



Leaders in Access Control for Over 45 Years

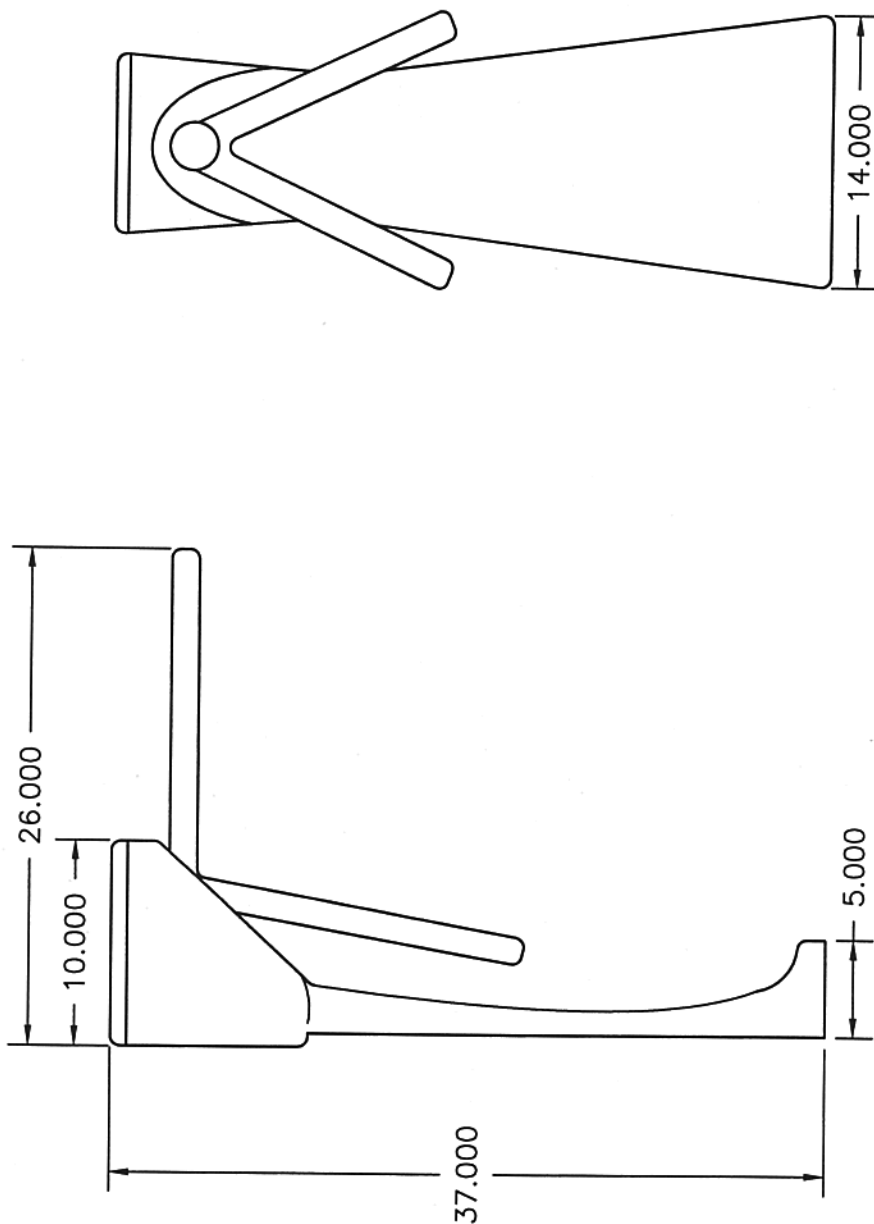
P.O. Box 815, Brunswick OH 44212-0815  
Phone: 330-225-3029 Fax: 330-225-3009  
Toll-Free: 1-888-225-3029

*INSTALLATION  
AND  
SERVICE MANUAL  
FOR  
CLASSIC SERIES  
CS-79  
WAIST HIGH  
TURNSTILE*

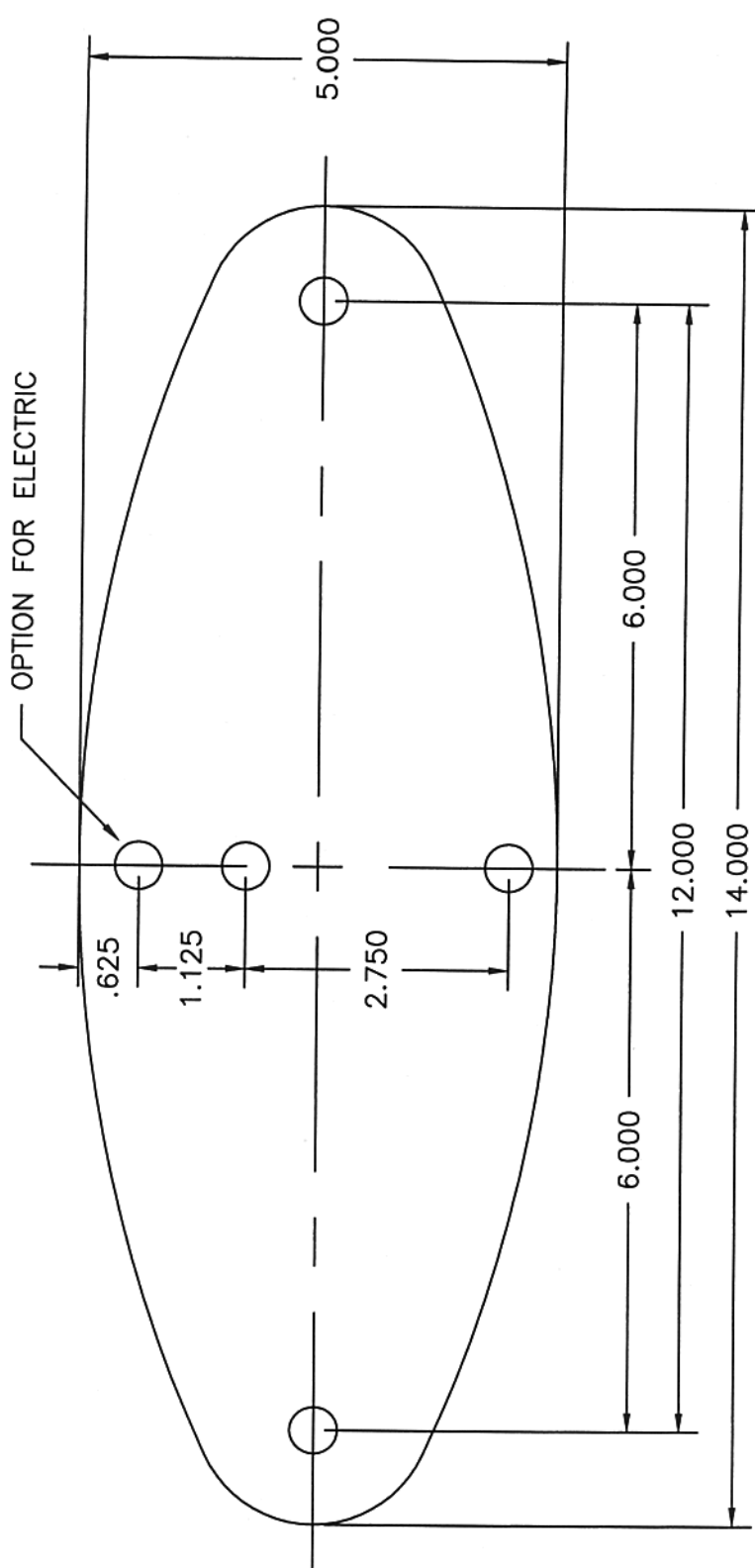
**IMPORTANT:** Please save this booklet after installation. If installation is done by Construction Company, please give this booklet to customer when installation is complete. They will require it for maintenance and repairs.

Thank you.

P.N. CS79



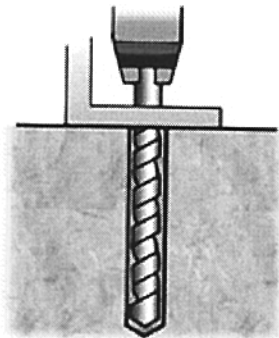
MATERIAL:	SCALE: 10=1	APPROVED BY:	DRAWN BY: LC III
	DATE: 8/19/03		
FINISH:	REVISED:		
	Sentronic International		
TOL. UNLESS OTHERWISE SPEC.	330-225-3029		
.X ± .1	FAX 330-225-3009		
.XX ± .03	USA 1-888-225-3029		
ANGLES .5°			
P.O. Box 815		CLASSIC SERIES TURNSTILE	
Brunswick OH 44212			



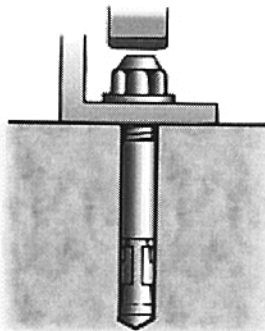
NOTE: ALL HOLES ARE  $\phi .500$

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.XX ± .03	USA 1-888-225-3029		
ANGLES .5°	P.O. Box 815		
	Brunswick OH 44212		
	CLASSIC SERIES FOOTPRINT CS79/HG81		

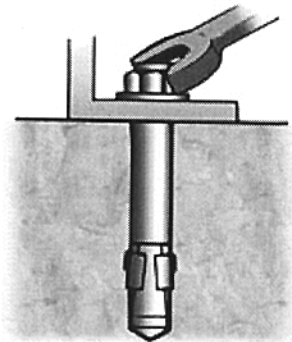
### Concrete Wedge Anchor Installation Instructions



**1.** Drill hole 1/2" to 1" deeper than anchor embedment. Clean hole of debris.



**2.** With nut threaded past the end of stud, hammer into position.



**3.** Tighten finger tight plus an additional 3-5 turns with wrench.

## Instructions for Using Wedge Anchors

Determine the appropriate wedge anchor length for your project.

1. Add:  
The thickness of material to be fastened  
-to-  
The minimum embedment required  
-to-  
The thickness of the nut and washer (about one anchor diameter).
2. Once you have determined the appropriate wedge-type-anchor length, drill your hole using a bit with the same diameter,  $\frac{1}{2}$ " deeper than the anticipated anchor embedment.
3. Clean the drilled hole of any debris.
4. Thread the nut and washer until the nut is flush with the top of the anchor.
5. Hammer it into position (nut and washer flush with the surface of the material).
6. Tighten finger completely and then take an additional 3-5 turns with the wrench.
7. If the anchor spins in the hole, force it up using a screwdriver until the clip binds into the concrete.

## Thunderstud® Wedge Anchor Technical Information

Diam. & Length	Min. Embedment	Thread Length
1/4"	1-1/8"	3/4"
3/8"	1-1/2"	7/8"
3/8"	1-1/2"	1-1/8"
1/2"	2-1/4"	1-1/4"
1/2"	2-1/4"	1-1/4"
5/8"	2-3/4"	2"
5/8"	2-3/4"	2"
5/8"	2-3/4"	2"
3/4"	3-1/4"	2"
3/4"	3-1/4"	2"
3/4"	3-1/4"	2"
7/8"	3-7/8"	2-1/4"
1"	4-1/2"	2-1/4"
1-1/4"	5-1/2"	3-1/4"



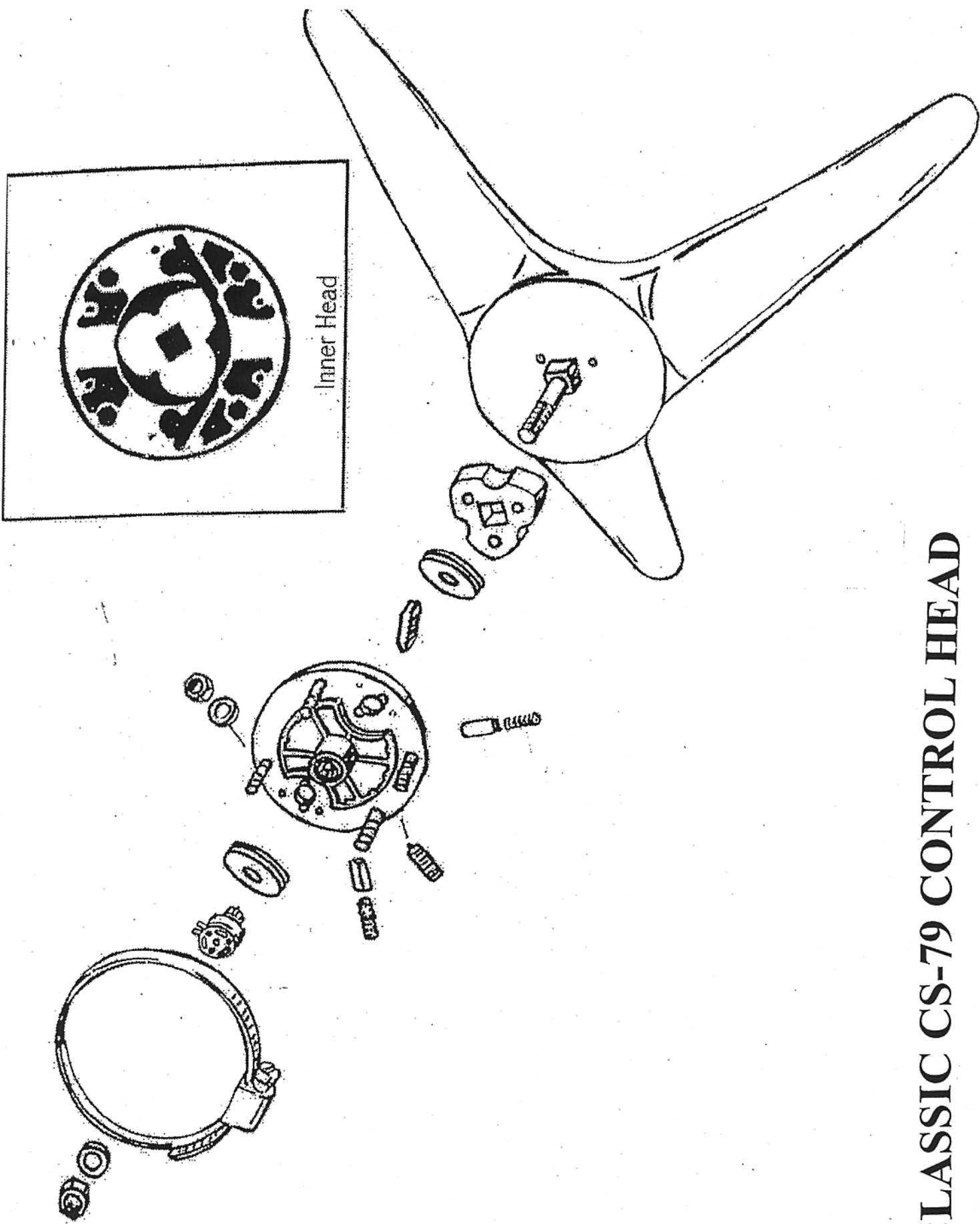
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***CLEANING & CARE INSTRUCTIONS  
FOR  
CLASSIC CS 79 TURNSTILE***

1. Remove four mounting nuts/washers (A) NM700 to release turnstile inner and outer head assembly from housing.
2. Place arm assembly (B) NM701 with three arms down on a workbench or floor with back of head facing up.
3. Remove nut/lock washer of shaft (D) NM703 and clamp (F) NM 705; then remove the two cam follower springs (J) NM708S and the cam followers (I) NM 708.
4. Remove head (C) NM702 from shaft along with bearing on top and bottom of inner head. Remove inner cover to inner head and carefully note location of geared pawls (K) NM709, but do not remove cam (M) NM710 unless it is damaged and must be replaced. If cam is to be replaced, note its exact location on shaft/arms.
5. Rotary solenoid and pinion gear (N) NM711 is of the continuous duty type. Make sure pawl is advanced as far forward in inner head as possible when resetting solenoid, pinion gear and geared pawl; otherwise the cam will slip past the pawl and not lock properly.
6. Reverse procedure to reassemble after cleaning and applying silicone or teflon lubricant to all moving parts.

# CLASSIC CS-79 CONTROL HEAD





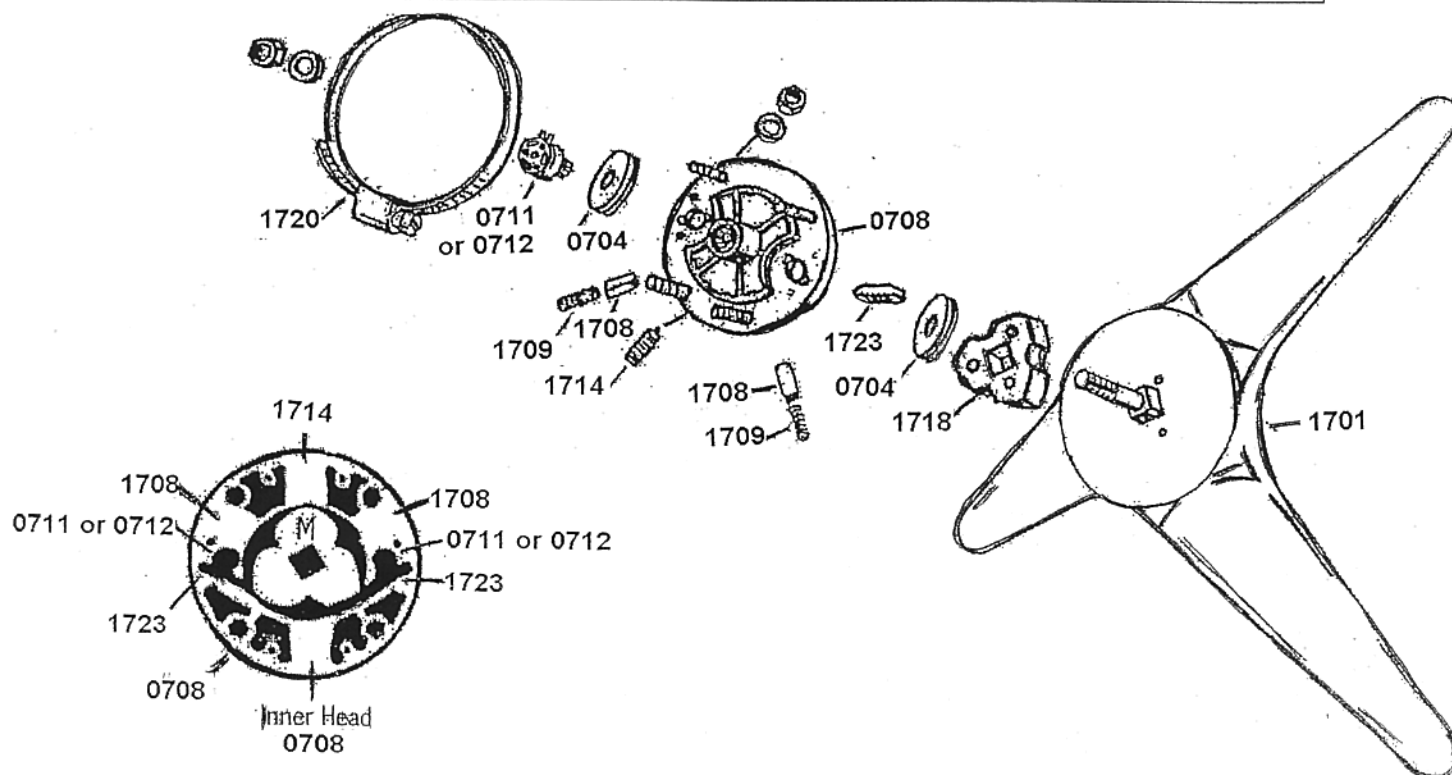
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Fax: 330-225-3009

Web: [sentronicinternational.com](http://sentronicinternational.com)  
Email: [sales@sentronicinternational.com](mailto:sales@sentronicinternational.com)  
June 2007

## CLASSIC SERIES CS-79 PARTS LIST

PART NO.	PART NAME	COST
0704	Tapered Roller Bearing	\$25.75
0708	Inner Head	\$268.00
0711	Rotary solenoid & pinion gear – CW	\$198.00
0712	Rotary solenoid & pinion gear – CCW	\$198.00
0780	24VDC 3amp Power Supply	\$42.11
0789	PC Control Board	\$162.72
1700	Limit Switch	\$52.97
1701	Outer head/arm assembly	\$237.00
1708	Cam Follower	\$33.70
1709	Cam Follower Spring	\$2.14
1713	Cover Cap	\$71.69
1714	Spring Plunger	\$25.52
1717	Plain Spring	\$2.14
1718	Cam	\$93.63
1720	Clamp	\$3.95
1723	Geared Pawl	\$67.41
1724	Plain Pawl	\$28.89
	Manual Control Head	\$840.00
	Control Head / Elect. 1 way	\$1,455.00
	Control Head / Elect. 2 way	\$1,690.00





ENT. TIMER

EXT. TIMER

ALARM TIMER

ENT. INPUT+

ENT. INPUT-

LIM. SWITCH 1+

LIM. SWITCH 1-

EXT. INPUT+

EXT. INPUT-

LIM. SWITCH 2+

LIM. SWITCH 2-

ALARM INPUT+

ALARM INPUT-

INPUT 24V+

INPUT 24V-

**SENTRONIC<sup>®</sup>**  
**INTERNATIONAL**

SENTRONIC  
INTERNATIONAL  
P. O. BOX 815  
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SEN-789

ENT. SOL. NO

ENT. SOL. NC

ENT. SOL. COM

ENT. LIGHT NO

ENT. LIGHT NC

ENT. LIGHT COM

EXT. SOL. NO

EXT. SOL. NC

EXT. SOL. COM

EXT. LIGHT NO

EXT. LIGHT NC

EXT. LIGHT COM

ALARM OUTPUT NO

ALARM OUTPUT NC

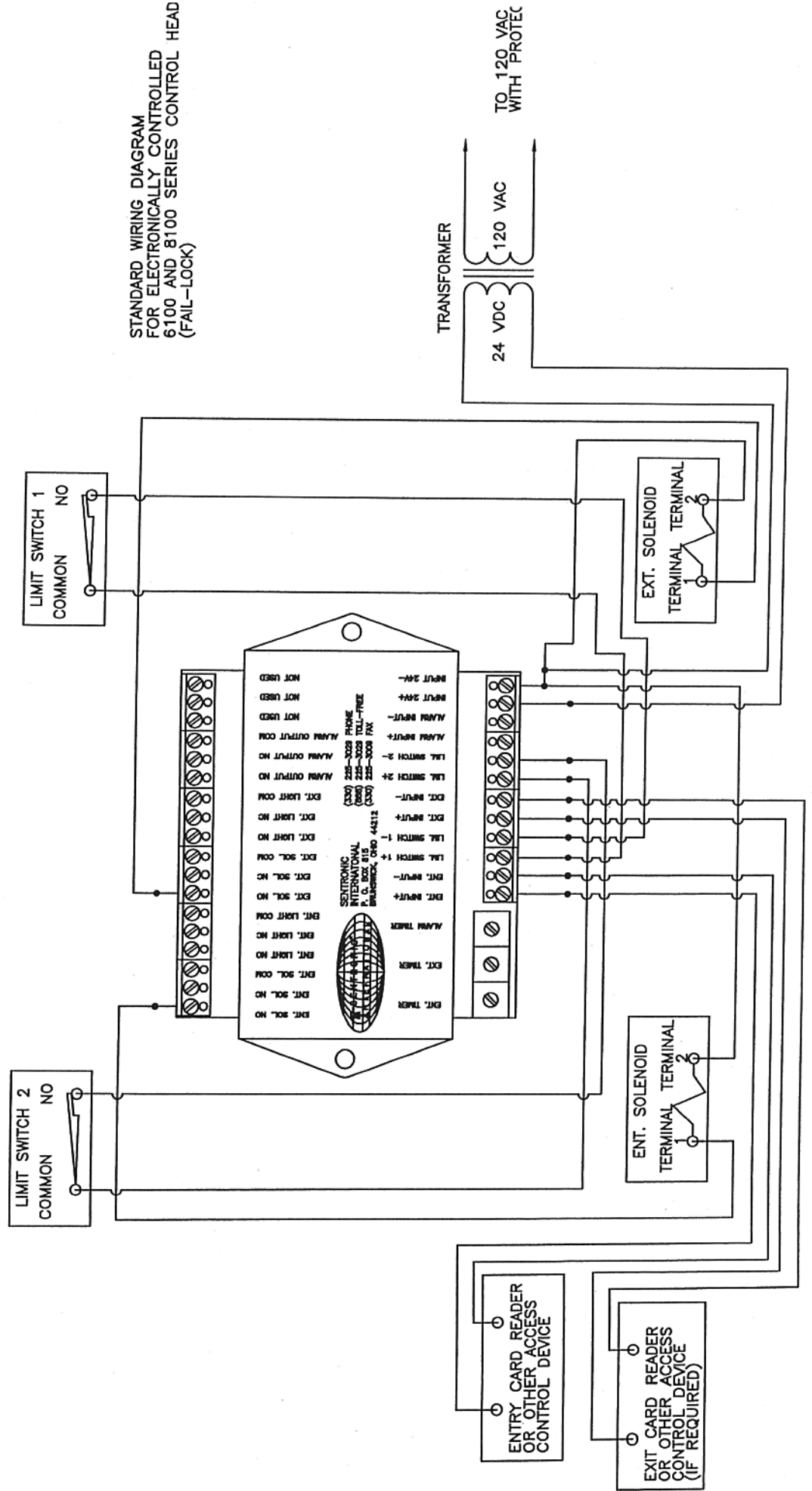
ALARM OUTPUT COM

ANTI BACKUP NO

ANTI BACKUP NC

ANTI BACKUP COM

STANDARD WIRING DIAGRAM  
FOR ELECTRONICALLY CONTROLLED  
6100 AND 8100 SERIES CONTROL HEAD  
(FAIL-LOCK)



## WIRING LEGEND FOR 789 TURNSTILE CONTROL BOARD

Note!! This is a multipurpose control board – not all functions are used

All outputs on right side of board are 24 vdc+, use 24 vdc- terminal bottom left side for other leg when wiring solenoids and lights.

Timer controls length of time for person to enter	ENT TIMER	ENT SOL NO	Enter fail lock Solenoid 24 vdc+
		ENT SOL NC	Enter fail open Solenoid 24 vdc+
Timer controls length of time for person to exit	EXT TIMER	ENT SOL COM	Not Used
		ENT LIGHT NO	Status light 24 vdc+
Timer controls length of alarm to sound	ALARM TIMER	ENT LIGHT NC	Status light 24 vdc+
Contact closer of these two terminals by push button or card reader unlocks turnstile entrance	ENT INPUT + ENT INPUT -	ENT LIGHT COM	Not Used
		EXT SOL NO	Exit fail lock Solenoid 24 vdc+
Contact closer of these two terminals by limit switch on control head relocks after one person enters	LIM SWITCH 1+ LIM SWITCH 1-	EXT SOL NC	Exit fail open Solenoid 24 vdc+
		EXT SOL COM	Not Used
Contact closer of these two terminals by push button or card reader unlocks turnstile exit	EXT INPUT + EXT INPUT -	EXT LIGHT NO EXT LIGHT NC	Status light 24 vdc+ Status light 24 vdc+
		EXT LIGHT COM	Not Used
Contact closer of these two terminals by limit switch on control head relocks after one person exits	LIM SWITCH 2+ LIM SWITCH 2-	ALARM OUTPUT NO	Cover alarm 24 vdc+
		ALARM OUTPUT NC	Not Used
		ALARM OUTPUT COM	Not Used
Contact closer of these two terminals by cover tamper switch turns alarm on	ALARM INPUT + ALARM INPUT -	ANTI SOL NO	Anti-backup solenoid Fail open 24 vdc+
		ANTI SOL NC	Anti-backup solenoid Fail lock 24 vdc+
18 to 30 vdc power supply input and one leg from all solenoids attached to vdc -	INPUT 24 V + INPUT 24 V -	ANTI SOL COM	Not Used

**NOTE-** If only one limit switch exits install jumper wire to LIM SWITCH 1+ and LIM SWITCH 2+

## 789 CIRCUIT BOARD TROUBLE SHOOTING

- 1) Isolate the card reader from the turnstile (card reader time should be less than 1 second anything more may allow two people to walk through the unit)  
A one shot timer is available for purchase if the time cannot be achieved.
- 2) Using a jumper, make a **momentary** contact between either **ent+** and **ent-** or **exit + and exit -** depending on which side you are trying to activate.
- 3) At this point the solenoid should release and the turnstile can be rotated.  
If successful the turnstile will lock back up after rotation is completed. The card reader is the problem.
  - A) If not successful look to see if the triangle cam is actuating the limit switch. The limit switch will lock the unit back up.  
Try actuating the limit switch by hand to see if it is working
  - B) Check for loose wires
  - C) Use meter to check for 24VDC
    - 1<sup>st</sup> check transformer
    - 2<sup>nd</sup> place one leg of meter on 24VDC negative on circuit board  
place the other leg of meter on ENT SOL NC contact or EXT SOL NC contact. This checks for current going through the relay. If power is not there then the jumper on the circuit board may be missing or the relay may be bad.
  - D) Use meter to check Solenoid for 24VDC  
If solenoid is wired into a normally open contact then initiate the turnstile  
A normally closed contact should have power going to the solenoid.  
**If using transformer to check solenoid, solenoid must be disconnected from the Circuit board or back-feed will occur and could possibly short out the board.**
- 4) If still unsuccessful the return the control head to the factory & our technicians will fully test the unit and make any repairs needed.



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## WARRANTY

Seller warrants the goods against defective workmanship and materials provided that Buyer notify Seller within one (1) year after receipt by Buyer of the goods of any claim under this Warranty. The liability of Seller shall be limited to replacing or repairing defective goods returned by Buyer and delivered to the factory of the Seller, transportation charges prepaid. Replaced or repaired goods will be redelivered freight prepaid to the address of Buyer shown hereon. Except for the Warranty contained herein, there shall be no other warranties, such as warranties of fitness and merchantability or otherwise; expressed or implied, written or verbal, and Seller shall not be liable for consequential damages in any event.