

# SHARP SERVICE MANUAL

CODE : 00ZUPE13MRWSM

## Magnetic Card Reader

### MODEL UP-E13MR

#### 1. FUNCTIONS

Card operation	One way manual swipe
Write/Read	Read only

#### 2. APPLICABLE CARDS

Magnetic stripe card	Cards encoded as based on ISO 7811/1~5 (Track 1, 2 and 3) Type: Track 1 (210BPI F2F) Track 2 (75BPI F2F) Track 3 (210BPI F2F)
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#### 3. BASIC PERFORMANCE

Readable operating speed	10cm/sec ~ 100cm/sec
Output signals	RDD- : Read data RCP- : Read clock pulse CLS- : Card loading signal

#### 4. ENVIRONMENTAL CHARACTERISTICS

Temperature	-20 °C ~ +60 °C / 30% ~ 95% RH
Storage	-30 °C ~ +70 °C / 10% ~ 95% RH

#### 5. LIFE

Unit life	More than 300,000 card passes
Card life	More than 1,000 passes

#### 6. CIRCUIT DESCRIPTION

For the MCR unit of the UP-E13MR, the component parts are not supplied. Therefore replace the whole MCR unit. The following descriptions are for your reference only.

##### 1) Block diagram

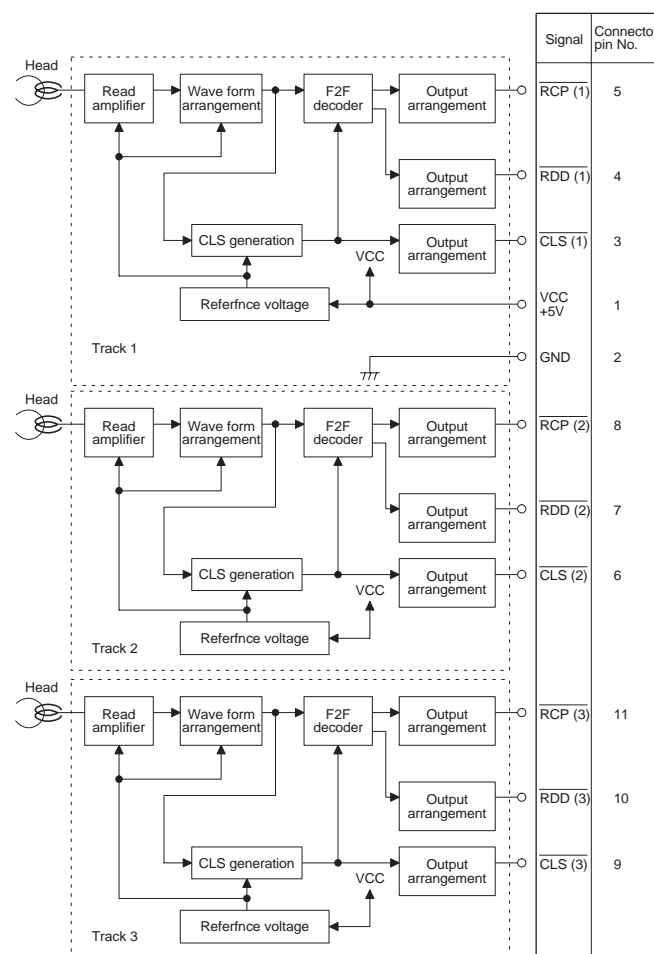


Figure 1. BLOCK DIAGRAM

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

### SHARP CORPORATION

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