Sommerkamp TS340 FM Modul



1. Preparing the radio for switching AM/FM:

Choose any switch, 2-pole, 2-position, of the front panel you don't need anymore and disconnect all wires from it. If you have a preferred function of this switch, connect the corresponding wires together.

The drawing below shows how to connect the switch.



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Transmitter:

- Cut the pcb between the 2 points as shown in picture 1.

- Connect a wire from point A marked blue (Wire A) in picture 1 to the root (middle) of the switch, pole1.

- Connect a wire from point B marked red (Wire B) in picture 1 to the lower (AM) position of the switch, pole1.

- Connect the blue wire from the FM-modul to the upper (FM) position of the switch, pole1.



Picture1

Receiver:

- Cut the original grey wire between the 2 points shown in picture 2 and 3.

- Connect the end coming from the band-switch in picture2 to the root (middle) of the switch, pole2.

- Connect the end coming from the pcb (near C25) in picture3 to the lower (AM) position of the switch, pole2.

- Connect the brown wire from the FM-modul to the upper (FM) position of the switch, pole2.



Picture2

Picture3

2. Connecting the modul:

Black:	ZF in. Connect shortly to IF before Crystal Filter. Works 9.785 or 10.695
	MHz
Brown:	FM-NF out. Connect to AM/FM Switch, NF Amplifier input.
Red:	Power Supply RX. Connect to +8V AM or +8V RX
Orange:	GND. Connect to GND very short
Yellow:	2.Frequency in. Connect to 10.24MHz
Green:	Power Supplay TX. Connect to +8V AM TX
Blue:	NF in. Connect to AM/FM Switch, NF Amplifier Mod Out
Violet:	FM out after Deviation Control. Connect to Cap-Diode and VCO

The FM-Modul has an 8pin connector and comes with a set of wires with 8 different colors.

- Connect the blue and the brown wire (modul) as described in capture 1.

- Connect the orange wire (modul) to GND near Q3, as short as possible.

- Connect the black wire to the secundary side of T3, as short as possible. If this doesn't work fine, use the collector of Q3, but change C12 to a resistor of 330 ohm.

- Connect the yellow wire (modul) to the cathode of diode D14, as shown in picture 4, marked yellow.

- Connect the green wire (modul) to the original green and yellow wires shown in picture 4, marked green.

- Connect the red wire from the modul to the point with the original red wire (+8V RX) as shown in picture 5.



Picture 4

Picture5

- Connect the violet wire via a resistor of about 100k to a capacitor-diode to GND and via a capacitor of 5pF (4.7pF) to the middle point of L10. Do this on the backside of the pcb, connect as short as possible. Use picture 6 and 7 to do this. Of course, there are some easier ways, but this works best.







Picture7

3. Installation of the modul

The modul should be mounted as shown in picture 8, so that the important wires are sure to be very short.

When changing R59 (15k, near the NF amplifier) to 6.8k, modulation in AM and FM will become much stronger.

You should change the dynamic compressors (picture 9), so that it also works in FM.



Picture8

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Optional Change of dynamik compressor:

reconnect VR7 reconnect C68 remove R138, D27 add 2 diodes 1N4148 connect a wire to the mod-switch "AM". re-adjust VR7



Picture9

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