LCD Indicator Control Module Product Data Sheet

Model Name: QCM-200A……Rev. B

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Model Name: QCM-200A……Rev. B

Introduction

QCM-200A LCD Indictor Control Module, a technology product, is designed innovatively to be configured into elevators. Different from LED matrix and 7-segment indicators, QCM-200A can select the up / down icons and number styles via the LCD front panel, displaying time / date and fixed simple messages like company title or the name of the building…etc. QCM-200A LCD Indictor Control Module can display horizontally or vertically. Via RS-232 interface, all settings can be done by the tool software after downloading as well as written into FLASHROM; For color display, adopt white color words / icons on a blue background or on a bright black one. Configured to the elevator car or hall, it boosts not only the additional value of products but also its superior quality.

Feature

*Adopt LED back-lighted module with excellent durability.
* Display time / date, floor, directions and easy messages.
* Menus for settings of up/down arrows, number fonts and time adjustment.
*Display horizontally or vertically.
*Communication Interface: Parallel / CAN Bus.

Product Photo

LCD Indicator Control Module Product Data Sheet

Model Name: QCM-200A…… Rev. B

LCD Specification

LCD Type	Monochrome STN LCD
LCD Back-lighted Type	LED
LCD Module	QCM-200A / LCD TYPE A / Blue-W QCM-200A / LCD TYPE A / Black-W QCM-200A / LCD TYPE B / Blue-W QCM-200A / LCD TYPE B / Black-W
LCD Viewing Area	LCD Type A: 128 x 74mm LCD Type B: 114 x 64mm
LCD dpi	240 x 128 dots
LCD Dot Size	LCD Type A : 0. 5 mm LCD Type B : 0.45 mm
LCD Font Display	White font w/blue bg. / white font w/black bg.

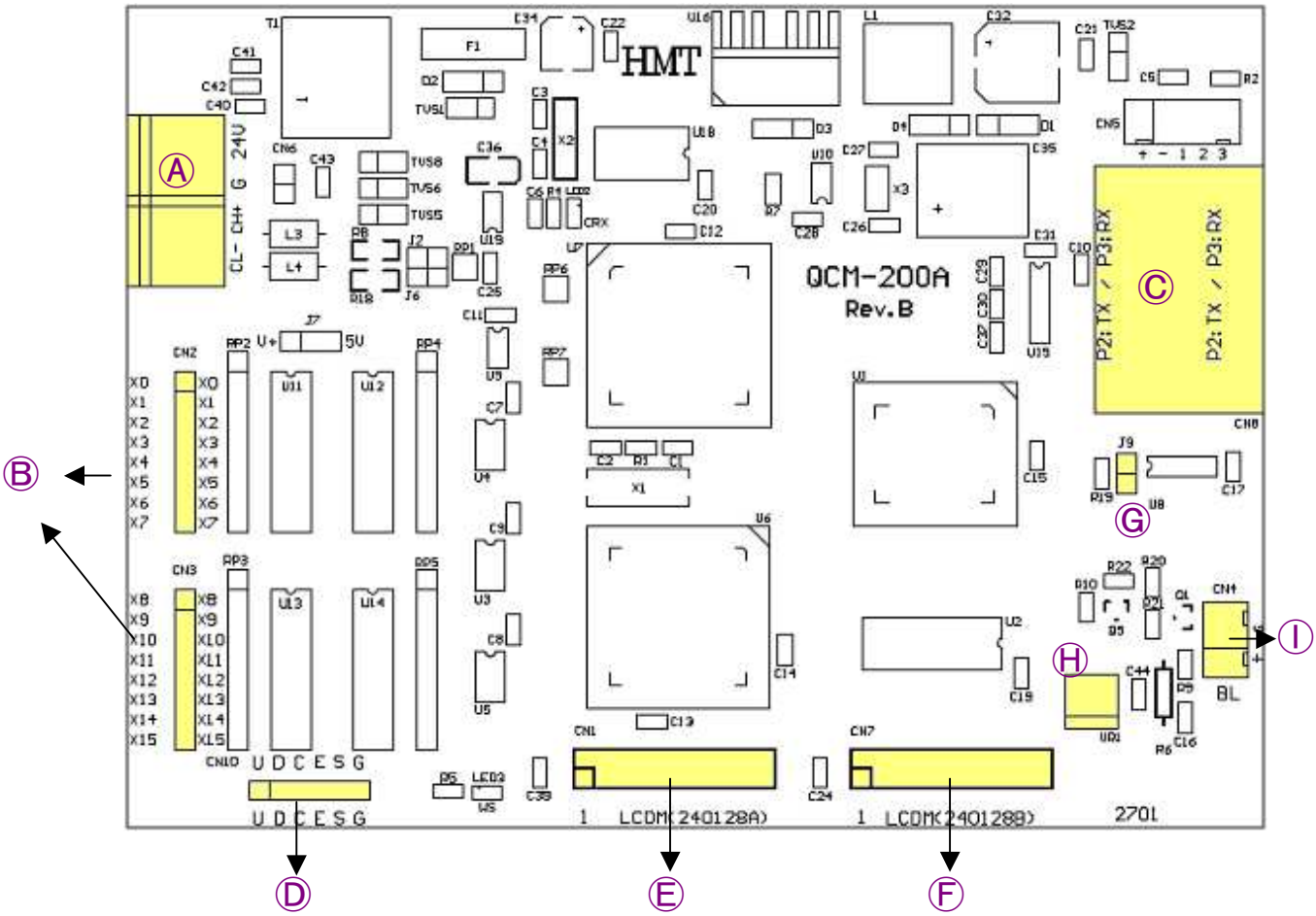
Electronic Specification

Voltage Supply	DC 12 - 30 V
Power Consumption	DC 24V : 110mA DC 12V : 220mA
Start up Power Consumption	DC 24V : 150mA DC 12V : 300mA
TVS Function	Yes
Operating temperature	0℃ - 50℃
Input Signal Interface	Parallel / CAN Bus (Transceiver. : TJA1040)
Download Communication Port	RS-232
Metal Holder	Yes

LCD Indicator Control Module Product Data Sheet

Model Name: QCM-200A…… Rev. B

PCB Diagram

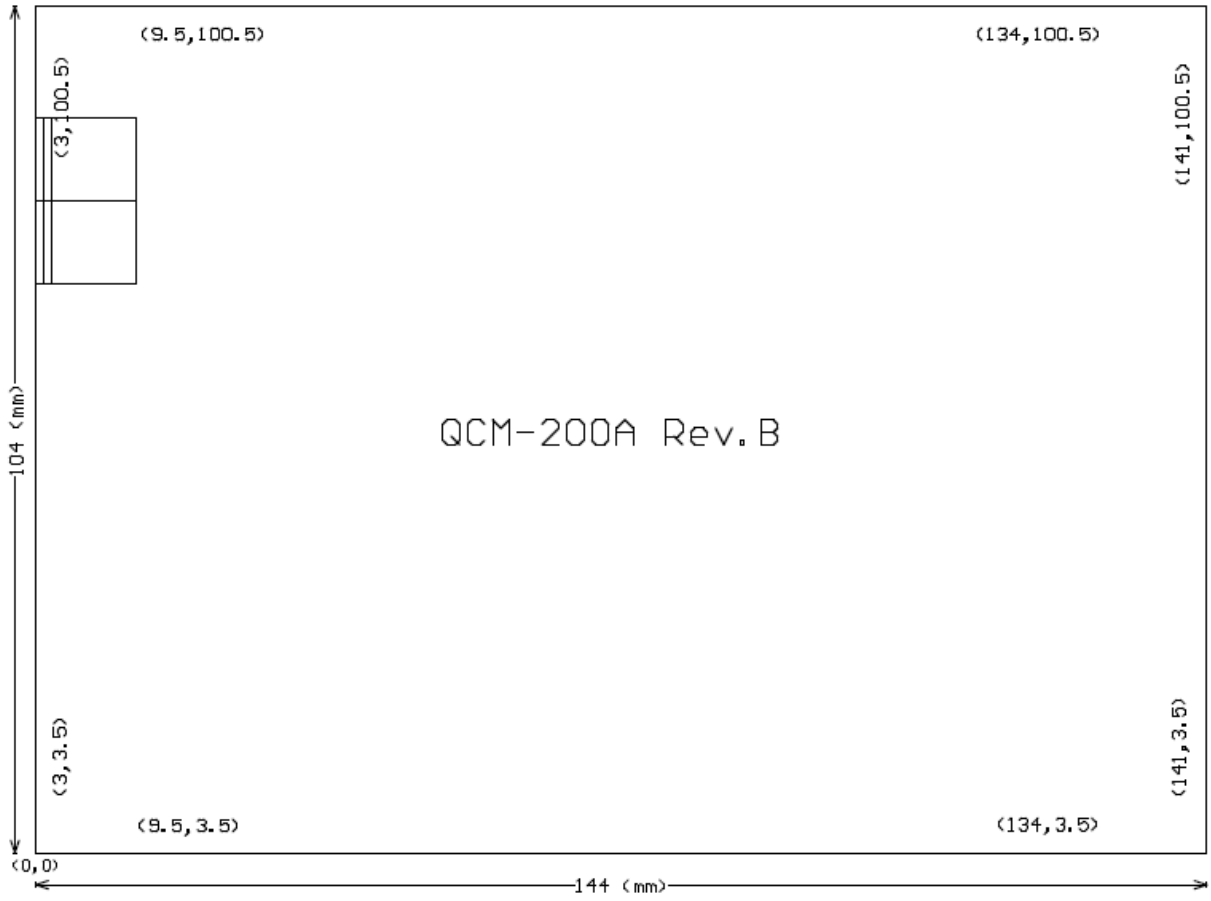


Jumpers / Connectors Description

A	Terminal 24V : DC12-30Vin G : 0 V, Ground S+ / S- : Serial Input	B	**CN2 / CN3 Input Pins** X0-X6: Parallel Binary / floor messages X7-X15 Special Inputs Signal
C	CN8：Downloading Communication Port , RS-232 socket	D	CN10：To connect Key-PAD Module
E	CN1：LCD Type A Connector	F	CN7：LCD Type B Connector
G	J9：System Reset	H	Contrast Adjustment
I	CN4：Back-lighted Connector		

Model Name: QCM-200A…… Rev. B

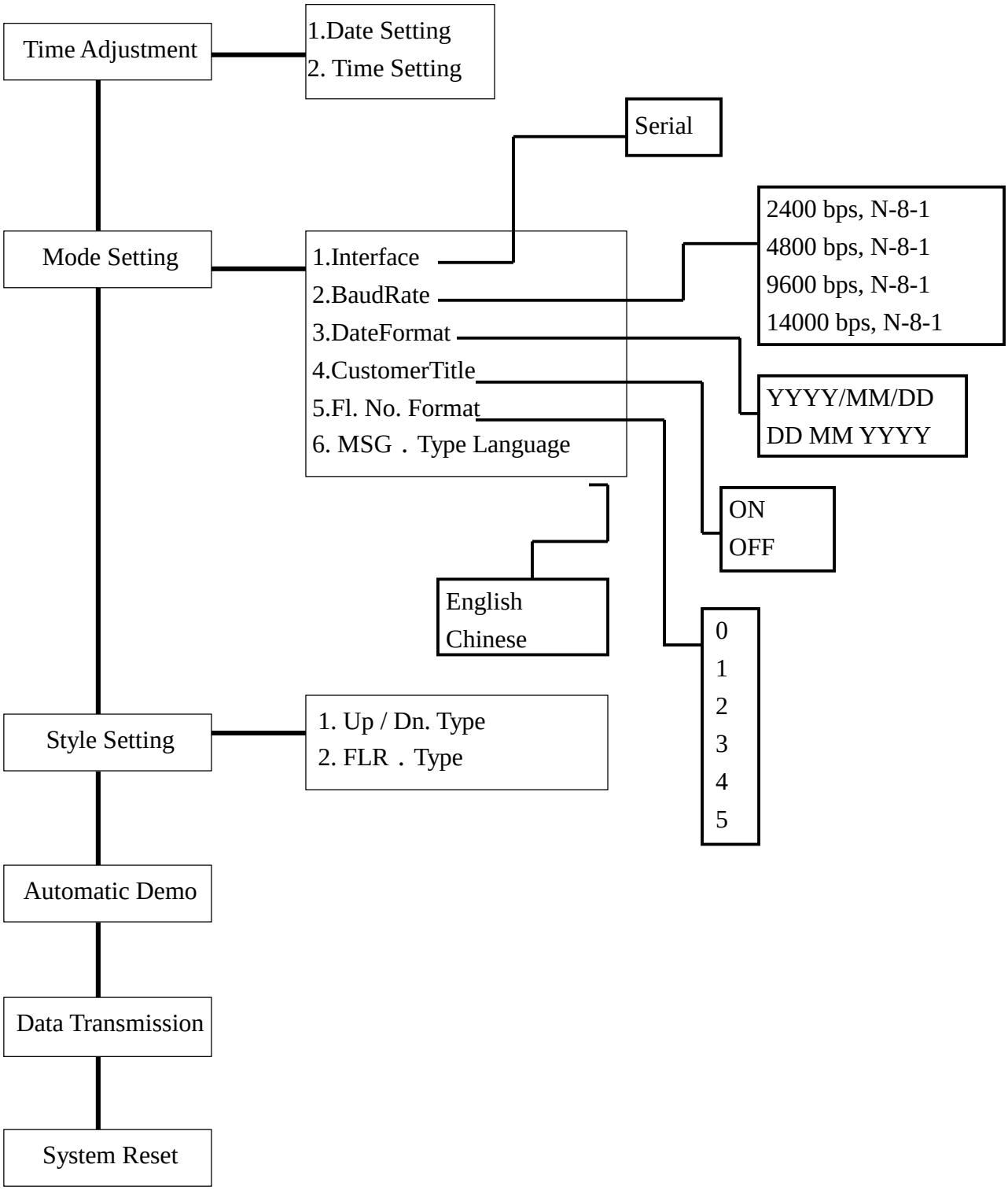
PCB Dimension Diagram



Model Name: QCM-200A…… Rev. B

Hardware Operation Instructions

Setting Procedure Frame



LCD Indicator Control Module Product Data Sheet

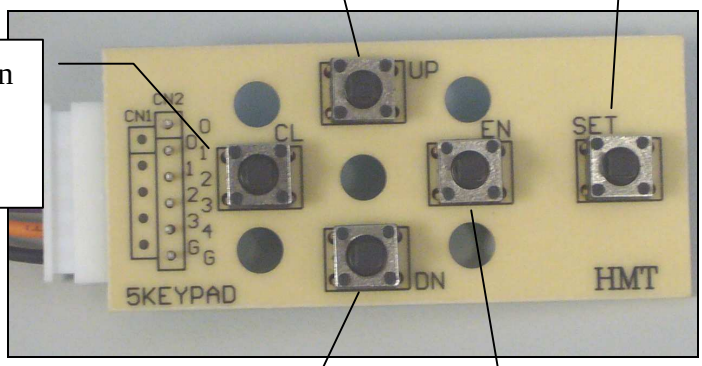
Model Name: QCM-200A…… Rev. B

Key PAD Operating Instructions

①Adjust the number at the flashing column (value up)
②Upward

Enter "Setting Procedure" Menu via simulated screen

①Leave the current screen
②Return to the last page
③Cancel

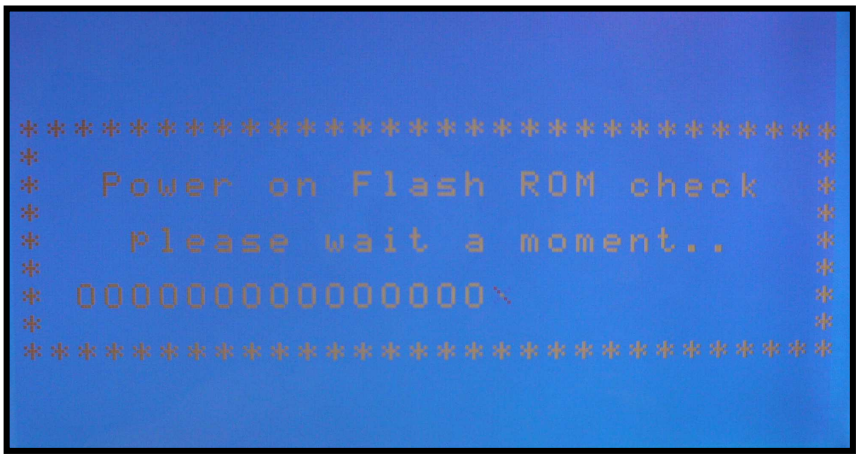


①Adjust the number at the flashing column (value down)
②Downward

①Enter designated function screen
②Move to the next column
③Done

Starting Screen

Whenever the power is on, QCM-200A will check Flash ROM automatically, and then enter the elevator simulated operation screen!



LCD Indicator Control Module Product Data Sheet

Model Name: QCM-200A…… Rev. B

Horizontal Display Description for Fl. Position

Fl. Indication
(Style Setting→FLR．Type)

UP/DN Arrow
(Style Setting→UP/ Dn. Type)

Customer Title
(Mode Setting→Customer Title)

TIME
(Time Adjustment→time)

DAY
(Time Adjustment→day)
(Time Adjustment→MSG．Type)

DATE
(Time Adjustment→date)
(Mode Setting→DateFormat)
Msg. Display
(Customized display via software)

Vertical Display Description for Fl. Position

UP/DN Arrow
(Style Setting→UP/Dn. Type)

Fl. Indication
(Style Setting→FLR．Type)

DAY
(Time Adjustment→date)
(Time Adjustment→MSG. Type)

Customer Title
(Mode Setting→CustomerTitle)

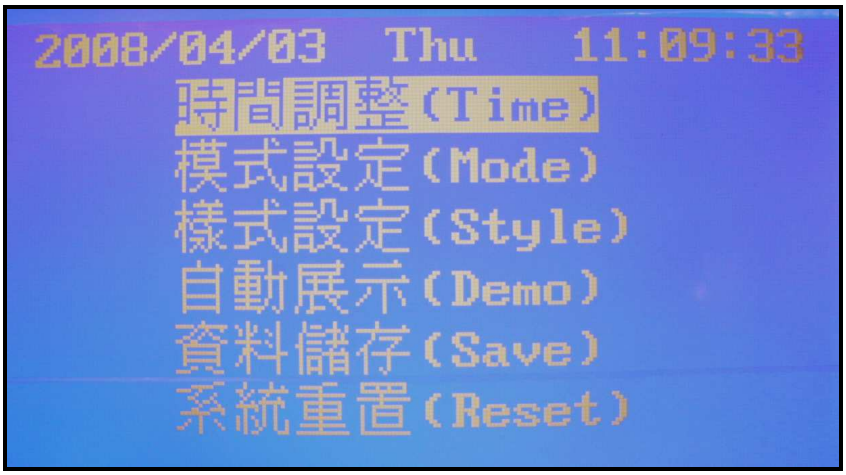
TIME
(Time Adjustment→time)

DATE
(Time Adjustment→date)
(Mode Setting→DateFormat)
Msg. Display
(Customized display via software)

Enter Setting Procedure

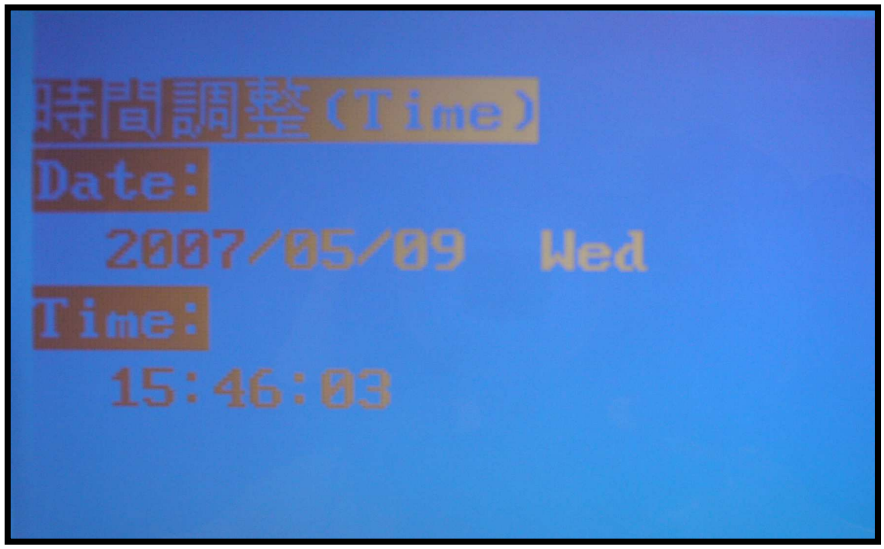
1. Keep pressing the “SET” key on the Key PAD (about 3 sec. long). Then the system enters “Setting Procedure” screen! Shown as follows：

2. When the screen shows up, release “SET” key and then users enter “Setting Procedure” menu!



Model Name: QCM-200A…… Rev. B

Time Adjustment



Date and time adjustments can be operated via the UP key and DN key from the Key PAD.

Date: Adjust the date "Year / Month / Day, Weekday".

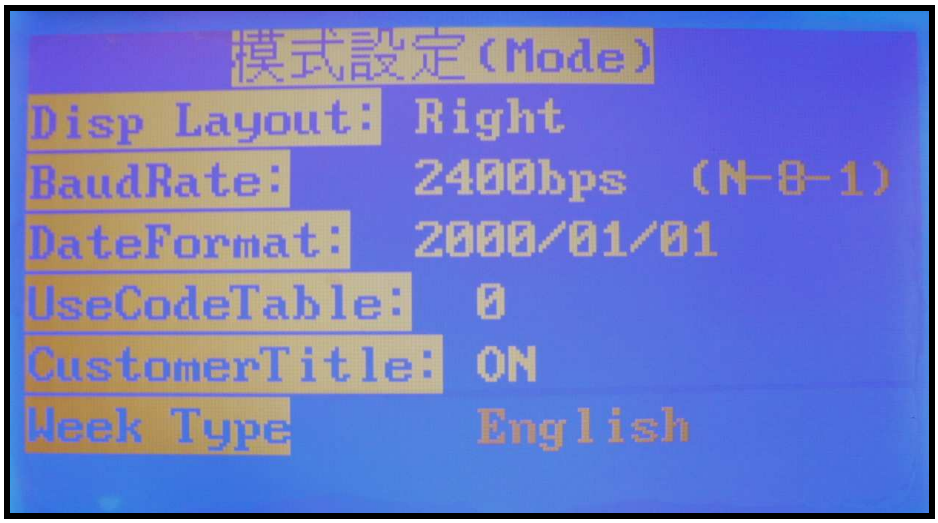
Time: Adjust the time "Hour：Minute：Second". (24 hours format)

Key PAD Operation

UP key → value increases at the flashing column.

DN key → value declines at the flashing column.

Mode Setting



Disp Layout: Fl. position-Left/Right (Only functions when set in "Horizontal" display.)

BaudRate：Support 2400bps/4800bps/9600bps/14400bps, (N-8-1).

DateFormat：2 formats: 2000/01/01 & 01 JUN 2000.

UseCodeTable：0~5 addresses (6 CTBL) are provided as default values for Fl. Code.

CustomerTitle：Select "ON"/"OFF" to (not to) display the company title or greetings…etc.

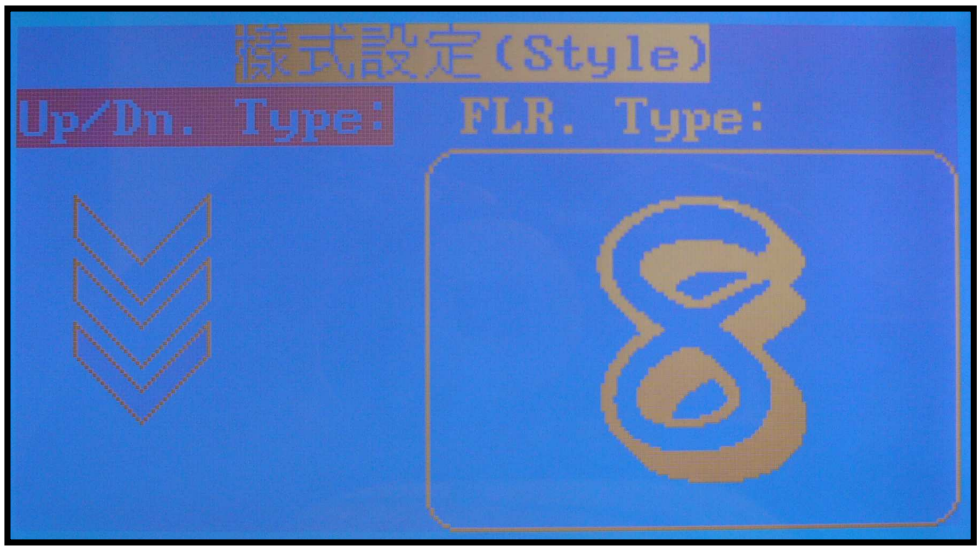
Horizontal display for "Customer Title"-Size：within 104 × 24
Vertical display for "Customer Title"-Size：within128 × 24
(The extension name needs to be saved as *.bmp, monochrome.)
"Customer Title" icon uploading & Style selections have to be operated via QCM-200AS1STD Lift LCD software in PC.

Week Type（**Language**）：Chinese/English

[Note] When a specific situation happens, "the position for date display" will be replaced by a flashing built-in message!

Built-in 10 Emergency Messages
(Format for display is set via the software. Pls refer to P.15)
Fire, Earthquake, Alarm, PWR Failure, Overload, Maintenance, Full, VIP, Parking & IND.

Style Setting Mode

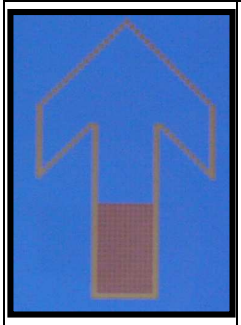
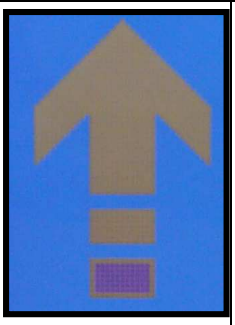
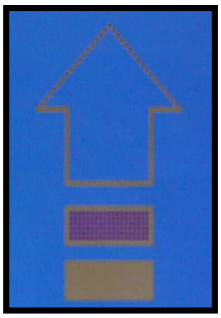
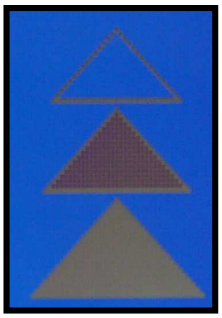
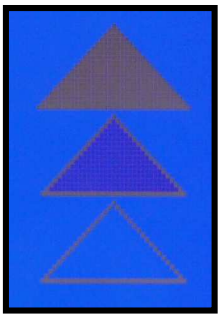
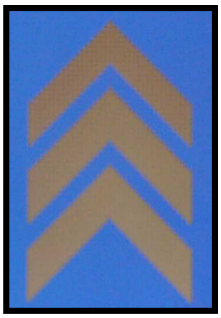
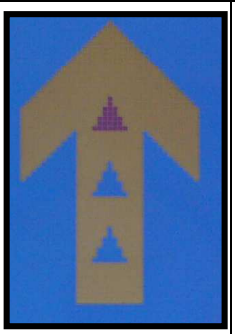
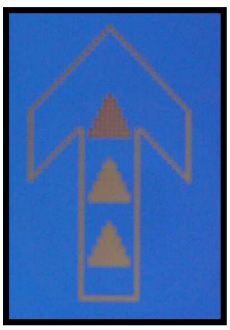
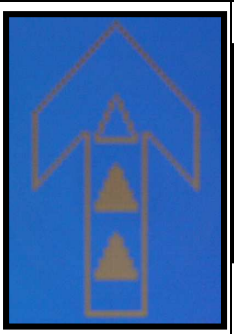
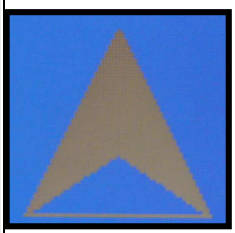
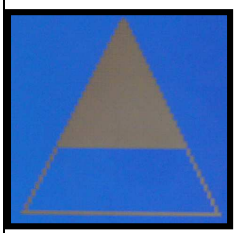
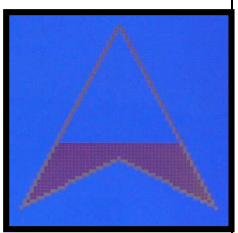


Up/Dn. Type：Built in 12 types for up/ dn. display.

FLR. Type：Set Fl. display as “Font Type + With Frame” or “Font Type + Without Frame”.

[Note] To upload the font types, the system has to be operated under “Data Transmission” interface and then connect to PC, editing via QCM-200AS1STD Lift LCD software.

Up/Dn. Type List

Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
					
Type 7	**Type 8**	**Type 9**	**Type 10**	**Type 11**	**Type 12**
					

Automatic Demonstration

When all the settings are done, please shift to “Automatic Demonstration” function area to preview the overall operations via the screen.

[Note]: Press a key like UP/DN/CL/EN, the system will leave “Automatic Demo” interface immedly.

Data Saving

Operate directly from the keypad of QCM-200A. To update the data, please save them here!

Data Transmission-UL/DL

After selecting “UpLoad ROM Image” in Lift LCD software, configure RS-232 transmission line on.

When QCM-200A is in：① “Menu Mode”, move to “Reset” selection. It will connect to PC immediately to transmit the data.

② “Function Mode”, the system detects the connections to PC, and it’ll enter “Data Transmission” interface automatically.

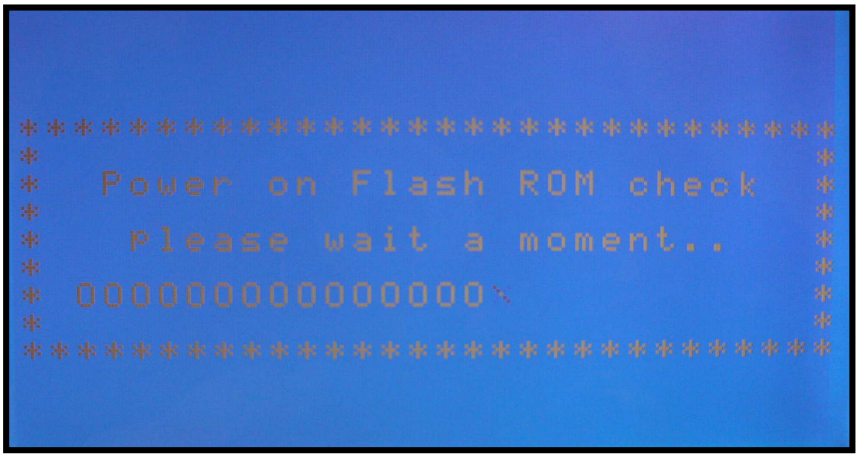
[Note]: When the transmission failure happens during QCM-200A system’s connecting or data transmitting, **do not remove the transmission line**! Just **reset** the power input**,** the system will transmit the data again.

Data Transmission Screen Description

1. Data Receiving: When the system connects to PC, select “Reset” from the menu. The data in the PC will be uploaded to QCM-200A. Shown as below:

2. Data Update：After receiving the data from PC, QCM-200A system will renew the data.
   So **do not shut off the power supply at that time!**

3. Reset： Return to the starting screen.
   If not removing RS-232 transmission line, the system will enter the simulating screen after the starting screen and vice versa.



Message Indication

Transmit Timeout	Stop transmitting
Host not ready!	The host isn't ready yet.
Wait host data	Wait for the host data
Receive data	Receive the data from the main

Software Operation Instructions

Software Information

For providing the most convenience and efficiency, Lift LCD Editor supports the functions for uploading and editing settings via connection to PC.

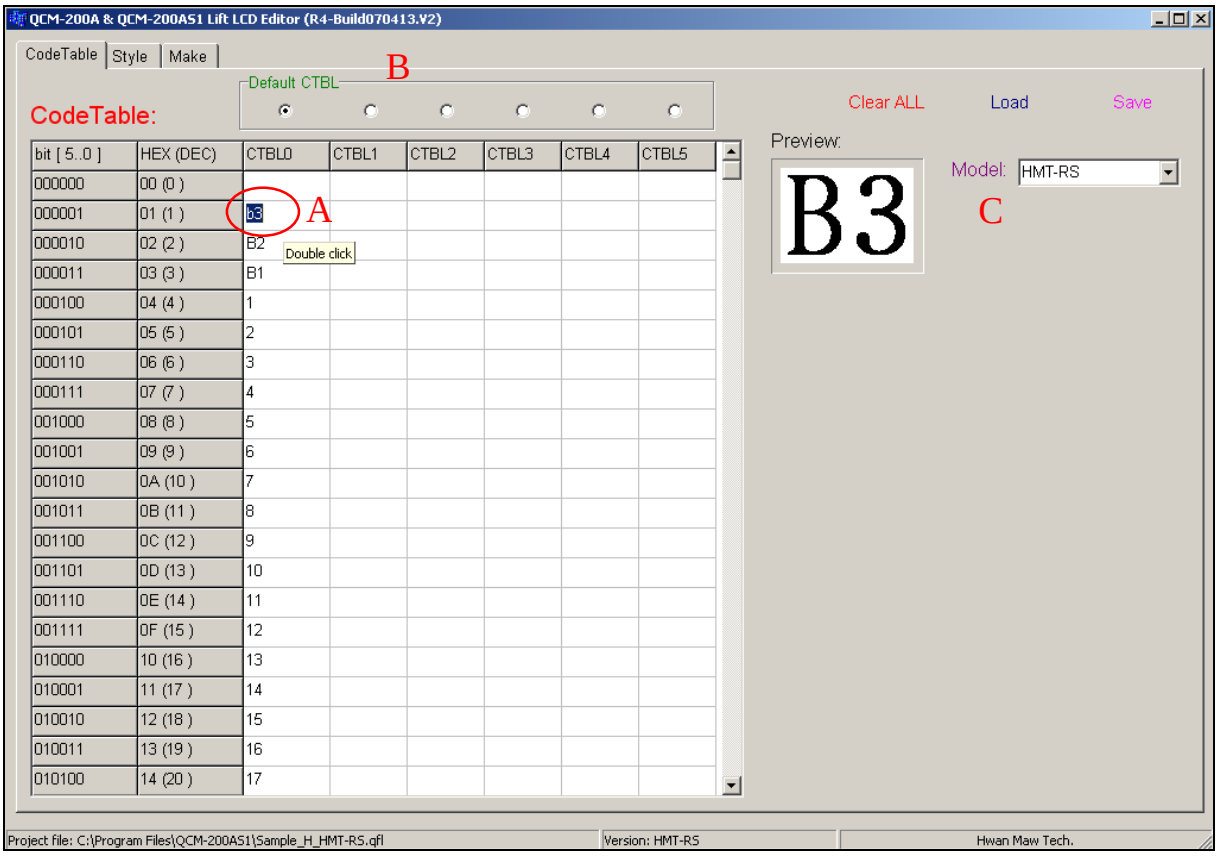
Software Name：QCM200AS1STD Lift LCD Editor

Version：R4-Build070413

Model Name: QCM-200A…… Rev. B

QCM-200A Lift LCD Editor Operation

1. Code Table Page: Edit Lift LCD code table as request



A). Code Table:

- 6 CTBL (Fl.code corresponding list) available for edit.
- CTBL code data display-length **"1~2 digits" basically**. If more than 2 digits, the data won't be shown in Preview area. Neither in the LCD control module when upload！
- "Double click" to key in data in CTBL.
- When key in lower case letters, they'll be transformed into upper ones in Preview area automatically (See the circle)!

B). Default CTBL: initial setting, Upload CTBL.

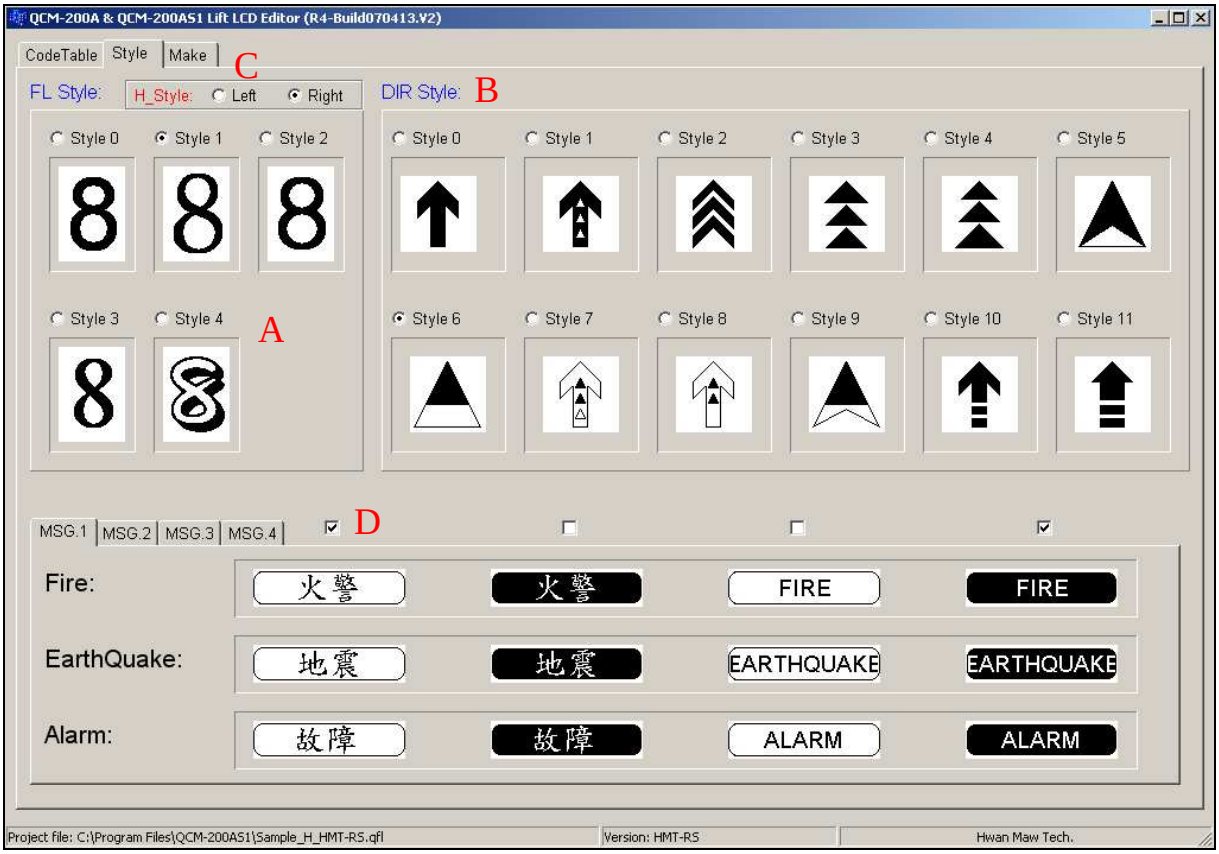
C). Model Version: Select the version of LCD control module as request.

Clear ALL Clear all data from CTBL

Load Load files

Save Save files--**Extension Name is .QFL**

2. Style Page：When Code Table is done, set related status formats and transmit data here.



A). FL Style:

Build in 5 styles for fl style settings. Preview the preferred style at “Preview” area.

B). DIR Style:

Build in 12 styles for Directional arrow settings.

C). H_Style (position for fl. display):

When select “Horizontal” display, there’ll be a selection for “fl. position”（Left/Right）!!

D). MSG Display:

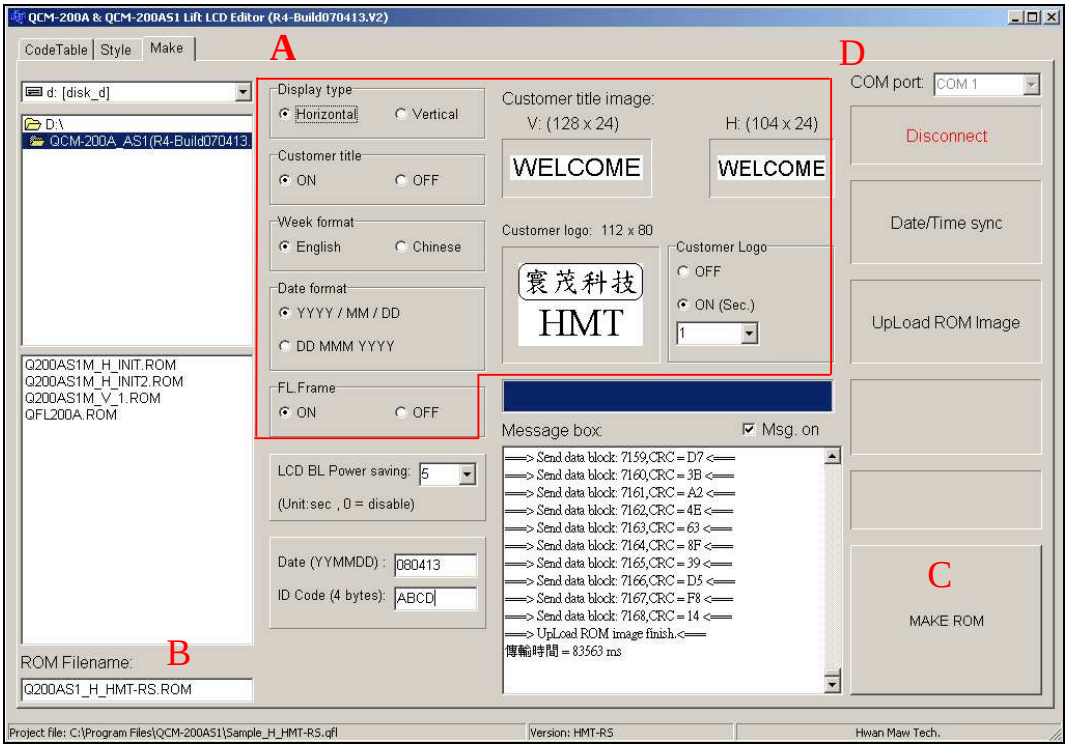
4 message styles ①Chinese + non-high light bg. ②Chinese + high light bg.
③English + non-high light bg. ④English + high light bg.
As request, users can select two versions together.
e.g. Like (D) in the diagram above, when a specific situation happens, LCD will flash the message in “Chinese + non-high light bg.” & “English + high light bg.” Formats!

Built-in 10 Emergency messages：

Fire, Earthquake, Alarm, PWR Failure, Overload, Maintenance, Full, VIP, Parking & IND.

Model Name: QCM-200A…… Rev. B

3.Make Page：When Code Table & Style are done, users can set related status formats and transmit data here.



A. Related Status Settings：

Display type: Horizontal / Vertical-2 types for LCD display

Customer title: Show Customer title on LCD by selecting ON / OFF

Week format（language）: English / Chinese-2 selections

Date format: “2007/01/01” & “01 Jan 2007” –2 types

FL Frame: Show frames of Fl. on LCD by selecting ON / OFF

Customer title image: Double click mouse at “Preview” area to upload the photo（icon）.

When display **“Horizontal”,** the size of the icon must be within “104x24”.

When display **“Vertical”,** the size of the icon must be within “128x24”.

The extension name has to be *.bmp (monochrome).

Customer logo: Choose “on” / ”off” for the customer logo display. If it’s “on”, set

①Customer logo and fl. display flashing for 1~30 sec. long by shifting!

②Double click mouse at “Preview” area to upload the photo.

The file must be within 112X80, monochrome, in *.bmp format.

LCD BL Power saving: Set to turn off the back light function after “0~600 sec.” **(Optional)**

Date (YYMMDD) for use: Set the date as request. Format ”070101”. **(Optional)**

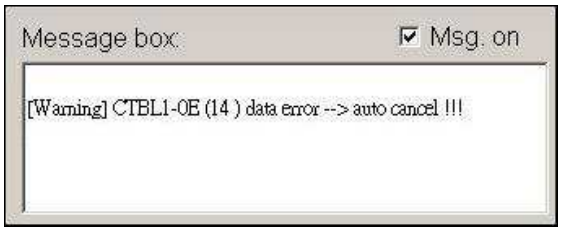
ID Code (4 bytes) for Customer: Set a code (4-byte length) for specified customer use. **(Optional)**

B). ROM Filename:

Make a file name for ROM here. **(The extension name for QCM-200A ROM is "ROM")**
(Suggestion: Make the ROM file name the same as the one saved in the .qfl format.)

C). MAKE ROM:

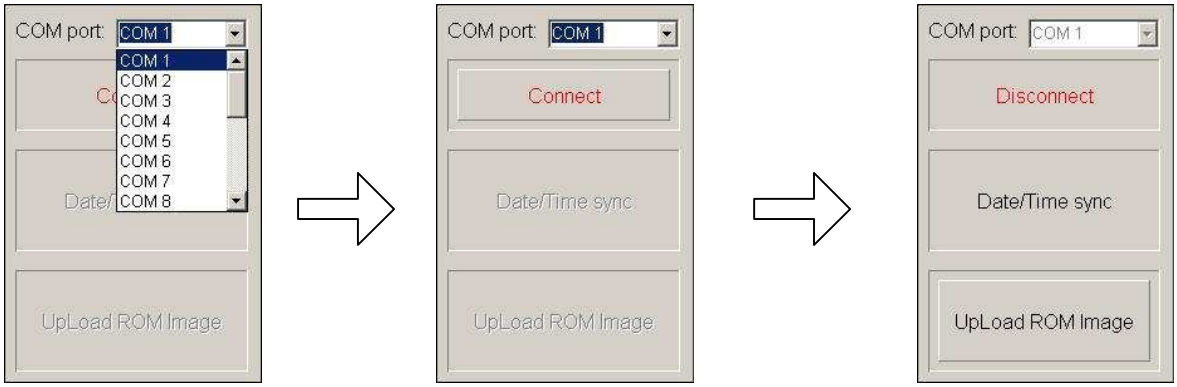
After all the settings are done, make a ROM file (for uploading) for the default code table and status format settings by clicking on "Make ROM" and it has to be done before connecting to PC. Before making a ROM file, it's a request for saving the .**qfl** file again. The ROM file name here is the same one as it at **area B** (Please refer to P.16).



If errors happen in CTBL editing, a message box will show the warning to the users after saving ROM file!!!

D). Connection & Transmission:

When the **transmission failure** happens to LCD control modules during connection or data transmission, **do not dismantle the transmission line**! Just **restart the power,** and the system will transmit the data again.



① Select "**COM port**"

② After clicking on "**Connect"**, the system will start "**Date/Time sync**" & "**UpLoad ROM Image"** functions

③ **QCM-200A** is only able to connect to PC during the operation mode (stand-by status).
If in the menu mode, please move to "Sys. Reset" for instant connection to PC.
Configuring RS-232 transmission line on, the LCD will show "Wait host data".
It means the module is waiting for the host data and a successful transmission between QCM-200A and PC!

④ **Date/Time sync:**
After connecting successfully, QCM-200A will synchronize date / time with it in PC!

⑤ **UpLoad ROM Image:**
Click on “UpLoad ROM Image” to open the QFL200A ROM File**(*.ROM format)**, uploading it to QCM-200A.

QCM-200A Transmission:
When PC starts uploading, LCD will display “ *Receive data* ”. It means the module is receiving data! After the transmission is done, the LCD module will update and restart itself. **Do not shut down the power NOW ! **

⑥ Dismantle the transmission line and the system will be back to the operation mode.

Press “SET” key for 3 sec. Long. Then the screen shows “please release "SET" key” and then release the “SET” to enter the “Operation Menu” mode!

[Note 1] Lift LCDEditor Dialogue box:

Errors in the CTBL!!

To overlay the original file or not?

ROM file is done!

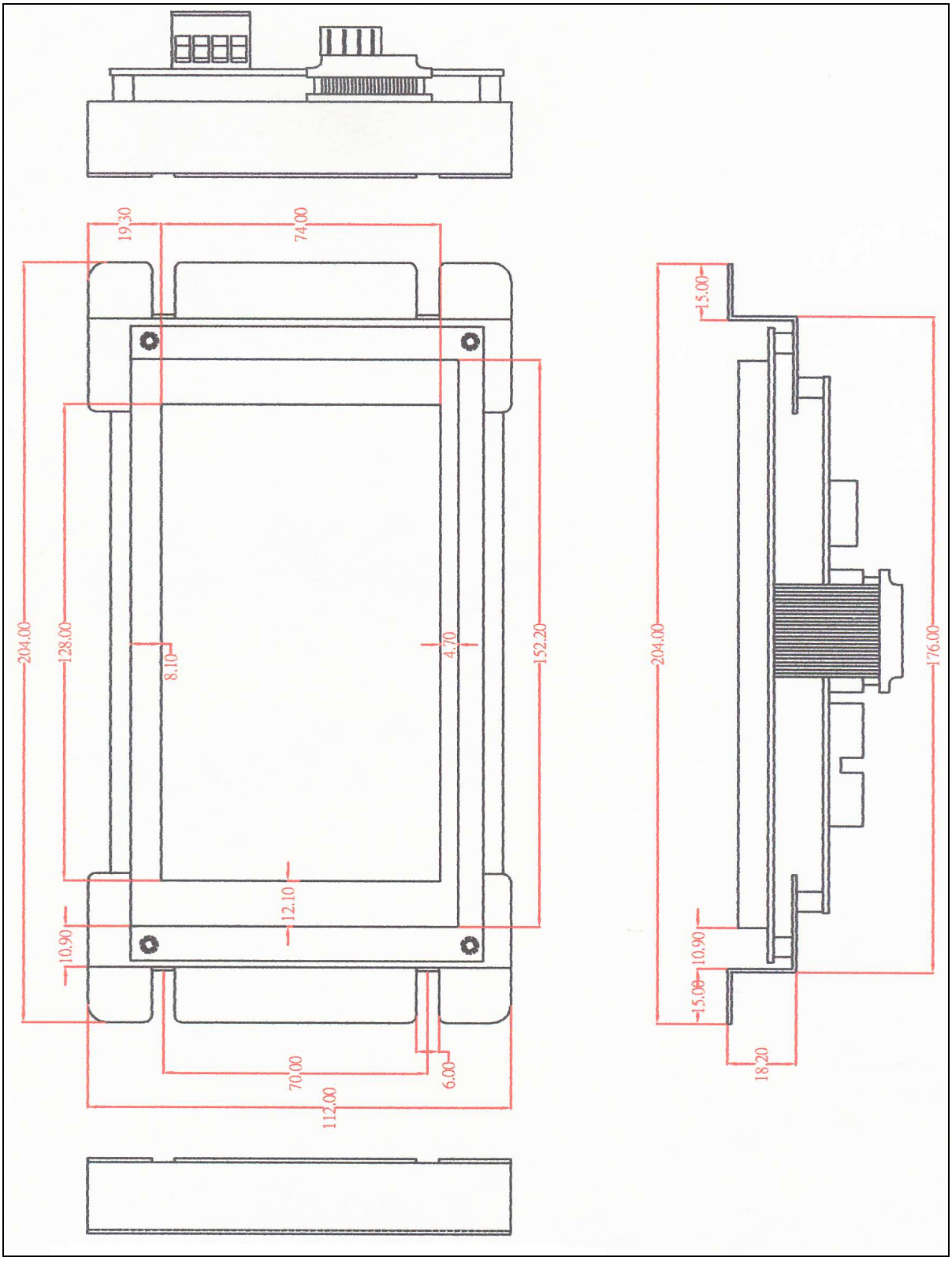
[Note 2] Message box: Tick “Msg.on” for showing the message contents like online, upload…etc.

Message box	Descriptions
>>>Open COM1<<<	Connection Msg.
>>>Close COM1<<<	Disconnection Msg.
*** Date & Time Sync. *** ==Waiting QCM-200A respond …== ==> Send data block: 1,CRC = 99 <= ==> Date & Time Sync finish. <=	Date/Time Sync. Msg.
UpLoad ROM image ==Waiting QCM-200A respond …== =>Send data block: 1,CRC = 88 <= =>UpLoad ROM image finish. <= Time=14094 ms	Upload Msg.
=>QCM-200A respond timeout #1<=	Timeout Msg.
[Warning]CTBL1-0E (14) data error －>auto cancel !!!	A warning for data error in HEX(DEC) OE(14) from CTBL1! Delete the data automatically!!!

Model Name: QCM-200A…… Rev. B

Metal Box Dimension Diagram

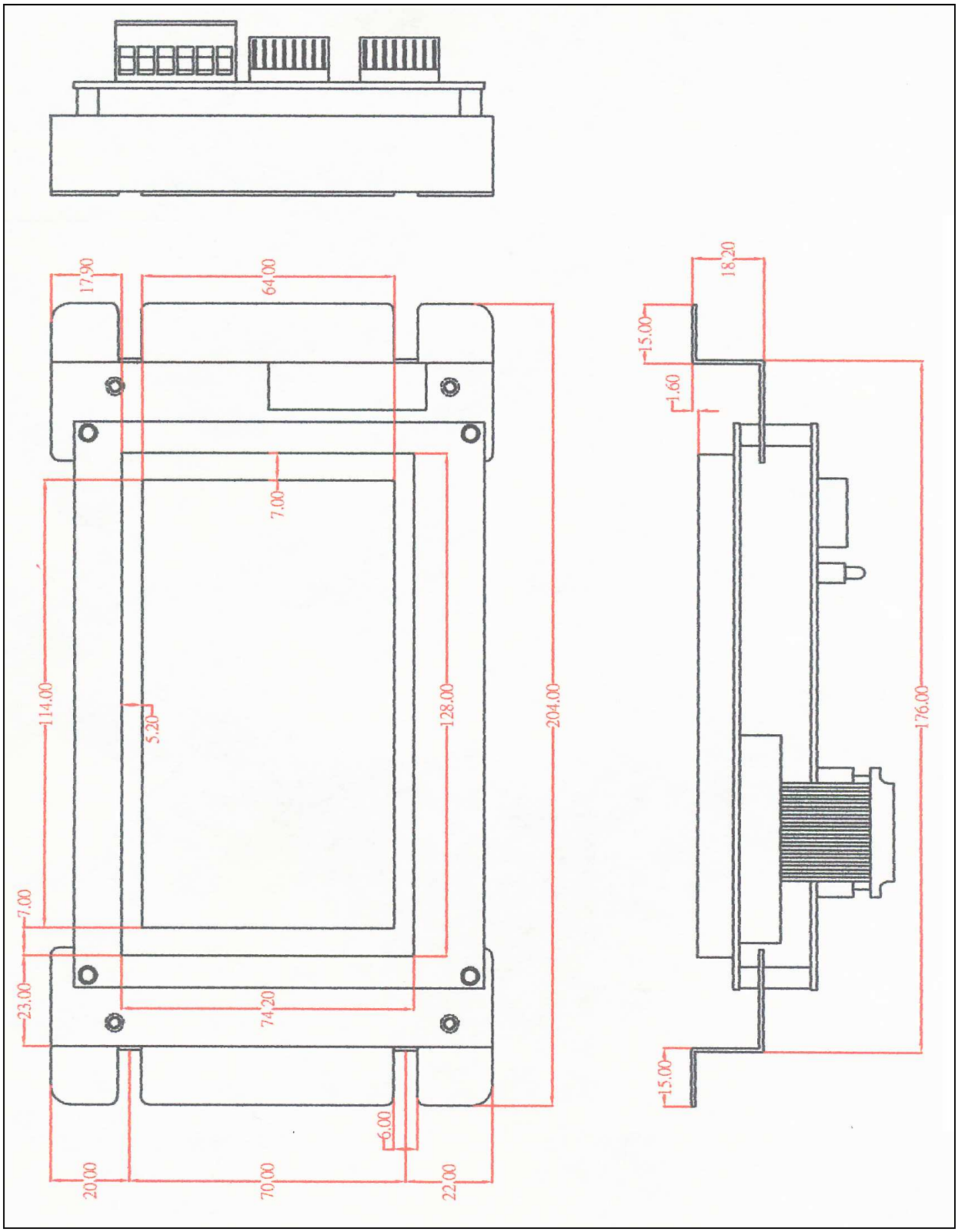
Model No.: QCM-200A / LCD Type A



Model Name: QCM-200A…… Rev. B

Metal Box Dimension Diagram

Model No.: QCM-200A / LCD Type B



ORDER INFORMATION

1. **Module:** QCM-200A / LCD TYPE A / Blue-W

   Spec. : Large Size 240 x 128 dots. / Color white on Blue

2. **Module:** QCM-200A / LCD TYPE A / Black-W

   Spec. : Large Size 240 x 128 dots. / Color white on Black

3. **Module:** QCM-200A / LCD TYPE B / Blue-W

   Spec. : Normal Size 240 x 128 dots. / Color white on Blue

4. **Module:** QCM-200A / LCD TYPE B / Black-W

   Spec. : Normal Size 240 x 128 dots. / Color white on Black