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IDX



Q45
MODEL FY33 SERIES



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ALPHABETICAL INDEX —

FOREWORD

This manual contains maintenance and repair procedures for the 1999 INFINITI Q45.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle. The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by INFINITI must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.





Overseas Service Department Tokyo, Japan



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SERVICE MANUAL:	Model:		Ye	ar:	
PUBLICATION NO. (Please photocopy back	cover):			
VEHICLE INFORMA	ΓΙΟΝ VIN:		Production Dat	te:	
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If no, what page numb	nosis procedures logica per(s)?Note: ssue or problem in detail:_	Please include a	copy of each page, n	narked with your commer	_
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What information sl repairing customer	nould be included in INF vehicles?	INITI Service M	lanuals to better su	pport you in servicing	or
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	_ YOUR NAME: DEALER NO				
	STATE/PROV				

INCH TO METRIC CONVERSION TABLE

(Rounded-off for automotive use)

Inches	(INDUITUEU-OII	TOT GUICITION	vc usc)	
.110 2.79 .620 15.75 .120 3.05 .630 16.00 .130 3.30 .640 16.26 .140 3.56 .650 16.51 .150 3.81 .660 16.76 .160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32	inches		inches	
.120 3.05 .630 16.00 .130 3.30 .640 16.26 .140 3.56 .650 16.51 .150 3.81 .660 16.76 .160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57	.100		.610	
.130 3.30 .640 16.26 .140 3.56 .650 16.51 .150 3.81 .660 16.76 .160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .330 7.62 .810 20.57 .310 7.87 .820 20.83	.110	2.79	.620	15.75
.140 3.56 .650 16.51 .150 3.81 .660 16.76 .160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.34	.120		.630	
.150 3.81 .660 16.76 .160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .350 8.89 .860 21.84	.130	3.30	.640	16.26
.160 4.06 .670 17.02 .170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59	.140	3.56	.650	16.51
.170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84	.150	3.81	.660	16.76
.170 4.32 .680 17.27 .180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84	.160	4.06	.670	17.02
.180 4.57 .690 17.53 .190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10		4.32		17.27
.190 4.83 .700 17.78 .200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35				
.200 5.08 .710 18.03 .210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61				
.210 5.33 .720 18.29 .220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86				
.220 5.59 .730 18.54 .230 5.84 .740 18.80 .240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11				
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.240 6.10 .750 19.05 .250 6.35 .760 19.30 .260 6.60 .770 19.56 .270 6.86 .780 19.81 .280 7.11 .790 20.07 .290 7.37 .800 20.32 .300 7.62 .810 20.57 .310 7.87 .820 20.83 .320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62				
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.320 8.13 .830 21.08 .330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000				
.330 8.38 .840 21.34 .340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 <t< td=""><th></th><th></th><td></td><td></td></t<>				
.340 8.64 .850 21.59 .350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .540 13.72 6.000		8.38		
.350 8.89 .860 21.84 .360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000				
.360 9.14 .870 22.10 .370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000				
.370 9.40 .880 22.35 .380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000				
.380 9.65 .890 22.61 .390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 </td <th></th> <th></th> <td></td> <td></td>				
.390 9.91 .900 22.86 .400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.00				
.400 10.16 .910 23.11 .410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 1				
.410 10.41 .920 23.37 .420 10.67 .930 23.62 .430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 508.00				
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.430 10.92 .940 23.88 .440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .590 14.99 20.000 508.00	.420			
.440 11.18 .950 24.13 .450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 254.00 .590 14.99 20.000 508.00	.430	10.92		23.88
.450 11.43 .960 24.38 .460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00				
.460 11.68 .970 24.64 .470 11.94 .980 24.89 .480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00				
.480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.460	11.68	.970	24.64
.480 12.19 .990 25.15 .490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.470	11.94	.980	24.89
.490 12.45 1.000 25.40 .500 12.70 2.000 50.80 .510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00		12.19		25.15
.510 12.95 3.000 76.20 .520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.490	12.45	1.000	25.40
.520 13.21 4.000 101.60 .530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.500	12.70	2.000	50.80
.530 13.46 5.000 127.00 .540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.510	12.95	3.000	76.20
.540 13.72 6.000 152.40 .550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.520	13.21	4.000	101.60
.550 13.97 7.000 177.80 .560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.530	13.46	5.000	127.00
.560 14.22 8.000 203.20 .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.540	13.72	6.000	152.40
.570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.550		7.000	177.80
.580 14.73 10.000 254.00 .590 14.99 20.000 508.00	.560		8.000	
.590 14.99 20.000 508.00				
			10.000	254.00
.600 15.24			20.000	508.00
	.600	15.24		

METRIC TO INCH CONVERSION TABLE

(Rounded-off for automotive use)

1 .0394 51 2.008 2 .079 52 2.047 3 .118 53 2.087 4 .157 54 2.126 5 .197 55 2.165 6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70	mm	inches	mm	inches
2 .079 52 2.047 3 .118 53 2.087 4 .157 54 2.126 5 .197 55 2.165 6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71				
3 .118 53 2.087 4 .157 54 2.126 5 .197 55 2.165 6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72				
4 .157 54 2.126 5 .197 55 2.165 6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73				
5 .197 55 2.165 6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74				
6 .236 56 2.205 7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75				
7 .276 57 2.244 8 .315 58 2.283 9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76				
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9 .354 59 2.323 10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78<				
10 .394 60 2.362 11 .433 61 2.402 12 .472 62 2.441 13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 7				
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13 .512 63 2.480 14 .551 64 2.520 15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 <t< th=""><th></th><th></th><th></th><th></th></t<>				
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15 .591 65 2.559 16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339	13	.512	63	2.480
16 .630 66 2.598 17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378	14	.551	64	2.520
17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 <t< th=""><th>15</th><th>.591</th><th>65</th><th>2.559</th></t<>	15	.591	65	2.559
17 .669 67 2.638 18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 <t< th=""><th>16</th><th>.630</th><th>66</th><th>2.598</th></t<>	16	.630	66	2.598
18 .709 68 2.677 19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457			67	
19 .748 69 2.717 20 .787 70 2.756 21 .827 71 2.795 22 .866 72 2.835 23 .906 73 2.874 24 .945 74 2.913 25 .984 75 2.953 26 1.024 76 2.992 27 1.063 77 3.031 28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496				
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28 1.102 78 3.071 29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 <th></th> <th></th> <th></th> <th></th>				
29 1.142 79 3.110 30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 <th></th> <th></th> <th></th> <th></th>				
30 1.181 80 3.150 31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 <th></th> <th></th> <th></th> <th></th>				
31 1.220 81 3.189 32 1.260 82 3.228 33 1.299 83 3.268 34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
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34 1.339 84 3.307 35 1.378 85 3.346 36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
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36 1.417 86 3.386 37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				3.307
37 1.457 87 3.425 38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				3.346
38 1.496 88 3.465 39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	36	1.417	86	3.386
39 1.535 89 3.504 40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	37	1.457	87	3.425
40 1.575 90 3.543 41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	38	1.496	88	3.465
41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	39	1.535	89	3.504
41 1.614 91 3.583 42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	40	1.575	90	3.543
42 1.654 92 3.622 43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	41		91	
43 1.693 93 3.661 44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898	42		92	
44 1.732 94 3.701 45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
45 1.772 95 3.740 46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
46 1.811 96 3.780 47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
47 1.850 97 3.819 48 1.890 98 3.858 49 1.929 99 3.898				
48 1.890 98 3.858 49 1.929 99 3.898				
49 1.929 99 3.898				
1.709 100 3.937				
		1.703	100	3.731

QUICK REFERENCE CHART: Q45

1999

ENGINE TUNE-UP DATA

ENGINE TONE-OF	- W W.			
Engine model		VH41DE		
Firing order		1-8-7-3-6-5-4-2		
Idle speed A/T (in "N" position) rpm		650±50		
Ignition timing (BTDC at idle speed)		15°±2°		
CO% at idle	Idle mixture s	screw is preset factory.	and sealed at	
Drive belt deflection (Cold)	Used belt	deflection		
mm (in)	Limit	Deflection after adjustment	Deflection of new belt	
Alternator	8 (0.31)	4 - 5 (0.16 - 0.20)	3.5 - 4.5 (0.138 - 0.177)	
Air conditioner compressor	13 (0.51)	9 - 10 (0.35 - 0.39)	8 - 9 (0.31 - 0.35)	
Power steering oil pump	14 (0.55)	9 - 10 (0.35 - 0.39)	8 - 9 (0.31 - 0.35)	
Water pump	9 (0.35)	6 - 7 (0.24 - 0.28)	5 - 6 (0.20 - 0.24)	
Applied pushing force N (kg, lb)		98 (10, 22)		
Drive belt tension (Cold)* N (kg, lb)	Used belt tension		Tension of	
14 (Ag, 10)	Limit	Tension after adjustment	new belt	
Alternator	196 (20, 44)	736 - 814 (75 - 83, 165 - 183)	843 - 922 (86 - 94, 190 - 207)	
Air conditioner compressor	196 (20, 44)	500 - 579 (51 - 59, 112 - 130)	608 - 686 (62 - 70, 137 - 154)	
Power steering oil pump	137 (14, 31)	353 - 432 (36 - 44, 79 - 97)	451 - 530 (46 - 54, 101 - 119)	
Water pump	196 (20, 44)	539 - 618 (55 - 63, 121 - 139)	657 - 736 (67 - 75, 148 - 165)	
Hadiator cap relief pressure kPa (kg/cm², psi)	98 - 118 (1.0 - 1.2, 14 - 17)			
Cooling system leakage testing pressure kPa (kg/cm², psi)	157 (1.6, 23)			
Compression pressure kPa (kg/cm², psi)/rpm				
Standard	1,285 (13.1, 186)/300			
Minimum	991 (10.1, 144)/300			
Spark plug Standard type		PFR5G-11		
Hot type	PFR4G-11			
Cold type	PFR6G-11			

If the belt tension gauge cannot be installed at check points, check drive belt tension at a different location on the belt.

FRONT WHEEL ALIGNMENT (Unladen*

Camber	Minimum	-1°25′ (-1.42°)		
[Nominal	~0°40′ (~0.67°)		
Dagras misute	Maximum	0°05′ (0.08°)		
Degree minute ((Decimal degree)	Left and right difference	1° (1.00°) or less		
Caster	Minimum	5°40′ (5.67°)		
	Nominal	6°25′ (6.42°)		
Degree minute -	Maximum	7°10′ (7.17°)		
(Decimal degree)	Left and right difference	1° (1.00°) or less		
Kingpin inclination	Minimum	12°25′ (12.42°)		
	Nominal	13°10′ (13.17°)		
Degree minute (Decimal degree)	Maximum	13°55' (13.92°)		
Total toe-in	Minimum	1 (0.04)		
Distance (A – B)	Nominat	2 (0.08)		
) mm (in)	Maximum	3 (0.12)		
Angle (left plus right)	Minimum	4' (0.07°)		
Degree minute	Nominal	10' (0.17°)		
(Decimal degree)	Maximum	16' (0.27°)		
Wheel turning angle (Full turn)	Minimum	36°50′ (36.83°)		
Inside	Nominal	39°50′ (39.83°)		
Degree minute (Decimal degree)	Maximum	40°50′ (40.83°)		
Outside Degree minute (Decimal degree)	Nominal	32°25′ (32.42°)		

Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

REAR WHEEL ALIGNMENT (Unladen*)

Camber	Minimum	-0°15′ (-0.25°)
Degree minute	Nominal	-0°45′ (-0.75°)
(Decimal degree)	Maximum	-1°15′ (-1.25°)
Total toe-in	Minimum	0 (0)
Distance (A – B)	Nominal	2.5 (0.098)
mm (in)	Maximum	5 (0.20)
Angle (left plus right)	Minimum	0' (0.00°)
Degree minute	Nominal	14′ (0.23°)
(Decimal degree)	Maximum	28' (0.47°)

Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

BRAKE \

	Unit: mm (in
Front brake	
Pad wear limit	2.0 (0.079)
Rotor repair limit	26.0 (1.024)
Rear brake	
Pad wear limit	2.0 (0.079)
Rotor repair limit	14.0 (0.551)
Pedal free height	183 - 193 (7.20 - 7.60)
Pedal depressed height*	More than 95 (3.74)
Linder force of 490 N (50 kg, 110 lb):	with engine running

REFILL CAPACITIES

Unit		Liter	US measure	
Fuel tank		80	21-1/8 gal	
Coolant (With rese	ervoir tank)	11.7	12-3/8 qt	
	Drain and refill			
F	With oil filter change	5.3	5-5/8 qt 5-1/4 qt	
Engine*	Without oil filter change	5.0		
	Dry engine (overhaul)	6.2	6-1/2 qt	
Transmission	A/T	10.5	11-1/8 qt	
Differential carrier		1.3	2-3/4 pt	
Power steering sy	stem	1.3	1-3/8 qt	
Air conditioning	Compressor oil	0.250	8.5 fl oz	
system	Refrigerant	0.675 - 0.725 kg	1.488 - 1.599 lb	

^{*} For further details, see "Changing Engine Oil" in MA section.

TEST VALUE AND TEST LIMIT (GST ONLY — NOT APPLICABLE TO CONSULT-II)

The following is the information specified in Mode 6 of SAE J1979.

The test value is a parameter used to determine whether a system/circuit diagnostic test is "OK" or "NG" while being monitored by the ECM during self-diagnosis. The test limit is a reference value which is specified as the maximum or minimum value and is compared with the test value being monitored.

Items for which these data (test value and test limit) are displayed are the same as SRT code items.

These data (test value and test limit) are specified by Test ID (TID) and Component ID (CID) and can be displayed on the GST screen.

: Applicable •: Not applicable

						: Applicable 🕶	Not applicable
			Test	value			
SRT item	Self-diagnostic test item	DTC (GST d		display)	Te s t limit	Application	Unit
	l and		TID	CID			
	Three way catalyst function (Bank 1)	P0420	01H	01H	Max.	Х	_
CATALYST	Three way catalyst function (Bank 2)	P0430	03H	02H	Max.	X	_
		P0440	05H	03H	Max.	Х	_
EVAP SYSTEM	EVAP control system (Small leak)	P1440	05H	03H	Max.	Х	_
	EVAP control system purge flow monitoring	P1447	06H	83H	Min.	Х	mV
	, , ,	P0133	09H	04H	Max.	Χ	ms
		P0131	OAH	84H	Min.	Х	mV
	Heated oxygen sensor 1(Bank 1)	P0130	0BH	04H	Max.	Х	mV
		P0132	0CH	04H	Max.	Χ	mV
		P0134	ODH	04H	Max.	Х	s
		P0153	11H	05H	Max.	Х	ms
		P0151	12H	85H	Min.	Χ	mV
	Heated oxygen sensor 1(Bank 2)	P0150	13H	05H	Max.	Χ	mV
HO2S		P0152	14H	05H	Max.	Χ	mV
HU25		P0154	15H	05H	Max.	Χ	S
		P0139	19H	86H	Min.	Χ	mV/500ms
	0(0 1 1)	P0137	1AH	86H	Min.	Χ	mV
	Heated oxygen sensor 2(Bank 1)	P0140	1BH	06H	Max.	Χ	mV
		P0138	1CH	06H	Max.	Χ	mV
		P0159	21H	87H	Min.	Χ	mV/500ms
	H -1 -1 0 (P1 0)	P0157	22H	87H	Min.	Χ	mV
	Heated oxygen sensor 2(Bank 2)	P0160	23H	07H	Max.	Χ	mV
		P0158	24H	07H	Max.	Χ	mV
	Harada a mara a tabada (Badad)	P0135	29H	08H	Max.	Χ	mV
	Heated oxygen sensor 1 heater(Bank 1)	P0135	2AH	88H	Min.	Χ	mV
	H -1 -1 0 b -1 (P1 - 0)	P0155	2BH	09H	Max.	Χ	mV
HO2S HTR	Heated oxygen sensor 2 heater(Bank 2)	P0155	2CH	89H	Min.	Χ	mV
HU25 HTK	H -1 -1 0 h -1 (P1 -1)	P0141	2DH	0AH	Max.	Χ	mV
	Heated oxygen sensor 2 heater(Bank 1)	P0141	2EH	8AH	Min.	Χ	mV
	H -1 -1 0 b -1 (P1 - 0)	P0161	2FH	0BH	Max.	Χ	mV
	Heated oxygen sensor 2 heater(Bank 2)	P0161	30H	8BH	Min.	Х	mV
		P0400	31H	8CH	Min.	Х	°C
		P0400	32H	8CH	Min.	Х	°C
	EGR function	P0400	33H	8CH	Min.	Х	°C
EGR SYSTEM		P0400	34H	8CH	Min.	Х	°C
		P1402	35H	0CH	Max.	Х	°C
	CODO DOTl f.matia	P0402	36H	0CH	Max.	Х	_
	EGRC-BPT valve function	P0402	37H	8CH	Min.	Χ	-