

ACOM 560

CW Paddle
with a Dialogue Display

User's Manual

Installation, Operation
and Maintenance

OUTSTANDING HF POWER PRODUCTS

July 2026

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Title of Documentation
ACOM 560 CW Paddle
User's Manual
Installation, Operation and Maintenance

Type of Documentation
User's Manual

Purpose of Documentation
This manual explains Installation, Operation and Maintenance of the ACOM 560 CW Paddle.

Record of Revisions

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1. GENERAL INFORMATION

Congratulations on purchasing one of the finest solid-state CW Paddles in the world today.

ACOM is pleased that you have chosen one of our products, and we will endeavor to provide you with the information and support you need to enjoy your purchase for many years.

We urge you to read all of the following materials before you embark on operating your new ACOM 560 CW Paddle.

1.1. Introduction and Description

This manual explains:

- Installation
- Operation and
- Maintenance

of the ACOM 560 CW Paddle.

The ACOM 560 is a state-of-the-art CW paddle powered by a microcomputer with a dialogue screen and based on force (load cells) sensors. That makes the use of Radiotelegraphy and Morse code very easy nowadays.

The ACOM 560 CW Paddle keying technique is the same as keying with a mechanical paddle, but now you will increase your maximum keying speed. The paddle weight of around 1 kg, combined with the anti-slip bottom pad, makes the device virtually stationary while keying, allowing you to enjoy your transmission. The device can be used with any modern transceiver with a built-in CW keyer or with an external keyer.



1.2. To the Reader of this Manual

This document is written for the technically qualified users who will use the ACOM 560 CW Paddle.

To ensure your safety in accordance with safety and security standards, read this manual carefully and follow the steps described in it.

Everyone who will use the ACOM 560 CW Paddle must read this manual, and follow the instructions in it, and other accompanying ACOM documentation (see Section ***1.5 Additional Documentation***), and consider also the appropriate safety precautions.

Informational notes

Observe the informational notes provided in this manual to ensure reliable and efficient operation of the device. In this manual, you will find the following informational notes:



The information symbol highlights operating procedures or practices that may improve equipment reliability and/or personnel performance, or to emphasize a concept.



*The book symbol represents a **cross reference** to external documentation, e.g., other ACOM manual.*

Symbols and fonts used for marking text

In this manual the following symbols and fonts are used for marking text:

Format	Meaning
Orange bold text	Identifies all internal links in the document between ***Sections***, ***Figures***, ***Tables***, etc. for your convenience.
BOLD TEXT IN CAPITAL LETTERS	Identifies the connectors, switches, and button names and labels.
TEXT IN CAPITAL LETTERS	Identifies the device operating modes, menu names, messages, etc.

1.3. Product Features

- **Easy to operate**
  The ACOM 560 CW Paddle keying technique is the same as keying with a mechanical paddle. The operator will easily adapt his keying style to it and, as a result, will increase its maximum keying speed.
  The paddle weight of 1.05 kg (2.3 lbs) makes the device virtually stationary while keying, and you will enjoy your transmission.
- **5 different Levers' operating modes**
  The ACOM 560 CW Paddle supports 5 operating modes: DUAL LEVER mode, SINGLE A mode, SINGLE B mode, ULTIMATIC mode, and SIDE SWIPE mode.
- **User-friendly control**
  The ACOM 560 CW Paddle uses a microcomputer with a dialogue LCD display. This means you have menu-driven intelligent control functions, as is common with all ACOM products.
- **No more mechanical problems**
  No more moving parts inside the device that cause mechanical problems. The ACOM 560 CW Paddle uses force (load cells) sensors to detect operator pressure on the levers.
- **No more health issues**
  No more health problems with your fingers and hands. The ACOM 560 CW Paddle activating force can be adjusted from 10 grams only to 60 grams. The lever pressure force is user-adjustable and can be stored in up to five preset groups.
- **No more unnecessary noise**
  The silence is what you dream of. And the ACOM 560 CW Paddle will give it to you.
- **No service needed**
  Since there are no mechanical moving parts, the ACOM 560 CW Paddle does not require the maintenance typical of mechanical devices. The force sensors' calibrating procedure is fully automatic.

1.4. Product History and Documentation Validity

The ACOM 560 CW Paddle serial production started in October 2025.

This manual refers to the ACOM 560 CW Paddle and describes the operating possibilities of all devices produced till the publishing date of this manual.

This manual is valid till a new manual is issued.

Production Version Release Date	Notes
10.2025	Basic design;

Table 1-1 | Production versions history

1.5. Additional Documentation

For further important information, please, refer to the following documentation:

- ***ACOM 560 CW Paddle Brochure.***

The documentation is available for download at www.acom-bg.com.

1.6. Product Identification

Every ACOM product features an ID (identification) label/plate. The ID label is usually on the rear side of the device. On this label, you can find data identifying the device. Which product identification data are important?

- Model designation - The model designation is the name of the device;
- Serial Number - Most products have their own serial number. The serial number is a consecutive number for unique identification of products with the same model designation. It serves to ensure traceability of a product after it has been put in circulation, e.g., to find the date of invoice that is required to determine guarantee and warranty periods. The term serial number is mostly abbreviated to SN or S/N.



Figure 1-1 | ID (identification) label/plate, example

1.7. Equipment Supplied

The ACOM 560 CW Paddle is shipped as a package, consisting of:

Nr.	PACKAGE CONTENTS	Pcs.
1	ACOM 560 CW Paddle (device only)	1
2	Levers set (Standard model, mounted on the paddle)	1
3	Acu-battery (mounted into the paddle)	1
4	Levers set (Tall model)	1
5	Shielded audio stereo connecting cable with plugs (dia. 3.5 mm on paddle side and dia. 6.3 mm on the transceiver side), 1.5 m	1
6	Calibrating weight, 60 g	1
7	Hex (Allen) key (1.3 mm, DIN 911) and four screws for lever set mounting (M2x6, Hexagon socket countersunk head cap screw), set	1
8	Cleaning cloth	1
9	Levers' protective cover	1
10	Informational brochure	1

Table 1-2 | Package contents



Figure 1-2 | What is in the box?

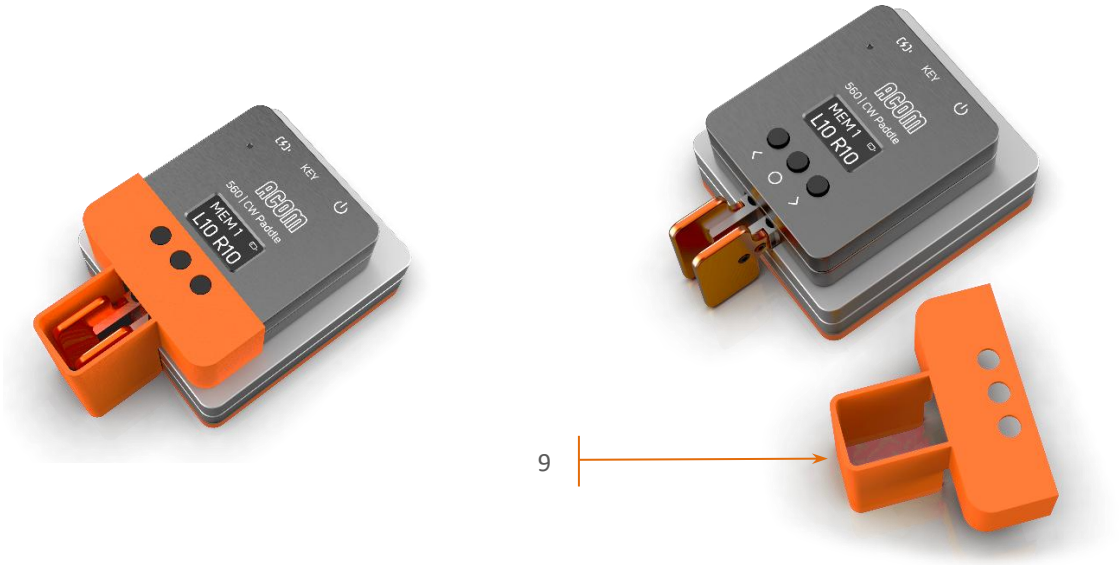


Figure 1-3 | One more thing in the box

The User's Manual is available as PDF-file only.
The latest version of the User's Manual is available at www.acom-bg.com.

The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery.
This is marked on the device with the symbol

For more info see Section ***5.4 Rechargeable Battery Care***.

1.8. Owner Assistance

If assistance is needed, you should contact your local dealer first. If necessary, your dealer will contact ACOM for additional guidance.

If you still have an issue you need to discuss with one of ACOM's specialists, the contact information is as follows:

ACOM Ltd.
Web-site: www.acom-bg.com -> **Support** page
E-mail: support@acom-bg.com

Bulgaria | Bozhurishte 2227
Sofia-Bozhurishte Industrial Park | 6 Valeri Petrov Str.
GPS coordinates: 42.748616° | 23.209801°

Including the ACOM equipment's model name, serial number, and a detailed problem description in your service assistance request is mandatory. Without this information, we cannot proceed with your request, or the proceeding will take longer.

1.9. Safety Considerations, Explicit Definitions

The ACOM 560 CW Paddle is intended for indoor use only and is designed as device that operate at normal room temperature and do not require a protective-earth connection.

The ACOM 560 CW Paddle is designed to meet international safety standards and complies with CE safety and electromagnetic compatibility requirements.

The ACOM 560 includes the Lithium-Polymer rechargeable battery inside the device.

This User's Manual contains information, warnings (signal words **Danger**, **Warning**, **Caution** and **Notice**) and instructions, related to hazards, that should be followed by the user in order to ensure safe operation and to keep the equipment in a safe working condition at all times.

The safety instructions contained in this User's Manual feature specific signal words (**Danger**, **Warning**, **Caution** or **Notice**) and, where required, a safety alert symbol, in accordance with actual standards ISO 3864 or ANSI Z535.

The EXPLICIT DEFINITIONS described below apply to this User's Manual:

⚠ DANGER

These notes call attention to a procedure or instructions which, if not correctly performed, ***will result in serious personal injuries and even death***.

⚠ WARNING

These notes call attention to a procedure or instructions which, if not correctly performed, ***could result in serious personal injuries and even death***.

⚠ CAUTION

These notes call attention to a procedure or instructions which, if not correctly performed, ***could result in minor or moderate personal injuries***.

NOTICE

These notes call attention to a procedure or instructions which, if not correctly performed, ***could result in property damage or equipment damage not exclusively to the ACOM device but also to connected equipment***.

PRECAUTIONS:

⚠ CAUTION

Do not undertake on your own repairs or changes in hardware or software of the ACOM 560 CW Paddle device in order not to endanger your or other's health and life and not to damage the device and the equipment connected with it, not covered by warranty. The manufacturer is not liable for another's actions and responsibility shall be assumed by the doer.

NOTICE

To avoid damage (not covered under warranty) read the Section ***2 INSTALLATION*** of this User's Manual carefully. If you have any doubts about the installation, operation, or safety of the ACOM 560 CW Paddle device, please, consult your dealer.

2. INSTALLATION

2.1. Unpacking and Initial Inspection

Before you install your paddle, thoroughly read this manual.

First, carefully inspect the cardboard carton and its contents (see Section ***1.7 Equipment Supplied***) for physical damage. ACOM ships its products in highly protected containers (outer and inner cardboard box), but it cannot assure that mistreatment by shippers will not occur.

If damage is evident, notify your dealer immediately. Your dealer is obliged to contact the transport company and request the necessary actions according to the insurance policy. Delay may void the carrier's warranty.

The ACOM shipping conditions always include insurance for the transported goods.

But ACOM can not be related in any way to the shipping conditions from our dealers to you. In case of problem the only responsiible company is your local dealer and the carrier.

Keep all packing materials for possible future paddle shipment (see Section ***6.3.5 Returning to the Service Provider***).



Figure 2-1 | Packaging box (picture without the outer cardboard box)

2.2. Paddle Location Selection

Position the paddle near where it will be used (most likely near your transceiver). To ensure a stable, fixed position of the paddle, it must be placed on a flat, horizontal surface. The paddle has an anti-slip pad on the bottom (see ***Figure 2-2 | Paddle rear side view***, Pos. (d)) to keep it from moving while transmitting.

2.3. Connections

⚠ WARNING

Installation of the equipment must comply with local and national electrical codes.

The applicable standards and local regulations shall prevail if there is a difference in the requirements, and if they contain more or stricter requirements than the minimum for installation stated in our documentation.



Figure 2-2 | Paddle rear side view

a) **KEY** connector, dia. 3.5 mm

This connector is used for a paddle connection to your transceiver's CW input or external keyer .

b) **USB-C** connector (marked with symbol)

This connector is used for internal battery charging or for connection to the personal computer for firmware update.

c) **ON/OFF** button (marked with symbol)

With this button, you can turn the paddle ON or OFF.

3. FIRST POWER-ON AND CALIBRATING

NOTICE

Do not turn the paddle on for at least 2 hours after unpacking it in the room where it will be used. Pay particular attention when you move it from a very cold into a warm place - condensation is likely and this could result in damage.



Figure 3-1 | Paddle Controls

3.1. First Battery Charging

The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery.
This is marked on the device with the symbol

For more info see Section ***5.4 Rechargeable Battery Care***.

The battery serves as a power source during operation. Every new device comes with a minimum battery charge.

When using the paddle for the first time, we recommend charging the battery via the USB-C port (see ***Figure 2-2 | Paddle rear side view***, Pos. (b)) using a standard power supply (5V DC power supply, ≥500 mA). During battery charging, the LED indicator lights (see ***Figure 3-1 | Paddle Controls***, Pos. (c)). When charging is complete, the LED indicator turns off. The full charging time is about 90 minutes.

USB-C cable and power supply are not included in the delivery to protect Mother Nature. You can use your phone's USB-C cable and power supply, for example.

3.2. Connecting to the Transceiver (or to the external keyer)

Connect the paddle with the included in the delivery shielded audio stereo connecting cable with plugs (dia. 3.5 mm on paddle side and dia. 6.3 mm on the transceiver side, 1.5 m length). See ***Figure 2-2 | Paddle rear side view***, Pos. (a)).

NOTICE

The paddle's outputs commutate 50 V max. / 10 mA max.
Check your transceiver/keyer specification before connecting. The wrong connection can damage the paddle, which is not covered by the guarantee.

If your transceiver has a non-6.3 mm connector, use an appropriate adapter or connecting cable.

3.3. Power-On

Now you can turn on the paddle via the On/Off button (see ***Figure 2-2 | Paddle rear side view***, Pos. (c)). The button is marked with symbol ⏻ . This will activate the LCD display (see ***Figure 3-1 | Paddle Controls***, Pos. (a)) and will show the ACOM logo for a moment.

The paddle must be in the operating position (placed on a flat, horizontal surface) and must not be touched when turning it on.

For a test, you can lightly tap the levers (see ***Figure 3-1 | Paddle Controls***, Pos. (b)) to make sure you get dots and dashes as output.

3.4. Force Sensors Calibrating

When using the paddle for the first time, the force sensors used for levers must be calibrated.
Follow the procedure described below.

a) Entering the CALIBRATION mode

- Switch Off the paddle via On/Off button (marked with symbol ⏻);
- Push and hold on the button marked with the symbol ○ (see ***Figure 3-1 | Paddle Controls***, Pos. (d)), and simultaneously switch on the paddle via the On/Off button (marked with symbol ⏻);

- Release the button marked ○. Now the display will show:

SETTINGS

The paddle will start in the menu CAL. LEFT.

b) Force Sensors Calibrating

- Use buttons marked < and > to scroll the menu (see ***Figure 3-1 | Paddle Controls***, Pos. (d));
- Select CAL. LEFT or CAL. RIGHT for left or right lever force sensor calibrating;
- Press the button marked ○ to confirm your choice;
- A message will appear on the screen prompting you to release the sensor from any pressure:

Remove
all
weight

- Place the paddle as shown in ***Figure 3-2 | Left lever force sensor calibration position*** or in ***Figure 3-3 | Right lever force sensor calibration position***, on a stable horizontal surface, facing sideways, so that the calibrated sensor is pointing upwards;



Figure 3-2 | Left lever force sensor calibration position

Make sure the paddle is in the correct physical position (left or right lever is up) when selecting the calibration procedure (CAL. LEFT or CAL. RIGHT). If the physical position is incorrect, the calibration procedure can make the paddle inoperable.



Figure 3-3 | Right lever force sensor calibration position

- Press the button marked ○ to confirm the correct positioning;
- A message will appear on the screen prompting you to put the calibration weight (60 g) onto the lever:

Place 60g weight

- Place the weight as shown in ***Figure 3-4 | Left lever with placed calibration weight*** or in ***Figure 3-5 | Right lever with placed calibration weight***;

Always place the weight at the center (middle) of the lever, as shown on ***Figure 3-4 | Left lever with placed calibration weight*** and ***Figure 3-5 | Right lever with placed calibration weight*** below. This is important for properly calibrating both force sensors.



Figure 3-4 | Left lever with placed calibration weight



Figure 3-5 | Right lever with placed calibration weight

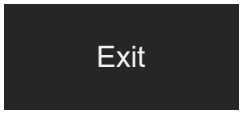
- Press the button marked ○ to start the calibration procedure;
- After the procedure is complete, the display will show the message:

Done

- In about 2 seconds, the paddle will go to CALIBRATION MENU;

You must perform the above procedure twice, for each lever independently.

- Use buttons marked **<** and **>** to scroll the menu and select:



- Press the button marked ○ to confirm your choice.

Now the paddle is correctly calibrated, and you can start using it.

4. OPERATION

4.1. Switch On

When the device is switched on via the On/Off button (marked with a symbol ⏻), the display will show:

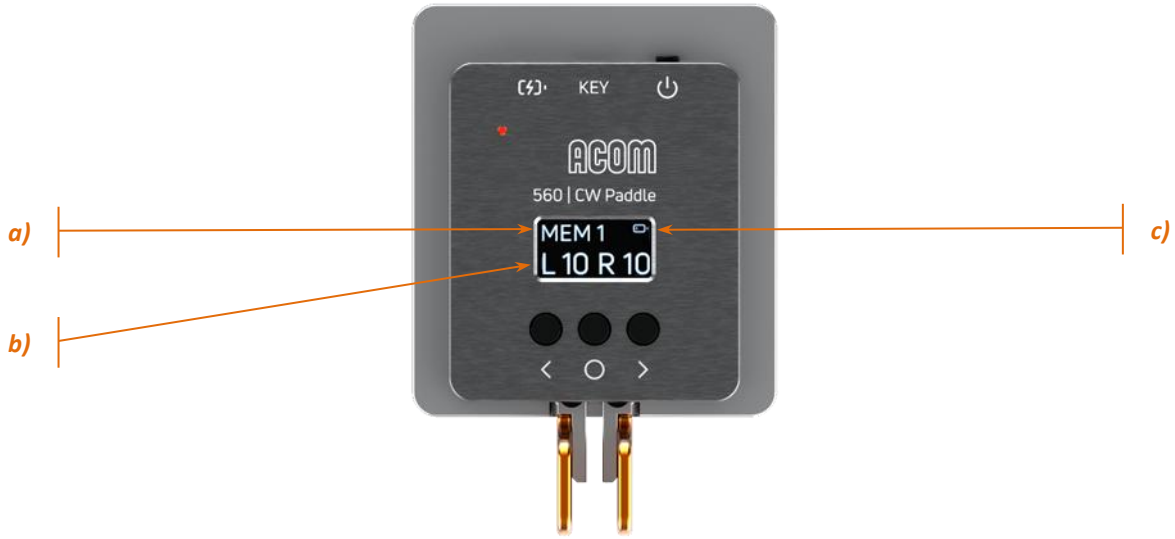


Figure 4-1 | Paddle Controls

What is shown on the display?

a) Current memory preset number

There are 5 memory presets available.
Use buttons marked < and > to scroll the presets. Press the button ○ to confirm your choice.

b) Trigger threshold set for Left and Right sensors

You can define different activation thresholds for the Left and Right sensors for every preset. Each threshold can be set in a range from 10 to 60 grams. How to do that?

- To change the threshold for the Left lever hold on the buttons marked < and ○ simultaneously;
- To change the threshold for the Right lever hold on the buttons marked > and ○ simultaneously;
- Now the value on the display starts flashing. Use buttons marked < and > to define a new value. Press the button ○ to confirm your choice.

c) Battery charge level

The battery symbol will start flashing when the battery is nearly empty and needs recharging.

4.2. SETTINGS menus

To enter the paddle's SETTINGS menus:

- Switch Off the paddle via On/Off button (marked with symbol ⏻);
- Push and hold on the button marked with the symbol ○, and simultaneously switch on the paddle via the On/Off button (marked with symbol ⏻);
- Release the button ○. Now the display will show:



The paddle will start in the menu Cal. Left.

- Use buttons marked < and > to scroll the menu and button marked ○ to confirm your choice.

The paddle has a five menus:

- CAL. LEFT Left Force Sensor Calibrating procedure;
  See Section ***3.4 Force Sensors Calibrating***;
- CAL. RIGHT Right Force Sensor Calibrating procedure;
  See See Section ***3.4 Force Sensors Calibrating***;
- LEV. MODE In this menu, you can select the Levers' operating mode.
  Five possibilities are available:
  - DUAL LEVER mode
    The paddle works like a two-lever paddle.
    The two sensors (left and right) function independently and can be combined to generate characters in a standard iambic manner;
  - SINGLE A mode
    The paddle works like a single-lever paddle.
    When one sensor/lever (left or right) is activated, the other sensor/lever (right or left) is deactivated and cannot be used while the first one is in use. This simulates the classic behavior of a mechanical single-arm paddle;
  - SINGLE B mode
    The paddle works like a single-lever paddle, but differently compared to Single A mode.
    In the event of simultaneous pressing of both levers, the sensor with the greater pressure is considered active. This allows more flexible control of the levers and dynamic switching between the two levers.
  - ULTIMATIC mode
    In Ultimatic keying mode, the ACOM 560 will switch to the opposite element if the second lever is pressed before the first is released (that is, squeezed).

- SIDE SWIPE mode

  In this mode, the ACOM 560 works as (emulates) a sideswiper (or "cootie key") key.
  A sideswiper is a mechanical Morse code transmitting device with a single horizontal lever that makes contacts when pushed left or right. Unlike standard straight keys, it uses a pendular, side-to-side wrist motion, originally invented to prevent telegrapher's paralysis and ease hand strain.

- DOT-DASH Reversing the signals "dot" and "dash";

  Select Normal or Reverce mode.

- INFO Paddle information.

4.3. Timers Setting

a) Screen Off timer

- Hold the button marked ○ for 5 seconds;
- Now on the display, you see the current defined time off (flashing value). Use buttons marked < and > to define a new value. Press the button ○ to confirm your choice.

The allowed time period is between 0 and 120 seconds.
Zero "0" means that the display is always on.

b) Energy-saving timer (Sleep mode)

The device has a Sleep mode activation timer. If no activity (button pressing or sensor activation) is detected within a defined time period, the device enters Sleep mode. In this mode, the peripherals are turned off, and the sensors do not respond. Exiting Sleep mode is done by pressing any of the **<**, O, or **>** buttons.
How to set up the energy-saving timer?

- Hold on the buttons marked **<** and **>** simultaneously for 5 seconds;
- Now on the display, you see the current defined time off (flashing value). Use buttons marked < and > to define a new value. Press the button ○ to confirm your choice.

The allowed time period is between 0 and 60 minutes.
Zero "0" means that the paddle is always on.

4.4. Changing Levers (mechanical change)

The ACOM 560 is delivered with two sets of levers:

- Standard levers (mounted on the new paddle delivered);
  See ***Figure 4-2 | Paddle with Standard Levers Mounted***;
- Tall levers;
  See ***Figure 4-3 | Paddle with Tall Levers Mounted***.

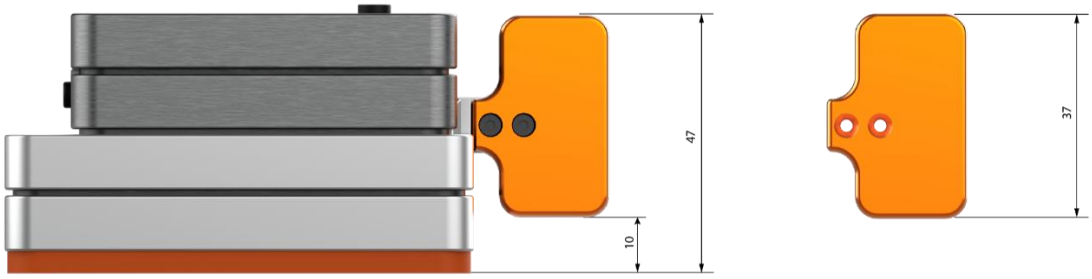


Figure 4-2 | Paddle with Standard Levers Mounted

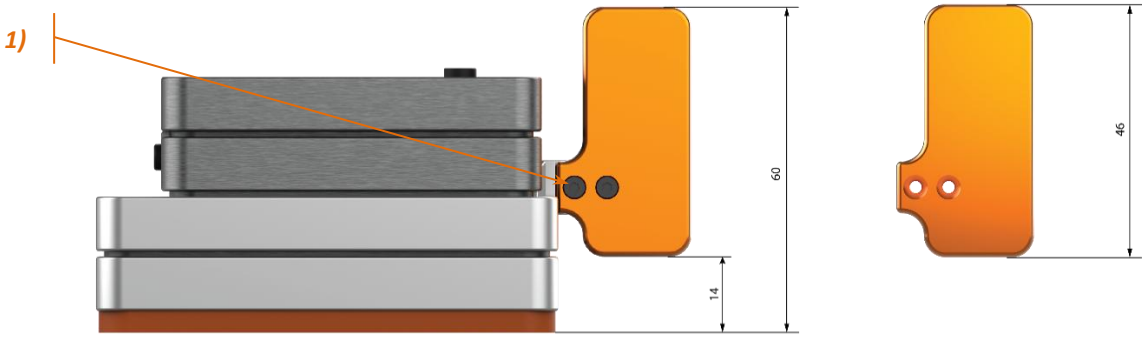


Figure 4-3 | Paddle with Tall Levers Mounted

To change the levers, please follow the procedure below:

- Carefully unscrew the two small screws (see ***Figure 4-3 | Paddle with Tall Levers Mounted***, Pos. (1)) with a Hex (Allen) key (1.3 mm, DIN 911). The Hex key is a part of the delivery (see Section ***1.7 Equipment Supplied***);
- Remove the lever;
- Carefully mount the new lever, and screw the two small screws with a Hex (Allen) key (1.3 mm, DIN 911);
- Repeat the procedure for the other lever.

4.5. Radiotelegraphy and Radio Telegraphing

The ACOM 560 CW Paddle keying technique is the same as keying with a mechanical paddle, but now you will increase your maximum keying speed. The paddle weight of around 1 kg, combined with the anti-slip bottom pad, makes the device virtually stationary while keying, allowing you to enjoy your transmission.

NOTICE

Do not apply pressure force greater than 0,5 kg (500 g = 1.1 lbs.) on the levers, as this will damage the sensors and void the factory warranty.

This manual is not a textbook about radio telegraphing.

"Now simply called "CW", radio communication by Morse code was the only way to communicate for the first decade or more of Amateur Radio. Radiotelegraphy, the proper name, descends from landline (wired) telegraphy of the 19th century, and retains some of the old culture, including a rich set of abbreviations and procedures. Morse sent by spark gap transmitter was the first wireless communication mode. These "damped waves" were very broad and inefficient for communication. They were soon replaced by "Continuous Wave" (CW) transmission, using vacuum tube oscillators that were capable of a very pure note. Today, modern Amateur Radio transceivers use solid state components and microprocessors to support a variety of communication modes including CW, voice, image and many digital data modes."

www.arrl.org/cw-mode

4.6. When you are resting



Figure 4-4 | Levers' protective cover

When resting after long periods of CW operation or when not using the ACOM 560, please use the protective cover to prevent accidental touching or impact on the levers.

4.7. International Morse Code

Understanding Morse-code:

Morse code is a system uses dashes and dots to represent the letters, punctuation, and digits. The principle of Morse code consists of 5 rules as follow:

- The length of a dot is one unit;
- The length of a dash is three unis;
- The space between parts of the same letter is one unit;
- The space between letters is three units;
- The space between words is seven units.

Created in the 1830s by Samuel F.B. Morse, this code revolutionized long-range communications. In its heyday, Morse code was a common, standardized method of communication used by the military, amateur radio operators, translators and others and gave anyone the ability to converse directly with someone over great distances, using as little bandwidth as possible.

Because Morse proficiency is not required these days, many amateurs today don't bother learning the skill. However, there are specific devices that can help send and receive Morse code messages that are still in use today.

Letter	Morse code
A	.-
B	-...
C	-.-.
D	-..
E	.
F	..-.
G	--.
H	....
I	..
J	.---
K	-.-
L	.-..
M	--

Letter	Morse code
N	-.
O	---
P	.--.
Q	--.-
R	.-.
S	...
T	-
U	..-
	continue
V	...-
W	.--
X	-..-
Y	-.--
Z	--..

Table 4-1 | International Morse code / Letters

Digit	Morse code
1	.----
2	..---
3	...--
4	....-
5	.....
6	-....
7	--...
8	---..
9	----.
0	-----

Table 4-2 | International Morse code / Digits

Punctuation mark		Morse code
.	dot	.-.-.-
,	comma	--..--
?	question	..--..
'	apostrophe	.----.
!	exclamation	-.-.--
/	slash	-..-.
(	left parenthesis (**KN** - over to you only)	-.--.
)	right parenthesis	-.--.-
&	**and** symbol (**AS** - wait)	.-...
:	colon	---...
;	semicolon	-.-.-.
+	addition (**AR** - end of transmission)	.-.-.
-	subtraction	-....-
* (x)	multiplication	-..-
/ (:)	division	---...
=	equal	-...-
/	fractional number, slash	-..-.
–	dash	-....-
_	underscore	..--.-
"	quotes	.-..-.
SK	end of contact	...-.-
$	dollar symbol	...-..-
@	e-mail [at] symbol	.--.-.

Table 4-3 | International Morse code / Punctuation marks

5. MAINTENANCE

Do not open the ACOM 560 CW Paddle. No user-serviceable parts inside.
Note: The battery replacement is the only exception to the above.

5.1. Outside Cleaning

⚠ CAUTION

Do not use any solvents for cleaning. They may be dangerous to you and damage paddle surfaces, display, paint and plastic components.

Cleaning of the paddle outer surfaces can be done with a piece of soft cotton cloth (included in delivery, see Section ***1.7 Equipment Supplied***, Pos. (7)) lightly moistened with clean water.

5.2. Periodic Checks

Periodically (but at least once per year), check all connections, contact cleanliness, the tightening of all connectors, and the integrity of the connection cables.

5.3. Levers/Sensors Care

For a long-life of the levers/sensors of your ACOM 560 paddle, please follow the rules below:

- Before using the paddle, make sure the levers are properly secured and not loose;
- Use only the provided Hex (Allen) key (1.3 mm, DIN 911) when changing the levers.

NOTICE

Do not apply by hand pressure force by your hand greater than 0,5 kg (500 g = 1.1 lbs.) on the levers, as this will damage the sensors and void the factory warranty.

5.4. Rechargeable Battery Care

The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery.
This is marked on the device with the symbol



The battery is a long-life battery, but to keep it healthy, please follow the rules below:

- Use only suitable standard USB chargers (5 VDC, ≥500 mA);
- Even if the paddle is not in use, charge the battery at least once every 3–4 months;
- Do not store the battery discharged for a long time, as this may reduce its capacity;
- Monitor charging times and disconnect the paddle from the charger once they are fully charged;
- Allow time for batteries to cool down after use and before recharging.

Please, follow the steps described below to reduce the likelihood of battery charging-related incidents:

- Do not use the paddle if the device is overheating or showing signs of failure, such as leaking or venting gas. In these cases, follow your local regulations and contact your local authorities for battery disposal options (see Section ***6.4 Information on Disposing and Recycling of Old Electrical and Electronic Equipment***);
- Charge the paddle away from combustible materials;
- Store the paddle in cool, dry places and out of direct sunlight, including while charging.

5.5. Battery Replacement

The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery model LP803040, 3.7 V, 1000 mAh, size 8×30×40 mm, cable length 0,15 m with JST SYP-02T-1 connector type.

When necessary, the battery can be replaced with a new one of the same type. Suitable accu lithium-polymer replacement battery can be ordered from:

- TME (www.tme.eu), PN: AKY-L P803040 (AKY0571);
- Akyga Battery (www.akygabattery.com), PN: AKY0571;
- Conrad (www.conrad.com), PN: AKY0571, 3385845-62.



Figure 5-1 | Lithium-Polymer Rechargeable Battery

5.5.1. Prequistments

For the battery replacement procedure, you need:

- Hex (Allen) screwdriver, size 2 mm.

ACOM recommends using adjustable torque screwdrivers.





5.5.2. Battery replacement procedure

To replace the battery, follow the instructions as described below:

- Place the paddle on a soft surface with the bottom side upward;
- Unscrew the 4 screws (size M3x40 DIN7991) of the paddle bottom side (see ***Figure 5-2 | ACOM 560 CW Paddle Disassembled***, Pos. 1) with a hex screwdriver, size 2 mm. Do not remove the screws;
- Place the paddle on a soft surface with the bottom side down (as its normal position);
- Gently remove upward the components marked as Pos. 6 (see ***Figure 5-2 | ACOM 560 CW Paddle Disassembled***, Pos. 2, 3, 4, 5, and 6) with all its internal components;
- Now, you will see in the rectangular pocket the Lithium battery (see ***Figure 5-2 | ACOM 560 CW Paddle Disassembled***, Pos. 7);
- Disconnect the battery from the connector (see ***Figure 5-2 | ACOM 560 CW Paddle Disassembled***, Pos. 8) and connect the new battery. Be careful with the connecting cable;
- Close the paddle in the opposite order described above. The screws (see ***Figure 5-2 | ACOM 560 CW Paddle Disassembled***, Pos. 1) must be tightened at 2.0 Nm;
- Now, the paddle is ready for use, but do not forget that you must charge the new battery.

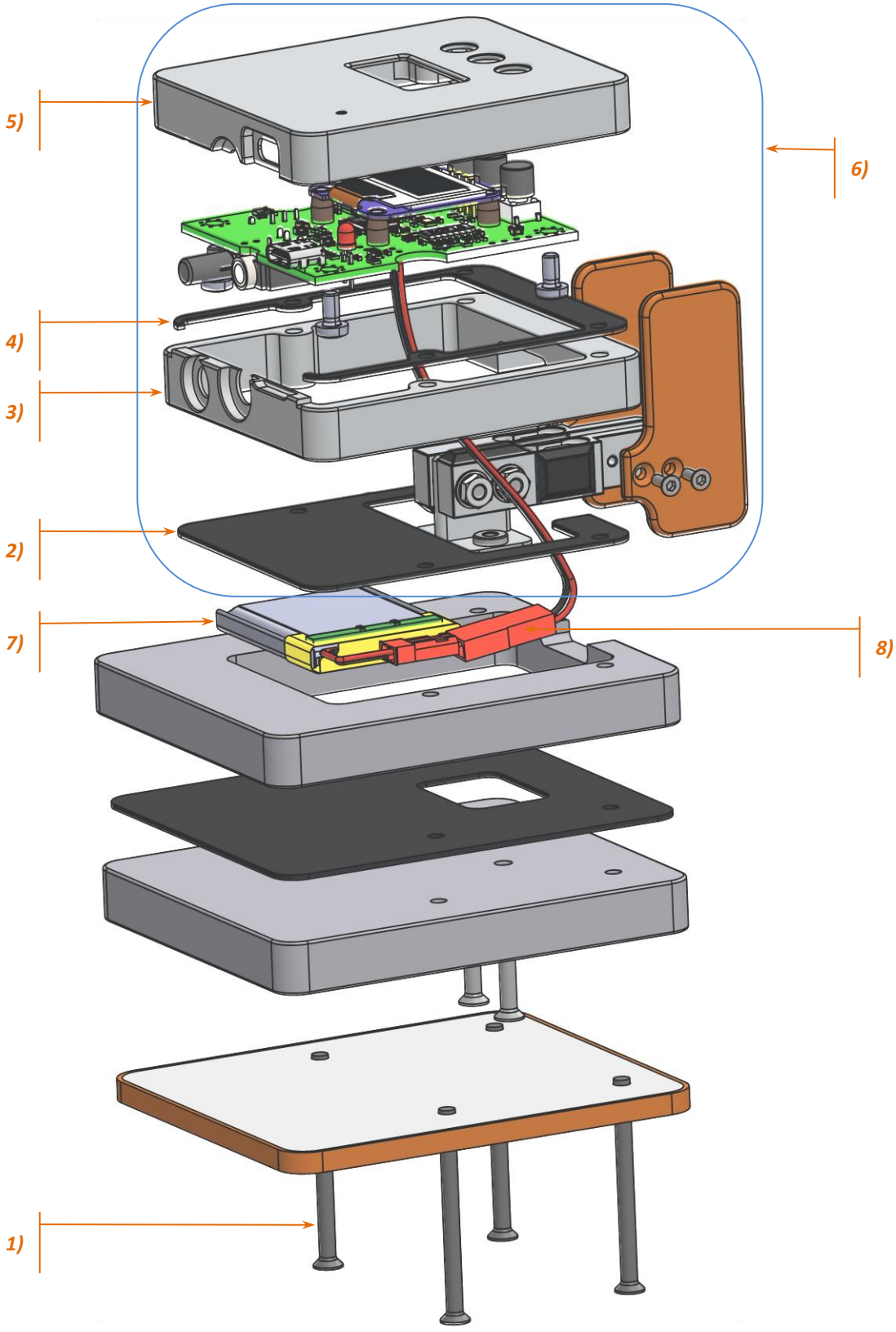


Figure 5-2 | ACOM 560 CW Paddle Disassembled

5.6. Firmware

5.6.1. Firmware Versions

The history of available ACOM 560 firmware versions is shown in ***Table 5-1 | ACOM 560 firmware versions history***.

Version	Release Date	Notes
1.0	19.09.2025	Base firmware version;
1.02	06.05.2026	Added Ultimatic and Side Swipe operating modes;

Table 5-1 | ACOM 560 firmware versions history

The new firmware is issued as a file, for example **ACOM_560_CW_Paddle_FW V1.0 - 19.09.2025.bin**.

The latest firmware versions for our products are available at ***www.acom-bg.com*** free of charge.

5.6.2. Prequistments

For uploading a firmware to ACOM 560 you have to use the **ACOM 560 CW Paddle Updater** software, distributed by ACOM free of charge. You can download it from ***www.acom-bg.com***.

The **ACOM 560 CW Paddle Updater** is available for MS Windows operation systems only.

ACOM Technical Support Team can advise you om **ACOM 560 CW Paddle Updater** use in the Windows environment.

To use the **ACOM 560 CW Paddle Updater** software, you have to install the software on PC equipped with USB port. The **ACOM 560 CW Paddle Updater** communicates with the paddle via the USB interface, but through an emulated serial COM port.

After downloading the software to your computer, run the installation program (exe file) and follow the instructions. It is important to mark the task **Install CH340 USB-to-Serial driver** as shown below.

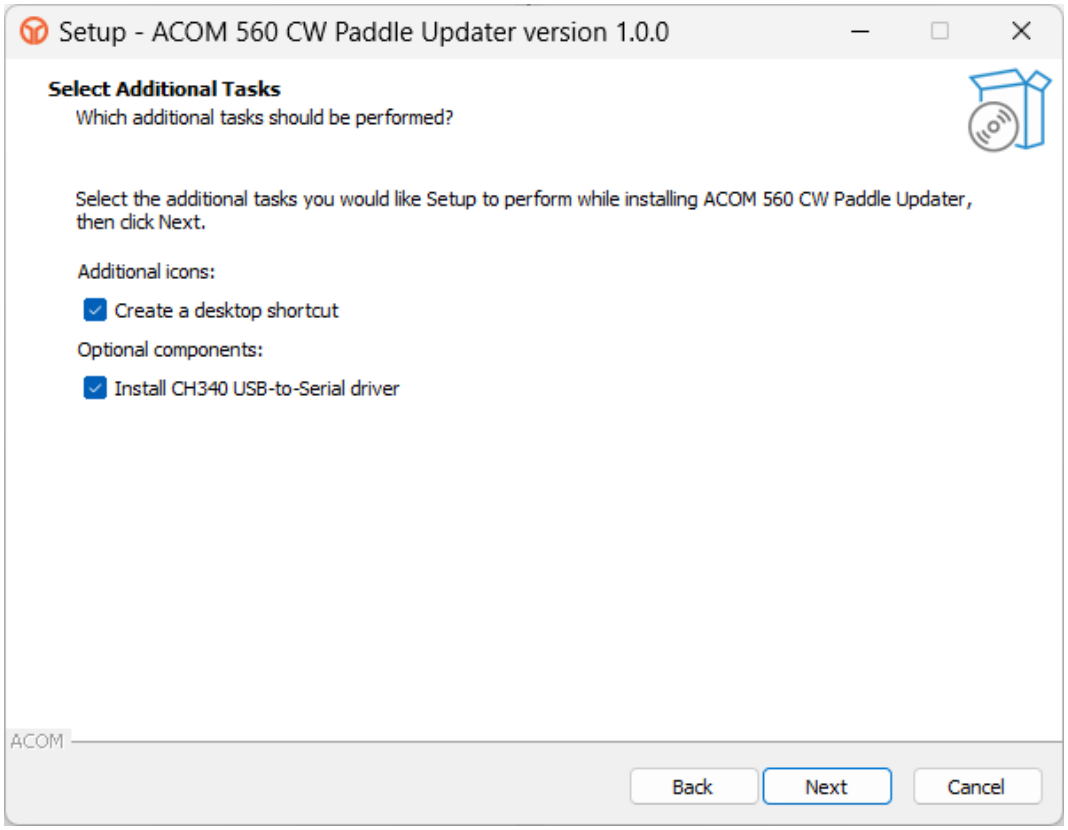


Figure 5-1 | ACOM 560 CW Paddle Updater Installation

Run the driver installation by clicking on the **INSTALL** button as shown below.

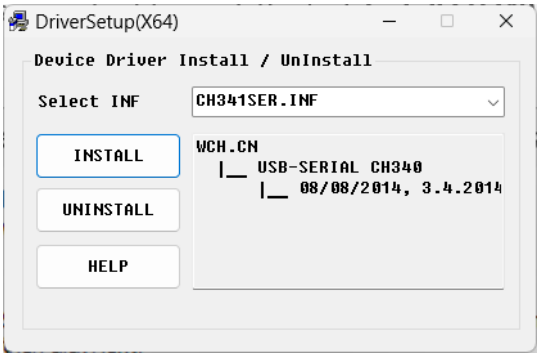


Figure 5-2 | ACOM 560 CW Paddle Updater COM driver Installation

5.6.3. Firmware Updates

When ACOM issues a new firmware version, the user can upload it to the ACOM 560 device.

Firmware Update procedure:

- Download a new firmware (*.bin file) from ***www.acom-bg.com***.
  If the downloaded file is a ZIP archive, you must first unzip it;
- Connect the ACOM 560 CW Paddle to your computer with the appropriate USB cable, using the paddle's USB-C port (see Section ***2.3.b) USB-C connector***);
- Enter the paddle's Firmware Update mode:
  - Switch Off the paddle via On/Off button (marked with symbol ⏻);
  - Push and hold on the button marked with the symbol **<**, and simultaneously switch on the paddle via the On/Off button (marked with symbol ⏻);
  - Release the button marked with the symbol **<**. Now the display is black and the paddle is ready for firmware uploading;
- Start the **ACOM 560 CW Paddle Updater** software on your computer and select **Port**, **Baud** (57600 by default), and **Firmware file**;

Click on the **Refresh Ports** button to see all available COM ports.

- Run the firmware update by clicking on the **UPGRADE** button as shown below.

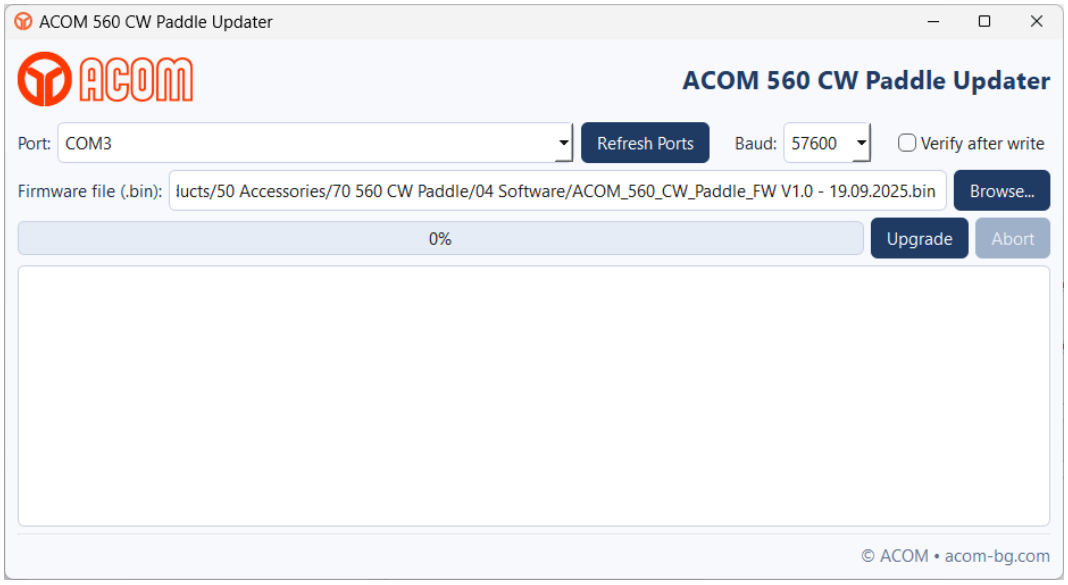


Figure 5-3 | ACOM 560 CW Paddle Update procedure

If you have problems connecting to the paddle, select a different **Port** or change the **Baud** rate (115200, for example).

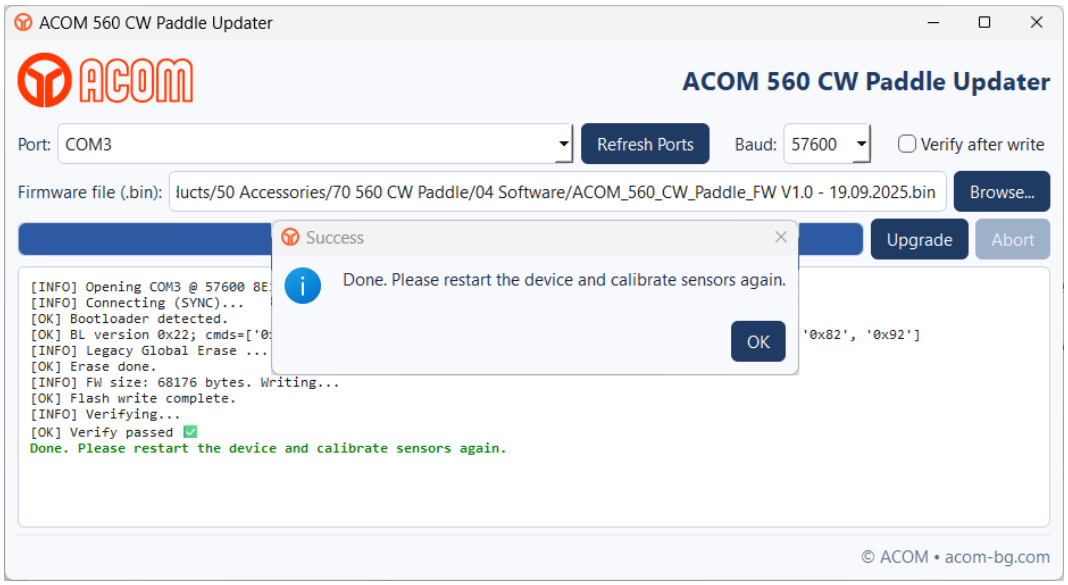


Figure 5-4 | ACOM 560 CW Paddle Update procedure finished

NOTICE

Do not interrupt Firmware Update procedure. If you interrupt procedure, it may result in inoperative device (not covered under warranty).

- Disconnect the USB cable, restart the paddle, and calibrate sensors again;
- Now the device is ready for use.

5.7. Troubleshooting

Problem	Possible reasons	Solution
The paddle does not turn on.	The battery is fully discharged.	Charge the battery through a USB-C device's port.
When I turn on the paddle, the display remains black.	The device is in firmware update mode.	Restart the device.
The levers/sensors are not responding when I touch them.	Incorrect sensors' calibration.	Run Sensors Calibration procedure. See Section ***3.4 Force Sensors Calibrating***.
The lever/sensor is too sensitive or too insensitive.	An incorrectly placed calibration weight during the calibration procedure.	Run Sensors Calibration procedure. See Section ***3.4 Force Sensors Calibrating***.
The device turns off after a while.	Energy-saving timer is activated (Sleep mode).	Change the Energy-saving timer setting. See Section ***4.3.b) Energy-saving timer (Sleep mode)***.
The battery drains too quickly.	The display is set not to turn off.	Change the Screen Off timer setting. See Section ***4.3.a) Screen Off timer***.
During the firmware update procedure, the computer does not recognize the paddle.	The COM driver is not installed, or an incorrect COM port is selected.	Reinstall the **ACOM 560 CW Paddle Updater** software. See Section ***5.6.2 Prequistments***.
The firmware update procedure failed.	The used firmware BIN file is corrupted. Disconnected the USB connection during the update procedure.	Use the correct BIN file and repeat the firmware update procedure. See Section ***5.6.3 Firmware Updates***. Check the USB cable.

Table 5-2 | Problems' Troubleshooting

If the problem persists, contact your local dealer (see Section ***1.8 Owner Assistance***).

6. SPECIFICATIONS

6.1. Characteristics

a) Connection to Transceiver or Keyer

- Through a standard dia. 3.5 mm audio stereo socket (on the device's rear side);

b) Settings

- Via a menu-driven interface on a graphic display;
- The pressure force is freely defined for each lever and stored in 5 preset groups;

c) Levers Operational Modes

- Dual Levers mode;
- Single Lever - A mode;
- Single Lever - B mode;
- Ultimatic mode;
- Side Swipe mode;

d) Lever Pressure Force

- Operating: 10 - 60 g;
- Maximum allowance: Up to 0,5 kg (500 g = 1.1 lbs.);

e) Timers

- Screen Off timer;
- Energy-saving timer;

f) Force Sensors Calibrating

- Fully automatic, menu-driven procedure;

g) Paddle Outputs

- 50 V max. / 10 mA max.;

h) Power Supply

- Through integrated Accu lithium-polymer battery (LP803040, 3.7 V, 1000 mAh);
- Watt-hour rating: 3.7 Wh;
- Battery charging through the device's USB-C port;
- Battery full charging time: about 90 min;
- Battery cycle life: about 500 times;

i) Current consumption

- Display Off / Sensors On: 58 mA;
  This is the most common situation when using the device.
- Sleep mode: 9 mA;

j) Safety and Electromagnetic Compatibility

- Complies with CE safety and electromagnetic compatibility requirements;

k) Size & Weight (operating, excluding connected cables, and with standard levers mounted)

- WxDxH: 75x115x50 mm, 1.05 kg (3.0x4.5x2.0 inches, 2.3 lbs.);

l) Operating Environments

- Temperature range: 0 to +40 degrees Celsius (32 °F to 104 °F);
- Relative air humidity: up to 95% @ 35 degrees Celsius (95 °F);
- Height above sea level: up to 3050 m (10000 ft) without output deterioration.

6.2. Regulatory Requirements

European conformity

CE

CE mark (Conformitè Europëenne)

This symbol explains that "CE" marked ACOM product meets the essential requirements of the Low Voltage Directive 2006/95/EC and Electromagnetic Compatibility (EMC) Directive 2004/108/EC, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU.

6.3. Storage and Shipment

6.3.1. Storage Environment

The device may be kept packed in a dry, ventilated and unheated location (with no chemically active substances such as acids or alkalis) within the following environment ranges:

- Temperature range: -20 to +40 degrees Celsius (-4 °F to 104 °F);
- Humidity: up to 75% @ +35 degrees Celsius (95 °F).

6.3.2. Shipping Size and Weight

- WxDxH: Approx. 290x270x190 mm, 2.0 kg (11.4x10.6x7.5 inches, 4.4 lbs.).

Please, contact ACOM (see Section ***1.8 Owner Assistance***) for shipment details.

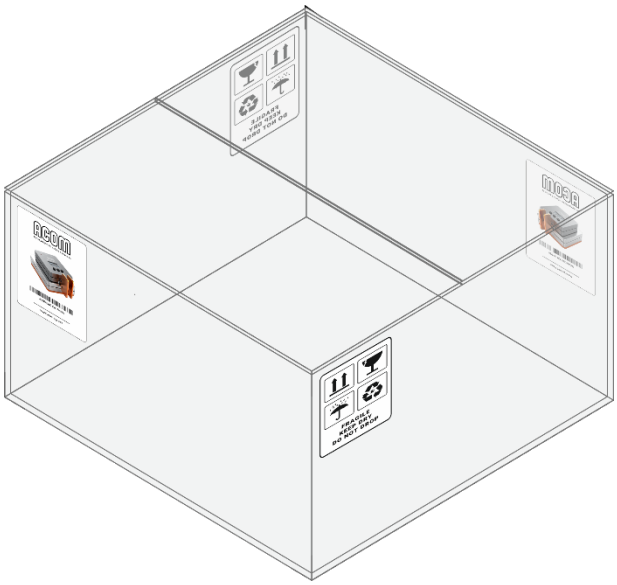


Figure 6-1 | Packaging cardboard box

6.3.3. Transportation of packaged goods

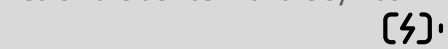
The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery.
This is marked on the device with the symbol

The transportation of consumer products containing built-in Lithium batteries is a specific task that must follow international transport regulations, local rules, and the transporter's local rules.

Before shipping the device, it is mandatory to contact your carrier for detailed information concerning packaging and shipping requirements.

6.3.4. Air transportation in the passenger's luggage (carry-on or checked baggage)

The ACOM 560 CW Paddle has a built-in Lithium-Polymer rechargeable battery.
This is marked on the device with the symbol



The air transportation of consumer products in the passenger's luggage containing built-in Lithium batteries is covered by ICAO Technical Instructions for the Safe Transport of Dangerous Goods (www.icao.int) and by IATA Dangerous Goods Regulations (www.iata.org). Please contact your air carrier for detailed information.

In general, the ACOM 560 paddle, as a single unit, or as a package box (shown in ***Figure 2-1 | Packaging box (picture without the outer cardboard box)*** and in ***Figure 1-2 | What is in the box?***), could be stored in the passenger's lugguge, as the ACOM 560 device is characterized as:

- Portable electronic device (PED);
- Watt-hour rating: 3.7 Wh; This value is lower than the 100 Wh limit;
- Number of built-in batteries: 1 pc.;
- Type of the built-in battery: Non-removable.

6.3.5. Returning to the Service Provider

This document section contains the general information on packing and shipping a device for diagnostics and repair.

NOTICE

Should it be necessary to ship the device, read Section ***6.3.3 Transportation of packaged goods***, and use the original packing as described below.

NOTICE

Before shipping the device, you should contact your local dealer first.

Your dealer can have a specific shipment requirement, e.g., a different shipping address. It is the sole customer's responsibility to ensure the device is properly packaged to avoid any shipping damage.

Prepare the paddle for shipping as described below:

- Switch off the paddle;
- Disconnect all cables from the paddle;
- Pack the paddle in its original cardboard carton (see Section ***2.1 Unpacking and Initial Inspection***);

The packaging box shown in ***Figure 2-1 | Packaging box (picture without the outer cardboard box)*** and in ***Figure 1-2 | What is in the box?*** is NOT intended for direct shipping, i.e., it must be packed in an outer cardboard box. The packaging example is shown below.



Figure 6-2 | Packing in an outer cardboard box

- Now, the paddle is ready for shipment.

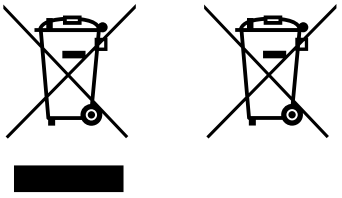
Basic shipping insurance is provided by the customer when sending in a paddle - you can verify the amount covered by the shipping company by looking on their website. If you are shipping the paddle, full/upgraded coverage is available as a suggested option.

For alternative shipping instructions, please, contact your local dealer.

6.4. Information on Disposing and Recycling of Old Electrical and Electronic Equipment

The information in this section is applicable for countries that have adopted separate waste collection systems.

ACOM products cannot be disposed as household waste.



Waste electricals

This symbol (crossed-out wheeled bin) explains that you should not place the electrical item in the general waste.



Waste electricals

This symbol (three green arrows going in a triangle with electrical plug in the center) means that according to local laws and regulations this product should be sent for recycling.

Old electrical and electronic equipment and batteries should be recycled at a facility capable of handling these items and their waste byproducts.

Contact your local authority for details in locating a recycle facility nearest to you.

Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

Ultimate disposal of this product should be handled according to all national laws and regulations.

NOTES

This manual is for electronic distribution mainly.
If you have it on paper and you no longer need it, please, recycle it!

The latest versions of our User's Manuals are available at
www.acom-bg.com

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