

Face lift Plugs & Functions

Source Document - Fig 9, 1992 XJS Electrical Guide

LB246 - 18 way

A Plug

A1 - BLG	Red Brake Light - ABS
A2 - UW	High Beams
A3 - GR	Left Turn Signal
A4 - RU	Rear Fog
A5	NC
A6 - LGK	Bulb Fail
A7 - RY	Front Fog
A8 - WS	Tachometer
A9 - LGO	Fuel Quantity
A10 - WY	Speedometer
A11 - K	Check Engine
A12 - NK	Fuel Low Light
A13 - W	Battery Switched +12V
A14 - BW	Red Park Brake Warn Light
A15 - BN	Red Low Oil Pressure Light
A16 - BY	Brake Fluid Reservoir Std & ABS
A17 - WU	Engine Low Coolant
A18 - RB	ABS - Anti-Lock

LB247 - 14 way

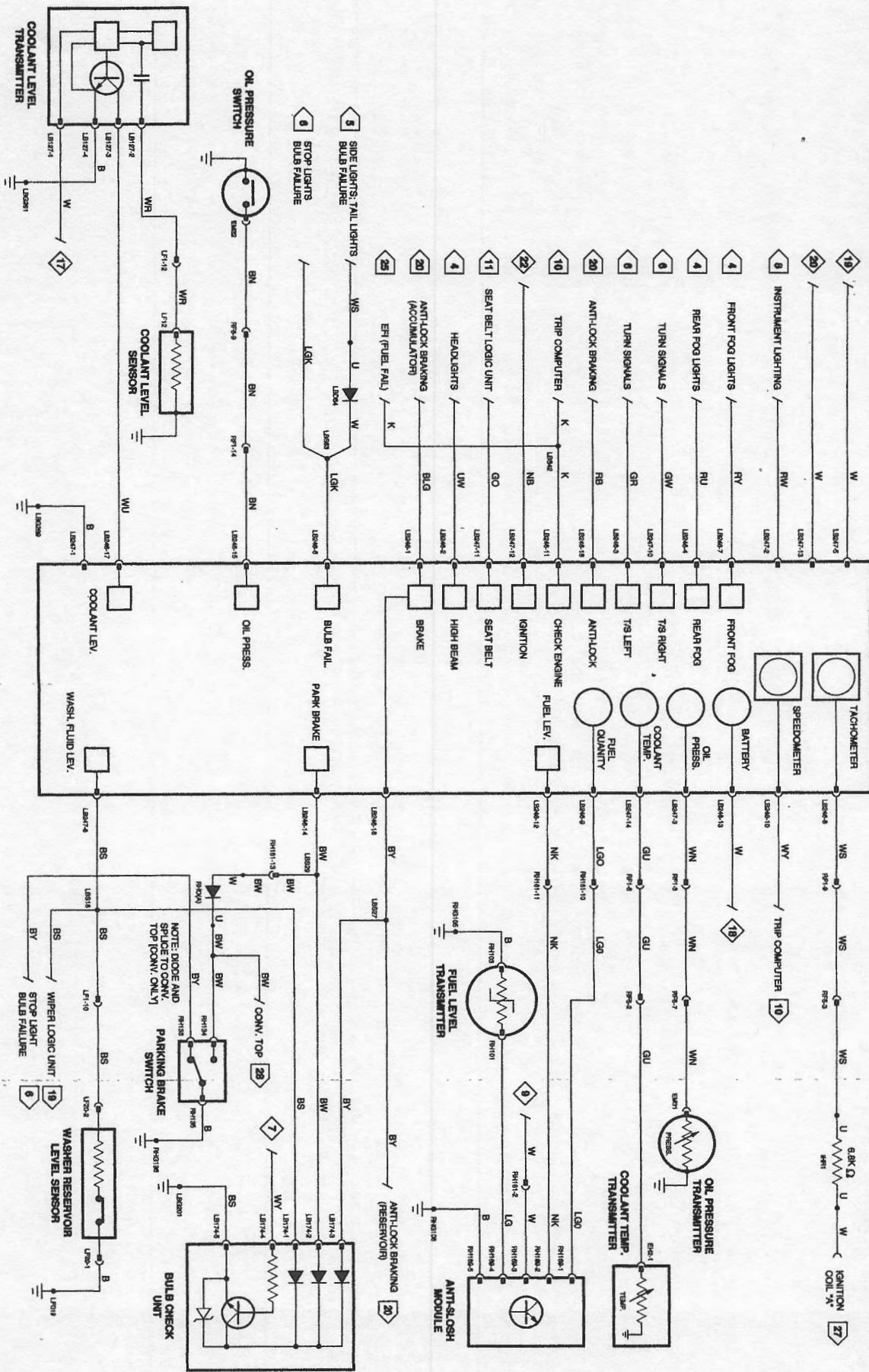
B Plug

B1	NC
B2 RW	Instrument Lighting
B3 - WN	Oil Pressure Gauge
B4 - B	Instrument Pack Ground
B5 - W	Switched Ignition +12V
B6 - BS	WS Washer Fluid Level Low
B7	NC
B8	NC
B9	NC
B10 - GW	Right Turn Signal
B11 - GO	Seat Belt / Shoulder Harness
B12 - NB	Switched Ignition
B13 - W	Switched Ignition +12V
B14 - GU	Engine Coolant Temp Gauge

INSTRUMENT PACK

485-78000-1-0000

FIG 9



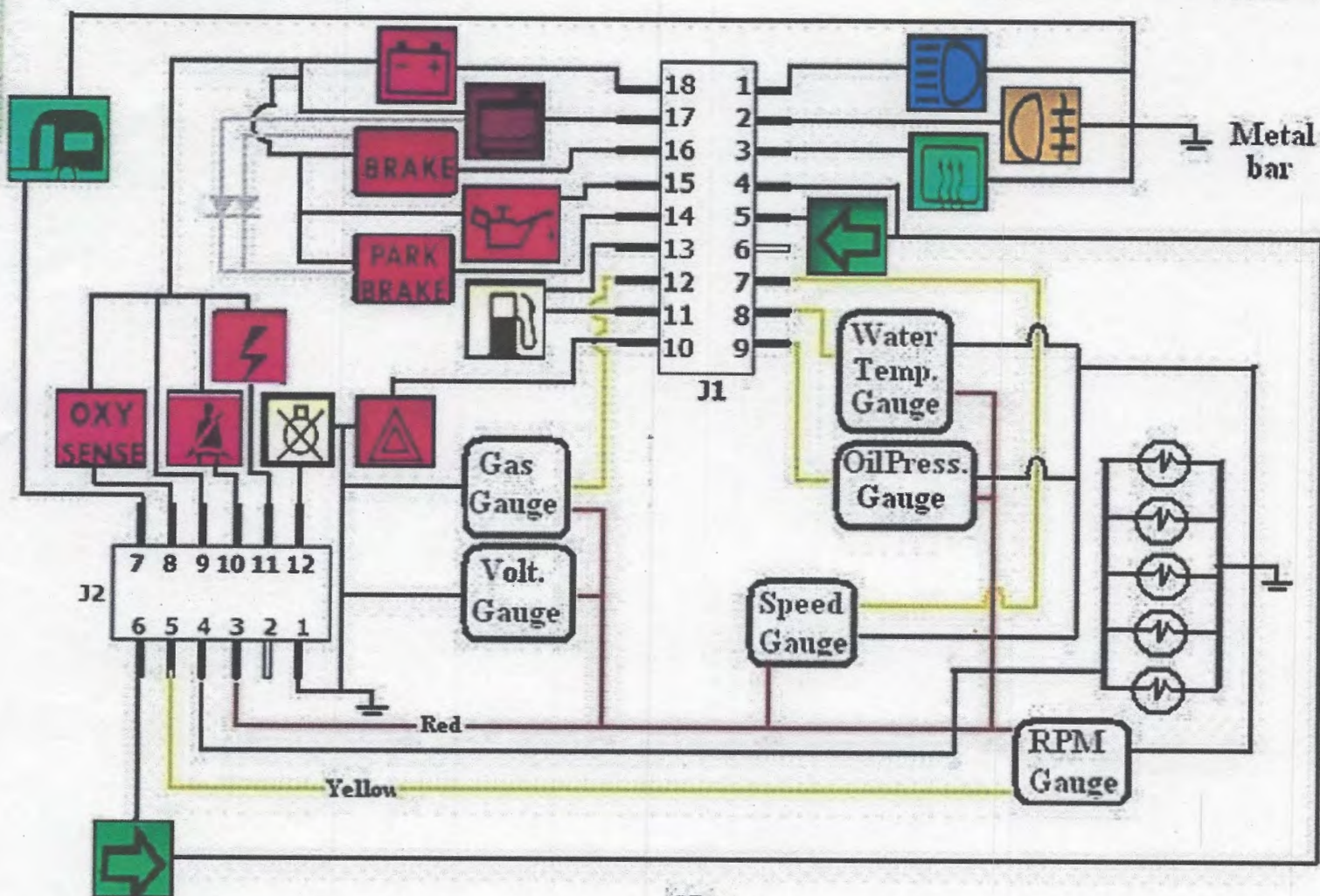
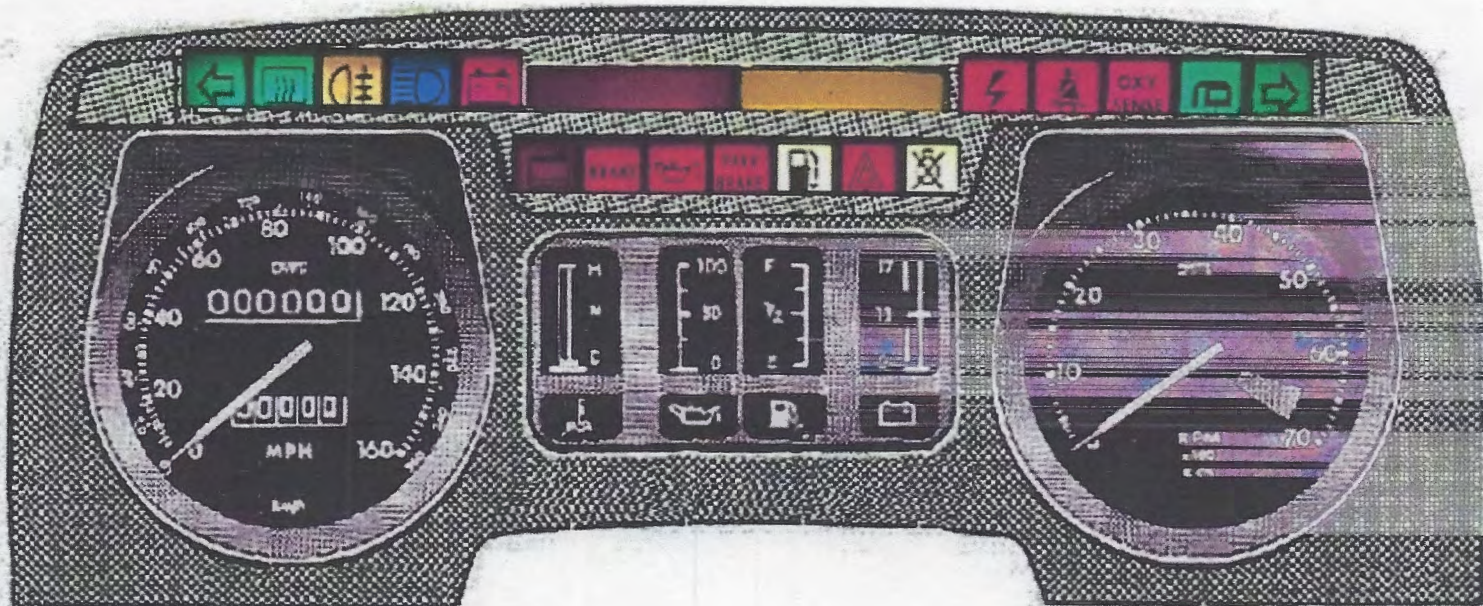
COMPARISON OF PLUG PIN - OUTS FOR HE & EARLIER INSTRUMENT PANELS

Red Phase A (J1) - 18 Pins

Paul Kobres A - 18 pins

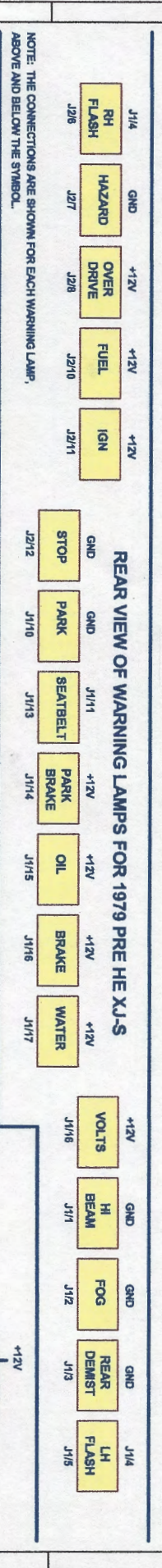
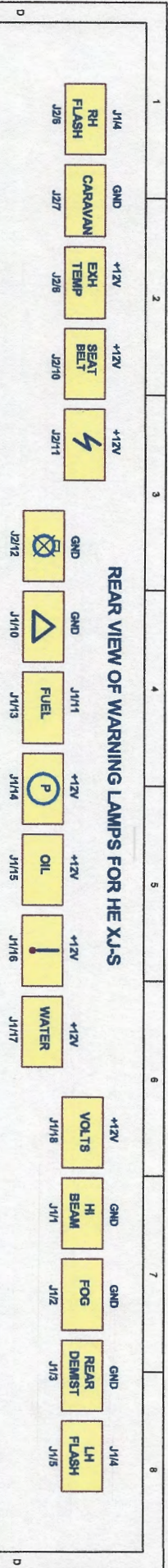
lockheed A-18 Pins

A1 UW	High Beam w/	A1 - Hi Beams	A1 UW	High Beams w/
A2 RY	F Fog Lamp w/	A2 - Front Fog Lights	A2 RU	Front Fog Lts w/
A3 BW	Rear Window DF	A3 - Rear Window DF	A3 WS	Rear Window DF
A4 LGN	Flasher Unit +42v	A4 - Flasher Unit DF	A4	NC Flasher Unit?
A5 GW	Left Turn Signal	A5 - Left Turn Signal	A5 GW	Left Turn Signal
A6	NC	A6 - NC	A6	NC
A7 V or WY	Speedo Signal	A7 - Speedo Signal	A7 WY	Speedo Signal
A8 GU	Water Temp	A8 - Coolant Temp	A8 GU	Coolant Temp
A9 WN	Oil Prssure Gauge	A9 - Oil Prssure Gauge	A9 WN	Oil Prssure Gauge
A10 WL	Park Lamp Fail	A10 - Hazard Warning	A10 LGN	Hazard Warning
A11 OG	Seat Belt Loop ?	A11 - Low Fuel Light	A11 NK	Low Fuel Light
A12 LGO	Fuel Gauge	A12 - Fuel Gauge	A12 GO	Fuel Gauge
A13 P	Seat Belt Loop ?	A13 - 12V to Panel	A13 W	12V to Panel
A14 BW	Park Brake w/	A14 - Park Brake w/	A14 BW	Park Brake w/
A15 BN	Low Oil Prssure WL	A15 - Low Oil Press Light WL	A15 BN	Low Oil Press Light w/
A16 BY	Brake Fluid WL	A16 - Brake Fluid WL	A16 BY	Brkake Fluid w/
A17 WU	Low Coolant w/	A17 - Low Coolant w/	A17 WU	Low Coolant w/
A18 RB	Over Voltage	A18 - Battery Voltage	A18 RB	ABS
B (J2) - 12 pins				
B1 B	Ground	B - 12 pins	B1 B	B - 12 pins
B2	NC	B1 - Ground	B2	Panel system Ground
B3 G	12V for gauges only	B2 - NC	B3 G	NC
B4 RW	Panel Lights	B3 - 12V for gauges only	B4 RW	12V for Gauges
B5 WUS	Tach Signal	B4 - Panel Lights	B5 WU	Panel Lights
B6 GR	Right Turn Signal	B5 - Tach Signal	B6 GR	Tach Signal
B7 GU	Hazard Warning w/	B6 - Right Turn Signal	B7 R	Right Trurn Signal
B8	NC	B7 - Caravan	B8 BS	Caravan
B9 W	12V for Wrn lights Only	B8 - Oygen Sensor w/	B9 w	Window Wash fluid w/
B10 NK	Low Fuel w/	B9 - 12V for Wrn lights Only	B10 GO	12V for Oil P & W Wash Fluid
B11 NB	Ignition w/	B10 - Seat & Shoulder Belts w/	B11 NB	Seat & Shoulder Belts w/
B12 GW	Stop w/ ?	B11 - Ignition on, Eng Stopped	B12 LGK	Ignition, Alternator, Battery
		B12 - 12V from circuit with bulb f.		12V from circuit with bulb fault



Notes:

1. There exists a place in the circuit for diodes, denoted in gray (grey), however; the author of this diagram did not have them inserted in his 1984/12/US spec XJS.
2. The "signals" for the gauges are generally denoted in yellow. The positive "+12" volts supply in red, and their ground in black. This diagram, used in conjunction with figure 19.1 of Jaguar's electronic schematics, specifies the entire working of the readout.
3. Generic workings:
 - a. 12 volts is supplied to each "idiot light" when a switch is closed, the light turns on.
 - b. 12 volts is supplied to each gauge and is split along two possible paths: one goes directly to ground, perhaps through a resistor. The other passes through some type of variable resistor or sensor. The +12 volts (red) is split between the two possible paths according to their relative resistance. The one with the higher resistance gets less current. The one with less resistance gets more. This current passes through two coils, which "fight" for needle deflection by generating a magnetic field opposing each other. The needle stops where the field is balanced, and both paths matched.



NOTE: THE CONNECTIONS ARE SHOWN FOR EACH WARNING LAMP, ABOVE AND BELOW THE SYMBOL.

THE BASIS OF THIS DRAWING IS THE INSTRUMENT CLUSTER FROM MY 1979 PRE HE XJ-S COUPE. THERE MAY BE SOME ERRORS IN THE DETAIL. THIS HAD A MECHANICAL SPEEDO, BUT I NEEDED AN ELECTRONIC SPEEDO AS USED IN LATER HE CARS. TO DO THIS I BOUGHT A SECONDHAND COMPLETE CLUSTER FROM AN HE CAR OF UNKNOWN YEAR. THE CLUSTER PRINTED CIRCUIT BOARD CONNECTION WISE USES THE SAME TERMINALS AS THE ORIGINAL CLUSTER. IN ADDITION TO CONNECTIONS FOR EACH OF THE SPEEDO, THERE IS A SLIGHT DIFFERENCE IN THE SHAPE OF THE CIRCUIT BOARD NEAR THE SPEEDO.

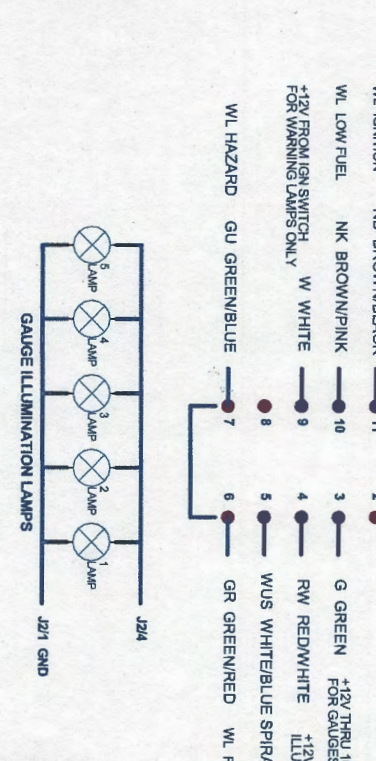
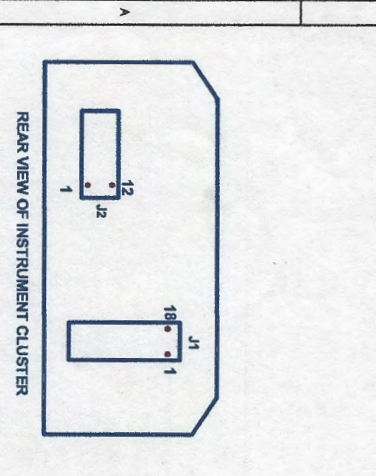
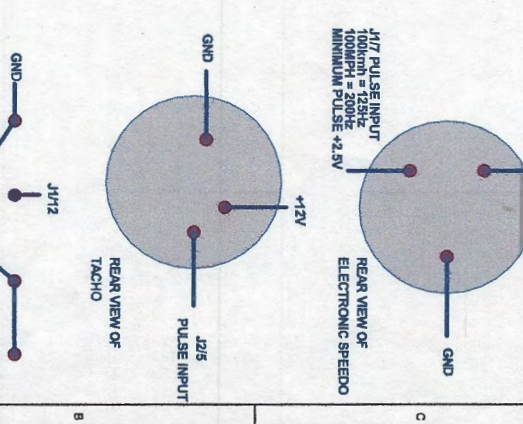
THE HE CLUSTER HAS DIFFERENT SYMBOLS FOR THE WARNING LAMPS, AND DIFFERENT FUNCTIONS IN SOME CASES. THE COLOUR CODE OF WIRING TO THE J1 AND J2 CONNECTORS WILL NOT ALL BE SIMILAR.

ON THE PRE HE J1 AND J2 CONNECTOR WIRING THE "WL" SIGNIFIES CONNECTION TO A WARNING LAMP. I USED THE HE CLUSTER FOR MY PRE HE CAR, BUT CHANGED OVER TO THE MOLDINGS WITH THE WARNING LAMP SYMBOLS TO MATCH THE WIRING IN THE PRE HE CAR.

THE WARNING LAMPS DRAW 80mA EACH @ 12V, NOMINAL 1W RATING. THE ILLUMINATION LAMPS DRAW 180mA @ 12V, NOMINAL 2W RATING.

THESE WIRE COLOURS ONLY AS FOUND ON 1979 PRE HE

WL OVER VOLTAGE	RB RED/BLACK	18	J1	1	UW BLUE/WHITE	WL HIGH BEAM
WL LOW COOLANT	WU WHITE/BLUE	17	J1	2	RY RED/YELLOW	WL FOG LAMP
WL BRAKE FLUID LEVEL	BY BLACK/YELLOW	16	J1	3	BW BLACK/WHITE	DEMIST
WL OIL PRESSURE	BN BLACK/BROWN	15	J1	4	LGN GREEN/BROWN	FLASHER UNIT (+12V)
WL PARK BRAKE	BW BLACK/WHITE	14	J1	5	WG WHITE/GREEN	WL LH FLASH
SEAT BELT LOOP	P PURPLE	13	J1	6		
FUEL GAUGE	LGO GREEN/ORANGE	12	J1	7	Y OR W/Y	ONLY FOR ELECTRONIC SPEEDO PULSE
SEAT BELT LOOP	OG ORANGE/GREEN	11	J1	8	GU GREEN OR GREEN/BLUE	WATER TEMP GAUGE
WL PARK LAMP FAIL	WS WHITE/SLATE	10	J1	9	WN WHITE/BROWN	OIL GAUGE
WL STOP	GW GREEN/WHITE	12	J2	1	B BLACK	GROUND
WL IGNITION	NB BROWN/BLACK	11	J2	2		
WL LOW FUEL	NK BROWN/PINK	10	J2	3	G GREEN	+12V THRU 10A FUSE FROM IGN SWITCH FOR GAUGES ONLY
+12V FROM IGN SWITCH FOR WARNING LAMPS ONLY	W WHITE	9	J2	4	RW RED/WHITE	+12V THRU RHEOSTAT FOR ILLUMINATION LAMPS
		8	J2	5	WUS WHITE/BLUE SPIRAL	TACHO PULSE
WL HAZARD	GU GREEN/BLUE	7	J2	6	GR GREEN/RED	WL RH FLASH



XJ-S INSTRUMENT CLUSTER NOT FACELIFT

FILE: **RED PHASE INSTRUMENTS**

SHEET: 1 REV: 1.0 12-Mar-2012

GAUGE TEST:
SUGGEST PUTTING A SOLDER TAG OR PIECE OF WIRE BEHIND VOLTMETER SCREWS, AND ATTACH 12V SUPPLY OR BATTERY. FUEL GAUGE READS ABOUT 1/2 MAXIMUM. OIL PRESSURE READS ABOUT 1/3 MAXIMUM. WATER READS ABOUT 1/3 MAXIMUM.