TAIWAN KINGPUL CO., LTD.

1F, NO.2, ALLEY 5, LANE 71, RUEIAN ST., TAIPEI, TAIWAN, R.O.T.

TEL: 886-2-27092630 FAX: 886-2-27092823

WEB SITE: http://www.kingpul.com.tw E-MAIL:king.pul@msa.hinet.net

MULTI-COLOR MOVING MESSAGE SIGN PROTOCOL

MODE NO. RH-314, RH-214, RH-412, RH-416

A . FORMAT:

1.BAUD RATE : 2400 2.PARITY : NONE

3.DATA BITS: 8 4.STOP BIT: 1

B . MESSAGE TRANSFER:

1.STARE CODE : AAh......AAh (MORE THEN 8 TIMES)

2.ID CODE : BBh

3.SECTION SELECT: AFh, NNh (NNh= 41h TO 5Ah, THE NNh MEANS

PROGRAM-A, PROGRAM-B..... OR

PROGRAM-Z)

4.FUNCTION CODE : FUNC\$NO , FUNC\$SPC

a. FUNC\$NO:

| FUNCTION | FUNC\$NO | FUNCTION | FUNC\$NO | |
|-----------|----------|------------|----------|--|
| LEFT | 80h | RIGHT | 81h | |
| UP | 82h | DOWN | 83h | |
| OPEN <-> | 84h | CLOSE -><- | 85h | |
| OPEN -> | 86h | CLOSE -> | 87h | |
| SHIFT <-> | 88h | SQZ -><- | 89h | |
| FLASH | BAh | JUMP | 8Bh | |
| DOFF | 8Ch | DOBIG | 8Dh | |
| CLEAR | 8Eh | CLOCK | 8Fh | |
| SNOW | 90h | DSNOW | 91h | |
| *SPEED | A0h * | WAIT | A1h | |
| ** GOSUB | A2h | RANDOM | A3h | |

b. FUNC\$SPC:

*FUNC\$SPC : "1" - "9" (31h - 39h) **FUNC\$SPC : "A" - "Z" (41h - 5Ah) ONLY RED COLOR ACTIVE : 01h ONLY GREEN COLOR ACTIVE : 02h

${f 5.CHARACTER\ CODE}: {f CHAR\$SPC}$, ${f CHAR\$NO}$

a. SHOW CHARACTER:

a-1. CHAR\$SPC:

| BACKGROUND COLOR = BLACK | | | | | | |
|--------------------------|-----|-------|--------|--|--|--|
| FOREGROUND | RED | GREED | YELLOW | | | |
| CHAR\$SPC | 01h | 02h | 03h | | | |
| | | | • | | | |

| BACKGROUND COLOR = RED | | | | | |
|-------------------------------|-----|-----|-----|--|--|
| FOREGROUND BLACK GREEN YELLOW | | | | | |
| CHAR\$SPC | 04h | 06h | 07h | | |

| BACKGROUND COLOR = GREEN | | | | | |
|-----------------------------|-----|-----|-----|--|--|
| FOREGROUND BLACK RED YELLOW | | | | | |
| CHAR\$SPC | 08h | 09h | 0Bh | | |

| BACKGROUND COLOR = YELLOW | | | | | | |
|----------------------------|-----|-----|-----|--|--|--|
| FOREGROUND BLACK RED GREEN | | | | | | |
| CHAR\$SPC | 0Ch | 0Dh | 0Eh | | | |

| BACKGROUND COLOR = BLACK | | | | |
|--------------------------|-----|--|--|--|
| FOREGROUND RAINBOW | | | | |
| CHAR\$SPC | 20h | | | |

a-2. CHAR\$NO:

| HEXA | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|------------|----------|----|-------|---|----------|---|---|
| 0 | 6 | ø | • | 0 | @ | Р | Έ | р |
| 1 | • | 0 | ! | 1 | А | Q | а | q |
| 2 | | ı | 11 | 2 | В | R | b | r |
| 3 | Å | •a | # | 3 | С | S | С | S |
| 4 | \ | 9 | \$ | 4 | D | Т | d | t |
| 5 | ↑ | • | % | 5 | E | U | е | u |
| 6 | £ | æ | & | 6 | F | V | f | V |
| 7 | n | Σ | 1 | 7 | G | W | g | W |
| 8 | Ω | Y | (| 8 | Н | Х | h | х |
| 9 | 4 | A |) | 9 | I | Y | i | у |
| А | \Diamond | | * | SPACE | J | Z | j | Z |
| В | | • | + | Ø | К | Ü | k | • |
| С | ~ | 1 | , | Æ | L | ů | I | Ñ |
| D | • | 9 | - | = | М | e | m | ñ |
| Е | [|] | • | > | N | ۸ | n | Ä |
| F | ö | ö | / | ? | 0 | < | 0 | å |

REMARK: BIG SIDE = CHAR\$NO + 80h

b. SHOW GRAPH:

b-1.CHAR\$SPC: 10h

b-2.CHAR\$NO:

| GRAPH | 6 | • | | | ↑ | ¤ | \ \ | \Box |
|----------|---------|-----|----------|-----|----------|--------------|----------------|--------|
| CHAR\$NO | 00h | 01h | 02h | 04h | 05h | 07h | 09h | 0Ah |
| GRAPH | | J | • | Г | ö | 0 | _ | å |
| CHAR\$NO | 0Bh | 0Ch | 0Dh | 0Eh | 0Fh | 11h | 12h | 13h |
| GRAPH | | Y | | | • | 1 | 9 |] |
| CHAR\$NO | 15h | 18h | 19h | 1Ah | 1Bh | 1Ch | 1Dh | 1Eh |
| GRAPH | e | • | | | | | € | € |
| CHAR\$NO | 20h | 21h | 22h | 23h | 24h | 26h | 27h | 28h |
| GRAPH | € | | • | 4 | _ | | | |
| CHAR\$NO | 29h | 2Ah | 2Ch | 2Dh | 2Eh | 2Fh | | |

REMARK: BIG SIDE = CHAR\$NO + 80h

6.END CODE: BFh, B1h

7.EXPLANATION :

MESSAGE: <PROGRAM-A><UP>123test

CODE :(BG=BACKGROUND, FG=FOREGROUND, R=RED, G=GREEN, Y=YELLOW, RB=RAIN BOW)

AAh,AAh......AAh, BBh, AFh,41h, 82h,03h, 03h,31h, 03h,32h,

START CODE ID CODE UP "1" "2" PROGRAM-A BG=B BG=B

FG=Y FG=Y

03h,33h, 01h,74h, 01h,65h, 01h,73h, 01h,74h,

"3" "t" "e" "s" "t"

BG=B BG=B BG=B BG=B

FG=Y FG=R FG=R FG=R FG=R

BFh,B1h

END