Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000028UZC
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

INSPECTION

PROCEDURE

1. INSPECT SPIRAL CABLE SUB-ASSEMBLY (w/ Occupant Classification System)

NOTICE:

- Do not remove the steering sensor from the spiral cable sub-assembly when inspecting the spiral cable sub-assembly.
- Remove the steering sensor from the spiral cable sub-assembly only when replacing the spiral cable sub-assembly.

(a) Visually check the spiral cable sub-assembly for defects.

(1) The defects are as follows:

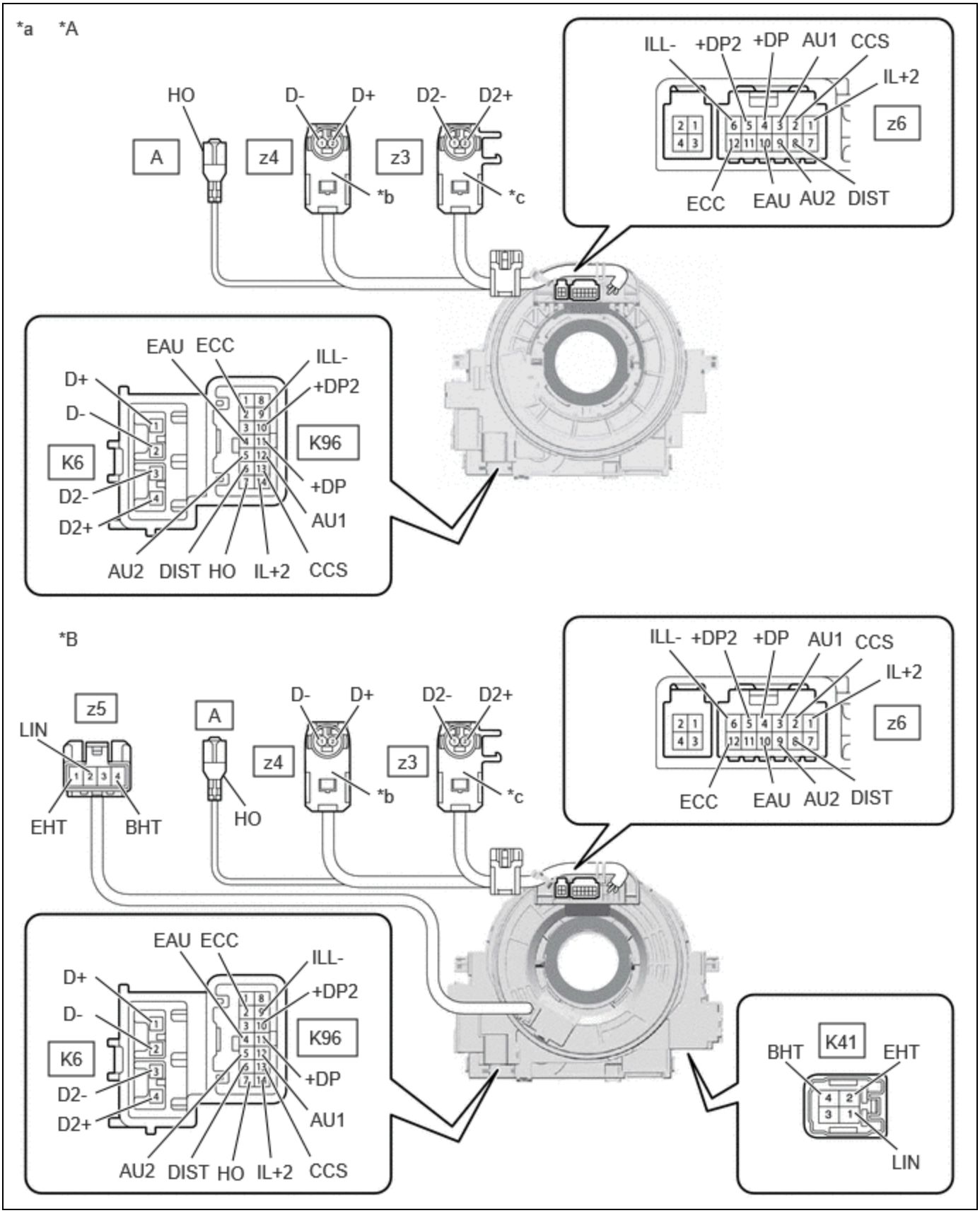
- Scratches
- Small cracks
- Dents
- Chips
- Cracks or other damage to the connector

OK:

No defects are found.

If any of the defects is found, replace the spiral cable sub-assembly with a new one.

(b) Check the spiral cable sub-assembly.



*A	w/o Multiplex Network Steering ECU	*B	w/ Multiplex Network Steering ECU
*a	Component without harness connected (Spiral Cable Sub-assembly)	*b	Color: Light Green
*c	Color: Black	-	-

	Interlock	-	-

NOTICE:

- When rotating the spiral cable sub-assembly, make sure to push on the interlock shown in the illustration to release the interlock mechanism.
- As the spiral cable sub-assembly may break, do not rotate the spiral cable sub-assembly more than the specified amount.

(1) Set the spiral cable sub-assembly to the center position.

HINT:

Click here INFO

(2) Measure the resistance between each terminal of the spiral cable sub-assembly according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z4,z3,K41,z5)
Click Connector(K96)
Click Connector(z6)
Click Connector(K6)
Click Connector(z4)
Click Connector(z3)
Click Connector(K41)
Click Connector(z5)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less	Ω
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less	Ω
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less	Ω
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less	Ω
K96-7 (HO) - A (HO)	Always	3 Ω or less	Ω
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less	Ω
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less	Ω
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less	Ω
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less	Ω
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less	Ω
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less	Ω
K6-1 (D+) - z4-2 (D+)	Always	Below 1 Ω	Ω
K6-2 (D-) - z4-1 (D-)	Always	Below 1 Ω	Ω
K6-3 (D2-) - z3-1 (D2-)	Always	Below 1 Ω	Ω
K6-4 (D2+) - z3-2 (D2+)	Always	Below 1 Ω	Ω
*1: w/ Multiplex Network Steering ECU			

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K41-1 (LIN) - z5-2 (LIN)*1	Always	3 Ω or less	Ω
K41-2 (EHT) - z5-1 (EHT)*1	Always	Below 0.1 Ω	Ω
K41-4 (BHT) - z5-4 (BHT)*1	Always	Below 0.1 Ω	Ω
*1: w/ Multiplex Network Steering ECU			

(3) After setting the spiral cable sub-assembly to the center position, rotate the spiral cable sub-assembly 2.5 times clockwise, and measure the resistance according to the value(s) in the table below. Then rotate the spiral cable sub-assembly 5 times counterclockwise, and measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z4,z3,K41,z5)
Click Connector(K96)
Click Connector(z6)
Click Connector(K6)
Click Connector(z4)
Click Connector(z3)
Click Connector(K41)
Click Connector(z5)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less	Ω
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less	Ω
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less	Ω
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less	Ω
K96-7 (HO) - A (HO)	Always	3 Ω or less	Ω
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less	Ω
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less	Ω
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less	Ω
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less	Ω
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less	Ω
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less	Ω
K6-1 (D+) - z4-2 (D+)	Always	Below 1 Ω	Ω
K6-2 (D-) - z4-1 (D-)	Always	Below 1 Ω	Ω
K6-3 (D2-) - z3-1 (D2-)	Always	Below 1 Ω	Ω
K6-4 (D2+) - z3-2 (D2+)	Always	Below 1 Ω	Ω
K41-1 (LIN) - z5-2 (LIN)*1	Always	3 Ω or less	Ω
K41-2 (EHT) - z5-1 (EHT)*1	Always	Below 0.1 Ω	Ω
*1: w/ Multiplex Network Steering ECU			

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K41-4 (BHT) - z5-4 (BHT)*1	Always	Below 0.1 Ω	Ω
*1: w/ Multiplex Network Steering ECU			

(4) After setting the spiral cable sub-assembly to the center position, rotate the spiral cable sub-assembly 2.5 times clockwise. Then while rotating the spiral cable sub-assembly 5 times counterclockwise, measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z4,z3,K41,z5)
Click Connector(K96)
Click Connector(z6)
Click Connector(K6)
Click Connector(z4)
Click Connector(z3)
Click Connector(K41)
Click Connector(z5)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less	Ω
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less	Ω
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less	Ω
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less	Ω
K96-7 (HO) - A (HO)	Always	3 Ω or less	Ω
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less	Ω
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less	Ω
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less	Ω
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less	Ω
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less	Ω
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less	Ω
K6-1 (D+) - z4-2 (D+)	Always	Below 1 Ω	Ω
K6-2 (D-) - z4-1 (D-)	Always	Below 1 Ω	Ω
K6-3 (D2-) - z3-1 (D2-)	Always	Below 1 Ω	Ω
K6-4 (D2+) - z3-2 (D2+)	Always	Below 1 Ω	Ω
K41-1 (LIN) - z5-2 (LIN)*1	Always	3 Ω or less	Ω
K41-2 (EHT) - z5-1 (EHT)*1	Always	Below 0.1 Ω	Ω
K41-4 (BHT) - z5-4 (BHT)*1	Always	Below 0.1 Ω	Ω
*1: w/ Multiplex Network Steering ECU			

If the result is not as specified, replace the spiral cable sub-assembly.

2. INSPECT SPIRAL CABLE SUB-ASSEMBLY (w/o Occupant Classification System)

NOTICE:

- Do not remove the steering sensor from the spiral cable sub-assembly when inspecting the spiral cable sub-assembly.
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- Dents
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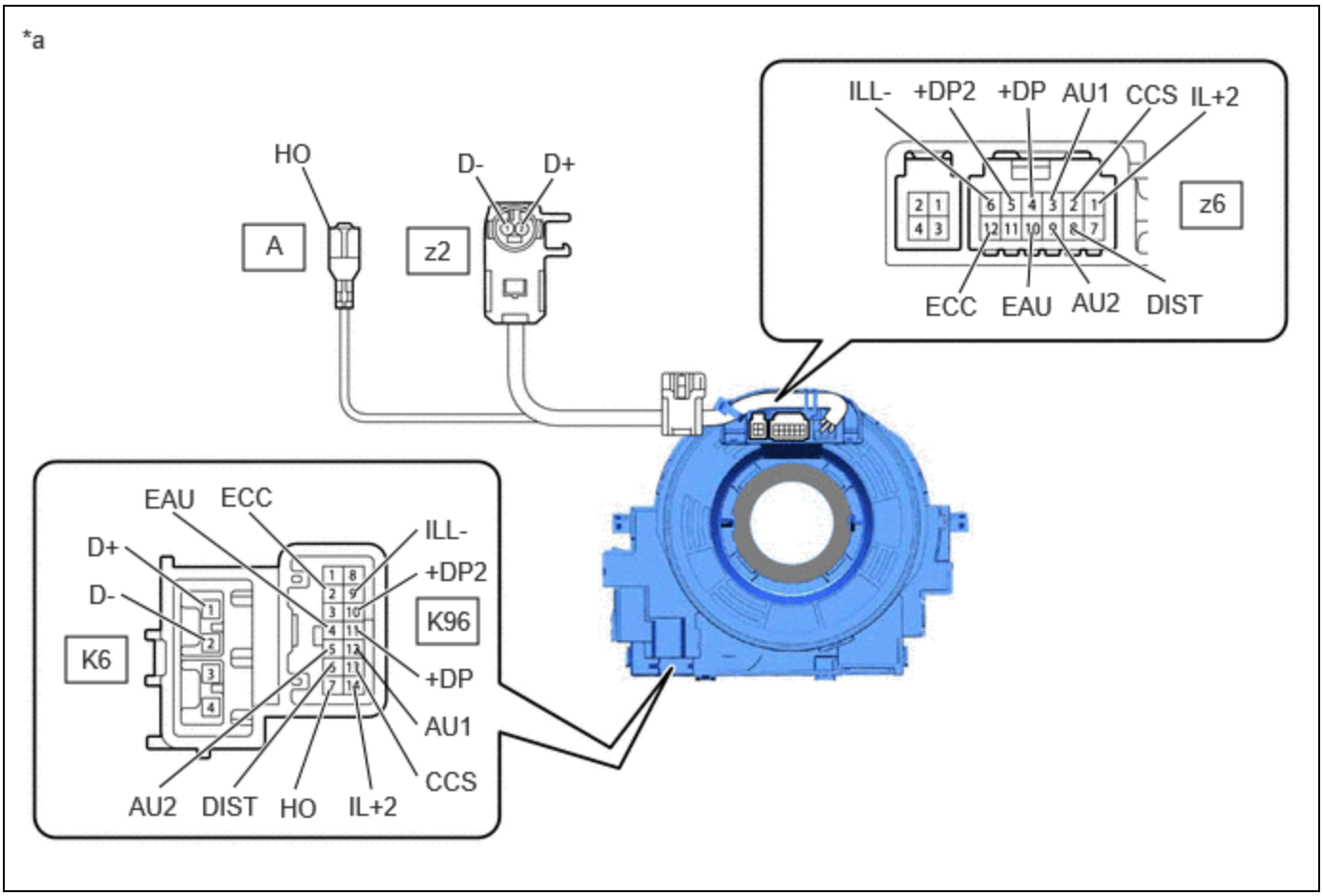

*a	Component without harness connected (Spiral Cable Sub-assembly)	-	-
	Interlock	-	-

NOTICE:

- When rotating the spiral cable sub-assembly, make sure to push on the interlock shown in the illustration to release the interlock mechanism.
- As the spiral cable sub-assembly may break, do not rotate the spiral cable sub-assembly more than the specified amount.

(1) Set the spiral cable sub-assembly to the center position.

HINT:

Click here INFO

(2) Measure the resistance between each terminal of the spiral cable sub-assembly according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z2)
Click Connector(K96)
Click Connector(z6)
Click Connector(K6)
Click Connector(z2)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less	Ω
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less	Ω
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less	Ω
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less	Ω
K96-7 (HO) - A (HO)	Always	3 Ω or less	Ω
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less	Ω
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less	Ω
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less	Ω
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less	Ω
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less	Ω
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less	Ω
K6-1 (D+) - z2-2 (D+)	Always	Below 1 Ω	Ω
K6-2 (D-) - z2-1 (D-)	Always	Below 1 Ω	Ω

(3) After setting the spiral cable sub-assembly to the center position, rotate the spiral cable sub-assembly 2.5 times clockwise, and measure the resistance according to the value(s) in the table below. Then rotate the spiral cable sub-assembly 5 times counterclockwise, and measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z2)
Click Connector(K96)
Click Connector(z6)

Click Connector(K6)
Click Connector(z2)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less
K96-7 (HO) - A (HO)	Always	3 Ω or less
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less
K6-1 (D+) - z2-2 (D+)	Always	Below 1 Ω
K6-2 (D-) - z2-1 (D-)	Always	Below 1 Ω

(4) After setting the spiral cable sub-assembly to the center position, rotate the spiral cable sub-assembly 2.5 times clockwise. Then while rotating the spiral cable sub-assembly 5 times counterclockwise, measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K96,z6,K6,z2)
Click Connector(K96)
Click Connector(z6)
Click Connector(K6)
Click Connector(z2)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K96-2 (ECC) - z6-12 (ECC)	Always	3 Ω or less
K96-4 (EAU) - z6-10 (EAU)	Always	3 Ω or less
K96-5 (AU2) - z6-9 (AU2)	Always	3 Ω or less
K96-6 (DIST) - z6-8 (DIST)	Always	3 Ω or less
K96-7 (HO) - A (HO)	Always	3 Ω or less
K96-9 (ILL-) - z6-6 (ILL-)	Always	3 Ω or less
K96-10 (+DP2) - z6-5 (+DP2)	Always	3 Ω or less
K96-11 (+DP) - z6-4 (+DP)	Always	3 Ω or less
K96-12 (AU1) - z6-3 (AU1)	Always	3 Ω or less
K96-13 (CCS) - z6-2 (CCS)	Always	3 Ω or less

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K96-14 (IL+2) - z6-1 (IL+2)	Always	3 Ω or less
K6-1 (D+) - z2-2 (D+)	Always	Below 1 Ω
K6-2 (D-) - z2-1 (D-)	Always	Below 1 Ω

If the result is not as specified, replace the spiral cable sub-assembly.