MODEL 371
CAPACITY COUNTER

OWNERS MANUAL

INTRODUCTION:
The Model 371 Capacity Counter has been designed to provide accurate count data for monitoring and controlling traffic within a parking facility. A typical controlled parking facility has all inputs and outputs controlled by a gate arm with a loop detector or other equipment that recognizes when a vehicle is entering or exiting the parking facility. When a vehicle enters or exits, the information can be sent to the Capacity Counter (as a switch closure) which is then processed, stored and displayed. The Capacity Counter is capable of counting up to 16 separate sensor inputs (lanes).
Incorporated into the high speed microprocessor design is true anti-coincidence logic to ensure that all inputs are recognized. In addition, all inputs are filtered to eliminate errors due to contact bounce from switches or relays.

Additional features of the Capacity Counter include: all sixteen input signals can be set to “COUNT UP” (Exit) or “COUNT DOWN” (Entry); lot capacity of 32,500 with a counting range from -99 to 32,500; front panel display of “REMAINING SPACES”; output relays with separate NORMALLY OPEN and NORMALLY CLOSED contacts used to control a “LOT FULL” sign and/or disable the entrance gate when the remaining spaces are equal to zero; an internal battery to protect the counter data during power outages.

Power Up:
As the Counter is powered up, the Engineered Parking Systems logo screen displays for 5 seconds. After 5 seconds the Screen changes automatically to the Main Screen that displays the current number of Spaces remaining.

OPERATING INSTRUCTIONS:
-Apply power by connecting the power pack.
-Program the current number of available parking spaces.
-Program the lanes being used as either ENTRANCE or EXIT or set AB-BA mode if applicable.
-Exit program mode.

PROGRAMMING:
The model 371 uses a 16-key sealed membrane keypad and LCD screen displaying two lines of text, 16 characters long for programming

Setup:
To enter program mode, press "0" key for about 5 seconds. For first time use, User is required to “Setup” up to 16 Lanes as either Entry or Exit, or “Setup” Controller to count in ABBA mode. In ABBA mode, odd numbered inputs are entry and even numbered inputs are exit. Also the Controller must be set to current number of available spaces.
When Controller enters into “Setup”, the Controller changes to an offline mode, meaning that the status of the Inputs is ignored until the Controller is taken out of Setup mode.
Additionally, if the Controller is left in Setup mode and no keys are activated for 3 minutes, the Controller will automatically revert back to Online Mode and the Inputs become active.

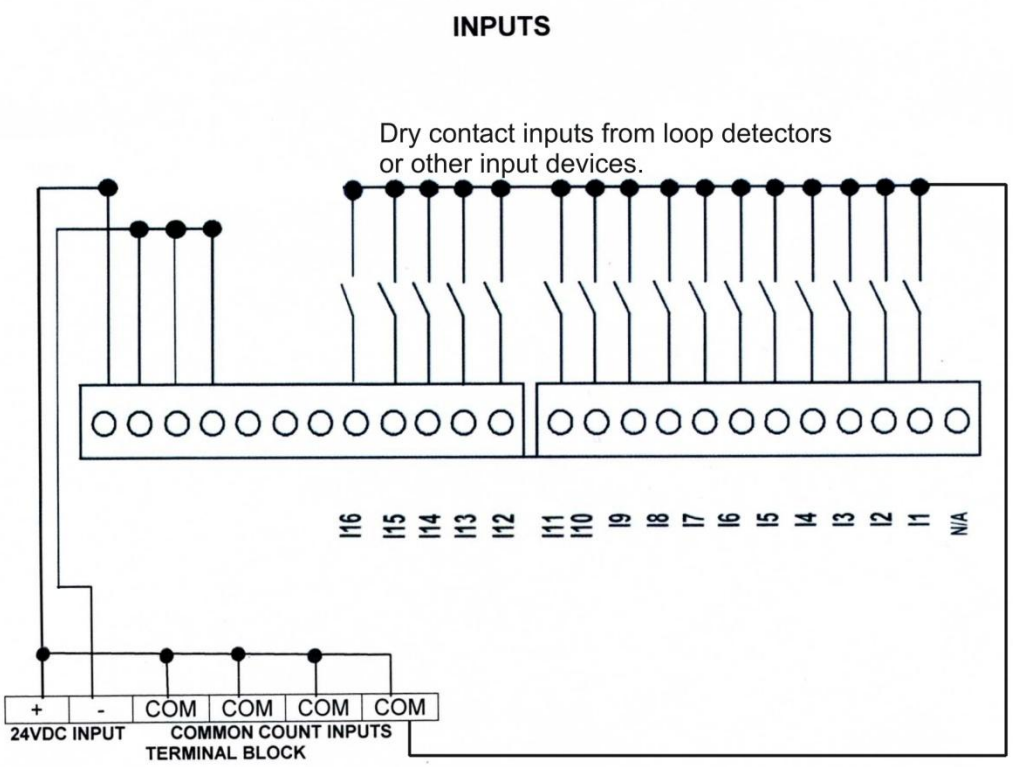
COUNT ADJUSTMENT:
The first screen that appears in “Setup” mode is the "SET AVAILABLE SPACES" screen. The current number of available spaces is also shown on this menu. To change the number of available spaces, press the Down Arrow key and number will go blank. When number is blank, enter the number of available spaces using the numerical keypad. After the number of spaces is designated by the numbered keypad, press "enter/return" key twice.

The arrow keys are to navigate forward and backward in the Setup screen menu.
The User can designate up to 16 Lanes as either Entry or Exit. Only those lanes that will be used need to be programmed. At any time the User can press the “enter/return” key to finish the Lane designation. Again the Lane Designation is stored in memory and need not be reprogrammed in the event of a power loss.
LANE SETTING:
To enter program mode, press "0" key for about 5 seconds. Press the Up and Down arrows to designate Lane as Entry or Exit. Right and Left arrows navigate between screens.
There are 3 Lane Summary Screens located after Lane 16 Designation screen. These screens give the User a quick overview of how each Lane is Designated.

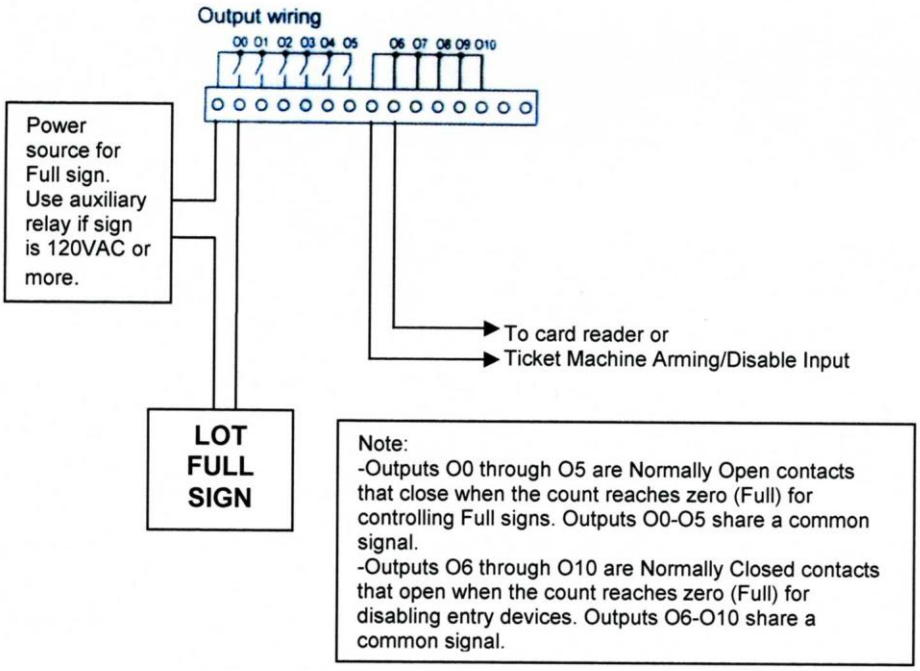
If User wishes the Controller to count lanes in ABBA mode, the screen for this configuration is located after the last Lane 14-16 Summary Screen. Use the Up and Down arrows to turn on or off the ABBA mode. The “Enter” key can be pressed to exit the Setup mode to the Main Screen of Controller.

The “Enter/Return” key will exit program mode, at which time the controller will begin monitoring lane counts.

CONNECTING INPUTS AND OUTPUTS:
1. Strip the wire to a length of 0.250–0.300 inches.
2. Unscrew the terminal to its widest position before inserting a wire.
3. Insert the wire completely into the terminal to ensure a proper connection.
4. Tighten enough to keep the wire from pulling free.
5. Wire the inputs and outputs using 26-14 AWG wire.
6. Double-check all the wiring before turning on the power supply.
7. The connectors plug in, enabling quick, easy removal. They provide screw-type connection points for the power source, inputs, and outputs.

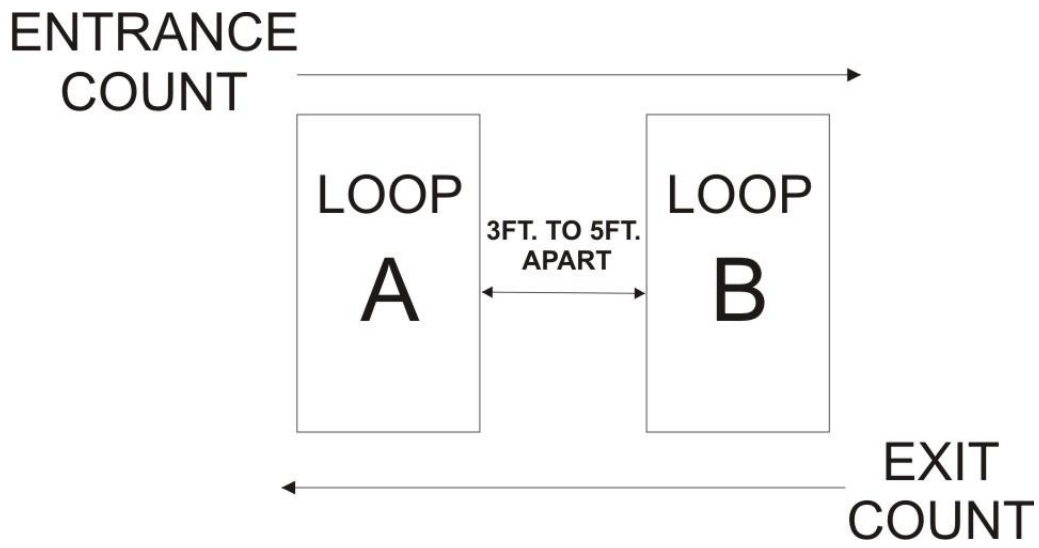


Connect relay or switch inputs to COM and corresponding input number. I1=Lane 1, I2=Lane 2, I3=Lane 3, etc.



DIRECTIONAL COUNTING

In cases where there are no barrier gates or other means of forcing traffic to travel in the correct direction in lanes, two loops and loop detectors are required for directional counting. Traffic lanes must be physically separated to ensure accurate counts.
Set Model 371 counter to AB-BA mode for directional counting.



SPECIFICATIONS:

Operating Power	24V DC, 160 mA
Operating Temperature	32˚ to 122˚F
Display	2-line, 16-character, Backlit LCD
Count Range	-99 to 32,500

Output Relays, becomes active when the count is 0 or less
Normally Open Contacts 3 Amps @ 30VDC, 3 Amps @ 250VAC, per relay
Normally Closed Contacts 3 Amps @ 30VDC, 3 Amps @ 250VAC, per relay
Input cable length Up to 100 meters, unshielded