FROM: http://people.aapt.net.au/~ferngonz/plip/index.html

Fernando C Gonzalez
MScEW BEng(CompSys)Hons ADipEng(Electronics)
Creator of the Counter Terrorist Steganography Search Engine at http://mscmese.tripod.com/steg/
The Gonz @ AussieFrogs.com
fcgonzalez@hotmail.com

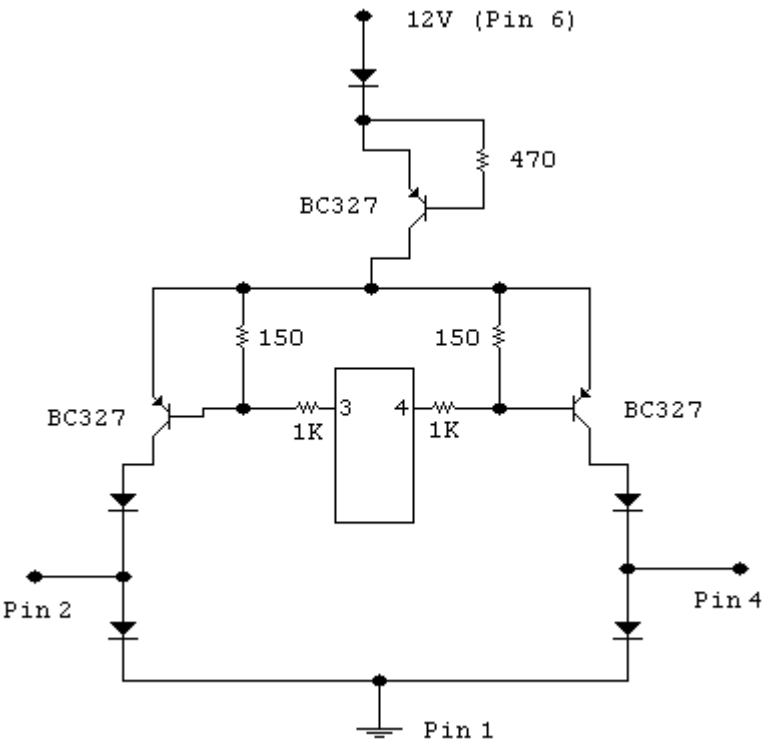
The Return of the Froggy Plip

Now also in Spanish
Practise your Spanish by listening to the Gonz 11:00am Saturdays on 5EBI 103.1FM

Aussie Froggers have long lamented the gradual demise of their original Infra-Red(IR) Plip remote central locking systems. Nowadays radio

technology has reached levels of miniaturisation that makes it feasible and economical to enhance the old Plip circuitry with a helping hand from tiny Ultra High Frequency (UHF) modules. I've sourced just the right modules, operating in the UHF band at a frequency of 433MHz and with a sophisticated code function to keep the most security conscious happy.

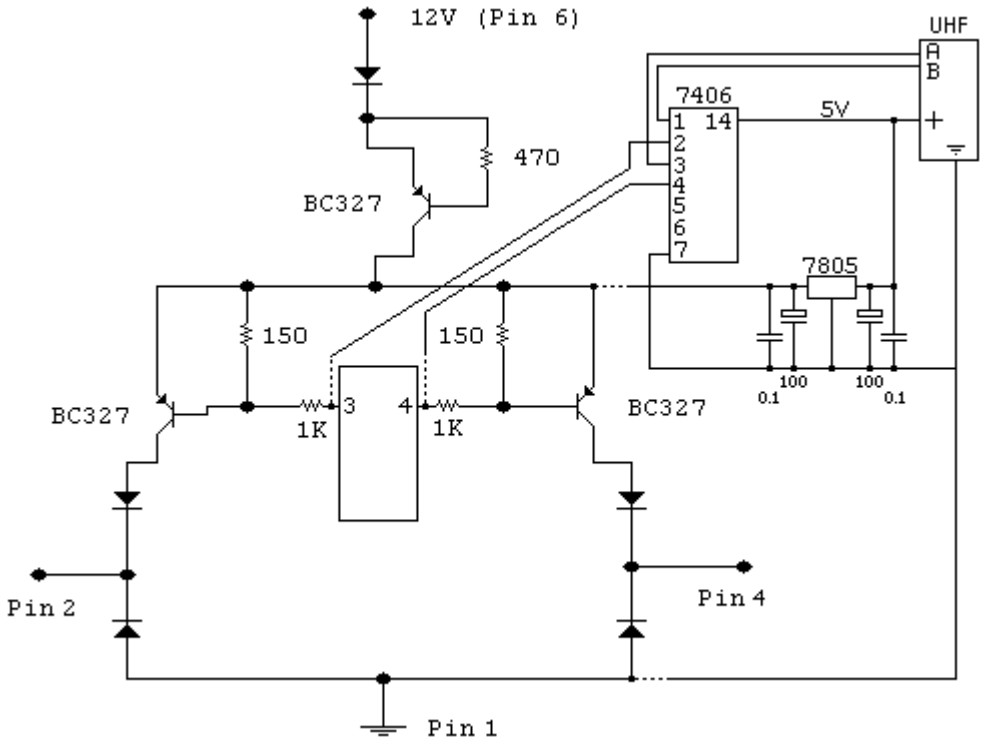
The Plip



The Fuego's Plip receiver (I between the visors, is a dev function is basically no diffe you will find on the inside fi TV. Just behind where the si window should be are a set whose job it is to sense the the Plip keyfob transmitter that energy amplified by the Integrated Circuit (IC) and original Rx module.

The circuit diagram to the l my study of the module and back from the wiring loom c module, through the variou components and finally to th this IC. Since I intend to cut with the outputs of the new need go no further in my an

The UHF Plip



I removed the
fitted in its pla
Collector Outp
IC, able to tran
active high out
UHF module ir
low outputs ne
of the module's
back through t
on its way to th
rocker switch i
console. I did t
desoldering th
and fitting the
cut and bridge
around the nev
new chip's pinc
compatible wit

This can be a b
another way is
off the board a
between the Pl
module. To the
the introductio
module and th
the 7805 5V re
associated cap
it is to provide
two new device
12V supply.

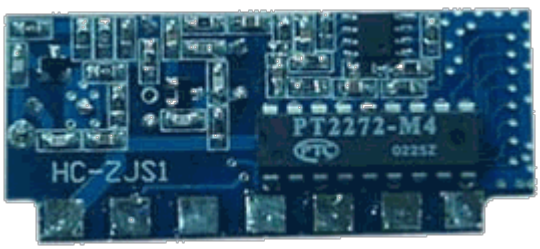
By the way, the
shown in these
to the edge cor
back of the Plij

Components

This is the Tx module, a tiny
extendable antenna (for extı
100m) and four available bu
we will select two for our us

If anyone can think up new u
two, go for it. The Rx will us
well.

This little keyfob is tiny and
protective door so that the b
accidentally be pressed whe



This is the UHF Rx module.
encoding is achieved on the
by soldering links at selecte

The (relatively) large pads a
are where the A, B, + and - c
be found for our design. For
on the operation of the modu
spec sheets on the PT2262 T
PT2272 Rx Decoder ICs at th
modules.

To give you some idea of rel
is a shot of all three modules
Plip(left), UHF Rx(centre) an
The black insulated wire on
extension of the on-board an
needed for our intended ran
can't bring myself to remove

Since I ended up soldering the inverter chip into the old chip's position on th
soldered the capacitors straight onto the legs of the regulator and then used
lengths of lightweight single core insulated wire to connect this to both the c
and the UHF Rx module. With the use of this wiring, the whole thing was slic
the Plip's original plastic housing between the visors and there is no sign of a
- all original fit!

Pinouts

I spent a couple of minutes on the old Plip receiver module and central lockin
sorted out some basic logic:

Plip Rx Pinout	
1	ground
2	one output
3	not used
4	the other output
5	not used
6	12V

The connector on the back
wired directly off the p

Central Locking S	
1	lock output
2	ground
3	12V supply
4	illumination su
5	unlock output

Testing your Plip

It's no good asking me whether I can modify your Plip without checking its cc
ascertain this, you'll need at least a half-metre length of wire and a Phillips he
screwdriver. Unscrew and remove the Plip box between the visors, extract yo
card completely and reconnect it to its wiring loom. Connect the length of wi
the car's metal body (if your wire is long enough, pop the bonnet and hook it
terminal of the battery). Separately, one at a time with the other end of the w
and 4 on the TEA 5500 IC on the module - looking at this black 'caterpillar' w
wiring connected to the right, they are the 3rd and 4th pins along from the bo
If your locking activates when you touch these one at a time, you'll be able to
design shown here without any further modification.

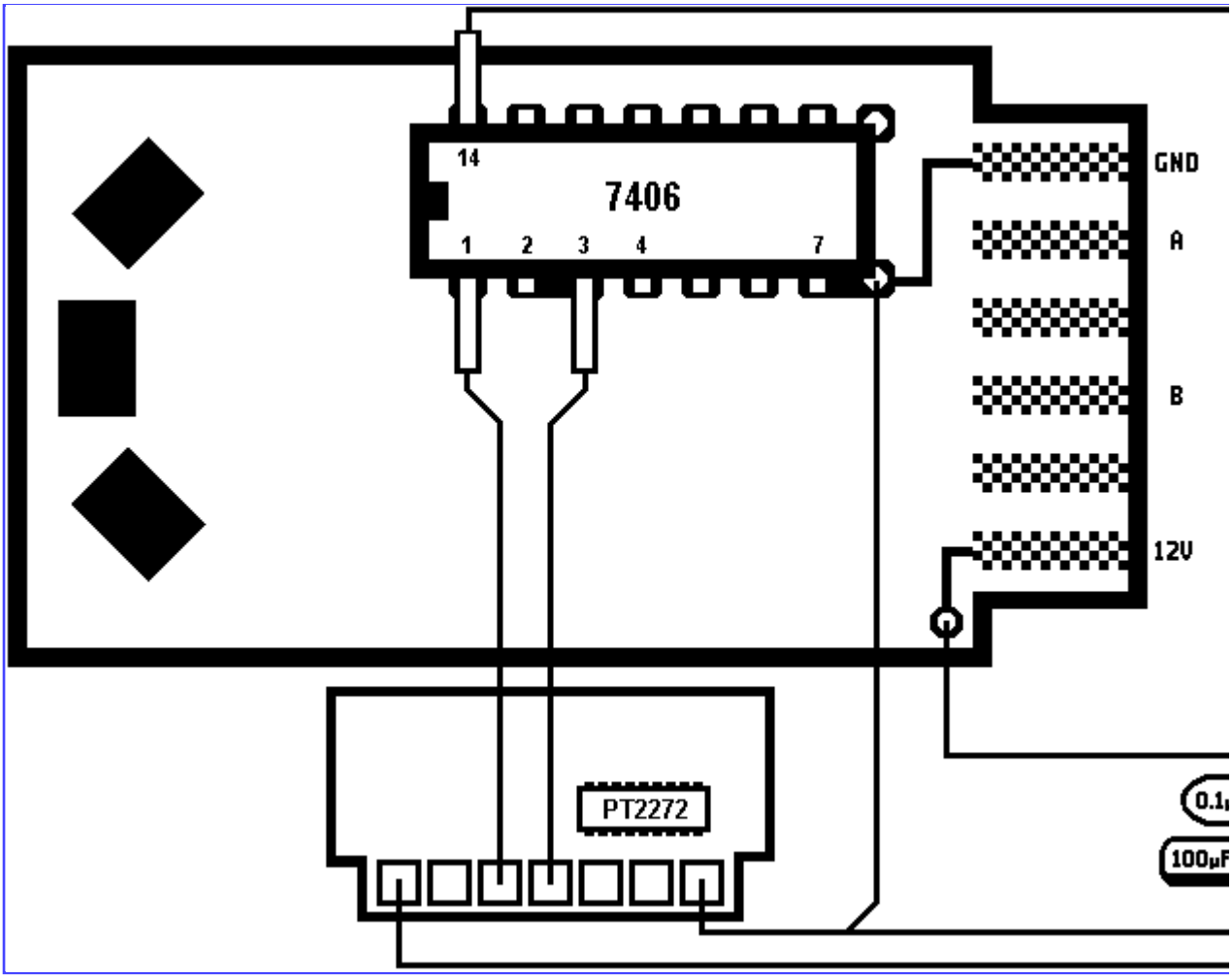
Let me know whether:

1. Yours works
2. You have it but it doesn't work
3. You at least have the connector inside the box
4. You have only a working switch on the panel

If you are at option 1, then you'll be able to use the design shown here. All oth
require a couple of components added, so help yourselves, perform the test a

More to come...

Here's a layman's wiring diagram for the project:



Bottom line: if you're careful, good with a soldering iron and have a few co
around, you should be able to achieve DIY UHF Plipping for around $40.00

Latest Updates!

Congratulations to Australdi!
You are the first ever known Fuego UHF Plipper. I wish you many happy hc
I'm sure KenFuego isn't far behind!

Congratulations also to The Gonz - wait, that's me!
I've finally gone ahead and put my own UHF Plip in the car. I wish myself ma
plipping.

I'm sure KenFuego isn't far behind...again!

For more information, e-mail me and let me know how I can help.