

## FEATURES

- **Fully self-contained, integrated reader**
- **Reads eGo and/or ATA tags**
- **Ideal for parking, security access, electronic vehicle registration, and mCommerce**
- **915 MHz RF band operation**
- **Compatible with a wide range of industry-standard formats**
- **Wiegand capability**
- **Weatherproof enclosure**
- **Similar system interface as TransCore's SmartPass readers**
- **Selectable RF output power**
- **Quick, simple installation by trained, authorized personnel**

# Encompass® 2 Reader Model 2110



**T**ransCore's Encompass® 2 Reader Model 2110 is a fully integrated, self-contained 915 MHz wireless identification reader. It includes a radio frequency (RF) module, digital signal processor (DSP), power supply, antenna, I/O ports, and serial communications interface. The reader is ideal for parking, security access, vehicle registration/identification, and *mCommerce* applications with a requirement to read TransCore's eGo® tags and/or TransCore's American Trucking Association (ATA)-compliant tags.

The Encompass 2 Model 2110 is configurable to read TransCore eGo tags, as well as other tags, which are compliant with ANSI INCITS 256-2001, International Organization for Standardization (ISO) 18000-6 or ATA standards. It reads the 64-bit tag ID or 128 bits of specially programmed data and can read tags formatted to a wide range of industry-standard formats, including Wiegand format. Custom Wiegand 26-bit to 56-bit (inclusive) formats can be developed to match identification card formats used by existing security systems.

The Encompass 2 Model 2110 transmits an RF signal that is reflected back from an RF tag. The Encompass 2 Model 2110 then decodes the tag data carried by the reflected signal. The system transmits this data to a local host computer for processing. In multi-lane applications, if necessary, the readers can be synchronized using external hardware to allow operation in close proximity.

The unit has a weatherproof enclosure and is supplied with a pole-mount bracket specifically designed for controlled traffic lanes. The Encompass 2 Model 2110 is quickly and easily installed and tested by trained, authorized personnel. It uses a similar system interface as TransCore's SmartPass® readers.

# Encompass® 2 Reader Model 2110

## COMMUNICATIONS

### Frequency Range

902 to 928 MHz capable

912.5 to 919 MHz FCC-authorized in United States

### Internal Antenna Gain

9.5 dBi

### RF Control

By sense input or host command

### Polarization

Linear, horizontal

### Range

Read performance varies depending on tag and reader configuration and environment. Optimum read range using the eGo Windshield Sticker Tag is 24.3 ft (7.4 m). Typical read range should be 12 to 17 ft (3.7 to 5.2 m).

Consult the *Encompass® 2 Reader System Guide for Model 2110 and Model 2101* for tag and reader selection.

### I/O Control

Input: two independent dry contact closures for sense circuits

Output: two independent Form-C contacts

### Communications Interface

RS-232 with Wiegand or RS-422 with Wiegand-compatible host interface

## POWER REQUIREMENTS

### Input Power

16 to 20V AC, 47 to 63 Hz, or 16 to 28V DC

### Output Power

2 W maximum to 200 mW minimum, selectable in 1dB steps

## LICENSING

### Equipment License

The user is required to obtain a Part 90 site license from the FCC to operate the unit in the United States. Access the FCC Web site at [www.fcc.gov/Forms/Form601/601.html](http://www.fcc.gov/Forms/Form601/601.html) for more information.

FCC ID: F1HXXXXXXX (See product label for actual ID number.)

Users in all countries should check with the appropriate local authorities for licensing requirements.

## COMPLIANCE

### RF Interference

Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

### Safety

The Encompass 2 Model 2110 complies with the requirements of Underwriters Laboratories UL-1950, Standard for Safety of Information Technology Equipment.

## PHYSICAL

### Dimensions

Size: 15.5 x 15.5 x 3.25 in  
(39.4 x 39.4 cm)

Weight: 9.5 lb (4.3 kg)

### Mounting Location

Pole or wall mount

Indoor or outdoor

### Enclosure

The system is environmentally sealed in a tamper-proof, polycarbonate housing.

## ENVIRONMENTAL

### Operating Air Temperature

-40°F to +131°F  
(-40°C to +55°C)

### Humidity

100% condensing

### Vibration

0.5 G<sub>rms</sub>, 10 to 500 Hz

## OPTIONS

### Cable Accessory Kits

Cable Accessory Kits allow flexibility in installing the Encompass 2 Model 2110. Include the part number when ordering.

Part number 58-1620-001: connector with 5 ft (1.5 m) cable

Part number 58-1620-002: connector with 20 ft (6.1 m) cable

### Wall Mount Bracket

Allows adjustment in all planes when used to install the Encompass 2 Model 2110 on a flat surface. Include the part number 54-1620-001 when ordering.

### Transformer

A Class C transformer (part number 76-1620-005) is available to allow 110V AC to 18V AC conversion. Include the part number when ordering.

### Training

Installation, operation, and maintenance training for TransCore authorized dealers is available through TransCore. For details, contact TransCore.

## DOCUMENTATION

*Encompass® 2 Reader System Guide for Model 2110 and Model 2101*




**OPS** Ontario  
Parking  
Systems Ltd.  
*Strong and Secure*  
Authorized Distributor