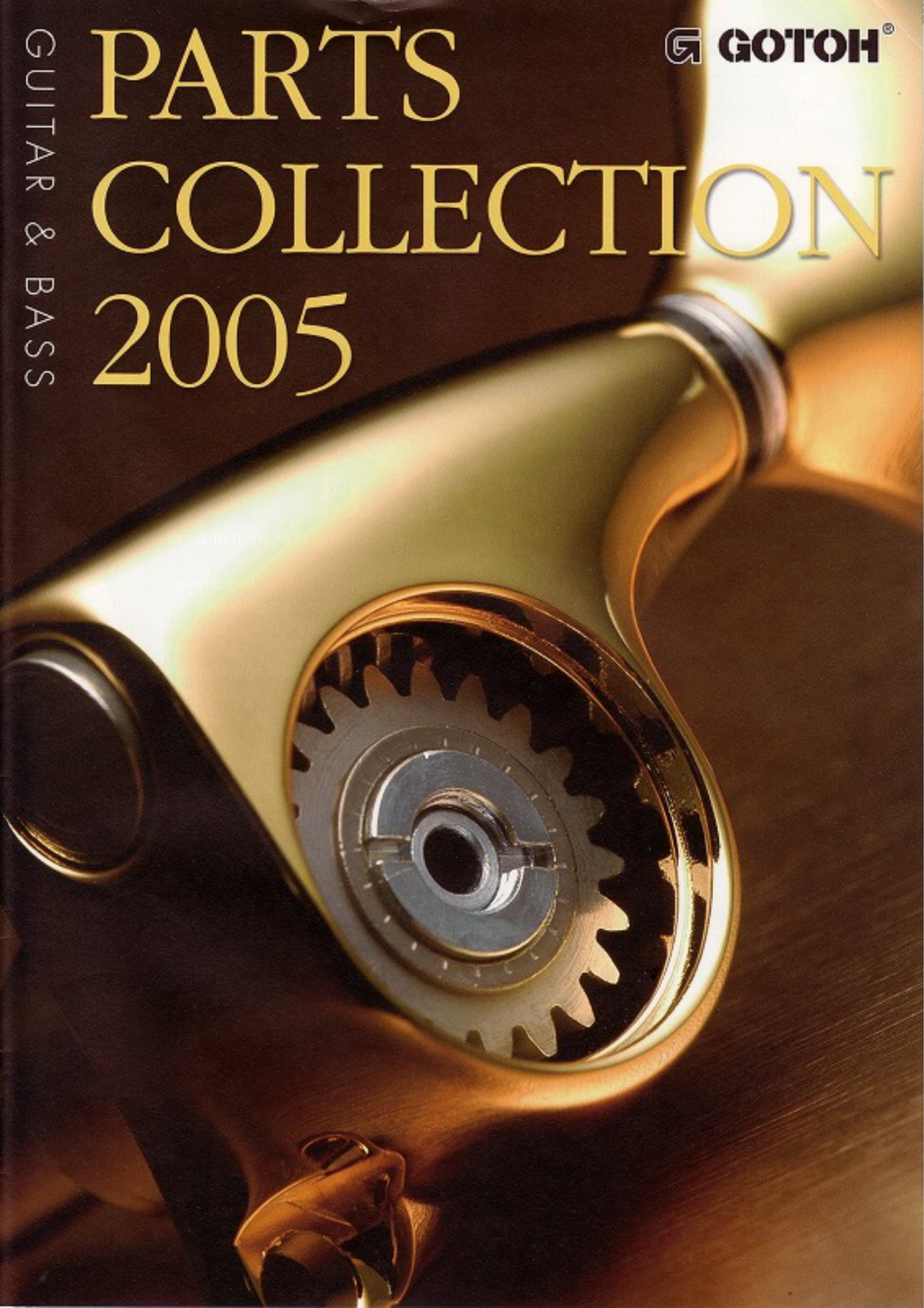


GUITAR & BASS

GOTOH®

# PARTS COLLECTION 2005







# GOTOH<sup>®</sup> Spirit

"protecting our environment"

As a world leader in guitar and bass hardware manufacturing Gotoh has always taken the subject of our environment and the protection of it very seriously. Many years ago we stopped using polystyrene as a packaging material and changed to recyclable cardboard instead.

From July 2006 RoHS (Restriction on the use of certain Hazardous Substances) will be effective in Europe. This directive will ban the use of some Chromates in the electroplating process and as such CR5+(as used in "Black chrome") will no longer be allowed.

GOTOH will discontinue its' "B" (black) finish and replace it with "CK" (Cosmo-black). Other finishes utilizing "Chromates" will also be changed to more "environmentally-friendly" alloy plating as Gotoh continues its' commitment to the preservation of our Earth's future



## LUBRI-COAT<sup>™</sup>

With a "Solid Lubrication Coat", regular oil has been eliminated keeping the lubrication where it is needed for the life of the tuning machine heads. It is now enhanced with a newly developed anti-transformable lubrication oil and this reduces the friction between the gears resulting an ultra smooth feel minimal back lash and unrivalled tuning stability.



## LUBRI-PLATE<sup>™</sup>

Taking the concept of solid lubrication to an even higher-level Gotoh have developed a new process of application for their exclusive "510" and "X" series gears. By creating a "Complex lubricating plating layer", surface of all the moving gears have been coated through an Electro Plating process and are now enhanced with GSP that is a newly developed polymer compound specifically formulated to work with Gotohs LUBRI-COAT.

With a "Solid Lubrication Coat", oil has been eliminated keeping the lubrication where it is needed for the life of the tuning machine heads.



## ROCK-SOLID<sup>™</sup> STRING POST

Next time you change your strings, before you put on your new set, take a look at your tuning machine head posts. See how they move from rock side to side! This has been a problem with tuning machine heads since they were invented. Now GOTOH introduce "Rock-Solid"™ String posts.

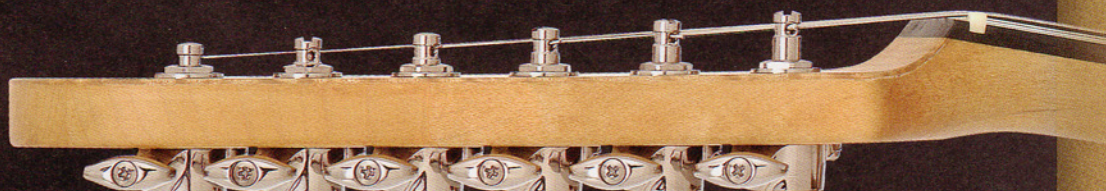


Gotoh SG-Series, SE-Series and SD-Series feature Rock-Solid™ string post (except for a few models) and have 5 kinds of post variation, Standard, Magnum Lock (MG)®, H.A.P.®, H.A.P.A. and H.A.P.M. which you can choose. It gives unrivalled tuning stability for Vibrato equipped guitars. Gotohs advanced technology and developing spirit have greatly won the confidence of many guitar builders in the world.

For more detail on Rock-Solid™ see explanation on page 1



Standard string post



### MG MAGNUM LOCK® 1 PAT.

**Gotoh Magnum Lock is the ultimate string locking system with simple and steady mechanism.**

Eliminating the "string wraps" around tuning machine head posts is a great asset when keeping vibrato-equipped guitars in tune without the use of troublesome clamps and fine tuners.

By locking the string on the post, only half a turn is required to bring most strings up to pitch, allowing the string to return to its' original position after bending or slackening off during dive bombing. The device is self-locking(string is clamped in place by the simple act of tuning to pitch). Tuning stability is taken to a new level with the introduction of the "Rock-Solid"™ String posts on selected Tuning machine heads with Magnum-lock feature.



Magnum-Lock string post



### H.A.P.® (Height Adjustable Post) 1 PAT.

**Gotoh H.A.P is the world first system that enables you to adjust string post height as you like.**

Creating the perfect down pressure over a guitars nut is a complex balance between Headstock angle and Tuning machine head post height selection.

Height adjustable posts take away the guesswork by allowing you to dial in the exact angle you need for, friction, string pressure/tension and open string sound and sustain. Ideal for flat style peg heads when string trees need to be eliminated.



H.A.P String post

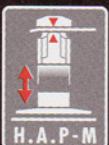


### H.A.P.® -A PAT.

Guitars with angle back peg-heads can sometimes benefit from slightly less pressure at the nut. HAP-A tuning machine heads are designed to adjust the string anchor point away from the face of the headstock allowing you to select the perfect angle and feel.



H.A.P.-A String post

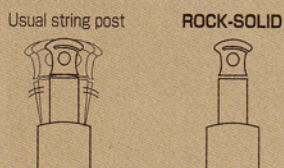
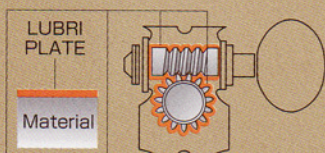
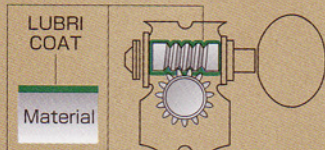


### H.A.P.® -M PAT.

Combining the ability of post height adjustment with the Magnum lock feature gives a machine head that is the perfect choice for flat peg-head style guitars equipped with a Vibrato. Removing the string tree on this type of guitar is essential for tuning stability, couple this with the advantage of a locking string post(eliminating string wraps)and you have the ultimate set up.



H.A.P.-M String post



Always follow the instructions in the instruction manual/leaflet.





# X Finish

After developing the revolutionary "Lubri-Plate" lubrication process, further experimenting revealed other assets of this unique application.

Gotoh have used this to create "X-Finish"™.

Due to its' natural properties "X-Finish"™

will keep your chosen instrument performing better for longer.

Please note: Color may be subject to change after a long period of use.

This does not affect its performance

and can result in a very pleasing "Aged / Vintage" appearance.

\*For more detail on Lubri-Plate™ and "X"-finish™ see explanation on page 1

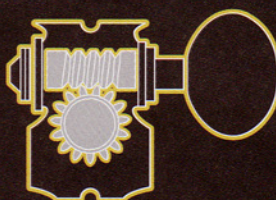


It's the ultimate finish !

It can result in an unique appearance for life no matter what your instrument is subject to water or any dirts.

Up to now tuning machine heads have been lubricated with oil or grease. This can leak out in time causing problems with the guitar finish and causing poor performance of the worm gears. Now Gotoh's new "X-finish" combined with "Lubri-Plate" is designed to reduce this to a minimum keeping your instrument looking like new and performing better for longer. Gotoh has now utilized this revolutionary finish on selected bridges and bridge components for even better performance and enhanced tuning stability.

X-Series gears finished in "X" FINISH



New models added to "X" series finish: XN/XC/XG

■ Guitar Machine Heads

SG-510Series · SE-510series · SE-700Series · SD-510Series

■ Planetary Banjo Tuners

SPBJ-4 · SPBJ-5

■ Bass Guitar Machine Heads

RES-O-LITE Series / GB350 · GB640 · GBR640 · GB528 · GB528S

■ Tremolo Unit

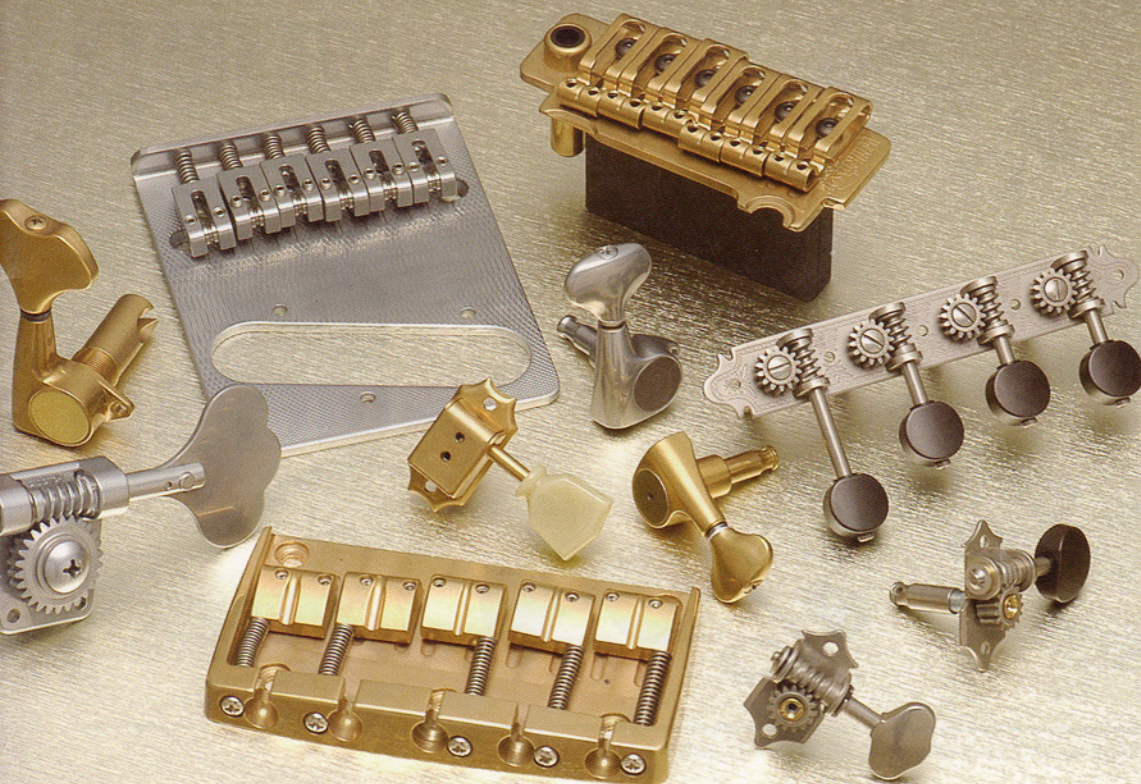
EV510T · EV510TS

■ Guitar Bridge

GTC510 · 510FA · 510FB · 510UB

■ Bass Bridges

J510SJ/BO/AO · 404SJ/BO/AO · 303SJ/BO/AO





# Electric and Acoustic Guitar Machine Heads

## SG-510 Series

Featuring "Rock-Solid" posts and "Lubri-Plate" (now enhanced with G.S.P). G.S.P is a newly developed polymer compound specifically formulated to work with Gotohs. LUBRI-PLATE process creating even less friction between the gears giving ultra smooth feel and longer life to the gears. This reduces the friction between the Gears resulting in an ultra smooth feel minimal back lash and unrivalled tuning stability for Vibrato equipped guitars.

New SGV510 are the ultimate in tuner technology, only available from GOTOH.

For more detail on "Lubri-Plate"™ and "Rock-Solid"™ see explanation on page 1

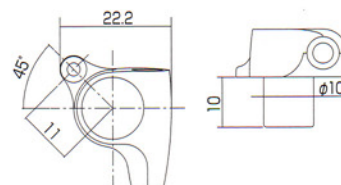
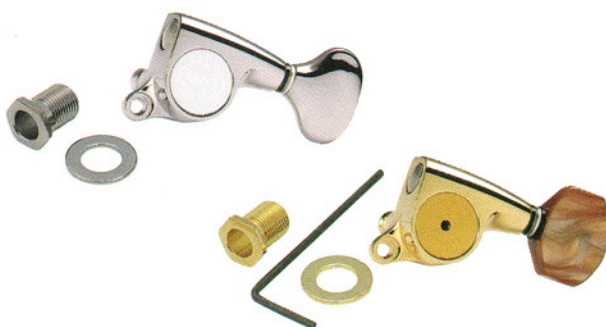
### SGS510



SGS510  
SGS510MG  
SGS510H.A.P  
SGS510H.A.P.A  
SGS510H.A.P.M



Finishes	C.G.G.CK.VC.XN.XC.XG
Mission	1:15
e.g.	SGS510-S5-L HAPM SGS510-B07-R HAP SGS510-L5



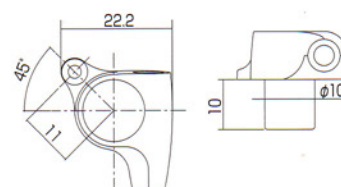
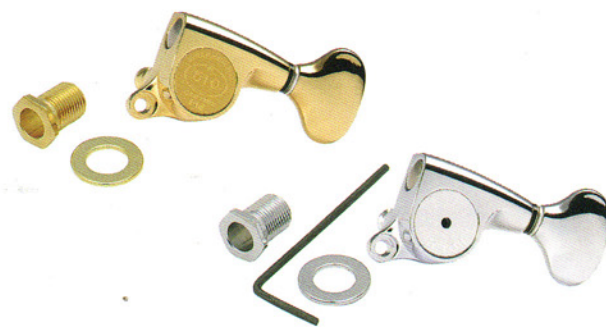
### SGS510Z



SGS510Z  
SGS510ZMG  
SGS510ZH.A.P  
SGS510ZH.A.P.A  
SGS510ZH.A.P.M



Finishes	C.G.G.CK.VC.XN.XC.XG
Mission	1:18
e.g.	SGS510Z-EN07 SGS510Z-S5-L HAP SGS510Z-P7-L MG





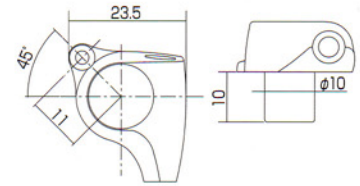
## SGL510



SGL510  
SGL510MG  
SGL510H.A.P  
SGL510H.A.P.A  
SGL510H.A.P.M



Finishes	C.GG.CK.VC.XN.XC.XG
Mission	1:18
e.g.	SGL510-P2 SGL510-L5 HAPA SGL510-L5 MG



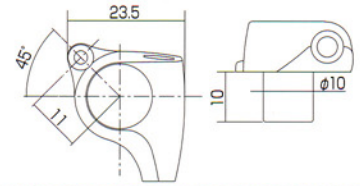
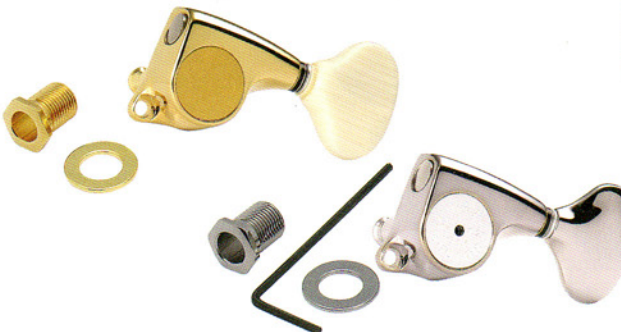
## SGL510Z



SGL510Z  
SGL510ZMG  
SGL510ZH.A.P  
SGL510ZH.A.P.A  
SGL510ZH.A.P.M



Finishes	C.GG.CK.VC.XN.XC.XG
Mission	1:21
e.g.	SGL510Z-L5 SGL510Z-EN01 MG SGL510Z-P1 HAPM



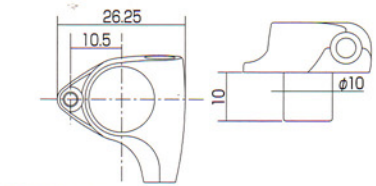
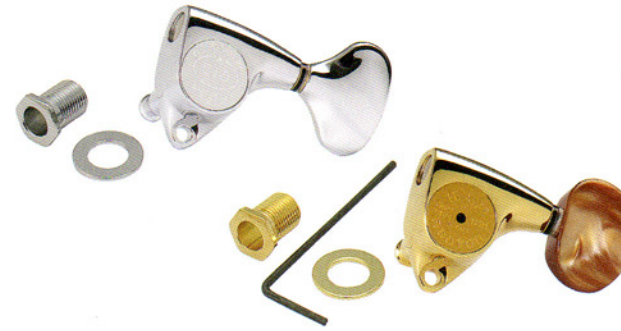
## SGV510



SGV510  
SGV510MG  
SGV510H.A.P  
SGV510H.A.P.A  
SGV510H.A.P.M



Finishes	C.GG.CK.VC.XN.XC.XG
Mission	1:18
e.g.	SGV510-L5 SGV510-P1 MG SGV510-EN01 HAPA



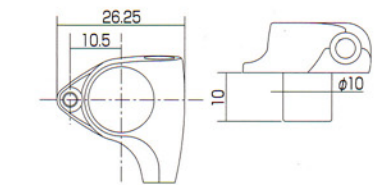
## SGV510Z



SGV510Z  
SGV510ZMG  
SGV510ZH.A.P  
SGV510ZH.A.P.A  
SGV510ZH.A.P.M



Finishes	C.GG.CK.VC.XN.XC.XG
Mission	1:21
e.g.	SGV510Z-BL5 HAP SGV510Z-S5 SGV510Z-L5 HAPM



String post dimension	STANDARD	MG	HAP/L3+R3	HAP/L6orR6	HAPA/L3+R3	HAPM/L3+R3	HAPM/L6orR6
	222	19	19	17	21.5	20.5	18
			25	21	28	25	20
				19			19.5
				25			23
				1ST/2ST			1ST/2ST
				3ST~6ST			3ST~6ST

## SG-510 Series BUTTON OPTION

Choose the button from listed below when order for machine head is placed.



L5



S5



P1



P2



BL5



ML5



S5



P7



P8



EN01



P7



P8



B07



M07



EN07



B07



M07



EN07



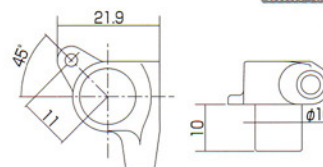
# SG Series

## SG503



SG503  
SG503MG  
SG503H.A.P  
SG503H.A.P.A  
SG503H.A.P.M

Finishes	C.GG.CK.VC
Mission	1:15
e.g.	SG503-07-L SG503-01 MG SG503-05P2-L HAP

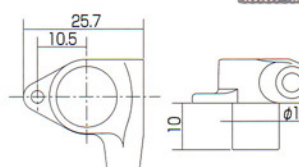


## SG301



SG301  
SG301MG  
SG301H.A.P  
SG301H.A.P.A  
SG301H.A.P.M

Finishes	C.GG.CK.VC
Mission	1:18
e.g.	SG301-20 SG301-M01 HAPA SG301-04 MG

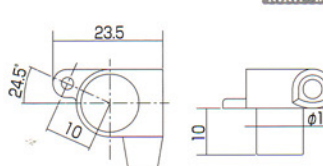


## SG360



SG360  
SG360MG  
SG360H.A.P  
SG360H.A.P.A  
SG360H.A.P.M

Finishes	C.GG.CK.VC
Mission	1:14
e.g.	SG360-EN07-R SG360-01 SG360-P8-L HAPM

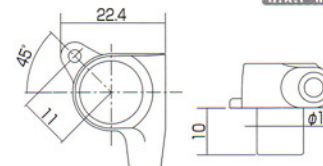
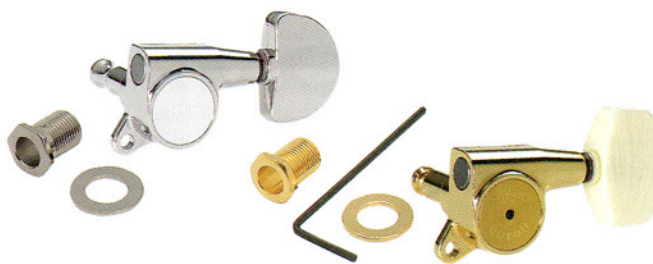


## SG381



SG381  
SG381MG  
SG381H.A.P  
SG381H.A.P.A  
SG381H.A.P.M

Finishes	C.GG.CK.VC
Mission	1:16
e.g.	SG381-P1 SG381-05-L MG SG381-B20 HAPA

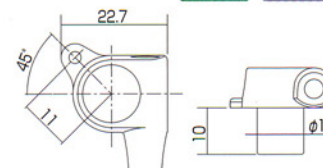


## SGM



SGM  
SGMMG

Finishes	C
Mission	1:16
e.g.	SGM-05P1-L SGM-07-L MG SGM-20



String post dimension	STANDARD	MG	HAP/L3+R3	HAP/L6orR6	HAPA/L3+R3	HAPM/L3+R3	HAPM/L6orR6
				1ST/2ST	3ST~6ST		1ST/2ST
							3ST~6ST

## SG Series BUTTON OPTION

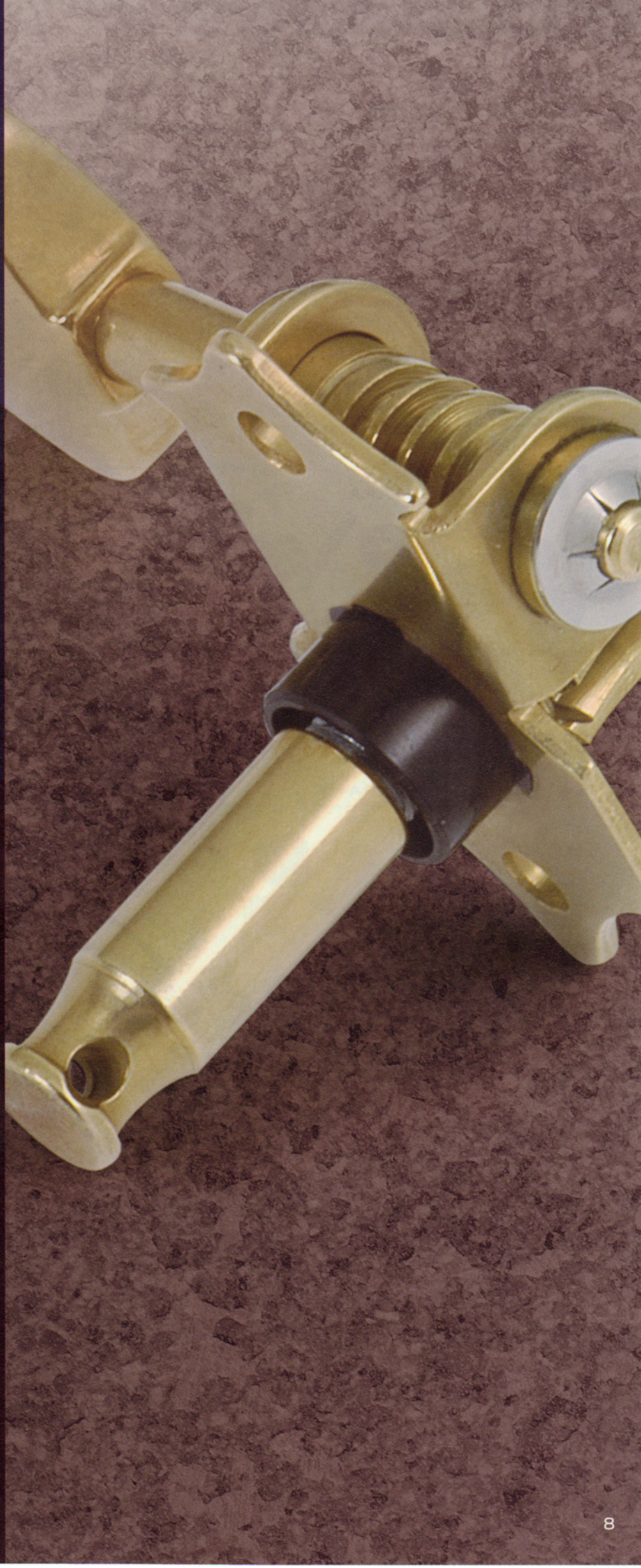


Finishes : C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome



## SE510 Series SD510 Series

Open backed tuners have sometimes been criticized for not having the same smooth performance as sealed gear tuners due to the fact that their post can sometimes bind on the bushings that guide the post through the headstock face. "Gotoh" have eliminated this problem by combining the post collar found on enclosed gears onto the base plate of the open gear allowing the post to perfectly align itself with the bushing that attaches the gear to the headstock. Combining "Rock-solid" technology with this new method of attachment has created the ultimate open back tuners.





## SE-510 Series

※Self-stop nut Pat.P ※Self-center guide Pat.P

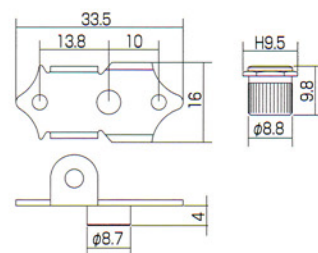
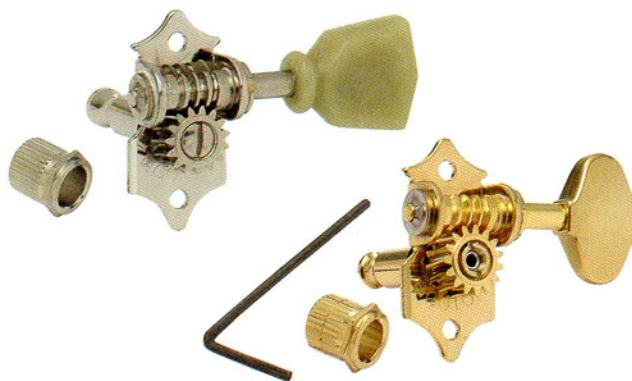
### SE510



SE510  
SE510MG  
SE510H.A.P  
SE510H.A.P.A



Finishes N.C.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SE510-06M  
SE510-SLP1 HAPA



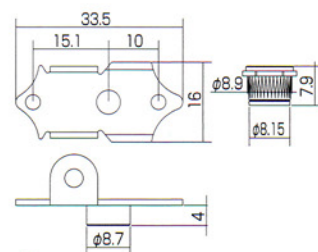
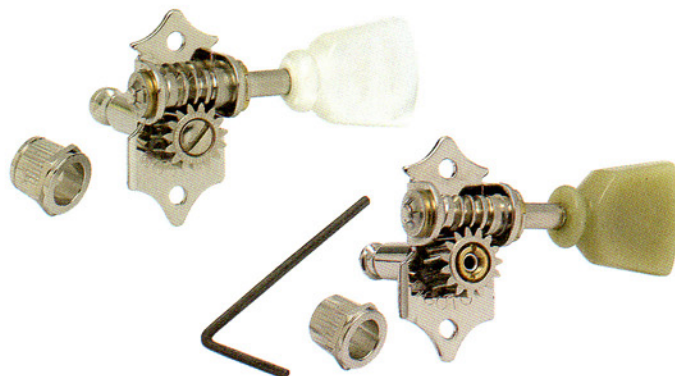
### SE510M



SE510M  
SE510MMG  
SE510MH.A.P  
SE510MH.A.P.A



Finishes N.C.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SE510M-05M MG  
SE510M-SLM



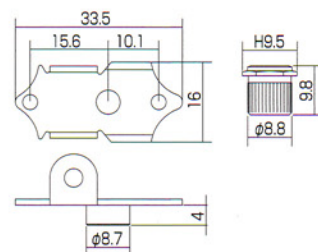
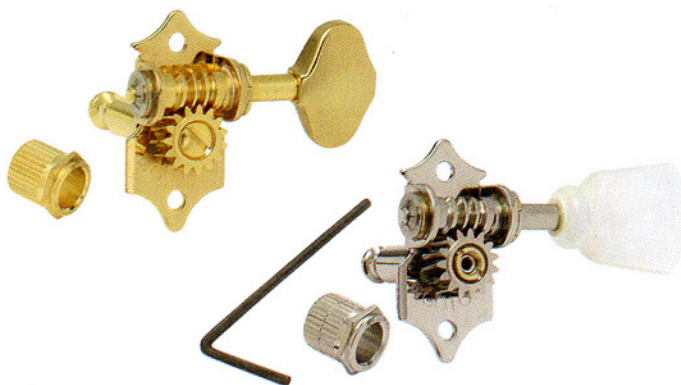
### SE510W



SE510W  
SE510WMG  
SE510WH.A.P  
SE510WH.A.P.A



Finishes N.C.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SE510W-SL HAP  
SE510W-06M



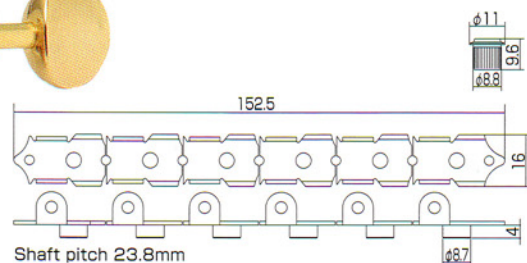
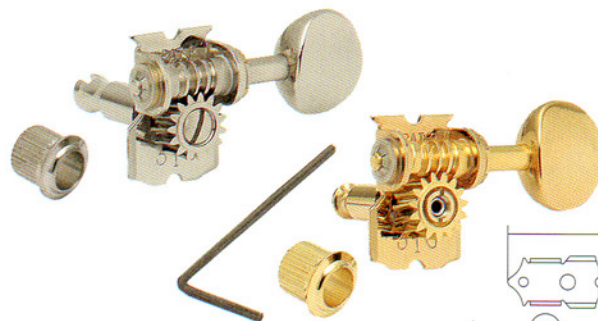
### SES510



SES510  
SES510MG  
SES510H.A.P



Finishes N.C.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SES510-05M-L MG  
SES510-B5-R



String post dimension	SE510 STANDARD	SE510M/510W STANDARD	SES510 STANDARD	MG	SE510 HAP	SES510 HAP	HAPA
	20.5	22	24.6	19	17, 24.5	16, 20.5, 17, 24.5	20, 27
	φ6.35	φ6.35	φ6.35	φ6	φ6	φ6	φ6
					1ST~3ST	4ST~6ST	

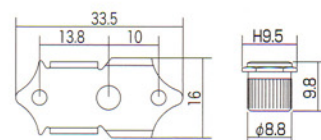
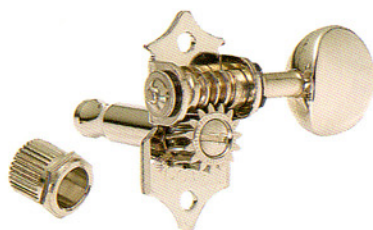


## SE Series

※Self-center guide Pat.P

SE700 SE700  
SE700MG

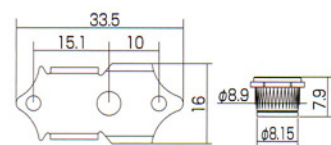
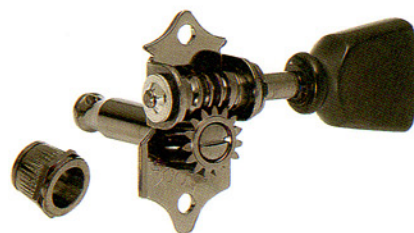
Finishes	N.C.GG.CK.VC.XN.XC.XG
Mission	1:15
e.g.	SE700-06M SE700-SL MG



## SE770



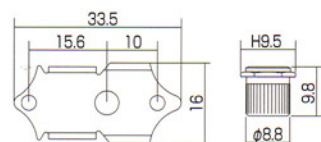
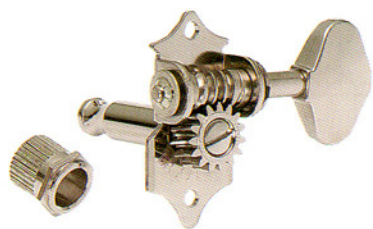
Finishes	N.C.GG.CK.VC.XN.XC.XG
Mission	1:15
e.g.	SE770-05M SE770-SLP2



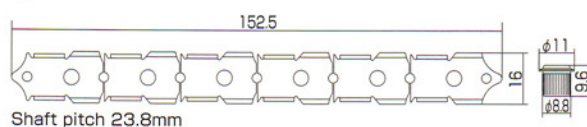
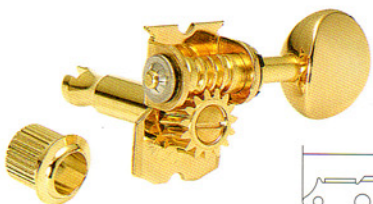
## SE780



Finishes	N.C.GG.CK.VC.XN.XC.XG
Mission	1:15
e.g.	SE780-SLB SE780-06M

SE701 SE701  
SE701MG

Finishes	N.C.GG.CK.VC.XN.XC.XG
Mission	1:15
e.g.	SE701-05MA-L SE701-P5R-LMG



String post dimension	SE700 STANDARD	SE770/780 STANDARD	SE701 STANDARD	SE700/701 MG

## SE-510/SE Series BUTTON OPTION

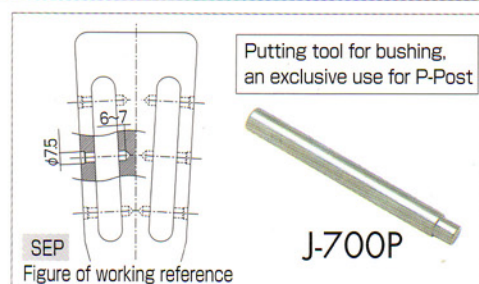
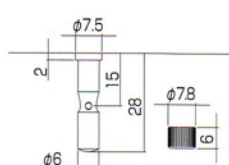
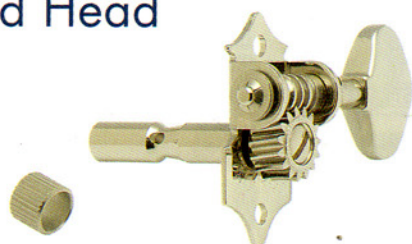


## for Slotted Head

SEP700

SEP770

SEP780





## SD-510 Series

※Self-center guide Pat.P

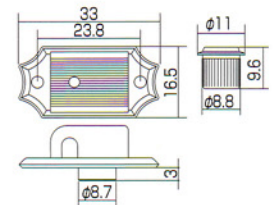
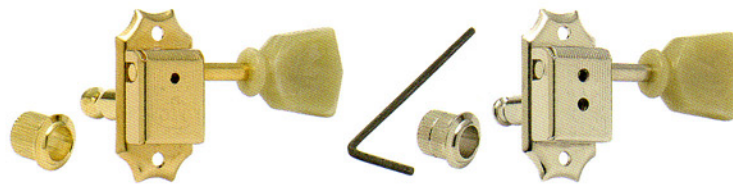
SD510



SD510  
SD510MG  
SD510H.A.P  
SD510H.A.P.A  
SD510H.A.P.M



Finishes N.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SD510-06M  
SD510-SLM HAPA



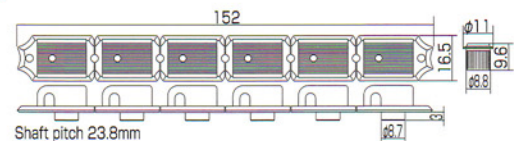
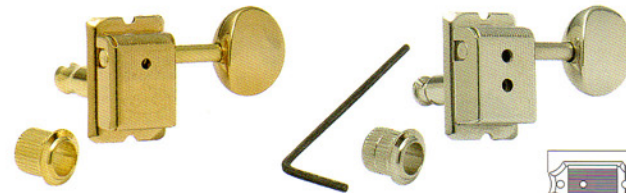
SDS510



SDS510  
SDS510MG  
SDS510H.A.P  
SDS510H.A.P.A  
SDS510H.A.P.M



Finishes N.GG.CK.VC.XN.XC.XG  
Mission 1:15  
e.g. SDS510-05M-L  
SDS510-B5-L MG



String post dimension	SD510 STANDARD	SDS510 STANDARD	SD510 HAP	SDS510 HAP	HAPA	SD510 HAPM	SDS510 HAPM
	19.5	24.6	17	16	20	18.5	17
			24.5	20.5	27	22	20.5
				17			18.5
				24.5			22
				1ST~3ST			1ST~3ST
				4ST~6ST			4ST~6ST

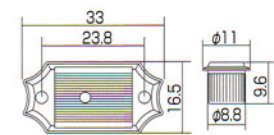
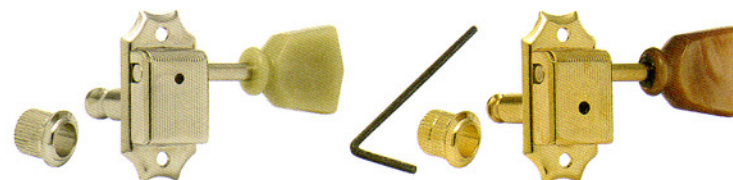
## SD Series

SD90



SD90  
SD90MG  
SD90H.A.P  
SD90H.A.P.A  
SD90H.A.P.M

Finishes N.GG.CK.VC  
Mission 1:15  
e.g. SD90-SL  
SD90-SLP1 HAP

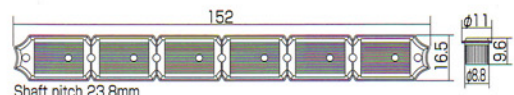
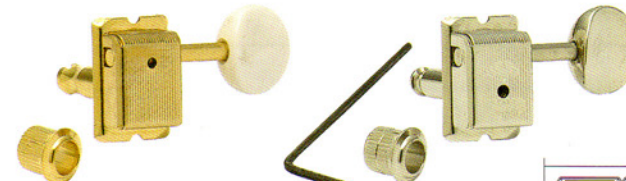


SD91



SD91  
SD91MG  
SD91H.A.P  
SD91H.A.P.A  
SD91H.A.P.M

Finishes N.GG.CK.VC  
Mission 1:15  
e.g. SD91-05M-L MG  
SD91-M5-R



String post dimension	SD90 STANDARD	SD91 STANDARD	SD90/91 MG	SD90 HAP	SD91 HAP	HAPA	SD90 HAPM	SD91 HAPM
	19.5	24.6	19	17	16	20	18	16.5
				24.5	20.5	27	21.5	20
					17			18
					24.5			21.5
					1ST~3ST			1ST~3ST
					4ST~6ST			4ST~6ST

## SD-510/SD Series BUTTON OPTION



Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome, XN-Excellent Nickel, XC-Excellent Chrome, XG-Excellent Gold

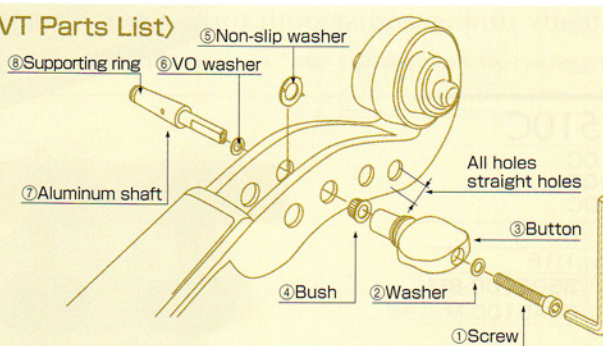


# Violin/Cello Tuner

## GOTOH MVT/MCT(PAT.P) Feature

- Peg holes are not tapered. It makes easy for violin/cello production as holes are made straight.
- Peg installment is easy without skilled hands by using assembling tool that is an option.
- Post is made of hard aluminum and string does not cut into it. It performs better for longer life.
- It gives you smooth fine tuning and torque adjustment of button can be done by user anytime.
- It has an appearance of traditional wooden peg and you can use it in the feeling without a sense of incongruity.

### (MVT Parts List)



## MVT-440T

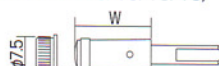
4/4~3/4 for Violin



### MVT-440T Combination list

No.	W	18mm	17mm	16mm	15mm	14mm	13mm
MVT440T-A		○	○	○	○		
MVT440T-B			○	○	○	○	
MVT440T-C				○	○	○	○

Please call us with the shaft No. if you need a special set which is not included in the normal set.  
(Example : MVT440T-18/16/15/13)



## J-440T

MVT-440T  
Special assembling tool



## MVT-120T

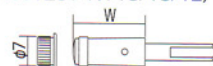
1/2~1/4 for Violin



### MVT-120T Combination list

No.	W	17mm	16mm	15mm	14mm	13mm	12mm
MVT120T-A		○	○	○	○		
MVT120T-B			○	○	○	○	
MVT120T-C				○	○	○	○

Please call us with the shaft No. if you need a special set which is not included in the normal set.  
(Example : MVT120T-17/15/13/12)



## J-120T

MVT-120T  
Special assembling tool



## MVT-MINI

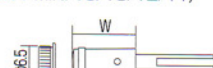
1/8~1/16 for Violin



### MVT-MINI Combination list

No.	W	15mm	14mm	13mm	12mm	11mm
MVT-MINI-A		○	○	○	○	
MVT-MINI-B			○	○	○	○

Please call us with the shaft No. if you need a special set which is not included in the normal set.  
(Example : MVT-MINI-15/13/12/11)



## J-MINI

MVT-MINI  
Special assembling tool



## MCT-440T

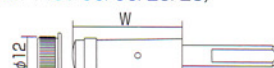
4/4~3/4 for Cello



### MCT-440T Combination list

No.	W	37mm	35mm	33mm	31mm	29mm	27mm	25mm
MCT440T-A		○						
MCT440T-B			○	○	○			
MCT440T-C				○	○	○	○	
MCT440T-D					○	○	○	○

Please call us with the shaft No. if you need a special set which is not included in the normal set.  
(Example : MCT440T-35/33/29/25)

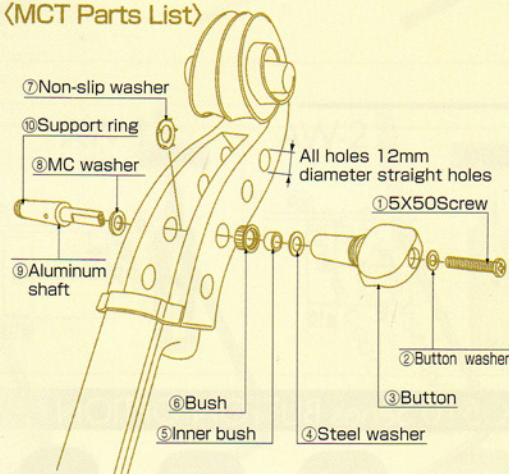


## JC-440T

MCT-440T  
Special assembling tool



### (MCT Parts List)





# Classic Guitar Machine Heads

## 35G510 Series

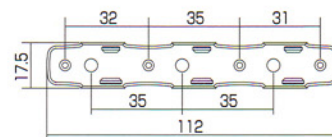
510-Series of classical machine heads feature "Rock-Solid"™ posts and "Lubri-Plate"™ process. This reduces the friction between the Gears resulting in an ultra smooth feel minimal back lash. It also gives you steady tuning and smooth torque adjustment by adjusting nut screw on button.

For more detail on Lubri-Plate™ and Rock-Solid™ see explanation on page 1

### 35G510C

35G510C  
35A510C  
35P510C

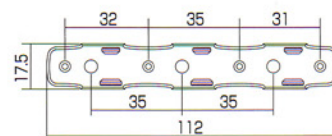
Finish	GG
Mission	1:16
e.g.	35G510C-BM 35A510C-M



### 35G510P

35G510P  
35A510P  
35P510P

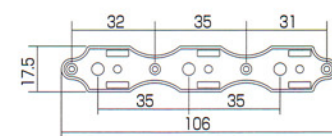
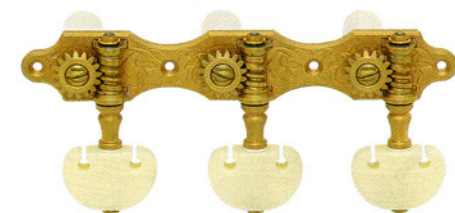
Finish	GG
Mission	1:16
e.g.	35A510P-P 35P510P-KB



### 35G510QC

35G510QC  
35A510QC  
35P510QC

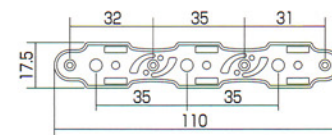
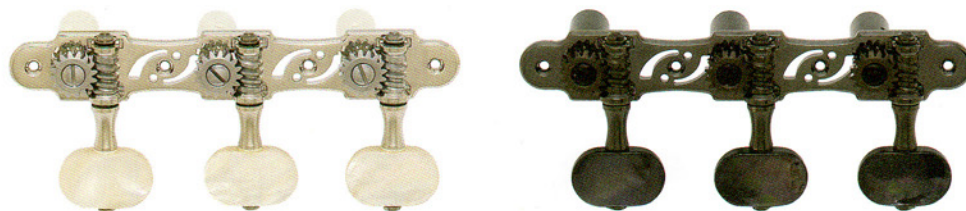
Finish	MTG
Mission	1:16
e.g.	35G510QC-KM 35A510QC-EN



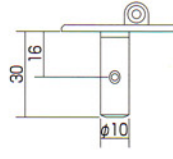
### 35G510S

35G510S  
35A510S  
35P510S

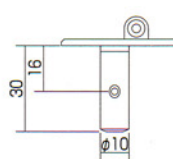
Finishes	N.CK
Mission	1:16
e.g.	35G510S-2R 35P510S-BB



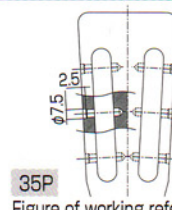
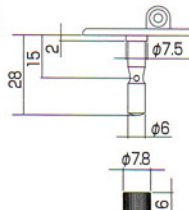
35G



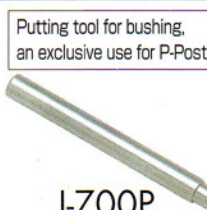
35A



35P



35P  
Figure of working reference



J-700P

## 35G510 Series BUTTON OPTION



M



BM



EN



RB



RM



KB



KM



BB



2R



P



35G6500/1800/1600/480 equip "Rock-Solid"™ String posts as standard.

For detailed information on "Rock-Solid"™ String posts see page 1

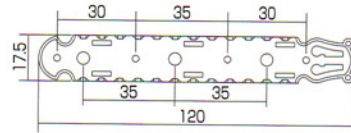
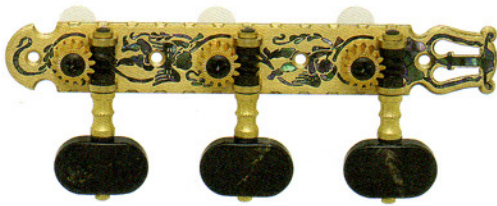
※For 35P tuning machine heads with P-Post, some modification to your guitars headstock may be necessary. See drawing for details.

## 35G6500

35G6500

35P6500

Finish	SB
Mission	1:14
e.g.	35G6500-BB 35G6500-2W

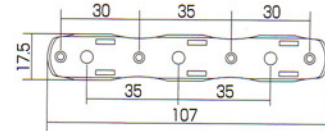


## 35G1800

35G1800

35P1800

Finish	SB
Mission	1:14
e.g.	35G1800-2M 35P1800-1W

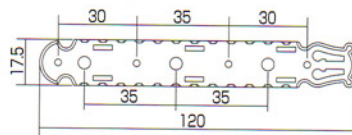


## 35G1600

35G1600

35P1600

Finish	GG
Mission	1:14
e.g.	35G1600-2R 35G1600-1M

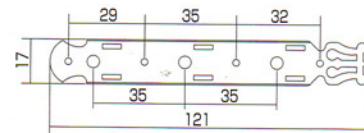
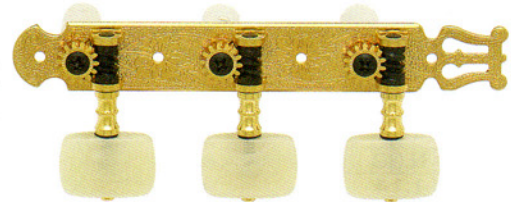


## 35G480

35G480

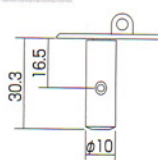
35P480

Finish	GG
Mission	1:14
e.g.	35G480-EI 35G480-EW

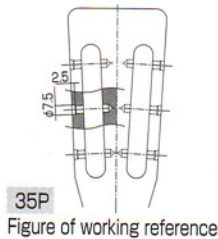
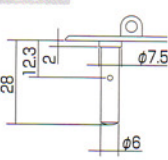


### String post dimension

35G



35P



35P

Figure of working reference

### 35G Series BUTTON OPTION



1W



1R



2W



2R



1M



2M



EN



BB



EW



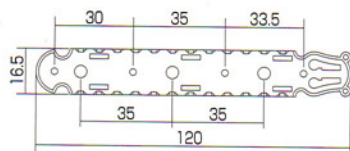
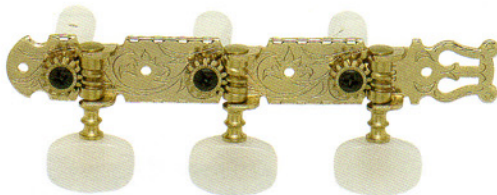
EI

## 35G420

35G420

35P420

Finish	SG
Mission	1:14

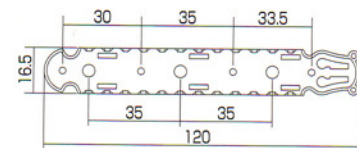
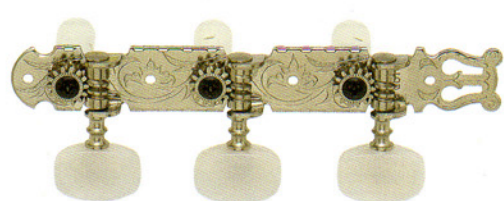


## 35G350

35G350

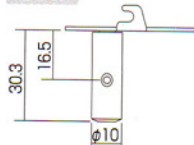
35P350

Finish	N
Mission	1:14

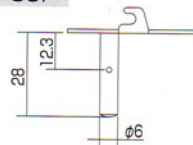


### String post dimension

35G



35P









# Ukulele Peg



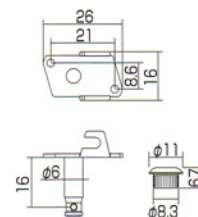
## Ukulele Evolution

### UK12

Finishes	N.GG
Mission	1:14
e.g.	UK12-05MA UK12-B5

#### Super lightweight peg manufactured in "RES-O-LITE"™

Gotoh's commitment to improve all their products has lead to this major advance in the manufacture and design of Ukulele tuner pegs. Many models have benefited from Gotoh's new "RES-O-LITE"™ material resulting in a much better balanced instrument due to less weight on the headstock. A new 1:14 gear ratio and tighter controls on production has resulted in a tuner with zero back lash and super smooth tuning.

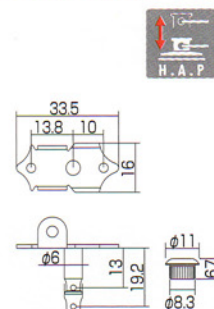
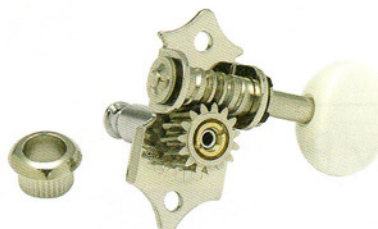


### UK700

Finishes	N.GG
Mission	1:15
e.g.	UK700-M5 UK700-05MA

#### High performance peg with H.A.P. system

Height adjustable string posts were first developed for Guitar tuners. By allowing string angles over the nut to be user selectable open string sound and tuning stability have been greatly enhanced. This technology is now available for Ukulele and can be fitted to headstocks varying in thickness from 9mm to 16mm.



### UK12/700 BUTTON OPTION



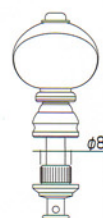
05MA

B5

M5

### UKA

Finishes	N.GG
Mission	1:1
e.g.	UKA-3W UKA-4B



Where Aluminum is used on these tuners nickel or gold plating is still employed so as to minimize marking of the shaft, due to string windings. String tension causing de-tuning of strings due to reverse post movement is eliminated due to Gotoh's unique manufacturing techniques.

### UKA BUTTON OPTION



3W

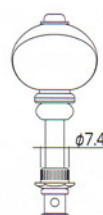
3R

4I

4B

### UKB

Finishes	N.GG
----------	------





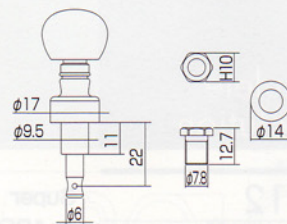
## Planetary Banjo Tuners

Developed by a new idea from "Gotohs" high processing technology. Tuning performance has greatly enhanced in comparison to the one existing in the past and gear feels so smooth. Especially 5th peg is a super banjo tuner as many problems experienced in the past have been improved tremendously.

### SPBJ-4



Finishes	N.C.GG.XN.XC.XG
Mission	1:4
e.g.	SPBJ-4-HB SPBJ-4-RM



### SPBJ-5



Finishes	N.C.GG.XN.XC.XG
Mission	1:13
e.g.	SPBJ-5-PW SPBJ-5-HM



### SPBJ BUTTON OPTION



PW



RB



RM



HB



HM

## GOTOH Display Package





# Bass Machine Heads

## RES-O-LITE Series Super lightweight bass machine heads.

Bass guitars by their very nature have always been "neck heavy". This resulted from the early designs inheriting their tuners from the original double bass. With the advent of 5 and 6 string basses this unbalance was emphasized even more, making the bass uncomfortable to play for long sessions/performance etc.. Neck heavy basses can now be a thing of the past.

Whether you are building a new bass or improving one of the many classic models of the past, Gotohs' extensive range of traditional or contemporary bass tuners, manufactured in new RES-O-LITE™ (aluminum alloy) should be your first choice.

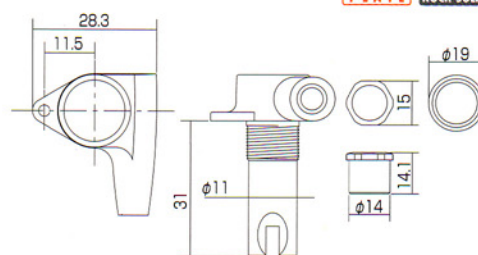
### Weight comparison (per pc.)

Gotoh old models	RES-O-LITE™ series
GB70 64.4g	GB350 35.0g
GB9 115.5g	GB640 64.0g
GB30 83.0g	GB528 52.8g

### GB350



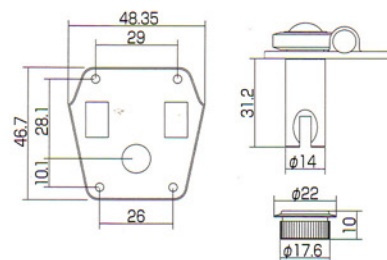
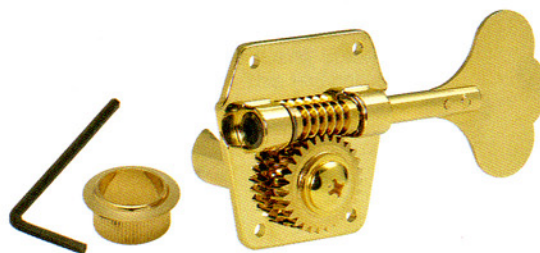
Finishes C.GG.CK.VC.  
XN.XC.XG  
Mission 1:20  
Plastic button(Plated)



### GB640



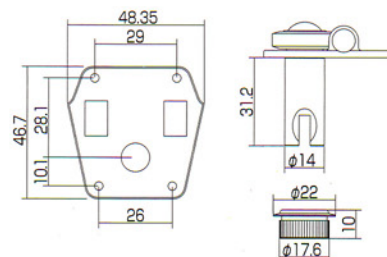
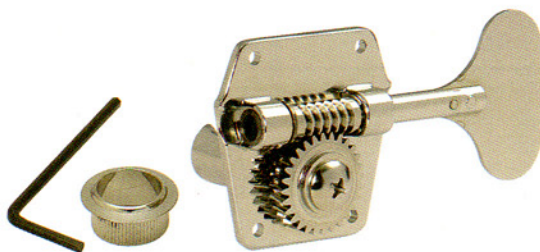
Finishes N.GG.CK.VC.  
XN.XC.XG  
Mission 1:28  
Left side only



### GBR640



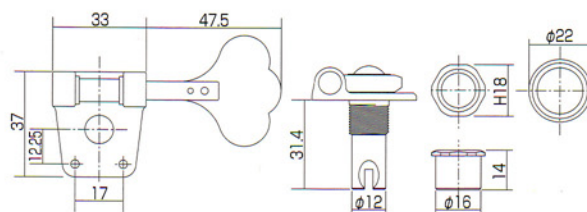
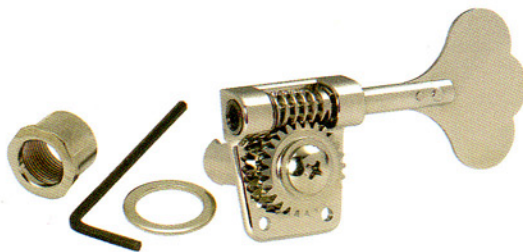
Finishes N.GG.CK.VC.  
XN.XC.XG  
Mission 1:28  
Reverse wind / Left side only



### GB528



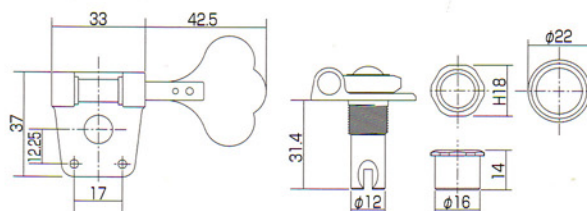
Finishes N.GG.CK.VC.  
XN.XC.XG  
Mission 1:26



### GB528S



Finishes N.GG.CK.VC.  
XN.XC.XG  
Mission 1:26





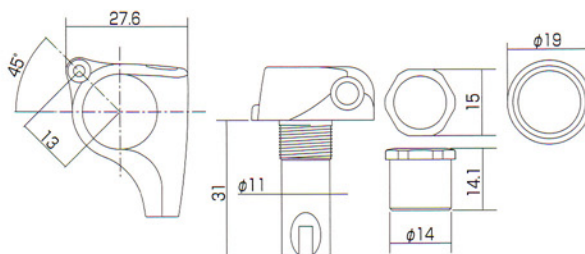
New GBS510 are the ultimate "Top of the line" Gotoh bass Tuners. All models feature "Lubri-Plate"™ on gears and "Rock-Solid"™ post. String post has been increased in diameter by 1mm helping to transmit even more string vibration and resonance to the headstock. GB707 and its lightweight models GB720W/GB720B are Gotohs most popular series of contemporary design bass Tuners. Gears are coated in "Lubri-Coat"™ and "Rock-Solid"™ string post that is now increased to 11mm diameter gives ultra stable tuning and smooth torque adjustment.

For more detail on "Lubri-Plate"™, "Lubri-Coat"™ and "Rock-Solid"™ see explanation on page 1.

## GBS510



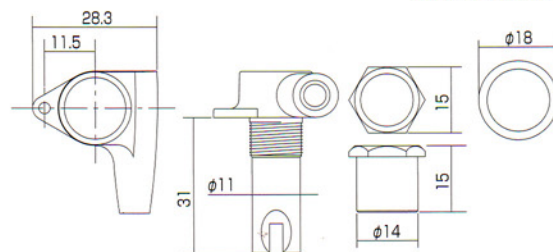
Finishes C.GG.CK.VC.  
XN.XC.XG  
Mission 1:22  
Aluminum shaft



## GB720



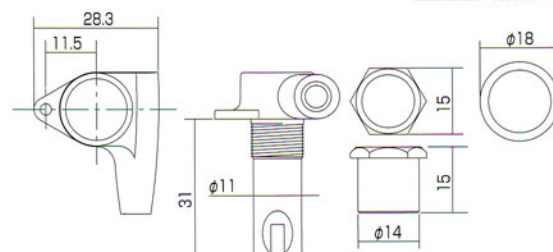
Finishes C.GG.CK.VC  
Mission 1:20  
Aluminum shaft  
Plastic button(Plated)  
World design Pat.



## GB720W



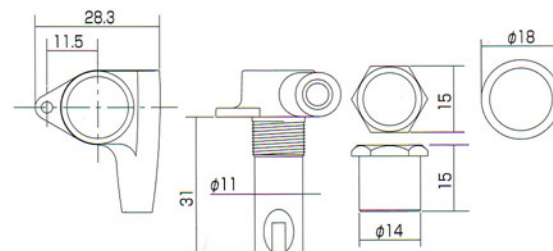
Finishes C.GG.CK.VC  
Mission 1:20  
Aluminum shaft  
Plastic button  
World design Pat.



## GB720B



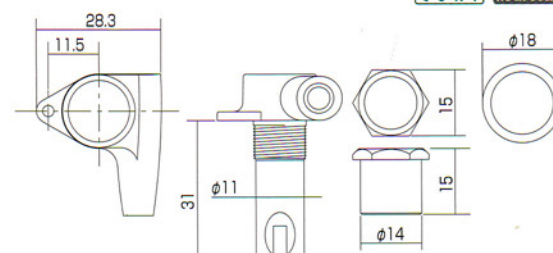
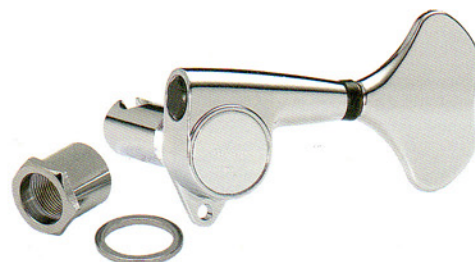
Finishes C.GG.CK.VC  
Mission 1:20  
Aluminum shaft  
Plastic button  
World design Pat.



## GB707



Finishes C.GG.CK.VC  
Mission 1:20  
World design Pat.

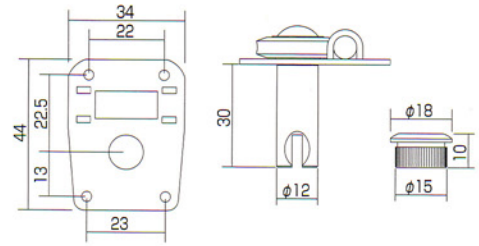
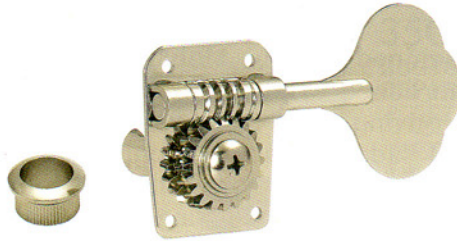




## GB1



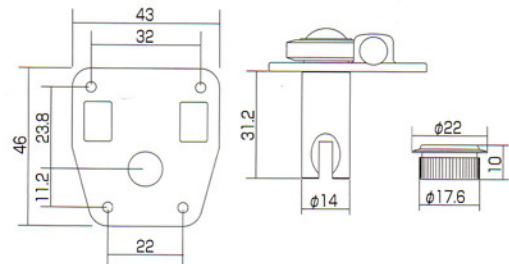
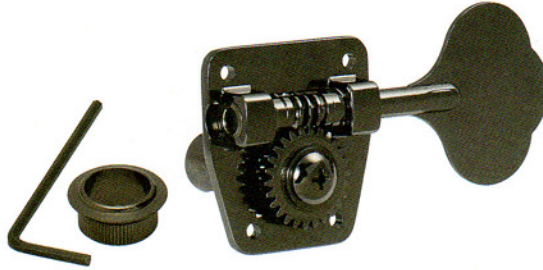
Finishes	N.GG.CK.VC
Mission	1:21



## GB2



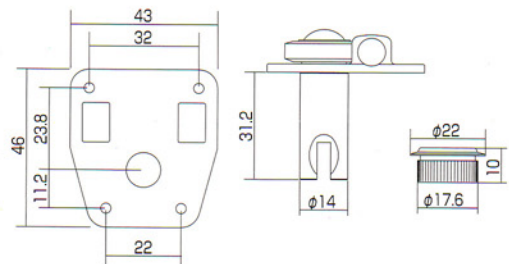
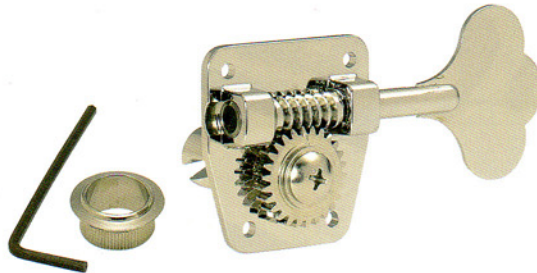
Finishes	N.GG.CK.VC
Mission	1:26



## GB29



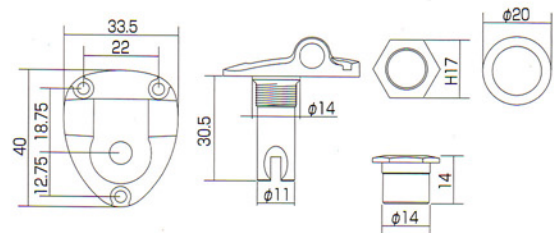
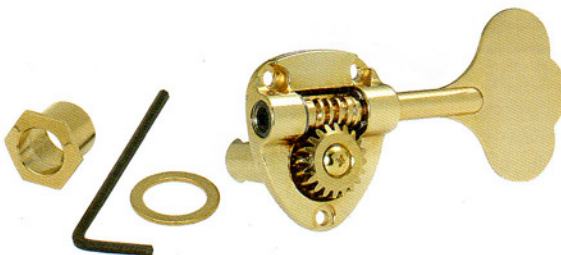
Finishes	N.GG.CK.VC
Mission	1:26
Reverse wind	



## GB11W



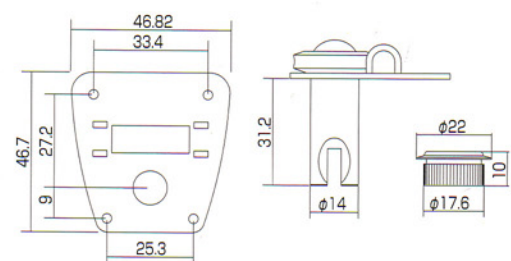
Finishes	C.GG.CK.VC
Mission	1:20



## FB3



Finishes	N.GG.CK.VC
Mission	1:20



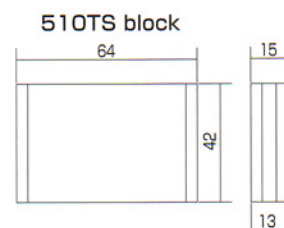
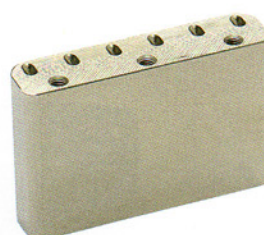
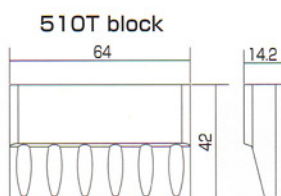
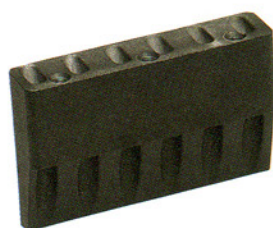
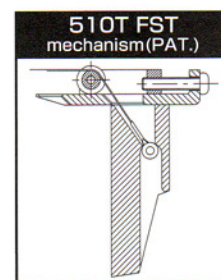


# Tremolo Units

## 510 Series

510T series Vibrato bridges have precision machined Chrome Molybdeum Steel knife edges and top plates. Heat treated and case hardened to Rockwell 45 "C" scale these knife edges are made for long life and low wear giving years of trouble free use.

Unique design of block allows strings to contact saddle without touching the block(see illustration FST "patented") this gives direct pressure on the intonation point of the saddle for better sustain and minimizes string "hang up" giving increased tuning stability.



510TS features a Steel block, not FST function.

## EV510T EV510TS

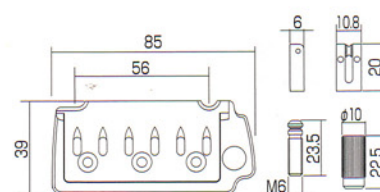
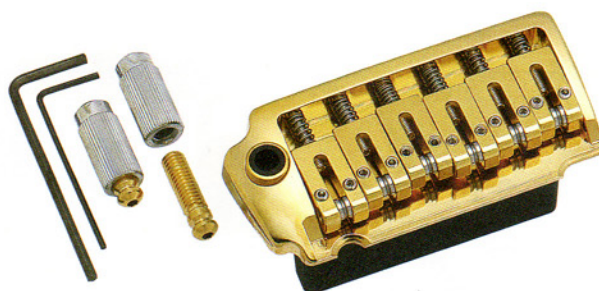


Finishes C.GG.CK.VC.XN.XC.XG

Stainless string guide,

string pitch 10.8mm

Stud lock-Pat.



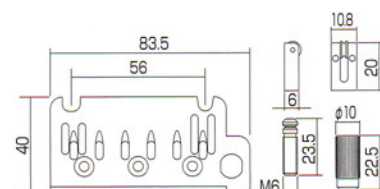
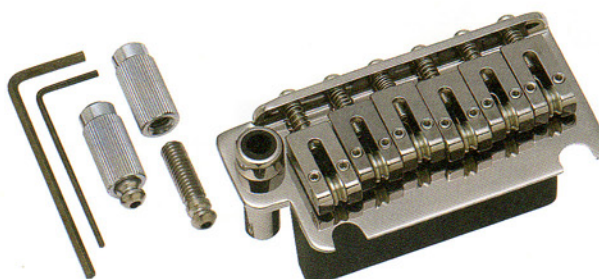
## 510T-RS1 510TS-RS1

Finishes C.GG.CK.VC

Steel with stainless roller saddle,

string pitch 10.8mm

Stud lock-Pat.

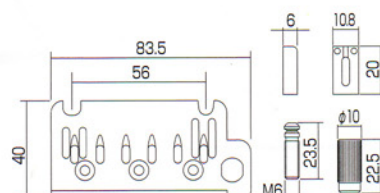
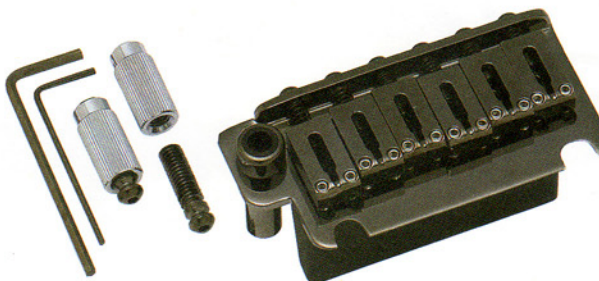


## 510T-FE1 510TS-FE1

Finishes C.GG.CK.VC

Steel saddle, string pitch 10.8mm

Stud lock-Pat.



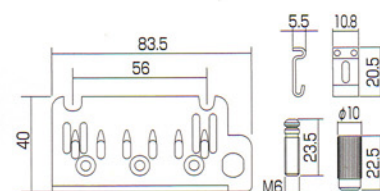
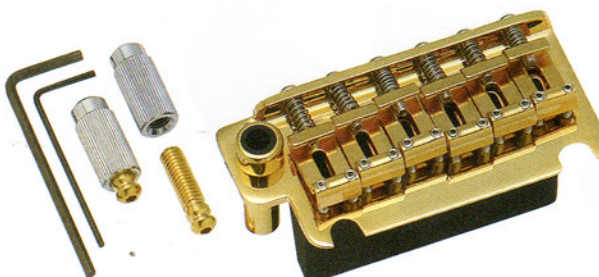
## 510T-SF1 510TS-SF1

Finishes C.GG.CK.VC

Steel saddle(sheet metal),

string pitch 10.8mm

Stud lock-Pat.

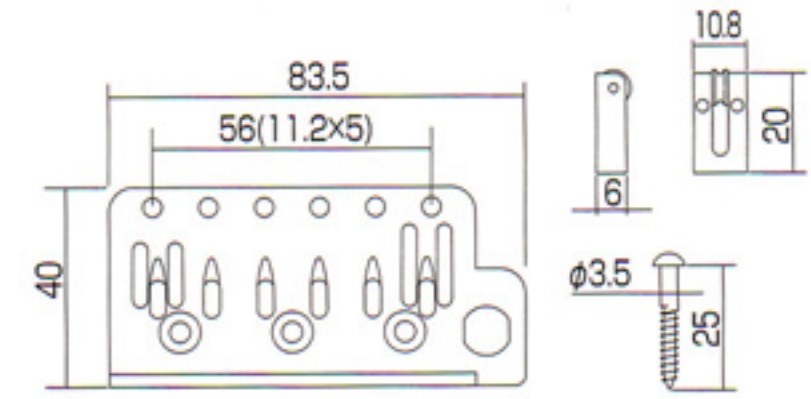
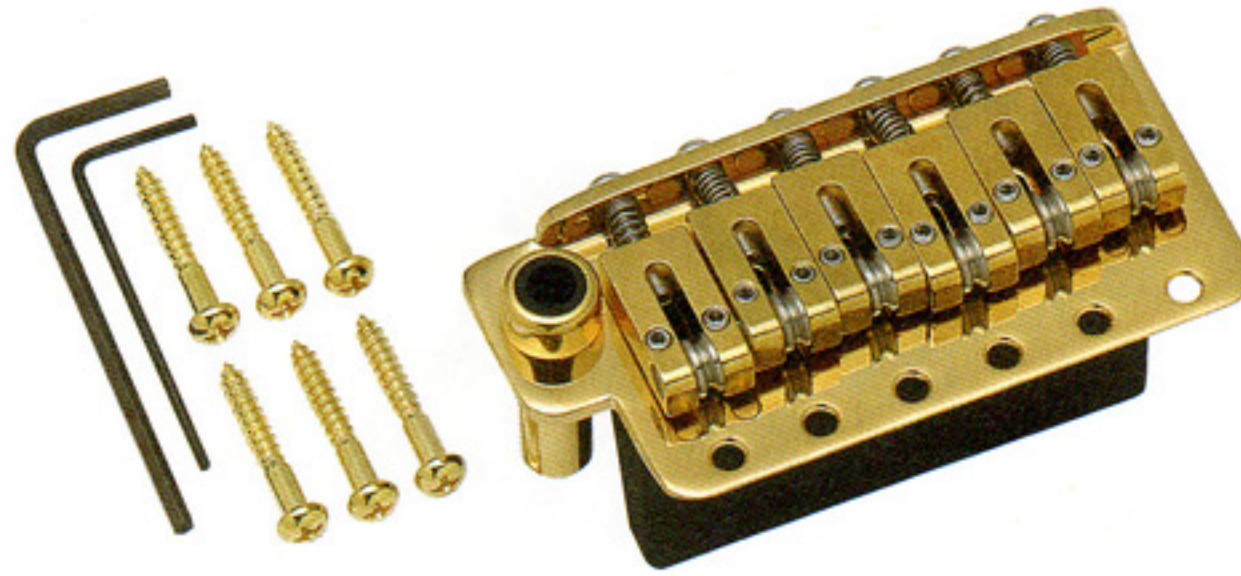




## 510T-RS2 510TS-RS2

Finishes C.GG.CK.VC

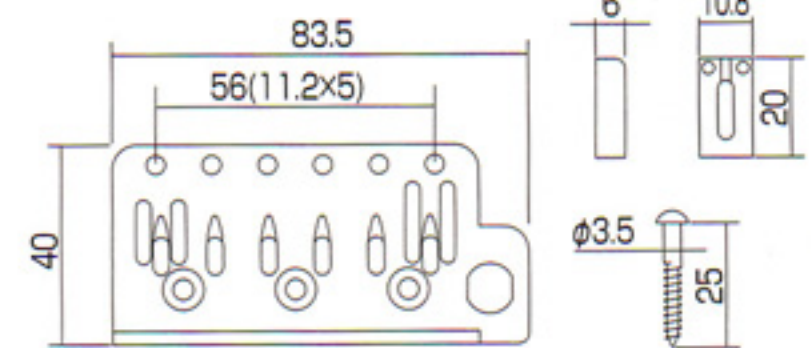
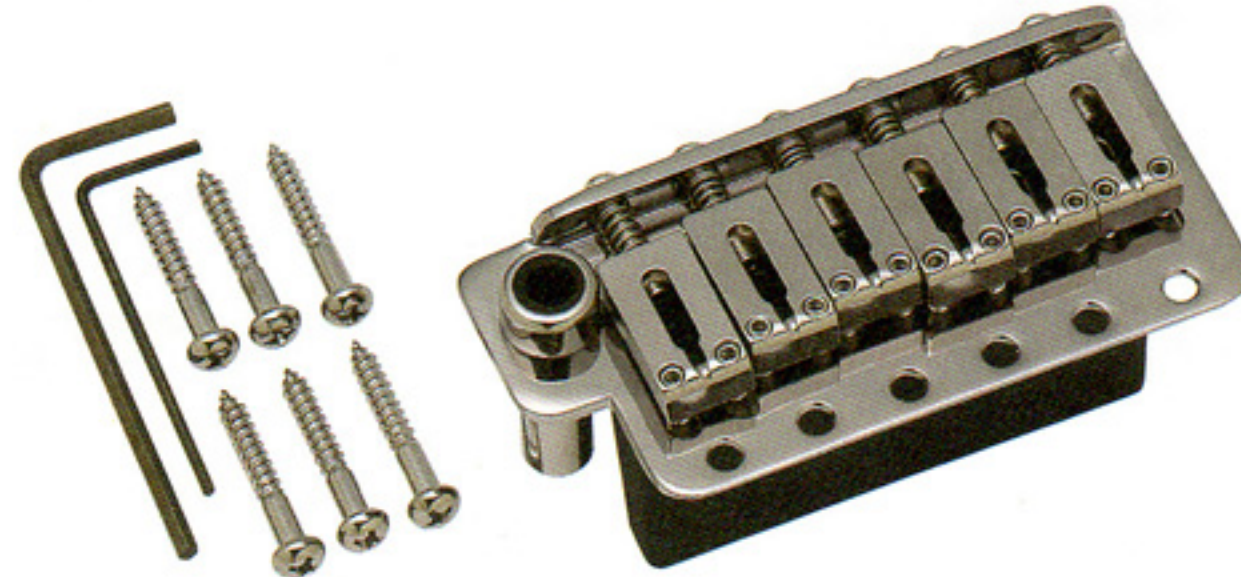
Steel with stainless roller saddle,  
string pitch 10.8mm



## 510T-FE2 510TS-FE2

Finishes C.GG.CK.VC

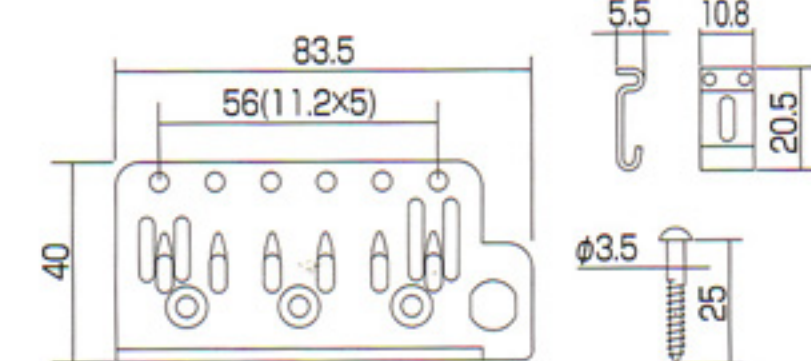
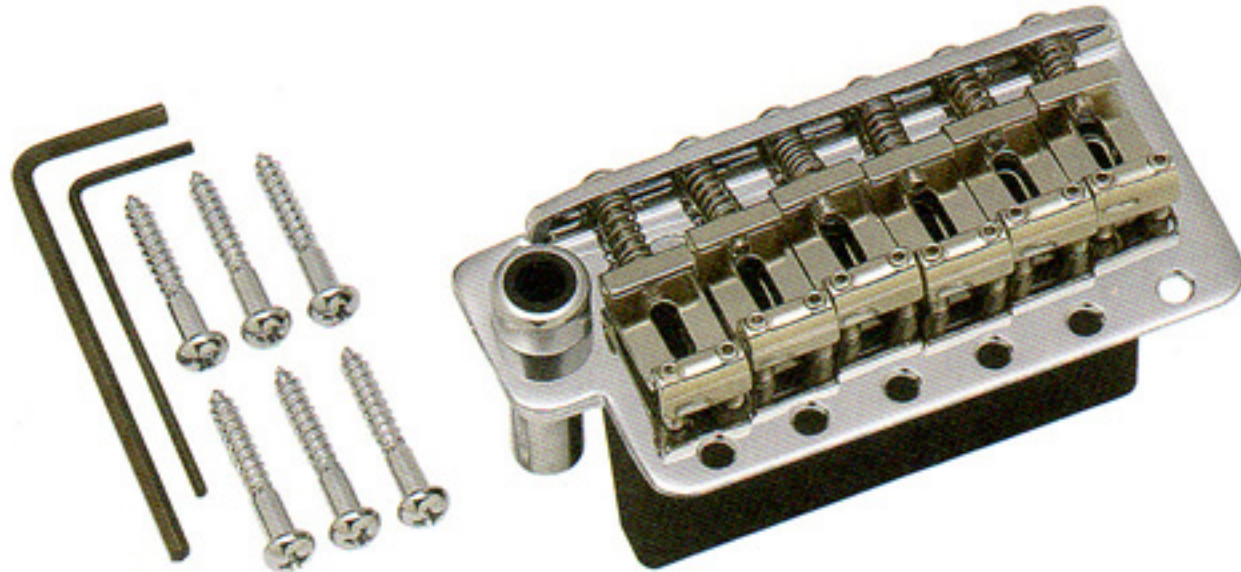
Steel saddle,  
string pitch 10.8mm



## 510T-SF2 510TS-SF2

Finishes C.GG.CK.VC

Steel saddle(sheet metal),  
string pitch 10.8mm



## Arms

A1

For GE101T, 102T  
Finishes/C.GG.CK.VC

φ5

A2

For GE101T, 102T  
Finishes/C.GG.CK.VC

φ5

B1

For GE101TS  
Finishes/C.GG.CK.VC

φ4.8

B2

For GE101TS  
Finishes/C.GG.CK.VC

φ4.8

A5

For 510AT(FT)-1,  
510AT(FT)-2  
Finishes/C.GG

φ5.5

A7

For 510T, VS100N,  
VG300  
Finishes/C.GG.CK.HG

φ5.5

A8

For OGE1088T, 1099T  
Finishes/C

φ5

F1

For GE1988T  
Finishes/C.GG

φ5.5

F3

For GE1996T  
Finishes/C.GG.CK.VC

φ5.5

C1

Finishes/C.GG

φ6

AW-1

For VS100G  
Finishes/C.HG

φ5.5

AW-2

For VSVG, VS400(V),  
VSV400(P)  
Finishes/C.GG.CK

φ5

Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome, XN-Excellent Nickel, XC-Excellent Chrome, XG-Excellent Gold

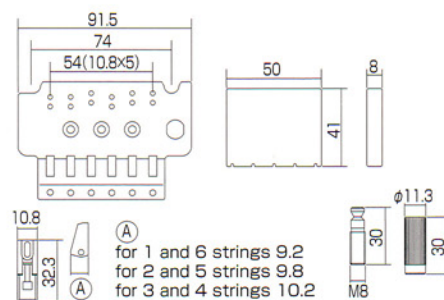
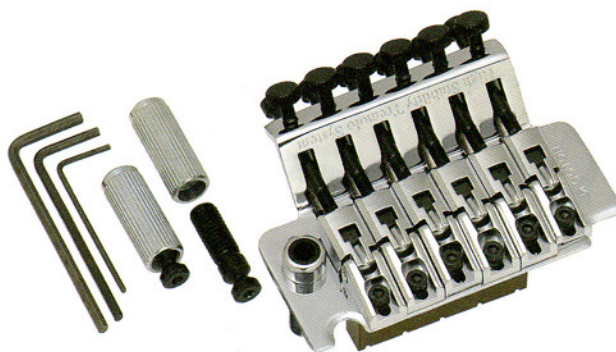




# Tremolo Units & Lock Nuts

## GE1996T

Finishes | C.GG.CK.VC  
Specially processed  
steel saddle,  
string pitch 10.8mm  
Stud lock-Pat.



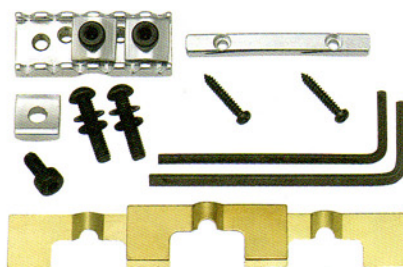
## FGR-1

## FGR-2

## GHL-1

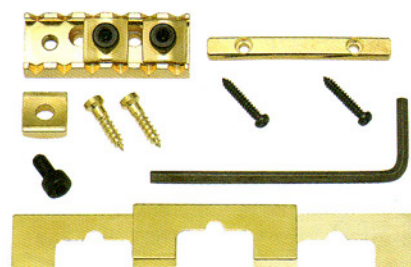
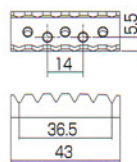
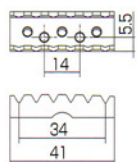
## GHL-2

Finishes | C.GG.CK.VC



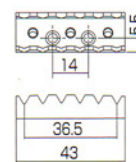
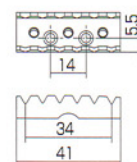
FGR-1

GHL-1



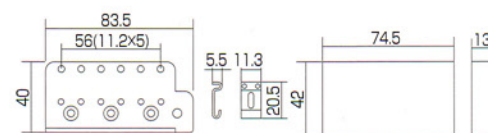
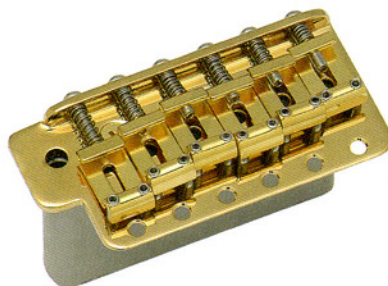
FGR-2

GHL-2



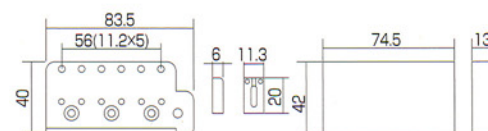
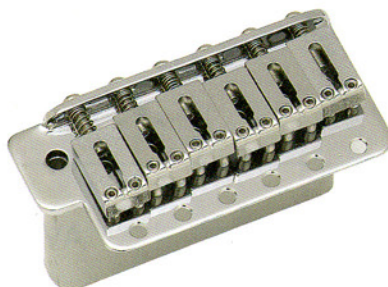
## GE101T

Finishes | C.GG.CK.VC  
Steel saddle(sheet metal),  
string pitch 11.3mm



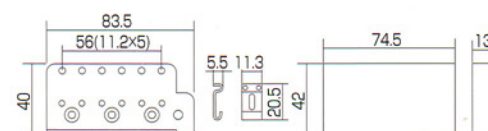
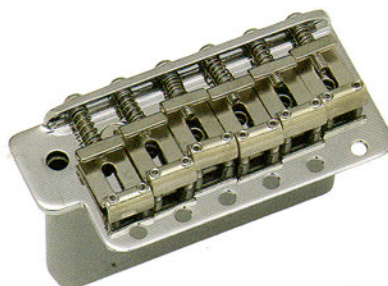
## GE102T

Finishes | C.GG.CK.VC  
Steel saddle,  
string pitch 11.3mm



## GE101TS

Finishes | C.GG.CK.VC  
Steel block  
Steel saddle(sheet metal)  
with U.S.A. threads screws,  
string pitch 11.3mm





## Guitar Bridges &amp; Tailpieces

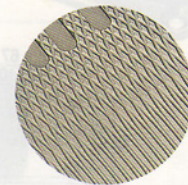
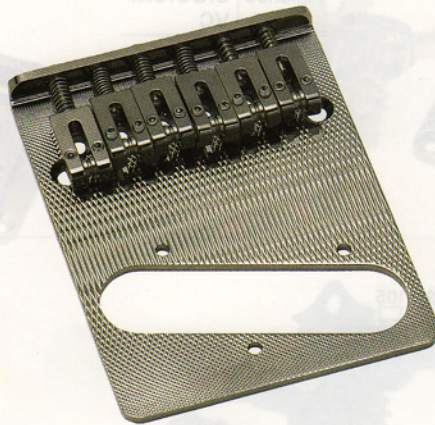
## 510 Series

## GTC510

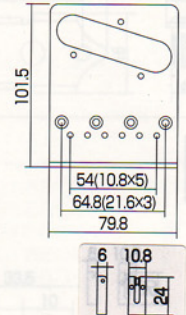


Finishes C.GG.CK.VC.  
XN.XC.XG

Stainless string guide,  
string pitch 10.8mm



▲Surface enlarged photo

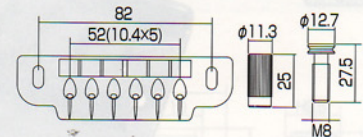
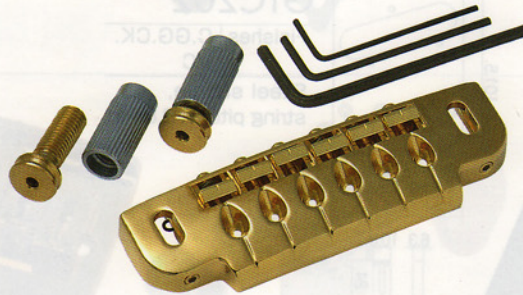


## 510UB



Finishes C.GG.CK.VC.  
XN.XC.XG

Hard zinc saddle  
Stud lock-Pat.

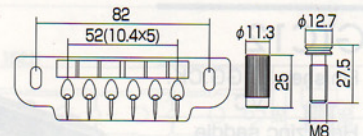
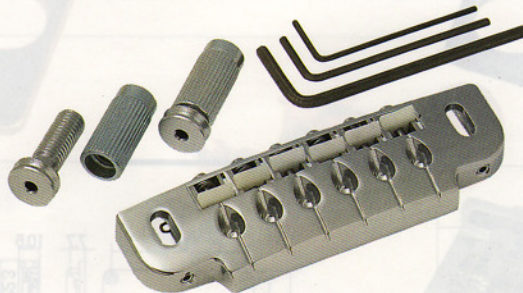


## P510UB



Finishes C.GG.CK.VC.  
XN.XC.XG

Plastic saddle  
Stud lock-Pat.

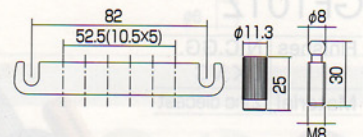
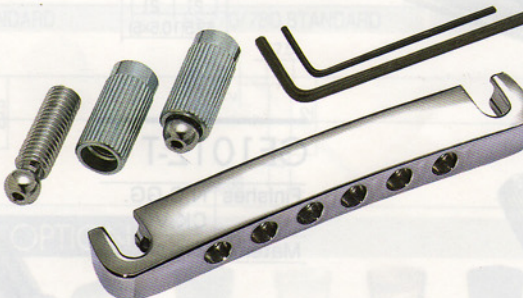


## 510FA



Finishes C.GG.CK.VC.  
XN.XC.XG

Material/Aluminum  
Stud lock-Pat.

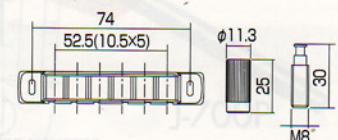
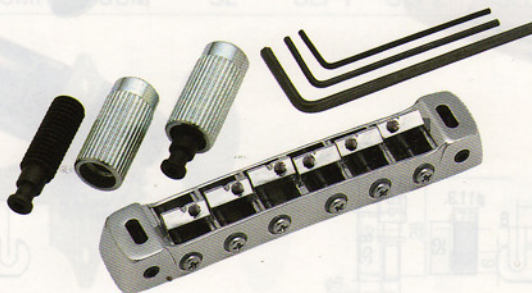


## 510FB



Finishes C.GG.CK.VC.  
XN.XC.XG

Brass saddle  
Stud lock-Pat.



Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome, XN-Excellent Nickel, XC-Excellent Chrome, XG-Excellent Gold

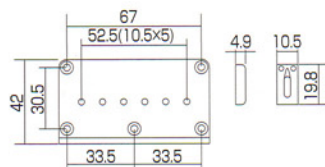
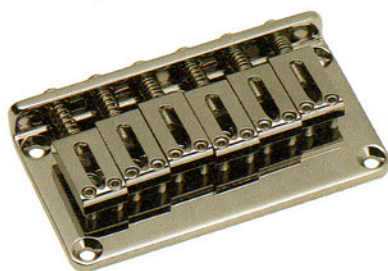


# Guitar Bridges & Tailpieces

## GTC101

Finishes C.GG.CK.  
VC

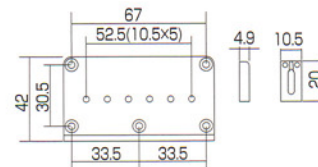
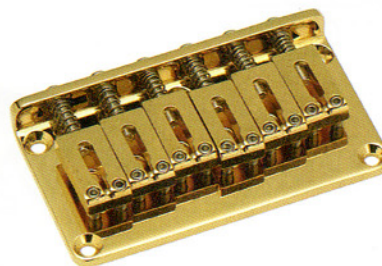
Brass saddle,  
string pitch 10.5mm



## GTC102

Finishes C.GG.CK.  
VC

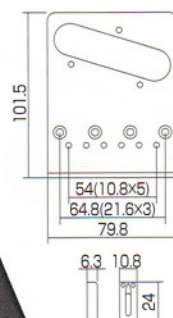
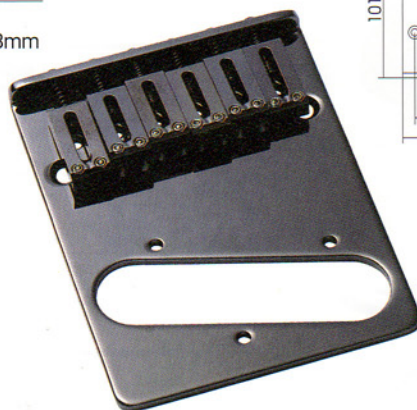
Steel saddle,  
string pitch 10.5mm



## GTC201

Finishes C.GG.CK.  
VC

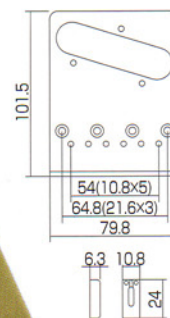
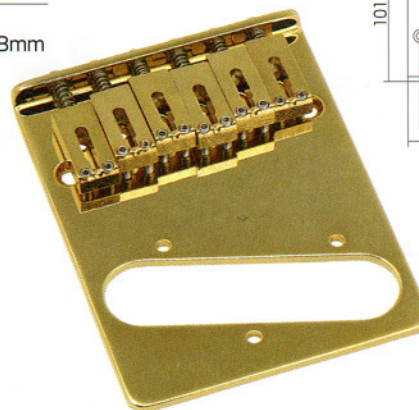
Brass saddle,  
string pitch 10.8mm



## GTC202

Finishes C.GG.CK.  
VC

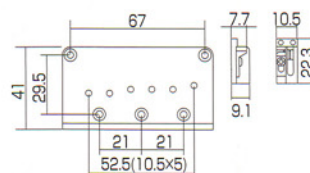
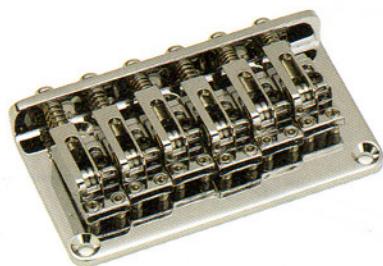
Steel saddle,  
string pitch 10.8mm



## GTC12

Finishes C.GG.CK.  
VC

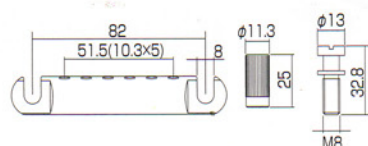
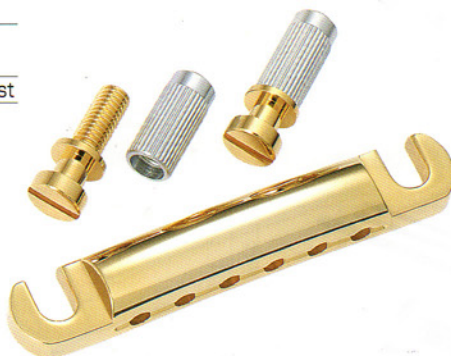
Hard zinc saddle,  
String pitch 10.5mm  
for 12-strings



## GE101Z

Finishes N.C.GG.  
CK.VC

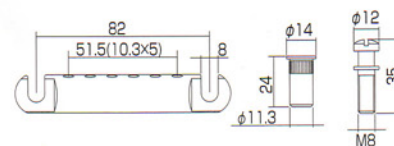
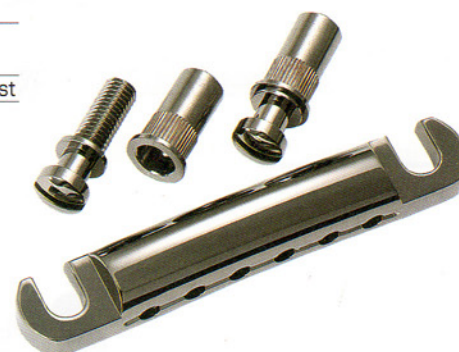
Material Zinc diecast



## GE101Z-T

Finishes N.C.GG.  
CK.VC

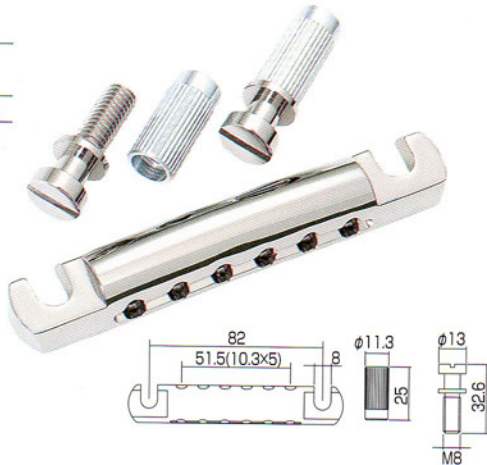
Material Zinc diecast



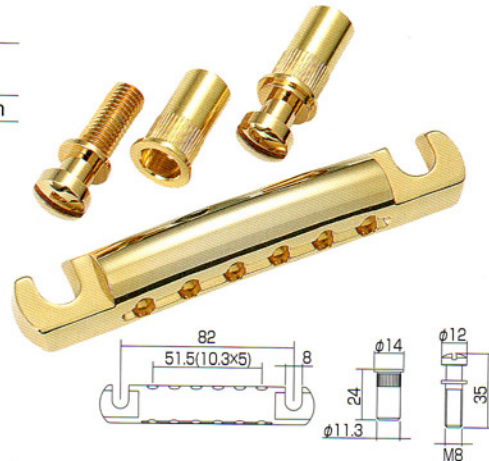


**GE101A**

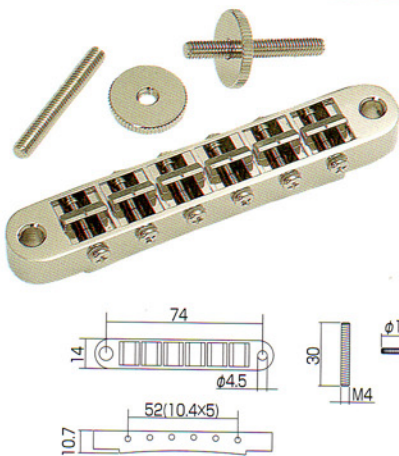
Finishes	N.C.GG. CK.VC
Material	Aluminum

**GE101A-T**

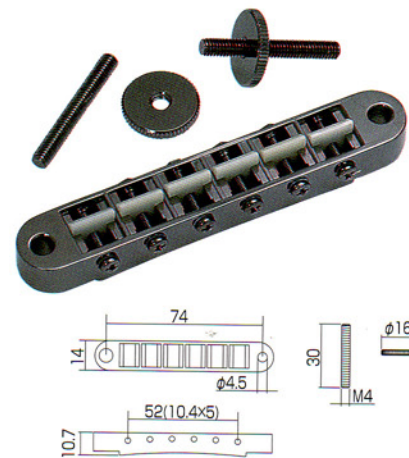
Finishes	N.C.GG. CK.VC
Material	Aluminum

**GE103B**

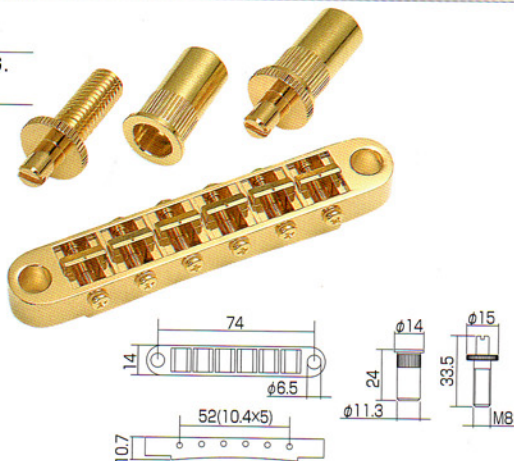
Finishes	N.C.GG. CK.VC
Hard zinc saddle	

**GEP103B**

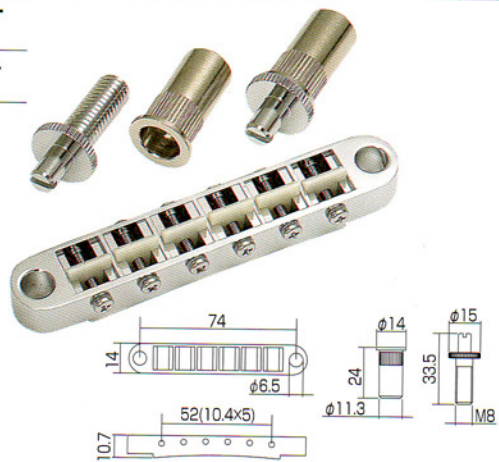
Finishes	N.C.GG. CK.VC
Plastic saddle	

**GE103B-T**

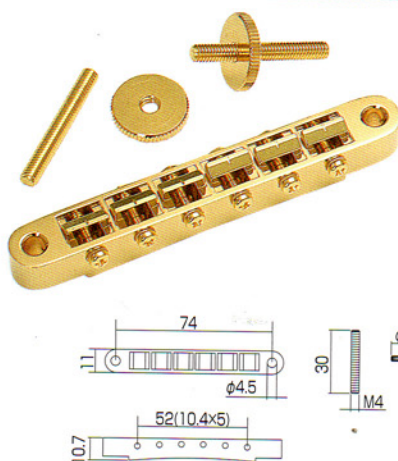
Finishes	N.C.GG. CK.VC
Hard zinc saddle	

**GEP103B-T**

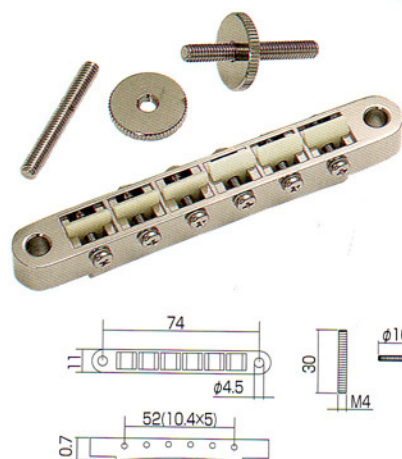
Finishes	N.C.GG. CK.VC
Plastic saddle	

**GE104B**

Finishes	N.C.GG. CK.VC
Hard zinc saddle	

**GEP104B**

Finishes	N.C.GG. CK.VC
Plastic saddle	



Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome



## Bass Bridges

### "Multi-Tonal" Series

303/404/J510 series of bass bridge assemblies allows bass players to "Dial in" their own individual sound that will suit their unique playing styles and sonic qualities of their chosen bass.

303 models have base-plates made from a specially blended Aluminum Alloy we call "RES-O-LITE"™. Due to the inherent "multi frequency" resonance transfer properties of "RES-O-LITE"™, a wider range of frequencies encompassing ground pounding bass to articulate highs are transmitted to the body of the guitar.

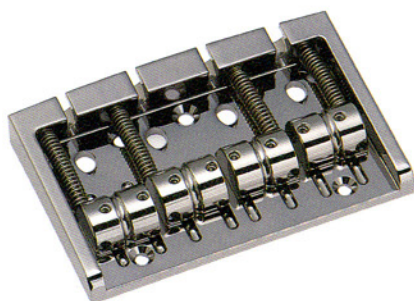
404/J510 have hard zinc base-plates that impart a flatter frequency response. This is sometimes preferred by bass players with active system where EQ can be adjusted to their specific needs.

Available saddle options "SJ" (Steel), "BO" (Brass) and AO ("RES-O-LITE"™). Now you can design your own Bass Bridge for your unique sound. Never before has such a diverse "Tonal palette" been available for this most expressive of stringed instruments.

### 303SJ



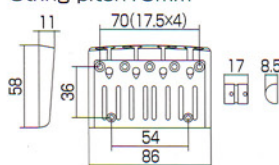
Finishes C.GG.CK.VC.  
XN.XC.XG  
Duralumin plate,  
Steel saddle



#### 303SJ-4

4-strings

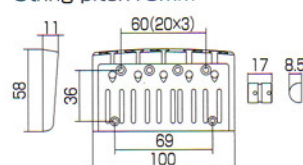
String pitch 19mm



#### 303SJ-5

5-strings

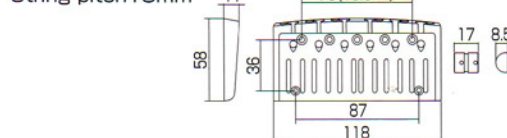
String pitch 18mm



#### 303SJ-6

6-strings

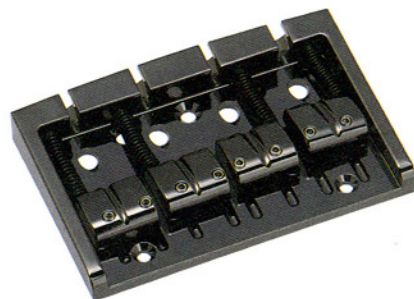
String pitch 18mm



### 303BO



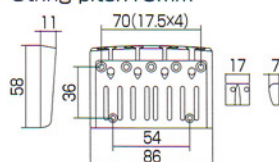
Finishes C.GG.CK.VC.  
XN.XC.XG  
Duralumin plate,  
Brass saddle



#### 303BO-4

4-strings

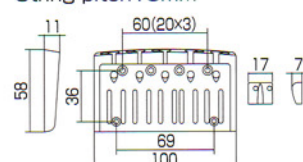
String pitch 19mm



#### 303BO-5

5-strings

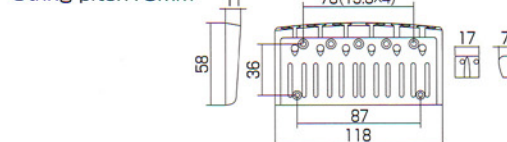
String pitch 18mm



#### 303BO-6

6-strings

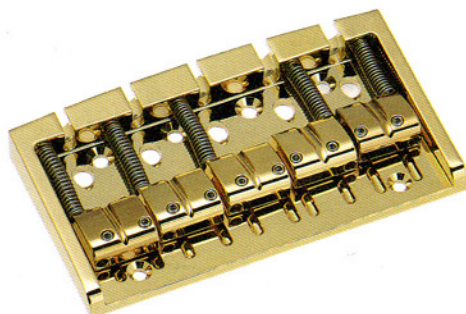
String pitch 18mm



### 303AO



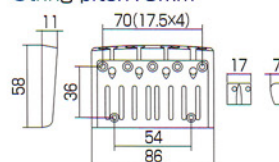
Finishes C.GG.CK.VC.  
XN.XC.XG  
Duralumin plate,  
Duralumin saddle



#### 303AO-4

4-strings

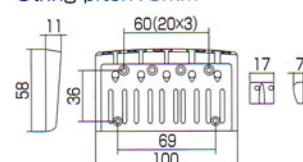
String pitch 19mm



#### 303AO-5

5-strings

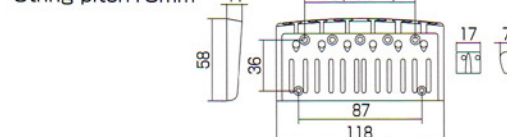
String pitch 18mm



#### 303AO-6

6-strings

String pitch 18mm



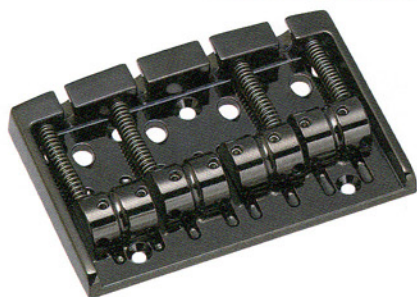


## 404SJ



Finishes C.GG.CK.VC.  
XN.XC.XG

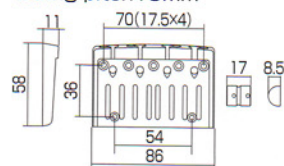
Hard zinc plate,  
steel saddle



### 404SJ-4

4-strings

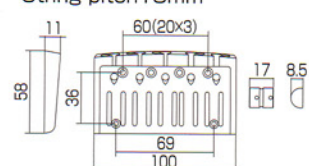
String pitch 19mm



### 404SJ-5

5-strings

String pitch 18mm

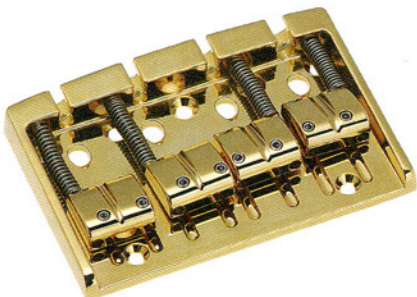


## 404BO



Finishes C.GG.CK.VC.  
XN.XC.XG

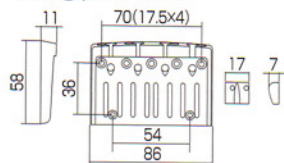
Hard zinc plate,  
brass saddle



### 404BO-4

4-strings

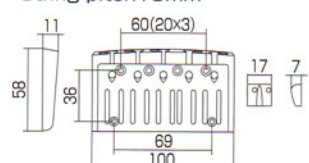
String pitch 19mm



### 404BO-5

5-strings

String pitch 18mm

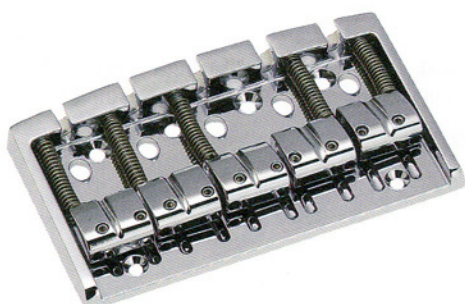


## 404AO



Finishes C.GG.CK.VC.  
XN.XC.XG

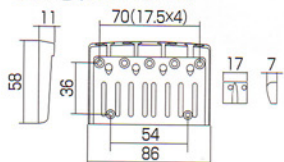
Hard zinc plate,  
Duralumin saddle



### 404AO-4

4-strings

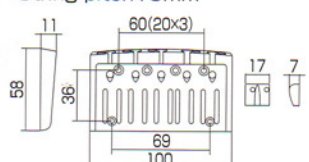
String pitch 19mm



### 404AO-5

5-strings

String pitch 18mm

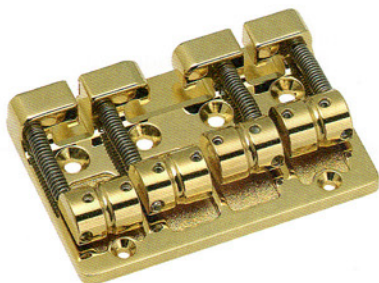


## J510SJ



Finishes C.GG.CK.VC.  
XN.XC.XG

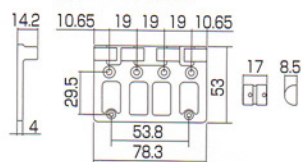
Hard zinc plate,  
Steel saddle



### J510SJ-4

4-strings

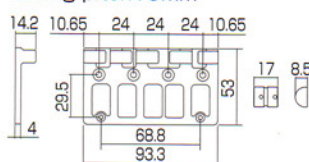
String pitch 19mm



### J510SJ-5

5-strings

String pitch 18mm

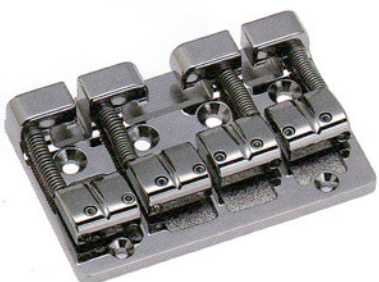


## J510BO



Finishes C.GG.CK.VC.  
XN.XC.XG

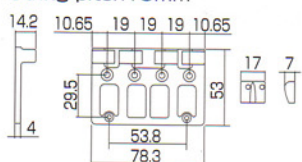
Hard zinc plate,  
brass saddle



### J510BO-4

4-strings

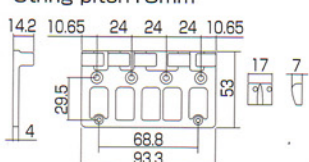
String pitch 19mm



### J510BO-5

5-strings

String pitch 18mm



## J510AO



Finishes C.GG.CK.VC.  
XN.XC.XG

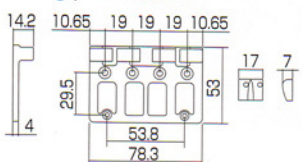
Hard zinc plate,  
Duralumin saddle



### J510AO-4

4-strings

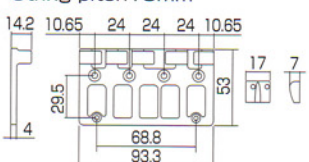
String pitch 19mm



### J510AO-5

5-strings

String pitch 18mm

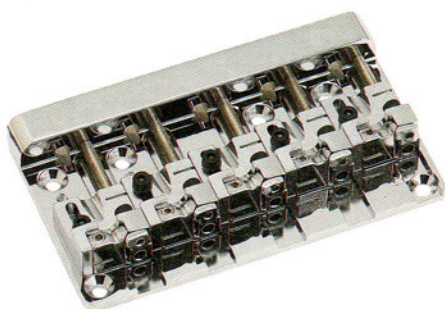




## 510 Series

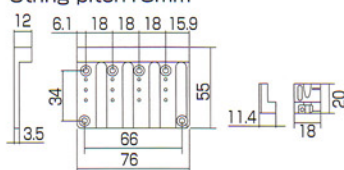
## 510B

Finishes C.GG.CK.VC  
Steel saddle

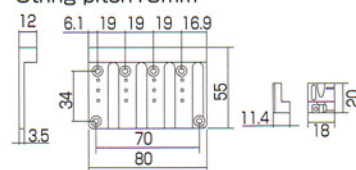


## 510B-4

String pitch 18mm



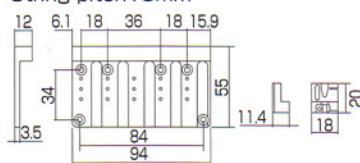
String pitch 19mm



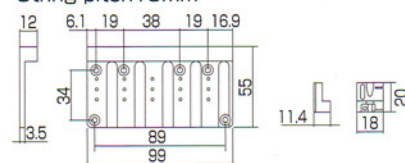
4-strings

## 510B-5

String pitch 18mm



String pitch 19mm

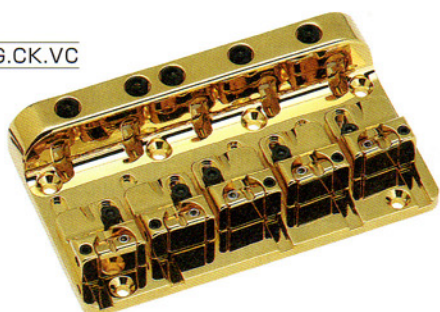


5-strings

Production of 18mm and 19mm string spacing are available. Specify the pitch when placing order.

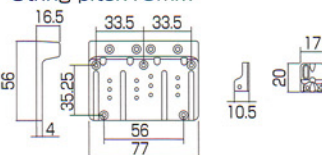
## 510TA

Finishes C.GG.CK.VC  
Steel saddle



## 510TA-4

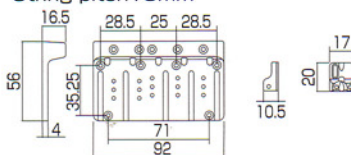
String pitch 19mm



4-strings

## 510TA-5

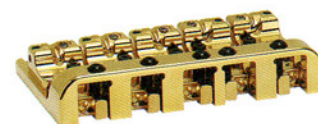
String pitch 18mm



5-strings

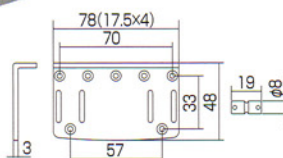
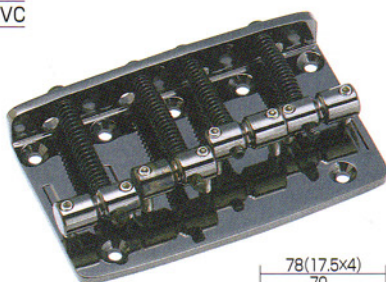
The angle of the string as it passes over the intonation point on a saddle is important on any guitar or bass. Being able to adjust this angle\* and its' respective down pressure is a most usable feature. Strings that benefit mostly are the Low E and Low B strings on a bass. Too great an angle on these strings will result in reducing the speaking length of the string creating a false intonation point in front of the saddle and the string can sound dead or muffled. Gotohs' 510 TA bass bridge allows you to adjust the precise angle of the string as it touches the saddle.

\*this is not intended as a fine tuning device



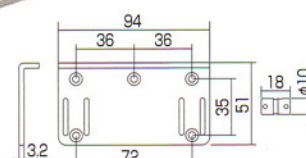
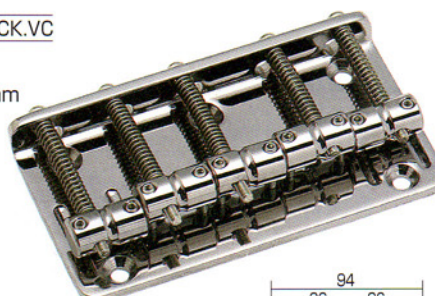
## 203B-4

Finishes N.C.GG.CK.VC  
Brass saddle,  
string pitch 19mm



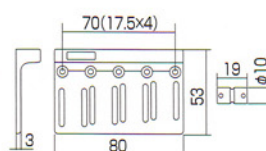
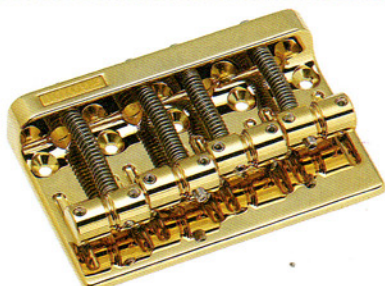
## 205B-5

Finishes N.C.GG.CK.VC  
5-strings  
Brass saddle,  
string pitch 18mm



## 201B-4

Finishes C.GG.CK.VC  
Brass saddle,  
string pitch 19mm





## Saddle Sets

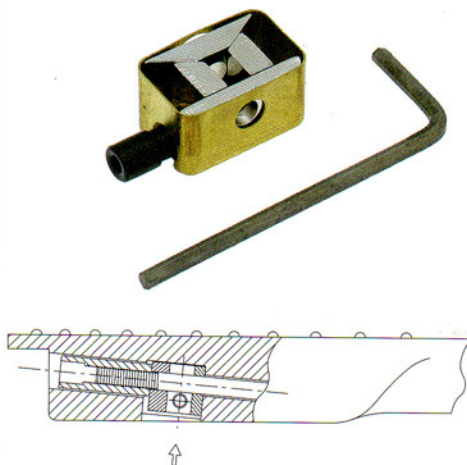
<b>S101</b> Finishes N.GG.CK.VC Material Steel(sheet metal) 6pcs/set  	<b>S101S</b> Finishes N.GG.CK.VC Material Steel(sheet metal) with USA threads screws 6pcs/set  	<b>S102</b> Finishes C.GG.CK.VC Material Steel 6pcs/set  	<b>S108</b> Finishes N.GG.CK.VC Material Steel(sheet metal) 6pcs/set  	<b>S188</b> Finishes N.GG.CK.VC Material Steel(sheet metal) 6pcs/set  	<b>S199</b> Finishes C.GG.CK.VC Material Steel 6pcs/set  
<b>SR108</b> Finishes C.GG.CK.VC Material Steel with stainless roller 6pcs/set  	<b>S11</b> Finishes C.GG.CK.VC Material Brass 6pcs/set  	<b>S21</b> Finishes C.GG.CK.VC Material Steel 6pcs/set  	<b>S12</b> Finishes C.GG.CK.VC Material Brass 6pcs/set  	<b>S22</b> Finishes C.GG.CK.VC Material Steel 6pcs/set  	<b>SW-3</b> Finish SB Material Brass 3pcs/set  
<b>S201</b> Finishes C.GG.CK.VC Material Brass 4pcs/set  	<b>S203</b> Finishes N.C.GG.CK.VC Material Brass 4pcs/set  	<b>S205</b> Finishes N.C.GG.CK.VC Material Brass 5pcs/set  	<b>SW-2V</b> Finish SB Material Brass 2pcs/set  	<b>SW-2P</b> Finish SB Material Brass 2pcs/set  	

## Side Adjuster PAT.

Gotoh's unique side adjusting truss rod is by far the easiest method for adjusting the relief in a guitar or bass neck. Old style heel adjusting truss rods require the neck to be removed from the body. Adjusters mounted at headstock can severely weaken a neck at this point of stress and can be difficult to adjust due to narrow spacing of strings. This truss rod is designed for installation at manufacture. It is not a retro-fit.

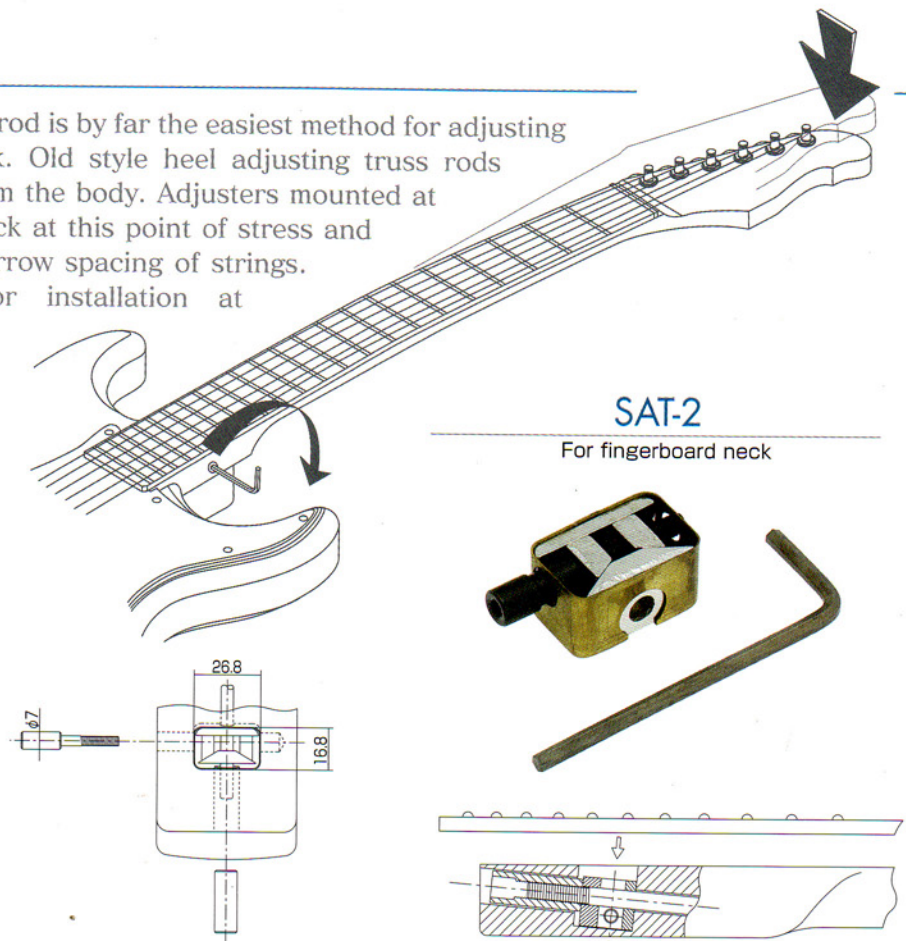
### SAT-1

For one-piece neck



### SAT-2

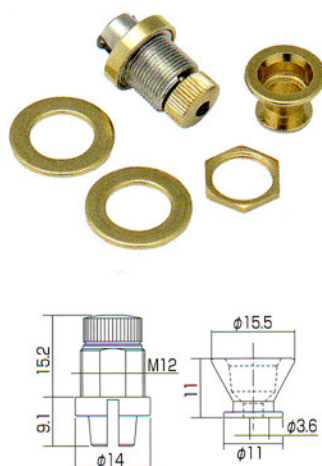
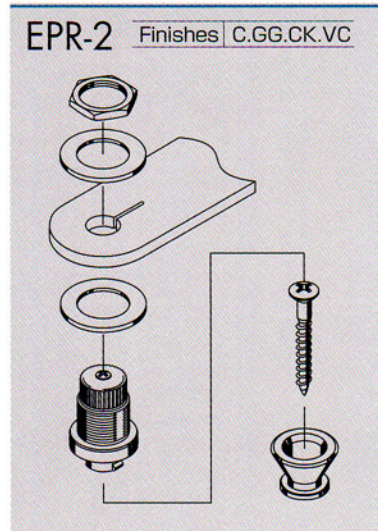
For fingerboard neck



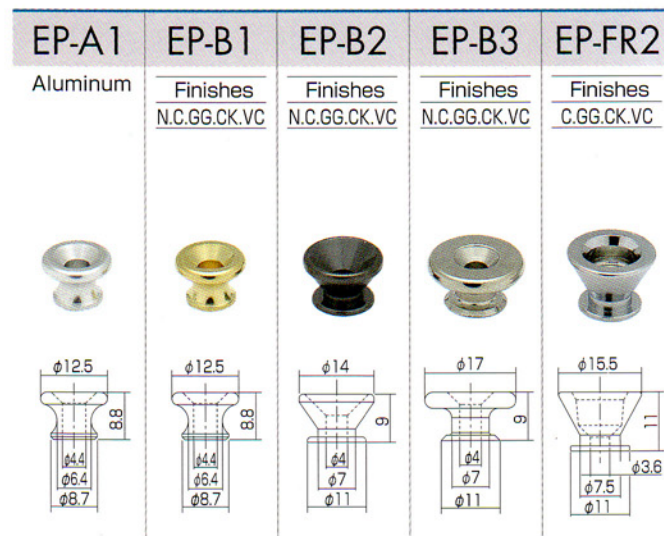
Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome, SB-Solid Brass



## Free Lock



## Strap Pin



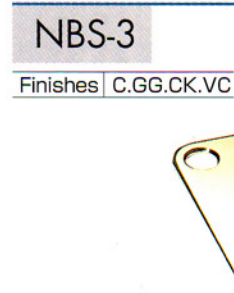
## Jack Cover



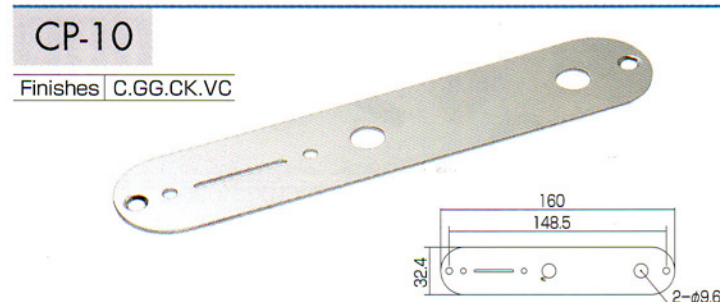
## String Bushing



## Neck Joint Plate



## Control Panel










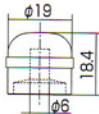

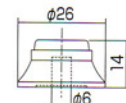
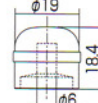
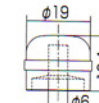
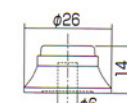


## Tension Bar










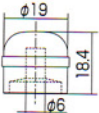
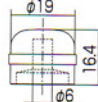
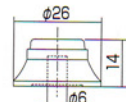
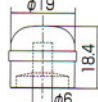
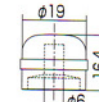
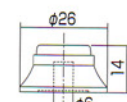




# GOTOH Original control knob of Artificial Material




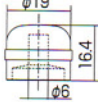

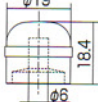
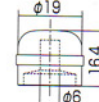

Push in type with inside rubber bush

PKM-B1 with rubber ring	PKM-B3 with rubber ring	PKM-B5 with rubber ring	PKM-A1 with Aluminum ring Finishes C.GG.CK	PKM-A3 with Aluminum ring Finishes C.GG.CK	PKM-A5 with Aluminum ring Finishes C.GG.CK	PKM-15
						
						
						PKM-18
						






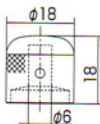
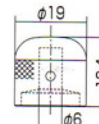
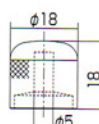
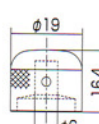
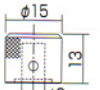
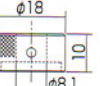
Push in type with inside rubber bush

PKB-B1 with rubber ring	PKB-B3 with rubber ring	PKB-B5 with rubber ring	PKB-A1 with Aluminum ring Finishes C.GG.CK	PKB-A3 with Aluminum ring Finishes C.GG.CK	PKB-A5 with Aluminum ring Finishes C.GG.CK	PKB-15
						
						
						PKB-18
						

Push in type with inside rubber bush

PKBB-B1 with rubber ring	PKBB-B3 with rubber ring	PKBB-B5 with rubber ring	PKBB-A1 with Aluminum ring Finishes C.GG.CK	PKBB-A3 with Aluminum ring Finishes C.GG.CK	PKBB-A5 with Aluminum ring Finishes C.GG.CK	PKBB-15
						
						
						PKBB-18
						


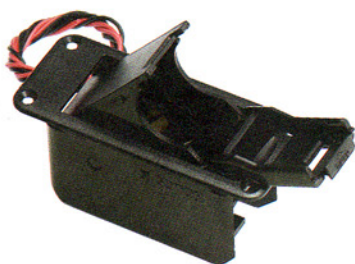

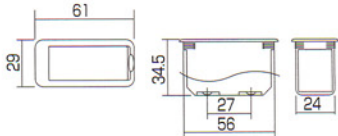
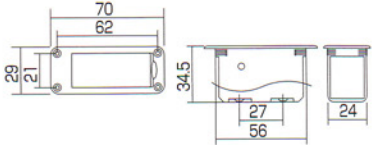
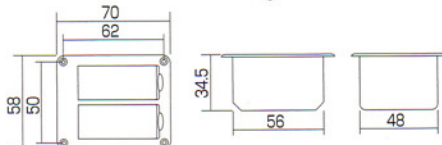
## Dome Knob

VK1-18	VK1-19	VK2	VK3	VK15T
				
				
Finishes C.GG.CK.VC	Finishes C.GG.CK.VC	Finishes C.GG.CK.VC Serration hole	Finishes C.GG.CK.VC	VK18T
				







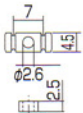
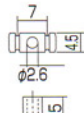

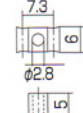
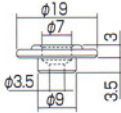
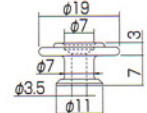
Finishes : N-Nickel, C-Chrome, GG-Gold, CK-Cosmo Black, VC-Violet Chrome




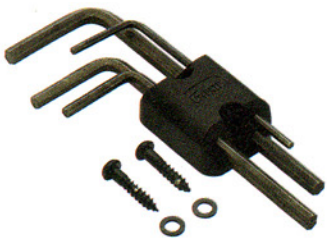
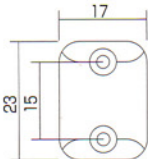
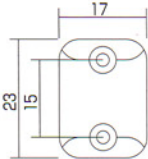
## Battery Box

BB-02	BB-04	BB-04W
		
		


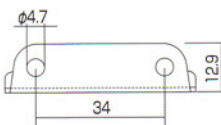
## String Retainer

RG15	RG30	RG105	RG130	RB20	RB30
Finishes N.C.GG.CK.VC	Finishes N.C.GG.CK.VC	Finishes N.C.GG.CK.VC	Finishes N.C.GG.CK.VC	Finishes N.C.GG.CK.VC	Finishes N.C.GG.CK.VC
					
					

## Wrench Holder

WRH-1	WRH-1W
	
	

## Spring Holder

SPH



## Spring



## Power Spring

Vibrato bridge is balanced by string tension and coil springs used for pulling its block and it is only by the power of coil springs to return to the original position after dive bombing of vibrato arm. It is important to have durable spring for all kinds of vibrato bridge and PSP power spring minimizes tuning instability by its durability when using vibrato.

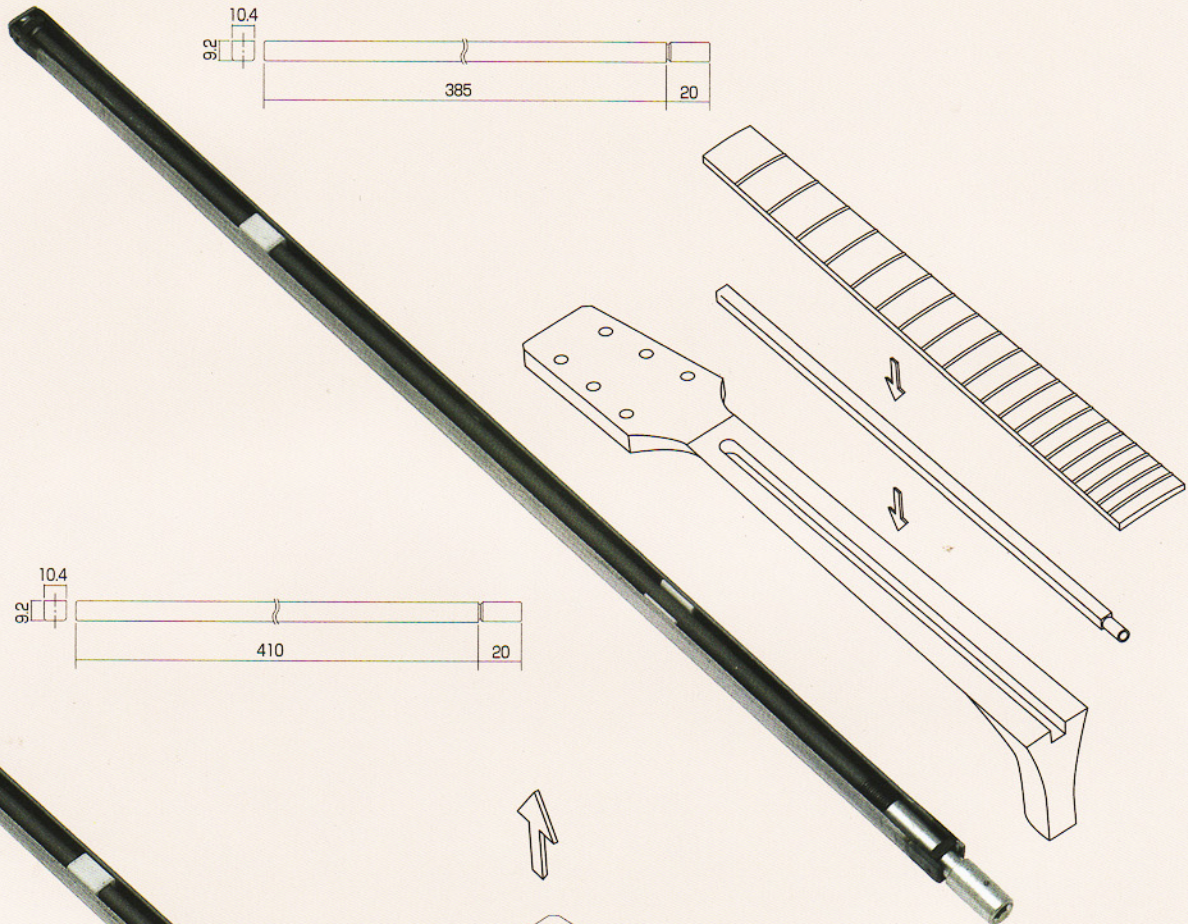




## Two-way Truss Rod PAT.P

Gotohs' TFC truss rods for Acoustic guitars can adjust a neck in both forward or backwards direction. Enabling the perfect action without relying on string tension alone to give neck relief. Installation at manufacture is as simple as conventional flat channel aluminium section. Also adds strength and stability to necks without adding undue weight.

TFC-385



TFC-410

