

Racegun FAQ

Version 1.0

Firmware

Question: What firmware should I be running in my grip?

Answer: In general Racegun recommends that you always use the latest firmware in your grip check in the download section of <http://www.raceguns.dk> and get the latest version for free. Only exception is if you are running a 9 volt version of the grip then you will need to use firmware version 2.0.5

Question: Can I use Racegun firmware in my Pro Paintball or ANS grip?

Answer: Yes as long as you have a grip with a Racegun rechargeable battery you can use the latest and greatest firmware in your grip.

Question: Why don't you develop a 9 volt firmware with all the new features?

Answer: Racegun never released a 9 volt version of our own product – we found it to be problematic (limited battery life and a mechanical challenge to fit the 9 volt cells), since we saw no future in the product in this version we stopped support for 9 volt operation with Firmware version 2.0.5.

Question: How do I load the firmware into my grip?

Answer: Normally all you need to do is connect your grip to a PC running the R.I.P. program – put the grip in safe mode – select “function” menu – select “put” – select “firmware program” – select the file you want to use and press “open”.

The grip will now be updated with the selected firmware file.

Please note that all firmware files must be unpacked to a local folder on your computer and the files must have the extension rgf f.ex. 2_0_26.rgf – if you are having problems downloading a firmware file to a grip please open the firmware file in a text editor (like Notepad) and check that the second line says something like “Firmware: 2.0.25” if that is not the case you have a problem with the firmware file itself and you need to download a new one (remember to unpack it).

Question: Is there a way to force an update of the firmware in the grip?

Answer: Yes – there is a trick to put the grip in boot mode which will bypass certain checks normally done when upgrading the firmware in the grip. This is normally referred to as the JEDI trick. Turn off your grip - press and hold arrow up and turn the grip on – this will make both the green and the red led on the grip turn on at the same time – the grip is now in boot mode. Follow the normal procedure for downloading firmware to the grip and everything should work.

This is very useful if you get error 380 when you try to update the firmware in the grip or if the grip runs out of battery during a firmware update.

Question: Can I run firmware version 2.X.X in a grip that has firmware version 1.X.X?

Answer: No you can not use version 2 firmware on a board originally supplied with version 1 firmware. This is due to the fact that the actual electronics is different for the two versions and only the version 2 board supports version 2 firmwares.

Question: Can I download new firmware to my grip using a Palm computer?

Answer: No you will need a PC to upgrade the firmware in the grip

R.I.P.

Question: Do I need a special version of the R.I.P to program my grip?

Answer: No all versions of the grip are fully compatible with the latest version of the R.I.P. for PC. The same is true with regards to the Palm R.I.P which supports all versions of the grips as well with the exception of 9 volt grips (firmware 2.0.5).

Question: I keep getting error 10201 – what’s wrong?

Answer: Error 10201 means the R.I.P software can’t see the grip on the selected port – make sure that the cables are properly connected and that the grip is on and in “safe” mode. If you still can’t communicate with the grip you most likely have the serial cable connected to the wrong serial port of your computer or haven’t set the R.I.P. port correct (check the function-options-communications menu). Other possibilities for error 10201 includes programs that are using the same serial port as the one the grip is connected to (programs like Palm Hotsync, Fax/modem software and digitizer can cause this) and defect cables/ports.

If you keep getting error 10201 try the grip and cables on another PC to check that the problem is not related to these parts.

Question: What does error 380 mean?

Answer: Error 380 means that a value either in the grip or in the software is not valid. Try to use the JEDI trick (mentioned under firmware) and if that does not work uninstall the R.I.P and do a new install on your PC.

Question: I keep getting errors when installing the R.I.P for PC on my PC–what should I do?

Answer: First of all make sure that you are using a supported version of windows (98, Me, NT4, 2000 or XP) – then make sure that you remove all old versions of the R.I.P. before installing a new one. If you are still having problems you most likely have a problem with your Windows installation and need to do a new installation of Windows on your PC.

Question: How do I reset the Total counter in the R.I.P.?

Answer: You can’t reset the Total counter – this counter shows the total number of “clicks” the grip has made being able to reset it would mute the value of the counter.

Question: I can’t see all the firing modes in the RIP drop down menu – how do I get all the modes?

Answer: The modes available in the drop down menu are to a certain degree controlled by the firmware version you are running – make sure to do a “get” in the R.I.P. before doing anything else - If that doesn’t help check that you have the right version of firmware in the grip.

Question: What are the fastest settings I can use?

Answer: Follow the timing guide in the manual, that way you will get the right setting for your gun. There are no magic settings that will work on all guns and Racegun can only support you if you time the gun according to our guidelines.

Question: My computer does not have a serial port, what do I do?

Answer: Buy a USB to serial adaptor – these works nicely with R.I.P. and the grip as long as the driver supplied with the adaptor can be configured for com1 to Com4.

Hardware

Question: I broke my sear, how can this happen and how do I replace it?

Answer: The sear only breaks if the grip screws are being tightened without either pulling the cocking rod to cock the hammer or dropping the sear by “firing” the grip – please follow the guidelines in the installation guide. The sear is replaced by using a hammer and a punch to drive out the pin holding the sear – use the punch from the left side of the grip to get it out.

Question: I lost the little pin behind the trigger – where can I get a new one?

Answer: Racegun and our dealers sell all the parts of the grip as spares – the pin is a 3mm*14mm steel pin (1/8” * 9/16”) and it should be available from most decent hardware stores. Please note that changing the length of the pin changes the angle of the trigger itself.

Question: How do I adjust my trigger to be really short?

Answer: By adjusting the two setscrews in the trigger using a 1/16” hex key you can adjust your trigger length to your exact liking. Setting the screws to an extremely short pull takes a little while and the adjustments have to be done in minute steps.

Question: My trigger bounces what can I do to get rid of it?

Answer: Several things adds up to a bouncing gun – first of all make sure your trigger filter is turned on in the software secondly make sure that your mechanical adjustments are correct this includes your LPR pressure, the backblock and the length of your trigger pull (short pulls tends to bounce more). Adding a return spring to you trigger also helps in removing bounce and keeping the mass/weight of your moving parts (ram, pump arm, backblock and bolt) down can also help.

If you have a grip running firmware version 1.X.X please be aware that if your domeswitch is worn out the gun will tend to bounce a lot – contact Racegun or one of our dealers to get a new “frog” for your switch or get the grip upgraded to version 2.

If you want more bounce in your gun just do the opposite of the above and there is a fair chance that your gun will bounce.

Question: What is the FreeKick and Infinity mod?

Answer: These two modifications have been standard on all grips produced after July 2002 – they both help to add more power to the sear solenoid which ensures proper release of the sear every time. The FreeKick is a small L shaped piece of metal that creates a small gap between the sear solenoid pin and the rollerage – this allows the sear pin to get up to speed before hitting the rollerage. The Infinity mod is a small piece of plastic placed on the back part of the sear solenoid pin – the plastic piece looks like the 8 figure (hence the name) it is folded on the middle and the sear solenoid pin goes through the two holes – this modification pulls the sear solenoid pin back to its initial position even when the gun is pointed upwards. The two parts used for these modifications can wear out and require replacement after substantial use.

Question: My hammer won't catch the sear, what's wrong?

Answer: This can be caused by several things including wrongly adjusted cocking rod, wrongly adjusted or worn sear lug, wrongly adjusted or broken FreeKick, poorly adjusted or broken LPR or possible to strong a mainspring in the gun. Check all these items and make sure everything is correctly adjusted and working.

Question: I have a brand X searlug in my gun will it work with the Racegun grip?

Answer: Yes it will work, at least for some time, if it is a squared lug (not rounded) – the sear in the Racegun grip is hardened and it will wear out a non-hardened searlug after some use. Racegun recommends that you always use a Racegun sear lug screw which is hardened just like the sear itself and therefore it won't wear out.

Question: My hammer never releases but the gun cocks ok every time I pull the trigger – what's up?

Answer: This is most likely caused by either a wrongly adjusted FreeKick or searlug – check them according to the manual. This can also be caused by low Shot time or if the battery charge is low, always set your grip settings to the default 10-10-28-35-28 and charge your battery and test before taking the gun apart.

Question: My gun is working backwards the breach is open and only closes when I pull the trigger?

Answer: Your hoses to the ram are switched, switch them around and the gun will work normally.

Question: My gun shoots fine but won't recock by itself, what's wrong?

Answer: This can be caused by several things, first of all check your LPR and make sure it is supplying enough pressure to operate the pneumatics. Then check you "open" time in the R.I.P. set it to 28mS and see if that works. If the gun still won't recock check that the red LED on the solenoid blinks every time you pull the trigger, if that is not the case you most likely have a disconnected or broken cable from the board to the solenoid. If the red led flashes and the solenoid does not activate there might be a problem with the solenoid itself.

Question: My solenoid is leaking how can I fix it?

Answer: First of all check your LPR – to high LPR pressure (100 psi) or a creeping LPR can cause this. The solenoid itself can be taken apart and relubed but there are no parts available for repairs so if lubing it does not help the entire solenoid will have to be replaced. Dow33 grease is perfect for lubing the solenoid piston. Please note that most leaks are due to improperly tightened fittings on solenoids or ruptured low pressure hoses check these as the first thing.

Question: My gun works fine when I'm shooting slowly but at high rates of fire it burbs and does not cycle properly.

Answer: Most likely reason for this is either a leak in the pneumatic system (ram, solenoid, hoses or LPR) or a bad LPR. This can sometimes be "corrected" by upping the open and close time a few mS but this is just a workaround not a fix – try lubing your gun.

Question: My gun keeps chopping paint at the bolt even with the ACE enabled, how come?

Answer: Check you cocking rod and make sure it clears the breech fully – if that not it make sure your anti double feed is in working order and that there are no burrs or sharp edges on the bolt, breech and loader.

Question: When I dry fire my gun it works really slowly both with the ACE enabled and disabled?

Answer: When dry firing your gun the ACE does not work as designed – depending on your software setting it will act differently. Disabling the ACE makes the grip run with the default load time specified in the RIP this is not the fastest way of running the gun (and it was not designed to be). If you want to dry fire the gun with the fastest settings possible use the RIP to uncheck the "ACE mounted" tick box and set the load time to 1, this should impress you friends (but remember to set it back before shooting paint).

Question: How do I see if my board is a version 1 or 2 and what is the difference?

Answer: The easiest way is simply to check what firmware version you have in your grip – firmware version 1.X.X means you have a version 1 board and firmware version 2.X.X means you have a version 2 board. The improvements on the version 2 board includes: Leaf switch as standard, separate loader output, reduced power consumption when off (won't drain battery), new connector layout, support for wire keypad (replaces the foil type keypad) and the new software features in the version 2.X.X firmwares (optimized ACE, optimized firing cycle and new firing modes). All version 2 boards are also marked with Racegun © 2002 or later which can also be used to identify them.

Question: What kind of warranty does Racegun offer?

Answer: Racegun offers a One (1) year limited warranty on parts and labour for defects that occurs due to material failure or under normal use. The warranty does not cover parts that has been modified, wrongly assembled by the user or misused.

Question: How do I thread the solenoid wire through my frontbottle (ASA) adaptor?

Answer: The easiest way of doing this is by taking the actual terminals out of the connector that goes into the solenoid, This is done by lightly pushing down on the two taps on top of the connector housing – be very careful when doing this and do not pull on the wires since this might ruin the cable. To reassemble the cable (after threading it through all holes) simply push the terminals into the connector again (firmly) the red wire goes into the hole marked with a + sign.

Question: I have taken my plug (serial cable or charger) that goes into the grip apart how do I put it back together again?

Answer: The plugs can only be assembled without violence in one way, notice the small taps on the parts and slide everything together again – if it doesn't fit easily together it is not assembled correctly – try again.

Question: Can I use the serial cable that came with the grip for my Palm Pilot?

Answer: No you can't use the PC cable for the Palm Pilot, the pin layout and gender of the DB-9 connector is different, you will need to get a Palm adaptor from Racegun or one of our dealers.

Question: I was programming my grip and now it "hangs" what should I do?

Answer: Disconnect the battery for 10 seconds and then reprogram the grip with new setting – if it still acts weird try the JEDI trick to download a new firmware to the grip.

Question: My grip got a bit wet and has stopped working on me?

Answer: If your grip gets wet immediately remove the battery and leave the grip to dry in a warm place preferably without any grip panels mounted. Normally when the grip is dry again it will work nicely. Be aware that the grip was not designed to be submerged in water – excessive contact with water can corrode and damage internal parts and will void the warranty.