SMART Applicator
Available on any OCEAN Applicator

Product Facts
The SMART Applicator system extends the availability of the high-precision servo feeder technology recently developed by TE Application Tooling
- Integrated data chip stores and relays set-up and maintenance information
- Feeder automatically reads terminal information from the applicator data chip

It’s now possible to have SMART applicators in any of the feed styles of the OCEAN Applicator series. Electronic data integration has now been expanded to an entire smart applicator strategy. It allows the operator to conveniently view all the data about the applicator. The data contains serial numbers, part numbers, wearable tooling part numbers (and tooling cycle counters), strip length, instruction sheet numbers and more.

This data also includes terminals, with acceptable crimp heights, that can be terminated with the applicator. With this information conveniently available to the operator, programming and verifying the crimp application has never been easier. Setup will be less time consuming and more accurate.
What is a SMART Applicator?
This “SMART applicator” solution is a must for any efficiency-focused harness manufacturer. Your wire-processing machine is now able to verify that the applicator installed in the machine is capable of terminating the programmed terminal and that the crimp height specification is correct. This integration allows the operator to view all the applicator data and maintenance counts, wearable tooling, crimp heights, strip length and terminals that can be used.
When a “SMART applicator” is attached to the machine, the operator can select the terminal from a list while programming the job. This makes setup less time consuming and more accurate. With other information provided by the applicator, programming and verifying application is easy.

Mechanical Feed Applicator
The industry standard TE mechanical feed design has been completely revamped to address the needs of today and the future. Mechanical designs of the past could be difficult for operators to adjust, particularly small applications that require the terminal to be located very precisely in the crimp area. Easily accessible micro adjustments for the forward and back stroke have been created. This allows for precise and repeatable terminal location in the crimp area.

Pneumatic Feed Applicator
Improvements in the pneumatic feed provide flexibility and fine adjustment increments for a higher level of crimp precision. Quick and simple adjustments can be made since the forward terminal positioning and back stroke adjustment are independent of one another.
The pneumatic cylinder was specially designed to be double acting with constant air pressure. This provides the ability to adjust the speed of actuation. The terminal positioning speed can be reduced to improve the repeatability of terminal placement.

Servo Feed Applicator
The programmable servo-motor driven feed moves terminals accurately into position. Since the feed is independent on the ram stroke, its timer and position can be optimized for the specific terminal. The terminal feed is repeatable and well-timed so there is no need to slow down the machine to achieve consistent terminal positioning.

SMART Applicator Levels of Integration
No data transfer - The standard OCEAN Mechanical or Pneumatic Feed Applicators do not have or need a memory chip. However, both can be field upgraded for the next level of SMART Integration.

Data Management Software (DMS) -
The DMS software is used on a personal computer to read and analyze the SMART Applicator data. The maintenance data can be viewed and updated away from the production floor. All OCEAN Applicators can be used with the DMS software.

Precision Controller -
The Precision Controller is part of a servo feed system and has a data viewer that can be used on certain bench terminators or machines. The SMART Applicator Data can be viewed on the Precision Controller for any of the applicator feed types. The Precision Controller is necessary to use an OCEAN Servo Feed Applicator.

SMART Machine Integration -
The SMART Applicator Data can be viewed and utilized on a Komax machine. This full integration provides the ability to verify the correct match of the desired production requirement for: terminal part number, crimp height, and wire cross section. The Applicator Direct integration is used in cases when the servo feed system is not needed. With the Precision Controller integration all applicator feed types can be used.
## SMART Applicator

### View Applicator Data
- **Mechanical counter on applicator**
- **Electronic count and maintenance data**
- **Count incremented while connected***

### Smart Machine Integration
- **View Applicator Data**
- **Verify applicator data with production**
- **Smart Memory needed**

### Mechanical count incremented while connected***

### Required Part Numbers (see corresponding numbers in above chart)

<table>
<thead>
<tr>
<th></th>
<th>Part Number(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2161326-1</td>
<td>SMART Applicator/OCEAN Applicator upgrade kit</td>
</tr>
<tr>
<td></td>
<td>1976700-x</td>
<td>DMS kit for OCEAN mechanical or pneumatic</td>
</tr>
<tr>
<td>2</td>
<td>2161326-1</td>
<td>SMART Applicator/OCEAN Applicator upgrade kit</td>
</tr>
<tr>
<td></td>
<td>1976800-x</td>
<td>Precision Controller kit</td>
</tr>
<tr>
<td>3</td>
<td>2161326-1</td>
<td>SMART Applicator/OCEAN Applicator upgrade kit, 1 required per applicator</td>
</tr>
<tr>
<td></td>
<td>2161651-1</td>
<td>SMART Applicator, Machine Integration kit; 1 required per machine</td>
</tr>
<tr>
<td></td>
<td>2161655-1</td>
<td>SMART Applicator, Applicator Direct integration kit; 1 required per machine</td>
</tr>
<tr>
<td>4</td>
<td>2161326-1</td>
<td>SMART Applicator/OCEAN Applicator upgrade kit, 1 required per applicator</td>
</tr>
<tr>
<td></td>
<td>2161651-1</td>
<td>SMART Applicator, Machine Integration kit; 1 required per machine</td>
</tr>
<tr>
<td></td>
<td>2161650-1</td>
<td>SMART Applicator, Precision Controller integration kit; 1 required per station</td>
</tr>
<tr>
<td>5</td>
<td>1976700-1</td>
<td>DMS kit for Servo; 1 required per installation</td>
</tr>
<tr>
<td>6</td>
<td>1976800-x</td>
<td>Precision Controller kit</td>
</tr>
<tr>
<td>7</td>
<td>2161651-1</td>
<td>SMART Applicator, machine integration kit; 1 required per machine</td>
</tr>
<tr>
<td></td>
<td>2161650-1</td>
<td>SMART Applicator, Precision Controller integration kit; 1 required per station</td>
</tr>
</tbody>
</table>

### No data transfer
- OCEAN Applicator

### Data Management Software (DMS)
- 1

### Precision Controller (Limited Integration)
- 2

### Applicator Direct Integration
- 3

### Precision Controller Integration
- 4

**This feature provides the ability to verify the correct match of the desired production requirement for: terminal part number, crimp height, and wire cross section.**

***This feature also provides the ability to increment tooling wear counters and set maintenance targets.**

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**Need More Information?**

For information about tooling, call 1-800-522-6752 or e-mail toolsales@te.com.

Catalog 3-1773464-0

Issued 04-2012
Replacement Tooling

Only by the use of genuine TE Connectivity tooling can you be assured of the longest tool life and most reliable production. The design, materials, and manufacturing quality of TE tooling translate directly into fewer rejects and fewest breakdowns and interruptions.

Any OCEAN Applicator with Smart Memory can be conveniently viewed to provide part numbers for the proper replacement tooling.

Alternatively, to find the part number for tooling for a specific applicator, go to www.tooling.te.com/searchparts.asp, enter the applicator number, and click on Search Parts. The part numbers of replaceable tooling will be presented.