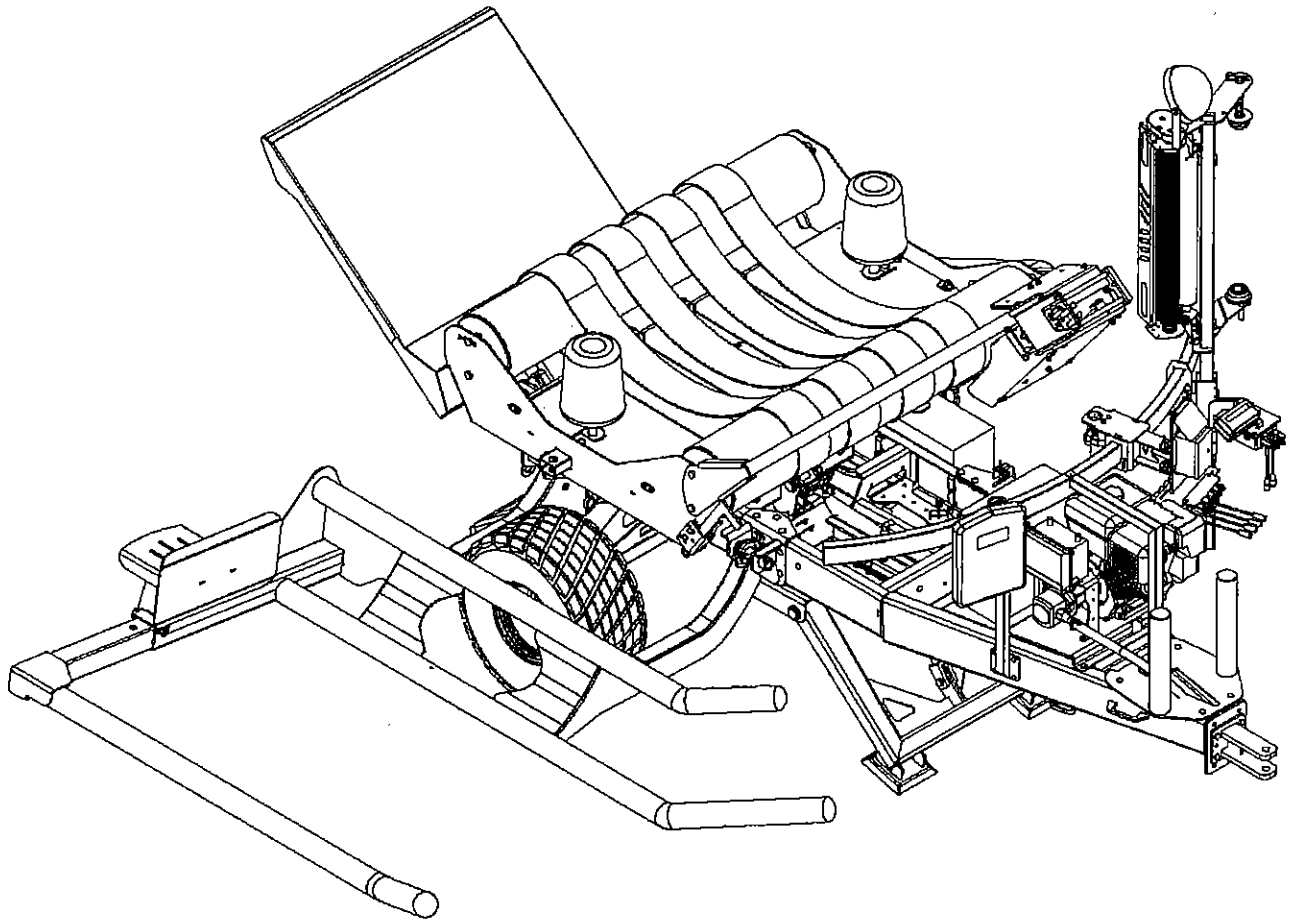
OWNER'S MANUAL

Single round Bale Wrapper model 580 & 680

and options

ANDERSON



January 30th 2006

ANDERSON

Content

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ANDERSON'S WARRANTY FORM

Warranty form that has to be complete and return as soon as possible

Please fill out this warranty form with the informations about your new machine and send it by fax or by mail. *This form has to be complete within **15 days after delivery** to valide your warranty.* (please print)

Type of machine : _____
Model : _____
Options : _____

_____

_____

Serial number : _____
Purchase date : _____
Buyer's name : _____
Address : _____

_____

Phone number : _____

Dealer's name : _____
Saleman's name : _____
Saleman's address : _____

_____

Phone number : _____

Saleman's signature : _____

Buyer's signature : _____

Phone : 1-819-382-2952

Fax : 1-819-382-2643

Toll Free : 1-888-833-2952

1.1 → <u>One year warranty</u>

Machinerie Anderson warrants each of the machine of its manufacture to be produces to meet the specifications delivered to the **BUYER;** and to be free from defect in material and workmanship and will repair or replace, at its expense, for a period of one year from the date of delivery of equipment any parts which are defective from faulty material or poor workmanship.

1.2 → <u>Documents</u> :

When you call your equipment dealer or Machinerie Anderson to order parts or to get some help to solve a problem on you equipment, you should have on hand your purchase order or a copy of it, a copy of the warranty form which gives all the necessary information about your equipment

1.3 → <u>When you have a problem :</u>

Your local equipment dealer is the place to go to, if you ever have a problem with your equipment. Machinerie Anderson does not normally do any field servicing. If for any reason, you are not satisfied with the way your equipment dealer solved your problem, we suggest you take the following steps.

1.3.1 – Take note that; Machinerie Anderson will not warrant any equipment that has been modified without a written authorization signed by the person responsible of the engineering department or misused at Machinerie Anderson

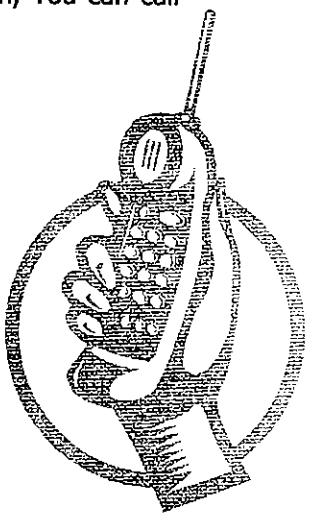
1.3.2 – We recommend that you get in touch with the manager of you equipment dealer and inform him of the situation. Most of the time he shall solve the situation to you satisfaction.

1.3.3 – If, for any reason you are still not satisfied with the proposed solution, You can call us at;

Machinerie ANDERSON
5125 rue De la Plaisance
Chesterville (Québec)
CANADA G0P 1J0

Phone number: (819) 382-2952
No charge : (888) 833-2952
Fax : (819) 382-2643

Courriel/ Email → **<u>info@anderson-machineries.com</u>**



When calling Machinerie Anderson, you must have the following information on hand :

- your name, address and phone number,
- the equipment Model and serial number,
- the date the equipment was bought and the purchase order number,
- your dealer's name, address, phone number and the name of the salesman,
- a very good description of the problem.

1.3.4– Our engineering department will study the situation and will get in touch with you as soon as possible, to inform you of the steps you will have to take to get your problem solved the best suitable way. In any case, it is your local equipment dealer that will do the work to solve the problem.

1.4 → <u>Modifications :</u>

We reserve the right to modify our equipment, their characteristics and their components without notice and without any obligation what so ever.

We thank you for your confidence.

Dany Poisson, president
Anderson Machinery

2 → Models 580 et 680. general characteristics

2.1 → Congratulations :

You are now the owner of an ANDERSON single bale wrapping machine. This bale wrapper was design to wrap each single round hay bale to be stored outdoor in the wintertime. A 6 foot round bale is the largest hay bale that can be wrapped on models 580 and 680 wrappers. These bale wrappers were carefully design and built by Anderson to give you many years of reliable service.

2.2 → Engineering & design :

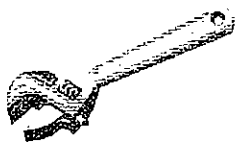
Most parts used in our bale wrappers were design by highly qualified mechanical engineers and technicians using the most sophisticated software. and Laser cutting equipment.

All our bale wrappers are equipped with twin geared aluminum rollers and a plastic film stretcher, that can stretch a 30 inches (76,2 cm) wide plastic film up to 65% longer.

2.3→ Size & weight.

With	:	**90 in. (2.3 m)**	**Lenght (unloading panel in place) :**		**186 in. (4,8 m)**
Height	:	**102 in. (2.6 m)**	**Total weight (fully equipped)**		
Tires	:	**26-12-12**	**Hydraulic unit weight(oil incl'd):**		**386 lb 175kg)**

2.4 → Useful informations:



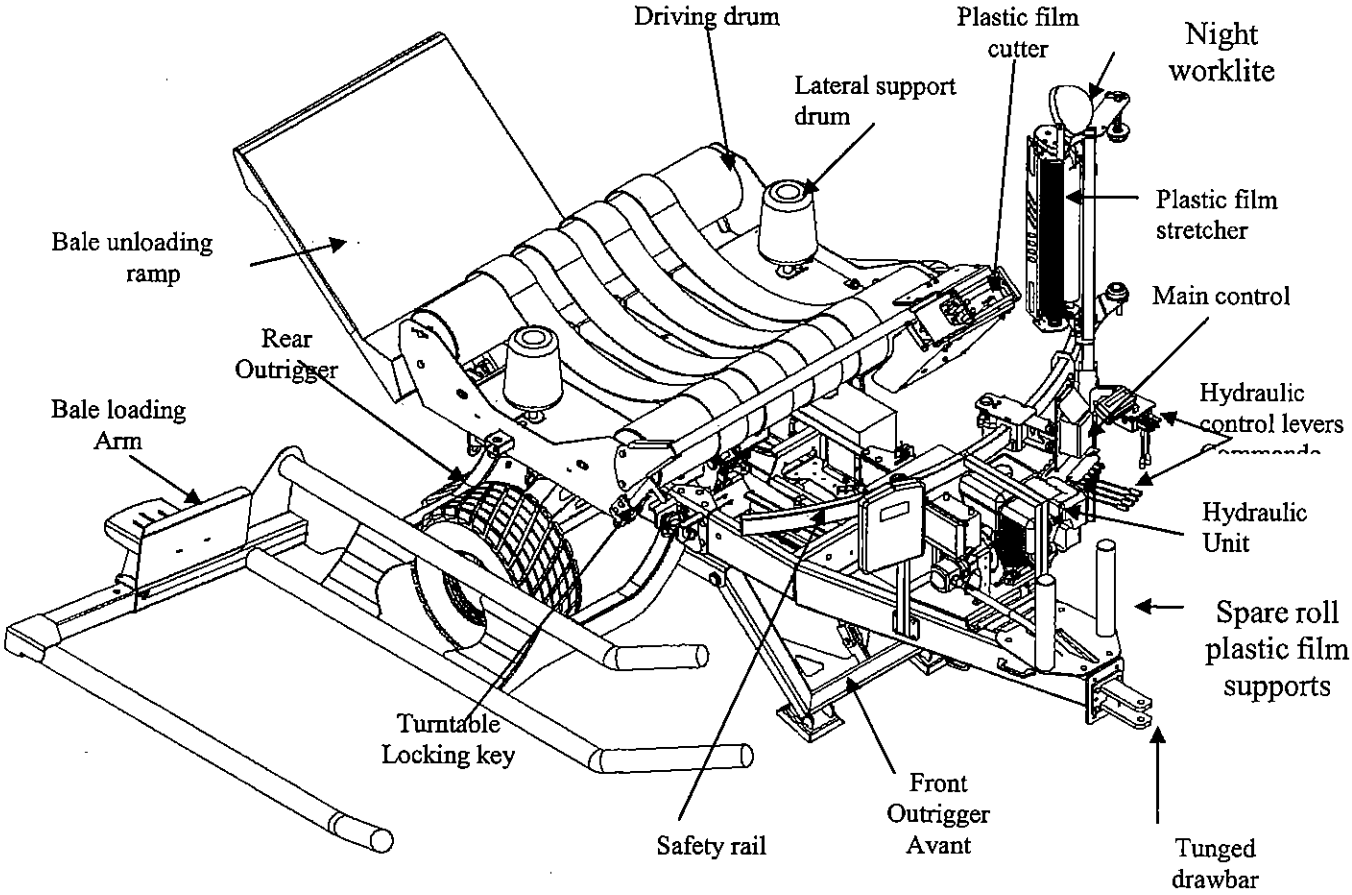
Before getting started with your bale wrapper we recommend to read this operation manual thoroughly, it will help you in many ways, by informing you on all the features of this machine and by giving you many advices on how to operate it safely. If you happen to sell your bale wrapper, do not forget to transfer this operating manual to the new owner.

2.6 → Standard equipment:	*580*	*680*
Lateral hand jack	X	X
Hydraulic plastic film cutter	X	X
Hand Controls	X	X
Separate turn & bale counters	X	
Digital radio remote control		X

2.5 → Modifications :

All diagrams and pictures presented in this instruction manual are the latest information available at the time of printing. ANDERSON Machinery may modify and/or update its equipment without notice and without any obligations.

Models 580 & 680. General characteristics.



2.6 → Standard equipment :

Model 580 or 680 single bale wrappers are of the stationary type even if the wrapper is mounted on wheels, the purpose is, to be able to move the wrapper to where the bare hay bales are stacked. chapter #4 gives more informations on how to move the bale wrapping machine. A geared hydraulic motor rotates the bale wrapping platform and drives the chain driven drums of the platform. The 30 inches plastic film stretcher and cutter helps reduce the cost and the wrapping time of a hay bale.

2.7 → Options

	580	680
Front outrigger (stabilizer)	X	X
Rear outrigger (stabilizer)	X	X
Hydraulic unit with Honda 13 hp gasoline engine	X	
Hydraulic unit with Honda 13 hp gasoline engine & electric starter	X	
Hydraulic unit with Honda 13 hp gasoline engine & electric starter, alternator & night work light	X	X
Bale loading arm & plastic film roll holder	X	X
Bale unloading platform	X	X

2 ➔ Models 580 et 680. general characteristics.

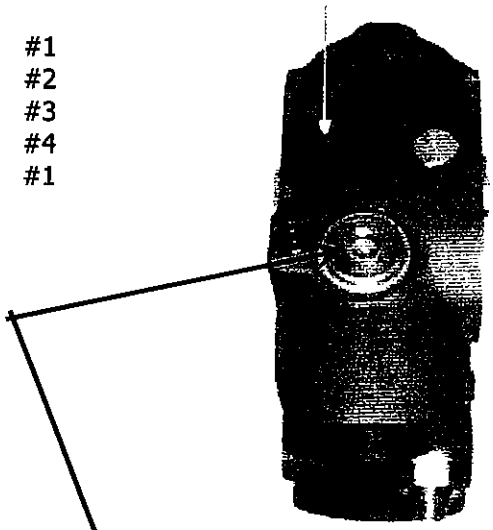
Models 580 & 680 bale wrapper may either be powered by the hydraulic power system of a farm tractor or the stand alone hydraulic power unit which is driven by a 13 hp Honda gasoline engine. Both, the front and rear outriggers (stabilizers) greatly improve the stability of the bale wrapper. When the model 680 bale wrapper is equipped with these two options only one operator and one tractor are required.

2.8 ➔ Operating model 680 on a John Deere farm tractor (closed circuit hydraulic system)

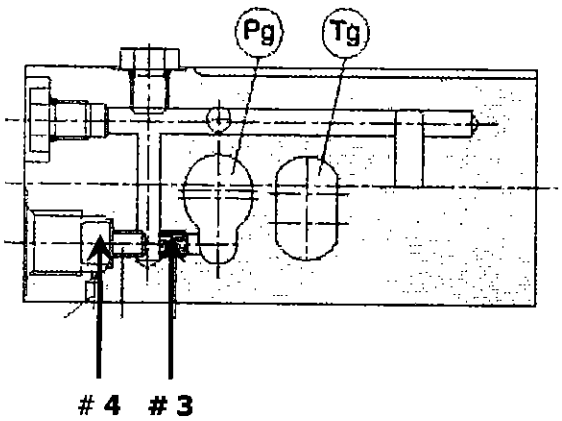
To operate model 680 bale wrapper with a John Deere farm tractor that is not equipped with an hydraulic load sensor, a modification must be done on the hydraulic distribution valve VDP-08 as explained below.

Procedure	Outlet/inlet
1 – Remove cap	#1
2 – Remove the Allen screw	#2
3 – Install the bored Allen	#3
4 – Install the small cap	#4
5 – Put back the main cap	#1

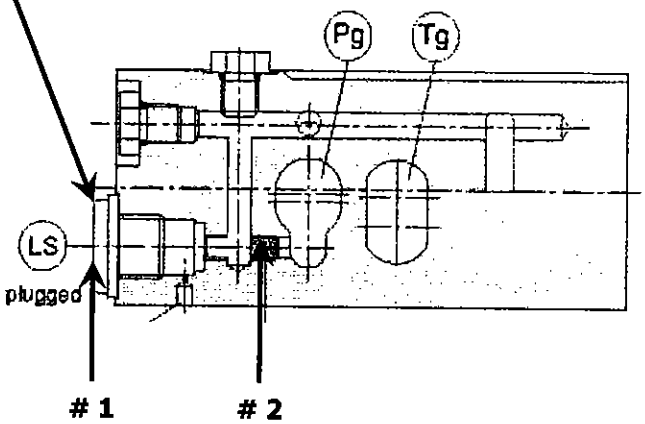
First cap to remove - #1



Closed circuit



Open Circuit



Notice : To improve the performance when working with a John Deere farm tractors models 2100 et 2500 it is recommended to connect the hydraulic oil return on the oil filter.

3 → Security advices.

3.1 → A competent operator works safely !!!

Your Anderson bale wrapper was conceived to work safely when doing the type of work it was designed to do. Its hydraulic system can handle heavy loads which can cause serious injuries to the personnel that has to work near or around this type of equipment. It is recommended to read and follow all safety advices that appear at the most dangerous area on the bale wrapper. This book will also give you very important advices on how to work safely.

3.2 → Working safely

The operator and all working personnel around the bale wrapper should be well informed of the dangers inherent to the fact of working near this type of equipment. Every ones should be informed of where are posted Emergency phone numbers, telephone facilities and first aids kits. The operator must know what actions to take in an emergency situation.

3.3 → Danger area :

It is the responsibility of the bale wrapper operator to inform whoever stands within 8 feet (2.5m)of the bale wrapper that he is inside a dangerous area.

Important: Childen must be kept outside the danger area

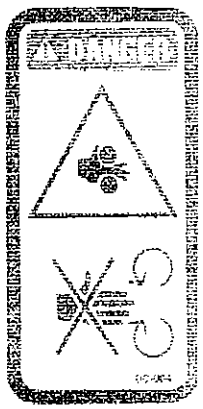
3.4 → Working with a farm tractor :

When the bale wrapper uses a farm tractor as the power hydraulic unit, the bale wrapper must be properly tied to the main frame tow bar of the tractor. The bale wrapper shall never be tied to the hydraulic lifting assembly. The bale wrapper should be installed on a flat and level ground. It is recommended to place wedge blocks under the wheel to keep the wrapper well in place.

3.5 → Safety stickers :

The instructions given on the emergency stickers placed on the bale wrapper must be observed at all time for a safe operation. The operator must know where the panic(emergency stop) button is and must know how to operate it in an emergency situation.

Model 680 is remote controlled and both the main control unit and the portable remote control unit are equipped with a PANIC (emergency) stop button that quickly turns off the hydraulic power system of the bale wrapper



Keep hand off the bale wrapper while wrapping a bale, moving parts, gear wheels, moving chains can catch up any loose garment and cause very serious injuries, (the bale wrapper is a very powerful machine, it can very easily drag weights of 500 pounds) The plastic film cutter is very dangerous be very special caremust be taken when working near it,

3 → Security advices.

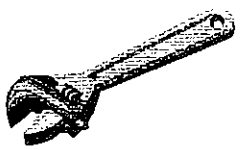
3.6 → Prevention :

Avoid wearing loose garments such as long sleeves jackets, loose sweaters, scarf, and neck handkerchief. Any loose garment can get caught by the moving parts of the wrapper and cause serious injuries and even cause death.

It is recommended to wear hearing protection as earmuff, because long time exposure to high noise level can cause deafness. When working in a dusty environment wearing an approved facemask is a god practise. It is also recommended, to have a fire extinguisher handy and when working at night to have the proper lighting equipment. Never operate the wrapper with the safety guards and safety shields removed.

3.7 → Maintenance and repair :

Before doing any maintenance work or repair work, it is important to stop the motor, remove the ignition key on the motor and release the oil pressure in the hydraulic system. Great care should be taken when working around the plastic film cutter, sharp edges can cause serious injuries When replacing defective or worn out parts, we recommend to always use genuine parts in order to keep your warranty active.



3.8 → Gasoline fuel :

Gasoline fuel is a very flammable product and must be handled with the greatest care in an approved gasoline containers. When filling-up the gasoline fuel reservoir of any type engine, the operator must stop the engine before filling-up the reservoir. Once the fill-up is completed he must make sure the reservoir cap is back in place and tight, wipe off the over spilled fuel, and once all fuel vapors are dissipated the engine can be started back.

Notice: starting an engine with spilled gasoline fuel on the engine can catch in fire
Caution: never fill-up the fuel reservoir while the engine is running. It is recommended to have the proper type fire extinguisher handy.

3.9 → hydraulic oil :

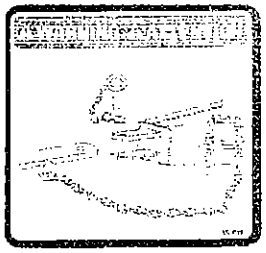
High pressure hydraulic fluids can cause serious injuries if not handled with care. Any oil leak under pressure is dangerous. To detect oil leak when the system is under pressure, the operator must wear gloves and use a piece of cardboard. Once the oil leak is located, turn-off the pressure pump and replace the leaking part.

Before connecting or disconnecting the hydraulic hoses the operator should stop the motor driving the hydraulic pump and make sure the pressure is completely released before disconnecting or connecting the oil lines and if disconnecting the lines he should cap off all oil inlets and outlets.

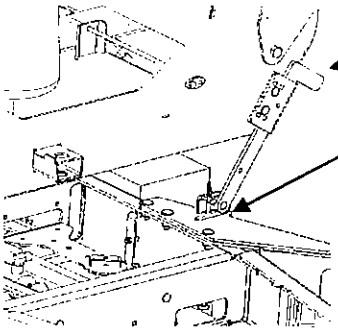
CAUTION → Any infiltration of hydraulic fluid in or under the skin should be removed as soon as possible by a physician familiar with this type of injury. It can cause gangrene if not taken care of in the following hours.

3 → Security advices.

3.10 → Going about on public roads :



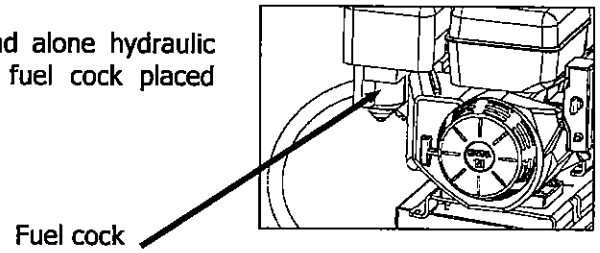
It is responsibility of the owner to know the rules and regulations concerning farm equipment on public roads in force in your area. We strongly recommend to lock the coupling pin and to tie a security chain between the bale wrapper and the towing tractor.



When moving the bale wrapper do not forget to lock the wrapping turntable. Use the turntable locking key to brace the wrapping turntable to the main frame of the wrapper, you may have to rotate the wrapping turntable by hand to match the turntable locking key with the key slot in the main frame of the wrapper. See figure on the left. Remove the retaining pin f the tie bar, slide down the turntable locking key until it fits in the key slot on the main frame and lock back the turntable locking key in place.

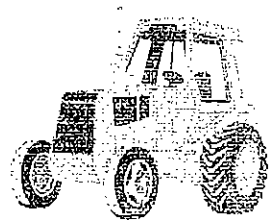
3.11 → End of operations

When the bale wrapper is equipped with a stand alone hydraulic power unit, do not forget to turn–off the inlet gasoline fuel cock placed underneath the choke valve. see the figure on the right.



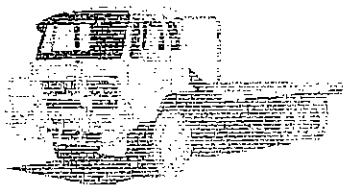
4 ➔ Moving the bale wrapper.

4.1 ➔ Short distance moving :



The bale wrapper can be moved from place to place when tied to a farm tractor or to a pick-up truck. When moving the bale wrapper make sure the wrapping turntable is locked as explained earlier in chapter 3-10 You must comply to the public road rules and regulations in force in the operating area concerning farm equipment.

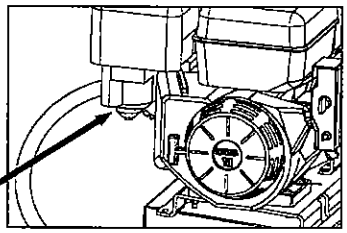
4.2 ➔ Long distance moving:



For long distance hauling it is recommended to load the bale wrapper on a When loading the bale wrapper on a flatbed truck for long distance hauling from a loading dock. The wrapper can be tied to a farm tractor or t a pick-up truck to load the wrapper on the flatbed truck. The bale wrapper should be tied to the flatbed truck and blocking gears should be used to prevent any movement or displacement that could damage the wrapper.

4.3 ➔ Security measures :

If the bale wrapper is equipped with a self powered hydraulic unit, do not forget to turn–off the inlet fuel cock placed underneath the choke valve when moving the wrapper on long or short distances.



Fuel cock

5 ➔Bale wrapping : Adjusments & set-up 580 et 680.

5.1 ➔ New wrapper:

Once your have read the instruction manual you are ready go through the starting procedure. First on a new wrapper check to see that the wrapper has not been damaged in transport, the electric wiring and the hydraulic systems for damages.

5.2 ➔ Before starting the machine :

a) Check the oil level in the hydraulic system and add hydraulic oil if needed,

b) Check the oil level of the Honda motor if used and add oil if needed,

c)Fill up the gasoline fuel tank of the Honda motor replace the cap on the fuel tank,and wipe-off the spilled gasoline fuel,

d) Turn open the gasoline fuel inlet cock,

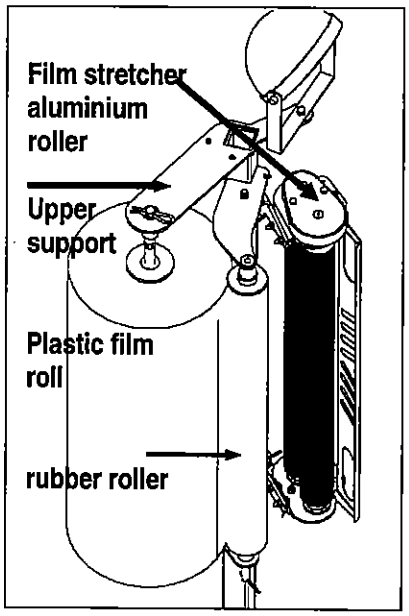
e) Check the motor air filter and replace if necessary #. (If installed),

f) Clean the plastic film stretcher rollers with penetrating oil, rubbing alcohol or paint thinner.

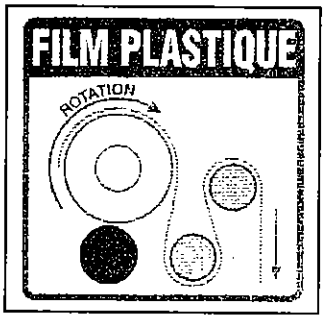
5.3 ➔ In the field :

The bale wrapper must be operated on a flat and level ground as much as possible. Unlock the wrapping TurnTable (**TT**) by removing the "**L**" TT locking key and install it in its working position and lock it in place. When the wrapper is equipped with stabilizers, start the motor and extend the stabilizers The joysticks hydraulic actuators are the two levers oriented downward on the right hand side of the control panel", When the plastic film roll is on the wrapper the end of the plastic film must stick out of the plastic film cutter jaws. If not, activate the plastic film cutter until the plastic film sticks out of the cutter jaws.

5.4 ➔ Installing a new plastic roll:

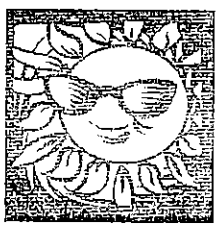


To remove an empty film roll lift up the spring loaded top plastic film guide and slip out the bottom end of the empty roll. To install a new plastic film roll insert the top center of the film roll in the spring loaded film guide and slip back-in the bottom end of the plastic film roll and feed the plastic film through the rubber and aluminum stretch rollers as shown in figure.



Activate the plastic film cutter until the plastic film sticks out of the cutter jawsand close back the jaws to hold in place the plastic film.

Caution : Leaving a plastic film roll in the sun for long period of time will warm up and soften the plastic film, A soft plastic film will stretch and perforate very easily causing poor wrapping of the bales.



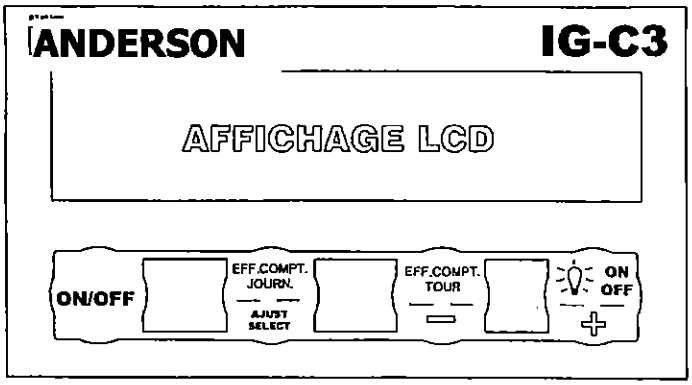
6.5 : Testing the plastic film stretcher:

To check the stretching efficiency of the film stretcher, using a felt tip marker draw a 10 inches long horizontal line on the plastic film roll. Start the wrapping turntable for about one turn or until the line drawn on the plastic film roll has gone through the two stretch rollers, then, stop the turntable, the 10 inches long line should now be 16 inches long if the stretch rollers are properly adjusted

6 → 580 wrapper: **operation of the turn counter IG-C3**

6.1 → Characteristics :

The **IG-C3** counter works on a 9 volts rechargeable dry cells. The battery charger, supplied with the unit can temporarily replace the dry cell, but it is not recommended to permanently operate the **IG-C3** counter with the battery charger. The **IG-C3** counter displays two lines of liquid crystal alpha numeric characters. above the 4 TSK touch sensitive keys.



To start the counter press the **ON/OFF** TSK (Touch sensitive key), which will bring-up he first display. **Anderson**. After 5 seconds the following information will appear in the window:

→ The top left figure will indicates the number of wrapping layer completed on the bale. This figure will increase while wrapping.

→ The top right figure indicates the maximum number of turn desired to obtain the proper wrapping condition. This figure is factory set to **MAX : 18** but can be modified at any time.

→ The second line indicates the total number of hay bales wrapped during the present wrapping session **Bales (J) : 000** per day.

Take note that; the bale wrapping machine will not stop automatically. At about five turns before reaching the maximum number of desired film layers that is shown in the upper right window the top left digit will start blinking and you will sound 3 warning beeps to indicate you are reaching the end, The bale counter will increase by one and the wrapping turn counter will reset to zero after 15 sec.

6.2 → IG-C3 operating menu.

The left **ON/OFF** TSK (Touch Sensitive Key) , will apply/remove power to the **IG-C3** counter. Upon turn-on, the **IG-C3** counter will display "ANDERSON" for about 5 seconds then ;

The upper left corner will show **Turns:00** which indicates the number of plastic film layer completed on the bale being wrapped.

The upper right corner will show the number of wrapping layer desired for each bale, this figure is factory programmed to 18 layers

The second line will show the number of bales wrapped during the day **bales (D):000**

The middle left TSK **EFF. COMPT.JOURN** resets the daily wrapped bale counter:

To reset the counter press **+** for **YES** or press **-** for **NO**

The middle right TSK **EFF. COMPT.TOUR** resets the number of plastic film layer counter

To reset the counter press **+** for **YES** or press **-** for **NO**

The display lighting TSK **ON/OFF** applies/removes power to the display lighting The display lighting turns off automatically after 20 seconds. When on the display lighting is on the battery life is shorten

6 → 580 wrapper: **operation of the turn counter IG-C3 cont'd**

6.3 → Programming the IG-C3 counter.

Pressing and holding the **ADJUST/SELECT** TSK, it will take you in the programming mode to :

Program #1

The number of wrapping layer desired : to increase press [+] ,to decrease press [-] the minimum number of plastic film layer is **2** and the maximum is 80. Pressing and holding the [+] , or [-] TSK for more than 3 seconds will increase or reduce the number faster.

To advance to program #2 press TSK **ADJUST/SELECT.**

Program #2

This record the number of BALES WRAPPED PER DAY. Pressing and holding the [+] , or [-] TSK for more than 3 seconds will increase or reduce the number faster. Pressing the [+] , and [-] TSKs simultaneously resets to zero the number of bales per day.

To advance to program #3 press TSK **ADJUST/SELECT.**

Program #3

This record the number of BALES WRAPPED PER YEAR Pressing and holding the + , or - TSK for more than 3 seconds will increase or reduce the number faster. Pressing the + , and - TSKs simultaneously resets to zero the number of bales wrapped per year.

To advance to program #4 press TSK ADJUST/SELECT.

Program #4

Selects the language in which you prefer to communicate with the **IG-C3** counter

To return to the operating mode #4 press TSK ADJUST/SELECT.

Note: pressing the + TSK increases by one the position in the program mode or when adjusting a number, for instance the number of wrapped turn desired is increased by one (ref: program #1);

pressing the [-] TSK decreases by one the position in the program mode or when adjusting a number, for instance the number of wrapped turn desired is reduced by one (ref: program #1).

7 → Wrapping a bale with the 580 bale wrapper

7.1 – Using a farm tractor.

a) Clean all hydraulic fitting before connecting them to the tractor hydraulic power outputs and check for leaky connections, correct the leaky connection,

b) start tractor and adjust engine speed to get 6 gpm at 2000 psi.,

c) refer to common procedure (h),

If the bale wrapper is self powered (equipped with a Honda 13 hp engine),

a) Check gasoline fuel level of engine and fill if necessary, wipe off the gasoline fuel spilled on the engine,

b) open engine gasoline fuel cock,

c) open the hydraulic outriggers safety cocks if installed, start the Honda engine,

e) Extend the hydraulics outriggers by actuating the inverted joystick hydraulic actuator.

f) Once the outriggers are set out, close the safety hydraulic cock, refer to common procedure.

Common procedure to all machines.

h) Turn on the electronic counter and reset the layer counter to zero,

i) remove the turntable lock key and place the lock key in the wrapping position,

j) set the wrapping turntable to the starting position,

k) place the hay bale to be wrapped on the wrapping turntable,

l) start wrapping the bale by actuating the joystick hydraulic actuator

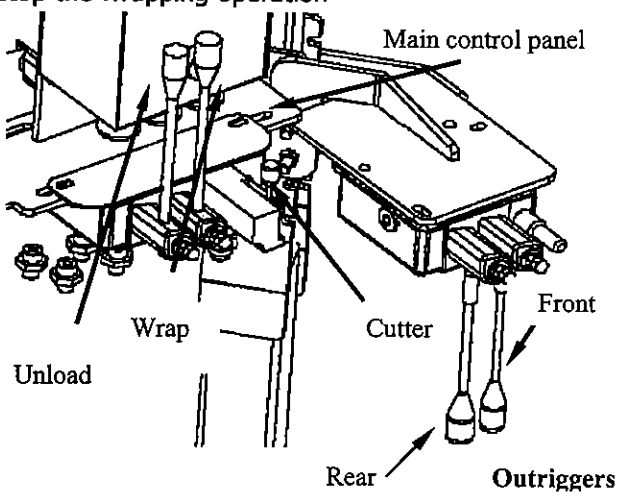
m) check the layer counter, when the counter sounds two beeps and starts to flash you will be wrapping your last layer of plastic film, you shall stop the wrapping operation by releasing the joystick hydraulic actuator,

Note: the electronic counter will not automatically stop the wrapping operation

n) cut the wrapping plastic film by actuating the plastic film cutter joystick (short one) hydraulic actuator

o) unload the wrapped bale by actuating the unload joystick hydraulic actuator which will tip over wrapped bale by tilting the wrapping turntable. The turntable must be in the unload position.

Note: If the turntable is not properly set in the unload position a safety lock will prevent the dumping of the bale

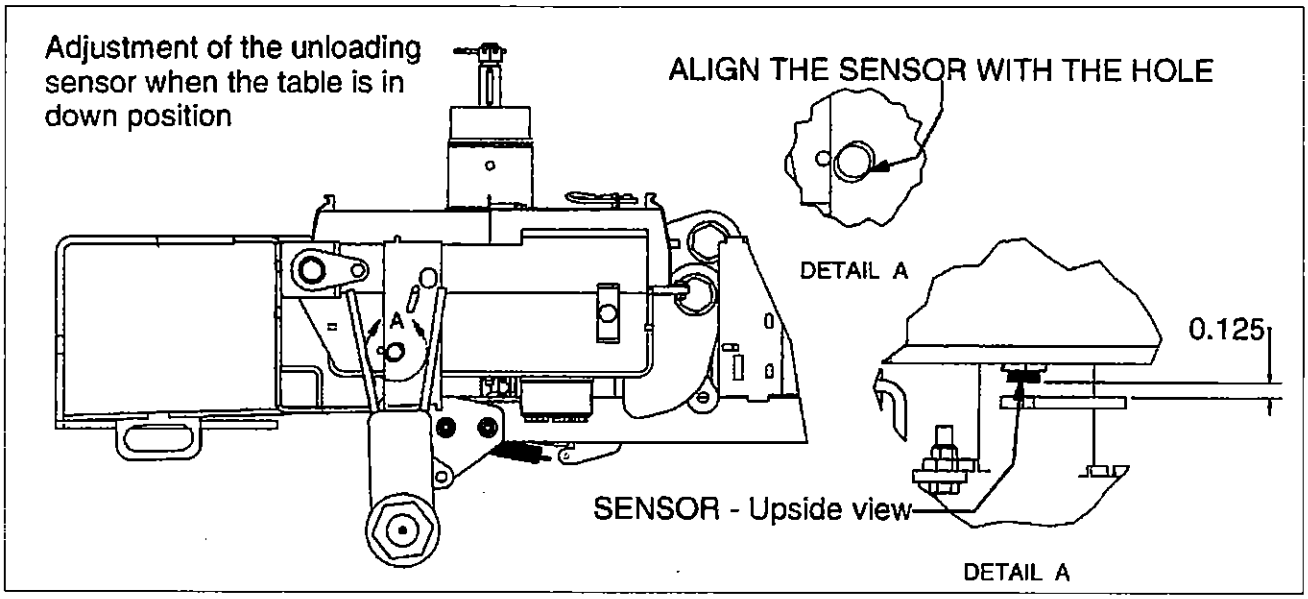


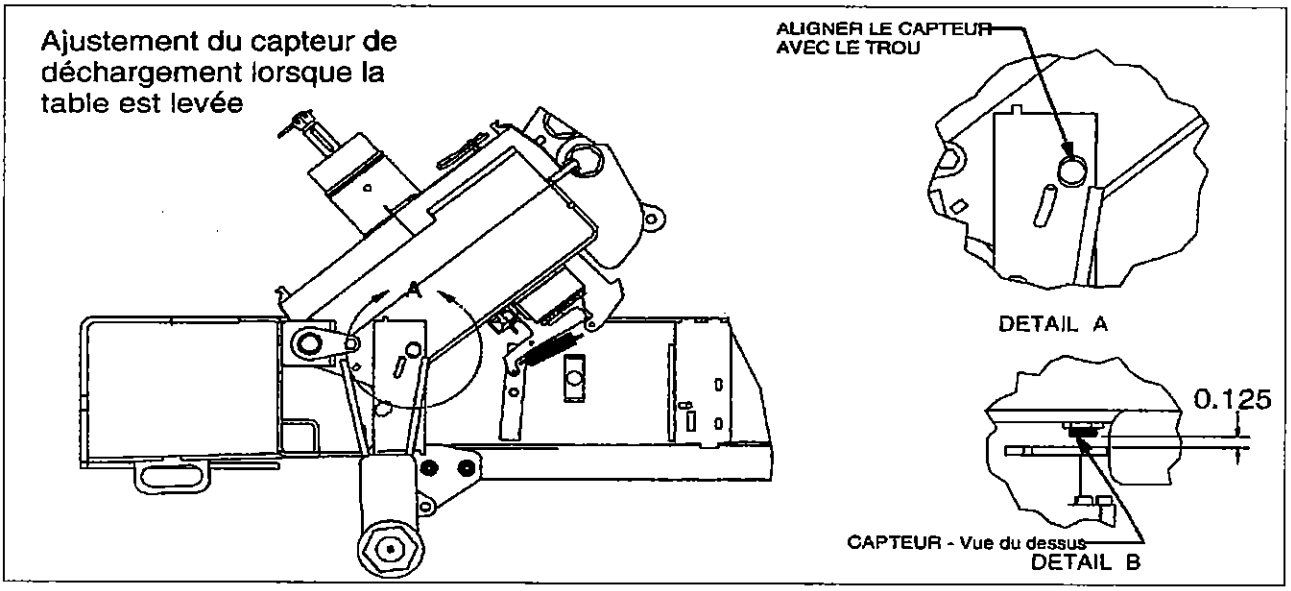
7.2 – Ending a wrapping job 580 :

Do not forget to shut off the gasoline fuel cock. Shutting off the gasoline fuel cock will prevent the gasoline fuel seeping in the oil pan of the engine. Before storing the wrapped bales each and every bale should be checked to make sure the sealing of the plastic film is adequate.

7 ➔ Model 580/680 bale wrapper: sensors adjustments

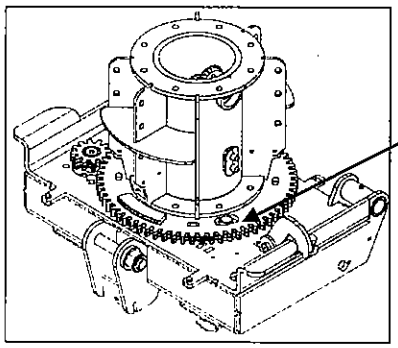
7.3 – Adjusting the wrapping turntable unload sensor:





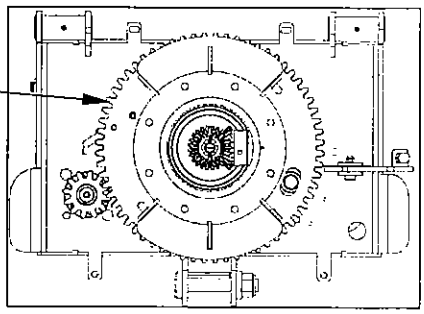
7 ➔ Model 580/680 bale wrapper: sensors adjustments

Adjusting the turn counter sensor

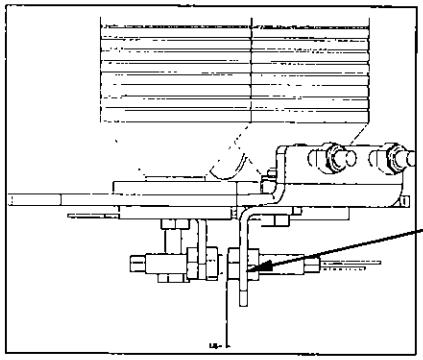


1- The turntable locking key must be in line with the turntable slot

2- The sensor must be adjusted in line with the hole in the gear wheel The gap should be adjusted to about 1/16" (1.25 mm) above the gear wheel.



Plastic film stretcher sensor adjustment



This sensor is mounted underneath the plastic film stretcher ass'y

The gap between the sensor transmitter and the sensor receiver shall be adjusted to about de 3/32" to 1/8" (2.3mm to 3.2 mm).

8 ➔ Wrapping with the 680 remote control unit

8.1 ➔ Features of the 680 single bale wrapper:

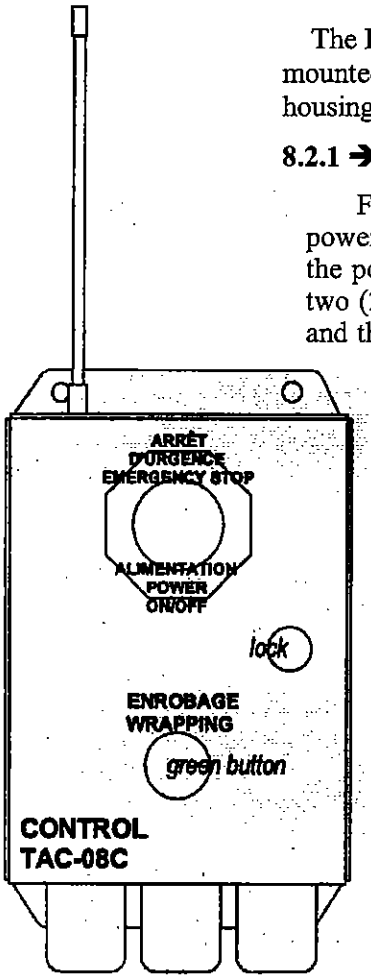
The model 680 single bale wrapper is equipped with an R.F. remote control unit, that automatizes the operation of the wrapper. The bale wrapping, film cutting and unloading of the wrapped bale is all done in one sequence. When the 680 bale wrapper is equipped with both the stand alone hydraulic power unit and the front & rear outriggers (stabilizers) the 680 wrapper can be operated using only one farm tractor and a single operator.

8.2 ➔ R.F. remote control description :

The RF remote control includes two(2) units; the Main Control Unit (MCU) TAC-08C. mounted on the main frame of the 680 bale wrapper, inside a grey weather proof housing and the TAC_08 hand held remote control unit HHRCU.

8.2.1 ➔ TAC-80C Main control unit operation MCU

For a reliable operation, the TAC-80C main control unit (MCU) needs a 12 vdc power source that can supply about 5 Amps. A 10 Amps fuse is connected in series in the positive (red) wire. There is also supplied inside the grey weather metal housing, two (2) spare fuses; the 2 Amps spare fuse is supplied to replace the electronic circuit and the 20 Amps fuse is used in the RF output circuit of the MCU. These two spare fuses must not be used to replace the 10 Amps fuse that is in the 12 vdc power line.



It is important to note that, for a safe and reliable operation the both units, the MCU and the HHRCU must be operated within 500 ft 152.5 m. away from each other.

Outside that 500 ft / 152.5 m range the operation of the control system is not reliable.

The red mushroom head twist/pushbutton mounted on the front panel of the TAC-80C MCU has two functions;

a) **"Power on"**

To turn **ON** the power on the MCU TAC-80C, slightly twist the mushroom head / pushbutton clockwise. The head of the mushroom pushbutton will pop up.

b) **"Emergency power off"**

When an emergency situation occurs a simple push on the mushroom will instantly stop the operation of the bale wrapper.

Upon turn of the MCU the green pushbutton below labeled ENROBAGE/WRAPPING will start flashing meaning that the unit is ready for setup.

8.3 ➔ Operation of the remote control unit :

8.2.1 Make sure the dry cell used in the hand held remote control unit is charged or that the unit is connected to a reliable 12 VDC power source using the power cable supplied wit the unit.

8.3.2 Press the **T**ouch **S**ensitive **K**ey (TSK) **" OUVRIR/FERMER "** \ ON / OFF will turn on the HHRCU if the unit was in the off mode and it will turn it off if the HHRCU was on.

8.3.3 The first message to appear in the display window is "SEARCING CONTROL UNIT"

8 ➔ Wrapping with the 680 remote control unit cont'd

If the second message is **" MENU 4 – ALIGNMENT "**; it means the unit is operated using the hydraulic power system of a farm tractor and the HHRCU is matched with the main control unit. You can proceed to point section 8.4

If the second message is **" MENU 5 – HYDRAULIC UNIT "**; it mean the Honda engine is not running. To start the Honda engine of the power unit , make sure the ignition key is on pull the choke and press 4, once the engine is running push back the choke and you will automatically end up in **" MENU 4 "**

If the second message is one of the following:

" Control unit off " ;
meaning the power on the control unit has not been turned **ON**;
Solution:
Turn the power **ON** on the main control unit

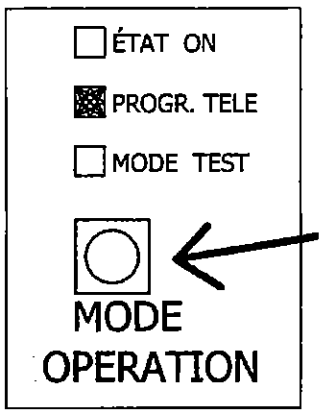
" control unit out of range"

meaning that the HHRCU is operated outside the 500 ft/152.5m range.

Solution:
bring the HHRCU closer to the main control unit

" control unit not found ":

meaning that the main control unit and the HHCRU were not previously matched. This situation will always happen when using a brand new HHRCU, for the first time.



Solution:
press TSK #4 to reach SETTING 9 alignment. Matching a HHRCU with the main control unit is done as follow:

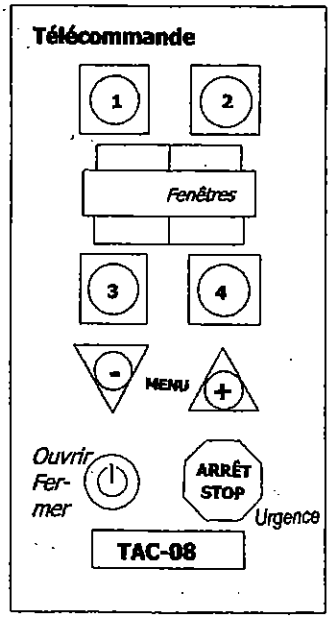
Open the front door of the main control unit
In the upper right hand corner of the printed circuit board you should see a small black pushbutton below three LED.
Press the small black button, the red LED above named PROGR. TELE will turn on. While the red LED is on, press TSK #4 on the HHRCU. The red LED will start flashing it will then turn off and the Green LED ETAT ON above the red LED will the turn on meaning that the matching operation has been completed successfully.

Close the front cover of the main control unit and you are now ready to get started.

Remember that you will have to go through this matching procedure every time you will use a new HHRCU

8.4 ➔ Wrapping turntable alignment :

The alignment procedure of the wrapping turntable will have to be performed every time the main control unit is turned on. The alignment procedure is started by reaching MENU #4 in the operating mode and pressing TSK #4



8.5 → Description of the operating mode menus

MCU Main Control Unit

HHRCU: Hand Held Remote Control Unit

Δ This symbol found on the second line of the display indicates the strength of the signal received from the main control unit MCU

□ This symbol found on the second line of the display indicates if the dry cell is charged.

8.6 → Operating mode menus overview

Operating mode menu #1.

1	2
MENU 1	Raise
Tr: 00 / 18	Δ □
Bal / (J) : **0 0 0**	
Wrap	Lower
3	**4**

Pressing TSK #1 advances to the next menu

Pressing TSK #2 raises the bale loading arm

Displays the nbr of film layer completed / nbr film layer desired

Displays the number of bales wrapped per day

Pressing TSK #3 starts a wrapping cycle

Pressing TSK #4 lowers the bale loading arm

Once the wrapping cycle has begun, window #3 will change from **"Wrap"** to **"Pause"**. Pressing the TSK #3 will stop the wrapping cycle. Two conditions are possible.

a) pressing TSK #3 will resume the wrapping cycle operation,

b) pressing TSK [+] will enter menu #4 and pressing TSK #2 will end the actual wrapping cycle, the wrapper will reset to start a new wrapping cycle. It is possible to return to the previous menu by pressing the [–] TSK but it is not possible to undo a given command.

Operating mode menu #2.

1	2
MENU 2	Raise
Tr: 00 / 18	Δ □
Bal / (Y) : **0 0 0**	
Wrap	Lower
3	**4**

Pressing TSK #1 advances to the next menu

Pressing TSK #2 raises the bale loading arm

Displays the nbr of film layer completed / nbr film layer desired

Displays the number of bales wrapped per year

Pressing TSK #3 starts a wrapping cycle

Pressing TSK #4 lowers the bale loading arm

8 → Wrapping with the 680 remote control unit cont'd

Operating mode menu #3.

1	2
MENU 3	Raise
Tr: 00 / 18	Δ □
RPM: 0 0 / 0 0	
Wrap	Lower
3	4

Pressing TSK #1 advances to the next menu

Pressing TSK #2 raises the bale loading arm

Displays the nbr of film layer completed / nbr film layer desired

Displays the RPM of the turntable / desired RPM of turntable

Pressing TSK #3 starts a wrapping cycle

Pressing TSK #4 lowers the bale loading arm

The RPM information is very useful. It gives information on the actual oil flow. The computer will reduce the desired RPM in order to maintain the most satisfactory performance possible. A lower RPM of the wrapping turntable equals low wrapping performance and the wrapping turntable will never stop at the right place and will always have to reset to unload the wrapped bale.

The solution to that problem is either; modify the tractor RPM in order to reach the proper oil flow and reach the desired turntable RPM.

or

Modify the desired RPM by entering program mode SETTING #2 and by pressing TSK #3 or TSK4 to set the desired RPM.

Operating mode menu #4.

1	2
MENU 4	CANCEL
Align	Δ □
Wrapper	
	Align
3	4

Pressing TSK #1 advances to the next menu

Pressing TSK #2 raises the bale loading arm

Displays the nbr of film layer completed / nbr film layer desired

Displays the RPM of the turntable / desired RPM of turntable

Pressing TSK #3 starts a wrapping cycle

Pressing TSK #4 lowers the bale loading arm

Operating mode menu #5.

1	2
MENU 5	
Motor	Δ □
RPM: 3 6 0 0	
	Start
3	4

Pressing TSK #1 advances to the next menu

TSK #2 NOT USED

Displays the nbr of film layer completed / nbr film layer desired

Displays the RPM of the HONDA gasoline fuel engine

TSK #3 NOT USED

Pressing TSK #4 REMOTE ALTERNATE START/ STOPS

8.7 ➔ Error messages on HHRCU.

Error message appear on HHRCU as soon as a failure of the system occurs. The following table gives the different massages that can be displayed, their cause and solution.

➔ **[OUT OF RANGE]** :

The HHRCU cannot communicate with the MRU

a) Ceckhe power ON/OFF twist pushbutton on MCU,
b) The distance between the MCU & HHRCU is over 500 ft. reduce the distance,
c) HHRCU not matched with MCU refer to section 8.3.1 –.

➔ **[TAC-08 / RF Error]**

HHRCU not working.

➔ **[Incompatible / version]** :

An update of the RF remote control system program is required.

➔ **[Hydraul./fuel]** :

a) Faulty hydraulic system. Check hydraulic oil level, oil pressure & oil flow.
b) Empty gasoline fuel tank. Fill up with proper gasoline fuel
c) Bale loading arm too high. Check for hydraulic fault & Reset loading arm,

➔ **[Plastic]** :

This message is displayed only when "SETTING #5" is set on. Plastic film not seen by sensor.

a) Plastic film torn off. Tie end of plastic film to bale and resume wrapping, refer to par. d
b) Plastic film roll is empty. Replace empty roll with a new roll and resume wrapping. Refer to par. d
c) Check sensor adjustment. ,
d) To resume wrapping :
   Press TSK #3 to erase message and reach MENU #1
   Press TSK #3 TO RESUME wrapping cycle.

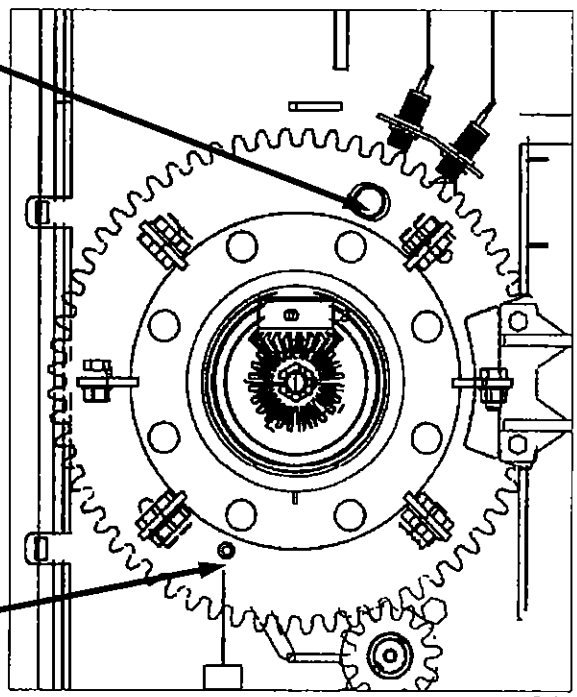
➔ **[Rotation]** :

Faulty turntable positioning sensors.Two sensors are mounted to count the teeth on the large gear wheel, to calibrate the turntable when proceeding to SETTING #8. The gap between the top of a gear tooth and the sensor is 0,100 in./ 2,5 mm. A yellow pilot lights glows when the sensors detects a gear tooth.

➔ **[Zero setting]** :

Faulty turntable initial position sensor.
This sensor detects a bolt head mounted underneath the wrapping turntable gear wheel and is use to stop the wrapping turntable to its starting position. The gap between the top of the bolt head and the sensor is 0,100 in./ 2,5 mm. A yellow pilot lights glows when the sensors detects the bolt head.

Hole detected by sensor :



→ **[Unload]** :

Faulty unload ramp-positioning detector.

The positioning sensor is mounted above the tandem wheel assembly, on the right hand side of the wrapper when facing the wrapper-unloading ramp. The sensor detects a (hole) when the ramp is in its normal (low)position and/or when the ramp is in its raised position. The air gap should adjusted to 0,125 in/ 3,1 mm. A yellow LED glows when the sensor detects the hole.

To adjust the tilting angle of the wrapping turntable refer to section 7.3

→ **[Emergency stop]** :

This message is displayed when the emergency pushbutton has been activated.

→ **[Charging battery]:**

This message is displayed when the HHRCU is connected to the battery charger.

→ **[Battery full]** :

This message is displayed when the charging cycle is completed.

8.8 → Programming procedure of TAC-08 HHRCU:

To enter the programming mode press both TSKs [+] and [-] simultaneously

SETTING #1 : Maximum number of turn desired to wrap a bale

The number of turn needed to wrap a bale is modified by pressing TSKs #3 or #4 according to the display. Four (4) layers of plastic film is the recommended figure to properly preserve a hay bale. The number of turn that the wrapping turntable has to complete to have four (4) layers depends on the size and on the type of hay wrapped.

To advance to SETTING #2 press TSK [+] on the HHRCU.

SETTING #2 : Turntable maximum RPM desired.

When the oil flow of the hydraulic system is lower than the required flow the wrapping turntable will not reach the desired RPM figure and at the same time the performance of the wrapper will also be less. When this occurs, to correct the situation, the desired RPM must be reduced to a value that can be reached by the hydraulic system. By doing so, the normal performance of the wrapping will be restored. Pressing TSKs #3 or #4 shall reach the RPM that should be used.

To advance to SETTING #3 press TSK [+] on the HHRCU. To return to SETTING #2 press [-]

SETTING #3 : Number of bales, wrapped per day.

Pressing TSK # 3 will reset this figure to zero.

To advance to SETTING #4 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

SETTING #4 : Bale Wrapper model : 680 & 780 SB ¼.

When model 680 bale wrapper is equipped with the side-mounted bale loading arm option the default programming version is model 680L. When the bale loading arm option is rear-mounted SETTING #4 must select 780 SB ¼, which will unload the bale on the side of the bale wrapper and the loading of the bales shall be done by the back.

To advance to SETTING #5 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

8 → Wrapping with the 680 remote control unit cont'd

SETTING #5 : Automatic stop on plastic film break.

When activated, this setting will stop the bale wrapper on a break of the plastic wrapping film. Pressing TSK #4 will alternately display [YES] to activate or [NO] to de-activate the feature.

To test the bale wrapper manually with no bale on the turntable, this setting must be deactivated, otherwise the wrapper will stop after having completed a quarter turn.

To advance to SETTING #6 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

SETTING #6 : Display language.

Select French or English by pressing TSK #4 will alternately go from French to English.

To advance to SETTING #7 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

SETTING #7 : Display contrast.

Pressing TSKs #3 or #4 shall modify the contrast of the display according to the display.

To advance to SETTING #8 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

SETTING #8 : Resetting to zero the wrapping turntable.

Before fine tuning the wrapping turntable, the positioning of the turntable in line with the unloading ramp must be done previously. Refer to par. 9.6. The fine tuning is done by pressing TSKs #3 or #4 according to the display. The fine tuning adjustment range is from [– 5 to + 5]. Pressing TSK #2 will start an unload cycle. Check for proper operation, if not re-adjust until proper operation of unload cycle

To advance to SETTING #9 press TSK [+] on the HHRCU. To return to SETTING #2 press [-].

SETTING #9 : Matching TAC-08 HHRCU , with MCU.

Refer to section 8.3.4 for a description of the matching procedure.
When using a new TAC-08 HHRCU for the first time, this matching procedure must be done.

9 → Wrapping procedure for model 680

9.1 → <u>Wrapping with the 680 bale wrapper</u> :

Using a farm tractor.

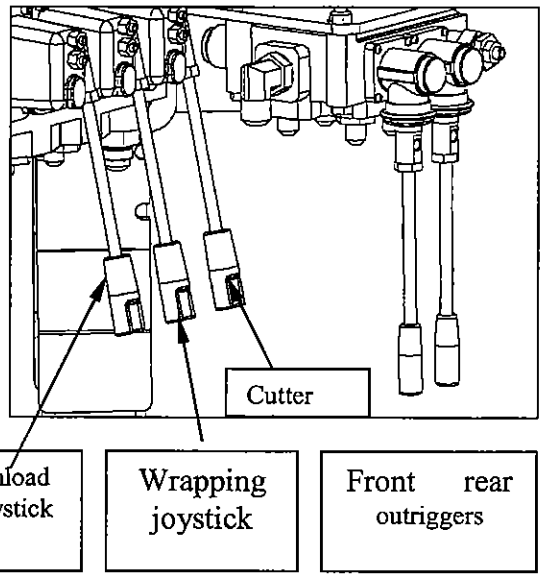
a) Clean all hydraulic fittings before connecting them to the tractor hydraulic power outputs and check for leaky connections, correct the leaky connection,

b) start tractor and adjust engine speed to get 8 gpm at 2000 psi.,

c) turn the **power on**, on both units both remote control units,

d) check the battery level indicator on the display on the HHRCU,

e) normally the message displayed on the HHRCU MENU #1



The bale wrapper is self powered

(equipped with a Honda 13 hp engine),

a) Check gasoline fuel level of engine and fill if necessary, wipe off the gasoline fuel spilled on the engine,

b) open engine gasoline fuel cock,

c) turn the power on, on both units both remote control units,

d) check the battery level indicator on the display on the HHRCU,

normally the message displayed on the HHRCU shall be MENU #5, or MENU #1,

MENU #5 starts the HONDA engine by pressing TSK #4 (choke is manual),

MENU #1 starts the wrapping job by pressing TSK #3,

if some other message is displayed refer to section 8.3, 8.7 & 8.8.,

e) start the Honda engine, When the Honda engine is equipped with an electric starter it is possible to start it remotely but the choke is manual.

Common procedure

f) open the hydraulic outriggers safety cocks when installed,

g) Extend the hydraulics outriggers by actuating the inverted joystick hydraulic actuator valves see figure above,

i) once the outriggers are set out, close the safety hydraulic cock,

j) remove the turntable lock key and secure the lock key in the wrapping position,

k) place the hay bale to be wrapped on the wrapping turntable,

l) press TSK #3 WRAP of MENU #1

m) Remove the unloaded bale to clear the unloading ramp

on model 680 the wrapping cycle is entirely automatic and ends by unloading the wrapped hay bale,

return to point "k" to wrap the next bale It is recommended to have a spare battery for the HHRCU

9 → Wrapping procedure for model 680

9.2 → Ending a wrapping job with model 680

a) if the wrapper has to be moved,
b) open safety hydraulic cock,
c) retract both front and rear outriggers,
d) close the safety hydraulic valve,
e) lock the wrapping turntable,
f) stop the Honda engine,
g) close gasoline fuel cock,
h) turn off both remote control units.

9.3 →Wrapping manually.

If for any reason the remote control unit fails to operate it is always possible to wrap bales manually refer to sections #5 & #6 wrapping with model 580 bale wrapper

9.4 → Unloading safety lock enable.

It the wrapping turntable is not properly adjusted, the unloading operation will be disabled and an error message shall be displayed on the HHRCU window.

When the " unload error " message appear on the HHRCU,

a) stop the wrapping cycle and remove the bale on the wrapping turntable,

b) turn off the HHRCU and then turn it back on, Menu #4 "ALIGN" shall appear in the display window of the HHRCU,

c)start the unload alignment,

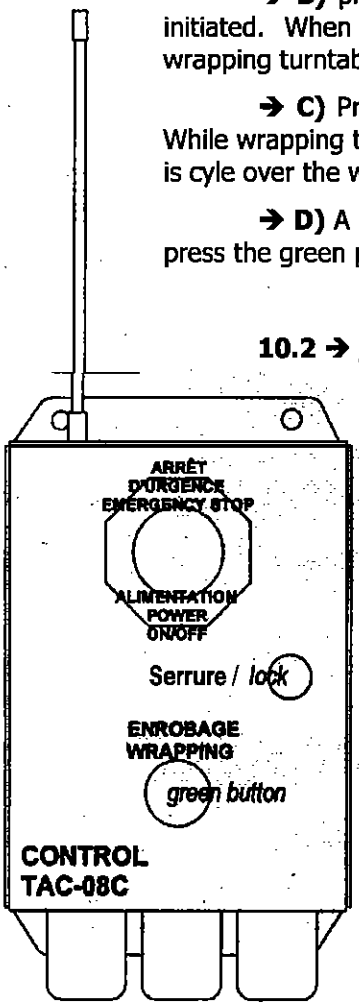
refer to section 8.8 / **SETTING #8 : Resetting to zero the wrapping turntable.**

10 ➔ Bale wrapping. Model 680 without HHRCU

10.1 ➔ Without the hand held remote control unit:

When the wrapping parameter are already in the memory of the receiver unit, it is possible to wrap bales manually. The remote control unit must be used to modify the parameter.

➔ **A)** Turn the TAC-08 RF receiver by turning on the ON / Off "POWER" button clockwise, as shown by the arrow. The green lighted **T**ouch **S**ensitive **K**ey (TSK) "WRAPPING" will start to blink regularly meaning the machine is ready to be set in the starting position.



➔ **B)** press the green lighted pushbutton "WRAPPING" and the set-up procedure will be initiated. When the green light stays on steady, the wrapper is ready. Place a hay bale on the the wrapping turntable / loading arm if wrapper is so equipped.

➔ **C)** Pressing the green pushbutton once more will start the wrapping cycle of the bale. While wrapping the green light will blink with a duty cycle of 75% ON 25% OFF, once the wrapping is cyle over the wrapped hay bale will be unloaded automatically.

➔ **D)** A new hay bale should be placed on the wrapping turntable /loading arm. Once done press the green pushbutton and a new wrapping cycle shall begin

10.2 ➔ <u>Error messages</u>

When operating without the RF remote control unit:

When a problem occurs while wrapping the green pushbutton will start flashing in sequences of:

➔ two (2) flashes,
mean the rotation sensors are not connected properly.
Refer to Error on the rotation sensors/rotation paragraph no 8.7.

➔ three (3) flashes

means the reset to Zero [Error on the table starting position reset to start pos. /start position set-up (refer to no 9.7)

➔ four (4) flashes
Error with the unloading platform
refer to menu 9.6 unloading

➔ no flash : the problem may be caused by a break in the plastic wrapping film. Check program mode setting #5 The wrapping cycle stops when the plastic wrapping film is torn off when the plastic film roll is finished.

or.

If its not the case, the only way to find out the problem is with the HHRCU (hand held remote control unit) errors messages refer to section # 8.7).

11➔ Maintenance & storage

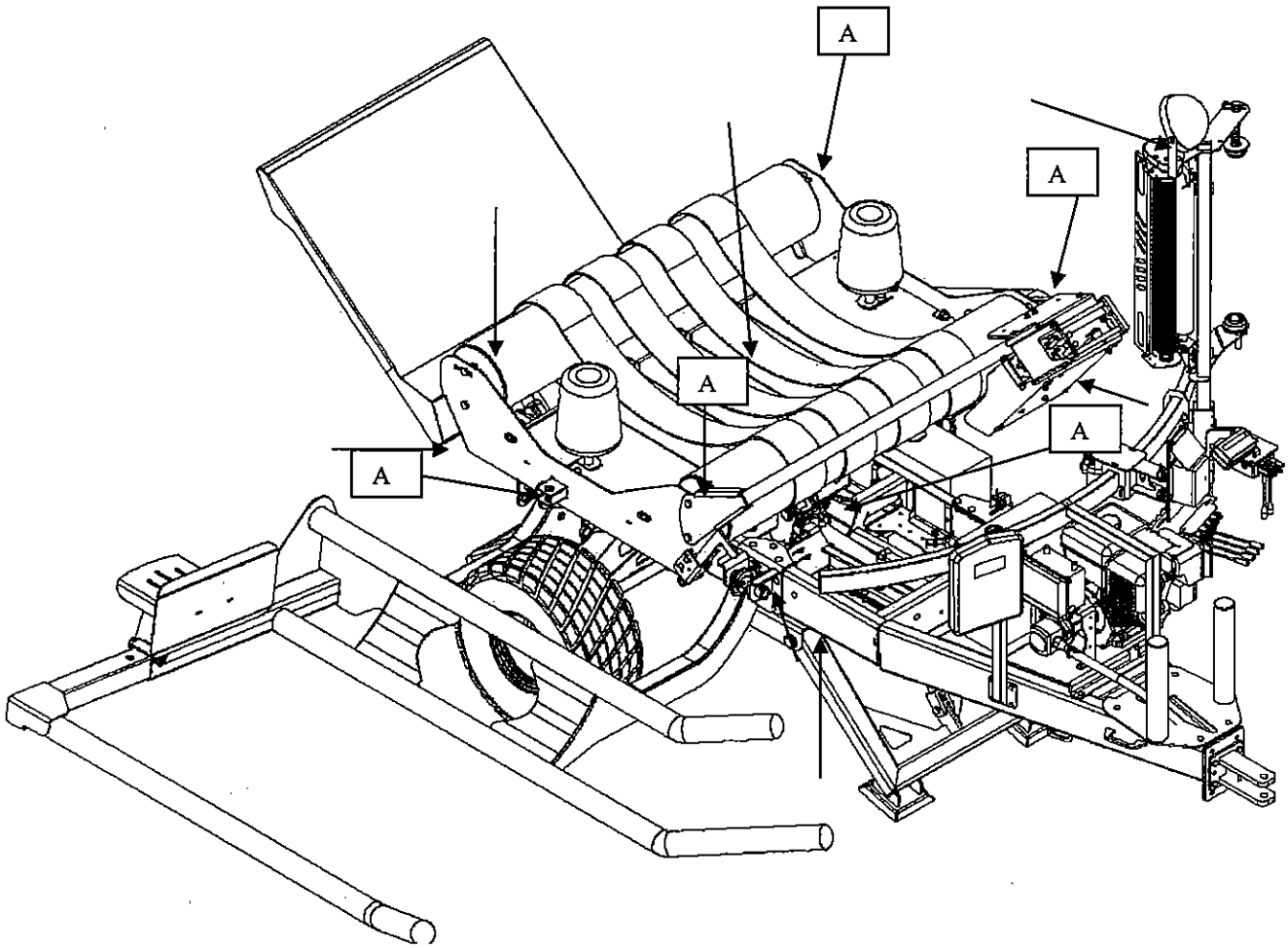
11.0 ➔ Servicing.

NOTE : When servicing the bale wrapper always turn-off which ever hydraulic power unit used with your wrapper. Refer to section # 3.7 for security advices and do not forget to turn off the radio remote control receiver,

11.1 ➔ Lubrication :

A grease gun must be used to lubricate the many grease points on the bale wrapper:

It is recommended to use synthetic lubricating products



Every 1000 bales : A- The 4 main bearings (1 grease cups at each end of driving drums) "A".

Every 500 bales : - Both front & rear stabilizers (2 grease cups / stabiliser)

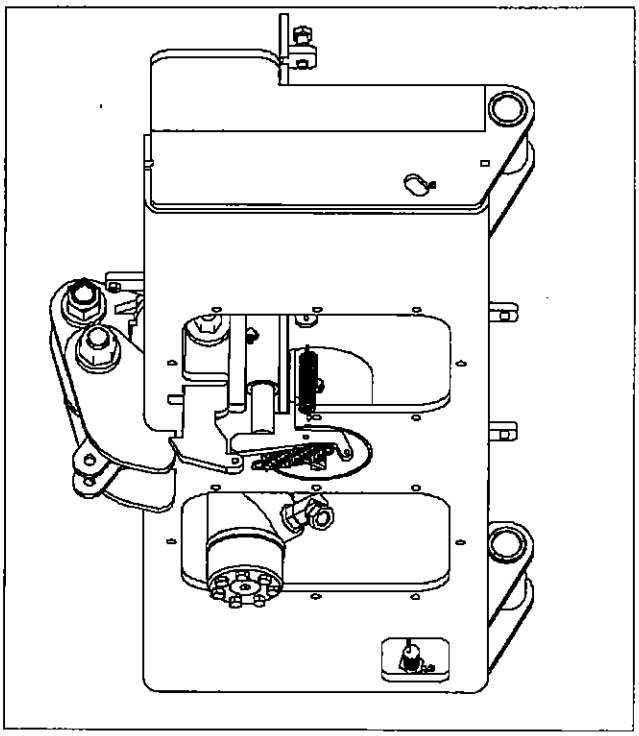
Every 200 bales : - The unloading ramp shaft (2 grease cups)

- The plastic film main shaft (1 grease cup).

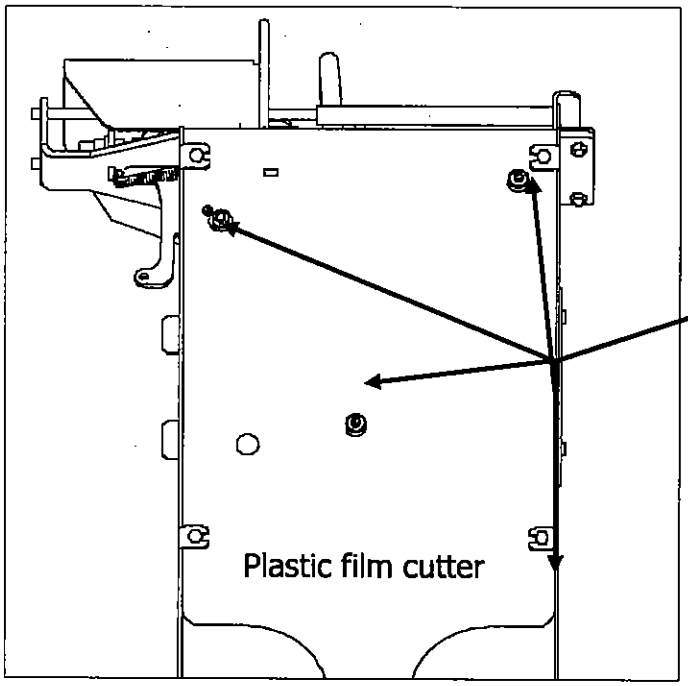
B- Bale loading arm pivot (2 grease cups),

- The main turntable pivot (1 grease cup)

11.1 → Maintenance and storage (cont'd)



Underneath partial view



11.1 → Grease gun lubrication(cont'd) :

Every 2000 bales :

- The plastic film cutter has 4 grease cups.
(3 underneath & 1 on the side)

11.2 → General lubrification :

All driving chains and gears of the bale wrapper including those on the plastic film stretcher need to be lubricated every 50 hours of operations

11 → Maintenance & Storage.

11.3 → General maintenance :

11.3.1 – Plastic film cutter & stretcher must be kept free of dust, dirt, hay strands and plastic pieces in order to have a clean cut every time a hay bale is wrapped. The cutting edge of the film cutter shall be kept sharp & clean at all times

11.3.2 – The aluminium rollers and gearwheels of the film stretcher must be kept clean. This will prevent the plastic film to perforate or tear–off. Clean the plastic film stretcher rollers with penetrating oil, rubbing alcohol or paint thinner.

11.3.3 – Remove any hay strands that can get stuck in the shafts and/or gear wheels of the bale wrapper in order prevent the hydraulic motor to deliver unnecessary power.

11.3.4 – When the bale wrapper operates as a stand alone with the hydraulic power unit we recommend to :

Follow the recommendations specified in the operating manual of the Honda 13 hp engine supplied with the hydraulic power unit,

Change hydraulic oil, oil filter and oil strainer every 5000 wrapping cycles.

To keep the area around the gas engine clean and free of any flammable product such as dry hay, dust ...etc.

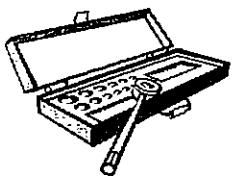
11.4 → Storage:

At the end of each day when stopping the machine do not forget to turn off the gasoline inlet cock. This will prevent the gasoline fuel to sep in the oil-pan and damage the engine.

When the bale wrapper is stored for long period of time (winter) a general clean-up and a complete maintenance job should be done on the machine. A good maintenance job will prevent rust and jamming of the moving parts. It is recommended to block the wheels of the wrapper when it is stored away for long periods of time.

12 → Troubleshooting : Faults & corrections.

The table below is giving the most common faults with the causes and the appropriate solution to correct the each problem. Please check that table before calling your local dealer for technical help.

12.0 → Fault	→ Causes	→ Corrective action
12.1 – IG-C3 counter not working.	1 – Weak battery / Low voltage.	1 – Charge battery with AC/DC supplied charger or
12.2 – TAC-08C Main Control Unit faulty	1 – no power from tractor electric ckt. Supply voltage low. **MCU needs a minimum of 11 vdc.**	1 – Check tractor battery, clean post if needed. Check fuse and replace if needed. 2 – Check alternator circuit and repair if needed.
12.3 – TAC-08 HHRCU not working	1 – Rechargeable battery weak.	1 – Charge rechargeable battery. Work HHRCU with charger connected.
12.4 – Wrapper is erratic	1 – Low supplied voltage. Minimum voltage is 11 vdc.	1 – Check battery post & clean if needed. 2 – Check wiring & repair if needed. 3 – Check alternator & repair if needed.
12.5 – Motor of hydraulic power unit not working (option) 	1 – Gasoline fuel inlet cock closed. 2 – Empty gasoline fuel tank. 3 – Low oil level sensor activated. 4 – Dirty or faulty spark plug. 5 – Flooded engine. ***Gas inlet cock was left open.***	1 – Open gasoline fuel inlet cock. 2 – fill gasoline fuel tank. 3 – Add motor oil to engine & re-start. 4 – Clean the spark plug & replace if needed. 5 – Remove spark plug and dry it up, Turn off gas inlet cock and crank engine a few turn to dry up cylinder. Replace spark plug, turn on gasoline fuel inlet cock. Re-start engine.
12.6 – Wrapping turntable turns slow or not at all	1 – Low hydraulic oil level 2 – Low hydraulic oil pressure. 3 - High hydraulic oil temperature	1 – Check for hydraulic oil leaks and repair. *Add hydraulic oil if necessary* 2 – Add hydraulic oil if necessary 3 – Check thermometer on hydraulic oil tank, wait for the hydraulic oil to cool down.
12.7 – Wrapping not adequate 	1 – Plastic wrapping film perforates or breaks while wrapping 2 – Wrapping plastic film not stretch on hay bale.	1 – A - Check if plastic film damaged, replace if needed 1 – B - Check film stretcher operation, remove particles and clean 1 – C - The plastic film is too soft, it was exposed to sun rays for too long, change plastic film roll 2 – A - Check installation of plastic film, it must be installed according to figure (# 6.4 p. XX). 2 – B - Check stretcher for worn parts, repair & replace parts if needed.
12.8 – plastic film cutter faulty	1 – The plastic film slips through retaining jaws.	1 – Too much swing on the rubber butt roller. Reduce swing by adjusting stop bolt. 2 – Tighten the spring of rubber butt roller.

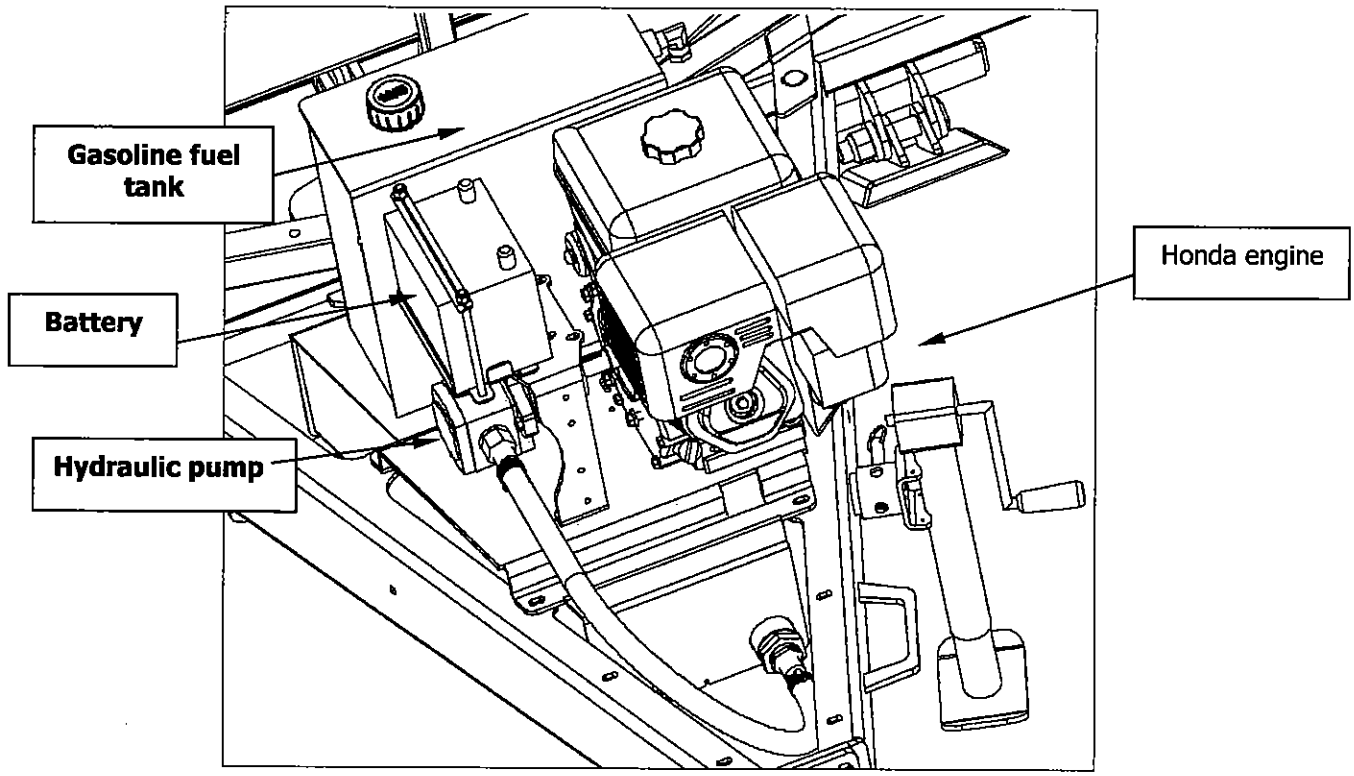
13 → Optional equipment.

13.0 – OPTIONS AVAILABLE FOR	model 580	model 680
Hydraulic power unit c/w 13 hp Honda motor	X	
Hydraulic power unit c/w 13 hp Honda motor & electric starter	X	
Hydraulic power unit c/w 13 hp Honda motor & electric starter Work light	X	X
Front outrigger (stabilizer)	X	X
Rear outrigger (stabilizer)	X	X
Bale loading basket	X	X

13.1 → Hydraulic power unit

Bale wrappers model 580 and 680 are stand alone when equipped with an hydraulic power unit. The unit includes :

- a Honda 13 hp gas engine.
- an hydraulic pump and adaptor fittings,
- an hydraulic oil tank c/w oil filter and strainer.



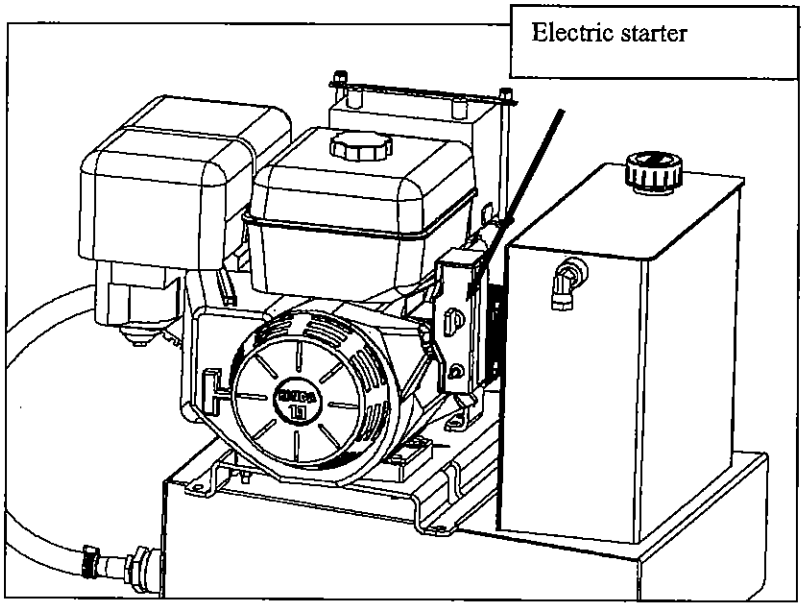
The maintenance of the Honda gasoline engine should be made according to the recommendations in the operating manual supplied by Honda motor.

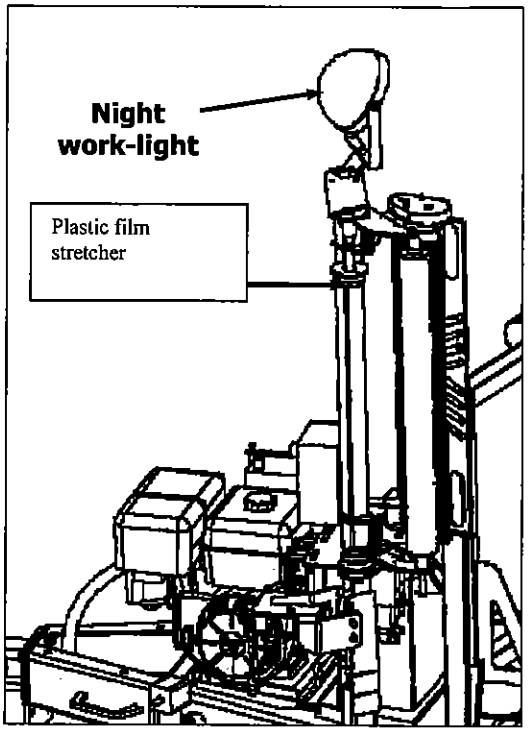
The air filter should be checked before beginning a bale wrapping session and cleaned if needed.

It is recommended to change the hydraulic oil, replace the oil filter and the oil strainer every 5000 bales.

13.2 ➔ Electric starter & Electric starter c/w 18 amps alternator & work-light

These two options are available when installing a Honda 13 hp gasoline fuel engine hydraulic power unit the night work-light is mounted above the plastic film stretcher.



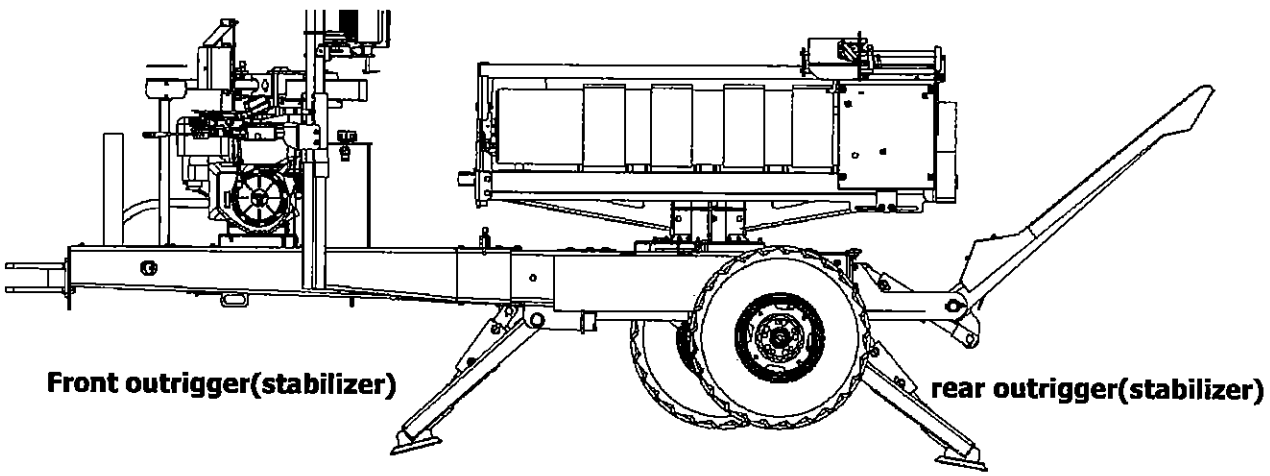


➔ 13.3 ➔ Front & rear

Outrigger/stabilizers.

➔ When the bale wrapper is operated as a stand alone it must be equipped with front and rear stabilizers (outriggers) units. Each of these two stabilizers (outriggers) units are lowered by an hydraulic cylinder which are actuated with a joystick hydraulic valves. Each stabilizer circuit has a manual security lock cock which will prevent each stabilizer to collapse when extended. .

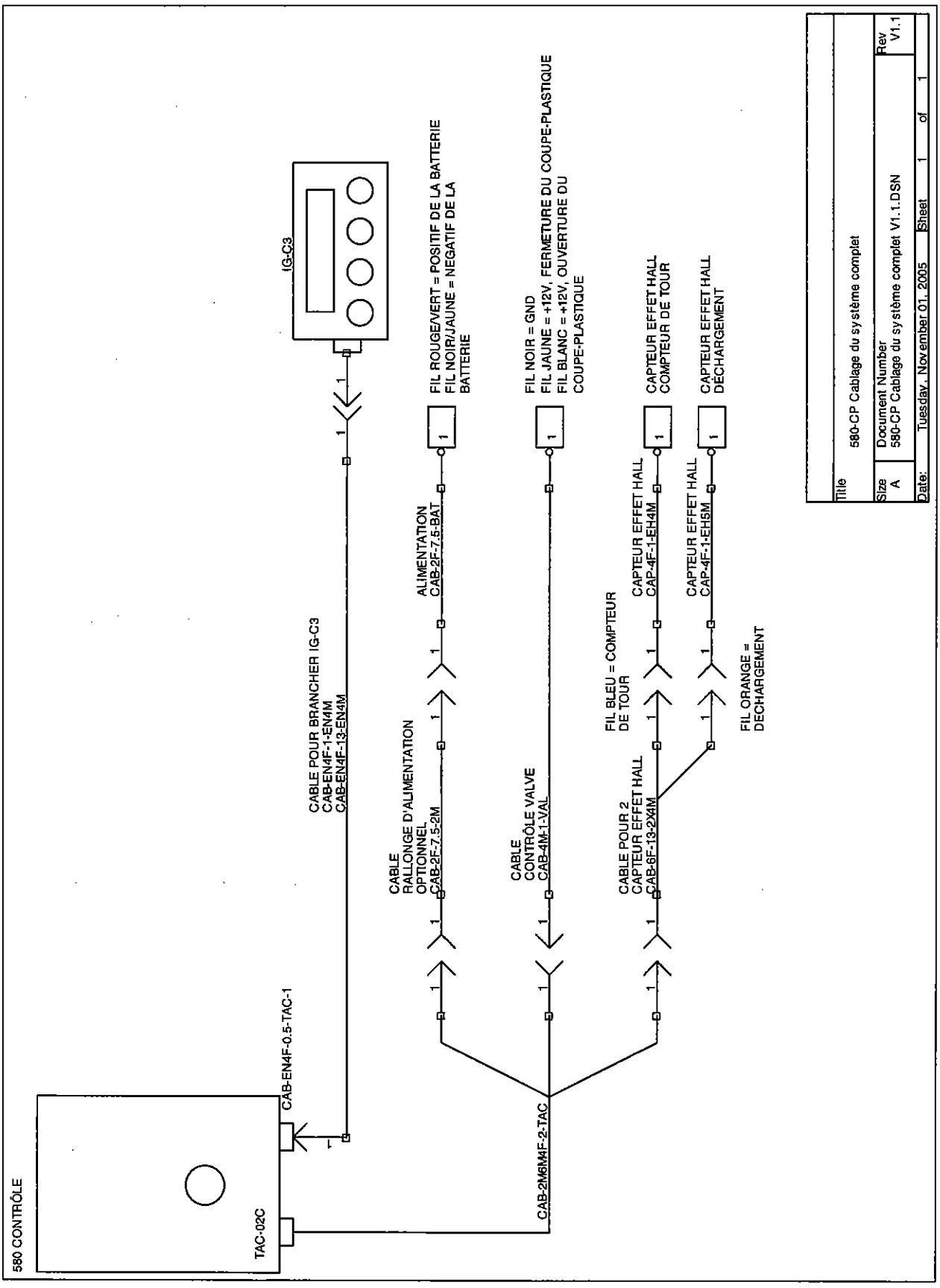
When only one farm tractor is available the wrapper must be equipped with the stand alone hydraulic power unit and both sets of stabilizers (outriggers) With the Model 680 bale wrapper unit ,only one operator is needed to do the bale wrapping work,



- End -

Electric diagram of the 580 wrapper

Note : the wiring of the control box version 1 is not compatible with the version 2



Electric diagram of the 680 wrapper