Minilight Wheels
1. Deep dish, polished rim with CNS type nuts & center caps.
   a. 6x13" ................. C-21A1287
   b. 7x13" ................. C-21A1981
   c. Center cap ............ C-21A1983

2. Steel wheels 4.5 x 10".
   a. Silver finish.
   Sold individually ...
   b. Old English White finish.
   Sold individually ...
   c. Cap to fit above wheels.
   Sold individually ...

3. Dunlop 5x10" look alike wheel. ........... WHL1004

Classic Wheels

Radiator Hoses
Radiator hoses break down into 3 main types.
1959 - 1989, those with the cast metal heater valve bolted to the cylinder head. The redesigned bottom hose for these will fit everything and is made in KEVLAR or silicon only, for longevity as they are awkward to replace.
1989-1996 with a plastic hose fitted in heater hose line.
1996 on cars with twin point injection with front mounted radiator had totally different hoses.

Silicon
• Long lasting
• Hi strength
• Low Heat transfer
• Wear Resistant
A high tech aramid fiber produced by DuPont. Kevlar fibers are evenly dispersed & bonded to the rubber, giving considerable strength.

Kevlar
• Long lasting
• Hi strength
• Wear Resistant

Rubber

<table>
<thead>
<tr>
<th>Hose Kits</th>
<th>Rubber</th>
<th>Kevlar</th>
<th>Silicon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top hoses</td>
<td>Original MK1 Mini Radiator plus all 998 / 1098 clubman. 6/2&quot; long</td>
<td>GRH467</td>
<td>C-GRH1467</td>
</tr>
<tr>
<td></td>
<td>Copper 'S' and 1275cc Mini</td>
<td>GRH245</td>
<td>C-GRH245</td>
</tr>
<tr>
<td></td>
<td>1275GT Clubman 1/2&quot; longer than 'S'</td>
<td>GRH247</td>
<td>C-GRH247</td>
</tr>
<tr>
<td></td>
<td>With heater outlet</td>
<td>GRH249</td>
<td>C-GRH249</td>
</tr>
<tr>
<td>Bottom hoses</td>
<td>1/2&quot; Heater hose. (sold per metre except silicon)</td>
<td>GRH1006</td>
<td>C-GRH1006</td>
</tr>
<tr>
<td></td>
<td>Cooper with HIF44 1/4 carb. 11/4 bore hose one end. 1990-92</td>
<td>GRH140</td>
<td>C-GRH140</td>
</tr>
<tr>
<td></td>
<td>Mini HIF38 1/2 carb 1991-1994 Plus all single point injections</td>
<td>GRH1212</td>
<td>C-GRH1212</td>
</tr>
<tr>
<td></td>
<td>Twin point with front mounted radiator, 1966 on</td>
<td>GRH1465</td>
<td>C-GRH1465</td>
</tr>
<tr>
<td></td>
<td>Mini HIF44 1/4 carb</td>
<td>GRH1159</td>
<td>C-GRH1159</td>
</tr>
<tr>
<td></td>
<td>Mini HIF38 1/2 carb 1991-1994</td>
<td>GRH1289</td>
<td>C-GRH1289</td>
</tr>
<tr>
<td></td>
<td>Single point injection</td>
<td>GRH1424</td>
<td>C-GRH1424</td>
</tr>
<tr>
<td></td>
<td>Twin point injection. Fits 1996 only</td>
<td>GRH1466</td>
<td>C-GRH1466</td>
</tr>
<tr>
<td>HEATER HOSE</td>
<td>5/8&quot; Heater Hose Sold per metre</td>
<td>GRH905</td>
<td>C-GRH905</td>
</tr>
</tbody>
</table>

Hose Kits
5. Silicon hose kits include:
   1 x C-GRH240 (d)
   1x C-GRH1006 (e - 39")
   1x C-GRH1007 (e - 42")
   but have different top hoses:
   Includes Top Hose ... Order kit as C-GRH245 (b) ............ C-GRH1001
   C-GRH247 (c) ............ C-GRH1002
   C-GRH467 (a) ............ C-GRH1003
   C-GRH469 .................. C-GRH1004

6. The rubber Grommet that sits in the body as a sleeve to protect the heater hoses from chaffing.
   a. For 1"(25mm) hole pre 1989. 34G3651
   b. For 1 3/8"(33.5mm) hole. 2" wide. 1990 on. CLP6235

Heater Hose Grommet

Radiator Caps
7. a. 7ib long neck 33.6mm tall, early 850cc ............. GRC101
   b. 7ib short neck 27.5mm tall, 850/998. 1965-69 .................. GRC102
   c. 13lb short neck 27.5mm tall, 1970-80 .................. GRC111
   d. 15lb except rads with sender unit, 1980-92 .................. GRC110
   e. 15lb as above, has been in seal, 1992-96 .................. GRC207
   f. Non pressurised cap for some expansion tanks ........... GRC126
   8. Plastic expansion tank cap twin point cars ............ GRC1184

Easy on-line ordering at www.minimania.com
15 Radiators, Fans and Thermostats

Radiators & Fans

In 1978 we introduced a 4 core radiator with 25% increased water capacity which greatly increased cooling efficiency. To cope with hotter running engines a 2 core radiator unique to Mini Spares with original shape header tanks was developed, it has 2 very large cores with V shaped gills which is lighter, narrower and with increased air flow out performed the 4 core. All 2 cores have a switch hole fitted with a drain plug which can be replaced by a screw in sender unit if required. Beware of competitors copies, when tested professionally, they are not the same.

The 2 core radiator being lighter material can be prone to freeze blockage/damage by a heavy deluge of mud or muck and is not ideal for Grasstrack or Autocross.

1. a. Super cool 2 core radiator with drain plug ........................................... C-ARA4442
   b. As above with heavy duty screw in sensor ........................................... C-ARA4443
2. a. 4 core radiator ....................................................................................... C-ARA4444
   b. 4 core radiator with drain plug ............................................................... C-ARA4448
   c. 4 core radiator with fan sensor unit ......................................................... C-ARA4446
3. 3 core original Mini radiator 90on, push in sender type ............................ GRD972
4. 3 core standard replacement radiator ......................................................... ARP2000
5. Aluminium 2 core radiator for extra hot climates.
   a. Fits pre 1990 Minis .............................................................................. C-ARA4441
   b. Fits Minis 1990 on .................................................................................. C-ARA4441A
6. Aluminium 2 core radiator with universal plug hole for electric fan switch, comes with plug when switch not used .................................................. C-ARA5000
7. Replacement screw in sender for C-ARA4443 ........................................... C-ARA4445
8. a. Push in sender unit for GRD972 original Rover fitting ......................... GVS104
   b. Seal for GVS104 available separately ................................................... CU22334
   c. Clip for CDU3374 seal and sender unit ................................................. KTP9002
9. Front mounted radiator as used on MPI injection Minis, now supplied with metal header tanks .......................................................... GRD974
10. Mini Spares top finisher for original MPI plastic type radiator. Does not fit current metal type ............................................................... B812600
11. a. Original Expansion tank for MPI in plastic ......................................... PC101240
    b. In alloy for durability and engine bay cosmetics/looks ...................... PC101240ALLOY
12. a. ‘S’ top radiator bracket. Required when fitting 1300cc based engines in the Mini, (not Clubman). Available in stainless steel for better engine bay presentation ...................................................... 1266175
    b. Original in black, as per Cooper ‘S’ .......................................................... 1266167
    c. 1275GT top radiator bracket ................................................................ 1262453
13. a. Top radiator bracket for 1990-96 Minis in stainless steel ...................... PCU0135
    b. Top radiator bracket for 1990-96 Minis in black ................................... PCU1035
15. Radiator bracket seal. Lower only 1974 on (one piece cowlings).............. CAM461BPOLY
16. Original top shoulder bolt. Upto 1974 (two piece cowlings) ................. 11G228
17. Two blade fan can be used as shown by crossing two blades to make a four blade fan. Produces better air flow, but noisy. Order each blade individually ...................................................... 2A997
18. Six blade metal fan as used on export vehicles ........................................ 2A998
19. Eleven blade plastic yellow fan as used on home market Minis ................ 1262129
20. a. Complete electric fan kit for Mini or Clubman made by the original Kenlowe company .......................................................................................... C-ARA4400
    b. Replacement temperature sender for Kenlowe only ............................. KLM1416
21. Sender unit sleeve that fits into a cut top hose with adjustable temp dial, not advisable for Cooper S top hose GRH247 owing to hose size and shape ................................................................. KLM1417
22. Full electric fan kit includes fan, brackets, professional variable adjustable fan temperature switch (70-120c), sender unit & hose clips .......................................................... C-ARA4401
23. a. Replacement for the old Rover 5 blade electric fan PGG10058 which is now obsolete. Mini Spares new 10 blade plastic fan has been adapted to fit any 1991-1995 mini that has the large round hole in the inner wing as standard using existing fitting points and wiring ........................................ PGG10058MS
    b. The same electric fan but for universal fitment .................................... KLM1418
    c. Twin point original front mounted radiator fan .................................... PGG100890

Call to Order or Questions at 800-946-2642

Radiator Fans

Thermostats & Blanking Sleeves

Removal of the thermostat helps reduce engine temperature where cooling is a problem, but a thermostat blanking sleeve must be fitted to retain correct water circulation around the entire head. Failure to do so will cause overheating around 3 and 4 combustion chambers - with obviously disastrous results. If the blanking sleeve is used, it is necessary to blank off the by pass hose between head and water pump. Large impeller water pump GWP187 has the by-pass outlet drilling omitted from alloy casting. The higher the temperature the more thermally efficient the engine becomes, the 88°C was fitted as standard from 1990 on. It is possible to run thermostats with the troublesome by-pass hose blanked off - 4 or 6 ½” holes should be drilled around the periphery of the thermostat. The gaskets are GTG101MS.

24. Thermostat blanking sleeve ................................................................. 11G78
25. a. 74°C thermostat (165°F) .................................................................. GT102
    b. 82°C thermostat (180°F) .................................................................. GT104
    c. 88°C thermostat (192°F) .................................................................. GT106

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    c. 88°C thermostat (192°F) .................................................................. GT106
Thermostats Housings
1. a. The most commonly fitted thermostat housing (water elbow) up to 1990 before introduction of sandwich plates. Also fits most single point injection cars, without ancillary holes. .. 12G103
   b. Thermostat fitting kit. .. 12G103FK
2. Thermostat & sandwich plate gasket. .. GTG101MS
3. Same 12G103 casting shape but with a 8mm hole drilled for sensor unit on carb models 1990 on.
4. Large bore (1.25" 32mm) elbow.
   a. For small outlet pipe is not drilled as fitted to Mini from 1990 on carb models. .. PEQ10009
   b. For small outlet is drilled as overflow pipe for expansion tank as used on Mini Metros. .. CAM617
5. Some late single point and autos. .. PEQ100650
6. Twin point front mount radiators only PEQ100650
7. Thermostats must be fitted in the sandwich plates when used and there were 3 different types fitted from 1990, plus one for the Metros which also fitted the ERA Turbo.
   a. Metro and ERA Turbo where the outlet points straight at radiator and has 14-15mm bore outlet
   b. Sandwich plate with 10mm bore outlet elbow but no threaded holes. .. PEQ10002
   c. As per PEM10036 but with extra 8mm thread hole for YWL10010 sensor. .. PEM10036
   d. As per PEM10036 but with 12mm thread hole (1.5 fine pitch) to take sensor GTR206 for twin point injection only. .. PEQ100030

Temperature Transmitters
8. Temperature transmitters that fit in cylinder head.
   a. All Minis 1970 on. .. GTR001
   b. Cooper ‘S’ from 1964 and all Minis up to 1970 with voltage stabiliser fitted. .. GTR014
10. Twin point injection cars, fitted in sandwich plate. .. GTR206
11. Cooper SE sensor, fits in sandwich plate. Fits Cars 1990-91. .. YWL10001

High Capacity Water Pumps

Water Pump By-Pass Hoses
15. This longer By-Pass tube enables the hose to be changed without removing the cylinder head. Slide the shortened hose up through head then back down on the water pumps. .. 12A2075
16. A source of misery to owners of earlier cars, the by-pass hose was eventually discontinued on late A plus engines.
   a. Kevlar reinforced hose fits all except 1275cc engines but will need shortening by 8-10mm when used with the longer cylinder head by-pass tube 12A2075. .. GZ2A083
   b. Kevlar reinforced longer hose for cooper ‘S’ and all 1275cc engines .. AE484
   c. Silicone hose for 1275cc, shortens for fitment on other applications. .. C-GZ2A083
17. Fluted flexible hose allowing fitment without removing cylinder head.
   Supplied with clips .. 12A093MS
18. Original by-pass hose clip .. 3H2963

Heater Radiator Matrix
26. If your heater is not blowing warm air or is leaking it is likely that the cores are blocked. Check outlets to find replacement.

Engine Core Plugs
29. a. Core plug 41.4mm wide Cup type for all Cooper ‘S’ engines only. Sold individually .. AEM92
   b. Core plug 33.6mm wide Cup type for all A Plus engines and 1275cc non S engines. .. AE8C86
30. Core plug 41.4mm wide Flat dished type for all early A series Pre A Plus. .. 2K8169

Easy on-line ordering at www.minimania.com
1. 10 row oil cooler. .................. MOC10ROW
2. 13 row oil cooler as fitted to Cooper ‘S’. ........ C-AHR221
3. 16 row oil cooler for competition use. ........... MOC16ROW
4. Original oil cooler brackets to fit on front subframe. Sold individually. ....... 21MT94
   (Check clearance on latest cars.)

Oil Coolers

Oil Cooler Hose Kits

5. Mini Clubman / specials usually require longer pipe kits than the standard Mini. Kits include all unions for easy fitment. Rubber is adequate for standard use but Braided is more durable and preferred for Competition Performance use.

If a pre engaged starter is fitted (integral solenoid) the oil cooler has to be mounted closer to the alternator resulting in longer pipes.

A-series engines up to 1992 had a block union size of 5/8" UNF and filter head union size of 1/4" NPT. From 1992 on, union sizes changed on all engines with a 12A prefix number and became universal at 11/16" UNF. The filter head for these is recognisable by casting part number LPX10027.

See chart below for part numbers

<table>
<thead>
<tr>
<th>Braided Kit Code</th>
<th>Rubber Kit Code</th>
<th>Fits Mini</th>
<th>Block To Cooler</th>
<th>Filter Head Pipe To Cooler</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-AHT3</td>
<td>MOC1010T</td>
<td>Mini Clubman</td>
<td>14” - 14.5”</td>
<td>24”</td>
</tr>
<tr>
<td>C-AHT4</td>
<td>MOC1003</td>
<td>Mini</td>
<td>12”</td>
<td>14”</td>
</tr>
<tr>
<td>MOC1017</td>
<td>MOC1015</td>
<td>Pre-engage starter to ’92</td>
<td>15”</td>
<td>22”</td>
</tr>
<tr>
<td>MOC1016</td>
<td>MOC1014</td>
<td>12A engine/1992 ON</td>
<td>15”</td>
<td>22”</td>
</tr>
</tbody>
</table>

Oil Cooler Connections

6. Oil temperature sender housing for special requirements when you need to know the temperature of the oil. Fitted before the oil cooler it will show maximum temperature reached. After the oil cooler it will show the more important temperature of the oil feeding the bearings. ....................... MOC1072

7. 1” long from bend push-fit ½” BSP thread union to fit oil cooler with 90° bend. Sold individually. .......... MOC207

8. 1” long from bend push-fit ½” BSP thread union to fit oil cooler with 45° bend. Sold individually. .......... MOC208


10. Original block union for oil cooler hose. Complete kits. ........... MOCI

11. Equivalent to number 9 and 10 as a kit, but with push-on ends for using oil cooler hose on special fitment in pairs only. ........ MOC3

12. Rubber oil-cooler hose sold per foot. i.e. 30cm. Order to length required. ....................... C-AHH8537

13. The Mocal oil control thermostat is designed to prevent flow of engine oil until it has reached correct working temperature of about 80°C. Prolonged use of engine oil where it cannot reach this correct working temperature can cause sludge and crank case dilution, leading to excessive wear in crank bearings and cylinder bores. Fits into any convenient place where pipes can be cut and oil pipes run parallel. ....................... MOCOT1

Call to Order or Questions at 800-946-2642

Oil Cooler Thermostat

14. Braided pipe for oil gauge, made to the required length of 4ft .................. C-AHT9

15. Engine blocks to oil filter housing braided pipe kit.

See chart below for part numbers

<table>
<thead>
<tr>
<th>Fits Mini</th>
<th>Block Union Size</th>
<th>Filter Head Union Size</th>
<th>Order hose &amp; union kit as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 1992</td>
<td>5/8”</td>
<td>1/4NPT</td>
<td>TAM2016BRARED</td>
</tr>
<tr>
<td>Pre 1992</td>
<td>5/8”</td>
<td>11/16”unf</td>
<td>MOC1019</td>
</tr>
<tr>
<td>12A engine/1992 on</td>
<td>11/16”unf</td>
<td>11/16”unf</td>
<td>MOC1018</td>
</tr>
</tbody>
</table>
| 12A engine/1992 on | 11/16”unf | 1/4NPT                 | MOC1020                   

Spin On Type Oil Filters

16. a. Unipart first grade filter as fitted to new cars (spin on type).

b. For twin point injection cars, 97 on .......................... GFE166

17. Spin on type oil filter heads.

   a. Fits engines pre 1992 with 1/4npt union thread size........ TAM2097

   b. Performance strengthened filter head type in billet alloy to stop leakage with 1/4npt union thread size. ........... 12A2032RACE

18. MAGCOM pre filter magnet collects debris from engine oil.

   Screws to the block for spin-on type filter heads. Except MPI ........................... MF001

19. Remote oil filter kit. This kit fits all A series engines that have a 2 bolt fixing filter head and takes a spin on filter. Used by many motorsport enthusiasts to make the filter accessible where engine bay room is tight. ....................... RFK9

Top Quality Oil

Good quality oil is very important in Mini’s as it has the dual function of lubricating the engine and gearbox. Some oils have a detergent base in them for keeping engines clean, but this in turn can cause wear on such items as layshaft, differential pins and baulk rings. Many performance, race engines benefit by using synthetic oils, which help by coating parts to prevent wear. They should not be used for running-in periods, as synthetic oil also puts a coating on rings, which prevents them from bedding in / sealing properly.

NOTE: Oil can only be sent with filter not as part of larger package.

20. a. Classic Castrol 20W/50 oil supplied in retro style 1 gallon metal tin. .................. CASTROL

b. Castrol jug metal pouring pint jug. ....................... J095


   a. 20W50, mineral ......................................... MILLERS001

   b. 20W50, semi synthetic ........................................... MILLERS002

22. a. GTX 5 litre, 15W 40 grade .......................... GTX

b. Unipart 20W50, Good general oil for standard engines or to run engines in before using synthetic oils ....................... GUL7005T

c. Unipart Semi Synthetic 10W40, Superb all round use oil. ....................... GUL2005B

d. Unipart Fully Synthetic 5W40 ............................... GUL1005B