CAUTION: Read the instructions before using the machine.

Power Vac
Model 140000 & 1400001
Install & Owner's Guide

CAUTION: Read the instructions before using the machine.

INCREDIBLY POWERFUL

INDUSTRIAL VACUUM SYSTEMS

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INDUSTRIAL VACUUM SYSTEMS

Thank you for your purchase of an IVS Vacuum!

Our heavy-duty vacuum systems are engineered and manufactured to tackle the toughest vacuuming jobs.

The following are original instructions for the IVS Power Vac 140000 series along with detailed safety, warranty and installation information.

www.ivs-vacuum.com 800.968.8227

Table of Contents

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

When using electrical machine, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE

This Machine is not intended for household use. It is intended for commercial use.
This machine is not intended for wet pick up use.

WARNING – To reduce the risk of fire, electric shock, or injury:

1. This machine must be connected to a permanent electrical power supply in full compliance with all applicable codes and ordinances by qualified personnel only. Read grounding instructions.
2. Do not use on wet surfaces.
3. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
4. Use only as described in this manual. Use only manufacturer's recommended attachments.
5. Do not operate or handle machine with wet hands.
6. Do not put any object into any openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
7. Keep hair, loose clothing, fingers, and all parts of the body away from openings and moving parts.
8. Do not pick up anything flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
9. Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
10. Do not pick up hazardous dust or particulate.
11. Do not use without dust bags or filters in place.

GROUNDING INSTRUCTIONS

This machine must be connected to a grounded metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the machine.

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION

To provide additional protection from the risk of electric shock, this product shall only be connected to a circuit that is protected by a ground fault circuit interrupter (GFCI).

DANGER

Installation of this machine must incorporate and provide full disconnection of all poles in the event an overvoltage category III condition. Such incorporation to the fixed wiring must be in accordance with the wiring rules.

LIMITED WARRANTY

Industrial Vacuum Systems (Company) provides a limited one year warranty on components and piece of equipment produced by the Company to be free from defects in material and workmanship. Electrical assemblies see Appendix A, have a limited two year warranty on the controller to be free from defects in material and workmanship. This limited warranty does not cover equipment that has been damaged due to misuse, misapplication, modification, altered, neglected, attempted theft, vandalism, connection to improper voltage supply, modification, or such parts that are commonly recognized to be subject to wear in normal usage. Normal use products are, but not limited to, those listed on Appendix B; which are warranted for 90 days. Every component and piece of equipment is packaged to assist in safe handling of the product.

Claims must be submitted in writing within the appropriate coverage period as covered by this warranty, from date of shipment, to the Company's warranty/repair department. If the return is approved an RMA and labeling instructions will be issued and the product can be returned. Returned product without the appropriate RMA and label will be issued to scrap and all warranties/replacements will be considered null and void. If the product receiving the RMA is not returned within 20 days from date of issuing the RMA then any credit toward the product will be reduced by 25%. If the product is not returned within 30 days of issuing the RMA then any credit will be reduced by 50%. A testing fee of $20.00 will be applied, if the product passes all tests related to the written claim, then the fee will be applied and paid prior to return of the product. If the product fails the test then the fee will not be applied.

The Company may charge a 20% restocking fee for returned product and/or an order, which is canceled and/or material has already been ordered and/or received to fill such order. The Company's warranty/repair department will inspect all components, submitted under warranty. Warranty replacement will be based solely on the analysis and confirmation that the product defect was caused by material and/ or workmanship.

The company reserves the right to change the design of the product without assuming any obligation to modify any product previously manufactured or to replace warranted product other than with redesigned product. In some cases it is easier for the customer to send a Company purchased product direct to the manufacturer for replacement. In those cases the customer will be notified that their product falls under that process and should work with that manufacturer directly. Appendix C shows the purchased parts that falls under this case.

This warranty covers the product replacement only; charges for damages, freight and/or labor will not be accepted. There are no warranties expressed or implied which extend beyond this Limited Warranty. The loss of use of the product, loss of time, inconvenience, commercial loss, incidental or consequential damages is not covered. The Company shall not be liable for incidental, special, or consequential damages including without limitation damages resulting from personal, bodily injury or death or damages to or loss of use of property.

APPENDIX A 2-Year Warranty Controllers Sensortron, Multitron, Touchtron, 24 Volt Timers

APPENDIX B 90-Day Warranty Components Pressure Hoses, Swivels, Nozzles

APPENDIX C Purchased products that are handled direct with the manufacturer, Bill Acceptors, Compressors

Effective March 2014

Applies to Vacuums and Combination Vacuums and Service Part Kits containing the GinSan Vacuum Motor.

GinSan will warrant Vacuum motors against defect in original manufacture for a period of one year from the date the vacuum or service part motor ships from GinSan. Additionally, Vacuum Motor Brushes installed in these 2 motors will be warranted against defect in original manufacture for a period of 90 days from the date of shipment from GinSan.

This warranty requires that the vacuum and motor must receive proper operational maintenance that includes proper filter, motor gasket, filter screen, and motor brush maintenance.

GinSan's liability is limited to replacement parts only. Labor for removal or installation is not covered.

Motor or Brush failure resulting from abuse, misuse, filter failure, or improper or inadequate maintenance will not be covered. Motor or Brush failure that is due to brushes worn beyond the physical wear life of the brush is not covered. Except in the case of original factory installation, Motor or Brush failure due to improper or inadequate installation will not be covered.

Warranty claims must be evaluated by GinSan. Replacement Motor(s) and/or Motor Brush Kit(s) must first be ordered and invoiced as a service part. An RMA number will be issued at that time. The customer is required to return the failed Motor and/or Motor Brushes to GinSan with the RMA number prominently on the outside of the package. Failed motors must be shipped within 14 calendar days of the shipping date of the replacement Motor and/or Brushes. Customers are encouraged to record a tracking number from the shipper. Shipper data will be the only data used to determine adherence to this policy.

When received, failed Motors and/or Brushes will be evaluated within 5 business days. Motors and/or Brushes that are evaluated as being under warranty will have the invoice for the replacement parts, including shipping, credited within 5 business days of the completion of the evaluation. If a Motor or Brush kit is evaluated to be not covered by this warranty, the customer will be notified within 2 business days. At that time, the customer will have the option to have the failed Motor and/or Brushes returned to them at their expense or they can instruct GinSan to dispose of the components locally.

Motors and/or Motor Brushes that are covered by warranty will be retained by GinSan and processed according to its internal policies.

This warranty shall apply only to vacuum motors and the motor brushes installed in them.

CAUTION!

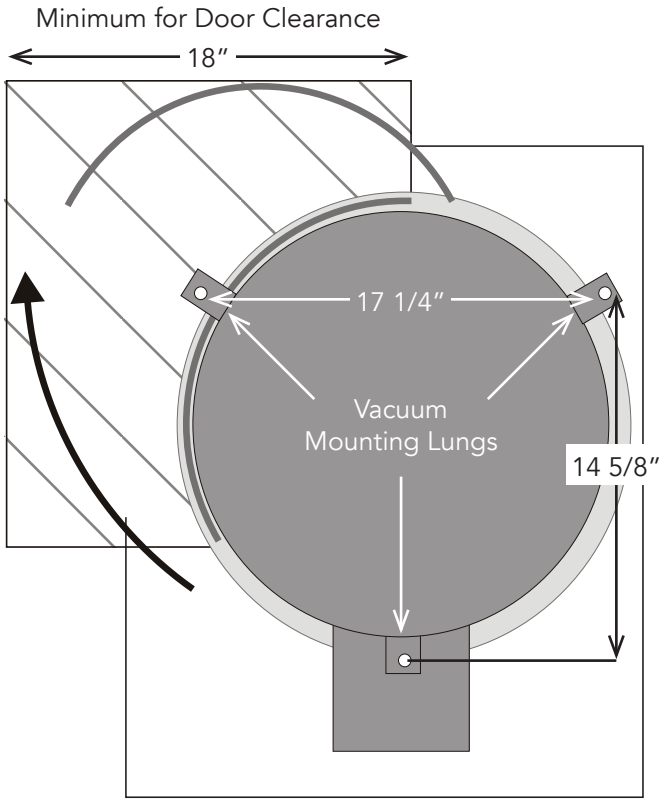
ELECTRICAL SHOCK HAZARD

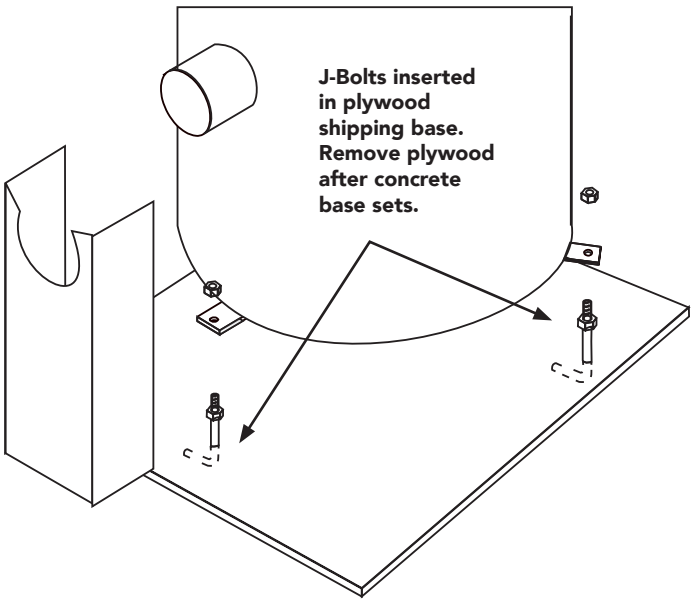
Disconnect power prior to beginning any service or installation work. Contact a trained electrician if you are unsure of these procedures.

Select and prepare a solid, level site for a concrete or similar base. Consider: Vehicle traffic, ease of access, weather protection and lighting to enhance vacuum performance and income. Consult local code for foundation requirements. Note: 20" base height above surrounding surface provides minimum protection against typical vehicle bumper damage. 30" base height is maximum considering the coin slot switch position.

First, determine the best orientation for each vacuum. Consider the traffic flow through the vacuum and detailing area along with the best sequencing of extra services. Contact your distributor for assistance.

Next, make sure that vacuums will be easily accessible for customer use and servicing. Customers should have easy access to the coin slot and be able to reach the hose and replace the hose after use. NOTE: The hatched area in the drawing to the right shows the clearance area required for service door opening.

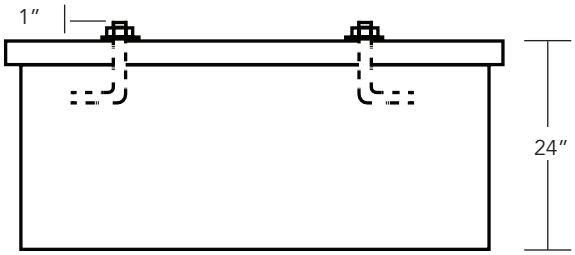


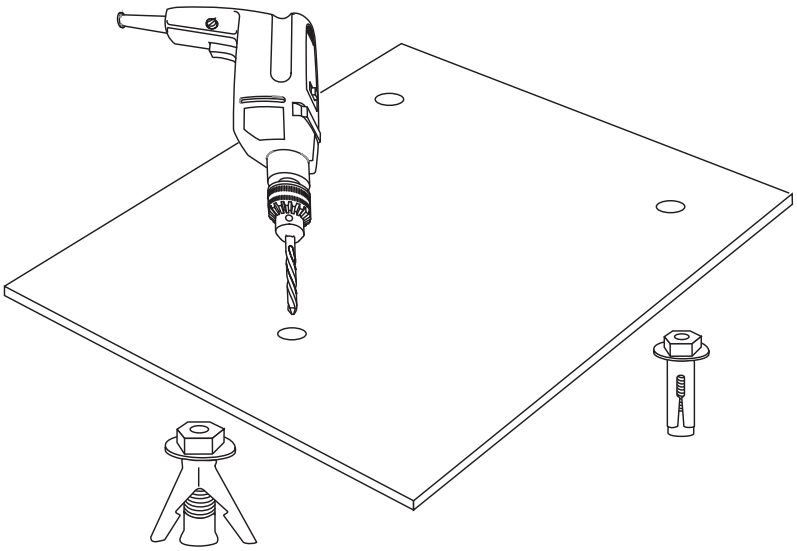


Using "J" Bolts

Carefully locate 3 stainless steel "J " bolts while forming concrete or masonry base. The plywood shipping base can be used as a locating fixture for the "J" bolts while the concrete is formed.

See illustration to the left.

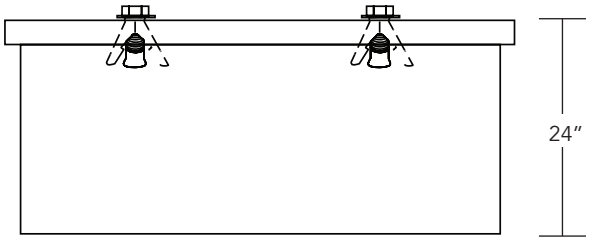




Masonry Anchors

Anchors are used for existing construction only. Drill and install suitable masonry anchors to accommodate a 3/8 inch lag screw. Check anchor supplier information for proper drill size. HINT: Use the plywood base as a template for drilling the anchoring pilot holes.

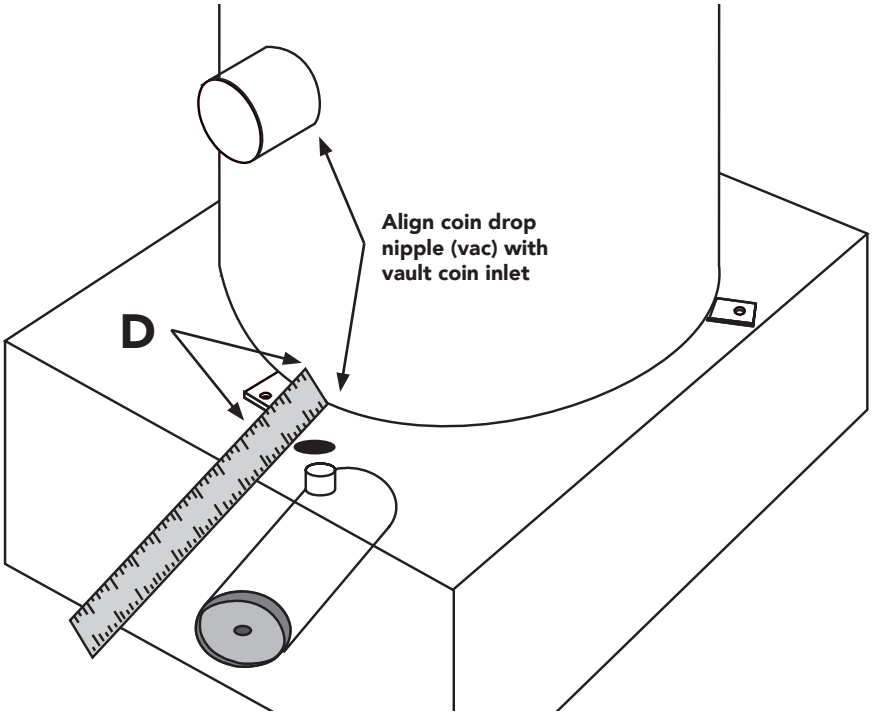
See illustration to the left.



Typical Installation and Proper Placement

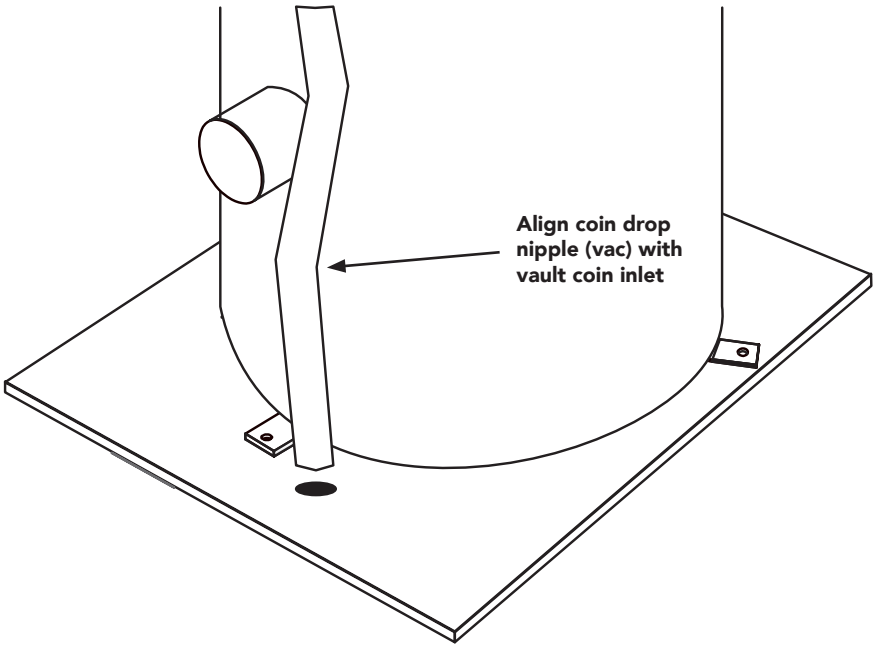
Locate Vault Drop

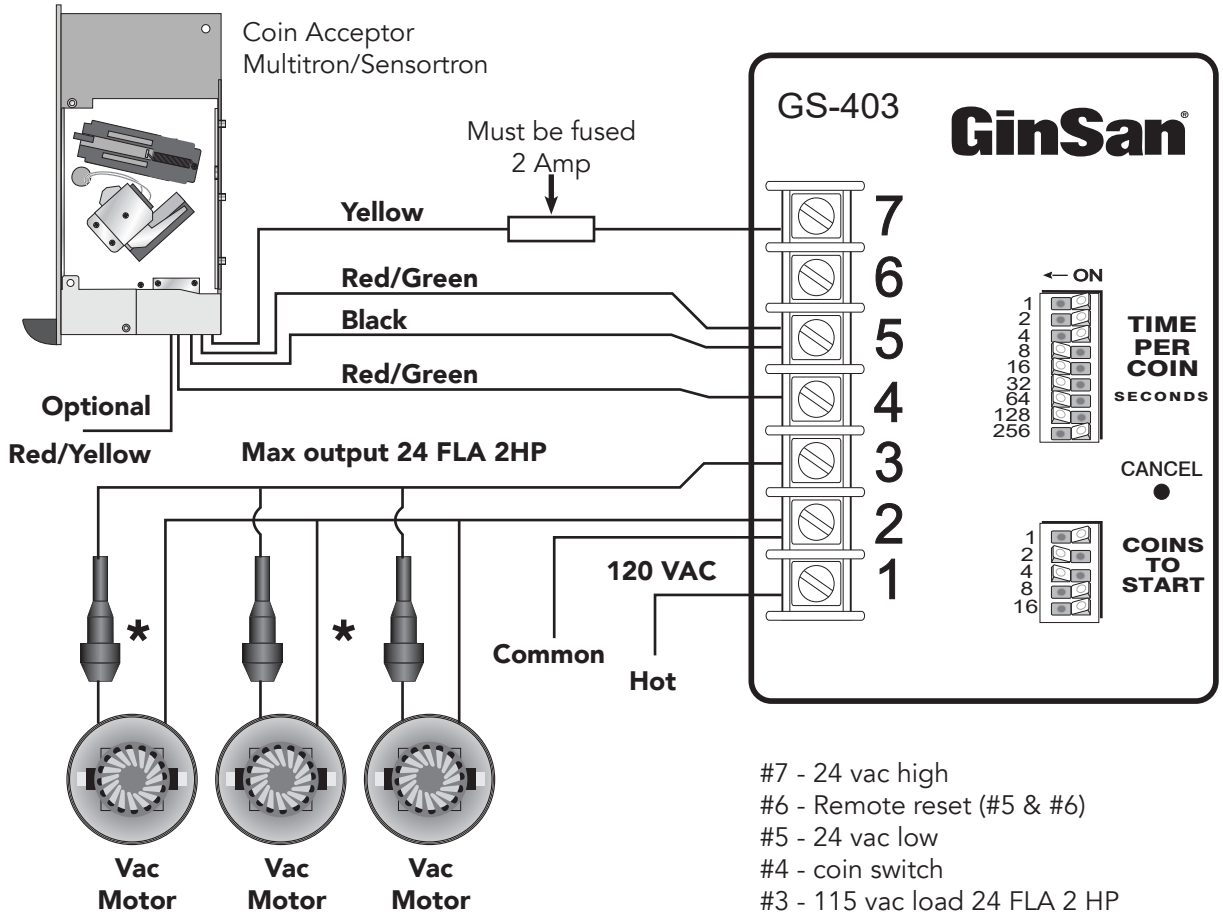
Refer to vault manufacturer's drawings or specifications to accurately determine the position of the vacuum required to align the coin inlet on the vault with the coin drop nipple on the vacuum. Dimension "D" in drawing represents required "set back' from the front edge of the base to the center of coin drop opening in the vault. The front mounting lug of the vacuum should be located 1" to the right and 23/16" in front of this point. See illustration (and inset) to the right.



Coin Connection Method

Customer supplied conduit: Connect coin conduit from vault to 1½" nipple on the bottom of the meter/control box (flexible conduit can be used to avoid creating any kinks or obstructions that can cause coin jams in the tube). Channel will conceal this tubing for security. See illustration to the left.





#7 - 24 vac high
#6 - Remote reset (#5 & #6)
#5 - 24 vac low
#4 - coin switch
#3 - 115 vac load 24 FLA 2 HP
#2 - 115 vac common
#1 - 115 vac line hot

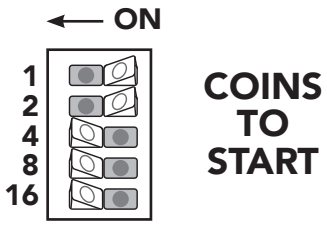
***Fuse 10 Amp**
PN 20318

Fuse Holder
PN 20317

Setting the COIN to START Switch

The Coins to Start is determinded by adding the total number of switched in the "On"position.

Example: 1+2 = 3 coins to start



Standard GS-403 Timer Setup

Starting the Timer

Jump a wire between terminals #4 and #5. A count will register in the timer for every jump, which is the same as putting coins in the coin acceptor

If Timer Fails to Start

Disconnect the switch wire on terminal #5 and repeat starting procedure.

If timer starts at this point, the trouble may be:

1. A bad coin switch or acceptor.
2. Broken wire or bad connection.
3. Wires shorted between terminals #4 and #5 or shorted between #5 and #6.

Timer Starts on One Less Coin than Setting

Coin switch wired wrong
(should be wired to normally open terminal & common terminal).

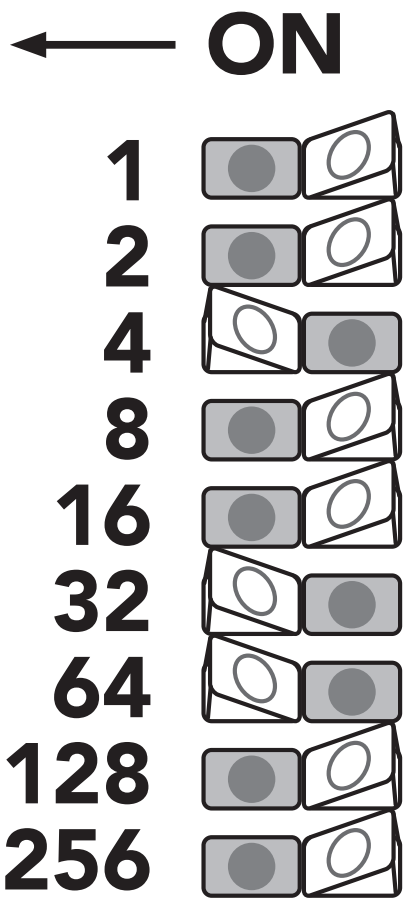
Setting the Time Per Coin switch

Determine amount of coins to start the timer.
Example: 2 coins to start

Convert time to desired seconds.
Example: 5 minutes = 300 seconds

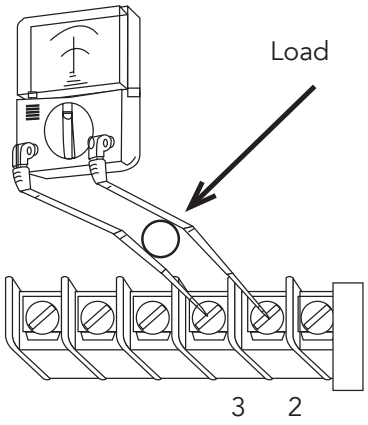
Divide the total time (in seconds) by the coins to start timer.

The time per coin is determined by adding the total seconds of the switches in the "On" position. If, for instance, the desired time is 100 seconds, switch on the number of switches needed to add up to 100 seconds.
Example: 100 seconds = 64+32+4



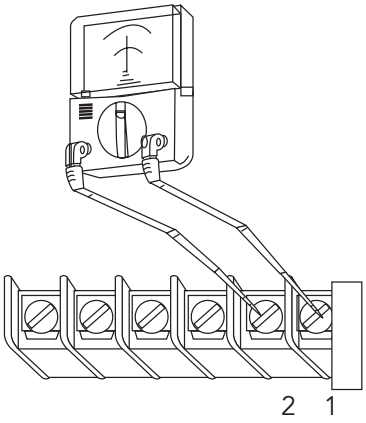
Checking Power Out to Motors

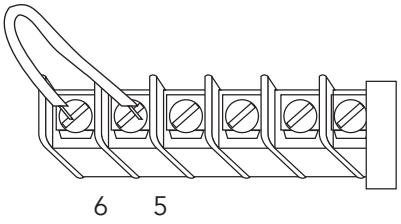
A load of no less than .5 amps has to be hooked across terminals #2 and #3, to indicate time turning on. Without a load on the timer, it may not turn on or shut off. A volt meter across terminals #2 and #3 will indicate timer turning on and read output voltage. Check amp draw of motors using a clamp-on type amp meter.



Checking Power to Timer

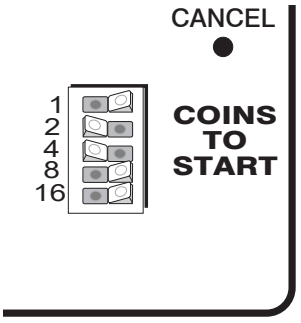
Using a volt meter across terminals 1and 2 will indicate incoming voltage.





Stopping the Timer

Use a jumper wire and touch across terminals #5 and #6.
Or Press the Cancel button.



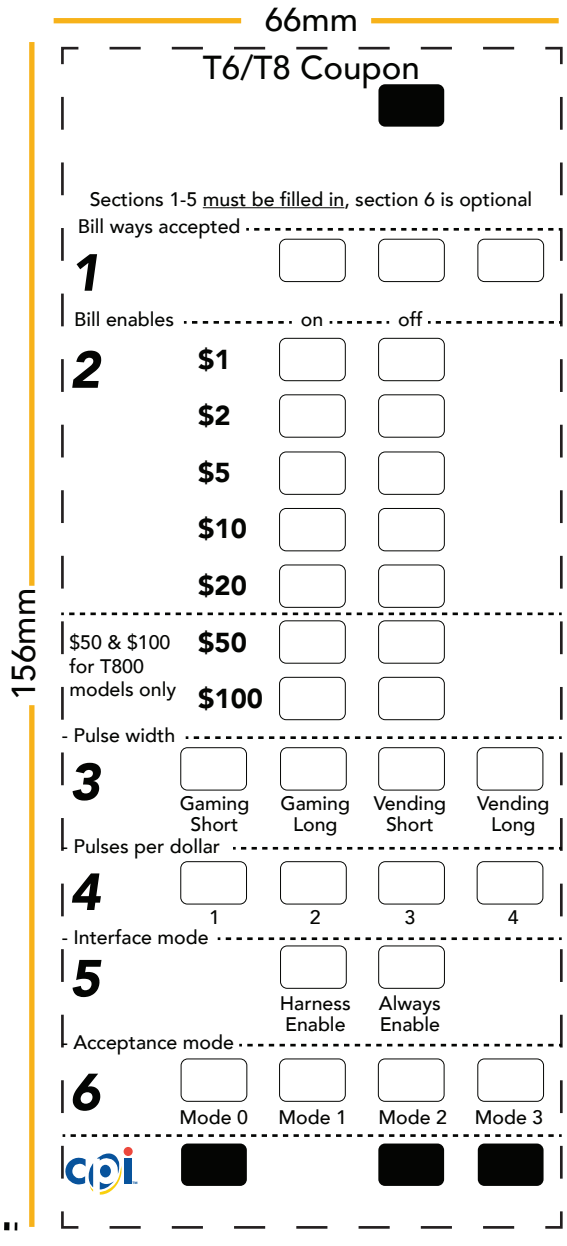
If Timer will Not Stop

All time switches are in the off position.

Initiating Programming Mode

1. Remove the bill magazine
2. Use a pencil or a screwdriver to press this button to enter configuration mode (figure A), then reattach the bill magazine to initiate Coupon mode:
3. When coupon mode is activated, the bezel lights will rapidly flash Insert a completed configuration coupon

Figure A



Using the Coupon to Program

Fill out the coupon using a #2 (HB) pencil. Fill in one block for each line. Do not mark the back of the coupon.

Section 1: Bill Ways
1 - Face up in one direction (green seal first)
2 - Face up in either direction
4 - Face up or down in either direction

Section 2 - Bill Enables
Fill in on or off to enable or disable a bill.

$50 and $100 - T8 Models Only
Fill in on or off to enable or disable a bill

Section 3 - Pulse Width
Sets the width of the pulse, check with your machine manufacturer for details."Gaming Short" recommended.

Sections 4 - Pulses per Dollar
Credit pulses per dollar accepted, check with your machine manufacturer for details.4 pulses recommended.

Section 5 - Interface Mode
Harness Enable - Requires an input from the controller to enable and accept bills. "Always Enable" is recommended.

Always Enable - allows for acceptance at all times, a host or controller cannot disable the unit.

Section 6 - Acceptance Mode
Mode 0 is default. Increasing Acceptance Mode increases security, but may also impact performance. Please contact CPI Technical Support for details.

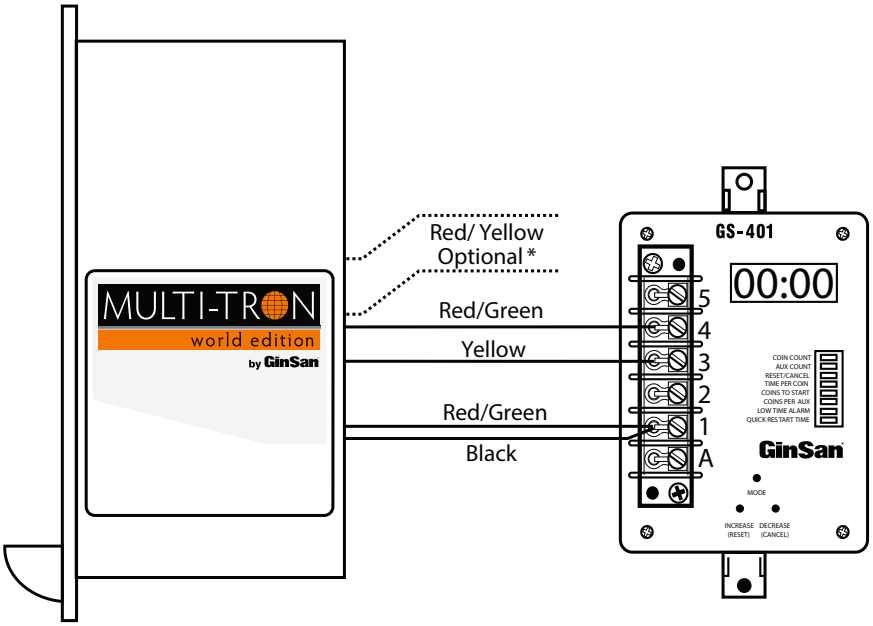
Wire Color Function

- Red/Green Solid state relay common. See note below.
- Black 24 VAC hot. Recommended supply voltage of 22-30 VAC.
- Yellow 24 VAC common Recommended supply voltage of 22-30 VAC.
- Red/Yellow Solid state relay common. See note below)

Note: Outputs for all coins are sent via the Red/Green and Red/Yellow wires.

*The Red/Yellow wire is a solid state output to be used with any auxiliary product

PLEASE NOTE: EACH UNIT SHIPS PRE-PROGRAMMED FOR THE DOMESTIC CURRENCY SPECIFIED WHEN ORDERING.



Programming Instructions for Tokens or Non-Domestic Coins

1. Power down the Multitron GS-44WE coin acceptor.
2. Switch "on" the six (6) dip switches located on the side coin acceptor.
3. Power up the coin acceptor.
4. Insert 2 of the coin to be programmed.
5. Turn off all dip switches (except the one that equals the value of your coin.) *See Table A.*
6. Insert 15 more of the coin to be programmed.
7. Turn "off" the switch left on in Step 5.
8. Power down for a minimum of 5 seconds then power up.
9. Repeat above steps to program additional coins.

*If a value other than the preset amount is needed, a handheld programmer is required. Part Number: 1102800

Dip Switch		Pulses
1	=	1
2	=	4
3	=	5
4	=	6
5	=	7
6	=	8

Table A

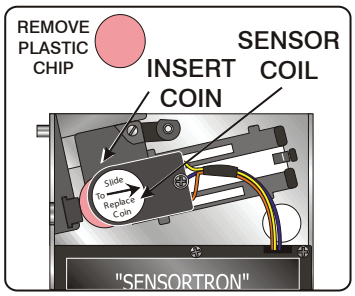
Specifications:

- Accepts 30+ different coins
- Accepts coin size 0.64 - 1.26" diameter (16 mm - 31.5 mm)
- No permanent sample coin required
- 24 VAC and 24 DC compatible
- Adjustable output pulse (with programmer)
- Program with or without external programmer
- Power loss will not affect memory
- Corrosion proof chassis
- 2" mounting footprint
- 2 year warranty

Sensortron Coin Acceptor

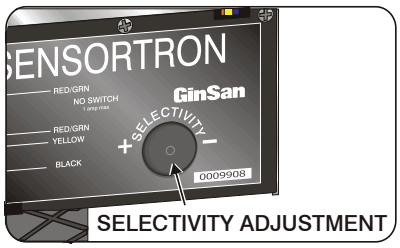
To Install Sample Coin Or Token

1. Slide sensor coil to the right and replace plastic chip with coin or token
2. Release sensor coil, making sure sample coin or token is held firmly in place
3. Do not use a 1965 or 1974 quarter as a sample



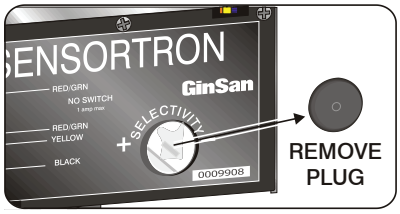
Selectivity Adjustments

Sensortrons are Preset for Use With U.S. Quarters



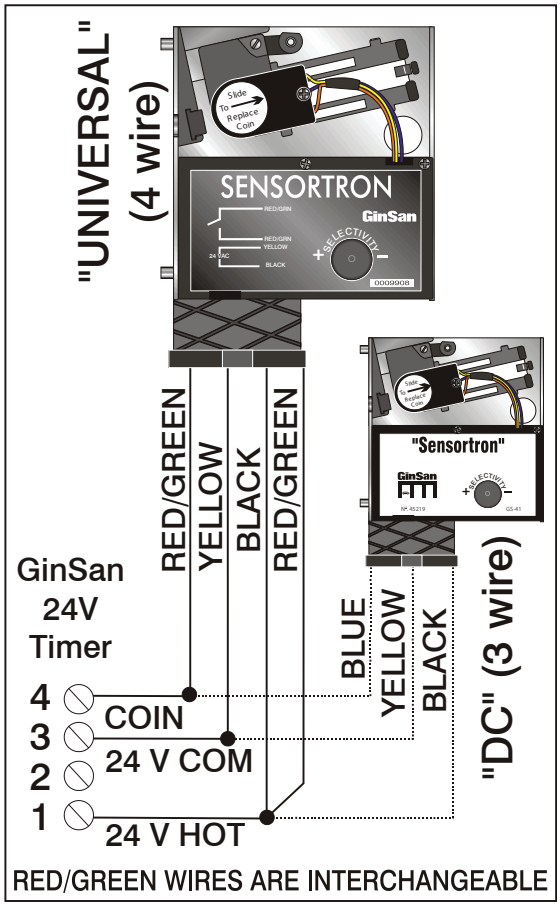
The selectivity control is designed to enable field adjustments for closer coin scrutiny, thereby providing greater rejection of slugs.

1. Remove black rubber plug



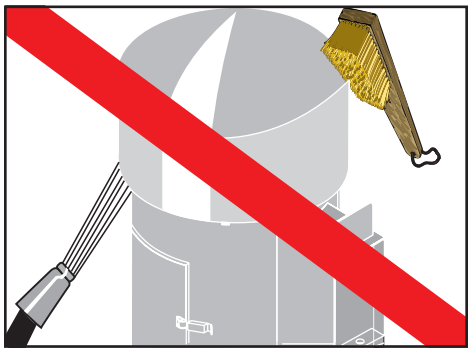
2. Using small screwdriver, locate adjusting slot on potentiometer (pot.).
   (Slot is difficult to see in the jelly-like substance.)
3. Turn pot. clockwise as far as it will go
4. Turn pot. counterclockwise (a little at a time until it rejects all unwanted coins)
5. Replace rubber plug

Wiring

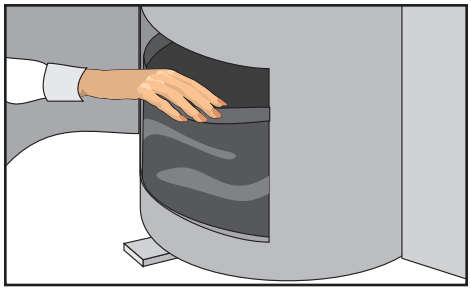


NOTE: YOU MUST HAVE AT LEAST 24 VOLTS AC ACROSS BLACK AND YELLOW WIRES.

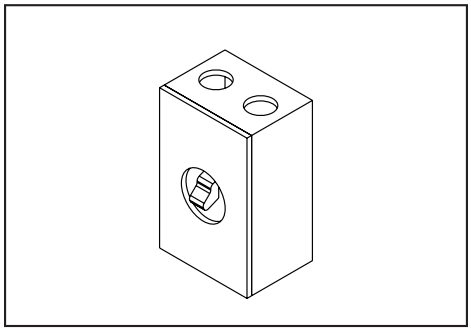
Maintenance requirements depend on usage. It is best to time routine maintenance prior to peak usage periods and schedule service intervals according to business levels.



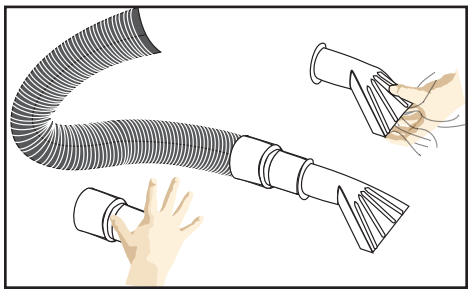
Inspect vacuum exterior. Clean equipment invites usage.
Rinse with plain (preferably softened) water as necessary.
(Be careful not to spray water upward under the dometo-tank vent areas). DO NOT USE STEEL WOOL OR OTHER FEFFOUS BRUSHES TO CLEAN STAINLESS STEEL SURFACES.



Remove dirt and debris from vacuum. HINT: Consider ordering a debris catcher (p/n 100700) from your distributor to simplify this process. WEEKLY - Shake filter. Clean or replace every 120 days depending on usage.

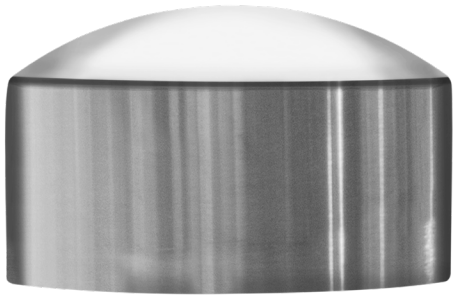


Check starter (or control) by activating the vacuum with the switch or starter.

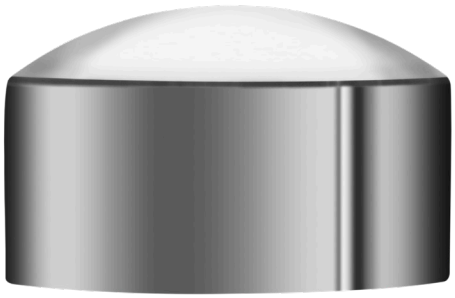


Check hose for signs of wear, replace if excessive. Test vacuum suction and airflow. Suction test: place hand tighly over cuff - feel for “pull”.Airflow test: Hold cupped hand near hose inlet - feel for “breeze”.

Related Parts



Brushed Stainless Steel
Part Number: 1025000



Mirror Finish
Part Number: 1025010

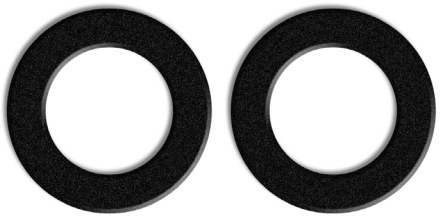
Red
Part Number: 1025020

Yellow
Part Number: 1025030

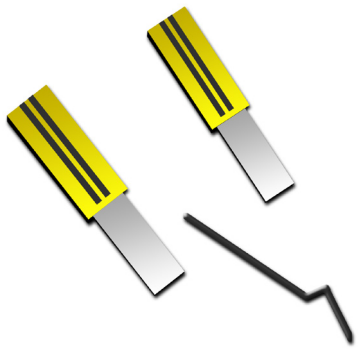
White
Part Number: 1025040

White
Part Number: 1025050

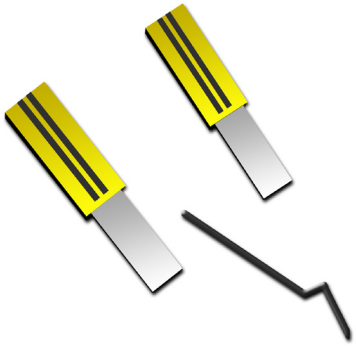
White
Part Number: 1025070



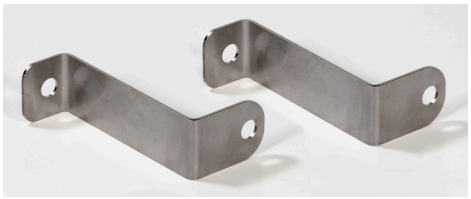
Motor Gasket (Set of 2)
Part Number: 1033010



Motor Brush:
Electro (120V)
Part Number: 100218-00



Motor Brush:
Electro (220V)
Part Number: 100219-00



Motor Bracket (Set of 2)
Part Number: 1010340

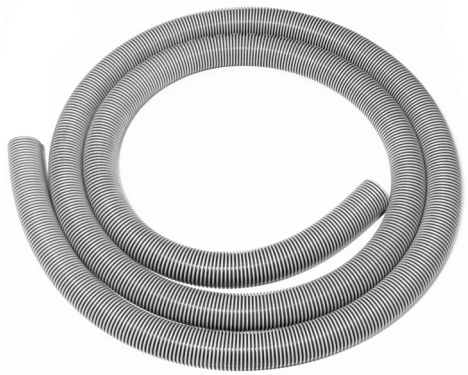
Filter Bag, Set of 4
Part Number: 10290000

Poly Debris Catcher
Part Number: 100707

1.5" Duckfoot with
straight cuff
Part Number: 1045530

2" Duckfoot with
straight cuff
Part Number: 1045520

2" Duckfoot with
swivel cuff
Part Number: 1045540



Hose: Gray: 2" x 15'
Part Number: 1040010

Hose: Green: 2" x 15'
Part Number: 1040140

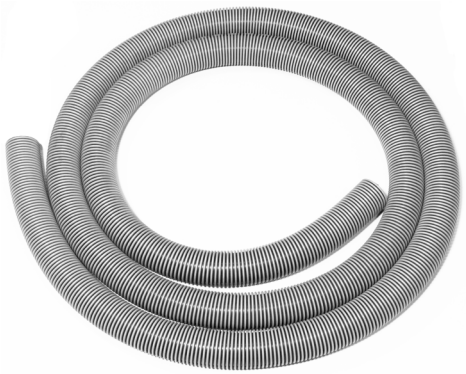
Related Parts

Hose: Red: 2″ x 15′
Part Number: 1040100

Hose: Black: 2″ x 15′
Part Number: 1040390

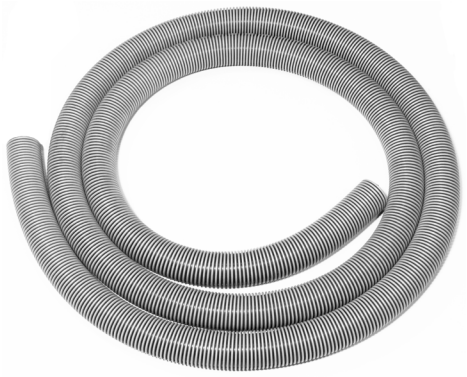
Hose: Yellow: 2″ x 15′
Part Number: 1040120

Hose: Blue: 2″ x 15′
Part Number: 1040110



Hose: Gray: 1 1/2″ x 15′
Part Number: 1040000
Requires 10210500

Tapered Hose: Blue
2″ to 1 1/2″ x 15′
Part Number: 1040340



Tapered Hose: Grey
2″ to 1 1/2″ x 15′
Part Number: 1040190

Tapered Hose: Red
2″ to 1 1/2″ x 15′
Part Number: 100046-00

Hose Reducer
2″ to 1 1/2″
Part Number: 10210500

Latch & Strike Kit
Part Number: 1047060

Lock Shroud
Part Number: 1045290

Cleanout Door (complete)
Part Number: 1058120

Hose Channel
Part Number: 1410030

Meter Box:
Pin lock drawer
Part Number: 1496120

GinSan GS-41
Sensortron 2”
Part Number: 7704200

Bill Acceptor
Part Number: 10059600

Microcoin QL
Part Number: 1002580

Coin Return Stop
Part Number: 1002060

Related Parts

Motor Kit: 120V

Part Number: 100041-00

Motor Kit: 240V

Part Number: 10511200

Transformer

Part Number: 1078110

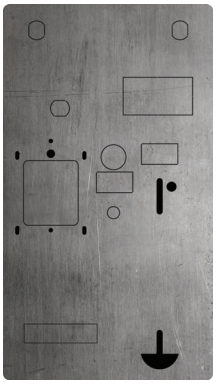
Contactor

Part Number: 1901700

Switch Kit

Part Number: 1145270

America Lock
Coin Drawer Assembly
Part Number: 1496020



Meter Panel
Part Number: 1494240

American Lock
Part Number: 1494240

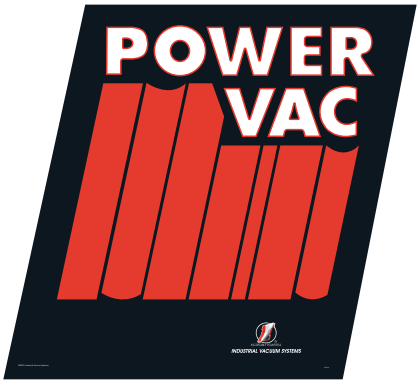
Cabinet Door Cam Lock
Without Bill Acceptor
Part Number: 2310000

Pin lock Coin Door
Assembly
Part Number: 149603

High Security Lock Set
Part Number: 5045660

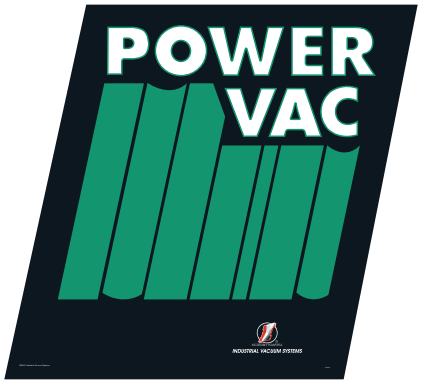
Pin Lock
Part Number: 1048010

Related Parts



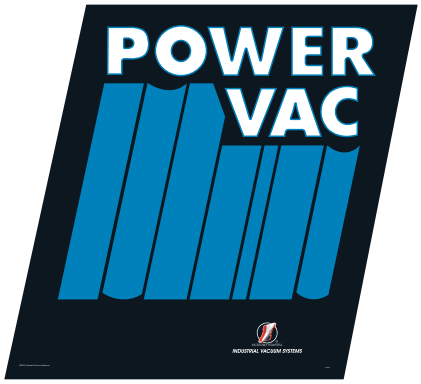
Tank Decal: Red

Part Number: 1023120



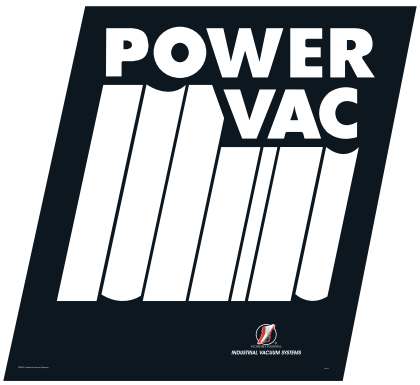
Tank Decal: Green

Part Number: 102330



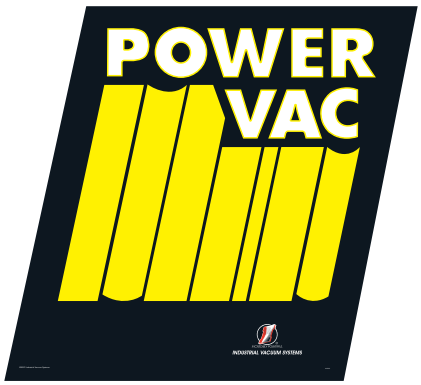
Tank Decal: Blue

Part Number: 102322



Tank Decal: White

Part Number: 102331



Tank Decal: Yellow

Part Number: 102329

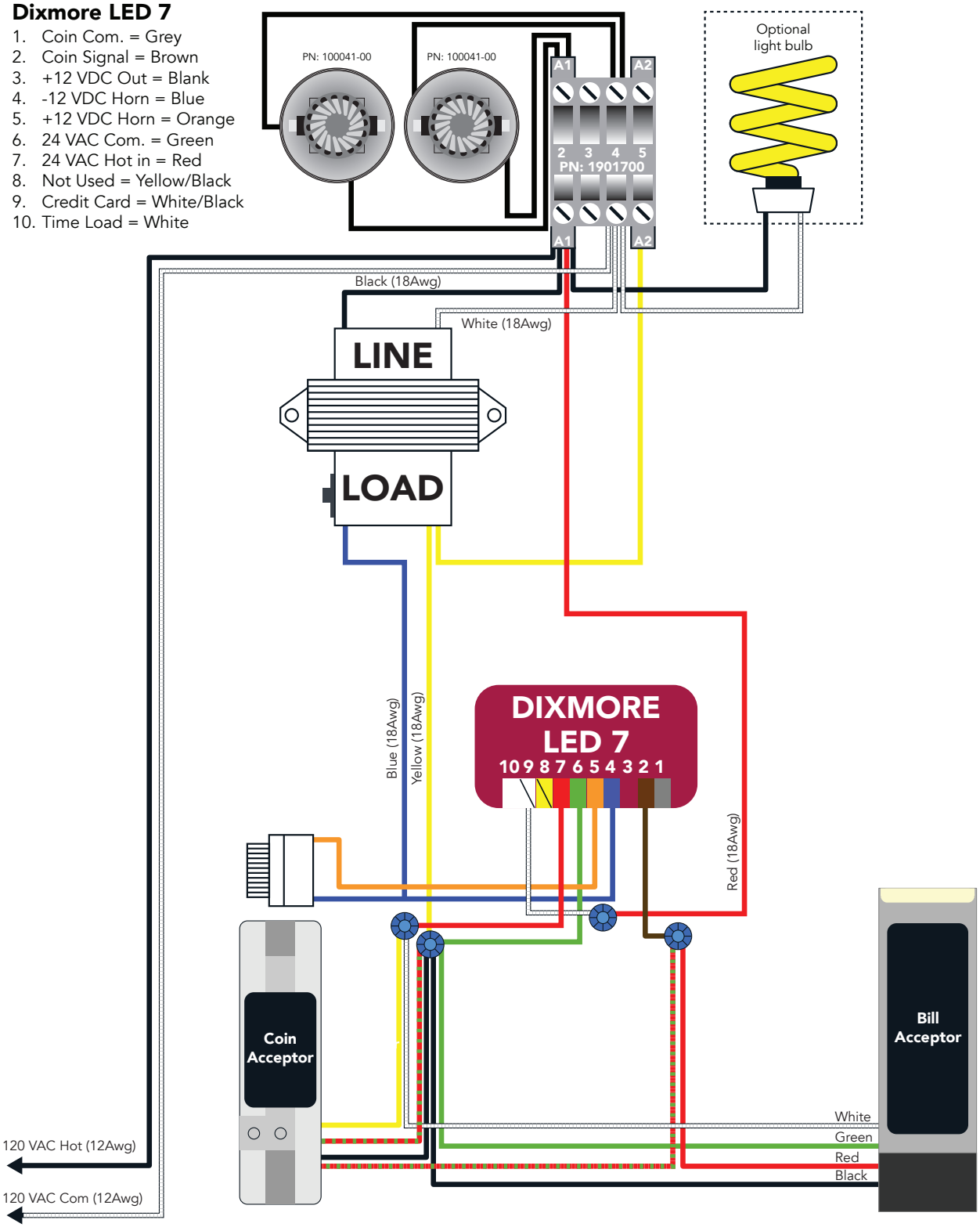
Tank Decal: Yellow

Part Number: 1023490

120V 2 Motor Vacuum, LED 7, Coin & Bill Acceptor, Optional Light Bulb

Dixmore LED 7

1. Coin Com. = Grey
2. Coin Signal = Brown
3. +12 VDC Out = Blank
4. -12 VDC Horn = Blue
5. +12 VDC Horn = Orange
6. 24 VAC Com. = Green
7. 24 VAC Hot in = Red
8. Not Used = Yellow/Black
9. Credit Card = White/Black
10. Time Load = White



120V 2 Motor Vacuum, LED 7, Coin & Bill Acceptor

Dixmore LED 7

1. Coin Com. = Grey
2. Coin Signal = Brown
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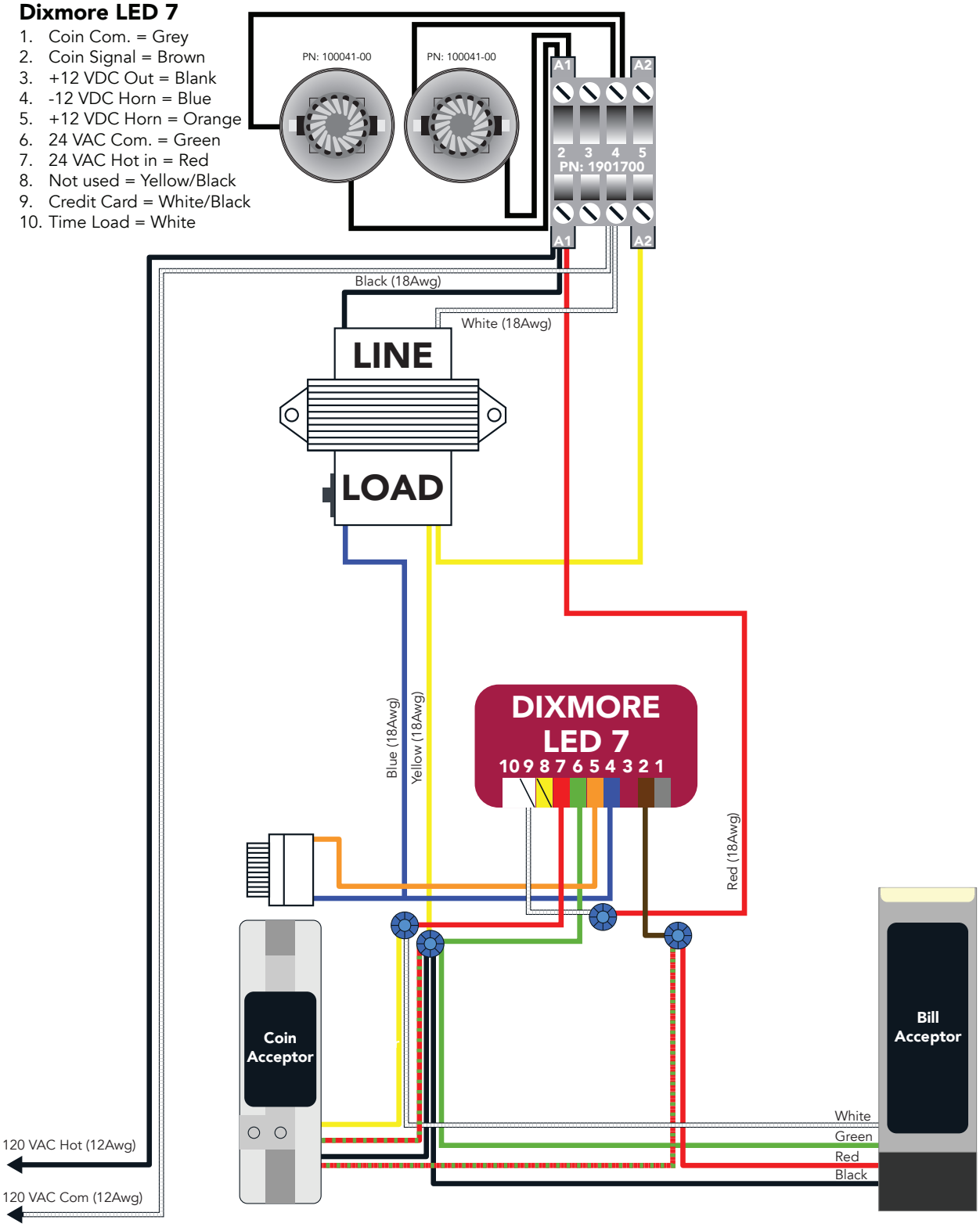
5. +12 VDC Horn = Orange
6. 24 VAC Com. = Green
7. 24 VAC Hot in = Red
8. Not used = Yellow/Black
9. Credit Card = White/Black
10. Time Load = White

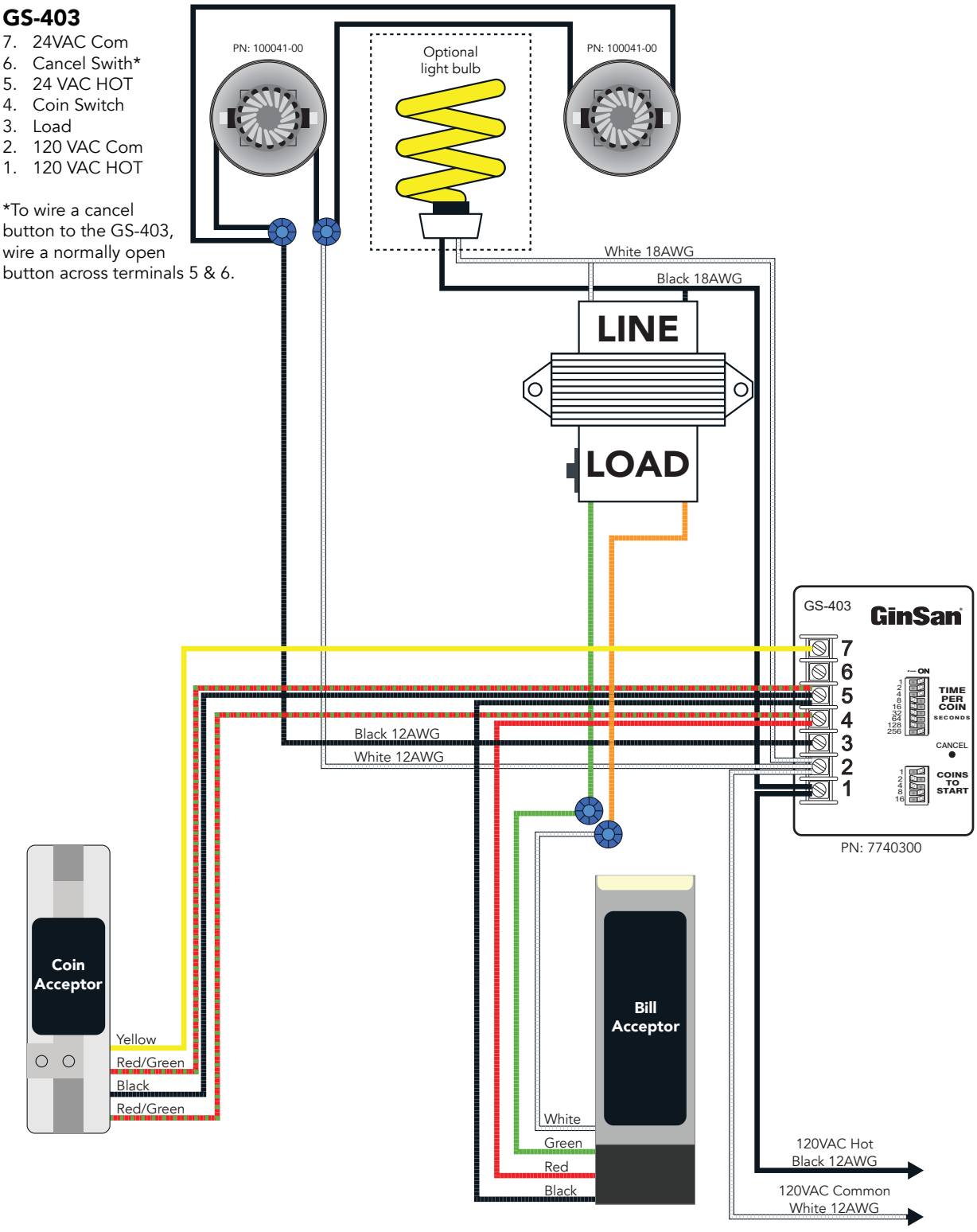


120V 2 Motor Vacuum, GS-403, Bill and Coin Acceptor, Optional Light Bulb

GS-403

7. 24VAC Com
6. Cancel Swith*
5. 24 VAC HOT
4. Coin Switch
3. Load
2. 120 VAC Com
1. 120 VAC HOT

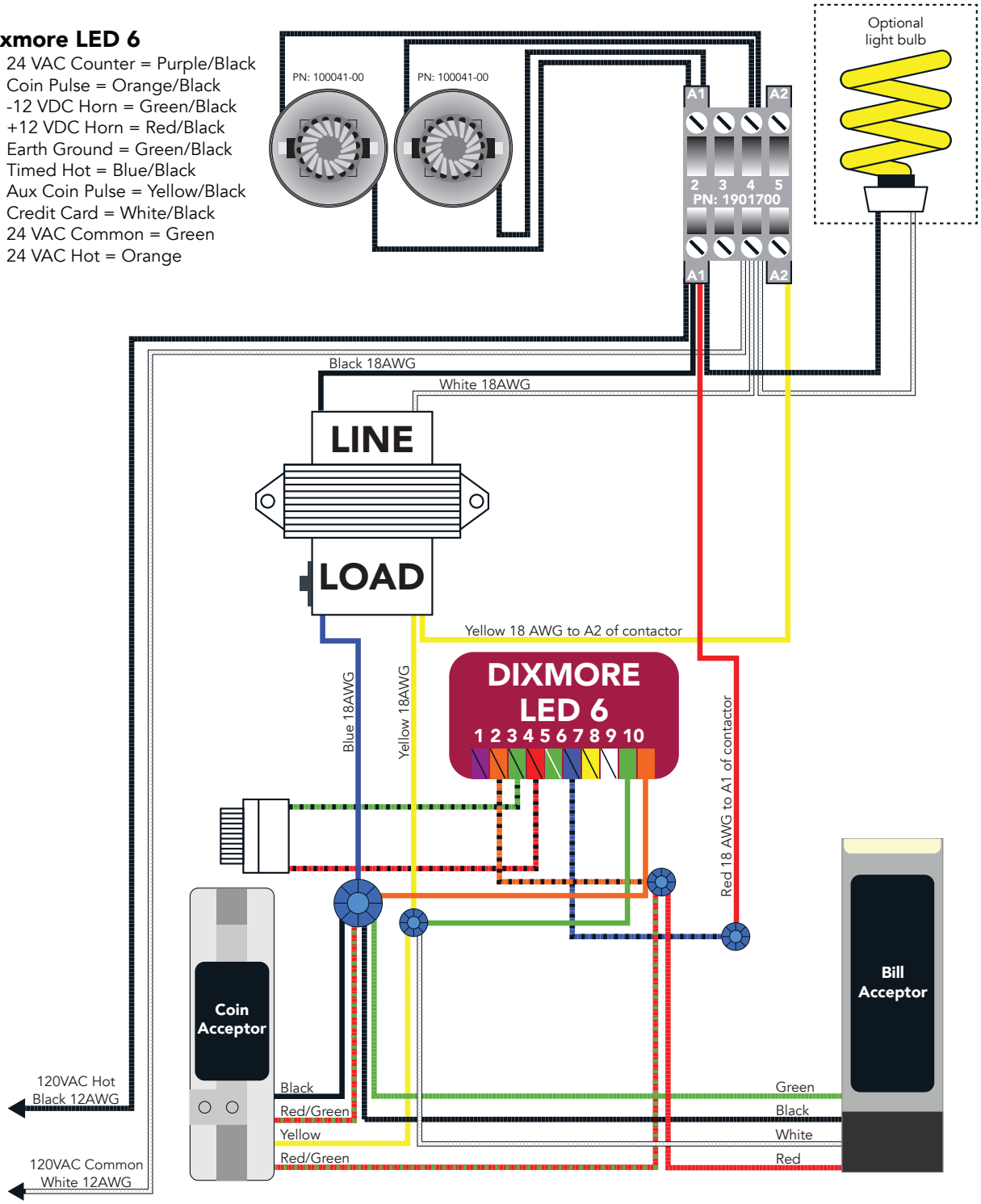
*To wire a cancel button to the GS-403, wire a normally open button across terminals 5 & 6.



120V 2 Motor Vacuum, LED 6, Coin & Bill Acceptor, Optional Light Bulb

Dixmore LED 6

1. 24 VAC Counter = Purple/Black
2. Coin Pulse = Orange/Black
3. -12 VDC Horn = Green/Black
4. +12 VDC Horn = Red/Black
5. Earth Ground = Green/Black
6. Timed Hot = Blue/Black
7. Aux Coin Pulse = Yellow/Black
8. Credit Card = White/Black
9. 24 VAC Common = Green
10. 24 VAC Hot = Orange

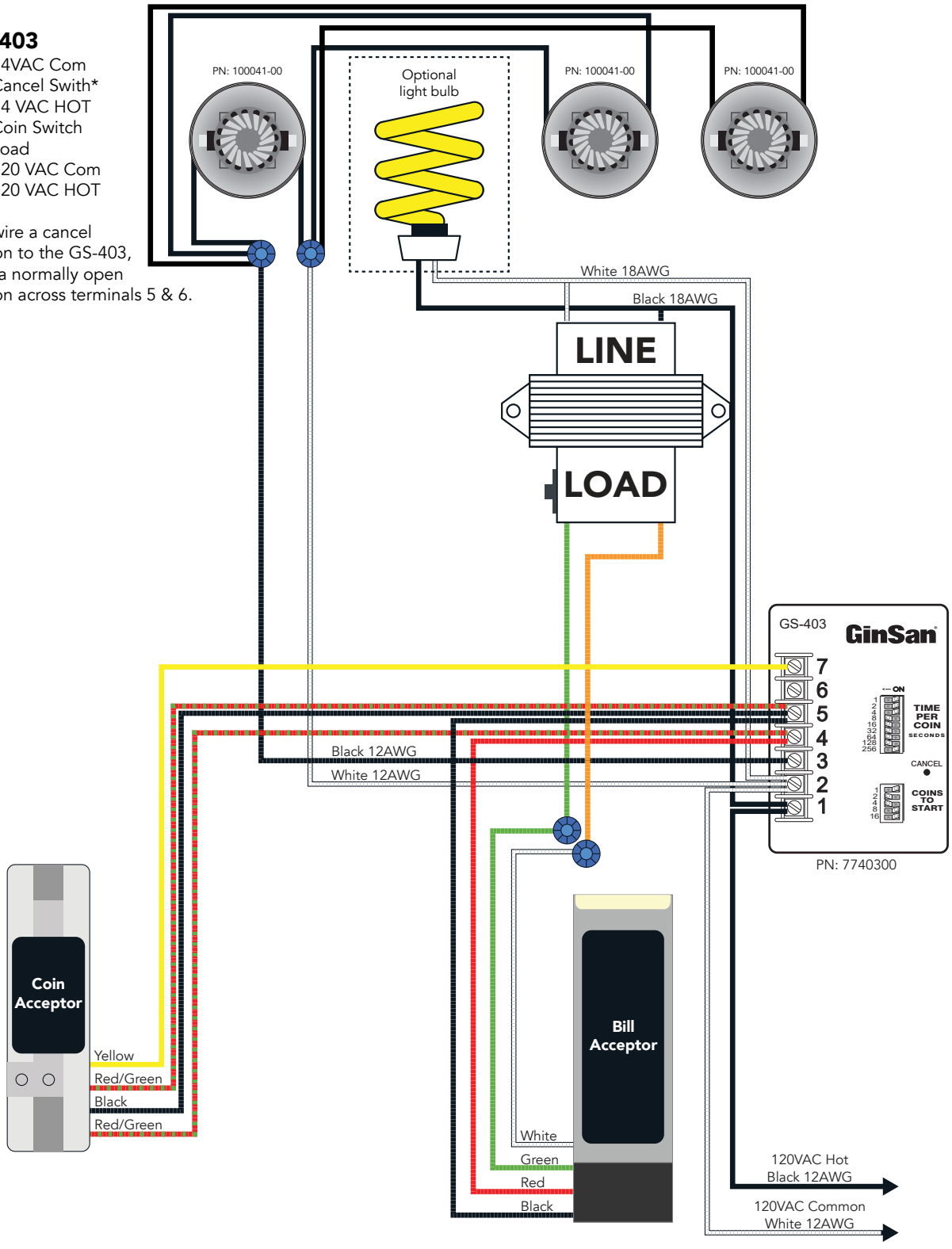


120V 3 Motor Vacuum, GS-403, Coin & Bill Acceptor, Optional Light Bulb

GS-403

7. 24VAC Com
6. Cancel Swith*
5. 24 VAC HOT
4. Coin Switch
3. Load
2. 120 VAC Com
1. 120 VAC HOT

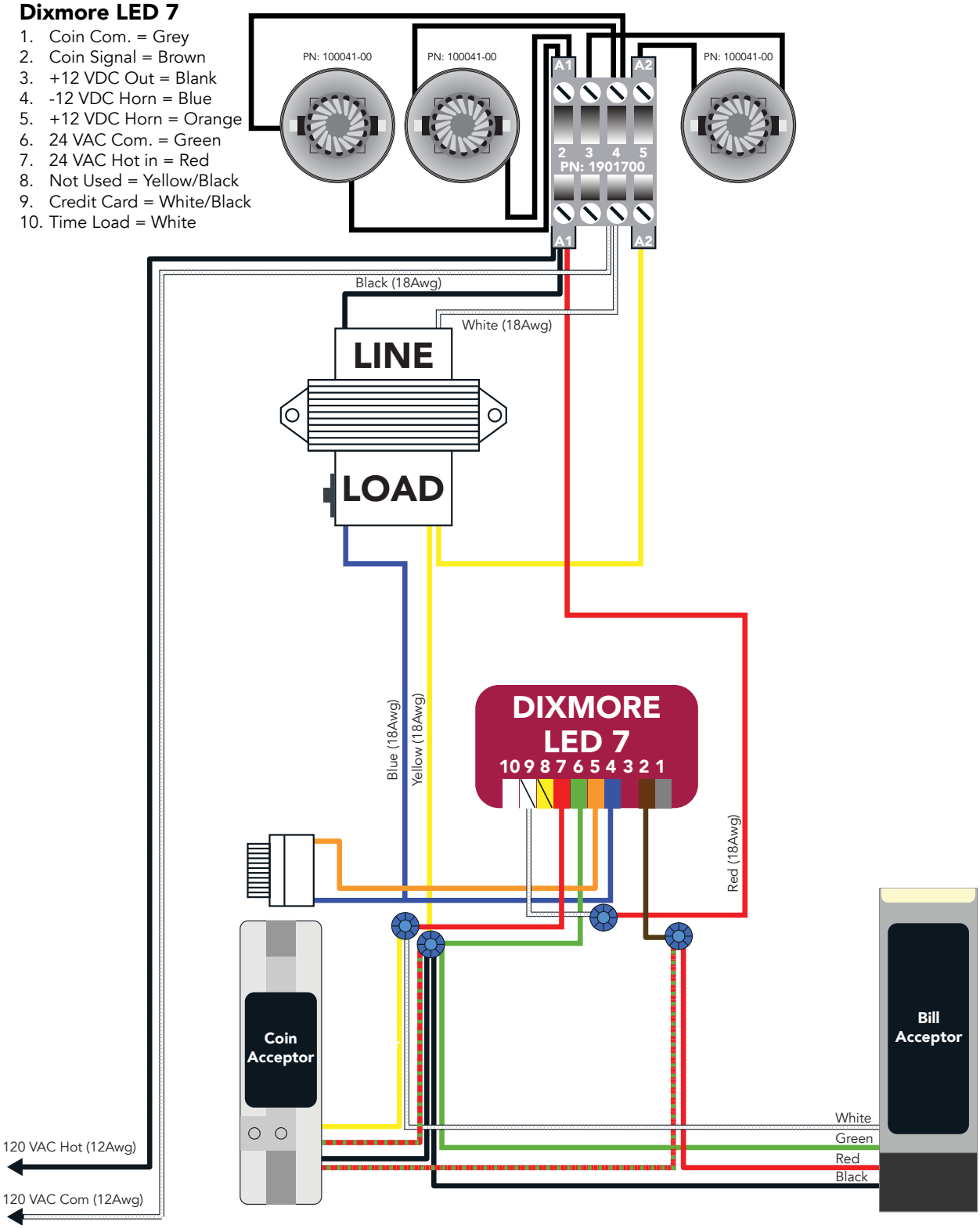
*To wire a cancel button to the GS-403, wire a normally open button across terminals 5 & 6.



120V 3 Motor Vacuum, LED 7, Coin & Bill Acceptor

Dixmore LED 7

1. Coin Com. = Grey
2. Coin Signal = Brown
3. +12 VDC Out = Blank
4. -12 VDC Horn = Blue
5. +12 VDC Horn = Orange
6. 24 VAC Com. = Green
7. 24 VAC Hot in = Red
8. Not Used = Yellow/Black
9. Credit Card = White/Black
10. Time Load = White



Symptom:	Problem:	Correction:
Won't start:	No power at unit test at "line"connection point on timer terminal.	Check electrical supply, fuses, breakers, etc. Make sure that breaker is not in a "tripped" position. Check for loose connections at service panel and at vacuum connection to service.
	Improper voltage.	Use volt meter to determine that voltage is correct. Check at circuit breaker for correct voltage. (one vacuum per circuit)
	No power at motors.	Use volt meter or circuit tester to determine that power is available at timer. Bypass coin switch (use jumper wire) to start timer cycle.
Erratic start:	Coin mechanism not generating accurate "pulse" to timer.	Check coin switch trip wire for free travel. Check initial position of trip wire. Check coin switch wires for correct connection. See Timer Set-up section of this manual for details.
Vending Problems:	Coin jams.	Check for "overfilled" coin box. Check for clearance of coin path to coin box (remove obstructions). Check "cradle" area of coin mechanism for severely bent coins. Check magnet for Canadian (magnetic) coins
Poor Performance:	Poor Suction:	Test by placing hand over hose end. Feel for "pull" with hose end sealed. Use a plastic bag or sheet to test for leaks at door opening. (Move sheet lightly past suspected areas - plastic will "stick" at leaks.
	Poor Airflow:	Test for airflow (see "maintenance" section). An old golf ball or similar sized stone makes a great testing device. Problem is usually overfilled debris area or hose clog. Clean filters, check motors to be sure that both are working.
Other problems:	How to get additional technical help.	Call IVS at 800.442.7267 and say "Extension 608". Please have serial number or the vacuum ready. Serial plate is located at the base of the tank near the hose and electrical connection cover.

Notes

2022 Industrial Vacuum Systems www.ivs-vacuum.com 800.968.8227

Power Vac
Model 140000 & 1400001
Install & Owner's Guide

CAUTION: Read the instructions before using the machine.

INCREDIBLY POWERFUL

INDUSTRIAL VACUUM SYSTEMS

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