



e-Range READER

OPERATION MANUAL

for keypad equipped readers

Kit Contents:

Reader Hardware

- 1 e-Range electronic reader
- 1 9.0 VDC 500ma Power Supply

Special e-keys

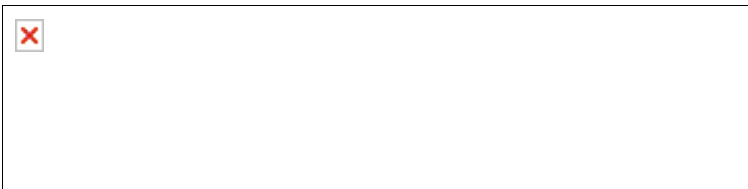
- 1 Menu e-Key on Red FOB. Specially programmed to activate the reader configuration menu.
- 1 Data Carrier

Computer Hardware

- 1 eKey Drive Adapter
- 1 eKey Drive

1 Installation CD

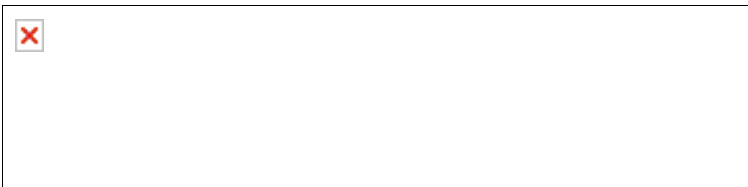
works best with



Computer

Software

Products



e-Range READER OPERATION MANUAL for keypad equipped readers [*](#)

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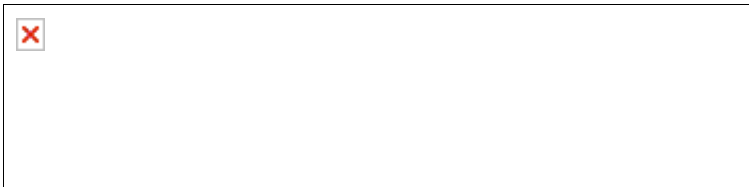
No one else can use your e-tee reader – [*](#)

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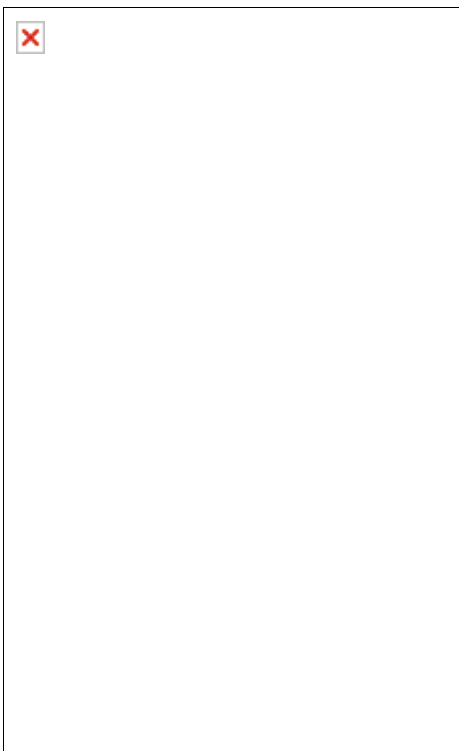
Q. My customers' e-keys don't work. [*](#)

Q. My meter readings don't match in the dispenser and the e-Range system. [*](#)

Q. PIN numbers do not work and keep saying Invalid PIN. [*](#)



Reader Installation Instructions



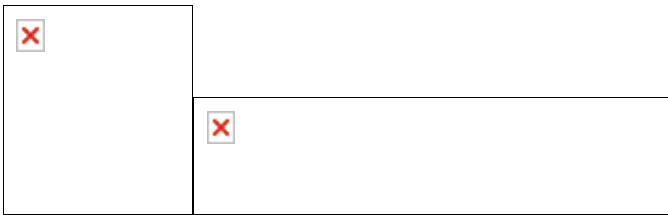
- 1. Disconnect power to the golf ball dispenser**
2. Bolt the reader into the paper currency cutout in your ball dispenser.

3. Route the power supply cable (supplied with reader) to the 9vdc input jack on the back of the reader. The connections labeled **Out 1+** and **Out 1-** terminals on the back of the reader should be connected to the existing token trigger wires (leaving the existing connections intact). This will enable the e-Range reader to trigger the ball dispenser. The 'Out' connections are rated at a maximum of 24Volts 1/2amp.
4. If you wish to use separate large selection switches other than the ones on the reader keypad you will need to route wires from the selection switch terminals (**S1, S2, S3** and **common**) to your selection switches. These external switches provide an easier, larger surface for your customers to select the basket size they wish to purchase.
5. Your e-Range electronic reader has the ability to monitor the use of tokens as well as e-Key and PIN transactions. Please call technical support for assistance if you wish to use this feature.
(see the WARNING - electrical damage note below.)
6. Plug the supplied 9VDC - 600ma Power Supply into the auxiliary 120VAC (standard household) electrical outlet inside the Golf Ball dispenser. (Or other 120VAC source). We recommend securing the power supply so that vibration cannot accidentally knock the power supply out of the outlet.
7. Reconnect the power to the golf ball dispenser.
- 8. NOTE: ***WARNING*** **CONNECTING POWER OR EXISTING BALL DISPENSER WIRING TO THE SELECTION SWITCH OR CREDIT SWITCH TERMINALS ON THE REAR OF THE READER WILL CAUSE PERMANENT AND IRREVERSIBLE DAMAGE TO THE READER UNIT, AND WILL VOID ALL WARRANTIES. IF YOU REQUIRE INFORMATION OR ASSISTANCE IN CONNECTING SWITCHES TO THESE CONNECTIONS, PLEASE CALL TECHNICAL SUPPORT.****
9. Technical support can be reached at 905-688-8823 Monday to Friday 9am-5pm EST. Technical support is provided free of charge for the first 90 days. Annual, 365 day, 7am-12pm support contracts are available.
10. Connection descriptions:
 - T3, T2, T1 and common, are used to monitor the existing token switches on the dispenser. Some rewiring of the dispenser may be required. ***** Do not connect existing ball dispenser wiring to these terminals! *****
 - S3, S2, S1 and common, are used with the provided selection switches. ***** Do not connect existing ball dispenser wiring to these terminals! *****
 - Out 1+, Out 1- are connections to the token or coin mech switch for selection size 1.
 - Out 2+, Out 2- are connections to the selection 2 coin mech (optional on

some ball dispensers).

- Out 3+, Out 3- are connections to the selection 3 coin mech (optional on some ball dispensers).
- Relay contacts are rated maximum 1 amp at 24VAC/VDC
- 485- / 485+ connections are not used with wireless eRange products. ***** Do not connect existing ball dispenser wiring to these terminals! *****

Features – A brief overview



Note: For users of the

computer software.

The e-Range computer software tracks customer purchases, can blacklist lost or stolen customer keys, revalue e-keys and with the amazing reporting functions built into the system, give you almost all the information you need to operate a super efficient range. All e-range products now have export ability. You can export preferred reports to your favorite spreadsheet or database program, or email the exported reports to another location for analysis there.

The e-Range PIN computer software adds the ability to operate your golf ball dispenser using a single use 5 or 6 digit PIN. The PIN is purchased in the office, Pro Shop, or ClubHouse by the customer, and your customer is then able to use that PIN, only once, to operate the golf ball dispenser. This is very convenient with transient or one-time customers. PIN dispensing can operate any selection size available. You can control the length of time a PIN will work at the ball dispenser. PIN's can be set to expire in 15 minutes, hours or they can be issued at 6:00AM and not expire until midnight.

Tournament & Group PINs

can now be batch printed early in the morning and given to a tournament marshal or group manager for distribution to the players. Enter the number of PINs you want for the group, title the list and click to print the whole list of PINs. You can produce more than 300 valid PIN numbers at 7:00AM, preprint the PIN receipts that trigger the ball dispenser and have the numbers automatically expire at midnight if the tournament players did not use their PIN.

e-range PLUS

computer software and hardware is a powerful wired version of the e-range products that allows you to set prices, time, download transaction events without going to the ball dispenser. Monitor ball dispensers immediately from the computer. E-range PLUS is required if you intend on using PIN activation on more than one dispenser.

e-range PLUS

computer software and hardware has a comprehensive customer database which allows you to export your customer database to your favorite mail program or word processor for target mailings and other demographic notices. Contact specific customers based on age, gender, zip code, birthdate etc.

Menu Operation

Use of the Menu e-key and the built in telephone style keypad:

Some readers have a telephone style keypad right on the front of the reader. If

you have a reader with a keypad, the specially programmed red e-key you received with your reader will access the built in menu functions. Touch the specially programmed red e-key to the reader and the reader should display the message [Meters](#), then you can...

- Use **2** to scroll up the menu items
- Use **8** to scroll down the menu items
- Use **#** to select the menu item displayed (same as 'Enter' on a computer)
- Use ***** to {escape} back out of the menu item on the display (go to the 'top' of the menu item)
- Use **6** to increase numbers or values shown on the display
- Use **4** to decrease numbers or values shown on the display

Reader Menu Items - Summary

The menu items shown below are displayed in a hierarchical format. A main menu item is displayed with a bullet beside it, any sub menu items (accessed by using the 'enter' on your keypad), are displayed indented below the main menu item. To access menu items use the up and down method. To access sub menu items, use the 'enter' on a menu item. To go back one or more sub menu levels, use the 'back out' method listed above.

- **Meters:** View all meter readings here

- **Security:**

Vendor: (security) 199 (*not changeable*)

Location: (security) 0 to 10000 by 1 (*your exclusive code - not changeable*)

Season: (security) 0 to 200 *by 1*

Dispenser No: (security) 1 to 99 *by 1*

PIN Encryption: (security) 1 to 250 *by 1*

PIN valid for: (information) 0 to 1440 *by 1*

- **Pricing**

Selection 1: 0.00 to 50.00 – by .05

Selection 2: 0.00 to 50.00 – by .05

Selection 3: 0.00 to 50.00 – by .05

- **Allow Discounts:** Y/N Allow discounted purchases from this reader.

- **Relay Functions**

Only one mech Y/N

Dispense Time1 :0 to 20 by 1. Delay number of seconds between pulses for selection 2 and 3

Dispense Time2 :0 to 20 by 1. Delay number of seconds for selection 2.
(only visible if 'Use one mech' is set to No)

Dispense Time3 :0 to 20 by 1. Delay number of seconds for selection 3.
(only visible if 'Use one mech' is set to No)

see the notes in the detail section for setting the dispense time to 0.

- **Time/Date**
- **Internal Markers (information use only)**

Total Users: number of eKeys being used (max 500).

Log Trans: number of transactions currently stored in the reader.

Total Lost: number of Lost eKeys in the reader.

- **Exit**

Reader Menu Items - In Detail

The menu items shown below are displayed in a hierarchical format. A main menu item is displayed with a bullet beside it, any sub menu items (accessed by using the 'enter' on your keypad), are displayed indented below the main menu item. To access menu items use the up and down method. To access sub menu items, use the 'enter' on a menu item. To go back one or more sub menu levels, use the 'back out' method.

- **Meters:**

View all the readers' on-board meter readings including, quantity sold by Tokens, PINs and Prepaid eKey accounts.

- **Security:**

Vendor: (security encryption) 180 - 200

Vendor is a specific number assigned to the distributor of the reader.

Location: (security encryption) 0 to 10,000 by 1 (security feature so only your e-keys work at your location)

The location is a settable number which identifies your location to you. It is similar to assigning an address to your facility. This number uniquely identifies you as the owner of this reader and prevents other e-keys from being used on your property. This number is set by the distributor you purchased the reader from. This number is unique to you and once assigned is yours only.

Season: (security encryption) 0 to 200 by 1)

You can use the Season number to disable last year's prepaid e-keys. Each new season you can increment the Season by 1, which would disable all last years e-keys until you gave your customer new credit by erasing their old e-key and giving them credit with the new season programmed on the eKey.

Dispenser No: (security encryption) 1 to 99 by 1)

If you have multiple readers at your range, each reader should have a unique number assigned. This will give accurate records for each ball dispenser..

PIN Encryption: (security encryption) 1 to 200 by 1)

The PIN encryption number ensures that you have the ability to change the current encryption scheme used by the reader. Note: All the security settings effect the valid PIN sequence, if the settings in the software are not the same as the reader the PINs will not work.

PINs Valid for:: (security) 0 to 1440 by 1)

The number of minutes from now that a PIN is valid for. NOTE: If you are not using eRange version 8, then this setting should be set to 1 to prevent customers from attempting to enter PINs at the reader.

A setting of 0 (zero) makes PIN last all day until midnight.

A setting of 1(one) turns PIN entry off.

- **Pricing:**

If selection 2 and 3 are not used, then the prices for those selections must be set to 0.00 (zero)

Selection 1: 0.00 to 99.95 – by .05 increments *Price of selection one (eg. small)*

Selection 2: 0.00 to 99.95 – by .05 increments *Price of selection two (eg. medium) Setting the price to 0 will display ‘Selection not available’ when the button is pressed.*

Selection 3: 0.00 to 99.95 – by .05 increments *Price of selection three (eg. large) Setting the price to 0 will display ‘Selection not available’ when the button is pressed.*

Readers equipped with version 36x and higher code have an invisible built-in feature called **TouchVend** in the reader. If all three prices are set to the same value, touching the e-key to the reader will produce a vend on relay one, WITHOUT making a selection. Use caution with this feature as some customers may think they are checking their balance, and did not intend on making a purchase.

- **Allow Discounts Y/N:**

If customers have a specially programmed discount account, you can actually turn discounting off at individual readers. So, if you did not want to discount the grass tee dispenser, you could turn ‘Allow Discounts’ off at that reader, but still allow your special customers that own discount accounts to enjoy their discount at other readers.

- **Relay Functions**

Only one mech Y/N. If only one token or coin mechanism is installed in your ball dispenser, you should select Yes. This will produce multiple delayed pulses for selections 2 and 3 if selection 2 and selection 3 are not priced at 0. Delay number of seconds between pulses for selection 2 and 3. Selecting No will trigger Output Relays 2 and 3 respectively for those selections.

Dispense Time1 :0 to 20 by 1. Delay number of seconds between pulses for selection 2 and 3. If ‘Use one mech’ is set to No, then this is

the delay number of seconds for selection1 before the reader returns to standby.

Dispense Time2 :0 to 20 by 1. Delay number of seconds for selection 2 before the reader returns to standby. (only visible if 'Use one mech' is set to No)

Dispense Time3 :0 to 20 by 1. Delay number of seconds for selection 3 before the reader returns to standby. (only visible if 'Use one mech' is set to No)

Notes for Dispense Time of 0: Some ball dispensers use a second button to actually dispense the balls. This allows the customer to insert multiple tokens into the ball dispenser to accumulate a number of tokens before dispensing a medium or large basket. If your ball dispenser has this accumulator option built in, you can set the dispense time in the reader to 0. This will simulate the customer putting in two or three tokens in less than one second as the reader has a delay dispense time of 0.

- ***Time***

Set the time and date in the reader here. Use the 2 and 8 to scroll through day, month, year, hour and minute. Acceptable years are between 2000 and 2016. It is important that this date is accurate as this time is recorded on all transactions made by your customers at this reader. If the date is incorrect, you will not download relevant purchase history for your customers.

Note: an optional time synchronizing e-key which can be used on a regular and repeated basis is available to simplify and guarantee clock synchronization between the reader and your computer. With a simple touch to the front of the reader the clock is synchronized to your PC.

- ***Internal Markers:***

This information is used for diagnostic purposes only and has no effect on the operation of your reader.

Total Users: This is the total number of eKeys being used at your facility (max 500).

Log Trans: This is the total number of transactions currently stored in

the reader which will be transferred onto the data carrier in groups of 700 when you touch the carrier to the reader.

Total Lost: This is the total number of lost eKeys listed in the readers memory. This number should correspond to the number of lost accounts in your PC.

- **Exit**

Pressing the '#' key on the keypad while this menu item is displayed will exit the menu functions and return the reader to regular operation.

Using Club Keys

CLUB keys have been used by private and semi-private golf clubs to effectively control members' use of the driving range. CLUB keys allow you to give range members a programmable number of baskets per day.

Example: It may be prudent to offer two baskets of balls each and every day a member may show up at the range. If the member wishes to use more than the range membership allows, (two baskets per day in this case), they must purchase baskets 3 and above. If the range member wishes to share their 2 basket allotment they may do so, however CLUB keys eliminate stockpiling of tokens by members and the free distribution of tokens to non members. If a member only goes to the range once a week, they would still only get 2 baskets on the day they used the range.

The Club Key feature only gives credit to specially programmed CLUB KEYS. It will not give credit to regular customers or prepaid balance accounts. Any regular user e-Key can be programmed to act as a club key. This must be done the first time an e-Key is revalued, or after it is recycled(erased). An e-Key that has already been programmed as a regular user key, must be erased before it can be programmed as a Club key

The e-Range auto credit option allows the dispenser owner to tailor the automatic credit function to his personal requirements. The **Auto Credit** Function allows the range operator to give 'Free' credit in variable amounts.

NOTE: Club Keys do not accumulate value on the days that they are not used. The Club Key will only receive credit for the days that it is used at the reader. If the member only uses it one day for the week, he will only receive the one-day credit that was allotted to him when his Club Key was issued.

Discount Accounts

e-range e-key readers with internal firmware software 39 and higher support individual customer account discounting. You can give every customer their own purchase discount from 0% to 50% in 5% increments. You can tell which version of firmware is in the reader by turning it off, then on. The version and date of the firmware is displayed for about 2 seconds during power-up of the reader. E-range software with a build number of 17 or higher has individual customer discounts available in the revalue screen of the software. The e-range version is displayed in the lower right hand part of the main screen and will appear as 6.17.35 where the first number is the version and the second is the build number.

Upgrades are available to your existing product if it does not support individual customer discounts currently.

Expiry Dates on Accounts

Every customer account can have it's own expiry date. Select an appropriate date in the revalue window of the e-range software, or select 'never' as an expiry date. If an expiry date is set and the e-key is touched to the reader, the reader says 'Expired'.

Accountability Meters

The reader is equipped with internal meters that keep track of all e-Key and pin transactions. (If your reader was set to read Token transactions when it was installed, then it will also record all of your token transactions at the dispenser.). All meters are non re-settable. The non re-settable values are the amounts from when the reader was shipped to you (They may include some test vend counts). These meter readings can be easily accessed from the reader configuration menu using your specially programmed menu e-Key.

We highly recommend the use of the **e- range** computer software to track prepaid sales and customer purchasing history and disable lost or stolen prepaid accounts. The comprehensive software program tracks all sales, who bought what size of basket and when. Printable reports and informative graphs give you a quick visual representation of the performance of your range. Instantly shows you slow and peak periods. Give employees their own prepaid account to be used for transient customers and view that employees' sales history.

The **e- range** computer software tracks customer purchases and can blacklist lost or stolen customer keys, revalues e-keys and with the amazing reporting functions built into the system, gives you almost all the information you need to operate a super efficient range.

The **e- range** ^{PIN} computer software adds the ability to operate your golf ball dispenser using a single use 5 or 6 digit PIN. The PIN is issued in the office and your customer uses that PIN to operate the golf ball dispenser.

PIN Activation using e-range version 8

You can use a printed PIN number to activate your ball dispenser without the use of tokens. The pin number is a one-time use number that expires if not used, and if used is only good for one basket of balls. It is important that security settings and the clock in both your PC and the e-range reader are accurate.

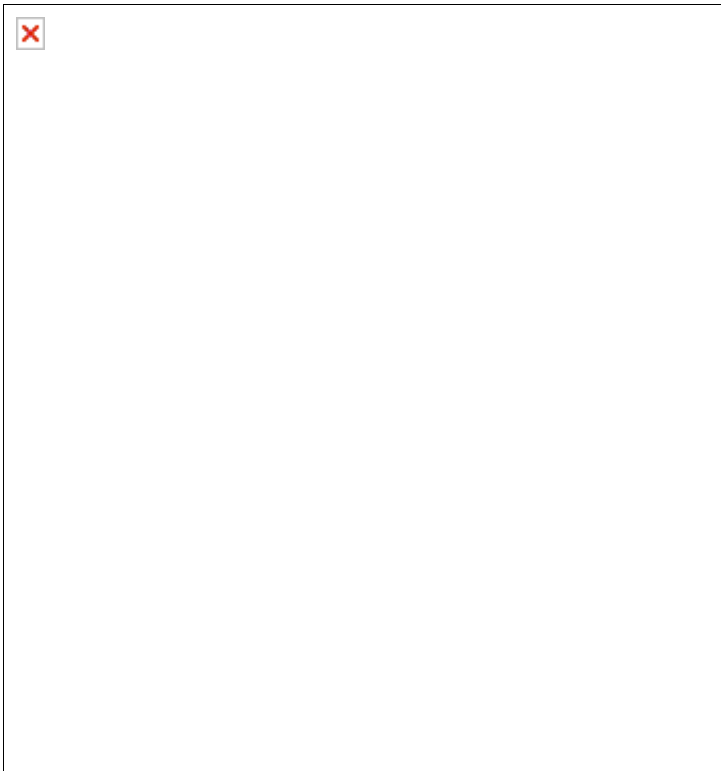
PIN activation will only work with one ball dispenser. If you have more than one ball dispenser and wish to have PIN activation for all your dispensers, you will need e-range PLUS software and hardware that requires that the ball dispensers be wired together and to the computer running the e-range PLUS software.

QUICK SETUP

Basic operation and Setup

BEFORE TOUCHING ANY e-KEYS TO THE READER YOU MUST SET UP YOUR READER FIRST.

- Install the reader, carefully following all installation instructions.
- Make sure all configuration settings are set correctly in your reader.
- Program the three prices, as required (unused selections should have their prices set at zero to disable them at the reader).
Remember you can charge a different price on the reader than you do for cash or tokens.
- Be sure to exit the menu after making your changes, and store your menu key in a safe place.



To purchase a basket of balls, using the e-Range prepaid system equipped with two or three sizes of baskets, you would select the size of basket you want using the selection buttons installed on the golf ball dispenser. The reader will display the current price of that selection. While the price is being displayed (about 5 seconds) touch your e-key to the reader. The basket size selected will be dispensed, and the appropriate amount will be deducted from the user's e-Key.

Customer Balances: View a customer balance at any time at the golf ball dispenser.

While the reader is showing the standby message, simply touch the customers' e-key to the reader. The current balance of the e-key is displayed. ***Do not make a selection!*** If a price is displayed, you will vend that size basket.

SECURITY

No one else can use your e-tee reader –

The reader uses the Vendor, Location, and Season codes to

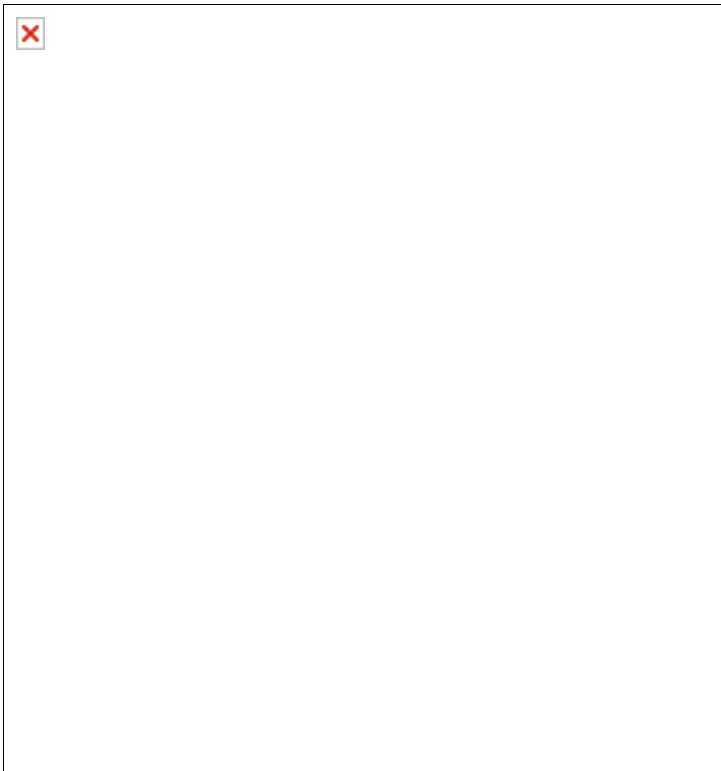
exclusively identify this reader to you. There are over 100,000 exclusive codes that can be assigned to the reader and your e-keys, which prevents anyone else from using e-keys from another range or golf club. When you purchase your e-

Range electronic prepaid range system, you are assigned exclusive security settings. Just changing one of the three settings will make all user e-keys inoperative. To start a new season (year) for prepaid sales, you would change the Season code in the e-Range reader. When you change the Season code, your customers' e-keys will not work until they bring them back to you so that you can revalue them with a new (this years) prepaid amount.

When you report a customers' e-key lost or stolen (option only available with version 6 and higher software), the reader automatically scrambles the security settings in the e-Key, effectively and instantly rendering that lost e-key unusable. If the scrambled e-key is subsequently found and returned, the scrambled e-key can be brought back to the office and recycled (erased) so that you can reuse that e-key.

Troubleshooting

Q. My customers' e-keys don't work.



A. – Does display show ‘Wrong Vendor/Location/Season? Check your Location and Season numbers. (Did you record them at the beginning of the year before you gave your customers their e-keys?) If security settings are different than when you started this year and gave your customer his/her e-key, the customers’ e-keys will not work. The security settings recorded on the e-key when it was last revalued or erased **MUST** match the security settings of your e-Range reader to operate properly.

Q. *My meter readings don’t match in the dispenser and the e-Range system.*

A. – The meters in the e-Range reader will only record those sales and transactions performed with the reader and your e-keys. If you have a token or additional cash system on your golf ball dispenser, the meters installed in the golf ball dispenser will record ALL sales or dispenses made by the golf ball dispenser including the e-tee sales. E.g. you had three token sales and four e-Range sales, the e-Range reader meter would increase by four, but the dispenser meter would increase by seven, ***unless your reader was properly installed to record token sales.***

Q. PIN numbers do not work and keep saying Invalid PIN.

A1. – It is very important that all security settings are set the same in the e-range software and the reader. You should check that the PIN encryption and PIN expiry settings are the same in both the preferences window of the e-range software and the reader. PIN expiry settings are the most common cause of invalid PIN numbers.

A2. – Another common cause is that the clock in the computer is not the same as the clock in the reader. Make sure that the time on your PC is the same as the reader. You can change your PC time by double clicking on the clock value at the bottom right of your screen.

Patent Pending on wireless PIN activation

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www.golfrangesystems.com

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For technical support please call:

(905) 688-8823 M-F 9am-5pm EST

or visit our website, or email

info@golfrangesystems.com

Extended support options including 365 day, 24hr telephone support is available.

Check the website for more information or call the number above.

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Call your golf ball equipment distributor for more information.

Check the website for free e-range software updates.