Barcode scanning instruction.

Heat shrink machine.

Operating manual no: *409-35050*
Language: *English*

Rev A   30 Apr 2024

Disposal: Heat Shrink Machine

This product must not be disposed of as municipal waste.

Amendment Record

Rev.	Content	Amended By	Date	Change Request No.
Rev. A	Initial Release	Jason Gu	30 Apr 2024	-

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1. Introduction

Heat Shrink machine barcode scanning are designed for customers to quickly read and call heat shrink parameters through the barcode scan, complete a certain degree of parameter preservation transmission.

DANGER
Refers to a hazard that may cause moderate or serious personal injury.

CAUTION
A condition that may cause damage to the product or equipment.

NOTE
Refers to special or important information.

2. Description

Each set of heat shrink machines with broom function includes: heat shrink machine, barcode scanner, control software update (PLC, HMI).

NOTE
The heat-shrink machine interface and control software with barcode scan function are different from the normal version.

3. Barcode scan hardware connection

The barcode scanner with USB port is connected to the machine's back USB port directly. The barcode scanner "beep" to indicate the success of the connection (Barcode scanner: Honey well 1910i). The scanner should contain driver software itself, otherwise the connection with machine may fail.

NOTE
The heat-shrink machine interface and control software with barcode scan function are different from the normal version, customer may choose other scanner with USB port.
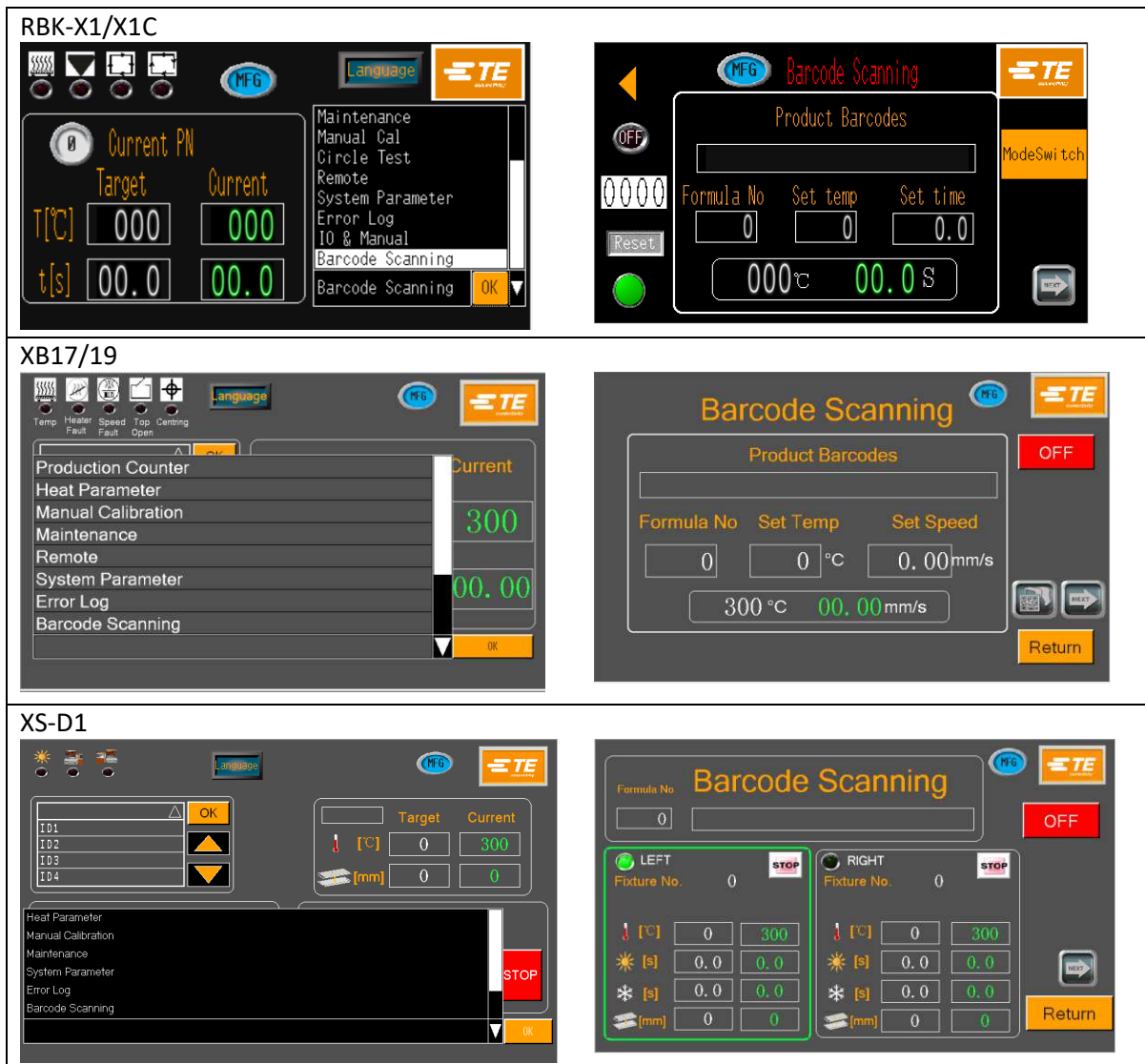
4. Barcode scan using steps

4.1 Auto scan function

4.1.1 Get to the auto scan interface

Click the "TE" icon on the main page to log in. The logged-in user permission level must be greater than or equal to the "ENG" permission. Select "Barcode Scanning" from the drop-down menu that appears after logging in (Figure 1) and click "OK" to enter the Barcode Scanning page (Figure 2).
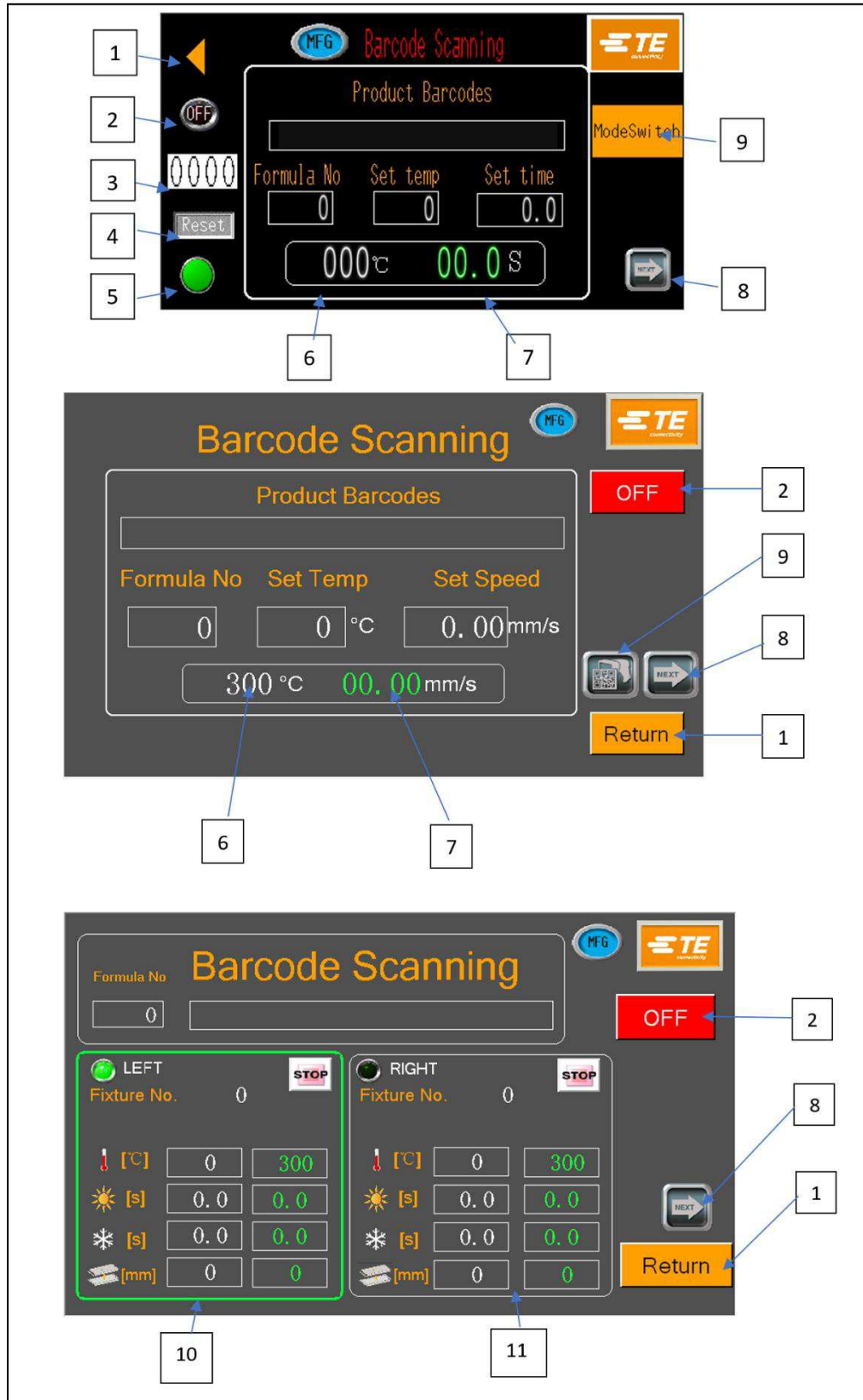
Figure 1

Figure 2

RBK-X1/X1C

XB17/19

XS-D1

4.1.2   Introduction of the automatic scan interface window button

Figure 3

Note

The number in the Figure 3 corresponds to the parenthesis number below.

1. Back to the main menu button.
2. Barcode scanning enable button.
3. The number of cycle runs is set under the Batch (repeating) function, reducing the current number of runs to zero per run. (Only RBK-X1/X1C)
4. Clear label（3）numbers to zero manually. (Only RBK-X1/X1C)
5. Batch function button，this function with label（3）numbers to realize machine running several times by one barcode scanning, The Batch button in this mode is yellow, when label （3）shows zero，Batch button turns green. (Only RBK-X1/X1C)
6. Current device real-time temperature.
7. Current device real-time time. For XB17/19 is current speed.
8. Page switch button, switch to the next page of barcode data set and formula data addition
9. Direct Barcode scan mode
10. Left station parameter including: target/ current temp, heating time, cooling time, heater space, fixture No.
11. Right station parameter including: target/ current temp, heating time, cooling time, heater space, fixture No.

Product barcodes：display area of the barcode scanning codes.

Formula no：current scanning show code's serial number in formula.

Set temp：current product barcode's setting temperature.

Set time/speed：current product barcode's setting time/speed.
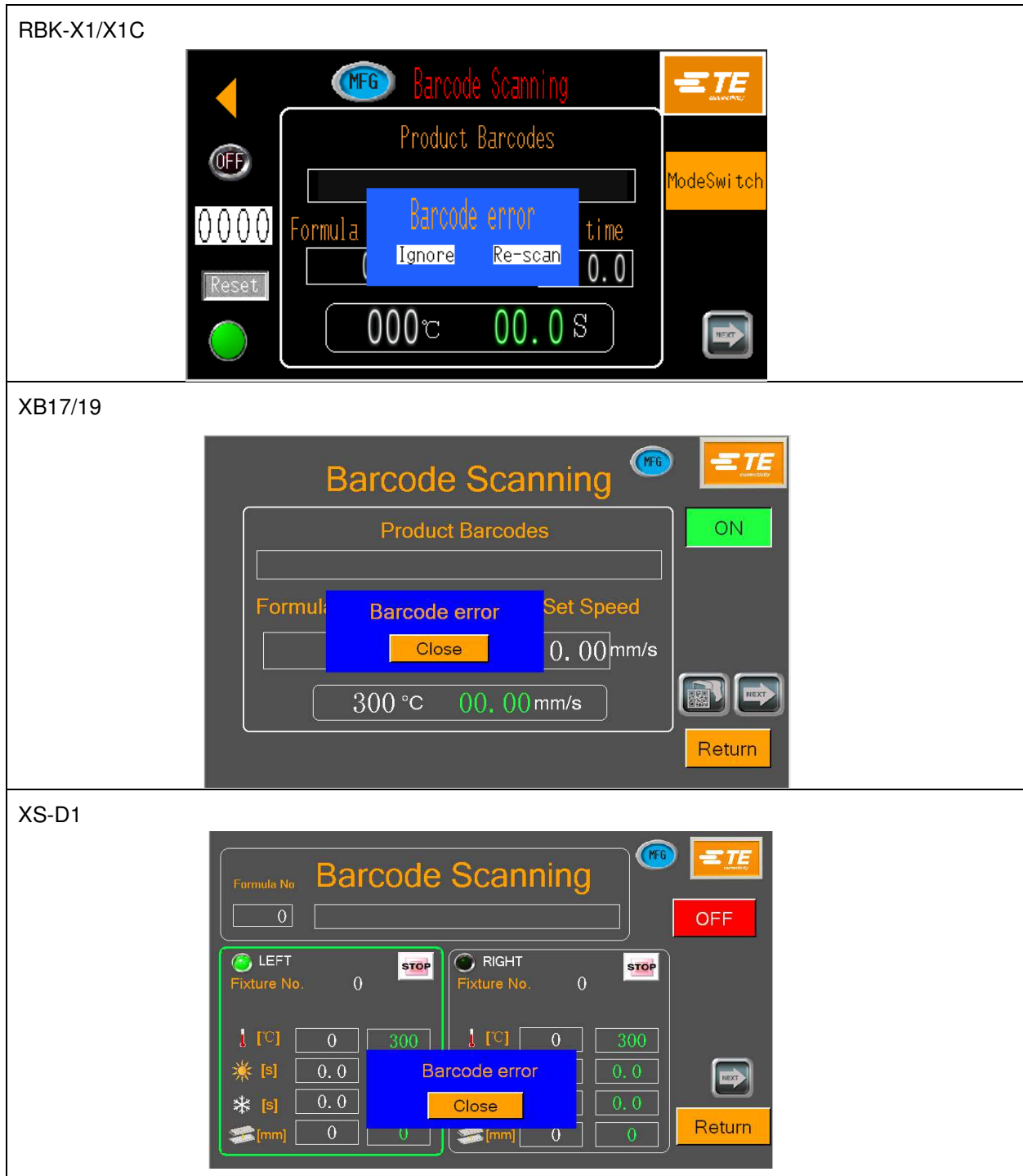
4.1.3　Auto-scanning operation steps

1. Single scanning step

Turn on the barcode scan enable button 1, barcode scanner scans harness barcode, when the real time temp up to the set temp then push on the two start buttons with two hands, which finished a barcode scan running cycle. If we want to continue running, we need to scan the barcode correctly once more at work state. Each time when a barcode is scanned, the machine can be run one cycle.

Note

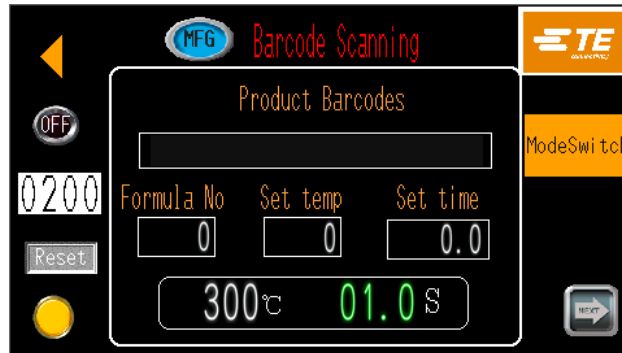*If no codes are found in formula, then HMI will show error (Figure 4)*

Figure 4

RBK-X1/X1C
XB17/19
XS-D1

In RBK-X1/X1C, it contains two options, one is "Ignore" the error, another is "Re-scan" the harness barcode. If choose "Ignore", then the machine will run the previous barcode's parameters; If choose "Re-scan", then operator need rescan barcode correctly. But in XB17/19 & XS-D1, it only has one option "Close", when click it, the operator needs to rescan the barcode correctly (see Figure 4).

2.   Batch function with one scanning and running more than once.

Set cycle times number 30（Figure 5）, push "Batch" button turn the color to yellow to enable the function, scanner scan the harness 's code, when real temp up to "Set temp", push start buttons to run machine, after each cycle the number 30 minus one, once the number is 0 then can't cycle the machine, at the same time the "batch" function button turns yellow. If barcode scan set alarm, the operation is the same with single scanning step.

Figure 5

Note
After several cycles are finished after scanning code，rescanning other barcodes requires set times numbers to zero.

4.1.4 Direct Barcode Scanning mode

In the direct barcode scanning mode, the heat shrink machine can directly read the setting parameters based on the information in the barcode without having to pre-store the parameters in the database. Currently, only the RBK series and XB series have this mode.

Just turn on the switch in the upper left corner to use this feature.

Figure 6

RBK-X1/X1C

XB17/19

Of course, when using direct scanning mode, the barcode must be in the following format (Figure 7).

Figure 7

Table 1

Item	Designation
1	Time field for RBK/ Speed field for XB The process time/ speed is entered at point 1-4
2	Temp field The process temperature is entered at point 5-7
3	Qty field (only for RBK) The process number is entered at point 8-12
4	Produce-Ref field Customized product designation is entered at point 13-20
5	Reference field Reference is entered at point 21-40

Example 1 contains the following process information:

Processing Time 10.5s

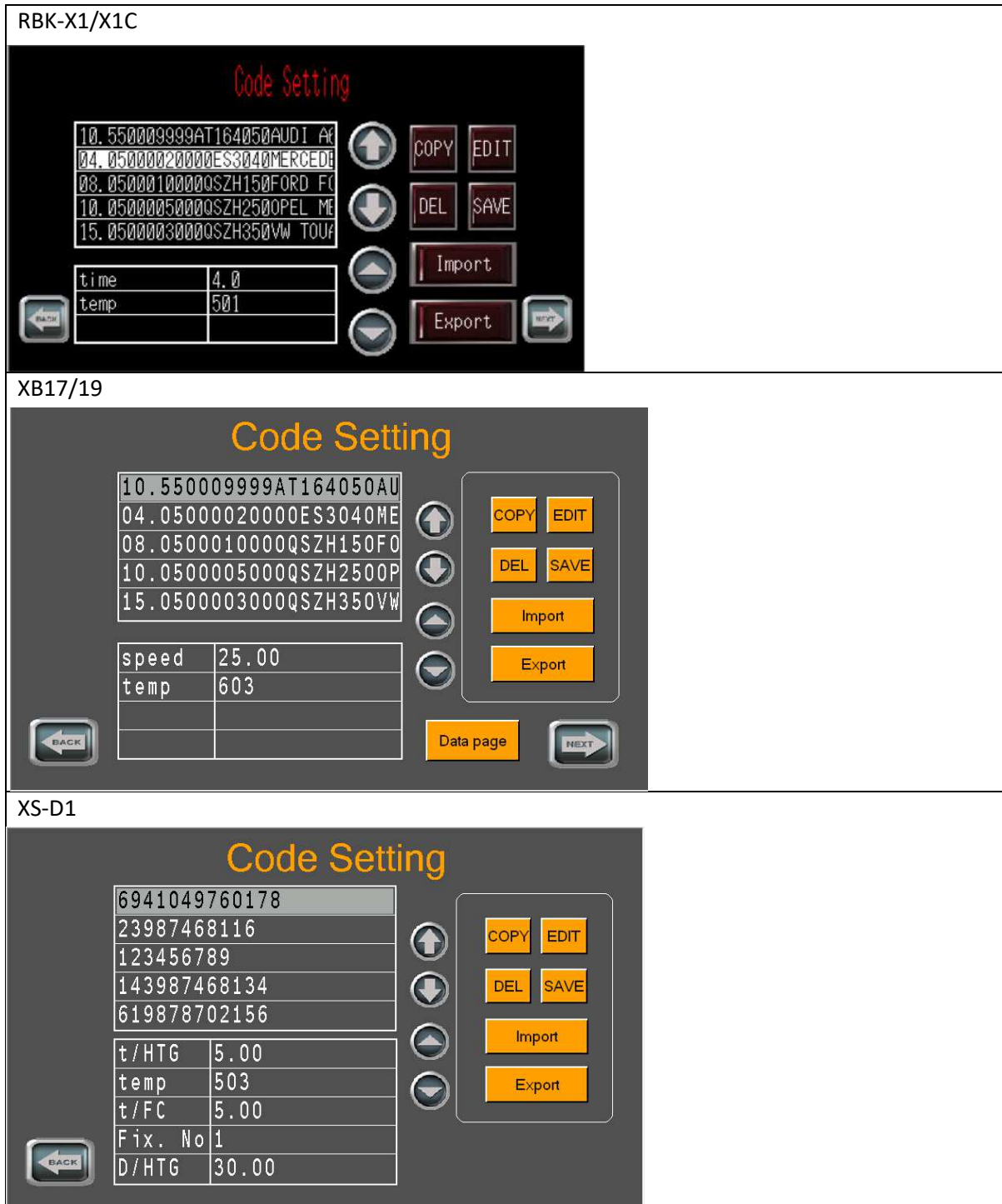Operating Temperature: 500°C

Number of times process carried out: 9999.

Customized information: AT164050

Reference: AUDI A6

4.2 Formula parameters interface

In code reading interface click the enable button off and click "NEXT" button in the lower right corner to enter the formula parameter interface (Figure 8).

Figure 8

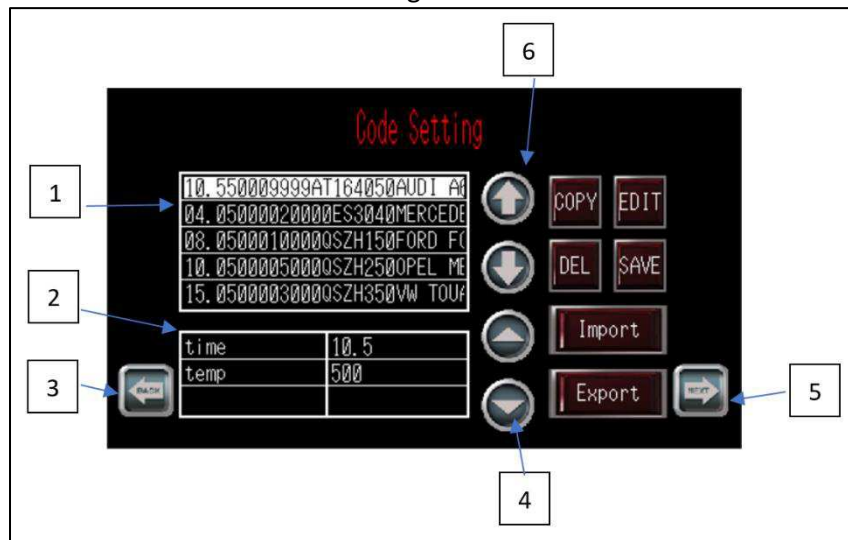| RBK-X1/X1C |
| --- |
| |
| XB17/19 |
| |
| XS-D1 |
| |

4.2.1   Interface instruction

This interface is mainly used to set up the harness barcode/code and its related temperature and time, save the settings parameters in the "Code sets" interface, complete formula manual search and import export. The scanner scans the harness barcode and automatically matches the barcode that already exists in the formula, if it matches

> **i** **NOTE**
> *Barcodes or QR code (Formula code) character number should less than 32 bits. If more than 32 then match function will fail.*

4.2.2   Interface button icon description operation (Figure 9)

Figure 9

1. Formula list mainly used to display and edit codes (codes no more than 32 bits).
2. List of parameters for each barcode. Click on the corresponding parameter bar to modify directly.
3. Go back to the previous button, go back to the auto scan run page.
4. Formula parameters buttons for page up and down.
5. Turn the page button to the next manual barcode input page.
6. Barcode ID buttons for page up and down.

COPY: Check any barcode in the formula bar，click the button，a new barcode will be created in the blank bar below the bar.

EDIT: Check one barcode，click the EDIT button to jump out a keyboard to edit the new barcode

DEL: Check any barcode in the formula bar and click the button，can delete the barcode data.

SAVE: Save a new created or deleted formula codes.

Import：Import formula table data from an external USB stick (default excel Figure 10), the table can be manually edited and imported into the device, the format should be consistent with the table.

Export：Insert a USB stick to export formula data from the interface to a USB stick (default excel Figure 10).

Figure 10

	A	B	C	D	E
1	:RecipeData				
2	:Version		2		
3	:RecipeGroup		1	Recipe Group1	
4	:Label Language	en-US	ASCII	1	
5	:Data Language	en-US	ASCII		
6					
7			time	temp	
8	1	10.550009999AT164050AUDI A6	10.5	500	
9	2	04.05000020000ES3040MERCEDES C20	4	501	
10	3	08.0500010000QSZH150FORD FOCUS	8	498	
11	4	10.0500005000QSZH250OPEL MERIVA	10	503	
12	5	15.0500003000QSZH350VW TOUAREG	9	506	
13	6	ABCDEFG12345	6	502	
14					
15					
16					
17					
18					

i

NOTE
U disk storage capacity should not be greater than 32G if you're having an import export problem, please format the USB stick and try again.
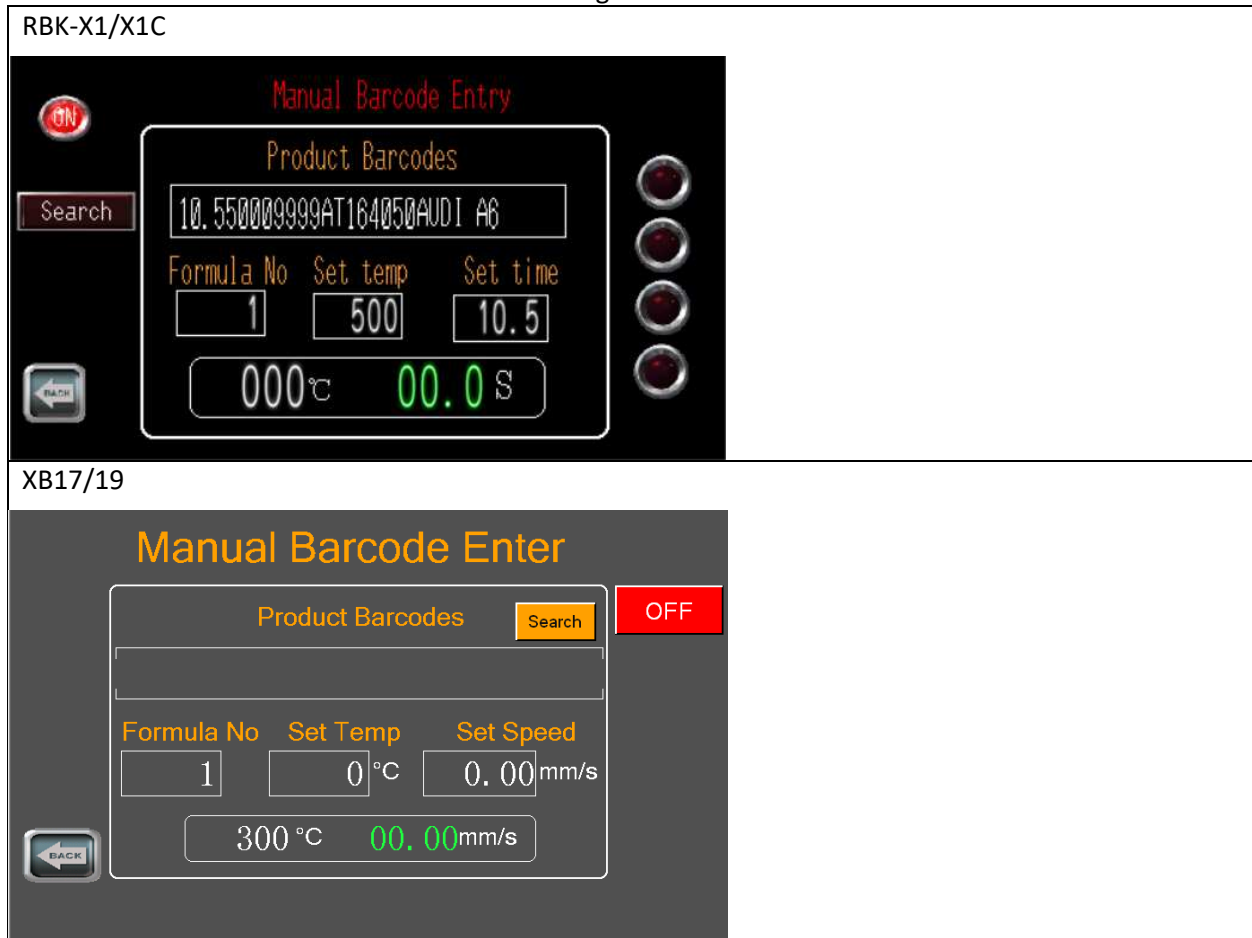
4.3 Manual barcode entry interface

4.3.1 Interface Introduction

Barcode formula interface clicks NEXT button to enter manual barcode entry interface (Figure 11)

> **i** **NOTE**
> *This manual input interface is mainly used for special cases where bar code is not clear and requires manual input, generally use automatic scan.*
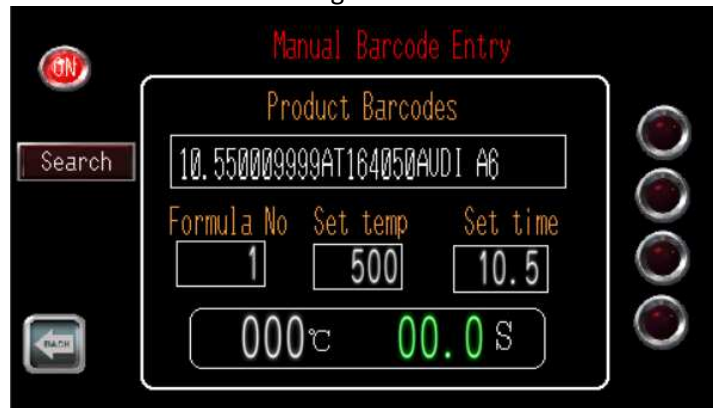
Figure 11

RBK-X1/X1C
XB17/19

4.3.2 Manual mode operation

Manual barcode entry：Click on the box area under this field, manually enter the barcode you need in the jump-out virtual keyboard (10.550009999AT164050AUDI A6, Figure 12).

Search(button)：After operator manually enters the barcode and click the "Search" button, machine will automatically match the data in the database, if the match is successful, then the "formula No.", "set temp", "set time" will display on screen. After machine's actual temperature reach the set temperature, the operator can push two start buttons to run one cycle. A blue alarm box pops up if the match fails (Figure 4), alarm handling is the same.

Figure 12

Back(button)：Click this button to exit the current interface to the formula editing interface.
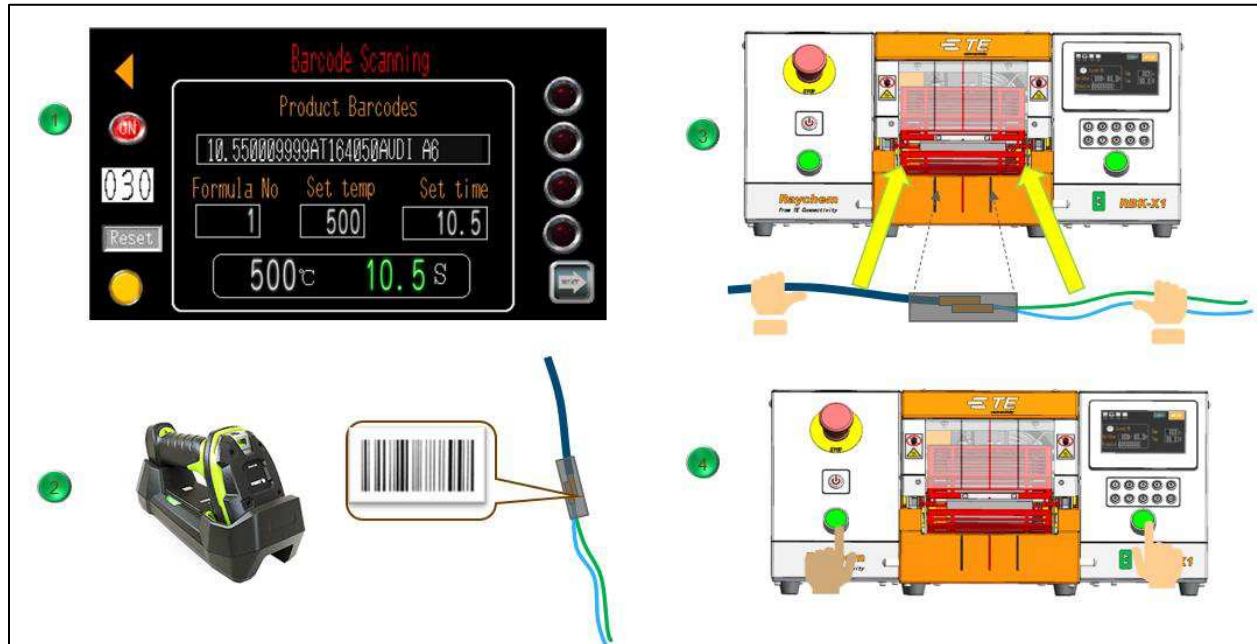
NOTE
To close the barcode scan enable button before clicking the button, Otherwise, you can't exit.

5. Barcode Scanning process

5.1 RBK-X1 process

1. Get in the Barcode scanning page on RBK-X1.
2. Scan the barcode on product.
3. Put the wire harness into the machine production area.
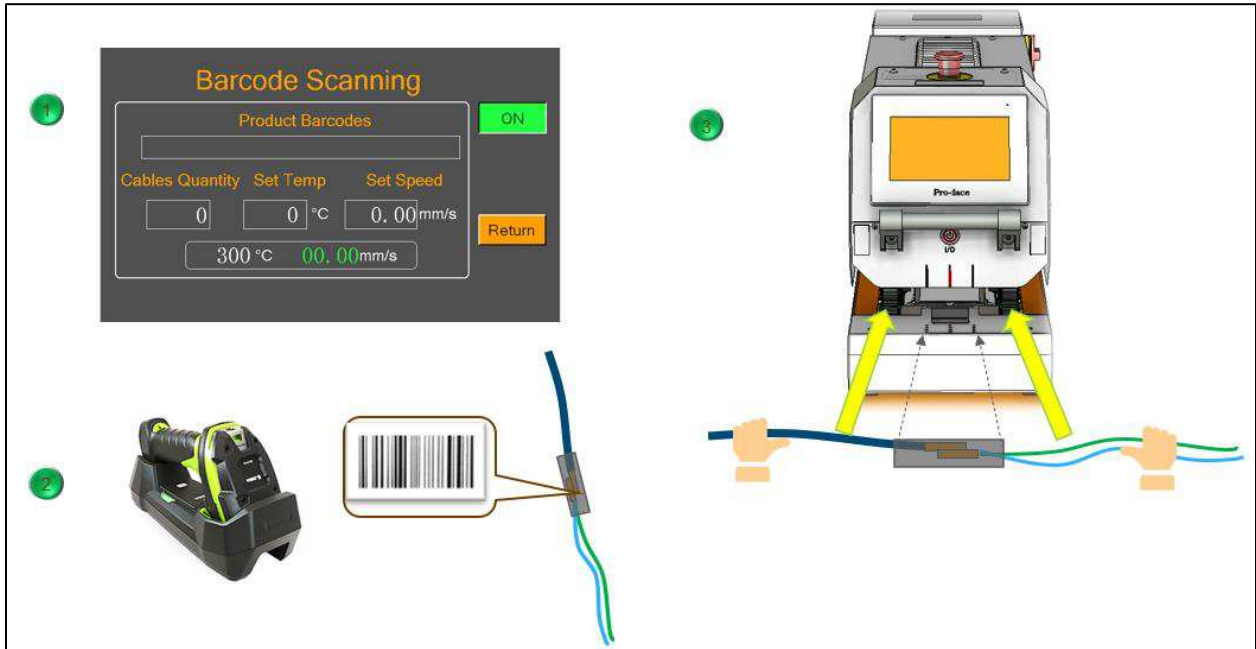4. Push two-hands buttons to start process.

Figure 13

5.2 XB17/19 process

1. Get in the Barcode scanning page on RBK-X1.
2. Scan the barcode on product.
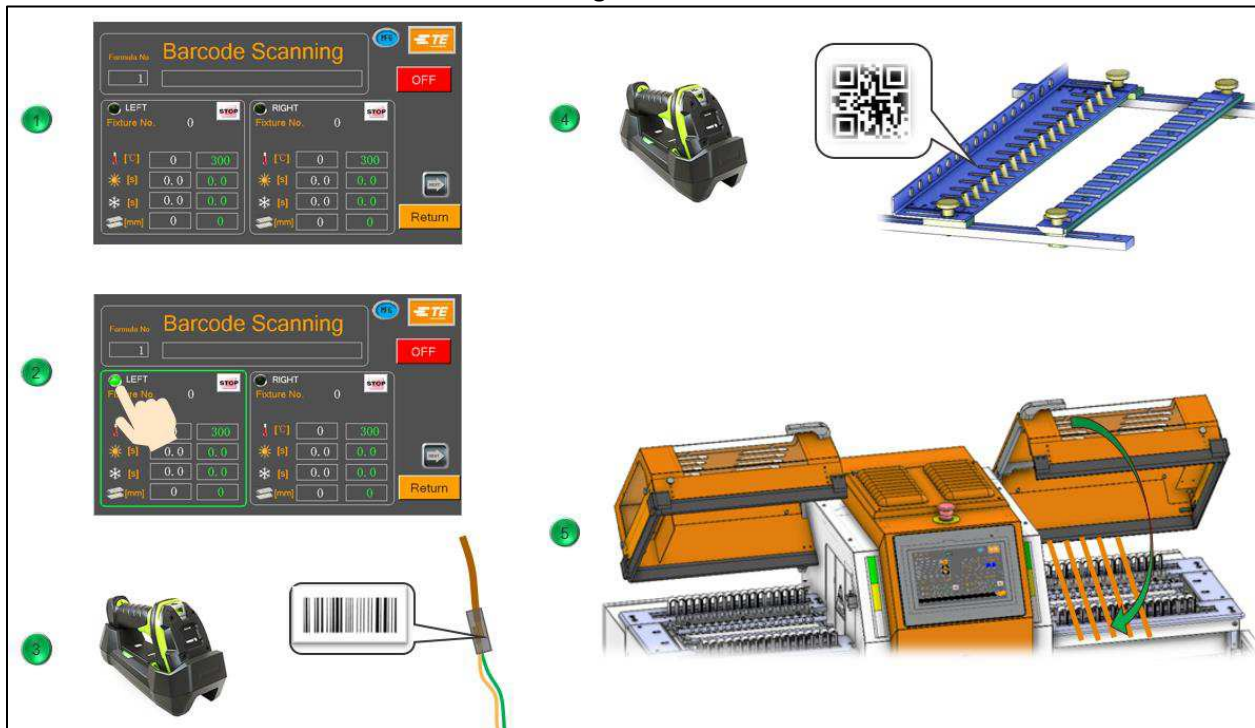3. Put the wire harness into the machine production area.

Figure 14

5.3 XS-D1 process

1. Get in the Barcode scanning page on RBK-X1.
2. Select the workstation left/ right.
3. Scan the barcode on product.
4. Scan the fixture barcode (Optional: Fixture recognize function ON).
5. Put the wire harness into the machine production area and pull down the cover to start process.

Figure 15

6. Barcode/QR code scan testing sample

Figure 16: barcode.
Barcodes/QR code: 10.550009999AT164050AUDI A6

10.550009999AT164050AUDI A6

Figure 17: QR code.

Add the code: 10.550009999AT164050AUDI A6 and parameters in formula. In barcode scan auto HMI, enable barcode scan function button, scan barcode/QR code as shown above, then machine will call heat parameters and can cycle the machine (Figure 18)

Figure 18

In this sample, use batch mode function, set number"30", after scan the code, the machine can cycle 30 times, after work batch button turn green machine can't be started unless another success scan happen.

NOTE
Machine can deal with variable format codes if scanner can recognize. Not only barcode and QR code.

7. Inspection and maintenance

Before using the scan function, check that the USB socket is connected to the barcode scanner properly. Is the scanner indicator always on? Try to avoid excessive wear bends of the scanner cable. When you don't use the barcode function, try to put it down.

8. Replacement and repair

Customer-replaceable parts are listed in the product drawing. Stock and control a complete inventory to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by TE Connectivity to ensure quality and reliability. Order replacement dies through your TE representative or go to TE.com and click the **Shop TE Store** link at the top of the page.

For field service, go to the Service and Repair page on the TE website, or send an e-mail to the address for your region in Table 2.

Figure 19: Service and repair.

Table 2: Field service e-mail addresses

Region	Address
Asia	Tefe1ap@te.com
EMEA (including India)	Tefe1@te.com
North America	Fieldservicesnortharmerica@te.com
South America	FSE@te.com

单击下面可查看定价，库存，交付和生命周期等信息

>>TE Connectivity(泰科)