How to Remove a Motorola UHF CDM 1250/1550 Password

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This article is for the Ham that has bought a radio on ebay and can not be reprogrammed because it is password protected.

To remove the password the right way, you will need the following things:

- 1. Motorola CDM software : Professional Radio CPS R06.12.05
- 2. Serial port analyzer (free): <u>https://freeserialanalyzer.com/</u>
- 3. Any VHF/UHF CDM 750/1250/1550 radio like: AAM25RHD9AA2AN

/ AAM25RKF9DU5AN / AAM25KKF9DP5AN / AAM25KKD9AA2N

/ AAM25BKC9AA1AN or other versions as such in this series.

4. Spare (same type) CDM radio that you can practice on

5. Maybe a 'hex editor NEO' (free): <u>https://www.hhdsoftware.com/free-hex-editor</u>

This is the '**best** ' way of removing the password and can NOT brick the radio. We will look at the data being passed between the software program and radio (serial data). Not changing any serial data prevents any mistakes and bricking the radio. Finding a code plug with the same model # and trying to write this to a password protected radio will not work. The password can be 7- characters long with alphanumeric &/or numbers. The password is divided into 2-locations. The best thing most people put an English word in for the password which is easily seen in the serial monitor. When the password is found, you will enter the password in the Motorola software after you try to do a 'read radio' and the software program will tell you if you are right. CPS R06.12.05 must be used, as different version move the password location around. R06.12.05 should be latest and last version

before going all narrow band.

Similar results may be had with low band and VHF CDM's and have been successful as well.

<u>SETUP</u>

Computer used: Windows 10 with Motorola R06.12.05 software installed. A USB to mic connector Motorola program cable. Installed serial monitor (above). Hopefully- (2) working CDM radios. Be sure to know (by looking in Windows 10 'control panel') what com port # goes to your USB converter. With Windows 10 computer running, CDM radio ready, start up CPS R06.12.05 , click 'read device' and com port . Now start the serial port analyzer, set com port and start 'monitor' mode. You need to read the helpme files for more setup. Go back to the CDM program and try to read the radio. The CDM radio will come back and say 'Enter Password'. All the serial data (including the password) has now been captured by the serial port monitor! The 'password' (in the radio) goes into the software program for comparison. Here is what you want to be looking for—

- 0 8A30:06 1st character
- 0 8A30:07 2nd character
- 0 93A0:02 3rd character
- 0 93A0:03 4th character
- 0 93A0:04 5th character
- 0 93A0:05 6th character
- 0 93A0:06 7th character

0 93A0:07 "FF" which is the terminator. '00' means no character Attached is a read out of the serial captured data with the password of " <u>DCFC99</u>". Another way to find the location of the password is to program a similar radio with a password (like '**MONDAY**') and start looking for your English word. Remember, the password is not all together.

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Shortened actual captured data

COM3 .s0{color:#056464;} .s1{color:#500564;} ò#.åò#.åPó<..|ò#.Ûò#.ÛPÿ<....å"fíÊL⊶ çu7ñmÚŽÇò#.Ûò#.ÛPÿ<....å"fíÊL∞çu7ñmÚŽÇõ.....÷õ.....÷Pÿ€..... €øõ....€uõ....€uPÿ€....€. €xõ.....ôõ.....ôPÿ€.....sõ.....òõ.....òPÿ€.....jõ. ..€Wõ. .. €WPÿ€.\$..€.€€R.103TAQB566..M25RKD9AA2A çõ. .. 7õ. .. 7Pÿ€.\$.. \$..À102?.IMUE6024C p.....€..@≦.**!**wÀõ. ..à÷õ. ..à÷Pÿ€.\$..àÞ.@ «.....öē. ...öPÿ€.\$..... ⊠.™€..... W.€2...X["]..(Cqõ. .. ¶õ. .. ¶Pÿ€.\$.. .-.H.â * \$..@FC99.....H_"......Ñ_".....AVL...÷õ. ..`võ. ..`vPÿ€. \$..`.....Õ∈B.....Control 1 On..C.õ. ..€Võ. ..€VPÿ€.\$..€ontrol 1 Off.....Control 2 On..Ÿõ. .. 6õ. .. 6Pÿ€.\$.. Control 2 Off. 🗎 €.....R......¹₄õ. ..À.õ. ..À.Pÿ€. \$..À.....a€......΀......ê....ìõ. ..àöõ. ..àöPÿ€. \$..à....o"..........Gõ. ...Õõ. ...ÕPÿ€. \$.....μPÿ€.\$.. .ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.ÿ.Ç.€...Lõ. ..@•õ. ..@•Pÿ€. \$..@.....Í€.....ÏÀ...ÿ ...ÿÛõ. ..`uõ. ..`uPÿ€.\$..`MDC CALL 01...‰*À...ÿ...4Vx.DTMFžõ. ..€Uõ. ..€UPÿ€.\$..€ CALL 1...⊞ (À...ÿ..5..TQC CALL 1.õ. .. 5õ. .. 5Pÿ€.\$..¤)€...ÿÿ. . .

In the example above , it is **DC**(spaces) **FC99**. You can also use use a hex –editor to find locations quickly. The password is always up front and in 2-locations in the captured data. The password is always after the Tanapa code (like **IMUE6024C**). Hopefully, this article will point you in the right direction. This guide has worked for me multiple times on every CDM series radio either VHF or UHF and multiple model numbers. This does NOT require any modifications to the CPS software or CDM firmware.