

## Automobile laser label marking machine

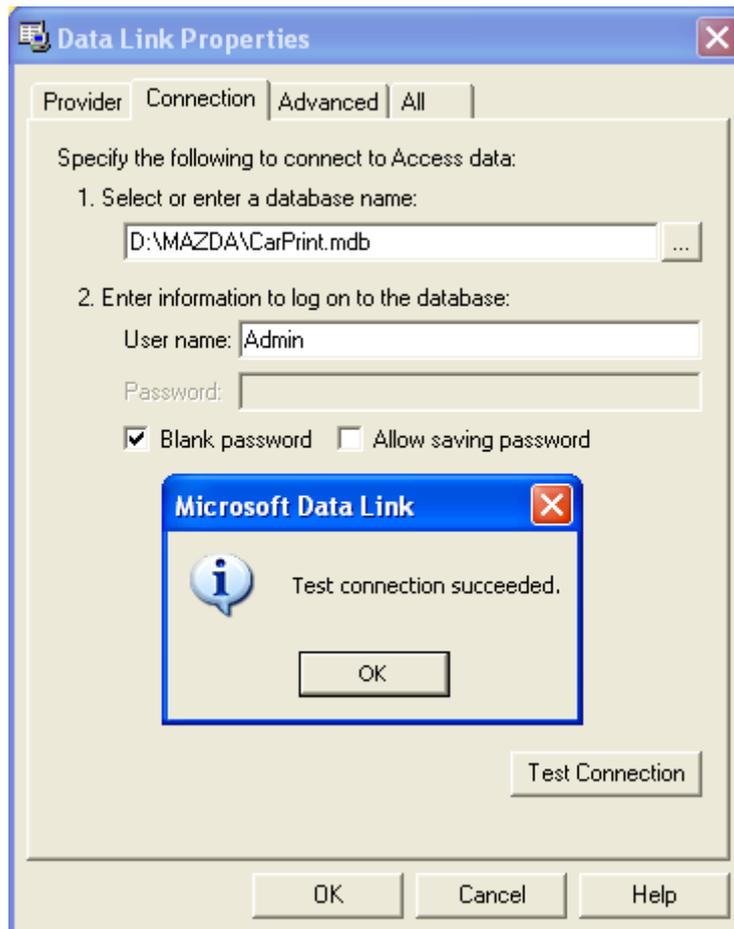
### Software operation manual

It is a software developed based on our laser marking machine software, according to clients' requirements and combined with automotive components manufacturers' specific situation to dedicated in laser marking in automotive field. Below is the operation introduction of automotive laser marking software from the angle of main program and marking templates.

#### 1. Main program

##### (1) Setting UDL files:

There is a file named '**connecting access.udl**' in the application directory. It is the connection file of Data base. While program start, it will connect to the data base automatically by this file. So please set this file before start the main program. Double click it and the setting information as follows:

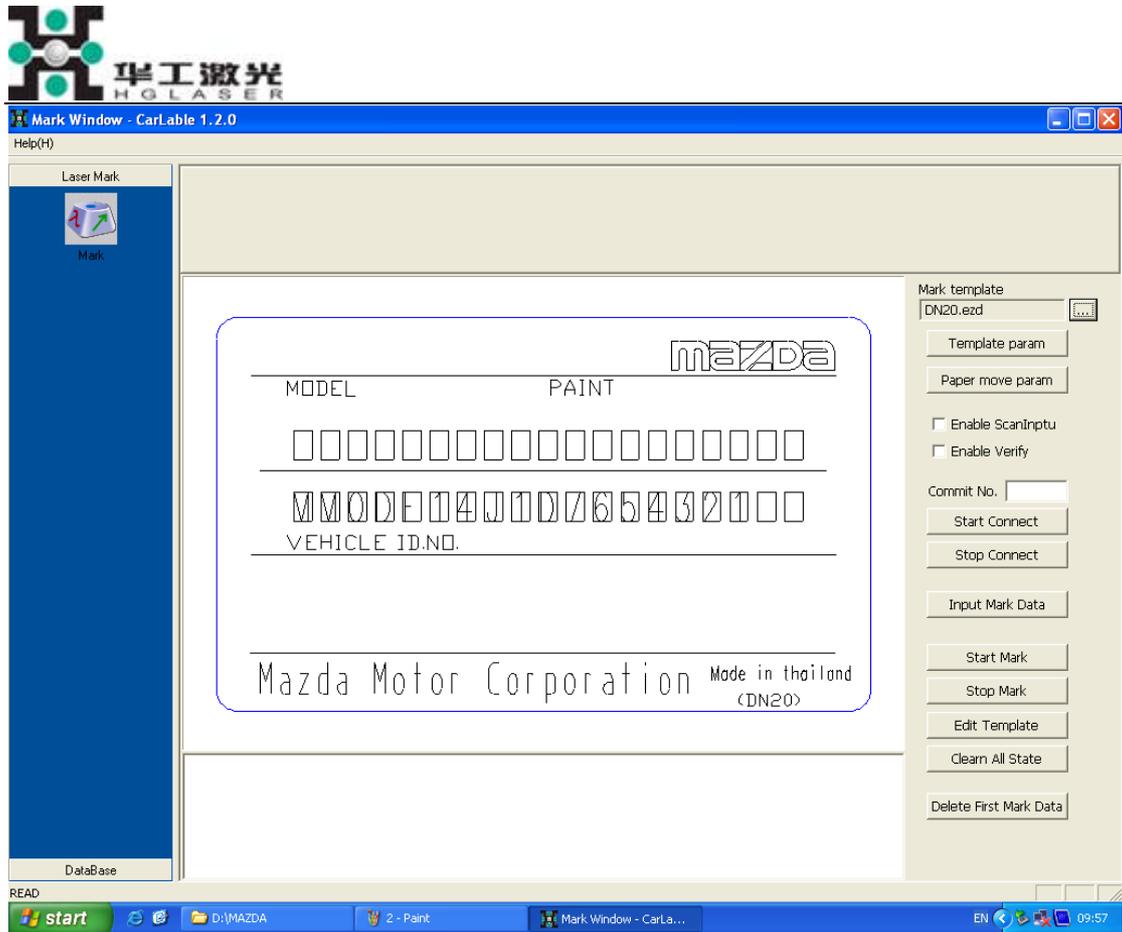


Pic 1. udl document setting

Click ‘...’ button, choose the data file named ‘CarPrint.mdb’ in current directory. Fill ‘User name’ by ‘Admin’, fill others as the picture, press ‘test connection’, if ‘test connection succeeded’ appears, it means the connection success, then press ‘OK’ to finish the setting of udl file.

## (2) Executable program

Double click CarLable-R.exe to start up the main program, after see a welcome interface, select ‘LaserMark’ on the left software interface. the ‘Mark’ button will appear. Click ‘Mark’ button, the right side interface will switch to the marking control interface. Central part of the interface is the display area of marking contents, below is the fault information display area, on the right is the function control area, see picture below:

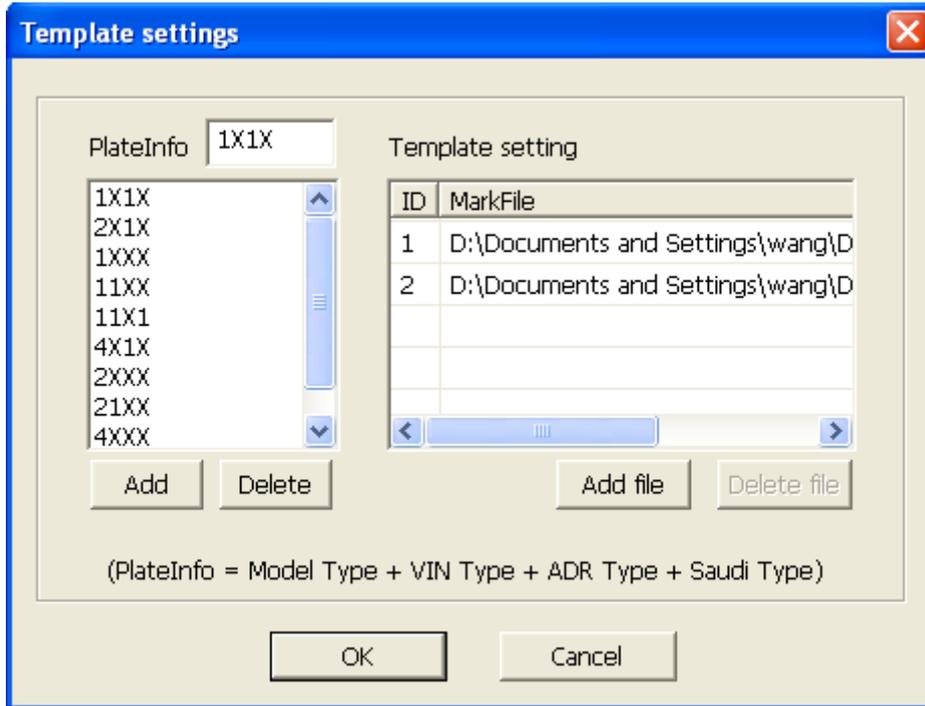


Pic 2. Marking control interface

### Introduction of function and operation:

#### 1, Setting of Mark template

'Mark template' table displays the current template marking file, the marking software has powerful features of multi-templates setting function. Users can set template files and marking requirements according to his own requirements. Software will choose correspond template according to the setting and continuous marking automatically. Click 'Template param' button to pop-up the mark template setting interface, please see picture below:



Pic 3. Template setting

In multi-templates marking, software uses the data field---PlateInfo to distinguish the tags of current marking. So set the corresponding relationship between templates and data field is the key to distinguish tags.

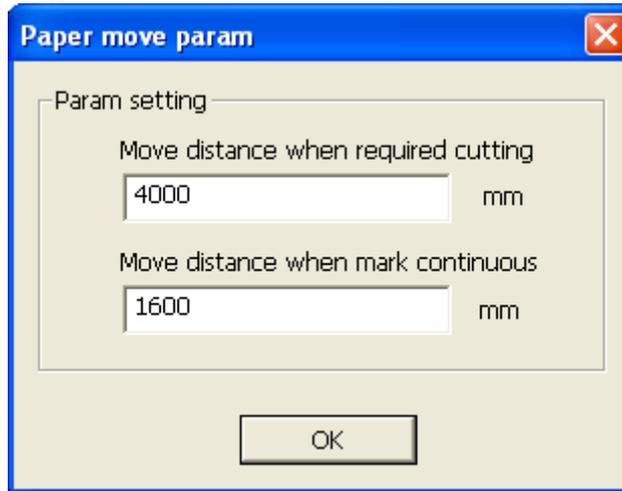
Fullfil the distinguish data inn ‘PlateInfo’ column, the data field of PlateInfo includes Model Type, VIN Type, ADR Type and Saudi Type these four fields(Four fields sourced from MAZDA communication protocol).After filling,click ‘Add’ button,software will record this value in the below chart.To delete value from the chart,just select the value and click ‘delete’.

After field value added into the chart,you can set the corresponding mark template of that field value.Click ‘Add file’ button,software will pop-up a file selecting dialog chart,user can select marking file and click ‘Open’ button to add this file into marking list. If there is multi-templates for marking, just repeat above steps. If user want to delete template in marking list chart, just selects files in ‘Template setting’ chart and click ‘Delete file’.

## 2, Paper feeding distance setting

Paper feeding distance sets the feeding distance after one marking

finished. Click 'Paper move param' button will pop-up below interface:



Pic 4. paper moving distance setting

Option of 'Move distance when required cutting' means after marking completed, the required distance of paper feeding before cutting the marked tag. Option of 'Move distance when mark continuous' means the distance of paper feeding before next marking without cutting the paper.

### 3, Generate marking data.

There are two sources of marking data: One generated from the information managing system of the mobile manufacturer by LAN, another generated by the manual input from the operator.

Fill the accepting Commit number in 'Commit No.' column. click 'Start Connect' button, software will start to access data managing system to receive datas. After receive marking datas from the system, it will record these information to

'MarkData'. Click 'Stop Connect' button can stop the receiving from the system. Click 'Input Mark Data' button, software will pop-up the interface of data input. Operator can input required mark data, then software will record data into 'MarkData'.

### 4, Software control functions

Software control functions can control the marking process and equipment

motion. Functions of buttons as follows:

Start Mark: Start cycle marking.

Stop Mark: While marking is in progress, click this button to stop marking immediately.

**Edit Template:** After click this button, user can quit CarLabel, access into standard marking software to modify templates or start static marking.

Clean All State: Clear failures during marking, or stop the failures caused by some mechanical structure due to electrical delay after marking.

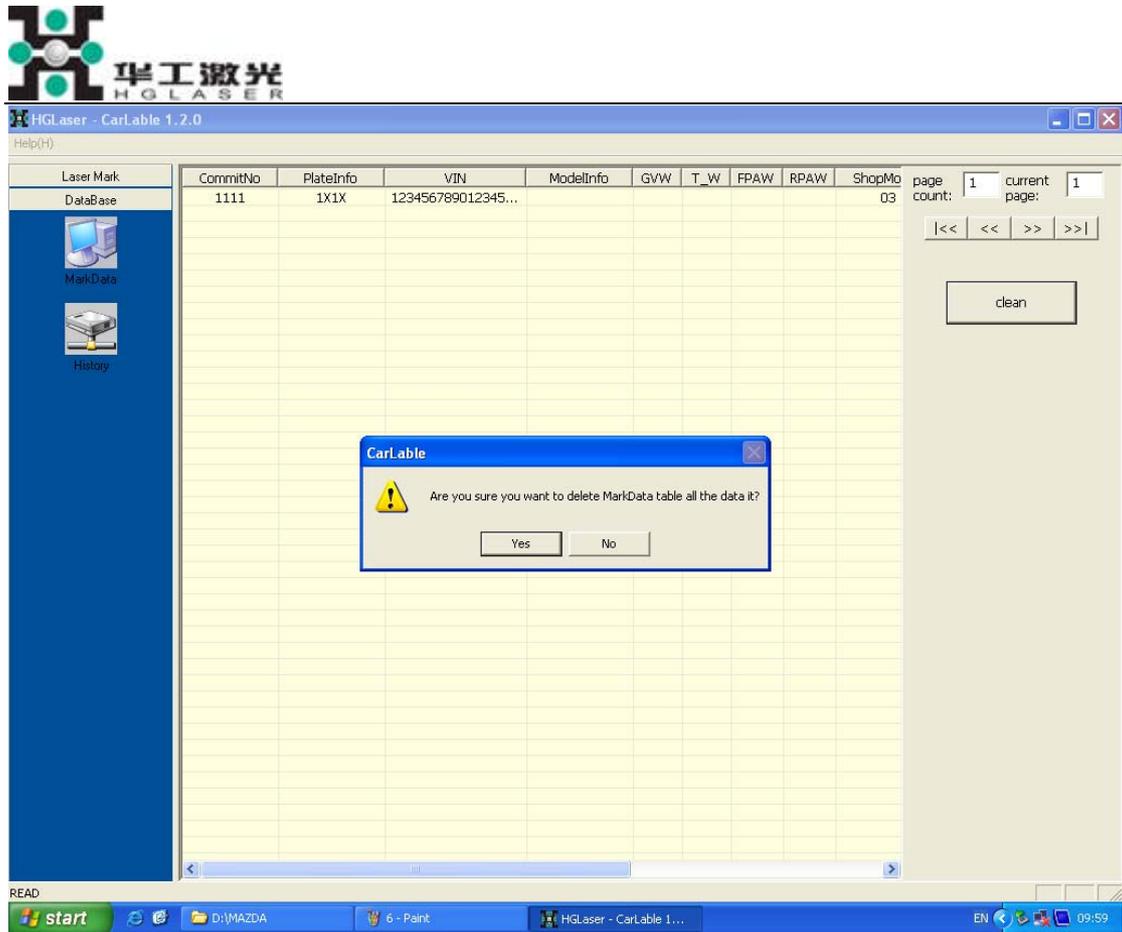
Delete First Mark Data: Used in delete the first data which is waiting for marking during marking. For instance, if operator finds out the marking data which is about to mark has error, use this button to delete that data.

## 5, Data base

Select column of 'Database' on the left of the panel to view and set datas in the data base. Software will display the data by pages in list. When the recorded data is more than one page, click '>>|', '>>', '<<', '|<<' buttons or input page number to switch the page.

Database list and operation instruction:

1) Click 'MarkData' button to browse the current waiting for marking records in it.



Pic 5. marking data

To delete the waiting for marking record data, click 'Clean' button on the right side of the panel, it will clear all data records which is waiting for marking.

2) Click 'History' button to browse the historical marking information, please see below picture:



History - CarLable 1.2.0

Help(H)

Laser Mark	CommitNo	PlateInfo	VIN	ModelInfo	GVW	T_W	FPAW	RPAW	ShopMo	page count:	2	current page:	1
DataBase	1234	1X2X	123456789012345...	-- 1234 A...	1111	2222	3333	4444	03	<<	<<	>>	>>
MarkData	1235	1XXX	MM8DE14Y1A012...	DN20 ABC...									
History	1235	1XXX	MM8DE14Y1A012...	DN20 ABC...									
	1236	4X1X	MM8DE12J1A9876...	-- 123 M...									
	1237	11XX	MM8DE14Y1A012...	DN20 ABC...									
	1238	11X1	MM6DE12Y1A001...	DN20 ABC...					03				
	1239	2XXX	MM7DE14J1B1234...		9876	8765	6543	3210					
	1240	2X1X	MM8DE14Y1A012...		1234	2345	3456	4567					
	1241	21XX	MM8DE12Y1C123...		1111	2222	3333	4444					
	1234	1111	888888888888888...	8888888888...	8888	8888	8888	8888	88				
	1235	1111	888888888888888...	8888888888...	8888	8888	8888	8888	88				
	1278	1111	888888888888888...	8888888888...	8888	8888	8888	8888	88				
	1279	1111	888888888888888...	8888888888...	8888	8888	8888	8888	88				
	1283	1111	888888888888888...	8888888888...	8888	8888	8888	8888	88				
	1235	4XXX	8MM8DE12J1A987...	8888888888...	8888	8888	8888	8888	8				
	1236	2XXX	8MM8DE14Y1A012...	8888888888...	8888	8888	8888	8888	8				
	1237	11X1	8MM6DE12Y1A001...	DN20 ABC...					03				
	1240	21XX	MM8DE12Y1C123...		1111	2222	3333	4444					
	1241	21X1	MM8DE14J1D7654...		1234	9876	8765	4321	04				
	1241	21X1	MM8DE14J1D7654...		1234	9876	8765	4321	04				
	1242	4X1X	MM8DE10Y10010...	-- 36C A...									
	1256	11XX	MM8DE14Y1A012...	DN20 ABC...									
	1257	11X1	MM6DE12Y1A001...	DN20 ABC...					03				
	1258	2XXX	MM7DE14J1B1234...		9876	8765	6543	3210					
	1260	21XX	MM8DE12Y1C123...		1111	2222	3333	4444					
	1261	21X1	MM8DE14J1D7654...		1234	9876	8765	4321	04				
	1262	4X1X	MM8DE10Y10010...	-- 36C A...									
	1263	1XXX	MM8DE14Y1A012...	DN20 ABC...									
	1264	4X1X	MM8DE12J1A9876...	-- 123 M...									
	1269	21XX	MM8DE12Y1C123...		1111	2222	3333	4444					
	1270	21X1	MM8DE14J1D7654...		1234	9876	8765	4321	04				
	1272	1XXX	MM8DE14Y1A012...	DN20 ABC...									
	1273	4X1X	MM8DE12J1A9876...	-- 123 M...									
	1274	11XX	MM8DE14Y1A012...	DN20 ABC...									
	1275	11X1	MM6DE12Y1A001...	DN20 ABC...					03				
	1276	2XXX	MM7DE14J1B1234...		9876	8765	6543	3210					
	1277	2X1X	MM8DE14Y1A012...		1234	2345	3456	4567					
	1278	21XX	MM8DE12Y1C123...		1111	2222	3333	4444					
	1279	21X1	MM8DE14J1D7654...		1234	9876	8765	4321	04				
	1280	4X1X	MM8DE10Y10010...	-- 36C A...									

READ

start | D:\MAZDA | 7 - Paint | History - CarLable 1.2.0 | EN | 09:59

Pic 6. history record

## 2, Template file

Marking template file is generated by our standard marking software, in the main interface of CarLable, click 'Edit template' button, software will quit CarLable and access standard marking software. Regarding to the operation of standard marking software, please refer to the Operation instruction of standard marking software. The generation of marking template file uses the 'dynamic text' function of standard laser marking software (Refer to the corresponding parts of 'marking software operation manual'). During create template file, please indicate dynamic text file according to below chart:

Template one:



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MODEL
PAINT

M M O D E 1 4 J 1 D 7 6 5 4 3 2 1
□ □

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VEHICLE ID.NO.

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Mazda Motor Corporation Made in thailand  
(DN20)

Pic 6. marking template

Relationship between text field and variables as follows:

Name	Pathway	Remark
MODEL	.. \ MarkFileFolder \ ModelInfo. txt	
VIN	.. \ MarkFileFolder \ VIN. txt	
Commit NO.	.. \ MarkFileFolder \ CommitNo. txt	
GVW	.. \ MarkFileFolder \ GVW. txt	
T_W	.. \ MarkFileFolder \ T_W. txt	
FPAW	.. \ MarkFileFolder \ FPAW. txt	
RPAW	.. \ MarkFileFolder \ RPAW. txt	
BUILD YEAR	.. \ MarkFileFolder \ BuildYear. txt	
BUILD MONTH	.. \ MarkFileFolder \ BuildMonth. txt	
GVM	.. \ MarkFileFolder \ GVM. txt	
SEAT	.. \ MarkFileFolder \ Seats. txt	
SHOP YEAR	.. \ MarkFileFolder \ ShopYear. txt	
SHOP MONTH	.. \ MarkFileFolder \ ShopMonth. txt	

Others are similar as above, after finished variables, start CarLable software and open template to mark.