



SCT-1017

**CAMERA CONTROL CODE TRANSLATOR
BOSCH TO DIAMOND ELECTRONICS Ver. 1.43**

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PRODUCT DESCRIPTION

The SCT-1017 is a Bosch to Diamond Electronics control code translator designed to permit control of Diamond cameras from Bosch controllers. It receives Bosch biphasic commands and transmits the appropriate commands in Diamond Electronics RS-422 format (9600 baud E81). There are four independent Diamond outputs.

Bosch addresses above 256 can be down-converted to Diamond addresses. Internal switches select one of eight Bosch address groups.

Input and output connections are made with mating screw terminal connectors. Front panel LEDs indicate status of power, receive, and transmit.

There is an optional 19" rack mount panel (one rack unit high).

SPECIFICATIONS

SIZE:	5.57"W x 1.52H x 5.45D
WEIGHT:	1.5 lbs.
POWER:	9Volt to 15Volt AC or DC at 75ma
INDICATORS:	Front panel LEDs: Power, Rx, & Tx
BIPHASE INPUT:	(1) mating 3-pin screw terminal connector
DIAMOND RS-422 OUTPUTS:	(4) mating 3-pin screw terminal connectors

SETTING THE SWITCHES

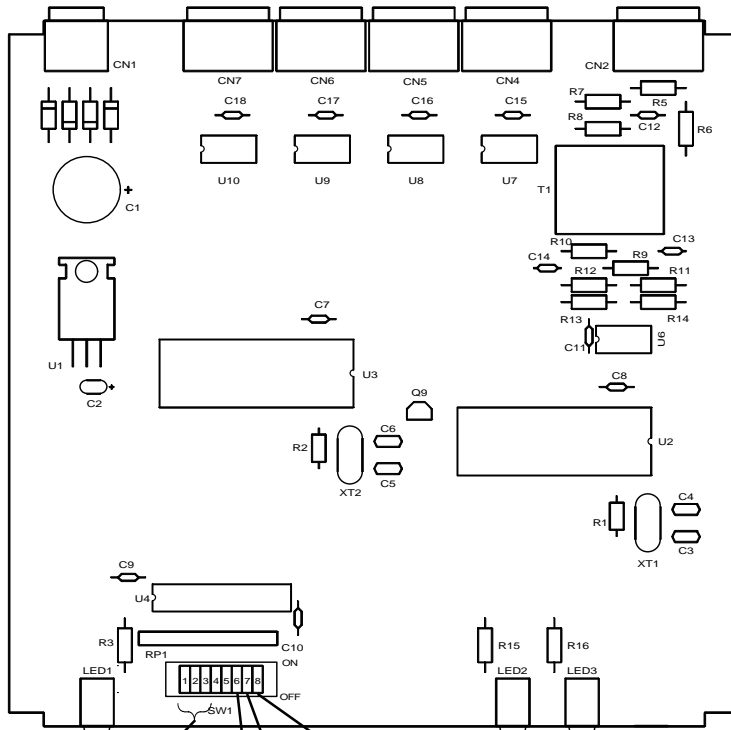
To set the configuration switches, remove the back panel, which is secured by two screws. Then slide the cover back to expose the switches. The switches can be changed while the code translator is powered up and the new settings will take effect immediately.

Switches 1, 2, and 3 determine which of the eight groups of Bosch camera addresses will be converted to Diamond addresses.

Switch 6 selects the converted pan speed for fixed speed controllers.

Switch 7 makes it possible for Bosch systems with limited preposition capability to send preshots in the [80s] and [90s] to access the menus in Diamond KD6 domes operating in the Maxpro mode.

Switch 8 selects whether the default for each camera as it is selected will be Auto Iris or Manual Iris.



**SW1-1, SW1-2, & SW1-3
ADDRESS GROUP SELECTION**

SW1	SW2	SW3	GROUP#
OFF	OFF	OFF	GROUP 1
ON	OFF	OFF	GROUP 2
OFF	ON	OFF	GROUP 3
ON	ON	OFF	GROUP 4
OFF	OFF	ON	GROUP 5
ON	OFF	ON	GROUP 6
OFF	ON	ON	GROUP 7
ON	ON	ON	GROUP 8

**SW1-6
PAN SPEED SELECT**
Diamond pan speed for fixed speed Burle control systems

ON: Medium speed
OFF: Slow speed

**SW1-8
DEFAULT IRIS MODE**

ON: Auto Iris
OFF: Manual Iris
(See Iris Notes Section)

**SW1-7
PRESHOT OFFSET**

For Bosch control systems with limited preposition capability, adds 40 to preshot numbers 40 to 99.

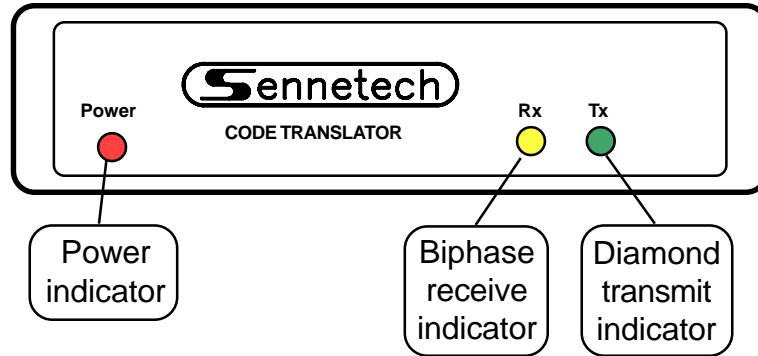
ON: Add 40 to high preshots
OFF: Convert all preshots directly

Address Group Conversion

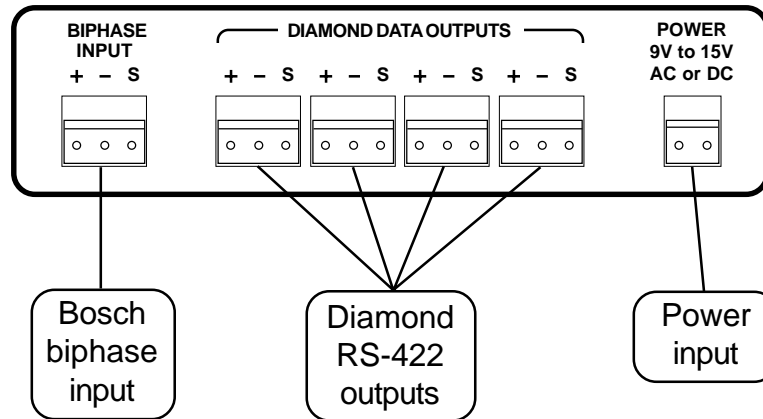
Group#	Bosch Address	to	Diamond Address
1	0001 TO 0256		001 TO 256
2	0257 TO 0512		001 TO 256
3	0513 TO 0768		001 TO 256
4	0769 TO 1024		001 TO 256
5	1025 TO 1280		001 TO 256
6	1281 TO 1536		001 TO 256
7	1537 TO 1792		001 TO 256
8	1793 TO 2028		001 TO 256

INSTALLATION

FRONT PANEL



REAR PANEL



The preferred KD6 control system setting (S4-1) is for the Maxpro control system. The setup menu accessed through [Shot 90] is much easier to use than the alternate method using the Dome Programming Table.

OPERATION

Pan, Tilt, Zoom, Focus, and Iris commands are converted directly. Additional functions use the following table.

<u>BOSCH COMMAND</u>	<u>DIAMOND COMMAND</u>
[ON] [1 to 127] [ENTER] [OFF] [1 to 127] [ENTER]	AUX (1 to 127) ON (Except for #3) AUX (1 to 127) OFF (Except for #3)
[ON] [3] [ENTER] [OFF] [3] [ENTER]	SET CAMERA TO AUTO IRIS (see Iris Notes) SET CAMERA TO MANUAL IRIS (see Iris Notes)
[SHOT] [1 to 99] [ENTER] [SET] [1 to 99] [ENTER] Note: If configuration Switch 7 is ON, preshots above 39 will have 40 added to the #.	RECALL PRESHOT (1 to 99) STORE PRESHOT (1 to 99)
[SHOT] [200 to 215] [ENTER]	RUN VECTORSCAN (0 to 15)
[SHOT] [250] [ENTER] [SHOT] [251] [ENTER] [SHOT] [252] [ENTER] [SHOT] [253] [ENTER]	CAMERA ID DISPLAY ON CAMERA ID DISPLAY OFF AZIMUTH DISPLAY ON AZIMUTH DISPLAY OFF
[SHOT] [267] [ENTER]	INITIALIZE DOME POSITION (FIND HOME)

The following commands will bring up the on-screen menus in the Diamond domes. Use the DOME PROGRAMMING TABLE on the next page to send numbers and characters.

[SHOT] [256] [ENTER]	DISPLAY MAIN MENU
[SHOT] [257] [ENTER]	DISPLAY GO TO PRESHOT MENU
[SHOT] [258] [ENTER]	DISPLAY RUN VECTORSCAN ONCE MENU
[SHOT] [259] [ENTER]	DISPLAY RUN V/SCAN CONTINUOUSLY MENU
[SHOT] [260] [ENTER]	DISPLAY LIST PRESHOTS MENU / NEXT PAGE
[SHOT] [261] [ENTER]	DISPLAY PROGRAM PRESHOT MENU
[SHOT] [262] [ENTER]	DISPLAY LIST V/SCAN FILES MENU / NEXT PAGE
[SHOT] [263] [ENTER]	DISPLAY LIST V/SCAN FILE CONTENTS MENU
[SHOT] [264] [ENTER]	DISPLAY PROGRAM VECTORSCAN FILES MENU
[SHOT] [265] [ENTER]	DISPLAY LIST SECTORS MENU
[SHOT] [266] [ENTER]	DISPLAY PROGRAM SECTOR IDs MENU

If the menu does not give a letter or number option for the finish, [SHOT] [268] [ENTER] will send the equivalent code for the "ESC" key.

[SHOT] [268] [ENTER]	ABORT / DONE (BACK UP ONE STEP IN THE CONTROL SEQUENCE AND EVENTUALLY RETURN DOME TO MANUAL CONTROL)
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When the menu gives "ENTER" as an option, that is the computer keyboard "Enter" key, not the [Enter] key on the Bosch keyboard. Use the Bosch [SHOT] [270] [ENTER] command.

DOME PROGRAMMING TABLE

The Diamond SmartScan Domes have on-screen menus and titling that are normally programmed using a computer style keyboard. From the Bosch system, [SHOT] commands [272] to [346] are used to generate the same (ASCII) codes that a keyboard would send. The following table shows the keycode that is sent for each [SHOT] command.

COMMAND	CHAR	COMMAND	CHAR	COMMAND	CHAR
[SHOT][269][ENTER]	BACKSPACE	[SHOT][295][ENTER]	'	[SHOT][321][ENTER]	A
[SHOT][270][ENTER]	ENTER	[SHOT][296][ENTER]	([SHOT][322][ENTER]	B
[SHOT][271][ENTER]		[SHOT][297][ENTER])	[SHOT][323][ENTER]	C
[SHOT][272][ENTER]	DELETE	[SHOT][298][ENTER]	*	[SHOT][324][ENTER]	D
[SHOT][273][ENTER]	INSERT	[SHOT][299][ENTER]	+	[SHOT][325][ENTER]	E
[SHOT][274][ENTER]		[SHOT][300][ENTER]	,	[SHOT][326][ENTER]	F
[SHOT][275][ENTER]		[SHOT][301][ENTER]	-	[SHOT][327][ENTER]	G
[SHOT][276][ENTER]		[SHOT][302][ENTER]	.	[SHOT][328][ENTER]	H
[SHOT][277][ENTER]		[SHOT][303][ENTER]	/	[SHOT][329][ENTER]	I
[SHOT][278][ENTER]		[SHOT][304][ENTER]	0	[SHOT][330][ENTER]	J
[SHOT][279][ENTER]		[SHOT][305][ENTER]	1	[SHOT][331][ENTER]	K
[SHOT][280][ENTER]		[SHOT][306][ENTER]	2	[SHOT][332][ENTER]	L
[SHOT][281][ENTER]		[SHOT][307][ENTER]	3	[SHOT][333][ENTER]	M
[SHOT][282][ENTER]		[SHOT][308][ENTER]	4	[SHOT][334][ENTER]	N
[SHOT][283][ENTER]		[SHOT][309][ENTER]	5	[SHOT][335][ENTER]	O
[SHOT][284][ENTER]	RIGHTARROW	[SHOT][310][ENTER]	6	[SHOT][336][ENTER]	P
[SHOT][285][ENTER]	LEFTARROW	[SHOT][311][ENTER]	7	[SHOT][337][ENTER]	Q
[SHOT][286][ENTER]	UPARROW	[SHOT][312][ENTER]	8	[SHOT][338][ENTER]	R
[SHOT][287][ENTER]	DOWNARROW	[SHOT][313][ENTER]	9	[SHOT][339][ENTER]	S
[SHOT][288][ENTER]	SPACE BAR	[SHOT][314][ENTER]	:	[SHOT][340][ENTER]	T
[SHOT][289][ENTER]	!	[SHOT][315][ENTER]	;	[SHOT][341][ENTER]	U
[SHOT][290][ENTER]	"	[SHOT][316][ENTER]	<	[SHOT][342][ENTER]	V
[SHOT][291][ENTER]	#	[SHOT][317][ENTER]	=	[SHOT][343][ENTER]	W
[SHOT][292][ENTER]	\$	[SHOT][318][ENTER]	>	[SHOT][344][ENTER]	X
[SHOT][293][ENTER]	%	[SHOT][319][ENTER]	?	[SHOT][345][ENTER]	Y
[SHOT][294][ENTER]	&	[SHOT][320][ENTER]	@	[SHOT][346][ENTER]	Z

Examples:

To send the code for the "A" key, press [SHOT] [321] [ENTER].

To send the code for the "3" key, press [SHOT] [307] [ENTER].

To send the code for the "Enter" key, press [SHOT] [270] [ENTER].

Remember that [SHOT] [268] [ENTER] (ESC) will back you out of a menu.

IRIS NOTES

Each Diamond camera telemetry packet (Pan, Tilt, Zoom, & Focus) also contains Iris information. If it is not Iris Open or Iris Close, then it will be either Auto Iris or Manual Iris. You cannot send a Pan, Tilt, Zoom, or Focus command without the Iris command.

Diamond cameras that are not capable of changing Auto Iris status are not affected.

Units that can change between Auto or Manual Iris will be affected. Each time a camera is controlled, it will have its iris status updated to either Auto or Manual.

When a camera is selected, the code translator defaults to the setting determined by the configuration switch, either Auto Iris or Manual Iris. An individual camera can have its status changed by the following methods.

If [Iris Open] or [Iris Close] is pressed, the status of that camera will revert to Manual Iris.

In a Bosch system, the Aux 3 command is used to set the camera's iris mode. Sending [ON][3] will change the selected camera to Auto Iris. Sending [OFF][3] will change it to Manual Iris.

The Iris status is only sent along with Pan, Tilt, Zoom, and Focus. Pre-position and other non-movement commands are not involved.

So, if you normally want your cameras in Auto Iris, set Switch 1-8 to ON. If you normally want your cameras in Manual Iris, set the switch to OFF.

ADDRESS CONVERSION TABLE

GROUP1				GROUP2			
BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND
1	1	101	101	201	201	257	1
2	2	102	102	202	202	258	2
3	3	103	103	203	203	259	3
4	4	104	104	204	204	260	4
5	5	105	105	205	205	261	5
6	6	106	106	206	206	262	6
7	7	107	107	207	207	263	7
8	8	108	108	208	208	264	8
9	9	109	109	209	209	265	9
10	10	110	110	210	210	266	10
11	11	111	111	211	211	267	11
12	12	112	112	212	212	268	12
13	13	113	113	213	213	269	13
14	14	114	114	214	214	270	14
15	15	115	115	215	215	271	15
16	16	116	116	216	216	272	16
17	17	117	117	217	217	273	17
18	18	118	118	218	218	274	18
19	19	119	119	219	219	275	19
20	20	120	120	220	220	276	20
21	21	121	121	221	221	277	21
22	22	122	122	222	222	278	22
23	23	123	123	223	223	279	23
24	24	124	124	224	224	280	24
25	25	125	125	225	225	281	25
26	26	126	126	226	226	282	26
27	27	127	127	227	227	283	27
28	28	128	128	228	228	284	28
29	29	129	129	229	229	285	29
30	30	130	130	230	230	286	30
31	31	131	131	231	231	287	31
32	32	132	132	232	232	288	32
33	33	133	133	233	233	289	33
34	34	134	134	234	234	290	34
35	35	135	135	235	235	291	35
36	36	136	136	236	236	292	36
37	37	137	137	237	237	293	37
38	38	138	138	238	238	294	38
39	39	139	139	239	239	295	39
40	40	140	140	240	240	296	40
41	41	141	141	241	241	297	41
42	42	142	142	242	242	298	42
43	43	143	143	243	243	299	43
44	44	144	144	244	244	300	44
45	45	145	145	245	245	301	45
46	46	146	146	246	246	302	46
47	47	147	147	247	247	303	47
48	48	148	148	248	248	304	48
49	49	149	149	249	249	305	49
50	50	150	150	250	250	306	50
51	51	151	151	251	251	307	51
52	52	152	152	252	252	308	52
53	53	153	153	253	253	309	53
54	54	154	154	254	254	310	54
55	55	155	155	255	255	311	55
56	56	156	156	256	256	312	56
57	57	157	157			313	57
58	58	158	158			314	58
59	59	159	159			315	59
60	60	160	160			316	60
61	61	161	161			317	61
62	62	162	162			318	62
63	63	163	163			319	63
64	64	164	164			320	64
65	65	165	165			321	65
66	66	166	166			322	66
67	67	167	167			323	67
68	68	168	168			324	68
69	69	169	169			325	69
70	70	170	170			326	70
71	71	171	171			327	71
72	72	172	172			328	72
73	73	173	173			329	73
74	74	174	174			330	74
75	75	175	175			331	75
76	76	176	176			332	76
77	77	177	177			333	77
78	78	178	178			334	78
79	79	179	179			335	79
80	80	180	180			336	80
81	81	181	181			337	81
82	82	182	182			338	82
83	83	183	183			339	83
84	84	184	184			340	84
85	85	185	185			341	85
86	86	186	186			342	86
87	87	187	187			343	87
88	88	188	188			344	88
89	89	189	189			345	89
90	90	190	190			346	90
91	91	191	191			347	91
92	92	192	192			348	92
93	93	193	193			349	93
94	94	194	194			350	94
95	95	195	195			351	95
96	96	196	196			352	96
97	97	197	197			353	97
98	98	198	198			354	98
99	99	199	199			355	99
100	100	200	200			356	100

ADDRESS CONVERSION TABLE

GROUP3				GROUP4					
<u>BOSCH</u>	<u>DIAMOND</u>	<u>BOSCH</u>	<u>DIAMOND</u>	<u>BOSCH</u>	<u>DIAMOND</u>	<u>BOSCH</u>	<u>DIAMOND</u>	<u>BOSCH</u>	<u>DIAMOND</u>
513	1	613	101	713	201	769	1	869	101
514	2	614	102	714	202	770	2	870	102
515	3	615	103	715	203	771	3	871	103
516	4	616	104	716	204	772	4	872	104
517	5	617	105	717	205	773	5	873	105
518	6	618	106	718	206	774	6	874	106
519	7	619	107	719	207	775	7	875	107
520	8	620	108	720	208	776	8	876	108
521	9	621	109	721	209	777	9	877	109
522	10	622	110	722	210	778	10	878	110
523	11	623	111	723	211	779	11	879	111
524	12	624	112	724	212	780	12	880	112
525	13	625	113	725	213	781	13	881	113
526	14	626	114	726	214	782	14	882	114
527	15	627	115	727	215	783	15	883	115
528	16	628	116	728	216	784	16	884	116
529	17	629	117	729	217	785	17	885	117
530	18	630	118	730	218	786	18	886	118
531	19	631	119	731	219	787	19	887	119
532	20	632	120	732	220	788	20	888	120
533	21	633	121	733	221	789	21	889	121
534	22	634	122	734	222	790	22	890	122
535	23	635	123	735	223	791	23	891	123
536	24	636	124	736	224	792	24	892	124
537	25	637	125	737	225	793	25	893	125
538	26	638	126	738	226	794	26	894	126
539	27	639	127	739	227	795	27	895	127
540	28	640	128	740	228	796	28	896	128
541	29	641	129	741	229	797	29	897	129
542	30	642	130	742	230	798	30	898	130
543	31	643	131	743	231	799	31	899	131
544	32	644	132	744	232	800	32	900	132
545	33	645	133	745	233	801	33	901	133
546	34	646	134	746	234	802	34	902	134
547	35	647	135	747	235	803	35	903	135
548	36	648	136	748	236	804	36	904	136
549	37	649	137	749	237	805	37	905	137
550	38	650	138	750	238	806	38	906	138
551	39	651	139	751	239	807	39	907	139
552	40	652	140	752	240	808	40	908	140
553	41	653	141	753	241	809	41	909	141
554	42	654	142	754	242	810	42	910	142
555	43	655	143	755	243	811	43	911	143
556	44	656	144	756	244	812	44	912	144
557	45	657	145	757	245	813	45	913	145
558	46	658	146	758	246	814	46	914	146
559	47	659	147	759	247	815	47	915	147
560	48	660	148	760	248	816	48	916	148
561	49	661	149	761	249	817	49	917	149
562	50	662	150	762	250	818	50	918	150
563	51	663	151	763	251	819	51	919	151
564	52	664	152	764	252	820	52	920	152
565	53	665	153	765	253	821	53	921	153
566	54	666	154	766	254	822	54	922	154
567	55	667	155	767	255	823	55	923	155
568	56	668	156	768	256	824	56	924	156
569	57	669	157			825	57	925	157
570	58	670	158			826	58	926	158
571	59	671	159			827	59	927	159
572	60	672	160			828	60	928	160
573	61	673	161			829	61	929	161
574	62	674	162			830	62	930	162
575	63	675	163			831	63	931	163
576	64	676	164			832	64	932	164
577	65	677	165			833	65	933	165
578	66	678	166			834	66	934	166
579	67	679	167			835	67	935	167
580	68	680	168			836	68	936	168
581	69	681	169			837	69	937	169
582	70	682	170			838	70	938	170
583	71	683	171			839	71	939	171
584	72	684	172			840	72	940	172
585	73	685	173			841	73	941	173
586	74	686	174			842	74	942	174
587	75	687	175			843	75	943	175
588	76	688	176			844	76	944	176
589	77	689	177			845	77	945	177
590	78	690	178			846	78	946	178
591	79	691	179			847	79	947	179
592	80	692	180			848	80	948	180
593	81	693	181			849	81	949	181
594	82	694	182			850	82	950	182
595	83	695	183			851	83	951	183
596	84	696	184			852	84	952	184
597	85	697	185			853	85	953	185
598	86	698	186			854	86	954	186
599	87	699	187			855	87	955	187
600	88	700	188			856	88	956	188
601	89	701	189			857	89	957	189
602	90	702	190			858	90	958	190
603	91	703	191			859	91	959	191
604	92	704	192			860	92	960	192
605	93	705	193			861	93	961	193
606	94	706	194			862	94	962	194
607	95	707	195			863	95	963	195
608	96	708	196			864	96	964	196
609	97	709	197			865	97	965	197
610	98	710	198			866	98	966	198
611	99	711	199			867	99	967	199
612	100	712	200			868	100	968	200

ADDRESS CONVERSION TABLE

GROUP5				GROUP6			
BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND
1025	1	1125	101	1225	201	1281	1
1026	2	1126	102	1226	202	1282	2
1027	3	1127	103	1227	203	1283	3
1028	4	1128	104	1228	204	1284	4
1029	5	1129	105	1239	205	1285	5
1030	6	1130	106	1230	206	1286	6
1031	7	1131	107	1231	207	1287	7
1032	8	1132	108	1232	208	1288	8
1033	9	1133	109	1233	209	1289	9
1034	10	1134	110	1234	210	1290	10
1035	11	1135	111	1235	211	1291	11
1036	12	1136	112	1236	212	1292	12
1037	13	1137	113	1237	213	1293	13
1038	14	1138	114	1238	214	1294	14
1039	15	1139	115	1249	215	1295	15
1040	16	1140	116	1240	216	1296	16
1041	17	1141	117	1241	217	1297	17
1042	18	1142	118	1242	218	1298	18
1043	19	1143	119	1243	219	1299	19
1044	20	1144	120	1244	220	1300	20
1045	21	1145	121	1245	221	1301	21
1046	22	1146	122	1246	222	1302	22
1047	23	1147	123	1247	223	1303	23
1048	24	1148	124	1248	224	1304	24
1049	25	1149	125	1259	225	1305	25
1050	26	1150	126	1250	226	1306	26
1051	27	1151	127	1251	227	1307	27
1052	28	1152	128	1252	228	1308	28
1053	29	1153	129	1253	229	1309	29
1054	30	1154	130	1254	230	1310	30
1055	31	1155	131	1255	231	1311	31
1056	32	1156	132	1256	232	1312	32
1057	33	1157	133	1257	233	1313	33
1058	34	1158	134	1258	234	1314	34
1059	35	1159	135	1259	235	1315	35
1060	36	1160	136	1260	236	1316	36
1061	37	1161	137	1261	237	1317	37
1062	38	1162	138	1262	238	1318	38
1063	39	1163	139	1263	239	1319	39
1064	40	1164	140	1264	240	1320	40
1065	41	1165	141	1265	241	1321	41
1066	42	1166	142	1266	242	1322	42
1067	43	1167	143	1267	243	1323	43
1068	44	1168	144	1268	244	1324	44
1069	45	1169	145	1269	245	1325	45
1070	46	1170	146	1270	246	1326	46
1071	47	1171	147	1271	247	1327	47
1072	48	1172	148	1272	248	1328	48
1073	49	1173	149	1273	249	1329	49
1074	50	1174	150	1274	250	1330	50
1075	51	1175	151	1275	251	1331	51
1076	52	1176	152	1276	252	1332	52
1077	53	1177	153	1277	253	1333	53
1078	54	1178	154	1278	254	1334	54
1079	55	1179	155	1279	255	1335	55
1080	56	1180	156	1280	256	1336	56
1081	57	1181	157			1337	57
1082	58	1182	158			1338	58
1083	59	1183	159			1339	59
1084	60	1184	160			1340	60
1085	61	1185	161			1341	61
1086	62	1186	162			1342	62
1087	63	1187	163			1343	63
1088	64	1188	164			1344	64
1089	65	1189	165			1345	65
1090	66	1190	166			1346	66
1091	67	1191	167			1347	67
1092	68	1192	168			1348	68
1093	69	119	169			1349	69
1094	70	1194	170			1350	70
1095	71	1195	171			1351	71
1096	72	1196	172			1352	72
1097	73	1197	173			1353	73
1098	74	1198	174			1354	74
1099	75	1199	175			1355	75
1100	76	1200	176			1356	76
1101	77	1201	177			1357	77
1102	78	1202	178			1358	78
1103	79	1203	179			1359	79
1104	80	1204	180			1360	80
1105	81	1205	181			1361	81
1106	82	1206	182			1362	82
1107	83	1207	183			1363	83
1108	84	1208	184			1364	84
1109	85	1209	185			1365	85
1100	86	1210	186			1366	86
1111	87	1211	187			1367	87
1112	88	1212	188			1368	88
1113	89	1213	189			1369	89
1114	90	1214	190			1370	90
1115	91	1215	191			1371	91
1116	92	1216	192			1372	92
1117	93	1217	193			1373	93
1118	94	1218	194			1374	94
1119	95	1219	195			1375	95
1120	96	1220	196			1376	96
1121	97	1221	197			1377	97
1122	98	1222	198			1378	98
1123	99	1223	199			1379	99
1124	100	1224	200			1380	100

ADDRESS CONVERSION TABLE

GROUP7				GROUP8							
BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND	BOSCH	DIAMOND
1537	1	1637	101	1737	201	1793	1	1893	101	1993	201
1538	2	1638	102	1738	202	1794	2	1894	102	1994	202
1539	3	1639	103	1739	203	1795	3	1895	103	1995	203
1540	4	1640	104	1740	204	1796	4	1896	104	1996	204
1541	5	1641	105	1741	205	1797	5	1897	105	1997	205
1542	6	1642	106	1742	206	1798	6	1898	106	1998	206
1543	7	1643	107	1743	207	1799	7	1899	107	1999	207
1544	8	1644	108	1744	208	1800	8	1900	108	2000	208
1545	9	1645	109	1745	209	1801	9	1901	109	2001	209
1546	10	1646	110	1746	210	1802	10	1902	110	2002	210
1547	11	1647	111	1747	211	1803	11	1903	111	2003	211
1548	12	1648	112	1748	212	1804	12	1904	112	2004	212
1549	13	1649	113	1749	213	1805	13	1905	113	2005	213
1550	14	1650	114	1750	214	1806	14	1906	114	2006	214
1551	15	1651	115	1751	215	1807	15	1907	115	2007	215
1552	16	1652	116	1752	216	1808	16	1908	116	2008	216
1553	17	1653	117	1753	217	1809	17	1909	117	2009	217
1554	18	1654	118	1754	218	1810	18	1910	118	2010	218
1555	19	1655	119	1755	219	1811	19	1911	119	2011	219
1556	20	1656	120	1756	220	1812	20	1912	120	2012	220
1557	21	1657	121	1757	221	1813	21	1913	121	2013	221
1558	22	1658	122	1758	222	1814	22	1914	122	2014	222
1559	23	1659	123	1759	223	1815	23	1915	123	2015	223
1560	24	1660	124	1760	224	1816	24	1916	124	2016	224
1561	25	1661	125	1761	225	1817	25	1917	125	2017	225
1562	26	1662	126	1762	226	1818	26	1918	126	2018	226
1563	27	1663	127	1763	227	1819	27	1919	127	2019	227
1564	28	1664	128	1764	228	1820	28	1920	128	2020	228
1565	29	1665	129	1765	229	1821	29	1921	129	2021	229
1566	30	1666	130	1766	230	1822	30	1922	130	2022	230
1567	31	1667	131	1767	231	1823	31	1923	131	2023	231
1568	32	1668	132	1768	232	1824	32	1924	132	2024	232
1569	33	1669	133	1769	233	1825	33	1925	133	2025	233
1570	34	1670	134	1770	234	1826	34	1926	134	2026	234
1571	35	1671	135	1771	235	1827	35	1927	135	2027	235
1572	36	1672	136	1772	236	1828	36	1928	136	2028	236
1573	37	1673	137	1773	237	1829	37	1929	137	2029	237
1574	38	1674	138	1774	238	1830	38	1930	138	2030	238
1575	39	1675	139	1775	239	1831	39	1931	139	2031	239
1576	40	1676	140	1776	240	1832	40	1932	140	2032	240
1577	41	1677	141	1777	241	1833	41	1933	141	2033	241
1578	42	1678	142	1778	242	1834	42	1934	142	2034	242
1579	43	1679	143	1779	243	1835	43	1935	143	2035	243
1580	44	1680	144	1780	244	1836	44	1936	144	2036	244
1581	45	1681	145	1781	245	1837	45	1937	145	2037	245
1582	46	1682	146	1782	246	1838	46	1938	146	2038	246
1583	47	1683	147	1783	247	1839	47	1939	147	2039	247
1584	48	1684	148	1784	248	1840	48	1940	148	2040	248
1585	49	1685	149	1785	249	1841	49	1941	149	2041	249
1586	50	1686	150	1786	250	1842	50	1942	150	2042	250
1587	51	1687	151	1787	251	1843	51	1943	151	2043	251
1588	52	1688	152	1788	252	1844	52	1944	152	2044	252
1589	53	1689	153	1789	253	1845	53	1945	153	2045	253
1590	54	1690	154	1790	254	1846	54	1946	154	2046	254
1591	55	1691	155	1791	255	1847	55	1947	155	2047	255
1592	56	1692	156	1792	256	1848	56	1948	156	2048	256
1593	57	1693	157			1849	57	1949	157		
1594	58	1694	158			1850	58	1950	158		
1595	59	1695	159			1851	59	1951	159		
1596	60	1696	160			1852	60	1952	160		
1597	61	1697	161			1853	61	1953	161		
1598	62	1698	162			1854	62	1954	162		
1599	63	1699	163			1855	63	1955	163		
1600	64	1700	164			1856	64	1956	164		
1601	65	1701	165			1857	65	1957	165		
1602	66	1702	166			1858	66	1958	166		
1603	67	1703	167			1859	67	1959	167		
1604	68	1704	168			1860	68	1960	168		
1605	69	1705	169			1861	69	1961	169		
1606	70	1706	170			1862	70	1962	170		
1607	71	1707	171			1863	71	1963	171		
1608	72	1708	172			1864	72	1964	172		
1609	73	1709	173			1865	73	1965	173		
1610	74	1710	174			1866	74	1966	174		
1611	75	1711	175			1867	75	1967	175		
1612	76	1712	176			1868	76	1968	176		
1613	77	1713	177			1869	77	1969	177		
1614	78	1714	178			1870	78	1970	178		
1615	79	1715	179			1871	79	1971	179		
1616	80	1716	180			1872	80	1972	180		
1617	81	1717	181			1873	81	1973	181		
1618	82	1718	182			1874	82	1974	182		
1619	83	1719	183			1875	83	1975	183		
1620	84	1720	184			1876	84	1976	184		
1621	85	1721	185			1877	85	1977	185		
1622	86	1722	186			1878	86	1978	186		
1623	87	1723	187			1879	87	1979	187		
1624	88	1724	188			1880	88	1980	188		
1625	89	1725	189			1881	89	1981	189		
1626	90	1726	190			1882	90	1982	190		
1627	91	1727	191			1883	91	1983	191		
1628	92	1728	192			1884	92	1984	192		
1629	93	1729	193			1885	93	1985	193		
1630	94	1730	194			1886	94	1986	194		
1631	95	1731	195			1887	95	1987	195		
1632	96	1732	196			1888	96	1988	196		
1633	97	1733	197			1889	97	1989	197		
1634	98	1734	198			1890	98	1990	198		
1635	99	1735	199			1891	99	1991	199		
1636	100	1736	200			1892	100	1992	200		

