**Introduction**

This document provides the instructions necessary to replace the Transport assembly of a ScanX Digital Imaging System using the associated Transport Assembly Replacement Kit, PN F3745-1 or PN F3745-2. Replacement kit, PN F3745-1, is used on the ScanX Intraoral (PN F3600), ScanX Classic (PN F3700) models. Kit, PN F3745-2, is used on ScanX (PNs F3814 and F3850). The instructions (PN F3745-LIT) cover the procedure for all three models. Make sure to read this entire and ScanX 12 SE (PN F3800) document before proceeding with any service.

**Procedure Summary**

These instructions include the removal of the Transport Cover and the replacement of the Transport assembly. Also included are instructions to inspect and clean the transport areas exposed when the assembly is removed. This process should take approximately 30 minutes and should only be done by an authorized dealer service technician. The tasks included are summarized below:

1. **Disassembly.** Includes procedures necessary steps to remove the Transport assembly from the ScanX.
2. **Inspection and Cleaning.** Includes instructions for the inspection and cleaning of the Transport Rollers exposed when the assembly is removed.
3. **Re-assembly.** Provides the necessary steps to return ScanX to normal operating condition. These instructions include the installation of the replacement Transport assembly supplied in the replacement kit and the existing Transport Cover.
4. **Operational Check.** This procedure provides instruction to make sure ScanX operates properly after the performance of replacement procedures.

**Task Guidelines**

Personnel performing the Transport assembly replacement tasks should use standard industry guidelines for working on electronic equipment as necessary. These include the following:

- Keep all attaching hardware and fastening screws together with the associated removed assembly. Use separate storage containers or envelopes for each hardware group if necessary. No spare hardware is included with the supplied kit.
- Prior to removing any part or assembly, note location and orientation of assemblies being removed.
- Tag wires and associated mating connectors before disconnecting.
- Use care when disconnecting mating connectors so as not to damage the connector keys and connection to the associated printed circuit board, wire or cable.
- Be aware of the damage impact of electrostatic discharge (ESD) on electronic devices and use ESD precautions when handling printed circuit boards and wiring comprising the ScanX system.
- Use care when removing or installing parts that are secured with tabs as not to damage the associated tabs.
- Follow all warnings and precautions for safety as shown by the labels placed on the equipment.
- Always make sure to protect finished surfaces from scratches or other damage by using cushioning material such as a soft cloth or packaging material between the finished surfaces and the area that may cause damage.

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**Kit PN F3745-1 Components Supplied**

<table>
<thead>
<tr>
<th>Qty</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transport Assembly (Grey belt)</td>
<td>F3670T</td>
</tr>
<tr>
<td>4</td>
<td>Socket Head Cap Screws</td>
<td>31602</td>
</tr>
</tbody>
</table>

**Kit PN F3745-2 Components Supplied**

<table>
<thead>
<tr>
<th>Qty</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transport Assembly (Blue belt)</td>
<td>B7770</td>
</tr>
<tr>
<td>4</td>
<td>Socket Head Cap Screws</td>
<td>31602</td>
</tr>
</tbody>
</table>

**Tools Required Not Supplied**

- #2 Phillips Head screwdriver
- Soft-tip tweezers and Soft nylon brush
- Hand-held mini vacuum with soft brush attachment
- 5/32 Allen Key

**Important:** Although the transport assemblies P/N PN F3670T and PN B7770 appear identical, they are not. Different plate drive belts (grey and blue) are used. Each is designed to apply a specific pressure to the PSP for transport control during the associated scanning application. In order for the ScanX to work as designed the corresponding transport assembly must be replaced with the identical assembly (part number).
Removing the Transport Cover. Refer to Figure 1 and remove the transport cover as follows:

**Important:** Use care when removing the Inlet Ring. Each ring uses two mounting tabs that mate with corresponding tab sockets to hold the ring in place on the Transport Cover.

1. Remove the Inlet Ring from the Transport Cover by carefully pulling it from the cover making sure not to break the two mounting tabs holding the ring in place.
2. Using a small Flat Head Screwdriver, carefully push the Fastener Access Cover straight forward and remove from each side of the Transport Cover making sure to protect the finished surfaces.
3. Remove the two Phillips head screws (1 on each side) securing the Transport Cover to the ScanX. **Important:** Use care when removing the Transport Cover. A ribbon cable is connected to the interior of the cover. To prevent damage to the ribbon cable, disconnect the cable before removing the cover.
4. Pull the cover away only enough to expose the ribbon cable connected to the Display Status PCB. Note the orientation of the connector and disconnect the ribbon cable from the from the PCB Connector.
5. Remove the cover from the ScanX and set aside.

**Figure 1.** Transport Cover Removal/Installation
Removing the Transport Assembly. Refer to Figure 2 and remove the Transport assembly as follows:

**Note:** The fasteners securing the Transport assembly may be SEM or cap head screws that can be discarded. 4 new cap head screws are supplied with the replacement kit.

1. Use a #2 Phillips screwdriver or 5/32 Allen Key to remove the 4 screws (2 on each side) securing the Transport assembly to the Scanner, as shown below.

   **Important:** The Transport assembly is plugged into the Scanner via two guide pins and three D-Type mating connectors. Use care when disconnecting and removing the assembly to prevent damage to the connectors.

2. Using two hands, grab the top of the Transport assembly and carefully pry it from the associated mating connectors on the top of the Scanner. Pull the Transport assembly upwards and away from the Scanner exposing the Transport Rollers.

3. Remove the dental ring from the Transport assembly by removing the two screws and washers securing it to the transport assembly just removed. Set the dental ring with the two screws and washers aside on a clean level surface. The dental ring will be install on the replacement Transport assembly.

4. Set aside the removed Transport assembly with dental ring removed on a clean level surface. Make sure NOT to discard or throw away. The Transport assembly should be returned to the dealer.

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**Inspection & Cleaning Procedures**

**Important:** Always guard against allowing dirt, hairs or other debris from entering the scanning chamber via the slit when the Transport assembly is removed.

**Transport Roller Inspection.** Refer to Figure 3 and inspect the inlet and outlet rollers as follows:

1. Check the scanning slit, the brushes and rollers for any dirt, hairs or other debris. Clean per cleaning instructions provided below.

2. Check that all securing screws are in place and properly tightened so that there are no inward deflections in the outlet roller area but only smooth contours throughout each row. Slowly loosen the subject screw in the roller area having inward deflections until the contour of the roller section becomes smooth with the rest of the rows.

3. Check that the individual rollers are not broken and are correctly seated on the bearing and roll freely.
Check Scanner Operation. Check the scanner operation with the new Transport assembly replacement by performing the following steps.

1. Reconnect communication cable and electrical connections in opposite sequence from removal.
2. Turn ScanX power ON.
3. Using the ScanX Diagnostics Software check all functions as per this software.
4. If unit passes this process, exit the ScanX Diagnostics Software.
5. Initialize the ScanX System for scanning normal images using the user’s imaging software.
6. Refer to the Operator’s Manual and perform a scan operation of one (or more) sample image using any reasonable image exposure.
7. If the ScanX operate normally and the scanned image appears nominal, return the unit into user operation.

Installing the Transport Assembly. Refer to Figure 2 and install the Transport assembly.

1. Install the dental ring onto the replacement Transport assembly by securing the ring with the two screws and washers removed during disassembly. Make sure the ring is flush with the transport before tightening.
2. Align the 2 locating pins of the three male D-Type connectors of the Transport assembly with the three mating D-Type female connectors and carefully push the assembly into the associated mating connectors on the top of the ScanX.
3. Holding the Transport assembly in place, align the 4 screw holes (2 on each side) of the assembly with the threaded holes of the ScanX and install the 4 new cap head screws supplied in the replacement kit hand tight.
4. Using a 5/32 Allen Key, tighten the 4 screws securing the Transport assembly to the ScanX.

Installing the Transport Cover. Refer to Figure 1 and install the transport cover as follows:

1. Refer to the Step 4b - View above and connect the PCB Cable to the connector on the Display Status PCB. Use the red stripe of the ribbon cable to make sure of the correct orientation of the 16-pin connector.
2. Mount the Transport Cover by aligning the two screw holes at the sides of the cover with the corresponding threaded holes of the ScanX. Secure the cover by installing the two Phillips head screws (1 on each side).
3. Carefully install each Fastener Access Cover to the Transport Cover by aligning the tabs with the corresponding tab slots on the and gently snapping each in place.
4. Carefully install the Inlet Ring to the Transport Cover by aligning the mounting tabs with the corresponding tab socket and gently snapping in place.
5. Transport assembly replacement is complete. Check the scanner operation.

Operational Check Procedures

Check Scanner Operation. Check the scanner operation with the new Transport assembly replacement by performing the following steps.

1. Reconnect communication cable and electrical connections in opposite sequence from removal.
2. Turn ScanX power ON.
3. Using the ScanX Diagnostics Software check all functions as per this software.
4. If unit passes this process, exit the ScanX Diagnostics Software.
5. Initialize the ScanX System for scanning normal images using the user’s imaging software.
6. Refer to the Operator’s Manual and perform a scan operation of one (or more) sample image using any reasonable image exposure.
7. If the ScanX operate normally and the scanned image appears nominal, return the unit into user operation.