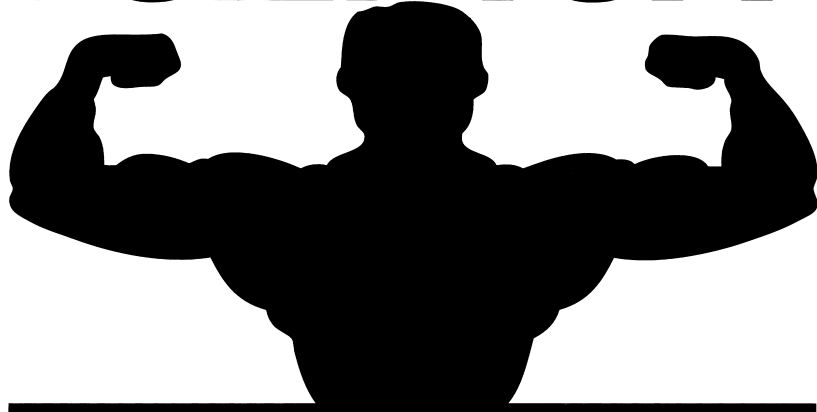


DO NOT INSTALL OR OPERATE, READ THIS FIRST!

BUILT TUFF



ACE

EQUIPMENT COMPANY

TRASH COMPACTORS AND BALERS

Vertical Baler (6030HD)

Installation, Operating, and Service Manual

ACE Equipment Company
W9112 Cherry Road
Antigo, Wisconsin 54409
(715) - 627 - 2400
aceequipmentcompany.com

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For quick reference should service be needed, please fill out the following information. Always keep this manual in a safe readily accessible location.

Model Number _____
Serial Number _____
Service Company Name _____
Telephone Number _____

For operating instruction call (715) - 627 - 2400, ask for technical service.

Safety Precautions

The following is a list of warnings, some of which will be repeated in locations throughout this manual. Read these warnings carefully to insure proper operation of this equipment.

Warning: Do not operate until operation instructions are understood.

Danger: Never place any part of body inside bale chamber.

Caution: Employer should allow only authorized and trained personnel to operate this equipment. Federal regulation prohibits operation by persons under 18 years of age.
Turn off, remove key after use.

Warning: Periodic maintenance is required and is your responsibility.

Lock Out/Tag Out: The purpose of this procedure is to ensure that the equipment is isolated from its energy sources and rendered inoperative prior to service or maintenance.

Responsibilities for Lock Out/Tag Out

The standard requires employers to establish an energy program which includes:

- 1) Documented energy control procedures
- 2) An employee training program
- 3) Periodic inspections of the use of the procedure

Compliance with the development and accordance of Lock Out/Tag Out procedure shall be the responsibility of the employer.

Procedure for Lock Out/Tag Out

- 1) The suggested procedure to comply with this standard is outlined as follows:
- 2) Remove the system key
- 3) Lock out the main power disconnect per OSHA requirements.
- 4) Tag out all other controls or energy sources not capable of being locked out. Every person affected should know and understand all lock out tags.

The above is an outline of the OSHA standard for locking and tagging out equipment. The employer is responsible for following the latest OSHA guidelines.

Installation Instructions

Read this manual before making installation. Study the jobsite and installation requirements carefully to be certain all necessary safeguards and/or safety devices are provided to protect all personnel and equipment during installation and as a completed system. Special attention is direct to the extract from American National Standards Institute.

ACE Equipment Company does not assume responsibility for installation procedure of this equipment. Conformance to applicable local, state, and federal laws concerning installation rests with the customer.

Concrete Pad

- 1) Pad should be minimum 3,000 PSI concrete, steel reinforced, 6" thick. It is preferred that pad be flush with surrounding area.
- 2) Concrete pad should be positioned to allow access to panel box between baler and building walls. Working clearance for panel box must comply with state and local building cost. Allow enough space from bale chamber for bale handling vehicle. See installation drawing 6.

Anchoring

Anchor baler to floor using anchor plates on sides of baler base. Four 1" diameter anchor bolts required.

Decals

Installation of the baler is not complete until and inspection warning decals is complete. Decals should be clearly visible, legible, securely applied and in the proper location. For decal description and location see page 8.

Warning

Before and during making any electrical connections and/or maintenance and/or testing, be sure the disconnect/power source switch is Lock Out/Tag Out.

Electrical Connection

Before connecting power to the baler check line voltage with a voltmeter. Also check wiring in the panel box. If the baler is not wired to the proper voltage call the manufacture.

Fuse and Circuit Breaker

Three Phase

Motor	VAC	Full Load AMP's (AMP's)	Dual Element (Fuse Max)	Circuit Breaker (Max Size)	Service Disconnect (AMP's)
10 HP.	208	30.8	45	70	60
	230	28	45	60	60
	460	14	25	30	30

Single Phase

Motor	VAC	Full Load AMP's (AMP's)	Dual Element (Fuse Max)	Circuit Breaker (Max Size)	Service Disconnect (AMP's)
10 HP.	208	51.5	60	80	100
	230	49	60	80	100

Wire Size Chart

THW Copper 75 C-167 F

Three Phase

Motor	VAC	To 100 Feet	To 200 Feet	To 300 Feet
10 HP.	208	8	6	4
	230	8	6	4
	460	10	8	6

Single Phase

Motor	VAC	To 100 Feet	To 200 Feet	To 300 Feet
10 HP.	208	8	6	4
	230	4	3	2

The above charts is a recommendation, ACE Equipment Company does not assume responsibility. Check local, state codes for wiring.

Start-Up Instruction

Warning: Before proceeding remove ¾" plug from top of reservoir and install filler breather cap. Filler breather is shipped inside panel box.

Danger: Do not climb on sides of baler. Use a ladder while performing the following procedure.
Warning: Parts of platen may extend above top of baler when platen is fully raised.

1) Check Hydraulic Fluid Level

Refer to maintenance chart for recommendations on hydraulic oil.

Note: Platen should be in the fullest up position when checking fluid level.

Reservoir should be filled to ¾ level on sight gauge. Hydraulic system pressure has been factory set and entire unit operated prior to shipment.

2) Check Motor Rotation

Caution: Make sure personnel and material are clear of bale chamber.

Danger: Never place any part of body inside bale chamber or in area between platen and top of baler.

Danger: Stay clear of moving parts while performing this operation

- a) Close bale chamber and feed gate
- b) Turn disconnect on
- c) Check motor rotation by watching hub coupling through slot in pump-to-motor adapter. Have someone turn on the key switch and press the auto cycle button for one second then immediately press the stop button.

Caution: If pump rotates backwards, stop immediately. Pump will be damaged if run in reverse for even short periods of time. Turn off and lock out/tag out baler, have certified electrician change the phase rotation

3) Check Interlocks

The baler is equipped with an electrical interlock which prevents the use of the "auto cycle" function when the feed gate is up or when the door is open. If the "auto cycle" starts the baler when the feed gate is up or the main door is open, discontinue immediately lock out/tag out until the repairs have been made.

- Press "auto cycle" the platen should make a complete cycle down and up. When the platen is in its fully raised position the feed gate should automatically open and the motor should immediately shut down.

Specifications

Dimensional Data

Feed Opening _____ 24" x 60"
Feed Height _____ 50"

Bale Chamber

Height _____ 42"
Width _____ 60"
Depth _____ 30"

Overall Height _____ 140"
Overall Width _____ 80"
Overall Depth _____ 43"
Weight _____ 4650#
Bale Ties _____ 6-14 Ga. X 14' looped

Hydraulic

Pump _____ 10 GPM
System Pressure _____ 2,200 PSI
Cylinder Bore & Stroke _____ 6" x 48"

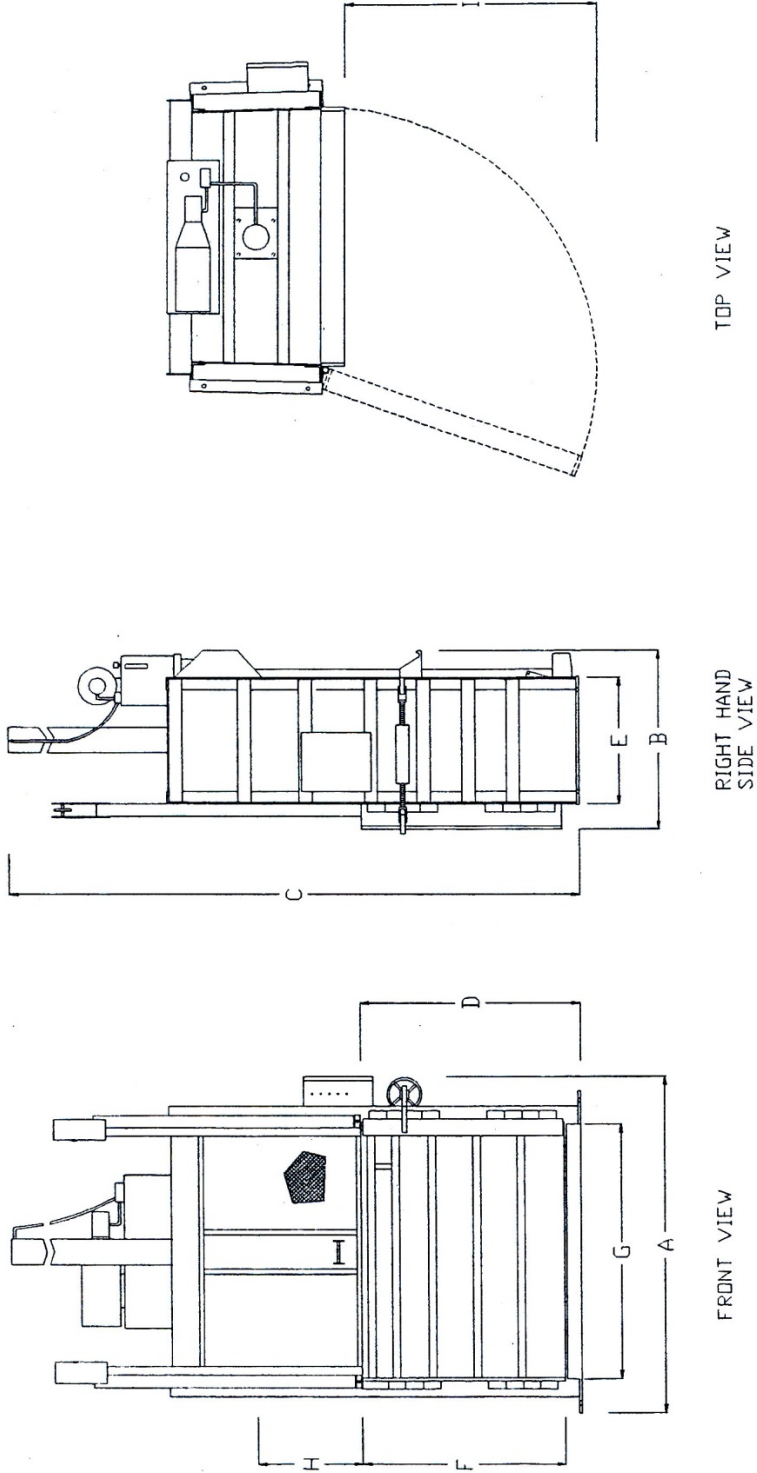
Electrical

Motor _____ 10 HP.
RPM _____ 1725
Control Voltage _____ 120 VAC
Voltage _____ 208/230/460 3-Phase
(Optional Single Phase 208-230)

Performance

Cycle Time _____ 56 Sec.
Platen Force Pounds _____ 62,200 lbs.
Platen Face PSI _____ 37 PSI

Dimension Schematic



DIMENSIONAL DATA:

A) OVERALL WIDTH	80"
B) OVERALL DEPTH	43"
C) OVERALL HEIGHT	140"
D) FEED HEIGHT	50"
E) BALE CHAMBER DEPTH	30"
F) BALE CHAMBER HEIGHT	44"
G) LOAD OPENING WIDTH	60"
H) LOAD OPENING HEIGHT	24"
I) BALE DOOR CLEARANCE	61"

Operating Instructions

Warning: Do not operate until operating instructions are understood.

Caution: Allow only authorized and trained personnel to operate the baler. Baler is equipped with a keyed on/off switch. The key should be in the possession of only trained authorized personnel.

Warning: Federal regulation prohibits operation of this equipment by persons under 18 years of age.

Check Points Prior to Operation:

- 1) Never place any part of body inside bale chamber.
- 2) Clear all personnel away from baler before starting unit.
- 3) Be certain the turnbuckle is fully locked in place on bald door before starting baler.
- 4) Be sure the feed gate is closed.

Function of Control

1) On/Off (Keyed Selector Switch)

Turning this switch to the on position activates the other controls on the control station. The baler cannot be operated unless the key switch is in the on position. The purpose of this switch is to allow only authorized and trained personnel to operate the baler. The key should be removed from the switch when the baler is not in use. The key should stay in the possession of responsible and trained personnel.

2) Auto Cycle (Green Push Button with Light)

The Auto Cycle Button will light once the feed gate is fully closed and the door is completely closed. The Auto Cycle Button can be used only when the feed gate and the bale door are closed and the key switch is in the on position. Once the Auto Cycle Button is depressed the platen will move to the fully down position and back to the fully raised position. One complete compaction cycle.

3) Emergency Stop (Red Mushroom Head Push-button)

Depressing the emergency button will stop the movement of the platen at any point in the cycle.

4) Manual Up (White Push-Button)

This push-button will only start the baler with the key switch on the "on" position. Depressing the up button will raise the platen with the feed gate and bale door open or closed. It is normally used during bale ejection. It can also be used to interrupt the automatic cycle and raise the platen should it become necessary. The manual up push-button is a deadman control i.e. the baler will stop as soon as it is released.

5) Bale Made

When the bale shifts from the down position to the up position and the arrows align this is the bale made indicator

Baling Process

Making a Bale:

Danger:

- 1) Never Place any part of body inside bale chamber.
- 2) Stand clear while baler is in operation.
- 3) Feed gate opens automatically. Do not attempt to open feed gate manually.

- 4) Press the start button.
- 5) Place large, flat piece of material flat on floor.
- 6) Feed material into baler.

Note: Do not attempt to over fill feed chamber by forcing in material with feed gate. This can cause gate release malfunction and may damage baler.

- 6) Pull handle to close feed gate.
- 7) Depress "auto cycle" button. Baler will make one complete down and up cycle. Feed gate will automatically open.
- 8) **Repeat steps 3 through 5 until the platen shift from down to up and the bale made light comes on.**

Bale Tie Off

- 1) Insert large, flat piece of material (cardboard) across top of bale.
- 2) Close feed gate.
- 3) Press "start" button the platen will go down and stop on compressed material.
- 4) Clear area in front of door.
 - a. **CAUTION:** Clear all personnel from front of baler before proceeding with steps 5 through 13.
- 5) With all personnel clear of bale door, release bale door latch from side.
- 6) **Caution:** WEAR SAFETY GLASSES AND LEATHER GLOVES DURING THIS OPERATION. Tie off bale by inserting bale ties through the slots in platen, loop end first. Feed wire through until it comes through slot in back of baler, and then feed wire through slot in floor of baler until it comes out the front side. Tie off each wire before inserting the next wire. Bale ties should be tightened, hand tight, allowing for bale expansion.
- 7) Place the bale ejector handle (J-Hook) on the bar of the platen.
- 8) Standing at side, make sure all personnel are clear of baler. Press the "start" button.
- 9) Hold "start" button until bale ejects, release "start" button.
- 10) Remove the bale after ejected.
- 11) Insert large, flat piece of material (cardboard) across baler floor.
- 12) Close bale door. Close feed gate. Return J-Hook to holder on back of baler.
- 13) Bale sequence is ready to be repeated.

Maintenance

Warning: Before and during making any electrical connection and/or maintenance and/or testing, be sure the disconnect switch is “off” and pad locked, Locked Out/Tag Out. place warning tag on disconnect “WARNING-DO NOT ENERGIZE WITHOUT PERMISSION OF _____.”

Hydraulic Filter

- 1) Hydraulic filter should be cleaned after one month of operation then at regular intervals of six months.
- 2) Filter may be cleaned by manually removing filter which is inside reservoir.
- 3) Care should be taken in cleaning filter to insure the element is not torn. Clean with soft brush and standard solvent.
- 4) Replace filter after cleaning. Pump noise and “crackle” sound is most often caused by air entering pump suction line. Tightening suction hose connections will usually eliminate such problems.

Monthly Maintenance

- 1) The hoses should be checked periodically to insure that they do not become worn before being replaced. All fittings should be kept tight and no leaks allowed in the hydraulic systems without immediate corrective measures.
- 2) Each month the baler should be lubricated and any material which has accumulated behind the platen should be removed.
 - a) Grease door hinges
 - b) Oil gate track
 - c) Oil mechanical door lock
- 3) Check for any obvious unsafe conditions, such as worn electrical lines or operator obstructions in baler area.
- 4) Check oil level in hydraulic reservoir by sight gauge.
- 5) Check interlocks for proper operation.
- 6) Check functional operation of all standard controls (push-button, key switch, lights, etc.). See section on operation of controls.
- 7) Check hydraulic cylinder, cylinder pin and bolts for signs of leakage, wear or fatigue.
- 8) Check all decals and replace if damaged.

Recommended Hydraulic Fluids

Union-Unax0215
Gulf-Harmon 47: Harmony 48-aw
Standard-EP hydraulic 15
Exxon-Teresstic 47: Nuto 48
Texaco-Rando 215
Shell-Turbo 29: Tellus 29
Phillips-Magnus 215
Amoco-Rycon MV (for cold weather applications)

Interlock

This machine is equipped with a solid state output proximity switch. To check the switch turn the key switch to the "on" position. When the bale door is closed the light on the back of the proximity switch should be on. When the bale door is open the light should be off.

If further verification is needed a volt meter (120 vac) may be connected to first orange terminal and second orange terminal in the control panel box. The meter should read "0" volts with the bale door open and 120 volts with the gate closed.

In no instance should the baler operate in "auto Cycle" with the feed fate up or the bale door open.

Note: If the interlock is not working properly disconnect (lock out/tag out) and lock out power unit repairs can be made.

Pressure Setting

- 1) Turn off and lock out/tag out power.
- 2) Manually shift solenoid in both directions to relieve pressure. Do not climb on side of baler or enter bale chamber. Use a ladder.
- 1) Remove plug from ½" 90 degree elbow in sub-plate. Install pressure gauge.
- 2) Loosen nut on relief valve and back out adjustment screw a few turns.
- 3) Have someone hold the manual down button. Turn the adjustment screw clockwise until the pressure gauge indicates 2,000 PSI.
- 4) Tighten locknut.

Cylinder Removal

- 1) Lock out/tag out power supply
- 2) Block up platen to take pressure off cylinder pin and to prevent it from falling when pin is removed.

Warning: Be sure platen is securely held up before proceeding.

- 3) Remove bolts from cylinder pin.
- 4) Remove platen from baler.
- 5) Turn on power and press "manual up" push-button until cylinder is fully retracted.
- 6) Lock out/tag out power supply
- 7) Relieve hydraulic pressure by manually depressing solenoid valve (both sides).
- 8) **Note:** Remove hose fittings slowly, remove both hoses from cylinder.

Warning: Be sure hydraulic cylinder is securely supported before proceeding.

- 9) With hydraulic cylinder supported by another means loosen the ¾" grade 8 cylinder bolts and grade 8 locknuts.
- 10) Remove cylinder

- 11) Before reinstalling cylinder, check cylinder pin, bolts, and cylinder for sign of fatigue. Do not reuse parts if wear or cracks are present.
- 12) To reinstall cylinder reverse the above procedure. Be sure to replace both bolts in cylinder pin.

Note: When reinstalling cylinder use new bolts on cylinder pin.

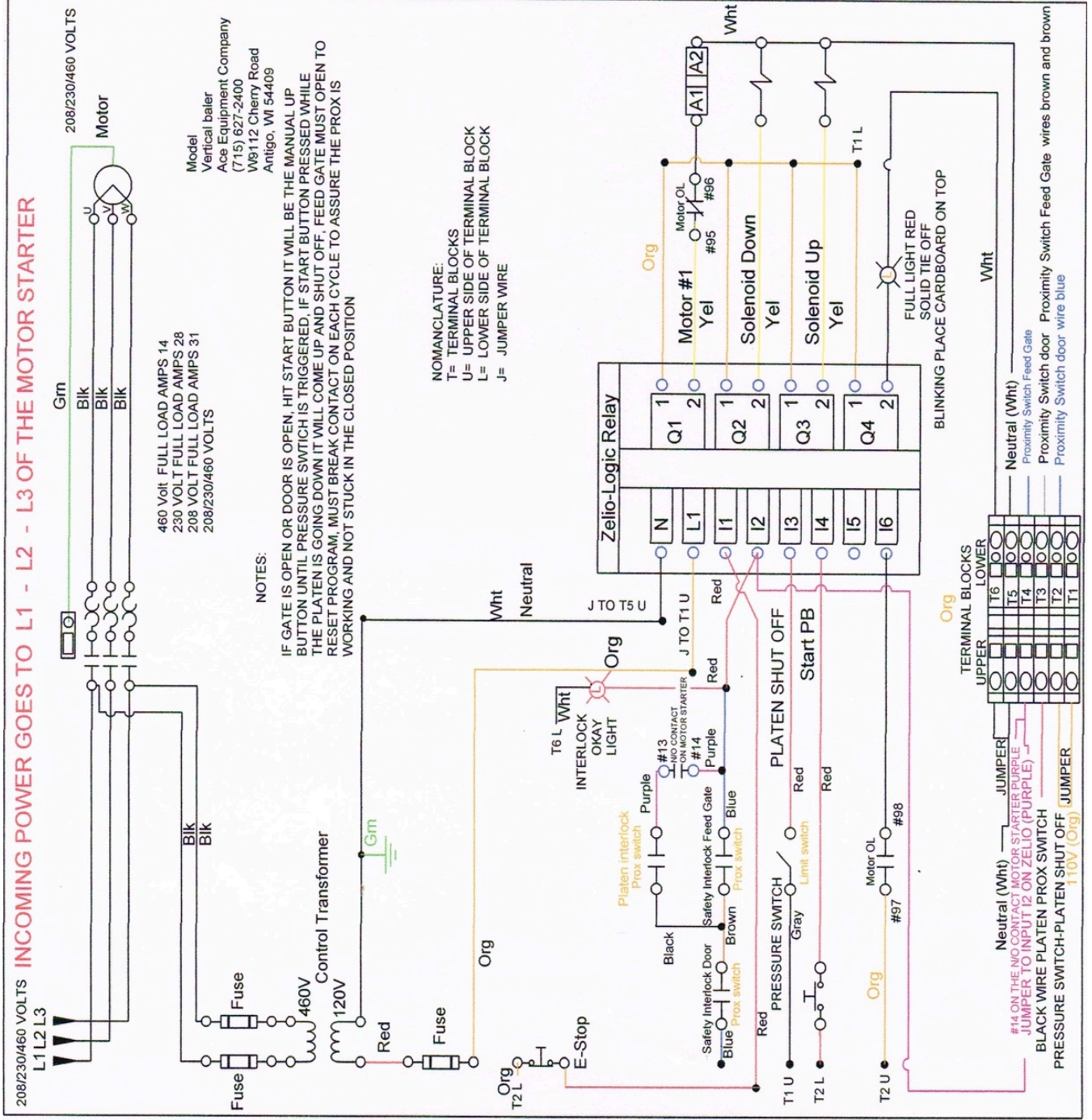
TIMER SETTING

The baler is equipped with two timing relays. The timers are located on the control panel. Timer 1 (T1) should be set for 50 seconds. Timer (T2) should be set for 25 seconds.

The function of Timer (T1) is a shut-off in case the machine malfunctions. If because of component failure, the baler does not make a complete cycle, Timer (T1) will shut down the baler after 50 seconds. This protects the motor and hydraulic system from damage due to over heating.

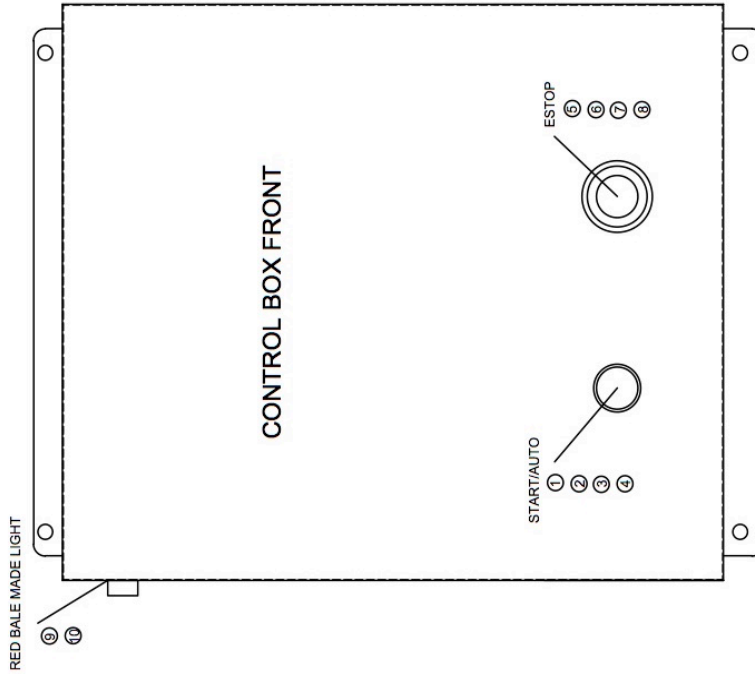
The function of Timer (T2) is to energize the up solenoid on the directional control valve.


Wiring Schematic



Control Box

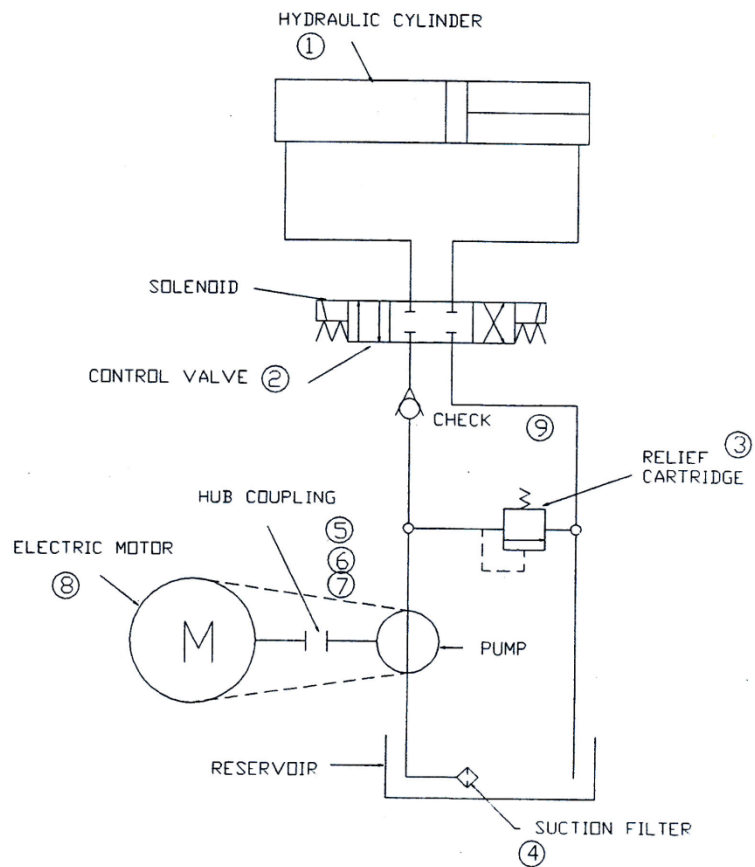
BALER CONTROL BOX FRONT			
NO.	PART #	QTY	DESCRIPTION
1	E01-0017	1	LEGEND - AUTO / MANUAL
2	E01-0015	1	ILLUMINATED GREEN PUSH BUTTON 22MM
3	E01-0010	1	MOUNTING BLOCK WITH LIGHT
4	E010012	1	CONTACT BLOCK NORMALLY OPEN
5	E01-0016	1	LEGEND - EMERGENCY STOP
6	E01-0011	1	MOUNTING BLOCK
7	E01-0013	1	CONTACT BLOCK NORMALLY CLOSE
8	E01-0014	1	SWITCH RED MUSHROOM HEAD PUSH BUTTON 22MM
9	E01-0018	1	RED BALE MADE LIGHT
10	E01-0019	1	LEGEND - BALE MADE LIGHT



ACE EQUIPMENT CO. W9112 CHERRY RD ANTIGO, WI 54409 715/627/2400 	TITLE: BALER BOX	DATE: 12/3/15	SCALE:
	PROPRIETARY: NEITHER THIS DOCUMENT NOR THE INFORMATION CONTAINED THEREIN MAY BE REPRODUCED OR DISCLOSED TO ANYONE WITHOUT WRITTEN PERMISSION OF ACE EQUIPMENT COMPANY	DRAWN: BR	TOLERANCES: .0625
			SHEET: 1 OF 1

Hydraulic Schematic

NO	PART NO	QTY	DESCRIPTION
1	H01-0001	1	CYLINDER
2	H01-0002	1	DIRECTIONAL CONTROL VALVE
3	H01-0011	1	RELIEF CARTRIDGE
4	H01-0012	1	SUCTION FILTER
5	H01-0008	1	RUBBER SPIDER
6	H01-0009	1	COUPLER PUMP SIDE
7	H01-0010	1	COUPLER MOTOR SIDE
8	E01-0027	1	MOTO 10 HP.
9	H01-0016	1	CHECK VALVE



Trouble Shooting

Problem	Cause	Solution
Unit will not start	No electrical power	Check main disconnect
		Replace fuses or reset breakers
	No electrical power to control panel	Check primary and secondary sides of transformer
		Check control fuses
		Check stop button
No electrical power to motor	Check start button to be sure contacts closed when depressed.	
Unit will not continue running when start button is released	Relay or contacts are in-operative	Check all interlocks
	Relay or contacts are in-operative	Check relay coil, contacts, and wiring
	Motor starter or contacts in-operative	Check motor starter coil, contacts, and wiring
	Secondary contact on start button is in-operative	Check contact to be sure it is operating properly
Motor runs but platen does not move normally	Insufficient oil in reservoir	Check wiring
		Fill reservoir with oil
		Low relief pressure
	Low relief pressure	Check relief pressure (refer to maintenance information section)
		Clean orifice in relief valve and reset pressure.
		Check "O" rings on relief valve for damage or leakage
	Oil leakage in cylinder hose	Check cylinder for bypassing
		Replace seal kit, inspect rod and cylinder tube for scoring or kicks
		Replace cylinder
	Defective pump	Replace pump
	Low voltage	Check voltage
Pump may be driven in the wrong direction or rotation	Stop immediately to prevent seizure. Check direction of drive rotation (proper rotation direction is indicated by arrow on motor)	
Shaft broken or shaft key sheared	Visually inspect motor and pump shaft and hub couplings for damage. Replace if necessary.	

(More problems and solutions on next page for "motor runs but platen...")

	Intake pipe from reservoir blocked or oil viscosity too heavy to prime	Drain system. Add clean fluid of proper viscosity and specifications. Filter as recommended. Check system filter for cleanliness.
	Intake air leaks (foam in oil or sounds like gravel in pump)	Check intake connections. Tighten securely.
Unit will not reserve		Check wiring
	Solenoid valves is in operative	Check coil and wiring
	Reverse button in-operative	Check reverse button contacts
Pump makes noise-sounds like gravel	Partly clogged intake strainer or restricted intake pipe	Pump must receive intake fluid freely or cavitation results. Drain systems, clean intake pipe and clean or replace strainer
	Defective Bearing	Replace pump
	Air leak at pump in take pipe joints	Tighten joints as required
Excessive heat	Continuous running	When over 140°F or hot in comparison with circuit lines pump should be shut down immediately. Before restarting insure that fluid cooling capacity is adequate to remove system generated heat.
	High ambient temperature in relation to oil temperature	Use low viscosity oil
	Excessive system leakage	Check system for bypassing or leaks
Rapid wear	Abrasive matter in the hydraulic oil being circulated through pump	Clean or replace filter
		Replace oil with factory recommendation
	Viscosity of oil to low at working conditions	Reduce pressures to factory specifications
	Air recirculation causing pump noise	Tighten all fittings

Erratic operation	Valve sticking or binding	Disassemble and clean as necessary
	Viscosity of oil too high, low oil	Change oil to factory recommended viscosity
	Air in system	Check for leaks, tighten fittings
	Low voltage	Check primary and secondary sides of transformer for correct voltage.
	Proximity interlock malfunction	Check interlock, see interlock section
Overloads trip frequently		Check for correct voltage incoming power
		Check fuses or breakers at disconnect
		Check heater elements be sure they are tight
		Check wiring from starter to motor to make sure all connections are tight
		Check motor leads to be sure all connections are tight

Note: Excessive overload tripping and/or motor or coil failures may occur if voltage surges or voltage drops are frequent in your area. This circumstance can be remedied by the installation of phase protectors which drops power to motor if surges are present.

Ace Equipment Company
W9112 Cherry Road
Antigo, WI 54409
P: 715-627-2400 F: 715-627-2402

Warranty Policy and Procedure

Compactor - Container - Baler Warranty

ACE Equipment Company (herein referred to as ACE) warrants each new equipment to be free from defects in material and workmanship under normal use and service. ACE obligation under this warranty for a period of 180 days labor and 360 days parts is limited to replacement of any defective part or material. During such period, this warranty excludes any obligation by ACE for the cost of labor. Transportation or any other cost arising out of such replacements in excess of its standard warranty reimbursement program.

Normal use is defined as intermittent operation, one eight-hour shift per day, and five days per week.

This warranty shall not apply to any equipment, which has been subject to misuse, negligence, alteration or accident.

Ace neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with such equipment.

This warranty excludes any obligation by ACE for loss of product, downtime, or any other incidental or consequential damage incurred at any time.

This warranty is the only warranty applicable to compactors, containers, and balers manufactured by ACE and is expressly in lieu of all other warranties, expressed or implied, including any implied warranty of merchant or fitness for a particular purpose.

Replacement parts are subject to a 30-day warranty and are specifically excluded from the standard warranty reimbursement program.

Customer Responsibility

It is the responsibility of ACE's customer to install the equipment in conformity with ANSI Z245.1 as well as any applicable codes and regulations. Important: Standard furnished with each compactor installation. Operating and Service Manual, American National Standards Institute Manual, electrical schematic specifically for that unit, and a Warranty Card.

1. ACE's customer must train authorized operators in safe methods and use of equipment system.
2. The manuals should be retained for future reference and use.
3. The warranty card must be filled out completely and distributed as marked on the card. ACE's copy must be forwarded to ACE in order to qualify for ACE's warranty program.
4. In the event of failure of component of the product, the customer must contact ACE's service and warranty manager providing him, at the time, with a description of the problem, the model and serial number of the product.
5. Important: No claims will be accepted for normal pre or post-delivery inspection, lubrication, or adjustments. All units are inspected and adjusted at the time of manufacture, but the shipping process can loosen fittings and possibly change adjustments. The time involved in the pre or post-delivery inspection and adjustments must be part of the installation charge to the owner.

When ACE's Service manager is advised of service problem presumed to be covered under ACE's Warranty, the following actions will occur.

1. Parts felt necessary to return the unit to service will be sent to ACE's customer. The customer will be invoiced for these parts and will be responsible for any freight charges. A statement on the face of the invoice will read Enclosed Warranty Authorization Form NO _____
2. The Warranty Authorization Form will be mailed to the Customer. This is too completed by the Customer, and copies distributed as follows: once copy for the customer file, one copy to be attached to the failed parts.

3. The failed parts and WAF form must be returned to Ace within 30 days from the date of failure in order to be considered for warranty replacement.
4. Upon receipt of the part it will be examined by the service and warranty manager, and if it is determined by him to be defective, the original invoice for the replacement parts and the transportation costs (bus, air, courier excluded) will be credited to the customer's account. This will be limited to the flat rate schedule. The current labor rate is \$25.00 per hour.
5. In cases where no flat rate hours are prescribed or the claim shall exceed the flat rate, the customer shall contact the service and warranty manager with an estimate of hours required. Upon approval of this estimate, a "Warranty Authorization Form" will be issued. If it is discovered after repair has begun, that additional work is required and will exceed the original estimate by more than 10% it will be necessary to contact the service manager for approval. Any hours in excess of "Flat Rate Schedule" will be rejected unless a "Warranty Authorization Form" covering additional hours was issued. In addition, any claim received for not listed in the "Flat Rate Schedule" will be rejected unless a "Warranty Authorization Form" has been assigned for this unlisted labor expenditure. No credit will be allowed for labor hours spent in inspection or diagnosis of equipment problems. In cases of failure of equipment which will require repair by welding, re-welding, and/or fabrication of additional steel, weldment material, the customer shall again be required to obtain prior approval of method, procedure, and "Warranty Authorization Form Number" from service manager to ensure that:
 - a. The correct method of repair as prescribed by Ace is followed, and
 - b. Prior agreement is reached as to amount of allowance, which will be credited for the work.

Failure to comply with this procedure will result in rejection of warranty claim and void warranty.

6. Travel time (man and truck) will be allowed on the basis of:

First 25 miles	\$12.50
To 100 miles	\$10.00 per 25 miles
Over 100 miles	\$7.50 per 25 miles

All mileage is to the nearest 25 miles traveled.
Mileage is limited to a maximum of 500 round trip miles.
7. No claims will be allowed for the loss of hydraulic oil except in cases where failure of component clearly indicated the loss of a major portion of the oil in the system. The allowance for oil shall not exceed \$2.50 per US gallon. Ace is not responsible for oil clean up, contamination of any kind, or any damage caused by an oil spill.
8. No allowance whatsoever will be made for replacement components, which our inspection subsequently shows not to be defective.

WARRANTY AND SERVICE ON MOTORS

If the motor fails, and the equipment is under warranty, have the equipment checked out by an electrician or service man. If there is no problem with fuses or wiring, the motor should be taken to the nearest authorized motor warranty shop, (if you do not have a listing of authorized motor warranty shops, call Ace to determine the locations of the shops in your area). The motor shop will inspect the motor and determine whether it is factory defective.

If the motor failed due to defects in material or workmanship, the motor shop will repair or replace the motor at the motor manufacturer's expense. If the motor failure was not caused by defective factory material or workmanship, it will be repaired only if the customer agrees to pay for the expense.

Ace Equipment Company will not absorb the cost for pick-up or delivery service to service centers on defective motors. Removal and reinstallation covered in the standard warranty policy.

SAFETY NOTICE

Proper maintenance and repair are essential to the safe, reliable operation of Ace's products. Service and maintenance procedures recommended by Ace are described in the service manual and are effective for performing service operations. Some of these service operation may require the use of special tools or devices especially designed for the purpose. These tools or devices should be used when and as recommended. These operation instructions are not intended as a substitute for training and experience in proper use and safety procedures in operation this equipment. Anyone who uses service procedures or tools which are not recommended by Ace assumes all risk to persons, equipment, and property.

CAUTION

Only factory original replacement parts or equivalent should be used to insure safe and proper operation of equipment.