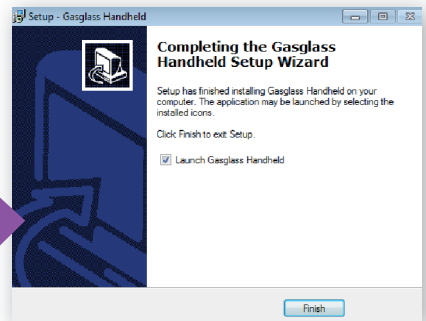
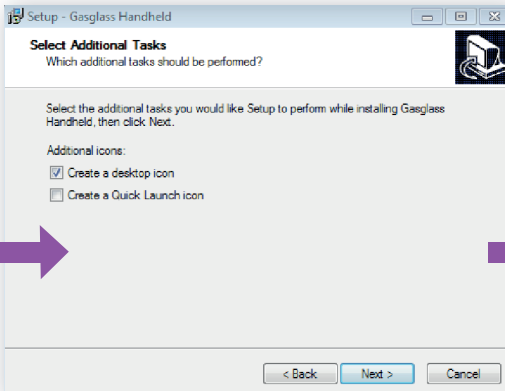
Sprachauswahl für die
Installation



Auswahl des
Zielverzeichnisses für die
Installation



Auswahl des Start-Menü-
Ordnern



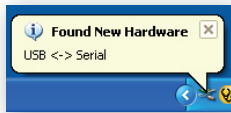
Installation abgeschlossen

HINWEIS: die Darstellung des Windows-Fensters kann abhängig von Ihrer Windows-Version abweichen

7. INSTALLATION DER USB-TREIBER



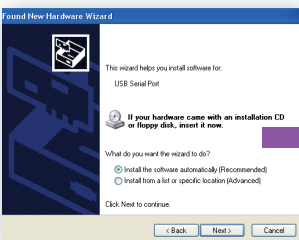
Verbinden Sie das Sparklike Handheld mit Ihrem Computer



Der Hinweis, dass neue Hardware gefunden wurde, erscheint



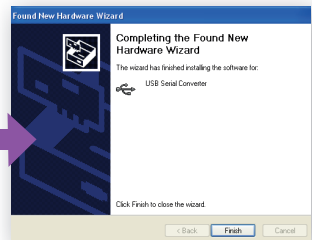
Die Frage nach der Treibersuche auf Windows-Update beantworten Sie bitte mit "Nein"



Die Frage, ob Windows die Treiber automatisch installieren soll, beantworten Sie bitte mit "Ja"



Die Installations-Fortschrittsanzeige erscheint, sobald Treiber gefunden wurden.

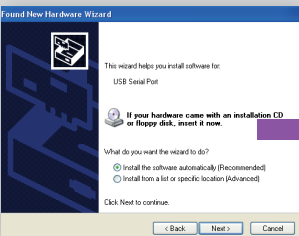


Der erste Schritt der Installation ist abgeschlossen.

Der Hinweis auf neue Hardware erscheint erneut.



Die Frage nach der Treibersuche auf Windows-Update beantworten Sie bitte mit "Nein"



Die Frage, ob Windows die Treiber automatisch installieren soll, beantworten Sie bitte mit "Ja"



Die Installations-Fortschrittsanzeige erscheint, sobald Treiber gefunden wurden.

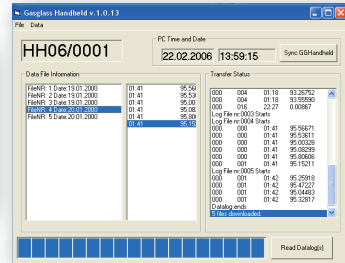
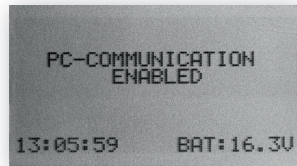


Die Installation ist abgeschlossen.

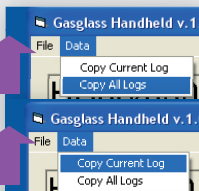
8. ANSCHLIESSEN AN DEN COMPUTER

Die Software für das Sparklike Handheld können Sie unter sparklike.com/handheld herunterladen. Bitte stellen Sie sicher, dass die benötigte Software und Treiber auf Ihrem Rechner installiert sind, bevor Sie das Sparklike Handheld anschließen.

1. Verbinden Sie das mitgelieferte USB-Kabel mit der Buchse am Sparklike Handheld. Verbinden Sie das andere Ende mit Ihrem Computer.
2. Starten Sie das Sparklike Handheld
3. Aktivieren Sie die Verbindung zwischen Ihrem Computer und dem Sparklike Handheld am Handheld.
4. Starten Sie die Software
5. Drücken Sie "Read Datalogs"



Das Softwarefenster nach einem erfolgreichen Daten-Download



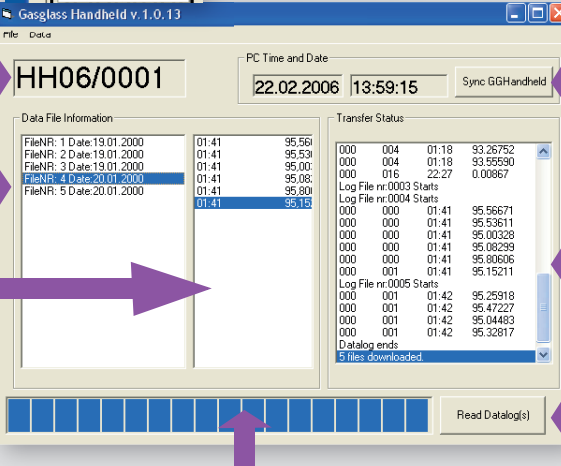
Kopiert alle Log-Dateien in die Zwischenablage



Kopiert ausgewählte Log-Dateien in die Zwischenablage

Sparklike Handheld Seriennummer
Heruntergeladene Log-Dateien

Informationen der ausgewählten Log-Datei



Synchronisiert und aktualisiert Datum und Zeit am Sparklike Handheld

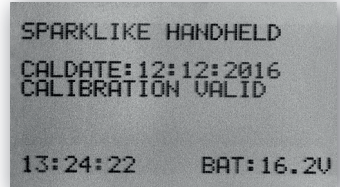
Zeigt die übertragenen Daten

Empfängt alle Log-Dateien vom Sparklike Handheld

Status der Datenübertragung

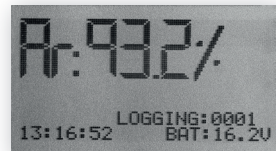
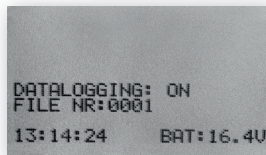
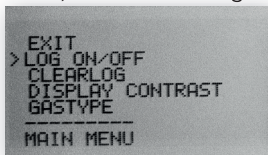
9. VERWENDEN DES SPARKLIKE HANDHELD LCD-BILDSCHIRMS

1. Sobald Sie das Gerät mit dem AN/AUS-Schalter anschalten, beginnt ein kurzer Selbsttest.
2. Der Bildschirm schaltet automatisch um, sobald der Test erfolgreich abgeschlossen ist.
3. Die erste Bildschirmseite ist die Geräte-Informations-Anzeige
4. Diese Ansicht ist dann interessant, wenn Sie mit dem Hersteller in Kontakt stehen.
5. Die Ansicht bietet die folgenden Informationen:
 - Version des Geräts
 - Datum der letzten Kalibrierung
 - Aktuelle Uhrzeit
 - Batterieladung
6. Das Gerät ist jetzt bereit
7. Wenn der Knopf das erste Mal nach dem Hochfahren gedrückt wird, sehen Sie die Messungsansicht.
8. Die aktuelle Zeit und die Batterieladung werden angezeigt.
9. Außerdem sehen Sie, dass die Messung nicht mitgeschrieben wird (siehe auch: Erstellung einer Log-Datei)



10. ERSTELLEN EINER LOG-DATEI

1. Im Hauptmenü scrollen Sie mit Hilfe des Drehknopfs zum Punkt: "LOG ON/OFF"
2. Wählen Sie den Menüpunkt aus, in dem Sie den Drehknopf drücken.
3. Auf der folgenden Ansicht, sehen Sie, dass das Logging jetzt gestartet wird.
4. Das Gerät schlägt Ihnen den nächsten freien Dateinamen (Nummer) für die Log-Datei vor. Wenn diese Nummer für Sie in Ordnung geht, dann klicken Sie einfach den Drehknopf.
5. Mit einer Drehung des Drehknopfs können Sie den Dateinamen (die Nummer) schrittweise erhöhen, bzw. verringern.
6. Während einer Messung wird angezeigt, dass sowohl ein Logeintrag vorgenommen wird, als auch die Logdatei-Nummer.

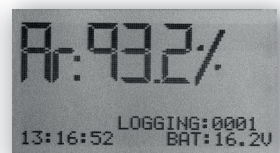


11. LÖSCHEN DER LETZTEN LOG-DATEI

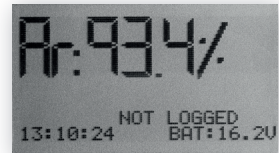
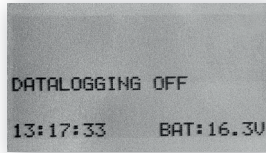
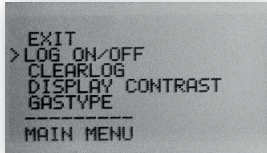
Wenn bei aktivem Logging eine Messung vorgenommen wurde, bei der ein Fehler vorlag, ist es möglich diese Messung zu löschen. Dies vermeidet fehlerhafte Logfiles auf Ihrem Computer.

Wenn die Messung nicht zufriedenstellend ist:

1. Vom Hauptmenü scrollen Sie zu "CLEAR LOG", indem Sie am Drehknopf drehen.
2. Die Log-Datei wird permanent gelöscht.



12. AUSSCHALTEN DES LOGGINGS

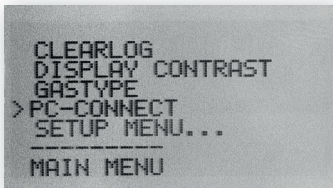


1. Aus dem Hauptmenü drehen Sie den Drehknopf, bis Sie "LOG ON/OFF" ausgewählt haben.
2. Wählen Sie den Menüpunkt aus, in dem Sie den Drehknopf drücken.
3. Auf der folgenden Ansicht sehen Sie, dass das Logging jetzt ausgeschaltet wurde.
4. Während einer Messung werden Sie auf das deaktivierte Logging hingewiesen.
5. Um ein Log-File mit einem neuen Namen zu erstellen, wiederholen Sie einfach die Schritte des Kapitels 10.

HINWEIS: Bei einer Verbindung mit dem Computer wird beim Empfang der Logfiles der Speicher des Sparklike Handhelds gelöscht.

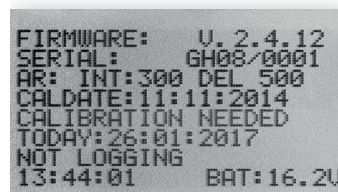
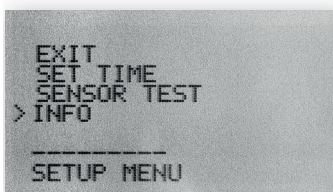
13. HERSTELLEN EINER VERBINDUNG MIT DEM COMPUTER

Die Log-Dateien können vom Sparklike Handheld auf Ihren Computer geladen werden. Dazu muss das Sparklike Handheld die Kommunikationsschnittstelle öffnen. Dies muss vor der Verbindung zu Ihrem Computer erfolgen.



1. Wählen Sie aus dem Hauptmenü den Punkt "PC-CONNECT" mit dem Drehrad aus.
2. Bestätigen Sie Ihre Auswahl durch drücken des Drehknopfs.
3. Auf der folgenden Ansicht sehen Sie, dass die Kommunikation nun aktiviert wurde.
4. Sie können nun das Handheld mit dem PC verbinden.

14. INFORMATIONEN-ANSICHT



Sie können sich die Seriennummer und die Kalibrierungsinformationen über das Menü "SETUP -> INFO" anzeigen lassen.



Sparklike

Wie bei anderen wertvollen Messgeräten, erfordert auch das Sparklike Handheld eine gewisse Wartung, um seine Genauigkeit und Zuverlässigkeit auf höchstem Niveau zu halten. Sparklike empfiehlt den Nutzern, ihr Produkt einmal im Jahr zu kalibrieren.

Melden Sie sich für Sparklike CARE an und wir kümmern uns um Ihre Kalibrierung und Wartung. Für weitere Informationen:

sparklike.com/care

Für Kunden ohne Servicevertrag wenden Sie sich bitte an Ihr nächstgelegenes Kalibrierzentrum in Finnland oder in den USA. Für weitere Informationen:

sparklike.com/calibration

Sparklike Oy

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00580 Helsinki
Finland

+358 10 387 7701

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sparklike@sparklike.com

www.sparklike.com

AVISO:

- O dispositivo usa alta tensão, portanto, ele NUNCA deve ser usado perto de computadores ou outros dispositivos eletrônicos sensíveis.
- Pessoas com doenças cardíacas ou portando marca-passos não devem usar este dispositivo.
- A descarga de alta tensão nunca deve ser direcionada a pessoas ou animais, seja diretamente através de um material condutor, como fios ou estruturas metálicas.
- O Sparklike Handheld NUNCA deve ser usado para medir qualquer substância inflamável, nem deve ser usado em qualquer ambiente inflamável. Certifique-se também de que a unidade de vidro isolante não contenha substâncias inflamáveis. (como isopropanol, álcool, acetona, xileno e solvente)
- O dispositivo nunca deve ser usado em condições molhadas ou úmidas.
- Nunca use o dispositivo enquanto permanece parado em superfícies instáveis.
- O dispositivo é um instrumento de medição de precisão e deve ser manipulado adequadamente. Manuseie o dispositivo com cuidado.
- Sempre desligue a energia quando o dispositivo não estiver em uso.
- Mantenha os dedos e outras partes do corpo afastados da área de alta tensão ao usar o dispositivo. Não mantenha o dispositivo conectado ao seu computador nem a outros dispositivos eletrônicos ao realizar medições.
- Não abra o gabinete Sparklike Handheld. Nesse caso, a calibração é nula e não se pode conceder qualquer garantia de segurança.
- Não use um carregador de bateria diferente daquele fornecido pelo fabricante.
- Não use nenhuma outra fonte de energia para o Sparklike Handheld que não seja a bateria fornecida com o dispositivo.



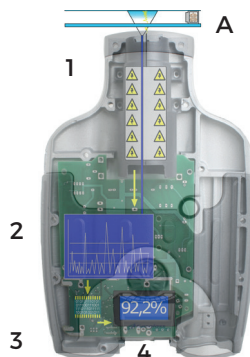
1. ENTREGUE COM O DISPOSITIVO

1. Dispositivo Sparklike Handheld
2. Tira de pescoço
3. Dados de calibração e instruções rápidas
4. Bateria
5. Cabo USB
6. Carregador de bateria e cabo de alimentação
7. Estojo de transporte
8. Tampa protetora

O software, os drivers e o manual de instruções podem ser baixados em sparklike.com/handheld

2. COMO FUNCIONA

Uma centelha de alta tensão (1) é acesa dentro da unidade IG (A). Esta centelha de alta tensão faz com que o átomo de argônio emita luz para um espectrômetro (2), que mede a luz. Um microprocessador (3) interpreta as informações do espectrômetro e calcula uma porcentagem de argônio, que é exibida em uma tela (4).



3. COMO USAR O SPARKLIKE HANDHELD E PRIMEIRO USO

1. Abra o compartimento da bateria
2. Insira a bateria
3. Conecte-a ao soquete da bateria
4. Ligue o dispositivo no botão liga/desliga
5. As configurações do dispositivo serão exibidas na tela
6. Registre seu dispositivo para ativá-lo em sparklike.com/register
7. Pronto para usar



4. COMO USAR O BOTÃO DO CODIFICADOR DO SPARKLIKE HANDHELD

Pressione para:

1. Acessar o MENU
2. Confirmar uma seleção



Gire para:

3. Percorrer o MENU
4. Nomear um arquivo de log



5. EM RESUMO, FATORES A SEREM CONSIDERADOS AO MEDIR

Fatores que afetam a óptica:

- Vidro colorido
- Vidro matizado (efeito mínimo)
- Luz de fundo forte (contra o sol ou outra fonte)
- Sujeira no vidro (efeito mínimo)
- Sujeira na fibra óptica dianteira
- Fibra óptica dianteira ou eletrodo negligenciado

Fatores que facilitam o "salto" da centelha:

- Preenchimentos com alto teor de argônio
- Vidro fino (6 mm ou menos)
- Espaço de ar fino (20 mm ou menos)
- Condutor metálico ou de outro na superfície 3, como revestimento low-e
- Barra espaçadora metálica

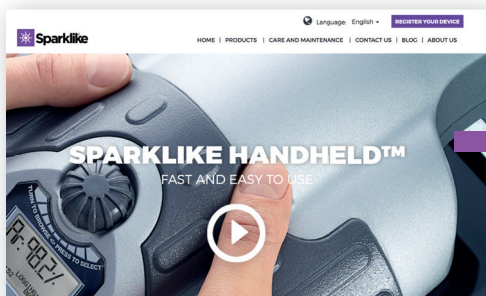
Fatores que afetam a centelha:

- Vidro grosso (mais de 6 mm)
- Películas plásticas no vidro 1 (vidro laminado, revestimentos, etc.)
- Películas metálicas no vidro 1
- Componentes metálicas no vidro 1
- Preenchimento com baixo teor de argônio (inferior a 90%)
- Espaçador largo (maior que 15mm)
- O eletrodo não está em contato com a superfície do vidro
- O Sparklike Handheld não é uniformemente pressionado contra o vidro
- Espaçadores não metálicos

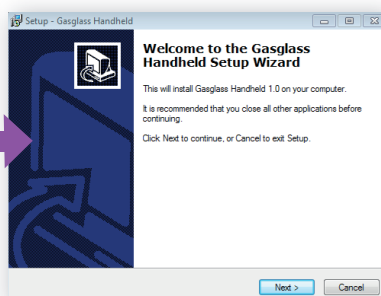
Condições corretas:

- **Luz de fundo escura estável**
- **O dispositivo NÃO deve ser movido durante a medição**

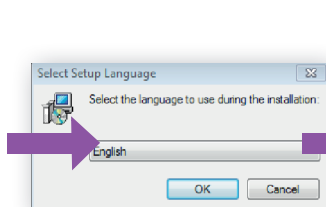
6. INSTALAÇÃO DO SOFTWARE



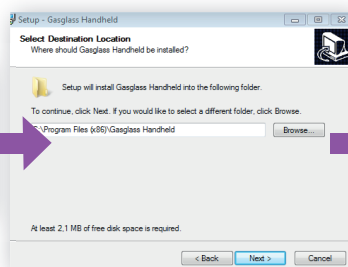
Faça o download do software em sparklike.com/handheld



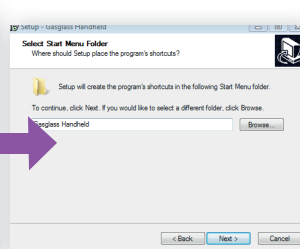
Inicialização do assistente de instalação



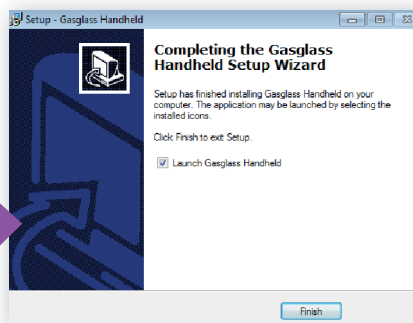
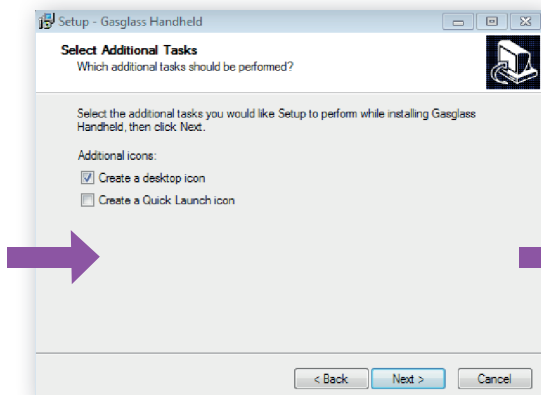
Selecione o idioma da instalação



Selecione o diretório onde os arquivos serão instalados



Selecione o nome da pasta de inicialização



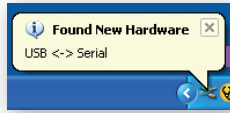
Instalação concluída

NOTA: a aparência das janelas variará de acordo com seu computador

7. INSTALAÇÃO DOS DRIVERS USB



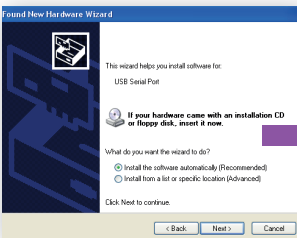
Conecte o Sparklike Handheld ao seu computador



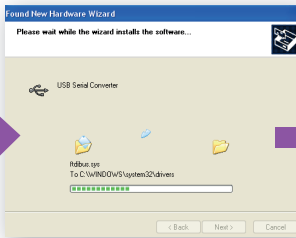
A mensagem "Found new hardware" (Novo hardware encontrado) será exibida



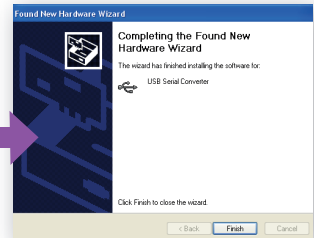
O Windows perguntará se ele pode ser atualizado. Responda "Não"



O Windows perguntará se ele pode ser automaticamente instalado. Responda "Sim"



A barra de status da instalação será exibida quando os arquivos do driver forem encontrados

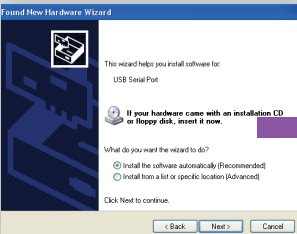


A primeira etapa da instalação está concluída

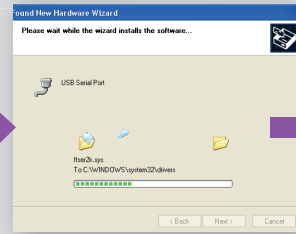
A mensagem "Found new hardware" (Novo hardware encontrado) será exibida novamente.



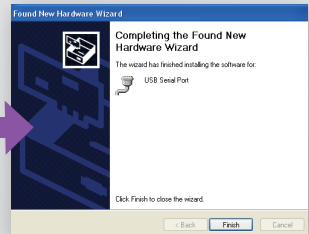
O Windows perguntará se ele pode ser atualizado. Responda "Não"



O Windows perguntará se ele pode ser automaticamente instalado. Responda "Sim"



A barra de status da instalação será exibida quando os arquivos do driver forem encontrados

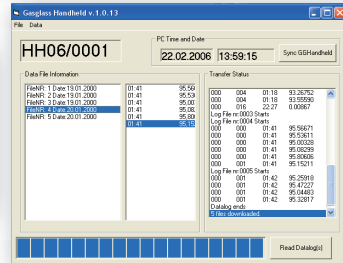


A instalação está concluída

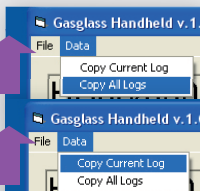
8. COMO CONECTAR AO SEU COMPUTADOR

O software do Sparklike Handheld pode ser baixado em sparklike.com/handheld. Certifique-se de que todos os softwares e drivers necessários sejam instalados antes de tentar conectar o dispositivo Sparklike HandHeld ao seu computador.

1. Conecte o cabo USB fornecido na porta USB do Handheld Sparklike. Conecte o cabo USB fornecido ao seu computador.
2. Inicie o Sparklike Handheld.
3. Ativa a conexão entre seu computador e o Sparklike Handheld a partir do dispositivo.
4. Inicie o software.
5. Pressione “Read Datalogs (Ler datalogs)”



A janela do software é exibida após um download bem-sucedido



Copie todos os arquivos de log para a área de transferência

Copie os arquivos de log selecionados para a área de transferência

Número de série do Sparklike Handheld

Arquivos de log baixados

Informações do arquivo de log selecionado

Atualiza a data e hora no Sparklike Handheld

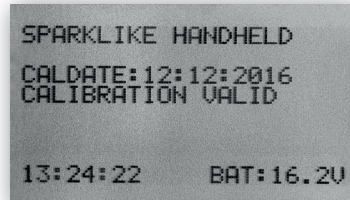
Mostra todos os dados transferidos

Recupera todos os logs do Sparklike Handheld

Status da transferência

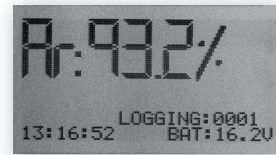
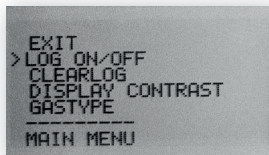
9. COMO USAR A TELA LCD DO SPARKLIKE HANDHELD

1. Quando o botão liga/desliga está na posição “ON” (ligado), o Sparklike Handheld realizará um autoteste para verificar se há erros no dispositivo.
2. A tela mudará automaticamente quando o teste for concluído com êxito.
3. A primeira tela fixa após a inicialização é uma tela de informações do dispositivo.
4. Esta tela será importante ao se comunicar com o fabricante.
5. A tela de informações exibe:
 - Revisão do dispositivo
 - Data da última calibração
 - Hora atual
 - Status da carga da bateria
6. Agora o dispositivo está pronto para o uso
7. Quando o botão é pressionado pela primeira vez após a inicialização, o resultado da medição será mostrado.
8. A hora atual e status de carga da bateria podem ser vistos na tela.
9. A tela também indica se a medição não foi registrada. (consulte: Como criar um arquivo de log)



10. COMO CRIAR UM ARQUIVO DE LOG

1. Do menu principal, percorra girando o botão do até o menu LOG ON/OFF
2. Selecione esta opção pressionando o botão do codificador uma vez
3. A próxima tela mostra que o registro precisa ser iniciado
4. O dispositivo sugerirá o seguinte nome (número) de log livre disponível. Se o número sugerido estiver OK, basta pressionar o botão do codificador para confirmar.
5. Para alterar o número do arquivo de log, gire o botão do codificador. Um clique aumentará ou diminuirá o número em um.
6. Durante a medição, um texto é exibido mostrando que o modo de registro está ativado e também exibirá o número do arquivo de log.

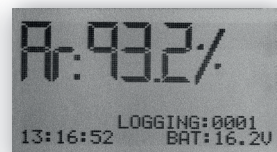


11. COMO APAGAR O ÚLTIMO ARQUIVO REGISTRADO

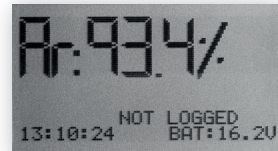
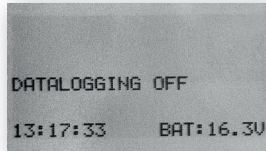
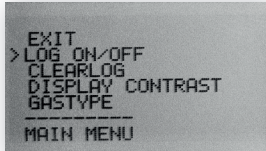
Quando o modo de registro está ativado e uma medição foi realizada, mas o operador acha que a medição está incorreta, é possível apagar essa medição. Isso é feito para evitar arquivos de log imprecisos em seu computador.

Se a medição não for satisfatória:

1. Do menu principal, percorra girando o botão do até o menu “CLEAR LOG” (apagar log)
2. O valor do log será excluído permanentemente.



12. COMO DESLIGAR O MODO DE REGISTO

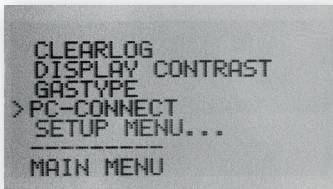


1. Do menu principal, percorra girando o botão do até o menu LOG ON/OFF
2. Selecione esta opção pressionando o botão do codificador uma vez
3. Uma tela exibirá que o modo de registro foi desligado
4. Ao medir, é exibido um texto informando que as medições não foram registradas
5. Para criar um novo arquivo de log com um novo nome, repita o procedimento explicado no capítulo 10.

OBSERVAÇÃO! Quando o Sparklike Handheld está conectado a um computador e os arquivos de log são recuperados, a memória de log será apagada do Sparklike Handheld.

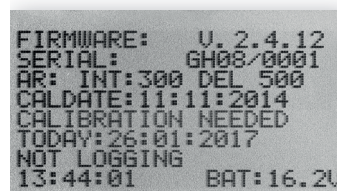
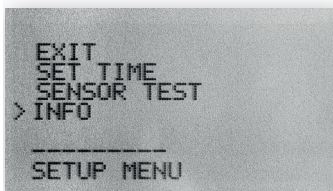
13. ATIVAR A CONEXÃO COM SEU COMPUTADOR

Os dados de log do Sparklike Handheld podem ser baixados para o seu computador. Para tal, o Sparklike Handheld precisa abrir a porta de comunicação para o seu computador. Isso é realizado antes de ativar a conexão do computador.



1. Do menu principal, percorra girando o botão do até o menu “PC-CONNECT” (conexão com o computador)
2. Selecione esta opção pressionando o botão do codificador uma vez.
3. Uma tela será exibida, informando que a comunicação com o computador está habilitada.
4. O Sparklike Handheld está aberto para a comunicação com o computador.

14. EXIBIÇÃO DE INFORMAÇÕES



É possível recuperar o número de série do dispositivo e as informações de calibração através de SETUP -> INFO.



Sparklike

Como qualquer equipamento avaliado, os dispositivos Sparklike Handheld exigem manutenção para manter sua precisão e confiabilidade ao mais alto nível. A Sparklike recomenda que os usuários calibrem seus produtos uma vez ao ano.

Cadastre-se no Sparklike CARE e deixe que profissionais da Sparklike cuidem de suas necessidades de calibração e manutenção. Para obter mais informações:

sparklike.com/care

Para clientes sem contrato de serviço, entre em contato com o centro de calibração mais próximo na Finlândia ou nos EUA. Para obter mais informações:

sparklike.com/calibration

Sparklike Oy

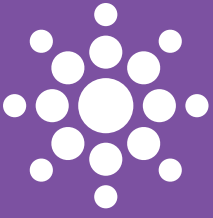
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www.sparklike.com



Sparklike[®]

SPARKLIKE HANDHELD

빠른 사용 설명서



경고:

- 이 기기는 고전압을 사용하므로, 컴퓨터나 다른 민감한 전자 장치 근처에서 이 장치를 사용해서는 안 됩니다.
- 심장에 이상이 있거나 심박 조율기를 사용하는 사람이 이 기기를 사용해서는 안 됩니다.
- 철사나 금속 구조물과 같은 전도성 물질을 통해서나 직접 사람이나 동물에게 고전압 방전을 해서는 안됩니다.
- Sparklike Handheld는 가연성 물질을 측정하는데 또는 가연성 환경에서 사용해서는 안됩니다. 단열 유리에 인화성 물질이 포함되어 있는지 확인하십시오. (이소프로판올(Isopropanol), 알코올(Alcohol), 아세톤(Acetone), 실렌(Xylen), Thinner(시너/희석제)와 같은)
- 물기 또는 습기가 있는 곳에서는 절대로 사용하지 마십시오.
- 기기를 불안정한 표면 위에 두고 사용하지 마십시오.
- 이 기기는 정밀 측정 장비이므로 적절하게 취급해야 합니다. 장치를 조심해서 다루십시오.
- 기기를 사용하지 않을 때는 항상 전원을 끄십시오.
- 기기를 사용할 때는 손가락이나 다른 신체 부위를 고전압 영역으로부터 멀리하십시오. 측정 작업시 기기를 컴퓨터 나 다른 전자 장치에 연결하지 마십시오.
- Sparklike Handheld 케이스를 열지 마십시오. 이 경우 보정은 무효가 되고 안전이 보장되지 않습니다.
- 제조업체가 제공한 충전기 이외의 다른 배터리 충전기를 사용하지 마십시오.
- Sparklike Handheld에 기기와 함께 제공된 배터리 이외의 다른 전원을 사용하지 마십시오.



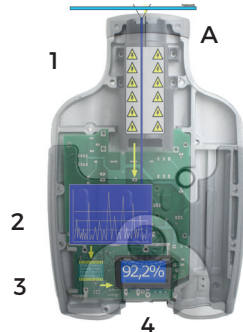
1. 기기와 함께 배송된 내용물 :

1. Sparklike Handheld 기기
2. 넥 스트랩
3. 교정 데이터 및 빠른 지침
4. 배터리
5. USB 케이블
6. 배터리 충전기 및 전원 코드
7. 운반 케이스
8. 보호 캡

소프트웨어, 드라이버 및 사용 설명서는 sparklike.com/handheld에서 다운로드할 수 있습니다.

2. 작동 방법

고압 스파크 (1)는 IG 장치 (A) 내부에서 점화됩니다. 이 고전압 스파크는 아르곤 원자가 빛을 측정하는 분광기 (2)로 빛을 방출하게 합니다. 마이크로 프로세서 (3)는 분광계의 정보를 해석하고 아르곤 비율(퍼센트)를 계산하여 디스플레이 (4)에 출력시킵니다.



3. SPARKLIKE HANDHELD 사용 방법 및 최초 작동 방법

1. 배터리 해치를 엽니다.
2. 배터리를 삽입합니다.
3. 배터리 소켓에 연결합니다.
4. ON / OFF 스위치로 장치를 켭니다.
5. 기기 설정이 화면에 표시됩니다.
6. sparklike.com/register에서 기기를 등록하여 작동하십시오.
7. 사용할 준비가 되었습니다.



4. SPARKLIKE HANDHELD 인코더 버튼 사용법

아래로 누르기:

1. MENU 입력
2. 선택 사항 확인



전환하기:

3. MENU로 스크롤하기
4. 로그 파일 명칭 정하기



5. 간단히, 측정 할 때 고려해야 할 요소

광학에 영향을 주는 요소:

- 색 유리
- 유색 (코팅)유리 (최소 효과)
- 강한 배경 조명 (햇빛 또는 기타 빛에 반하여)
- 유리위의 먼지 (최소 효과)
- 전면 광섬유 위의 먼지

제대로 처리되지 않은 광섬유 또는 전극

스파크가 쉽게 “점프”하게 해주는 요인들:

- 고도의 아르곤 충전
- 얇은 유리 (6mm 이하)
- 얇은 공간 (20mm 이하)
- 표면 3 상의 금속성 또는 기타 전도체, 예를 들면, 낮은-e 코팅 (low-e coating)
- 금속성 스페이서 바

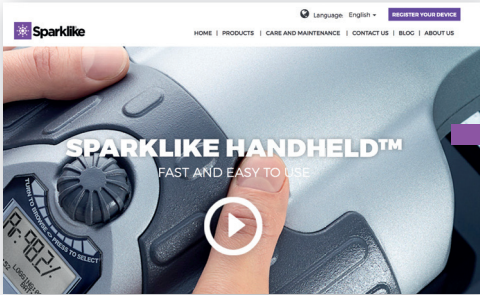
스파크에 영향을 주는 요소:

- 두꺼운 유리 (6mm 초과)
- 유리 1 위의 플라스틱 필름 (접합 유리, 코팅 등)
- 유리 1 위의 금속 필름
- 유리 1의 금속 성분
- 낮은 아르곤 충전 (90% 미만)
- 넓은 스페이서 (15mm 초과)
- 전극이 유리 표면과 접촉되어 있지 않음.
- Sparklike Handheld가 유리에 고르게 밀착되어 있지 않습니다.
- 비금속성 스페이서

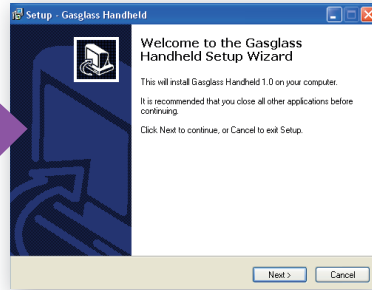
정확한 조건:

- 안정된 어두운 배경 조명
- 측정 중에 기기가 움직이지 않았습니다.

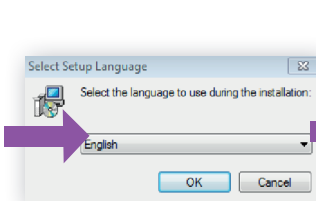
6. 소프트웨어 설치



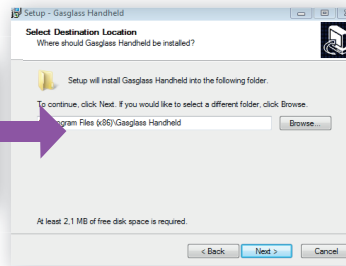
sparklike.com/handheld에서 소프트웨어를 다운로드 하십시오.



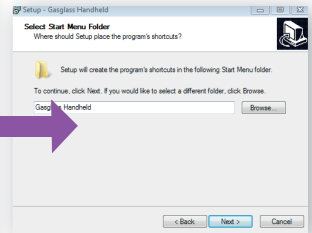
마법사 시작을 설치하십시오



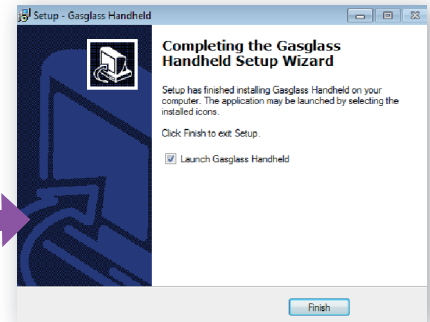
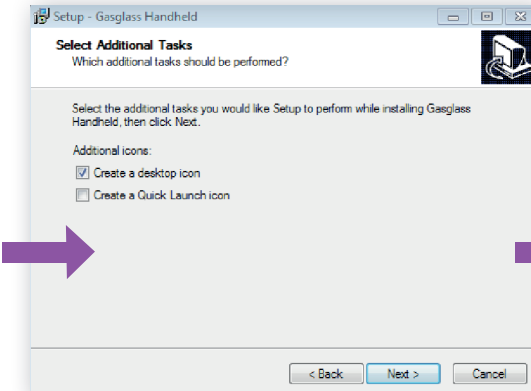
설치할 언어를 선택하십시오



소프트웨어 파일을 설치할 디렉토리를 선택하십시오



시작 폴더의 이름을 선택하십시오



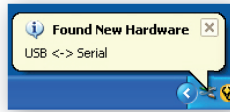
설치가 완료되었습니다.

참고 : window 모양은 컴퓨터에 따라 다릅니다.

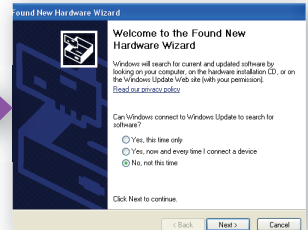
7. USB 드라이브 설치



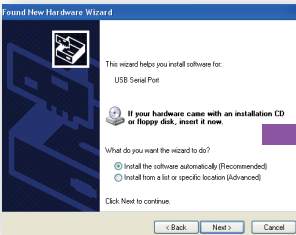
Sparklike Handheld를 컴퓨터에 연결합니다.



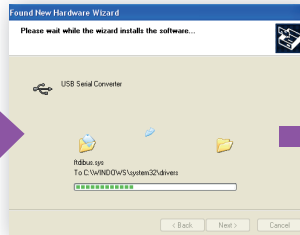
발견 된 새 하드웨어 로그인이 발생합니다.



Windows에서 업데이트 할 수 있는지 묻습니다. 태그 "아니오"



Windows에서 자동으로 설치할 수 있는지 묻습니다. 태그 "예"



드라이버 파일을 찾으면 설치 상태 표시 줄이 나타납니다.



설치 첫 단계가 완료되었습니다.

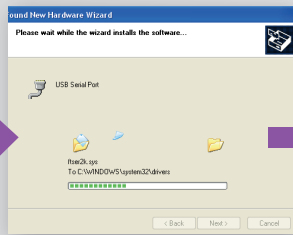
발견 된 새 하드웨어 로그인이 다시 발생합니다.



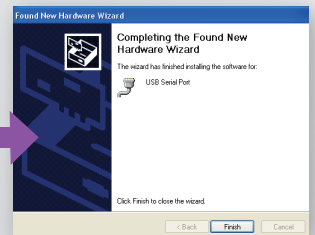
Windows에서 업데이트 할 수 있는지 묻습니다. 태그 "아니오"



Windows가 자동으로 설치할 수 있는지 묻습니다. 태그 "예"



드라이버 파일을 찾으면 설치 상태 표시 줄이 나타납니다.

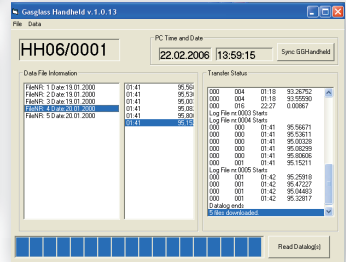


설치가 완료되었습니다.

8. 컴퓨터에 연결하는 방법

Sparklike Handheld 소프트웨어는 sparklike.com/handheld에서 다운로드 할 수 있습니다. Sparklike Handheld를 컴퓨터에 연결하기 전에 필요한 모든 소프트웨어와 드라이버가 설치되어 있는지 확인하십시오.

1. 제공된 USB 케이블을 Sparklike Handheld의 USB 소켓에 연결하십시오. 제공된 USB 케이블을 컴퓨터에 연결하십시오.
2. Sparklike Handheld 를 시작하십시오.
3. 컴퓨터와 Sparklike Handheld를 기기에서 연결시켜 주십시오.
4. 소프트웨어를 시작하십시오.
5. '데이터 로그 읽기'



성공적인 다운로드 후 소프트웨어 window

모든 로그 파일을 클립 보드에 복사합니다.

선택한 로그 파일을 클립 보드에 복사합니다.

Sparklike Handheld 일련 번호

다운로드 한 로그 파일

선택한 로그 파일의 정보

전송 상태

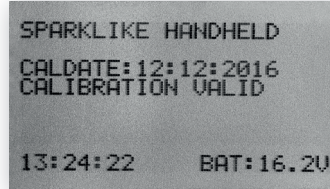
Sparklike Handheld의 시간과 날짜 업데이트

전송 된 모든 데이터를 표시합니다.

Sparklike Handheld에서 모든 로그를 검색합니다

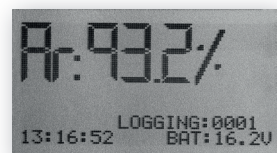
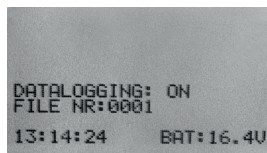
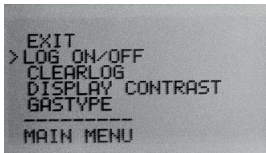
9. SPARKLIKE HANDHELD LCD 스크린 사용

1. 켜기/끄기(ON / OFF) 버튼이 켜지면, Sparklike Handheld에서 자체 검사를 수행하여 오류 여부를 확인합니다.
2. 모든 테스트가 완료되면 화면이 자동으로 변경됩니다.
3. 시작 후 첫 번째 고정 화면은 기기 정보 화면입니다.
4. 이 화면은 제조업체와 통신할 때 중요합니다.
5. 정보 화면에 다음 사항이 표시됩니다:
 - 기기 개정
 - 최종 보정 일자
 - 현재 시간
 - 배터리 충전 상태
6. 이제 기기를 사용할 준비가 되었습니다.
7. 시작 후 최초로 버튼을 누르면 측정 결과가 표시됩니다.
8. 현재 시간과 배터리 충전 상태가 화면에 표시됩니다.
9. 또한 측정 값이 기록되지 않았음을 나타냅니다. (참조 : 로그 파일을 만드는 방법)



10. 로그 파일을 만드는 방법

1. 메인 메뉴에서 인코더 버튼을 돌려 LOG ON / OFF 메뉴로 이동하십시오
2. 인코더 버튼을 한 번 눌러 이것을 선택하십시오
3. 다음 화면은 로깅이 시작될 것임을 나타냅니다
4. 기기에서 다음의 사용 가능한 로그 이름 (번호)을 제한합니다. 제한된 번호가 OK이면 인코더 버튼을 눌러 확인하시면 됩니다.
5. 인코더 버튼을 돌려 로그 파일 번호를 변경할 수 있습니다. 한 번 클릭하면 숫자가 하나씩 증가하거나 감소합니다.
6. 측정 시, 로깅 모드가 켜져 있음을 알려주고 로그 파일 번호도 표시되는 텍스트가 나타납니다.

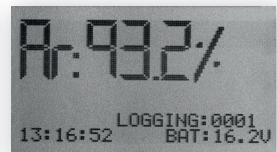


11. 마지막으로 기록된 파일을 지우는 방법

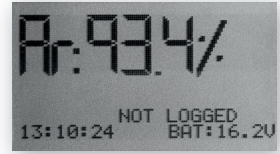
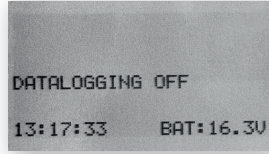
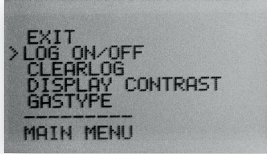
로그 모드가 켜져 있고 측정이 실시되었지만 측정자가 오류 측정이라고 생각할 경우, 이 측정값을 지울 수 있습니다. 이는 컴퓨터의 오류 로그 파일을 방지하기 위해 수행됩니다.

측정 값이 만족스럽지 않은 경우 :

1. 주 메뉴 스크롤에서 인코더 버튼을 돌려 "로그 지우기(CLEAR LOG)" 메뉴로 이동하십시오.
2. 로그 값이 영구적으로 삭제됩니다.



12. 로그 모드를 끄는 방법

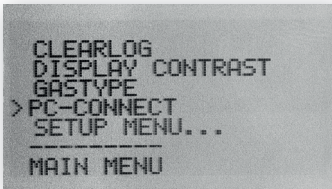


1. 메인 메뉴에서 인코더 버튼을 돌려 LOG ON / OFF 메뉴로 이동하십시오
2. 인코더 버튼을 한 번 눌러 이것을 선택하십시오
3. 로그 모드가 해제된 화면이 나타납니다.
4. 측정시, 측정 값이 기록되지 않았음을 표시하는 텍스트가 나타납니다.
5. 새 이름으로 새 로그 파일을 만들려면 10 장에서 설명한 절차를 반복하십시오.

주의! Sparklike Handheld가 컴퓨터에 연결된 상태에서 로그 파일이 검색되었을 경우, Sparklike Handheld 기기에서 로그 메모리가 삭제됩니다.

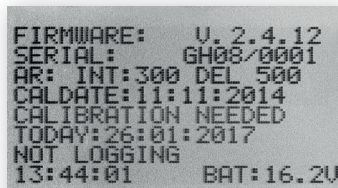
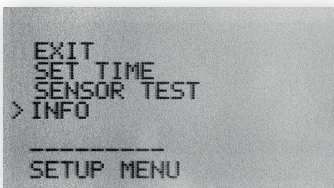
13. 컴퓨터 연결 가능

Sparklike Handheld 로그 데이터를 컴퓨터에 다운로드할 수 있습니다. 이렇게 하려면 Sparklike Handheld가 컴퓨터에 통신 포트를 열어야 합니다. 이 작업은 컴퓨터와 연결 전에 실시합니다.

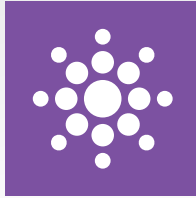


1. 메인 메뉴에서 인코더 버튼을 돌려서 PC-CONNECT 메뉴로 스크롤하십시오.
2. 인코더 버튼을 한 번 눌러 선택하십시오.
3. PC 통신이 가능하다는 표시가 화면에 나타납니다.
4. Sparklike Handheld는 PC와의 통신을 위해 열려 있습니다.

14. 정보 디스플레이



SETUP -> INFO를 통해 장치 일련 번호 및 보정 정보를 검색할 수 있습니다.



Sparklike

Sparklike Handheld 기기는 다른 고급 장비와 마찬가지로 최고 수준의 정확성과 신뢰성을 유지하기 위해 유지 보수가 필요합니다. Sparklike에서는 사용자가 1 년에 한 번 제품을 보정 할 것을 권장합니다.

Sparklike CARE에 가입하고 Sparklike 전문가가 보정 및 유지 관리에 필요 사항을 처리하도록 하십시오. 자세한 내용은:

sparklike.com/care

서비스 계약이 없는 고객의 경우 핀란드 또는 미국 내에서 가장 가까운 보정 센터에 문의하십시오. 자세한 내용은:

sparklike.com/calibration

Sparklike Oy

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+358 10 387 7701

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www.sparklike.com



Sparklike[®]

SPARKLIKE HANDHELD ISTRUZIONI RAPIDE



AVVERTENZE:

- Lo strumento utilizza alta tensione. Lo strumento non deve MAI essere utilizzato nei computer con altri dispositivi elettronici sensibili.
- Persone con patologie cardiache o portatori di pacemaker non dovrebbero usare questo strumento.
- La scarica ad alta tensione non deve mai essere diretta verso esseri umani o animali, né direttamente né attraverso materiali conduttivi come fili o strutture metalliche.
- Il Palmare non deve MAI essere utilizzato per misurare eventuali sostanze infiammabili né essere utilizzato in qualsiasi ambiente infiammabile. Assicurarsi anche che la vetrata isolante non contenga sostanze infiammabili (ad esempio sostanze come Isopropanolo, Alcol, Acetone, Xilene, Solventi).
- Lo strumento non deve essere mai usato in condizioni di bagnato o di umidità.
- Non utilizzare mai lo strumento stando in piedi su superfici instabili.
- Il Palmare è uno strumento di misura di precisione e deve essere maneggiato di conseguenza. MANEGGIARE CON CURA.
- Spegnere sempre l'alimentazione quando lo strumento non è in uso.
- Tenere le dita e altre parti del corpo lontane dalla zona di alta tensione quando il dispositivo è in uso. Non tenere il Palmare connesso al vostro PC o ad altri dispositivi elettronici durante l'esecuzione delle misurazioni.
- Non aprire l'involucro del Palmare. In questo caso la calibrazione è nulla e nessuna garanzia di sicurezza può essere concessa.
- Non utilizzare altri caricabatteria se non quello fornito dal produttore.
- Non utilizzare nessuna altra fonte di energia per il Palmare se non la batteria fornita dal produttore.



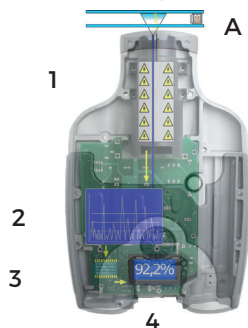
1. CORREDO CON IL PALMARE

1. Dispositivo Palmare
2. Laccio per il collo
3. Cd con software e istruzioni
4. Dati di calibrazione e istruzioni rapide
5. Batteria
6. Cavo Usb
7. Caricabatteria e cavo di alimentazione
8. Custodia
9. Coperchio protettivo

Software, Drivers e Manuali di Istruzioni possono essere scaricati da sparklike.com/handheld

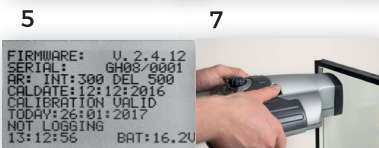
2. COME FUNZIONA?

Una scintilla ad alta tensione (1) viene accesa all'interno dell'unità IC (A). Questa scintilla ad alta tensione fa produrre all'atomo di argon una luce ad uno spettrometro (2), che misura la luce. Un microprocessore (3) interpreta le informazioni dello spettrometro e calcola la percentuale di argon che viene visualizzato sul display (4).



3. COME USARE IL PALMARE - PRIMO UTILIZZO

1. Aprire lo sportello della batteria
2. Inserire la batteria
3. Collegare il cavo della batteria alla presa di corrente
4. Accendere il dispositivo tramite l'interruttore ON/OFF
5. Le impostazioni del dispositivo verranno visualizzate sullo schermo
6. Registra il tuo dispositivo per l'attivazione su sparklike.com/register
7. Il dispositivo è pronto per l'uso



ATTENZIONE!
LEGGERE TUTTE
LE AVVERTENZE
PRIMA DI USARE
IL DISPOSITIVO

4. COME USARE IL PULSANTE CODIFICATORE DEL PALMARE

Premere fino a:

1. Entrare nel menu
2. Confermare la selezione



Ruotare per:

3. Scorrere nel MENU
4. Nominare un file log



5. IN BREVE, FATTORI DA CONSIDERARE DURANTE LA MISURAZIONE

Fattori che influenzano l'ottica

- Vetro colorato
- Vetro tinto (effetto minimo)
- Forte luce di sfondo (contro sole o altre sorgenti di luce)
- Sporco sul vetro (effetto minimo)
- Sporco sulla fibra ottica anteriore
- Danno alla fibra ottica anteriore o all'elettrodo

Fattori che facilitano l'accensione della scintilla

- Alta carica di argon
- Vetro sottile (6mm o meno)
- Sottile spazio d'aria (20mm o meno)
- Conduttori metallici o altri conduttori sulla superficie 3, tipo rivestimenti basso emissivo
- Distanziatori metallici

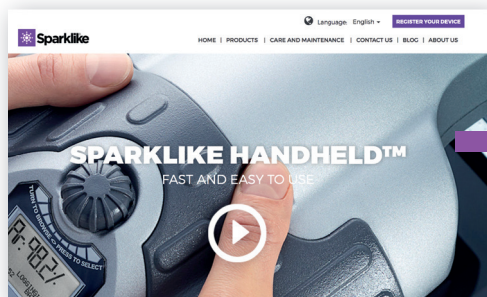
Fattori che influenzano la scintilla

- Vetro spesso (più di 6 mm)
- Film plastici sul vetro 1 (vetro laminato, rivestimenti, etc)
- Film metallici sul vetro 1
- Componenti metallici sul vetro 1
- Minore carica di argon (meno del 90%)
- Spazio d'aria spesso (più di 15mm)
- L'elettrodo non tocca la superficie del vetro
- L'apparecchio non è premuto correttamente al vetro
- Distanziatori non metallici

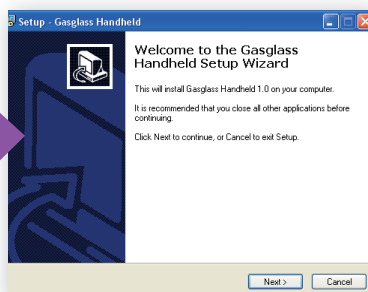
Condizioni corrette:

- Sfondo con luce scura
- Palmare NON mosso durante la misurazione

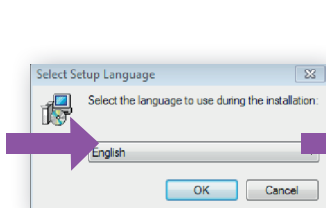
6. INSTALLAZIONE DEL SOFTWARE SUL PC



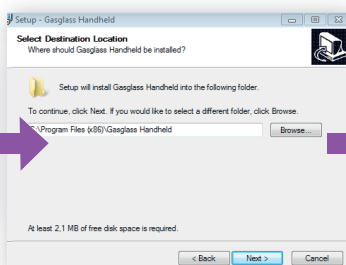
Scaricare il software da
sparklike.com/handheld



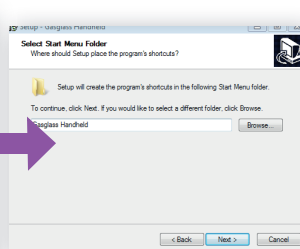
Avviare l'installazione guidata



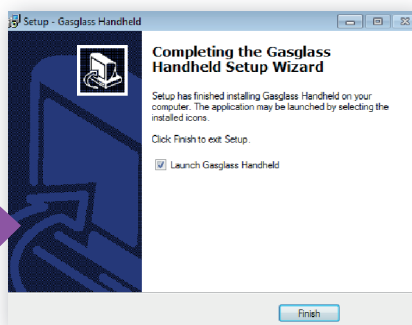
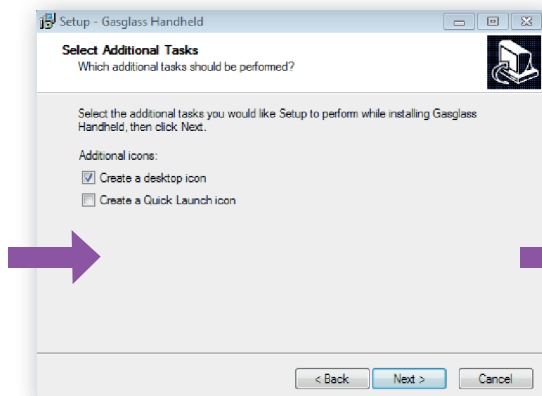
Selezionare la lingua per
l'installazione



Selezionare la directory
dove i files del software
dovranno essere installati



Selezionare il nome della
cartella



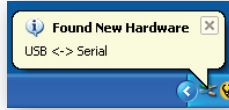
Installazione completata

ATTENZIONE! L'aspetto del vostro schermo potrebbe variare a seconda del vostro computer.

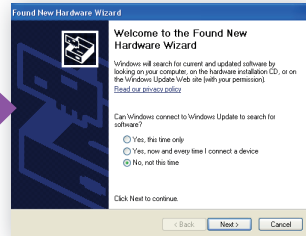
7. INSTALLAZIONE DEI DRIVERS USB



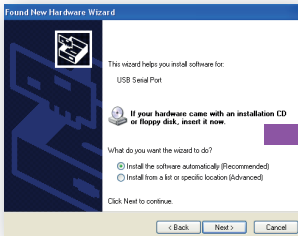
Collegare il Palmare al PC



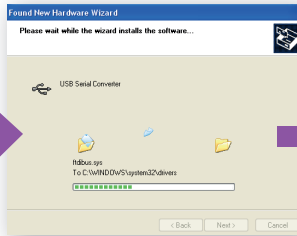
Apparirà: trovato nuovo hardware



Windows domanderà se può aggiornare. Tag "NO"



Windows domanderà se installare automaticamente. Tag "YES"



Apparirà la barra di stato dell'installazione quando i drivers saranno riconosciuti

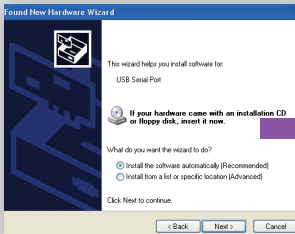


Il primo stadio dell'installazione è completato

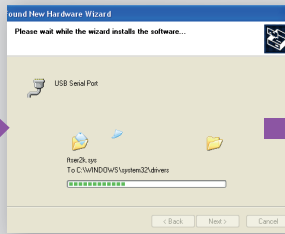
Apparirà ancora: trovato nuovo hardware



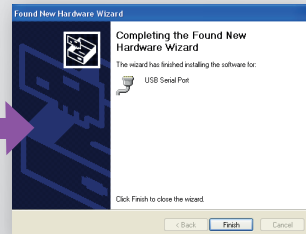
Windows domanderà se può aggiornare. Tag "NO"



Windows domanderà se installare automaticamente. Tag "YES"



Apparirà la barra di stato dell'installazione quando i drivers saranno riconosciuti

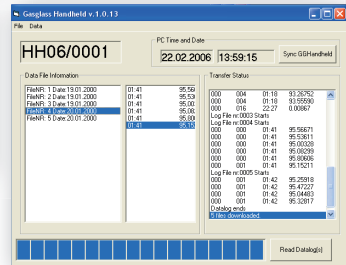
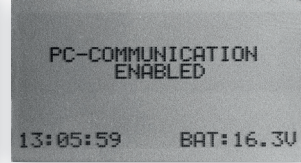


Installazione completata

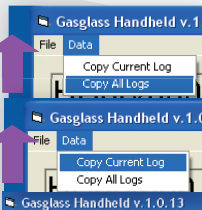
8. COLLEGAMENTO AL PC

Il software del Palmare Sparklike può essere scaricato da sparklike.com/handheld. Assicurarsi che tutti i necessari software e drivers siano stati installati prima di collegare il Palmare Sparklike al vostro computer

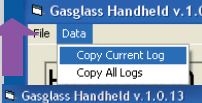
1. Collegare il cavo USB fornito alla presa USB nel Palmare e poi collegare il cavo al PC
2. Accendere l'apparecchio usando l'interruttore ON/OFF
3. Consentire la connessione al PC dal menù del Palmare
4. Avviare il software PC
5. Scegliere "leggere i dati log"



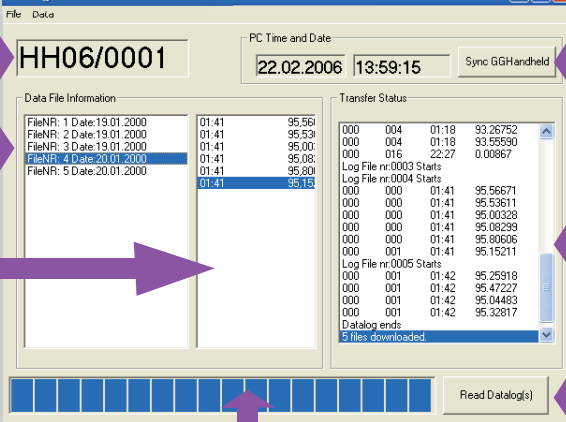
Finestra del software dopo il download effettuato con successo



Copiare tutti i files log



Selezione dei files log da copiare



Numero di serie del Palmare

Log files scaricati

Informazioni nei log files selezionati

Aggiorna ora e data nel Palmare

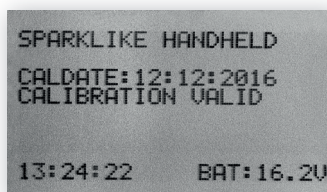
Mostra tutti i dati trasferiti

Recupera tutti i log del Palmare

Status del trasferimento

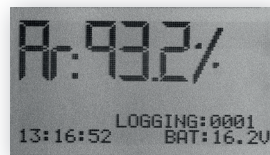
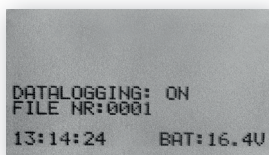
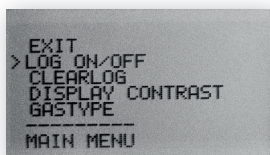
9. COME USARE LO SCHERMO LCD DEL PALMARE

1. Quando il pulsante ON/OFF è acceso, il Palmare Sparklike effettuerà un auto-test per verificare la presenza di errori
2. Lo schermo cambierà automaticamente quando tutti i test risulteranno OK
3. La prima schermata fissa dopo l'avvio è la schermata di informazioni del dispositivo.
4. Questa schermata sarà importante per le comunicazioni con il costruttore.
5. La schermata di informazioni mostra:
 - Revisione del dispositivo
 - Ultima data di calibrazione
 - Ora attuale
 - Stato di carica della batteria
6. L'apparecchio è pronto per l'utilizzo
7. Quando il pulsante viene premuto per la prima volta dopo l'avviamento, viene mostrato il risultato della misurazione.
8. L'ora attuale e lo stato di carica della batteria sono indicati sullo schermo.
9. Lo schermo indicherà anche che la misurazione non è stata registrata. (vedi: Come creare un file log)



10. COME CREARE UN FILE LOG

1. Dal menu principale, scorrere girando il pulsante codificatore fino al menu LOG ON/OFF
2. Premendo il pulsante codificatore si seleziona e il display mostrerà menu DATALOGGING
3. Quando viene creato un nuovo log, il menu DATALOGGING avanzerà automaticamente di uno il numero del file log
4. Girando il pulsante codificatore, si aumenta o diminuisce il numero del log. Premere il pulsante codificatore per confermare la selezione
5. "LOGGING", seguito dal numero di log, sarà visualizzato sotto la lettura quando la funzionalità di logging è abilitata

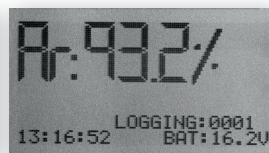


11. COME CANCELLARE L'ULTIMA MISURAZIONE REGISTRATA

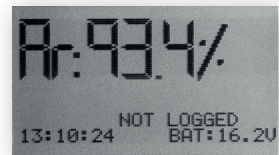
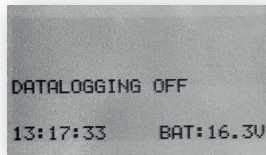
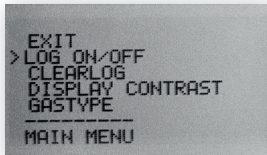
Quando la modalità di registrazione è avviata ed è stata presa una misura ma l'operatore pensa che la misura non è corretta, è possibile cancellare questa misurazione. Questo serve per evitare di caricare sul PC false misurazioni.

La misurazione non è soddisfacente:

1. Tenere premuto il pulsante codificatore per almeno 2 secondi.
2. Il valore misurato sarà cancellato definitivamente



12. COME USARE LO SCHERMO LCD DEL PALMARE

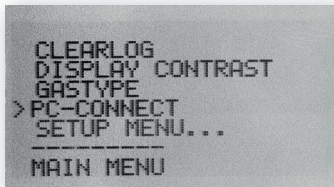


1. Dal menu principale, ruotare il pulsante codificatore fino al menu LOG ON/OFF
2. Premendo il pulsante si effettua la selezione e lo schermo mostrerà "DATA LOGGING OFF"
3. Con la registrazione spenta, verrà mostrato "NOT LOGGED" per tutte le misurazioni
4. Per creare un nuovo file log con un nuovo nome, ripetere la procedura spiegata nel cap. 10

NOTA: quando il Palmare è collegato al PC ed i files log sono stati recuperati, la memoria dei log sul Palmare sarà cancellata. Usare il software del Palmare è l'unico modo per svuotarne completamente la memoria. Questo dovrebbe essere fatto periodicamente per evitare che la memoria superi la sua capacità massima.

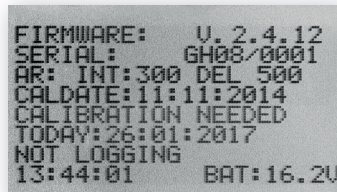
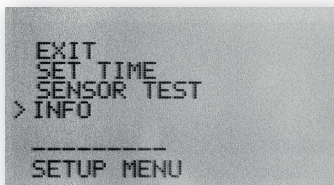
13. CONSENTIRE IL COLLEGAMENTO AL PC

Prima di scaricare dal Palmare i dati registrati al PC, deve essere aperta la porta di comunicazione. Questo deve essere fatto prima di effettuare il collegamento al PC.

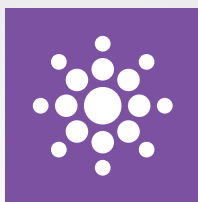


1. Dal menu principale, scorrere ruotando il pulsante codificatore fino al menu "CONNESSIONE AL PC"
2. Premendo il pulsante, si effettua la selezione ed il display mostrerà "CONNESSIONE AL PC CONSENTITA"
3. Lo schermo mostrerà che la connessione al PC è attivata
4. Il Palmare adesso è aperto per comunicare con il PC

14. INFORMAZIONI DEL DISPLAY



E' possibile recuperare il numero di serie dell'apparecchio e le informazioni di calibrazione da SET-UP >> INFO.



Sparklike

Come qualsiasi attrezzatura di valore, i Palmari Sparklike necessitano di manutenzione per mantenere la loro precisione e affidabilità ai massimi livelli. Sparklike raccomanda agli utenti di calibrare il loro dispositivo una volta l'anno.

Iscriviti al programma di Sparklike CARE e lascia che i professionisti Sparklike si prendano cura delle vostre necessità di calibrazione e manutenzione. Per ulteriori informazioni:

sparklike.com/care

Per i clienti senza contratto di assistenza, rivolgersi al più vicino centro di calibrazione in Finlandia o in USA. Per ulteriori informazioni:

sparklike.com/calibration

Sparklike Oy

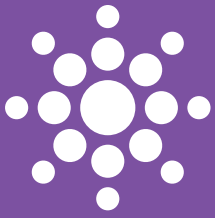
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+358 10 387 7707

sparklike@sparklike.com

www.sparklike.com



Sparklike[®]

SPARKLIKE HANDHELD

快速操作手册



警示:

- 此设备使用了高电压，必须避免在电脑和其他敏感的电子设备旁边使用。
- 心脏病患者或佩戴心率调节器的人请勿使用此设备
- 此设备瞬间释放的高电压必须避免和人体以及动物发生直接接触，或通过金属丝、金属装置发生间接接触。
- Sparklike Handheld不得用于测量任何易燃的物质，也不得在易燃的环境中使用。同时，要保证中空玻璃不能含有任何的易燃物质（如异丙醇，酒精，丙酮，二甲苯，油漆稀释剂以及其他任何的易燃物质）。
- 此仪器不得在潮湿的环境下使用。
- 当您站在不稳定的表面时，请勿使用此设备。
- 此仪器是精密的测量设备，请务必轻拿轻放！
- 如果暂时不使用此设备，请及时关闭电源。
- 当使用此设备时，请将您的手指以及身体的其它部分远离高压放电区域；在使用此设备进行测量时，请勿将其与您的电脑及其他电子设备进行连接。
- 请勿打开Sparklike Handheld的外壳；如果打开外壳，设备的校准将会被损坏且无法保障安全。
- 请勿使用除了本制造商提供的电池充电器以外的其它充电器。
- 请勿使用除了随机配置的电池以外的电源给Sparklike Handheld供电。



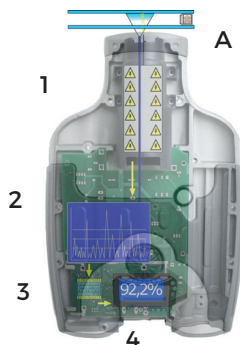
1. 随设备配套的标准部件:

1. Sparklike Handheld
2. 颈带
3. 校准数据和快速操作手册
4. 电池
5. USB数据线
6. 电池充电器和电源线
7. 便携背包
8. 保护盖

操作软件，驱动和操作手册可以在此下载: sparklike.com/zh/handheld

2.设备的工作原理

对中空玻璃(A)间隔层内瞬间放电，产生一个高压电火花(1)。这个高压电火花引导氩原子放出光子，并被光度分光计(2)接收和进行氩气的光谱测量，一个微处理芯片(3)处理从光度分光计传输来的数据并计算出氩气含量，以百分比形式显示在显示屏(4)上。



3. 如何使用SPARKLIKE HANDHELD，第一次使用时的启动

1. 打开电池舱
2. 放入电池
3. 将其插入电池插座
4. 扳动ON/OFF开关以启动设备
5. 屏幕上将显示设备的设置
6. 在线注册设备获取激活码:
sparklike.com/zh/register
7. 准备完毕，可以开始使用



注意：请务必在开始使用设备前仔细阅读“警示”信息。

4. 如何使用SPARKLIKE HANDHELD的译码器按钮

向下按时：

1. 进入菜单
2. 确认选项



转动时：

3. 在菜单中上下移动
4. 命名一个日志文件



5. 测量时需要注意的几个事项

影响光学测量的因素

- 彩色玻璃
- 着色玻璃（影响极微）
- 强烈的测量背景光（正对太阳或者其它光源）
- 玻璃上的污渍（影响极微）
- 前端光纤头有污渍
- 前端光纤或电极（金属探针）有受伤

使电火花更加容易“跳跃”的因素

- 氩气含量高
- 薄片玻璃（6mm或更薄）
- 间隔层窄（20mm或更窄）
- 第三面上有金属类或其它导体类镀膜，如 low-e 镀膜
- 金属类间隔条

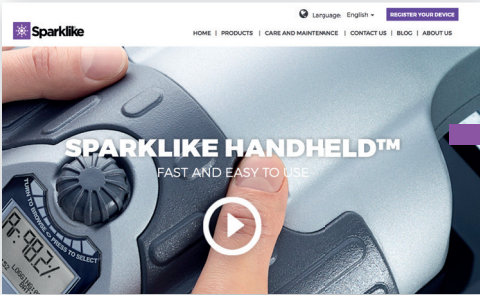
影响电火花的因素：

- 厚片的玻璃（超过6mm）
- 第1面玻璃上有塑料的薄膜（夹胶玻璃，涂层等）
- 玻璃的第1面上有金属类膜
- 玻璃上的第1面有金属类成分
- 过低的氩气含量（低于90%）
- 过宽的间隔层（超过15mm）
- 电极没有与玻璃表面充分接触
- Sparklike Handheld的测量端没有均衡地抵紧玻璃表面
- 非金属的间隔条

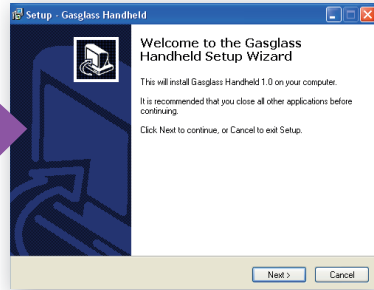
正确的可使用状况：

- 保持背景光的微弱和稳定
- 测量时不要移动设备

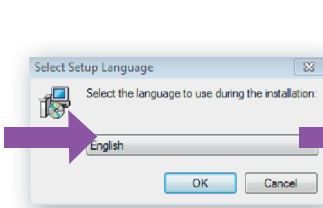
6. 安装软件



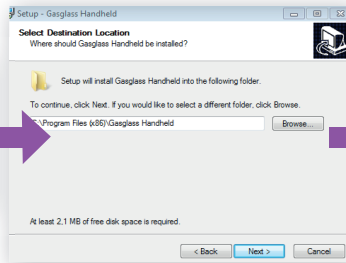
从官网上下载: sparklike.com/zh/handheld



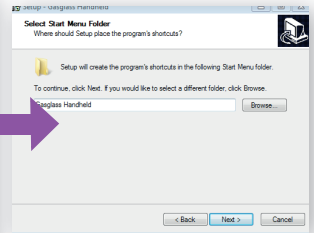
安装向导页面启动



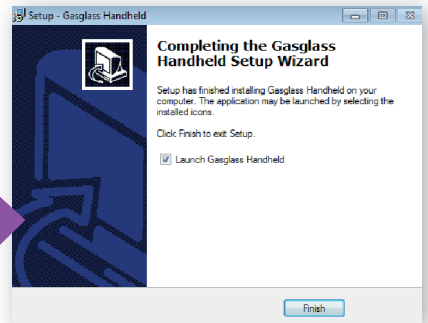
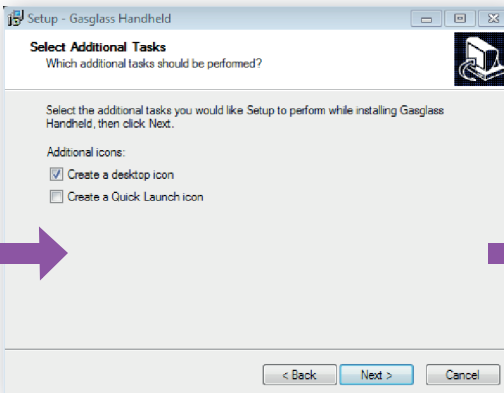
选择安装语言



选择需要下载的软件文件目录



选择要安装此软件的文件名名字



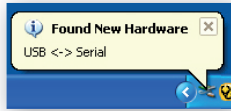
安装完成

注意：软件窗口根据使用者的电脑操作系统不同会有所变化

7. 安装USB驱动



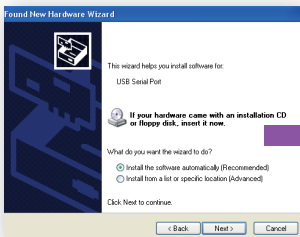
将Sparklike Handheld与电脑连接



“发现新硬件”的提示信息会在电脑的任务栏处显示



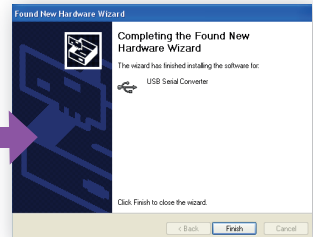
Windows系统提问是否需要更新驱动，点击“否No”



Windows系统提问是否要自动安装，点击“是Yes”

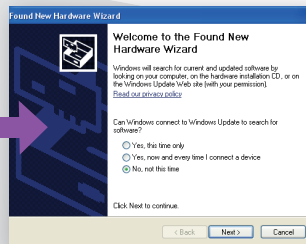


当电脑发现驱动程序后，安装状态栏就会有信息显示

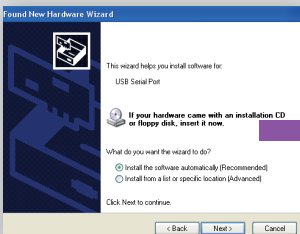


安装进程的第一步完成

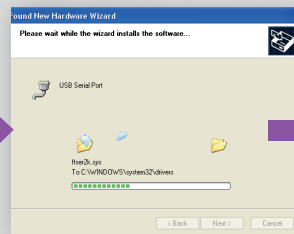
“发现新硬件”的提示信息会再次在电脑的任务栏处显示



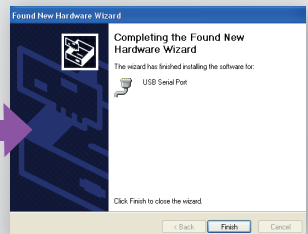
Windows系统提问是否需要更新驱动，点击“否No”



Windows系统提问是否要自动安装，点击“是Yes”



当电脑发现驱动程序后，安装状态栏就会有信息显示

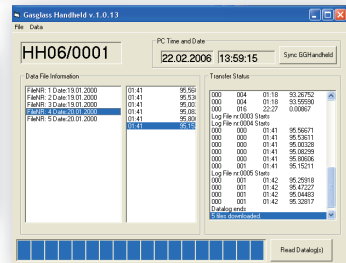
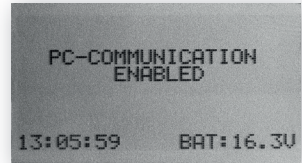


安装完成

8. 如何与电脑建立连接

Sparklike Handheld可以从sparklike.com/zh/handheld下载。在试图与电脑进行连接前，请确认所有的软件和驱动都已正确安装。

1. 将配套的USB连接线一端与Sparklike Handheld上的USB接口进行连接，另一端与电脑连接。
2. 打开Sparklike Handheld
3. 从Sparklike Handheld设备的主菜单上选择“PC-CONNECT”启动与电脑的连接
4. 打开电脑端的软件
5. 点击“Read Datalogs”读取数据日志



成功下载完日志后的软件窗口图示

复制所有的日志文件到剪贴板上

复制所有选择的日志文件到剪贴板上

Sparklike Handheld的编号

更新Sparklike Handheld的时间和日期

下载后的数据文件

显示所有上传的数据

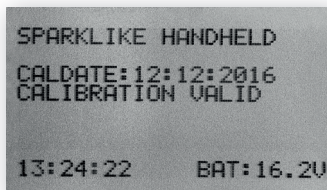
检索并读取 Sparklike Handheld上的所有数据日志

传输状态

选择的数据日志文件信息

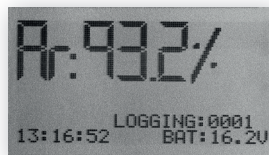
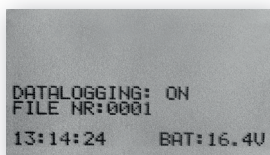
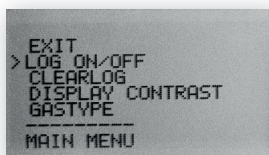
9. 使用SPARKLIKE HANDHELD的LCD显示屏

1. 当ON/OFF按钮在开启状态时，Sparklike Handheld将会启动一个简短的自检程序，以检查设备自身有否错误。
2. 当自检结束完好后，屏幕将会自动变化。
3. 开机后第一个固定的显示界面是设备的信息。
4. 这个屏幕的显示会在您和制造厂商联系时起重要作用。
5. 信息界面显示：
 - 软件的版本
 - 上一次校准的日期
 - 当前时间
 - 电池电量状况
6. 现在设备准备就绪。
7. 当设备开启后，按下黑色测量键一次，测量的结果将会显示在屏幕上。
8. 当前的时间和电池电量会在屏幕上显示。
9. 屏幕还会显示测量数据日志没有建立。（参见：如何创建一个数据日志文件）



10. 如何创建一个数据日志文件

1. 转动译码器按钮，在主菜单模式下选择“LOG ON/OFF”项。
2. 向下按译码器按钮一下予以确认该选项。
3. 下一个显示在屏幕上的信息是数据日志启用。
4. 仪器会自动给出一个数据日志的文件夹编号。如果这个建议的编号可以接受，向下按译码器按钮一下予以确认。
5. 如需改变新建日志的文件名，可通过转动译码器按钮来改变文件名中的数字：每转动一下会使文件名中的数字就会增加或者减少1位数。确定编号后再按一下译码器按钮以确认设置。
6. 当设备在测量的时候，屏幕上会显示一段文字，说明数据日志记录模式已经打开，并且会显示出正在记录的日志文件名。

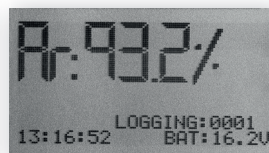


11. 如何删除最后一个数据文件

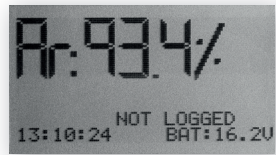
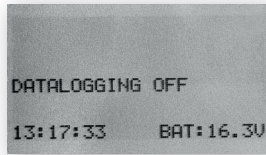
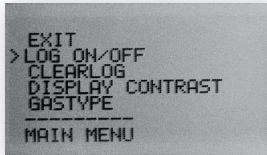
当日志记录模式被打开并记录了一个数据，但是操作员认为这个数据是错误的或者不准确的，他是可以删除掉这个数据。这个操作可以避免电脑端接收到错误的的数据文件。

如果对测量结果不满意：

1. 转动译码器按钮，在主菜单模式下选择“CLEAR LOG”项。
2. 日志文件将会被永久删除。



12. 如何创建一个数据日志文件

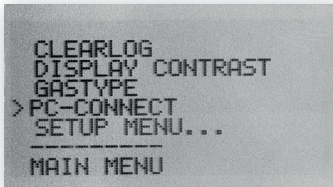


1. 转动译码器按钮，在主菜单模式下选择“LOG ON/OFF”项。
2. 向下按译码器按钮一下予以确认该选项。
3. 屏幕上会显示数据日志记录关闭字样。
4. 在测量时，屏幕上会显示测量结果没有被记录。
5. 要创建一个新的数据日志文件，并给它取名，请参见第10条步骤解析。

注意：当Sparklike Handheld设备与电脑连接后，数据日志文件被读取，而此时设备上的存储记忆会被删除。这是唯一可以清楚存储空间的方法，应该定期执行以避免内存被占满。

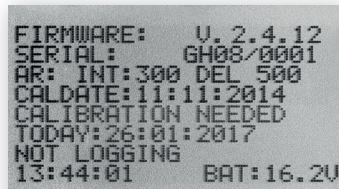
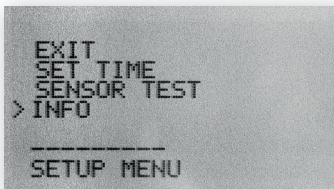
13. 如何与电脑进行连接

Sparklike Handheld数据日志可以下载到电脑上。为了可以执行此操作，Sparklike Handheld必须开放其数据端口给电脑。只有执行了这个操作，才能使得设备与电脑进行连接。



1. 转动译码器按钮，在主菜单模式下选择“PC-CONNECT”项。
2. 向下按译码器按钮一下予以确认该选项。
3. 屏幕会显示电脑与设备连接成功的信息。
4. Sparklike Handheld现在可以与电脑进行对话。

14. 信息显示



可以通过菜单上SETUP->INFO操作来获取仪器的编号和校准信息。



Sparklike

如其它受重视的设备一样，Sparklike Handheld设备需要定期保养维护以便确保其测量的准确度和可靠性在最高水平。Sparklike建议使用者一年校准一次。

中国校准保养服务周

为了免去您把仪器送至芬兰校准保养或返修的繁琐，公司将派遣专业工程师飞至上海，在芬兰斯巴莱克有限上海代表处的实验室为中国客户提供年度校准保养服务，服务内容如下：

1. 维护保养和替换，如果需要，对损耗部件进行更换，如锂电池，光学光纤，光学滤光片，开关及连接器等。
2. 计量校准，校准报告和证书
3. 收取和返还仪器
4. 程序更新
5. 在中国校准保养服务周前发送电子邮件通知，并电话提醒

注册Sparklike 中国校准服务周服务™可以让您在节省费用的同时延长产品的使用周期，获得可靠的气体含量检测结果，做好送校准计划以便配合您的生产旺季。

芬兰斯巴莱克有限公司上海代表处

上海市静安区光复路581号5号楼4楼
胡湘春 Jolene Hu / 首席代表
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Sparklike Oy

Hermannin rantatie 12 A 21
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sparklike@sparklike.com
www.sparklike.com



Sparklike[®]

SPARKLIKE HANDHELD MANUAL DE INSTRUCCIONES RAPIDO



ATENCIÓN:

- El aparato utiliza alto voltage, por lo que no debería ser utilizado cerca de ordenadores u otros aparatos electrónicos sensibles.
- Personas con problemas de corazón o con marcapasos no deberían utilizar este dispositivo.
- La descarga de alto voltaje nunca se debe dirigirse hacia personas o animales ni directamente ni a través de materiales conductivos, como cables o estructuras metálicas.
- El Sparklike Handheld nunca debe usarse para medir ningún tipo de sustancias inflamables ni usarse en un entorno inflamable. También asegurarse que el doble acristalamiento no contiene ninguna sustancia inflamable, como Isopropanol, Alcohol, Acetona , etc.
- El aparato nunca debe usarse en condiciones de humedad o mojado.
- Nunca usar el aparato de pie en una superficie inestable.
- El aparato es un instrumento de medición de precisión y tiene que ser usado de acuerdo con esta premisa. Por favor utilícelo con cuidado.
- Siempre apagar el aparato cuando no se use.
- Mantener los dedos y otras partes del cuerpo separadas del área de alto voltage. No mantener el aparato conectado a su ordenador u otros aparatos electrónicos mientras realiza mediciones.
- No abrir la carcasa del Sparklike Handheld. En tal caso la calibración queda sin efecto y no se puede garantizar la seguridad.
- No utilizar otros cargadores de baterías que no sean los provistos por el fabricante.
- No utilizar ninguna otra fuente de energía para el Sparklike Handheld que nos sea la batería entregada con el aparato.

1. ENTREGADO CON EL DISPOSITIVO

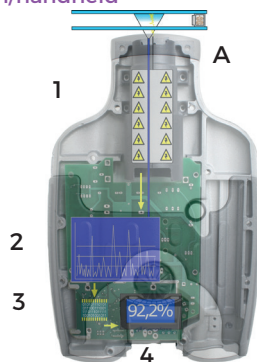


1. Sparklike Handheld
2. Correa de cuello
3. Datos de Calibración e Instrucciones de uso
4. Batería
5. Cable USB
6. Cargador de batería y cable de potencia
7. Caja de transporte
8. Tapa Protectora

Software, drivers y manuales de instrucciones se pueden descargar desde sparklike.com/handheld

2. COMO TRABAJA

Una chispa de alto voltage (1) se lanza dentro de la UVA. Esta chispa de alto voltage, causa que el átomo de argón emita una luz en un espectrómetro (2) que mide la luz. Un microprocesador (3) interpreta la información del espectrómetro y calcula el porcentaje de argón, que aparece en el display(4)



3. COMO UTILIZAR EL SPARKLIKE HANDHELD Y ARRANCARLO POR PRIMERA VEZ.

1. Abrir el compartimento de la batería
2. Insertar la batería
3. Conectar la batería al conector
4. Encender el dispositivo con el interruptor ON/OFF
5. La configuración del dispositivo aparecerá en la pantalla
6. Registre su dispositivo para activarlo en sparklike.com/register
7. Listo para utilizar



4. CÓMO UTILIZAR EL BOTÓN ENCODER DEL SPARKLIKE HANDHELD

Pulsar abajo a:

1. Menu Enter
2. Confirmar selección



Girar Hacia:

3. Desplazarse por el Menu
4. Llamar un archivo de registro



5. BREVEMENTE, FACTORES A CONSIDERAR CUANDO MEDIMOS

Factores que afectan a la óptica:

- Vidrio de color
- Vidrio Tintado (mínimo efecto)
- Luz ambiental fuerte (contra el sol u otra fuente)
- Polvo en el vidrio (mínimo efecto)
- Polvo en la fibra óptica
- Fibra óptica frontal, electrodo maltratado

Factores que facilitan que salte la chispa:

- Alto llenado de Argón
- Vidrio fino (6mm o menos)
- Cámara fina de aire (20mm o menos)
- Conductores metálicos u otros en la cara 3, como capa de Low-e
- Espaciadores metálicos

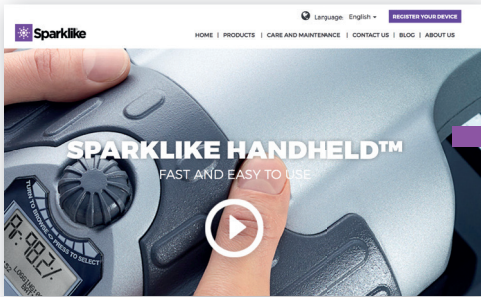
Factores que afectan a la chispa:

- Vidrio Grueso (por encima de 6mm)
- Películas plásticas en el vidrio 1 (vidrio laminado, capas, etc)
- Películas metálicas en Vidrio1
- Componentes metálicos en Vidrio 1
- Baja concentración de argón (menos del 90%)
- Espaciadores anchos (más de 15mm)
- El electrodo no está en contacto con la superficie del Vidrio
- Sparklike Hand Held no queda presionado uniformemente contra el vidrio
- Espaciadores no metálicos

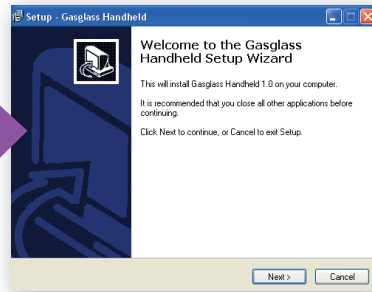
Condiciones adecuadas:

- **Luz ambiental oscura estable**
- **El dispositivo no se mueve durante la medición**

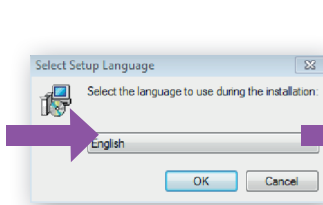
6. INSTALANDO EL SOFTWARE



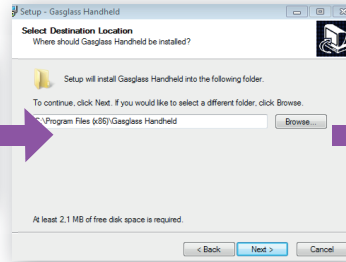
Descargar el software de sparklike.com/handheld



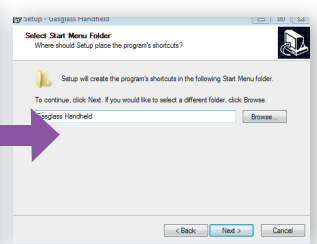
Instalar wizard start up



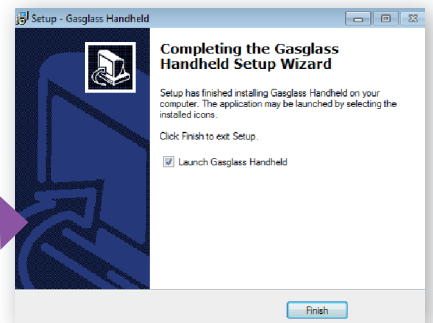
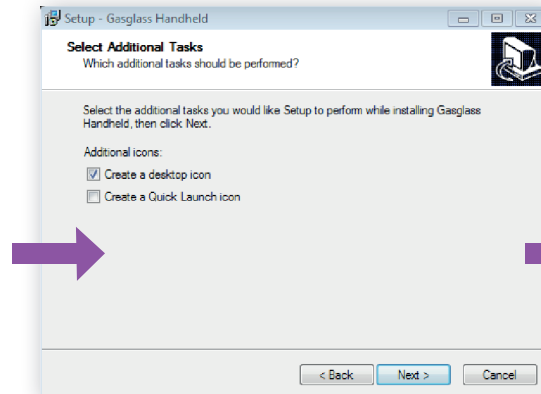
Seleccionar el idioma para la instalación



Seleccionar el directorio donde instalar el software



Seleccionar el nombre de la carpeta start up



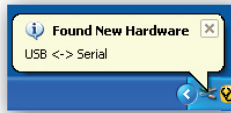
Instalación completada

NOTE: la apariencia de las ventanas cambiará dependiendo de su ordenador

7. | INSTALACIÓN DE LOS DRIVERS USB



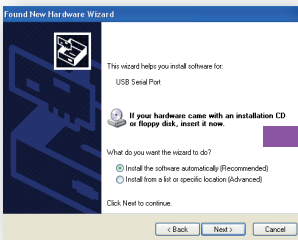
Conectar el Sparklike Handheld a su ordenador



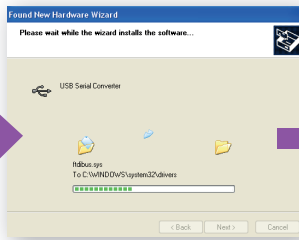
Señal de encontrado nuevo hardware



Windows preguntará si puede actualizarse. Pulsar 'NO'



Windows preguntará si puede instalar automáticamente. Pulsar 'SI'



La barra de instalación aparecerá cuando encuentre los drivers

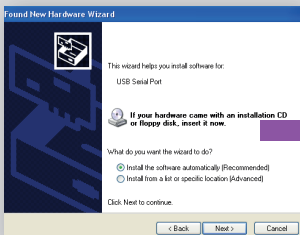


Primer paso de la instalación completado

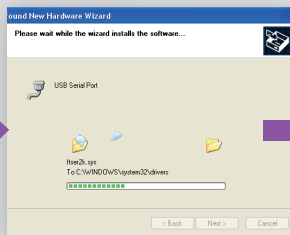
Señal de nuevo hardware encontrado aparcera de nuevo



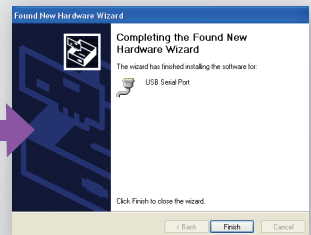
Windows preguntará si puede actualizarse. Pulsar 'NO'



Windows preguntará si puede instalar automáticamente. Pulsar 'SI'



La barra de instalación aparecerá cuando encuentre los drivers

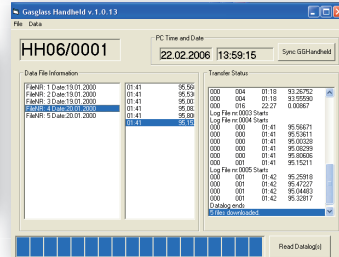


La instalación ha sido completada

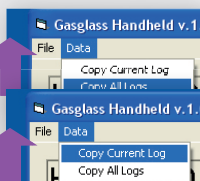
8. COMO CONECTAR SU ORDENADOR

El Software de Sparklike Handheld se puede descargar en sparklike.com/handheld. Por favor asegurese que todo el software y los drivers se instalan antes de intentar conectar el Sparklike Handheld en su ordenador.

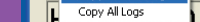
1. Conectar el cable USB entregado al puerto USB en el Sparklike Handheld. Conectar el cable USB al ordenador
2. Encender el Sparklike Handheld
3. Permitir la conexión entre el ordenador el Sparklike desde el dispositivo.
4. Arrancar el software
5. Pulsar 'Read Datalogs'



La ventana del Software después de una descarga completada.



Copia todos los archivos al clipboard

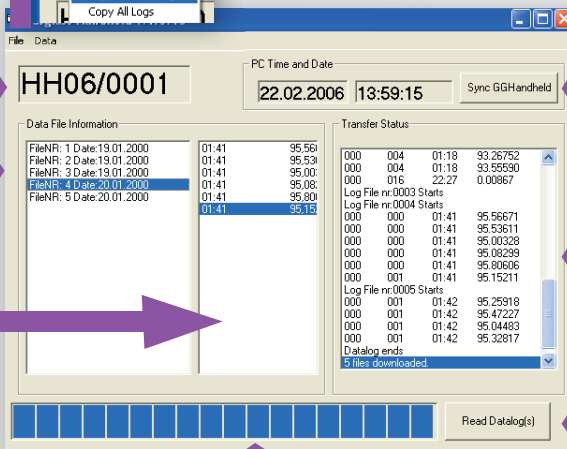


Copia los archivos seleccionados al clipboard

Sparklike Handheld numero de serie

Archivos descargados

Información del archivo seleccionado



Actualiza fecha y hora del Sparlike Handheld

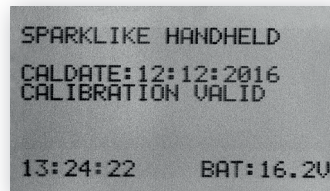
Muestra datos transferidos

Recupera todos los archivos del Sparklike Handheld

Estado de la transferencia

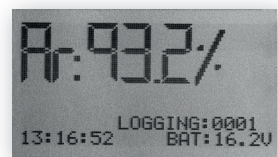
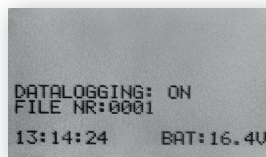
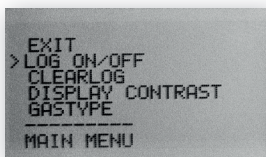
9. MODO DE USO DE LA PANTALLA LCD DEL SPARKLIKE HANDHELD

1. Cuando el botón ON/OFF esta en ON, Sparklike Handheld realizará un test interior para comprobar errores propios.
2. La pantalla cambiará automáticamente cuando todo este OK
3. La primera pantalla fija después del arranque es una pantalla de información del dispositivo.
4. Esta pantalla es importante cuando nos comuniquemos con el fabricante.
5. La pantalla de información muestra:
 - Revisión del dispositivo
 - Ultima fecha de calibración
 - Hora Actual
 - Estado de carga de la batería
6. El dispositivo esta listo para usarse.
7. Cuando el botón se presiona por primera vez después del arranque, se mostrará el resultado de la medición.
8. La hora actual y el estado de carga de la batería se puede ver en la pantalla.
9. También se indicará que la medida no ha sido registrada (ver: como crear un archivo de registro)



10. COMO CREAR UN ARCHIVO DE REGISTRO

1. Desde el menú principal, desplazarse girando el boton encoder hasta LOG ON/OFF del menu.
2. Seleccionar pulsando el encoder una vez.
3. La siguiente pantalla muestra que el registro puede empezarse.
4. El dispositivo sugerirá el siguiente nombre de registro libre (número) disponible. Si el siguiente número es OK, simplemente pulsar el encoder para confirmar.
5. Girando el boton encoder, el número del archivo de registro puede cambiarse. Un click aumentará o disminuirá el número por uno.
6. Cuando medimos, un texto se visualiza mostrando que el modo de registro esta ON y tambien mostrará el número de archivo de registro.

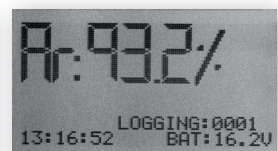


11. COMO ELIMINAR EL ÚLTIMO ARCHIVO DE REGISTRO

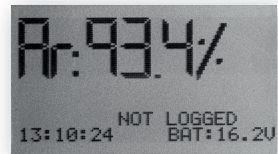
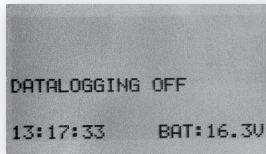
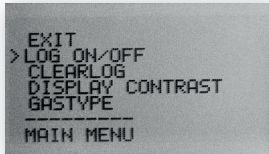
Cuando el modo de registro este en ON y una medida se haya tomado pero el usuario presenta que la medida era una medida equivocada, es posible eliminar esta medida. Esto se hace para evitar medidas erróneas en su ordenador.

Si la medición no es satisfactoria:

1. Del menu principal desplazar girando el botón encoder hasta CLEAR LOG en el menu
2. El valor de registro se eliminará permanentemente.



12. .COMO APAGAR EL MODO DE REGISTRO

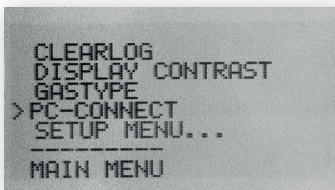


1. Del menu principal, desplazarse girando el botón encoder hasta LOG ON/OFF menu.
2. Seleccionar este pulsando el botón encoder una vez.
3. Una pantalla mostrará que el modo de registro se ha apagado.
4. Cuando midamos, un texto aparecerá indicando que las mediciones no han sido registradas
5. Para crear un nuevo registro con un nuevo nombre, repetir el procedimiento explicado en el capítulo 10

NOTA! Cuando Sparklike Handheld está conectado a un ordenador y los archivos de registro han sido recuperados, la memoria de registro se elimina del Sparklike Handheld

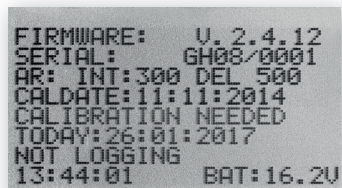
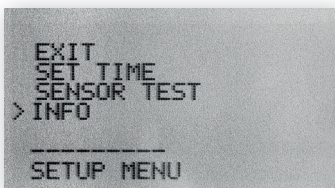
13. PERMITIR LA CONEXIÓN CON SU ORDENADOR

Sparklike Handheld archivos de registro pueden descargarse en su ordenador. Para ello, Sparklike Handheld tiene que abrir su puerto de comunicaciones a su ordenador. Esto se realiza antes de permitir la conexión desde el ordenador.



1. Desde el menu principal, desplazarse girando el botón encoder al menu PC-CONNECT
2. Seleccionar pulsando el encoder una vez.
3. Una ventana mostrará que el puesto de comunicación del PC está activado
4. Sparklike Handheld esta abierto para comunicarse con el PC.

14. DISPLAY DE INFORMACIÓN



Puede visualizar el número de serie y la calibración en SETUP-->INFO



Sparklike

Como cualquier equipo de valor, Sparklike Handheld precisa de un servicio para mantener su precisión y fiabilidad a los niveles mas altos. Sparklike recomienda calibrar el dispositivo una vez al año.

Regístrese en Sparklike CARE y permita que profesionales de Sparklike tengan cuidado de su calibración y necesidades de mantenimiento. Para más información:

sparklike.com/care

Para clientes sin acuerdo de servicio postventa, contactar con su centro de calibración más cercano en Finlandia o EEUU. Para más información:

sparklike.com/calibration

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