

**THIS BOARD CAN BE PLACED INSIDE CONTROLLER, OR INSIDE A BOX BETWEEN DC SUPPLY AND CONTROLLER
 THIS IS ONLY FOR CONTROLLERS WHICH DONT HAVE OPTIONAL TUNING RELAY BOARD INSTALLED**

NOTA: FOR 33 V DC SUPPLY, USE DZ1 9.1 V. FOR 24 V, REPLACE ZENER BY A 1N4007, 1N5819, OR A STRAP.

Rev2: INVERTED PINS 5 & 6 OF U2. ADDED C4 FOR DELAY AT RELEASE ~200 ms

**SteppIR CONTROLLER MODIFICATION
 CANCELING AMP PTT WHEN TUNING**

DOC N°: AMATEUR RADIO
 BY: F1FRV@SFR.FR
 DATE: 12/10/17 REV: **2** PAGE: 1/1

Purpose of this SteppIR controller modification is:

Avoid to have a linear amplifier in operation when the antenna motors are running.

High power will destruct internal antenna balun, if, too high power (more than ~ 100 W) is applied during antenna tuning.

The output relay contacts of the modification card are to be inserted into Tx > amplifier PTT wiring, to by-pass amplifier. In recent versions of SteppIR controllers this functionality is offered as manufacturer option.

BE CAREFUL !!! Depending on the ACS712 board you will purchase, there are 2 different styles with pinout VCC and GND inverted.

https://www.ebay.fr/sch/i.html?_odkw=5a+acs+712+module&LH_PrefLoc=2&LH_ItemCondition=3&LH_BIN=1&LH_FS=1&osacat=0&from=R40&trksid=p2045573.m570.1313.TR0.TRC0.H0.X5a+acs+712+module.TRS0&_nkw=5a+acs+712+module&_sacat=0



Select PCB you will make according to ACS712 board you purchase.

It is better to make PCB only when you have ACS712 in your hand.

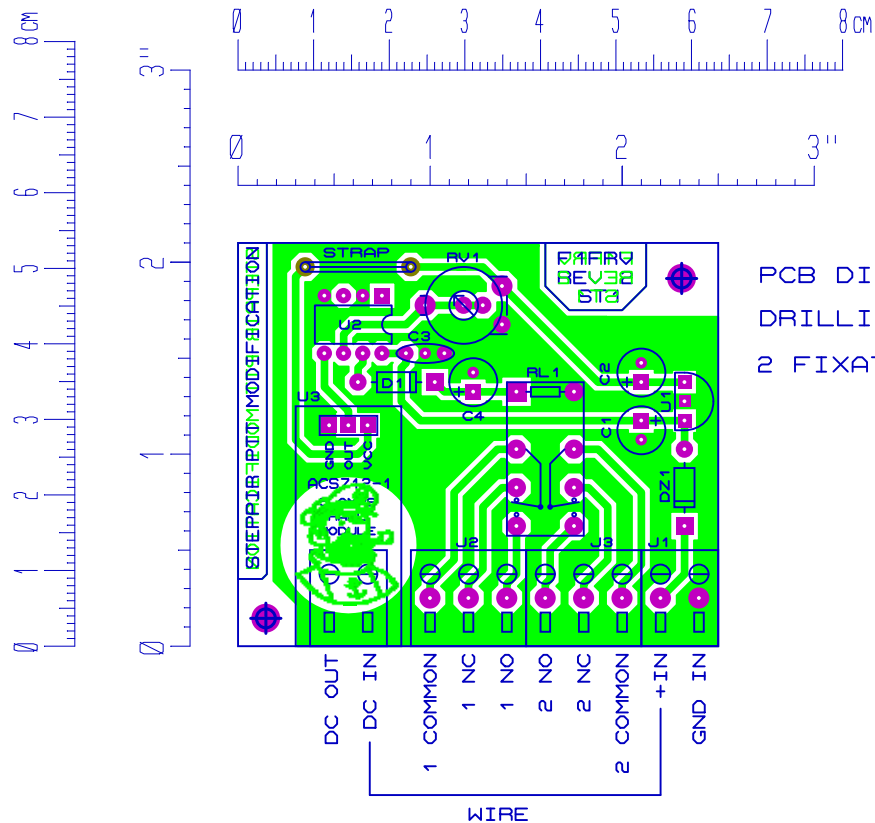
STYLE 1 example <http://www.ebay.fr/itm/1PCS-design-5A-range-Current-Sensor-Module-ACS712-Module-Arduino-module-/253061320607?hash=item3aeba14f9f:g:mEQAAOSwruhZde55>

STYLE 2 example <http://www.ebay.fr/itm/5A-ACS712-Current-Sensor-Module-ACS712-5A-Current-Detect-Range-for-Arduino-/222649153323?hash=item33d6ec772b:g:kVsAAOSwx2dYCH09>

For info: Other similar modification, less simple, made by an US company in 2004 , and sold today at gold price ...

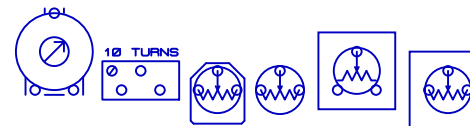
<http://www.telepostinc.com/SteppIR-Tuning-Relay.pdf>

Beware !!! this modification board ground is not SDA100 ground.



PCB DIMENSIONS 63.5 x 53.3 mm (2.5" x 2.1")
 DRILLING: 52 HOLES
 2 FIXATION HOLES 3 mm DIA. AXYS 55 x 45 mm

ALL THESE TYPES OF VARIABLE RESISTORS CAN BE USED

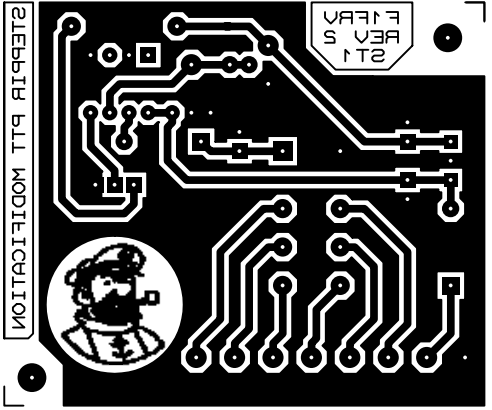


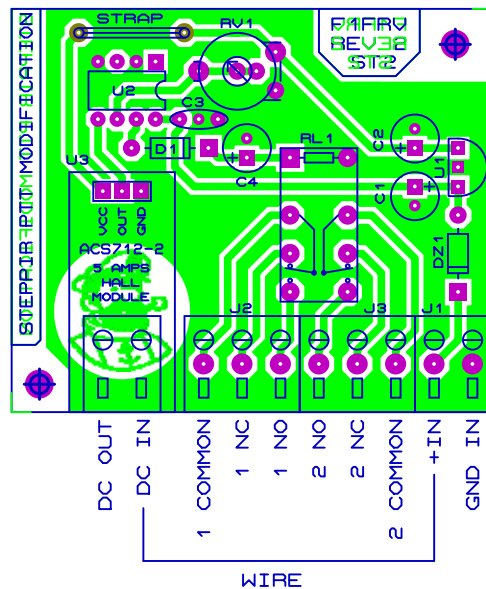
PCB STYLE 1 FOR ACS712 STYLE 1 (GND OUT VCC)

NOTA: IT IS NECESSARY TO RE-SOLDER ACS712 3 PINS CONNECTOR BOTTOM SIDE OF ITS PCB

STEPPIR CONTROLLER MODIFICATION
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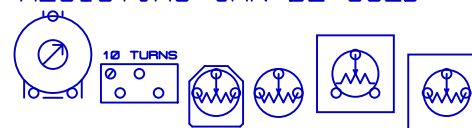


PCB DIMENSIONS 63.5 x 53.3 mm (2.5" x 2.1")

DRILLING: 52 HOLES

2 FIXATION HOLES 3 mm DIA. AXYS 55 x 45 mm

ALL THESE TYPES OF VARIABLE RESISTORS CAN BE USED



PCB STYLE 2 FOR ACS712 STYLE 2 (VCC OUT GND)

NOTA: IT IS NECESSARY TO RE-SOLDER ACS712 3 PINS CONNECTOR BOTTOM SIDE OF ITS PCB

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