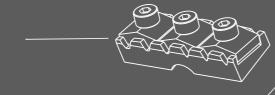
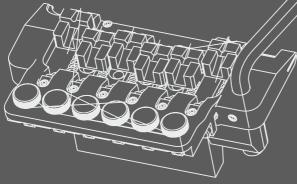
Fine-Tuning Tremolo

Katana
5400
New Version 2023





**Tremolution** 



Guide



*5400* 

## SAFETY INSTRUCTIONS





If you are insecure about your technical skills for woodwork and montage, please take advice by an expert guitar technician or luthier to prevent damaging the guitar or your health!

#### **SAFETY INSTRUCTIONS:**

- String ends are really sharp! Please take care about your health and your guitar!
- A cloth or sheet between strings and guitar body protects the lacquer while changing strings or maintenance!
- A pair of nippers belong to each guitar case! Do not use scissors for cutting a guitar string!
- Protect your finger tips of open string ends!
- Make sure that the open end of a guitar string does not get close to your eyes, while cutting strings or maintenance. We recommend to use to safe glasses to protect your eyesight!
- To prevent sudden string break, do not use the machine heads of the head plate when the lock screws of the lock nut are tightened!
- Please tighten all string lock screws softly for a long life. After the first resistance while screwing a "10 minutes turn" clockwise is enough!
- If you suffer from a nickel allergy, we recommend to use a tremolo without a metallic surface.
   The 5400 tremolo is chrome plated with a very resistant surface. This, however, carries a nickel primer coat, which can be brought to light by aggressive hand welding and abrasion.

This especially applies to the purchase of aged hardware, whose final protective chrome layer has been broken in favor of an "used look" and thus the contact to the nickel signature is given. Just contact us so we can offer you a tremolo without surface refinement.

- Spare Parts: All parts of the ABM 5400 tremolo are exchangable, like the knife edge or the tremolo arm socket. Please ask our service for course of action before you remove parts! Maybe special tools are required (knife edge).



This symbol, wherever it appears, alerts you to important operation and maintenance instructions in the accompanying literature. Read the manual and the safety instructions before mounting and operating the tremolo!



# Guide

### INTRODUCTION



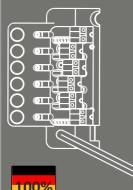
You are welcome to enjoy the ABM 5400 Tremolo.

Learn more about this great product and its benefits.

If you have further questions or suggestions please contact us by email: info@abm-guitarparts.de

We wish you a pleasant time reading!

### ABM 5400 ADVANTAGES



- Singing harmonics & increasing sustain caused by the ABM "One Block" design and "Saddle Lock"
- No more string break by "Flat String Lock"
- Individual saddle height adjustment
- Comfortable Intonation setting by screwdriver
- Full 4 semitones up bending
- Plug & Play tremolo arm with adjustable socket
- Convertible knife-edge made of hardened steel
- All components are milled from solid Bell Brass & Steel
- All parts are exchangable & directly available at ABM

100%

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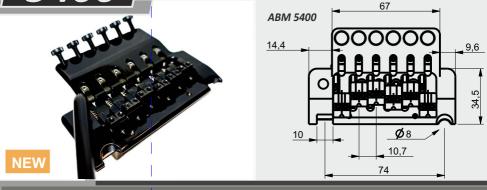


- SAFETY INSTRUCTIONS Page 2
- Page 3 INTRODUCTION
- Page 4 **OVERVIEW ABM 5400**
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- Page 6 **OVERVIEW ABM 7050-R3**
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# 5400 TREMOLUTION

### ABM



Type:

Fine-Tuning-Tremolo, compatible to "Floyd Rose Original" dimensions.\*/\*\*

Any kind of neck radius can be used by independent saddle height adjustment!

String-Spacing:

10,7mm / overall 53,50mm

Stud-Spacing:

74mm to 74,5mm

Studs:

Fine threaded metric M7x0,75m Stud with 25,50mm length

Bushings M7x 0,75mm Thread, outline diameter 10mm, length 20,75mm

Finishes:

c= Chrome, b= Black-Chrome, g = Gold

Tremolo-Block:

ABM5400 comes with a 37mm steel block to arrange a wide compatibility.

Packing Unit:

Tremolo, pair of posts & anchors, tremolo arm, 5 high tension tremolo springs, one spring claw with mounting screws, 2 hex keys. Please note that the locking nut is not included. Please choose model 7050-R2 or 7050-R3.

Accessories:

Blocks: 32mm height: TBblock5400-32 St (Steel), TBblock5400-32 (Brass), 42mm heigth: TBblock5400-32 St (Steel), TBblock5400-32 (Brass).

Nuts: 7050-R2 locking nut Stratocaster Style, (Brass), 41,3mm, 10" Radius 7050-R2 locking nut Les Paul style, (Brass), 42,8mm wide, 10" Radius

\*\*Important Note:

The ABM 5400 Tremolo is directly compatible to the "Floyd Rose Original" routing diagram which represents the needed cutouts of the guitar body including the spring cavity ( for a standard guitar body depth of 44,45mm). Beside the standard guitar body depth you may need a different block height (32 or 42mm). The standard block height of ABM 5400 is

<sup>\*</sup> We hereby declare that ABM Guitar Parts have no relationships with Floyd D.Rose, or the companies and trademarks like Floyd Rose, Schaller or Fender.

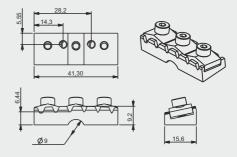


# 7050-R2

## DURABLE & SONIC EXPERIENCE







**NEW** 

ABM 7050-R2

Type/Radius:

Locking-Nut, compatible to SCHALLER\* R2 outline dimensions
ABM Lock-Nuts are milled from Bell Brass, not from weak diecast!
Advantages: Great tone and long lasting action without rust.

Radius:

9,5" = 241,30mm

Width:

1,58" = 41,30mm

Truss Rod Cavity:

Yes, compatible to "FENDER\* Bullet" truss rod nuts too.

Finishes:

Chrome, Black-Chrome

**Packing Unit:** 

Two M4 threaded mounting screws, two mounting woodscrews,

S3 and S2,5 Hex keys.

Accessories:

SRB1, String Retainer Bar, for guitars with a low headstock angle, Length 1-7/8" = 47,67mm, Screw-Spacing 1-1/8" = 28,58mm

Hints:

We recommend to tigthten the string lock screws softly for a long life. Please imagine a clock face. A "10 minutes turn" clockwise is enough. You may also damage the strings with too much torque.

Mounting: We recommend to use the metric screws for clamping the nut to the neck perfectly. If you just use the woodscrews from above we recommend to glue the nut body in place additionally.

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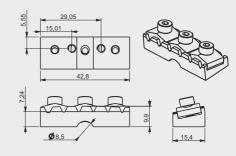


## 7050-R3

### DURABLE & SONIC EXPERIENCE







NEW

ABM 7050-R3

Type/Radius:

Locking-Nut, compatible to SCHALLER\* R3 outiline dimensions
ABM Lock-Nuts are milled from Bell Brass, not from weak diecast!
Advantages: Great tone and long lasting action without rust.

Radius:

12,0" = 304,80mm

Width:

1-11/16" = 42,80mm (rounded dimension, wider Neck Types)

Truss Rod Cavity:

Yes, compatible to "FENDER Bullet" truss rod nut too.

Finishes:

Chrome, Black-Chrome

**Packing Unit:** 

Accessories:

Two M4 threaded Mounting Screws, two Mounting-Woodscrews, S3 and S2,5 Hex Keys.

SRB1, String Retainer Bar, for guitars with a low headstock angle, Length 1-7/8" = 47,67mm, Screw-Spacing 1-1/8" = 28,58mm

Hints:

We recommend to tigthten the string lock screws softly for a long life! Please imagine a clock face. A "10 minutes turn" clockwise is enough.

Mounting: We recommend to use the metric screws for clamping the nut to the neck perfectly. If you just use the woodscrews from above we recommend to glue the nut body in place additionally.

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# *5400*

### **PLAYING & TUNING**

**ABM** 

For a better understanding we assigned the single components to functional groups like a traffic light. Please read the safety

Green: Parts could be used while playing or tuning Yellow: Parts are used for string replacement

Red: Parts are used for saddle settings



### PLAYING/TUNING

Plug In the tremolo arm 14. You can adjust its mobility by the adjustment screw 15. For guitar tuning please use the tuner knobs 1.

If the tuner knob's tuning range is used up, please untighten the string lock screw of the lock nut 20.

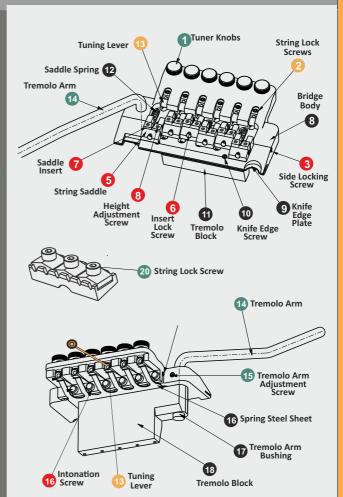
Please turn the tuner knob 1 upwards to an upper position to get enough adjustment range again.

Then tune the guitar by the machine heads based on the guitar's head plated.
Finally fix the strings with the string lock screws 20 of the lock nut again.

#### Worthwhile hints

To prevent sudden string break do not tighten the tuning pegs of the headstock without loosening the lock screws of the lock nut!

Please tighten all string lock screws softly for a long life. After the first resistance while screwing a "10 minutes turn" clockwise is enough!





*5400* 

### STRING REPLACEMENT

**ABM** 

For a better understanding we assigned the single components to functional groups like a traffic light. Please read the sojety

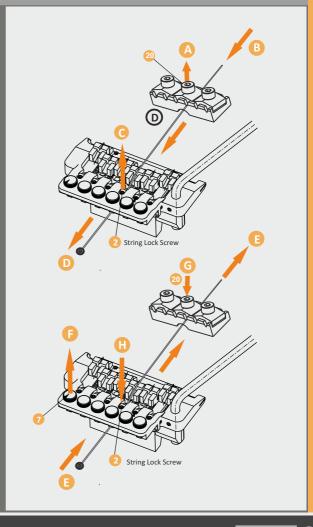
Green: Parts could be used while playing or tuning Yellow: Parts are used for string replacement

Red: Parts are used for saddle settings



#### STRING REPLACEMENT

- A Please declamp the String Lock Screw 20 of the Lock Nut to set the string free.
- B Then remove the string from the machine head which is based on the guitar head plate).
- © Please release the string lock screw 2 of the tremolo unit to set the string free.
- D Pull or push the string out of the tuning lever. It works much better with a string that is cutted to a plain end.
- E Set the new string to the tuning lever again and forward it over the tremolo saddle & lock nut to the machine head and wind and tune the string with it again.
- Please bring the tuner knob to a high position to assure enough tuning range.
- G Tighten the lock screw of the lock nut again.
- Tighten the lock screw of the tremolo and tune the guitar by the tuner knob 7.





# *5400*

## SADDLE SETTINGS

**ABM** 

For a better understanding we assigned the single components to functional groups like a traffic light. Please read the safety

Green: Parts could be used while playing or tuning
Yellow: Parts are used for string replacement





#### SADDLE SETTINGS

The 5400 saddle contains the string saddle 5 with ist saddle insert 7.

Before any changes for intonation, height or string spread are made, please loosen the Side Lock Screw 3.

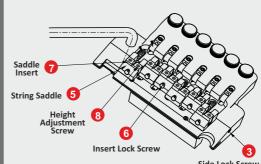
<u>Please untighten the Insert</u> <u>Lock Screw</u> **6** for height or string spread adjustments.

Then you can move the Saddle Insert 7 up to +/-0.35mm lateral for string spread or you use the Height Adjustment Screws 8 to follow the neck radius properly. After this work you lock the Insert Lock Screw 6 again.

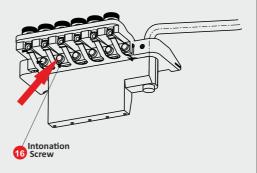
#### Intonation Setting

Please loosen the Side Lock Screw 3 before you use the Intonation Screw 16 for moving the saddle back or forward to find the right position.

After changes are made please tighten the Side Lock Screw 3 again for best tremolo action.



Side Lock Screw
This screw locks the saddles
sideward to prevent the moving
of saddles while using the tremolo!





# <u>5400</u>

## **MOUNTING TIPS & FAQ**





#### **MOUNTING TIPS & FAQ**

If you are not familiar with a tremolo installation please consult an experienced guitar technician for assembly. Please check pages 2 and 12 for safety instructions and dimensions.

The installation of a 5400 tremolo requires knowledge and special tools, especially when installed in a new instrument.

A tremolo spring installer hook assure a safety tremolo spring exchange. An underlay between tremolo plate or a woodblock between tremolo block and cavity wall holds the tremolo in a floating position with loaded or non loaded tremolo springs (for quick string or spring exchange, intonation settings, etc.).

The ABM 5400 tremolo is built for the "Floyd Rose Original" routing template. Please choose this diagram, if you plan a new instrument or to check the product compatibility.

Please do not use any other diagram, as the specs of third party tremolos differ a lot. Even a Floyd Rose "Special "or "Pro" needs a different mounting template.

We deliver the tremolo witha standard tremolo block height of 37mm. This dimension is suitable for guitars with a standard body depth of 44,45mm in floating mount operation.

If your instrument shows a "Floyd Rose Classic" routing template, but without a tremolo base plate undercut you may need the block with a height of 42mm. For guitars with thinner bodies the 33mm version would be a good solution. Please check your requirements first.

You can still order ABM 5400 with a 32 or 42mm block. In this case please leave a message while the ordering process.

All parts of the ABM 5400 tremolo are exchangable, like the knife edge or the tremolo arm socket. Just call the ABM service: info@abm-quitarparts.com

We use a very sharp knife edge which adapts to the profile of the mounting bolt in the first few weeks. Please don't be surprised if semi-circular notches appears on the bolt support of the knife edge. That's on purpose and the way to achieve perfect joint function.



## MOUNTING & PART LIST





#### MOUNTING

The correct installation of a 5400 tremolo requires some specialized knowledge and tools, especially when installed in a new instrument!

Beneath the standard tools for replacement works, you should use a spring compressor hook, a soldering gun and various helpers like a matched log of wood to set the tremolo blocked for a quick string tuning & intonation setup.

If you are not familar with a tremolo installation please contact an experienced auitar technician who gladly take over the fitting for you. That will save a lot of time and efforts.

The ABM 5400 Tremolo is compatible with auitars which are eaipped with a Floyd Rose "Classic" or "Original" tremolo and a tremolo undercut!

For preparing new instruments we recommend the use of the routing template which you find in the download area of the ABM 5400 product pages. It is available for block heights of 32 & 37mm.

Also check the drawing on page 11 and the safety instructions on page 2.

All parts of the ABM 5400 tremolo are exchangable, like the knife edge or the tremolo arm socket.

IIn case of an exchange please use the spare parts list and contact us.



#### PART LIST ABM 5400

Tremolo Bridge Corpus: K5400

Tremolo Block: TBblock5400-37 / TBblock5400-32

Tremolo Arm:

Stud Set for Mounting: TSB (2 pieces including bushing)

Fine Tuner Screw: RS5400 Saddle: GR19

Saddle Insert: RE6mdb - Insert for discant string, middle

FB 5400

RE6mbb - Insert for bass string, middle RE6ldb - Insert for discant string, low RE6lbb - Insert for bass string, low RE6hdb - Insert for discant string, high RE6hbb - Insert for bass string, high

Spring Steel Sheet: Tremolo Arm Bushing: Tbbush1 Tremolo Spring: 7845 Spring Claw: 7841 Knife Edge: Mk1n SH5400 Tuner Lever: Tuner Lever Axis: 5400Achse n Intonation Screw: GLK2,5x30n

High Adjustment Screws: GSTI3x6 (for low an medium Saddle Inserts)

GSTI3x8 (for high Saddle Inserts)

Knife Edge Screw: Insert Lock Screw: GSTI3x6 Side Locking Screw: GSTI3x12 Tremolo Arm Adj. Screw: GST3x6 String Lock Screws: GSTI3x3 Tremolo Plate/Block Screw: GKSK3x8

Saddle Intonation Spring: F4,3x10 (long), F4,3x8 (short) Hex Key (all M3 screws): 790015ST (SW 1,5 Swiss Tools)

Hex Key (Mounting Bolts): 790030 (SW 3mm)

### PART LIST ABM 7050:

Lock Nut Corpus: K7050-R3 or -R2

String Lock Plate:

String Lock Screw: GZI4x8b (Hexagon Cylinder Head Screw) Mounting Screw: GLI4x18A2 (Hexagon Lens Head Screw

790030 (SW 3mm) Hex Key (Lock Screws):

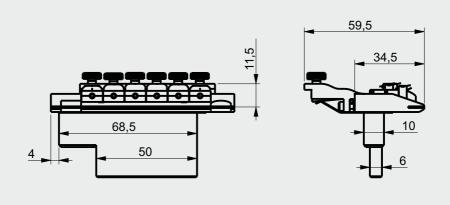
All items that are plated carry the following short cuts after the product code, like: b = black chrome, c= chrome or g = gold. An example: P7050b.

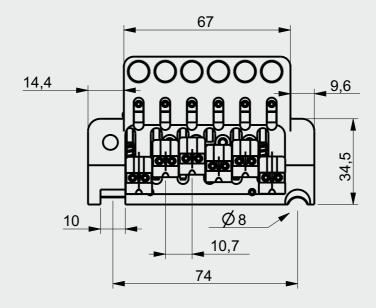


*5400* 

**DIMENSIONS** 

**ABM** 







# <u>5400</u>

## THE 5400 KATANA STORY







### THE 5400 KATANA STORY - How to improve a classic...

One day in 2010 we sat together and thought about improving the classic Fine Tuner Tremolo. We took the time to analyze the Floyd Rose formula and expand with our experience.

At first we wanted to choose a more musical material for the tremolo. It should create a stronger tone with lot of overtones and sustain, but combined with a resonant behaviour too.

We have even succeeded in the idea of milling the whole bridge body from one piece of solid Bell Brass. The sustain even increased tremendously during "dive bombs"! It was a pleasure to follow the overturning overtones. Due to the compact design an up bending of 4 halftones got possible now.

We remembered the guitarists, who dislike a tremolo arm with a cap nut steadily solving by itself. So we developed a tremolo arm base with an adjustable DELRIN socket and less play. Then we were able to use a standard tremolo arm for a simple "Plug `n` Play". Well done!

One thing that has always bothered us with a classic fine tuning tremolo, was to fix the string at the saddle. This action bends the string to a 90 degree angle and so often leads to the string break. We developed a flat string lock within the tuner lever instead, which guaranteed a stable tuning.

A typical critical point on the FR tremolo was the non height-adjustable saddle. So we included a height adjustment saddle design to emulate every neck radius. In addition, we prefered to make the intonation settings comfortable by a screwdriver rather than having to move the saddles by hand.

We knew that the complex tremolo settings tend to displace theirself due to the movement of the tremolo and the self-oscillation of its components. The result are tuning or intonation problems. It mainly concerns the intonation and height settings of the saddles. So we added a "Saddle-Lock-Screw" to the side of the tremolo body to "store" the saddles settings additionally.

Last but not least, it was our approach to develop a tremolo, which can remain on the instrument for a lifetime. Each component of the 5400 tremolo is available as spare part, like the hardened knife edge or the tremolo arm socket.

All these improvements were made possible by the meticulous development work with attention to detail. The result is the ABM 5400 Katana Tremolo!

<sup>\*</sup> We hereby declare that ABM High Quality German Guitar Parts GmbH has got no relationship with Floyd D. Rose, the companies FLOYD ROSE or SCHALLER. "Floyd Rose" and "Schaller" are trademarks of other companies.