	<b>Technical Guidelines Suspension</b>
1	Polo / Audi up to 8/97, use spring cup No. 861414113 B.
2	Audi 80 4-Cylinder up to Chassis-No. 8192278802. Use cylindrical front springs. These
_	are available on request.
3	On models up to year 12/95 the rubber-pads from models 1/96-up have to be used.
4	BMW 7 series, E23 from 9/76, diameter for front and rear springs need to be checked.
	These differ according to engine and level of equipment:
	Front: 174, 180, 190mm; Rear 114, 125mm (all dimensions in mm)
5	For Vehicles fitted with big dia. wheels use rubber pad "4 point" on front axle. Restrict
	steering wheel lock if necessary.
6	Height adjustableat the front axle only.
7	Vehicles with high specifications which increase front axle load should use stronger
	front springs.
8	MB 190 E 2,3/16V. Due to higher engine weight and original equipment with self
	levelling system on rear axle, stiffer front and shorter rear springs will be supplied.
	Readjust levelling system.
9	Recommended only for vehicles with few extras that put no extra load on the axle (i.e.
	not with Automatic Gearbox, Air Condition).
10	Delivery includes only 2 front axle springs (VW-Bus, MB-M-Class, Ford Maverick,
	Mitsubishi Pajero, Nissan Terrano, Opel Frontera only 2 rear axle springs).
11	In order to achieve the indicated lowering the standard rubber pads should be
	exchanged if necessary (size 1-4). For Mercedes W 203 (part no. 31004-1) this refers to
	the rear axle only.
12	Vehicles fitted with BMW M-Technic, MB-Sportsline, Audi Sportsuspension etc. will
	show less lowering as they are already factory lowered.
13	With standard wheel/tyre combination and some aluminium wheels wheel spacers are
	required.
14	Ascona C, Monza-Senator, Sierra Salon, Sierra Estate. For these vehicles cylindrical
1.5	springs are available on request.
15	We do not recommend these springs for Golf I Convertible, Diesel. If fitted to Golf I
1.0	GTI, please ensure that only new shock absorbers are used.
16	Vehicles with large front spring cups (partly) also require additional Original-VW-Parts.
17	Please confirm when ordering.
17	Adjustable suspension kit is height adjustable within the dimensions as specified in the TÜV-report.
18	Attention: Rasp off the protrusion of the front axle washer or use new OE washer with
10	round bore. Properly tie up the shock absorber wiring after installing the connectors.
	After fitment of the suspension the controller (OE-ECU) must be reprogrammed (to the
	status of models without PASM)!!!
19	The locking ringfor the struct fixation can not be taken apart non-destructive. It has to
17	be replaced by a new one., Opel/GM part no. 24402155.
20	For vehicles with factory mounted trailer coupling we recommend a stronger rear spring
	(29749-3 / 29749-4).
21	Golf / Scirocco up to 8/97 use OE spring cup no. 171412341 A.
22	Cup-Kit shock absorbers: Use OE bump-stop, spring-cup and dust cover if not co-
	packed. Check good condition of these items prior to fitment, exchange if in doubt.
23	Send in front strut housings without wheel bearings, ABS brackets, cartridges etc.
	Damaged strut housings will be either rejected or repaired for extra charge if possible. In
	case of in advance delivery by H&R a deposit between 205 and 525,- €per strut will be
	required.

24	Cars equipped with rough road suspension (OE-part) are lowered approx. 15-20 mm
	more as they are higher in OE condition.
25	Not suitable for vehicles with factory fitted sport suspension.
26	On vehicles based on the VW Golf IV platform (VW Golf/Bora/Beetle, Seat
	Leon/Toledo, Skoda Octavia) from a lowering of appr. 30 mm onwards a contact
	between driveshaft and anti-roll bar can occur. In Case of contact the H&R anti-roll bar
	33525-1 must be fitted. This anti-roll bar is mandatory from a lowering of 35 mm
	onwards (f.e. for Cup Kit and coil over suspensions).
27	Vehicles fitted with load dependant brake control require separate TÜV approval despite
	of ABE (In countries where TÜV or the like is required). In any case set brake control to
	requiered level after lowering! In any case set brake control to requiered level after
	lowering!
32	Depending on engine, gearbox/transmission, equipment and vehicle tolerances lowering
	may differ from the values given.
33	Please note before purchase: This suspension is a very low version! Customer and/or
	workshop is responsible for clearance, necessary work and/or additional other
	modifications/changes. This rework and/or arising cost is not covered by H&R.
34	Lowering beyond the dimensions given in the TÜV approval may lead to contact of the
	driveshaft with the chassis. Any resulting damage.
35	OE torsion bars need to be adjusted to lower the vehicle.
38	Also for vehicles with automatic gearbox and/or air conditioning.
39	Golf III FA-spring cups to be exchanged. Please use OE VW-parts.
	Basis Suspension 80 mm - original VW part no. 191.412.341
	Plus Suspension 80 mm - original VW part no. 1H0.412.341
	Plus Suspension 60 mm - original VW part no. 357.412.341 A
40	For these vehicles we recommend the use of sport dampers. These are also available
	from H&R.
41	In the case of ordering complete struts these are only for 2.0 L 16 V, with wheel
	bearings dia. 72 mm and ABS brackets. Vehicles with bigger or smaller wheel bearings
	(i.E. wheel bearing dia. 64 mm, 66 mm, 74 mm) struts have to be sent in in advance.
42	In the case of ordering complete struts, these are only for Polo B. However, they can
10	also be used for Polo A. Send in Polo B struts only to get back deposit.
43	For proper function of the suspension the original rear torsion bar suspension must be
	removed. A report of sufficient strength of the modified rear suspension has been
4.4	performed.
44	Send in existing front and rear struts without wheel bearings and other attachments.
4.5	Refer also to note no. 23!
45	In case of ordering complete struts we need additional information:
	a) struts "with" or "without" stabilizer holder b) b) bore diameter at the breeksty 12 mm or 14 mm
10	b) b) bore diameter at the brackets: 12 mm or 14 mm  The every her link on the front cycle has to be shortened by 60 mm or the every her link
48	The sway bar link on the front axle has to be shortened by 60 mm or the sway bar link
40	OE Toyota-part no. 4883017050 has to be fitted.
49	Use rear upper spring-pad no. 4D0-512-297-6 if not OE fitted.
50	Front axle - Only if the distance of the bottom fastening point bracket (center of the
	hole) up to the centre line of the strut housing = 56 mm.
<i>5</i> 1	Take these dimensions carefully from the original strut!
51	Front axle - Only if the distance of the bottom fastening point bracket (center of the
	hole) up to the centre line of the strut housing = 61 mm AND: If the distance of both fastening holes in the bracket = 52 mm (center of the
	hole).
	Take these dimensions carefully from the original strut!
	Take these difficults catefully from the original struct

52	Front axle - Only if the distance of the bottom fastening point bracket (center of the
32	hole) up to the centre line of the strut housing = 64 mm
	AND: If the distance of both fastening holes in the bracket = 54 mm (center of the
	hole).
	Take these dimensions carefully from the original strut!
55	When fitting H&R stabilizers use OE mounting parts if not co-packed. Check that these
	parts are in a like-new condition; renew them in case they are not.
56	This stabilizer set - including two sway bar links - is for use with coil-over 29 325-1
30	only and must be used for lowering beyond approx. 50 mm to achieve sufficient
	freedom of motion between driveshaft and stabilizer.
57	Cut out front inner plastic wheel house for sufficient freedom of motion
58	This stabilizer set may only be used (and is TÜV approved) with coil-over suspension. It
36	is not allowed to use it with OE suspension, spring set or other suspension.
59	When fitting rear axle stabilizers together with non OE exhaust systems packaging
	problems might arise. A contact between stabilizer and exhaust is possible. This has to
	be checked prior to fitment and solved prior to first driving.
60	FA stabilizer may also be used without rear stabilizer. In this case vehicle might tend to
	understeer.
61	For cars BMW E30 without OE-rear axle stabilizer the following original BMW spare
	parts are needed for mounting the H&R stabilizer (2 of each)
	retaining clip stabilizer 33551129195
	hexagon screw with disc 07119915066
	sway bar link 33551126932
	hexagon screw 07119912501
	self locking hexagon nut 07129946400
	sway bar link holder 33321127717
	self locking collar nut 31331092887
62	for car with chassis number (last seven numbers)A497761 /F410043
	R111834 the following original Mercedes retaining clamp must be used:
	Original MB-part number: A2033231240 (right) + A2033231140 (left). These have to
	be exchanged against the original reatining clamps.
63	At too much lowering on the rear axle please use the upper spring mounts of the rough
	road suspension (BMW orginal parts).
64	Prior to ordering RA shock absorbers as spares please check and forward:
	RA-Shock abosrber with single spring or
	> RA-Shock absorber with double spring system
65	The lowering dates were determined from the test cars. Please note that the maximum
	lowering can not reached with every car, please refer conditions and notes in the parts
	approval and also to the technical guidelines suspension program 12,17,32.
66	Before ordering please check the upper front shock fixation.
67	Attention: For the FA an OE-BMW spring compressor is necessary.
68	If the car is equipped with a two-layer leaf spring the single-layer leaf spring (VW-OE-
	P/N. 2K3511151E - Maxi or 2K0511151N for Caddy/ Caddy Life) must be fitted.
69	On the rear axle the height adjustment out of the coil over is used.
70	Not for cars with "Terrain-Tech" package.
71	Change of upper FA-springplates. New inner diameter spring Ø83 mm, please
70	measure!!! Old inner diameter spring Ø 100 mm.
72	For cars from vehicle idenfication number 1ZVBP8CF4B5113
73	For modell 2011, from 10th. Position of the chassis-no. "B" and higher (C/D/E)
74	In particular cases cars prior to Facelift 2010 (10th position of the chassis no. "B")may

have the OE front-support bearing with the long pin. Here, the front struts out of 29170-1 and -2 need to be used. Please check, prior to fitment, the length of the upper mount pin of the OE-front-strut: pin with 75mm length = shock part-no. 22 15 452 -1/1 of coil over 29170-3; -4 - pin with 45mm length = shock part no. 22 15 452 - 2/1.
All data subject to change. H&R is not responsible for typograhical or photograpical errors.