Fitting Instructions

TOWBARS For MG-GS **R48 R48Q R48QF R48S**

MATERIALS

A	1	Cross Bar
B	2	Bracket
C	1	Brace
D	4	M10 x 40 x 1.5 bolts, lock washers, Dia.30 flat washers, Cage Nut Retainer and Square Cage Nut.
E	2	M8 Spigot Nut, M10 lock washers, and M10, Dia.30 flat washers.
F	4	M8 x 35 x 1.25 bolts, lock washers, and Dia.30 flat washers.
G	1	M12 x 40 x 1.75 bolts, lock washers, Nuts, and Plain Washers (for use as spacers)
ZE	1	Retractable electrical plate kit.
ZN	1	Neck Kit.
SCP	1	Safety Chain Plate Kit – includes M12 x 35 bolts (H)
X	2	Existing M8 Bolts from Towing Loop Bracket

FITTING

1. Remove Bumper.
2. Remove Inner Bumper Beam.
3. Remove Towing Loop Bracket from Right Hand Side chassis rail.
4. Remove rear boot trim and loosen each boot side panel to gain access to holes for fastener (D) through the boot floor.
5. Pre-Assemble the M10 Cage Nuts (fasteners D) to each Bracket (B), using Cage Nut fitting instructions.
6. Insert each Bracket (B) into each chassis rail via the opening in the vehicles rear panel.
7. Loosely secure to the boot floor using fastener (D)
8. Loosely assemble Brace (C) to the side of the right hand chassis rail using the existing Towing Loop Bracket holes and fasteners (X).
9. Assemble Cross Bar (A) to the vehicle rear panel using fasteners (E & F)., locating over the existing Inner Bumper Beam studs.
10. Secure each Bracket (B) to Cross Bar (A) using remaining fasteners (D) through slotted holes in Cross Bar (A).
11. Secure Brace (C) to Cross Bar (A) using fasteners (G) and Spacer Washers as required between Cross Bar and Brace.
12. Assemble the chosen Neck Kit (ZN) and Retractable Electrical Plate (ZE) and Safety Chain Plate (SCP) to Cross Bar (A) using fasteners and instructions from each kit. **(Note the use of M12 x 35 long bolts (H) on Safety Chain Plate side of neck)**
13. **Fully Tighten All Fasteners starting with (E) and (F)**

Recommended torque settings:
Grade 8.8 bolts: M8 - 24Nm, M10 - 52 Nm, M12 - 80 Nm, M14 - 130 Nm, M16 - 200 Nm
Grade 10.9: M12 – 120Nm, M10 – 70Nm, M8- 35Nm

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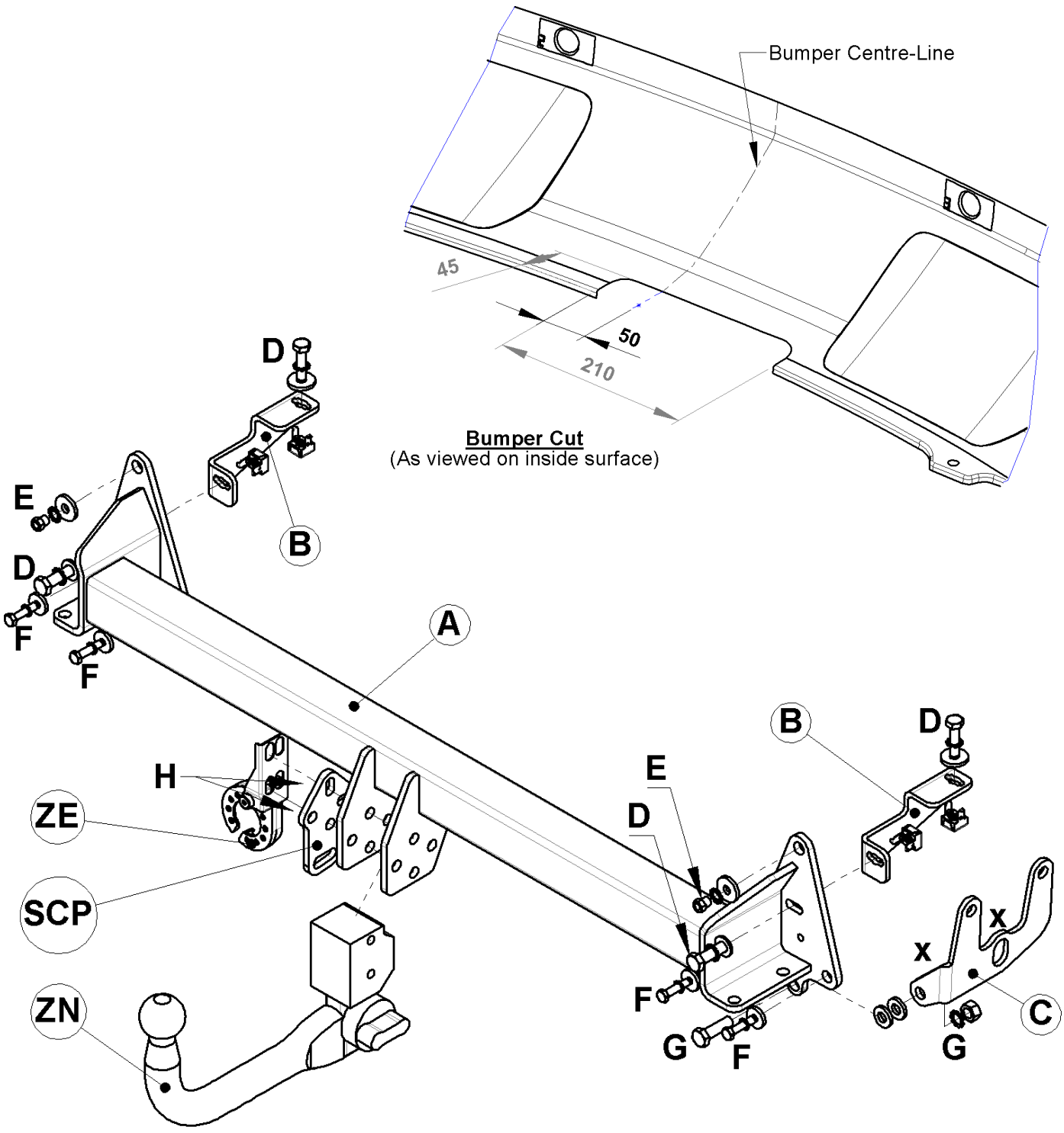

Bumper Centre-Line
45
50
210
Bumper Cut
(As viewed on inside surface)
D
E
B
D
F
F
A
H
ZE
SCP
ZN
B
D
E
D
F
G
F
X
X
C
G

Notice de Montage

Attelage pour MG-GS **R48 R48Q R48QF R48S**

Désignation

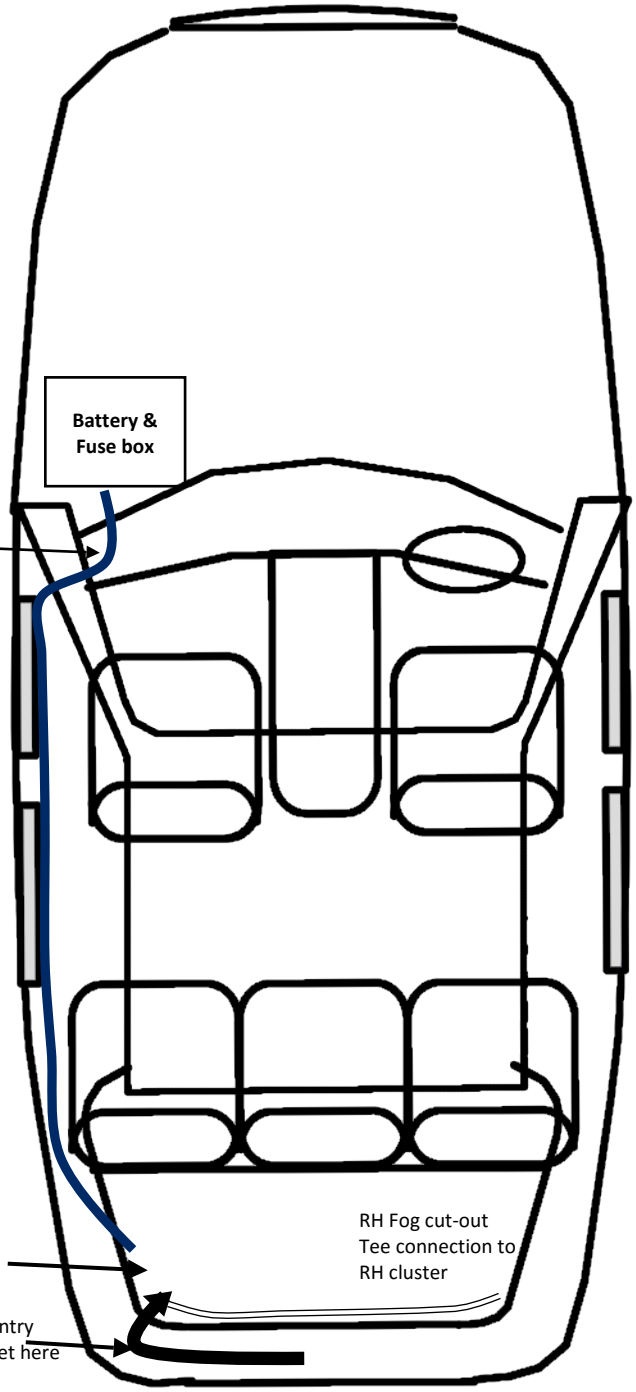
A	1	Traverse principale
B	2	Bras latéraux
C	1	Taquet
D	4	Boulons M10 x 40 x 1.5, rondelles freins, rondelles Ø30, écrous prisonnier Witter.
E	2	Ecrous a collerette M8, rondelles freins M10 et rondelles plates M10 Ø30.
G	1	Boulons M12 x 40 x 1.75, rondelles freins, écrous et rondelles plate (utilisées comme entretoises)
ZE	1	Plaque de support de prise escamotable.
ZN	1	Rotules choisie.
SCP	1	Platine pour chaine de sécurité – M12 x 35 pour les rotules RDSO (H)
X	2	Boulons d'origine M8 de l'anneau de remorquage

Installation

1. Démonter le pare-chocs.
2. Démonter la traverse de pare-chocs.
3. Enlever l'anneau de remorquage du côté droit.
4. Enlever le tapis de sol du coffre et bouger les garnitures latéral de façon a pouvoir accéder au point de fixation (D)
5. Positionner les écrous prisonniers (D) sur chaque bras latéraux (B), à l'aide de la notice fournie séparément.
6. Insérer les bras latéraux (B) dans chaque longeron.
7. Attacher les sans serrer à l'aide de la visserie (D)
8. Sans serrer, attacher le taquet (C) du côté droit a l'aide des points de fixations de anneau de remorquage d'origine et de sa visserie (X).
9. Attacher la traverse principale (A) au véhicule à l'aide de la visserie (E & F).
10. Sans serrer, attacher les bras latéraux (B) à la traverse principale (A) à l'aide de la visserie (D).
11. Sans serrer, attacher le taquets (C) à la travers principale Bar (A) à l'aide de la visserie (G) et si nécessaire en utilisant les rondelles comme entretoises être la traverse principale et le taquets.
12. Positionner la rotule choisie, la plaque de chaine de sécurité et la plaque de support de prise a la traverse (A) comme indiqué dans les notices fournies séparément. **(Remarque: Utiliser la visserie longue M12 x 35 pour les rotules RDSO et la platine de chaine de sécurité)**
13. **Serrer toutes la visserie au couple de serrage recommandé en commancant par (E) et (F)**

Couple de serrage:
Boulons de Classe 8.8: M8 - 24Nm, M10 - 52 Nm, M12 - 80 Nm, M14 - 130 Nm, M16 - 200 Nm
Classe 10.9: M12 – 120Nm, M10 – 70Nm, M8- 35Nm

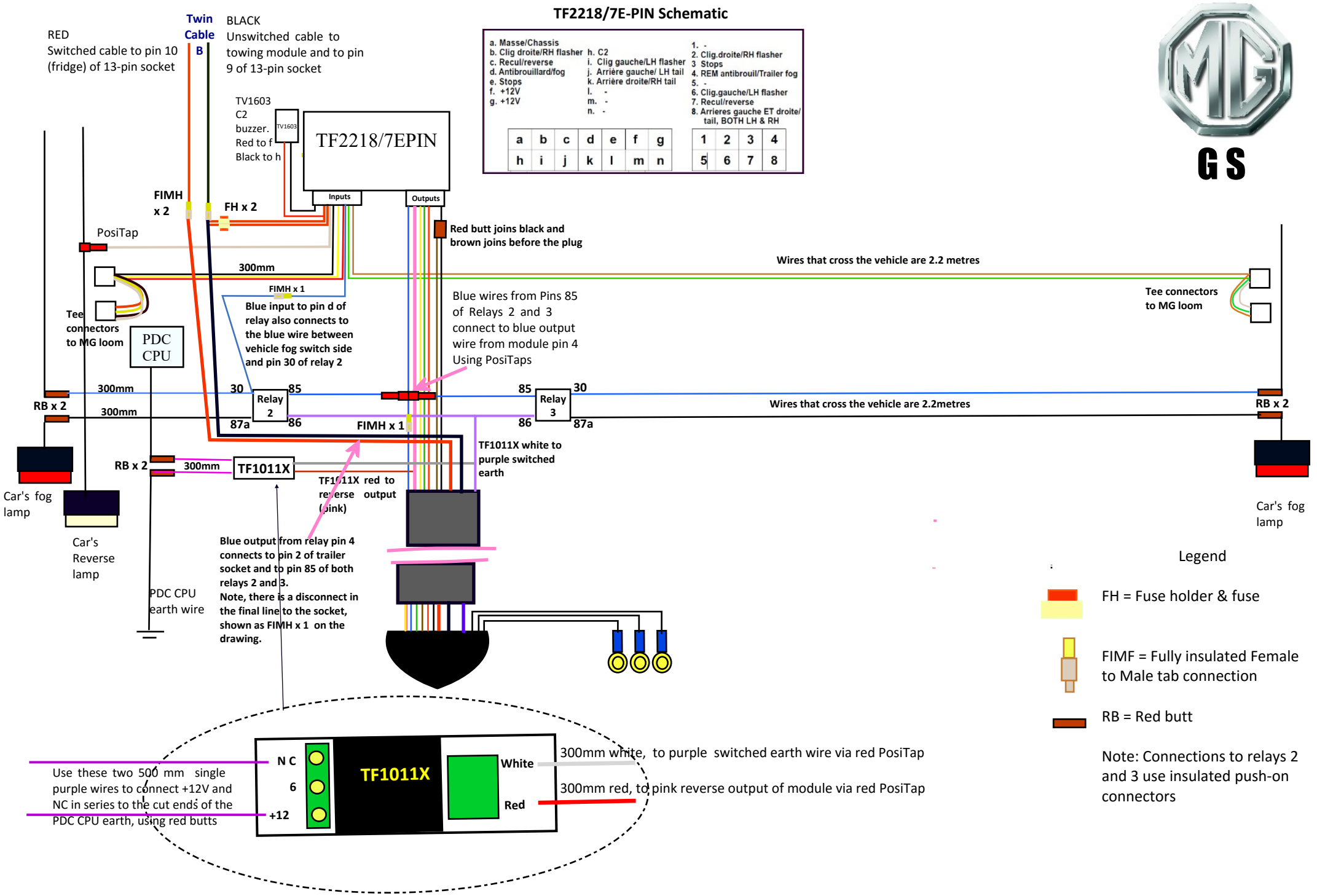
Power from battery
Ignition control for caravan fridge
Main towing fuses



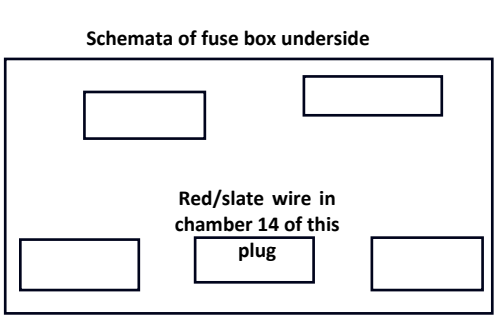
GS

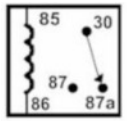
MG GS 2016

Towing Electrical Kit


TF2218/7E-PIN Schematic
a. Masse/Chassis
b. Clig droite/RH flasher
c. Recul/reverse
d. Antibrouillard/fog
e. Stops
f. +12V
g. +12V
h. C2
i. Clig gauche/LH flasher
j. Arrière gauche/ LH tail
k. Arrière droite/RH tail
l. -
m. -
n. -
1. -
2. Clig.droite/RH flasher
3 Stops
4. REM antibrouil/Trailer fog
5. -
6. Clig.gauche/LH flasher
7. Recul/reverse
8. Arrieres gauche ET droite/ tail, BOTH LH & RH
a b c d e f g
h i j k l m n
1 2 3 4
5 6 7 8
GS
RED
Switched cable to pin 10 (fridge) of 13-pin socket
Twin Cable
B
BLACK
Unswitched cable to towing module and to pin 9 of 13-pin socket
TV1603
C2
buzzer.
Red to f
Black to h
TF2218/7EPIN
Inputs
Outputs
FIMH x 2
FH x 2
PosiTap
300mm
FIMH x 1
Blue input to pin d of relay also connects to the blue wire between vehicle fog switch side and pin 30 of relay 2
Red butt joins black and brown joins before the plug
Wires that cross the vehicle are 2.2 metres
Tee connectors to MG loom
Blue wires from Pins 85 of Relays 2 and 3 connect to blue output wire from module pin 4 Using PosiTaps
Tee connectors to MG loom
PDC CPU
300mm
RB x 2
300mm
30
85
Relay 2
87a
86
FIMH x 1
85
30
Relay 3
86
87a
Wires that cross the vehicle are 2.2metres
RB x 2
TF1011X white to purple switched earth
RB x 2
300mm
TF1011X
TF1011X red to reverse output (pink)
Car's fog lamp
Car's Reverse lamp
Car's fog lamp
Blue output from relay pin 4 connects to pin 2 of trailer socket and to pin 85 of both relays 2 and 3.
Note, there is a disconnect in the final line to the socket, shown as FIMH x 1 on the drawing.
PDC CPU earth wire
Use these two 500 mm single purple wires to connect +12V and NC in series to the cut ends of the PDC CPU earth, using red butts
N C
6
+12
TF1011X
White
Red
300mm white, to purple switched earth wire via red PosiTap
300mm red, to pink reverse output of module via red PosiTap
Legend
FH = Fuse holder & fuse
FIMF = Fully insulated Female to Male tab connection
RB = Red butt
Note: Connections to relays 2 and 3 use insulated push-on connectors

MG6 Kit 2016 Front end assembly





Relay schematic

Cable set A

300mm red 2 mm² cable

Single cable with black PosiTap connector. Connects to ignition-switched cable under the fusebox. Red/Slate wire, chamber 14 of multi-socket: see picture.

700 mm

Waterproof fuse holder
25 AMP FUSE

220mm

Yellow
6.3mm
ring

220mm

Waterproof fuse holder
25 AMP FUSE

700 mm

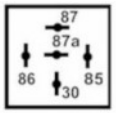
Yellow push-on

Yellow push-on

TO RELAY PIN 85

TO RELAY
PIN 30

Relay 1
4-pin auto relay
ignition-switched



TO RELAY PIN 86

Cable set A1

4 fully-insulated
6.3mm push-on
receptacles
connect to the relay

TO RELAY PIN 87

Clear, fully-
insulated push-on
6.3 mm tab

RED
Switched cable to
pin 10 (fridge) of
13-pin socket

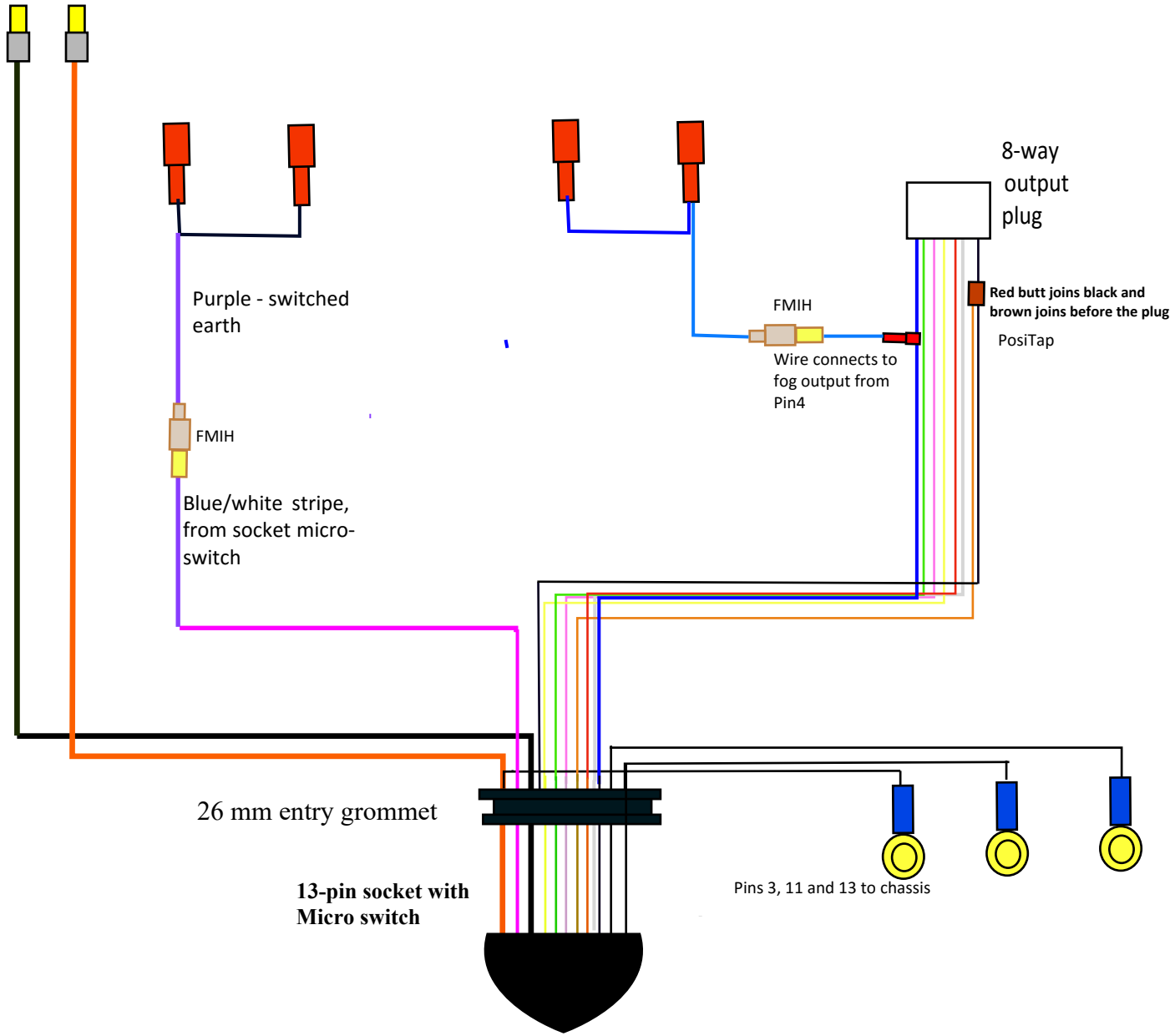
Cable B
Twin 2.5mm cable
through bulkhead
grommet from the
rear of the vehicle

BLACK
Unswitched cable
to towing module
and to pin 9 of 13-
pin socket

Cables from the battery are routed within the battery cover so that there is no exposed wire between the cover and the fuses.
All wires are long enough to be routed round the fusebox, etc: no wires should run across exposed areas.
Relay is attached to the wing.

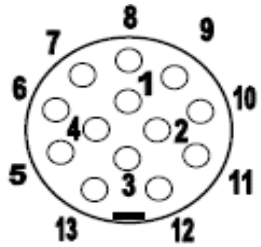
MG6 Kit 2016 13-pin socket assembly

GS



G S

13-pin wiring



*** the colours from 8 to 13 are not standard across all suppliers**

Pin	Cable colour*	Function	8-pin relay plug - pin:	
1	Yellow	LH flasher	6	
2	Blue	Fog light	4 Splice in blue wire to pin 85 of c/o relays	
3	White	Earth (For 12N)	0	
4	Green	RH flasher	2	
5	Brown	RH tail light	8	
6	Red	Brake lights	3	
7	Black	LH tail light	8	
8	*Pink*	Reversing light	7	Splice in red from TF1011X
9	*Orange*	Constant live	Unswitched 12V	
10	*Grey*	Ignition-controlled power supply	Switched 12V	Yellow butts
11	*White/black*	Earth (for pin 10)	-	Ring
-	*Blue/white*	*Micro switch to Purple switched earth (Relays, pins 86)*		- -
	-			
13	*White/red*	Earth (for pin 9)	-	Ring

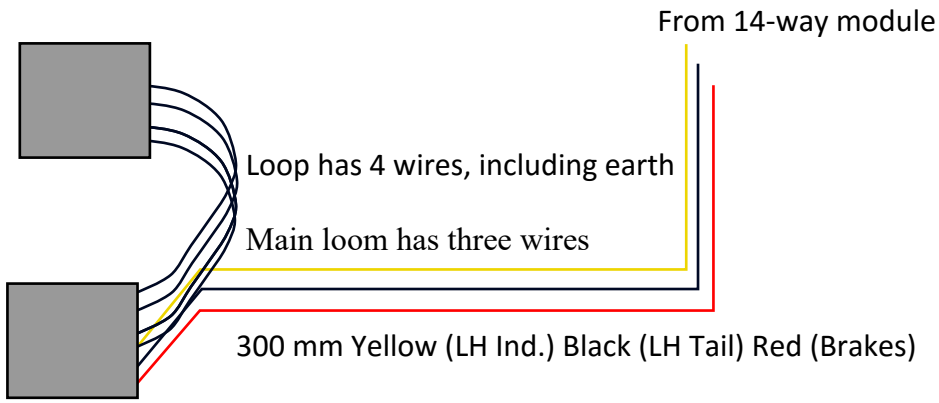
G S

14-way relay plug				
Pin	**Cable colour***	**Function**	**in MG6 kit**	
a	White	Chassis		
b	Green	RH Flasher		
c	Grey	Reverse		
d	Blue	Fog		
e	Red	Brakes		
f	Orange	Power in, fused	To unswitched power line	Also to positive (red) of mini buzzer TV1603
g	Orange	Power in, fused	To unswitched power line	
h	C2	To Neg of mini buzzer TV1603		
i	Red	LH Flasher		
j	Black	LH Tail		
k	Brown	RH Tail		

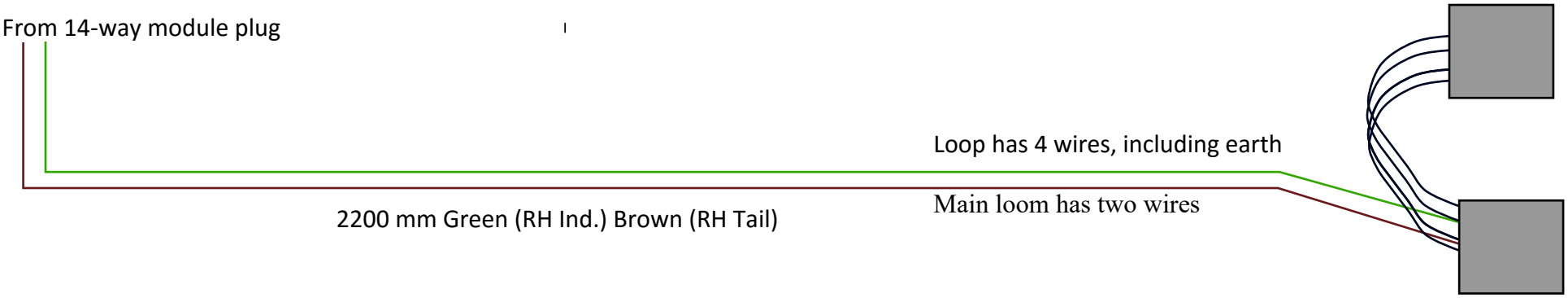
MG6 Kit 2016 Tee assembly to lamp clusters

GS

Tee connection to LH cluster



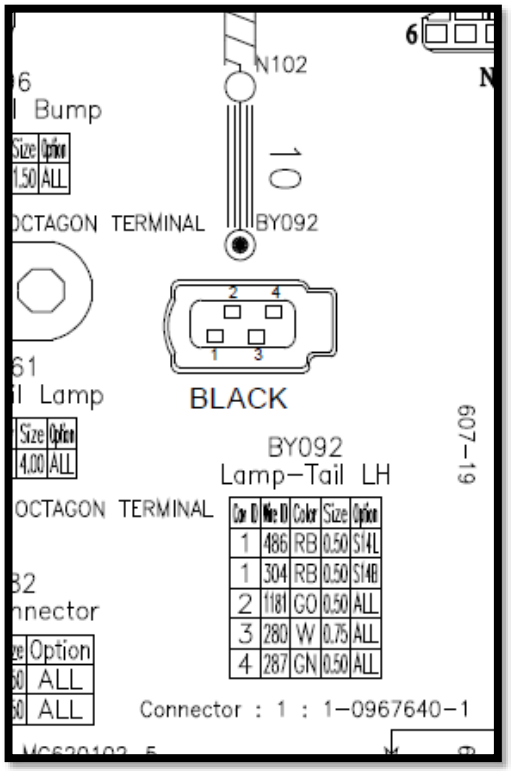
Tee connection to RH cluster



Harness connectors to the lamps

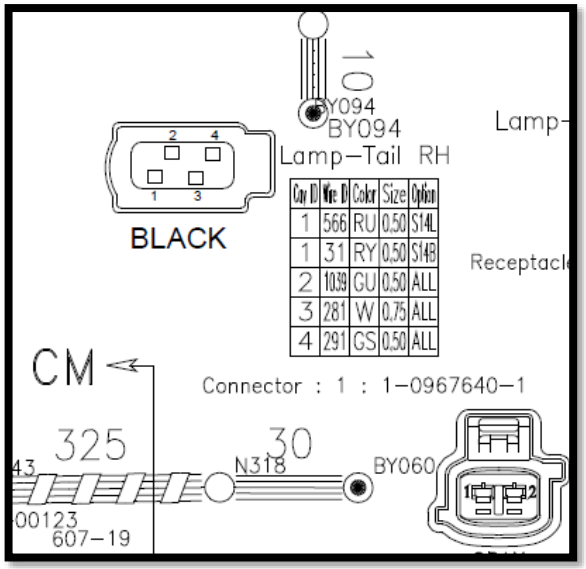
GS

LH Tail Lamp Connector



Cavity 1 = Side Lamps (Black)
Cavity 2 = Brakes (Red)
Cavity 3 = Earth (White)
Cavity 4 = Indicators (Yellow)

RH Tail Lamp Connector



Cavity 1 = Side Lamps (Brown)
Cavity 2 = Brakes (Not used)
Cavity 3 = Earth (White)
Cavity 4 = Indicators (Green)

Cable set A

300mm red 2 mm² cable

Black PosiTap

Connects to ignition-switched cable under the fusebox

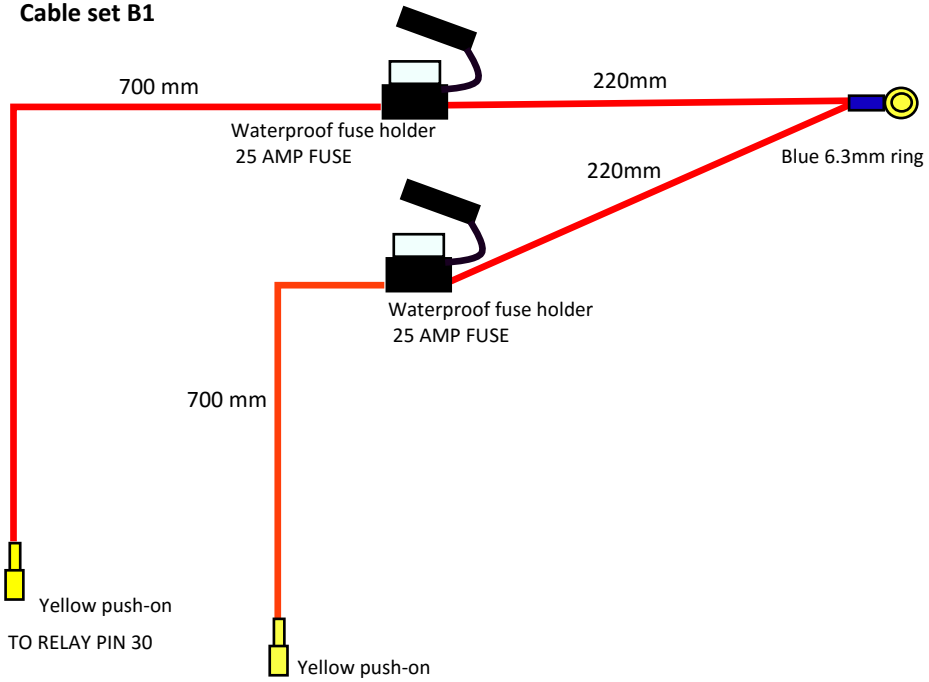
Cable set A1

500 mm yellow 2 mm² cable

Blue 6.3mm push-on

Blue 6.3mm ring

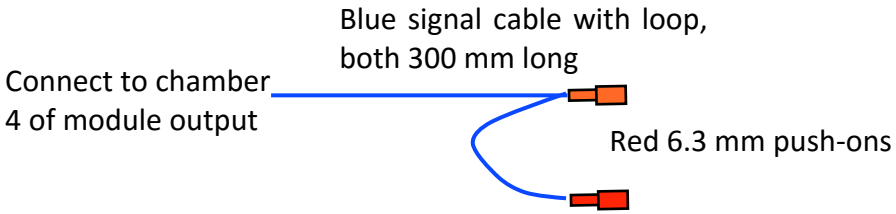
Cable set B1



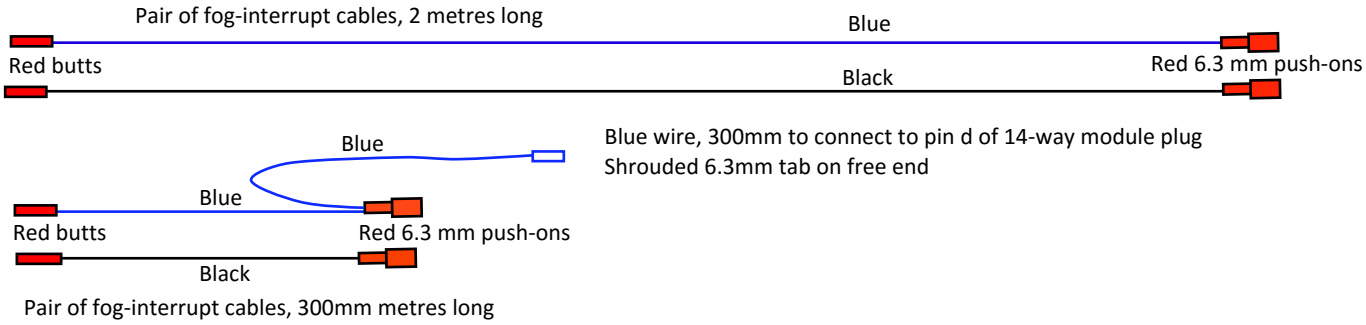
G S

MG6 kit 2016 Looms (1)

Connect blue output (fog light) to pin 85 of both changeover relays



Cut cables to car's fog lamps and connect cables from
pins 30 and 87a of each relay in series. Use red butts.



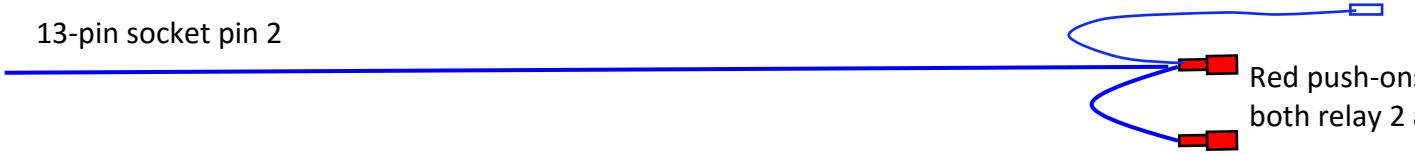
Blue wire, 300mm to connect to pin d of 14-way module plug
Shrouded 6.3mm tab on free end

MG6 kit 2016: Looms (2)

Fog light output assembly
2 metres plus two 100 mm loops

Blue wire, 300mm to connect to pin 4 of 8-way module plug

13-pin socket pin 2



Red push-ons to pin 85 on both relay 2 and relay 3

Micro-switch purple cable
2 metres plus 100mm loop

To 13-pin socket
Micro-switch N/O

Red push-ons to pin 86 on both relay 2 and relay 3

Connectors required:

•	**Posi-Taps, Black**	**1**
•	**Posi-Taps, Red**	**2**
•	**Red 6.3 fully-insulated 6.3 push-on receptacles**	**15**
•	**6.3mm shrouded crimped male push-on tabs**	**5**
•	**Blue 6.3 fully-insulated 6.3 push-on receptacles**	**5**
•	**Yellow 6.3 fully-insulated push-on receptacles**	**1**
•	**Blue 6.3mm ring terminals**	**4**
•	**Red 6.3mm ring terminals**	**4**
•	**Yellow 6.3mm ring terminals**	**1**
•	**ATO fuses 25 amp**	**2**
•	**Mini fuses 25 amp**	**2**
•	**MG-specific T connectors + crimps pairs**	**2**

Cable loom

•	**Twin 2.5mm²**		**6 m**
•	**Single 0.5mm²**		**8 x 2.2m**
•	**Single 2.5mm²**	**What's this for?**	**5 x 2.2m**

Relays/module

•	**TF2218/7EPIN**	**1**
•	**TF2550 5-pin relay**	**3**

MG6 kit 2016
Fitting notes

GS

Ignition-switched feed to relay 1
Unclip the fuse box at A4 to access multi-plugs on the underside.
Use a black PosiTap connector to join Cable A to Red/Slate cable to Chamber 14, as shown in picture on page 3

Bulkhead Grommet
There is a large grommet with cells under the dash at B7 (LH front bulkhead)
Use a long probe to pierce it and pass Twin Cable B through into to engine compartment. The long probe will enable you to see and grab the probe between the battery and the bulkhead.

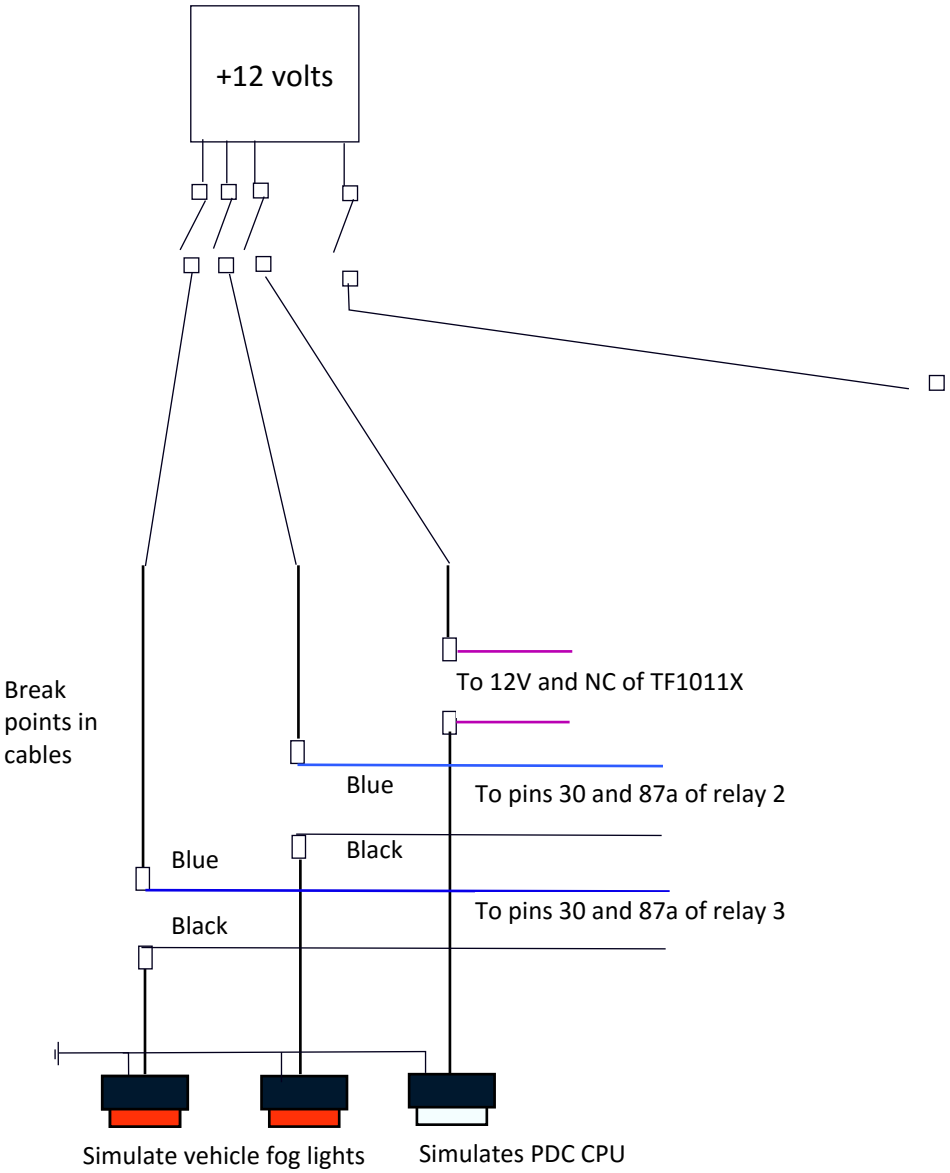
Unswitched feed to Towing Module
This feed is taken from the unswitched black core of Twin Cable B,

Cutting out the reversing sensor
This is done by cutting the earth wire of the little CPU that controls the reversing sensors. TF1011X is a cut-out relay connected to the reverse fed to the trailer and to a micro-switch in the 13-pin socket. It works when a trailer is connected.

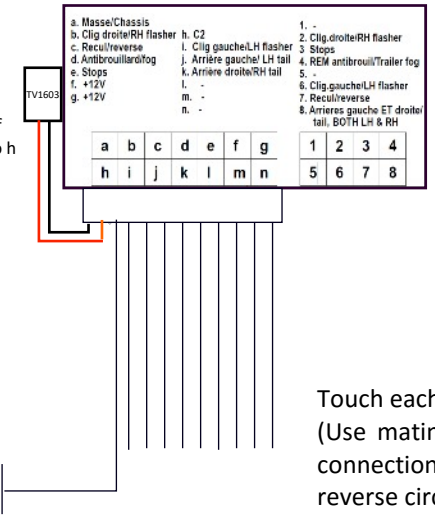
Finding the wire to the reverse light
The reverse light is in the boot lid and all the cables in the lighting loom are white.
Find the white cables just behind the LH cluster and probe for the reverse using an LED tester.
The reverse wire is not cut. Only the PDC is deactivated for towing.

Other Notes:

Test rig



TV1603 C2 buzzer. Red to f Black to h



Touch each signal wire to +12V (Use mating Tee plugs to make connections to Indicator, tail and reverse circuits