## HANDHELD TRANSCEIVER



SCOLTA

Versions:

RP-101: **PMR446** RP-201: **VHF** RP-301: **UHF** 

INSTRUCTION MANUAL



#### Waste disposal. Directive 2012/19 / EU

Information on waste disposal of electrical and electronic equipment (WEEE).

This symbol on the product means that the electrical and electronic products used must not be mixed with household waste. For proper treatment, recovery and recycling, take this product to designated collection points where it will be accepted for free.

The correct disposal of this product will help save valuable resources and prevent possible negative effects on human health and the environment, which could otherwise arise from the improper handling of waste..

Contact your local authority for more information about the nearest collection point. Sanctions may be applied for the incorrect disposal of this waste, in accordance with its national legislation.

These symbols on the batteries mean:

- Pb = contains more than 0.004 percent by weight of lead
- Cd = contains more than 0.002 percent by weight of cadmium
- Hg = contains more than 0.0005 percent by weight of mercury

You can also send the transceiver and the battery to our warehouse. Postal fees must be paid by the sender.



This product complies with Directive 2011/65 / EU about restrictions on the use of certain hazardous substances in electrical and electronic equipment.



This transceiver is suitable for use as long as the user has a license or administrative authorization, issued and complying with the restrictions defined by the Telecommunications Authorities of the state to which the user belongs. You can request more information from your seller.

#### States of the European Union of permitted use:

AT	BE	BG	HR	CY	CZ	DK
EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	MT	NL	PL
PT	RO	SK	SI	ES	SE	UK



Thank you for purchasing our handheld transceiver. This model is novel designed with stable performance and we want to develop this model to be a portable equipment, also easy to operate with a variety of sophisticated functions, so we are using the most advanced technology. We deeply confident that its quality and functionality would make you feel satisfied!

In order to make you fully understand the equipment, please read this user manual before using.

#### This transceiver comes in 3 different versions:

### RP-101

Programmed with 8/16 PMR\* channels. TX power 500 mW. Bandwidth 12.5 kHz. No registration or fees apply. Based on the country's regulation only the channels 1-8 or 1-16 are permitted.

### RP-201

Commercial radio VHF; 147~174 MHz 199 programmable channels. Registration required, fees apply. Only assigned frequencies and parameters are permitted. Bandwidth 12.5 kHz or 25 kHz. Max. TX power 5W.

### RP-301

Commercial radio UHF; 440~470 MHz

199 programmable channels. Registration required, fees apply. Only assigned frequencies and parameters are permitted. Bandwidth 12.5 kHz or 25 kHz. Max. TX power 5W.

## PRECAUTION

The transceiver is a product with good design and advanced technology. The following suggestions will help you perform the obligations of warranty cause, understand and realize the security of using transceivers.

- 1. Put transceiver and all its parts and accessories in place out of children's reach.
- 2. Do not try to disassemble transceiver as non-professional's treatment to the transceiver may cause damage.
- 3. Please use our company's assorted battery pack and charger, avoid damage to transceiver.
- 4. Please use our company's assorted antenna, to prevent shorten communication distance.
- 5. Do not expose transceiver to sunlight for a long time or in the overheated areas.
- 6. Do not put transceiver in dusted or wet areas.
- Do not clean transceiver with strong chemicals, cleaning agents or strong lotion.
- 8. Do not transmit unless the antenna has been installed.
- If you discover the transceiver giving off odor or smoke, please immediately turn off the power of transceiver, remove battery pack from transceiver and contact with dealers.

## ANNOUNCEMENT

- All the proposals above are equally applicable to your transceiver and its accessories. If they can not work properly, please contact with dealers promptly.
- If you use accessories which are not produced or sold by our company, we will not guarantee the safety and operability of the transceiver.

## CONTENTS

UNPACKING AND CHECKING EQUIPMENT	7
PREPARATION	8
BASIC FUNCTIONS	
GENERAL FUNCTIONS	
CHANNEL SETTINGS	
DTMF	
SPECIFICATIONS	
TROUBLESHOOTING GUIDE	21
DCS / CTCSS CODES	
PMR446 CHANNELS	
DECLARATIONS OF CONFORMITY	



## UNPACKING AND CHECKING

Please take the transceiver from the package carefully. We suggest that you should check the following accessories before throwing away the package. If any items is lost or damaged when transportation, please submit a claim to the delivery man immediately.

## ASSORTED ACCESSORIES

Item	Qty.
Antenna(*)	1
Charger	1
Adapter	1
Battery pack	1
Screw Set	1
Belt clip	1
User manual	1

 $(\ensuremath{^*})$  In PMR version the antenna is fixed, ie it can not be removed from the device.

# PREPARATION

### CHARGING THE BATTERY PACK

The battery pack is not charged at the factory. Please charge it before using. After purchasing or long time storage (more than two months), the battery can not reach its normal capacity when charge at the first time. After charging 2-3 times then the capacity reach the normal one.

### CAUTION

- Do not recharge the battery pack if it is already fully charged. Otherwise, the battery life will be shorten or damaged.
- After recharging the battery pack, disconnect it from the charger. Charging the battery pack more than 5 days may reduce the battery pack life due to overcharging

## NOTE:

- The ambient temperature should be between 42 and 104°F (5 to 40°C) while charging is in progress. Charging outside this range may not fully charge the battery.
- Always switch OFF the transceiver equipped with a battery pack before charging. Using the transceiver while charging will interfere with correct charging.
- Even after completely correct charge, the using time still not increases, then the battery life is over, please replace the battery.



Plug the Charger power cable into an AC outlet.

Insert the battery pack or transceiver with a battery pack into the charger.

- Make sure the battery pack contact with the charging terminals correctly.
- The charger LED lights on and charging begins.

- After charging the assorted battery pack for 4~8 hours, take the battery or the transceiver with battery from the charger.
- The charge completes when charging light turns green.
- Unplug the AC adaptor from the AC outlet

## Installing/Removing the Battery Pack

The average using time of the supplied battery pack is 8 hours. Average times is calculated by using 5% transmit time, 5% receive time, and 90% standby time.





## Installing the Antenna

Hold the antenna base and screw the antenna clockwise into the antenna connector at the top of the transceiver, until tighten.

NOTES:

- In PMR version the antenna is fixed, ie it can not be removed from the device.
- Don't hang keys, speaker or microphone on the antenna. Otherwise the antenna will be damaged or performance of the radio will be degraded.



## Installing the Belt Clip

If necessary, can use two 3 x 8mm screws in the package to fix the belt clip.

### NOTES:

- If not install the belt clip, its installation location will get hot in the hot environment or in the continuous communication.
- You must remove the belt clip before removing the battery pack.



## Installing the Optional Speaker/ Microphone

Outward apart the moisture-proof rubber of the headphone mouth, Insert the speaker/microphone plugs into the speaker/micro- phone jacks.

### NOTAS:

- The transceiver is not fully waterproof while using the speaker/microphone.
- The connection is compatible with Kenwood (3.5 / 2.5mm, stereo / stereo) which can also be used as data transfer cable.

# **BASIC FUNCTIONS**



#### 1. Antenna

#### 2. LED indicator

- · Lights red while transmitting.
- · Lights green while receiving a signal.
- Purple light flashing when transmit with low battery power.
- 3. Speaker
- 4. Microphone
- 5. Hidden LCD
- 6. Channel selector
  - · Rotate to select channels
- 7. Power switch / Volume control
  - Turn clockwise to switch ON the transceiver.
  - To switch OFF the transceiver, turn counterclockwise until a click sounds.
  - Rotate to adjust the volume level.
- 8. PTT (Push-to-talk)
- 9. Multi-function keys PF1 y PF2
- 10. Speaker/ Microphone jack
- 11. Battery pack

#### ON / OFF

To turn the radio on, turn the On / Off switch (7) clockwise beyond the barrier. A beep tone is emitted if the beep tone function is activated. There are 5 different tones available.

To turn off the radio, please turn the On / Off switch (7) counterclockwise beyond the barrier.

#### Volume control

To change the volume level use the combined On/Off-Volume key (7). The display will show the symbol VOL and the volume level (00-10).

#### Channel Selection

For channel selection, use the rotary channel selector (6) switch. The channels are selected in the programmed order. The display will show the symbol CH and the actual channel number.

#### Transmision

For transmission hold the PTT key (8) until the end of the message.

For best sound quality, talk into the microphone (4) with a normal voice at a distance of approximatly 10 cm.

During transmission the control LED (2) lights up:

Red = High TX power

Magenta = Low TX power

Upon release of the PTT key (8) the radio returns automatically into reception mode.

#### Reception

Upon reception of a signal, the LED (2) is blue.

If the selected frequency is decoded with a CTCSS- / DCS-code, all signals that are encoded with a different code will be muted. The blue LED will light but no signal will be audible.

# **GENERAL FUNCTIONS**

The following settings concern the general operation of the radio. They are indendent of the channel settings.

#### Time-out-timer (TOT)

For the versions PMR, the TOT time has to activated, a max. of 180s is permitted. By default, the TOT time is set to 180 seconds. For the commercial radio versions UHF and VHF, the TOT function can be deactivated or set in a range between 30-600 seconds. A pre-alert is available and can be set up to 10s before expiration of the TOT time.

#### Voice annunciation

With activated voice annunciation, most of the settings, e.g. on/off, channel selection, tx-power switch, etc. are announced in english.

#### Power on tone

There are 5 different power-on tones available. This feature can be deactivated.

#### Squelch

The squelch can be set in a range between 0-9.

(0=squelch deactivated; 9=lowest sensitivity, i.e. the signal has to be very strong to open the squelch).

#### LED Hidden Display

The radio has a hidden display located on the front of the radio below the speaker. There are different settings for the active status.

- OFF: the display is deactivated during transmission and active during standby and during signal reception.
- ON: the display is always activated (with this setting the power consumption is very high, the battery needs to be recharged more frequently)
- Auto2-25: after a channel switch or the end of a transmission or reception period, the display is still active for the selected time period (in seconds).

#### VOX

To access the VOX function, one of the function keys has to be assigned to VOX. The sensitivity levels 1-10 of the VOX function can be indiviually adjusted by software.

#### Warning Tone

For some setting changes (see multifunction key assignment), a warn tone is available. By default, it is activated but can be deactivated by software.

#### Power Save

This transceiver is equipped with a battery saving function to reduce power consumption in standby mode. When the battery level is low it can be announced by a warning tone, a voice indication and / or a LED signal. You can also set an automatic shutdown (APO).

#### Channel scan

The settings for the scan function include the dwell time (for the TO mode), the delay time (after end of signal), the mode selection TO (time operated)/CO (signal operated)/ SE (end of scan after a signal has been detected), the alarm tones for the beginning and the end of scanning, as well as the LED light for the active state.

#### **Multifunction Key Assignment**

2 functions can be assigned to each function key. These are triggered by pressing the key shortly or long. How long a key has to be pressed to trigger the second function, can be set via software in a range of 0-7.5 seconds. The functions that can be assigned are:

- 01 OFF non function
- 02 Auto Dial. Transmit selected DTMF code
- 03 Scan. Start/stop
- 04 VOX. On / Off
- 05 Monitor
- 06 TX-power selection (High Power / Low Power)
- 07 Alarm tone function
- 08 Informs about actual battery level
- 09 FM radio On/off (hold key) and scan start/stop (press shortly)
- 10 Fir CH. Priority channel 1
- 11 Sec CH. Priority channel 2
- 12 Squelch OFF. (ON/OFF)

#### Only for long press:

- 13 Squelch Off temp. squelch is off as long as the key is held.
- 14 1750 Hz. Repeater tone 1750 Hz

#### Alarm function

An individual setup of the alarm function is possible with the many settings of the alarm function. E.g. it is possible to define an alarm channel, which is automatically set once the alarm function is activated. Further it can be decided if the alarm is audible local, i.e. only at the own radio, or remote, i.e. all radios that use the same channel.

It is also possible to set the number of cycles of transmission and reception periods.

#### FM Radio

For the FM radio operation, assign it to a long-state key. Holding the key, will start/stop the FM radio function. To scan the next available FM radio frequency, press the key shortly. The scan function stops automatically once a channel has been detected.

#### Priority Channel 1/2

By pushing the assigned multifunction key (FIR CH/SEC CH), the radio switches to the programmed priority channel.

## **CHANNEL SETTINGS**

The following options can be configured to each channel using software.

#### RX Freq / TX Freq

The radio has 199 programmable channels. The PMR version is exclusively programmable with the 16 PMR frequencies (446 MHz). The commercial versions UHF and VHF can be programmed in the designated frequency band according to the individual licence. For repeater operation, TX- and RX-frequencies are programmable independently.

#### QT/DQT Dec - QT/DQT Enc

Some channels may have preset QT/DQT tones. A QT/DQT tone is a subaudible tone which allows you to ignore (not hear) calls from other parties who are using the same channel.

When you receive a signal that has a tone different from the one set up in you transceiver, you will not hear the signal. Likewise, signals that you transmit will only be heard by parties whose QT/DQT tone matches the tone set up in your transceiver.

NOTA: Although using channels set up with QT/DQT tones relieves you from listening to unwanted calls, it does not mean your calls will be private.

#### **TX-Power Selectio**

In the PMR version, the high power (HIGH) is 500 mW. For commercial versions of VHF and UHF, the high and low settings can be programmed according to the values assigned in the license.

#### Bandwidth (W/N)

In PMR version the bandwidth is set at 12.5 kHz (N) according to government regulations. For commercial versions the bandwidth can be N (12.5 kHz) and W (25 kHz)

#### Scan (Scan Add/Del)

You can add (add) or remove (del) the channel from the scan list through the software.

#### Busy channel lock (BCL)

Using this function, the transmission is blocked if there is a signal present on the selected channel.

#### VOX

With VOX function it will activate the transmission with the voice without having to press PTT. The sensitivity of the VOX defines the threshold of the voice intensity to start the transmission automatically. In level 1, the voice signal must be very strong to activate the VOX function. At level 9 the VOX function is more sensitive and therefore a lower voice level will be activated. Each VOX level (1-9) can be adjusted using software.

#### TX Allow

It is possible to activate / deactivate the transmission for each channel.

#### PTT-ID (BOT/EOT/Both)

The transceiver can transmit a DTMF code via PTT-ID. The transmission of the code is triggered by the PTT key. Each press of the PTT key transmits the code.

BOT : The signal is transmitted by pressing the PTT key. EOT : The signal is transmitted when the PTT key is released. BOTH: The signal is transmitted by pressing and releasing the PTT key

### Opt

The radio offers DTMF as an optional calling signal. Each channel has to be activated for this feature.

For transmission of a DTMF code, a multifunction key has to be assigned to the setting DIAL. A programmed DTMF code is then selected for the individual channel.

#### Dial

If DTMF is used, one of the max. 16 programmable DTMF codes has to be assigned.

#### SP Unmute

This setting determines when the squelch will open, i.e. when the speaker will unmute. There are 4 settings available.

WAVE: signal regardless of any codes (CTCSS/DCS or DTMF)

CT / DQT: signal with the proper CTCSS/DCS code.

QD or Opt: signal with the proper CTCSS/DCS code OR DTMF code.

QD and Opt: signal with the proper CTCSS/DCS code AND DTMF code.

## DTMF

The DTMF function must be programmed by software. With its decoding and encoding features, DTMF can be used as a selective calling system. The automatic transmission of DTMF (PTT ID) codes and the STUN function (which enables remote transmission to be disabled) are also available.

Each DTMF encode can contain a maximum of 16 symbols (0-9 and A-F). The maximal 16 DTMF calling codes can be programmed via software in the Auto Dial List.

For the PTT-ID feature - automatic transmission of a DTMF call upon pushing or releasing the PTT key - 2 PTT-ID codes can be programmed (beginning of transmission and end of transmission).

The DTMF radio ID decode can be composed of a maximum of 10 symbols (0-9 and A-F). The usage of a group symbol (A-F) is enabled. Further, it is possible to activate a warning tone that will be audible in the event of the reception of a call.

The Stun functions allows to deactivate the transmission mode of a remote radio. To activate a radio for this feauture, the stun code needs to be assigned. Once this stun code is received, transmission is deactivated (reception is still possible).

To revive a stunned radio, the stun code, followed by the letter F has to be received.

# SPECIFICATIONS

Frequency range	PMR: 446.00625 ~ 446.09375 MHz VHF: 147~174 MHz UHF: 440~470 MHz
Rated voltage	7.4 V
Working temperature	-20°C - +50°C
Antenna impedance	50Ω
Dimensions	63 x 115 x 37 mm
Weight	251 gr.
TRANSMITTER	
Power output	PMR: 500 mW VHF: 5 W UHF: 5 W
Frequency stability	±2.5PPM
Maximum frequency deviation	≤±5kHz
Remanent radiation	< -60dB
Modulation mode (W/N)	16KØF3E,11KØF3E
Maximum frequency deviation	≤ 2.5kHz (N), ≤ 5kHz (W)
Audio distortion	≤ 3%
Adjacent channel power	≥ 60dB
RECEIVER	
RF sensitivity	W: 0.223uV>12dB N: 0.223uV>12dB
Audio distortion	≤ 3%
Adjacent Channel Selectivity	≥ 60dB
Intermodulation Rejection	≥ 60dB
Spurious radiation	≥ 60dBm

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# TROUBLESHOOTING

Problem	Solutión			
No power	<ul> <li>Battery may run out of power, please update the battery or recharge the battery.</li> <li>The battery pack may not be in- stalled correctly. Remove the battery pack and install it again.</li> </ul>			
Battery power off shortly after charging	The battery pack life is over. Replace the battery pack with a new one.			
Can not talk to or hear other mem- bers in your group	<ul> <li>Make sure you are using the same frequency and Quiet Talk tone as the other members in your group.</li> <li>Other group members may be too far away. Make sure you are within the working range of the transceivers.</li> </ul>			
Other voices (besides group members) are present on the channel	Change the Quiet Talk tone. Be sure to change the tone on all transceivers in your group.			

	50 CTCSS (Hz)					
67.0	94.8	131.8	171.3	203.5		
69.3	97.4	136.5	173.8	206.5		
71.9	100.0	141.3	177.3	210.7		
74.4	103.5	146.2	179.9	218.1		
77.0	107.2	151.4	183.5	225.7		
79.7	110.9	156.7	186.2	229.1		
82.5	114.8	159.8	189.9	233.6		
85.4	118.8	162.2	192.8	241.8		
88.5	123.0	165.5	196.6	250.3		
91.5	127.3	167.9	199.5	254.1		

#### 210 DCS N/I

D023	D074	D165	D261	D356	D462	D627
D025	D114	D172	D263	D364	D464	D631
D026	D115	D174	D265	D365	D465	D632
D031	D116	D205	D266	D371	D466	D645
D032	D122	D212	D271	D411	D503	D654
D036	D125	D223	D274	D412	D506	D662
D043	D131	D225	D306	D413	D516	D664
D047	D132	D226	D311	D423	D523	D703
D051	D134	D243	D315	D431	D526	D712
D053	D143	D244	D325	D432	D532	D723
D054	D145	D245	D331	D445	D546	D731
D065	D152	D246	D332	D446	D565	D732
D071	D155	D251	D343	D452	D606	D734
D072	D156	D252	D346	D454	D612	D743
D073	D162	D255	D351	D455	D624	D754

#### **PMR446 CHANNELS**

01 - 446.00625 MHz
02 - 446.01875 MHz
03 - 446.03125 MHz
04 - 446.04375 MHz
05 - 446.05625 MHz
06 - 446.06875 MHz
07 - 446.08125 MHz
08 - 446.09375 MHz

09 - 446.10625 MHz 10 - 446.11875 MHz 11 - 446.13125 MHz 12 - 446.14375 MHz 13 - 446.15625 MHz 14 - 446.16875 MHz 15 - 446.18125 MHz 16 - 446.19375 MHz

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#### EU DECLARATION OF CONFORMITY

FALCON RADIO & ACCESSORIES SUPPLY, S.L. CIF: B-60565314. C/ Vallespir, nº 13. Polígono Industrial Fontsanta. 08970 San Joan Despí - Barcelona (ESPAÑA).

#### Product description:

Equipment:	PMR-446 Handheld transceiver
Brand:	ESCOLTA
Model:	ALFA RP-101
Manufacturer:	FALCON RADIO & ACCESSORIES SUPPLY, S.L.
Made in:	CHINA

We, FALCON RADIO & A.S., S.L. declare under our sole responsibility that the above named product it's conforms to the provisions of the Directive 2014/53/UE of the European Parliament and of the council of 16 April 2014, and with Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

Standards granting presumption of conformity:

- ETSI EN 300 296 V2.1.1 (2016-03).
- ETSI EN 301 489-1 V2.2.0 (2017-03).
- ETSI EN 301 489-5 V2.2.0 (2017-03).
- EN 60950-1 (2006) + A11 (2009) + A1 (2010) + A12 (2011) + A2 (2013).
- EN 62311 (2008).
- EN 50566 (2013).

The notified organism 1313 "Bay Area Compliance Laboratories Corp. (BACL)" has issued the EU Type Examination Certificate no.: B1706299.



Sant Joan Despí-Barcelona (Spain), 19 September 2017

Jakon

Xavier Falcón Vilaplana & Lluís Falcón Vilaplana, Managers FALCON RADIO & A.S., S.L.



#### **EU DECLARATION OF CONFORMITY**

FALCON RADIO & ACCESSORIES SUPPLY, S.L. CIF: B-60565314. C/ Vallespir, nº 13. Polígono Industrial Fontsanta. 08970 San Joan Despí - Barcelona (ESPAÑA).

#### Product description:

Equipment:	PMR VHF handheld transceiver
Brand:	ESCOLTA
Model:	ALFA RP-201
Manufacturer:	FALCON RADIO & ACCESSORIES SUPPLY, S.L.
Made in:	CHINA

We, FALCON RADIO & A.S., S.L. declare under our sole responsibility that the above named product it's conforms to the provisions of the Directive 2014/53/UE of the European Parliament and of the council of 16 April 2014, and with Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

Standards granting presumption of conformity:

- EN 300 086 V2.1.2 (2016-08)
- EN 301 489-1 V2.2.0 (2017-03)
- EN 301 489-5 V2.2.0 (2017-03)
- EN 60950-1 (2006) + A11 (2009) + A1 (2010) + A12 (2011) + A2 (2013)
- EN 50566 (2013)

The notified organism 1313 "Bay Area Compliance Laboratories Corp. (BACL)" has issued the EU Type Examination Certificate no.: B1803198.



Sant Joan Despí-Barcelona (Spain), 2 May 2018.

Jakon V:

Xavier Falcón Vilaplana & Lluís Falcón Vilaplana, Managers FALCON RADIO & A.S., S.L.



#### EU DECLARATION OF CONFORMITY

FALCON RADIO & ACCESSORIES SUPPLY, S.L. CIF: B-60565314. C/ Vallespir, nº 13. Polígono Industrial Fontsanta. 08970 San Joan Despí - Barcelona (ESPAÑA).

#### Product description:

Equipment:	PMR UHF handheld transceiver
Brand:	ESCOLTA
Model:	ALFA RP-301
Manufacturer:	FALCON RADIO & ACCESSORIES SUPPLY, S.L.
Made in:	CHINA

We, FALCON RADIO & A.S., S.L. declare under our sole responsibility that the above named product it's conforms to the provisions of the Directive 2014/53/UE of the European Parliament and of the council of 16 April 2014, and with Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

Standards granting presumption of conformity:

- ETSI EN 300 086 V2.1.2 (2016-08).
- ETSI EN 301 489-1 V2.2.0 (2017-03).
- ETSI EN 301 489-5 V2.2.0 (2017-03).
- EN 60950-1 (2006) + A11 (2009) + A1 (2010) + A12 (2011) + A2 (2013).
- EN 62311 (2008).
- EN 50566 (2013).

The notified organism 1313 "Bay Area Compliance Laboratories Corp. (BACL)" has issued the EU Type Examination Certificate no.: B1707051.



Sant Joan Despí-Barcelona (Spain), 19 September 2017



Xavier Falcón Vilaplana & Lluís Falcón Vilaplana, Managers FALCON RADIO & A.S., S.L.

NOTES:			

