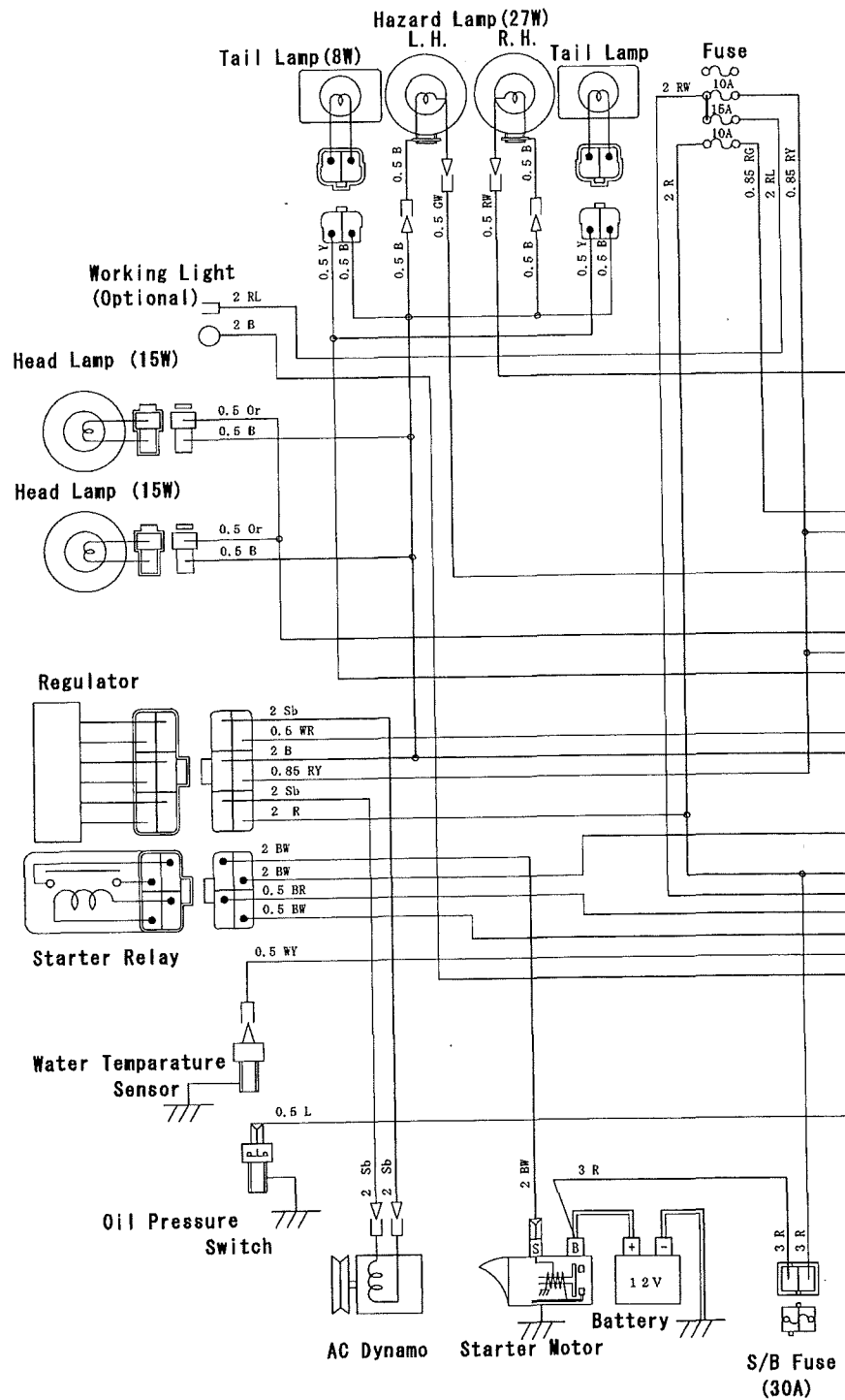
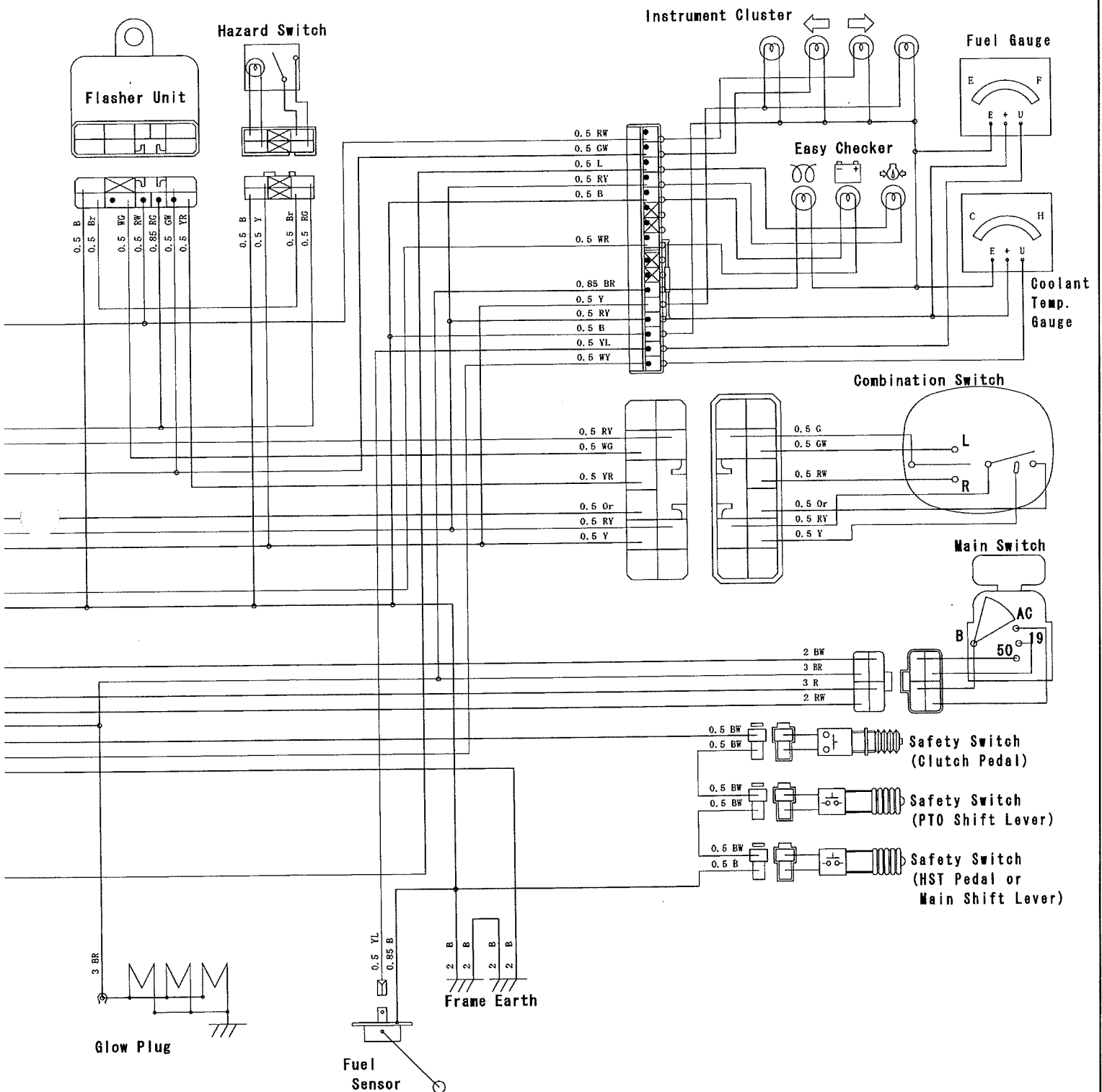


[1] WIRING DIAGRAM AND ELECTRICAL CIRCUIT

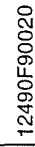
● Color of Wiring

W	White
R	Red
L	Blue
Y	Yellow
B	Black
G	Green
P	Pink
Lg	Light Green
Br	Brown
Or	Orange
Sb	Sky Blue
WG	White / Green
WB	White / Black
WR	White / Red
WY	White / Yellow
WL	White / Blue
RW	Red / White
RL	Red / Blue
RY	Red / Yellow
RB	Red / Black
RG	Red / Green
BW	Black / White
BL	Black / Blue
BR	Black / Red
LY	Blue / Yellow
LW	Blue / White
LG	Blue / Green
LR	Blue / Red
LB	Blue / Black
LOr	Blue / Orange
YG	Yellow / Green
YR	Yellow / Red
YB	Yellow / Black
GR	Green / Red
GW	Green / White
LgY	Light Green / Yellow
LgB	Light Green / Black



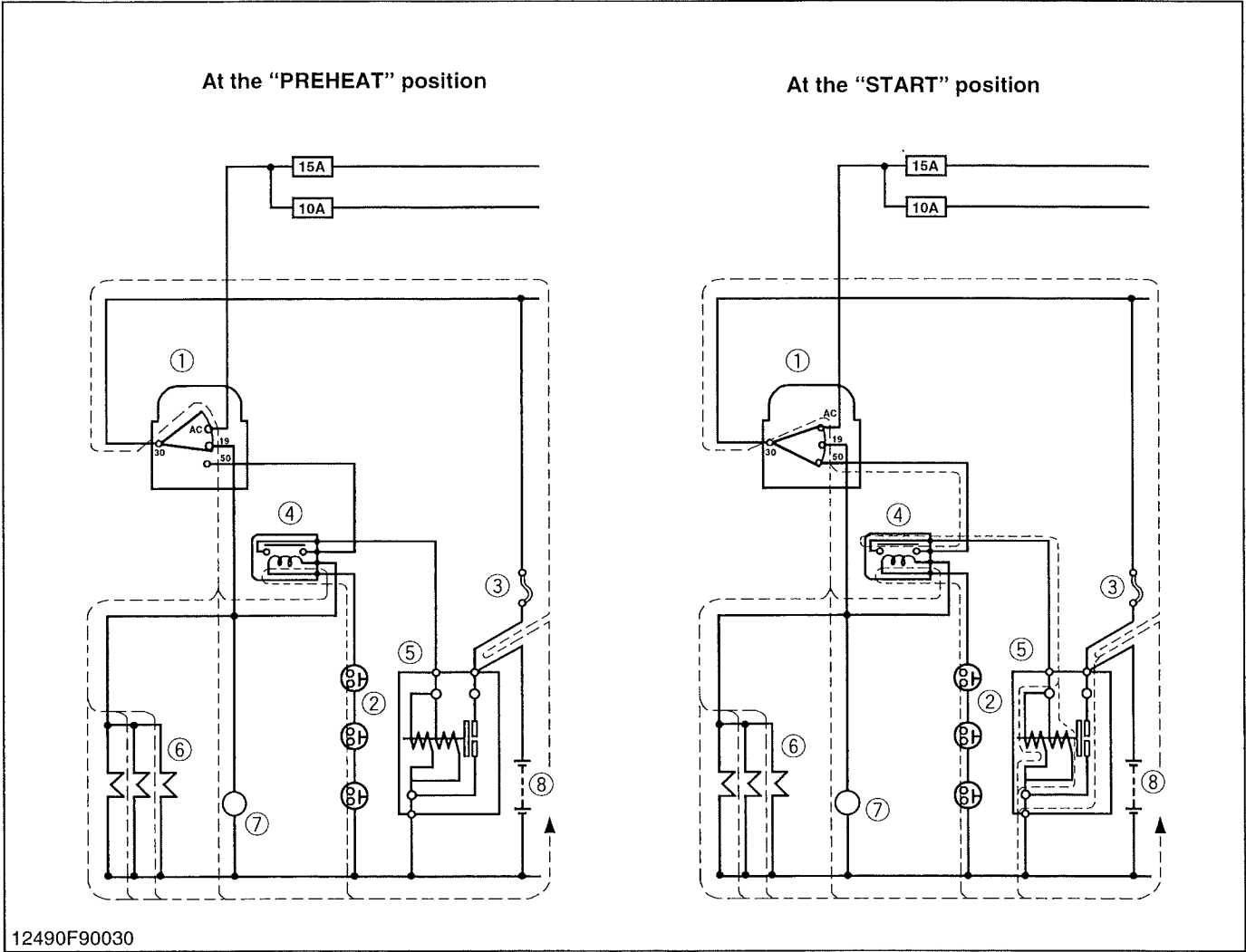


B ----- Black	Y ----- Yellow	BR ----- Black / Red	RL ----- Red / Yellow	WR ----- White / Red
G ----- Green	Br ----- Brown	BW ----- Black / White	RW ----- Red / White	WY ----- White / Yellow
L ----- Blue	Or ----- Orange	GW ----- Green / White	RY ----- Red / Yellow	YL ----- Yellow / Blue
R ----- Red	Sb ----- Sky Blue	RG ----- Red / Green	WG ----- White / Green	YR ----- Yellow / Red



[2] STARTING SYSTEM

Main Switch Table				
Key Position \ Terminal	30	AC	19	50
OFF	●			
ON	●	●		
PREHEAT	●	●	●	
START	●	●	●	●



- (1) Main Switch

(2) Safety Switches
- (3) Slow Blow Fuse

(4) Starter Relay
- (5) Starter Motor

(6) Glow Plugs
- (7) Pre-heat Indicator Lamp

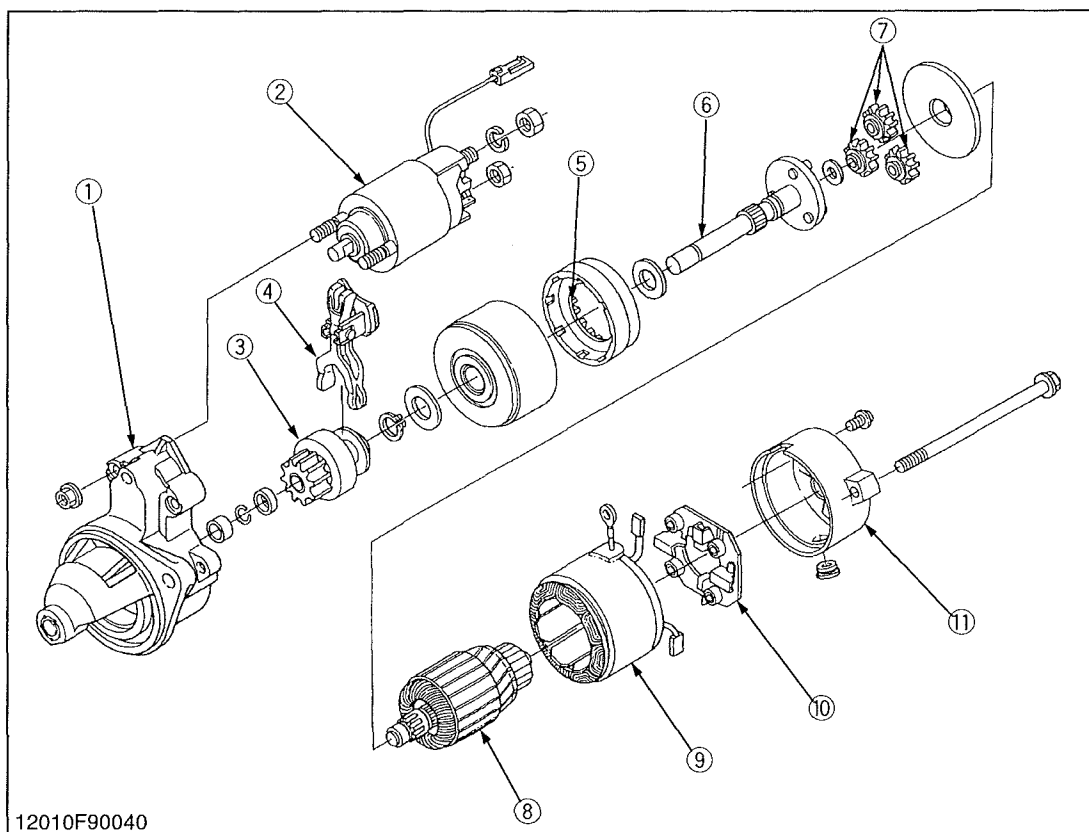
(8) Battery

When the main switch (1) is turned to the **PREHEAT** position, the terminal **30** is connected to the terminals **19** and **AC**. The glow plugs (6) become red-hot, and at the same time, the pre-heat indicator lamp (7) also lights on.

When the main switch is then turned to the **START** position with the safety switches (2) on, the terminal **30** is connected to the terminals **50** and **AC**. Consequently, battery current flows to the coil **C1** of the starter relay (4),

and relay contact point **S1** is turned on. This actuates starter motor (5) and the glow plugs are kept red-hot. The main switch automatically returns to the **ON** position, the terminal **30** is connected only to the terminal **AC**, thereby causing the starting circuit to be opened, stopping the starter motor.

12490M90020

(1) Starter

12010F90040

- (1) Housing
- (2) Magnetic Switch
- (3) Overrunning Clutch
- (4) Drive Lever
- (5) Internal Gear
- (6) Gear Shaft
- (7) Planetary Gear
- (8) Armature Shaft
- (9) Yoke
- (10) Brush Holder
- (11) Rear End Frame

The starter is a reduction type.

The reduction system is used planetary gears, and

the speed of gear shaft (6) is reduced to approximately one fifth of the armature shaft (8).

12010M90020