TiL Model: TDFM-7300
TiL P/N: 061245-3-73XXXX/PXXXX
Affected S/No: ALL

Purpose: Transceiver Programming Instructions (Motorola CPS and "Band 5" Multi-TDP)

Parts Required:

Note: Only **one** cable is required for programming using both CPS and Multi-TDP Software. For PCs not equipped with RS232 Serial ports, the USB version of the cable should be used.

ITEM	PART NUMBER	DESCRIPTION
[1]CPS Software	RVN4181 (Motorola)	Motorola Astro 25 Portable CPS Software
[2,4]USB CPS Programming Cable (Front Loading)	127507 PC7000 USB	CPS/Multi-TDP Programming Cable Unit front panel connector (Mini –DIN) to PC USB *Note: No USB to serial adapter required*
[2]RS 232 CPS Programming Cable (Front Loading)	047365 Rev A or higher PC7000 II	CPS/Multi-TDP Programming Cable Unit front panel connector (Mini –DIN) to PC Serial Port (9-Pin)
[2,4]USB CPS Programming Cable (Rear Loading)	127506 PC6000 USB	CPS/Multi-TDP Programming Cable to rear connector (25-pin) to PC USB *Note: No USB to serial adapter required*
[2]RS 232 CPS Programming Cable (Rear Loading)	047366 Rev A or higher PC 6000 II	CPS/Multi-TDP Programming Cable Unit rear connector (25 pin) to PC Serial Port (9-Pin)
[3]**Key Loader** Cable "KVL-3000 (Plus)" (Front loading)	037348	KVL-3000 (Plus) Key Loader Cable to front panel DIN connector of transceiver
[3]**Key Loader** Cable "KVL-3000 (Plus)" (Rear Loading)	047381	KVL-3000 (Plus) Key Loader Cable to rear 25 pin connector of transceiver

[1]**Motorola part:** These parts are not available for purchase from Technisonic

[2]**CPS Programming Cable:** Must be purchased from Technisonic. It cannot be fabricated due to circuits within the cable.

[3]**Key Loader Cable:** Must be purchased from Technisonic. Allows encryption keys to be loaded into the transceiver with a KVL-3000 (Plus) Key Loader. Only required if the transceiver has been delivered with optional encryption capability.

[4]**USB Drivers** required for programming cables can be downloaded from http://www.ftdichip.com/Drivers/VCP.htm

Programming Software:

There are two software programs required to program this transceiver:

1. **Motorola CPS:**

    Bands 1 thru 4 require the Motorola CPS (Customer Programming Software) for programming the individual channel parameters. The CPS software must be purchased online directly from Motorola (**https**://**businessonline**.**motorola**.**com**/) to comply with their software licensing regulations. Once on the website select "**Sign Up Now"** and follow the directions. To order Motorola products follow the procedures below:

    - Select "**Buy Center"** in the menu bar and them select " **Search Catalog"**
    - Type in the part number (select the latest revision for software)
    - Fill in the quantity and add to the cart

2. **Multi-TDP Software:**

    "Band 5" uses the Multi-TDP software that can be downloaded free from our web-site www.til.ca under the **Programmer Download** section. This is the same software used for our analog series of transceivers.

Programming Procedures:

1. *Motorola Modules:*

    Note: For instructions on programming units using CPS Programming Software, please refer to TIBFM16-02

2. *Multi-TDP Software – "*Band 5" **DOWNLOAD/UPLOAD** procedures:
    - Connect the programming cable listed in the "Parts Required" Table above and power up the transceiver.
    - Press the "**Band"** button on the radio and toggle to Band 5.
    - With the Multi-TDP file open click on "**FILE**" then "**SELECT RADIO**" and select "**TDFM-7300"**.
    - Go to the **"FrqBand"** menu on the Multi-TDP and select the appropriate band.
    - Complete the entries on the frequency template file. Go to the tool bar **"FILE"** and select "**SAVE"** enter file name and click **"SAVE"** again**.**
    - Put the TDFM-7300 into "**PCDL"** mode by pressing **"FUNC"**, "**FUNC"** and **"6"** on the radio**.**
    - Go to the tool bar and select "**DATA TRANSFER"** To send the file with all 200 channels to the radio select **"ALL".** If only specific channels needed to be saved manually select these channels by clicking the box on the left hand side of the channel info in the table.
    - Go to the tool bar and select "**DATA TRANSFER"** again then "**DOWNLOAD (TO RADIO)".** If you want to **UPLOAD** this is where you would select "**UPLOAD (FROM RADIO)"**. Follow message screen instructions and click **"OK"** when completed.
    - Exit **PCDL** mode on the radio by pressing the "**FUNC"** button on the radio.