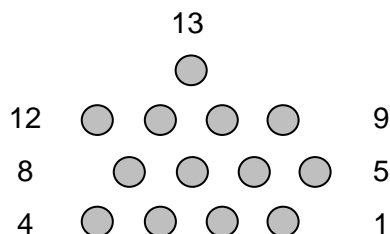


# Connector replacements and pinnings for Roland GK-Kit and Line 6 – Variax

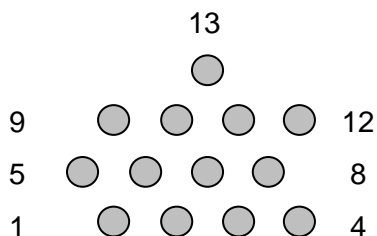
s.flamisch, 2014

13-p DIN female PCB-mounted plug

PCB-PINS Lötseite / solder side:



PCB-PINS Bauteilseite / component side:



ACC 2 Connector  
(Rear Panel view)

= DIN 13-pin plug

View:  
female front (or male solderside)

known also as ACC-Plug for Transceiver Kenwood  
or for Roland GK-System

## Roland GK-2/3 pin list (DIN 13-p)

13p-DIN	color	SIGNAL	repacement 14p-Binder conn.pins	comment
1	brown	hi E1 string	P	hexaphonic (single string) outputs, hi E1
2	blue	B	O	
3	gray	G	N	
4	orange	D	M	
5	pink	A	U	
6	purple	low E6 string	T	low E6
7	gn	Gtr Signal	G	(grounded, if Mode-switch="Synth only")
8	yel-blk	synth(MIDI)Vol	E	(0..5V DC; grounded: MIDI Vol = off!)
9	yellow	see *)	J	GK-Mode-switch - control voltage, see *)
10	red	S1 Pgm Down	S	(Sw1, active low = grounded, when pressed)
11	wht-blk	S2 Pgm Up	R	(Sw2, active low = grounded, when pressed)
12	white	+ power (+7V)	A	
13	black	- power (-7V)	L	
Case contact	ground		C	(connect also to Binder CASE)

Colors in second column are the wire colors of a standard Roland-GK-cable!

\*) Signal on Pin 9 ist not processed by the most GK-compatible units, therefore often left unconnected!  
It sends the position information of the 3-position GK-mode-switch by an analog voltage.

New GK-3 Pin 9 specifications are:

0.521V(+/-5%) : GUITAR position of GK-3 compatible unit

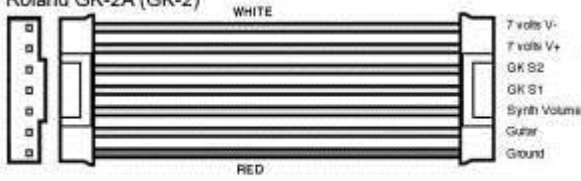
1.042V(+/-5%) : MIX position of GK-3 compatible unit

1.563V(+/-5%) : GK (Synth) position of GK-3 compatible unit

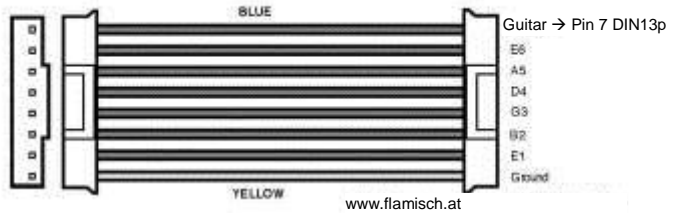
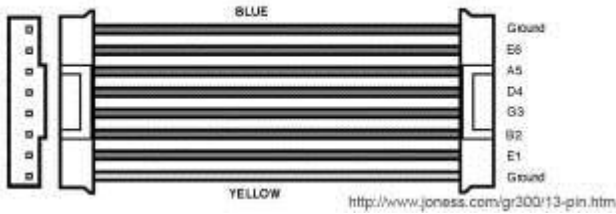
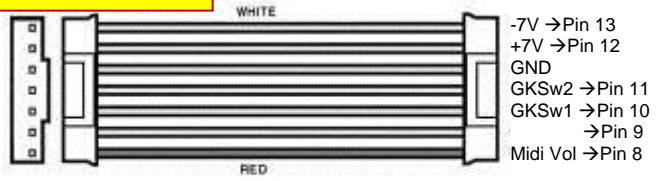
Analog signals on Pins 1 to 6 and Pin 7 are buffered by preamps and feed the cable with low impedance

# GK-Kit connections (Conn. A and B, 2,0 mm – grid spacing!)

Roland GK-2A (GK-2)

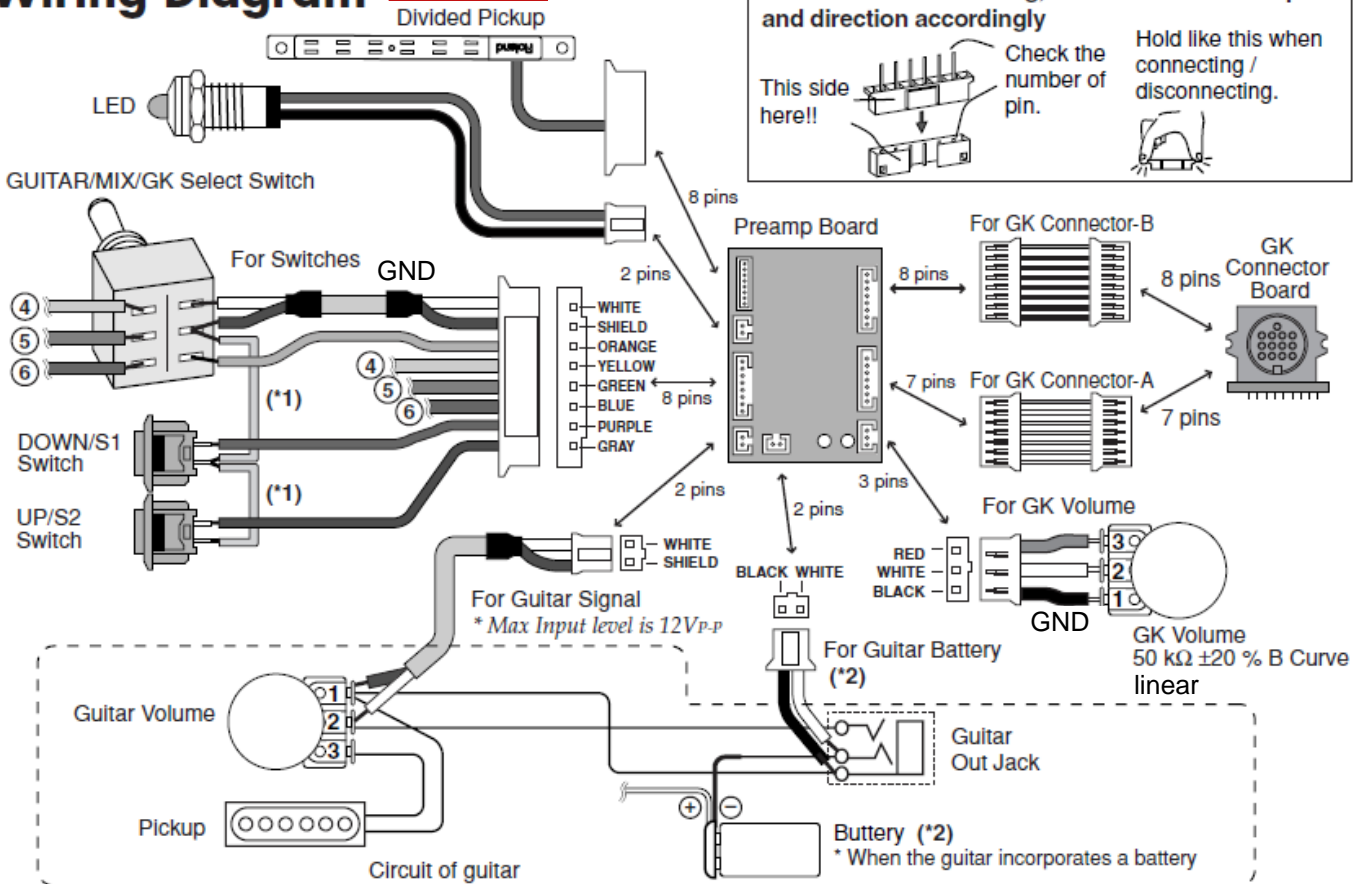


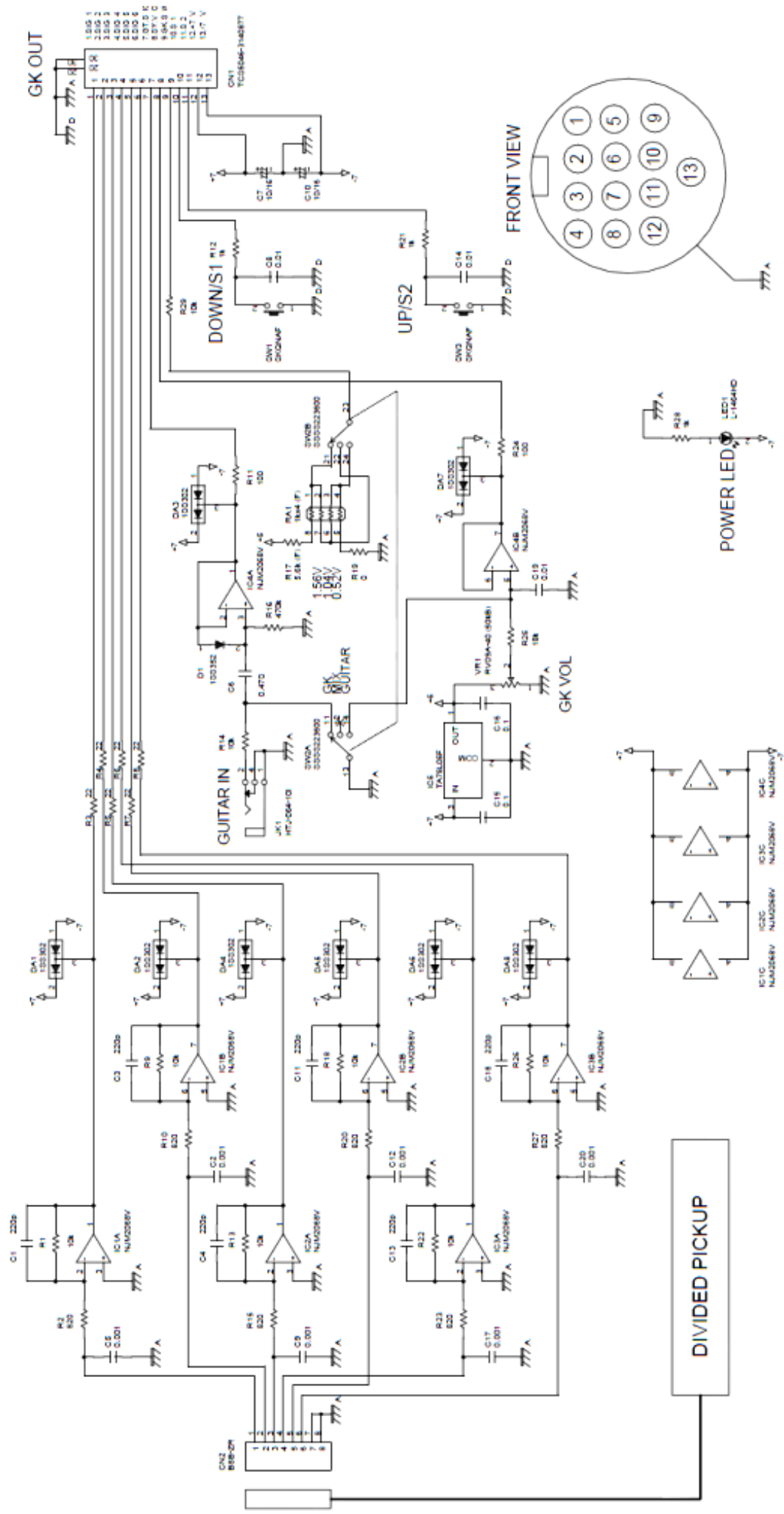
Newer GK-3 Kit !



## Wiring Diagram

GK-3 Kit !



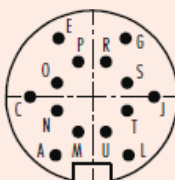
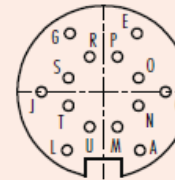


# Repair noise and contact problems with the 13p-DIN connector on Roland GK-Systems

If you use the built-in GK-Kit in your guitar, you can replace the 13p-DIN connector on the guitar side with a professional industrial connector:

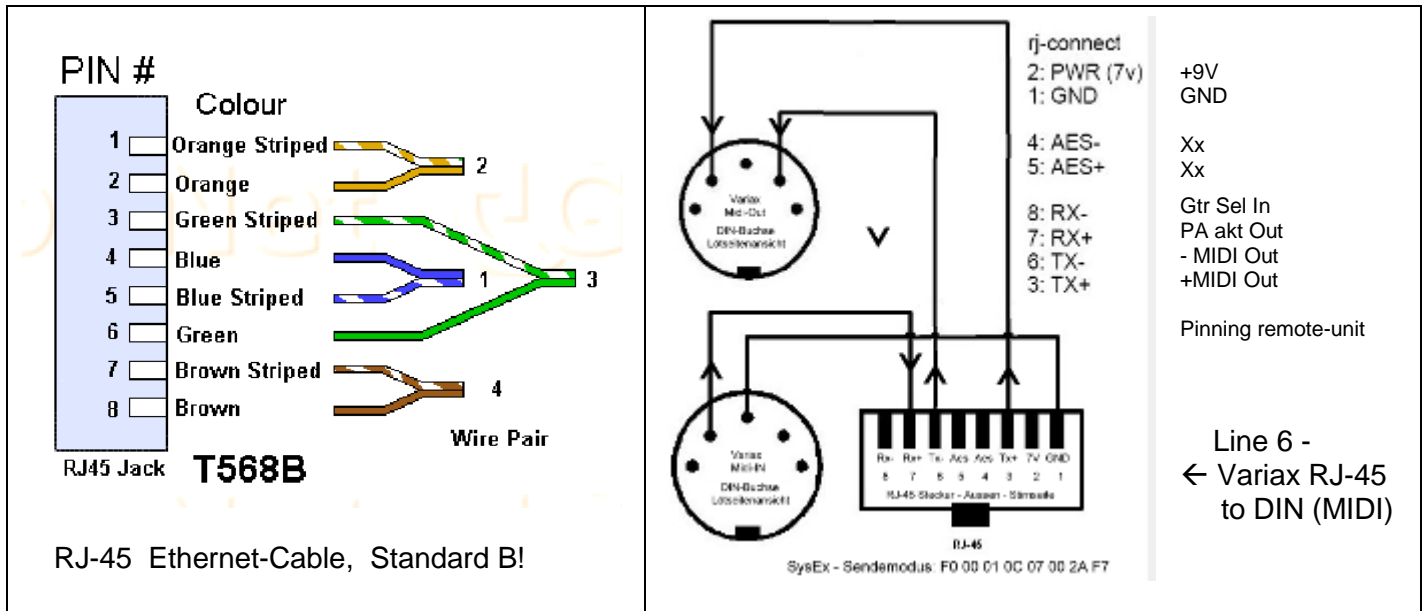
BINDER Series 680 and 682 (14-pole connectors) will work better than the original connectors!  
Caution! For professional soldering-specialists only!

The binder connector in the guitar can be wired in parallel to the GK-connector, so each of the connectors may be used (see pictures below)!

Stifteinsatz (Steckseite) Male insert (mating side)		male (mating) or female (solder side)	Buchseinsatz (Steckseite) Female insert (mating side)		female (mating) or male (solder side)																																																																																										
14 pol 14 contacts																																																																																															
		<table border="1"> <thead> <tr> <th></th> <th>X</th> <th>Y</th> </tr> </thead> <tbody> <tr><td>A</td><td>-2,50</td><td>-4,00</td></tr> <tr><td>C</td><td>-4,25</td><td>0,00</td></tr> <tr><td>E</td><td>-2,30</td><td>4,00</td></tr> <tr><td>G</td><td>2,30</td><td>4,00</td></tr> <tr><td>J</td><td>4,25</td><td>0,00</td></tr> <tr><td>L</td><td>2,50</td><td>-4,00</td></tr> <tr><td>M</td><td>-0,95</td><td>-2,40</td></tr> <tr><td>N</td><td>-2,40</td><td>-0,95</td></tr> <tr><td>O</td><td>-2,40</td><td>0,95</td></tr> <tr><td>P</td><td>-0,95</td><td>2,40</td></tr> <tr><td>R</td><td>0,95</td><td>2,40</td></tr> <tr><td>S</td><td>2,40</td><td>0,95</td></tr> <tr><td>T</td><td>2,40</td><td>-0,95</td></tr> <tr><td>U</td><td>0,95</td><td>-2,40</td></tr> </tbody> </table>		X	Y	A	-2,50	-4,00	C	-4,25	0,00	E	-2,30	4,00	G	2,30	4,00	J	4,25	0,00	L	2,50	-4,00	M	-0,95	-2,40	N	-2,40	-0,95	O	-2,40	0,95	P	-0,95	2,40	R	0,95	2,40	S	2,40	0,95	T	2,40	-0,95	U	0,95	-2,40			<table border="1"> <thead> <tr> <th></th> <th>X</th> <th>Y</th> </tr> </thead> <tbody> <tr><td>A</td><td>2,50</td><td>-4,00</td></tr> <tr><td>C</td><td>4,25</td><td>0,00</td></tr> <tr><td>E</td><td>2,30</td><td>4,00</td></tr> <tr><td>G</td><td>-2,30</td><td>4,00</td></tr> <tr><td>J</td><td>-4,25</td><td>0,00</td></tr> <tr><td>L</td><td>-2,50</td><td>-4,00</td></tr> <tr><td>M</td><td>0,95</td><td>-2,40</td></tr> <tr><td>N</td><td>2,40</td><td>-0,95</td></tr> <tr><td>O</td><td>2,40</td><td>0,95</td></tr> <tr><td>P</td><td>0,95</td><td>2,40</td></tr> <tr><td>R</td><td>-0,95</td><td>2,40</td></tr> <tr><td>S</td><td>-2,40</td><td>0,95</td></tr> <tr><td>T</td><td>-2,40</td><td>-0,95</td></tr> <tr><td>U</td><td>-0,95</td><td>-2,40</td></tr> </tbody> </table>		X	Y	A	2,50	-4,00	C	4,25	0,00	E	2,30	4,00	G	-2,30	4,00	J	-4,25	0,00	L	-2,50	-4,00	M	0,95	-2,40	N	2,40	-0,95	O	2,40	0,95	P	0,95	2,40	R	-0,95	2,40	S	-2,40	0,95	T	-2,40	-0,95	U	-0,95	-2,40
	X	Y																																																																																													
A	-2,50	-4,00																																																																																													
C	-4,25	0,00																																																																																													
E	-2,30	4,00																																																																																													
G	2,30	4,00																																																																																													
J	4,25	0,00																																																																																													
L	2,50	-4,00																																																																																													
M	-0,95	-2,40																																																																																													
N	-2,40	-0,95																																																																																													
O	-2,40	0,95																																																																																													
P	-0,95	2,40																																																																																													
R	0,95	2,40																																																																																													
S	2,40	0,95																																																																																													
T	2,40	-0,95																																																																																													
U	0,95	-2,40																																																																																													
	X	Y																																																																																													
A	2,50	-4,00																																																																																													
C	4,25	0,00																																																																																													
E	2,30	4,00																																																																																													
G	-2,30	4,00																																																																																													
J	-4,25	0,00																																																																																													
L	-2,50	-4,00																																																																																													
M	0,95	-2,40																																																																																													
N	2,40	-0,95																																																																																													
O	2,40	0,95																																																																																													
P	0,95	2,40																																																																																													
R	-0,95	2,40																																																																																													
S	-2,40	0,95																																																																																													
T	-2,40	-0,95																																																																																													
U	-0,95	-2,40																																																																																													



# Variax system wirings



## Repair contact problems with Variax DC-Supply over Stereo-Jack

(for all Variax 300/500/600/700 – Series)

- 1) Connect in parallel a XLR 5 pole – female – plug to the female Stereo-Jack on your guitar!
- 2) Use good, shielded cable with thick wire gauge, for example SOMMER CABLE SQUARE 4-CORE MKII HIGHFLEX with 2 paralleled wires for 9V DC and one wire parallel to copper screen for ground  
So you will get a noiseless, stable and low impedance connection to your guitar on stage!  
Remark: a 3-pole XLR - connector will also work, I used the 5 pole XLR to avoid mistakes ...

XLR to 6,35mm Stereo-Jack

-----

1 \ / Sleeve=Ground  
 2 / \ Sleeve=Ground  
 3 Tip = hot (guitar signal)  
 4 \ / Ring = + 9V DC  
 5 / \ Ring = + 9V DC  
 Case/Shield Sleeve/Ground

Professional Variax – connector, wired parallel to existing Jack on my US-Strat with Piezo-Bridge and Variax 300-electronic. I use a *tilted* Neutrik 5p-XLR male plug on the cable ...



S. Flamisch, 2014