

## MA4060MP, MA4120MP Communication Protocol

Communication setting : 9600bps 8 data bits 1 stop bit no need to check

### Protocol format

Start Frames	Form Code	Data	checksum
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Checksum=(form code+data)%FF

1 Start Frames: 0xAA

#### 2 Form Code:

1, (0x00) Key operation Data: 8 high bit (0 turn off 1-turn on) 7 low bit : key code(1-34)

2,(0x01) LED light indicator Data: 8 high bit (0 turn off 1-turn on) 7 low bit: LED modulation code (1-34)

(0x02) Priority selection 0: default priority 1: Short circuit priority

(0x03) Telephone/ long distance switcher Data: four high bit telephone switch data, Four low bit long distance switch data.

(0x04) 8816 channel selection situation data: Four four high bit input channel , four low bit output channel.

(0x05) PC send the acquiring operation, operation code:

- 0 acquire key assignments
- 1 acquire Led indicator
- 2 acquire priority level
- 3 acquire 8816channel selection situation
- 4 acquire telephone, long-distance switch Dial-up data

(0xR6) PC issue obtain operation, operation code

R=0 Setting key Data: Key assignments

R=1 Setting 8816 channel selection situation Data: four high bits input channel, four low bits output channel

R=3 Setting switcher Data: four high bits telephone switch, four low bits long distance switch

(0x07) phone/ long-distance signal detection Data: four high bits telephone signal( 0-turn off 1-turn on), four low bits telephone.(0 turn off 1 turn on)

(0x08) Test Channel input:

- 0 key testing
- 1 signal testing
- 2 priority testing

**Note:** when PC send the acquired 8816 channel selection situation, T-4120MP response current interconnected Input and output signal subsection postback.

Eg: when PC send FF050308,(T-4120MP connect MP3 two zones and CH2 four zones)

T-4120MP response : FF 04	Input MP3	Output two zones	checksum
FF 04	Input CH2	Output four zones	checksum

If no signal input, Response: FF 04 80 84

**PS: Key assignments corresponding Key**

1—MP3 Zone1	2—MP3 Zone2	3—MP3 Zone3	4—MP3 Zone4
5—CH1 Zone1	6—CH1 Zone2	7—CH1 Zone3	8—CH1 Zone4
9—CH3 Zone1	10—CH3 Zone2	11—CH3 Zone3	12—CH3 Zone4
13—MON Zone1	14—MON Zone2	15—MON Zone3	16—MON Zone4
17—CH2 Zone1	18—CH2 Zone2	19—CH2 Zone3	20—CH2 Zone4
21—CH4 Zone1	22—CH4 Zone2	23—CH4 Zone3	24—CH4 Zone4
25—CH5 Zone1	26—CH5 Zone1	27—CH5 Zone1	28—CH5 Zone1

29 CH1 mute	30 CH2 mute	31 CH3 mute	32 CH4 mute	33 CH5 mute	34 MP3 Mute
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PC send then command data of T-4120MP situation as following

Start byte	Command type byte	command byte	Check and Byte
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**Explanation:**

1. Start byte: 0xFF
- 2,command type byte: 0x05
3. command byte: 0x00                      acquire key data
  - 0x01                      acquire LED indicator date
  - 0x02                      acquire priority level
  - 0x03                      acquire 8816 gate situation
  - 0x04                      acquire telephone, long-distance dial-up data
4. Check and bytes: Checks and bytes = (command type byte + command byte) % 0xFF;