The operation manual of console for the driver

2007. 01. 15



The manual of bus console

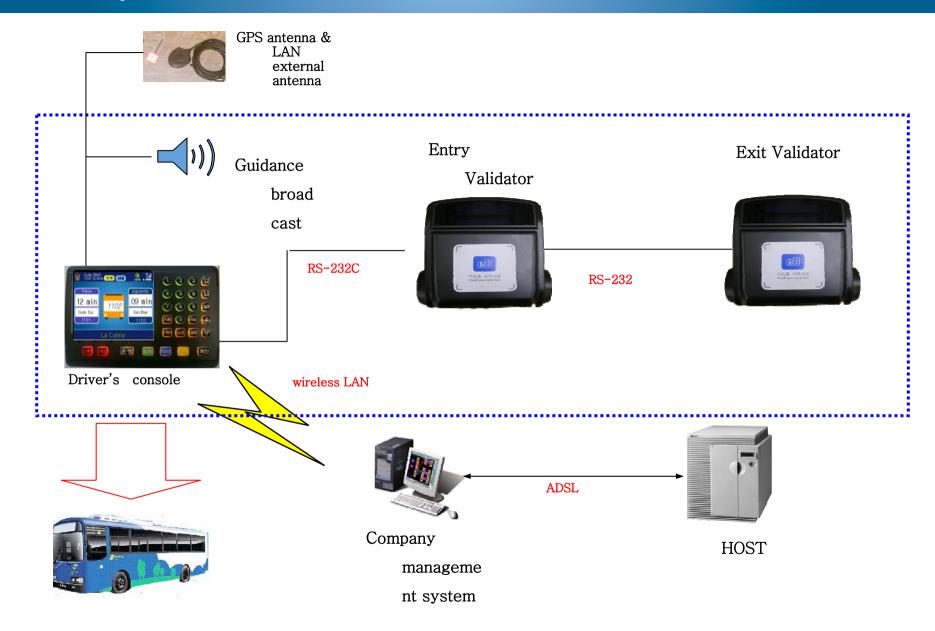


Type of LAMP	Status contents
Red	Entry Validator communication status indication
Yellow	Exit Validator communication status indication
Green	GSM communication status indication
Blue	Wireless LAN communication status indication
White	GPS Status indication
V2.28 A	console version and GPS communication status (A: Normal ,V: Abnormal)

Operati on key	Contents
Route	Choice of route ID
Service	Input driver's ID
Inquiry	Used in detail, number of undelivered details, operation information
Setting	console installation & information inquiry
Bus stop •	Name of bus stop & volume control
Functio n ▼	Name of bus stop & volume control Time & volume control, GPS, CSM status check
Adult	Adult basic fare & adult HO
Teenag er	Teenager basic fare & teenager HO
Child	Child basic fare & child HO
Erase	Erase one by one in case of inputting wrong numbers
Cancel	Cancel key
Acciden t	Transmitting to the center in case of car accident
Empty	Moving vehicle without charging fare
Check	Check key

1

☐ Bus card system structure



☐ Bus console structure & explanation

☐ Main function of console

Driver's console	Entry Validator	Exit Validator	
Color BMS Color Color	形型 在市林区 Pracel your card here	Placed your card hore	
Display the amount of card transactionControl HO	➤ Display the amount of card transaction	➤Display the amount of card transaction	
Output various error messages	(Passenger check)	(Passenger check)	
Provide information of distance	> Voice output [Refer voice	➤ Voice output [Refer voice index]	
between the bus	index]	➤Input getting off information	
Provide bus stop information & guidance broadcast	➤Input getting off information (1DOOR)	(2DOOR)	
> Transmit transaction detail			
> Display time			

Understanding of getting on & off console structure

☐ Bus console can deal with getting on and off simultaneously.

Transaction result display

- Status display lamp after card transaction
- Normal transaction O
- Error occurred X

Card transaction part

• Display present time

Card transaction part

- Card recognition Zone
- Card transaction has to be done one by one, not simultaneously with two cards

getting on & off console

The common points of

Transaction amount display

• The amount the passenger has to be dealt with

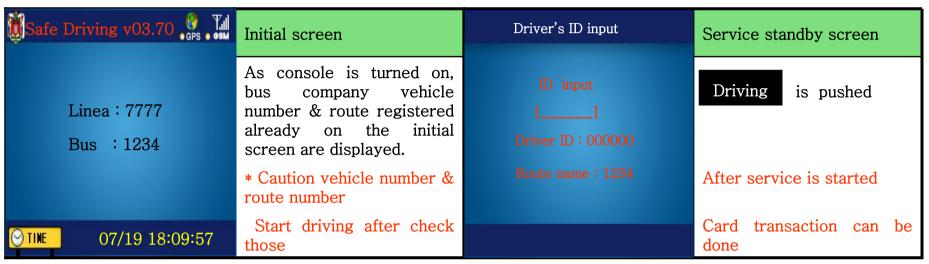


- The amount display after card transaction
- Advance payment card : left amount display
- Deferred payment card : Total number of use display

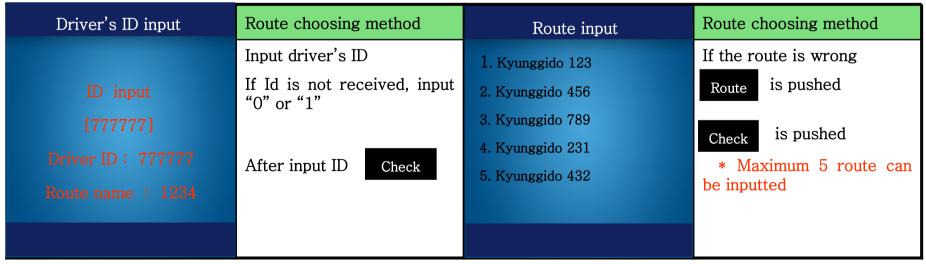


☐ Service start & Route change method

1. Service start



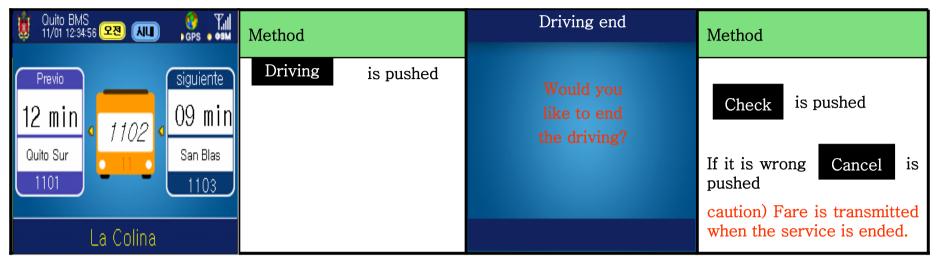
2. Route choosing method after inputting driver's ID



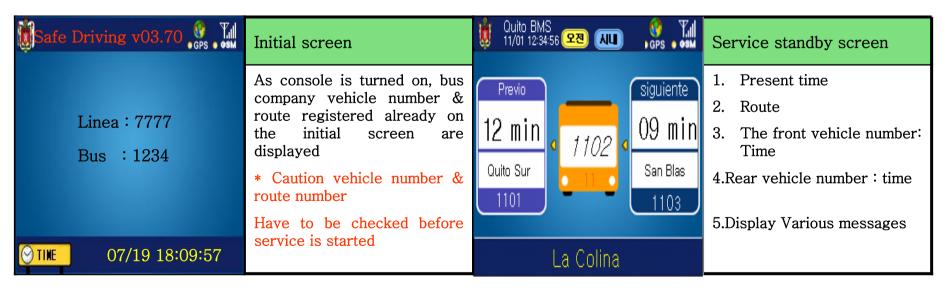
After service is started, various information messages can be displayed at the bottom of the screen.

□Service ending method

1. Service ending method



2. Initial screen, Service standby status



☐ Card transaction for single fare

1. Card transaction method after starting service

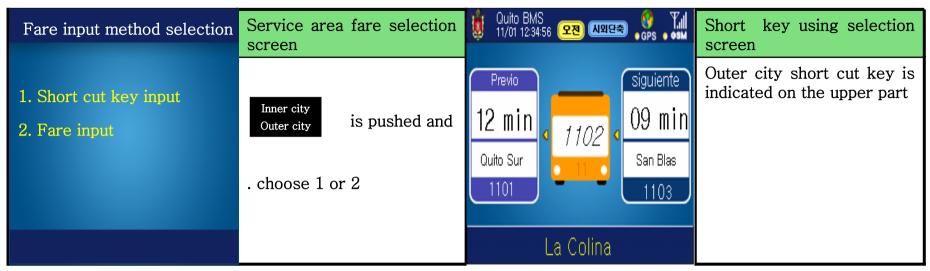
Tarjeta procesada	Screen explanation	Entry Validator normal card transaction screen	
	1. Passenger division		1. Transaction amount on the upper part
Passenger division : adult	1) Adult	800 요금 4200 잔액	2. The amount left on the lower part
Fare: 800	2) Teenager	*	Adult : After "beep"card transaction
	3) Child	PASS GRANGE	Teenager: After "beep, beep" card transaction
	2. Fare: : the amount of fare		* For advance payment card, left amount is displayed on the lower part

2. Entry Validator voice type

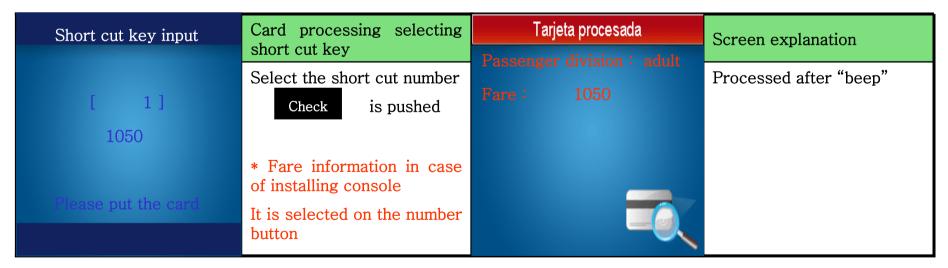
Type of voice	Contents	Type of voice	Contents	
Thank you	Normal card transaction	It has been processed	In case of re-processing after card transaction	
It is a teenager	Processed as teenager card holder	Please tell the destination	In case of choosing outside of city	
It is a child	Processed as child card holder	It is HO	HO processing	
It is transit	Card applied with transit	Please put one card only	In case of putting more than one card	
The amount left is not enough	In case of not enough amount left in the card			
Please put the card again	Card transaction error, reprocessing			

□ Service area fare card processing 1

1. Service area fare choosing method



2. Card processing using short cut key



☐ Service area card processing 2

3. Fare input method card processing

Fare input	Fare input card processing	Tarjeta procesada	Screen explanation
[1200] 1150	Input the amount using numbers and Check is pushed. Card transaction amount is displayed	Passenger division: adult Fare: 1150	Processed after "beep"
Please put the card	•For upper part, cash		
	• For lower part, card discount fare		

- Caution for service area fare processing
- 1. When fare input method & short cut method are changed, it is changed with [inter city/outer city] mode.
- 2. When the service area fare is not selected wrongly, it has to be input using [erase].
 - 3. Transit discount is processed once.

☐ HO processing method 1

1. Single fare HO processing method

HO input	nput Screen explanation Tarjeta procesada		Screen explanation	
adult 02 teenager 01	Number of [adult, teenager, child] is pushed and Check is pushed	Passenger division: adult Fare: 2500	If HO is pushed, it will be discounted automatically as HO.	
child 01 total: 4 person 2500	oncor 15 publicu			
total · T person 2000	ex) adult 2, teenager 1 and, child 1 are selected			

2. Service area short cut key HO processing

Short cut key input	Screen explanation	Tarjeta procesada	Screen explanation
1]	Select short cut key and	Passenger division: adult	Processed fare is displayed
adult 02	number of [adult, teenager, child] is input and		
teenager 01	Check is pushed		
child 01			
Total: 4 person 2500			
_	ex) adult 2, teenager 1 and, child 1 are selected		
	ciliu i are selecteu	alid I are selected	

□ HO processing method 2

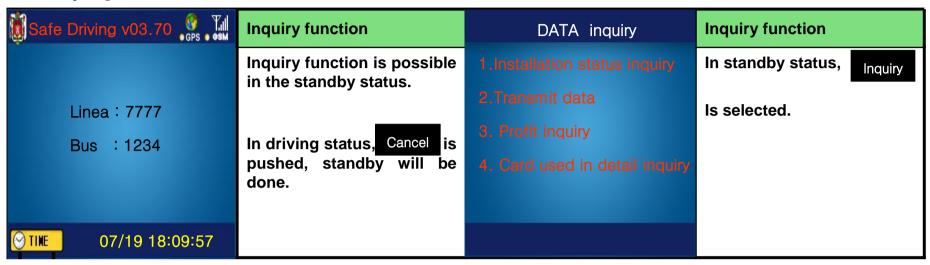
2. Service area fare input HO processing method

Fare input	Screen explanation	Tarjeta procesada	Screen explanation	
[850]	After inputting fare with	Passenger division :adult	Processed fare is displayed	
	numbers,	Fare: 2500		
adult 02	Number of adult, teenager	_		
teenager 01	and child will pushed and	_		
child 01	Check is pushed	_		
total: 4 person		_		
25 00	ex) adult 2, teenager and			
	child are selected			

- Caution when Ho is processed
- 1. Before card processing, number of people and the amount t process will be checked.
 - 2. In case of error occur in HO, it is started again with [cancel].
 - 3. Transit discount is processed once for the adult.
 - 4. When Ho is processed, HO voice will come out..

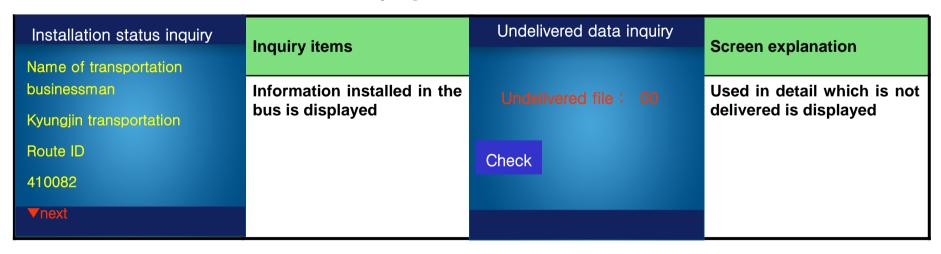
□Inquiry function

Inquiry method at the initial screen



Inquiry function is only operated in the standby status. (It can not be used at the present)

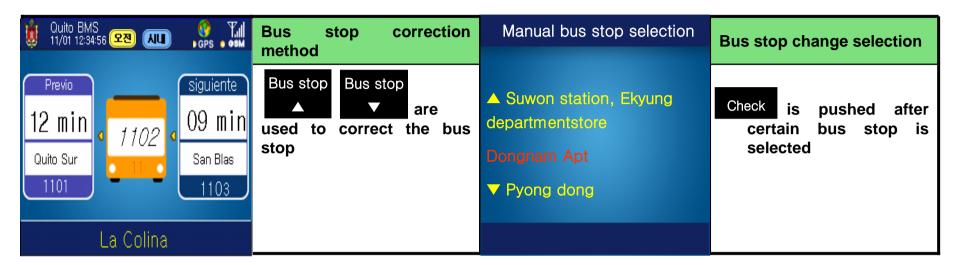
2. Installation status, undelivered inquiry method



When re-selecting inquiry or moving to the previous menu, cancel has to be used.

□Bus stop change method

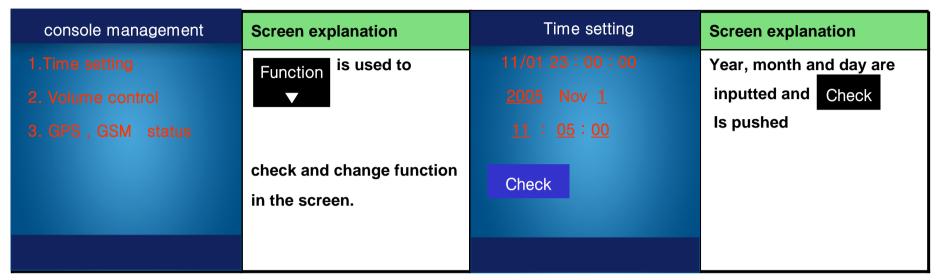
1. Bus stop correction method



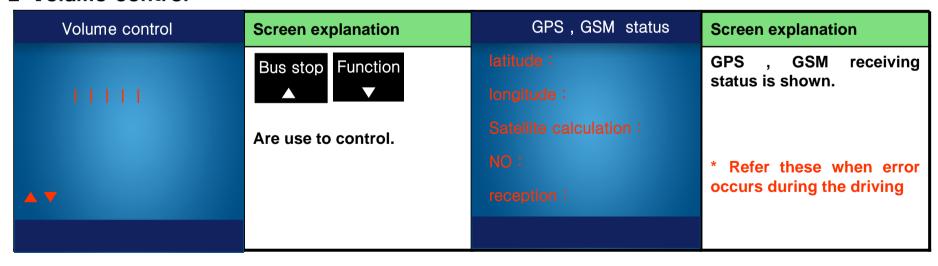
- Bus stop change contents
- 1. When temporarily bus stop is not recognized, bus stop is changed manually. When it is recognized normally, automatically bus stop will be changed.
- 2. When either certain bus stop is not recognized or periodically bus stop is not recognized, please ask for A/S

□ Function 1 KEY explanation

1. Time setting



2. Volume control



□ Operation information transmission screen

1. Operation information transmission screen



- After the transmission to the computer, automatically operation status will be returned to standby.
- 2. Main operation information

Type of operation information	Transmission contents	Errors following by undelivered
Kookmin BL	Suspended card information among Kookmin card	Profit loss break out using un calculated Kookmin card
Old advance card PL	Information about renewal of student card	Civil appeal occurs when discount of adult fare is done in the student card
Bus stop information	Name of bus stop & distance information	Vehicle operation information is not provided
Voice information file console voice output information received		Voice output is provided in case of processing card
Program receiving	New altered program received	Altered program is not applied.

Forceful transmission has to be input [0] twice.

☐ Setting KEY explanation

1. Setting information menu

Mode selection	Screen explanation	Operator menu	Screen explanation
 Operator mode Manager mode Vehicle installation registration 	There are three different modes and engineers and person in charge use 1 or 3. After selection is done, check is pushed	 Setting detail check Operation information check Version information BL . PL information console check 	Until 1~5 with numbers

- Setting information menu explanation
 - 1. operator mode: programs and version in the console can be checked.
- 2. manager mode: A/S staffs can be used and number of use can be limited with password as re-modification and deletion of console basic setting is done.
- 3. vehicle installation registration: re-setting operation due to replacement of console can be done.

□ Operator menu explanation

Operator menu selection display screen

1. Setting in detail	2. Operation information check	3. Version information	4. BL/PL check	5. console check
Driver console ID	Transportation Businessman ID	Kernel version	Fix B/L version	1. Memory check
Entry Validator ID	Name of transportation businessman	Driver console version	Fixed capacity	2. Key pad check
Exit Validator	Route ID	Entry Validator version	Changed B/L version	3. RTC check
Exit Validator 3 ID	Name of route	Exit Validator version	Changed B/L capacity	4.Communication TEST
Vehicle ID	Transportation method code	Route information version	Fixed advance P/L version	5. AMP TEST
SS ID	Vehicle number	Bus stop information version	Fixed advance P/L capacity	6. LCD TEST
Server IP	Getting on SAM ID	Fare information version	Changed advance P/L version	7. POWER TEST
console IP	Getting off1 SAM ID	Discount, surcharge Information version	Changed advance P/L Capacity	8. Auto test
Driver console ID_8	Getting off2 SAM ID	Transit application version	Fixed deferred P/L version	
	Getting off3 SAM ID	Driver voice version	Fixed deferred P/L capacity	
		Getting on Voice version	Changed deferred P/L version	
		Getting off Voice version	Changed deferred P /L capacity	
		PG LOADER version	▼ continued	





is used to select and check

□ Caution for the driver

Checking method & matters to be attended

Status	Checking items	Measure
Before starting service	Check route number and vehicle number on the driver's console screen	Route number re-input
	2. Check present time comparing with year, month and day on the lower part of driver's console	If time is not correct, service will begin after notifying to the person in charge
	3. Check whether light is on driver, getting on and Exit Validator	
	4. Check communication error on the driver's console screen	If the communication error is displayed, service will begin after notifying to the person in charge
During service	When guidance broadcast and information about the front and rear are wrong during long time	Driver's console is Off/ON
	2. Card transaction error	Card will be re-processed and if it continues, notify to the person in charge
	3.Please put one card only	Process one card only at a time
After service	When [0] is pushed twice fare for one day will be transmitted	
	2.Display undelivered file on the driver's console screen	In case of existing undelivered file, notify to the person in charge
	3. Display error status on the driver's console screen	Error message will be informed to the person in charge

> If the operation is not satisfactory, notify to the person in charge before service begins

□ console circuit connection method 1

Electric power AMP BOX



LAN: LAN antenna connection

GPS: GPS antenna connection

Electrical power: electrical power (connect between

AMP and driver)

Guidance broadcast (connect

between AMP and driver)

Reserve: reserve port

Getting on communication: communication port (connect

between driver and getting on)

Reserve: reserve port

Getting on: getting on electrical power (connect between driver and getting on)

Driver: driver connection (connect between AMP and driver)

4 : MAIN electrical power (connect old console electrical power)

□ console circuit connection method 2

with Getting on and getting off)

Entry Validator Exit Validator Getting Getting on Getting Getting on S/W off FUSE **FUSE** off S/W Getting off Reserve electrical power Reserv Getting on Getting off Getting off Getting off Getting on electrical power electrical communication communication communication power Getting on S/W: Getting on electrical power switch Getting off electrical power: Getting off electrical power (connect with Getting on and getting off) Getting on FUSE: Getting on electrical power fuse Getting off communication: Getting off communication (connect Getting off S/W: Getting off electrical power switch with Getting on and getting off) Getting off FUSE: Getting off electrical power fuse Reserve : reserve port Getting on electrical power: connect with AMP BOX Getting on communication: Getting on communication (connect between driver and getting on) Reserve : reserve port Getting off communication: Getting off communication (connect with Getting on and getting off) Getting off electrical power: Getting off electrical power (connect

□GPS antenna and LAN antenna installing method

Installing method



Working contents

- 1. Make a hole after removing getting on or driver's lamp
- 2. Insert GPS and LAN antenna line.
- 3.Do silicon process distancing 30cm from current GPS and LAN antenna.
- 4. Do silicon process in the hole.
- 5. Re-assemble getting on or driver's lamp after tidying up lines.
- Caution) Do silicon process in the hole not getting in the water





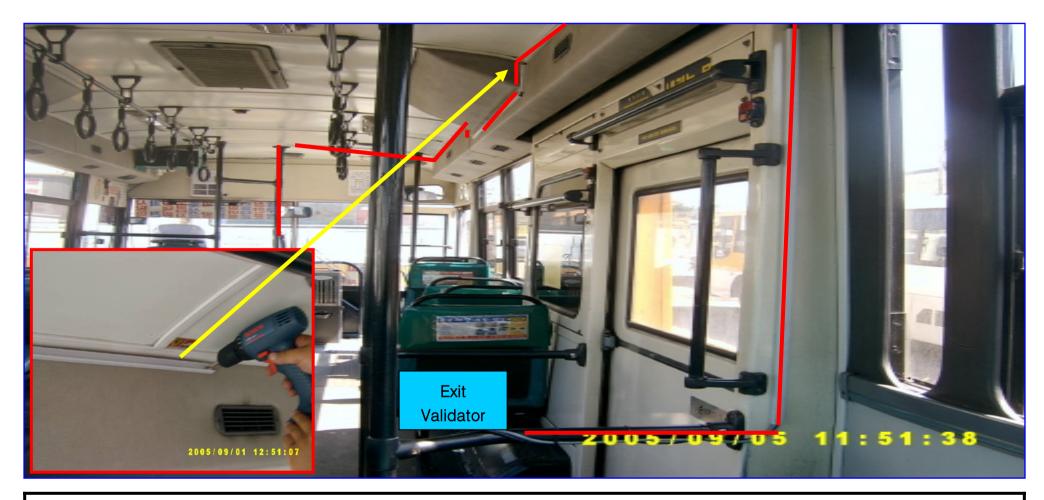


GPS antenna



LAN external antenna

☐ Getting on & off electrical power and communication cable installing method



From getting on to getting off, electrical power and communication cable is exposed internally and it has to be molded to complete (red line)

Mold board is fixed before molding cover is put on. (yellow line)

Electrical power: 11M(black line) / communication: 11M(grey line)

☐ Caution 1

1. Old console removal

- > Write vehicle number on the console removed.
- ➤ Piece has to be tidied up .(flat tire)
- > Do not remove old circuit for using new console.

2. AMP installation

- > Choose location not to get water in.
- > Do not change circuit location.

3. Driver console installation

- > Select location not to cover with getting on passengers, cash box, and back mirror.
- > Do not change the location of LAN antenna and GPS.
- > Fix it properly not lose GPS antenna
- > Check lamp whether it is operated after installation

4. Entry Validator installation

> Choose location not to cover sight.

(Passenger getting on)

- > Choose location when coins are paid.
- > Do not change location of getting on and getting off communication line.
- > Do not change location of getting on and getting off electrical power.

5. Exit Validator installation

> Installing the bending part properly

6. Molding process

- > Do piece process not to lose molding part.
- > Do molding process not to expose circuit.
- > Be careful not to open molding cover

☐ Caution 2

1. Circuit arrangement

- > Arrange circuit not to expose.
- Cut the sharp sedge after cable is tied. (safety accident)

2. GPS/ LAN antenna installation

- > Do silicon process not to get the water in after inserting circuits.
- Install other antennas distance from 30 cm.(Disturbing signal)
- Do silicon process not get the water in the LAN antenna bracket piece processing part.

3. Tidying up

- > After installation clean up the wastes and internal materials left.
- > Do not leave the piece outside of the vehicle.

4. Registration

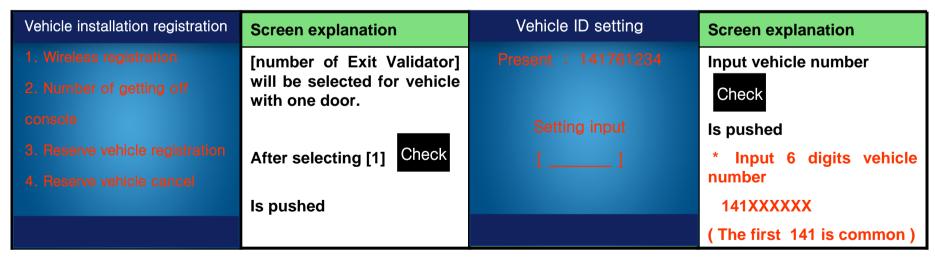
- > Input vehicle number correctly.
- > After registration. Check whether vehicle number and route number is matched.
- > With test card, check whether card processing is operated normally.

□ console installation registration method 1

1. console installation registration



2. console installation registration

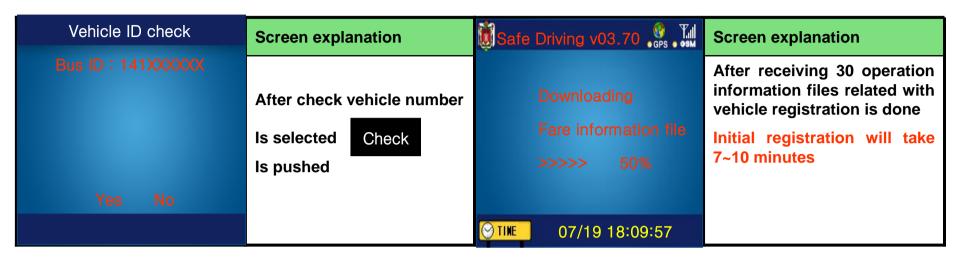


The number of Exit Validator is one at first.

For vehicle with one door, number of Exit Validator has to be selected

□ console installation registration method 2

3. Vehicle number registration



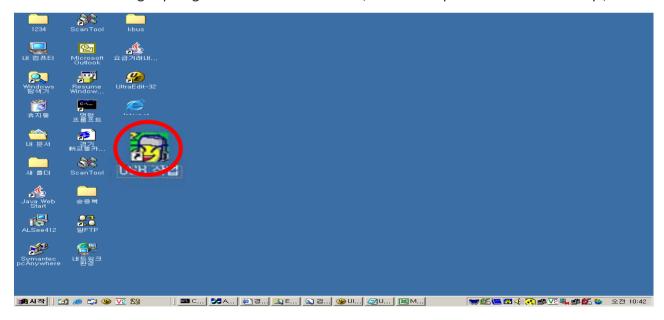
- Caution in case of registering console installation
 - 1. After checking whether vehicle number is correctly inputted, re-register if it is wrong.
 - 2. Installation registration is done where main computer is.
 - 3. All vehicle number is registered in the company. If it is not, contact Eb staffs.

Contact number : 1644 - 1472

- Copy the program with USB to main computer
 - o Input USB device into USB port in the main computer

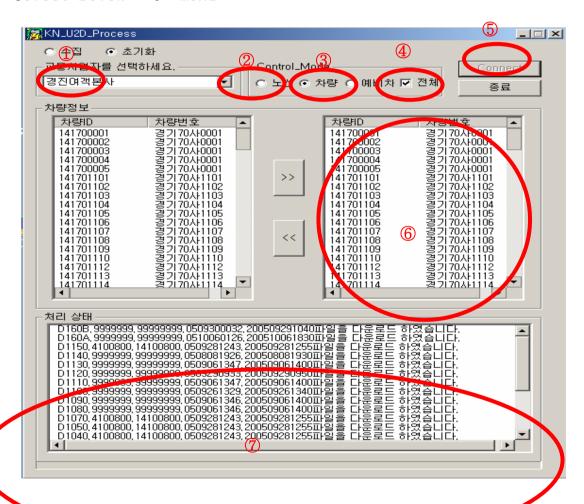


o "KN_U2D initializing" program is executed. (Face shape on the desktop)



Copy the program with USB to main computer

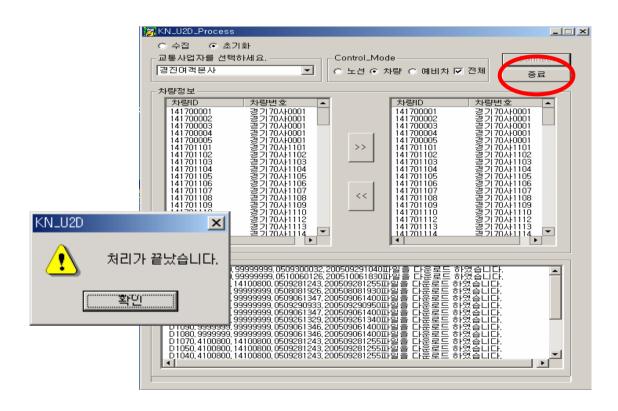
Select below "0" menu



Operation sequence

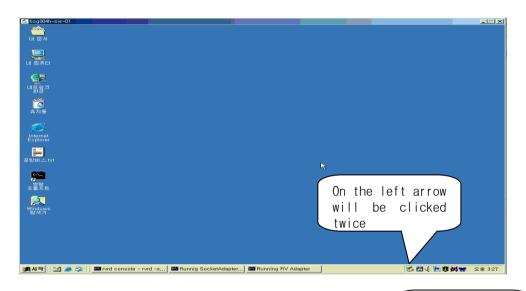
- 1. Select initializing.
- 2. Select transportation businessman.
- 3. Select vehicle.
- 4. Select all.
- 5. Select CONNECT.
- 6. When all above is selected in the sequence,
- all vehicle number will be moved to the right.
- 7. When all thing is done.
- it will be done like the left side

USB copy completed

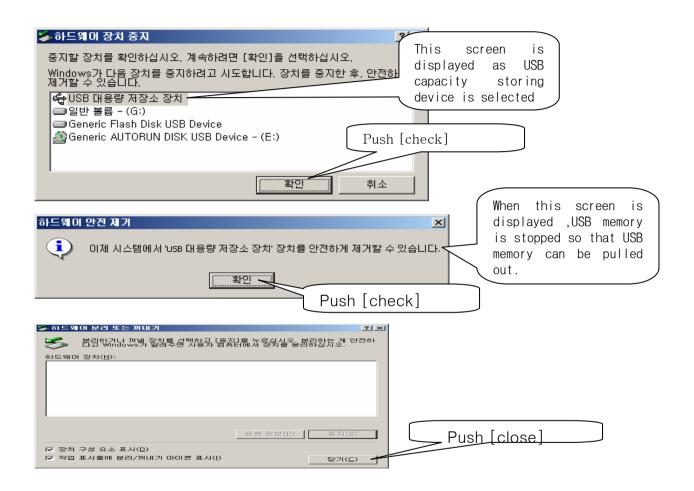


- o when above message is shown, check will be clicked.
- o when "Close" is clicked, program is closed

o To remove USB device from main computer safely, "reject" or ""hardware separation" is executed

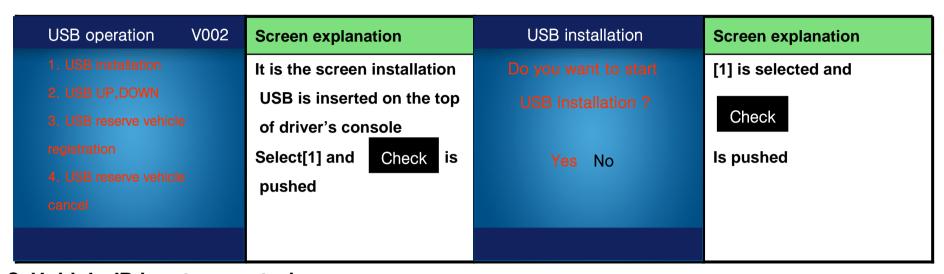




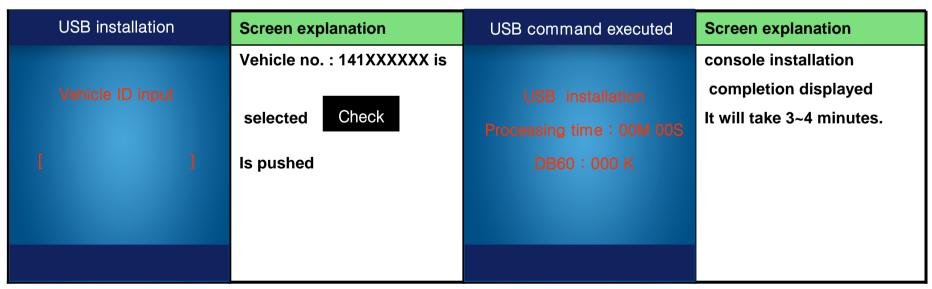


o When above screen is displayed, USB will be removed and console registration will be done

1. USB installation selection



2. Vehicle ID input executed



□User's Information

1. Cautions

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2. FCC compliance Information

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference, and 2. This device must accept any interference received. Including interference that may cause undesired operation.

3. Information to User

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

4. WARNING

While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1mW/cm² may be exceeded at distances close to the antennas installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna.

☐ Thank you!!

Thank you

