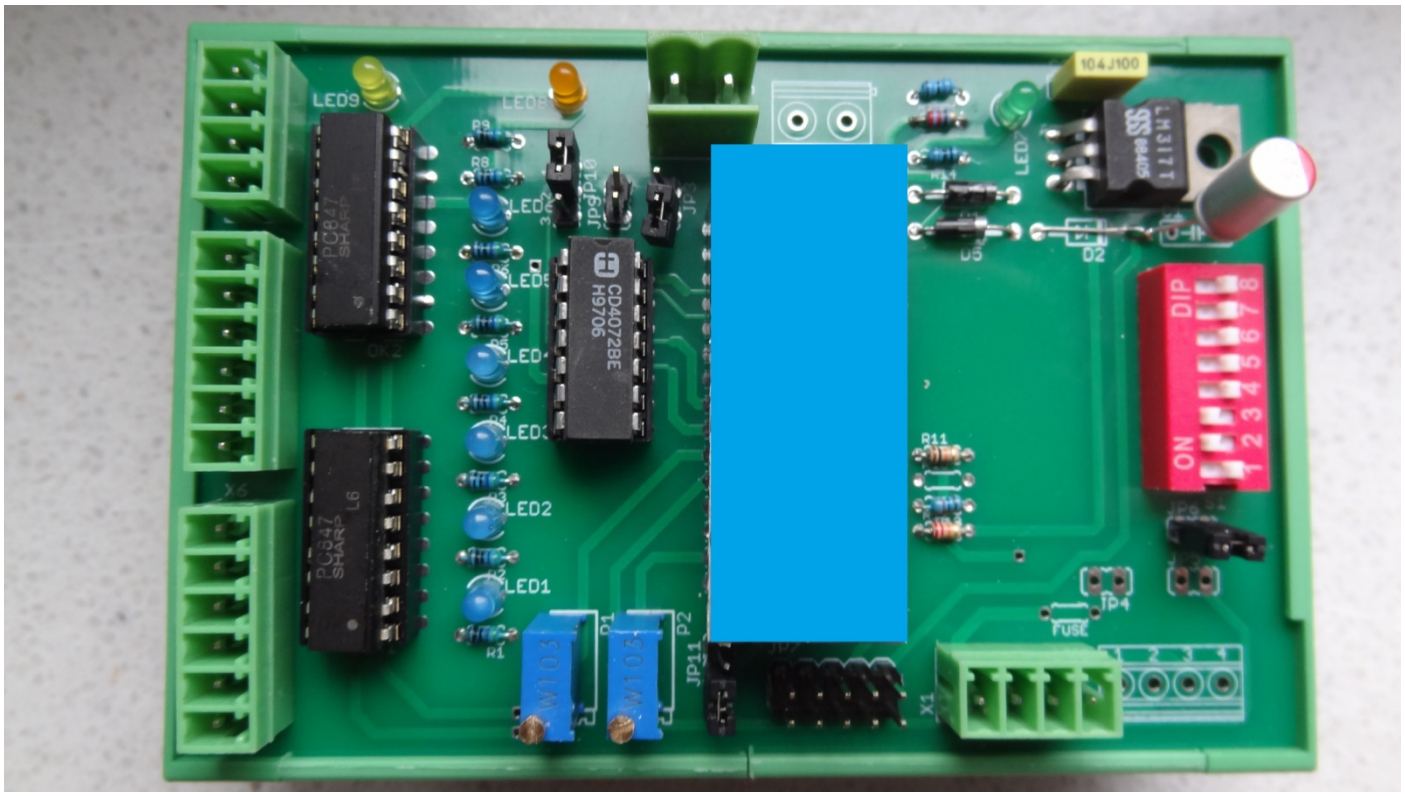
Switch ID Reader for Carrera Digital 132 & 124

With this Switch ID reader, you can switch an output based on which controller (ID) has pressed the pushbutton (Switch) twice in succession.



Purpose:
As soon as you press the push button twice in quick succession, Chaos is activated. Depending on the settings, the corresponding output becomes active (pulse or continuous).

Possible applications:
- ☞ Chaos detection: who activated it?
- ☞ CU 30352 is set to "Stop" (all LEDs on)
- ☞ CU 30352 is released again with the start light
- ☞ CU 30352 is released again without the start light*
- ☞ Both manual and automatic restart (removing Chaos)

For whom?
Anyone who drives a Carrera digital 132/124 with or without a computer and wants to control Chaos via the hand controller (wired or wireless) and also wants to know who caused Chaos!

*** An additional relay module is required for this.**

Setting options:
- ☞ Pulse or On/Off
- ☞ Chaos, activate when controller is active/activate when controller is not active
- ☞ Automatically clear Chaos after a set time
- ☞ Clear Chaos with or without the start light*
- ☞ Adjustable speed of 2 presses
- ☞ External control for switching to start with or without the start light
- ☞ External control for clearing Chaos control (**yellow LED**)
- ☞ External control for enabling Chaos (**orange LED**)

Operation with Pulse or On/Off:
As soon as the push button is pressed (twice) within the set time window, the corresponding output becomes active. This is indicated by a **blue LED**.
The time window can be adjusted with P1 and P2.

Use without a computer and without adjustments CU 30352:
Visual indication of who caused the Chaos (On/Off), External (manual), reset option. Cars are NOT stopped!

Use without a computer and with modifications to CU 30352:
Visual indication of who caused the Chaos (On/Off), external (manual) reset option. Cars are stopped! Automatic restart possible (after a set time) with or without start light*.

Modifications to CU 30352:
To optimally use this "Chaos circuit," modifications to CU 30352 are necessary. This means that the "Start button" and possibly also the "ESC button" must be equipped with additional connections. This wiring is then connected to the Switch ID Reader (see the description for connecting the Switch ID Reader).

5-6 => "ESC" connection, 1-2 => "Start" connection

If the "ESC" key is used to cancel Chaos instead of the "Start" key, 5-6 must also be connected. Control is then only possible via the relay module!

If you don't want to make this adjustment yourself, we can also take care of it for you.

PC and Cockpit-XP without CU30352 adjustment:
Another option is to connect the Switch ID reader to 6 free inputs on a USB box and/or Arduino.
These (6) inputs are read via an add-on. As soon as someone causes Chaos, Cockpit-XP executes Chaos (via the communication cable to the CU 30352).
The person who caused Chaos is immediately treated to a penalty round (if configured).
This is only possible if the firmware of the CU 30352 is equal to or higher than 5330!

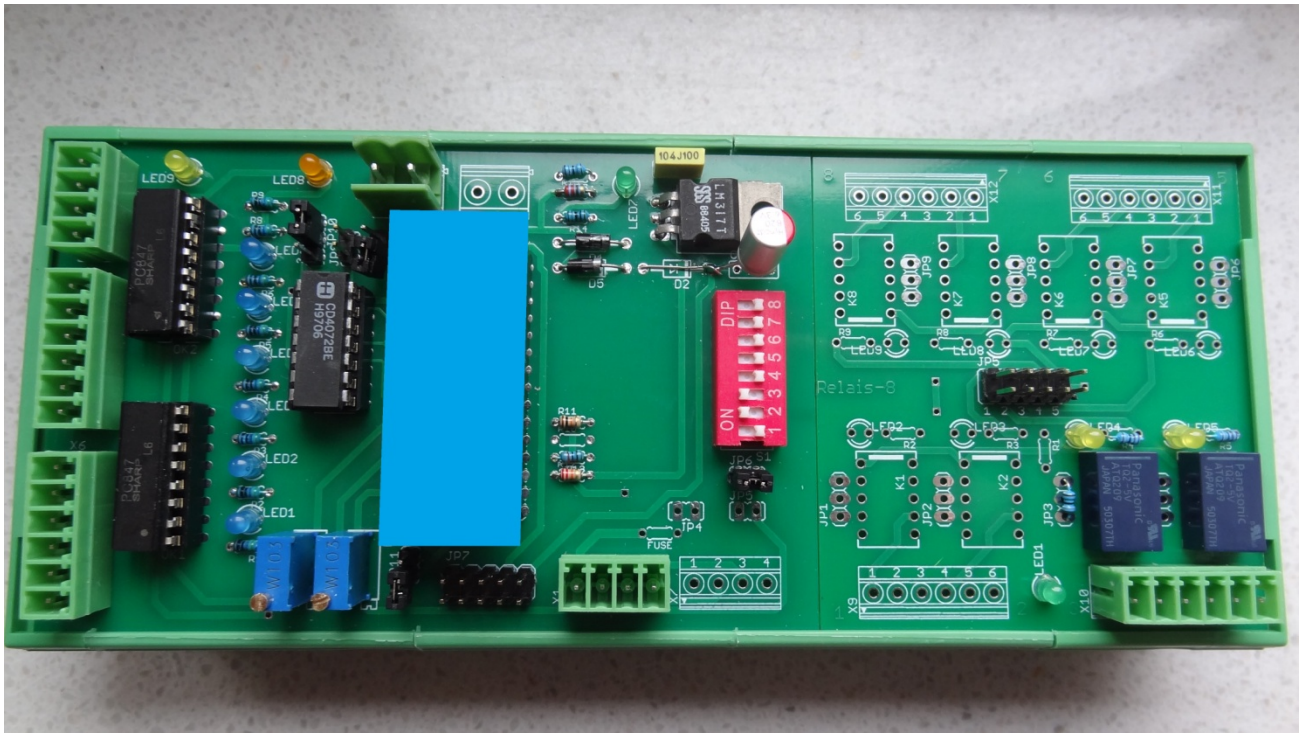
Chaos can also be resolved via Cockpit-XP.

PC and Cockpit-XP with CU30352 modification:
Same as described above, but the Switch ID Reader now controls the CU30352 to cause Chaos. Theoretically, this works a bit faster, but in practice, there will be little difference! Chaos can also be resolved with or without the Switch ID Reader, depending on the settings.
This solution could be used with different firmware!

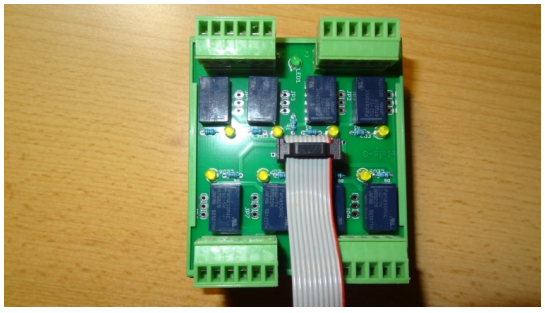
The standard Switch ID Reader consists of:
6x Outputs (ID 1...6) suitable for switching max. 50mA
Power is supplied from the track voltage

*** An ID Reader expansion is required for this application**
1) External relay card with 2 relays
2) External relay card with 8 relays

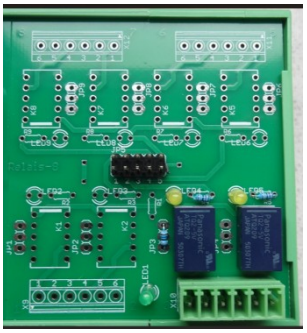
Switch ID Reader with option for relay expansion



Optional:
Expansion with a relay module (2 or 8 relays)
7x Outputs (IDs 1...6 & ESC button) suitable for switching up to 2.0 A
1x output as a shared output for IDs 1...6 (Start button)



Relay Extension 1..8



Only Relay 7 & 8

7=> "Start button" CU
8 => "ESC button" CU

Compare standard and extended:

Function	Standard	externally
Switch ID-1	✓ Start/CPX	✓ CPX
Switch ID-2	✓ Start/CPX	✓ CPX
Switch ID-3	✓ Start/CPX	✓ CPX
Switch ID-4	✓ Start/CPX	✓ CPX
Switch ID-5	✓ Start/CPX	✓ CPX
Switch ID-6	✓ Start/CPX	✓ CPX
Relay-7	✗	✓Start
Relay-8	✗	✓ESC
Power	Track	Track
Output ID 1..6	< 50 mA	< 50 mA
Output relay	✗	✓ with externally Relay

Dimensions: (without relay module)
115 x 80 x 45 (L x W x H) mm.

Dimensions: (with relay module)
175 x 80 x 45 (L x W x H) mm.

Connections:
Removable connectors

Mounting:
Mounts on a DIN rail.