



3,5 MHZ DIRECTION FINDING RECEIVER

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# COMPACT 3,5F

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instruction manual

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## FOREWORD

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The COMPACT 3,5 F receiver is designed for the wide company of competitors including beginners. Its ergonomical solution results from the following features: low weight and small size, all receiver controllable by single hand even in full run, shock-resistant, waterproof house and low price.

The symmetrical ferrite antenna provides sharp direction pattern, high receiver sensitivity and high front-to-rear ratio.

### ***FEATURES:***

- ***Ergonomical solution – single hand controllable***
- ***High sensitivity and selectivity***
- ***Optimized antenna with sharp direction pattern and high front-to-rear ratio***
- ***Sensitivity control range 100 dB***
- ***Shock-resistant, waterproof house***
- ***Low weight (220g) and small size***
- ***Low price***

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## IMPORTANT!

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**READ ALL INSTRUCTIONS** carefully and completely before using the receiver.

**SAVE THIS INSTRUCTION MANUAL** for future reference. This manual contains important operating instructions for the **COMPACT 3,5F**.

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## PRECAUTIONS

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**! NEVER** apply AC or any voltage higher than 16V DC to the receiver. This could cause a fire or ruin the receiver.

**! NEVER** use other charger than the one supplied by the manufacturer. This can ruin the accumulator or even the whole receiver.

If using 6F22 battery instead of the accumulator, **NEVER** connect the charger to the receiver! Do not leave exhausted batteries in the receiver!

**AVOID** using or placing the receiver in areas with temperatures below -20°C or above +60°C.

Use only accessories supplied by the manufacturer.

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## UNPACKING

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### **Accessories included with the COMPACT 3,5F:**

- whip antenna
- protecting case
- this manual

# 1 OPERATION

## ■ Unpacking

After unpacking, check carefully the receiver and all accessories included. In the case of any damage do not use the receiver and contact immediately the manufacturer.

## ■ Before operation

Check the accumulator voltage (by means of T10 tester). If necessary, charge the accumulator.

Mount the whip antenna to the terminal on the top side of the receiver.

## ■ Turning ON

Receiver is turned ON by connecting headphones.

## ■ GAIN setting

From the beginning, set the full gain (position 5). After the signal is tuned, adjust the gain so that the signal in headphones is clearly audible, but not stunning.

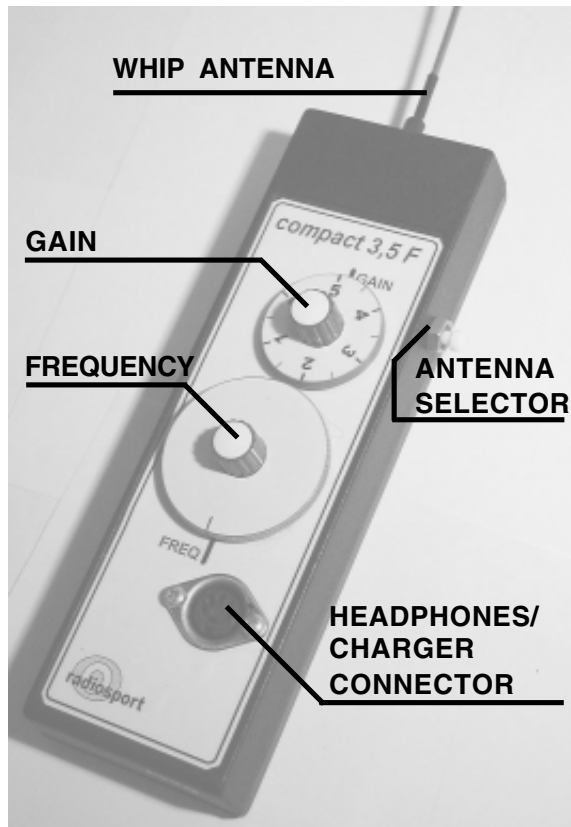
**NOTE.** : With some experience, you will be able to estimate the transmitter distance from the GAIN button position. For example, with GAIN in position 1, the distance to the transmitter is some 100 m.

## ■ FREQUENCY setting

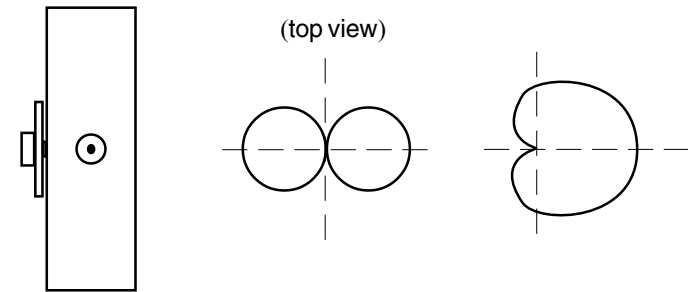
The receiver is tuned by means of the FREQ button, to the signal beat. Set the tone to the comfortable pitch.

## ■ Antenna selector

The antenna direction patterns are selected by means of the button on the side of the receiver. If the button is released, the direction pattern is „eight“ shaped (only ferrite



antenna works). If the button is pushed, the pattern is „cardioide“ shaped (both ferrite and whip antennas work). The direction patterns orientation is usual:



## ■ Direction finding

Hold the receiver in one hand, always in vertical position, antenna selector released. By turning the receiver or the whole body, try to find the weakest signal. Now the lengthwise axis of the receiver aims to the transmitter. Then push and hold the antenna selector and rotate the receiver by 90° rightwards and leftwards. One of these positions will produce significantly stronger signal, showing the right orientation of the direction to the transmitter.

Avoid large metal objects in the terrain, which can deform the field in their vicinity and therefore the direction taking as well.

# 2 MAINTENANCE

## ■ Charging

The receiver can be used until the voltage is above 6,5V. The charging period of the built-in accumulator is 15 hours (using N28 charger). Usually it is not necessary to recharge the receiver after every training. Full discharge does not damage the accumulator, but deep discharge (below 5V) or frequent overcharging shorten the lifetime of the accumulator.

If using the 6F22 battery instead of the accumulator, do not buy cheap brands. Do not leave exhausted battery in the receiver (it will leak out!). If the battery leaks out, wash the battery compartment with lukewarm water and dry carefully.

## ■ Cleaning:

Keep the receiver dry and clean. If the receiver becomes wet, dry it by the clean cloth and let it dry in a room temperature. **Never** use strong heaters!

If the receiver becomes dusty or dirty, clean it with a brush or a dry, soft cloth. **Avoid** the use of strong chemical solvents such as benzine or alcohol.

The receiver needs no maintenance above the mentioned procedures.

## 3 SPECIFICATIONS

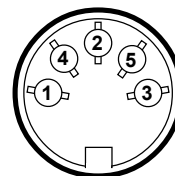
Receiver system:	direct conversion
Antenna:	symmetrical ferrite and phased whip combined
Front-to-rear ratio:	> 20 dB
Mode:	A1A
Frequency coverage:	3.47 ... 3.68 MHz
Sensitivity (SNR 10 dB):	30 $\mu$ V/m
Sensitivity control range:	100 dB
Headphones impedance:	> 4 ohms
Supply :	NiCad accumulator 7,2 V / 170 mAh or 9V battery (6F22)
Consumption (typ.):	15 mA
Operation period :	min. 12 hours
Weight:	220 g
Dimensions:	59 (W) x 185(H) x 28 (D) mm
Covering:	IP53
Compass bearing influence :	max. $\pm$ 2°
Operating temperature range:	-10 ... + 60°C
Storage temperature range:	-20 ... + 60°C

## 4 OPTIONS

- Automatic charger N28, N80
- Accumulator tester T10
- Headphones SL27, SL28
- Spare whip antenna

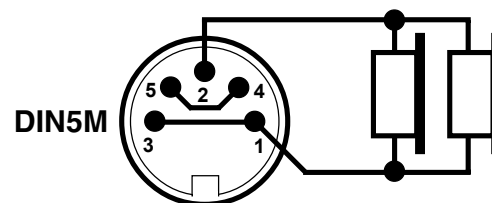
## 5 TECHNICAL INFORMATION

Receiver connector pin-out:



1,3	headphones output
2	common ground
4	accumulator (+ pole)
5	receiver supply (+ pole)

Headphones connector pin-out:



1,3	headphones
2	headphones
4-5	connected

## 6 WARRANTY, SERVICE

Should this equipment malfunction under normal use, it will be repaired without charge for a period of one year from the date of purchase.

The customer shall not have any claim under this warranty for repair or adjustment expenses if the trouble is caused by improper, rough or careless treatment or mechanical damage, by a fire or other natural calamity or by improper repair or adjustment made by anyone other than manufacturer.

The warranty does not cover the accumulators.

After the first year of use manufacturer offers the free of charge adjustment and check of the equipment.

Any other information, service or modifications are provided by the manufacturer:

**Jiří Mareček, OK2BWN, Obřanská 593, CZ-664 01 Bílovice nad Svitavou  
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