Bale Wrapper Controller (RA)

For Models 1300, 1510, 1514

Operating Instructions

RDS Part No.:	S/DC/500-10-391
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Electromagnetic Compatibility (EMC)

$C \epsilon$

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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Service and Technical Support

PLEASE CONTACT YOUR NEAREST TANCO DEALER OR TANCO

Tanco Autowrap Ltd
Bagenalstown
Co. Carlow
Ireland
Tel: +353 (0)503 21336
Fax: +353 (0)503 21737
e-mail: info@tanco.ie
web: www.tanco.ie

Contents

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 : 1300EH, 1510EH, 1510T, 1514S, and 1514T rotating-arm type wrappers.

There are 2 operating modes – Automatic and Manual. The automatic mode permits 'one-touch wrapping' to ease the workload on the operator. 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.

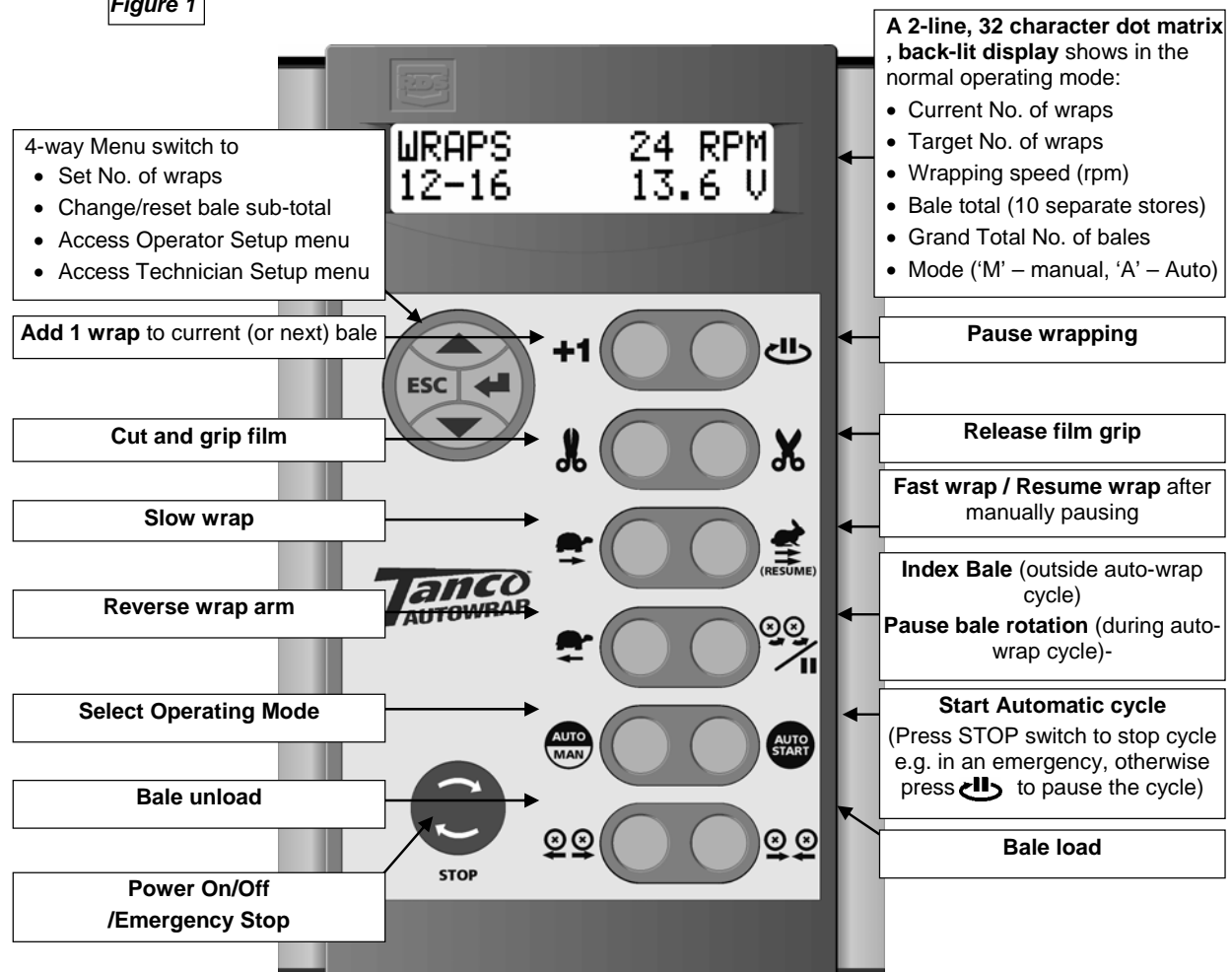## 1.1   IMPORTANT SAFETY INFORMATION!

- 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.
- Please follow ALL other safety instructions given in the manufacturers' Operator Handbook for this machine.

1.2   Main operating Functions and Display

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

Figure 1

4-way Menu switch to
- Set No. of wraps
- Change/reset bale sub-total
- Access Operator Setup menu
- Access Technician Setup menu

Add 1 wrap to current (or next) bale

Cut and grip film

Slow wrap

Reverse wrap arm

Select Operating Mode

Bale unload

Power On/Off /Emergency Stop

A 2-line, 32 character dot matrix , back-lit display shows in the normal operating mode:
- Current No. of wraps
- Target No. of wraps
- Wrapping speed (rpm)
- Bale total (10 separate stores)
- Grand Total No. of bales
- Mode ('M' – manual, 'A' – Auto)

Pause wrapping

Release film grip

Fast wrap / Resume wrap after manually pausing

Index Bale (outside auto-wrap cycle)
Pause bale rotation (during auto-wrap cycle)-

Start Automatic cycle
(Press STOP switch to stop cycle e.g. in an emergency, otherwise press ⏻ to pause the cycle)

Bale load

2   Operation

2.1   Operation in Automatic mode

The controller is generally used in automatic mode for 'one touch wrapping'.

1. '**A**' on the display indicates that the controller is set in Automatic mode. If not, press (AUTO MAN) to select.

2. With the rollers in the open position (step 4), bring the machine up to the bale.

2. Press the ⊗⊗ switch* to move the rollers to the closed position.

3. Press the (AUTO START) switch to commence the automatic wrapping cycle. The cycle is completed when the target number of wraps has been reached.

4. Press the ⊗⊗ switch* to move the rollers to the open position to unload the bale.

    *   The controller must be configured in the Operator Setup menu (section 3) so that this is a 'one touch' function in automatic mode. Otherwise you must hold the switch for the required duration (as remains the case in manual mode).

2.2   Manually interrupting an automatic wrapping cycle

Press the ⊝ switch to bring the wrapper to a controlled stop. Pressing the ⦿ switch will continue 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 then switch the controller off via the red stop button and disengage the machine power source. Pressing the ⦿ switch after switching the controller back on will resume the auto-wrap cycle from where it stopped.
(RESUME)

Unless it is an emergency situation, do not bring the machine to a stop by pressing the red stop button as this will impose unnecessary strain on the machine.

2.3   Manual options in Automatic mode

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

🐢 **SLOW WRAP** (not during the wrapping sequence). Press ⦿ to resume the normal fast wrap.
(RESUME)

🐢 **REVERSE WRAP ARM** (only enabled outside of the wrapping sequence). Press this button to nudge the wrap arm backwards to the desired position.

⊗⊗ **PAUSE BALE ROTATION (function active during auto-wrap cycle)**. Hold this button to add more film to a particular part of the bale. Release the button when sufficient additional film has been applied.

⊗⊗ **BALE INDEXING (function active outside auto-wrap cycle)**. Press and hold this button to index the bale. Release the button when the bale is at the desired position.

NOTE: The controller can be configured from the 'Operator Setup' menu (section 3) so that this is a 'one-touch' function and the bale will then index for the preset period (e.g. to allow a ¼ turn).

+1 **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.

2.4   Operation in Manual mode

'**M**' on the display indicates that the controller is set in manual mode. If not, press (AUTO MAN) 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.
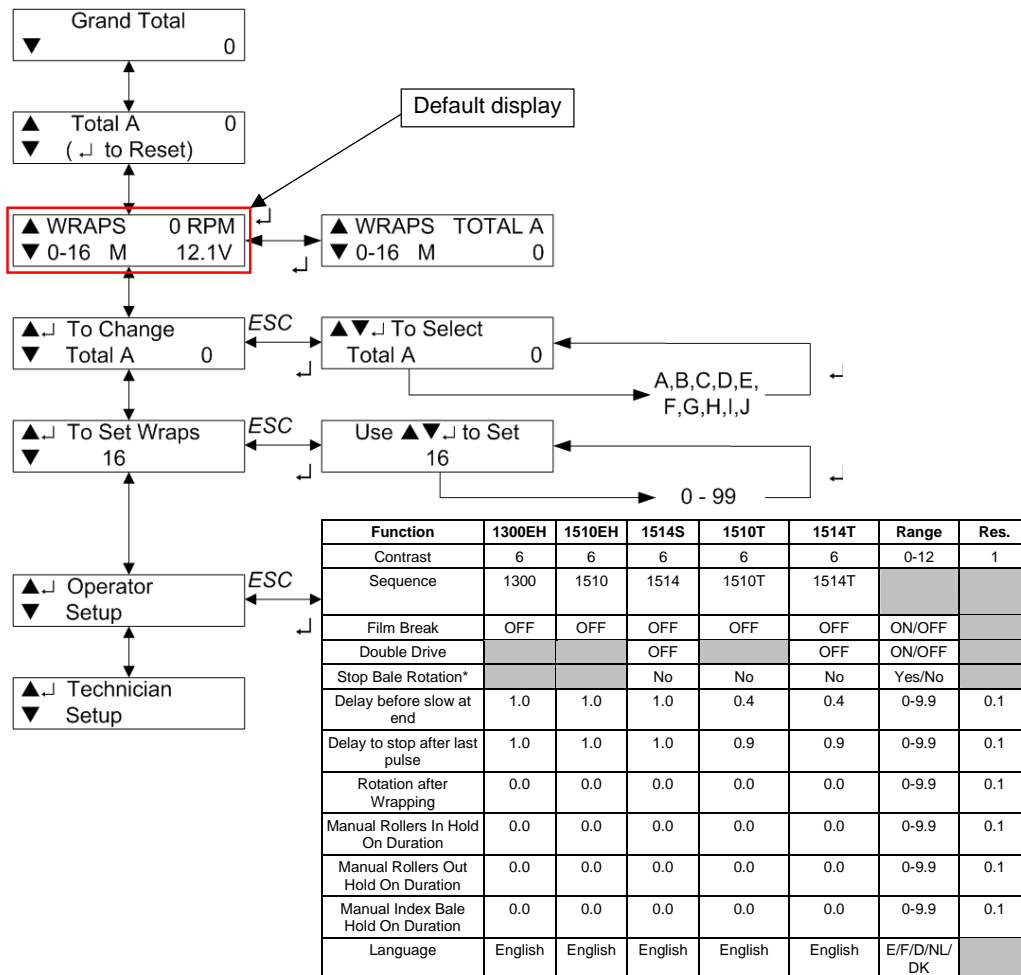
2.5   The Display Menu

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
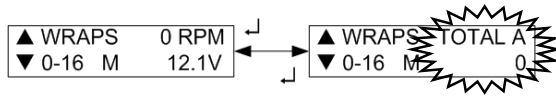
Here is a summary of the display menu;

Function	1300EH	1510EH	1514S	1510T	1514T	Range	Res.
Contrast	6	6	6	6	6	0-12	1
Sequence	1300	1510	1514	1510T	1514T		
Film Break	OFF	OFF	OFF	OFF	OFF	ON/OFF	
Double Drive			OFF		OFF	ON/OFF	
Stop Bale Rotation*			No	No	No	Yes/No	
Delay before slow at end	1.0	1.0	1.0	0.4	0.4	0-9.9	0.1
Delay to stop after last pulse	1.0	1.0	1.0	0.9	0.9	0-9.9	0.1
Rotation after Wrapping	0.0	0.0	0.0	0.0	0.0	0-9.9	0.1
Manual Rollers In Hold On Duration	0.0	0.0	0.0	0.0	0.0	0-9.9	0.1
Manual Rollers Out Hold On Duration	0.0	0.0	0.0	0.0	0.0	0-9.9	0.1
Manual Index Bale Hold On Duration	0.0	0.0	0.0	0.0	0.0	0-9.9	0.1
Language	English	English	English	English	English	E/F/D/NL/ DK	

NOTE: 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.

Please refer to section 3 for further explanation of the Operator Setup functions given in the table above.
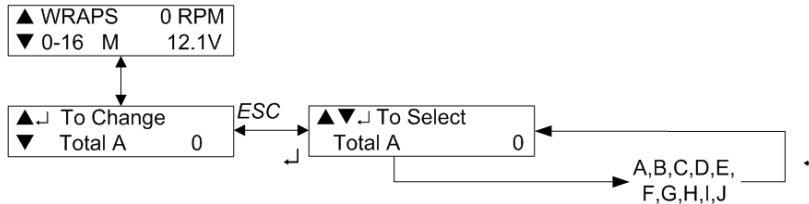
2.6 Selecting a Store Total

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.
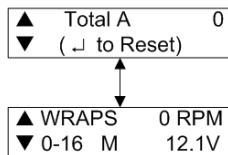
```
▲ WRAPS    0 RPM      ↵      ▲ WRAPS  TOTAL A
▼ 0-16  M    12.1V   ◄───►   ▼ 0-16  M        0
                       ↵
```

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

```
▲ WRAPS    0 RPM
▼ 0-16  M    12.1V
        ↕
                        ESC
▲↵ To Change          ◄───►   ▲▼↵ To Select
▼    Total A    0       ↵        Total A        0

                                       A,B,C,D,E,     ↵
                                       F,G,H,I,J
```

Press the up/down arrow keys to select the store, then press the ENTER key to confirm the selection.
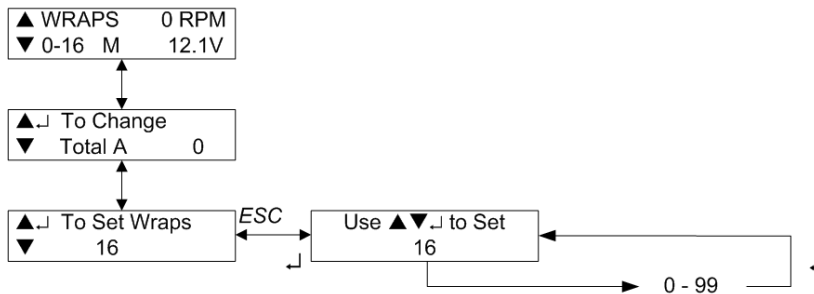
2.7 Resetting a Store Total to Zero

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.

```
▲    Total A      0
▼    ( ↵ to Reset)
        ↕
▲ WRAPS    0 RPM
▼ 0-16  M    12.1V
```

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.

```
▲ WRAPS    0 RPM
▼ 0-16  M    12.1V
        ↕
▲↵ To Change
▼    Total A    0
        ↕
                        ESC
▲↵ To Set Wraps       ◄───►   Use ▲▼↵ to Set
▼        16             ↵          16

                                       0 - 99     ↵
```

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.

Parameter	Default	Application	Description
'Film Break'	OFF	N/A	N/A
'Double Drive'	OFF	1514S, 1514T only	Set 'ON' to enable both pairs of rollers to be driven.
'Stop Bale Rotation'	No	1510S, 1514S, 1514T only	Set 'Yes' to delay bale rotation for a preset time period after the wrap cycle begins. This enables additional wraps of film to be applied for extra strength e.g. when wrapping two bales together.
'Delay to Slow'	1.0s 0.4s	1300EH, 1510S, 1514 1510T, 1514T	Determines the point of speed reduction at the end of the wrapping cycle
'Delay to Stop	1.0s 0.9s	1300EH, 1510S, 1514 1510T, 1514T	Set to adjust the Stop position of the wrap arm
'Rotation After'	0.0s	All	Set time period to rotate the bale to an optimal orientation for unloading
'IN Hold Time'	0.0s	All	Sets the latch-on time period for closing the bale rollers. Effectively allows 'one touch' operation instead of having to hold the sw⊙ ⊙n Automatic mode. Does not apply when in Manual mode
'OUT Hold Time'	0.0s	All	Sets the latch-on time period for opening the bale rollers. Effectively allows 'one touch' operation instead of having to hold the swit⊙ ⊙ Automatic mode. Does not apply when in Manual mode
'Bale Hold ON'	0.0s	All	Sets the latch on time period for indexing a bale. Effectively allows 'one touch' operation instead of having to hold the sw⊙⊙ in Automatic mode (e.g. to index a ¼ turn).
Language	English	All	Sets the language for the display prompts.