

TS-CC01 Card Collector Technical Information

1、General Description

TS-CC01 series card collectors are designed and produced on industrial standard. It is mainly used for toll system of car parks, and also widely used for access barriers system. It reserved the reader antenna installation location, with options to quit cards and callback cards automatically if overtime.

1.1 Specification

- Industrial design, good resistance to abrasion and corrosion, fit for high and low temperature environments
- Directly connect to the inductance signal to achievement cards' collection when car is coming
- The function of preventing a mistake to collect when followed card: insert the second card when collector don't finish the first one that makes the machine stop, so extract the second one to continue the first card
- Provide RS232/RS485 or I / O voltage two control interfaces
- Die-wide production ensure the products' quality and consistency

2、features:

- Operating voltage: 24VDC(Max current 2A,static current0.1A)
- Operating temperature: -30℃-85℃
- Operating relative humidity: 30—90%
- Used condition: install in bin
- Card collecting speed: about 2s
- Card material: paper or polyester cards

3、Control interface

3.1 definition of TTL control interface (J5)

Pins	Signal Name	Pins	Signal Name
1	0 Volts	7	Enable(Enable working)
2	+24V DC	8	Enter(blocking enter card signal)
3	GND	9	Received(Card Received to depot)
4	Receive(Card need to receive)	10	Get Card(Card Enter)
5	Reject(Card need to reject)	11	Rejected(Back to Enter)
6	GND	12	Jammed(Card jammed in the machine)

3.2 Definition of RS232 control interface

The J2 is the RS232 interface in the main board, 1 is the TXD, 2 is the RXD, 3 is the GND.

3.3 DIP settings of S1 in the main board

Waiting order to quit card when overtime				
DIP1	OFF	OFF	ON	ON
DIP2	OFF	ON	OFF	ON
overtime	No quit card	3s	10s	30s
block and quit card automatically settings				
DIP3	OFF	OFF	ON	ON
DIP4	OFF	ON	OFF	ON
Quit card time	No quit card	5s	No quit card	10s
after quit card the collecting cards time				
DIP5	ON	ON	OFF	OFF
DIP6	ON	OFF	ON	OFF
time	No collect card	5s	10s	15s

4、collector working situation and the LED

	Working situation	buzzer	LED working status
1	Power on self test	Sound twice	Synchronously flash
2	No work	No buzzer	Flash as 5Hz
3	free	No buzzer	Flash as 1Hz
4	Collect card	No buzzer	All bright
5	Receive	Sound one time	
6	Return card	sound twice successively	Synchronously flash
7	Block card	sound three times successively	Synchronously flash
8	Follow card	sound four times successively	Synchronously flash

5、Card Loading

In order to fill the cartridge with cards, the following steps must be followed:

- 1).Remove power from the unit.

- 2).Remove the card weight form the cartridge.

- 3).Place a small amount (3cards) over the empty micro-switch in the unit, insuring that the cards are situated firmly on the surface under the card adjust plate.

- 4).Place the remainder of the cards on top of the 3cards that were initially placed in the unit.

- 5).Replace the card weight on top of the cards in the unit.

- 6).Restore power to the unit.

6、Safety and Maintenance

- 1) .Control circuitry must be arranged to disconnect power to the mechanism when the host machine/cabinet is opened for servicing.

- 2). Overcorrect protection to the mechanism must be provided by the host machine.

- 3). Servicing and maintenance staff must be adequately trained and aware of the hazards presented by the rollers and drive belts. The motor drives through a reduction gear creating sufficient torque to trap fingers, hair and clothing of the unwary.

- 4). Never hold the dispenser by the cartridge alone as it could become detached, allowing the mechanism to fall causing possible injury or damage.

- 5). Avoid the inclusion of foreign objects such as tape, rubber bands and wire as these could cause the machine to jam.

- 6). Keep mechanism clear of contaminants. Oily adhesive substances will seriously affect the performance of the dispenser.

- 7). Calibration details are recorded on the side of the dispenser as a digital reference (in fractions of a millimeter) to denote the card thickness. Recalibration should not be carried out by untrained personnel.

- 8). Ensure electrical interface connections are in accordance with values detailed in section 1.6 as excess voltage or current will damage the motor or control circuitry.

- 9). Routine maintenance should be undertaken every 2 months or 10,000 operations whichever is the sooner:

- 10). Wipe the surface of the clutch roller (at the base of the card stack) with an alcohol-impregnated cloth or pad.

- 11). Clean dust from the opt-sensor (mounted at the front of the mechanism below the payout point) with a small brush or suitable aerosol duster.

- 12).Check the drive belts for wear and adjustment (1-2mm deflection when light pressure is applied to the longest edge).