## CURRENCY VALIDATORS



## BILL ACCEPTOR WITH FLEXSTACK

COINCO

- The Coinco Vantage VX63B45US00 MDB bill acceptor is a 34 VDC model that can be mounted as upstack or downstack, with four-way acceptance of $1,5,10$, and 20 U.S. bills. It features a basic quick-release bezel, a patented bill lockout that stops stringing, and a FlexStack ${ }^{\text {m }}$ bill box that can hold from 200 to 500 bills.
- Four-way acceptance of \$1-\$20 American bills
- 34 VDC
- FlexStack ${ }^{\text {m }}$ cashbox holds 200-500 bills
- 66 mm bill acceptor width
- Upstack or downstack mounting
- Illuminated bezel and status indicators
- Quick-release standard bezel speeds installation and removal
- Patented note path lockout provides high security

Coupon use capability
Level 3 stringing and fishing protection


## CURRENCY VALIDATORS

PYRAMID TECHNOLOGIES

- 12VDC standard, with 24VAC, MDB, and 120VAC power supply options
- Numerous interfaces available - pinouts compatible with other manufacturers
- Accepts bills up to 72 mm wide for foreign applications
- Automatic self-calibration, never requires user calibration
- Lighted arrows on bezel and bill entry area
- Dual-stage optical anti-stringing
- Simple setup with configuration card
- High security against fraudulent bills
- Flash updates using a Palm ${ }^{\text {TM }}$ PDA

Palm-based advanced diagnostics

- Free currency upgrades
- Push-button/LED on-board diagnostics

| \$13.50 | PT05AA0012 | Wall Plug Adapter |
| :---: | :---: | :---: |
| \$70.50 | PT02AA3005 | Universal 500 Note Plastic Cashbox For Apex And Spectra Stackers |
| \$292.26 | PTAPEX7400-DB4 | No Mag Head - \$1 \& \$5-Down Stacker - 500 Bill - MDB Harness |
| \$265.37 | PTAPEX7400-UB4 | No Mag Head - \$1-\$20-Upstacker - 500 Bill - MDB Harness |
| \$292.26 | PTAPEX7401-DB4 | No Mag Head - \$1-\$20-Coinco Bezel - Downstacker - 500 Bill - MDB Harness |
| \$265.37 | PTAPEX7401-UB4 | No Mag Head - \$1-\$20-Coinco Bezel - Upstacker - 500 Plastic Bill - MDB Harness |
| \$265.37 | PTAPEX7402-UB4 | No Mag Head - \$1-\$20-VFM Bezel - Upstacker - 500 Plastic Bill - MDB Harness |
| \$336.22 | PTAPEX7600-U53 | Mag Head - \$1-\$100-Upstacker - 500 Bill - 120 VAC |
| \$293.55 | PTAPEX7401-UB3 | Coinco Bezel - Upstacker - 500 Plastic Bill non-locking plastic cassette - 120 VAC |

Bill validators are the lifeline of a cash-intensive industry like the car wash industry, from
 tunnels, to bay boxes, to vending set-ups. Customers love the convenience of a fast, reliable transaction with minimal roadblocks. Being able to use their cash, without worrying about smoothing out every single crease and constantly inserting and reinserting, saves them time and makes it easy for them to spend more at your facility! Bright graphics and well-lit bezels make sure your customers don't have to wonder where to insert their bills.

At the same time, bill validators offer you great security in your cash transactions! Featuring everything from optical stringing protection to anti-fishing barriers, to cash box lock outs, they allow you to be confident that only legit bills will be accepted, and that crooks won't be able to cheat you out of your business. High-security cash boxes keep your bills safe and sound for you to empty when convenient, with some high-capacity models offering storage for hundreds of bills. The newest models even feature automated diagnostics and wireless communications, to make your life easier!

## CURRENCY VALIDATORS



## CPI TALOS VALIDATORS

VALIDATORS
－Secures banknotes in speeds under 2.5 seconds
－Light Bar recognition system delivers best in class fraud detection
－Firmware updates via USB，increases update speed ten－fold
－Addresses new advances in banknote security
－Encrypted，secure，seamless updates
－32－bit microprocessor with processing power to support enhanced features
－Enhanced security modes provide additional theft protection，early detection，and alarm triggering
－External error code access
－Replaces 2000 Series Bill Validators

## CHANGES FROM 2000 SERIES

－Light Bar recognition replaces Pellet Sensors
－No more dip switches
－Denomination acceptance programing w／banknote or coupon
－Increased banknote transport speed
－New bezel designs－VFM \＆Compact applications
－Single high security mode
－USB supported updates

## SIMILARITIES WITH 2000 SERIES：

－All bezel design types are compatible，including cashless
－Retro bill magazine compatibility
－Reliable banknote transport and stacking mechanism performance
－Supports all OEM communication protocols and interface types
－Drop－in replacement for 2000 Series units
－Programming push button found behind the bill magazine

COINBOX VALIDATORS SPECIFY CHANGER AND MODEL
VALIDATORS

| $\$ 478.20$ | T6T1－U5E | T6T1－U5EUS | $\$ 1-\$ 20\|110 \mathrm{VAC}\| 500$ Bill |
| :--- | :---: | :---: | :---: | :---: |
| $\$ 461.15$ | T612－U3E | T612－U3E | $\$ 1-\$ 20\|24 \mathrm{VAC}\| 300$ Bill |
| $\$ 517.08$ | T631－D7E | T631－D7EUS | $\$ 1-\$ 20\|110 \mathrm{VAC}\| 700$ Bill |
| $\$ 506.13$ | T601－U7E | 253100290 P 1 | $\$ 1-\$ 20\|110 \mathrm{VAC}\| 700$ Bill |
| $\mathbf{\$ 4 6 7 . 9 3}$ | T602－U5E | T602－U5E | $\$ 1-\$ 20 \mid 24$ VAC｜ 500 Bill |


| $\$ 478.20$ | T612－U5E | T612－U5E | $\$ 1-\$ 20 \mid 24$ VAC｜ 500 Bill |
| :---: | :---: | :---: | :---: |
| $\$ 467.86$ | T7T2－U5M | T7T2－U5M | $\$ 1-\$ 20 \mid 24$ VAC｜500 Bill |
| $\$ 467.86$ | T702－U5M | T702－U5M | $\$ 1-\$ 20 \mid 24$ VAC｜500 Bill |
| $\$ 513.79$ | T632－D7M | T632－D7M | $\$ 1-\$ 20 \mid 24$ VAC｜700 Bill |
| $\$ 478.20$ | T611－U5E | 253100261 P1 | $\$ 1-\$ 20 \mid 110$ VAC｜500 Bill |
| $\$ 92.95$ | MARSB0X300 |  | 300 Note |
| $\$ 157.91$ | MARSB0X500 |  | 500 Note |
| $\$ 124.49$ | MARSB0X700 |  | 700 Note |
| $\$ 162.64$ | MARSB0X1000 |  | 1000 Note |



COINCO VALIDATORS－VANTAGE SERIES

## （DIRECT REPLACEMENT FOR MARS）

VALIDATORS
－Accepts 66 mm or 72 mm wide bills in four orientations
－Quick－release bezel standard on all models
－Three levels of stringing／fishing protection
－Coupon field teach mode for fast on－site activation
－Attention grabbing impulse lights
－Sculpted $360^{\circ}$ illuminated Smart Bezel ${ }^{T \mathrm{TM}}$ offers ease of bill insertion and triggers incremental consumer transactions．Actively communicates bill acceptance in real time！
－Centric drive technology compensates for skewed bill insertions，ensuring highest first time acceptance
－Advanced bill image processing and dynamic sensor calibration offers industry leading bill acceptance and fraud protection
－Automated self－diagnostics ensure optimal performance resulting in fewer service calls

| $\$ 423.89$ | VL61R44US00 | 110 Volt $\$ 1-\$ 20-400$ Note |
| :--- | :--- | :--- |
| $\$ 423.89$ | VL61R45US00 | 110 Volt $\$ 1-\$ 20$－Flex Stack |

## EVOLUTION COIN HOPPERS

SUZOHAPP
ミSUZOHへアP
－The Evolution EV100－011B Change Machine Hopper is a belt－driven model designed for high speed and easy service．
－Used by American Changer and Namco CyberTainment
－Black Bulgin plug connector（same as Money Controls MK4 connector）－ pulse or on／off
－Connector can be easily changed from front to back
－Includes mounting plate
－Voltage 24 volt DC
－Operating Temperature： $32^{\circ}$ to $158^{\circ}$ Fahrenheit
－ 1500 quarter capacity

| $\$ 219.28$ | EV100－011B | Bulgin Connector and Parallel Interface |
| :---: | :---: | :---: |
| $\mathbf{\$ 2 3 9 . 0 7}$ | EV100－001B | Cinch Connector，Parallel Interface |

## COIN ACCEPTORS \& BILL VALIDATORS



## SENSORTRON COIN ACCEPTOR GINSAN <br> GinSan

- Electronically size and accept any coin
- Accept any denomination coin
(foreign or domestic) or desired token
- Automatically rejects and returns improper coin, token or slug
- 1 coin operation
- Requires 24 VAC power source. Available in either 2" (CB0201) or 3" (CB0200) faceplate
- Model CB0190 is a replacement insert only and does not include faceplate. Will work with either 2" or 3" faceplate

| $\$ 154.29$ | CB0201 | 2" Sensortron |
| :--- | :---: | :---: |
| $\mathbf{\$ 1 5 3 . 8 9}$ | CB0200 | 3" Sensortron |
| $\mathbf{\$ 1 3 3 . 3 3}$ | CB0190 (GS 41) | Insert Only |



## SLUGBUSTER ${ }^{\circledR}$ (OLD STYLE)

 parker engineering- Long drop, single coin operation
- 2" face plate
- Operates on 24 VAC
- Has AC and DC credits
- Accepts quarters, tokens or dollar coins
- 2 year warranty
\$130.63 CB0265


SLUGBUSTER ${ }^{\circledR}$ II DUAL COIN MODEL P-55 parker engineering

- Dual coin applications
- Quarter/token, quarter/token
- Dollar coin not recommended
- Operates on 24 volt AC/DC
- No magnetic crediting
- E/Z clean coin path
- 2 year warranty

| $\$ 152.50$ | CB0260EZ | Long Drop |
| :--- | :---: | :---: |
| $\mathbf{\$ 1 5 2 . 5 0}$ | CB0275EZ | Short Drop |



## SLUGBUSTER ${ }^{\circledR}$ III

 PARKER ENGINEERING- Long and short drop models
- E/Z clean coin path, 3 coin operation
- Operates on 24 VAC or VDC
- Programmable pulse length
- 3 channel audit feature
- No magnet crediting
- 2 year warranty

| $\$ 196.88$ | CB0262EZ | Long Drop |
| :--- | :--- | :--- |
| $\$ 196.88$ | CB0263EZ | Short Drop |



## COIN VALIDATING <br> EQUIPMENT

IMONEX COIN ACCEPTORS
HPNNEX

- Durable, long-lasting materials, ends rust problems
- Ends alignment adjustments
- Anti-stringing device
- Resists salting
- Accepts 100\% of good coins
- Replaces mechanical coin acceptors
- Reduces customer complaints and vandalism
- No moving parts or electrical requirements
- Available for car wash coin operated equipment (vacuums, air machines, coin meters, floor mat machines, etc.)

| $\$ 52.77$ | IMZ3Q | Quarter Only Mech |
| :---: | :---: | :---: |
| $\$ 60.32$ | IMZ3TQ | Quarter/.984 Token Mech |
| $\$ 18.32$ | IMS75968 | Credit Switch |

IMS75968
Credit Switch


IMONEX INSERTS
IMONEX COIN ACCEPTORS
MMENEX

- Replace mechanical coin acceptors
- Reduces customer complaints and vandalism
- No moving or electrical requirements
- Resists salting

| $\$ 20.90$ | IM901 | Insert US Coin |
| :---: | :---: | :---: |
| $\mathbf{\$ 1 8 . 3 2}$ | IMS75968 | New (Credit) Switch/Terminal Up |
| $\mathbf{\$ 2 5 . 1 1}$ | IM906 | .900 Token |
| $\mathbf{\$ 2 5 . 9 8}$ | IM907 | .900 \& U.S. Qtr. |
| $\mathbf{\$ 2 5 . 1 1}$ | IM914 | .900 \&.984 Token, U.S. Qtr. |
| $\mathbf{2 2 0 . 9 0}$ | IM901 | U.S. Qtr. |
| $\mathbf{2 2 0 . 9 1}$ | IM901C | U.S. Qtr. \& Canada Qtr. |
| $\mathbf{\$ 2 5 . 1 1}$ | IM909 | U.S. Qtr. \&.984 Token |
| $\mathbf{\$ 3 5 . 1 1}$ | IM908 | .984 Token |

## 3" COIN MECHANISM

## CM COIN ACCEPTORS

- Sturdy stainless steel construction complete faceplate assembly. Will not break if kicked or hit with a hammer
- Standard 3" width faceplate with stainless steel reject plunger
- Internal coin return cup with flap removed
- Accepts all mintings of U.S. Quarters
- Programmable DIP switches
- Operates with 12-24 Volt DC or AC power
- Single-piece design virtually eliminates coin jams and alignment problems
- Processes damaged coins - dramatically reduces downtime and need for service


## \$135.62 IM206



## 2" COIN MECHANISM

CM COIN ACCEPTORS

- Sturdy stainless steel construction complete faceplate assembly. Will not break if kicked or hit with a hammer
- Standard 2" width faceplate (measure across faceplate) with stainless steel reject plunger
- Removable plastic coin return cup
- Microswitch
- Accepts all mintings of U.S. quarters

| $\$ 45.74$ | CB0212 | Coin Mech Rejector |
| :--- | :---: | :---: |
| $\$ 7.75$ | ST0305 | Replacement Switch |
| $\$ 70.60$ | CB0206 | .900 Token Coin Mech |
| $\$ 70.59$ | CB0212-CL* | \$1 Canada Coin Mech |
| $\$ 45.28$ | CB0212-F* | Faceplate Only |
| $\mathbf{\$ 5 9 . 9 4}$ | CB0212-QT* | U.S. Quarter \& .984 Token |
| $\$ 70.60$ | CB0212-QT900* | U.S. Quarter \& .900 Token |
| $\mathbf{\$ 5 1 . 9 4}$ | CB0213* | Face Plate Assembly <br> with U.S. Quarter. Comp. |
| *NOW WITH A .205" TERMINAL MICROSWITCH |  |  |



## US \& CANADIAN COIN INSERTS (WITHOUT MAGNET) <br> CM COIN ACCEPTORS

- U.S. Quarter coin insert used exclusively in all Laurel Metal Products Drop Shelf Vendors
- Simple adjustment process
- Accepts both U.S. and Canadian quarters in one coin insert
- A magnet is used on all other coin inserts to catch counterfeit coins
- Easy to replace or convert in the field with a screwdriver
- 4 mounting studs on each corner

| $\mathbf{\$ 3 5 . 9 7}$ | CB0219 | Coin Mech Insert without magnet |
| :--- | :---: | :---: |
| $\mathbf{\$ 3 7 . 3 0}$ | CB0219-1 | \$1 U.S. Coin Mech Insert |
| $\mathbf{\$ 2 7 . 9 1}$ | CB0218 | U.S. Coin Insert (with magnet) |
| $\mathbf{\$ 3 7 . 2 9}$ | CB0220 | .50 Euro Cent Coin Mech Insert |
| $\mathbf{\$ 3 1 . 9 0}$ | CB0252 | Token Insert Only .984 |
| $\mathbf{\$ 3 4 . 6 5}$ | CB0251 | .984 Token/.25 mech |
| $\mathbf{\$ 4 . 2 5}$ | CB0222 | Coin Catcher Kit (with screws) |
| $\mathbf{\$ 2 7 . 7 7}$ | CB0224 | U.S. Qtr. Mech Insert Only (for Vac) |
| $\mathbf{\$ 3 9 . 9 5}$ | $\mathbf{C B 0 2 5 3}$ | 1.073 Token Insert |

## COIN ACCEPTORS, PARTS \& ACCESSORIES



REPLACES THE MA-800

## IDX MA-850 HAWK XEPTOR ${ }^{\circledR}$

IDX COIN ACCEPTORS

- Standard 2" faceplate footprint of 2 " $\mathrm{W} \times 7.75 \mathrm{H} \mathrm{H} \times 3.8^{\prime \prime} \mathrm{D}$
- Power sources 24 VAC/VDC standard optional voltages - 12VDC
- Accepts up to 6 coins \& or tokens
- Coin Sizes Accepted: Diameters 0.832" to 1.126" and Thickness 0.059 " to $0.085^{\prime \prime}$ other sizes available
- Standard 4 wire hookup
- Slide-on water resistant access covers
- Built-in "Credit Test" push button
- Coin types scan be learned or programmed in the field
- Unwanted shadow coin feature eliminates false acceptance of undesired coins
- Optional: Anti-String Optics can be added to any MA850

| $\mathbf{\$ 2 7 8 . 9 6}$ | IDXMA850 | IVS/Ginsan, Doyle, JE Adams, <br> Etowah, Dralco, D\&S, NtI. Pride |
| :---: | :--- | :--- |



```
REPLACES THEX-10
```


## IDX X-12 X-MARK XEPTOR ${ }^{\circledR}$ <br> IDX COIN ACCEPTORS

- Standard 2" faceplate footprint of 2"W x 7.75"H x 3.8" D
- Accepts mixture of 6 different coins, can be a combination of currencies, tokens or encoded security tokens
- Built-in coin release opens the chute to drop through bent and mutilated coins
- Power sources 24 VAC or 24VDC standard optional voltages - 12VDC
- Coin Sizes Accepted: Diameters 0.832" to 1.126" and Thickness $0.059^{\prime \prime}$ to $0.085^{\prime \prime}$ other sizes available
- Built-in water resistant access covers
- Built-in "Credit Test" push button
- Multi-color indicator LED for operational status
- Snap-in faceplate reduces coin jams from misaligned meter box doors and acceptor
- Optional: Anti-String Optics can be added to any X-12

| $\mathbf{\$ 3 1 7 . 1 6}$ | IDXX12-5A | 5 A - For Bays/Vacs, Ginsan, JE <br> Adams, Jim Coleman, Ryko |
| :---: | :---: | :---: |
| $\mathbf{\$ 3 1 7 . 1 6}$ | IDXX12 | 39 - Bays/Vacs, Exact One |
| $\mathbf{\$ 5 9 . 9 8}$ | IDXMA19 | 2" Snap In Faceplate |

## COIN ACCEPTORFOR AIR MACHINE

IMONEX COIN ACCEPTORS
IMCNEX

- IMONEX ${ }^{\circledR}$ patented, no moving parts, manual coin processing system
- Dramatically reduces coin related service calls and machine downtime
- One piece acceptor/bracket assembly; no alignment necessary
- For U.S. and foreign coin
- Hinged gate area for inspection
- Injection molded for high tolerance consistency
- Durable plastic does not sweat or corrode like metal

\section*{| $\$ 42.49$ | IM783 |
| :--- | :--- |}

## EUROPEAN REJECTOR \& REPLACEMENT SWITCH

 COIN ACCEPTORS- Fits Monorail vacs and coin boxes

| $\$ 61.50$ | CB0205 | Rejector |
| :--- | :---: | :---: |
| $\$ 13.00$ | ST0300 | Replacement Switch |



## U.S. PARAP LATE TIMER

U.S. PARA PLATE

## PARA PLATE

- 24 or 120 Volt
- For coin boxes or vacuum
- Up to 15 coins


## \$108.80 $\quad$ VA24400



## IMPULSE COIN COUNTER

KESSLER ELLIS PRODUCTS

- Non-resettable
- Available in 24 and 110 Volt

| $\$ 16.71$ | CB0255 | 24 Volt |
| :--- | :--- | :---: |
| $\$ 16.71$ | CB0256 | 110 Volt |

## VERTICAL 8 CHUTE

GREENWALD INDUSTRIES

- \$0.25 price option
- Anti-cheat gate
- Stainless coin sizing clots
- The industry standard
\$51.67 GR20-1000-1



## MICROCOIN QL <br> NATIONAL CARWASH SOLUTIONS

- This coin acceptor is a high-speed, multi-coin, field-programmable device. It is designed to operate in any coin-operated application, ranging from gaming through vending, amusement, and car wash.
- For "front entry" applications
- Can be fitted into any top-entry application with ease by virtue of its industry standard size and mounting pin positions
- Validator has a patented discrimination technology which allows it to accept up to 12 different coins or tokens at speeds up to 10 coins per second. The coins travel along a highly engineered coin path which accepts or rejects the coins at speed without compromising the operation of the validator.
- Comprehensive, handheld one-button programming - Up to 5 additional coins may be "quick learned"
- Standard 4 Wire Hook-Up - 24 VAC, common, 2 coin pulse wires
- On-Board Diagnostics
- Easy Internal Access
- Coin Thickness: 1.0 mm to 3.4 mm
- Anti-Jamming Design
- Dimensions: 73/4" x $2^{\prime \prime} \times 4$ "
- Bracket: Long Drop Style
- Computer Programmable
- Electronic \& Mechanical Anti-Stringing
- Coin Diameter: 16 mm to 34 mm

| $\mathbf{\$ 3 5 . 1 9}$ | MCS5BRKT | Replacement bracket with face plate |
| :--- | :---: | :---: |
| $\mathbf{\$ 3 6 . 5 6}$ | MCS361IF | Replacement Microcoin QL Val board |

5 COIN EP-5 PLUS - PROGRAMMABLE ACCEPTOR
MAGIIIST

- Long and short drop
- Rugged and waterproof
- Variable pulse width
- Industry standard hook-up
- Easy-read status display
- No sample coins required
- Precision discrimination
- Simple to program
- AC and DC switch out
tolerance level
- 2 year warranty

| $\$ 199.99$ | SECEP5LD | 5 Coin Mech. (Long Drop) |
| :---: | :---: | :---: |
| $\mathbf{\$ 2 2 2 . 1 3}$ | SECEP5SD | 5 Coin Mech. (Short Drop) |
| $\mathbf{\$ 2 2 2 . 1 3}$ | SECEP5LD-C | Canadian Long Drop |
| $\mathbf{\$ 2 2 2 . 1 3}$ | SECEP5SD-C | Canadian Short Drop |

## TIMERS

## TIMEMASTER TM5-CU COUNT-UP READOUT BAY TIMER

NATIONAL CARWASH SOLUTIONS


- The Timemaster TM5-CU Count-Up Readout Bay Timer is a reliable timer with an easily readable fluorescent display. Perfect for coin-operated self-serve car wash bays, this quality timer is housed in a high-impact plastic case and fits most coin boxes. Timemaster provides precise timing control to assure you and your customers the ultimate in performance and reliability!


## SPECIFICATIONS:

- Input Voltage: 24 VAC - Output Voltage: 24VAC
- Horn Voltage: 12VDC - External Coin Counter Voltage: 24VAC
- Mounting: Shelf-mounted and secured by a wing nut
- Memory Backup: EEPROM retains all programming in the event of a power failure


## DIMENSIONS:

- $3^{11 / 4 "}$ width x $13 / 4^{\text {" }}$ height $\times 3$ " depth


## FEATURES \& INFO:

- Housed in a water-resistant, high-impact plastic case and is designed to fit most coin boxes
- Last Minute Alert: Programmable from 1 to 59 seconds
- Display: Blue-green vacuum fluorescent display for maximum visibility, Price to start is displayed when the timer is not in use. As coins are accepted, the timer displays the balance due to start the wash. The timer's beeper is sounded with each accepted coin providing the customer with an audible confirmation of operation as well as the visual display.
- Bonus Time: Programmable from 0 seconds to 4 minutes.
- Grace Time: Programmable from 0 to 59 seconds
- Changeover Time: Product changeover for low pressure products frequently takes 10 to 20 seconds. Customer satisfaction can be improved if your timer pauses during product change over. Timemaster offers this feature for up to 4 different products. The pause time is programmable from 1 to 59 seconds.
- Controls:Initial programming is accomplished by mode and set switches located on the back of the Timemaster. The RC-1 is an optional infrared remote controller that permits programming changes, taking counter readings (from the built-in coin counter), testing equipment and bay wash down without coins or test switches. The "TEST" feature is programmable from 1 to 10 minutes of test time. A user programmable security code allows operator access to these features.

| $\$ 475.50$ | TM5-CU | Timemaster |
| :---: | :---: | :---: |
| $\mathbf{\$ 1 3 7 . 3 2}$ | CB0313R | Remote Controller |

## TIMERS



## NEED AN EXTRA QUARTERS WORTH?

GRACE PERIOD ALLOWS YOU TO RESTART CARWASH FOR ONE QUARTER WHEN INSERTED
WITHIN 15 SECONDS AFTER TIME RUNS OUT.
HAVE QUARTERS READY


## 24V GRACE TIMER

PARKER TIMERS

- Up to 63 Coins to Start
- Up to 4095 Seconds Per Coin (In 1 Second Increments)
- Grace Enable/Disable Option. Grace Time of 15,30 or 45 Seconds
- External Grace Beeper Output
- LED Indicator, Dim For Power On, Bright For Cycle Active
- Power Input - 24 VAC
- Solenoid Output - 24 VAC, 3A Continuous, 5A Peak. Pulled to ground through a Triac
- Beeper Output - 15 VIC
- Com Output - RS485

| $\$ 81.25$ | CB0335 | Grace Timer II |
| :---: | :---: | :---: |
| $\mathbf{\$ 3 . 7 5}$ | CB0332 | Extra Quarter Decal |
| $\mathbf{\$ 3 . 7 5}$ | CB0331 | Grace Time Decal |

## MAGITIMER ELECTRONIC TIMER <br> MAGIKIST

- Voltage: 120VAC or $24 \mathrm{VAC}-20 \mathrm{amps}$
- Can be used to directly control high current devices such as vacuum motors.
- Easy installation - adapts to most coin acceptors. Accepts a wide range of coin and time settings up to 16 coins to start and 17 minutes per coin.
- Accumulates time for each coin. Over 9 hours of time can be accumulated with no limit to the number of coins.
- Crystal controlled microcontroller provides exact timing.
- Last Minute Alert feature operates horn or light to signal that one minute of time is remaining.
- Start delay feature gives customer preparation time after depositing coins.
- Coin verification feature sounds an attached horn as coins are accepted for time credit.
- One Coin Restart feature gives customer 20 seconds at end of cycle to add one or more coins to restart timer. External indicator light may be connected to timer to flash during this 20 second period.
- All features may be enabled or disabled via switches while a reset switch allows for easy testing.


## \$91.20

SECS


SSAC ACCUMULATING TIMER FOR J.E. ADAMS VACUUMS J.E. ADAMS

- Solid state timer 1-7 coin start
- 120 Volt
- 30 amp output
- Allows for time accumulation
- For use on J.E. Adams vacuums


## \$90.72 TISSAC-A



## MX48 BY ID

IDXTIMERS

- Multiplex Triple Foam Controller with 8 inputs 1 constant 25 Amp 24VAC or 115VAC and 3 sequencing 3 Amp 24VAC outputs
- Replaces PLC's and multi-relay setups used for the multicolor or low pressure wax and brush systems
- 3 sequencing outputs controlled by 1 switch with a 50 milsec overlap

SSAC VAC TIMER FOR J.E. ADAMS/IDM WITH MOUNTING PLATE

## J.E. ADAMS



- Solid state timer 1-7 coin start
- 120 Volt
- 30 amp output
- With extra terminal accumulating

> | $\$ 123.96$ | TISSAC-ABKT |
| :--- | :--- |

## IX BY ID

## DXXIMERS

- Multiplexer for low pressure delivery system
- Longer life on rotary vane pumps \& spot free pumps
- Saves on chemical
- Reduces air lock on air pumps
- Inputs 8 at 24VAC
- Output voltage 24VAC or 115VAC
- Output load 25 Amps
- Heavy-duty aluminum heat sink
- 2 second delay for both on and off starts

| $\mathbf{\$ 1 4 9 . 9 2}$ | AT-MX8 | 2 second delay for on \& off starts |
| :---: | :---: | :---: |
| $\mathbf{\$ 1 4 9 . 9 2}$ | AT-MX10 | 1 second delay for on \& off starts |



TIGS401 24V
ACCUMULATIVE TIMER
REPLACES TIGS255, TIGS87
TIGS8, TIKR255
GINSANTIMERS

## GinSari

- Input Power: 20-32 VAC
- Power Output: 24 VAC
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 coins
- Coins Accumulated: 1-255 coin pulses
- Quick Restart Time: 1-60 seconds
- Low Time Alert: 1-120 seconds
- Overload Protection: Built in
- Display: \# coins or tokens accepted
- Warranty: 2 years
\$152.85 TIGS401



## TIGS403 <br> ACCUMULATIVE TIMER

REPLACES TIGS-9, TIKR-9,
TIGS-11 \& TIGS-101
GINSAN TIMERS
GinSan

- Vacuum Motors Driven: 3 motors
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 coins
- Coins Accumulated: 1-255 coin pulses
- Overload Protection: Built-in
- Warranty: 1 year
\$132.12 TIGS403



## TIGS405 120V ACCUMULATIVE DUAL TIMER

gIINANTIMERS GinSan

- Standard timer input with additional premium service input
- Input Power: 120 V
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 pulses
- Time Per Coin Premium: 1-511 seconds
- Coins to Start Premium: 1-31 pulses
- Low Time Alarm: 1-120 seconds
- Quick Restart Time: 1-60 seconds
- Warranty: 1 year

| $\mathbf{\$ 2 1 6}$ | TIGS405 |
| :--- | :--- |



TIGS404 24V
ACCUMULATIVE

## DUAL TIMER

GINSAN TIMERS
GinSans

- Standard timer input with additional premium service input
- Input Power: 24 V
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 pulses
- Time Per Coin Premium: 1-511 seconds
- Coins to Start Premium: 1-31 pulses
- Low Time Alarm: 1-120 seconds
- Quick Restart Time: 1-60 seconds
- Warranty: 2 years


TIGS402 24V
ACCUMULATIVE TIMER
REPLACES TIGS-7 \& TIKR-7 GINSAN TIMERS

## GinSan

- Input Power: 20-32 VAC
- Power Output: 24 VAC
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 coins
- Coins Accumulated: 1-255 coin pulses
- Quick Restart Time: 1-60 seconds
- Low Time Alert: 1-120 seconds
- Overload Protection: Built in
- Display: \# coins or tokens accepted
- Warranty: 2 years
\$70.21 TIGS402


## \$177.41 TIGS404

TIGS408230V
ACCUMULATVE VACUUM TIMER

GinSans

- Input Power: 230 V
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 coins
- Timer will accumulate coins deposited when operational
- Timer will accommodate up to three vacuum motors
- Warranty: 1 year

\section*{| $\mathbf{\$ 1 6 9 . 8 4}$ | TIGS408 |
| :--- | :--- |}

## TIMERS



TIGS409 120V
NON-ACCUMULATING VACUUM TIMER GINSAN TIMERS GinSan

- Input Power: 120 V
- Time Per Coin: 1-511 seconds
- Coins to Start: 1-31 coins
- Timer will not accumulate coins when operational
- Timer will accommodate up to three vacuum motors
- Warranty: 1 year
- THIS TIMER IS IDEAL FOR COMMERCIAL OR FREE VACUUM APPLICATIONS AS IT WILL ENSURE THE MOTORS SHUT DOWN AFTER EVERY CYCLE


## \$148.96 TIGS409

TIGS41524V
NON-ACCUMULATING
TIMER
ginsantimers
Ginsani

- Input Power: 24 V
- Time Per Coin: 1-511 seconds
- Coins to Start: 1 - 31 coins
- Timer will not accumulate coins when operational
- Warranty: 2 years
** IDEAL FOR FREE SERVICES UTILIZING 24V ACTIVATION

```
\$175.67 TIGS415
```


## TIGS20 AUDIBLE

## ALERT KIT

GINSAN TIMERS

## GinSan

- Buzzer activates for first 10 seconds of last coin's worth of time
- 24 V light connected to unit will flash for entire last coin's worth of time Used with TIGS401 or any timer with low time alert output


## \$165.80 TIGS20

## TIGS26 VAC DRIVER

 GINSAN timersGinSan

- 24 V power to operate and also drives vacuum motors
- No need for transformer and relay


TIGS30
TRIPLE FOAM TIMER
ginsan timers
GinSan

- Cycles 3 time-adjustable outputs
- Requires 24 VAC for operation
- Used in Kleen-Rite Triple Foam Unit \& can be used as a replacement timer in other triple foam units
\$183.99 TIGS30

TIGS16D FOR
RO PUMP CONTROL
ginsan timers
GinSan

- Reverse osmosis pump control with input for 12 bays
- Output operates after 1 second delay


## \$176.16 TIGS16D



## GS-400 COUNTDOWN DISPLAY TIMER

 GINSAN INDUSTRIES- Event Cycles: Two field-adjustable levels (start up value \& time can be adjusted)
- Programmable Wash Greeting: 32 character maximum (Message will scroll depending on length)
- Language Options: English, Spanish, German and French
- Currency Options: dollars, tokens, Euros and Pesos
- Bonus (Time) Levels: Three field-adjustable levels
- Quick Restart Time: 1-60 seconds (adjustable)
- Low Time Alert: 1-60 seconds (adjustable)
- Start Up Delay: 1-30 seconds (adjustable)
- 24 V System
- Timer Activation Values: . 01-\$99.00
- Pulse Accumulation Maximum: 255
- Timer Cycle: 0-99 minutes

| $\$ 318.11$ | TIGS400 | Digital Display Timer |
| :---: | :---: | :---: |
| $\$ 3450$ | GS77115 | Optional Remote |



## IDX GT200-A GIGA DISPLAY \& TIMER <br> IDX TIMERS

- Patented Two-Time Select - Great for higher price chemicals, combo vacuum, promotions and specials
- 10 separate programmable times and/or coins to start with programmable messages used in combo vac, for extra specials, pet wash, etc
- Audit shows total coins, total time on A\&B, with model GT200-A total \$ of bills, total credit card in \$ or time
- Footprint interchangeable with LTT802 timers and most other meter box small timers
- Credit Card protocol with Selectable Count down or Count Up Modes
- 2 programmable cycle times each from 1 sec to 99 minutes
- 3 scrolling 127-character programmable messages
- Selectable Lucky Time, Giga Time, Bonus Time programs
- Multi voltage input 12VAC/DC to 28VAC or 32DC
- Programmable coin base \$0.05 / \$0.20 / \$0.25 / \$0.50 / \$1.00
- Reset for Giga Time
- Separate input for bills \& credit card
- Field settable LED brightness levels
- 2-year warranty on LED's
- 24+\% less current draw
- 5 amp replaceable fused output
- Coin and bill acceptor disable wire

| $\$ 416.68$ | IDXGT200A | GT200-A Timer | For Vacs/Meters using optional services board |
| :--- | :---: | :---: | :---: |
| $\$ 314.02$ | IDXGT200 | GT200 Timer | Replacement for LTT802 Series Timers (no service board) |

## IDX GT912 GIGA DISPLAY \& TIMER

IDX TIMERS

- Card-display protocol
- 3 scrolling 127-character programmable messages
- 2 programmable cycle times each from 1 second to 99 minutes
- 2-year warranty on material/workmanship
- Display brightness field-programmable with 3 settings
- Adjustable display brightness based on timer's activity
- Operating voltages: 12VAC/DC to 28VAC to 32DC
- Relay input internal fused with replaceable 5 amp fuse
- Dual time/value accumulating timer for multi-value services
- Counts up dollar value as coins are deposited, counts time down when running
- Horn output is used for "X-Tra" time, "Last Minute Alert", "Bonus Time", "Giga Time/Unlimited Time" and coin deposit beep if horn is installed
- $20 \%+$ Less power required compared to the Big Time series of display timers

| $\$ 738.26$ | IDXGT912 | Giga-Time Big Two Timer - Horn Included * | *IN STEEL ENCLOSURE |
| :---: | :---: | :---: | :---: |
| $\mathbf{\$ 7 0 0 . 0 8}$ | IDXGT912-I | Giga-Time Big Two Timer - IVS** |  |
| $\mathbf{\$ 7 0 0 . 0 8}$ | IDXGT912-D | Giga-Time Big Two Timer - D\&S** |  |
| $\mathbf{\$ 7 7 5 . 7 5}$ | IDXGT912-F | Giga-Time Big Two Timer - Fragramatics** |  |

Accumulating timers remove the constraints normal timers face. For example, a customer is no longer locked into a preset time limit when washing their vehicle. A normal timer ends the wash when the time is up. However, an accumulating timer warns the customer that their allotted wash time is coming to an end and offers them a window to add more time by inserting more coins. Most timers will have a display where customers can visually see how much time is remaining enabling them to determine if they will need more time as the time winds down. As long as customers continue inserting coins, they are able to use your bay until their vehicle meets the customers standards of clean. Accumulating timers increase your profit per customer by keeping them in your bays longer. Install accumulating timers in your self-serve bays, vacuums, and dog washes to improve the experience of your customers.


All IDX Timers \& Display-Timers have quartz crystal timing accuracy of .05\% and are therefore guaranteed to have a maximum error of 0.12 seconds over a typical 4 minute wash cycle.

## AT300 BY IDX <br> IDX INC

- The New IDX AT300 series of accumulating timers can be used in vacuums or bays. This series of timer has been designed to replace the Specialties Mfg timer model "Time Machine" timer. It will also replace other manufactures' timers with the same footprint. IDX has designed this timer to operate over a wide input voltage range to meet the new demands our industry. This timer has the widest range of operating voltages; 12VDC to 40VDC \& 12VAC to 28VAC. The AT300 was designed to be able to integrate into the new application markets that are requiring lower power consumption like solar and/or battery powered systems. To ensure a long life, the main output is a 5 amp AC relay.
- The AT300 standard features include the same footprint as Specialties' "Time Machine" timer, horn output wire to activate the LC525-AC (not included) 24VAC horn for coin in beep and " X -Tra Time" features. If no coins are deposited before the "X-Tra Time" period expires, the AT300 timer resets and the defined number of coins to start must be deposited, which starts a new cycle.
- Operating voltage: 12VDC TO 40VDC, 12VAC to 28VAC
- Exact foot print - size 5.625"L x 3.125"W x 2.0625 "H
- 5 Amp AC contact relay output
- 1 to 15 coins to start
- Accepts 256 coin inputs without resetting
- Select coin time from 2 seconds to 8.50 minutes per coin
- Last alert output and coin-in beep
- Optional 3-7 segment display (AT300DB-3S7) easily added using internal connector on main board. Display option connector internal for part \# IDXAT300DB-3S7
- Standard IDX wiring configurations and colors

| $\$ 180.00$ | IDXAT300 | IDX Timer |
| :---: | :---: | :---: |
| $\$ 198.49$ | IDXAT300DB-3S7 | IDX Display |
| $\mathbf{\$ 5 1 . 3 3}$ | IDX525AC | 9-40VDC or 12-28VAC Alert Horn <br> for WET Environments |



## AT411E BY IDX

IDXINC

- Accumulating coin input - 256 max
- 1 to 15 coins to start
- Flat pack timer 2 seconds to 8.5 minutes per coin
- Input \& output: 120 VAC or 24 VAC
- (2) 25 Amp SCR outputs mounted on heavy duty aluminum heat sink

| $\$ 117.60$ | IDXAT411E | Standard |
| :---: | :---: | :---: |
| $\$ 127.87$ | IDXAT411EX | Extra Time Option |



## AT413 BY IDX

IDXINC

- 24 VAC ( $2.5 \mathrm{VA}, .1 \mathrm{amp}$ ) coin acceptor output
- Accumulating coin input - 256 max
- 1 to 15 coins to start
- Flat pack timer
- Input \& output: 115 VAC
- (2) 25 Amp SCR outputs mounted on heavy duty aluminum heat sink

| $\$ 180.25$ | IDXAT413 | 115 VAC |
| :--- | :--- | :--- |
| $\$ 169.71$ | IDXAT414 | 220 VAC |

PROGRAMMER FOR ALL IDX DISPLAYS \& DISPLAY TIMERS SERIES GT. BT \& LTT IDXINC

- User can change the messages, time and retrieve coin counts


## $\$ 198.35$ IDXRC800

Consider your customer base when choosing timers and acceptors for your clients to use.

By offering multiple languages for your timers and acceptors, you may find you can increase your customer base and profitability!


## 24/120V VAC OR BAY TIMER

KLEEN-RITE TIMERS
KLEEN-RITE ${ }_{\text {ours }}$

- Accumulates 1-255 coins
- Cancel button
- Economical replacement for other dual voltage timers
- Last coin indicator output
- Encapsulated to withstand harsh environments
- Easily configurable: installation is quick and simple
- 0.5\% repeat accuracy

| \$49.77 | TIKR84C | Multi Voltage $-24 \mathrm{~V} / 120 \mathrm{~V}$ |
| :---: | :---: | :---: |
| $\mathbf{\$ 4 8 . 8 6}$ | TIKR54C | 120 V |
| $\mathbf{\$ 4 8 . 8 6}$ | TIKR64C | 240 V |



DIP SWITCH TYPE MODEL
KLEEN-RITE TIMERS


- Accepts 1-15 coins
- 20 amp output
- Dip switch time delay
- Reliable, accurate and adjustable in all ranges

| $\$ 48.32$ | TIKR540 | 120 V |
| :---: | :---: | :---: |
| $\$ 48.32$ | TIKR440 | 24 V |
| $\$ 48.32$ | TIKR640 | 220 V |
| $\$ 46.22$ | TIKR84 | $24 / 120 \mathrm{~V}$ |
| $\mathbf{\$ 5 0 . 2 7}$ | TIKR84C-NA | 24/120V Non-Accumulating |



## 110V TIMER <br> KLEEN-RITE TIMERS <br> KIEEN-RITE ${ }_{\text {come }}$

- 1-31 coins
- Ideal for vac upgrades
- Has 24 V output for Sensortron hookup
- Replacement for GinSan GS9
\$127.72 TIKR403



## REMOTE CONTROL

SYSTEM RECEIVER
INFITEC
Imintu

- Wireless push button remote control allows customers to receive free use for the normal cycle time
- The optional 'Free Service' can be activated by the attendant or the cashier with the push of a button for customer convenience
- Free Air Remote Receiver/ Timer
- 20 Amp contacts
- Works with all machines
- Use with RC1433-B Transmitter

| $\$ 250.52$ | RC1433-C |
| :--- | :--- |



24V TIMER
KLEEN-RITE TIMERS
KLEEN-RITE $E_{\text {coer }}$

- 1 - 31 coins to start
- Cancel button
- Accumulates up to 255 coins worth of time
- Overload reset
- Replacement for GinSan GS7

\section*{| $\$ 71.76$ | TIKR402 |
| :--- | :--- |}

120V VAC TIMER
KLEEN-RITE TIMERS
KLEEN-RITE waer $^{\text {m }}$

- Accepts 1 to 15 coins but does NOT accumulate
- 30 AMP output
- Microcontroller based circuitry
- Multiple time delay selection
- Dual control: no interfacing totalizer and timer
- Encapsulated to withstand harshest environment
$\$ 45.04$ TIKR505


## AGMFPTARE \& TIMERS



## DIXMOR TIMERS \& PARTS

## LED7 DISPLAY TIMER

DIXMOR TIMERS

- 1-200 coin start
- Left 2 zeros flash during last minute
- Accumulates up to 99 minutes and 59 seconds
- Additional coins any time during operation
- Adaptable to any coin acceptor
- NVRAM memory - no program loss if power fails
- Your choice of adjustable last minute warning or continuous last minute horn output
- MUST USE CB0316-SERIAL FOR WASH GEAR CREDIT CARD SYSTEMS


## \$262.87 CB0316

## LED6 VAC/BAY TIMER

 DIXMOR TIMERS- Standard 24VAC timed output, 4 extra I-O's for combo machines
- Two separate time and price settings. One for timing standard output, one for timing extra outputs.
- Credit card input with advanced features: count up in time or money, display programmable message during count up
- All the standard features of the LED5 and LED7 Timers
- Shelf mount timer - case size $3 ½$ "W x 2 "T x 3"D
- Super bright red dot matrix LED Display $21 / 2^{\prime \prime} \times 3 / 4^{\prime \prime}$


## $\$ 332.99$ DMLED6

LED6-S MULTI-FUNCTION COMBO TIMER
DIXMOR TIMERS

- Vac/bay timer to replace Coleman ${ }^{\text {Tw }}$ 1034R


## \$354.79 DMLED6-S



AFTER


CONVERSION KIT FOR
GINSAN ULTIMATE METERBOX FROM GS31 TO LED6 DIXMOR TIMERS

- Metal plate with installation instructions
- Hardware not included

| $\$ 43.34$ | DD4944 |
| :--- | :--- |



DIXMOR TIMER PARTS
DIXMOR TIMERS

| $\$ 4.70$ | CB0318 | 3" x 3" Lexan Cover |
| :---: | :---: | :---: |
| $\$ 1.0 .27$ | CB0319 | Horn for Dixmor Timer |
| $\$ 1.95$ | CB0320 | Decal - Last Minute Alert |
| $\$ 7.00$ | CB0321 | LED7 Plug \& Wiring Harness |
| $\$ 7.05$ | CB0321-3 | LED3 Plug \& Wiring Harness |
| $\mathbf{\$ 7 . 0 0}$ | CB0321-6 | LED6 Plug \& Wiring Harness |


| $\$ 14.50$ | CB0321-6S | LED6S Plug \& Wiring Harness |
| :---: | :---: | :---: |
| $\mathbf{\$ 8 . 5 0}$ | CB0322 | Case Only, Dixmor Timer |
| $\mathbf{\$ 7 . 1 2}$ | $\mathbf{C B 0 3 2 7}$ | Mounting Bracket for TM3 and TM5 |
| $\mathbf{\$ 7 . 9 5}$ | DM5H | DM5 Wiring Harness |
| $\mathbf{\$ 3 3 . 9 9}$ | DM5R | Remote for DM5, CB0316, DMD2002 |

## LED9 DISPLAY TIMER

 DIXMOR TIMERS- $2 \frac{1}{4} 4^{\prime \prime} \times 73 / 4^{\prime \prime}$ dot matrix display
- Multi-function timer capable of controlling six different functions
- When function changes, timer recalculates time remaining
- Operator programmable messages for function name and/or welcome message
- Same standard features as small Dixmor timer - bonus time, courtesy time, remote control, bilingual standard messages
- Enclosed in watertight ABS plastic case - 3118 " $\times 91 / 22^{\prime \prime} \times 31 / 4 "$
- Also available as a single function timer for self-serve bay use
- Can be installed in the DX300 case and DMD300H hood

| $\mathbf{\$ 4 1 8 . 4 0}$ | DM9 | Single Function |
| :--- | :---: | :---: |
| $\mathbf{\$ 4 4 3 . 7 0}$ | DM9MF | Multi Function |



LED9 BAY TIMER WITH STAINLESS STEEL CASE DIXMORTIMERS

- Super bright $21 / 4^{\prime \prime} \times 73 / 4^{\prime \prime}$ numbers \& letters
- $12^{1 / 4^{\prime \prime} \times} \times 8^{\prime \prime} \times 2$ " stainless steel enclosure
- Last minute warning output
- Remote washdown
- Multi-function version available

| $\$ 520.29$ | DM9SS | Single Function |
| :--- | :---: | :---: |
| $\mathbf{\$ 5 4 8 . 6 3}$ | DM9MFSS | Multi Function |

## ULTIMATE TIMER DIXMORTIMERS

DIXMOR

- Giant $31 / 2^{\prime \prime} \times 111 / 4^{\prime \prime}$ dot matrix LED display
- Programmable, moving sign board type display
- "Last minute warning" horn output
- Water tight stainless steel enclosure 19 " $\times 81 / 2^{\prime \prime} \times 1 \frac{1}{2 \prime \prime}$ • Real time controlled 2nd schedule
$\$ 720.90 \quad$ DMD2002

DRYER TIME DISPLAY
DIXMOR TIMERS
DIXMOR

- Dryer Time Display with 4" numbers
- One-pulse start - No timed output
- Counts down in seconds or in minutes
- Standard 110 V
- $91 / 2^{\prime \prime} \times 11^{\prime \prime} \times 2$ " stainless enclosure

| $\$ 462.39$ | DMD200 | Display |  | $\$ 366.29$ | DMD200-CB | Circuit Board |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 312.55$ | DMD200-S | Dryer Pedestal | $\mathbf{\$ 1 8 . 9 9}$ | DMD200-LOCK | Lock |  |
| $\mathbf{\$ 1 4 0 . 0 0}$ | DMD200H | Hood Only |  |  |  |  |

## LED9 RETROFIT KIT

DIXMOR TIMERS

- Includes a board with LED9, bracket, and hardware. Add to popular brand timers to upgrade your display. This product does NOT include a case
- Dixmor OEM replacement part
- Board with LED display
- Bracket and hardware included


DIXMOR ENTERPRISES has been manufacturing quality products since 1986.Located in Littleton, Colorado, they are always working to develop better ways to make your work easier.

