



# COMPA - X4+1 Trainer



<b>35 MHz</b>	CE
Permitted in A/B/D/DK/E/GB/GR/I/NL/CH	
<b>40 MHz</b>	CE
Permitted in A/D/E/GB/GR/I/NL/CH	
<b>41 MHz</b>	CE
Permitted in F	

# Instruction manual

## Radio Control

We are glad, that you have chosen one of our radio controls out of the COMPA-X4 Series. We wish you a lot of success with your new radio control. Read the instructions and especially our safety tips carefully before operating the equipment. If you operate RC models for the first time, we recommend you to ask experienced model builders for help.

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## Security information

The completion and the operation of RC models needs technical understanding, big care and requires special safety measures. Considerable material damages or personal damages can occur when making mistakes or negligences while operating or building this model.

Therefore work very precise and use your model carefully. As a manufacturer, importer and purchaser of model building articles we have no influence on the proper assembly and the right operation of models. We can only point out the dangers.

RC models are no toys. Hence, they belong in the hands of responsible Persons. Especially when using flight models you always have to be very careful. Electric motors with connected driving accu can suddenly start by mechanical or technical defects. This can also occur, when the receiving is enabled without operating the Transmitter. Through this a considerable injury danger can originate. Therefore never stay in the driven range of rotating parts.

Protect the remote control against dust, dirt and humidity. Do not expose to big heat, cold or strong vibrations.

Always Check the equipment for damages. If you are using accus, consider the restrictions of the manufacturers of the accus and of the chargers.

If several model sportsmen are in the same place where you want to operate your model, make absolutely sure, that you are the only one transmitting on your channel, before you switch on your transmitter. Take off the transmitter aerial completely and first switch on the transmitter and then the receiver. Now test all functions. If you doubt the functionality, you should never start your model. Never endanger people or animals with the operation of your model. Operate your model not on public streets, Paths and places etc. during a thunderstorm you may not operate the remote control.

## 1. Box contents /accessoires



Transmitter COMPA-X4+1  
Trainer(with crystal included)  
Ref.No.: 0610\*\*  
(\* \*\* depending on frequency  
and servos, for further infor-  
mation catalogue page 97)



Switch cable  
with accubox



According to Ref. No.  
without, with one, or  
with two servo / servos

Servo XT-Super Standard, with accessories



Receiver COMPA-X6  
(with crystal included)  
27 MHz Ref.No.:061037  
35 MHz Ref.No.:061035  
40 MHz Ref.No.:061036  
41 MHz Ref.No.:061038



Trainer-cable Ref.No.:091550



crystal pair  
(left transmitter- and  
right receiver crystal)

## Recommended accessories:

Transmitter accu charger	Ref. No.: 098404
Receiver accu charger	Ref. No.: 098303
Trainer-cable	Ref. No.: 091550
Transmitter carrying device	Ref. No.: 062050
Transmitter accu 8 x Mignon cells	Ref. No.: 141001
Receiver accu 1000 mAh	Ref. No.: 142063
Receiver accu 3000 mAh	Ref. No.: 148036
or another receiver accu from our assortment.	

## 2. General description / technical data

### 2.1 Transmitter COMPA-X4+1 Trainer

The frequency-modulated hand transmitter supports four proportional control channels for the user with PPM transmission. Hence, the transmitter is compatible with all commercial used receivers, that work with these Transference procedures. The transmitter is suited to the control of flight models, ship models and car models.

With the Servo-reverse switches, a switching of the servo movement direction for the 4 channel cross sticks can take place. Thereby the installation of the servos into the model gets easier, because the rotation direction can be adjusted individually. The sticks of the both controls can be changed in length. Thereby they can be adjusted to the controlling habits of the pilot.

The power supply of the transmitter takes place through 8 battery cells of the model AA (Mignon). The transmitter is equipped with a loading jack. With this connections the cells can be recharged together easily.

#### Technical data:

Functions:	10/5 Servos
Transmitter frequency:	35 / 40 / 41 MHz
Modulation:	FM / PPM
Channel grid:	10 kHz
Power supply:	9,6 - 12 V
Current absorption:	ca. 230 mA
Weight:	770 g
Dimensions:	165 x 165 x 50 mm

### 2.2 Receiver COMPA-X6

This small and very light receiver should be used especially when

minimized dimensions and weight is necessary. The receiver can also be controlled by other transmitters, which work with PPM transmission.

If no BEC system is used, and all six outputs are covered, the accu should be connected with a V-cable. The output '6' is marked accordingly.

#### Technical data:

Functions:	12 / 6 Servos
Transmitter frequency:	35 / 40 / 41 MHz
Interfrequency:	455 kHz
Modulation:	FM / PPM
Channel grid:	10 kHz
Power supply:	4,8 - 6,0 V
Current absorption:	ca. 10 mA
Weight:	ca. 14 g
Dimensions:	41 x 26 x 11 mm

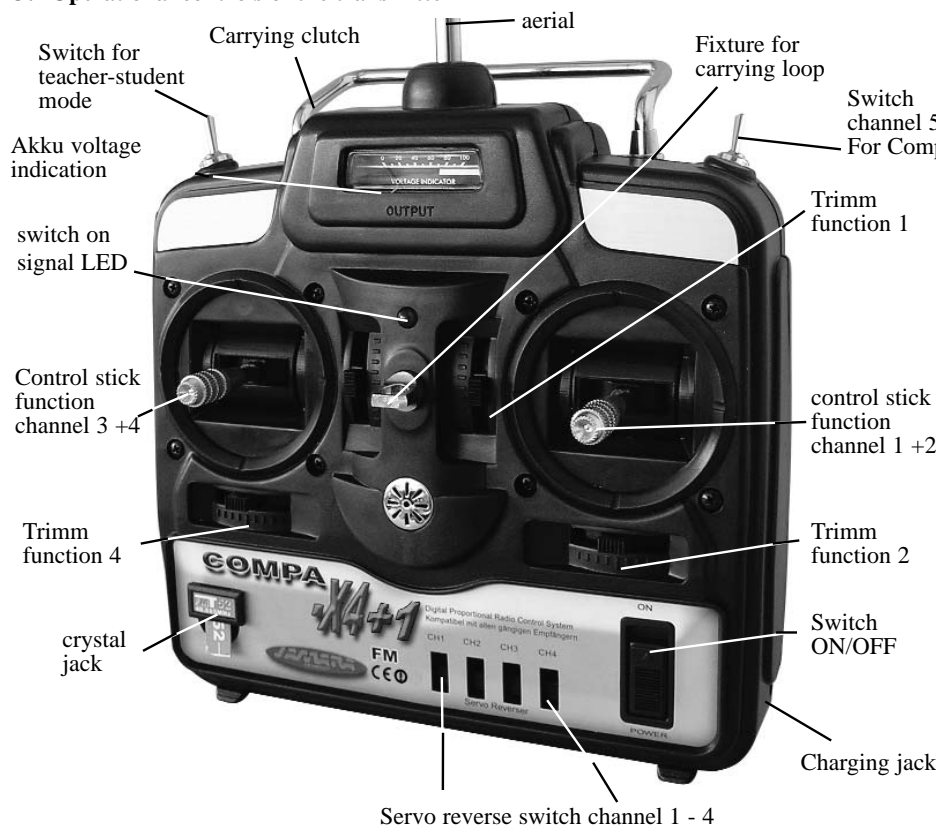
### 2.3 Servo XT Super Standard

The delivery includes up to two Servos of this model. This is a compact Servo in conventional design, with big torque and a high-quality servomotor for long life service and high precision. The Servo is suited for all ranges of the model building, where in small space, strong rudder movements are demanded.

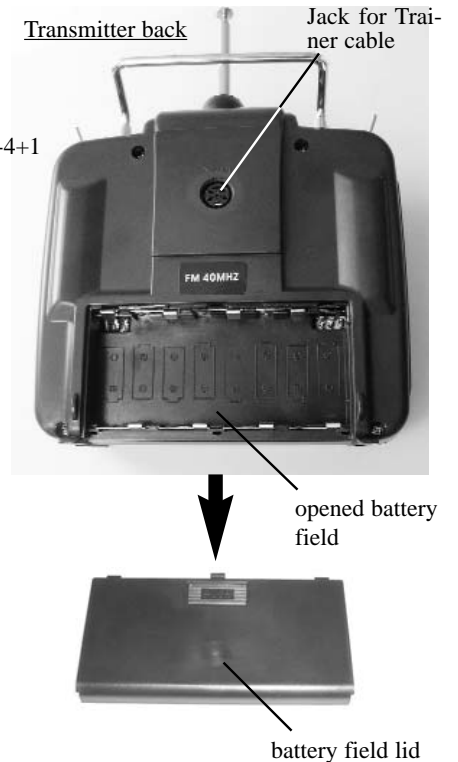
#### Technical data:

Nominal voltage:	4,8 V
Set time / 60o:	0,18 Sec.
Set time:	3,2 kg/cm
Gear:	Plastic
Dimensions:	38 x 20 x 36,5 mm
Weight:	41 g

## 3. Operational controls of the transmitter



The servo movement for all channels can be switched here.



To open push the marked spot. To close, also simply push this spot.

## 4. Mount the power supply

The transmitter can work alternatively with 8 dry cell batteries of the model AA(Mignon cells, 1.5 volts) or 8 NC accus of this size. The receiver's box should be equipped with 4 dry cell batteries or accu cells. When inserting the cells or the NC you have to pay attention to the polarity, the battery fields are marked accordingly.

The illustration on the page 2 shows the opened battery field. For 8 mignon cells or suitable NC batteries. To open the lid of the field, simply push down the lid at the marked point. To fasten the lid push it upward in the guide of the back until it engages audible.

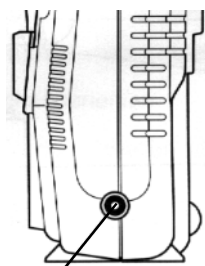
When using dry cell batteries, these must be removed from radio control and receiver accu box when only used occasionally. Resigning liquid can lead to damage of the transmitter and the box. When inserting new accu or batteries the loading state must be checked. Therefore switch on transmitter and check the voltage indication.

For a sophisticated electronic device like the COMPA-X4 radio control we recommend the insertion of accu cells into the transmitter and a completely manufactured 4-cell accu from our assortment (see chapter 1).

**When using NC-accu, you have to recharge these completely before operation. Besides, you should follow the informations of the battery manufacturer and of the charger manufacturer.**

## 5. Charging the accu

Via the charging jack on the right transmitter side, the accu can be recharged easily, without taking them out of the device. During the charging process the transmitter has to be turned off urgently. This also includes the receiver.



Charging jack

The maximum charging current of the transmitter jack is about 1 A. Always connect the banana jacks from the loading cable in the battery charger first. The built-in protective diode in the transmitter prevents a damage of the battery cells when the polarity of the loading cable is switched. Nevertheless, you should always watch the right polarity of the plug.

The duration of the first charge (charging current 1/10 of the battery capacity) will last approx. 24 hours, later with empty batteries only a charging time of 14 hours will be necessary.

Should the accu be completely charged, but not have been used, it is recommended after a time of 2 - 3 weeks to recharge them again, because the accu discharge themselves. The selfunloading is approx. 1% per day with NiCd cells. For the durability of the accu it is best to discharge them completely every now and then. Many battery chargers make this option available. After longer storage, e.g. after the winter break the batteries should be loaded and unloaded a few times before operation. With this procedure you can reach the full capacity of the accu again.

After use of the radio control device regardless of the switch-on time, the accu should be recharged overnight with a charging current of 1/10 of the battery capacity. If the capacity of the battery is almost exhausted, this is indicated through an acoustic signal. In addition, the voltage indication has to be checked at any time.

As soon as the warning sound sounds, the batteries have to be replaced immediately or the accu have to be recharged. A flight model must

be landed immediately, a boat needs to go on the shores and a car has to be driven into safe range. For the optimum charge of transmitter and receiver accu we recommend our automatic accu charger 'X-Peak 5', which can recharge on the airfield with a car battery as well as at home at normal conditions.

Fast rechargeable accu can be recharged with higher current, because the charger stops the charging process safely, as soon as the accu is recharged.

Used accu cells may not be thrown away into the normal house waste. Accu cells have to be delivered to the corresponding collect places where they can be recycled.



## 6. Operation time

The operation time of the transmitter depends on the capacity of the used accu cells. If e.g., a usual 800 mAh accu is used, the transmitter has with fully recharged accu a operation time of approx. 3.5 hours. This does not include the receiver's accu.

Its operation time depends on many unknown parameters. Here the number of servos and servo movements, but also the handling of the rudder control is important. The power consumption rises especially, if the servo range is limited mechanically. Therefore you have to watch, that the rudders can be moved easily and the servos may move over the complete range.

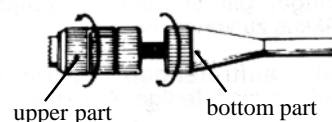
## 7. Adjusting the control stick

### 7.1 Infinitely variable adjustable control sticks

According to the controlling habits of the pilot, the both control sticks, can be adjusted infinitely variable in length. The process is shown in the picture.

First the upper and the bottom part of the control stick have to be separated from each other. Afterwards the upper part is set to the wished size. Then both parts have to be put together again.

### 7.2 Setting the reset by virtue of



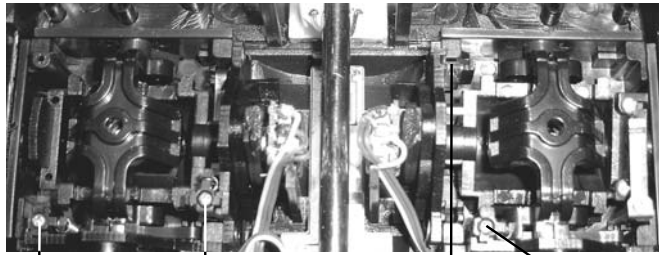
upper part

bottom part

The reset by virtue of may be adjusted individually in order to the specific control habits. Therefore the transmitter back wall has to be removed. Besides, the batteries must go out first.

Then 4 cabinet screwings must be loosened with a Phillips screwdriver.

Afterwards take off the transmitter's back wall carefully. Besides, the two accu supply cables may not be bent.



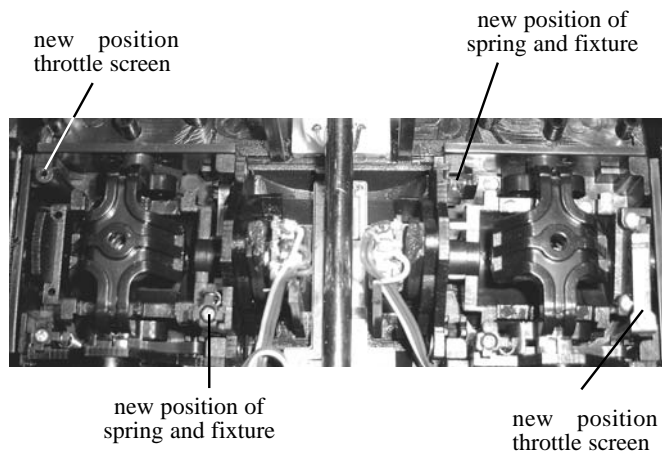
Adjustment screw channel 1    Adjustment screw channel 2    Adjustment screw channel 3    Adjustment screw channel 4

The illustration above shows the control sticks from behind in the opened transmitter. The positions of the adjusting screws are marked. With these screws the setting for the resilience can be adjusted. For a soft setting the according screw has to be turned left, for a hard setting it has to be turned right. The adjusting screw for channel 3 is not used, because this channel is used for the rest function and the throttle.

### 7.3 Transmitter rebuilding and right throttle screens function

The transmitter can be adjusted on demand to throttle right. Besides, you have to follow these steps. Like already described on top, you need to remove the transmitter's back. Then the throttle screen spring must be taken from the right side and must be inserted at the left control stick.

The following illustration shows the suitable positions. Then the neutralization spring and the fixture must be adjusted. In addition first loosen the fixture, while the spring adjusting screw is completely



turned to the left. The spring is thereby relaxed and can be put up with long nose pliers. Then you can take out the neutralization stick.

The vertical control function seen in front is now adjusted to not neutralization. Then the neutralization stick has to be built in on the other side, and the spring has to be hooked in.

Now you have to choose the right reset by virtue of. The left control stick is therefore self neutralizing. Finally the back has to be mounted again carefully.

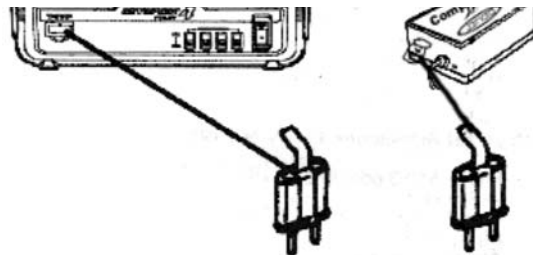
## 8. Changing crystals

The channel on which the transmitter communicates on, depends on the crystals. In the transmitter there has to be a crystal with the name TX on it, in the receiver a crystal with name RX on it, followed by the specific channel number. Both crystals must have the same channel, e.g. TX 4 and RX4.

If two transmitters work on the same channel, malfunctions will occur, which could lead to the loss of both models. Therefore a channel change needs to be done in at least one transmitter.

Transmitter and receiver may work on different channels within the same frequency range, therefore several devices may operate simultaneously

The crystal is changed at the top of the transmitter and at the back of the receiver, as shown in the following illustration.



The radio control is equipped with crystals of normal size, this also includes the small and light receiver. For safe operation we recommend the insertion of crystals from our assortment.

## 9. Teacher-student mode

In order to learn the controlling of models it is possible, to use the teacher-student mode. This means, that the teacher has control of the model during take off and landing, he is able to let the student control the model at the touch of the button, as soon as the model is in a safe height.

If no critical situation occurs, the teacher lets go of the T/S button and takes back control of the model. With this method, controlling may be learned very easily step by step, without the fear of losing or damaging the model.

Transmitter Compa-X4 Trainer and Compa X-4+1 Trainer are serially equipped with a teacher-student connection jack at the device back. The accompanying teacher-student button is attached in front on the left. The required Trainer cable, to connect both transmitters, is available as accessory under Ref.-No. 091550.

### Teacher-student mode between two transmitters Compa X-4 Trainer or X-4+1 Trainer

- Connect both transmitters with the trainer cable.
- **Remove the crystal from the student transmitter**, avoid the radiation of high frequencies.
- The mixed use of Compa X-4 Trainer und Compa X-4+1 Trainer is arbitrarily possible.
- Switch on Teacher-student and model and check all functions.
- Press the teacher-student button and check, if the control functions of the both transmitters are corresponding in their movement direction.
- Let go of the T/S button and the teacher transmitter takes control.

- Start model and bring it to safe height.
- Press T/S button and pass the control to the student.
- In critical or blind situations immediately let go of the button and the teacher takes over control again.

### Important notice throttle left / throttle right

The transmitter Compa X-4 or 4+1-Trainer is delivered with throttle left. (Not self neutralizing rattle function in the control of the motor)  
The adjustments you have to make to throttle right is described in chapter 7.3.

**Teacher-student mode is only possible, if both transmitters have throttle on the same side.**

## 10. Installation of the receiving

### 10.1 Installing the receiver and laying the aerial

The installation of the receiving must be made very carefully. Servos and receiver must be protected from vibrations, dust and moisture. As practical and safe attachments of the receiver, double-sided adhesive tape, as well as foamed material mats have proved themselves for vibration attenuation.

The accu always has to be placed in front of the receiver. So, in case of a rough landing or a crash, the heavy accu can't damage the receiver or the servo. In boat or car models, the receiver has to be protected from moisture. Therefore it should be sealed into waterproof foil. After operation the receiver needs to be unpacked from the foil, thus no condensation can originate.

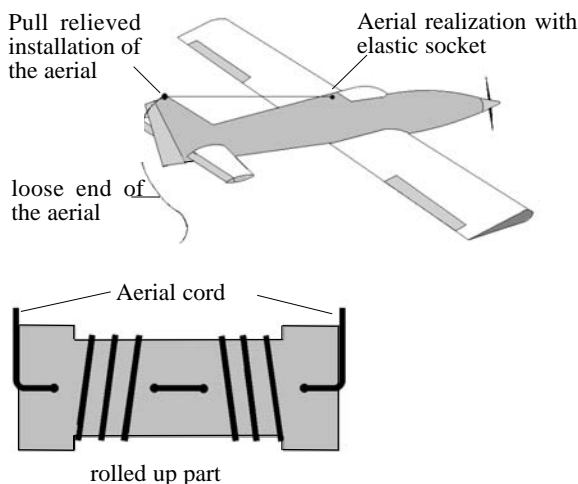
The aerial of the receiver COMPA X6 has the full length, like most of the bigger receivers have. The aerial cord may not be shortened. The aerial should be laid as far as possible away from electric motors, the

rudder machines, metallic leverages and cables.

Don't lay the aerial straight, but stretch the cord e.g. to the fin and let the protruding end hang down, as shown in the following illustration. Now, you have to make sure, that this end can't get into the airscrew of the model.



The aerial may not be rolled up directly. If there isn't enough space in the model, the cord has to be twisted around a small Plywood or plastic piece. The single tracks of the rolled up cord, need a certain space to each other. This constellation does not decrease the range.



### 10.2 Servo and switch cable

When laying the cable, make sure that you don't stress or snap the servo cable. Take care that the isolation of the cable can't be damaged by sharp parts in the models. All plugs must fit very tight. If you disconnect the plug, don't pull the cable, but the plug.

You should be able to operate the receiver switch easily, until it engages. The switch may not be limited mechanically. In the fuselage an accordingly big cutting is to be intended. Pay attention to the fact that the switch is appropriated at a place where it remains as much as possible spared from soiling.

### 10.3 Servo- and leverage installation

Install the servos carefull into your model. Take care that you built in the servos without vibrations, because servos are very sensitive for this kind of force.

Most flight models require servo boards or quick attachments which are usually enclosed. With RC-Carmodels the servo assembly is made in the extra gaps of the installation board. In every case the enclosed elastic sockets have to be pressed into the gaps of the servos, as vibration dampers. The screws should not be tightened too strongly, because otherwise the damper skills of the elastic sockets get lost.

The servo movement may not be limited mechanically. Neither the rudder nor the leverage may strike, or the Servo could drag current constantly. This high current absorption flushes the battery to early and can lead to the damage of the Servos.

The installation of the leverages and rudders must occur so that they are very smooth. Otherwise a too high current is required. In addition, the model can only be hardly controlled, because the reset tolerance clearly gets worse with treacly current rudders or leverages.

The Servos must be able to work the full range, without mechanical limitation by the rudder or the leverage. This even includes the carburetor. The final positions 'full power' and 'motor stop' must be able to be selected, without the carburetor limiting the servo range. Otherwise it comes to a higher current absorption of the throttle servos.

## 11. Transmitter operational controls

### 11.1 Signal LED/voltage indicaton

As soon as the transmitter is switched on the built-in red LED lights up. It remains as long on as the transmitter is switched on. Thereby it can be recognized any time whether the transmitter is switched on. Directly with the switch on procedure, the built-in beeper sounds. The voltage situation of the battery can be read any time from the display instrument on the transmitter's front side.



As soon as the needle is in the red range, the transmitter accu must be recharged, or the batteries must be changed.

If you didn't pay attention to the display instrument, an acoustic warning signal sounds shortly before the capacity end of the battery. This warning buzzer indicates the low voltage situation. The operation must be stopped immediately, i.e. a flight model must be immediately landed, a ship must be brought on the shore and a car needs to be turned off.

You can recognize by a slower servo movement that the capacity of the receiver's battery comes to its end. In this case the driving or the flight is to be quit immediately. Then the receiver's accu must be charged or the box needs to be provided with new batteries.

At BEC operation the receiver and the servos, are supplied with voltage via the regulator from the driving accu. Hence, a separated receiver accu is not necessary. The receiving is switched on by the switch of the regulator. In this case no receiver accu must be charged.

## 11.2 Transmitter usage

Both control sticks are associated in each case to two control functions. Every control stick has a horizontal and a vertical level. Besides, a vertical level is equipped with a engage function. This channel should be used with an engine flight model, a car or a boat for the throttle function. When using a glider this not neutralizing function is used for spoilers or brake flaps.

In the delivery state lies the throttle notch on the left control stick. In the chapter 7.3 has been displayed how the transmitter adjusted, that the rest fuction lies on the fight control stick. For the control of a flight model with 3 axes the bat configuration could look as follows:

### Right control stick, horizontal level (channel 1):

Aileron control  
control stick to the right: right aileron goes up, left aileron goes down (right curve)  
Control stick to the left: left aileron goes up, right Goes down (left curve)

### Right control stick, vertical level (channel 2):

Elevator control  
Control stick back: Elevator moves up, (Model climbs)  
Control stick up: Elevator moves down, (Modell sinks)

### Left control stick, vertical level (channel 3):

Carburetor control, or control of a electro regulator in a motor modell, or control of a spoiler or brake flaps in a glider.  
Control stick forward: Full throttle  
Control stick back: idle

### Left control stick, horizontal level (channel 4):

Side rudder control  
Control stick to the right: side rudder to the right, (right curve around the High-level axis)  
Control stick to the left: side rudder to the left, (left curve around the High-level axis)

For all four control functions there is a trimming in each case. The suitable trimm sticks are in one level with the transmitters directly beside the control stick.

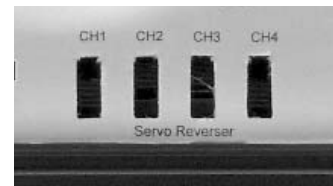
Because of its small dimensions the COMPA-X4 transmitter is used as a hand transmitter. Besides, the activity of both control sticks occurs with the right and left thumb. In order to adjust the trimms one

lets go of the control stick briefly and moves the trimm stick. The switch for the 5. channel is at the Compa X-4 +1 on the right side of the cabinet.

## 11.3 Switch servo movement direction

The movement directions may be separated on the COMPA-X4 for all four control functions of the control stick, and can be changed electronically without opening the transmitter. So you don't have to take care of the rotation direction when assembling the model. Thereby the rudder machines can be adjusted, so that an optimal leverage guide originates.

Then the movement direction can be customized. On the front side of the transmitter at the bottom end are 4 regulators, which can invert the movement direction for the 4 channels of the cross sticks. 4 Switches are marked with 'CH1' for channel 1 to 'CH4' for channel 4. If the



regulators are upwards the normal run direction is set. To change direction (Servo reverse) the regulator must be pushed down.

To use the switches you should use a small screwdriver, because the bars have been attached a little bit lowered. Through this construction, no danger insists that the switches are shifted by mistake.

## 12. Operation information

The COMPA-X6 receiver is equipped with an efficient voltage stabilization. Hence, it still works with a supply voltage of about 3.5 V. If there's a short circuit in one of 4 battery cells the receiver still works. However, the Servos work more inertly and with less force. But there is the danger that this state is recognized not immediately. Hence, the receiver's battery must be checked exactly in regular intervals.

### 12.1 Switch on order

**Always first switch on the transmitter and then the receiver. While switching off do this in reversed order.**

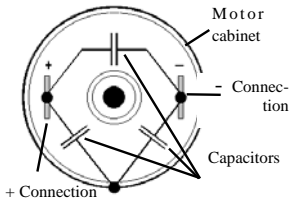
After turning on the receiver, the servos positions itself in medial position. Before the start, all functions must be checked, while one operates the transmitter. Besides, you must watch the right servo movement direction. If a servo turns in the wrong direction, the rotation must be reversed.

### 12.2 Model with electric motor

When operating electric motors sparks originate between the carbon brush conductors and the armature lamellae. Electric motors must be therefore absolutely radio-shielded, otherwise the complete function of the remote control is not guaranteed. Besides, every single motor needs to be radio-shielded..

We recommend the rectification of a motor with three bipolar capacitors. Besides, a capacitor is soldered over both connections of the engine. Both other capacitors are led in each case to a connection to the cabinet.

The illustration shows schematically the rectification of an electric motor with three capacitors. Besides, special attention has to be given to the soldering joints on the cabinet of the motor. In addition, it must be paid attention to the fact that the connection wires of the capacitors are laid very well in isolation, so that no short circuits may occur.



Internal disturbances of the receiving can also appear due to crack impulses. Crack impulses originate if metal parts rub by vibrations. Hence, it is better if the linking of the carburetor lever is a fork head of plastic. In addition, it is fact that the metallic rudder supports can't rub on each other.

### 13. Warranty/ liability explanation

This Remote Control is warranted for one year. As a document for the beginning of the guarantee time we need the bill of the dealer, where you have bought your equipment. Repairs which were made before do not extend the guarantee time.

If during guarantee time functional errors, factory defects or material defects appear, these are repaired by us free of charge. The costs of sending back the device to our company, have to be taken by the owner. Non free sendings cannot be accepted. Damages during the transport are not insured by us.

The observance of the assembly instructions and manual, as well as the conditions and methods by installation, company, use and servicing of our product cannot be supervised by company Jamara. Hence, company Jamara takes no liability for losses, damages or costs which arise from wrong use and operation in all ways.

So far legally allowed, the obligation is limited to the service of a compensation, independent from legal arguments, on the calculation value of the involved JAMARA products.

This is legal, as far as must be stuck after compelling legal default because of culpable negligence or because of intention without limitation.

We recommend the conclusion of an insurance. So-called ground-engaged models like ship models and automodels as well as sail flight models without impulse are ordinarily covered about a private liability insurance. An additional insurance or an extension is necessary for engine flight models. Corresponding insurances are offered by the model flight-umbrella organizations.

### 14. Service-Adress

**JAMARA Modelltechnik**  
Am Lauerbühl 5  
88317 Aichstetten

Tel.: 07565/9412-0  
Fax: 07565/9412-23  
E-Mail: info@jamara.de  
www.jamara.de

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www.jamara.de  
Mail: info@jamara.de

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To every sending the receipt of the purchase must be enclosed. In addition, hints to the error, origin and consequences should be made. Thereby the repair could be made faster.

### 15. RC registration regulations:

**Restrictions for radio controlled equipment with changeable crystal .**

**If you have any questions about the right choice of the channel, or for further questions please consult our service or your local shop. Further information can be found in the JAMARA main katalog 04/05 in the "Euro-frequency-table" on page 102.**

**We'd like to point out that the responsibility for the device lies in the hands of the user, please consider the laws of your country.**

### 16. Declaration of Conformity in accordance with the Directive 1999/5/EC (R&TTE)

Hiermit wird erklärt, daß das Produkt JAMARA  
I hereby declare that the product:

Type (Bezeichnung des Produkts, Type oder Modell Los oder Seriennummer): Compa X-4 FM  
Type (Name of product, Type or model; batch or serial number)

Verwendungszweck: RC - Modellbau Geräteklasse: 2  
Intended purpose: Equipment class:

bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen des Artikels 3 und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG entspricht, complies with the essential requirements of article 3 and the other relevant provisions of the Directive 1999/5/EC, when used for its intended purpose.

Schutzanforderungen in Bezug auf Gesundheit und Sicherheit gemäß Artikel 3.1.a  
Protection requirements concerning health and safety requirements pursuant to Article 3.1.a

angewendete Normen: EN 50371:2002  
standards applied:

Schutzanforderungen in Bezug auf die elektromagn. Verträglichkeit gemäß Artikel 3.1.b  
Protection requirements concerning electromagnetic compatibility pursuant to Article 3.1.b

angewendete Normen: EN 301489-01 V1.4.1:2002  
standards applied: EN 301489-03 V1.4.1:2002

Maßnahmen zur effizienten Nutzung des Funkspektrums gemäß Artikel 3.2  
Measures for the efficient use of the radio frequency spectrum pursuant to Article 3.2

angewendete Normen: EN 300220-3 V1.1.1:2000  
standards applied:

Anschrift Hersteller Jamara Modelltechnik  
Address Manufacturer Am Lauerbühl 5  
D-88317 Aichstetten

Dieser Erklärung liegt zugrunde der Prüfbericht  
This confirmation is based on testreport  
Cette confirmation est basée sur report de test

21116007\_001 TÜV Rheinland Product Safety GmbH, 51101 Köln, Allemagne  
21116007\_002 TÜV Rheinland Product Safety GmbH, 51101 Köln, Allemagne

Verantwortliche Person in EG, Anschrift: Erich Natterer  
Responsible person in EC, adress: Am Lauerbühl 5  
D-88317 Aichstetten  
Tel.: +49 7565 / 9412-0  
Fax: +49 7565 / 9412-23  
E-mail: info@jamara.de

Aichstetten, 04.07.2002

Erich Natterer

Ort, Datum  
Place & date of issue

Name und Unterschrift  
Name and signature

