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Getting Started

Installing Keyboard Wedge Scanner

To install a keyboard wedge scanner, follow the steps listed below:

- 1) Make sure that the scanner has the correct Y (U)- cable for the system (a PC or terminal)
- 2) Turn off the power of the system
- 3) Unplug the keyboard from the system
- 4) Connect the Y (U)- cable to the system and keyboard
- 5) Turn on the power of the system
- 6) If the indicator LED lights up and the buzzer sounds, the scanner is ready for reading

Installing a RS-232 Interface Scanner

To install a RS-232 interface scanner, the host device should have a RS-232 port to receive data from the scanner, follow the steps listed below:

- 1) Make sure that the scanner has the right connector for the RS-232 port of the host device
- 2) Make sure that there is a power supply to the scanner (if necessary)
- 3) Connect the cable to the RS-232 port of the device
- 4) If the indicator LED lights up and the buzzer sounds, the scanner is ready for reading

Setup Procedures

- 1) Locate a group that contains the parameters to be changed.
- 2) Scan the "Enter Group #" label. The scanner will sound beeps indicate that setup is in progress
- 3) Scan the label representing the parameter to be changed
- 4) Scan the "Exit" to end the group currently selected, the scanner will sound beeps.
- 5) Repeat the procedure for other groups including the parameters to be changed

Example 1:

Set the operating mode to "Continuous mode"

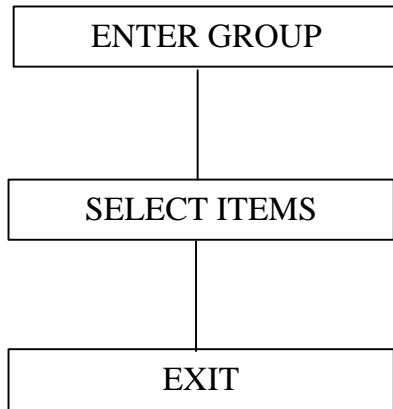
- 1) Scan "Enter Group 5"
- 2) Scan "Continuous/Trigger off"
- 3) Scan "Exit"

Example 2

Assign Preamble string as "#", and postamble string as "END"

- 1) Scan "Enter Group 6"
- 2) Scan Preamble"
- 3) Scan "#" from "Full ASCII Table and Table-Hex."
- 4) Scan "Confirm" Label in Table-Hex
- 5) Scan "Postamble"
- 6) Scan "E", "N", "D" from "Full ASCII Table and Table Hex" consecutively
- 7) Scan "Confirm" Label in Table-Hex.
- 8) Scan Exit

Setup Flow Chart





Set All Defaults



Show Version

Group 0: Interface Selection

 ENTER GROUP	 EXIT
--	---


KEYBOARD


RS-232


WAND


OCIA


RS-232


Reserved 2

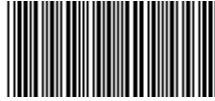

DTMF


Reserved 4

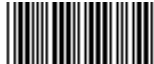
Group 1: Device Selection for Keyboard Interface



ENTER GROUP



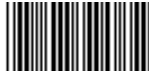
EXIT



PC/AT, PS/2 50,60,70,80(*)



PC/XT



PS/2 25, 30



(NEC 9801)



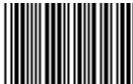
(IBM 5550)



(PS 55)



(NEC N5520)



(ACER 7300)



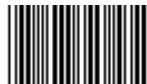
(KW1050D/CT-700A/WANG 5120)



(WANG 5425)



(MAC_SE)



(LC-6533)

Group 1: Device Selection for Keyboard Interface



ENTER GROUP



EXIT



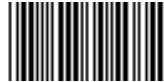
(IBM3196,3197,3476,3477)



Reserved Q



Reserved R



Reserved T



IBM3197



IBM 3476



IBM3477



RESERVED 5



Reserved 6



RESERVED 7




Reserved 8




RESERVED 9

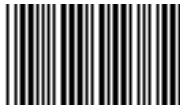
Group 2: Intercharacter Delay



ENTER GROUP



EXIT



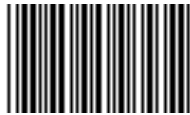
Start Keyboard Setting

Scan Enter Group 2 Label -- >

Scan Start Keyboard (or RS-232) Setting Label -->

Scan two digits labels in "Table-Hex" -->

Scan Exit Label



Start RS-232 Setting

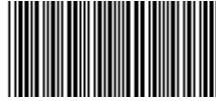
Keyboard Default Value: 05

RS-232 Default Value : 00

Group 3: Language for Keyboard Interface



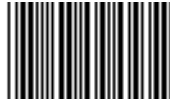
ENTER GROUP



EXIT



U.S. (*)



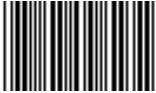
ENGLAND



FRANCE



GERMANY



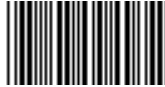
ITALY



BELGIUM



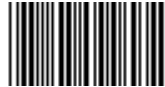
SWEDEN/FINLAND



SPANISH



DENMARK



PORTUGAL





SWISS



NORWAY

Group 3: Language for Keyboard Interface

	
ENTER GROUP	
	
	EXIT


CANADA


HOLLAND


POLAND


LATIN


JAPAN


RESERVED 1




RESERVED 2


RESERVED 3


(IBM THINK-PAD FOR JAPAN)


(PANASONIC CF-II FOR JAPAN)



Group 4: Terminator

	
ENTER GROUP	
	
	EXIT




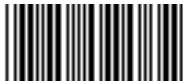







KEYBOARD

NONE	
CR	
SPACE	
TAB	
ESC	
CTRL-C	
ESC	


Group 4: Terminator

	
ENTER GROUP	
	EXIT


RS-232

NONE	
CR	
CR/LF	
LF	
SPACE	
TAB	
ESC	
CTRL-C	
STX..ETX	
XON..XOFF	
EOT	

Group 5: Scan Mode



ENTER GROUP



EXIT



1: Trigger On/Off



2: Trigger On/Good Read Off (*)



3: Trigger On/Good Read Off/
Delay Timeout = ?



4: Continuous/Trigger Off



5: Continuous/LED Always on



6: Continuous/No Trigger




7: Continuous/Testing




8: Continuous/Trigger Off/
Delay Timeout = ?

Group 5: Scan Mode



ENTER GROUP



EXIT



FLASH OFF(*)



FLASH ON



SHORT ZONE



LONG ZONE



LASER DELAY

For Laser Scanner Mode

Default Laser Delay Timeout = 60 sec.

Scan Enter Group 5 Label


Scan Laser Delay -->

Refer to the Table-Hex at page 41 and select a value -->

Scan Confirm in Table Hex.

Scan Exit Label

LAG-960TR - Auto Trigger mode



AUTO TRIGGER

Scan Enter Group 5 Label -->

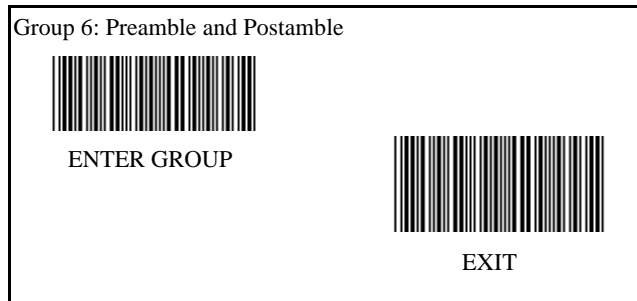
Scan 8: Continuous/Trigger off/Delay timeout=? (Page 13) -->

Scan two digit label and "confirm" label in Page 43 -->

Scan Above "Auto Trigger Label)

Switch on the LAG-960 bottom switch

Note: Scan mode setting is only available for CCD/Laser type scanner.



Preamble



Postamble

Preamble & Postamble Setting:

Scan Enter Group 6 Label -->

Scan Preamble or Postamble Label -->

Refer to ASCII Table(page 44), scan two digits in Table-Hex (Page 43)

Representing one character, maximum 10 characters can be accepted. -->

Scan Confirm Label in Table-Hex (Page 43)

Scan Exit Label



Clear

Clear Preamble & Postamble :


Scan Enter Group 6 Label -->

Scan Preamble or Postamble Label -->


Scan "Clear" Label-->

Scan "Exit" Label

Group 8: RS-232 Parameters



ENTER GROUP



EXIT

Baud Rate



300



600



1200



2400



4800



9600(*)



19200



38400

Data Bit





BIT 7



BIT 8



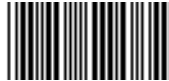

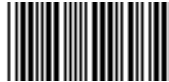
Group 8: RS-232 Parameters

	
ENTER GROUP	
	
	EXIT


Parity :

	
NONE (*)	
	
	ODD
	
EVEN	


Handshaking:

	
NONE (*)	
	
	XON/OFF
	
Scanner Ready	
	
	Data Ready
	
ACK/NAK	

Group 8: RS-232 Parameters



ENTER GROUP



EXIT

**(CK/NAK Response Time
CTS Observation Time:)**



100 ms



300 ms



500 ms



1 sec.



3 sec (*)



5 sec.



10 sec.

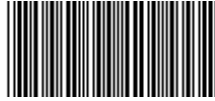


00

Group 9: CODE 39 / (CODE 32)



ENTER GROUP



EXIT



Enable (*)



Disable



Standard (*)



Full ASCII

Transmit Start/End Character



Enable



Disable (*)

Transmit Check Character



Disable



Enable (*)

Verify Checksum



Disable (*)



Enable

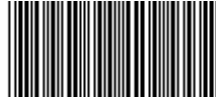


Enable CODE 32

Group 9: CODE 39 / (CODE 32)



ENTER GROUP



EXIT




Verify Normal (*)




Verify Strick

Group 10-1: Interleaved 2 OF 5



ENTER GROUP



EXIT




Disable (*)




Enable

Transmit Check Character



Enable (*)



Disable


Verify Checksum



Enable




Disable



Barcode Length Setting

Length Define
Min: 4
Max: 48


Scan Enter Group 10-1 Label -->
Scan Length Define Label -->
Scan Four Digit Labels in Table Hex (Page 43) -->
Scan Confirm Label in Table-Hex -->
Scan Exit Label




User Define Length Setting:
Scan Enter Group 10-1 Label
Scan User Define Label-->
Scan Six Digit Labels in Table Hex (Only 3 sets of length can be defined)
Scan Confirm Label in Table Hex -->
Scan Exit Label

User Define
3 Sets Available

Group 10-2: Industrial 2 OF 5 / IATA



ENTER GROUP



EXIT




Disable (*)




Enable

Transmit Check Character



Enable (*)



Disable


Verify Checksum



Enable




Disable



Barcode Length Setting

Length Define
Min: 2
Max: 24

Scan Enter Group 10-2 Label -->
Scan Length Define Label -->
Scan Four Digit Labels in Table Hex (Page 43) -->
Scan Confirm Label in Table-Hex -->
Scan Exit Label



User Define Length Setting:

User Define
3 Sets Available

Scan Enter Group 10-2 Label
Scan User Define Label-->
Scan Six Digit Labels in Table Hex (Only 3 sets of length can be defined)
Scan Confirm Label in Table Hex -->
Scan Exit Label




Enable

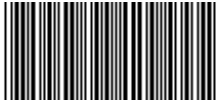


Disable (*)

Group 10-3: Matrix 2 of 5



ENTER GROUP



EXIT




Disable (*)




Enable

Transmit Check Character



Disable



Enable (*)


Verify Checksum



Disable (*)




Enable



Barcode Length Setting
Scan Enter Group 10-3 Label -->
Scan Length Define Label -->
Scan Four Digit Labels in Table Hex (Page 43) -->
Scan Confirm Label in Table-Hex -->
Scan Exit Label

Length Define
Min: 2
Max: 40




User Define Length Setting:
Scan Enter Group 10-3 Label
Scan User Define Label-->
Scan Six Digit Labels in Table Hex (Only 3 sets of length can be defined)
Scan Confirm Label in Table Hex -->

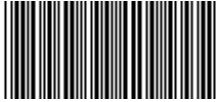
User Define
3 Sets Available

Scan Exit Label

Group 10-4: CHINA POSTAGE



ENTER GROUP



EXIT




Disable (*)




Enable

Transmit Check Character



Disable



Enable (*)


Verify Checksum



Disable (*)



Enable



Barcode Length Setting

Length Define

Min: 2

Max: 40


Scan Enter Group 10-3 Label -->

Scan Length Define Label -->

Scan Four Digit Labels in Table Hex (Page 43) -->

Scan Confirm Label in Table-Hex -->

Scan Exit Label



User Define Length Setting:

User Define

3 Sets Available

Scan Enter Group 10-3 Label

Scan User Define Label-->

Scan Six Digit Labels in Table Hex (Only 3 sets of length can be defined)

Scan Confirm Label in Table Hex -->

Scan Exit Label

Group 11: CODE 128/(CODE 93)/(CODE 11)/(MSI-PLESSEY)



ENTER GROUP



EXIT

CODE 128



Enable (*)



Disable

CODE 93



Enable



Disable (*)

Concatenation




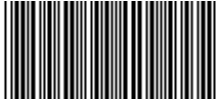
Enable











Disable (*)

Note: Options marked by () are only available upon request

Group 11: CODE 128/(CODE 93)/(CODE 11)/(MSI-PLESSEY)

 ENTER GROUP	 EXIT
--	---

	 Enable(*)
 Disable	
Number of Check Character	
	 One
 Two (*)	
Transmit Check Character	
 Disable (*)	 Enable

MSI/PLESSEY	
 Disable	 Enable (*)

Note: Options marked by () are only available upon request

Group 12: (ISBN/ISSN)



ENTER GROUP



EXIT



Disable (*)



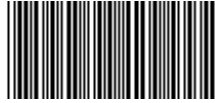
Enable

Note: Options marked by () are only available upon request

Group 13: CODABAR / NW7



ENTER GROUP



EXIT



Enable(*)



Disable

Transmit Start/End Character



Enable



Disable (*)

Start/End Transmit Type



ABCD/ABCD



ABCD/TN*E



abcd/abcd (*)



abcd/tn*e

Group 14: (Code 4)



ENTER GROUP



EXIT





Enable



Disable (*)

Note: Options marked by () are only available upon request

Group 15-1: EAN-13/JAN-13


 ENTER GROUP	 EXIT
--	---

 Enable (*)	 Disable
---	--

ADD-ON 2/5

 Enable (*)	 Disable (*)
---	--



Transmit Check Character

 Enable (*)	 Disable
--	--

Truncate Leading Digit

 Enable	 Disable (*)
---	--

Truncate Leading Zero

 Enable	 Disable (*)
---	--

 Check-Digit On (*)	 Check-Digit Off
---	--

Group 15-2: UPC-A

 ENTER GROUP	 EXIT
--	---

 Enable (*)	 Disable
---	--

ADD-ON 2/5

 Enable (*)	 Disable (*)
---	--

Transmit Check Character

 Enable (*)	 Disable
--	--



Truncate Leading Digit

 Enable	 Disable (*)
---	--

Truncate Leading Zero

 Enable	 Disable (*)
---	--

Group 15-3: EAN-8/JAN-8



 ENTER GROUP	 EXIT
--	---

 Enable (*)	 Disable
---	--

ADD-ON 2/5

 Enable (*)	 Disable (*)
---	--



Transmit Check Character

 Enable (*)	 Disable
--	--

Truncate Leading

 Enable	 Disable (*)
---	--

EAN Convert to EAN-13

 Enable	 Disable (*)
---	--

Group 15-4: UPC-E / UCC EAN/128



ENTER GROUP



EXIT



Enable (*)



Disable

ADD-ON 2/5



Enable (*)



Disable (*)

Transmit Check Character



Enable (*)



Disable

Truncate Leading Digit



Enable



Disable (*)

UCC/EAN/128



Enable



Disable (*)

UPC-E Convert to UPC-A







Enable





Disable

Group 16: General Parameters

	
ENTER GROUP	
	
	EXIT



	
Upper Case	
	
	Lower Case
	
Universal	
	
	ALT Mode

	Buzzer Pitch (Default : 16)
	Buzzer Duration (Default: 04)

Buzzer Pitch & Buzzer Duration Setting:
 Scan Enter Group 16 Label -->
 Scan Buzzer Pitch or Buzzer Duration Label -->
 Scan Two Digit Labels in Table-Hex -->
 Scan Confirm Label in Table-Hex -->
 Scan Exit Label

Power Up Beeping

	
	Disable
	
Enable (*)	

	
Turbo (*)	
	
	Normal

Group 17: Code ID Setting



ENTER GROUP



EXIT



CODE 39



INTERLEAVED 2 OF 5



INDUSTRIAL 2 OF 5



MATRIX 2 OF 5



CHINA POSTAGE



CODE 128



CODE 93



CODE 11



MSI/PLESSEY



CODABAR/NW7



EAN-13/UPC-A



EAN-8



UPC-E



UPC-A

Note: Refer to ASCII Table, scan two hexadecimal labels
in Table Hex to represent one character

Group 18: WAND Type Parameters



ENTER GROUP



EXIT



BAR=LOW



BAR=HIGH(*)

Scan Speed



Low (*)



Lowest



High



Highest

Data Format



Transmit in Normal Format (*)



Transmit in Code 39 Format



Transmit in Code 128 Format

Group 19-1: (Magnetic Parameters)



ENTER GROUP



EXIT



Disable



Enable (*)

Track Order



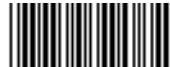
Track 1/3/2



Track 1/2/3 (*)



Track 2/3/1



Track 2/1/3



Track 3/1/2



Track 3/2/1

Note: Options marked by () are only available upon request

Group 19-1: (Magnetic Parameters)



ENTER GROUP



EXIT

Track Selection



Track 1 only



Track 1&2&3 any (*)



Track 2 only



Track 3 only



Track 1 and 2



Track 2 and 3



Track 1 and 2 and 3




ISO (*)




(JIS-2)

Note: Options marked by () are only available upon request

Group 19-2: (Magnetic Parameters)




ENTER GROUP




EXIT


Start Sentinel:
(SS)



Tk1 Default : %



Tk2 Default




Tk3 Default: ; ?

End Sentinel:
(ES)



Tk1&2&3 Default: ?

DLE:



Tk1 Default : Null



Tk2 Default: Null



Tk3 Default: Null

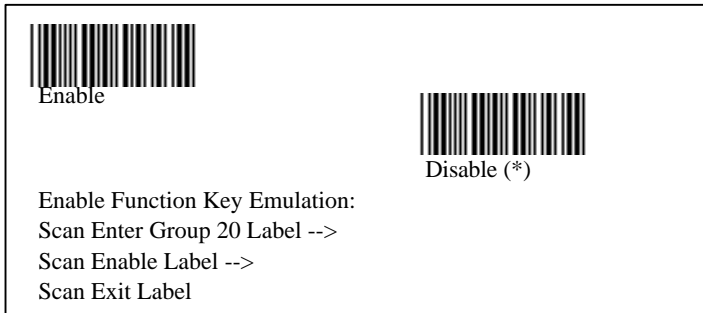
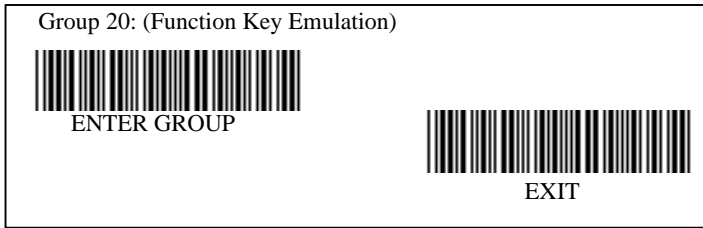
STX:



Tk1&2&3 Default: Null

Magnetic Output Data Format:
STX - Tk1 Start Sentinel - Tk1 Data - End Sentinel - Tk1 - DLE
STX - Tk2 Start Sentinel - Tk2 Data - End Sentinel - Tk2 - DLE
STX - Tk3 Start Sentinel - Tk3 Data - End Sentinel - Tk3 - DLE

Note: Options marked by () are only available upon request



1:

To concatenate a function key with input data, please refer to Function Key Table for its hexadecimal representation.
 For Example:

Preamble data with F1

Scan Enter Group 6 Label -->

Scan Preamble Label -->

Scan Label 0 and 1 respectively in Table-Hex (Page 43) -->

Scan Confrim Label in Table-Hex (page 43) -->

Scan Exit Label

Function Key Table (Full Code 39 Table)			
F1:01	F2:02	F3:04	F4:04
F5:05	F6:06	F7:07	F8:08
F9:09	F10:0A	F11:0B	F12:0C
Enter:0D	Tab:0E	BS:0F	Up:10
Down:11	Left:12	Home:14	End:15
PgUp:16	PgDn:17	Ins:18	Del:19
Esc:1B	Right:13	S-Tab:1C	

2:

To scan a function key barcode label, full CODE 39 must be enabled. Please refer to Full CODE 39 Table to produce the function key barcode label.



Function Code for PC XT/AT



F1 (\$A)



F7 (\$G)



F2 (\$B)



F8 (\$H)



F3 (\$C)



F9 (\$I)



F4 (\$D)



F10 (\$J)



F5 (\$E)



F11 (\$K)



F6 (\$F)



F12 (\$L)

Function Code for PC XT/AT



Enter (\$M)



End (\$U) (\$B)



Tab (\$N)



PgUp (\$V)



BS (\$O)



PgDn (\$W)



Up (\$P)



Ins (\$X)



Down (\$Q)



Del (\$Y)



Left (\$R)



Esc (%A)



Right (\$S)



Home (\$T)

Table-Hex : HEXADECIMAL



0



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F



Confirm

ASCII TABLE

L / H	0	1	2	3	4	5	6	7
0	NULL	DLE	SP	0	@	P		p
1	SOH DC1	DC1	!	1	A	Q	a	q
2	STX	DC2	"	1	A	Q	a	q
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	\$	3	C	S	c	s
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB		7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	|
D	CR	GS	-	_	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	-	o	DEL

Hexadecimal-Decimal Conversion Table

Hex	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
B	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

For Example:

Hexadecimal
 56 -> H:5 L:3
 D5 -> H:D L:5

Decimal
 83
 213

PIN ASSIGNMENTS

COLOR	Function	9 Pin DSUB/AM P (F)	25 PIN DIN(M)	6 PIN DIN (M)	6 PIN MINI DIN (M)
Yellow	Start of Scan	1	---	6	6
Orange	Signal Data	2	2	2	4
White	Led Indicator	3	---	---	---
Blue	Trigger	5	5	5	1
Green	Power Enable	6	4	4	2
Black	GND	7	3	3	5
Red	VCC+5V	9	1	1	3

Wand Emulation Signal Output

COLOR	Function	9 PIN DSUB/AM P (F)	5 PIN DIN (M)	6 PIN DIN (M)
Orange	Signal Data	2	2	2
Black	GND	7	3	3
Red	VCC+5V	9	1	1

Note : The pin numbers for the 5 or 6 pin connectors are viewed internally.

"F" stands for a female connector while "M" stands for a male connector.

PIN ASSIGNMENTS

RS-232 Signal Output

COLOR	FUNCTION	9 PIN DSUB/AMP(F)	25PIN DSUB(F)
Black	GND	5	7
Brown	CTS	7	4
Grey	RTS	8	5
Violet	RX	3	2
Green	TX	2	3
Red	VCC+5V	9	25

Note : For PC applications , a cable with DC power jack is required to accept external power input.

Keyboard Signal Output

COLOR	FUNCTION	5 PIN DIN (F)	5 PIN DIN (M)
Black	GND	4	4
White	PC_Data	---	2
Orange	PC_CLK	---	1
Red	Vcc+5V	5	5
Blue	KB_CLK	1	---
Yellow	KB_Data	2	---