### Introduction

A-FLY DTIC intelligentized management system is the floor control equipment that connects with the operation panel in elevator car or call box outside of elevator. The hardware system is composed of A-FLY DTIC director (call it main-director simply), A-FLY DTIC floor selector (call it floor selector simply), and code keyboard, special card for operation.

### **Product type**

**1** Economical

Function: Control the usage right of elevator, and only car-holders can use the elevator.

2 Universal

Function: Set the IC card service times, service time and service date.

**3 Intelligent** 

Function: Set IC card service times, service time and service date.

- Add the floor selector function, any floor can be controlled alone. Users can reach the selected floor after reading IC card.
- Add the limitation function for floor service time. You can set the service time at will to free or use IC card control system, and carry or eliminate floor-limited function immediately in special time.

#### 4 All-powerful

Function: Set the service times, service time and service date.

Add floor selector function, any floor can be controlled alone. And users can reach the selected floor after showing and reading IC card.

- Add the limitation function for floor service time. You can set the service time at will to free or use IC card control system, and carry or eliminate floor-limited function immediately in special time.
- Add the code keyboard function. Users can set IC card code, and input IC card code directly to use elevator at the special time of without IC card.

Main-director has the function of limiting IC card service time, service times, and service floors (The main-director need to work together with floor selector), setting main-director using code (need to work together with A-FLY DTIC management system), responding to the signal of eliminating the elevator for being controlled or disconnecting with elevator automatically when the main-director is wrong, resuming elevator original keyboard function and communicating with elevator mainboard.

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Each main-director can be used to support eight floor selectors, and each floor selector can control eight floors.

# **Technology parameter**

Power voltage: DC 24V (±10%) Power consumption: main-director is less than 3W. Every floor selector is 2W Working temperature : -10° C to 55° C Terminal of outputting signal: 220V (AC) 0.3A 24V (DC) 0.3A The efficiency distance of reading IC card: 0-3cm (between IC card and director read panel)

## The terminal dimension and installation

#### 1 Main-director

Using the installation method of guide rail. Main-director can be installed in elevator car keyboard operation panel or call box outside of elevator.

#### **2** Floor selector

Using method of guide rail installation. Floor selector is used to cooperate with mail-controller to control multi-floors. Each main-director can be used to support eight floor selectors, and each floor selector can control eight floors. And you should connect main-director to floor selector with special cable.



The external dimension of main-director



The external dimension of floor selector



The installation sketch map of main-director and floor selector

3 Installation method of IC card read panel and keyboard

IC card read panel and keyboard must be fasten on the elevator metal manipulator, the sketch map is followed:





Installation sketch map of A + type

Installation sketch map of keyboard



Hole dimension for A+ type installation

Hole dimension for keyboard installation

# Wiring

#### Wiring method of main-director

There are eight green terminals, and the wiring map is followed:



**Terminal 1: 24V power supply** 

**Terminal 2: power earthing** 

Terminal 3 and 4: the relay doesn't connect with power supply. They are disconnecting as normal, close after reading card, and close after eliminating elevator for being controlled also (or eliminate IC card function).

Terminal 5and 6: free

Terminal 7and 8: The control system signal of eliminating elevator for being controlled, and terminals 7 and 8 is short-circuiting when they are not used.

Note: The wiring sketch map is followed when using main-director alone.

Connecting terminals JDQ-1 and JDQ-2 with operation panel button-line in series to control the corresponding floor. Or connecting terminals JDQ-1 and JDQ-2 with operation panel button public-line in series to control all floors.

Connecting the NC contact of the relay for eliminating control relay with terminal 7and 8 in series, the relay is close as normal and disconnect when need to eliminate control system.



Note: contact signal for eliminating control: the control system is at the control state as normal when this signal is inefficiency (means the contact of eliminating control signal is closing). When A-FLY INTERNATIONAL LIMITED this signal is efficiency, control system exit from control state, and operation panel or call box switch back to automatically control model of elevator control system.

Floor selector connects with main-director by special cable.

The wiring method of floor selector with elevator operation panel is followed:



The hookup of floor-selector and car operation panel

Floor selector terminal 1to 3 is controlled by NO relay. The contact 1to 3 is closed after reading IC card that is equal to press the call button, then you can select the floor.

Floor selector terminal 1to 2 is controlled by NO relay. After receiving the signal of eliminating control or control system is wrong the contact 1to 2 is closed to cut of the control system and resume the function of using elevator operation panel.

## Function

- 1 Function of limiting service times: IC card service times reduce automatically after using IC card once. IC card will not be used till there are no service times in IC card. Main-director will alarm three sounds when IC card service times are less than ten times. You can input IC card service times again and again if you use our product of management software.
- 2 Function of limiting service time: IC card can be used in prescriptive time. And can't be used normally, once IC card beyond the prescriptive time.
- **3** Function of limiting date: IC card can be used in prescriptive date. And can't be used normally, once IC card beyond the prescriptive date.

The IC card functions of setting service times, service time, and service date can be changed by using management software.

- 4 Function of using IC card code: There are two kinds of code. The first kind is the IC card code used by control system or administrator. Setup two teams of code in setting card, which is absolute for each other (setup two teams of code at most optionally, and every team is 8-digit at most). You can input IC card code without using IC card to realize the functions of common user-card. IC card code memories in main-director and is used on the corresponding main-director. The second kind is the IC card code used by users. Users can input IC card code to finish all the functions owned by IC card when users don't take along with IC card or give reception to callers. IC card code is set by the user-card, which has code set in. (the setting method is introduced in the next section of the function and using range of IC cards in common user.
- 5 Function of setting floor wiring: Set the floors in different floor selectors on the same floor selector, and the function is same as the former floor. This function is used to decrease the floor selector quantity when the distance between floors is higher but limited floors are less (default in general). For example, you need to limit the floors of 1, 3, 25, and 36 when they are not on the same floor selector. At this time, you can change the 25 and 36 floors to 4 and 5 floors terminals, but they are run the functions of 25 and 36 floor.
- 6 Function of limiting floors: The IC card control system controls the elevator when floors are limited. At this time, you need to use IC card or IC card code to use elevator. And users can use elevator by operational panel after elevator being eliminated.
- 7 Function of eliminating control: Elevator switch to be controlled by car operation panel from being controlled by IC card control system automatically when there are some states as followed:
  - (1) Main-director receives the signal for eliminating control. (Immediately)
  - (2) The power supply of main-director is wrong. (Immediately)
  - (3) The IC card read panel is wrong. (Switch after ten seconds.)

## Function and using range of IC cards in common use

- 1 The setting-card: This kind of card is used to set the time, code, and two teams of time-limited section of control system and so on. And it is made by management system software. (The manufacturing method is in the management system software introduction.) After finishing making the setting-card, put it near to the director read panel three to five seconds. After hearing a long sound, making card is finished. The setting-card cannot be used to select floor. The preset time in main-director will not change as reading card repeatedly. The setting time in main-director is efficiency as the first time reading card. And what you must notice when you preset the time of main-director is that you should read the setting-card when the real time is same with the preset time in setting card.
- 2 IC card of floor-limited: This kind of card is used to set the time of eliminating the floors for being limited and the time of starting the floors for being limited (The time is same as the

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director time). In special time, you can read this kind of card to start or eliminate the floors for being limited, which you need two cards to finish, the one is the card of eliminating floors for being limited and another is the card of starting floors for being limited. The two kinds of card are all made by management system software. This kind of card can be used expediently to manage the elevator service time.

- **3** IC card of common user: This kind of card has the function of limiting elevator service time, service times, and service date, which can be set in single floor or multi-floor according users need. And this kind of card can memory 1-10 control systems information. The common user card is made by management system software and can be used by any director.
- 4 User-card with code: This kind of card has the functions of limiting elevator service time, service times, service date, using in single floor and multi-floor and using code. Because the IC card code is memorized in main-director, so you should use the IC card code on the director corresponding with the IC card code when you use the code only. This kind of card can be used separately with card code, and the service times also reduce one time corresponding when use the IC card code only. This card is made by management system software (One main-director can support 240 IC cards at most). The IC card code is set by user self, and the method is followed. Input "000" on the keyboard, then IC card code "\*\*\*" followed. The IC card code is 16-digit at most. Press the "Yes" button after setting code, then you will hear a sound from the buzzer, after hearing the buzzer sound again, IC card code is set successfully. Then you can input IC card along. (IC card number must be three-digit, for example, if the IC card number is 1, you should input 001, and it can't exceed 240 at most.) For example, if your card number is 1, and the code is 123, then you can input 001123 to realize the corresponding function.

You will hear two short warning sound if the user-card have something wrong. For example, service times are used up, overtime, over date, and the code inputting wrong, etc. At this time, the output relay will not send out signal.

The functions of limiting service times, service time, and service date are all can be selected. It will not limit elevator for using if the control system that you have bought without these functions above.

5 IC card for clearing number: This kind of card is made by management system software. Put the card number that users want to clear into the main-director number-cleared memorizer. Put the IC card for clearing number near to the card read antenna for one to three seconds, as you hear one long sound, the operation is finished. You should set all the control system of subdistrict one time. Every subdistrict unit can only use one IC card for clearing number. Use multi IC card for clearing number will result in disarray.

### Attention

The main-director and floor selector should use the same 24V power supply. And the anode and cathode can't connect wrong or else will damage the main-director.

You are can't connect wire when power on. You should pull out the electrical source receptacle of main-director and floor selector. Then power on after inspecting without any mistake.

# **User notice**

The select-match project of A-FLY DTIC intelligentized management system Please mark  $\checkmark$  in the  $\Box$  before the functions that you have selected.

Production type		A-FLY DTIC directorJ S X Y C
		A-FLY DTIC control system have code keyboard. So administrator can input IC
		card code to use elevator directly when administrator goes on a tour of inspection
	J	in building and other special time also. Users can set IC card code, which is
		convenient for users to input IC card code directly to use the elevator if there are
		guests for visiting or users doesn't take IC card along.
		Administrator can limit the elevator service date according to practical situation
		by A-FLY DTIC management system.
	S	
Explanation		Add floor selector function. Client can control each floor separately, and users can
		reach the appointed floor after reading IC card.
	X	
		Administrator can set elevator service time by the floor-limited function. And you
		can start or eliminate floors for being limited immediately in special time.
	Y	
		The system can limit the IC card using times that is convenient for administrator
		for a charge.
	С	

Please link to our company website for consulting the management system software Instruction.

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