TECHNICAL NOTICE

Maintaining Transaction Integrity Tech. Notice

February 12, 2010

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When configuring your system for operation, consider the following:

■ 3M Parking Systems provide many configuration parameters that allow you to tailor the system to meet your needs. Among these parameters are credit card floor limits that affect throughput at online and offline lanes. You can increase throughput by allowing some transactions to be processed without requesting approval from the clearinghouse or you can set these parameters for maximum revenue security, demanding authorization of all credit card transactions.

■ 3M Parking Systems are designed to continue operation when communication with the central computer system, ScanNet, or with the credit card clearinghouse is interrupted; however, operating a device in offline mode indefinitely can lead to lost transactions. The Cashier Station buffers transactions that are processed while the device is offline. Once the buffer is full, the Cashier Station begins overwriting the oldest data with new data. This situation can lead to lost revenue. To protect transaction integrity, estimate the number of days each device can operate in offline mode and do not let devices remain offline beyond this estimate.

Note: This manual may reference legacy part numbers and product names. Please refer to the *3M Parking Price Book* for current product names or contact your customer service representative with questions.

The rest of this notice discusses:

■ "Setting Credit Card Floor Limits", on page 2
■ "Estimating Offline Operation Limitations", on page 5

Setting Credit Card Floor Limits

In 3M Parking Systems, credit card transactions are either processed:

■ Locally, at the device, using a DataTran to authorize the transactions. A DataTran is a dial-up interface that transmits transaction data to and receives data from the clearinghouse.

■ Remotely via the Central Credit Card Processing option in ScanNet. The payment processing device sends the transactions to ScanNet and ScanNet transmits the information to the clearinghouse for authorization. ScanNet then sends the clearinghouse responses back to the processing device.

The way transactions are processed depends upon whether communication with the clearinghouse is intact and how the following PowerPad programming parameters are set:

- **Online Floor Limit**—this is the dollar value under which transactions are accepted *without* requesting clearinghouse approval, even when communication with the clearinghouse is intact. Set this value to $0.00 to ensure that all online transactions are approved by the clearinghouse.

- **Offline Action**—this is the credit card processing action the system takes when communication with the clearinghouse is not available. Set this to "Abort" to decline all offline credit card transactions; set this to "Process" to process offline credit card transactions using the *Offline Floor Limit*.

- **Offline Floor Limit**—this is the maximum dollar value that is accepted when communication with the clearinghouse is not available. For example, if you set this to $5.00, all offline credit card transactions that are less than $5.00 are automatically accepted. When communication with the clearinghouse is re-established, the transaction is automatically submitted for authorization and *may* or *may not* be approved. If you choose to process offline credit card transactions, set this parameter to a value that represents an acceptable risk for your establishment.

NOTICE	**3M RECOMMENDATION**
	Whenever a credit card transaction is accepted without clearinghouse authorization, the site assumes a risk of lost credit card revenue. To eliminate this risk:
	• ***Set the Online Floor Limit to "$0.00"***
	• ***Set the Offline Action to "Abort"***

In systems using the Central Credit Card Processing option, if a transaction is accepted at the processing device without authorization, and subsequently declined by the clearinghouse, the transaction is stored in the "Declined List" from which the transaction can be resubmitted or deleted. Refer to the *ScanNet Operations Manual* for more information.

Floor limits are set in the Cashier Station. In devices that use the DataTran option to process credit cards, floor limits must be set locally, using the Programming Interface. In systems that use the Central Credit Card Processing option, they can be set locally or remotely from ScanNet—refer to the *ScanNet Operations Manual*.

To set floor limits locally:

1. Log into the Cashier Station and press the **PROG** button. Refer to the device manual for more information.

2. From the Programming Menu, select **System Pref ▶ Credit Card**.

3. On the Program Credit Card screen, set the following fields according to your site requirements:

    Activate Credit Card System

    Enables the credit card processing system.

Timeout

The amount of time in seconds that the Cashier Station waits for an approval response from the clearinghouse before canceling the transaction.

Online floor limit

The transaction value at which clearinghouse approval is required when the system is online with the Clearinghouse. To ensure all online payments are approved, set this value to $0.00.

Offline action

The action the device takes for credit card processing when the system cannot communicate with the clearinghouse. To allow transactions that are below the **Offline floor limit**, select *Process*. To deny all credit card payments, select *Abort*.

Offline floor limit

The transaction amount that is accepted without clearinghouse approval when the system is not communicating with the clearinghouse. All transactions above this amount are automatically declined. The field is only active if the **Offline action** field is set to *Process*.

PCI compliance

Enables PCI compliance. Set the value to *yes* to ensure credit card data is processed, stored, and transmitted in accordance with the Payment Card Industry Data Security Standard (PCI-DSS) guidelines.

US or Canadian use

Enables the United States or Canadian use bit. Set this value to *yes* if the device is installed in the United States or Canada.

Estimating Offline Operation Limitations

3M Parking Systems are designed to continue operation when communication with the central computer system, ScanNet, or with the credit card clearinghouse is interrupted; however, operating a device in offline mode indefinitely can lead to lost transactions. The Cashier Station buffers transactions that are processed while the device is offline. Once the buffer is full, the Cashier Station begins overwriting the oldest data with new data.

To *estimate* how long a device can remain offline before losing transaction data:

1. Check the size of the transaction buffer in the Cashier Station:

    a. Log into the Cashier Station and press the **PROG** button.

    b. From the Programming Menu, select ***System Pref ▶ Config Options ▶ Config***. The Program Config ROM Options screen is displayed.

    c. Press the ↓ key until you see the **Txn Buf Size**.

    ```
    Fee Table        24

    Stats Per Type   8

    Taxes            6

    Txn Buf Size     5380
    ```

    This is an ***estimate*** of the number of transactions the buffer can hold, assuming 70% of the transactions are credit and 30% are other payment types. Depending upon the mix of payment types—credit transaction require more bytes of storage than cash transactions—the buffer may hold more or fewer transactions.

2. Use the following equation to *estimate* the number of days the device can remain offline before data is lost:

    offline days ≈ (Txn Buf Size - (20% of Txn Buf Size*)) / max number of transactions processed per day

    For example, if the buffer is 5380 and the device processes up to 100 transactions per day, the device can operate roughly 43 days before data is lost.

    43 days ≈ (5380 - 1076) / 100 transaction per day

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* Reducing the buffer size value by 20% is only necessary for devices that are used primarily for credit card transactions.This offset accounts for the larger storage requirements of credit card transactions.