Bluetooth Parking Reader and Vehicle Active Tag

Reader SXK-Y17 | Tag SXK-AC05

Directional vehicle identification with optical positioning, 433 MHz CDMA communication and low-power sleep / wake operation for controlled parking entrances.



SXK-Y17 parking reader with adjustable stand



SXK-AC05 in-vehicle tag

Reading range	Field of view	Reader protection	Interfaces by version
1-20 m	60°	IP66	Relay / RS485 / Wiegand

System highlights

Directional optical wake-up. The tag wakes within the reader field before transmitting its identity.

Flexible lane integration. Interface with a parking controller or use the IC standalone management version.

Credential management. The IC system supports authorization, validity periods and renewal workflows.

SXK-Y17 technical specifications

Optical positioning and 38 kHz infrared signaling wake the active CDMA tag. Its identity returns over a 433 MHz radio link for access verification.

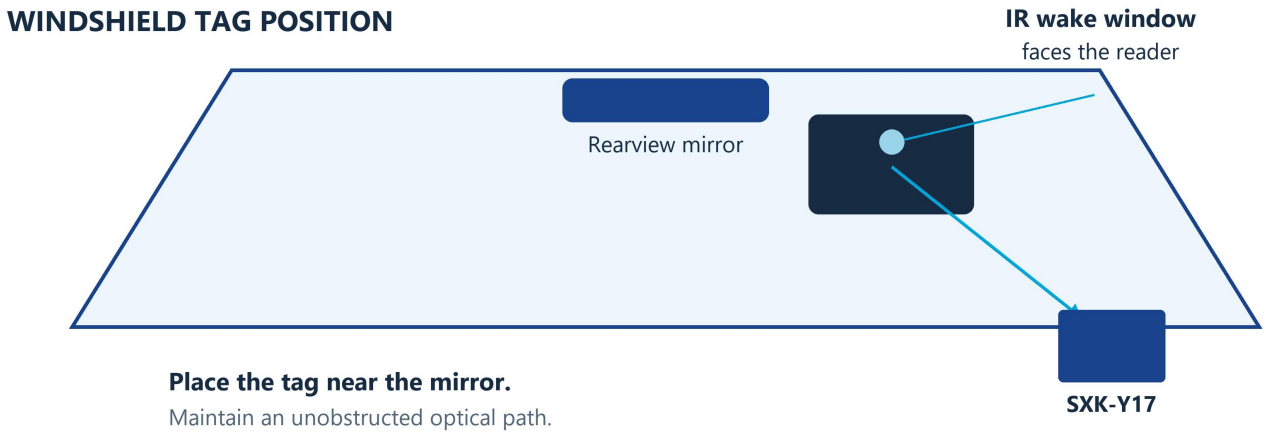
Parameter	Specification
Reader model	SXK-Y17
Long-range reading distance	1-20 m
Horizontal reading angle	60°
Identification response	Less than 0.2 s
Recognition speed reference	60 km/h listed in the reader manual
Reading interval	Less than 0.5 s; relay repeat mode has a separate 3 s interval
Operating radio frequency	433 MHz
Infrared signal modulation	38 kHz
Tag protocol	CDMA
Receiver sensitivity	-110 dBm, listed in the original reader manual
Operating supply	12-18 V DC
Operating power	12 W
Power adapter	110-220 V AC input / +12 V DC output
Interface options	Relay opening; Wiegand 26 / 34; RS485
Serial rates	9600 / 19200 bit/s selectable on the standard interface board
Antenna connector	SMA, 50 ohms
Housing and protection	Metal enclosure with PMMA front; IP66
Operating temperature	-40 to +75 degrees C
Relative humidity	95% RH
Reader dimensions	250 x 300 x 70 mm
Stand height and weight	1100-1500 mm adjustable; 4 kg
Finish and mounting	Yellow / orange / dark grey; universal adjuster; stand

SXK-AC05 vehicle tag

The SXK-AC05 uses CDMA identification and a low-power sleep / wake mode, with a stated battery service life above 3 years. Install its infrared wake window facing the reader.



Item	Description
Model	SXK-AC05
Product role	In-vehicle active identification credential for the parking reader
Wake and communication	Optical wake-up, CDMA active RF identification and low-power sleep
Tag protocol	CDMA
Battery service life	More than 3 years with low-power sleep / wake operation
Recommended position	Behind the windshield, near the rearview mirror
Orientation	Point the IR wake window toward the reader; keep the optical path clear
Operation and maintenance	Battery-powered tag; check battery condition if reading range decreases

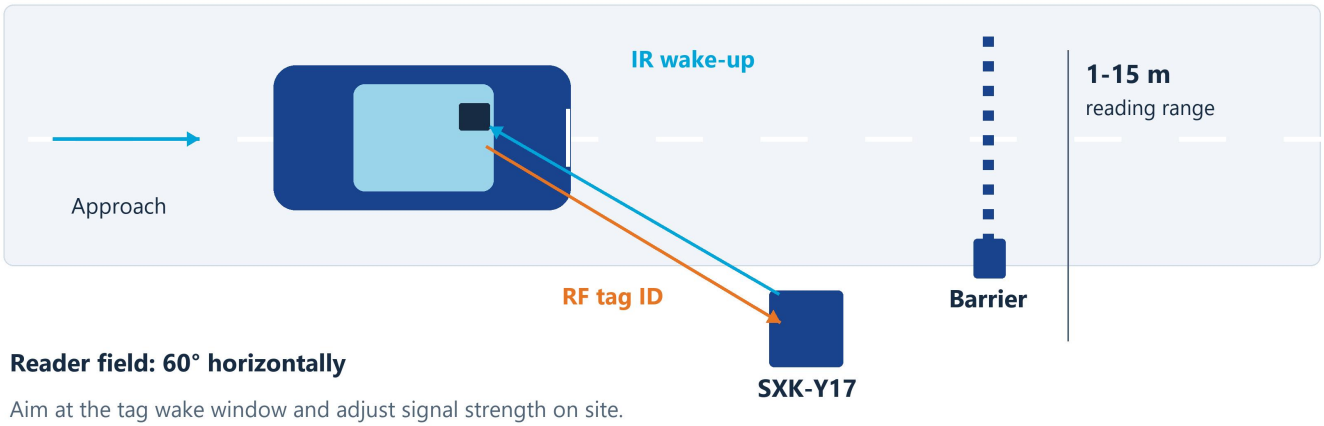


During commissioning, test with the tag in its final installed position and adjust the reader angle and signal strength to match the lane.

Lane operation and installation

The directional infrared field selects the tag to wake. The active tag returns its code by radio; the controller or IC standalone logic determines whether access is permitted.

DIRECTIONAL IDENTIFICATION ZONE



Reader field: 60° horizontally

Aim at the tag wake window and adjust signal strength on site.

01 **Vehicle arrives** — Tag enters the IR field

02 **Tag wakes** — Optical code received

03 **ID returns** — Active RF transmission

04 **Access decision** — Controller or IC logic

Identification sequence

Step	Behavior
1 Approach	The windshield tag enters the configured optical field. Vehicle detector triggering can be enabled where required.
2 Wake	The encrypted IR signal carries the wake code and machine code to the standby tag.
3 Return ID	The tag wakes and sends its internal code by radio. The reader decodes and checks the received data.
4 Process access	A matching code is passed to the external controller, or processed by the fitted IC system for barrier operation.

Installation checks

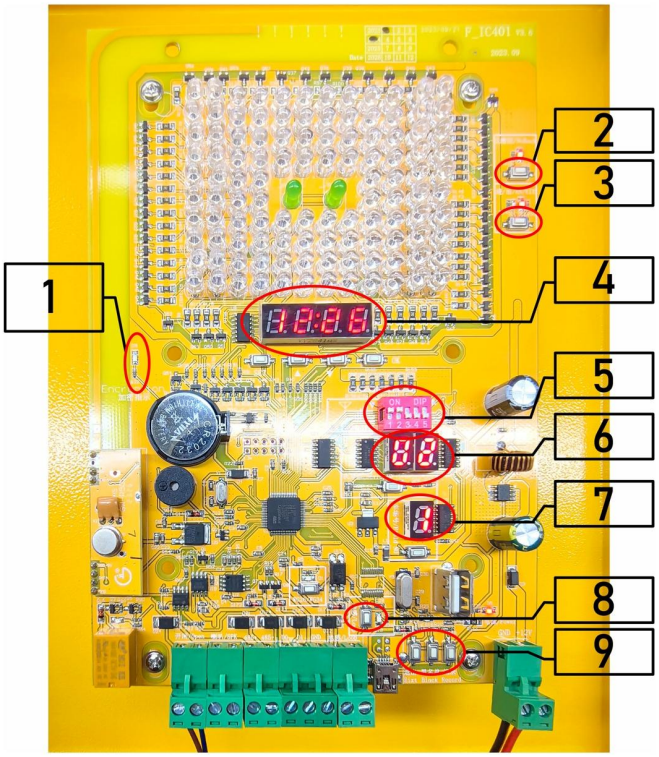
Aim the reader at the tag wake window near the mirror. Set a different reader machine code for adjacent lanes, then tune signal strength and confirm each lane reads its intended vehicle.

Use the adjustable mounting arrangement to establish the required angle. Test both close and distant approaches with the tag in its final position.

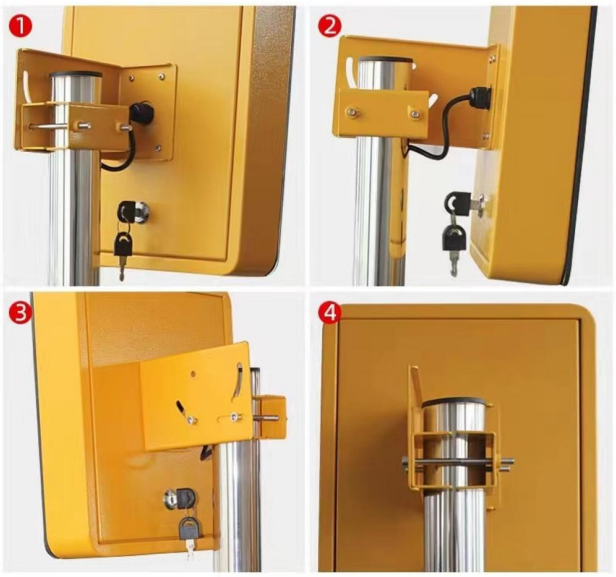
Hardware and mounting details

The IC mainboard controls are identified by the numbered photograph below. The mounting photos show the pivot bracket, pole clamps and lockable rear service panel.

IC MAINBOARD



MOUNTING DETAILS

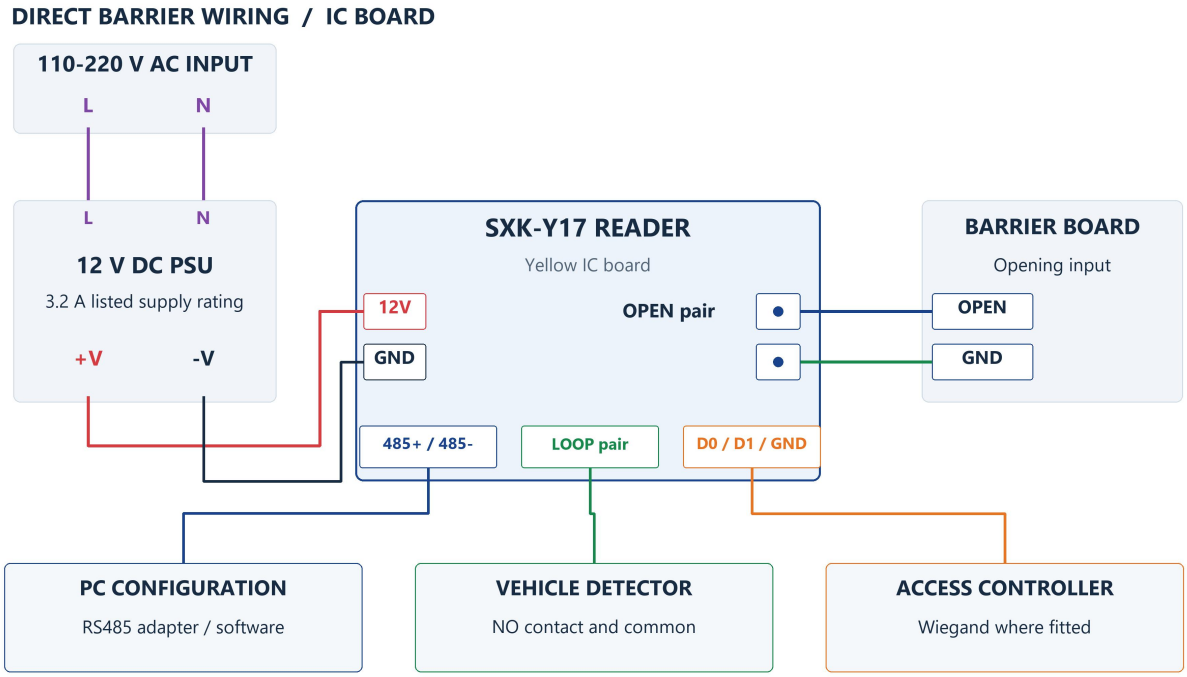


Ref	Control or indicator	Function on the IC mainboard
1	Encryption indicator	Lights when reader encryption is configured through RS485.
2	Anti-passback control	Enables or disables anti-passback for the selected parking area.
3	Entry / exit selector	Green indicates entry; red indicates exit.
4	Clock display and keys	SET selects year, month, day, hour and minute; arrow keys adjust; OK saves.
5	Signal-strength switches	Adjust the reading field from near to far.
6	Machine code display	Set code 1-15; use different codes for adjacent readers.
7	Parking area display	Set area 1-8 for nested or separated parking areas.
8	Detector-trigger control	Lit indicator requires vehicle presence before reading; unlit permits normal reading.
9	USB operation keys	Blacklist and record transfer; Exit / Cancel is used for recovery.

The illustrated IC board has D0 / D1 / GND terminals and a WG26 / WG34 selector. USB features and other options remain subject to the supplied hardware configuration.

Wiring and interface connections

The IC board OPEN pair connects to the barrier OPEN and GND inputs. The illustrated reader wiring uses the adapter 12 V DC output; 110-220 V AC feeds the adapter input.



PSU +V to reader 12V; PSU -V to reader GND. AC input connects to the PSU only.
Use the fitted interfaces and actual PCB terminal markings for installation.

Reader connection	Destination and function
12V and GND	Adapter +12 V and -V / GND outputs; listed supply rating 3.2 A
OPEN relay pair / J1	Barrier OPEN and GND / common inputs
DG and GND / loop input	Vehicle detector contact for presence-triggered reading; standard board input is active low
485+ and 485-	RS485 link for controller data or configuration, according to version
D0, D1 and GND	Wiegand data connection to an external controller, where fitted
SP1 / SP2 or SPK	IC board speaker output where fitted; recommended speaker 8 ohms / 5 W
USB / optional close output	IC board options for USB operations and delayed close; availability depends on PCB version

Cable reference: Wiegand uses 5 conductors including power, conductor area over 0.5 mm2, under 50 m. RS485 uses a twisted pair over 0.5 mm2, under 1000 m, subject to installation conditions.

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Specifications are subject to change without notice. Please confirm final configuration and certifications with our sales team before ordering.