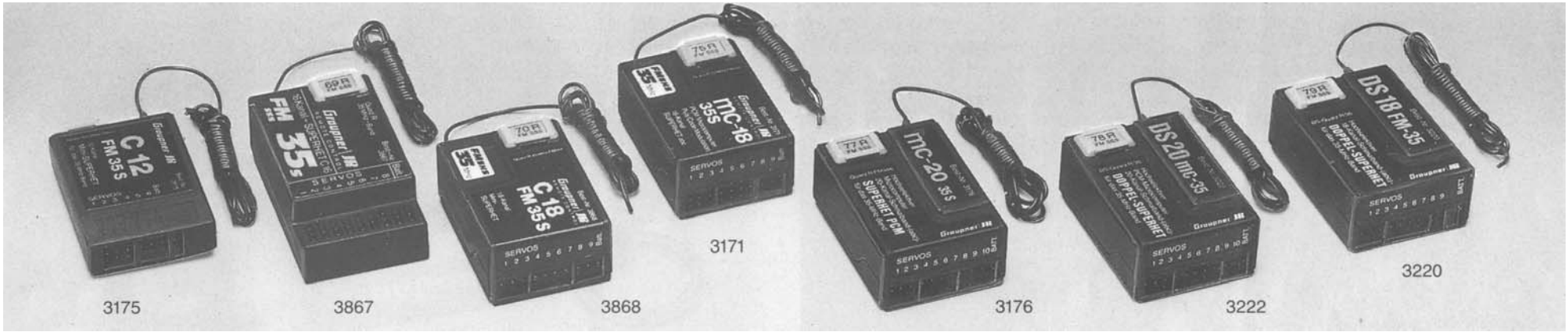
Receivers



Miniature SUPERHET C 12
12 Channel Narrow Band Receiver
Part No. **3175** for the 35MHz band
Part No. **4075** for the 40MHz band

Miniature SUPERHET C 16
16 Channel Narrow Band Receiver
Part No. **3867** for the 35MHz band
Part No. **4067** for the 40MHz band

Miniature SUPERHET C 18
18 Channel Narrow Band Receiver
Part No. **3868** for the 35MHz band
Part No. 4068 for the 40MHz band

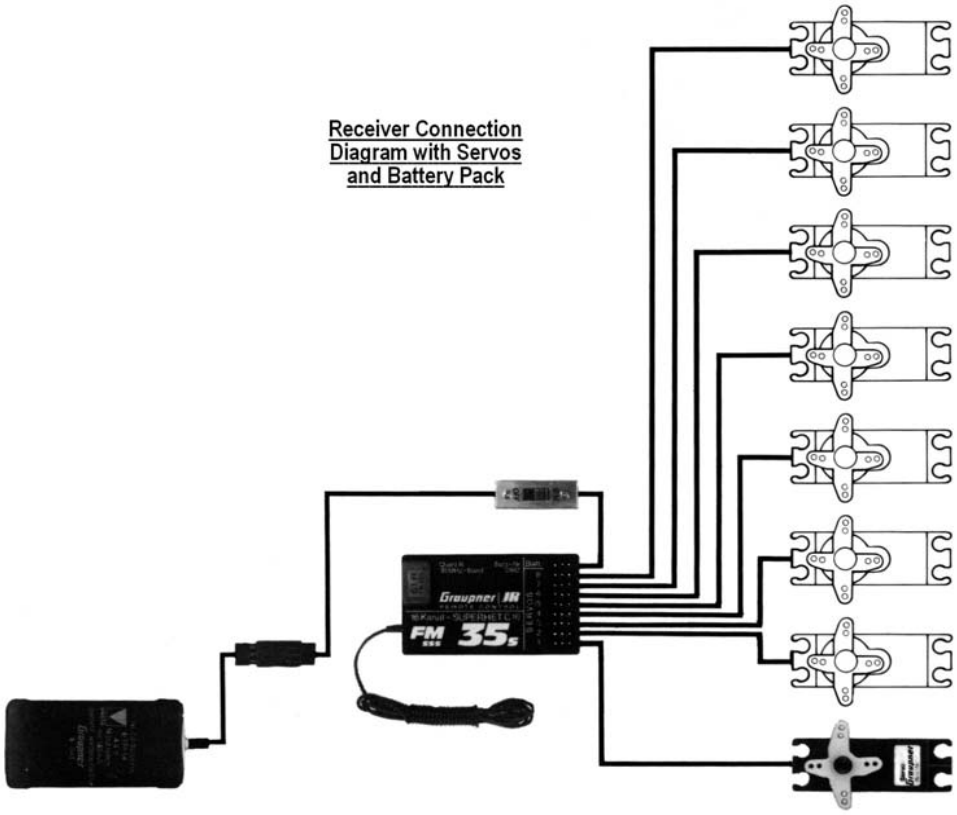
Miniature SUPERHET C 19 (not shown)
18 Channel Narrow Band Receiver
Part No. **3179** for the 35MHz band
Part No. **4074** for the 40MHz band

Mini SUPERHET mc-18
18 Ch FM/PCM Narrow Band Receiver
Part No. **3171** for the 35MHz band
Part No. **4071** for the 40MHz band

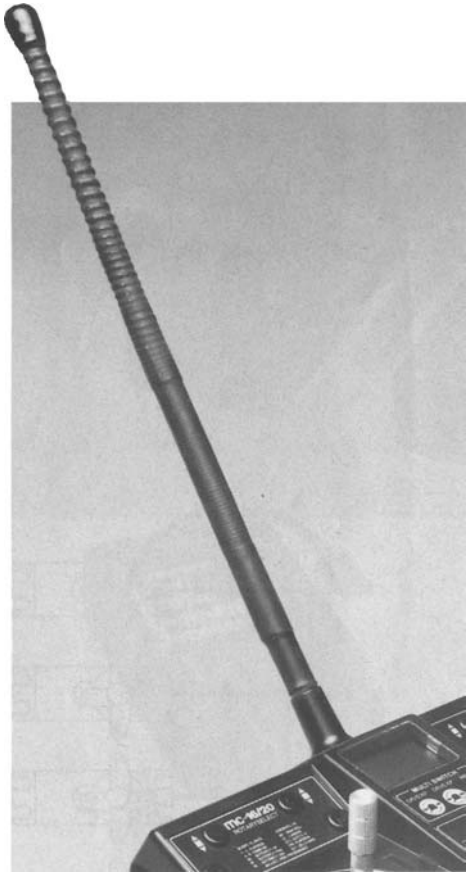
Mini SUPERHET mc-20
20 Ch FM/PCM Narrow Band Receiver
Part No. **3176** for the 35MHz band
Part No. **4046** for the 40MHz band

Mini SUPERHET DS 18
18 Ch PPM Narrow Band Receiver
Part No. **3220** for the 35MHz band
Part No. **4041** for the 40MHz band

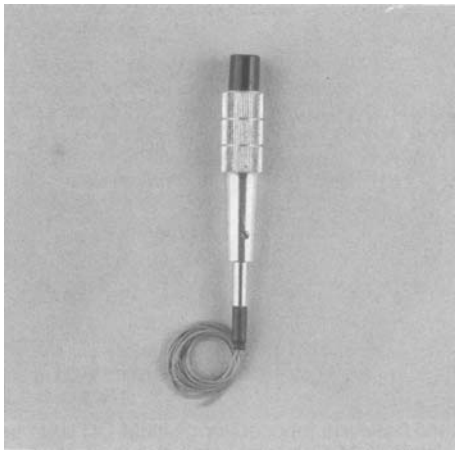
Mini SUPERHET DS20 mc
20 Ch FM/PCM Narrow Band Receiver
Part No. **3222** for the 35MHz band
Part No. **4042** for the 40MHz band



Accessories for Transmitters



Flexible Antenna
Flexible short antenna for optimal freedom of movement and unrestricted use of the transmitter. The radiation achieved is similar to that of the telescopic antenna at full length. For models needing high safety requirements, e.g. for speed and large-scale models and for longer distances, you should use the telescopic antenna supplied with the transmitter.
Dimensions max, ca. 400 mm
Part No. 1149.35 for 35MHz band
.40 for 40MHz band



Push Button
Part No. **4144***
With pressure on the button the switch is operated and it releases to the "off" only when pressing the button again position. The Push Button can be changed, by removing a locking link, to a momentary button, where the function remains "on" only whilst the button is pressed.

HF Transmitter Module (shown on page 11)

Part No. **4824.35** for 35MHz band
4824.40 for 40MHz band

For technical data see page 99.

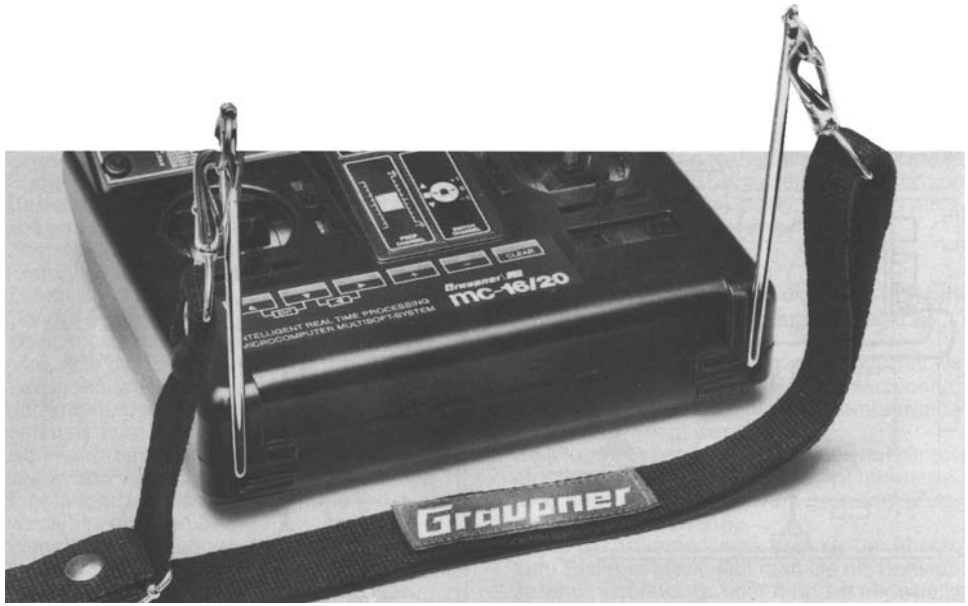
By fitting the appropriate quartz crystal the frequency channel is selected. The crystal inserted in the transmitter must carry the same channel number as that inserted in the receiver.
Only original GRAUPNER FMsss quartz crystal should be used (see page 98)!

2 Function Stick Switch
Part No. **4143***
A control stick with a single pole for operating 2 functions. For special applications, particularly for competition pilots.

3 Function Stick Switch
Part No. **4113***
A control stick with an integral switch with centre-off position for operating 3 functions.
Suitable for special functions, e.g. for high-speed and F3B-models to switch between start, neutral and speed settings or with F3E models as a motor switch for off, half and full throttle.

Rotary Proportional Control Stick
Part No. **4112***
A rotary proportional control integrated in a control stick for trim and setting functions, or as automatic an engine speed controller. It is also usable for similar special functions.

*Installation has to be made by a GRAUPNER service centre.



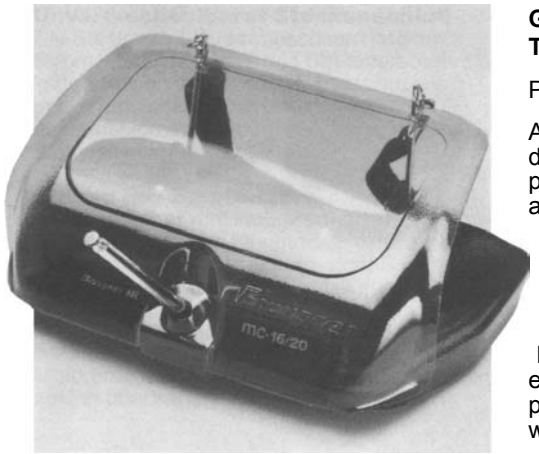
Transmitter Suspension System
Part No. **1127**

The retaining arms can be locked in the stowed and working positions. The entire transmitter upper surfaces is accessible and unhindered. It features holes for the attachment of a neck strap.

Neck Strap
Part No. **1125**

Adjustable length, 30mm wide and fitted with attachment clips.

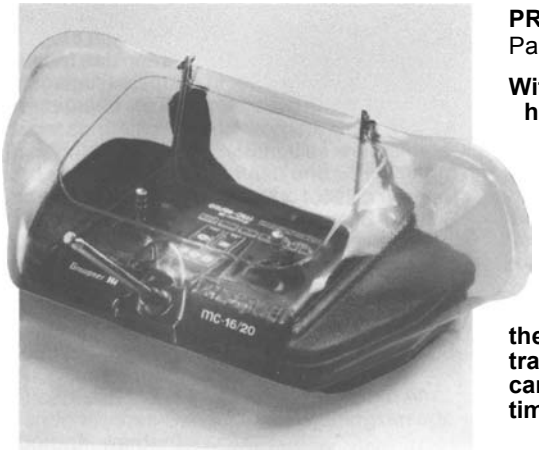
PROFI Transmitter Tray
Part No. **3082**
Wide hand rest surfaces make possible sensitive, precise steering even over extended periods.
The outer is shaped with a double bowl technology. Two user removable covers provide access to storage boxes for small articles such as crystals , other small accessories or to accommodate sunglasses etc,.



GRAUPNER for the PROFI Transmitter Tray Rain Cover

Part No. **3085** (for Transmitter Tray 3082)

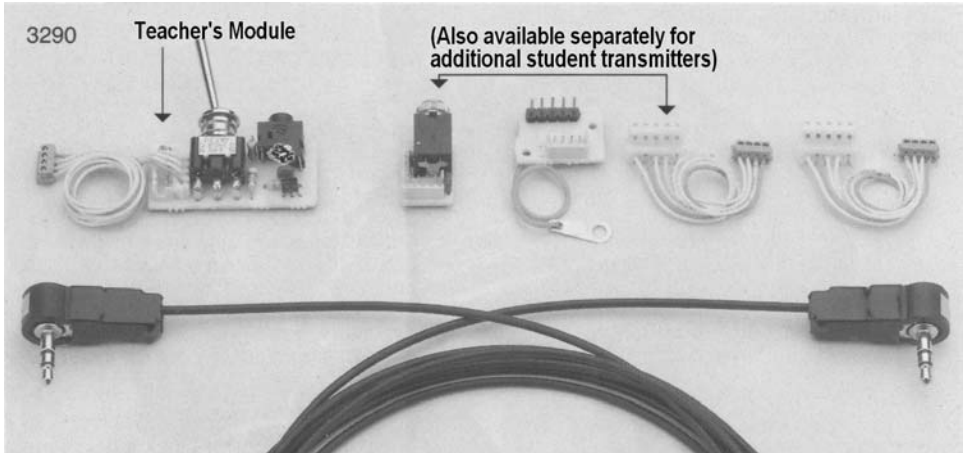
An ergonomically designed rain cover developed by an experienced competition pilot. Both the transmitter and the hands are protected from unexpected rain. Full freedom of movement, for the operation of the transmitter, is ensured.
The cover is made from high-quality, smoke coloured, transparent plastic.
To fit the rain cover it is simply pushed between the transmitter and the tray and engaged at the transmitter mounting points. It can just as simply be removed whenever required.



PROFI Transmitter Cover II
Part No. **3087** (for Transmitter Tray 3082)

With the transmitter desk Saver II, from high-quality transparent plastic, both the transmitter and the hands are protected against influences of the weather such as rains and snow. Also with low temperatures outside and an icy wind the hand protections make sensitive control possible. The transmitter tray cover is simply pushed onto the tray and engaged at the transmitter tray mounting points. Just as simply it can be also be removed again at any time.

Teach – Pupil System with Fibre-Optic Cable



Opto-electrical Teach-Pupil System with Fibre-optic cable
Part No. **3290**

The teacher and pupil transmitters may be operated only in the PPM mode.

For connection between transmitter types D 14, FM 414, FM 4014, FM 6014, FM 6014 / PCM 18, mc-14, mc-15, mc-16, mc-16/20, mc-17, mc-18 and mc-20.

With this option and operation of the integrated momentary switch allows all control functions of the teacher's transmitter to be transferred to the pupil's transmitter.

It is necessary that the pupil's transmitter contains all the same programming, mixing and coupling functions as the teacher's transmitter as this data is not transferred.

For the installation of the teacher-pupil training system in teacher transmitter, it is required to drill a further hole into the right or left facia plate using a 6 mm drill. Please you make sure that no metal debris enters the inside the transmitter – there is a **risk of short circuits!**

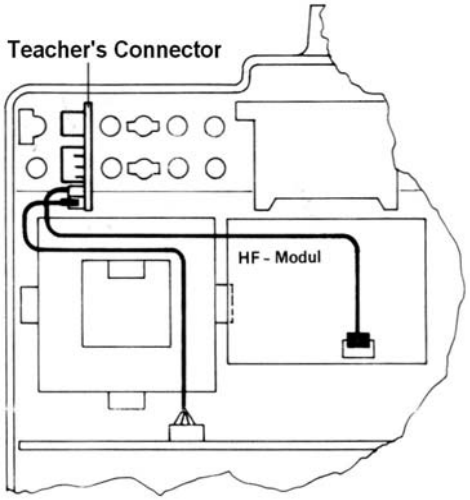
Function Notes
Switch the transmitters into PPM mode.

Plug M of the teacher-pupil cable into teacher's transmitter, and insert plug S into the pupil's transmitter. Both the teacher and pupil transmitters, must be equipped with suitable transmitter battery.
The HF radiation takes place from the teacher's transmitter and an appropriate crystal must be the installed. The pupil's transmitter needs no HF module

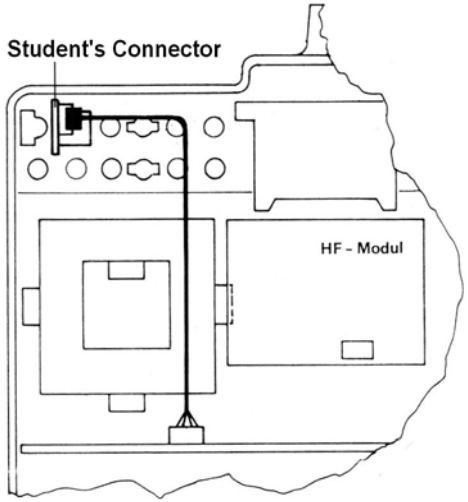
The change-over of control from teacher to pupil takes place by the teacher holding the momentary switch on his transmitter. The teacher need only release the switch to regain control of the model, resume normal flight attitude before handing control back to the pupil again.

Replacement Parts
Part No **3290.4** Fibre-optic cable for teacher-pupil system.

Module for additional pupil transmitters
Part No. 3290.3



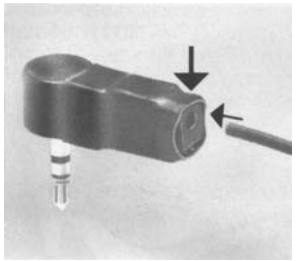
Installation in the Teacher's Transmitter
After installation of the teacher printed circuit board in teacher transmitter (board with switch and socket).
Disconnect the plug on the transmitter board from the HF Module and plug this into the socket on the teacher PCB.
Connect the lead soldered to the teacher PCB to the HF Module.



Installation in the Pupil's Transmitter
After installation of the board, unplug the HF Module lead at the transmitter board and connect the lead from the module in it's place.

Troubleshooting:

- The interface is not correctly connected to the HF Module.
- Pupil's transmitters is not switched on.
- Pupil's transmitters is not in PPM mode.
- The fibre-optic cable is damaged.
- The optical cable has worked loose from one of the sockets. In this case release the clamping device in the plug by pressing down as shown and push the fibre-optic cable back in.



Supplementary Information

Use of the Remote Control System

Treat your remote control equipment carefully to ensure that it is always reliable and ready for use.
Switch on the transmitter first, only then switch on the receiver.
Switch off the receiver first and only then switch off the transmitter.
If this sequence is not observed, i.e. the receiver is switched on first with transmitter switched off, the receiver can affected by other signals and unpredictable results can occur. The servos may jitter applying a high load to the battery and cause it to discharge quicker than expected.
If you notice the movement of the servos becoming slower, the receiver battery is discharging and it should charged or a new battery fitted.
Extended the transmitter antenna fully before commencing to fly.
In the direction the antenna points only a small field strength is generated. It is therefore wrong to point the antenna towards the model for best reception.
With simultaneous use of remote control sets on adjacent channels the pilots should stand together in a loose group.
Plots not standing in the group endanger both their and other models.

Polarised Connectors

The plugs of the servos and the power supplies are polarized can be inserted into the receiver one way round. This is achieved by one side having a bevelled edge and the receiver sockets being shaped accordingly.

Installation of Receivers

The receiver be mounted in foam rubber to protect it from impacts. It should also be fitted behind a strong frame and/or in vehicles or ship models protected from dust and water splashes.
The receiver should not be fitted directly the fuselage, chassis or hull, since otherwise engine vibrations, impacts or landing shocks will transfer directly to it.
The receiver should be installed in such a way that the antenna, servo and power leads are not under tensions or otherwise stressed.

Receiver Antenna

The receiver antenna is connected directly to the case. The length is approx. 100 cm.
The antenna should be routed as straight as possible and as far from electric motors, servos, metallic linkages or power cables.
For flying models the antenna should be routed out of the fuselage by the shortest possible route and attached to the vertical fin (you should use some strain relief!).
If the antenna should be longer than the distance to the vertical fin, let it continue as trailing antenna or route it to the wing tip edge of the horizontal stabilise. Each such bend in the antenna brings a loss of range.
With ships the position of the receiver should be such that the receiver and the antenna as far from drive electric motors, power cables and metal parts.
A blade antenna with a free length or 80 – 100 cm is preferred for ship models over every other antenna type.
With model cars, blade antennas work satisfactorily. Here shortened antennas can be used as the operating range is relatively short.

Power Supply

The power supply for the receiver comes from a rechargeable NiCd 4.8V battery (see page 5 or the main GRAUPNER catalogue). The battery should be wrapped in foam and securely mounted to a strong frame. The cables should be loosely routed making sure that they remain so during any movement of the battery.
The battery can be connected directly to the receiver or by a switch harness.

Examination before Starting

You should check for correct function and range before each use. Switch on the transmitter then the receiver. Remove the transmitter antenna. Check at an appropriate distance from the model that all the controls function perfectly and move in the correct direction.
This check should also be done motor running (an assistant can hold the model.

Installation of Control Linkages

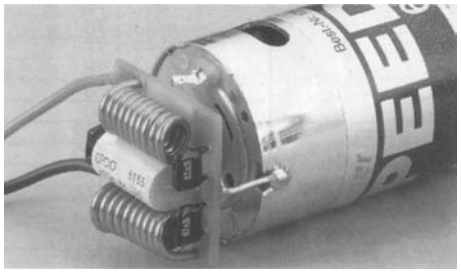
The installation should be done so that the linkages run freely and are low-friction. Linkages and controls that are difficult to operate absorb battery power, reduce the actual working time and unfavourably affect the control position accuracy.
Particularly important is that all control horns can move through their full travel and are not mechanically limited. Taking account of these criteria, the linkages and hinges in the model should be checked. Of particular importance is the motor throttle linkage. The "full power" position must be determined by the stick position and definitely not by the mechanical limits of carburettor. As the model maybe at full throttle for considerable periods the additional drain of a stalled servo would discharge the battery faster than expected. Likewise the idle setting must be achieved by the stick position and not mechanically by limits of the carburettor.

Suppression of Electric Motors

Even high quality electric motors produce sparks at the interface between the brushes and the commutator. Depending on the electric motor, these sparks can cause interference with the radio signal. Therefore, in models with electric drive, the motor must be carefully suppressed. Radio noise filter suppressors reduce these malfunctions to a great extent and are allow the radio system to operate normally. Radio noise filters are to be installed as close as possible to the motor (see figure). Each electric motor should be fitted with it's own radio noise filter. When using suppression filters consideration should be made of the manual of the respective electric motor. Interference suppression should be checked before use of the model, to ensure sufficient range between transmitter and receiver is available.

Suppression Filter

Part No. **3361** 18A
Part No. **3362** 36A
Pre-built Units. Simply soldered between the electric motor and the power cables (see figure). The range of the remote control system is better when using optimal interference suppression and the safety of operation of the model is increased.
The filter absorbs the noise spikes created by electric motors and therefore protects electronic speed controllers.
Electric RC car models with mechanical speed controllers have only basic filtering from the factory. When subsequently fitting an electronic speed controller the motor must then be adequately suppressed.



Servo Extension Lead Suppression.

Part No. **1040**
A servo lead suppression is needed when using long servo leads as the filters in the receiver are insufficient. A filter should be fitted next to the receiver. In critical cases a second filter at the servo can be fitted.
Length approx. 200 mm, weight approx. 3g

Servo Plug

Servo plugs are removed from the receiver socket by pulling about 5-10 cm away from the plug inline with the pin connections.

Battery Capacity & Period of Use

This applies to all battery source: At low temperatures the capacity decreases considerably, therefore the periods of use in cold weather are shorter. The available battery power must be checked more frequently.

Quartz Crystals, Frequency Pennants

Frequency Band	Permitted uses	Channel No.	Transmitter Frequency MHz	FMsss-Quarze Transmitter Part No.	FMsss-Quarze Receiver Part No.	Präzisions-Quarze Transmitter Part No.	Präzisions-Quarze Receiver Part No.	DS Doppelsuper-Quarze Part No.	Flagge Part No.	Permitted in these Countries (without guarantee) D	B	A	DK	F	I	L	N	NL	S	CH
35 MHz-Band **Band A**	FE (nur für Flugmodelle zugelassen)	61	35,010	**3864.61**	**3865.61**	**3264.61**	**3265.61**	**3270.61**	**35.61**											
		62	35,020	**.62**	**.62**	**.62**	**.62**	**.62**	**.62**											
		63	35,030	**.63**	**.63**	**.63**	**.63**	**.63**	**.63**											
		64	35,040	**.64**	**.64**	**.64**	**.64**	**.64**	**.64**											
		65	35,050	**.65**	**.65**	**.65**	**.65**	**.65**	**.65**											
		66	35,060	**.66**	**.66**	**.66**	**.66**	**.66**	**.66**											
		67	35,070	**.67**	**.67**	**.67**	**.67**	**.67**	**.67**											
		68	35,080	**.68**	**.68**	**.68**	**.68**	**.68**	**.68**											
		69	35,090	**.69**	**.69**	**.69**	**.69**	**.69**	**.69**											
		70	35,100	**.70**	**.70**	**.70**	**.70**	**.70**	**.70**											
		71	35,110	**.71**	**.71**	**.71**	**.71**	**.71**	**.71**											
		72	35,120	**.72**	**.72**	**.72**	**.72**	**.72**	**.72**											
		73	35,130	**.73**	**.73**	**.73**	**.73**	**.73**	**.73**											
		74	35,140	**.74**	**.74**	**.74**	**.74**	**.74**	**.74**											
		75	35,150	**.75**	**.75**	**.75**	**.75**	**.75**	**.75**											
		76	35,160	**.76**	**.76**	**.76**	**.76**	**.76**	**.76**											
		77	35,170	**.77**	**.77**	**.77**	**.77**	**.77**	**.77**											
		78	35,180	**.78**	**.78**	**.78**	**.78**	**.78**	**.78**											
		79	35,190	**.79**	**.79**	**.79**	**.79**	**.79**	**.79**											
		80	35,200	**.80**	**.80**	**.80**	**.80**	**.80**	**.80**											
Band B Nur für Geräte, die für das Band B zugelassen sind. Nachstimmen bisheriger Geräte über den Service.	(nur für Flugmodelle zugelassen)	182	35,820	**.182**	**.182**	**.182**	**.182**	**.182**	**.182**											
		183	35,830	**.183**	**.183**	**.183**	**.183**	**.183**	**.183**											
		184	35,840	**.184**	**.184**	**.184**	**.184**	**.184**	**.184**											
		185	35,850	**.185**	**.185**	**.185**	**.185**	**.185**	**.185**											
		186	35,860	**.186**	**.186**	**.186**	**.186**	**.186**	**.186**											
		187	35,870	**.187**	**.187**	**.187**	**.187**	**.187**	**.187**											
		188	35,880	**.188**	**.188**	**.188**	**.188**	**.188**	**.188**											
		189	35,890	**.189**	**.189**	**.189**	**.189**	**.189**	**.189**											
		190	35,900	**.190**	**.190**	**.190**	**.190**	**.190**	**.190**											
		191	35,910	**.191**	**.191**	**.191**	**.191**	**.191**	**.191**											
40 MHz-Band	MF	50	40,665	**4064.50**	**4065.50**			**3240.50**	**40.50**											
		51	40,675	**.51**	**.51**			**.51**	**.51**											
		52	40,685	**.52**	**.52**			**.52**	**.52**											
		53	40,695	**.53**	**.53**			**.53**	**.53**											
	Nur für Schiffs- und Automodelle zugelassen	54	40,715	**.54**	**.54**			**.54**	**.54**											
		55	40,725	**.55**	**.55**			**.55**	**.55**											
		56	40,735	**.56**	**.56**			**.56**	**.56**											
		57	40,765	**.57**	**.57**			**.57**	**.57**											
		58	40,775	**.58**	**.58**			**.58**	**.58**											
		59	40,785	**.59**	**.59**			**.59**	**.59**											
		81	40,815	**.81**	**.81**			**.81**	**.81**											
		82	40,825	**.82**	**.82**			**.82**	**.82**											
		83	40,835	**.83**	**.83**			**.83**	**.83**											
		84	40,865	**.84**	**.84**			**.84**	**.84**											
		85	40,875	**.85**	**.85**			**.85**	**.85**											
		86	40,885	**.86**	**.86**			**.86**	**.86**											
		87	40,915	**.87**	**.87**			**.87**	**.87**											
		88	40,925	**.88**	**.88**			**.88**	**.88**											
		89	40,935	**.89**	**.89**			**.89**	**.89**											
		90	40,965	**.90**	**.90**			**.90**	**.90**											
		91	40,975	**.91**	**.91**			**.91**	**.91**											
		92	40,985	**.92**	**.92**			**.92**	**.92**											

Technical Data

Technical Data – Computer Transmitter **mc**-16/20	
Transmission System	FM/FMsss switchable to PCM with single chip micro computer system
HF System	Changeable module for 10 kHz channel spacing 35 or 40 MHz frequency
Quartz FMsss Crystals	35 MHz band, channels 61 – 80 and 182 to 191 40 MHz band, channels 50 – 59 and 81 to 92
Channel Spacing	10 kHz
Control Channel max.	16
Control Channel Basic	8 channel proportional, all electronic trims
Channel Expansion	8 channel proportional or switched
Channel Signal Timing	1.5 ms ± 0.5 ms, including trims
Control Signal Steps	512 step with single chip micro computer system
Antenna	Telescopic, 10 section, approx. 1470 mm long
Battery Voltage	9.6 to 12V
Current Drain, ca.	75mA (without HF module)
Weight with Battery, ca.	1000 g
Dimensions, ca.	215 x 192 x 75 mm

Technical Data – HF Transmitter Module	
Part No. – HF Module	4824.35 for 35 MHz band 4824.40 for 40 MHz band
Emission Classes	F1D, F3D
Power requirement with basic equipment	2W
Channel Spacing	10 kHz
Battery Voltage	9.6 to 12V
Current Drain, ca.	150mA
Temperature Range	–15 to +55°C
Dimensions, ca.	65 x 47 x 55 mm
Weight, ca.	35 g

Receiver Type	C 12 FM 12 Ch SUPERHET	C 16 FM 16 Ch SUPERHET	C 18 FM 18 Ch SUPERHET	C 19 FM 19 Ch SUPERHET	**mc**-18 18 Ch PCM	**mc**-20 20 Ch PCM	DS 18 FM 18 Ch PPM	DS 20 **mc** 20 Ch PCM
Receiver for 35 MHz band for 40 MHz band	Part No. 3175 Part No. 4075	Part No. 3867 Part No. 4067	Part No. 3868 Part No. 3869	Part No. 3179 Part No. 4074	Part No. 3171 Part No. 4071	Part No. 3176 Part No. 4076	Part No. 3220 Part No. 4041	Part No. 3222 Part No. 4042
Battery Voltage	4.8 – 6V	4.8 – 6V	4.8 – 6V	4.8 – 6V	4.8 – 6V	4.8 – 6V	4.8 – 6V	4.8 – 6V
Current Drain, ca.	10 mA	10 mA	10 mA	12 mA	19 mA	17 mA	35 mA	19 mA
Channel Spacing	10 kHz	10 kHz	10 kHz	10 kHz	10 kHz	10 kHz	10 kHz	10 kHz
Sensitivity, ca.	10µV	10µV	10µV	10µV	10µV	10µV	5µV	5µV
Servos outputs	6	8	9	9	9	10	9	10
Temperature Range, ca.	–15 to +55°C	–15 to +55°C	–15 to +55°C	–15 to +55°C	–15 to +55°C	–15 to +55°C	–15 to +55°C	–15 to +55°C
Antenna Length, ca. (mm)	1000	1000	1000	1000	1000	1000	1000	1000
Dimensions, ca. (mm)	53 x 36 x 15	62 x 36 x 21	51 x 36 x 21	51 x 36 x 16	51 x 36 x 21	53 x 38 x 21	53 x 38 x 21	53 x 38 x 21
Weight, ca. (g)	29	45	45	35	38	45	45	45

General Permissions

Transmitter and Receiver for the 27 and 40 MHz bands are registered and can be used without charge.

General permission for a Radio concerning the remote control of models

(Version dated 15.4.1987)

1. Establishing and operating radio communication systems for remote control flight , ships and other vehicle models for sport purposes with a Federal Post Office permission character and the additional marking "MF" or a Federal Post Office certification number (FTZ-Series test number) of the identification letter row "MF..." is hereby generally approved on 27.6.1966 due to §§ the 1 and 2 of the law over telecommunication installations in the version of the proclamation on 17.3.1977, changed by the law, for the area of application of this law.

2. For this permission, following conditions apply:

a) the radio communication systems for the remote control of models must carry a Federal Post Office permission character valid and intended for this device type and the additional "MF" marking or a Federal Post Office certification number (FTZ-Series test number) for the identification letter row "MF..." and

b) may only be equipped for those following specified frequencies:

(Frequency "First Choice")

13.560 MHz	40.665 MHz
26.995 MHz	40.675 MHz
27.045 MHz	40.685 MHz
27.095 MHz	40.695 MHz
27.145 MHz	
27.195 MHz	
27.255 MHz	

or

(Frequency "Second Choice")

27.005 MHz	40.715 MHz 1)
27.015 MHz	40.725 MHz
27.025 MHz	40.735 MHz
27.035 MHz	40.765 MHz
27.055 MHz	40.775 MHz
27.065 MHz	40.785 MHz
27.075 MHz	40.815 MHz
27.085 MHz	40.825 MHz
27.105 MHz	40.835 MHz
27.115 MHz	40.865 MHz
27.125 MHz	40.875 MHz
27.135 MHz	40.885 MHz
	40.915 MHz
	40.925 MHz
	40.935 MHz
	40.965 MHz
	40.975 MHz
	40.985 MHz 1)

c) Other telecommunication installations, which serve public purposes, and radio communication systems, those on frequencies outside of the frequency ranges

13.553 – 13.567 MHz
26.957 – 27.283 MHz
40.66 – 41.00 MHz

Maybe operated but not distributed.

d) Radio communication systems for the remote control of models may not be changed electrically and/or mechanically.

e) Connecting of a radio communication system for the remote control of models with other telecommunication installations is inadmissible.

3. Pertinent traffic instructions, liability instructions and-accident prevention instructions for remote-controlled models remain unchanged.

4. Terms of the permission. This "general permission" is given under the following terms, the component of permission are:

a) The aforementioned operating frequencies are for the joint use of high frequency devices and radio communication systems of different kinds! The owner of a radio communication system and the owner of permission do not therefore enjoy, for its radio communication system for the remote control of models, any protection from disturbances by high frequency devices, by other radio communication systems, which are operated in the frequency ranges mentioned, or by other radio communication systems, which are duly operated.

b) All parts of the radio communication system are to be kept in the correct working condition. Failures are to be eliminated immediately.

c) For the examination of the equipment, which is contained within this permission, for the use to be held ready or operated, the owner and owner of this permission have approved the Federal Post Office to enter properties and/or areas, on and/or in which radio communication systems for the remote control of models are, to permit at the normal business hours or to obtain this power. The nominated officer of the Federal Post Office thereby can request information to be given about these equipments.

d) Nominees of the Federal Post Office and Police can demand an inspection of the radio communication systems, falling under this general permission, be permitted

e) The owner of such a radio communication system and owner of this permission are obligated to follow each change or addition of permission immediately and to bear any necessary costs.

f) The Request of the Federal Post Office to cease use of a set of radio communication system for the remote control of models must be followed by the owner and owner of this permission without delay. If it requires, the Federal Post Office, can remove the radio communication system, or parts from it is, to be kept under closer supervision during the suspension of service arranged.

g) If this permission expires, then the arrangement over the removal of the radio communication system of the Federal Post Office is to be obeyed.

5. This "general permission" can be rescinded altogether or, for individual radio communication systems for the remote control of models, also for an individual user by the responsible local regional directorate.

A revocation is permissible in particular if the terms of the permission are not kept. Instead of recalling a permission, the Federal Post Office can arrange that due to offences against the terms the radio communication systems are to be put out of operation. Only on adherence to the terms again may operation be allowed.

The Federal Post Office can supplement or change the conditions and terms of this permission at any time.

1) The frequencies between 40,700 MHz and 41,000 MHz may not be used for flight models.

Auxiliary information for manufacturers, trading companies, salesmen and purchasers

1. Radio communication systems for the remote control of models do not require detailed special permission, if the individual equipment is recognizable and entitlement proven by a Federal Post Office permission character and the additional marking "MF" and/or a Federal Post Office certification number (FTZ-series test number) to the identification letter row "MF..." carries. Permission fees are not raised.

2. Only on radio communication systems for the remote control of models which comply with the central office for permissions in the telecommunication system and/or are examined and certified electrical and mechanical designs by the telecommunication technically engineering central office may carry the Federal Post Office permission character with the additional marking "MF" and/or a Federal Post Office certification number (FTZ–series test number) of the identification letter row "MF..." assigned on their case.

3. A Federal Post Office permission character and the additional marking "MF" can only be assigned to a company if a design of this series is presented to the central office for telecommunication system approvals, 6600 Saarbrucken, for examination, and the examination demonstrates that the design corresponds to the appropriate technical regulations (FTZ guideline 17 R 2012) for radio communication systems for the remote control of models.

The applicant must commit themselves, in relation to the Federal Post Office, to

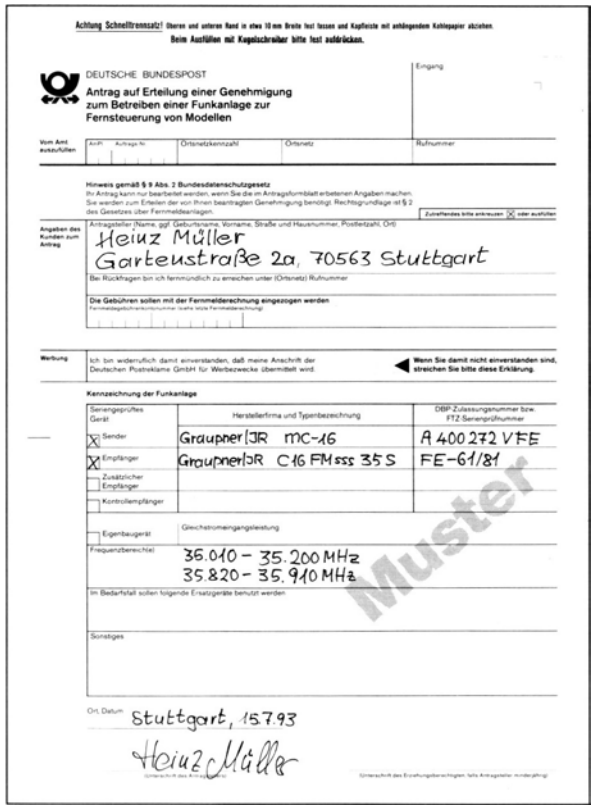
a) That only such examined and certified designs that comply (electrically and mechanically) are marked with the assigned Federal Post Office permission character and the additional marking "MF".

b) To attach to all equipment which can be brought under this Federal Post Office permission character in traffic, a reproduction of this "general permission".

4. It is recommended to the purchaser of a radio communication system, for the remote control of models, to request in his own interest a reproduction of this "general permission" from the salesman or previous owner of the equipment.

Sample licence request form for transmitters and receivers in the 35 MHz Band

You are responsible for registering transmitters and receivers for the 35-MHz-Band at the telecommunication office of the Federal Post Office. The fee for an operating permit that is valid for 10 years permit is currently DM 50. The request form is attached to the transmitter.



Achtung Schnelltrennsatz! Oberen und unteren Rand in etwa 10 mm Breite fest lassen und Kopfleiste mit anhängendem Kohlepapier abziehen.
Beim Ausfüllen mit Kugelschreiber bitte fest aufdrücken.

DEUTSCHE BUNDESPOST

Antrag auf Erteilung einer Genehmigung zum Betreiben einer Funkanlage zur Fernsteuerung von Modellen

Eingang

Vom Amt auszufüllen | Amt | Antrags-Nr. | Ortsnetzkennzahl | Ortsnetz | Rufnummer

Hinweis gemäß § 9 Abs. 2 Bundesdatenschutzgesetz
Ihr Antrag kann nur bearbeitet werden, wenn Sie die im Antragsformblatt erbetenen Angaben machen. Sie werden zum Erteilen der von Ihnen beantragten Genehmigung benötigt. Rechtsgrundlage ist § 2 des Gesetzes über Fernmeldeanlagen.

Zutreffendes bitte ankreuzen X oder ausfüllen

Angaben des Kunden zum Antrag

Antragsteller (Name, ggf. Geburtsname, Vorname, Straße und Hausnummer, Postleitzahl, Ort)

Heinz Müller
Gartenstraße 2a, 70563 Stuttgart

Bei Rückfragen bin ich fernmündlich zu erreichen unter (Ortsnetz) Rufnummer

Die Gebühren sollen mit der Fernmelderechnung eingezogen werden
Fernmeldegebührenkontonummer (siehe letzte Fernmelderechnung)

Werbung

Ich bin widerruflich damit einverstanden, daß meine Anschrift der Deutschen Postreklame GmbH für Werbezwecke übermittelt wird.

Wenn Sie damit nicht einverstanden sind, streichen Sie bitte diese Erklärung.

Kennzeichnung der Funkanlage

Seriengeprüftes Gerät	Herstellerfirma und Typenbezeichnung	DBP-Zulassungsnummer bzw. FTZ-Serienprüfnummer
X Sender	Graupner JR MC-16	A 400 272 VFE
X Empfänger	Graupner JR C16 FM sss 35 S	FE-61/81
Zusätzlicher Empfänger		
Kontrollempfänger		
Eigenbaugerät	Gleichstromeingangsleistung	
Frequenzbereich(e)	36.010 – 35.200 MHz 35.820 – 35.910 MHz	

Im Bedarfsfall sollen folgende Ersatzgeräte benutzt werden

Sonstiges

Muster

Ort, Datum: Stuttgart, 15.7.93

Heinz Müller
Unterschrift des Antragstellers

Unterschrift des Erziehungsberechtigten, falls Antragsteller minderjährig

Customer Approvals
for Transmitter mc-16/20

35 MHz

GRAUPNER / JR mc-16

Approval Number
A 400272 V FE

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: A400272V

Zus. Kennzeichen: FE

Objektbezeichnung: Graupner/JR mc 16

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Flug-Modellen

Die Zulassungsurkunde mit Ausstellungsdatum 18. Juli 1989 wird hiermit ungültig.

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Saarbrücken, den 13.01.93

Im Auftrag

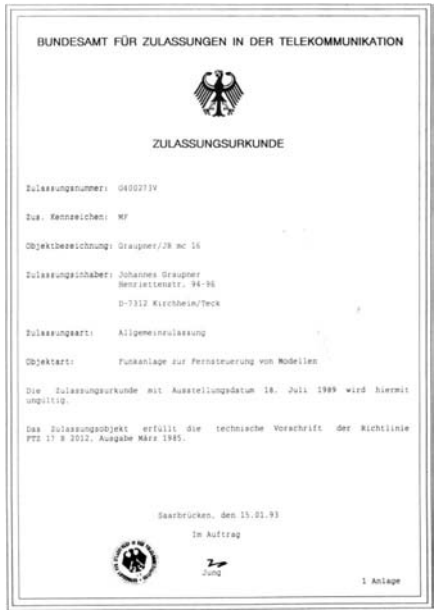
Jung

1 Anlage

40 MHz

GRAUPNER / JR mc-16

Approval Number
G 400273 V MF



BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: G400273V

Zus. Kennzeichen: MF

Objektbezeichnung: Graupner/JR mc 16

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Modellen

Die Zulassungsurkunde mit Ausstellungsdatum 18. Juli 1989 wird hiermit ungültig.

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Saarbrücken, den 15.01.93

Im Auftrag

Jung

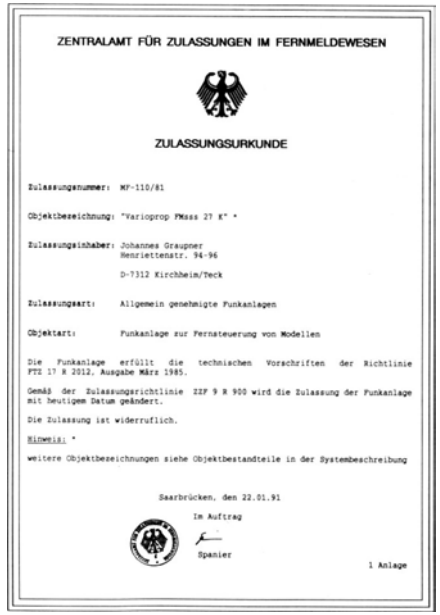
1 Anlage

for FM and PCM Receivers

35 MHz

C 16 FMsss 35 S
C 18 FMsss 35 S
mc-18 35 S
mc-20 35 S

Approval Number
FE-61/81



ZENTRALAMT FÜR ZULASSUNGEN IM FERNMELDEWESEN

ZULASSUNGSURKUNDE

Zulassungsnummer: MF-110/81

Objektbezeichnung: "Varioprop FMsss 27 K" *

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemein genehmigte Funkanlagen

Objektart: Funkanlage zur Fernsteuerung von Modellen

Die Funkanlage erfüllt die technischen Vorschriften der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Gemäß der Zulassungsrichtlinie ZZF 9 R 900 wird die Zulassung der Funkanlage mit heutigem Datum geändert.

Die Zulassung ist widerruflich.

Hinweis: *

weitere Objektbezeichnungen siehe Objektbestandteile in der Systembeschreibung

Saarbrücken, den 22.01.91

Im Auftrag

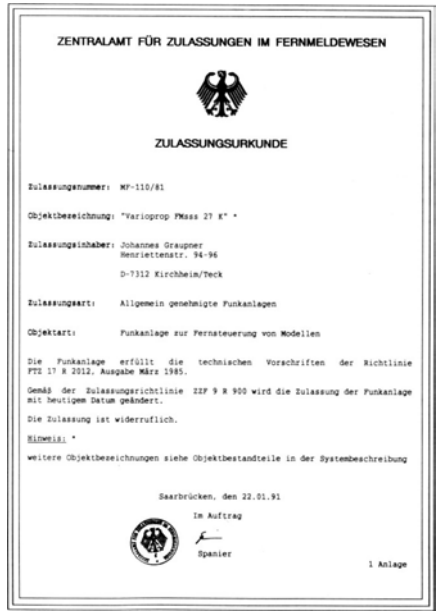
Spanier

1 Anlage

40 MHz

C 16 FMsss 40 S
C 18 FMsss 40 S
mc-18 40 S
mc-20 40 S

Approval Number
MF-110/81



ZENTRALAMT FÜR ZULASSUNGEN IM FERNMELDEWESEN

ZULASSUNGSURKUNDE

Zulassungsnummer: MF-110/81

Objektbezeichnung: "Varioprop FMsss 27 K" *

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemein genehmigte Funkanlagen

Objektart: Funkanlage zur Fernsteuerung von Modellen

Die Funkanlage erfüllt die technischen Vorschriften der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Gemäß der Zulassungsrichtlinie ZZF 9 R 900 wird die Zulassung der Funkanlage mit heutigem Datum geändert.

Die Zulassung ist widerruflich.

Hinweis: *

weitere Objektbezeichnungen siehe Objektbestandteile in der Systembeschreibung

Saarbrücken, den 22.01.91

Im Auftrag

Spanier

1 Anlage

Customer Approvals for FM Receivers

35 MHz

C 12 FM 35 S

Approval Number
A 012804 B FE

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: A0128048

Zus. Kennzeichen: FE

Objektbezeichnung: "C 12 FM 35 S"

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Flug-Modellen

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Die Zulassungsurkunde mit Ausstellungsdatum 04.06.1991 wird hiermit ungültig.

Saarbrücken, den 17.12.92

Im Auftrag

Jung

1 Anlage

40 MHz

C 12 FM 35 S

Approval Number
G 012803 B MF

ZENTRALAMT FÜR ZULASSUNGEN IM FERNMELDEWESEN

ZULASSUNGSURKUNDE

Zulassungsnummer: G0128038

Zus. Kennzeichen: MF

Objektbezeichnung: C 12 FM 40 S, C 12 FM 27 S,

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemein genehmigte Funkanlagen

Objektart: Funkanlage zur Fernsteuerung von Modellen

Die Funkanlage erfüllt die technischen Vorschriften der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Gemäß der Zulassungsrichtlinie ZZF 9 R 900 wird die Funkanlage mit Wirkung vom 04. Juni 1991 zugelassen.

Die Zulassung ist widerruflich.

Saarbrücken, den 11.02.92

Im Auftrag

Jung

1 Anlage

35 MHz

C 19 FM 35 S

Approval Number
A 106898 D FE

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: A106898D

Zus. Kennzeichen: FE

Objektbezeichnung: C 19 FM 35 S

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Flug-Modellen

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Saarbrücken, den 21.05.93

Im Auftrag

Jung

1 Anlage

40 MHz

C 19 FM 40 S

Approval Number
G 106897 D MF

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: G1068970

Zus. Kennzeichen: MF

Objektbezeichnung: C 19 FM 40 S

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Modellen

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Saarbrücken, den 21.05.93

Im Auftrag

Jung

1 Anlage

Customer Approvals
for PCM Receivers and Dual-Conversion Superhet

35 MHz

mc-12 PCM 35 S

Approval Number
A 103692 C FE

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: A103692C

Zus. Kennzeichen: FE

Objektbezeichnung: mc-12 PCM 35 S

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Flug-Modellen

Saarbrücken, den 14.07.92

Im Auftrag

Jung

1 Anlage

35 MHz

DS 18 FM 35
DS 20 mc-35

Approval Number
A 400090 A FE

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: A400090A

Zus. Kennzeichen: FE

Objektbezeichnung: "DS 20 mc-35" oder "DS 18 FM 35 MHz"

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemeinzulassung

Objektart: Funkanlage zur Fernsteuerung von Flug-Modellen

Das Zulassungsobjekt erfüllt die technische Vorschrift der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Die Zulassungsurkunde mit Ausstellungsdatum 03.07.1991 wird hiermit ungültig.

Saarbrücken, den 17.12.92

Im Auftrag

Jung

1 Anlage

40 MHz

mc-12 PCM 40 S

Approval Number
G 103691 C MF

BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

ZULASSUNGSURKUNDE

Zulassungsnummer: G103691C

Zus. Kennzeichen: MF

Objektbezeichnung: mc-12 PCM 40 S

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemein genehmigte Funkanlagen

Objektart: Funkanlage zur Fernsteuerung von Modellen

Saarbrücken, den 14.07.92

Im Auftrag

Jung

1 Anlage

40 MHz

DS 18 FM 40
DS 20 mc-40

Approval Number
G 400091 A MF

ZENTRALAMT FÜR ZULASSUNGEN IM FERNMELDEWESEN

ZULASSUNGSURKUNDE

Zulassungsnummer: G400091A

Zus. Kennzeichen: MF

Objektbezeichnung: "DS 20 mc-40" oder "DS 18 FM 40 MHz"

Zulassungsinhaber: Johannes Graupner
Henriettenstr. 94-96
D-7312 Kirchheim/Teck

Zulassungsart: Allgemein genehmigte Funkanlagen

Objektart: Funkanlage zur Fernsteuerung von Modellen

Die Funkanlage erfüllt die technischen Vorschriften der Richtlinie FTZ 17 R 2012, Ausgabe März 1985.

Gemäß der Zulassungsrichtlinie 22F 9 R 900 wird die Zulassung der Funkanlage mit heutigem Datum geändert.

Die Zulassung ist widerruflich.

Saarbrücken, den 03.07.91

Im Auftrag

Spanier

1 Anlage

JOHNANNES GRAUPNER
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GERMANY

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