

In Room Control Panel

User Programmable
Touch Control Panel



Model: A934-212C-044

***Importance Note:**

Please use ONLY the supplied mounting screw as any other mounting screw (screw head) may be too big and may damage the glass panel!!

PRODUCT DESCRIPTION

The **ABTUS A934-212C-044** touch control panel uses a standard 4-wire resistive touch panel, which allows up to a total of 32 command code with complete user programmable software.

User friendly Software which allows customized programming such as macros setting, feedback events, control commands, etc. Another characteristic is the panel button layout and design, it can be easily customized and print out accordingly with icons or clear text buttons

PRODUCT HIGHLIGHTS

- Feature with automatic backlight fade out
- Macro definitions setting can be assign for every single button up to 16 difference order
- Default 3x4 matrix of 12 touch buttons
- With 1 x RS-232 or 1 x RS-485 selectable and 1 x RS-232
- Ultra low power consumption

SPECIFICATIONS

INPUT VOLTAGE	12V-DC, 350mA
BACK LIGHT	With white LED light guide plate
COMMUNICATION STANDARD	1 x RS-232 or RS485 (*Selectable) and 1 x RS-232 (Tx Only)
CONFIGURABLE COM PORT	7 or 8 Data Bit and 1 or 2 Stop Bit Baud Rate (9600 to 38400) Parity Bit (Non, Even or Odd)
TOTAL NUMBER OF BUTTON	12
TOTAL NUMBER OF COMMAND SET ALLOW	32
STANDBY CURRENT	35mA
OPERATION CURRENT	65mA
HOUSING	ABS
DIMENSIONS WEIGHT	(88 x 88 x 16)mm Weight: 75g
ACCESSORIES	AC-DC Power Adaptor 12V-DC, 350mA 1 x 2 Pin, 2 x 3 Pin Terminal Block

** For detail and updated RS-232 Command protocol for programming, please visit and download from www.abtussingapore.com

* Specifications are subject to changes without notice.

Example “Up” Setting

Setting a Button Location #1 as a “Push” and “Pop” function:

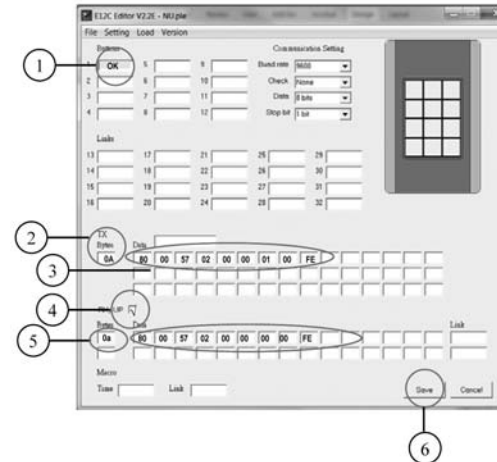
Command of controlled device are as followed:

Dimming Up (Hex): **02 30 31 0D**

Dimming Stop (Hex): **02 30 30 0D**

Function will perform as followed:

When Button #1 is pressed and Hold, panel will send Dimming Up command setting the Dimmer to Dim-up. A “Dimming Stop” will be sent once the button is release.



- 1 Select the button location (Location #1) the button will be high lighted as shown.
- 2 Key **0A** in “TX Bytes”
- 3 Key in **80 00 57 02 00 00 01 00 FE** (Set Dimmer to dim-up)
- 4 Checked RX/UP as shown
- 5 Key in the “Dimming Stop” command **80 00 57 02 00 00 00 00 FE** accordingly with Bytes length **0A**
- 6 Clip on “Save” to confirm setting and “OK” will appear in high lighted box
- 7 Do remember to set the baud rate and button function name accordingly after which

RX/UP Setting

“RX” means that the command transmitted can be set base on the RX return command. where as “UP” will acts as a “Push” and “Pop” action, example press and hold for dimming up and release to stop dimming.

Example “RX” Setting

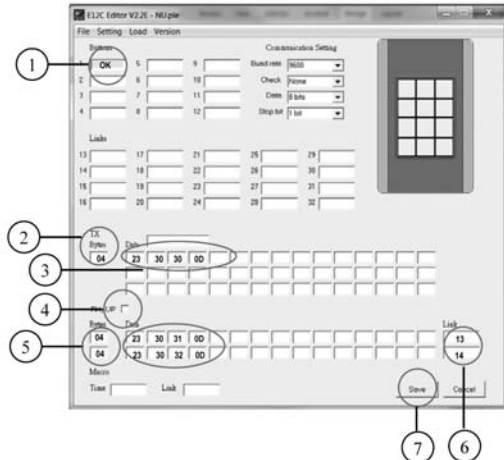
Setting a Button Location #1 as a “Power ON” and “Power Off” function with status returned:

Command of controlled device are as followed:

Power On (Hex):	43 30 32 0D	Request Power Status (Hex):	23 30 30 0D
Power Off (Hex):	43 30 31 0D	Status ON Return (Hex):	23 30 32 0D
		Status OFF Return (Hex):	23 30 31 0D

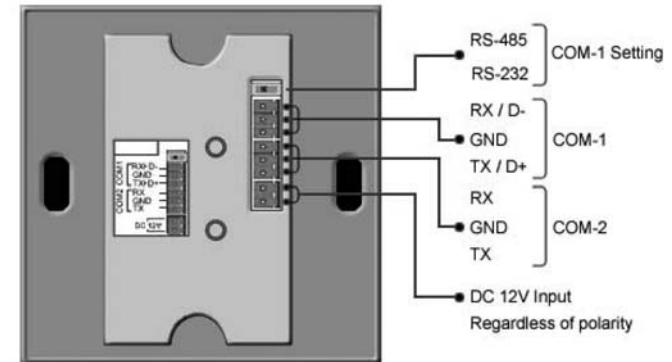
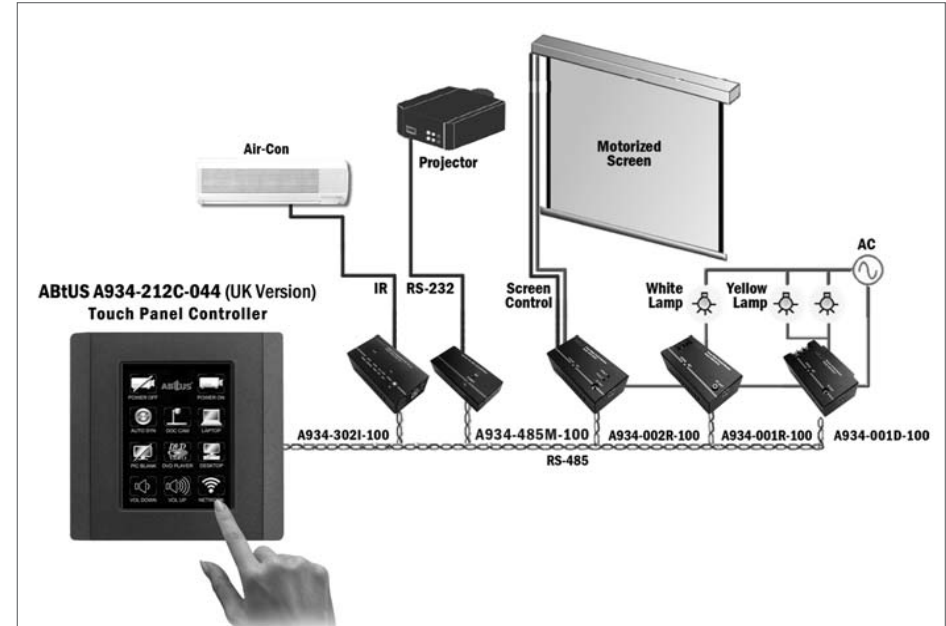
Function will perform as followed:

When Button #1 is pressed, panel will send request power status “**23 30 30 0D**” and will followed by Power ON if return status = OFF “**23 30 31 0D**” and Power OFF if return status = ON “**23 30 32 0D**”



- 1 Select the button location (Location #1) the button will be high lighted as shown.
- 2 Key **04** in “TX Bytes”
- 3 Key in **23 30 30 0D** (Request Power Status Command code) in the “Data”
- 4 Clip on “Save” to confirm setting
- 5 Select links button # 13 enter “Power ON” command and # 14 “Power Off”
- 6 Clip on “Save” to confirm setting and “OK” will appear in high lighted box
- 7 Key in the returned Data for both “Power ON” and “Power OFF” in “Item #5”
- 8 Set in the “Link” button accordingly
- 9 If return status is “Power OFF” link to “Button” 13 which is “power ON”.
- 10 If return status is “Power ON” link to “Button” 14 which is “power OFF”.

SYSTEM DIAGRAM



TYPICAL APPLICATIONS

Any professional control system requiring multiple AV, lighting or environmental control.

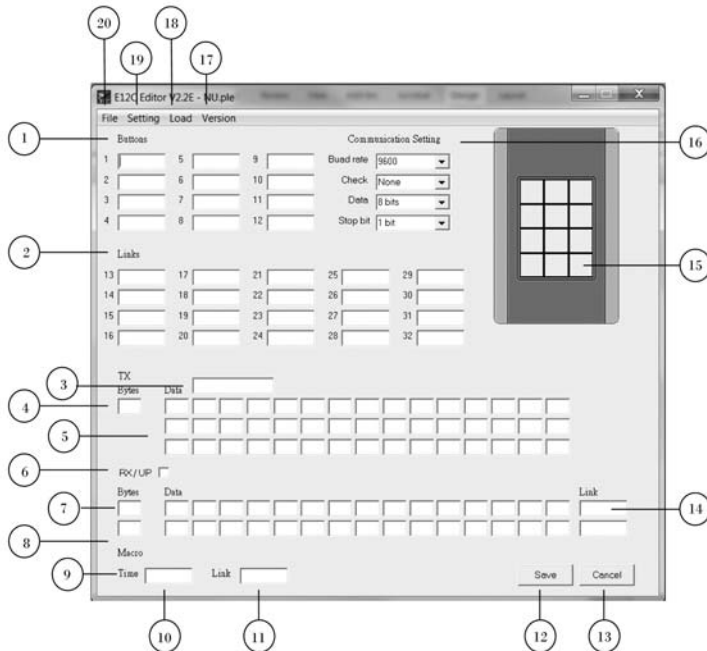
- Schools (Media Classroom) • Churches • Corporate Applications (Meeting Room)
- Home Automation • Home Theaters • Hotels In Room Control



Model: **E12C Editor Version 2.2E**

Programming Software E12C Editor V2.2E

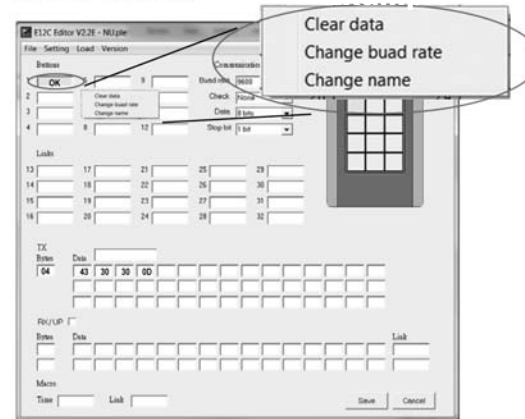
Software E12C Editor V2.2E Overview



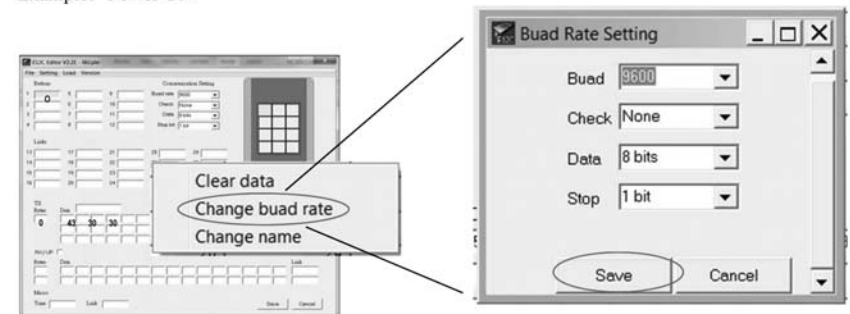
Button Function Name

Once all buttons command code have been setup, the function name and Baud Rate setting for each button can then being "Name" and set accordingly.

- Step 5 : Right Clip on the Button that you wish have the "Function Name" or Baud Rate setting change.
 Select "Change name" from the pop up window
 Key in the function name within the high lighted button and press "Enter"
 Example: "Power ON"



- Right Clip on the Button that you wish have the "Baud Rate setting" change.
 Select "Change baud rate" from the pop up window
 Select the baud rate setting accordingly and clip on "SAVE"
 Example: "Power ON"



- Step 6 : Once completed, the setup can be save for record and future reference.
 Clip on "File" and then "Save File"

Once all the above setup is completed, the "program" can then be uploaded to the Touch Control Panel accordingly. Follow through the procedure in "Upload of Program"

Virtual Links Button Macro setting

Button 13 to 32 are virtual links button on top of the 12 physical Button 1 to 12 allows a total 32 buttons to be configure with this touch control panel.

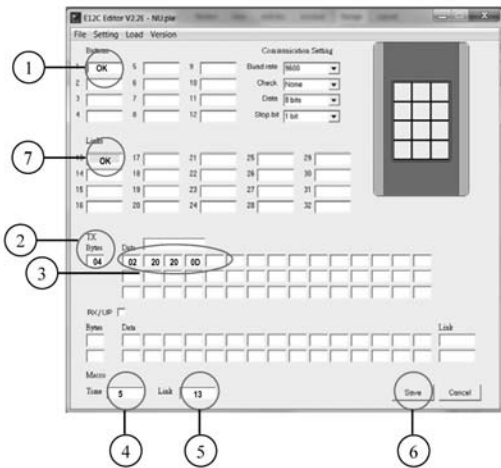
Example

Links Button # 1 to button # 13 with time delay of 5sec :

Button #1 Power On Command for projector (Hex):
43 30 30 0D (9600, 8 data bit, Non parity and 1 stop bit)

Button #13 Power On Command AV switcher (Hex):
02 20 20 0D (9600, 8 data bit, Non parity and 1 stop bit)

Function will perform as followed:
 When Button #1 is pressed, "Projector Power ON: **43 30 30 0D**" will be send followed by "AV Switcher Power ON: **02 20 20 0D**" after 5sec

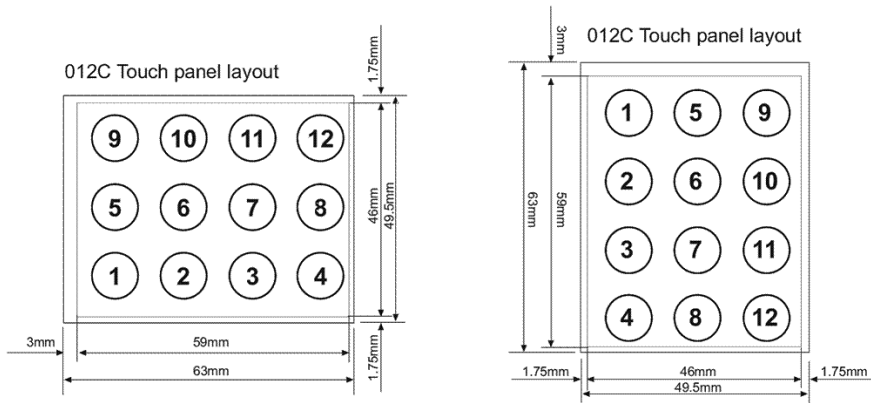
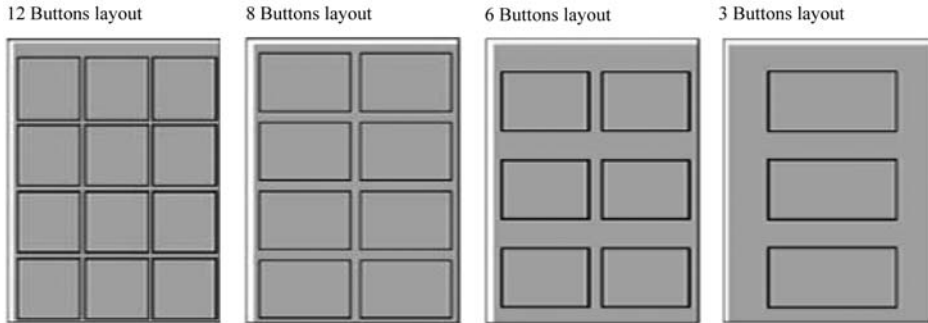


- 1 Select the button location (Location #1) the button will be high lighted as shown.
 - 2 Key **04** in "TX Bytes"
 - 3 Key in **43 30 30 0D** (Power On Command code) in the "Data"
 - 4 Enter "5" delay 5sec (*allows 1 to 99sec)
 - 5 Enter links button # 13
 - 6 Clip on "Save" to confirm setting and "OK" will appear in high lighted box
- Setting of virtual button # 13
- 5 Select the button location (Location #13) the button will be high lighted as shown.
 - 6 Key **04** in "TX Bytes"
 - 7 Key in **02 20 20 0D** (AV Switcher Power On Command code) in the "Data"
 - 8 Clip on "Save" to confirm setting and "OK" will appear in high lighted box

ITEM	DESCRIPTION
1 Buttons :	Physical "Button" location number and "Function" entry (Button number 1 to 12)
2 Links :	Virtual "Button" location number and "function" entry (Button number 13 to 32)
3 Button Parameter Setup :	*Each buttons are allow to have a independence parameter setting Baud Rate : 9600 to 38400 Parity : None, Odd or Even Data bit : 8 bits or 7 bits Stop Bit : 1 bit or 2 bits
4 TX Bytes :	Total length for the Data entered (*Max. 35 bytes = 2D in Hex per function)
5 Data :	Function/Command code entry (*Hex code ONLY)
6 RX/UP :	RX/UP "check" for "Push" and "Pop" command link "Push" TX data link in Physical or Virtual button. "Pop" TX data link in RX/UP (*Only one command is allow) RX/UP "uncheck" for Return Command link (**Max two return command is allowed)
7 RX/UP Bytes :	Total length for the Data entered (*Max. 15 bytes = 0F in Hex per function)
8 RX/UP Data :	Function/Command code entry (*Hex code ONLY)
9 Macro :	Macro setting
10 Macro Delay :	Delay time for macro function (* 0 to 255) With interval of 10 (*10=1sec, 20=1.5sec, 30=2sec and max 255 = 128sec)
11 Macro Link :	Macro link "Physical" or "Virtual" button number
12 Save :	Save each button function and command setup
13 Cancel :	Cancel any button function and command setup changed
14 RX/UP Link :	RX/UP link "Physical" or "Virtual" button number
15 Location Indication :	Indicate the physical location on the touch panel
16 Communication Setting :	Parameter setup (default) Baud Rate : 9600 Parity : None Data bit : 8 bits Stop Bit : 1 bit
17 Version :	Software Version
18 Load :	Upload the configuration and setup to the Touch Panel
19 Setting :	Com port setting
20 File :	New file, Open file and Save file

Button Layout

The UI layout on the touch panel can be configure into the following:



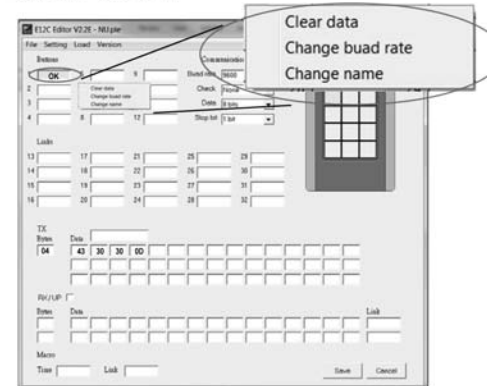
Note:

Physical UI Layout Size 63mm x 49.5mm
Active Widows Area 59mm x 46mm

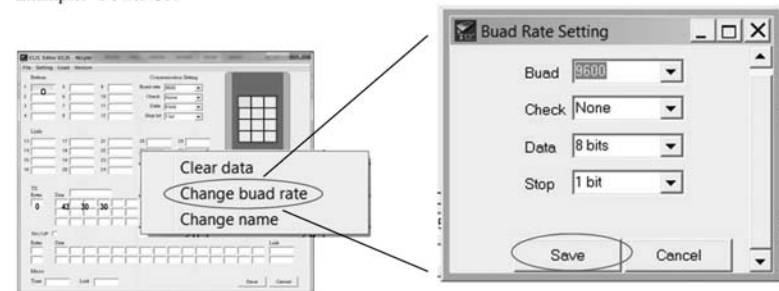
Button Function Name and Baud Rate Setting

Once all buttons command code have been setup, the “function name” and “Baud Rate setting” of each button can then being “Name” and “Set” accordingly.

- Step 5 : Right Clip on the Button that you wish have the “Function Name” or Baud Rate setting change.
Select “Change name” from the pop up window
Key in the function name within the high lighted button and press “Enter”
Example: “Power ON”



- Right Clip on the Button that you wish have the “Baud Rate setting” change.
Select “Change baud rate” from the pop up window
Select the baud rate setting accordingly and clip on “SAVE”
Example: “Power ON”



- Step 6 : Once completed, the setup can be save for record and future reference.
Clip on “File” and then “Save File”

Once all the above setup is completed, the “program” can then be uploaded to the Touch Control Panel accordingly. Follow through the procedure in “Upload of Program”

Example

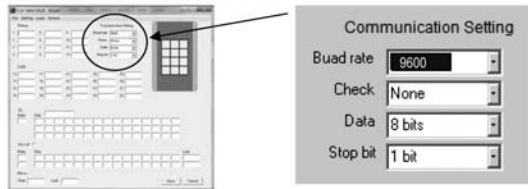
Programming of touch panel as a controller controlling a Media Projector with the UI design as shown:

- Button #1 Power On Command (Hex):
43 30 30 0D (19200, 8 data bit, Non parity and 1 stop bit)
- Button #2 Power Off Command (Hex):
43 30 31 0D (19200, 8 data bit, Non parity and 1 stop bit)
- Button #3 Input RGB-1 Command (Hex):
43 30 32 0D (19200, 8 data bit, Non parity and 1 stop bit)
- Button #4 Input RGB-2 Command (Hex):
43 30 33 0D (19200, 8 data bit, Non parity and 1 stop bit)

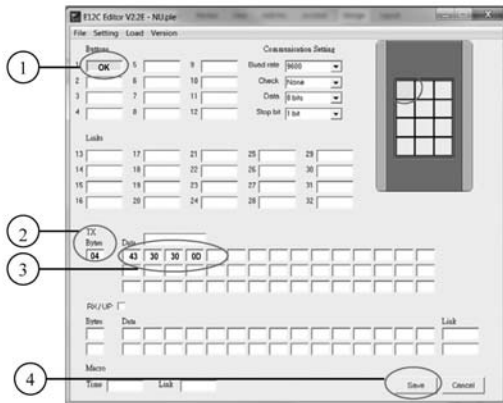
- ** Setting different Baud Rate for each button
- Button #5 Switcher Power On Command (Hex):
43 30 30 0D (38400, 8 data bit, Non parity and 1 stop bit)

Step 1 : Run the application software **E212C Editor V2.2E** and select “New” to create a New Project

Step 2 : Setup the Parameter accordingly as shown :



Step 3 : Setting up the “Power ON” code to it relevant button location (location #1) :



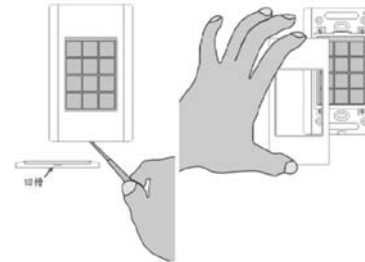
- 1 Select the button location (Location #1) the button will be high lighted as shown.
- 2 Key **04** in “TX Bytes”
- 3 Key in **43 30 30 0D** (Power On Command code) in the “Data”
- 4 Clip on “Save” to confirm setting and “OK” will appear in high lighted box

Step 4 : Repeat sequence in Step number 3 for the rest of the buttons number 1 to 5 setup accordingly.

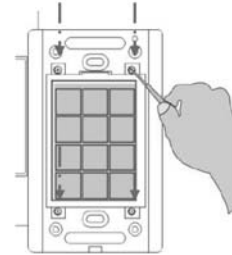
Replacement of UI design

Procedure of having the designed UI replaced :

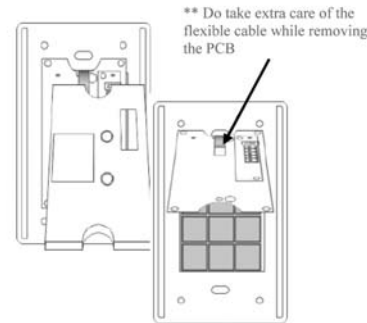
Step 1 : Lift the “Front cover” up with a small flat screw driver and removed it as shown



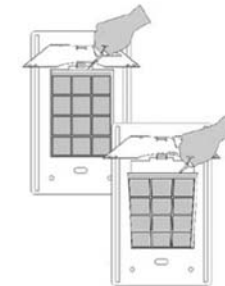
Step 2 : Removed the four screws as shown



Step 3 : Removed the “Back Cover” and the PCB as Shown.



Step 4 : Remove and replace the UI design printed as shown



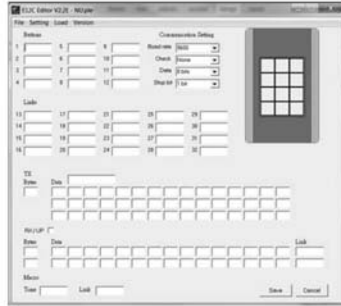
Example : UI layout design in Landscape and Portrait



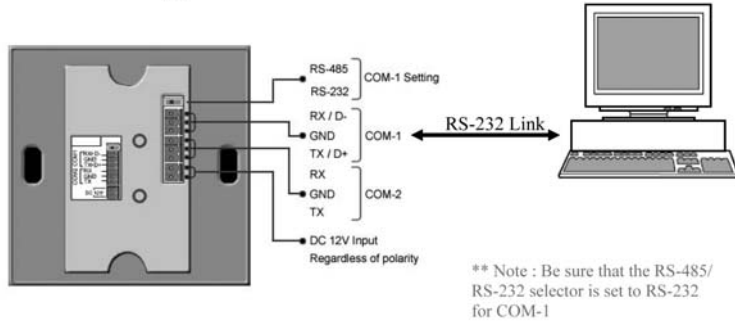
Upload of program

Once a programming setup is done, program can be uploaded to the Touch Control panel accordingly :

Step 1 : Run the application software **E212C Editor V2.2E**



Step 2 : Set up the connection between the Touch Control Panel and PC as shown accordingly

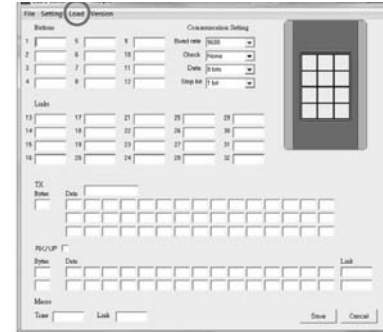


Step 3 : Entering "Loading Mode"
Apply DC power supply input while press and hold the RED area of the Touch Panel as shown. The backlight will now be flashing. Release and the panel is now in "Loading Mode"



** Note: Panel will return to it normal mode after 5 sec time out.

Upload of program



Step 5 : Software will now try to look for device connected (Touch Control Panel)
Once confirmed upload will start and the Touch Panel back light will stop flashing and start "Beeping". A "Loading ..." Pop up window will be shown as below



Step 6 : A "Device not found" window will shown if unsuccessful connection.
*Please double check RS-232 connector cable as well as the RS-485/RS-232 selector (*Be sure that the setting is at RS-232)



Step 7 : A "Loading successful" window will shown once the program is successfully uploaded
The touch panel back light will start flashing and "beep" four time to confirm that the loading successfully done.

