

**SAUDI ARABIAN OIL COMPANY (Saudi Aramco)**  
**GENERAL INSTRUCTION MANUAL**

GI NUMBER **Approved**

5.005

ISSUING ORG. INDUSTRIAL SECURITY

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REPLACES  
02/27/2005

SUBJECT SIGNPOSTING TO SAUDI ARAMCO FACILITIES

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## CONTENT

This General Instruction (GI) specifies guidelines to be followed for signposting to Saudi Aramco facilities. The text includes:

1. SCOPE
2. PURPOSE
3. GENERAL GUIDELINES
4. APPLICABILITY
5. PLACEMENT AND DESIGN OF SIGNS

Supplement No. 1: Suggested abbreviations

Supplement No. 2: Dimensions

### 1.0 SCOPE

- 1.1 This GI covers permanent and temporary signposting to all Saudi Aramco facilities, in particular, signposting to remote facilities (whether manned or unmanned) installed by (or on behalf of) all Saudi Aramco organizations and all contractors and subcontractors.
- 1.2 This GI covers only direction signs installed by Saudi Aramco proponent organizations and contractors. It does not include normal traffic signs such as prohibitory and mandatory signs, stopping and parking signs etc., the installation of which should be in accordance with directives of Saudi Arabian Government's Ministry of Communications, as published in "Standards for Road Safety Features".
- 1.3 The requirements of this GI do not apply to community facilities, or to signs inside plants or communities.

### 2.0 PURPOSE

- 2.1 To address the security concerns expressed by Supreme Commission for Industrial Security in the Ministry of Interior of the Saudi Arabian Government in that in all cases signs will be abbreviated as much as possible so locations will be known except to concerned or authorized personnel.
- 2.2 To provide directional assistance to authorized personnel including emergency response vehicles.

### 3.0 GENERAL GUIDELINES

- 3.1 Signposting shall be kept to the minimum necessary to provide directional assistance to authorized personnel such as operations, maintenance crew, emergency response vehicles, and contractors.
- 3.2 Major facilities including refineries, tank farms, gas plants, and large Gas-Oil Separating Plants (GOSP'S) may not require signposting, since they are generally known to Saudi Aramco employees and other authorized personnel.

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- 3.3 Additional signposting on the Saudi Aramco roads (access, feeder, or main roads), or even on the Government roads shall be of the abbreviated form. Only initials and numbers should be used, avoiding full descriptive terminology. For example, "Ain Dar GOSP-3" should be designated "ADGOSP-3", and so on.
- 3.4 All such signs are to be in both Arabic and English.
- 3.5 Pipelines shall be designated by initials and the number of that pipeline, in Arabic and English, and abbreviated as much as possible. For example, "QRT-3" is acceptable; "Qatif-Ras Tanura Pipeline Number 3" is not. Only pipeline signs may have numbered distance markers on them indicating the kilometer reading along the pipeline.
- 3.6 All drilling rigs and wells in both remote and local areas should be signposted so that emergency vehicles can quickly locate the facilities if required. Signs must use letter and number designations only, avoiding terminology such as "Shedgum Well 25", using "S-25" instead. In some cases, response to a wellsite emergency may be quicker if assistance from the personnel at the well's related GOSP is obtained. The GOSP Foreman or one of his operators could ride in the emergency vehicle and give directions to well's location.
- 3.7 It is always permissible to use directional arrows; however, no other information should appear on the sign.
- 3.8 Signs should be readable from the road but otherwise should be as small as possible. Refer to paragraph 5.4 below for size of lettering.
- 3.9 Temporary facilities should have signs removed as soon as the facility moves or has ceased to function.
- 3.10 Main features of these guidelines are also given in a Saudi Aramco Standard Drawing (Refer to: plant number 990, Index "A", Drawing Number AA-036496).

#### **4.0 APPLICABILITY**

##### **4.1 Responsibility**

- 4.1.1 The proponent shall be responsible for ascertaining the need for a sign at the site under consideration.
- 4.1.2 Industrial Security has the overall responsibility for ensuring compliance with these guidelines by proponent.
- 4.1.3 The technical advisors of the area Industrial Security Departments may be contacted for any queries relating to the interpretation of the intent of these guidelines.
- 4.1.4 Proponent organizations are responsible for the signs installed by their contractors and subcontractors, and subsequent removal should the need cease to exist.

##### **4.2 Retroactive Implementation**

- 4.2.1 Proponent Organizations shall conduct annual surveys of areas under their jurisdiction to determine if existing signs are needed, and to determine which additional signs will be required in future.

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4.2.2 All directional signs which fall into one or more of the following categories are to be removed as soon as practicable and replaced with signs (if needed) in accordance with the guidelines of this GI:

- (a) Signs giving full descriptive name or identification of a facility,
- (b) Signs giving distance information about facilities, except as noted in paragraph 3.5 above,
- (c) Signs which are not in both Arabic and English.
- (d) Signs that are no longer needed as addressed in paragraph 3.9 above.

## **5.0 PLACEMENT AND DESIGN OF SIGNS**

### **5.1 General**

- 5.1.1 The need for a particular sign and its location should be determined on the basis of an engineering study at the site, since a standardization of position can not always be achieved in practice.
- 5.1.2 Signs should be placed as to be visible to the drivers for whom they are intended. These are normally placed on the right side of the road. The inner edge of the sign plate is to be 3 to 4.5 meters from the edge of the pavement.
- 5.1.3 Signs should be placed in such a manner that they do not present any obstruction to the vehicular traffic.
- 5.1.4 Sign-plates directing to Saudi Aramco facilities are expected to be of less than 900 mm in length and usually require only one post for installation.
- 5.1.5 For detailed specifications of plate material, color, posts, etc., "STANDARDS FOR ROAD SAFETY FEATURES" published by the Ministry of Communications should be consulted.

### **5.2 Plate Material**

- 5.2.1 For temporary signs (less than 6 months) selection of plate material is at the discretion of designer.
- 5.2.2 For permanent signs, a high intensity grade of sheeting is required. The sheeting should cover the whole area of the signplate.
- 5.2.3 Plates for permanent signs should be aluminum alloy, non-porous, smooth, flat rigid, weather-proof and should be protected against deterioration. Plates should be a minimum of 3 mm thick.
- 5.2.4 Plates should be cut so that there are no sharp edges and the corners rounded off to a radius of 37.5 mm. Any trade mark or other printing shall be carefully removed.
- 5.2.5 The sheeting after application to the sign base should not come off the edges which should be sealed nor should it peel off nor warp. The surface should be smooth and free

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from any bubbles, pimples, edge chipping or shattering. It should be washable and weatherproof.

5.2.6 Signs shall be rectangular in shape; however, for direction indication on pipeline signs, one side may be beveled in the shape of an arrowhead. The long axis of the sign shall be horizontal.

5.2.7 Permanent signs shall be blue with white lettering and border. Black lettering on white background is acceptable for temporary signs.

5.2.8 Back face of signplate should be with dull yellow paint in accordance with the Saudi Aramco Paint Manual.

### 5.3 Posts

5.3.1 All posts for permanent signs should be made of heavily galvanized steel pipe of 3 inches internal diameter and 3.5 inches external diameter (normal sizes).

5.3.2 Signplates of less than 900 mm length require one signpost.

5.3.3 All bolts, nuts and metal washers shall be galvanized or plated to inhibit corrosion. The bolt heads are to be such that they do not protrude out too much nor show very much on the front face of plate.

5.3.4 Sealing caps shall be installed over the exposed ends of posts to prevent moisture from entering the posts.

5.3.5 The posts shall be embedded a minimum of 0.9 m in the ground. Foundation for posts shall be 300 mm square on plan and extend one meter into the ground.

5.3.6 Foundation shall be constructed in accordance with Saudi Aramco Engineering Standards SAES-Q-001, "Criteria for Design and Construction of Concrete Structures" and SEAS-Q-Q-005, "Concrete Foundations". Additional information is given in the corresponding Saudi Aramco Design Practices SADP-Q-001 and SADP-Q-005.

5.3.7 The bottom of the signplate shall be a minimum of 1.6 m above grade.

### 5.4 Lettering

5.4.1 One sign may contain reference to one or two facilities lying in the same direction. The abbreviations should then appear one below the other on the sign.

5.4.2 The writing in Arabic should be in the "NASKH" characters and should be above the English in the same cage for any one direction. The dividing line of the cage should be equal to the stroke width of the English letters in the sign.

5.4.3 No distances to facilities are to be indicated on the sign.

5.4.4 For equivalent readability, the size of Arabic letters should be approximately 25% larger than that of English letters.

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5.4.5 Dimensions of English letters shall be as follows:

(Tolerance on all dimensions = + 10%)

Stroke Width = 16 mm

Height of Capital Letters = 112 mm

Height of Lower-case Letters such as b, d, f, .....= 112 mm

Height of Lower-case Letters such as a, c, e, .....= 80 mm

5.4.6 Width of letters and numerals should be as given in table-1 attached.

5.4.7 Spacing between capital letters is to be 24 mm (tolerance + 10%). Spacing between lower-case letters is specified in table-3.

5.4.8 Some suggested abbreviations (English & Arabic) for locations and facilities are tabulated in the supplement No.1 attached.

**Approved:**

\_\_\_\_\_  
Executive Director - Safety & Industrial Security

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**SUPPLEMENT-1**

**CONTENT**

This supplement tabulates suggested examples of English and Arabic Abbreviations of locations facilities.

**SCOPE**

The abbreviations listed herein are only for purpose of designing roadside signs directing to facilities, as covered in **G. I. 5.005**, and do not necessarily conform to acronyms and abbreviations used elsewhere.

**TABLE 1 – LOCATIONS**

NAME	ABBREVIATION	الاسم
'AIN DAR	AD	عين دار
ABQAIQ	AB	أبقيق
ABU ALI	AA	أبو علي
ABU HADRIYA	AH	ابوحدرية
ABU JIFAN	AJ	ابوجفان
ABU SAFA	AS	ابوسعة
AL AZIZIYAH	AZ	العززية
AL BAYADH	BY	البياض
AL HASA	AHS	الإحساء
AL KHARJ	KR	الخرج
AR'AR	AR	عرعر
AL WUSTA	WU	الوسطى
BERRI	BE	البري
BUQQA	BQ	البقة
DAMMAM	DM	الدمام
DHAHRAN	DH	الظهران
DUBA	DU	ضبا
FADHILI	FA	الفاضلي
FARAS	FS	فرس
FAZRAN	FN	فزان
GHAWAR	GH	الغوار
HARDH	HD	حرض
HAWIYAH	HW	الحوية
HAWTAH	HT	الحوطة
JAIZAN	JZ	جيزان (جازان)
JEDDAH	JD	جدة
JU'AYMAH	JM	الجعيمة
JURAYBIAT	JR	جريبعات
KHAFJI	KJ	الخفجي
KHURAI	KS	خريص
KHURSANIYAH	KH	الخرسانية

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LAWDAH	LA	اللوها
MAHARAH	MH	محارة
MANIFAH	MA	منيفة
MARJAN	MR	مرجان
MAZALIJ	MJ	مزاليج
MIDRA	MI	المدرى
MUBARRAZ	MZ	المبرز
MUHASSIN	MUH	المحسن
MUAJJIZ	MJZ	المعجز
MULAYJAH	MUL	مليجة
NARIYA	NA	النعرية
NORHTHERN AREA	NA	المنطقة الشمالية
OFFSHORE	OFF	المنطقة المغمورة
ONSHORE	OS	اليابسة
QARYAT AL ULYA	QU	قرية العليا
QAISUMAH	QS	القيصومة
QASIM	QM	القصيم
QATIF	QA	القطيف
QIRDI	QI	القرضي
QURRAYYAH	QR	القرية
RABIGH	RB	رابغ
RAFHA	RF	رفحاء
RAJIHAH	RJ	راجحة
RAS AL GHAR	RG	راس الغار
RAS EL-MISHAB	RM	رأس المشعب
RAS TANURA	RT	رأس تنورة
RIMTHAN	RI	رمثان
RIYADH	RY	الرياض
SAFANIYA	SAF	السفانية
SALWAH	SL	سلوة
SHAYBAH	SH	الشبية
SHEDQUM	SHD	شدقم
SHEDUGUM KHUFF	SK	خف - شدقم
SOUTHERN AREA	SA	المنطقة الجنوبية
SULAYAL	SL	السليل
TANAJIB	TA	تناقيب
TUFAIH	TU	طفيح
UMM ER RADHUMA	UER	أم رضة
UTHMANIYAH	UT	العثمانية
WASIA	WA	وسيع
YANBU	YA	ينبع
ZULUF	ZU	الظلوف

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**TABLE 2 - FACILITIES**

NAME	ABBREVIATION	الاسم
AIRBASE FILLING UNIT	AFU	وحدة تعبئة في القاعدة الجوية
AIRPORT FUELING TANK FARM	AFTF	ساحة خزانات تزويد الطائرات بالوقود في المطار
AIRPORT FUELING UNIT	AFUU	وحدة تزويد الطائرات بالوقود في المطار
ARAMCO CONSTRUCTION CAMP	ACC	حي انشاء تابع لأرامكو
AVIATION	Av	طيران
BOILER PLANT	BP	منشأة مراجل
BUILDING	Bldg	مبنى
BULK PLANT	BPt	مستودع منتجات البترول
BULK PRODUCTS PLANT	BPP	مستودع المنتجات المكررة
COMMUNICATIONS	Comm	الاتصالات
CONDENSATE STRIPPING	CS	نزع المكثفات
CONTRACTOR CONSTRUCTION CAMP	CCC	حي انشاء عمال المقاولين
CRUDE OIL OFFSHORE TERMINAL	COOT	فرصة زيت خام في المنطقة المغمورة
CRUDE STABILIZER	CSU	معمل تركيز الخام
DEGASSING FACILITIES	(None. Use Plant Number)	مرافق ازالة الغاز
DELIVERY POINT CODE	DPC	نقطة تسليم
DGA SWEETENING PLANT	(None. Use Plant Number)	معمل تحلية
DOMESTIC AIRPORT	DA	مطار داخلي
DRILLING CAMP	DC	حي حفر
DRILLING RIGS	DR	أجهزة حفر
DRILLING WORKOVER	DWO	أعمال الحفر و صيانة الآبار
EAST WEST PIPELINES	EWP	خطوط الأنابيب شرق - غرب
FIRE STATION	Fire Station	محطة اطفاء
FLARE SYSTEM	FS	شبكة حرق الغاز
FLOWLINES	(Per Pipelines Guidelines)	خطوط الجريان
FUEL GAS PLANT	FGP	معمل غاز وقود
GAS COMPRESSION STATION	GCS	محطة ضغط غاز
GAS INJECTION PLANT	GIP	محطة حقن غاز
GAS INJECTION WELL	(None. Use Well Number)	بئر حقن الغاز
GAS OIL SEPARATING PLANT	GOSP	معمل فرز الغاز من الزيت
GAS PLANT	GP	معمل غاز
GAS SWEETENING PLANT	GSP	معمل تحلية الغاز
GAS TREATING PLANT	GTP	معمل معالجة الغاز
GAS-WELL	(None. Use Well Number)	بئر غاز
GATHERING LINES	(Per Pipelines Guidelines)	خطوط التجميع
HIGH FREQUENCY	HF	تردد عالي

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INDUSTRIAL TRAINING CENTER	ITC	مركز التدريب الصناعي
INTERNATIONAL AIRPORT	IA	مطار دولي
JOB SKILLS TRAINING CENTER	JSTC	ورشة التدريب الصناعي
LABORATORY	Lab	مختبر
MAIN COMPUTER GATE	MCG	بوابة رئيسية تعمل بالكمبيوتر
MAIN GATE	MG	بوابة رئيسية
MEA TREATING PLANT	(None. Use Plant Number)	معمل تحلية غاز البترول السائل
MAINTENANCE SHOP	Maint.	ورشة الصيانة
MARINE COMPLEX	MC	مجمع بحري
MARINE FACILITY	MF	مرافق بحري
OFFSHORE PLATFORM	OP	منصة بحرية
OIL-WELL	(None. Use Well Number)	بئر زيت
PIER	PI	رصيف
PIPELINES	(Per Pipelines Guidelines)	خطوط الأنابيب
POWER PLANT	PWR	محطة توليد الكهرباء
PRESSURE REDUCTION STATION	PRS	محطة خفض الضغط
PUMP STATION	PS	محطة ضغط
RECLAMATION YARDS/ FACILITIES	RECL.	ساحة استصلاح مواد/ مرافق
REFINERY	REF	معمل التكرير
REFINERY DESALINATION PLANT	RDP	محطة تحلية في مصفاة
REFINERY POWER PLANT	RPP	محطة كهرباء في مصفاة
REMOTE INJECTION STATION	RIS	محطة حقن عن بعد
ROAD OIL TEST	ROT	اختبار زيت الرصف
SEA ISLAND	SI	الجزيرة الاصطناعية
SERVICE STATION	SS	محطة خدمة
SEWAGE TREATMENT PLANT	STP	معمل معالجة المجاري
SHIP BOARDING	SB	الصعود الى السفينة
SINGLE BUOY MOORING	SBM	عامدة ارساء منفردة
SOUR GAS FACILITIES	SGF	مرافق غاز مر
SPHEROIDS	SPH	خزان كروي
STATION	ST	محطة
STOREHOUSE	(None. Use Number)	مخزن
SULFUR PLANT	SP	معمل كبريت
TANK FARM/ TANKAGE	TF	خزانات/ ساحة خزانات
TIELINES	(Per Pipelines Guidelines)	خطوط فرعية
TOWNSITE DEVELOPMENT	(None)	مدينة العمال
TRANSFER LINES	(Per Pipelines Guidelines)	خطوط تحويل
TRESTLE	TT	حامل
TRUNKLINES	(Per Pipelines Guidelines)	خطوط رئيسية
UTILITY	UT	فع

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WATER INJECTION PLANT	WIP	معمل حقن الماء
WATER INJECTION PUMPSTATION	WIPS	محطة ضخ ماء الحقن
WATER OIL SEPARATING PLANT	WOSP	معمل فرز الماء من الزيت
WATER SUPPLY	WSS	محطة تغذية بالماء
WATER TREATMENT	WT	معالجة الماء
WATER-WELL	(None. Use well number)	بئر ماء

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**SUPPLEMENT-2**

**TABLE - 1**  
**Total Width of Letters (all dimensions are in mm)**

A	96	A	72	1	32
B	80	B	64	2	64
C	80	C	64	3	64
D	80	D	64	4	64
E	80	E	64	5	64
F	80	F	40	6	64
G	80	G	64	7	64
H	80	H	64	8	64
I	16	I	16	9	64
J	56	J	32	0	64
K	80	K	64	-	48
L	64	L	24	↑	48
M	96	M	112		
N	80	N	64		
O	80	O	64		
P	80	P	64		
Q	88	Q	64		
R	80	R	48		
S	80	S	64		
T	64	T	40		
U	80	U	64		
V	80	V	64		
W	128	W	112		
X	80	X	64		
Y	80	Y	64		
Z	80	Z	64		

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**TABLE – 2**  
**Spacing Requirements between Capital & Lower-case Letters**  
**(all dimentions are in mm)**

		SUBSEQUENT LETTERS:																									
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
P	A	16	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	8	8	8	8	16
	B	24	24	24	24	24	24	24	24	24	16	24	24	24	24	16	24	24	24	24	24	24	16	16	16	16	24
	C	16	24	16	16	16	16	16	24	24	16	24	16	24	24	16	24	16	24	24	16	24	16	16	16	16	24
	D	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	16
	E	16	24	16	16	16	16	16	24	24	16	24	24	24	24	16	24	24	24	16	16	24	16	16	16	16	16
	R	S	8	16	8	8	8	8	16	16	8	16	16	16	16	8	16	8	16	8	16	16	8	8	8	8	8
	E	G	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24
	C	H	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24
	E	I	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	24	16	24
	D	J	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24
I	K	16	16	16	16	16	16	16	16	16	8	16	24	24	24	16	24	16	24	16	16	16	8	8	16	8	24
	N	L	16	16	16	8	16	8	8	16	16	8	16	16	16	16	16	8	16	8	8	16	8	8	8	8	8
	G	M	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	24	16	24
	N	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	24	16	24
	L	O	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	24	16	24
	E	P	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	T	Q	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	24	16	24
	T	R	16	24	16	24	16	24	24	24	16	24	24	24	24	16	24	24	24	24	24	24	16	16	16	16	24
	E	S	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24
	R	T	16	16	16	16	16	8	16	16	16	8	16	16	24	24	16	24	16	24	16	16	8	8	8	8	24
S	U	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	V	8	16	16	16	8	16	16	16	16	8	16	16	16	16	8	16	16	16	16	16	16	8	8	8	8	16
	W	8	16	16	16	8	16	16	16	16	8	16	16	16	16	8	16	16	16	16	16	16	8	8	8	8	16
	X	16	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	8	8	8	8	16
	Y	8	16	8	8	16	8	8	16	16	8	16	16	16	16	8	16	8	16	16	16	8	16	8	8	8	8
	Z	16	24	16	24	16	16	24	24	24	16	24	24	24	24	16	24	24	24	24	16	24	24	16	16	16	16

**TABLE – 3**  
**Spacing Requirements between Lower-case letters**  
**(all dimentions are in mm)**

		SUBSEQUENT LETTERS:																									
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
P	a	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	b	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	c	24	24	16	16	16	24	16	24	24	16	24	24	24	24	16	24	16	24	16	16	24	16	16	16	16	
	d	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	e	24	24	24	24	24	16	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	f	16	24	16	16	16	16	16	24	24	8	24	24	24	24	16	24	16	24	16	16	24	8	8	8	8	16
	g	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	h	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	i	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	j	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
G	k	16	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
	l	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	m	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	n	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	o	24	24	24	24	24	16	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	p	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	16	
	q	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	r	8	16	16	8	8	16	8	16	16	8	16	16	16	16	8	16	8	16	16	16	8	8	8	8	16	
	s	24	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	t	16	24	16	16	16	16	16	24	24	8	24	16	16	24	16	24	16	24	16	16	24	8	8	8	8	16
S	u	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	
	v	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	8	8	8	8	16	
	x	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	8	8	8	8	16	
	y	16	16	16	16	16	16	16	16	8	16	16	16	16	16	16	16	16	16	16	16	8	8	8	8	16	
	z	24	24	24	24	24	24	24	24	16	24	24	24	24	24	24	24	24	24	24	24	16	16	16	16	24	