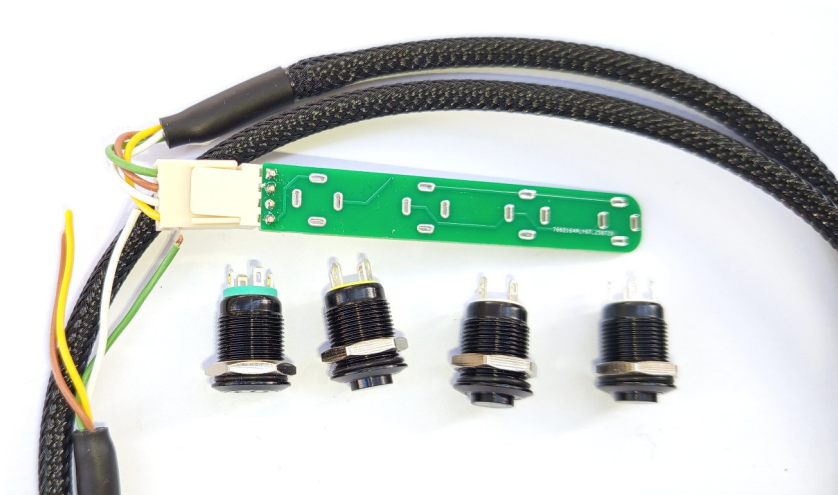# Mazda MX-5 mk3 NC

Cruise control buttons installation for track-oriented cars

set 2 – cross pattern

set3 – inline pattern

to have Cruise Control working using these button sets you need to have in your car:

- cruise control harness with proper 4-pin brake switch

- ECU with CC capability. (L831 for NC1 1.8L engines does not have this without modification, LFnnnn ECUs for 2.0 engines have cc)

Clock spring itself does not have to be in the car, you need only car harness with 8-pole plug

each set consists of:

- 4 buttons you can install anywhere in the car

- a PCB with connector (set2 round, set3 rectangular)

- harness to clock spring connector

button functions:

- green flat with power symbol: ON/OFF

- yellow CANCEL

- white (2 pcs) SET/- oraz RES/+

Each switch has 4 poles, two for illumination (identified by + - marks), two others are momentary switch. Backlight works from approx 3V (useful for testing)

installation:

- connect harness to car harness (clock-spring plug)

0140-13 CRUISE CONTROL SWITCH/DOWN SWITCH/
STEERING SWITCH ILLUMINATION/
AUDIO CONTROL SWITCH/CLOCK SPRING(I)

(CLOCK SPRING)

:AT
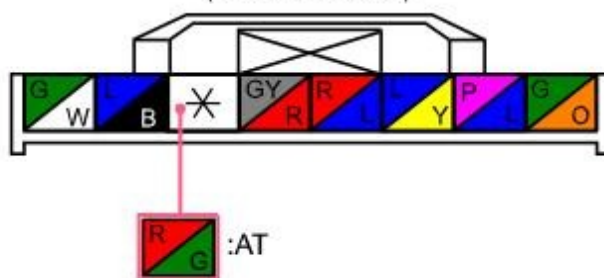
from left:

1 GW, 2 LB	radio	
3 R/G or missing	AT control	
4 GY/R	dimmer	<-green
5 R/L	+12V illumination	<-brown
6 L/Y	GND (for CC)	<-white
7 P/L	cruise control	<-yellow
8 G/O	horn	

- once you connected harness to car wiring plug harness into PCB and test fit buttons as shown (depending on version you have). Install switches on bottom PCB side (no components there)
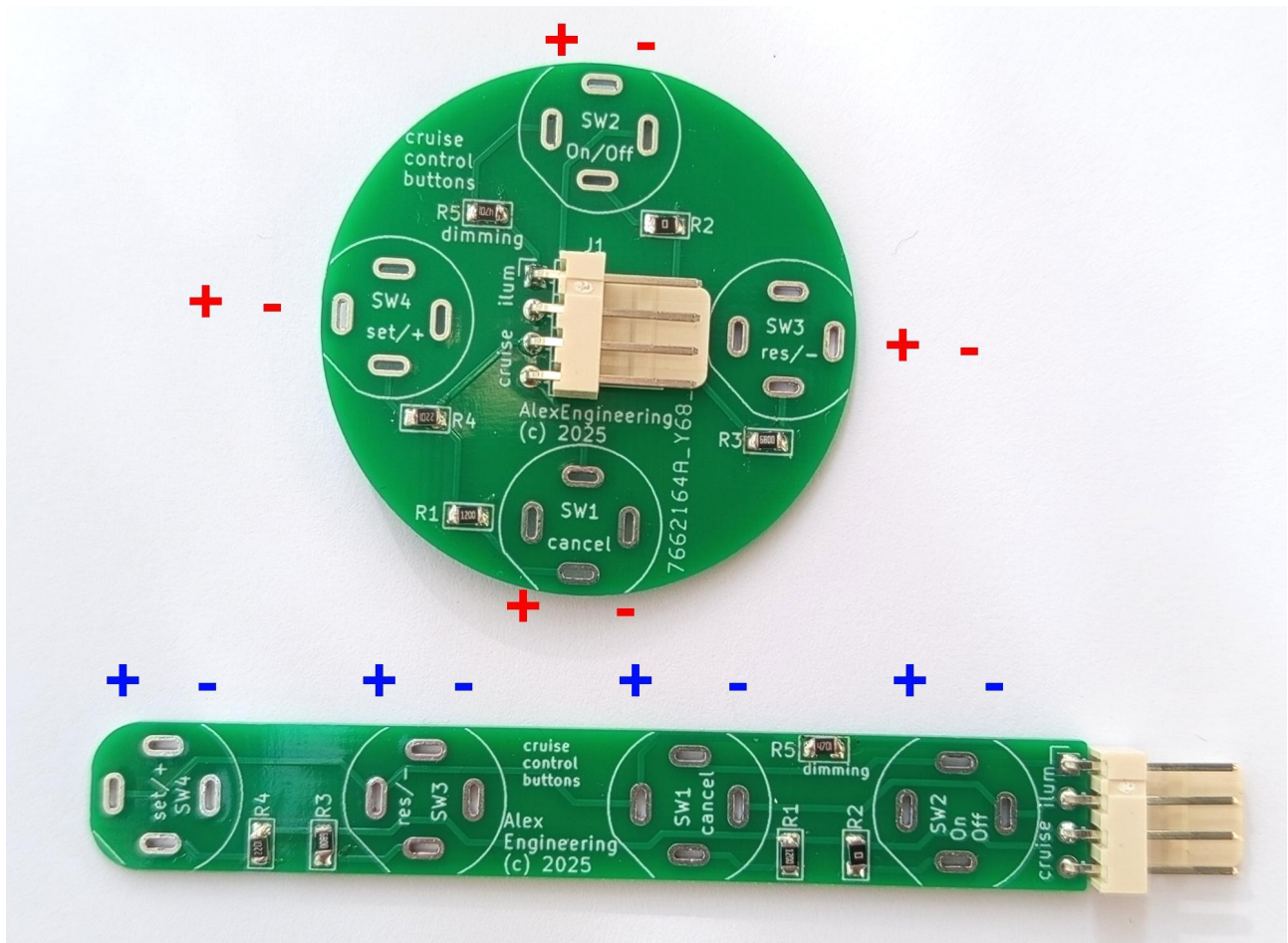
- turn lights ON (starting engine is not necessary) and verify all buttons are lit. You may need to flip some of them to lit because connection may not be perfect before they are soldered. This is test fit only to get familiar with idea. If any button is not lit regardless of touching, flipping etc check is installed correctly and change if necessary

- drill holes for buttons according to drawing for your version

set2 – cross pattern

set3 – inline pattern
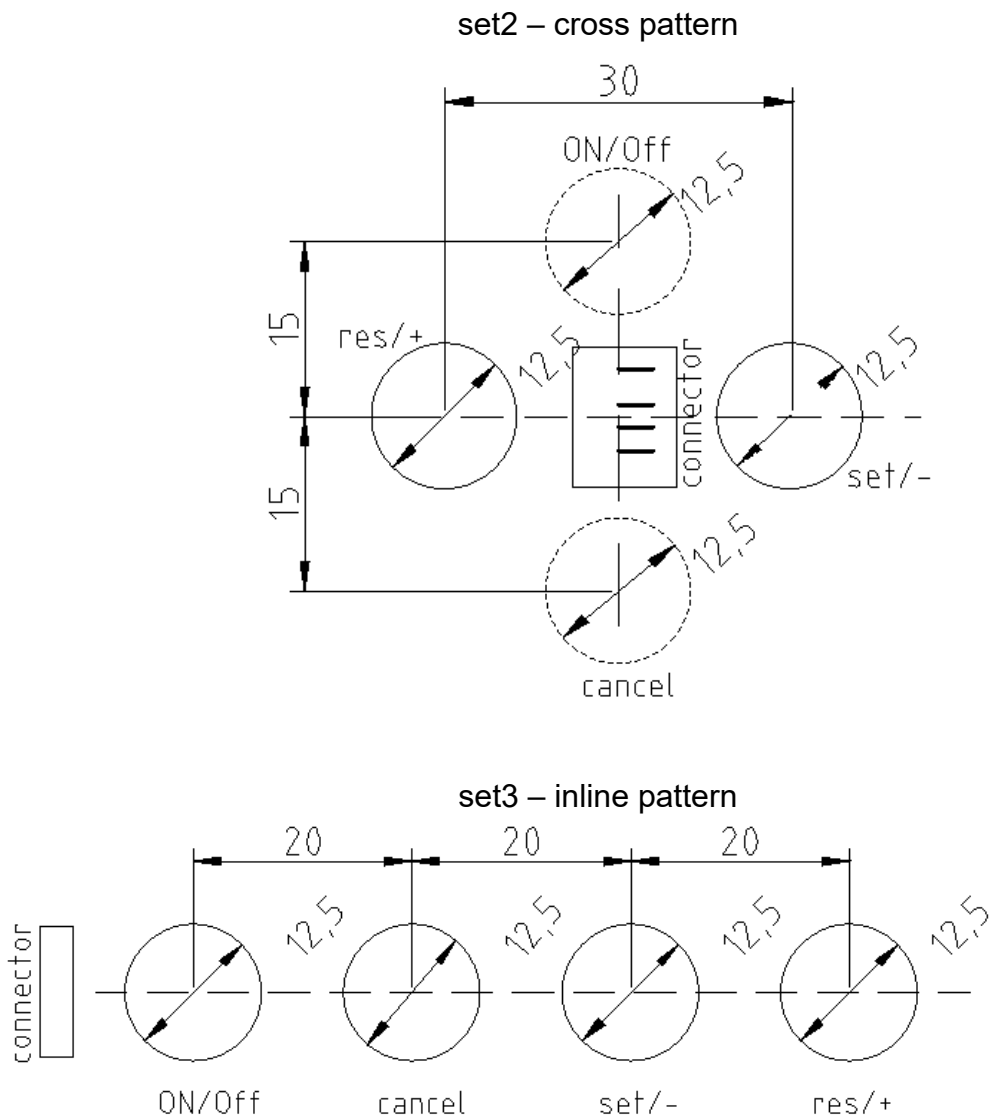
noticed description on PCB is wrong: res/- instead of **set/-**, set/+ instead or **res/+**. Sorry for inconvenience!

- install buttons, do not tighten nuts yet to make next step easier
- place PCB on buttons (top side with components outside) match buttons (colors, on/off symbol) with function described on PCB and verify again all buttons are lit when lights ON. This is crucial to verify before soldering. Once soldered it is close to impossible to desolder button without destroying PCB or button …
- if all buttons are lit and on right places solder them to PCB, tighten nuts
- enjoy!
On/Off symbol on switch can be rotated to look as you want. Use toothpick and small tool like screwdriver as little hammer to rotate it if necessary
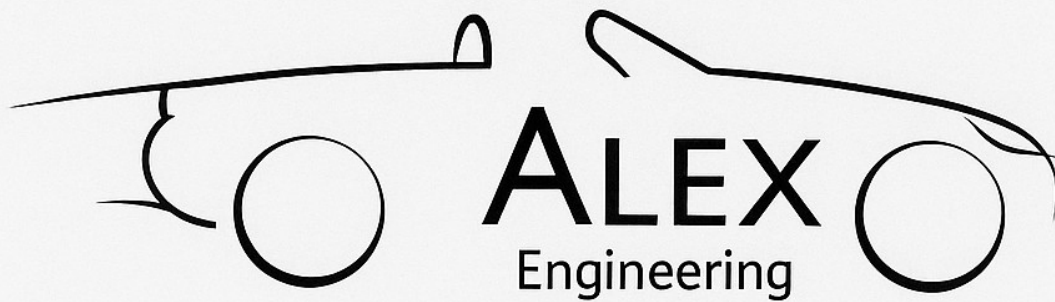
Cruise control functionality

- ON/OFF button enables/disables CC system. It can be displayed on dashboard, if indicator is present. Most NC1 cars does not have it. ON/off state is remembered after ignition off, so you can press this button once and dont use anymore
- SET/- enables cruise control (> 40kmh needed). Longer press makes car decelerate
- RES/+ button is for coming back to last used speed. Longer press – accelaration

    (last used speed is reset after ignition off)

- CANCEL disables cruise temporarily identical as using brake. Coming back to this speed again is possible via RES/+ button

in case you encounter problems with enabling CC here is troubleshooting guide:

https://alexengineering.pl/en/porady/diagnostyka-tempomatu-w-mx-5-nc/?v=288404204e3d

(or go to https://alexengineering.pl ->Blog→mx-5 tips→select from list)

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Engineering

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Even one sentence really makes a difference.

It will help more people learn about my work.

Thanks for your trust – enjoy your modifications!