



FLG 12 Audio Frequency Generator

USER GUIDE

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Consultation with Megger

The present system manual has been designed as an operating guide and for reference. It is meant to answer your questions and solve your problems in as fast and easy a way as possible. Please start with referring to this manual should any trouble occur.

In doing so, make use of the table of contents and read the relevant paragraph with great attention. Furthermore, check all terminals and connections of the instruments involved.

Should any question remain unanswered or should you need the help of an authorized service station, please contact:

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1.1 General Notes

Safety precautions This manual contains basic instructions for the commissioning and operation of the device / system. For this reason, it is important to ensure that the manual is always available to the authorised and trained operator. He needs to read the manual thoroughly. The manufacturer is not liable for damage to material or humans due to non-observance of the instructions and safety advices provided by this manual.

Locally applying regulations have to be observed!

Labelling of safety instructions The following signal words and symbols are used in this manual and on the product itself:

Signal word / symbol	Description
DANGER	Indicates a potential hazard which will_result in death or serious injury if not avoided.
WARNING	Indicates a potential hazard which may_result in death or serious injury if not avoided.
CAUTION	Indicates a potential hazard which may result in moderate or minor injury if not avoided.
NOTICE	Indicates a potential hazard which may result in material damage if not avoided.
	Serves to highlight warnings and safety instructions. As a warning label on the product it is used to draw attention to potential hazards which have to be avoided by reading the manual.
	Serves to highlight warnings and safety instructions that explicitly indicate the risk of an electric shock.
	Serves to highlight important information and useful tips on the operation of the device/system. Failure to observe may lead to unusable measurement results.

Working with products from Megger It is important to observe the generally applicable electrical regulations of the country in which the device will be installed and operated, as well as the current national accident prevention regulations and internal company directives (work, operating and safety regulations).

After working on the system, it must be voltage-free and secured against reconnection as well as having been discharged, earthed and short-circuited.

Use genuine accessories to ensure system safety and reliable operation. The use of other parts is not permitted and invalidates the warranty.

Operating staff The system may only be installed and operated by an authorised electrician. DIN VDE 0104 (EN 50191), DIN VDE 0105 (EN 50110) and the German accident prevention regulations (UVV) define an electrician as someone whose knowledge, experience and familiarity with the applicable regulations enables him to recognise potential hazards.

Anyone else must be kept away!

Intended application The operating safety is only guaranteed if the delivered system is used as intended (see page 9). Incorrect use may result in danger to the operator, to the system and the connected equipment.

The thresholds listed in the technical data may not be exceeded under any circumstances.

Repair and maintenance Repair and maintenance work has to be carried out by Megger or authorised service partners using original spare parts only. Megger recommends having the system tested and maintained at a Megger service centre once a year.

Megger also offers its customers on-site service. Please contact your service centre if needed.

Declaration of Conformity (CE) The product meets the following security requirements of the European Council Directives:

- Electromagnetic Compatibility (2014/30/EU)
- Low Voltage Directive (2014/35/EU)
- Restriction of the use of certain Hazardous Substances (2011/65/EU)

Special transportation requirements The lithium batteries of the device are dangerous goods. The transport of the batteries themselves and of devices which contain such batteries is subject to regulations based on the UN Model Regulations "Transport of Dangerous Goods" (ST/SG/AC.10-1).

Please inform yourself about the transportation requirements and follow them when shipping the device.

Use of third party software This product contains protected software, which is licensed under the General Public License (GPL) and the Lesser General Public License (LGPL). This certifies your right to request the source code for these software components. You can find detailed information on the GPL/LGPL licenses under www.gnu.org.

Images from the Icons8 library (www.icons8.de) are also used within the software.

2 Technical description

2.1 System description

Description The audio frequency generator FLG 12 is a robust, portable measuring device that can be used in combination with a suitable receiver for tasks that include the following ones:

- Searching for and routing metallic conductors
- Ground survey
- Cable identification
- Depth determination of pipes and cables
- Joint box location
- Pinpointing low resistance cable faults
- Precise location of sheath faults
- Coil box location of telecommunication cables
- Detecting fault locations on pipe and cable systems with cathode protection

The audio frequency signal from the generator can be both galvanically coupled and inductively coupled into the metallic conductors for this purpose. The output power can be set to a maximum of 12 W in accordance with the intended purpose of use. 491 Hz, 982 Hz, 9.8 kHz and 33 kHz are the standard output frequencies available.

A specific SignalSelect coding can be added to the output signal produced by the generator, which permits the direction of signal flow to be determined when a suitable receiver is used. This significantly increases the reliability and efficiency of line location – in particular in areas with pipes and lines running in a dense network.

It is also possible to couple in several frequencies, or a pulsed output signal, which makes identifying and routing the conductor easier in certain application cases.

Features The FLG 12 combines the following features in one device:

- Automatic impedance matching
- Inductive or direct signal connection
- “Signal Select” coding for identifying the direction of signal flow
- Multi-frequency operation
- Signalling output voltage which is dangerous to touch
- High capacity built-in rechargeable battery

Included in delivery The scope of delivery of the device includes the following:

- Generator
- Mains power supply unit
- Connection cable with crocodile clips
- Earthing rod
- Manual

Check the scope of delivery immediately after receiving it for completeness and any damage visible on the outside. Devices with visible damage may not be operated under any circumstances.

Should anything be missing or be damaged, please contact your sales representative as soon as possible.

Optional accessories The following optional accessories are either already included in the delivery or can be ordered through Megger Sales:

Accessory	Description	Item number
Isolating filter TF 10	For connecting the FLG 12 to live low-voltage cables up to 420 V. The generator must only be operated with a maximum output power of 10 W when connected via the isolating filter!	1014888

2.2 Technical data

The generator is defined by the following technical parameters:

Parameter	Value
Output power	0 – 12 W
Output frequencies	491 Hz, 512 Hz, 640 Hz, 982 Hz, 1090 Hz, 8440 Hz, 9820 Hz, 32768 Hz
Impedance matching	Automatic from 0.5 – 1024 Ω
Distortion	<3% for all frequencies in relation to the output voltage
Signal pulse	Continual signal or pulsed signal (4:3, 4:1, 6:1)
Output sockets	4 mm safety sockets protected against contact
Display	TFT colour display with 320 x 240 pixels
Internal rechargeable battery	Li-ion rechargeable battery 7.2 V / 10.05 Ah
Operating time in battery operation	>2.5 hours at 12 W
Charging socket input voltage	12 V DC (via supplied power supply)
Temperature ranges	
• Operation	-20°C ... 55°C
• Charging	0 ... 45°C
• Long-term storage	-20°C ... 40°C
• Transport	-40°C ... 70°C
Operating humidity	Max. relative humidity 93% at 30 °C
Weight	2.4 kg
Dimensions (W x H x D)	250 mm x 170 mm x 120 mm
IP protection class (in accordance with IEC 60529 (DIN VDE 0470-1))	IP 54

2.3 Connections and controls

The following illustration shows the connections and controls on the generator:







Element	Description
1	Display
2	Signal output sockets
3	Mains power supply connection socket
4	LED to indicate the charge status
5	6.3 A fine wire fuse, slow
6	Knob
7	Membrane key with following functions: <ul style="list-style-type: none"> • Indicator unit on/off (when pressed and held) • Backlighting on/off (when pressed briefly) • LED indicates the device is switched on (green) and low batteries (red)

3 Battery/mains operation


The FLG 12 features a high-capacity Li-ion rechargeable battery that can be operated at maximum transmission power for around 2.5 hours when fully charged. At a lower transmission power, an operating period of more than 10 hours is possible.

The charge status of the internal rechargeable battery is indicated by the battery symbol in the display, and by the LED in the on/off push-button. As soon as the symbol and the LED light up in red, then the internal rechargeable battery only has a low capacity remaining. In this case, the mains power supply unit is used to connect the charging socket **3** to a mains power socket in order to maintain transmission and to recharge the battery.


As soon as the generator is connected to the mains voltage, the  LED **6** on the front panel indicates the charge status:


Status	Description
	The rechargeable battery is being charged. A full charging cycle lasts for around 7 hours.
	The rechargeable battery is fully charged.
	<p>Either the temperature of the rechargeable battery is outside the charging temperature range of 0 to 45 °C, or the rechargeable battery is defective. No charging occurs.</p> <p>If high power consumption occurs in battery operation for an extended period, then the rechargeable battery may also heat up to more than 45 °C even at a normal ambient temperature. In this case, transmission must first be stopped or the transmission power must be reduced before the rechargeable battery can be charged again. The charging process starts automatically as soon as the temperature of the rechargeable battery has reached the charging temperature range.</p>

4 Setup/connection

	<p>WARNING Risk of injury from electric shock</p> <p>The voltage at the signal output sockets 2 can exhibit values of >25 V, making them dangerous to touch. The device may only be switched on after connection to the measurement object!</p>
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4.1 Operation on voltage-free lines

	<p>WARNING Risk of fatal injury from electric shock</p> <p>The five safety rules must be followed before any direct connection:</p> <ol style="list-style-type: none"> 1. Disconnect the power 2. Secure against reconnection 3. Check for presence of voltage 4. Make earth connection and short-circuit 5. Cover or block access to adjacent components which are live
---	--

	<p>CAUTION Risk of destruction due to impermissible voltage at the measuring outputs</p> <p>Connecting to live cables may damage the .</p> <ul style="list-style-type: none"> • Operation is only permitted on voltage-free lines. • The line to be located must be disconnected before connection and must not be switched on again until the work has been completed and the generator has been disconnected from the line. • For coupling the audio frequency signal into live cables, the connection must be made via the optional TF 10 line isolation filter (see page 10).
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A direct connection to the measurement object must be made using the connection cables provided. Depending on the purpose of the measurement and the method used, the type of connection may vary.

When locating/routing cables, a signal return current must be ensured through contact with the ground or, if necessary, through connection to an alternative conductor. It is recommended that the generator is connected directly to the cable shield. This method eliminates the need for further switching operations at the other end of the cable.



To prevent the return current from coupling too strongly to direct adjacent cables in the ground, the ground spike should be inserted at an angle of 45° to the assumed cable path and as far away as possible (at least five times the installation depth).

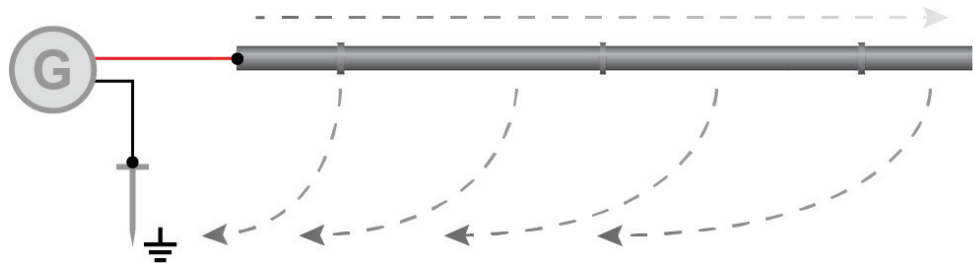
If the shield cannot be isolated from ground at the connection point, the signal can also be directly coupled to the inner conductor. In this case, however, it is recommended that the inner conductor is grounded at the other end of the cable — especially at low frequencies.



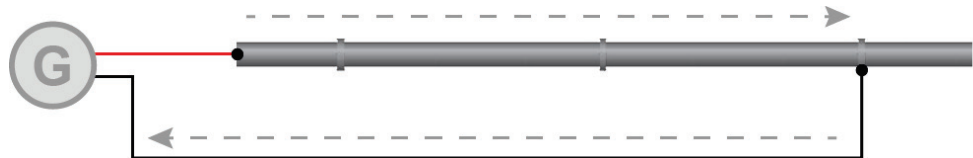
Other cables are also suitable for signal return if they run at a greater distance (at least five times the installation depth) from the target line.



When connecting to metal lines (with or without ground isolation), it is also important to ensure that the earth spike is inserted as far away as possible.



Particularly in cases where the lines are without ground isolation, the other end of the cable should be grounded or a loop test should be carried out where possible.

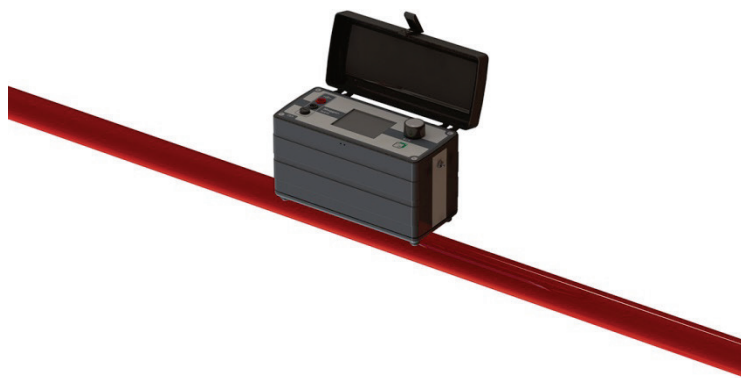


Specific connection methods for locating sleeves and faults in twisted multi-core cables are provided in the operating instructions for the audio frequency receiver.

4.2 Inductive coupling using a frame aerial

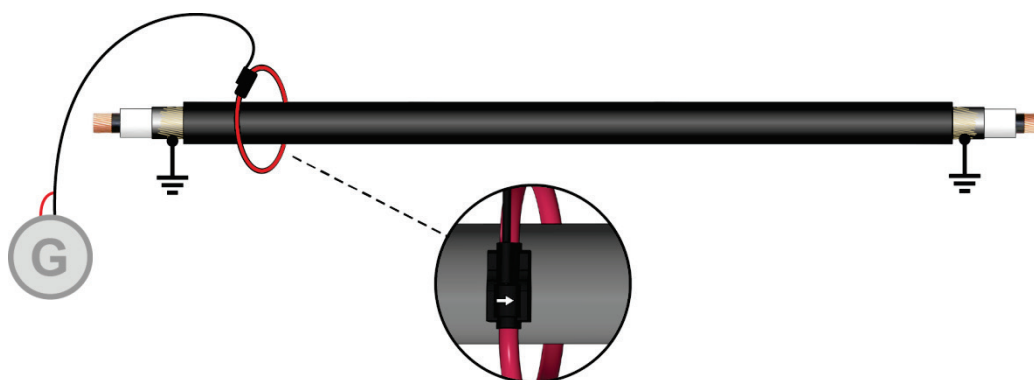
The audio frequency signal can also be inductively coupled into underground cables or pipes using the integrated frame aerial. Because the signal can be transmitted by several conductors when inductive coupling is used, this method is of limited suitability for selective line location, and is instead suitable for probing areas for unknown lines.

When the method has to be used for selective transmission of signal on a cable due to a difficult-to-access conductor, it is important to observe that the generator must be placed lengthways, and as exactly as possible, above the route taken by the conductor to be located.



4.3 Selective inductive coupling by means of transmitter tongs


With the aid of suitable feeding pliers from the range of Megger products, the audio frequency signal can also be inductively coupled to a specific cable or pipe as well. To do so, the pliers are placed around the conductor as shown below. The arrow on the feeding pliers indicates the direction of signal flow.



This type of coupling also allows a signal to be transmitted on live power cables and on operational telecommunication or signal cables (if these feature an earthed screen, metal sheath or protective conductor) without this resulting in any secondary effects on it.


5 Putting the generator into operation


5.1 General

Switching on the generator Once the generator has been connected, it can be switched on by pressing the  button briefly.


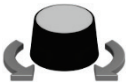
Directly after switching on the generator, load detection is performed and internal load matching is automatically performed on the basis of the load impedance determined. If the connected load changes significantly during operation, a further impedance adjustment will automatically be conducted.

After the load detection, the main screen appears. The generator starts signal dispersion immediately in accordance with the current settings.

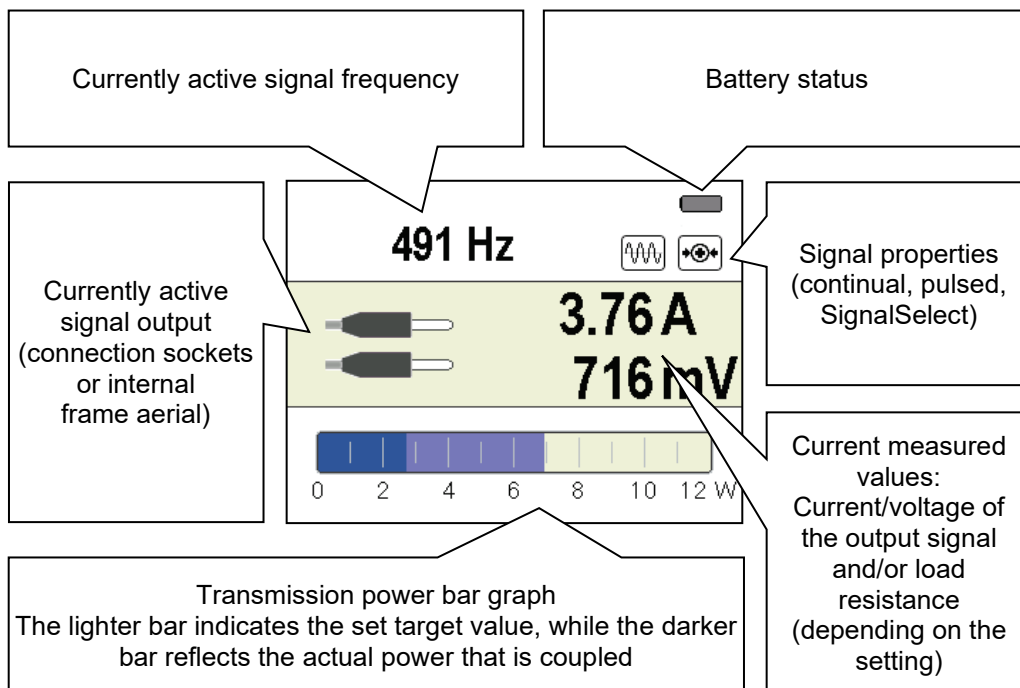
Battery test After switching on the device, you should check the battery status immediately using the charging bar in the top right corner of the display. If the bar indicates a low status, then operating the generator using the mains power supply unit is recommended, which charges it at the same time. When the remaining capacity is only around 20%, then both the battery status display and the LED in the  button light up in red.

Background lighting The display backlighting is automatically activated immediately after the indicator unit is switched on. It can be switched on and off by briefly pressing the  button.

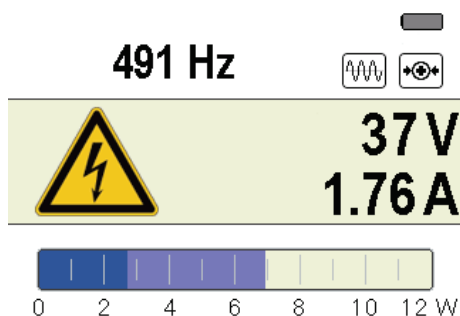
Operation using the knob The generator is operated with the aid of the knob. The functions available vary according to the respective current view:

Action	Function in the <u>measurement screen</u>	Function in the <u>menu screen</u>
	Opens the <u>menu screen</u>	Opens the currently selected menu item
	Transmission power matching	Selects the menu item

Elements of the main screen The **main screen** provides all relevant information on the device settings and signal properties when a signal is being transmitted on a conductor:

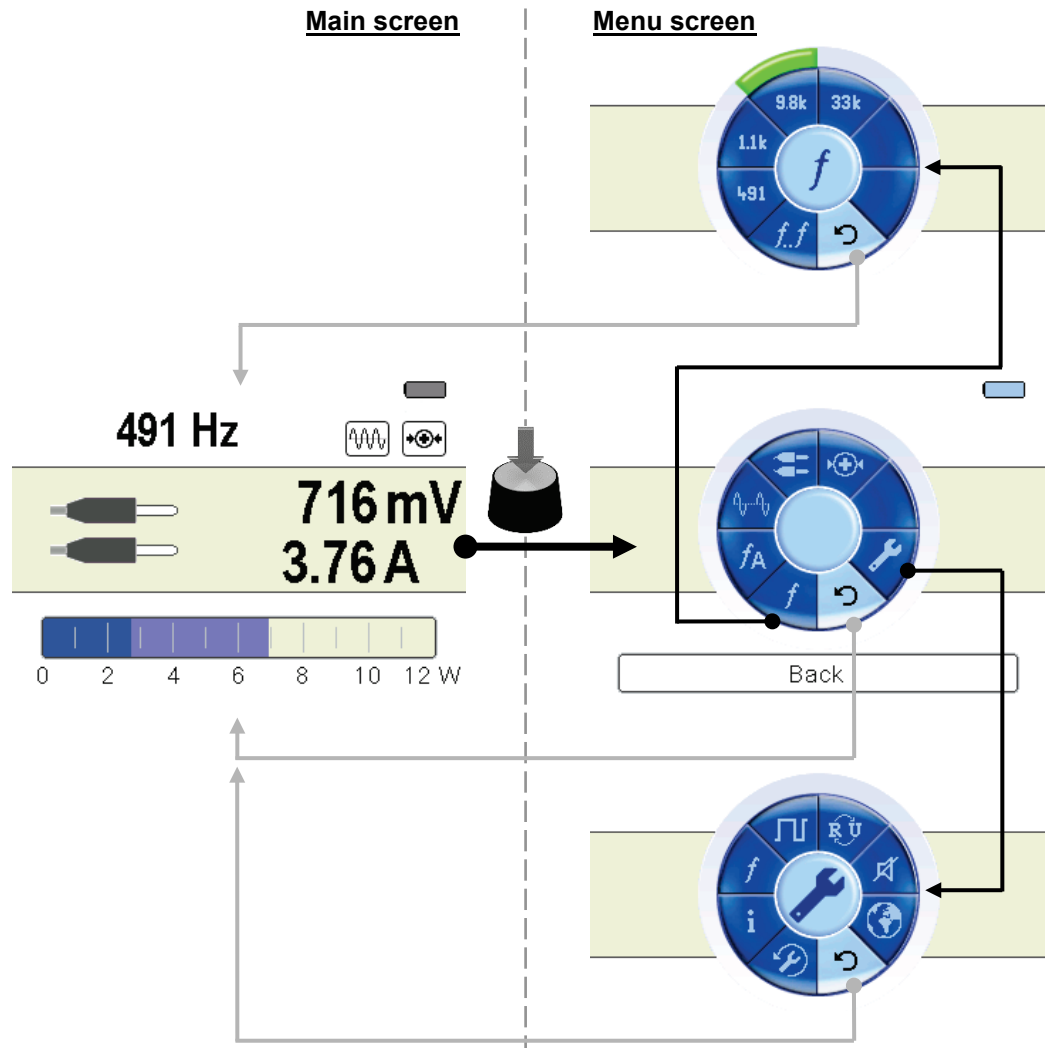


If the voltage at the signal output sockets **2** exhibits values of >25 V, making them dangerous to touch, a warning symbol is shown in the main screen, accompanied by a pulsed signal tone.

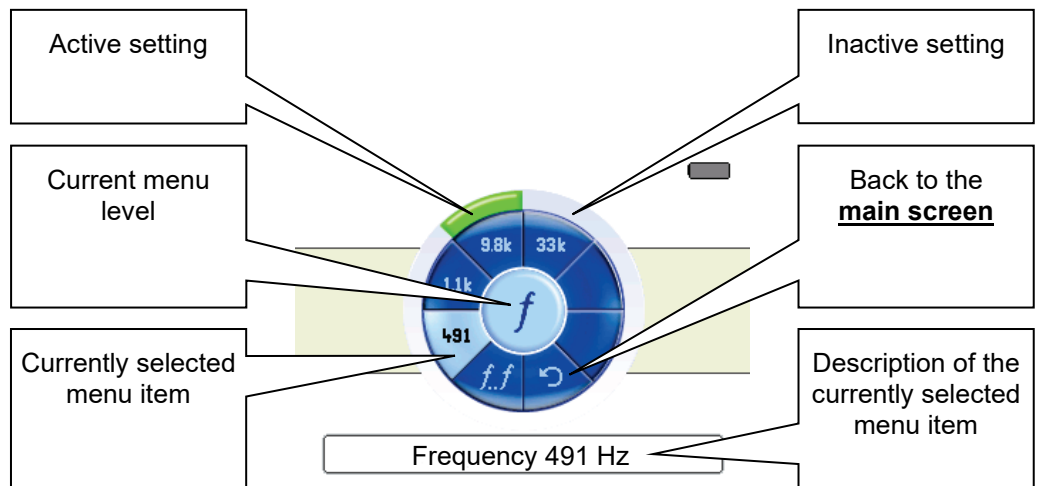


5.2 Adjusting the settings

Menu structure It is possible to switch from the **main screen** to the **menu screen** at any time and enter any setting with a maximum of three operating steps:



Elements of the menu screens By principle, the individual **menu screens** have the following layout:



5.2.1 Adjusting the basic settings

When the generator is switched on, you can access the basic settings by pressing the knob to switch to the **menu screen**, and then select the menu item . The following menu then appears in the display:



You can enter the following basic settings in this menu:

Menu item	Description												
	Sets the display language.												
	Activates/deactivates the acoustic signalling in the event of output voltages of >25 V that are dangerous to touch.												
	Switches over the measured value display. This menu item is used to define whether the output voltage or the load resistance determined should be displayed on the main screen.												
	Pulsing of the output signal. This menu item is used to select one of the following options for the pulse rate of the pulsed output signal:												
	<table border="1"> <thead> <tr> <th>Pulsing</th> <th>Signal duration</th> <th>Pause</th> </tr> </thead> <tbody> <tr> <td>4:3</td> <td>0.2 s</td> <td>0.15 s</td> </tr> <tr> <td>4:1</td> <td>0.8 s</td> <td>0.2 s</td> </tr> <tr> <td>6:1</td> <td>3.0 s</td> <td>0.5 s</td> </tr> </tbody> </table>	Pulsing	Signal duration	Pause	4:3	0.2 s	0.15 s	4:1	0.8 s	0.2 s	6:1	3.0 s	0.5 s
Pulsing	Signal duration	Pause											
4:3	0.2 s	0.15 s											
4:1	0.8 s	0.2 s											
6:1	3.0 s	0.5 s											
<i>f</i>	Selection of the frequencies that can be activated using the frequency menu. Only one frequency can be activated from each frequency range (491 – 640 Hz, 982 – 1090 Hz, 8440 – 9820 Hz, 32768 Hz). The menu item ... is used to open the second selection list.												
<i>i</i>	Current software version												
	Reset device to factory settings.												

5.2.2 Adjusting the measurement settings


Pressing the knob allows you to exit the **measurement screen** and directly access the **menu screen** at any time, which contains the most important measurement settings:



The following measurement settings can be entered in this screen:

Menu item	Description
	Basic settings (see previous page)
	<p>Activation/deactivation of the SignalSelect coding</p> <p>If this function has been activated, then a special coding is added to the output signal, which allows unique identification of a conductor within a cable array and makes it possible to determine the direction of signal flow.</p> <p>The prerequisite for this is, however, that a receiver from the Ferrolux module series is used.</p>
	<p>Type of signal coupling</p> <p>If this menu item has been activated, then the output signal is deployed using the signal output sockets 2 on the front panel of the device.</p> <p>Otherwise, inductive coupling is performed using the frame aerial.</p>
	<p>Activation/deactivation of pulsing mode</p> <p>When pulsing mode is used, instead of a continual signal, a signal-pause sequence with the pulsing specified in the basic settings (see previous page) is coupled into the conductor transmitting a signal.</p>
f_A	<p>Automatic frequency matching</p> <p>This menu item is used to initiate automatic frequency matching. The generator subsequently passes briefly through all frequencies that can be selected in the frequency menu, and then automatically sets the frequency at which the highest current was able to be coupled.</p>
f	<p>Selection of the transmission frequency</p> <p>The frequencies that can be selected in this menu can be adapted to individual requirements in the basic settings (see previous page).</p> <p>Multi-frequency mode is activated or deactivated using the menu item $f \dots f$. If this function has been activated, then all frequencies available in the frequency selection menu are coupled into the conductor at the same time.</p>

6 Switching off the generator

After the line has been successfully located / traced, the generator can be turned off by pressing the  button **for 3 seconds**.

7 Storage and care

Storage You should store the device in a dry and sheltered environment which provides adequate protection against mechanical damage and dirt. The storage temperatures shown in the technical data must be adhered to.

Apply topping charge every three months.

Caring for the display Do not clean the display with aggressive products such as solvents or spirits.

Instead, lukewarm water containing some washing-up liquid and a microfibre cloth should be used to clean the display.



Tento symbol indikuje, že výrobek nesoucí takovéto označení nelze likvidovat společně s běžným domovním odpadem. Jelikož se jedná o produkt obchodovaný mezi podnikatelskými subjekty (B2B), nelze jej likvidovat ani ve veřejných sběrných dvorech. Pokud se potřebujete tohoto výrobku zbavit, obraťte se na organizaci specializující se na likvidaci starých elektrických spotřebičů v blízkosti svého působiště.



Dit symbool duidt aan dat het product met dit symbool niet verwijderd mag worden als gewoon huishoudelijk afval. Dit is een product voor industrieel gebruik, wat betekent dat het ook niet afgeleverd mag worden aan afvalcentra voor huishoudelijk afval. Als u dit product wilt verwijderen, gelieve dit op de juiste manier te doen en het naar een nabij gelegen organisatie te brengen gespecialiseerd in de verwijdering van oud elektrisch materiaal.



This symbol indicates that the product which is marked in this way should not be disposed of as normal household waste. As it is a B2B product, it may also not be disposed of at civic disposal centres. If you wish to dispose of this product, please do so properly by taking it to an organisation specialising in the disposal of old electrical equipment near you.



Този знак означава, че продуктът, обозначен по този начин, не трябва да се изхвърля като битов отпадък. Тъй като е B2B продукт, не бива да се изхвърля и в градски пунктове за отпадъци. Ако желаете да изхвърлите продукта, го занесете в пункт, специализиран в изхвърлянето на старо електрическо оборудване.



Dette symbol viser, at det produkt, der er markeret på denne måde, ikke må kasseres som almindeligt husholdningsaffald. Eftersom det er et B2B produkt, må det heller ikke bortskaffes på offentlige genbrugsstationer. Skal dette produkt kasseres, skal det gøres ordentligt ved at bringe det til en nærliggende organisation, der er specialiseret i at bortskaffe gammelt el-udstyr.



Sellise sümboliga tähistatud toodet ei tohi käidelda tavalise olmejäätmena. Kuna tegemist on B2B-klassi kuuluva tootega, siis ei tohi seda viia kohalikku jäätmekäitluspunkti. Kui soovite selle toote ära visata, siis viige see lähimasse vanade elektriseadmete käitlemisele spetsialiseerunud ettevõttesse.



Tällä merkinnällä ilmoitetaan, että kyseisellä merkinnällä varustettua tuotetta ei saa hävittää tavallisen kotilousjätteen seassa. Koska kyseessä on yritysten välisen kaupan tuote, sitä ei saa myöskään viedä kuluttajien käyttöön tarkoitettuihin keräyspisteisiin. Jos haluatte hävittää tämän tuotteen, ottakaa yhteys lähimpään vanhojen sähkölaitteiden hävittämiseen erikoistuneeseen organisaatioon.



Ce symbole indique que le produit sur lequel il figure ne peut pas être éliminé comme un déchet ménager ordinaire. Comme il s'agit d'un produit B2B, il ne peut pas non plus être déposé dans une déchetterie municipale. Pour éliminer ce produit, amenez-le à l'organisation spécialisée dans l'élimination d'anciens équipements électriques la plus proche de chez vous.



Cuireann an siombail seo in iúl nár cheart an táirgeadh atá marcáilte sa tsíol seo a dhiúscairt sa chóras fuoil teaghlaigh. Os rud é gur táirgeadh ghnó le gnó (B2B) é, ní féidir é a dhiúscairt ach oiread in ionaid dhiúscairthe phobail. Más mian leat an táirgeadh seo a dhiúscairt, déan é a thógáil ag eagraíocht gar duit a sainfheidhmíonn i ndiúscairt seanfhearas leictrigh.



Dieses Symbol zeigt an, dass das damit gekennzeichnete Produkt nicht als normaler Haushaltsabfall entsorgt werden soll. Da es sich um ein B2B-Gerät handelt, darf es auch nicht bei kommunalen Wertstoffhöfen abgegeben werden. Wenn Sie dieses Gerät entsorgen möchten, bringen Sie es bitte sachgemäß zu einem Entsorger für Elektroaltgeräte in Ihrer Nähe.



Αυτό το σύμβολο υποδεικνύει ότι το προϊόν που φέρει τη σήμανση αυτή δεν πρέπει να απορρίπτεται μαζί με τα οικιακά απορρίμματα. Καθώς πρόκειται για προϊόν B2B, δεν πρέπει να απορρίπτεται σε δημοτικά σημεία απόρριψης. Εάν θέλετε να απορρίψετε το προϊόν αυτό, παρακαλούμε όπως να το παραδώσετε σε μία υπηρεσία συλλογής ηλεκτρικού εξοπλισμού της περιοχής σας.



Ez a jelzés azt jelenti, hogy az ilyen jelzéssel ellátott terméket tilos a háztartási hulladékokkal együtt kidobni. Mivel ez vállalati felhasználású termék, tilos a lakosság számára fenntartott hulladékgyűjtőbe dobní. Ha a terméket ki szeretné dobní, akkor vigye azt el a lakóhelyéhez közel működő, elhasznált elektromos berendezések begyűjtésével foglalkozó hulladékkezelő központhoz.



Questo simbolo indica che il prodotto non deve essere smaltito come un normale rifiuto domestico. In quanto prodotto B2B, può anche non essere smaltito in centri di smaltimento cittadino. Se si desidera smaltire il prodotto, consegnarlo a un organismo specializzato in smaltimento di apparecchiature elettriche vecchie.



Šī zīme norāda, ka izstrādājumu, uz kura tā atrodas, nedrīkst izmest kopā ar parastiem mājstaimniecības atkritumiem. Tā kā tas ir izstrādājums, ko cits citam pārdod un lieto tikai uzņēmumi, tad to nedrīkst arī izmest atkritumos tādās izgāztuvēs un atkritumu savāktuvēs, kas paredzētas vietējiem iedzīvotājiem. Ja būs vajadzīgs šo izstrādājumu izmest atkritumos, tad rīkojieties pēc noteikumiem un nogādājiet to tuvākajā vietā, kur īpaši nodarbojas ar vecu elektrisku ierīču savākšanu.



Šis simbolis rodo, kad juo paženklinto gaminio negalima išmesti kaip paprastų buitinių atliekų. Kadangi tai B2B (verslas verslui) produktas, jo negalima atiduoti ir buitinių atliekų tvarkymo įmonėms. Jei norite išmesti šį gaminį, atlikite tai tinkamai, atiduodami jį arti jūsų esančiai specializuotai senos elektrinės įrangos utilizavimo organizacijai.



Dan is-simbolu jindika li l-prodott li huwa mmarkat b'dan il-mod m'ghandux jintrema bhal skart normali tad-djar. Minhabba li huwa prodott B2B , ma jistax jintrema wkoll f'centri civici ghar-rimi ta' l-iskart. Jekk tkun tixtieq tarmi dan il-prodott, jekk joghqob ghamel dan kif suppost billi tiehdu ghand organizzazzjoni fil-qrib li tispécializza fir-rimi ta' taghmir qadim ta' l-eletriku.



Dette symbolet indikerer at produktet som er merket på denne måten ikke skal kastes som vanlig husholdningsavfall. Siden dette er et bedriftsprodukt, kan det heller ikke kastes ved en vanlig miljøstasjon. Hvis du ønsker å kaste dette produktet, er den riktige måten å gi det til en organisasjon i nærheten som spesialiserer seg på kassering av gammelt elektrisk utstyr.



Ten symbol oznacza, że produktu nim opatrzono nie należy usuwać z typowymi odpadami z gospodarstwa domowego. Jest to produkt typu B2B, nie należy go więc przekazywać na komunalne składowiska odpadów. Aby we właściwy sposób usunąć ten produkt, należy przekazać go do najbliższej placówki specjalizującej się w usuwaniu starych urządzeń elektrycznych.



Este símbolo indica que o produto com esta marcação não deve ser deixado fora juntamente com o lixo doméstico normal. Como se trata de um produto B2B, também não pode ser deixado fora em centros cívicos de recolha de lixo. Se quiser desfazer-se deste produto, faça-o correctamente entregando-o a uma organização especializada na eliminação de equipamento eléctrico antigo, próxima de si.



Acest simbol indică faptul că produsul marcat în acest fel nu trebuie aruncat ca și un gunoi menajer obișnuit. Deoarece acesta este un produs B2B, el nu trebuie aruncat nici la centrele de colectare urbane. Dacă vreți să aruncați acest produs, vă rugăm s-o faceți într-un mod adecvat, ducând-ul la cea mai apropiată firmă specializată în colectarea echipamentelor electrice uzate.



Tento symbol znamená, že takto označený výrobek sa nesmie likvidovať ako bežný komunálny odpad. Keďže sa jedná o výrobok triedy B2B, nesmie sa likvidovať ani na mestských skládkach odpadu. Ak chcete tento výrobok likvidovať, odnešte ho do najbližšej organizácie, ktorá sa špecializuje na likvidáciu starých elektrických zariadení.



Ta simbol pomeni, da izdelka, ki je z njim označen, ne smete zavreči kot običajne gospodinjne odpadke. Ker je to izdelek, namenjen za druge proizvajalce, ga ni dovoljeno odlagati v centrih za civilno odlaganje odpadkov. Če želite izdelek zavreči, prosimo, da to storite v skladu s predpisi, tako da ga odpeljete v bližnjo organizacijo, ki je specializirana za odlaganje stare električne opreme.



Este símbolo indica que el producto así señalizado no debe desecharse como los residuos domésticos normales. Dado que es un producto de consumo profesional, tampoco debe llevarse a centros de recogida selectiva municipales. Si desea desechar este producto, hágalo debidamente acudiendo a una organización de su zona que esté especializada en el tratamiento de residuos de aparatos eléctricos usados.



Den här symbolen indikerar att produkten inte får blandas med normalt hushållsavfall då den är förbrukad. Eftersom produkten är en så kallad B2B-produkt är den inte avsedd för privata konsumenter, den får således inte avfallshanteras på allmänna miljö- eller återvinningsstationer då den är förbrukad. Om ni vill avfallshandera den här produkten på rätt sätt, ska ni lämna den till myndighet eller företag, specialiserad på avfallshandling av förbrukad elektrisk utrustning i ert närområde.