Having spent many a split second wondering if I am in 4th or 5th or pulled the clutch to select 5th only to find I am already in 5th I was delighted to see a 1300 pan with a gear indicator. Clearly the idea was not mine I stole it, but 'I' did put the idea into practice using the Datatool Digi gear indicator. I have been asked by several people for more detail on modifying the Datatool Digi to fit the smaller seven segment digital display remotely of the Datatool Digi it's self, namely inside the 1300 speedo/tacho cluster along side the high beam warning light. Here are the details;

Parts List;
Datatool Digi
Seven Segment Digital Display (Kingbright SA05-11EWS)
0.5 mtrs of 8 core cable (overall diameter 4.25mm or thereabouts)

Modification & Instalation;
Remove the speedo/tacho head from the 1300 and opened it up to gain access to the area on the right where the ABS/Neutral/Oil lights are located. (This is all done by removing screws, you are not breaking into any sealed units)

Cut out a section of the white plastic that holds the coloured lenses for the ABS/Neutral/Oil lights. This cut out was made to take the new 1/2in high, single digit seven segment display and is situated immediately to the right of the main beam warning light as this is an unused area of white plastic.

Make the hole to take the single digit display and before fixing it in place, refit the black plastic cover (the bit that has N / ABS / an oil can and Pan European on it) Then from the back, mark through the new hole in the white plastic so that you can make a cut out in the black plastic. *Note :* I made the cut-out in the black plastic about 1mm smaller all round than the new digit. This allowed the digit with its black face to sit just behind the black plastic, which then formed a window that masked the white plastic.

Remove the transparent front cover of the Digi, this is held on by a bead of adhesive so you will need to run a craft scalpel or Stanley knife blade around the edge to free the adhesive. This is very simple and done without damaging the Digi box.

Put the transparent cover to one side you're going to use it later. You are now left with a small black box containing a small circuit board on which is mounted all the components including a 20mm wide x 28mm long seven segment digital display in grey. This is all held in the box by the 30mm length of 6 core cable that exits at the rear of the black box via a rubber grommet.

Holding the black box with one hand, push the cable through the grommet from the back lifting the circuit board and digital display clear of the box. Put the black box to one side you're going to use it later.

Now the bit that will take most time, de-solder the pins that are connecting/securing the digital display (Kingbright SA08-11SRWA) to the circuit board and discard it. I would suggest that you take this opportunity to use a magnifying glass to check for solder bridges you may have created on the circuit board during the de-soldering process (they are easy to see and clean up at this stage)

Solder the 8 core cable to the new Seven Segment Digital Display (Kingbright SA05-11EWS) leaving pins 5 and 8 disconnected (we don't want the decimal point lit and we use pin 3 for the connection to the common anode) *I have not stated what colour you should connect to which pin as it depends on your cable what colours it contains but make a note as you will need the colour code information later*.

Pin No.
- 1   Segment E
- 2   Segment D
- 3   Common anode
- 4   Segment C
- 5   Decimal Point
- 6   Segment B
- 7   Segment A
- 8   Common anode
- 9   Segment F
- 10   Segment G

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 10  9 8 7 6
 _____A___
|           |
F           B
|___ G ___|
|           |
E           C
|___ D ___|

 1  2  3  4  5
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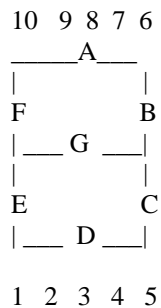
I did not solder the wires direct to the pins on the new Seven Segment Digital Display, I cut a piece of strip board, soldered the wires to that then soldered the Seven Segment Digital Display onto the strip board.

Now fit the new Seven Segment Digital Display into the cut out you have made in the dash head unit, drill a 5mm hole in the back panel of the dash head unit, pass the 8 core cable through the hole and rebuild the dash head unit.

Now solder the other end of the 8 core cable to the Digi circuit board. You will notice here that there were 16 pins on the old Seven Segment Digital Display and only 10 on the new one and they are set out in a different configuration.

Pin No.
- 1   Segment A
- 2   Segment F
- 4   Segment E
- 10   Segment D
- 12   Segment C
- 13   Segment G
- 14   Segment B
- 16   Common anode

All you need do is connect the same colour wire to the same segment pin at each end and all will be fine, thus your cable will be connected as follows;

Pin No. On Old Display		Pin No. On New Display
1	Segment A	7
2	Segment F	9
4	Segment E	1
10	Segment D	2
12	Segment C	4
13	Segment G	10
14	Segment B	6
16	Common anode	3

Now de-solder the light dependent resistor from the circuit board and replace it with a 2k2 resistor.

Make a small cut out in the top edge of the black box to allow your 8 core cable to exit the box, refit the circuit board into the black box and refit the transparent cover, securing with tape or glue.

Now re-fit the dash head unit to the 1300 leaving the front panel off the 1300 to allow access to the connecting plugs.

Now connect the Datatool Digi 6 core cable to the wiring of the 1300 as follows;

Black	–	Ground	
Yellow	–	Tacho Pulse	(Yellow & Green)
Green	–	Speedo Pulse	(Pink & Green)
Brown	–	Neutral Light	(Light Green & Red)
Red	–	Power	(Brown & Black)

Leave the Orange cable disconnected and use it to Programme the Digi as per the mfr instructions supplied.

Job Done.

Mark Sweet.