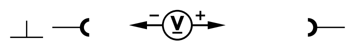
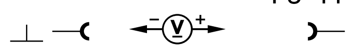
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy [1) 2)]
1.0		**Left low beam Xenon headlamp (E1e8)** **Model 129** Voltage at fuse and relay box (F1) **Model 140** Voltage at fuse box (35-fuse) (F3) in fuse and relay box (F1)	F1–6  F3–11 	Remove Fuse (F1–6) or Fuse (F3–11) and check voltage using rest current maintenance unit. Low beam: **ON**	11 – 14 V	Wiring, ⇒ 1.1

1) To prevent damage to new installed Xenon lamps (D2R, 35W), be certain to check system output (watts) prior to lamp installation.

2) Replace complete headlamp unit as necessary.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.1		**Model 129** Voltage and amperage at fuse and relay box (F1) **Model 140** Voltage and amperage at fuse box (35–fuse) (F3) in fuse and relay box (F1).	⊥ –(V)+ F1–6 F1–6 Inductive pickup F1–6 ⊥ –(V)+ F3–11 F3–11 Inductive pickup F3–11	Remove Fuse (F1–6) or fuse (F3–11). Review Figure 1 and attach multimeters and test cables as shown. ⚠ **CAUTION!** Observe multimeter amp reading when switching on low beam. Low beam: **ON** After approx. 30 seconds measure voltage (U) and amps (I), then calculate wattage (P).	40±5W (P = U x I)	A brief amp flow is noted only when first switching on: Xenon headlamp (D2R, 35W)[1) 2)] Wattage < 35W or > 45W: Xenon headlamp control module (E1n1) with Xenon headlamp ignition module (E1n2)[2)].

1) To prevent damge to new installed Xenon lamps (D2R, 35W), be certain to check system output (watts) prior to lamp installation.
2) Replace complete headlamp unit as necessary.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy [1) 2)]
2.0		**Right low beam Xenon headlamp (E2e8)** **Model 129** Voltage at fuse and relay box (F1) **Model 140** Voltage at fuse box (35-fuse) (F3) in fuse and relay box (F1)	F1–7 ⊥ —(–V+)— F3–12 ⊥ —(–V+)—	Remove Fuse (F1–7) or Fuse (F3–12) and check voltage using rest current maintenance unit. Low beam: **ON**	11 – 14 V	Wiring, ⇒ 2.1

1) To prevent damge to new installed Xenon lamps (D2R, 35W), be certain to check system output (watts) prior to lamp installation.

2) Replace complete headlamp unit as necessary.

Electrical Test Program – Test

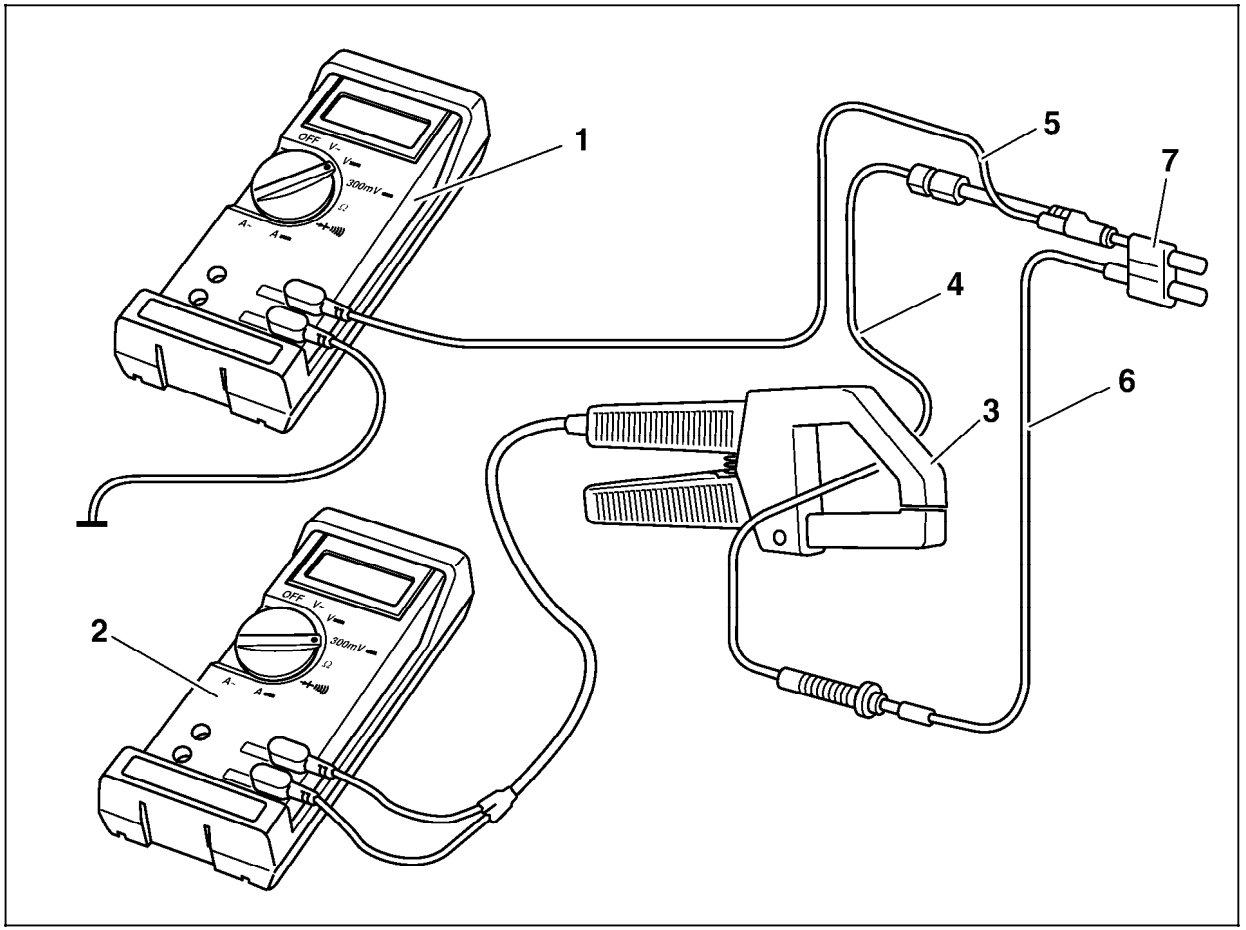
⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.1		**Model 129** Voltage and amperage at fuse and relay box (F1) **Model 140** Voltage and amperage at fuse box (35–fuse) (F3) in fuse and relay box (F1).	F1–7 F1–7 Inductive pickup F1–7 F3–12 F3–12 Inductive pickup F3–12	Remove Fuse (F1–6) or fuse (F3–12). Review Figure 1 and attach multimeters and test cables as shown. ⚠ **CAUTION!** Observe multimeter amp reading when switching on low beam. Low beam: **ON** After approx. 30 seconds measure voltage (U) and amps (I), then calculate wattage (P).	40±5W (P = U x I)	A brief amp flow is noted only when first switching on: Xenon headlamp (D2R, 35W)[1] [2] Wattage < 35W or > 45W: Xenon headlamp control module (E1n1) with Xenon headlamp ignition module (E1n2)[2].

1) To prevent damge to new installed Xenon lamps (D2R, 35W), be certain to check system output (watts) prior to lamp installation.
2) Replace complete headlamp unit as necessary.

Electrical Test Program – Test

Connection diagram – Amperage and Voltage Measurement

⚠ CAUTION!
An inductive pickup must be used during amperage measurement, since high amps will be present when the Xenon headlamps are first switched on.



P82.10-0291-57

Figure 1

1 Multimeter (voltage measurement)
2 Multimeter (amperage measurement)
3 Inductive pickup
4 Fused test cable
5 Measurement test cable
6 Adaptor test cable
7 Rest current maintenance unit