

BW-D40

License Plate Recognition System

LICENSE PLATE RECOGNITION SYSTEM

Lane display and license plate recognition terminal



PRODUCT OVERVIEW

BW-D40 is a lane display product for license plate recognition systems. The solution combines a D40 display screen, a 5MP HD license plate recognition camera, database and license plate recognition system software.

SYSTEM COMPONENTS

- D40 lane display screen
- 5MP HD license plate recognition camera
- Database
- License plate recognition system software

KEY CAPABILITIES

- Four-line full-color text display
- Voice broadcast with real-person pronunciation
- RS485 data communication
- Industrial lightning-protection design
- IP65 protection
- 12V DC input

MAIN FEATURES

BW-D40

DISPLAY & TEXT

Four lines of Chinese characters; full-color or two-color display according to the required presentation.

DISPLAY MODES

Downward movement, upward movement, horizontal movement, fixed display, font-size conversion, and full-color or two-color display.

DIGITAL DISPLAY

Fixed digital display mode or no display mode. Figure display supports 16-bit presentation.

VOICE OUTPUT

Real-person pronunciation voice broadcast.

DATA COMMUNICATION

RS485 communication circuit with industrial lightning-protection design.

LED SYSTEM

LED package 2525; viewing angle 35° to 20°; average LED life about 50,000 hours.

SYSTEM PROTECTION

IP65 protection level with operating temperature and storage temperature specified in the technical data.

POWER

DC 12V / 5A input.

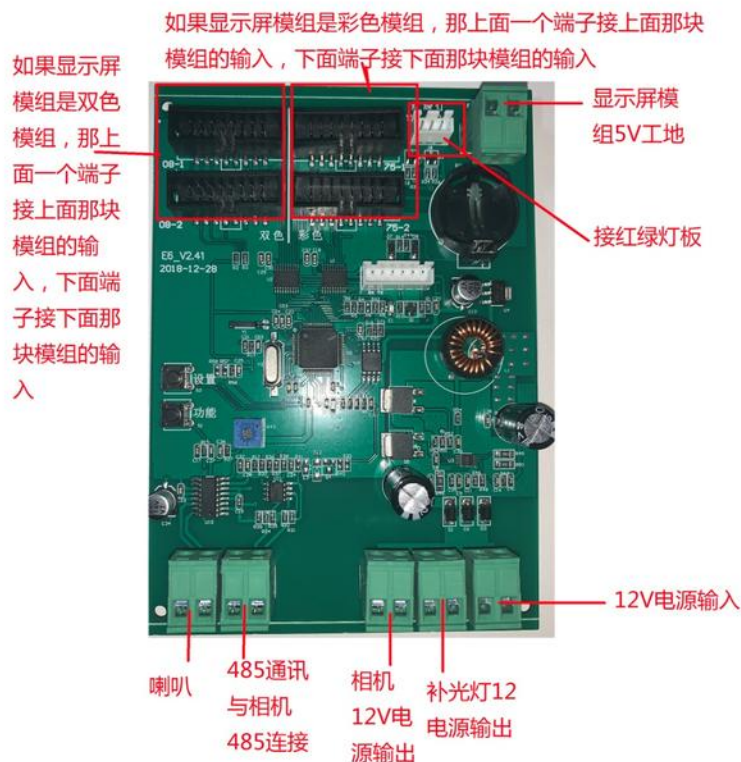
TECHNICAL SPECIFICATIONS

BW-D40

PARAMETER	DETAIL
Character library	National standard secondary character library, up to 16,384 Chinese characters
Voice output	Real-person pronunciation voice broadcast
Data communication	RS485 communication circuit; industrial lightning-protection design
Text display	Four lines; full-color or two-color display
Text display modes	Move down / move up / move horizontally / fixed / font-size conversion / full-color or two-color
Digital display mode	Fixed display or no display
Figure display	16-bit
LED package	2525
LED viewing angle	35° to 20°
LED light attenuation	At least 5% per 10,000 hours at 25°C and 20mA
Average LED life	About 50,000 hours
Input voltage	DC 12V 5A
Storage temperature	-20 to +65°C
Working temperature	-20 to +65°C
Relative humidity	<= 95%
MTBF	30,000 hours
Protection	IP65

FUNCTIONAL INTERFACE

Connection points and power interfaces



INTERFACE FUNCTIONS

- 1. Camera power output: 12V 2A
- 2. Display module power output: 5V 2A
- 3. Module wiring interface
- 4. Voice horn interface output
- 5. RS485 communication interface
- 6. Fill light power output: 12V 2A
- 7. Power input interface

AC POWER SPECIFICATION

External power input: AC 220V / 50Hz

Input voltage range: 165V-265V

INSTALLATION & MAINTENANCE

Working environment and wiring

WORKING ENVIRONMENT

- Temperature: -30 to 70°C
- Humidity: < 90% RH
- Pressure: 86-106 kPa
- Provide good ventilation
- Install the unit in front of the gate pole according to the site layout
- Avoid strong electromagnetic interference and corrosive liquids

INSTALLATION WIRING

- Power line: 220V; recommended 1.5 mm² red/black cable
- Network cable: 8-core communication cable
- RS485: twisted pair, two-core cable
- Open/close signal: recommended 0.75 two-core cable
- Connect camera network to the switch/computer
- Connect camera RS485 A/B to display board RS485 A/B

POWER-ON CHECK

- Check the power terminal, camera, motherboard, display power supply and polarity
- Power on only after all connections are confirmed
- If a problem appears after power-on, switch off immediately and check the wiring

MAINTENANCE

- For hardware issues, carry out hardware checks and contact professional technicians
- For software setup issues, consult after-sales technical support
- Do not clear or modify settings without authorization

GROUND LOOP & SYSTEM INTEGRATION

Vehicle detection and barrier-gate connection

GROUND SENSING COIL

The ground-sensing coil is used to help prevent the barrier from closing onto a vehicle. The source manual describes a typical coil size of about 70 cm wide x 1.8 m long, with approximately 4 turns x 5 cycles, depending on the lane width.

CONNECTION

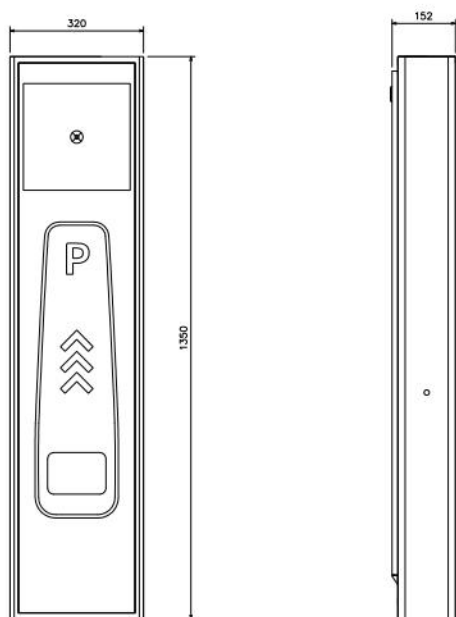
- The ground-sensing line connects to the vehicle detector terminals 7-8.
- Vehicle detector terminals 1-2 connect to the power supply.
- Vehicle detector terminals 3-4 connect to the ground-sense input on the barrier mainboard.
- License plate recognition provides the opening signal; the barrier closes after the vehicle passes when the ground sensing condition is met.

SYSTEM ADVANTAGES

- Highly integrated design for simpler construction and installation.
- Can maintain temporary vehicle entry, exit and billing functions during server or network interruption.
- Humanized interface with wizard-style software settings.
- Supports custom animated advertising on the display.
- Supports multiple charging modes including electronic payment, booth charging, central charging, mobile charging and self-service payment.
- Supports online parking payment and QR-code payment.
- Supports multiple discount models such as coupons, hotel discounts and license-plate discounts.
- Supports multi-parking-space and multi-vehicle management.
- Double-camera recognition can improve recognition in complex traffic conditions.
- Supports manual recognition and manual plate modification.
- Blacklist and illegal gate-opening functions improve parking security and reduce charging abuse.

PRODUCT DIMENSIONS & APPLICATION

BW-D40 lane display terminal



REFERENCE DIMENSIONS

The source drawing shows the BW-D40 enclosure with a front width of approximately 320 mm, a height of approximately 1350 mm, and a side depth of approximately 152 mm.

TYPICAL APPLICATIONS

- Parking entrances and exits
- Vehicle lane guidance
- License plate recognition lanes
- Gate barrier integration
- Parking payment and management systems

CS TECO - LICENSE PLATE RECOGNITION SOLUTIONS

BW-D40 combines a lane display with a 5MP HD license plate recognition camera, database and recognition software to provide a practical parking-lane solution.

Website: csteco.com