



# TECHNICAL INFORMATION BULLETIN

T/B No: TIBFM 16-01A  
Issue Date: DEC14/09  
Rev. Date: APR 11/13

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

<sup>1</sup>**Motorola part:** These parts are not available for purchase from Technisonic

<sup>2</sup>**CPS Programming Cable:** Must be purchased from Technisonic. It cannot be fabricated due to circuits within the cable.

<sup>3</sup>**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.

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



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### 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 then 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](http://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.