

INSTRUCTIONS

VHF TRANSCEIVERS

IC-F1000 series

UHF TRANSCEIVERS

IC-F2000 series

Thank you for choosing this Icom product. **READ ALL INSTRUCTIONS** carefully and completely before using this product.

IMPORTANT

SAVE THESE INSTRUCTIONS— These instructions contain basic (important) operating instructions for the IC-F1000/IC-F1000S/IC-F1000T VHF TRANSCEIVERS or IC-F2000/IC-F2000S/IC-F2000T UHF TRANSCEIVERS

EXPLICIT DEFINITIONS

WORD	DEFINITION		
△ DANGER! Personal death, serious injury or an explosion may occur.			
⚠ WARNING! Personal injury, fire hazard or electric shock may occur.			
CAUTION	Equipment damage may occur.		
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.		

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:

- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

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PRECAUTIONS

 \triangle DANGER! NEVER short terminals (or charging terminals) of the battery pack. Also, current may flow into nearby metal objects such as a key, so be careful when placing the battery packs (or the transceiver) in handbags, and so on. Simply carrying with or placing near metal objects such as a key, and so on may cause shorting. This may damage not only the battery pack, but also the transceiver

 $\ensuremath{\Delta}$ DANGER! Use and charge only specified Icom battery packs with Icom transceivers or Icom chargers. Only Icom battery packs are tested and approved for use with Icom transceivers or charged with Icom chargers. Using thirdparty or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery to burst.

⚠ WARNING! NEVER hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the transceiver is untitied.

⚠ WARNING! NEVER operate the transceiver with a headset or other audio accessories at high volume levels The continuous high volume operation may cause a ringing in your ears. If you experience the ringing, reduce the volume level or discontinue use.

△ WARNING! NEVER operate the transceiver while driving a vehicle. Safe driving requires your full attentionanything less may result in an accident

CAUTION: MAKE SURE the flexible antenna, battery pack, and jack cover are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to dust or water will result in serious damage to the transceiver

NEVER place the transceiver in an insecure place to avoid inadvertent use by unauthorized persons.

DO NOT operate the transceiver near unshielded electric blasting caps or in an explosive atmosphere

DO NOT push [PTT] when you do not actually intend to

DO NOT operate or place the transceiver in direct sunlight or in areas with temperatures below –25°C (–13°F) or above +55°C (+131°F): ETS version, below –30°C (–22°F) or above +60°C (+140°F): TIA version.

DO NOT modify the transceiver. The specifications may change and then not comply with the requirements of a corresponded regulation. The transceiver warranty does not cover any problems caused by unauthorized modification

DO NOT use harsh solvents such as benzine or alcohol when cleaning, as they will damage the transceiver surfaces

BE CAREFUL! The transceiver will become hot when operating it continuously for long periods of time

BE CAREFUL! The transceiver meets IP67* requirements for dust-tight and waterproof protection. However, once the transceiver has been dropped, dust-

tight and waterproof protection cannot be guaranteed because of possible damage to the transceiver's case or the waterproof seal.

Only when the jack cover, the optional HM-222HLWP HS-94LWP, or HS-95LWP is attached.

Even when the transceiver power is OFF, a slight current still flows in the circuits. Remove the battery pack from the transceiver when not using it for a long time. Otherwise, the installed battery pack will become exhausted, and will need to be recharged or replaced.

MAKE SURE to turn OFF the transceiver power before connecting or disconnecting the supplied $\overset{\cdot}{\text{or}}$ optional accessory

♦ Battery caution

Misuse of Li-ion batteries may result in the following hazards: smoke, fire, or the battery may rupture. Misuse can also cause damage to the battery or degradation of battery performance.

 \triangle DANGER! DO NOT hammer or otherwise impact the battery. Do not use the battery if it has been severely impacted or dropped, or if the battery has been subjected to heavy pressure. Battery damage may not be visible on the outside of the case. Even if the surface of the battery does not show cracks or any other damage, the cells inside the battery may rupture or catch fire.

 \triangle DANGER! NEVER use or leave battery pack in areas with temperatures above +60°C (+140°F). High temperature buildup in the battery, such as could occur near fires or stoves, inside a sun-heated vehicle, or in direct sunlight for long periods of time may cause the battery to rupture or catch fire. Excessive temperatures may also degrade battery's performance or shorten battery

⚠ DANGER! DO NOT expose the battery to rain, snow, seawater, or any other liquids. Do not charge or use a wet battery. If the battery gets wet, be sure to wipe it dry before

 \triangle DANGER! KEEP battery packs away from fire. Fire or heat may cause them to rupture or explode. Dispose of an used battery pack in accordance with local regulations.

△ DANGER! NEVER solder the battery terminals, or modify the battery pack. This may generate heat in the battery, and the battery pack may burst, emit smoke or catch fire.

△ DANGER! Use the battery only with the transceiver for which it is specified. Never use a battery with any other equipment, or for any purpose that is not specified in the instruction manual.

 \triangle DANGER! If fluid from inside the battery gets in your eyes, blindness can result. Rinse your eyes with clean water, without rubbing them, and see a doctor immediately

 \triangle WARNING! Immediately stop using the battery if it emits an abnormal odor, heats up, or is discolored or deformed. If any of these conditions occur, contact your Icom dealer or distributor.

They could cause a fire.

 \triangle **WARNING!** Immediately wash, using clean water, any part of the body that comes into contact with fluid from inside the battery.

⚠ WARNING! NEVER put the battery in a microwave oven, high-pressure container, or in an induction heating cooker. This could cause a fire, overheating, or cause the

CAUTION: Always use the battery within the specified temperature range, for the transceiver -25°C to $+55^{\circ}\text{C}$ (-13°F to $+131^{\circ}\text{F}$): ETS version, -30°C to $+60^{\circ}\text{C}$ (-22°F to +140°F): TIA version, and the battery itself –20°C to +60°C (–4°F to +140°F). Using the battery out of its specified temperature range will reduce the battery's performance and battery life. Please note that the specified temperature range of the battery may exceed that of the transceiver In such cases, the transceiver may not work properly because it is out of its operating temperature range

CAUTION: Shorter battery life could occur if the battery is left fully charged, completely discharged, or in an excessive temperature environment (above +50°C: 122°F) for an extended period of time. If the battery must be left unused for a long time, it must be detached from the transceiver after discharging. You may use the battery until the remaining capacity is about half, then keep it safely in a cool dry place at the following temperature

-20°C (-4°F) to +50°C (+122°F) (within a month) -20°C (-4°F) to +40°C (+104°F) (within three months) -20°C (-4°F) to +20°C (+68°F) (within a year)

BE SURE to replace the battery pack with a new one approximately five years after manufacturing, even if it still holds a charge. The inside battery material will become weak after a period of time, even with little use. The estimated number of times you can charge the battery is between 300 and 500. Even when the battery appears to be fully charged, the operating time of the transceiver may become short when: become short when:

- Approximately five years have passed since the battery was manufactured.
- · The battery has been repeatedly charged.

The battery cells may deteriorate and swell due to their characteristics if used in an environment and conditions such as: frequently charged, recharged immediately after full charge, used or saved in a hot place, or charged by methods other than the instructions. If the battery pack swells, it has reached the end of its life due to deterioration. Replace it with a brand new one.

♦ Charging caution

⚠ DANGER! NEVER charge the battery pack in areas with extremely high temperatures, such as near fires or stoves, inside a sun-heated vehicle, or in direct sunlight In such environments, the safety/protection circuit in the battery will activate, causing the battery to stop charging.

⚠ DANGER! NEVER charge the transceiver during a lightning storm. It may result in an electric shock, cause a fire or damage the transceiver. Always disconnect the power adapter before a storm.

 \triangle WARNING! NEVER charge or leave the battery in the battery charger beyond the specified time for charging. If the battery is not completely charged by the specified time, stop charging and remove the battery from the battery charger. Continuing to charge the battery beyond the specified time limit may cause a fire, overheating, or the battery may rupture.

⚠ WARNING! Occasionally observe the battery pack condition while charging. If any abnormal condition occurs, discontinue using the battery pack.

⚠ WARNING! NEVER insert the transceiver (battery attached to the transceiver) into the charger if it is wet or soiled. This could rust the battery charger terminals or damage the charger. The charger is not waterproof.

NOTE: Charge the battery within the specified temperature range of +10°C to +40°C (+50°F to +104°F). Otherwise, the charging time will be longer, but the battery will not reach a full charge. While charging, at a point after the temperature goes out of the specified range, the charging will automatically stop.

RECOMMENDATION

CLEAN THE TRANSCEIVER THOROUGHLY IN A BOWL OF FRESH WATER after exposure to saltwater, and dry it before operating. Otherwise, the transceiver's keys and switches may become unusable, due to salt crystallization, and/or the charging terminals of the battery pack may

NOTE: If the transceiver's waterproof protection appears defective, carefully clean the transceiver with a soft, damp (fresh water) cloth, then dry it before operating. The transceiver may lose its waterproof protection if the case, jack cap, or connector cover is cracked or broken, or the transceiver has been dropped. Contact your Icom distributor or your dealer for advice.

ABOUT CE AND DOC



Hereby, Icom Inc. declares that the versions of IC-F1000, IC-F1000S, IC-F1000T, IC-F2000, IC-F2000S, and IC-F2000T which have the "CE" symbol on the product, comply with the essential requirements of

the Radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.icomjapan.com/support/

DISPOSAL



The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of

them according to the laws in your area.

FCC INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

CAUTION: Changes or modifications to this transceiver, not expressly approved by Icom Inc., could void your authority to operate this transceiver under FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

SAFETY TRAINING INFORMATION



Your Icom radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is

NOT intended for use by the "General Population" in an uncontrolled environment. This radio has been tested and complies with the FCC and IC RF exposure limits for 'Occupational Use Only". In addition, your Icom radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- · American National Standards Institute (C95.1-2019), IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz.
- American National Standards Institute (C95.3-2021), IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields,
- · The antennas, batteries, belt clips, speaker-microphone, and other accessories that are listed in "OPTIONS" of the INSTRUCTIONS sheet, are authorized for use with this product. Use of accessories other than those specified may result in RF exposure levels exceeding the FCC and IC requirements for wireless RF exposure.

CAUTION

To ensure that your expose to RF electromagnetic energy is within the FCC and IC allowable limits for occupational use, always adhere to the following guidelines:

- DO NOT operate the radio without a proper antenna attached, as this may damaged the radio and may also cause you to exceed FCC and IC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio
- DO NOT transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC and IC RF exposure compliance requirements to be exceeded. The radio is transmitting when the LED indicator lights red. You can cause the radio to transmit by pressing the "PTT" switch
- ALWAYS keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the Icom belt-clips listed in "OPTIONS" of the INSTRUCTIONS sheet when attaching the radio to your belt, etc., to ensure FCC and IC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC and IC RF exposure limits of this radio.

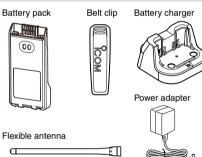
Electromagnetic Interference/Compatibility

During transmissions, your Icom radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

SUPPLIED ACCESSORIES



Some accessories are not supplied, or the shape is

different, depending on the transceiver version.

The FA-SC55V supplied with some VHF transceiver versions covers only the range of 150 MHz to 174 MHz. Purchase a suitable antenna to use the transceiver between the 136 MHz and 150 MHz frequency range. See OPTIONS for details.

> FELLECS LECH Ihr Partner für Funktechnik www.fellecs-tech.com inbox@fellecs-tech.com

NOTE: This instruction sheet includes some functions that are usable only when they are preset by your dealer. The transceiver may have other functions and operations that are not described in this instruction sheet. Ask your dealer for preset function details.

PANEL DESCRIPTION

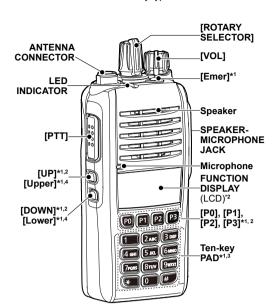
There are 3 types of transceivers in the IC-F1000 and IC-F2000 series

IC-F1000/IC-F2000:

Non-display type • IC-F1000S/IC-F2000S: Simple key type [LCD + 4 keys (P0 ~ P3)] • IC-F1000T/IC-F2000T:

Ten-key type [LCD + 4 keys + Ten-key Pad]

The illustration is for the Ten-key type transceivers.



- *1: Dealer assignable.*2: Only for the Simple key and Ten-key types.
- *3: Only for the Ten-key type.
 *4: Only for the Non-Display type

♦ About the LED Indicator

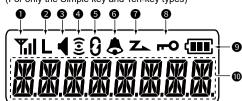
- Lights red while transmitting
- · Lights green while receiving a signal, or when the squelch is open.
 Lights or blinks orange when the matching 2-Tone or
- 5-Tone is received, depending on the presetting. You should charge the battery when the indicator slowly
- · You must charge the battery when the indicator blinks green fast.

About the Speaker microphone jack

CAUTION: DO NOT use the transceiver without the lack cover or the optional equipment attached. Only when the jack cover or the optional HM-222HLWP, HS-94LWP, or HS-95LWP is attached, the transceiver meets IP67 requirements for dust-tight and waterproof protection

Function display

(For only the Simple key and Ten-key types)



OSIGNAL STRENGTH INDICATOR

Displays the relative receive signal strength level.

LOW POWER ICON

Displayed when low output power is selected.

① When the battery charge decreases to a set level, low power is automatically selected.

SAUDIBLE ICON

Displayed when the channel is in the Audible (unmuted) mode Displayed when a matching 2-Tone or 5-Tone is

4 COMPANDER ICON Displayed when the Compander function is ON

SCRAMBLER ICON

Displayed when the Voice Scrambler function is ON.

6BELL ICON

Displayed or blinks when a matching 2-Tone or 5-Tone is received, depending on the presetting.

TSCAN ICON

Displayed or blinks while scanning.

SKEY LOCK ICONDisplayed when the Key Lock function is ON.

9BATTERY INDICATOR

Displays the remaining battery charge. Blinks when the battery charge decreases to a set level.

WALPHANUMERIC READOUT

Displays messages such as channel text.

BATTERY CHARGING

NOTE: Before detaching or attaching a battery pack BE SURE to turn OFF the transceiver by rotating [VOL] fully counter clockwise, until it makes a "click" sound. Otherwise, a transceiver malfunction could occur.

Rapid charging the supplied BC-213

You can rapidly charge the Li-ion battery pack with the

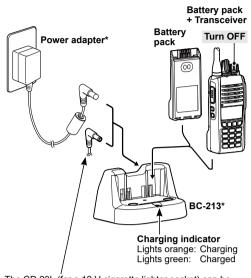
Charging time
• For the BP-279 Approximately 2 to 3 hours

• For the BP-280 Approximately 3 to 4 hours

Additionally needed item (purchase separately):

A power adapter (may be supplied with the charger, depending on the charger version).

NOTE: Charge the battery within the specified temperature range of +10°C ~ +40°C (+50°F ~ +104°F). Otherwise, the charging time will be longer, but the battery will not reach a full charge. While charging, at a point after the temperature goes out of the specified range, the charging will automatically stop.



The CP-23L (for a 12 V cigarette lighter socket) can be used instead of the power adapter

* A different type, or no power adapter is supplied, depending on the transceiver version.

NOTE: If the charging indicator alternately blinks green and orange, remove the battery pack or the transceiver from the charger, then reinsert it

♦ Rapid charging the BC-214N

You can rapidly and simultaneously charge up to 6 battery packs with the optional BC-214N (the AD-130 CHARGER ADAPTERS are installed.)

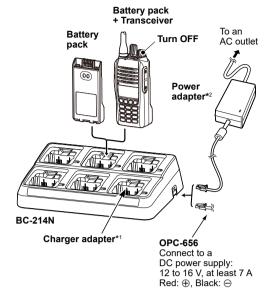
Charging time

• For the BP-279 • For the BP-280 Approximately 2 to 3 hours Approximately 3 to 4 hours

Additionally needed item (purchase separately):

The BC-157S AC ADAPTER or the OPC-656 DC POWER CABLE

CAUTION: DO NOT reverse the polarity when connecting the OPC-656 to a power source. This will ruin the battery Red: ⊕, Black: ⊝



- *1: Charger adapter's shape may differ, depending on the charger version.
 *2: A different type, or no power adapter is supplied,
- depending on the charger version.

NOTE: The BC-214N has a charging timer that stops charging after approximately 5.3 hours of charging.

BASIC OPERATION

♦ Turning ON the transceiver

NOTE: Before using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation. See the BATTERY CHARGING section.

• Rotate [VOL] to turn ON the transceiver.



Receiving and Transmitting

CAUTION: DO NOT transmit without an antenna.

- Rotate [ROTARY SELECTOR], or push one of the memory channel keys, [MR-CH 1] ~ [MR-CH 4], to select a channel.
- 2. When receiving a call, adjust the audio output level to a comfortable listening level.

NOTE: Depending on the presetting, the transceiver may automatically transmit the microphone audio for the preset time period when a matching signal is received. (Auto TX function)

Transmitting:

- Wait until the channel is clear to avoid interference. While holding down [PTT], speak at your normal voice
- 3. Release [PTT] to receive.

- **IMPORTANT:**To maximize the readability of your signal:
- After pushing [PTT], pause briefly before you start
- speaking.
 Hold the microphone 5 ~ 10 cm (2 ~ 4 inches) from your mouth, then speak at your normal voice level.

OPTIONS

♦ BATTERY PACKS

• BP-278/BP-279/BP-280 BATTERY PACK

Battery pack	Voltage	Capacity	Battery life*	
BP-278	7.2 V	1130 mAh (minimum) 1190 mAh (typical)	VHF	10 hours
			UHF	10 hours
BP-279	7.2 V	1485 mAh (minimum) 1570 mAh (typical)	VHF	14 hours
			UHF	14 hours
BP-280	7.2 V	2280 mAh (minimum) 2400 mhA (typical)	VHF	20 hours
			UHF	20 hours

* When the power save function is turned ON, and the operating periods are calculated under the following

TX: RX: standby = 5:5:90

♦ CHARGERS

- BC-213 DESKTOP CHARGER + BC-123S AC ADAPTER
- To rapid charge a single battery pack.

 BC-214N MULTI CHARGER + BC-157S AC ADAPTER
- To rapid charge up to 6 battery packs

♦ DC CABLES

- CP-23L CIGARETTE LIGHTER CABLE 12 \/ Use when charging the cigarette lighter socket. (Use with the BC-213)
- **OPC-656** DC POWER CABLE Use with a 13.8 V power source instead of the power adapter. (Use with the BC-214N)

♦ ANTENNAS

• FA-SC25V/FA-SC55V/FA-SC62V/FA-SC63V

VHF ANTENNAS FA-SC25V: 136 ~ 150 MHz FA-SC55V: 150 ~ 174 MHz FA-SC62V: 150 ~ 160 MHz FA-SC63V: 155 ~ 165 MHz

 FA-SC26VS/FA-SC27VS/FA-SC56VS/FA-SC57VS VHF STUBBY ANTENNAS

FA-SC26VS: 136 ~ 144 MHz FA-SC27VS: 142 ~ 150 MHz FA-SC56VS: 150 ~ 162 MHz FA-SC57VS: 160 ~ 174 MHz

FA-SC61VC VHF CUT ANTENNA FA-SC61VC: 136 ~ 174 MHz
 FA-SC25U/FA-SC57U/FA-SC72U/FA-SC73US

UHF ANTENNAS 400 ~ 430 MHz FA-SC25U: 470 ~ 520 MHz FA-SC72U: FA-SC73US: 450 ~ 490 MHz
FA-SC26US UHF STUBBY ANTENNA

FA-SC26US: 400 ~ 450 MHz
• FA-SC01U/FA-SC02U UHF ANTENNA FA-SC01U: 350 ~ 400 MHz FA-SC02U: 330 ~ 380 MHz

FA-SC61UC UHF CUT ANTENNA FA-SC61UC: 380 ~ 520 MHz

♦ OTHERS

MR-130 MOBILE BRACKET

Mounts the BC-213 desktop charger on a variety of

places in a vehicle.

MB-133 BELT CLIP

HM-158LA/HM-159LA/HM-222HLWP* SPEAKER MICROPHONE

Combination speaker-microphone that provides convenient operation while the transceiver is hanging

on your belt.

① Adjust the microphone gain before use.

High audio output is only usable with transceivers that support the function. (With a "U" mark on the serial number label) HM-153LA/HM-166LA EARPHONE-MICROPHONE

Ideal for hands-free operation. Clip the **HM-153LA** or **HM-166LA** (with integrated PTT switch) to your lapel or Decket.
 Adjust the microphone gain before use.
 HS-94/HS-95/HS-97 HEADSET
 + VS-4LA PTT SWITCH CABLE/

OPC-2004LA ADAPTER CABLE HS-94: Ear-hook type Neck-arm type Throat microphone HS-95 HS-97 VS-4LA To connect to headsets OPC-2004LA: To connect to headsets for VOX

operation ① Adjust the both microphone and VOX gain before

HS-94LWP/HS-95LWP HEADSET HS-94LWP Ear-hook type

your dealer for details

HS-95LWP Neck-arm type ① Adjust the both microphone and VOX gain before

Some options may not be available in some countries. Ask

FELLECS TECH Ihr Partner für Funktechnik www.fellecs-tech.com inbox@fellecs-tech.com