



MAXOTRONIC

MICRO - LAUNCH - SYSTEMS

MANUAL IGNITION CONTROL EMG 30 COMPLETE SET

Order No.: 1129-02

Dear Customer!

We are glad that you have chosen a product of **MAXOTRONIC**. The operation of this system is quite easy; nonetheless it is very important to read the manual carefully to guarantee a long, trouble-free, and safe handling of this product. You have to follow the the **SAFETY REGULATIONS**. In case of giving this product to someone else, please hand over the manual as well!

TABLE OF CONTENTS

1. PURPOSE
2. GENERAL
3. CONTENTS
4. INSTALLATION
5. PUTTING INTO OPERATION
6. CONNECTING THE IGNITION BOARDS
7. CLEANING AND MAINTENANCE
8. LEGAL REQUIREMENTS
9. SAFETY REGULATIONS
10. TECHNICAL DATA
11. CE DECLARATION OF CONFORMITY
12. LIABILITY EXCLUSION
13. WARRANTY
14. SERVICE ADDRESS

1. PURPOSE

The *igniting system EMG 30* has been developed for the use in the field of model/remote-controlled toys. With this set you have the opportunity to make your model functional like the originals. You can use it for tanks, ships, helicopters, and planes equally. The electronic of high quality (SMD technique) enables you to fire 29 electric igniters **separately** and **selectively** through a free channel (3 positions). The switching network of this system is 3 fold safeguarded and makes a safe and easy handling possible. The correct function of the system can be monitored by a *control unit* with super bright LEDs. The approx. 30 cm long connecting cable enables you to install the *control unit* everywhere in your model. You are only allowed to use delivered igniters. These igniters of class I undergo tight quality controls and facilitate an exactly firing after each impulse on your transmitter.

2. GENERAL

The ignition control EMG 30 is a complete system that can fire electric igniters of class 1 by remote control (35Mhz/40Mhz/2,4Ghz). We want to emphasize that only original components of renowned companies have to be used. Mixing components of different manufacturers is strongly forbidden.

3. CONTENTS

- 1x *Ignition Control EMG 30* with connection cables
- 1x *Control unit*
- 2x *Ignition board* Type 29 class I
- 1x Mounting parts
- 1x Safety glasses
- 1x Cleaning brush
- 1x *Manual*

4. INSTALLATION

All parts of the *Ignition Control EMG 30* have to be installed on suitable places on and in your model, respectively. The *control unit* has to be installed that it is visible and easy to handle. The *aluminium Body* of the gun has to be fixed properly on your model. All screws and safety stirrup have to be controlled before every use. It is strongly forbidden to modify the products of **MAXOTRONIC!**

For fuel powered models it has to be checked if a use is possible. The sparks coming out of the barrel may ignite the fuel-fumes inside the fuselage or your model. No parts of your model have to be in front of the barrel.

5. PUTTING INTO OPERATION

Before the first use of the *Ignition Control EMG 30* you have to select a free channel on the transmitter. Be sure that all trims and mixers for this channel are set to zero!

Settings	Futaba	Servotrail adjust +/-100%
	Graupner	Servotrail adjust +/-125%

IMPORTANT: Before using the *Ignition Control EMG* the function of the system has to be tested! During the testing the *ignition board* has to be disconnected! Furthermore, the switch of the *control unit* has to be at position **RESET/TEST**.



Figure 1: Control unit ready for testing

If these conditions are fulfilled the transmitter and afterwards the receiver on your model can be turned on. Consequently, the *Ignition Control EMG 30* is live and can be tested. Then, operate the selected switch channel on the transmitter. Accompanying to the switch impulse of the transmitter the **blue** LED marked by >>> and the **blue** LED marked by > on the *control unit*, respectively, shines. When the signals appear the other way around, the channel on the transmitter has to be reversed.



Fig. 2: **Operation** stages on the control unit during testing

If the test works like described above, you can be sure, that the signal of the transmitter is correctly processed by the *Ignition Control EMG 30*. Now, you can switch to position **FIRE** on your *control unit*.



Figure 3: Control unit at position Fire

During first switching on the transmitter (>) the accompanying **blue** LED (>) and the **green** LED **READY** will shine together.



Figure 4: Control unit after first operation

After the second switching on the transmitter (>) an additional third **red** LED **ARMED** is visible. This signal will shine until the switch will be returned to position **RESET/TEST**.



Figure 5: Control unit after second operation

For safety reasons the electronic can only be set live by switching the single fire signal (>)

If there is any problem during the examination of the test it is forbidden to put the *Ignition Control EMG 30* into operation. Check all steps and settings one more time properly and repeat the test. Should the renewed test go wrong, please contact **MAXOTRONIC**.

If the function test worked properly, it is possible to put the *Ignition Control EMG 30* into operation.

FOR THE SAVE USE IT IS VERY IMPORTANT TO KNOW:

After the first switching on the transmitter the **green** LED **READY** will shine. That means the *Ignition Control EMG 30* is ready to use.

After the second switching on the transmitter the **green** LED **READY** and **red** LED **ARMED** will shine. **That means the *Ignition Control EMG 30* is armed!**

After every following switch on the transmitter (permanent shining of the green and red LED) an igniter will be fired. This will be repeated until all connected 29 electrical igniters are fired. If you want to stop the operation early, put the switch of the *control unit* at position **RESET/TEST** and remove the ignition board.

If you want to use your model without using the *Ignition Control EMG 30* you have to remove the board and switch the control unit to position **RESET/TEST.**

6. CONNECTING THE IGNITION BOARDS

Before the *ignition board* will be inserted into the *aluminium gun body*, the remote control must be shut off and the switch on the *control unit* must be put into position **RESET/TEST**. After inserting the *ignition board* make sure that all screws are proper fastened. Due to the exact production of the parts it needs a bit of „feeling“ to insert the *ignition boards*. Therefore it is important to check the orientation of the single electrical igniters before inserting.

Set the switch on the *control unit* to the position **FIRE** only immediately before using the *Ignition Control EMG 30*. Immediately after use the switch must be put to position **RESET/TEST** again, and the ignition board have to be removed.

By appropriate usage of the *control unit*, a maximum of comfort and safety is assured.

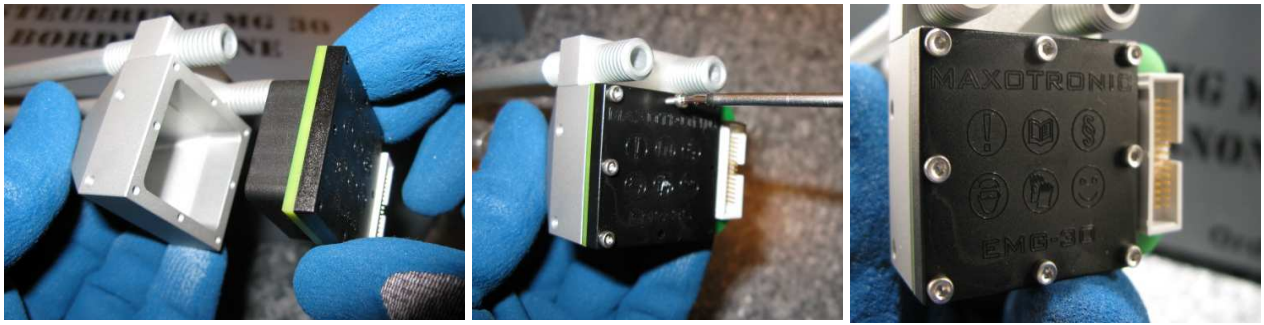


Figure 6-8: Installation of the ignition boards

IGNITIONBOARDS ARE ONLY ALLOWED TO USE IN ITS ORIGINAL CONDITION INCLUDING THE BLACK FRONT PART IN WHICH THE IGNITORS ARE PLACED.

7. CLEANING AND MAINTENANCE

After each use of the *Ignition Control EMG 30* the cables and connectors have to be cleaned and checked for damage. Be aware that by proper cleaning especially the 30-pin connectors may be used longer without exchanging them. The *aluminium gun body* need to be cleaned by using the brush included within the set. Check all screws and accessory parts after EACH use of your model. Improper mounted parts may get loose and lead to serious damage.

8. LEGAL REGULATIONS

You are responsible to comply with all technical and legal regulations regarding installation and use of the *ignition control EMG 30*, according to the laws of the country you use the model in. This set contains pyrotechnical parts belonging to class I.

9. SAFETY REGULATIONS

The *Ignition Control EMG 30* is no toy, and therefore only suitable for modellers from age 18 up. The electric ignitors will create a very hot spark/flame which is easy able to inflame flammable materials!

Extra care by use of the *Ignition Control EMG 30* has to be made by use of gas/methanol or kerosene powered engines.

The must be nothing in front of your helicopter/plane/ship or tank by firing the ignitors.

Always use the safety glasses included within the set.

Ignition boards must not get into the hands of children.

Use the *Ignition Control EMG 30* only for the intended use according to this manual.

Operation is not allowed, until function is checked according to this manual.

The *Ignition Control EMG 30* is only intended for use in areas where no static discharges occur.

Use the model only in areas where no persons or animals are staying and where any damage of goods is impossible. Relevant traffic-, liability- and accident-prevential rules for remote controlled models remain unaffected by this manual.

Never use in closed rooms.

Never aim at persons or animals.

Mention that solely you are responsible for safety when using the *Ignition Control EMG 30*.

Act on your own responsibility and check the chosen terrain for its suitability before starting up the model in which the *Ignition Control EMG 30* was implemented.

Stop using the *ignition control EMG 30* immediately if malfunctions occur and restart it not until any malfunctions are eliminated.

You are liable to check the *ignition control EMG 30* before any use. Replace spare parts as necessary to ensure a safe operation.

The function test has to be executed only without ignition boards in place.

Also be sure of the reliability of your model.

Check all screws and mounting parts for tight attachment and damage at regular intervals. Improper mounted parts may get loose and lead to serious damage.

Use only original components with your remote control set.

The electrical igniters must only be stored in the original packaging of the set. Take notice of the expiration date. After expiration the electrical igniters must not be used anymore.

Consider the significant laws and regulations of your country.

The *ignition control EMG 30* is intended exclusively for use with electrical igniters class I of the company **MAXOTRONIC**.

When using the *ignition control EMG 30* you are obligated to use eye- and hand protection to assure the required safety.

Before any start-up the *ignition control EMG 30* and the corresponding components must be checked for proper function according to Par. 5 of this manual.

Use only original parts – modifications are not permitted!

Keep our environment clean. Circuit boards are hazardous waste – you are obligated to dispose the circuit boards correctly, whereas there is the possibility to return the boards to **MAXOTRONIC** on your own costs.

10. TECHNICAL DATA

Ignition Control EMG 30

Dimensions L x W x H	80 x 60 x 20 mm	3,15 x 2,36 x 0,79 in.
supply voltage	4,8-6 Volt	
weight incl. cables	150 gram	5,29 oz.

Control unit

Dimensions L x W x H	66 x 20 x 14 mm	2,60 x 0,79 x 0,55 in.
Weight	30 gram	1,06 oz.

Ignition board

Dimensions L x W x H	36 x 32 mm	1,42 x 1,26 in.
weight	19 gram	0,35 oz.
igniters	29 pc. Class I	

Aluminium gun body

Dimensions L x W x H	36 x 32 x 50 mm	1,42 x 1,26 x 2,0 in.
weight	25,5 gram	0,9 oz.
material	Aluminium	

11. CE DECLARATION OF CONFORMITY

For the product *Ignition control EMG 30* it is hereby declared, that it complies with the EMC-directives 89/336/EEC, 91/263/EEC and 92/31/EEC. Following Standards were consulted: EN 50081-1, EN 50082-1

12. LIABILITY EXCLUSION

The *ignition control EMG 30* is tested concerning emitted interference and interference resistance, and

possesses a CE-mark. Therefore it is state of the art at the moment being put in circulation. In case of compliance with legal regulations a failure-free operation is possible. The ignition control EMG 30 does not emit interference on other equipment. However, the CE-mark does not authorise you to a incautious usage of the electronics.

It is hereby expressly agreed, that the liability of MAXOTRONIC for damages, which were caused by the ignition control EMG 30, is limited to an amount of EUR 3.000.000. You confirm, that this agreement clause was pointed out to you separately.

MAXOTRONIC is liable exclusively for deliberate and grossly negligent inflicted personal injuries and material damages. The claim for damages may only be asserted judicially within six months after the rightful claimant(s) attained knowledge of the damage, but not later than three years after the occurrence giving rise to a claim. Liability for any damages which are caused by inappropriate use of the Ignition control EMG 30 as well as by failure to comply with this manual are hereby explicitly excluded.

13. WARRANTY

The product has to be checked immediately after delivery. **MAXOTRONIC** has to be notified in written form about defects found in this process immediately, but at the latest within 7 days after delivery. A description about extent and manner of the defects found has to be included with the notification.

Each *Ignition Control EMG 30* passes through several checks during manufacture. We attach outstanding importance to a high standard of quality. For our products a warranty period of two years is granted. We safeguard for defects, which were present at the moment of delivery. For the origin of the period of warranty, the date on the receipt of your dealer is applicable. For this it is necessary to include the receipt when forwarding the *Ignition Control EMG 30*. Possible repairs do not extend the period of warranty. If any malfunctions, manufacturing or material defects occur within the period of warranty, you are obligated to forward the Ignition Control EMG 30 to **MAXOTRONIC** on your own costs, so that these defects can be corrected by **MAXOTRONIC** at no charge. We do not assume liability for damage or loss of the forwarded goods. For an efficient correction of damage a detailed description of the problem occurred is necessary. It is advisable to submit this to **MAXOTRONIC** in written form. Warranty is explicitly excluded for the connection cables and connectors for 30 and 10 pin. Liability to consequential loss arising from damages is limited to deliberate and grossly negligent fault of **MAXOTRONIC**.

14. SERVICE ADDRESS

At the address stated below we stand by for arising questions and queries at any time. For correction of defects and for repair, please send the *Ignition Control D19-4* to following address:

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5020 SALZBURG

AUSTRIA

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[www: www.maxotronic.at](http://www.maxotronic.at)

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