

## PC On-Line Time Attendance Recorder & Access Controller

Access Control/Time & Attendance / Lift Access Control System/ Security

## **PP-6750V Series** Operational Manual Ver.21.2



2110 W-04-6750V/E

## **Table of contents**

System Introduction	1
General Features	1
Specification	3
LCD instruction	4
Panel Description	6
Bottom View	6
Wiring Connectors and PIN assignment	7
Example of Wiring	9
Controller and Relay Box Wiring Example	11
Macro instruction	13
Brief system programming	15
Change the master PIN	15
Function code instruction	15
F0: Delete all personal map	15
F1:Access by key in user ID through master PIN	15
F2:Set weekday, hour, minute	16
F3:Calendar year, month and date setting	16
F4: Parameters & Modes	16
Group 0.System Initiation	30
Group 1.Input Commands	31
Group 2. Output Commands	31
Group 3.Operation Modes	32
Group 4.Pin Or Master Pin Setting	33
Group 5.Inquiry Mode	33
Group 6.Time Zone Mode/Add Card Mode	33
Group 7.Delete Card Mode	33
Group 8.System Configurations	33

Group 9. Factory Configuration	35
F5 : Inquiry mode	17
A. Single card inquiry	17
B. Inquiry with learning mode	17
C. Inquiry card status by block mode	17
F6:Add personal map	18
A. Add card no.	18
B. Add card no. and PIN	18
C-1. Add card with learning mode	19
C-2. Learning mode from group nn	19
D. Add card with block mode	19
F7: Delete personal map	20
A. Delete single card	20
B. Delete card with leaning mode	20
C. Delete card with block mode:	20
D. Delete card with block mode	20
F8: Time zone/holiday/bell programming	21
A. Personalized mode	21
A-1. Time Zone Mode/Add Card Mode	22
A-2. Group with floor setting	23
A-3. Personalized time zone inquiry	23
A-4. Delete time zone	23
B. Free access mode	24
B-1. Auto duty mode	24
B-2. Auto mode	26
C. Holiday mode	27
C-1. Holiday inquiry	27
D. Bell alarm mode	28

D-1. Bell alarm inquiry mode	28
F9: Modify events counter for event retrieving	29
F*: Inquiry and display the stored events	29
Simple and easy trouble shooting	36
Appendix	39

## Packing List

Before getting start, please check the 6750V package contains the following items:

	DESCRIPTION	Q'TY	
	The system unit	1 unit	
1	9 Pin connector (Blue)	1 pc	
2	8 Pin connector (White)	1 pc	
3	4 Pin connector (White)	1 pc	
4	3 Pin connector (White)	1 pc	
5	Screw	1 pc	(X) Junnin IIII (X)
6	Free wheeling diode	1 pc	
7	Sealing rubber for waterproof	1 pc	$\sim$

5

## System introduction

6750V is an intelligent time recording terminal designed to meet the variant applications in time attendance and access control, lift control & ARM/DISARM security requirements.Each terminal can be operated independently or through PC/Internet adapter PC-T100 to fulfill the multiple terminal system. The recording terminal includes nearly all the necessary functions for time recording and access control.Users can use master PIN to select the desired functions from the abundant functional list (For malfunction, please contact with your local distributors)

The system could be started by modifying the factory defaulted templated as by code F4 + 0850 and then save them by 0650 to back up for farther configuration your system by 0950, if you confused your configuration.

## **General Features**

## **1-A** Time recording features:

- 1 > High capacity with 8 digits card number / 6 digits staff number and 8 character English name.( Either checking or without checking personal map )
- 2 \ 16 characters x2 rows of LCD disply with 8 digits which have year, month,day,week,time, IP,operation mode,real time mode,unlock time, door monitoring.
- $3 \times 79$  duty codes, duty name defined by PC.
- $4 \times$  Selectable batch or real time on-line mode.
- $5 \times$  Key in 8 digits ID for time attendance recording.
- 6 \ Totally 192 alarm schedules (8 schedules per hour) dry contacts output for periodic bell announce.

## There are 6 versions available:

(1)K Version: 1,000 card capacity, 500 events.

(2)L Version: 2,000 card capacity, 1,000 events.

- (3)M Version: 30,000 card capacity, 10,000 events.
- (4)N Version: 11,000 card capacity, 32,000 events.
- (5)P Version: 11,000 card capacity, 8,000 events.

(6)X Version: 32,000 card capacity, 32,000 events.

Versions could be getting thru the equipped RS-485 interface.

## 1-B. Access control features: (Main application)

- 1. System parameters and personal access map can be down loaded by PC or manually programmed through keypad.
- 2. The personal access map is consisted of card ID, staff number and staff name, PIN and Time Zone Status, expiry date and Anti-passback.Operation modes : (1) card only (2) card + PIN (3)Door PIN only and duress feature (4)Card no +PIN and duress feature(5)Free access (6) Automatic operation mode by time zones

## NOTE: The staff name is used under F4=9601, 3400 cards capacity only.

- 3. Individual personal access map can be added/deleted and checked by on-lined PC or through manually in single / block range card number or by direct reading card in learning mode.
- 4. Selectable immediate or batched serial output for event printing
- 5. With complete door release, status monitoring and intruded alarm periord & error trials.

## Specification

Dimensions	: 137mm(L) x 85mm(W) x 29mm(H)
Weight	: 340g± 5%
Power supply	: DC 12V±10%, 80mA~100mA(not include power requirement for lock & alarm)
Transmission rate	: Default 9,600 bps N,8,1(2,400bps/4,800bps) (19,200bps/38,400bps <selectable>)</selectable>
Operating temperature	: -20°C ~ 70°C
Operating humidity	: 10%~90%
Keypad	: 3 x 4 keypad for system programming, pass word entry or duty code selection.
Password	: Programmable 4 digits PIN for each person
Serial interface	: RS-485/RS-232(Optional)
Serial output	<ul> <li>1. For connection with serial printer.</li> <li>* 2. To drive DDR (digital door relay) for safety control model.</li> <li>3. Lifts controller. common door codes</li> </ul>
Card capacity /Events	<ul> <li>(1) K Version: 1,000 card capacity, 500 events.</li> <li>(2) L Version: 2,000 card capacity, 1,000 events.</li> <li>(3) M Version: 30,000 card capacity, 10,000 events.</li> <li>(4) N Version: 11,000 card capacity, 32,000 events.</li> <li>(5) P Version: 11,000 card capacity, 8,000 events.</li> <li>(6) X Series: 32,000 card capacity, 32,000 events.</li> <li>Other capacity combination requested by order</li> </ul>
Card standard	<ul> <li>125KHz ASK EM / 125KHz FSK HC / 13.56MHz</li> <li>Mifare (ISO 14443A, ISO 14443B, ISO 15693) /</li> <li>13.56MHz Felica (ISO 18092 UID) / Q type / NFC /</li> <li>Bluetooth</li> <li>Support customized card.</li> </ul>
External Reader	: With one or optional two port for external Wiegand (26/34/35/36/37/40 bits definable by command) & ABA input (by order)

Mifare is a registered trademark of NXP B.V. FeliCa is a trademark of Sony Corporation.

## LCD instruction

Normal Display: After plug-in power, LCD displays as below:

YY/MM/DD hh:mm XXX.+NNNNN

Y Y/M M / D D: The calendar year, month and date (Year/ Month/ Day) h h:mm : System clock, Hour & Minute (hh=00~23;mm=00~59) X X X : weekday Monday to Sunday

NNNNN : The transaction records stored in the buffer.

When display shows "FULL", which means the butter is full. Please download the records by PC or press Master PIN and then press"9",key-in "000000" to erase the events.

Parameter display: key-in "9", LCD displays as below:

#### **First display**

Aaa	W t	stt	96	
ADR.	WAT.	DOR.	BPS	-

Parameter value
Parameter name

- Aaa : Polling address by F4=88aa (00~99)
- WAT : Real time on-line waiting time by F4=890t (0~9), "0" for baten mode by F4=99nn
- DOR : Door released time by F4=21tt(00~99), S= second, M=minute
- BPS : Buad Rate 96=9600 48=4800 24=2400 19=19200

Second display

N sWt tt N-N Parameter value REP. MOT. DPT. T-A Parameter name

# REP : Door Monitoring Status time for check repeat reads in unit of second

N=t Check repeating card with t minutes

N=0 No repeating card check

- MOT: Door monitoring time by code F4=230t, S= second
- DPT : LCD message display time by F4=250t, useful for F\*
- T-A :Time zone control Free access mode

Y - Enable function

N -Disable function

\*Note: The system could be operated in proper order only when the address code is correctly programmed through 88nn. If the reader address is not correctly programmed, the display of address will show some other ASCII characters as "xxx" above the ADR.which can't save the event; therefore you should program again.

## Third display

R.rrrrr W.wwww Version P 6957FXXX

R.rrrr: The read counter of buffer W.wwww: The write counter of buffer Version:CPU version Note: Accoring to actual version.

## **Panel Description**



## **Bottom View**



## Wiring Connectors and PIN assignment



#### \*Note:

Please connect the blue wire to GND if the Door Monitoring function is unnecessary.

Please connect the purple wire to GND if the Security Sensor function is unnecessary.

## B. J1-8P White (For on-line interface & alarm output)





Note :

- 1. The distance between Main reader and external reader sould be over 30cm to prevent mutual interference.
- 2. Please put some more no-metal plate between the reader & metal plate to enhance the reading distance.

## Example of how to wiring

# 1.Wiring connection with external relay and power supply (such as fail secured electric strike)



#### 2.Wiring connection with external relay and power supply for heavy load locks

(such as fail safe magnetic lock or drop bolt type lock)





- **%**R-27-YK10T1/125/250V is line filter to avoid signal interference.
- %If elevator controller doesn't work; please turn off "Bypass switch" of non-controlled button.
- \*To connect 2 or 3 of 24 floor controllers to achevie 64 floors access of set up.
- \*Please refere appendix for floor controller of relate operation manner.

#### **Controller and Relay Box Wiring Example**

2750/3750/85/	/6750V	PG-OUTMOD-8 Relay Box		
9 Pin Blue Co	onnector	J5-7 Pin Blue Connector		
Color Sign	al Name	Color	Signal Name	
No1.Red	+12V	— No1.Red	+12V	
No2.Black	GND	– No2.Black	GND	
No3.Brown		No3.Orange	No Connection	
No4.Orange	r	→No4.Purple	Serial Printer Input	
No5.Yellow		No5.Black	No Connection	
No6.Green		No6.Gray	No Connection	
No7.Blue		No7. Gray	No Connection	
No8.Purple				
No9.Gray	Serial Printer Output			

#### 2750/3750/85/6750V

J5-9 Pin Blue (	J5-9 Pin Blue Connector	
<u>Color</u>	Signal Name	
No1.Red	+12V	
No2.Black	GND	
No3.Brown	No Connection	
→ No4.Orange	Serial Printer Input	
No5.Yellow	No Connection	
No6.Gree	No Connection	
No7. Blue	No. Connection	
No.8 Purple		
No.9 Gray		
	J5-9 Pin Blue <u>Color</u> No1.Red No2.Black No3.Brown No4.Orange No5.Yellow No6.Gree No7. Blue No.8 Purple No.9 Gray	

DOM 24 Dolow Box

#### System Initialize (default password 246890)

Please set the F4 = 0016 / F4 = 0018 / F4 = 0019 / F4 = 0.072 to prevent the time zone data occupy memory and further caused the card number can not be enrolled.

The system initialization means the system parameters are defaulted by F4=0850(off-line mode) or F4=0750(on-line mode). Then the user could modify some parameters based on it. After each modification to individual requirement, the user may backup them by code F4=0650. Once the

parameters are destroyed, the code F4=0950 could be applied to restore it. All the function code under F4 is disabled, except the timer for 21tt, 22....

- **1.** Door monitoring: : Disable the door monitor function (F4=1100)
- 2. Presonal map compare : Not compare (F4=1500)
- **3.** Door release time :close one second(F4=2101)
- 4. Door open mode : card only mode(F4=3200)
- 5. Anti-pass back mode : Disable (F4=3900)
- 6. Check repeat card : Disable(F4=8300)
- 7. Printer output function : Disable (F4=8600)
- 8. When event buffer full : Not recycle (F4=8700)
- **9.** Computer connect mode : real time mode ( F4=8903 )-F4=0750 batch mode ( F4=8900 )-F4=0850
- **10. Card display format** : Comparing card number  $5^{\text{th}}$ ,  $6^{\text{th}}$ ,  $7^{\text{th}}$  digits (F4=9704)

## **Operating instruction**

The manager could program the controller by pressing "0" and master PIN (default password as "246890". The password could be modified by F4=4609) to enter into the PROGRAM mode.

Summary of fuctions code please refer to ndex on the system introduction.

- FO [0] : Delete all personal map
- F1 [1] : Key in user ID for access by master PIN
- F2 [2] : Set weekday, hour, minute
- F3 [3] : Program Calendar year, month and date
- F4 [4] : Parameter modes & Modes
- F5 **[**5**]** : Inquiry Personal access map
- F6 [6] : Add personal map
- F7 **[**7**]** : Delete personal map
- F8 [8] : Time zone/holiday/bell programming & Inquiry
- F9 [9] : Modify events counter for event retrieving
- F10 [\*] : Display or print out recorded

## Note : The programming procedures could be escaped by pressing "#" by key.

## Macro Instruction(Optional)

## **%For "Access Control"macro instruction**

#### F4=0851

	Step		Description
Press[0]→n	haster PIN [246890] $\rightarrow$ Press[4] $\rightarrow$	Press[0851]	For PN/Q/M8/M1 format
Parameter m	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9803	:Wiegand 26 bits card number.	F4=1101	:Enable the door monitoring.
F4=2106	:Door release time: 6 sec.	F4=3402	:Enable door PIN mode.
F4=1501	:Enable comparing card number.	F4=9705	:Compare card number by
F4=8700	:For FIFO mode.		$6^{\text{th}}$ , $7^{\text{th}}$ , $8^{\text{th}}$ digits.

#### F4=0852

	Step		Description
Press[0]→n	naster PIN [246890] $\rightarrow$ Press[4] $\rightarrow$	Press[0852]	For M0 format
Parameter n	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9808	:Wiegand 34 bits card number.	F4=1101	:Enable the door monitoring.
F4=2106	:Door release time: 6 sec.	F4=3402	:Enable door PIN mode.
F4=1501	:Enable comparing card number.	F4=9704	:Compare card number by
F4=8700	:For FIFO mode.		$5^{\text{th}}$ , $6^{\text{th}}$ , $7^{\text{th}}$ digits.

## **%**For "Lift Control" macro instruction

#### F4=0853

	Step		Description
Press[0]→n	haster PIN [246890] $\rightarrow$ Press[4] $\rightarrow$	Press[0853]	For PN/Q/M8/M1format
Parameter m	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9803	:Wiegand 26 bits card number.	F4=8610	:Enable lift control 8 floor.
F4=2108	:Door release time: 8 sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9705	:Compare card number by
F4=8700	:For FIFO mode.		$6^{\text{th}}$ , $7^{\text{th}}$ , $8^{\text{th}}$ digits.

#### F4=0854

	Step		Description
Press[0]→n	naster PIN [246890]→Press[4] →	Press[0854]	For M0 format
Parameter m	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9808	:Wiegand 34its card number.	F4=8610	:Enable lift control 8 floor.
F4=2108	:Door release time: 8sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9704	:Compare card number by 5 <sup>th</sup>
F4=8700	:For FIFO mode.		6 <sup>th</sup> , 7 <sup>th</sup> digits.

#### F4=0855

Step		Description	
$Press[0] \rightarrow master PIN [246890] \rightarrow Press[4] \rightarrow Press[0855]$		For PN/Q/M8/M1format	
Parameter mode:			
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9803	:Wiegand 26 bits card number.	F4=8623	:Enable lift control 24 floor.
F4=2108	:Door release time: 8 sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9705	:Compare card number by
F4=8700	:For FIFO mode.		$6^{\text{th}}$ , $7^{\text{th}}$ , $8^{\text{th}}$ digits.

#### F4=0856

Step		Description	
$Press[0] \rightarrow master PIN [246890] \rightarrow Press[4] \rightarrow Press[0856]$		For M0 format	
Parameter m	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9808	:Wiegand 34 bits card number.	F4=8623	:Enable lift control 24 floor.
F4=2108	:Door release time: 8 sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9704	:Compare card number by
F4=8700	:For FIFO mode.		$5^{\text{th}}$ , $6^{\text{th}}$ , $7^{\text{th}}$ digits.

## F4=0857

Step		Description	
$Press[0] \rightarrow master PIN [246890] \rightarrow Press[4] \rightarrow Press[0857]$		For PN/Q/M8/M1format	
Parameter n	node:		
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9803	:Wiegand 26 bits card number.	F4=8633	:Enable lift control 48 floor.
F4=2108	:Door release time: 8 sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9705	:Compare card number by
F4=8700	:For FIFO mode.		$6^{\text{th}}$ , $7^{\text{th}}$ , $8^{\text{th}}$ digits.

F4=0858

Step			Description
$Press[0] \rightarrow master PIN [246890] \rightarrow Press[4] \rightarrow Press[0858]$		For M0 format	
Parameter mode:			
F4=9996	:Baud rate:9600	F4=2500	:The shortest time of display.
F4=9808	:Wiegand 34 bits card number.	F4=8633	:Enable lift control 48 floor.
F4=2108	:Door release time: 8 sec.	F4=1100	:Disable the door monitoring.
F4=1501	:Enable comparing card number.	F4=9704	:Compare card number by
F4=8700	:For FIFO mode.		$5^{\text{th}}$ , $6^{\text{th}}$ , $7^{\text{th}}$ digits.

## **Brief system programming Change the master PIN**

Ex.Change the master PIN to 654321 , than F4+4609+654321. The new master PIN would be changed to 654321

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	* FUNC>	Parameter mode (F4)
Press[4609] +new master	MST.PIN- KKKKKK >	KKKKKK would be the
PIN[KKKKKK]		Password

# Function code instruction

r or Delete un personal map			
Step	LCD	Description	
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into	
		programming mode	
Press[0]	*CLRALL>	Delete mode(F0)	
Press [0000]	END		
Repeat the last step or press [#] to escape from the programming			

Repeat the last step or press [#] to escape from the programming

## F1: Direct keying master PIN

Ex. : Administrator puts in 8 codes ID of user with the personal password for a user when someone forgets bring his card

%The personal password is set up by F4=3300(read a card with password model) + F6(setting personal password). Above setting can be done on the controller or computer.

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[1]	*ID No.>	Access mode(F1)
Press card number [12345678]	* PIN>	Put in the legal card
		numbers
Press personal password [9999]		Put in the personal
		password

#### F2: Weekday, hour, minute setting

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[2]	* TIME>	Time mode (F2)
Press[201536]		Tuesday, 15:36 pm

* T   ME>	<u>201536</u>
Weekday code(0~6)	
0 : Sunday	4 : Thursday
1 : Monday	<b>5</b> : Friday
2 : Tuesday	6 : Saturday
3 : Wednesday	

#### F3: Calendar year, month and date setting

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[3]	* YEAR>	Date mode (F3)
Press[091025]		2009/10/25

\* Y E A R--> 09 10 25 Year 2008 \_\_\_\_\_ Month(01-12)

# After key 0 + (default master PIN) then you could press 4 plus following function codes divided in groups for easy memorize.

#### F4: Most system parameters programming

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	* FUNC>	Parameter mode (F4)
Press 4 digit function code	*FUNC>XXXX	
Please refer to the function code		

## F5: Inquiry mode A. Single card inquiry

Step	LCD
Press[0] + master PIN [246890]	* PROGRAM *>
Press[5]	* CARD→
Press card NO.[1 2 3 4 5 6 7 8]	12345678=10=9999
	* ZONE 0 1 0 0 . 0 0 0 1
Repeat the last stepstep or press [#] to escape	$C_1C_2C_3C_4C_5C_6C_7C_8 = nn = k k k k$
from the programming.	* ZONE Z1 Z2 Z3 Z4 . Z5 Z6 Z7 Z8
$C_1C_2C_2C_4C_5C_5C_6$ nn k k k k	



## ZONE:

Z1 Z2 Z3 Z4 Z5 Z6 Z7 Z8: 1~8 individual authorized time zone status.

1: Authorized time zone

0: Unauthorized time zone

## **B.** Inquiry with learning mode (F4=5333)

Step	LCD	
Press[0] + master PIN [246890]	* PROGRAM *>	
Press[4]	* FUNC >	
Press[5333]	* CARD>-LEARN->	
Present card	* CARD>-LEARN->	
	* ZONE0 1 0 0 . 0 0 0 1	
Repeat the last stepstep or press [#] to escape from the programming.		

## C. Inquiry card status by block mode (F4=5500)

Ex. Inquiry card no. from 00020376 to 00020576

Step	LCD
Press[0] + master PIN [246890]	* PROGRAM *>
Press[4]	* FUNC >
Press[5500]	* CARD > -BLOCK->
Press[00020376 1 2 0576]	0 0 0 2 0 3 7 6 =12=9999
	*ZONE0100.0001



#### F6: Add personal map A. Add card no. with group number : (Under F4=3200)

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[6]	* ADD CR→	Add mode(F6)
Press card NO.[12345678nn]	* ADD CR >	Add card no.12345678,
		And group no. nn
		(nn=00-99)
Repeat the last step or press [#] to escape from the programming.		

#### B. Add card No. and PIN (Under F4=3300)

Ex. : Set up card No.=12345678 and PIN=9999, group No. 02

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[6]	$* \text{ADD CR} \rightarrow$	Add mode(F6)
Pross [12345678.02.0000]	* ADD CB->	Card number:12345678
FIESS [12343078 02 9999]	* ADD CK 7	Group: 2
		Password: 9999
Repeat the last step or press [#] to escape from the programming		



## C-1. Add card with learning mode: (F4 = 6333)

- · · · · · · · · · · · · · · · · · · ·		
Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	*FUNC →	Add mode(F4)
Press[6333]	*ADD CR>-LEARN->	Learning mode
Present card	*ADD CR>-LEARN->	
	$C_1C_2C_3C_4C_5C_6C_7C_8$	
	C 1	•

Repeat the last step or press [#] to escape from the programming.

#### C-2. Learning mode from group nn (nn=00~79)

Step	LCD	Description
Press[8]	DUTY.2d	Enter into programming mode
Press group <b>nn (nn=00~79)</b>	<b>nn</b> will be shown on the right-up corner of the LCD	Setting group no.
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	*FUNC →	Add mode(F4)
Press[6333]	*ADD CR>-LEARN->	Learning mode
Present card	*ADD CR>-LEARN->	
	$C_1C_2C_3C_4C_5C_6C_7C_8$	
Denest the last store on massa [#] to essen a from the measurements		

Repeat the last step or press [#] to escape from the programming.

## **D.** Add card by block mode: (F4 = 66nn)

Ex.Add card no. from 00020376 to 00020576, group no.01

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	*FUNC →	Add mode(F4)
Press[66nn]	* ADD CR > -BLOCK->	block mode
		(nn=group 01~99)
Press [00020376 01 0576]		from 00020376 to 00020576,
		group no.01

Repeat the last step or press [#] to escape from the programming.



The last 4 digits of ending cardNo.

Group no.

#### F7: Delete personal map A. Delete single card

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[7]	* DELETE>	Delete mode(F7)
Press card No.[12345678]	* DELETE >	Delete card No.12345678

Repeat the last step or press [#] to escape from the programming.

## **B.** Delete card with leaning mode (F4=7333)

0	. ,	
Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	* FUNC $\rightarrow$	Parameter mode(F4)
Press[7333]	* DELETE >-LEARN->	learning mode
Present card	* DELETE >-LEARN->	Reading cards
	CCCCCCCC	to delete cards

Repeat the last step or press [#] to escape from the programming.

## **C.** Delete time zone from group nn(nn=01~99)(F4=72nn)

0		,
Step	LCD	Description
Press [0] + master PIN [246890]	*PROGM*>	Enter into
		programming mode
Press [4]	* FUNC >	Parameter mode(F4)
Press [72nn]	* DELETE>-GROUP->	Group [nn]
Press [81828384]	* DELETE>	Delete time zone 1,2,3,4,
Press [85868788]	* DELETE>	5,6,7,8
Press [#]to escape from the prog	ramming.	

## **D.** Delete card with block mode: (F4 = 77nn)

Ex. Delete card no. from 00020376 to 00020576

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press[4]	* FUNC $\rightarrow$	Parameter mode(F4)
Press [77nn]	* DELETE > -BLOCK->	Delete with block mode
		(nn=group 01~99)
Press [00020376 nn 0576]		from 00020376 to
		00020576
Repeat the last step or press [#] to escape from the programming.		



## F8: Time zone/holiday/bell programming

- A. Personalized mode (F4=1601, time zone 01~08)
- B. Free access mode (F4=3801, time zone 11~18)
- C. Holiday mode (F4=1801)
- D. Bell alarm mode (F4=2801)

#### A. Access time zone setting

**Ex.** define a time zone from 20:01 till 06:59 next day for Monday, Tuesday & Friday. Please define by TZ1= 2001-2359 and TZ2= 0000-0659 for crossing midnight

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
Press [601 2001 2359]	$*G \cdot DAY >$	The first time zone is
	+0 DAT	20:01pm to 23:59pm
Press [1 1111111 1]	* ZONE>	Available for Monday
		to Sunday
Press [602 0000 0659]	$*G \cdot DAY ->$	The second time zone is
		morning of next day
		00:00am to 06:59am
Press [0 0100110 1]	* ZONE>	Available for Monday to
		Sunday
Repeat the last step or press [#] t	o escape from the	Setting 8 time zones
programming.		the most



mm: minute (00~59)

**G-DAY:** defined as the following:

<u>d1</u> <u>d2</u>	<u>d3</u> <u>d4</u>	<u>d5</u> <u>d6</u>	<u>d7</u>	<u>d8</u>	<u>d9</u>
Mnemonic g w6	w5 w4	w3 w2	w1	w0	D
meaning gen. Sat	Fri Thu	Wed Tue	Mon	Sun	Duty code

d1-general week enable/disable

=1: general authorized,  $d2 \sim d8$  are ignored

=0 : not general authorized,  $d2 \sim d8$  should be entered **one by one** 

#### d2 ~ d8—individual weekday enable/disable

= 1: legal

= 0: denied

d9—Auto mode by time zone

= 1: with key

= 0: keypad less

## A-1 Time Zone Mode/Add Card Mode

**62nn** Setting time zone for group (nn=01~95) (Under F=1601)

#### Note: Please delete all group data for first time setting group. (F4=0072)

Step	LCD	Description				
Press [0] + master PIN [246890]	*PROGM*>	Enter into				
		programming mode				
Press [4]	* FUNC >	Parameter mode(F4)				
Press [62nn]	* ADD CR>-GROUP->	Group [nn]				
Press [81838183]	* ADD CR>	Legal time zone 1,3				
Time Zone: Time Zones 01~08 should be corresponding 81~88.						
Ex. Group no. 3 is legal for time zone $01,03,05$ , you should program F4=6203 81838581.						
Ex. Group no. 3 is legal for time zone <u>01,03</u> , you should program F4=6203 <u>8183</u> 8183.						
Ex. Group no. 3 is legal for time zone <u>01</u> , you should program F4=6203 <u>81</u> 818181.						

## A-2. Group with floor setting (put in floor number 01~96) (F4=8613/8623/8633)

Step	LCD	Description				
Press [0] + master PIN [246890]	*PROGM*>	Enter into				
		programming mode				
Press [4]	* FUNC>	Parameter mode(F4)				
Press [62nn]	* ADD CR>-GROUP->	Group [nn]				
Press [01020363]	* ADD CR>	Legal 1th,2th,3th and				
		63th floors				
Press [#] to finish.Please repeat the step4 for adding the fifth floor.You should fill out 8						
digits for floor and fill with 00 for blank floor like 05060000 which is legal for 5th and 6th						
floors.						

## A-3. Personalized time zone inquiry (time zone=01~08)

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
$P_{ress}$ [5 0 2 0 0 0 0 0 0 0 0 0	ZONE>	
1100000000000000000000000000000000000	02=0900=1000=GA1	

## \* Z O N E --><u>5</u> <u>0 n</u> <u>xxxxxxxx</u>

5: Inquiry time zone content

Time zone no. (01-08)

Any 8 digits key

#### A-4. Delete time zone

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
Press[702 0 0 0 0 0 0 0 0 0]		Delete time zone 2

	<u>7 <u>0 n</u></u>	<u>xxxxxxxx</u>
7: Time zone deletion	-	
Time zone	(01 - 08)	Any key (8 digits)

## B. Free access mode (Time zone=11~18) (F4=3801)

# Ex. Door released period decided by Nth time zone 0900-1800 on Saturday & Sunday

Stop	ICD	Description
Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
Press [611 0900 1800]	*G · DAY>	Door released under
Press [0 100000001 1]	* ZONE>	normal open mode on
		Monday to Sunday
Repeat the last step or press [#] to e	Setting 8 time zones	
		the most

## **Zone:** defined as the following:



## B-1. Auto duty mode (Time zone=11~18)(F4=3802)

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
Press [611 0900 1200]	*G · DAY>	Time zone 09:00-12:00
Press [1 1111111 1]	* ZONE>	Shift code is 1
		for Monday to Sunday
Repeat the last step or press [#] to escape from the		Setting 8 time zones
programming.		the most

**Zone:** defined as the following:

6	<u>1n</u> 	<u>h h m m</u>	<u>h h m m</u>
6: Add time	Time zone r(11~18)	Starting time	Ending time
zone	1(11110)		

#### **G-DAY:** defined as the following:

<u>(</u>	<u>d1</u>	<u>d2</u>	<u>d3</u>	<u>d4</u>	<u>d5</u>	<u>d6</u>	<u>d7</u>	<u>d8</u>	<u>d9</u>
Mnemonic g	g	wб	w5	w4	w3	w2	w1	w0	D
meaning g	gen.	Sat	Fri	Thu	Wed	Tue	Mon	Sun	Duty code

d1— general week enable/disable

=1: general authorized,  $d2 \sim d8$  are ignored

=0: not general authorized, d2 ~ d8 should be entered **one by one** 

d2 ~ d8—**individual weekday** enable/disable

- = 1: legal
- = 0: denied

d9—Auto duty mode by time zone

= 1: enable(1~7), expect 4 = 0: disable

Duty	LCD	Meaning	Duty	LCD	Meaning
code	display		code	Display	
1 -	WORK	On duty	5	OUT	Out
2 -	OFF	Off duty	6-	BACK	Return job
3-	O.ON	Over time, on duty	7	BRK	Break
4-	SYSTEM	Reserved for system	8-	DUTY.	2 digits job code define
		service only		2d	by user

D-2. Auto mode (Time Zone no11, 10)(under 14-3003)						
Step	LCD	Description				
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into				
		programming mode				
Press [8]	* ZONE>	Time zone mode(F8)				
Press [611 1900 2359]	*G · DAY>	Time zone 09:00~23:59				
Press [1 1111111 1]	* ZONE>	Password is required after				
		presenting a card for				
		Monday to Sunday				
Repeat the last step or press [#] to	escape from the	Setting 8 time zones the				
programming.		most				

## B-2. Auto mode (Time zone no.=11~18)(under F4=3803)

Zone: Defined as the following



#### G-DAY: Defined as the following:

	<u>d1</u>	<u>d2</u>	<u>d3</u>	<u>d4</u>	<u>d5</u>	<u>d6</u>	<u>d7</u>	<u>d8</u>	d9
Mnemonic	g	wб	w5	w4	w3	w2	w1	w0	D
Meaning	gen.	Sat	Fri	Thu	Wed	Tue	Mon	Sun	Duty code

#### d1- general weekdays enable/disable

=1: general authorized, d2 ~ d8 are ignored

=0 : not general authorized,  $d2 \sim d8$  should be entered **one by one** 

#### d2 ~ d8— individual weekday enable/disable

= 1: legal = 0: denied

#### d9—Auto mode by time zone

= 1: with key = 0: keypad less



## C. Programming Holidays (F4=1801)

#### C-1. Holiday inquiry

Step	LCD	Description	
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into	
		programming mode	
Press [8]	* ZONE>	Time zone mode(F8)	
$P_{rass}$ [302 1002 1234]	XX= 1 0 2 5 = XXXX = HOL	The second holiday	
11055 [502 1002 1254]		of October, date of 10/25	
Repeat the last step or press [#] to escape from the programming.			
<u>3</u>	<u>0n 1002 x x x</u>	<u>X X</u>	



D. Bell alarm setting (F4=2801, after setting this function, the system disables the door monitoring function automatically.)Each hour can setup 6 alarms.

	Step	LCD	Description
Press[0] + master PIN [246890]		* PROGRAM *>	Enter into
			programming mode
Press [	8]	* ZONE>	Time zone mode(F8)
Press [201 0701 0750]		* ZONE>	Please refer to the following
			statement
Repeat	Repeat the last step or press [#] to escape from the programming.		



#### D-1. Bell alarm inquiry mode (F4=2801)

Step	LCD	Description
Press[0] + master PIN [246890]	* PROGRAM *>	Enter into
		programming mode
Press [8]	* ZONE>	Time zone mode(F8)
Pross [40107010000]	401=0750=0750=BEL	Please refer to the following
Fless [4010/010000]		statement
Repeat the last step or press [#] to escape from the programming.		

Meaning: 7:50 is the1<sup>st</sup> alarm time at 7 o'clock



Note:Under F4=2801,the bell alarm period is decided by 220t; meanwhile 2801 & 1101 code should mutually trade-off.(If 2801 is set,the 1101should be denied as 1100)

# **F9:** Modify events counter for event retrieving

## (Deleting events. Press"000000")

Ex.Modify the Read/write counters to 00150

Step	LCD	Description
Press[0]+masterPIN[246890]	* PROGRAM *>	Enter into
		programming mode
Press[9]	*CNT St>	Read/write counter
		mode(F9)
Press [100 150]	DON-000150	Read/write counter is
		6 digits

## Modify read or write counter only:

Modify **write** counter only: F9=>200150 Modify **r**ead counter only: F9=>100150 When "2" means write counter When "1" means read counter

## **F \*** : Inquiry and display the stored events

## Ex.: Modify the read/write counter to 00150

Step	LCD
Press[0] + master PIN [246890]	* PROGRAM *>
Press[ * ]	*DSPLAY=
Press [50000150]	*DSPLAY= $\underline{d} \underline{d} \underline{HH}$ : $\underline{MM}$
	CCCCCCC S [ NNNNN ]

dd : Date HH : MM Hour & Minute ccccccc : 8 digits ID number S :Access status E: Error message D: Correct stored data NNNNN : Event counter **50 n n n n** - n n n n is the top counter

To display all the record lower than the counter nnnn.

**52 y y m m d d**-yy = year. m m = Month. d d = date.

To display the record for specific date from existing counter downward.

**53 w 0 0 0** – w = Weekday. 0 0 0 = meaningless digits.

To display the record for specific weekday from existing counter downward.

After pressing 0 + (default master PIN),you could press 4 and the following function codes divided in groups for easy memory.

0000	Delete all personal access map (deny all legal persons
	access status) -take around seconds depending on the
	card capacity.
0016	Delete all time Zone data
0018	Delete all holiday data
0019	Delete all bell alarm data
0072	Delete all group data
0650	Save all the modified function codes as template(could
	be recalled by 0950)
0750	Initialize the system in real time on-line state. (The
	system will be initialized as: 2101, 2203, 2306, 2501,
	1500, 1600, 1100, 3200, 8600, 8700, 1700, 8902,
	1900)
	The user can use this code to initialize the system then
	adjust the other code to meet the requirement.
0800	Initialize the system all parameters(include Group9)
0850	Initialize the system in off-line state (same as 0750
	except 8900)
0950	To recall the saved template.(Saved by 0650)

Group 0. SYSTEM INITIALIZATION (\* optional)

Grou	p 1. INPU	Г
	1234/4321	Disable/Enable fire alarm signal to release the door automatically
	1100/1101	Disable/Enable the door monitoring function with enforce entry and door open too long.
	1200/1201	Disable/Enable the security function with enforce
	1500	Not compare individual personal map.
	1501	Compare individual personal map.
	1502	Not compare and add card by reading.
	1600/1601	Not compare/ Compare personal time zone map.
	1700	Immediately check APB (anti-pass back)
	1800/1801	Not compare/ compare holiday.
	* 1900/1901	Not compare/ compare project number. ( for p p p . c c c c c format only)

## Group 2. OUTPUT

par conter	
21tt	<ul> <li>tt: Door release time from 01 to 97 in unit of 1</li> <li>second.</li> <li>2198: Setting door release time becomes minute unit, press 2198 again, door release time back to second unit.</li> <li>2199: Output becomes normality, both on or off to switch.</li> </ul>
22tt	Alarm time. $tt=00$ to 98 in unit of 1 second.
23tt	<ul> <li>tt: Door monitoring time from 01 to 98 in unit of 1</li> <li>second.</li> <li>2399: Setting door monitoring time becomes minute unit, press 2399 again, door monitoring time back to second unit.</li> </ul>
240n	Trial error alarm, n= error times.
25tt	tt:display time from 01 to 97 in unit of 1 second.
2600/2601	Disable/ enable expiry date check (validity date programmed by PC only).
*2700	Display fix duty name by ROM.

* 2701	Definable duty name by PC.
*2702/04/08	2/4/8 digit duty name.
2801	Enable bell alarm mode (Trade-off with 1101).
* 2900	Disable ESD function.(Optioinal)
* 2901	Enable staff Nr. Display.(Trade-off with 2601,1701-1703)
* 2902	Enable ESD function. (Optioinal)

## Group 3. OPERATION MODES

3200	Card only mode
3300	Card + PIN mode
3301	External reader needs to press PIN too(for 3300 mode)
3400	Disable 3401/3402
3401	Enable card No.+ PIN code key only mode by keying. (Press * + card No.+ PIN code)
3402	Enable door PIN mode.(Press 7 + PIN code)
3500/3501	Unlock/Lock the keypad Unlock keypad by : Press 0 for 5 seconds, after hear beep sound press 0246890 F4=3500 to unlock keypad.
3600	Disable 3601/3602
3601	Enable duress code for card No.+PIN
3602	Enable duress code for door PIN
Note: +1 or -1	of independent pass code, the door will be unlocked
and trigger to	Alarm system.
Ex.If the door 1235.	r pin is set up as 1234, the duress code will be 1233 or
* 3700	Delete the project number by direct reading card
* 370n	Record the project number by direct reading card for comparing project number (9806/9816 format only)

3800	Disable all following 3801, 3802, 3803 modes	
3801	Enable free access modes	
3802	Enable auto duty (shift) code mode	
3803	Enable automatic operation mode	
Only one mode among 3801, 3802, 3803 is allowed		
3900/ 3901	Disable/ Enable Anti-passback mode	

#### Group 4. DOOR OR MASTER PIN SETTING

460*	Set the master PIN for Pongee APP system.
4601~4607	Set the 4 digits door PIN (Under F4=3402)
4609	Set the 6 digits master PIN for system login.
* 4610~4699	Adding 90 codes 4 digits door PIN (Under F4=3402)
<b>* 4700</b>	Clear all PINs
<b>* 4710~4799</b>	Delete the corresponding PIN

## Group 5. CARD INQUIRY

5333	Inquiry card status by reading card (learning mode)
5500	Inquiry card status for block ragne

## Group 6. TIME ZONES OR FLOORS SETTING MODE/ADDING CARD BY LEARING OR BLOCK RANGE

62nn	Setting time zone for group (nn=01~99,)(Under		
	F=1601)(P.17)		
Note:Please delete all group data for first time setting group.			
(F4=0072)			
6333	Add single card reading learning mode(P.17)		
66nn	Add card with block mode(P.17)		

## Group 7. CARD DELETING

- **7333** Delete single card with auto learning mode (P.17)
- **77nn** Delete card with block mode(P.17)

## Group 8. SYSTEM CONFIGURATIONS

8300/830t		30t	Not check repeat reading/ Present repeat reading				
		W	within t minutes. (t=1~9 minutes)				
8	40X		84	<b>400</b> Non-store the err	or even	n	
			84	<b>401</b> Store the error ev	rent		
			84	<b>402</b> Store the event of	f exit p	oush button	
			84	<b>403</b> Store the event of	f error	and exit push button	
>	* 8599		Se	end out all personal map (for PC on-line test only) by			
			tes	st com			
8	6FS		S	erial output			
		F(fl	oor	•)	S(ser	ial output)	
					S=0	Disable output	
		F=0		Without lift output (for access only)	S=1	RS-232 output	
		1-0			S=2	RS-485 output	
	86				S=3	RS-232/RS-485 output	
	00	FS=	S=10 Support 8 floor				
		FS=	23	Support 24 floor			
		FS=	33	Support 48 floor ~	64 floc	or	
		FS=	91	Support 96 floor	output(	without time zone	
				function)(optional	)		
8	5700			Access records save	e as FI	FO(first-in-first-out)	
			When the data is full, it should be cleared manually				
			or collect by PC. Otherwise reader can not save				
				new recodes			
8701				Automatically save records base on FIFO. When			
				the data is full, the oldest record will be			
	automatically overwritten.						
8	8aa		Set device address as <b>aa</b> for polling.				
8	890n If n=0, the system is off-line (batch mode)			ine (batch mode)			
			If n=3, the system is on-line (real-time mode), if				
			not necessary, we suggest 8900 to shorten the				
				access response time			

## Group 9. FACTORY CONFIGURATION

92nn	nn=00~31the modification factor as the RTC is fast							
	nn=32~63 the modification factor as the RTC is slow							
	Example: as the crystal is faster than 2Hz, then the							
	factor is 21(F4=9221)							
*9311	Enable Bluetooth function.(Optional)							
*9600/9601	Disable/ enable name display							
*970N	Select the card digits as group index for comparing.							
	Card number							
	9700							
	9702							
	9703							
	9704							
	9705							
	Need to set $F4 = 9705$ on the <b>PN/Q/M1/M8</b> format							
	Need to set $F4 = 9704$ on the <b>M0</b> format							
	(Default F4=9704)							
¥ 0791	Reverse the Wiegand number for decoding (New							
<u>ት 9/01</u>	version firmware)							
98pd	To define the card display format							
P=Forma	at d=Card format							
P=0 I	PN format $d=3$ p p p . c c c c c, 26bit(3P5C)							
P=1 1	PP format d=5 000CCCCC, 35bit, HC							
P=2 1	PN format $d=6$ 000CCCCC, 26bit							
P=3 1	PP format $d=8$ C1C2C3C4C5C6C7C8, 34 bit							
Ex. <b>F4=9</b>	Ex. <b>F4=9803</b> PN format, p p p . c c c c c, 26bit(3P5C)							
9870 / 9870	70 / 9870 Mute / Turn on the sound when timing or program							
	setting by software							
Baud rate (f	actory default 9996=9,600BPS) :							
9996	9,600 bps							
9948	4,800 bps							

9924	2,400 bps
Ordered bef	fore shipping (due to need to change crystal) :
*9919	19,200 bps
*9938	38,400 bps
*9891	10 digits card number

\* : Optional

## Simple and easly trouble shooting

#### Questions concerning the card reader

**#Symptom 01**: The reader can not read card and get access

- A.1—To check whether the proximity card is encoded correctly. Either correct project number or card type. .
- A.2—To check whether the proximity card is legal.
- A.3—To check if the personal ID is enrolled in the reader by function F6 of card adding.
- #Symptom 02: The reader can read card but can not get access
  - A.1—To check if the reader is at 3300 mode (card with code),the reader lit green LED at left and you do not key-in the PIN within the keypad waiting time.
  - A.2—To check if the reader is at 830t mode (unauthorized repeat card within t minutes), if yes, you should try to get access after t minutes. If 830t isn't the mode you want, then you may change it to 8300 code.
- **#Symptom 03**: The reader can get access (LED displayed "good" or LCD displayed "---O.K.---", but the door was not released.
  - A.1—To check if you correctly wire the electrical lock device with the correct power supply.
  - A.2—If the devices are all correctly wired and the wire is well conducted, then hear if the relay is clicked. If yes, then the relay contacts may be damaged. If not click, then the relay driver in the circuit board may be bad or damaged. Please contact with the distributor for repair or replacement.

## **O** Wrong message on LCD display:

C.ERR –Illegal card no. A.ERR –Anti-pass back error

Z. ERR – Time zone error

P. ERR – Password error

Q. ERR – Project no. error V. ERR – Out of validity date

RPT.ER \* –Unable to read card repeatedly during the set time by parameter code 830t

**#Symptom 04:** The door was released but the duration is very short

- A.1—If the door released period is not so long as you set by 21tt,then please check if the door monitoring mode (1100/1) is set as 1101 mode and the door monitoring sensor doesn't normal closed as the door is held. In such condition, the door release driver will shut off the relay driver once it found the door is opened because the door sensor is left opened. Therefore, please replace the sensor or set the door monitoring mode as 1100 (not monitoring) before you replace the sensor.
- A.2—If the door released period is not so long as you set by 21tt, but you have already disabled the door monitoring function by 1100 or although you actuate the door monitoring by code 1101, but the door sensor works normally, then this phoenomena is resulted from the EMI interference from the drivered electrical device usually. If the coil of the door actuator or the external relay doesn't well protected by a reversed polarity free wheeling diode to suppress the interference for DC voltage driver or a surge absorber for AC voltage driver, the voltage transient pulse will let theCPU hold down or run into disorder or automatic reset and therefore shorten the door released time to around one second.

**#Symptom 05:** The counter can't be set by F9 counter setting

A.1—At first, if the address 880n is properly set. If the system address isn't properly set (Can be checked by "0" key) or is disturbed, then the reader won't store the event counter.

## Questions concerning the card reader and its on-lined controller

(Any brand of PC or other dedicate controller)

**#Symptom 01:** The Personal Computer can not collect the data string from the reader(s) by standard software package.

A.1—At first, for on-lined application, the installer should ultilize the terminal simulation software package such as TELEX,BITCOM etc. to test whether the wiring between the PC (and the Multi-channel controller PCP-832-xx or the RS-422/RS-232C converter or other 3rd partners interfacing devices for networking)

and the readers are well connected and the communication parameters are selected correctly. At the same time, each reader should be set the correct parameters, unique reader address for each reader at the same wire cable for address mode by 88nn, 890n or 8900 for batch type or 890t for real time type..., etc. The reader address can definitely not be set the same for any two readers. The installer should be able to judge whether the wiring is correct and solid reliable by viewing the terminal response from each reader.

- A.2—If the supported PC standard software package for polling mode and through the multi-channel controller PCP-832-xx can set the system time and date, but cannot collect the stored or immediate data, then please check if the Data Terminal Ready (PIN G) is correctly connected with PIN 4 (Non-inverted Data Terminal Ready). At polling mode, if the real time data is ready or the buffer is not empty, then the PIN G should be at low voltage level less than 2.5 VDC. If at above condition but the voltage level is higher than 2.5 VDC at any side, please check if the wiring is correct.
- **#Symptom 02:** The Personal Computer can not collect the data string through the linking driver in Clipper
  - A.1—Please check if the parameters of on-line (Such as 88aa and 890t of F4) are well programmed.
  - A.2—Please check if the reader is connected at COMM1.
  - A.3—Please check if EMM386.EXE in file of CONFIG.SYS is remarked and whether FILE/BUFFERS is opened as stipulated as rem device=C:\windows\EMM386 I=e000-efff noems
  - A.4—Check whether the delay time in software is matched with executing time in the reader. Please adjust the delay time. (It's better to turn off the TURBO function).
  - A.5—Please check whether TSR subroutine such as for MOUSE driving, FAX modem or Virus detecting program is standing in the memory. Please get rid of them if they exist in the memory.

## Appendix

