INSTRUCTIONS

Carrier
A United Technologies Company

XX99TA526312

XX99TA516090 (for RCD use only)

Instruction Sheet Number: **99TA516090**

Description: THUNDERBOLT SENSOR PIN REPLACEMENT

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Part Number: 06TT660003

WARNING

HAZARDS: ELECTRIC SHOCK / PRESSURE / EXPLOSION

REFRIGERANT AND OIL UNDER PRESSURE

- **Bodily injury may result from explosion and/or fire if power is supplied to compressor with terminal box cover removed or unsecured. Terminal pins may blow-out causing injuries, death or fire.**
- **Do not touch terminals, or wiring at terminals, or remove terminal cover or any part of compressor until power is disconnected and pressure is relieved. See safety instructions A, B, and C.**

ELECTRIC SHOCK

- **Bodily injury or death may result from electrocution if terminal cover is removed while power is supplied to compressor.**
- **Do not supply power to compressor unless terminal cover is secured in place and all service valves are open.**

Safety Instructions:
Service or maintenance must be performed only by trained certified technicians and according to service instructions.

A. Follow recognized safety practices and wear protective goggles.
B. Disconnect and lockout all electrical power. Electrical measurements during operation must be taken outside of the compressor terminal box.
C. Isolate the compressor from the system. Reclaim all refrigerant in the compressor. Do not disassemble bolts, plugs, fittings, etc. unless all pressure has been relieved from the compressor.

1

This kit is for servicing all Thunderbolt compressors. In addition to the sensor pin kit, a motor cover gasket is required. If the compressor is installed in a unit, a Compressor Connection Kit along with the tools included in the Compressor Service Tool kit will be needed. See table below for correct part numbers.

COMP'R MODEL	CONNECTION KIT	MOTOR COVER
06TS	06TT660035	06TT660038
06TT	06TT660036	06TT660039
06TU	06TT660037	06TT660040

2

The parts that are included in the sensor pin kit are:



No.	QTY.	PART No.	DESCRIPTION
1	3	2TB0408	Sensor Pin

3

If the compressor is mounted on the unit, make sure the power has been properly locked out and the refrigerant charge has been safely isolated and removed from the compressor.

4

Refer to the instructions **(99TA516124)** that come with the RCD motor cover gasket kit for removing the motor cover. Do not proceed without first reviewing this information. Special equipment is required to remove and install the motor cover.

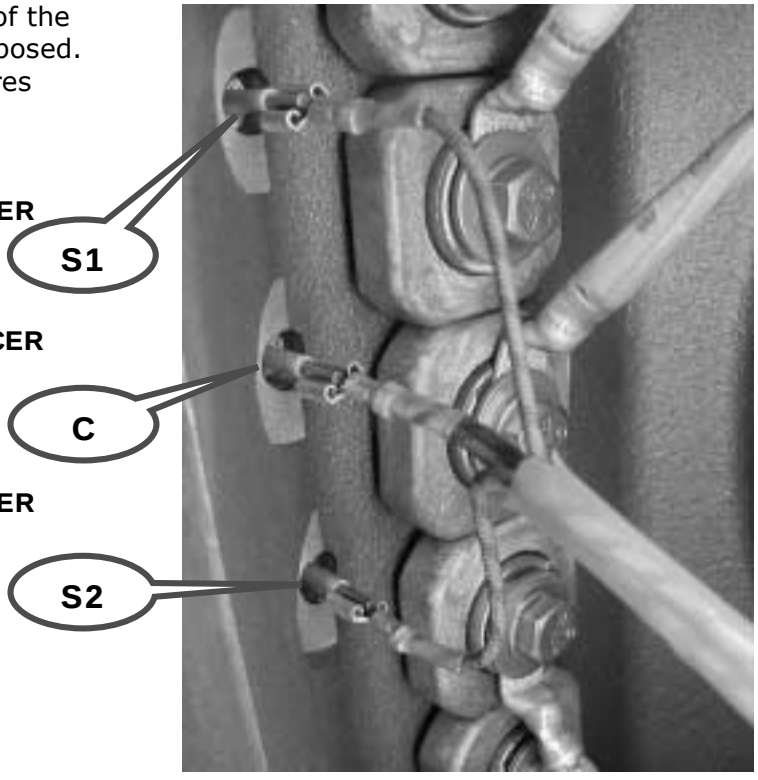
5

After removing the motor the backside of the sensor pins and terminal pins will be exposed. Note the color and orientation of the wires connected to the pins.

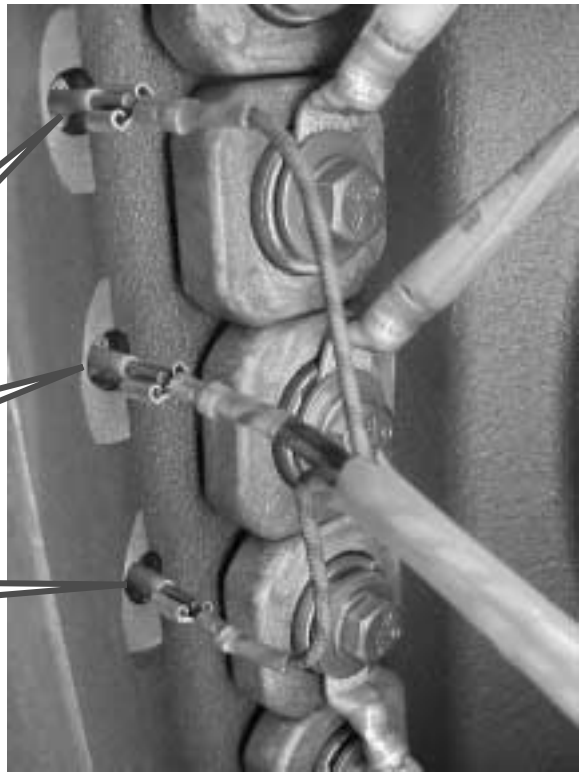
S1: WHITE WITH RED TRACER OR ALL RED

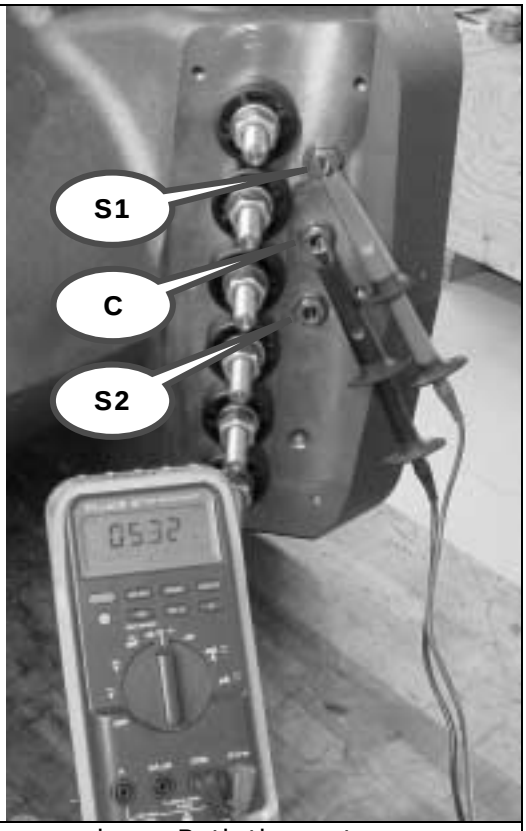
C: WHITE WITH BLACK TRACER OR ALL BLACK

S2: WHITE WITH RED TRACER OR ALL RED



6	Remove the sensor pins using a 9/16” wrench or socket.	
7	Make sure the SAE port is clean and free of paint chips.	
8	Apply a small amount of suitable oil to the o-ring before assembly.	

9	Install the sensor pins and torque to: **10-12 lb-ft (14-16 Nm).** 
10	Reinstall the sensor pin wires. **S1: WHITE WITH RED TRACER OR RED** **C: WHITE WITH BLACK TRACER OR BLACK** **S2: WHITE WITH RED TRACER OR RED** 

11	The sensor pins should also be checked to ensure that the thermistors are wired correctly. **C to S1 (shown)** **C to S2** The resistances should be between 4.5 & 7.9 kΩ depending on the temperature.	
12	Reinstall the motor cover per the instructions given in that procedure. Both the motor cover and terminal pin should be checked for leaks using an appropriate method.	
	End.	

APPENDIX I: TOOLS FOR SENSOR PIN REPLACEMENT

TOOL	TOOL NUMBER	SUPPLIER	OPERATION	STEP(s)	NOTES
SEE PROCEDURE FOR MOTOR COVER REMOVAL & INSTALLATION FOR TOOLS REQUIRED FOR THAT OPERATION			REMOVAL & INSTALLATION OF MOTOR COVER	**4 12**	**RCD INSTRUCTION SHEET NUMBER: 99TA516124**
3/8" DRIVE RATCHET	F830	SNAP-ON	SENSOR PIN REMOVAL	**6**	
9/16" DEEP WELL SOCKET	FSS181	SNAP-ON	REMOVAL & INSTALLATION OF SENSOR PIN	**6 9**	
NEEDLE NOSE PLIERS	95BCP	SNAP-ON	SENSOR WIRE REMOVAL FROM THE PIN	**5**	
3/8" DRIVE TORQUE WRENCH	TE25FA	SNAP-ON	INSTALLING TERMINAL PIN BOLT & NUT	**9**	0-25 LB-FT RANGE
VOLT/OHM METER			CHECK THERMISTOR RESISTANCES	**11**	