



Bale Wrapper Controller (TW)

For Models 280, 404, 580, 1080

Operating Instructions

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Electromagnetic Compatibility (EMC)



This product complies with Council Directive 89/336/EEC when installed and used in accordance with the relevant instructions.

Our policy is one of continuous improvement and the information in this document is subject to change without notice. Check that the software reference matches that displayed by the instrument.

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1. Introduction

The Tanco Autowrap Bale Wrap Controller enables the operator to monitor and control the operation of the bale wrapper at any stage of the wrapping cycle. The controller is designed for models: 280ARC, 404EH, 580A, and 1080A table-type wrappers.

There are 2 main operating modes – Automatic and Manual. The automatic mode permits ‘one-touch wrapping’ to ease the workload on the operator. In addition to the standard auto-wrap cycle where the bale load arm is operated manually, for the 580A and 1080A wrappers, bale loading and unloading can be incorporated into the standard auto-wrap cycle (the ‘AUTOLOAD’ option).

The controller is fully programmable to optimise wrapping performance. Bale counts are automatically logged in any one of 10 selectable memory stores, in addition to a grand total memory store.

1.1 IMPORTANT SAFETY INFORMATION!

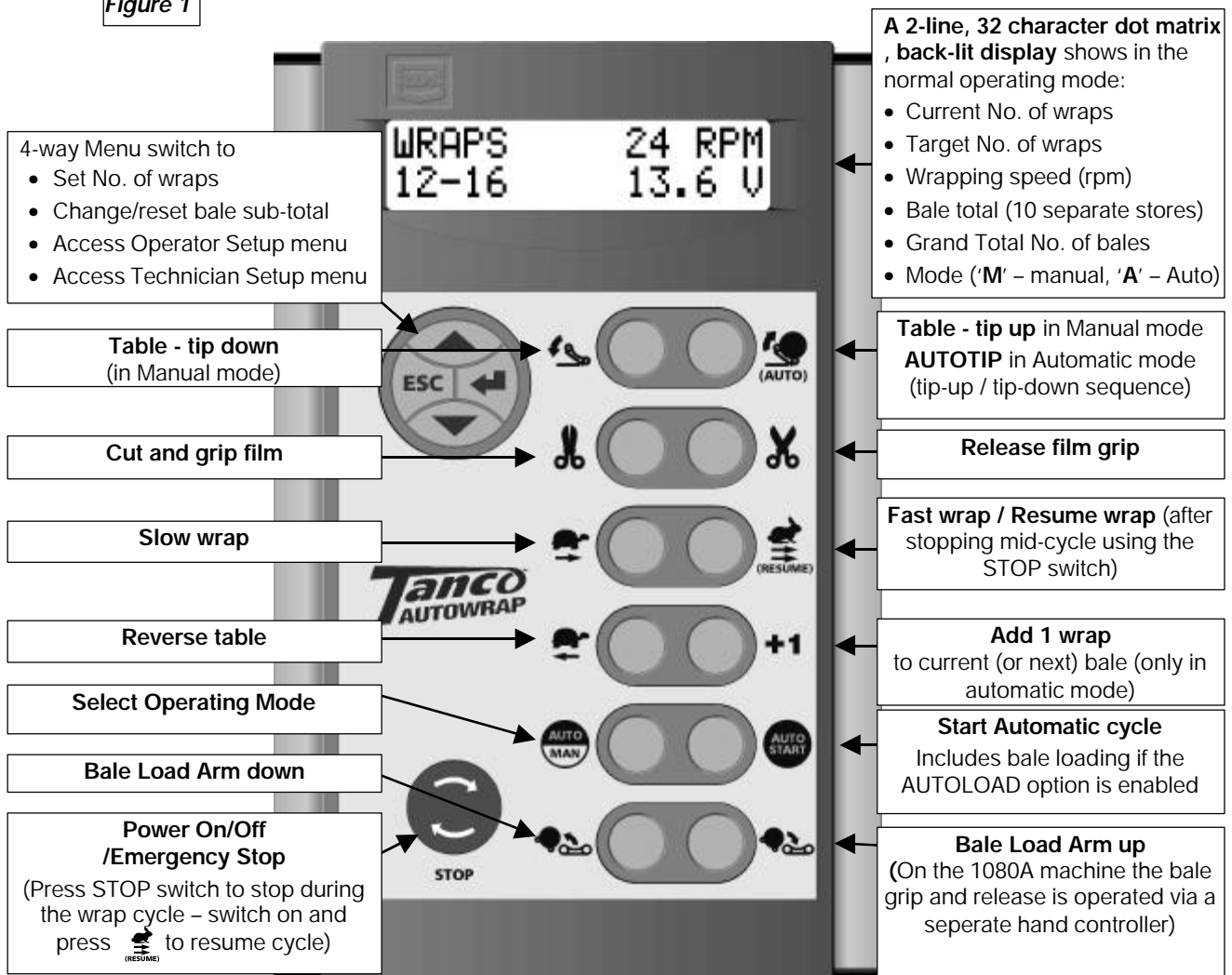


- Please read and understand the instructions for using this controller before operating the machine.
- This controller is fitted with a pushbutton type On/Off Emergency Stop switch. Always ensure the controller is switched OFF via this switch before attempting any adjustment or maintenance to the machine.
- The machine is fitted with a safety beacon which is automatically activated when a loading, wrapping or tipping operation is initiated via the controller. If the beacon is off, do not assume it is safe to move into the proximity of the machine unless you have confirmed that the controller is switched off and the machine power source is disengaged.
- For safety reasons the 280ARC machine beacon will begin flashing 3 seconds before the automatic cycle commences, after initiating the wrapping cycle via remote control. If the beacon begins flashing when you are in proximity to the machine, then **immediately** stand clear.
- Please follow ALL other safety instructions given in the manufacturers’ Operator Handbook for the machine.

1.2 Main operating Functions and Display

The principal instrument features and operating functions are shown in figure 1 below.

Figure 1



1.3 Remote Control Handset

To provide maximum flexibility for the operator in controlling the wrapper, the Tanco Autowrap controller is also supplied with a wireless handset (fig. 2) remotely controlling the 4 functions - Start, Stop, Slow Wrap and Reverse Table. The handset incorporates an LED indicator which flashes when a switch is pressed.

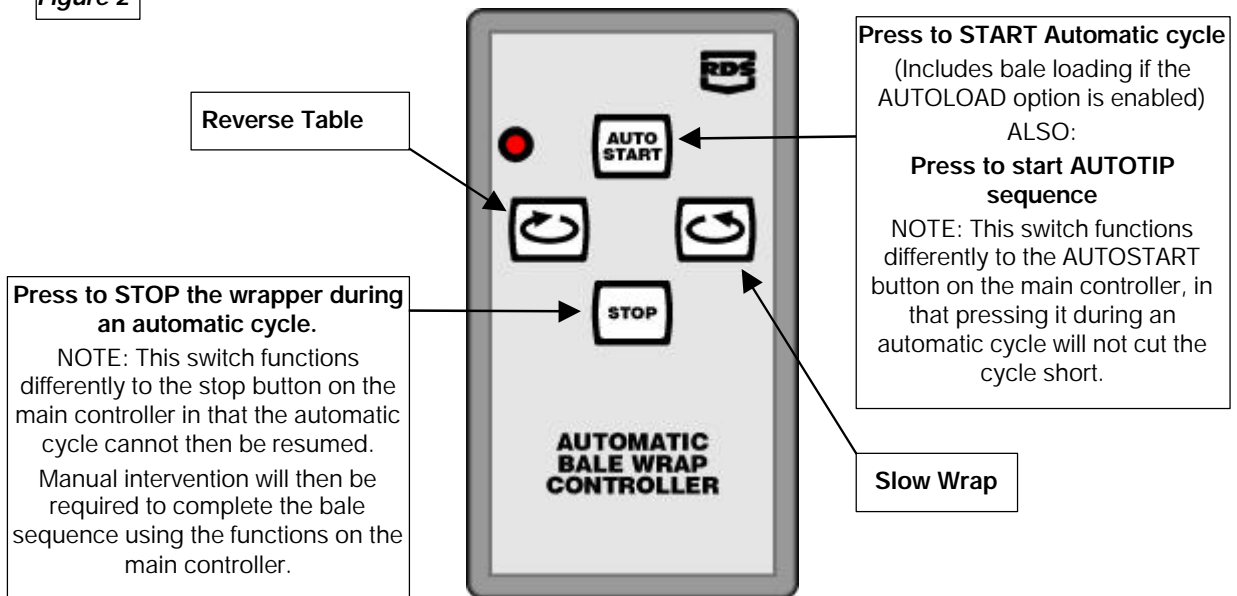


When the wrapper is powered, the operator must take care to ensure that the remote handset is used in a manner such that the buttons are not inadvertently pressed if they or any other person(s) are in the vicinity of the machine.

For safety reasons the machine beacon will begin flashing 3 seconds before the automatic cycle commences, after initiating the wrapping cycle via the remote control. If the beacon begins flashing when you are in proximity to the machine, then immediately stand clear.

NOTE: The handset operates only in line of sight of the receiver module. The normal operating range is up to 25m, however, the range may exceed this depending on local conditions. If the handset only operates at short range or not at all, then first check and replace the battery at the rear (9V PP3).

Figure 2



2 Operation

2.1 Operation in Automatic mode

The controller is generally used in automatic mode. With AUTOLOAD setup (580A / 1080A only), bale loading is incorporated into the automatic cycle for complete 'one touch wrapping'.

'A' on the display indicates that the controller is set in Automatic mode. If not, press to select.

AUTOLOAD Sequence

Bring the machine up to the bale and press the switch to commence the automatic sequence – Load, Wrap and Tip Off.

NOTE: The load arm cannot be operated manually to ready the next bale during the wrapping cycle.


Non-AUTOLOAD Sequence

1. Bring the machine up to the bale, then press and hold the switch to load the bale.

NOTE: On the 1080A machine, the bale grip and release function is operated via the buttons on the hand controller.

2. Press and hold the switch to lower the lift arm.
3. Press the switch to commence the automatic wrapping cycle (press AUTOSTART on the remote control if being used). The cycle is completed when the target number of wraps has been reached. If on the main controller is pressed during wrapping, the wrapping cycle will be cut short.
4. Press the switch to tip the bale off and automatically position the table for loading cycle (press AUTOSTART on the remote control if being used).

2.2 Manually interrupting an automatic wrapping cycle

Press the STOP switch. Pressing the  switch after switching the controller back on will resume the auto-wrap cycle from where it stopped. (RESUME)




For safety reasons, if it is necessary to work on the machine (e.g. in the event of a film break or the film running out), then it is strongly recommended that you disengage the machine power source.

2.3 Manual options in Automatic mode

With the controller in automatic mode, the following manual functions are possible.



SLOW WRAP (only enabled outside of the wrapping sequence). Press  to resume the normal fast wrap. (RESUME)



REVERSE TABLE (only enabled outside of the wrapping sequence). Press this button to nudge the table backwards to the desired position.

(Both of the above functions are available on the remote control if being used)




ADD 1 WRAP Each time you press this button an additional wrap will be put on the current bale if the wrapping sequence is in progress, or onto the next bale if the automatic cycle has not yet been started. You can add as many wraps as required.



LOAD UP /LOAD DOWN If the 'Autoload' sequence is not selected (580A /1080A only), then you can engage and pick up the next bale while the current bale is being wrapped.

2.4 Operation in Manual mode

'M' on the display indicates that the controller is set in manual mode. If not, press  to select.

In manual mode you have total control of every stage of the wrapping cycle.

The software logic determines which manual functions can be activated at any point in the wrapping cycle. Should the operator incorrectly select a function at a certain stage during the wrapping cycle, then that operation will not be performed.

2.5 The Display Menu

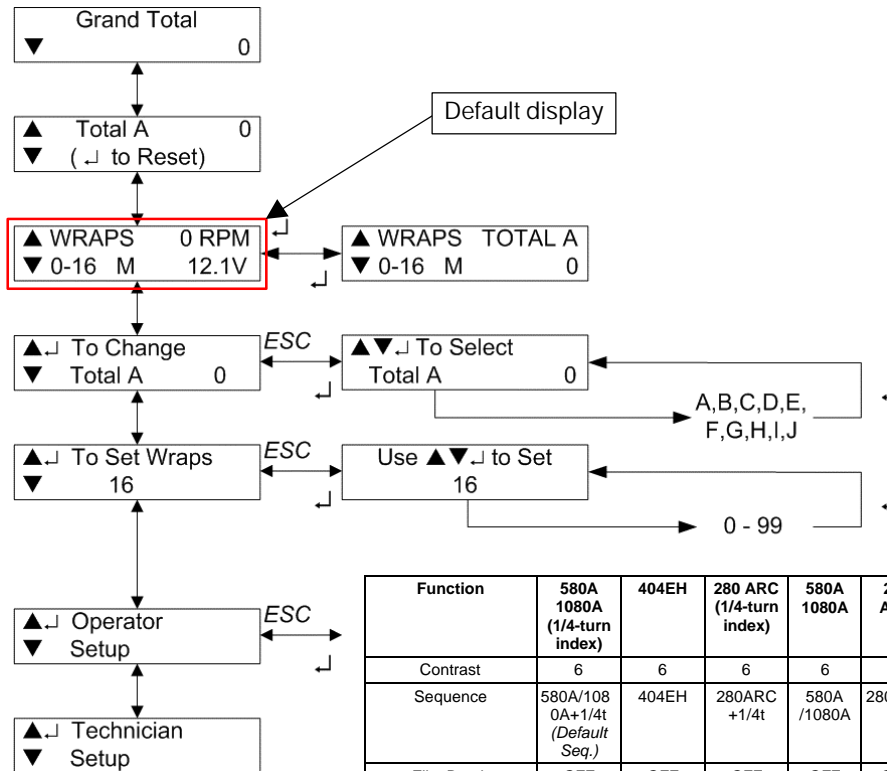
The Display menu is divided into 3 sections. At the top level are the settings used during the daily work with the machine – i.e. Store totals and No. of Wraps.

The Operator Setup' section enables the operator to perform adjustments to the machine operation – e.g. time duration and time delay settings during the automatic cycle.

The 'Technician Setup' menu is not normally accessible to the operator without a PIN access code. 'Technician Setup' is not covered by this manual.

Use the 4-way switch to navigate the menu. Each menu screen indicates which keys to press to make the settings. The instrument will default back to the main operating display after 30 seconds if no other key is pressed

Here is a summary of the display menu;



Function	580A 1080A (1/4-turn index)	404EH	280 ARC (1/4-turn index)	580A 1080A	280 ARC	580A AUTO LOAD	1080A AUTO LOAD	Range	Res.
Contrast	6	6	6	6	6	6	6	0-12	1
Sequence	580A/108 0A+1/4t (Default Seq.)	404EH	280ARC +1/4t	580A /1080A	280ARC	580A Auto Load	1080A Auto Load		
Film Break	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON/OFF	
Cl Ctr Hyd	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OC/CC	
Squeeze In Duration	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0-9.9s	0.1s
Load Up Duration	0.0	0.0	0.0	0.0	0.0	5.0	5.0	0-9.9s	0.1s
Squeeze Out Duration	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0-9.9s	0.1s
Load Down Pause	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0-9.9s	0.1s
Tip Up Duration	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0-9.9s	0.1s
Tip Up to Tip Down Delay	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0-9.9s	0.1s
Tip Down Duration	4.8	6.0	4.8	4.8	4.8	4.8	4.8	0-9.9s	0.1s
Delay before Slow Stop (Fast Last Rev)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0-9.9s	0.1s
Delay to stop after last pulse	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0-9.9s	0.1s
Load Down Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0-9.9s	0.1s
Language	English	English	English	English	English	English	English	E/F/D/N L/DK	

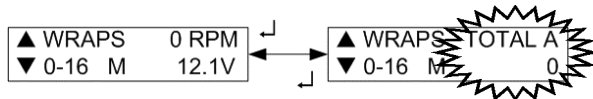
NOTE 1: There are additional sequences selectable in the Operator Setup menu but not shown in the table. These sequences are for wrapper models to which this manual does not apply.

NOTE 2: Squeeze In Duration, Load Up Duration, Squeeze Out Duration and Load Down time are all set to zero by default. To enable automatic loading, these delay times must be set accordingly.

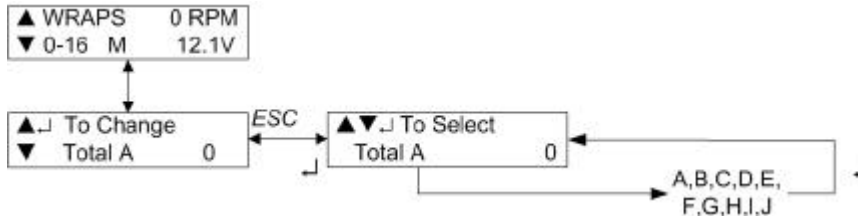
Please refer to section 3 for further explanation of the Operator Setup functions given in the table above.

2.6 Selecting a Store Total

There are 10 individual memory registers labelled 'Store A' to 'Store J' for bale totals. Each time a bale cycle is completed, the currently selected store total and the grand total increments by 1. The currently selected store is displayed on one of the two screens selectable in the normal operating mode.



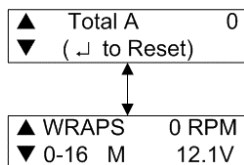
The default setting is Store A. To select a particular store, navigate the display menu using the 4-way switch.



Press the up/down arrow keys to select the store, then press the ENTER key to confirm the selection.

2.7 Resetting a Store Total to Zero

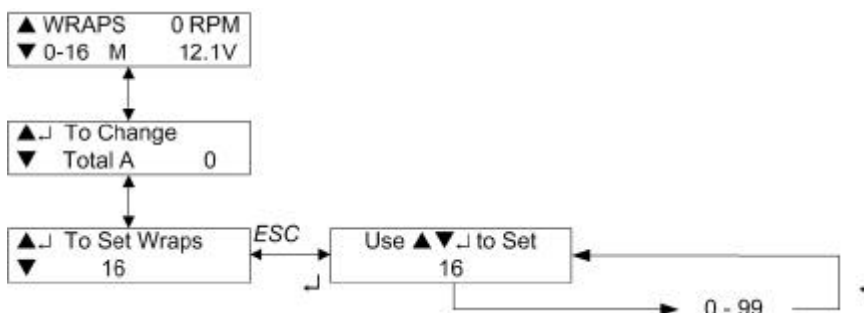
Stores A to J can be individually reset to zero at any time. The Grand Total store cannot be reset. First select the store to be zeroed, then navigate the display menu as shown below.



Press the ENTER key to reset.


2.8 Setting the Number of Wraps

The default number of wraps is 16. You can set the target number from 0 to 99 by navigating the display menu as shown below.



2.9 Film Break Alarm (Optional)

If the film breaks or runs out during the wrapping cycle, the instrument will sound an audible alarm and the display will show 'FILM BREAK'.

Wrapping will stop at this point. Press  when you are ready to resume the auto-wrap cycle.

3 Operator Setup Menu

The default settings for the machine are developed by Tanco for optimal operation of the machine. However, the operator can change certain parameters in the 'Operator Setup' menu to take account of operational conditions.

Factor	Parameter	Default	Application	Description
-	'Film Break'	OFF	N/A	N/A
-	'CL CTR HYD'	OFF	All	Closed Centre Hydraulic Valve operation: 'OFF' – System pressure valve dumps to tank when no function is operating (for tractors with fixed-output hydraulic system). 'ON' – System pressure valve stays energised (for tractors with demand-sensing hydraulic system).
BA	'Squeeze IN'	2.0s	1510S,1514 S, 1514T only	The time period required for the gripper arm to grip the bale sufficiently. Increase setting if the bale grip is insufficient.
BB	'Load UP'	5.0s	580A AUTOLOAD 1080A AUTOLOAD	The time period required for the load arm to reach the point at which the bale transfers onto the table. Adjustment may be required to set the optimum stopping point. If bale transfer is inconsistent, then increase setting to raise the stopping point
BC	'Squeeze OUT'	3.0s	1080A AUTOLOAD only	The time period required for the gripper arm to release the bale. Increase setting if the bale gripper arm does not extend sufficiently.
BD	'Load DOWN Pause'	0.0s 3.0s	All except 1080 AUTOLOAD 1080A AUTOLOAD	The pause duration after the load arm reaches its uppermost position, to allow for the bale to transfer onto the table rollers. Adjustment may be required depending on the size/type of bale. Increase setting if the bale does not transfer in sufficient time.
H	'Tip UP'	4.0s	All	The time period required for the table to reach the tip off position and offload the bale. Increase setting if the table does not tip far enough.
J	'Tip Up to DOWN'	0.3s	All	The pause duration after the table has tipped up, to allow for the bale to roll off.
K	'Tip Down'	4.8s	All	The time period required for the table to return to the horizontal position. Increase setting if the table does not fully return onto the supporting base
E	'Fast Last Rev'	1.2s	All	Set the point at which the table slows down towards the end of the wrapping cycle. Adjustment may be required depending on the weight of the bale. Decrease setting if the table overshoots the Stop position.
AE	'Delay to Stop'	0.0s	All	Set to adjust the table Stop position.
AL	'Load Down Time'	0.0s	All	This factor will set the height of the load arm in the lower position. Normally set by the load arm sensor, the stop position if too high, can be lowered by increasing the time setting.
	Language	English	All	Sets the language for the display prompts.

