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Siemens Application Note

AU-DG PRO – SIP4 – APN00x

Change Siprotec 4 Communications Card

SIPROTEC 4

Change Siprotec 4 Communications Card

AU-DG PRO-SIP4-APN-004

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1 Preliminaries

This application note will guide the user through changing the communications card of a Siprotec Compact relay. This process is the same for all Siprotec Compact relays, and somewhat similar for Siprotec 4 relays. A 7SJ64 relay is used in this example, though the process is the same for any Siprotec 4 device. It is assumed that the user has Digi 4 Manager software and relevant drivers installed prior, in addition to a project containing the Siprotec 4 relay.

2 Disassemble relay

On the back of the device, remove the screws holding the communications card and serial communication ports, as shown in *Figure 1*.

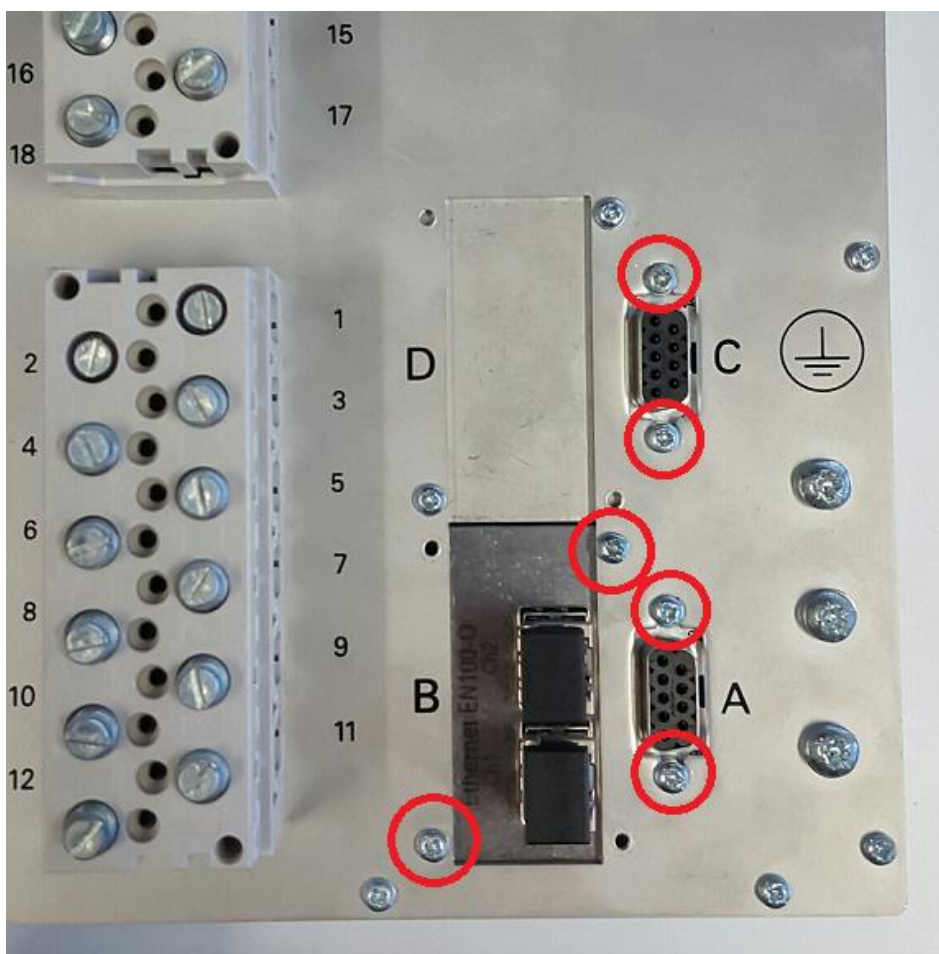


Figure 1: Screws on backside of relay

On the front of the device, slide the 4 screw covers on the faceplate of the Siprotec 4 relay off to reveal the 4 screws holding the faceplate to the relay housing as shown in *Figure 2*.



Figure 2: 4 screws holding the faceplate to relay housing

Then remove the 4 screws using a flat-blade screwdriver.

Opening the relay will reveal the internal circuit boards and ribbon cables connecting the internal circuit board and faceplate circuit board, as shown in [Figure 3](#). To remove the communications card, the 2 ribbon cables connected to the main circuit board will have to be removed.

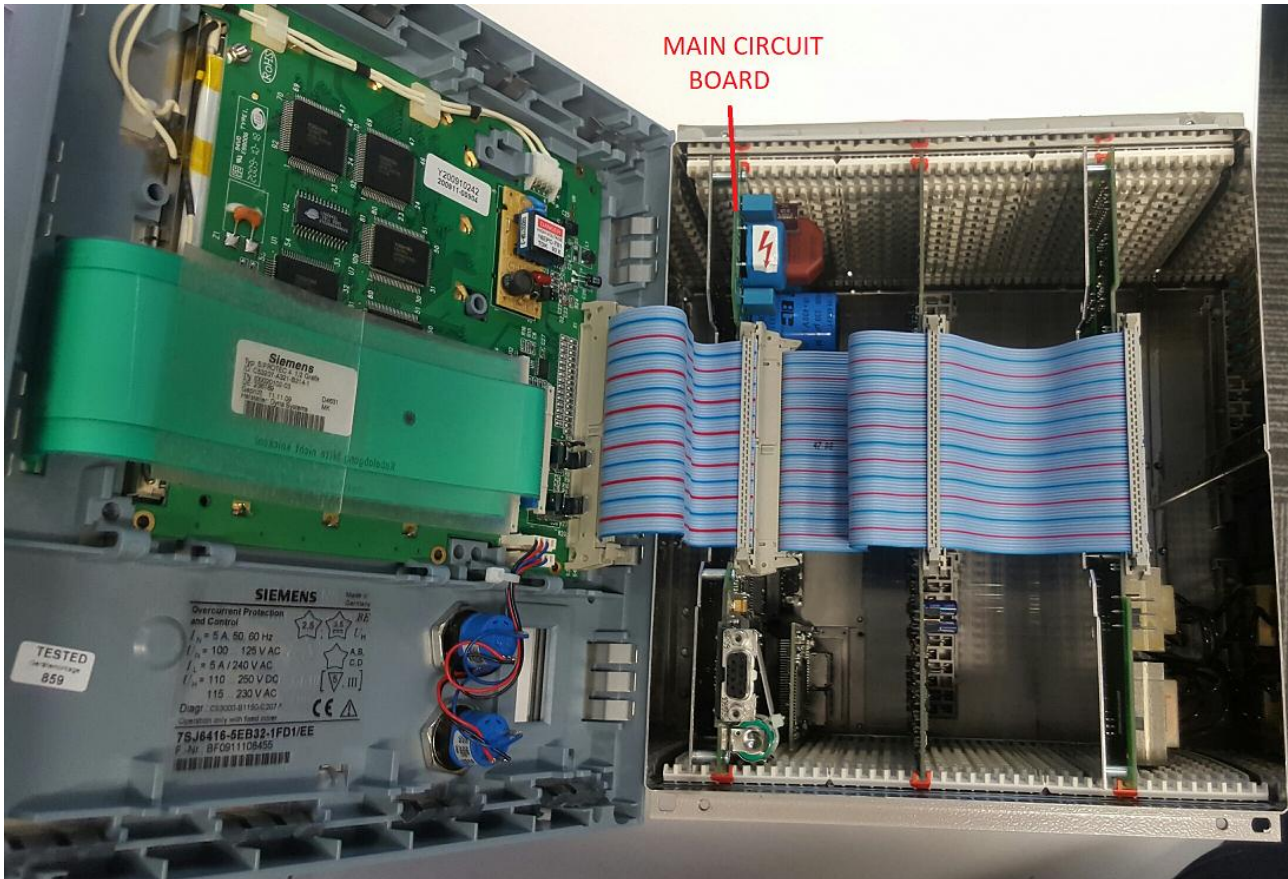


Figure 3: Relay internal circuit boards and ribbon cables

To remove the ribbon cables, push the 2 tabs at the end of ribbon cables outwards, as shown in Figure 4.

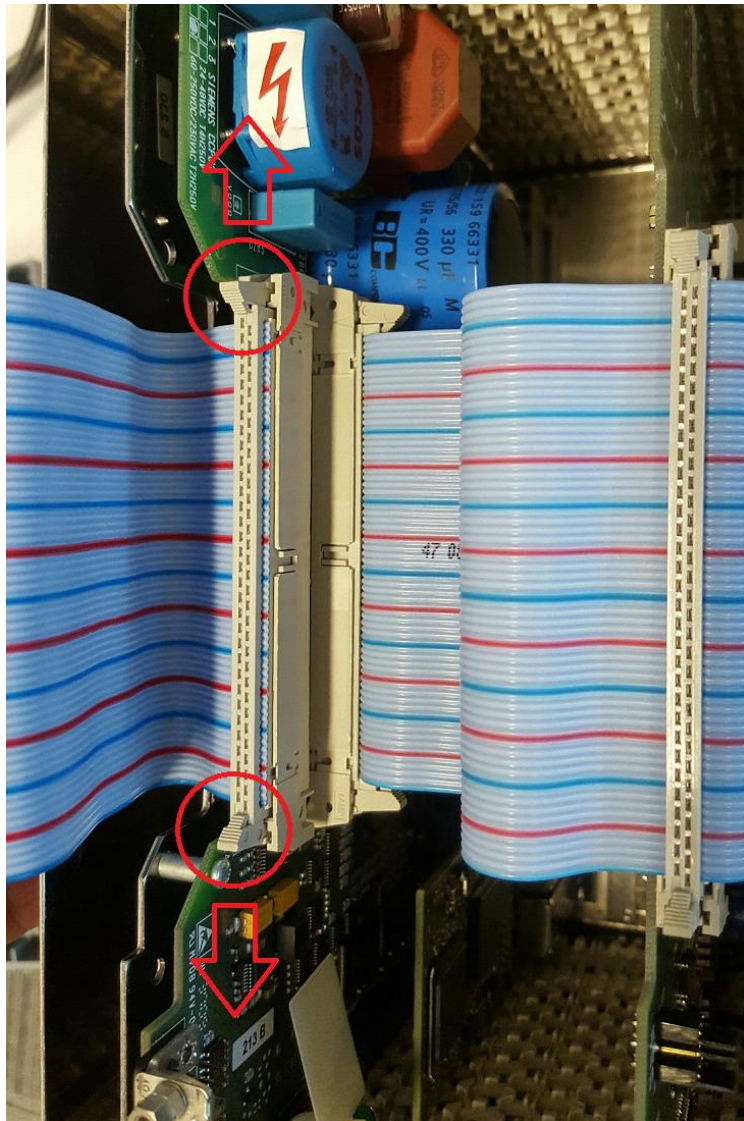


Figure 4: Ribbon cable connecting tabs

The main circuit board holding the communications card can now be removed from the relay housing. To avoid damaging the electrical components on the circuit boards, use pliers on the steel frame of the circuit board to remove it from the housing.

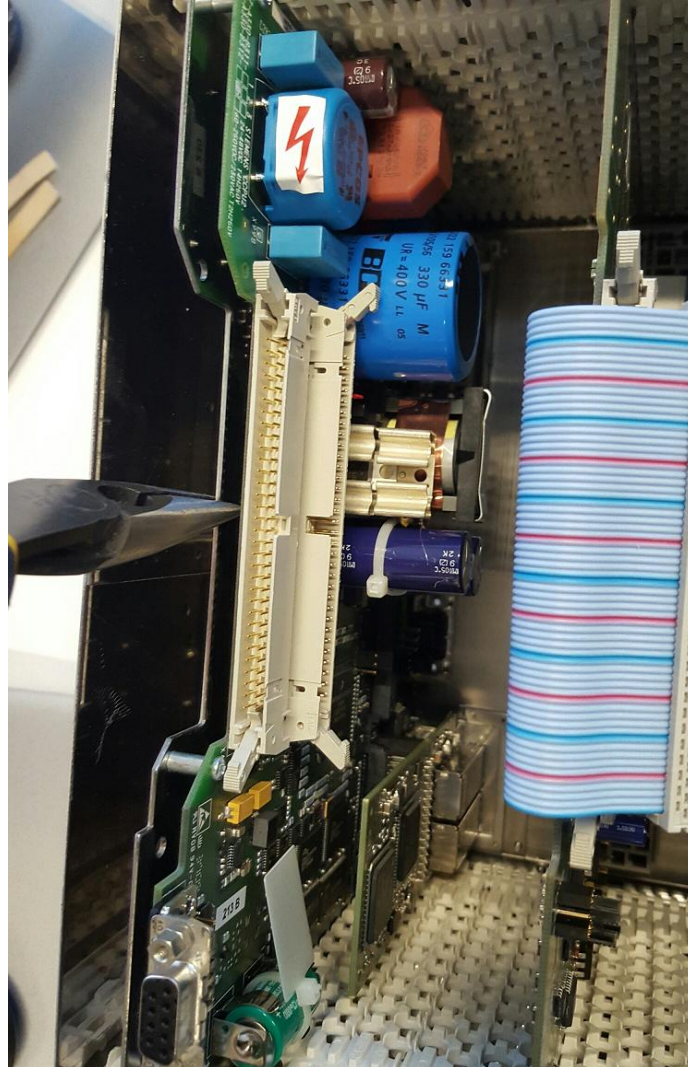


Figure 5: Removing the circuit board casing with pliers

Once the main circuit board is removed, the communications card becomes accessible, as shown in *Figure 6*.

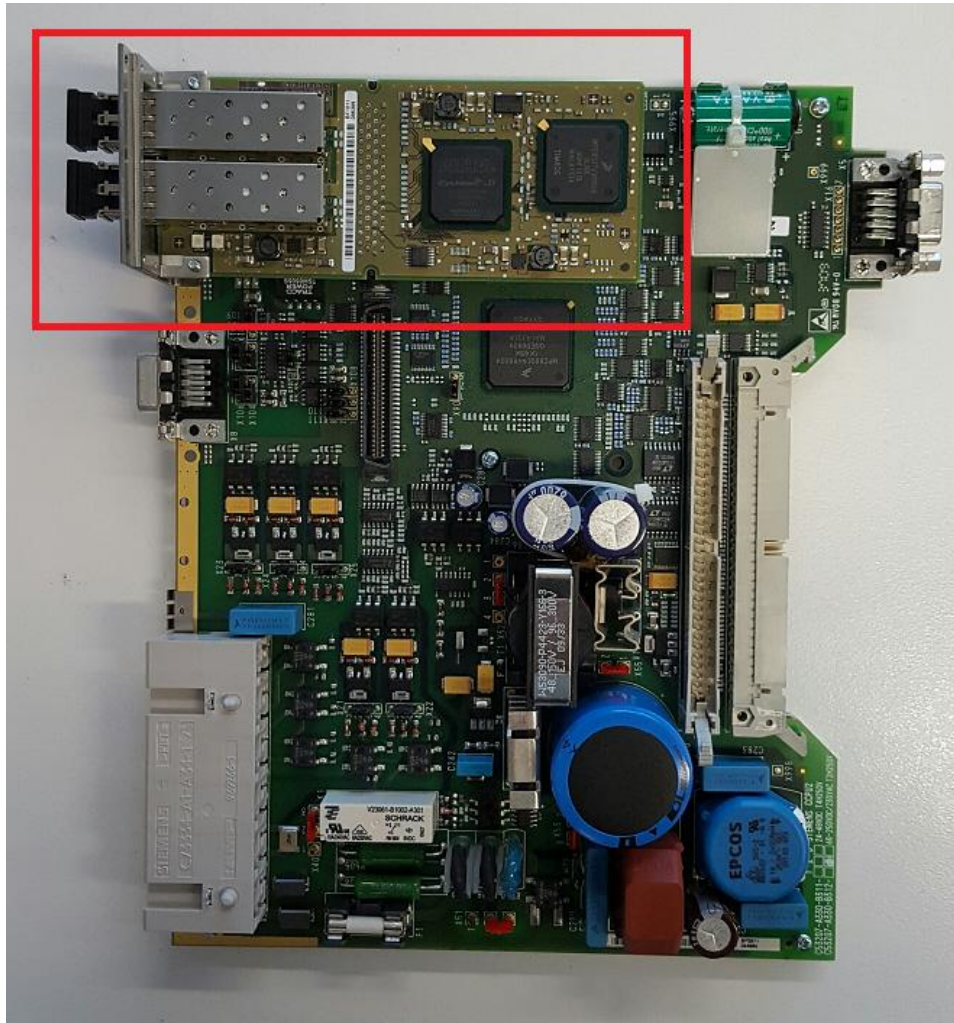


Figure 6: Communications card

To remove the communications card, 2 screws must be removed from the underside of the circuit board as shown in *Figure 7*.

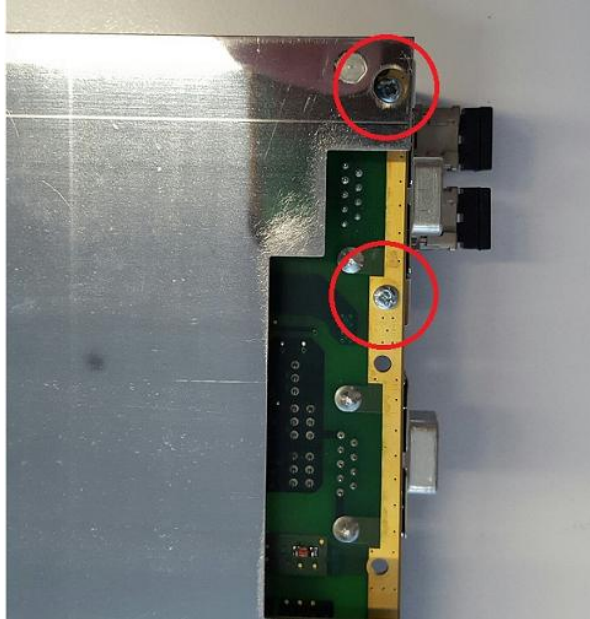


Figure 7: 2 screws holding communications card in place

3 Reassemble relay

Connect the new communications card to the black terminal strip in place of the old communications card.

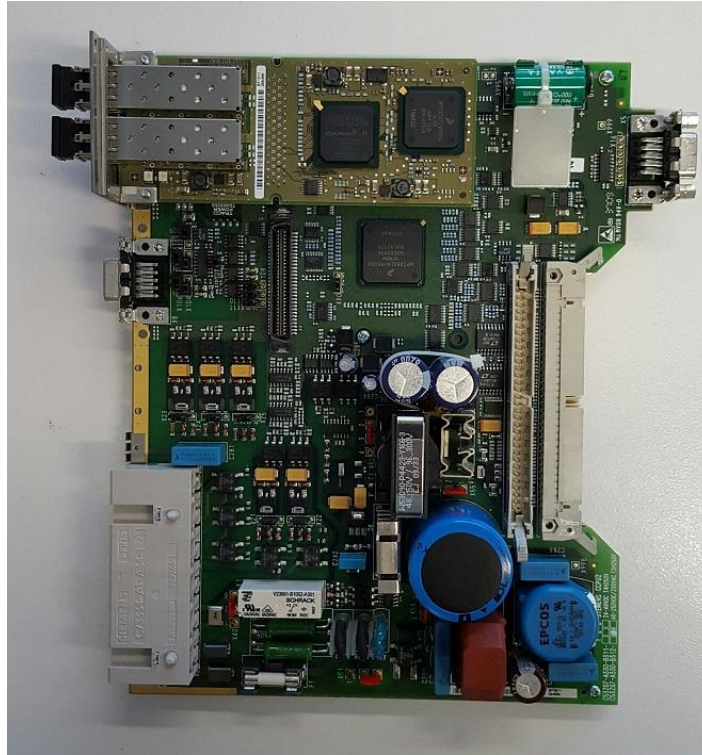


Figure 8: New communications card attached to main circuit board

Replace the 2 screws on the underside of the circuit board, that hold the communications card in place, as shown in Figure 9.

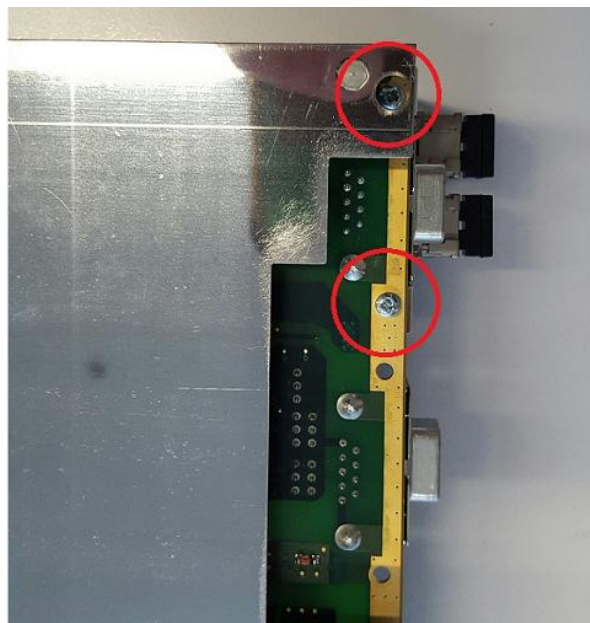


Figure 9: Replace 2 screws on underside of circuit board

Slide the entire circuit board into the relay's housing, ensure the green circuit board component is in the slot marked by the 2 red notches, as shown in *Figure 10*.

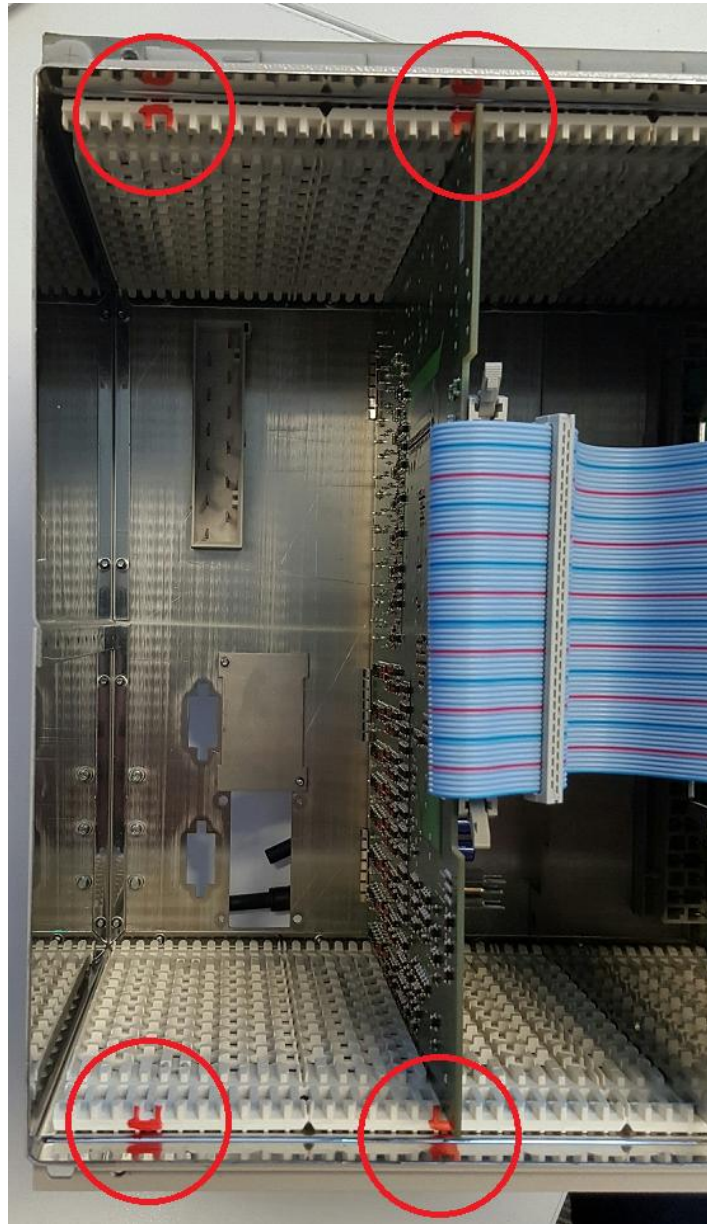


Figure 10: The red notches indicating where the circuit board should go

Reconnect the 2 removed ribbon cables between the circuit boards and faceplate circuit board, as shown in *Figure 11*.

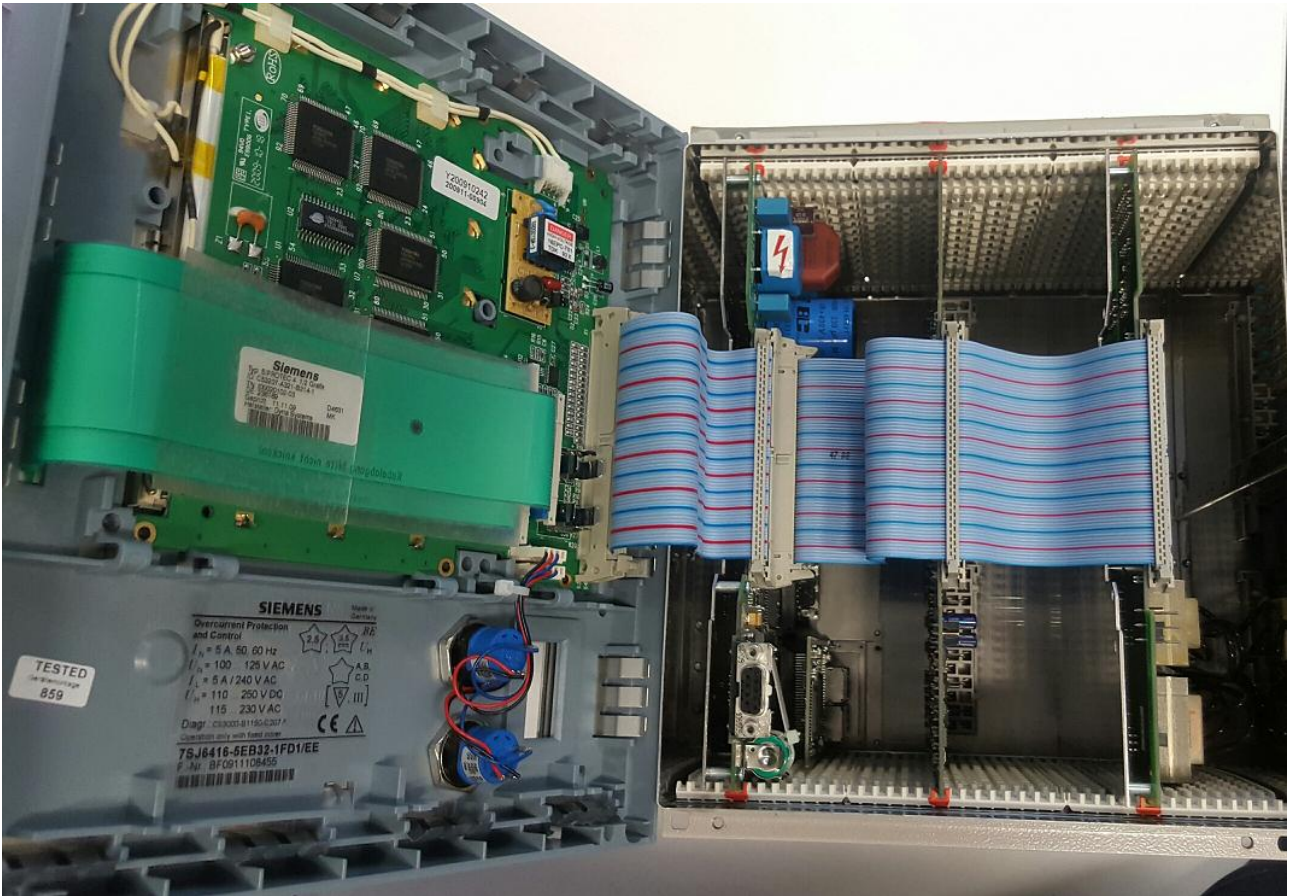


Figure 11: Connected ribbon cables for circuit boards

Reattach the faceplate of the relay to the housing.

Replace the 4 screws in the faceplate and slide screw covers back into place, as shown in *Figure 12*.

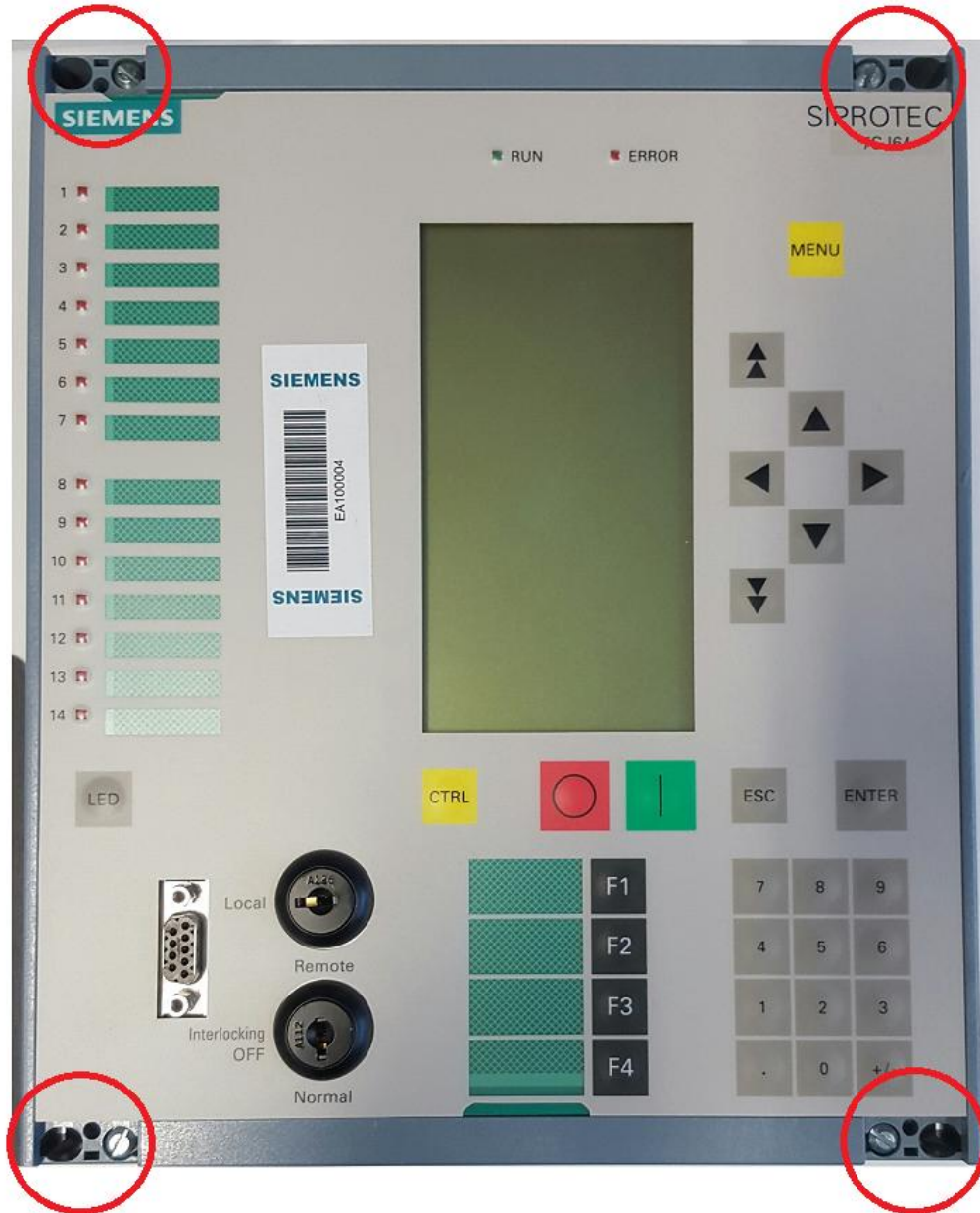


Figure 12: 4 screws holding faceplate to relay housing

4 Digsig 4 Manager

Power up the relay according to its rated auxiliary voltage.

Open the Digsig 4 Manager software and existing project containing the relay.

Right-click on the relay and select Object Properties, as in Figure 13.

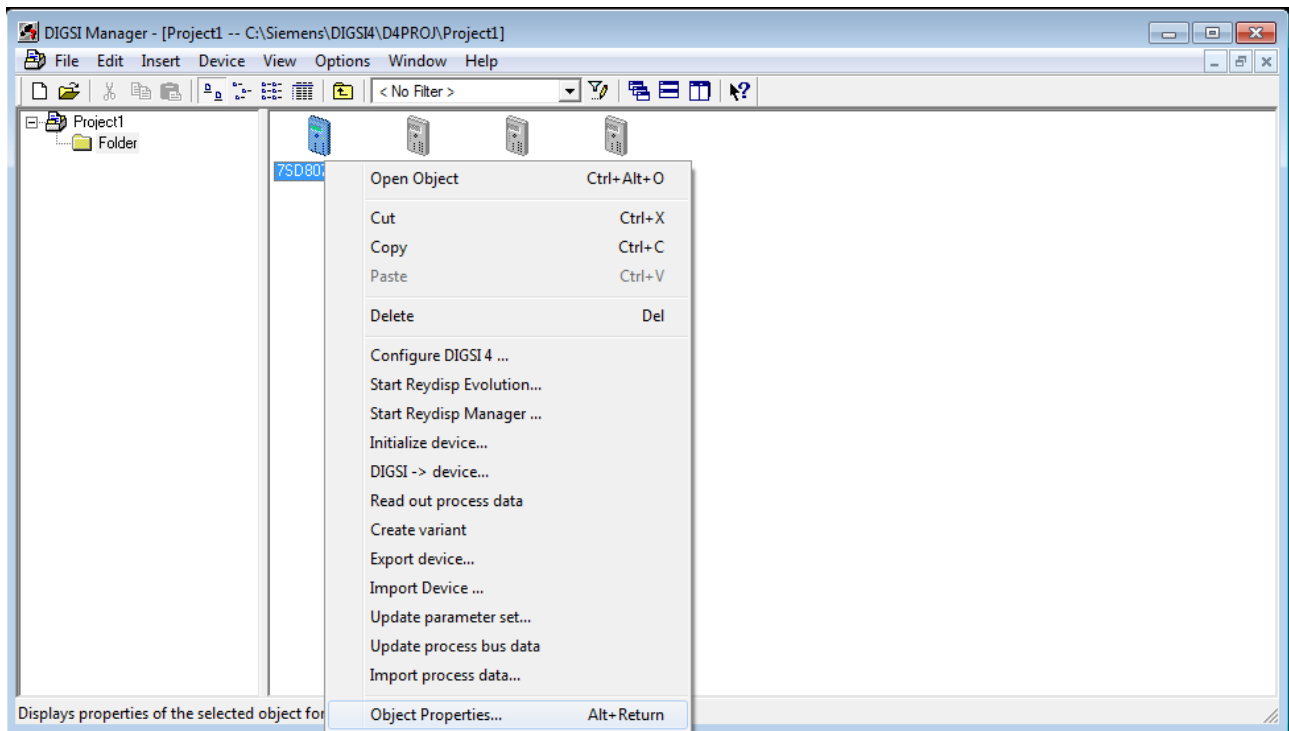


Figure 13: Open the Object Properties tool

Select the Communications Module tab. Note that whilst the MLFB of the device does contain information for the communication modules, once the MLFB tab is set, it should not be changed again. Instead we will change the card through the Communications Modules tab, to prevent conflicts.

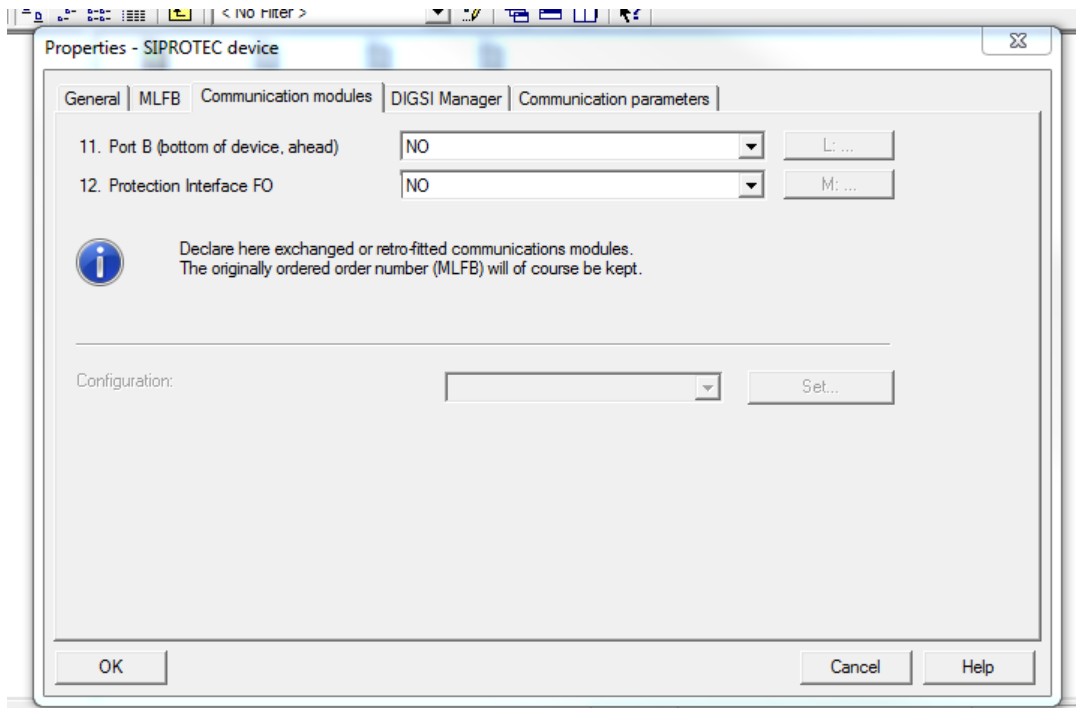


Figure 14: Communications Modules tool

Select the correct communication protocol.

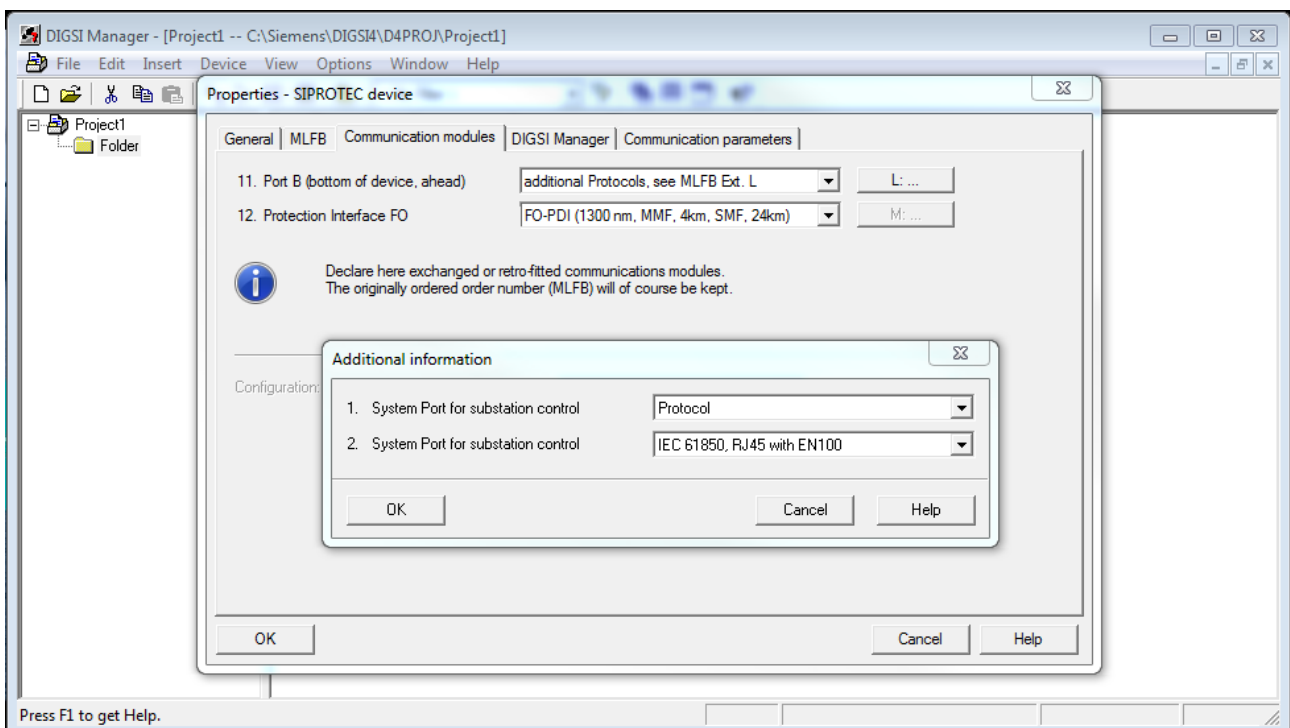


Figure 15: Selecting the new communication protocols

Note that Digsy 4 Manager will not show an error if the incorrect communication card is selected, it will only show errors if the incorrect MLFB is selected.

Right-click on the device and select Open Object to download the configuration to the relay. Digsy will connect and download the configuration to the relay.

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