MOTOROLA
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iFP
Impres™ Field Programmer
User Manual

Motorola Customer Support
- Direct Dial 1-800-927-2744
- Service
  The iFP Unit is not field or depot repairable

Motorola Warranty Service
1-800-422-4210 (US and Canada)
1-847-538-8023 (International)
1-800-826-1913 (Federal Government Customers)

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

This document contains important safety and operating instructions. Please read these instructions carefully and save them for future reference.

Before using the iFP, read all the instructions and cautionary markings on the charger.

1. Use of accessories not recommended by Motorola may result in risk of fire, electric shock, or injury.
2. To reduce risk of damage to the electric plug and cord, pull by the plug rather than the cord when disconnecting the iFP.
3. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in risk of fire and electric shock. If an extension cord must be used, make sure that the cord size is 18AWG for lengths of up to 100 feet (30.48m), and 16AWG for lengths up to 150 feet (45.72m).
4. To reduce the risk of fire, electric shock, or injury, do not operate the iFP if it has been broken or damaged in any way.
5. The iFP Unit is not field or depot repairable.
6. To reduce risk of electric shock, unplug the iFP from the ac outlet before attempting any maintenance or cleaning.
7. The Chargers can only be repaired and/or re-flashed by a qualified service technician authorized by Motorola-CGISS. Any violation of this policy **will** void unit warranty.

Operational Safety Guidelines

1. Target device must be unpowered before opening or programming.
2. Disconnect iFP from PC during Target Programming.
3. Use only Motorola Power Supplies with this Programmer. Compatible Power Supplies are listed in Table 1.0.
4. The iFP will only be compatible with PC's that have USB Capability and will be compatible with the following Operating Systems:
   - Windows 98SE
   - Windows 2000
   - Windows XP

6881098C31-O

- This equipment is not suitable for outdoor use. Use only in dry locations/conditions.
- Connect equipment only to an appropriately fused and wired supply of the correct voltage (as specified on the product).
- Disconnect from line voltage by removing the mains plug from the outlet.
- The socket outlet to which this equipment is connected should be close and easily accessible.
- For equipment using fuses, replacements must comply with the type and rating specified in the equipment instructions.
- Maximum ambient temperature around the iFP must not exceed 104°F (40°C).
- Make sure the cord is located where it will not be stepped on, tripped over, or subjected to water, damage, or stress.

Description

The iFP (impres™ Field Programmer) is a service aid designed specifically for the purpose of reprogramming present and future compatible impres accessories.

Contents

Part Number	Description
RLN5670A	iFP, Base Kit
-----	Power Supply (Table 1.0)
3088880G01	Cable, Mini-USB; PC-to-iFP
3089765G02	Cable, Programming; iFP-to-Target
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Table 1.0 Compatible Power Supplies

Part Number	Nominal Input Voltage ±10%	Line Frequency	Country Plug
2504548T14	110 VAC	50/60Hz	US (NA/LA)
2504548T02	230 VAC	50Hz	UK
2504548T03	220 VAC to 240 VAC	50Hz	Euro
2504548T12	220 VAC to 240 VAC	50Hz	Aus/NZ
2504548T09	220 VAC to 240 VAC	50Hz	Argentina
SJ-18090K	220 VAC or 110VAC	50/60Hz	Korea

Getting Started

PLEASE NOTE:

THE iFP UPON RECEIPT WILL BE BLANK – CONTAINS NO TARGET SOFTWARE (i.e. BLANK). IT WILL BE NECESSARY TO UPDATE THE TARGET SOFTWARE VIA MOTOROLA ON LINE (MOL)!

If at anytime during the programming sequence, that programming/verification gets interrupted – Programming Cable (Target or USB) or Power Supply Connection get dislodged – re-start the sequence, i.e. re-establish or re-cycle power to the iFP Device and re-start programming (either PC-to-iFP or iFP-to-Target).

Connecting the iFP to a PC and Updating Target Code:

1. Connect the DC Power Supply to the iFP per Figure 1 and 2.

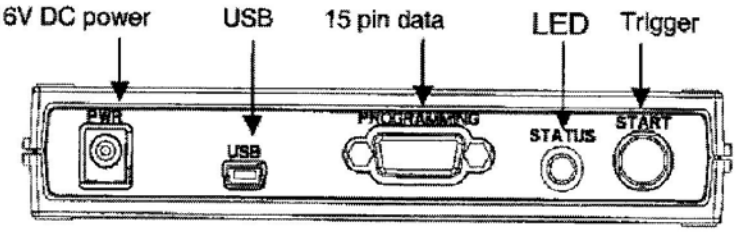

Figure 1. iFP Connections

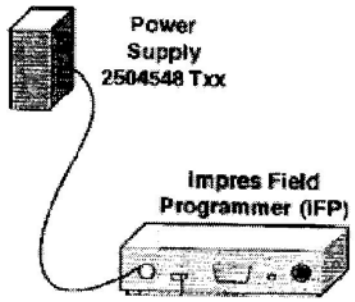

Figure 2. System Configuration – iFP + Power Supply

Upon power-up, the LED will sequence in the following manner:

- Solid GREEN (1-second) → Solid YELLOW (1-second) → Solid RED (1-second) → Off (1-second).
- After which, the LED will stay Solid YELLOW (waiting).

2. Connect the USB between the PC and iFP (Figure 3.)

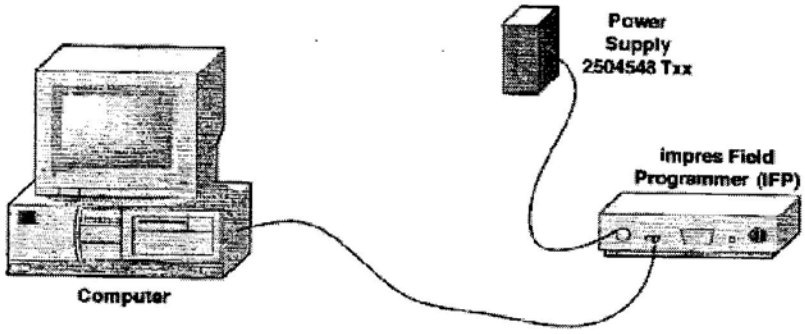

Figure 3: System Configuration – iFP + Power Supply + PC + USB Cable

The PC will enumerate, during this time the iFP LED will Flash YELLOW and indicate Solid Yellow upon a successful configuration for the driver:

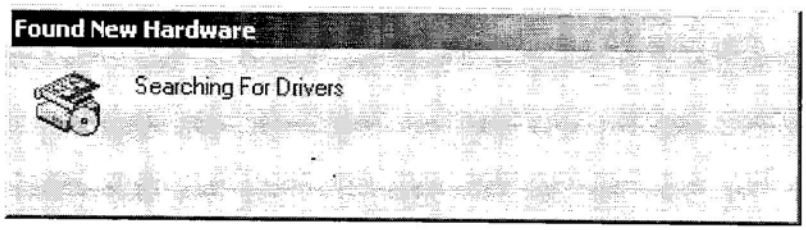

Figure 4: iFP enumerating with PC

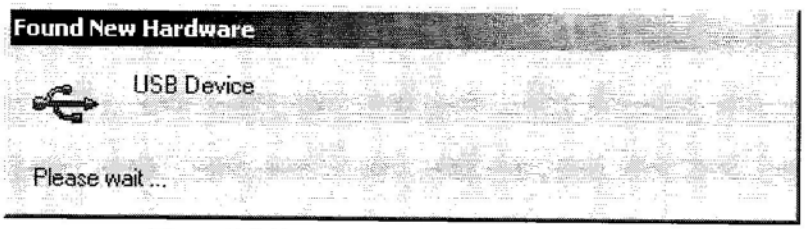

Figure 5: iFP successfully enumerated with PC

3. Retrieve the zip file from Motorola On Line (MOL) https://businessonline.motorola.com/. Download the zip file to your hard drive. If you do not have access to MOL, you will need to register and set up an account. Decompress the ZIP File

to extract the executable – this can be placed on your desktop or embedded within the hard-drive (user can name the folder anything he/she chooses).

A few recommendations before launching the GUI:

1. Close all others windows.
2. Remove all other USB Devices.

Upon a solid yellow LED on the iFP, launch the executable.

If the USB Cable is not engaged, the following message will appear:

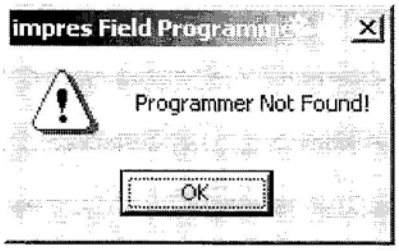

Figure 6: Error message if USB cable is not connected between PC and iFP

Reconnect the USB and try again.

Once successful, the GUI will indicate the Latest Versions of Target Code Available versus what is Currently Loaded in the iFP.

In this case (Figure 7), the iFP has Charger SW V2.0, Display SW V1.4, and iFP V0.1.10 while the executable has Charger SW V3.0, Display SW V1.5, and iFP V0.1.14, so this is eligible for upgrade … the "Update" Button will be live. Otherwise, the "Update" Button will be inaccessible, indicating no updates necessary.

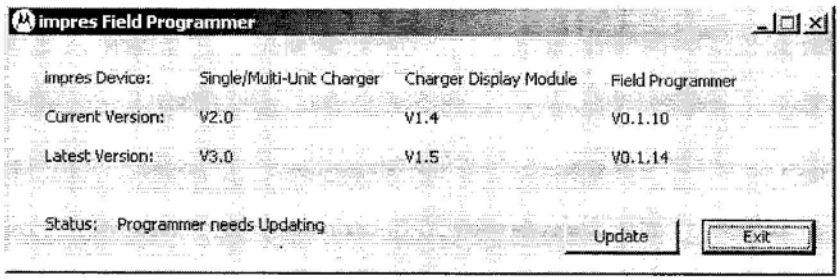

Figure 7: iFP Read

Engaging the "Update" Button will initiate a reprogramming of the iFP and upon a successful update, the GUI will reflect the following (Figure 8):

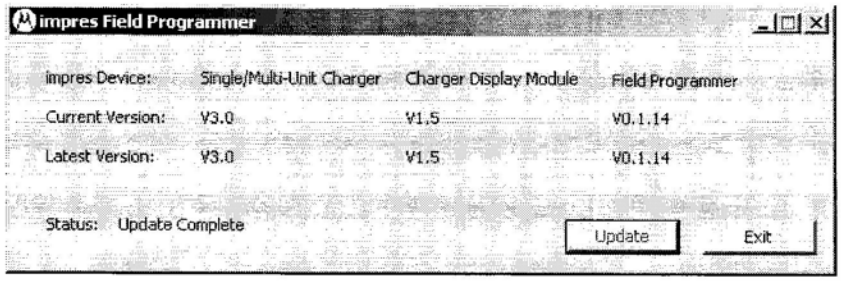

Figure 8: Successful iFP Update

To program each subsequent iFP Device, EXIT or CLOSE the GUI Window and re-launch with each new iFP – start at Step 1.

Connecting the iFP to a Target and Updating Target Code

1. Connect the DC Power Supply and Target Programming Cable to the iFP per Figure 9 and 10.

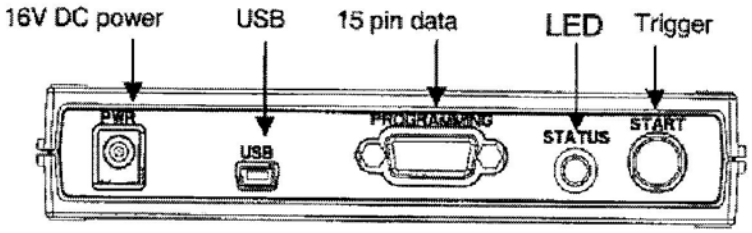

Figure 9: iFP I/O's

Figure 10: iFP with DC power and target programming cable connected

2. Wait until the iFP indicates a Solid Yellow (Ready for Programming), Figures 11-13, before connecting/programming your Target Device. **PLEASE ENSURE NO TARGET DEVICES ARE POWERED (ALONE OR THROUGH THE CHARGER)! AND THE USB CABLE IS REMOVED BETWEEN THE iFP AND PC!**

   Before connecting to a target device, note that the 8-pin Connector is keyed with an arrow indicating Pin 1 – this is to match with Pin 1 on the CDM (Charger Display Module), other Target Devices are duly keyed to accept the connector one-way only.

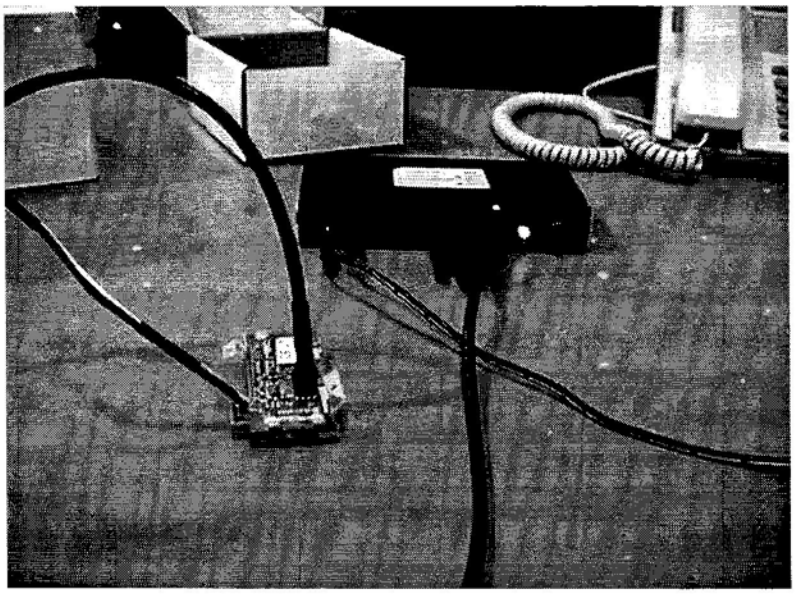

Figure 11: iFP to display module.

The CDM Connection to the Charger does not have to be removed and/or the CDM does not have to be removed from the Top Housing Assembly in order to program – the figure represents a Stand-Alone CDM.

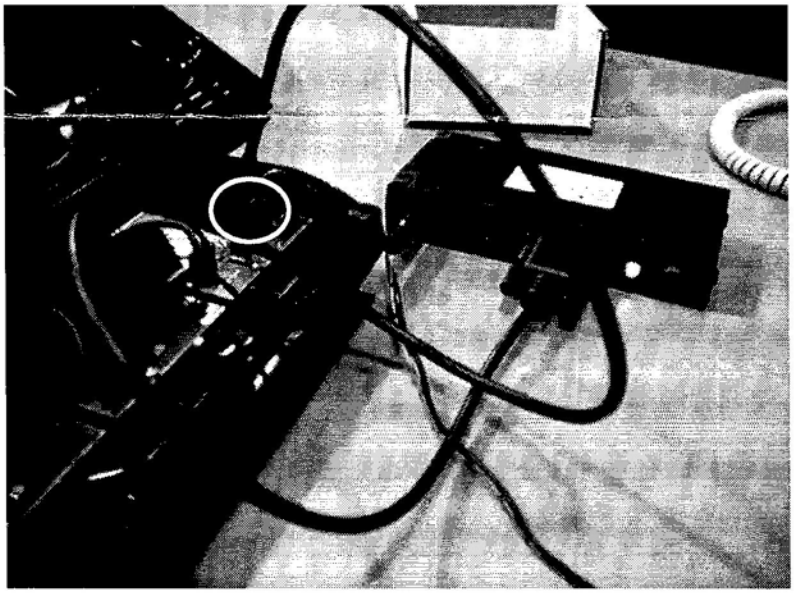

Figure 12: iFP to Multi Unit Charger board

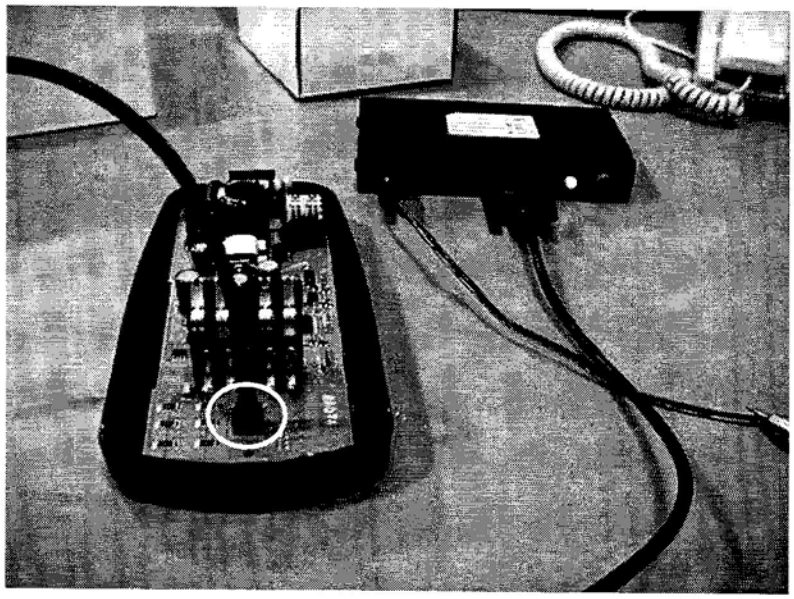

Figure 13: iFP to Single Unit Charger board

3. Press the "Start" Button on the iFP to initiate programming, the LED on the iFP will Flash YELLOW. Upon a successful Program, the LED will indicate Solid GREEN (Figure 14).

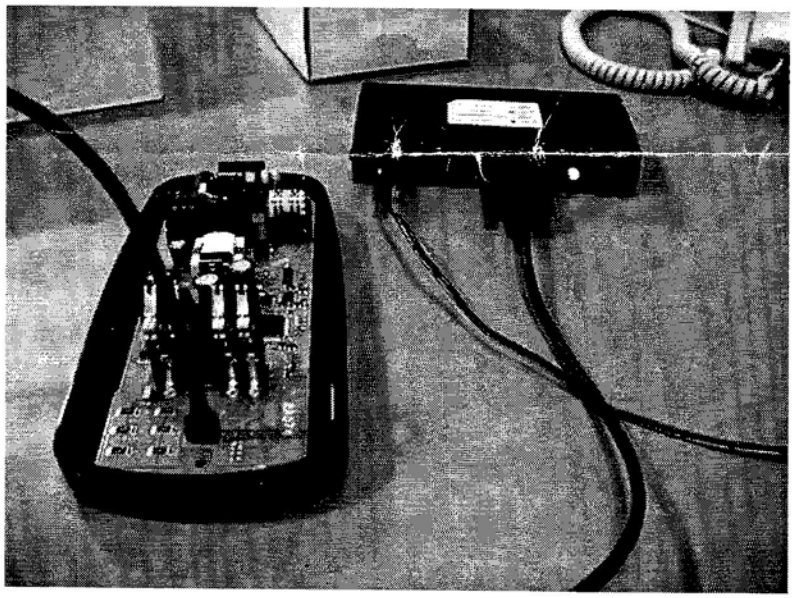

Figure 14: Successful iFP Programming, Solid GREEN LED

4. If for any reason any reason a Flashing RED LED is indicated, re-attempt act programming will be required. Also, if upgrading a Phoenix SUC Board, verify the A-B Switch on the bottom of the Charger Board is in the A-position – the SUC requires that the A-B Connector needs to be in the A-position in order for the iFP to program successfully.

   Press the "Start" Button once, the LED should indicate Solid YELLOW (Programmer Ready).

   Press the "Start" Button again to initiate programming … Flashing YELLOW → Solid GREEN (upon programming success).If the Flashing RED LED persists, the Target Device is defective and should be replaced.

5. Upon successful programming:
   - Remove the cable from the Target Device.
   - Press the "iFP "Stat" Button, LED will indicate Solid YELLOW.
   - Connect the next Target Device, repeat programming sequence.