ProgMaster Series Production Programmer User Manual

V3.2



©DediProg Technology Co., Ltd 2015 All right reserved.



Table of content :

Ι.	General Description	3
Π.	Product Information	3
III.	System Requirements	3
IV.	Hardware Description	4
v.	Dediware Quick Installation	6
5.1 5.2 5.3 5.4	 Software Installation ProgMaster Setup Create Programming Project Load Project and Programming 	
VI.	Socket Adaptor Installation	14
VII.	Stand Alone Function	15
6.1 6.2 6.3	LCD Keypad Panel LCD Keypad Panel and Procedures	
VIII.	. Revision History	21

Important notice:

This document is provided as a guideline and must not be disclosed without consent of DediProg. However, no responsibility is assumed for errors that might appear.

DediProg reserves the right to make any changes to the product and/or the specification at any time without notice. No part of this document may be copied or reproduced in any form or by any means without prior written consent of DediProg.



I. General Description

This user manual mainly describes the hardware and software features of ProgMaster series. If you would like know more about Dediware and application information, please visit DediProg website (<u>http://www.dediprog.com/download</u>).

II. Product Information

Programmer Features	ProgMaster-U4/U8
IC Support	Universal
SD Slot	v
USB Port	v
LCD Port	v
Socket Sites	Four Sites/Eight Sites
Power/Pass/Busy/Error LED	V
Start button	v
Multiple Programmers	V

III. System Requirements

P4 or above
Win XP or above
USB 2.0
At least 1GB
Necessary



IV. Hardware Description





K. Power button



A. Socket sites

Install the socket adaptors according to different IC packages.

B. Operation LED

Red LED: Error, the programming has failed or verified errors.Yellow LED: Busy, the system is operating.Green LED: Pass, programming successful.

C. Power LED

Power LED will turn on when the ProgMaster is powered on.

D. Start button

After set up in the Dediware, press the start button to program the files that were saved in the SD card.

E. GND

It is for ProgMaster series grounding.

F. ESD

It is for connecting ESD wrist strap.

G. AC power connector

Connect the AC power adaptor.

H. SD card slot

It is for storing the programming files. **Make sure the SD card is inserted into the slot before programming.**

I. USB connector

It is the communication between the Dediware and the programmer.

J. LCD keypad panel

You can operate stand-alone programming through this keypad panel.

K. Power button



V. Dediware Quick Installation

The software is provided with the purchase of ProgMaster series programmers. The newest version will also be available on our website. **www.dediprog.com**

5.1 Software Installation

1. Install **Dediware** by following the steps.



2. After installation, **Dediware** icon will appear on the desktop.







5.2 ProgMaster Setup

There are two modes in Progmaster series: USB mode and stand-alone mode. When power on the programmer, it will detect the connection between the programmer and the PC. If the USB is connected, then it will switch to USB mode. Otherwise, it will switch to standalone.

- 1. Insert SD card into the SD slot.
- **X** Make sure the SD card is inserted.
- 2. Connect power adaptor.
- 3. Connect USB cable.
- 4. Install socket adaptors to socket sites, please refer to VI. Socket Adaptor Installation.
- 5. Turn on the ProgMaster.
- 6. Place ICs into socket adaptors.
- 7. Open Dediware and start programming.

5.3 Create Programming Project

Note:

You can create a project file without connecting to a ProgMaster; it can also be done in any computer that has installed the Dediware. In addition, you can move the files to other computers for programming.

1. Double click DediProg icon to open Dediware



2. Switch to Engineering Mode

4	Dediware Ve Advance Help	rsion:3.5.21.	6					-	•		
	 Engineer Ma Select 	ode PROJ Load Prj	Load	Z Buffer	Config	PROJ Save Prj	IC Info	Production	Mode BunPrj	StopPrj	
	ReadID	L. ReadIC	Slank	Erase	Program -	Verify -	Auto Batch				



3. Select IC brand and IC part number (Or use search to find the model number)



4. Load the programming file

3.5.2	1.6					-			
OJ U Prj	Load	1 Buff	Dialog	PROJ	Production	n Mode			
11C 18 t	Site #1 Pass: 0 Fail: 0	EI838	FileFormat: FileChecksum: FileOffset: FilePath:	Binary(*.bin) ByteAcc 0X0 C:\Users\DediProg\D	▼ ▼ Desktop /集面/母月\TestBir	₩вув. ▼	PartitionName: ChipCheckSum: StartProgAddr: ProgramLen: FillUnusedByte:	Flash • ByteAcc • 0X0 • 0X200000 • 0XFF •]]]]]
	Pass: 0 Fail: 0		ShowFileList					Cancel 13:10:06:Cmp	OK CHECKSUM JOXU



5. Set the programming procedure and mode

Set up the batch according to your demand.

		Dediware Version:3.5.21.6	
1		O Production Mode	×
	Config Program Site Pass	Batch Setting Batch Operation Operation Selected Erase chip 2 Blank check 2 Program chip >>	
	Fail:	<	
		StartMode Start from Handler v	
		4	
	0009.150mil (OK Cancel	

StartMode provides three selections; you may choose accordingly when creating a project file.

A. Start from Manual Mode:

You can operate the programmer by pressing the "start" button from the Dediware or the "Start Button" on the programmer.

B. Start from Auto Detection:

When operating the RunPrj, the programmer will automatically detect the ICs. When it detects an IC, it will start programming.

ℜ NAND and eMMC do not support this function.

C. Start from Handler:

This is for automation system.



6. Save Programming project

		•	Production	Mode						
1	PROJ	~		۲						
	Save Prj	IC Info	SelectPrj	RunPrj	StopPrj					
	<u> -</u>	R								
	Verify A	uto Batch	Save Prj							x
		_	Location:	DESKTOP\					•	ŕ
	#2	Si		DEDICTORY			-			
	PAS	SS Fai		Name			Туре		Size	
			PC	☐ dediward	egui 의짜 (5)		Folder			
	10.0*	N			100 (0)		1 older			
	#6	Si								
		Pa	DESKTOP							
		Fal								
	0.0%									
		2								
				FileName:	test			•	ОК	
				FileFilter:	All Files(*.*)		•	Cancel	



5.4 Load Project and Programming

After creating a project file, you can still take the files to other computers for programming.

1. Open Dediware and switch to Production Mode

ance Help)						Dedi	ware Versio	on:3.5.21.6
) Engineer M	PROJ		Z	Ô	PROJ		Production Production Solucitien	Node	Chan Dai
ReadID	ReadIC	Blank	Erase	Program	Verify	Auto Batch	Select 1	Rollin	60prij

2. Load the programming project file

j IC Info Auto Bat	1 Select	uction Mode	StopPrj	Log Windo	N	
PASS N/A	Select Project Location: PC DESKTOP PROGRAMMER	DESKTOP\ Name dediware gui test.dprj 分新增資料夾 ()	5)	Type Folder File Folder	✓ ↑ Size 11264KB	on:3.5.21
Statis		FileName: FileFilter:	test.dprj All Files(*.*)		OK Cancel	



3. When the Log window appears "Select project Success," the RunPrj icon will become available.

P				Dediware V	ersion:3.5.21.6			
Advance Help								
O Engineer Mode PROJ Select Load Prj ReadID ReadIC	Loed Buffer	Config PROJ Seve Prj	IC Info S Auto Batch	Production Mode	rj StopPrj			Ρ
#01 ProgMasterti4 Si StartMode By Project F/W Ver: 2.163 S/N: Phu028181 Blink Start	ite #1 ass: 0 abit: 0 00%	Site #2 Pas: 0 Fait: 0 N 005	DLE Site #3 Pass: 0 Fait: 0 N 200	DLE	Site #4 Pass: 0 Fait: 0 N 005	DLE	Log Window - Pathin 7900_boot_1013 - Chiksum:0xf913733b - Pathin 7900_emmc_10 	i.img 15.img m:Erase chip,Program chip,Check de:Start from Handler is CheckSum :0xA898 7900_boot_1015.img.CheckSum:0 7900_emmc_1015.img.CheckSum:0 Sum :0x0
		Log Window -Path:n7900_bc -Chksum:0xf91 -Path:n7900_er 	pot_1015.img 3793b mmc_1015.img ***** * operation:Erase c : StartMode:Start f tionBytes CheckSi eName:n7900 boo	hip,Progran rom Handle um :0xA898 t 1015.img.	n chip,Check r CheckSum:0	sum verify x547FB89	^	

- 17:05:31:FileName:n7900_emmc_1015.img,CheckSum:0xF9137938
- 17:05:31:Chip CheckSum :0x0
- > 17:05:31:Select project success.



4. Click "RunPrj," the Log window will show all the information about the socket adaptors. The yellow-marked area means the socket site is empty and it is available to use. When the "start" button on the left side become available, please wait for the automatic programming system's start signal to operate, and then start programming. Please press StopPrj to stop processing and it will also create a log file at the same time.

2 Dediware Version 3.521.6 Jakvance Help	
Engineer Mode Image: Second	Powered by
Site #1 Site #1 Site #1 Site #1 Site #2 Site #2 Site #3 Site #4 Pase: 0 Site #5 Pase: 0	Log Window
Type: 5 UCR DD: 6f4015 Startbold: Wander Kert non Geologie 0 USM Starte: 0 Charles Startbold: Start	Orip OxF092870 File CheckSum te Name 0xFFF 0xFFF 0xFFF ProjectCheckSum:0x3e894504
#01 Progl lasterU8 StartMode: By Project F/W Ver: 2.1.77	When the socket site is empty, then it will be yellow-marked.
S/N: MU001992 BLink Start	
When "start" button appears, please wait for signal on the automatic programming system to	the start operate.

Note:

The socket adaptor must be installed properly before clicking "RunPrj." Please pay attention to the followings:

- 1. If the socket adaptor is not connected to the programmer properly, it might cause poor connection; the Dediware will recognize it as an empty site as well. Please re-install the adaptor, and then click the SelectPrj and RunPrj to proceed.
- 2. The programmer will not be able to recognize new socket adaptors after empty sites have been detected. Please add the other adaptors after pressing the StopPrj, and then press SelectPrj and RunPrj to restart the process.



VI. Socket Adaptor Installation

How to connect socket adaptor to a programmer?

Align the triangle index with the socket adaptor and the socket site.



Install the socket adaptor according to the below image. If it connects successfully, then you can start programming.



Note:

- 3. Improper installation may cause the damages.
- 4. Pick up the IC directly by hand may produce dirt or statics which may cause errors during the programming process. Therefore, please use IC picker for pickups.



VII. Stand Alone Function

There are two modes for operation: USB Mode and stand-alone Mode. When power on the programmer, it will detect the connection. It will be USB mode if it is connected to an USB. Otherwise, it will be stand-alone mode. If you want to switch to USB mode from the stand-alone mode, please turn off the power first, and then restart the programmer after plug in an USB.

%Please use the industrial SD card that DediProg provided.



6.1 LCD Keypad Panel



A. Exit/Return

Return to the last page or exit the project.

B. Enter

Select an item and press Enter to proceed.

C. Arrow Keys

When there are multiple selections on the screen, move the arrows to select.



6.2 LCD Keypad Panel and Procedures

When the programmer is in stand-alone mode, it will display as the below image.



When the programmer is connected to a computer, it will display as the below image.



LCD keypad procedures



www.dediprog.com



Main Menu: "Select Project", "Check Programmer Info", and "Language" options.



Select a Project file

[Select Project Menu]
 phison7000_MT29F_from3.5.dprj EMMC_EPV_H26M78103.dprj EMMC_EPV_SD8G_1Gb.dprj EMMC_EPV_SD1N8DE2.dprj MCU_EBPV_STM_auto.dprj MCU_EBPV_STM32F302.dprj MCU_EBPV_STM256K_8Mb.dprj Nand_EBPV_win.dprj
🔺 🔻 🔺 🕨 change, 🔟 select, 🕥 exit

Project File Information

[Check Project Info Menu]
Project name: SPI_NOR_EBPV_Win16Mb_8Mb.dprj
P∕N: ₩25Q16CV[S0P8 208mil]
Manufacturer: Winbond
Batch: EBPV Mode: Handler
Chip checksum: 0x17DF6DBA
📕 continue, 🕥 Back

www.dediprog.com



Proceed to programming; press "Manual Mode" or "Auto Detect" to begin programming.

[Proj	ect:SPI_NOR_EBPV_V	lin16Mb_8M	b]
P/N: W	25Q16CVESOP8 208mi	il]	
Batch:	EBPU Checks	sum: Øx17D	F6DBA
Total:	1 Pass: 1	Fail: 0	
SKT S	STATUS&PROGRESS	PASS	FAIL
S1	PASS	1	0
SZ	NO_SKT	0	0
S3	NO_SKT	0	0
S4	NO_SKT	0	0
	🔿 Stop proje	ect	

When you exit the project, it will pop-up the below message.

[Proj	ect:SPI_NOR_EBPV_Wint	L6Mb_8M	b]	
P/N: W25Q16CV[S0P8 208mil]				
Batch:	EBPU Checksum	: Øx17D	F6DBA	
Total:	1 Pass: 1 Fa	ail: 0		
SKT S	TATUS&PROGRESS	PASS	FAIL	
S1	Do you want to stop	the	Ø	
	project?			
SZ			0	
	YES NO			
\$3	NU_SKT	U U	0	
S4	NO_SKT	Ø	0	
Stop project				

Programming Information: It displays the production dates, serial numbers and the socket adaptor life time.

SKT	Pass	Fail	Total
1	1295	33	1328
2			
3			
4			

www.dediprog.com



Language Selections

En En			
○中	glish 文 中		
	change	Loglast	

6.3 Update LCD Firmware

- 1. Connect the programmer with PC via USB cable
- 2. Open Dediware (i.e. double click the shortcut on the desktop)
- 3. Execute menu bar "Help"→"LCD Firmware Update "
- 4. Select your firmware file and update. Once it is completed, restart the device

Note:

Below IC models do not support stand-alone programming:

- 1. Phison Series (The P/N starts with PHISON. Ex. Phison_S34ML01G200TFI00.
- 2. TI C2000 Series (EX. TMS320xxx).
- 3. Microchip PIC32 Series.



VIII. Revision History

Date	Version	Changes
08/28/13	1.0	First release
04/29/14	1.1	Supplement the socket adaptor plugging direction
07/25/14	2.0	Dediware software new version released
12/23/14	2.1	1. Dediware software New UI
01/15/15	3.0	 Add Standalone function Add LCD keypad description and usage
12/28/15	3.1	LCD Keypad and exterior/Dediware Installation/Product information
03/02/16	3.2	Remove F4 and F8

DediProg Technology Co., Ltd (Taiwan)

4F., No.7, Ln. 143, Xinming Rd., Neihu Dist., Taipei City 114, Taiwan TEL: 886-2-2790-7932

DediProg Technology (ShangHai)

Room 503, Block E, No.1618, Yishan Road, Shanghai, China TEL: 86-21-5160-0157

Technical Support : support@dediprog.com

Sales Support : sales@dediprog.com www.dediprog.com

Information furnished is believed to be accurate and reliable. However, DediProg assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties which may result from its use. Specifications mentioned in this publication are subject to change without notice.

This publication supersedes and replaces all information previously supplied.

All rights reserved Printed in Taiwan.