J.E. ADAMS
INDUSTRIES, LTD
CEDAR RAPIDS, IOWA USA

8670-5WB
AIR/WATER WITH REMOTE START

TABLE OF CONTENTS

- **Product Information…… 3**
- **Specifications…… 4**
- **Installation…… 5-10**
  - Requirements…….…… 5
  - Installation Directions..……. 6
  - Figure 1: Hose Reel Base Footprint.……. 7
  - Figure 2: Mounting and Routing Detail……..8
  - Figure 3: Electrical Installation Detail……9
  - Figure 4: Cabinet and Base Dimensions…….10
- **Timer setup…… 11-15**
  - SSAC Setup……... 11
  - IDX Setup…….. 12
  - Infitec Setup…….. 13
  - Timer Settings Chart……. 14
  - Typical Timer Settings……. . 15
- **Programming the Remote Start System……16**
- **Maintenance……... 17**
- **Parts Breakdown……... 18-20**
  - 8670-5WB…….…… 18
  - 8778A-1……..……... 19
  - 22002-51A……. 20
- **Schematics…….. 21**
  - S8670-5WB……...……. 21
- **Troubleshooting……. 22**

PRODUCT INFORMATION

Please take a moment to fill out the information below in order to aid us with any future sales or service inquiries. Model number and serial number information can be found on the serial tag located inside the control box and/or on the lower exterior of the can. Key number can be found on the tag that comes attached to the keys. There may be more than one key number depending on unit.

Please keep this information with your records.

MODEL#:_____

SERIAL#:_____

KEY NUMBER(S):_____

DATE PURCHASED:_____

DISTRIBUTOR:_____

J.E. Adams Industries
1025 63rd Ave. S.W.
Cedar Rapids, IA 52404
1-800-553-8861
www.jeadams.com

SPECIFICATIONS

DeVILBISS COMPRESSOR

- 20 AMP SERVICE REQUIRED
- 120 VAC, 60Hz, 14 AMPS
- 1.5 HORSEPOWER
- ONE CYLINDER
- ONE STAGE OIL-LESS

SCFM @ PSI :

6 @ 0
5 @ 20
4.1 @ 40
3.1 @ 90
2.9 @ 100
2.1 @ 125 (MAX PSI)

TEMPERATURE RANGE:
-10 DEGREES F TO 100 DEGREES F.

MOTOR:

- 1.5 HP, 1725 RPM
- CAPACITOR START
- NEMA 56 FRAME
- AUTOMATIC THERMAL OVERLOAD.

NO LUBRICATION REQUIRED ON MOTOR OR COMPRESSOR.

INSTALLATION REQUIREMENTS

!IMPORTANT!

TO ENSURE PROPER FUNCTIONALITY AND ADHERANCE TO BOTH LOCAL AND NATIONAL ELECTRIC CODES, IT IS RECOMMENDED THAT SERVICE BE INSTALLED BY A LICENCED ELECTRICIAN EXPERIENCED IN COMMERCIAL APPLICATIONS. INADEQUATE POWER AND WIRING MAY CAUSE THE UNIT TO PERFORM ERRATICALLY, BLOW FUSES AND TIME INCORRECTLY.

GENERAL MECHANICAL:

- ALL DIMENSIONS IN DRAWINGS ARE IN INCHES.
- MOUNTING STUD SIZE 3/8" X 16 UNC X 1".
- 4" MINIMUM CONCRETE REQUIRED AROUND MOUNTING STUD.
- 18" MINIMUM PAD RECOMMENDED FOR BUMPER CLEARANCE.

FOR GASOLINE DISPENSING LOCATIONS:

- A **MINIMUM 18"** HIGH PAD ABOVE THE DRIVEWAY.
- **20 FOOT HORIZONTAL CLEARANCE** FROM THE EXTERIOR ENCLOSURE OF ANY GASOLINE DISPENSING PUMP.

ELECTRICAL SERVICE:

- Dedicated service required
  - 120V single phase
  - 20 amp service
  - 60Hz cycle
- Minimum service wire size:
  - Less than 100ft run: 12Ga
  - 100ft – 200ft run: 10Ga

INSTALLATION

IT IS HIGHLY RECOMMENDED THAT THIS UNIT BE INSTALLED BY A LICENSED ELECTRICIAN to ensure all local and national electrical codes are adhered to.

1. This unit is designed to be used with the J.E. Adams 6025 hose reel base.
2. Using the 6025 footprint dimensions shown in Figure 1, locate and install mounting studs.
3. Secure hose reel base to mounting studs securely. DO NOT install the cover at this time.
4. Mount cabinet to base securely as shown in Figure 2, using only the four 5/16-18 X ½" bolts. DO NOT install the ¼-20 X ½" bolts at this time.
5. Using Figures 2 & 3, install electrical and water services to the unit and run air and water lines to the inputs of their respective hose reels. Air line should run between the output of the unloader valve and the input of the air reel.
6. Set timer to desired time and coin settings (pages 11-15).
7. Apply power to the unit and verify proper operation.
8. Install hose reel cover using ¼-20 X ½" bolts to secure in place as shown in Figure 2.

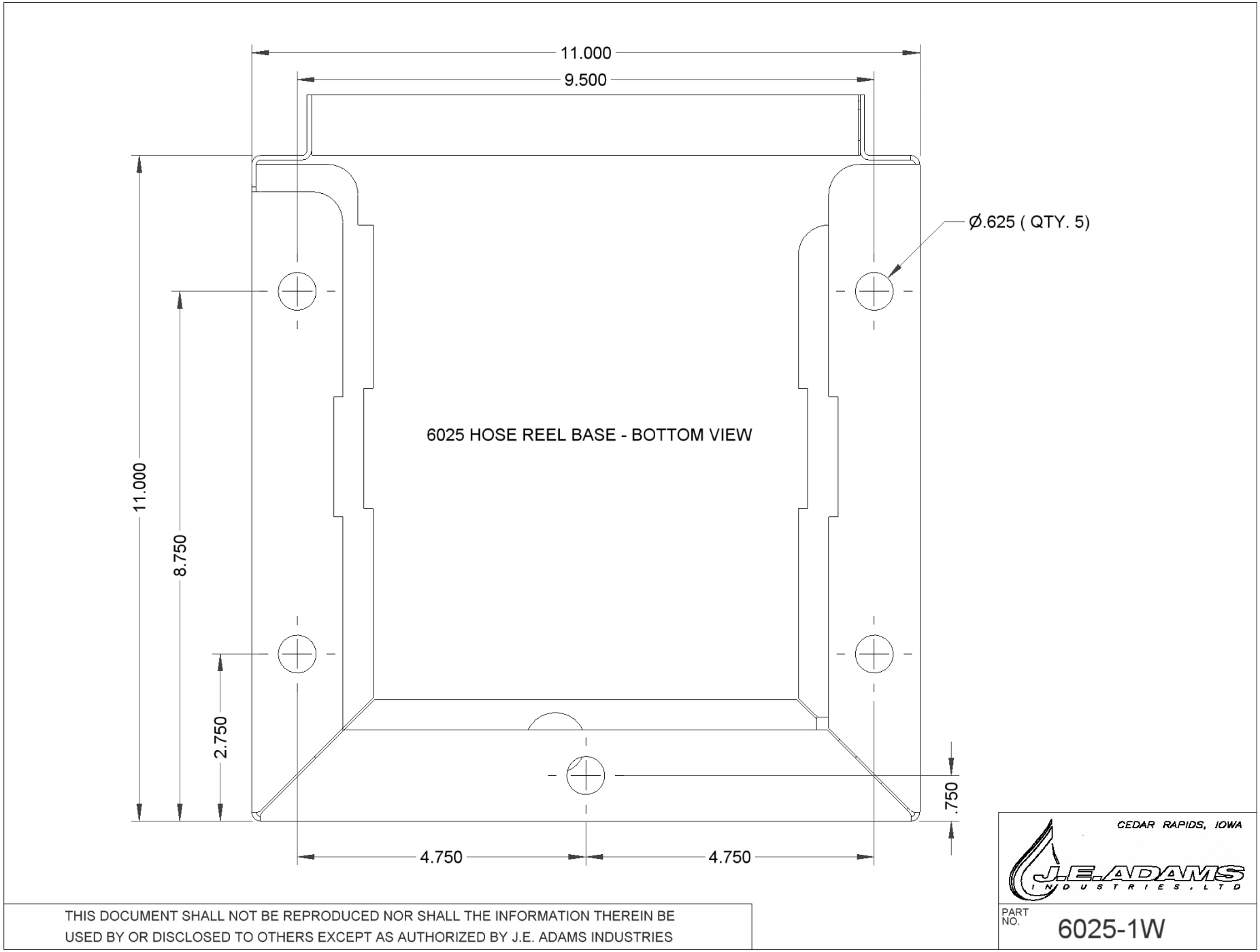
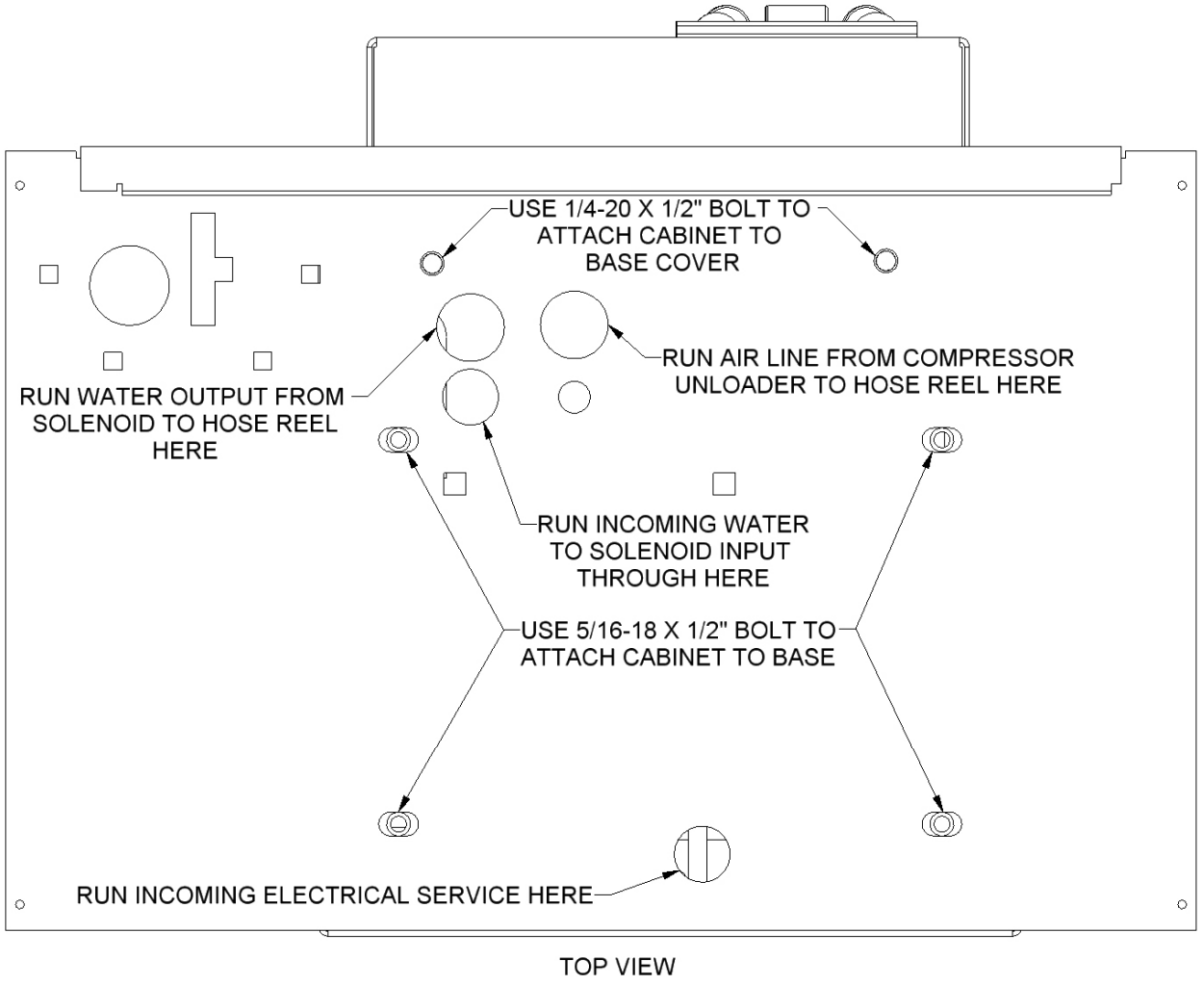


Figure 1: Installation footprint for 6025 hose reel base

MOUNTING INSTRUCTIONS - 8670-5WB CABINET TO 6025 HOSE REEL BASE



CEDAR RAPIDS, IOWA

J.E. ADAMS INDUSTRIES, LTD

PART NO. CABINET MOUNT

THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

Figure 2: Mounting and routing detail

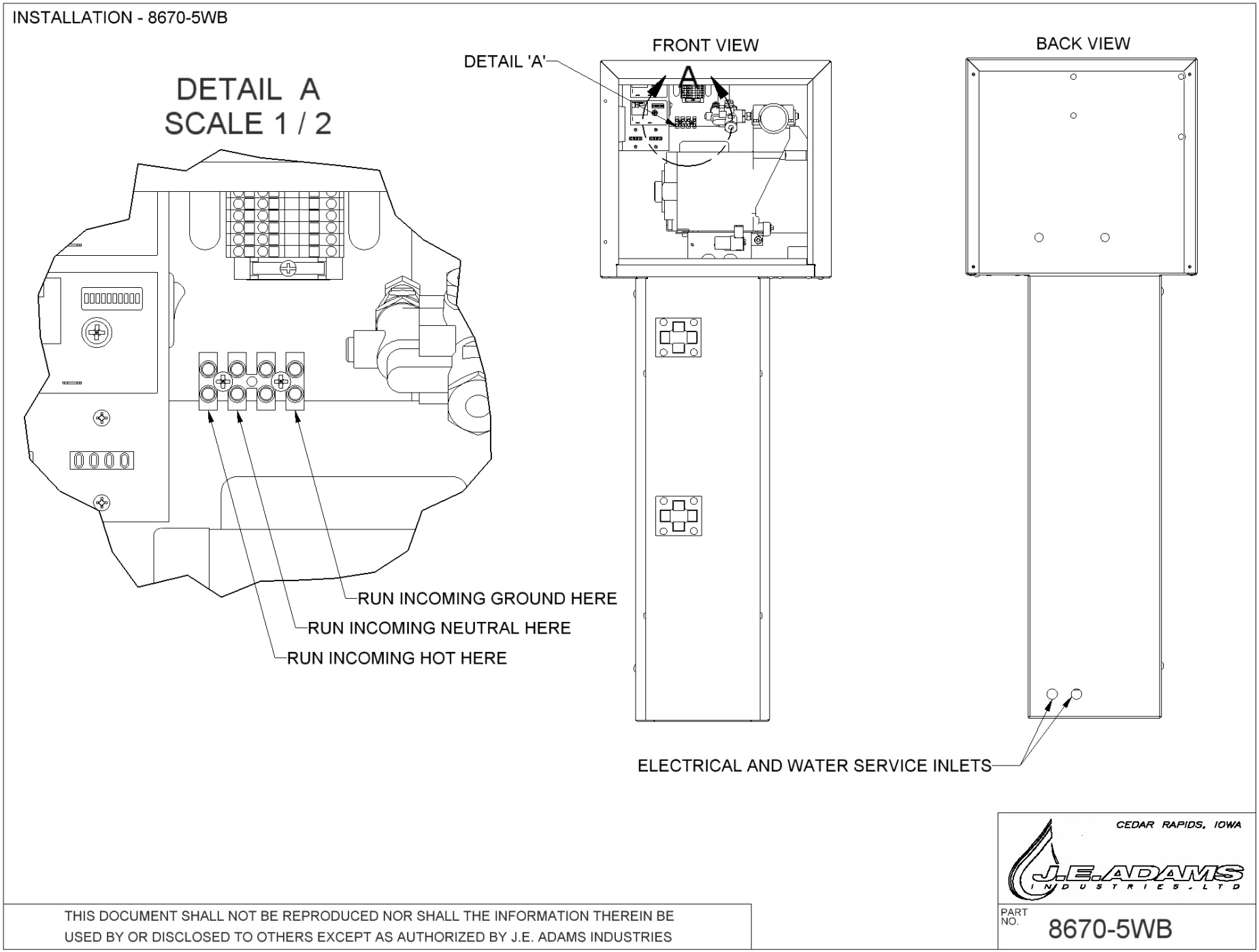
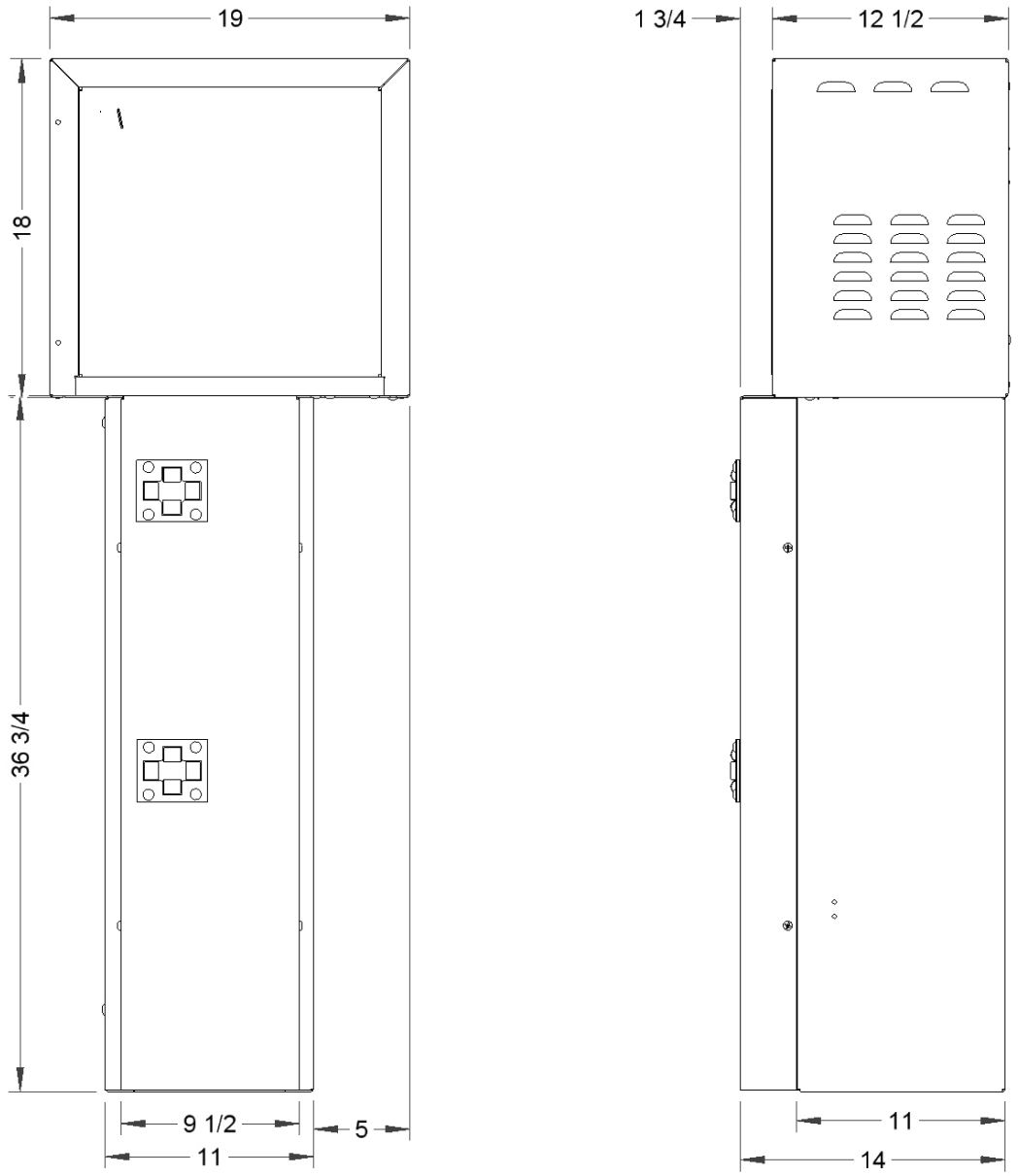


Figure 3: Electrical installation detail



THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

CEDAR RAPIDS, IOWA
J.E. ADAMS INDUSTRIES, LTD

PART NO.

Figure 4: Cabinet and hose reel base dimensions

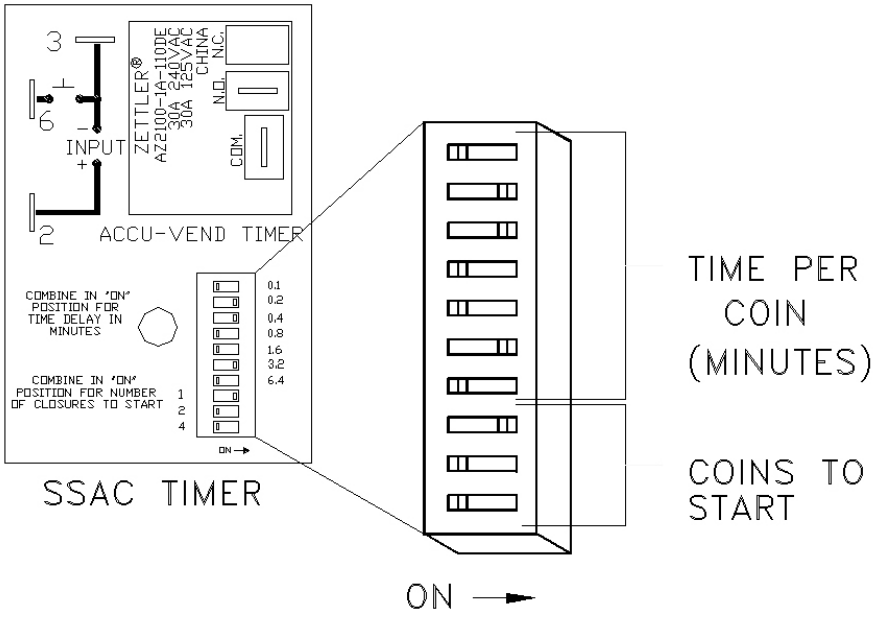


Figure 5: SSAC timer setup

Figure 5 shows an SSAC timer set for 1 ***coin to start*** *and 3.8* ***minutes per coin*** *for a total run time of 3.8 minutes (3 minutes and 48 seconds).*

TIMER SETUP – SSAC TIMERS

Note: "AE" and "AN" model SSAC timers are accumulating timers. During use, timing can be extended proportionately by adding more coins.

The SSAC timer has two adjustable settings: Time per coin (in minutes) and number of coins to start.

Time per coin:

Time per coin is the amount of time the unit will run **per coin inserted** and can be set from *0.1 minutes (6 seconds)* to *12.7 minutes (12 minutes and 42 seconds)* in increments of 6 seconds by turning on the correct switches until their values equal the desired time. Refer to Tables 1 and 2 (pages 14-15) for standard timer and coin settings. For custom settings, follow the steps below:

1. Figure the total time your vac will run (in minutes) and divide that number by the number of **coins to start**. This is your **time per coin**. Round up or down to the nearest tenth of a minute.
2. Subtract the largest value switch (initially 6.4) from your **time per coin**.
    a. **If the resulting number is zero**, move the switch to the **"on"** position and set all remaining un-set switches in the **"off"** position. Your timer is now set.
    b. **If the resulting number is positive**, move the switch into the **"on"** position. Using the resulting number as your new **time per coin**, repeat step 2 with the next largest switch value.
    c. **If the resulting number is negative**, set the switch in the **"off"** position and repeat step 2 using the next largest switch value.

Coins to start:

Coins to start is the amount of coins needed to activate the timer and can be set from one to seven coins in increments of one coin. Refer to Table 1 (page 14) for switch settings.

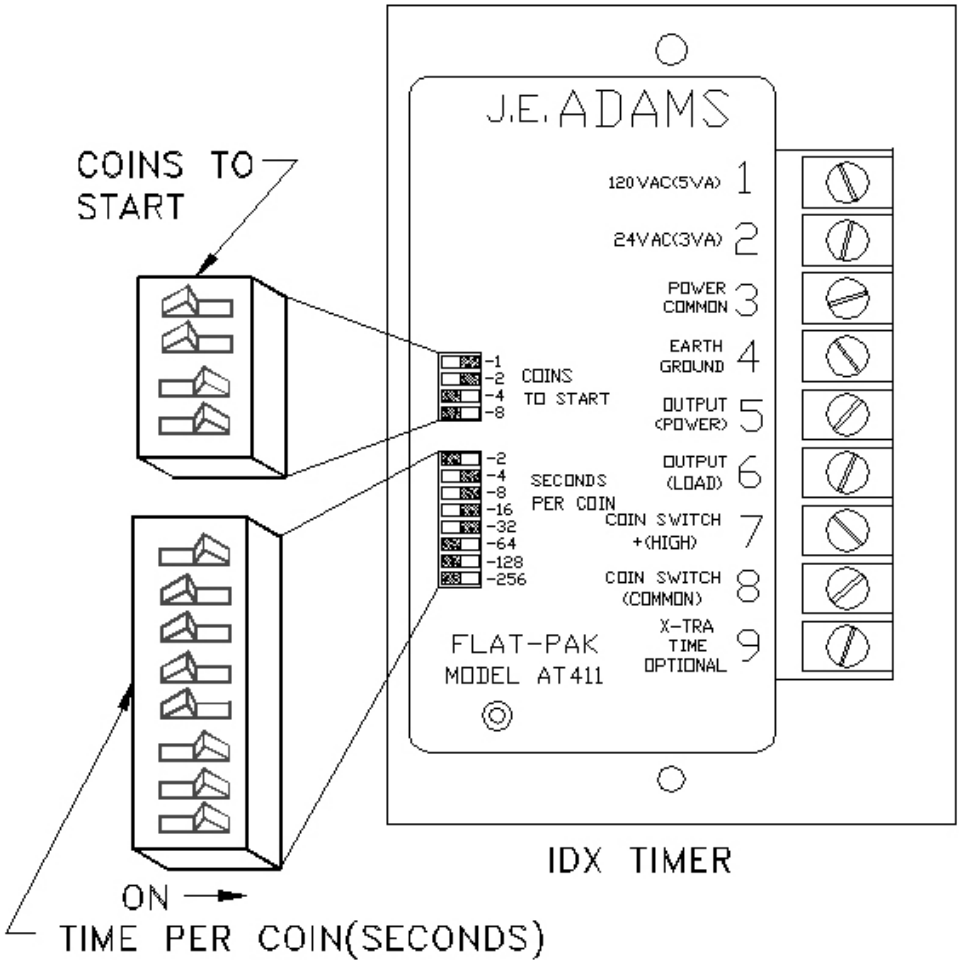


Figure 6: IDX timer setup

Figure 6 shows an IDX timer set for 3 coins to start and 60 seconds per coin for a total run time of 3 minutes.

TIMER SETUP – IDX TIMERS

Note: IDX timers are accumulating timers. During use, timing can be extended proportionately by adding more coins.

The IDX timer has two adjustable settings: Time per coin (in seconds) and number of coins to start.

Time per coin:

Time per coin is the amount of time the unit will run **per coin inserted** and can be set from *2 seconds* to *510 seconds (8.5 minutes)* in increments of 2 seconds by turning on the correct switches until their values equal the desired time. Refer to Tables 1 and 2 (pages 14-15) for standard timer and coin settings *(Note: IDX timers do not have 1 second or 512 second switches. When configuring timer using Table 1, ignore settings for switches 1 and 512).* For custom settings, follow the steps below:

1. Figure the total time your vac will run (in seconds) and divide that number by the number of **coins to start**. This is your **time per coin**. Round up or down to the nearest even number.
2. Subtract the largest value switch (initially 256) from your **time per coin**.
    a. **If the resulting number is zero**, move the switch to the **"on"** position and set all remaining un-set switches in the **"off"** position. Your timer is now set.
    b. **If the resulting number is positive**, move the switch into the **"on"** position. Using the resulting number as your new **time per coin**, repeat step 2 with the next largest switch value.
    c. **If the resulting number is negative**, set the switch in the **"off"** position and repeat step 2 using the next largest switch value.

Coins to start:

Coins to start is the amount of coins needed to activate the timer and can be set from one to seven coins in increments of one coin. Refer to Table 1 (page 14) for switch settings.

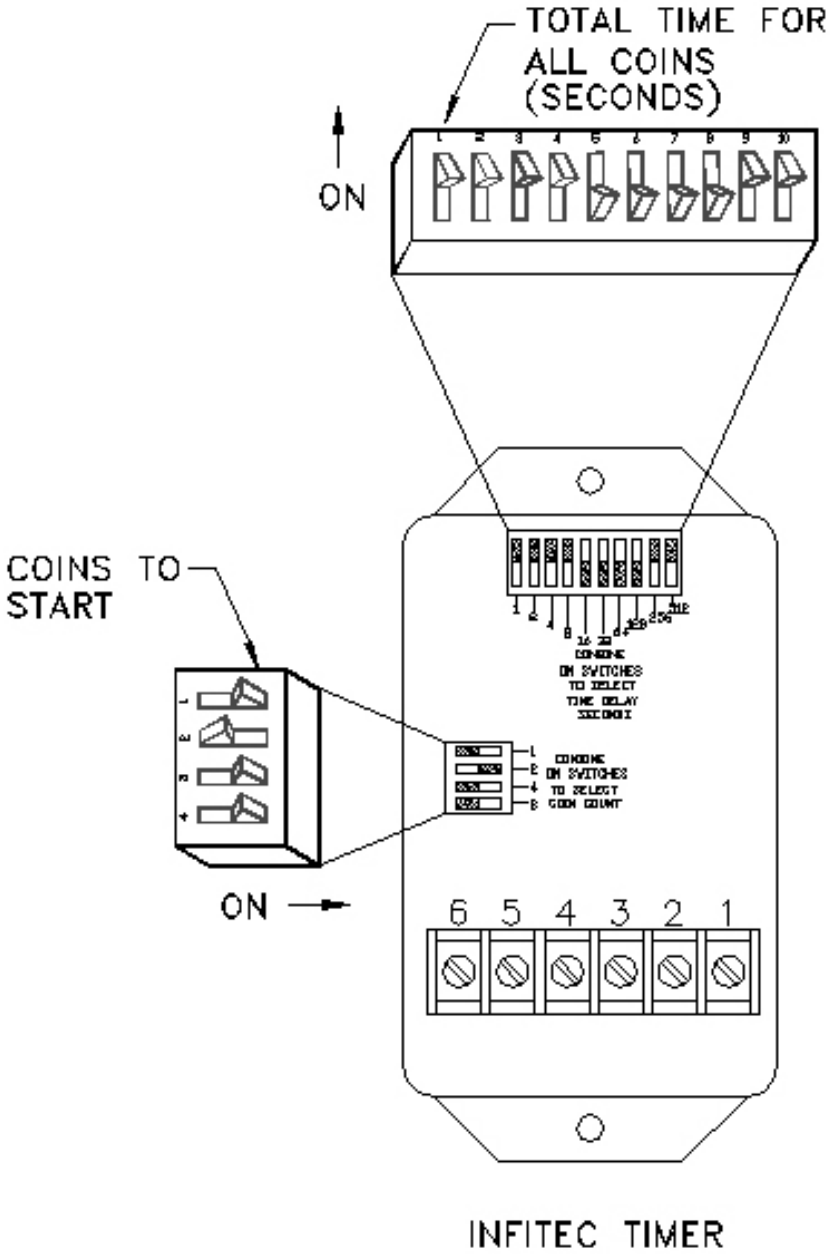


Figure 7: Infitec timer setup

Figure 7 shows an Infitec timer set for 2 coins to start and a total run time of 240 seconds (4 minutes).

TIMER SETUP – INFITEC TIMERS

The Infitec timer has two adjustable settings: Total run time (in seconds) and number of coins to start.

Total run time:

Total run time is the amount of time the unit will run once activated and can be set from *1 second* to *1023 seconds (17 minutes and 3 seconds)* in increments of 1 second by turning on the correct switches until their values equal the desired time. Refer to Tables 1 and 2 (pages 14-15) for standard timer and coin settings. For custom settings, follow the steps below:

1. Figure the total time your vac will run (in seconds). This is your **total run time**. Round up or down as desired.
2. Subtract the largest value switch (initially 512) from your **total run time**.
    a. **If the resulting number is zero**, move the switch to the **"on"** position and set all remaining un-set switches in the **"off"** position. Your timer is now set.
    b. **If the resulting number is positive**, move the switch into the **"on"** position. Using the resulting number as your new **time per coin**, repeat step 2 with the next largest switch value.
    c. **If the resulting number is negative**, set the switch in the **"off"** position and repeat step 2 using the next largest switch value.

Coins to start:

Coins to start is the amount of coins needed to activate the timer and can be set from one to 15 coins in increments of one coin. Refer to Table 1 (page 14) for switch settings.

Infitec and IDX Timers	IDX Timers: Time Per Coin (In Seconds) Infitec Timers: Total Run Time (In Seconds)																																					
Timer Switches	5	10	15	20	25	**30**	35	40	45	50	55	**60 (1 min)**	70	80	90	100	110	**120 (2 min)**	130	140	150	160	170	**180 (3 min)**	190	200	210	220	230	**240 (4 min)**	250	260	270	280	290	**300 (5 min)**
1	x		x		x		x		x		x																									
2		x	x			x	x			x	x		x		x		x		x		x		x		x		x		x		x		x		x	
4	x		x	x		x			x		x	x	x			x	x			x	x			x	x			x	x			x	x			x	x
8		x	x		x	x		x	x			x			x		x	x		x			x		x	x		x			x		x	x		x
16				x	x	x				x	x	x		x	x			x			x			x	x		x	x		x	x			x			
32							x	x	x	x	x	x				x	x	x				x	x	x	x				x	x	x					x	x
64													x	x	x	x	x	x								x	x	x	x	x	x						
128																			x	x	x	x	x	x	x	x	x	x	x	x	x						
256																																x	x	x	x	x
512																																					

SSAC Timers	Time Per Coin (In minutes)																																					
Timer Switches	0.1 (6sec)	0.2 (12 sec)	0.3 (18 sec)	0.4 (24 sec)	0.5 (30 sec)	0.6 (36 sec)	0.7 (42 sec)	0.8 (48 sec)	0.9 (54 sec)	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
0.1	x		x		x		x		x		x		x		x		x		x		x		x		x		x		x		x		x		x	
0.2		x	x			x	x			x	x			x	x			x	x			x	x			x	x			x	x			x	x	
0.4				x	x	x	x					x	x	x	x					x		x			x		x	x		x			x		x	x
0.8								x	x	x	x	x	x	x	x						x	x		x	x			x			x			x	x	
1.6																x	x	x	x	x	x	x				x	x	x				x	x	x	x	
3.2																							x	x	x	x	x	x								x
6.4																													x	x	x	x	x	x	x	x

All Timers	Coins to Start															
Coin Switches	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	x		x		x		x		x		x		x		x
2		x	x			x	x			x	x			x	x
4				x	x	x	x					x	x	x	x
8								x	x	x	x	x	x	x	x

Table 1: Timer Settings Chart

Note: "X" indicates a switch in the "on" position

IDX TIMER SETTINGS		
Amount to Start	Total Run Time	Switches in "On" Position
25¢	2 MIN	8, 16, 32, 64
25¢	2-1/2 MIN	2, 4, 16, 128
25¢	3 MIN	4, 16, 32, 128
25¢	3-1/2 MIN	2, 16, 64, 128
25¢	4 MIN	16, 32, 64, 128
25¢	4-1/2 MIN	2, 4, 8 , 256
25¢	5 MIN	4, 8, 32, 256
25¢	5-1/2 MIN	2, 8, 64, 256
50¢	2 MIN	4, 8, 16, 32
50¢	2-1/2 MIN	4, 8, 64
50¢	3 MIN	2, 8, 16, 64
50¢	3-1/2 MIN	2, 8, 32, 64
50¢	4 MIN	8, 16, 32, 64
50¢	4-1/2 MIN	8, 128
50¢	5 MIN	2, 4, 16, 128
50¢	5-1/2 MIN	2, 4, 32, 128
75¢	2 MIN	8, 32
75¢	2-1/2 MIN	2, 16, 32
75¢	3 MIN	4, 8, 16, 32
75¢	3-1/2 MIN	2, 4, 64
75¢	4 MIN	16, 64
75¢	4-1/2 MIN	2, 8, 16, 64
75¢	5 MIN	4, 32, 64
75¢	5-1/2 MIN	2, 4, 8, 32, 64
$1.00	2 MIN	2, 4, 8, 16
$1.00	2-1/2 MIN	2, 4, 32
$1.00	3 MIN	4, 8, 32
$1.00	3-1/2 MIN	2, 4, 16, 32
$1.00	4 MIN	4, 8, 16, 32
$1.00	4-1/2 MIN	4, 64
$1.00	5 MIN	4, 8, 64
$1.00	5-1/2 MIN	4, 16, 64

SSAC TIMER SETTINGS		
Amount to Start	Total Run Time	Switches in "On" Position
25¢	2 MIN	0.4, 1.6
25¢	2-1/2 MIN	0.1, 0.8, 1.6
25¢	3 MIN	0.2, 0.4, 0.8, 1.6
25¢	3-1/2 MIN	0.1, 0.2, 3.2
25¢	4 MIN	0.8, 3.2
25¢	4-1/2 MIN	0.1, 0.4, 0.8, 3.2
25¢	5 MIN	0.2, 1.6, 3.2
25¢	5-1/2 MIN	0.1, 0.2, 0.4, 1.6, 3.2
50¢	2 MIN	0.2, 0.8
50¢	2-1/2 MIN	*
50¢	3 MIN	0.1, 0.2, 0.4, 0.8
50¢	3-1/2 MIN	*
50¢	4 MIN	0.4, 1.6
50¢	4-1/2 MIN	*
50¢	5 MIN	0.1, 0.8, 1.6
50¢	5-1/2 MIN	*
75¢	2 MIN	*
75¢	2-1/2 MIN	*
75¢	3 MIN	0.2, 0.8
75¢	3-1/2 MIN	*
75¢	4 MIN	*
75¢	4-1/2 MIN	*
75¢	5 MIN	*
75¢	5-1/2 MIN	*
$1.00	2 MIN	0.1, 0.4
$1.00	2-1/2 MIN	*
$1.00	3 MIN	*
$1.00	3-1/2 MIN	*
$1.00	4 MIN	0.2, 0.8
$1.00	4-1/2 MIN	*
$1.00	5 MIN	*
$1.00	5-1/2 MIN	*

INFITEC TIMER SETTINGS		
Amount to Start	Total Run Time	Switches in "On" Position
25¢	2 MIN	8, 16, 32, 64
25¢	2-1/2 MIN	2, 4, 16, 128
25¢	3 MIN	4, 16, 32, 128
25¢	3-1/2 MIN	2, 16, 64, 128
25¢	4 MIN	16, 32, 64, 128
25¢	4-1/2 MIN	2, 4, 8, 256
25¢	5 MIN	4, 8, 32, 256
25¢	5-1/2 MIN	2, 8, 64, 256
50¢	2 MIN	8, 16, 32, 64
50¢	2-1/2 MIN	2, 4, 16, 128
50¢	3 MIN	4, 16, 32, 128
50¢	3-1/2 MIN	2, 16, 64, 128
50¢	4 MIN	16, 32, 64, 128
50¢	4-1/2 MIN	2, 4, 8, 256
50¢	5 MIN	4, 8, 32, 256
50¢	5-1/2 MIN	2, 8, 64, 256
75¢	2 MIN	8, 16, 32, 64
75¢	2-1/2 MIN	2, 4, 16, 128
75¢	3 MIN	4, 16, 32, 128
75¢	3-1/2 MIN	2, 16, 64, 128
75¢	4 MIN	16, 32, 64, 128
75¢	4-1/2 MIN	2, 4, 8, 256
75¢	5 MIN	4, 8, 32, 256
75¢	5-1/2 MIN	2, 8, 64, 256
$1.00	2 MIN	8, 16, 32, 64
$1.00	2-1/2 MIN	2, 4, 16, 128
$1.00	3 MIN	4, 16, 32, 128
$1.00	3-1/2 MIN	2, 16, 64, 128
$1.00	4 MIN	16, 32, 64, 128
$1.00	4-1/2 MIN	2, 4, 8, 256
$1.00	5 MIN	4, 8, 32, 256
$1.00	5-1/2 MIN	2, 8, 64, 256

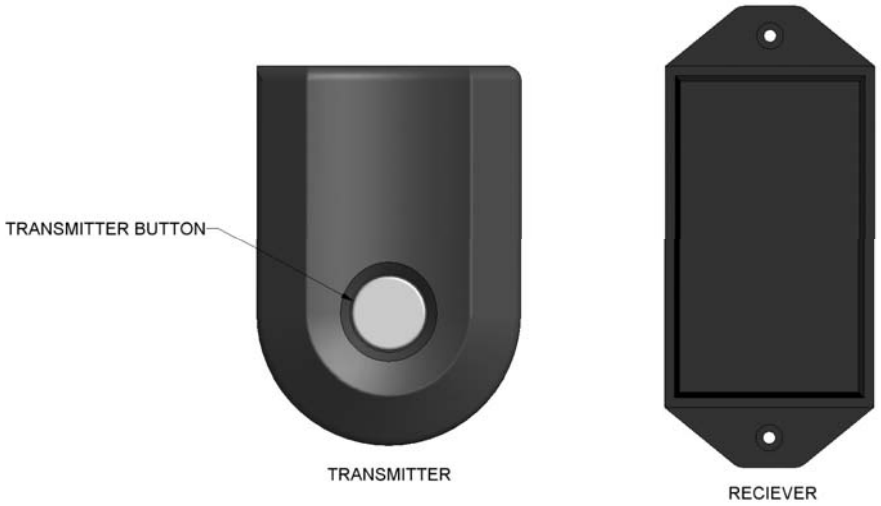
Table 2: Typical Timer Settings

Note: "" denotes a configuration that is not possible with this timer. See Table 2 for the closest approximation to this time.*

PROGRAMMING THE REMOTE START SYSTEM

Note: The remote start system will need to be re-programmed each time the unit is powered up.

1. Remove cover from signal receiver by pressing in at the center of each of the two lengthwise sides.
2. Locate the covered Learn Code Button and LED indicator at the top of the circuit board. They will be located directly beneath the upper tab holding the circuit board in place.
3. Press and release the Learn Code Button. LED indicator will blink at a rate of two times per second.
4. Press the Transmitter Button once. The indicator light should now be on continuously.
5. Press the same Transmitter Button again. The indicator light should now turn off. The remote start system should now be programmed. *Note: You must perform steps 3-5 within 30 seconds. If the LED indicator begins to blink rapidly (about 4 times per second) you must repeat steps 3-5.*
6. Test the system to verify proper operation.
7. Replace cover, making sure antenna is hanging straight down outside the cover.



MAINTENANCE

- Check air and water hoses and attachments periodically for signs of wear or damage and replace them as needed.

- Check door gaskets periodically for signs of wear or damage and replace them as needed.

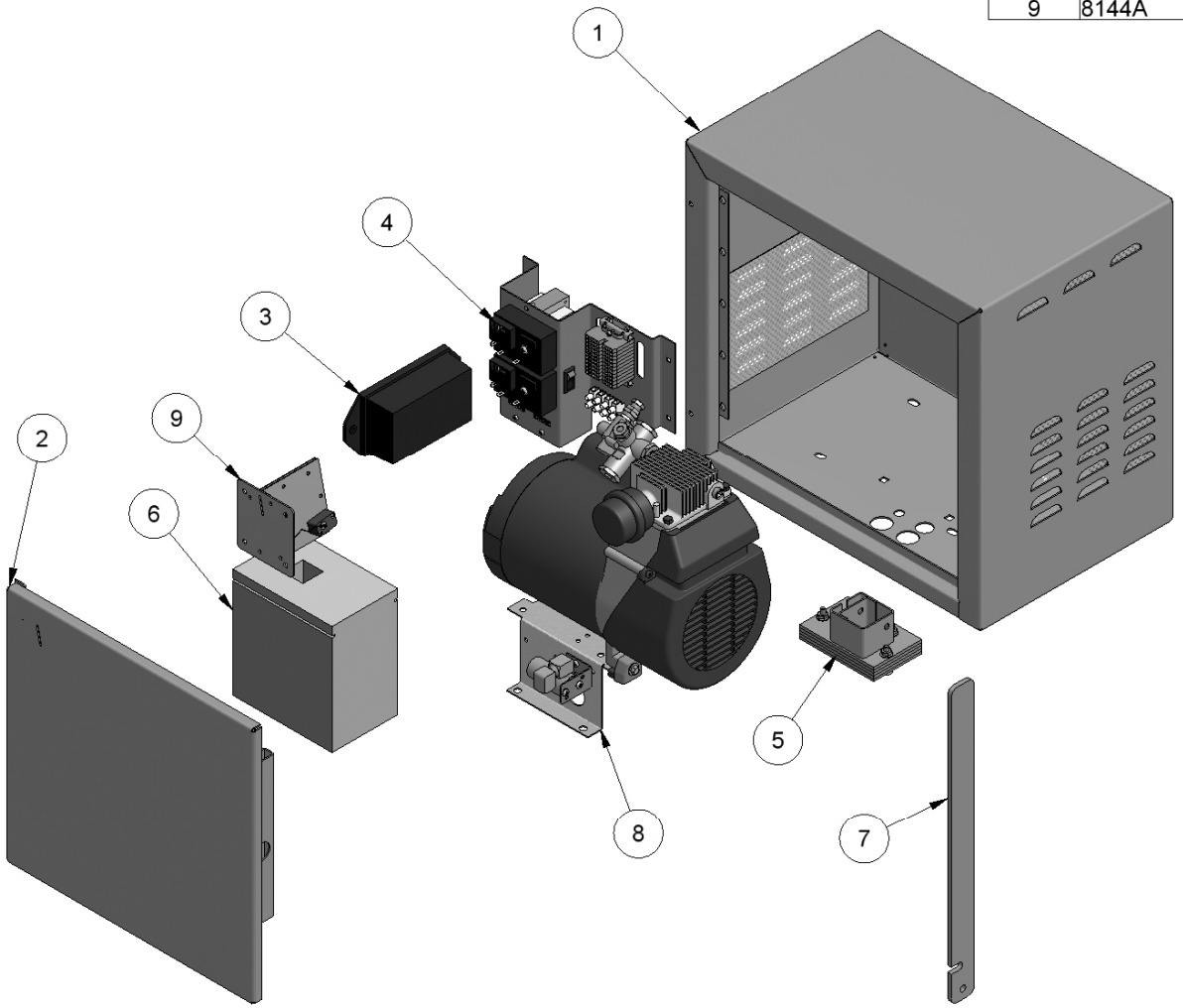
- Water solenoid may need to be disassembled and cleaned periodically to prevent sticking. To disassemble, remove nut on top of valve and remove coil cover and coil. Then using a flat head screwdriver, remove the piston housing. Clean out any debris on the piston and in the piston housing and reassemble the valve.

- Clean the outside portion of the cabinet with a stainless steel polish. DO NOT use any abrasive cleaners, steel wool or any kind of brush to clean the exterior. Doing so could possibly scratch or damage the finish of the cabinet.

- Mild soap and water may be used to clean the decals. DO NOT use any harsh or abrasive cleaners or the decal surface may be damaged.

EXPLODED VIEW: 8670-5WB STANDARD CONFIGURATION

BILL OF MATERIALS			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	22002-1W	AIR-WATER CABINET - ROMAN AIR	1
2	22002-2W	DOOR WELDMENT - ROMAN	1
3	2210	GENIE REMOTE RECIEVER	1
4	22002-51A	TIMER BRACKET ASSEMBLY	1
5	8155	LOCK ASSY	1
6	8773	JB12 BOX W/ COVER AND LOCKS	1
7	22000-1	LOCK BAR, CABINET, AS	1
8	8778A-1	COMPRESSOR ASSEMBLY-AIR/WATER	1
9	8144A	ASSEMBLY, COIN MECH	1



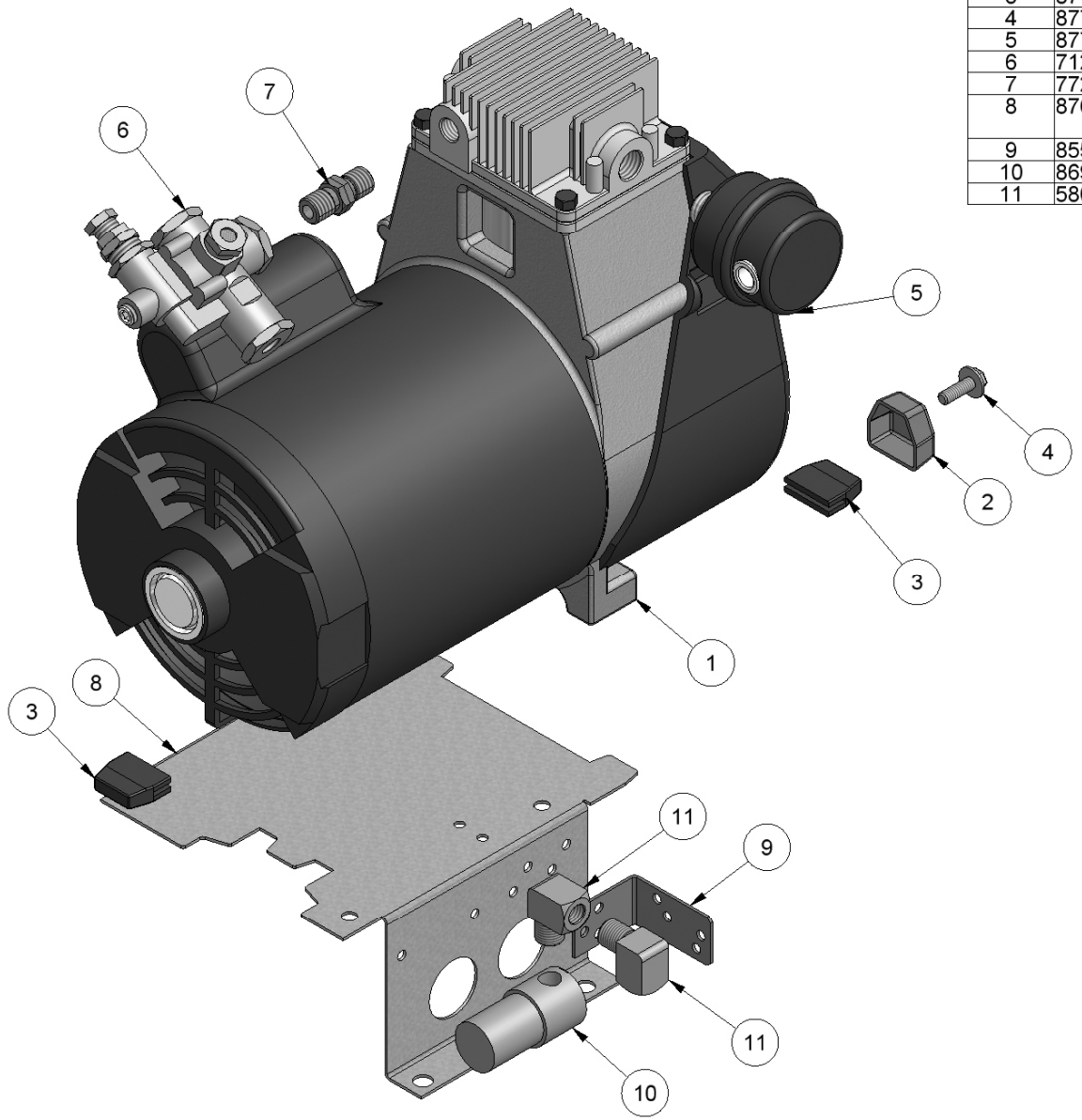
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

CEDAR RAPIDS, IOWA

J.E. ADAMS INDUSTRIES, LTD

PART NO. 8670-5WB

EXPLODED VIEW: 8778A-1 STANDARD CONFIGURATION



BILL OF MATERIALS			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	8778	COMPRESSOR - DEVILBISS, 1.5HP	1
2	8778-1	MOUNTING CUP	2
3	8778-2	ISOLATOR	3
4	8778-3	MOUNTING SCREW	2
5	8778-7	AIR FILTER ASEMBLY	1
6	7122-70	UNLOADER, AIR MACH 70 PSI, MUS	1
7	7722S	1/4" NPT SST HEX NIPPLE MALE	1
8	8769	COMPRESSOR BRACKET-DEVILBVISS	1
9	8551	SOLENOID BRACKET	1
10	8697	SOLENOID 110V	1
11	5800D6	90 DEG. NPT STREET ELBOW	2

THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

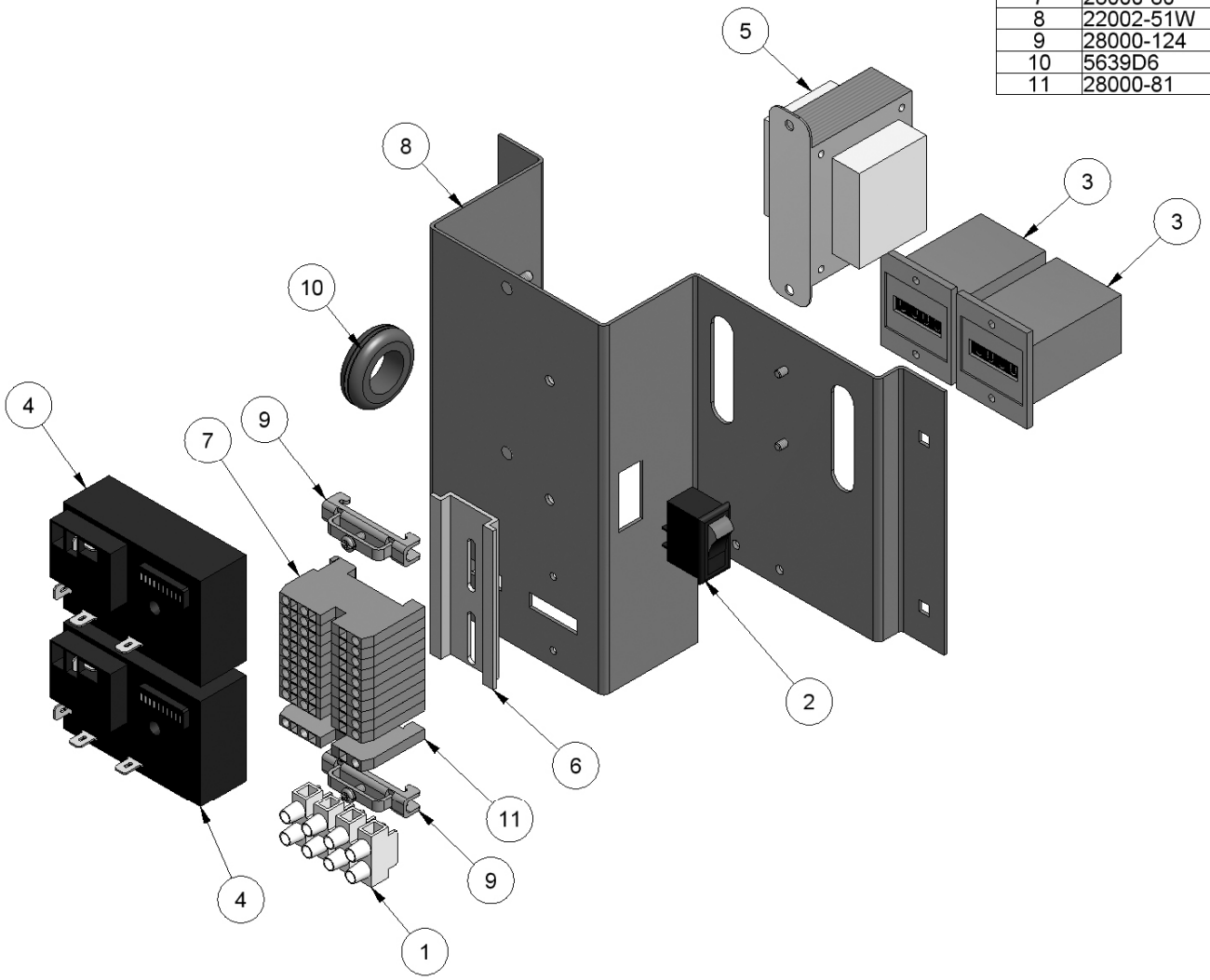
CEDAR RAPIDS, IOWA

J.E. ADAMS INDUSTRIES, LTD

PART NO. 8778A-1

EXPLODED VIEW: 22002-51A STANDARD CONFIGURATION

BILL OF MATERIALS			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	5944D004	TERMINAL STRIP, C-60 SERIES, 4 POLE	1
2	5914	SWITCH, SPST ROCKER 20A	1
3	8641-2	COIN COUNTER	2
4	8712SS4	SSAC TIMER	2
5	8131-2	TRANSFORMER, 110/220-24 1.66A	1
6	28000-129	DIN RAIL CUT TO 3"	1
7	28000-80	3 CONDUCTOR TERMINAL BLOCK	10
8	22002-51W	TIMER BRACKET WELDMENT	1
9	28000-124	DIN RAIL END CLAMP	2
10	5639D6	RUBBER GROMMET	1
11	28000-81	3 CONDUCTOR EARTH GROUND	1



CEDAR RAPIDS, IOWA

J.E. ADAMS INDUSTRIES, LTD

PART NO. 22002-51A

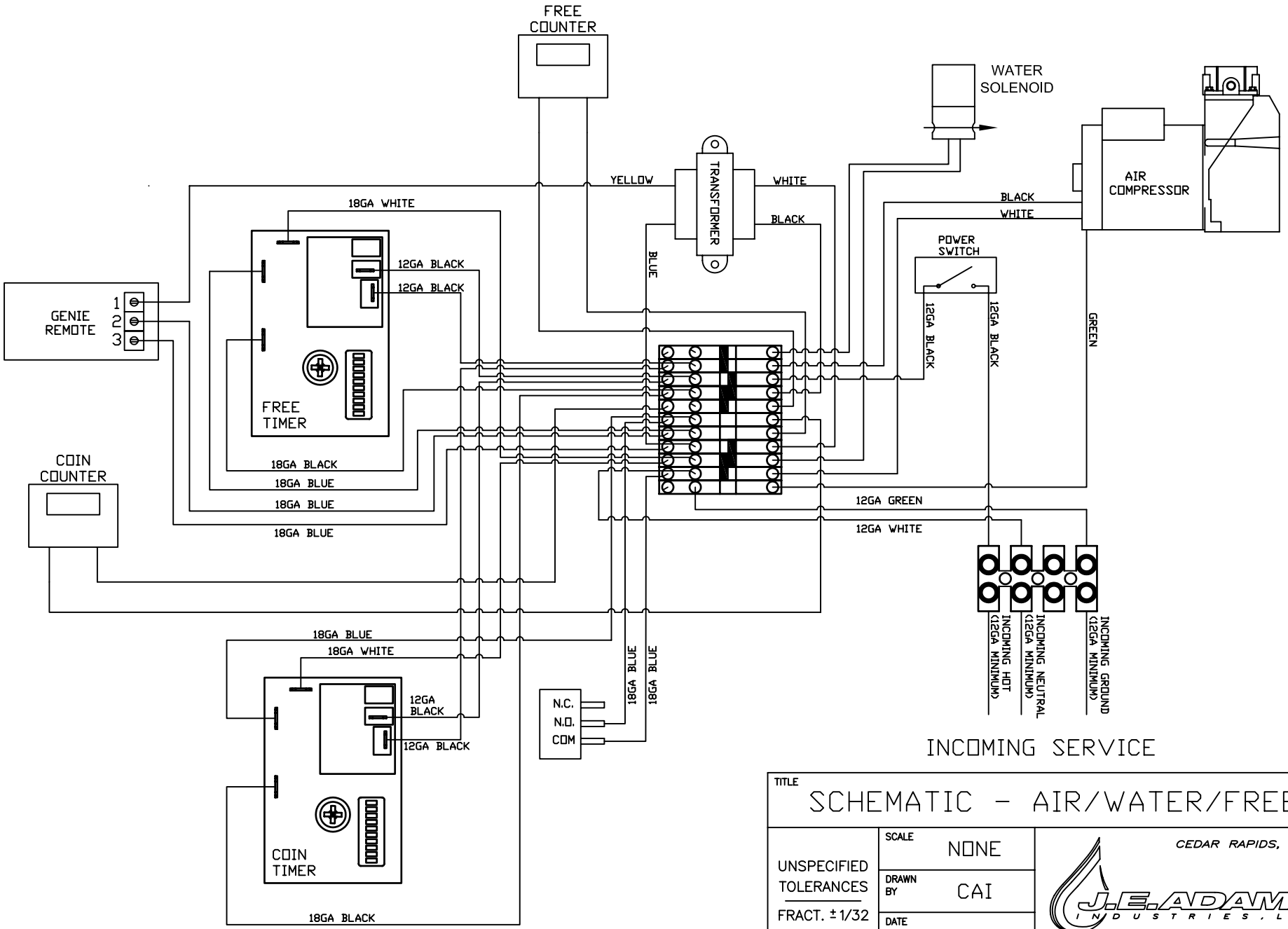
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

PART NO. S8670-5WB

THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

BILL OF MATERIAL

ITEM NO.	PART NO.	DESCRIPTION	QTY.



INCOMING SERVICE

TITLE
SCHEMATIC - AIR/WATER/FREE

REV	NO.	DESCRIPTION	DATE	BY

UNSPECIFIED TOLERANCES
FRACT. ±1/32
2 PL ±.020
3 PL ±.010
ANGLE ±1.0°

SCALE NONE
DRAWN BY CAI
DATE 10/06
REL. FOR PROD.

CEDAR RAPIDS, IOWA
J.E. ADAMS INDUSTRIES, LTD

PART NO. S8670-5WB
REV.

TROUBLESHOOTING

! IMPORTANT!

TROUBLESHOOTING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN OR TECHNICIAN WITH POWER DISCONNECTED WHENEVER POSSIBLE. PROCEDURES MARKED !CAUTION! REQUIRE THAT THE POWER BE ON AND MAY INVOLVE DANGEROUS VOLTAGES.

Problem	Possible Cause	Solution
Unit will not start	No power to machine	Check circuit breaker for machine. Reset if needed.
	!CAUTION! Inadequate power to machine	Verify proper service hookups. Air machine should have a **dedicated** 120V, 20A, 60Hz single phase service. Improper electrical service can lead to erratic behavior and may damage components.
	Improper timer setup	Verify timer is set properly using timer setup charts on pages 11-15.
	Loose/Missing/Damaged wire	Verify integrity of wires. If possible, trace continuity between key components (compressor, timer, coin mech, solenoid).
	!CAUTION! Component failure	Check key components to isolate failure:
		Timer: Verify proper input voltage. Activate timer. If no output voltage is present when timer should be active, replace timer.
		Water solenoid: Check voltage across the solenoid. Replace solenoid if proper voltage (120VAC) is present and solenoid doesn't engage. If solenoid is stuck doesn't disengage when voltage not present, disassemble and clean solenoid.
		Coin mech: Remove the wires leading to the timer from the coin mech and tap them together one time for each coin necessary to start the timer. If machine starts, replace the coin mech.
		Remote Starter: Test transmitter batteries and replace if needed. Remove receiver cover and verify proper voltage across terminals 1 and 3 (24VAC). If proper voltage is present and transmitter batteries are good, follow instructions to program transmitter and receiver. If remote starter still will not function correctly, replace with new remote system.
		Compressor: !CAUTION - DANGEROUS VOLTAGE LEVELS PRESENT - QUALIFIED ELECTRICIANS ONLY! Bleed remaining air from line and verify proper voltage (120VAC) across compressor leads. If proper votage is present and compressor will not start, replace compressor. If compressor starts with no pressure in air line but will not start when pressure is present, replace unloader valve.
Timer giving inaccurate time	Improper timer setup	Reset the timer according to instructions on pages 11-15.
Unit runs continuously and will not shut off	Loose wiring	Inspect wiring from coin mech and remote start to timer to verify proper connection.
	!CAUTION! Damaged timer/Coin mech	Isolate timers from coin mech and remote start. If timer continues to run after the maximum possible timer setting, replace timer. If unit times out and turns off, coin mech or remote start may need to be replaced.