

# ***Engineering Bulletin***

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***ECLIPSE***  
**Engineering Bulletin**  
No: EB-0502

**Product : 9150(9176) DCS/CTCSS MODULE**

**Topic : Firmware Update**

**Date : 14/09/2005**

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The new firmware can automatically detect the following two sub-tone modules:

9150/0002	module based on FX465, for CTCSS only
9150/0003(9176/0001)	module based on FX828, for CTCSS, DCS, CWID, and STATUS TONE

Previous revision firmware, 059115V9(RX) and 059103V11(TX), were shipped with the first batch of RF technology's demonstration units.

As the command protocol of FX465 and FX828 are different, the previous firmware could only work with one or other depending on a special data byte programmed in micro-controller's EEPROM.

The latest firmware, 059115V10(RX) and 059103V12(TX), can automatically detect two different modules. Also there are some minor changes for CWID timing and RX noise detecting improvement.

How to update:

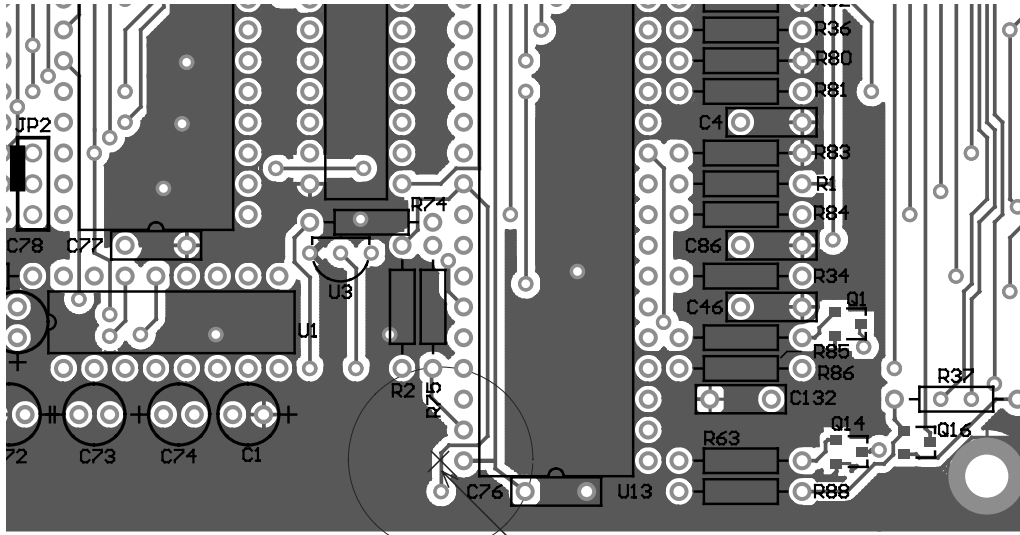
Receiver:

Replace the EPROM with revision 059115V10 (supplied by RF Technology)  
No further modifications needed, refer engineering bulletin EB0404.

Transmitter:

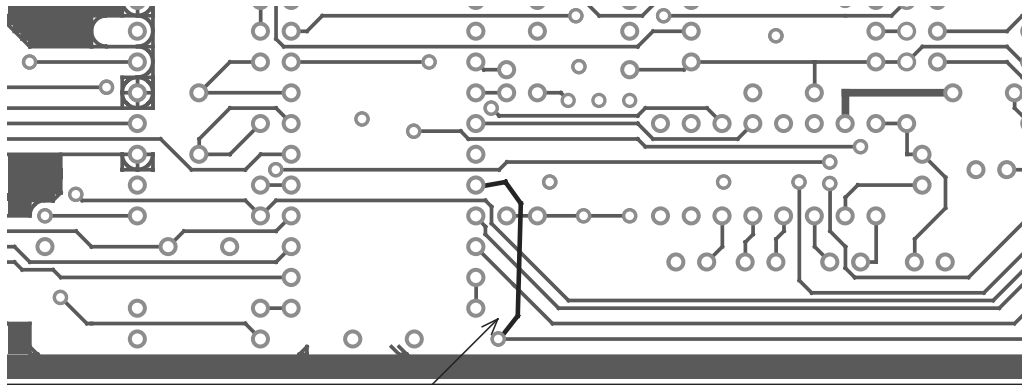
Replace the EPROM with revision 059103V12 (supplied by RF Technology)  
Further modifications on the TX PCB are needed, refer EB0404.

1. Cut the track (schematic diagram net name "reset") as shown.
2. Connect U13 Pin44 (MISO) to the Via hole (pin3 of the sub tone module)



Cut the track here

Top Layer of TX PCB



Connect Via hole to U13 Pin44

Bottom layer of TX PCB

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