TECHNICAL DESCRIPTION

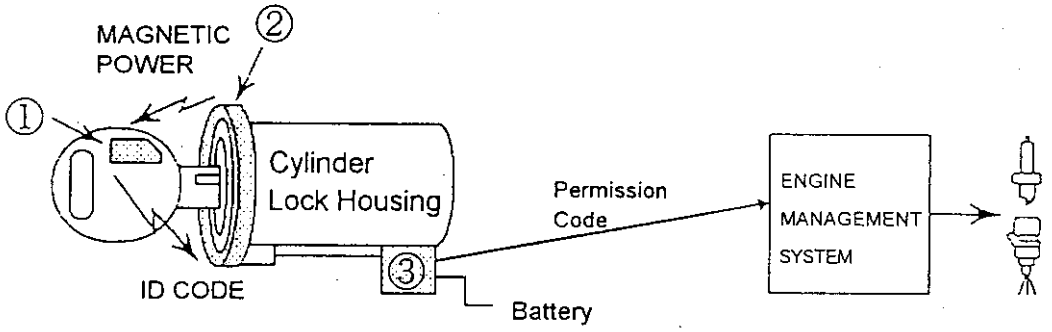
1. Name: immobilizer

MDL: RI-9BTY-1

This immobilizer system is to be installed on motor vehicles as OE (= original equipment) item. It is intended to prevent unauthorized use of the vehicles.

2. System Construction:

① transponder ② coiled antenna
③ controller with amplifier

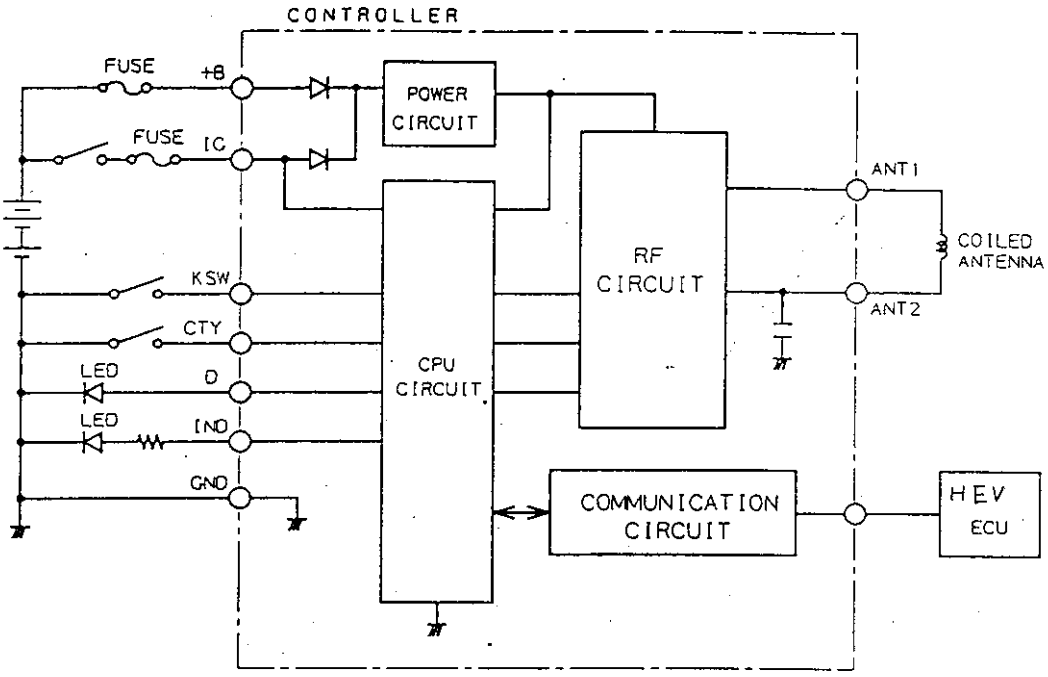


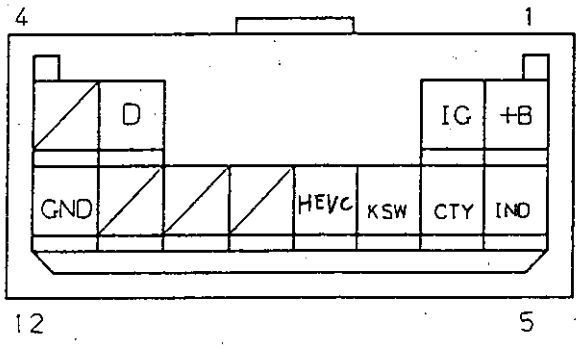
3. Specifications

Items	Specifications
rated voltage	12 V
operating voltage range	8 to 16 V
operating temperature range	-40 to 85℃ -40 to 60℃ (key)
frequency (transmitting)	134.2 kHz
frequency (receiving)	128.7 kHz
modulation	unmodulated carrier
antenna output (max)	60 dBμV/m at 10 m (10 mW)

3. Specifications (continued)

Block Diagram of Controller with Amplifier





controller

amplifier

for MDL RI-9BTY-1

4. Operating Summary

① By the driver of the vehicle, the key (a transponder incorporated in the key grip has a certain ID code already registered to the controller) is inserted into the key cylinder.

② When the key is inserted into the key cylinder, the controller supplies electric power to the amplifier, and the amplifier supplies high frequency electric power to the coiled antenna.

③ Then the electromagnetic wave generated in the coiled antenna supplies the electric power by means of electromagnetic induction to the transponder incorporated in the key grip (50 ms transmission and 40 ms intermit per one cycle; total 10 s max.).

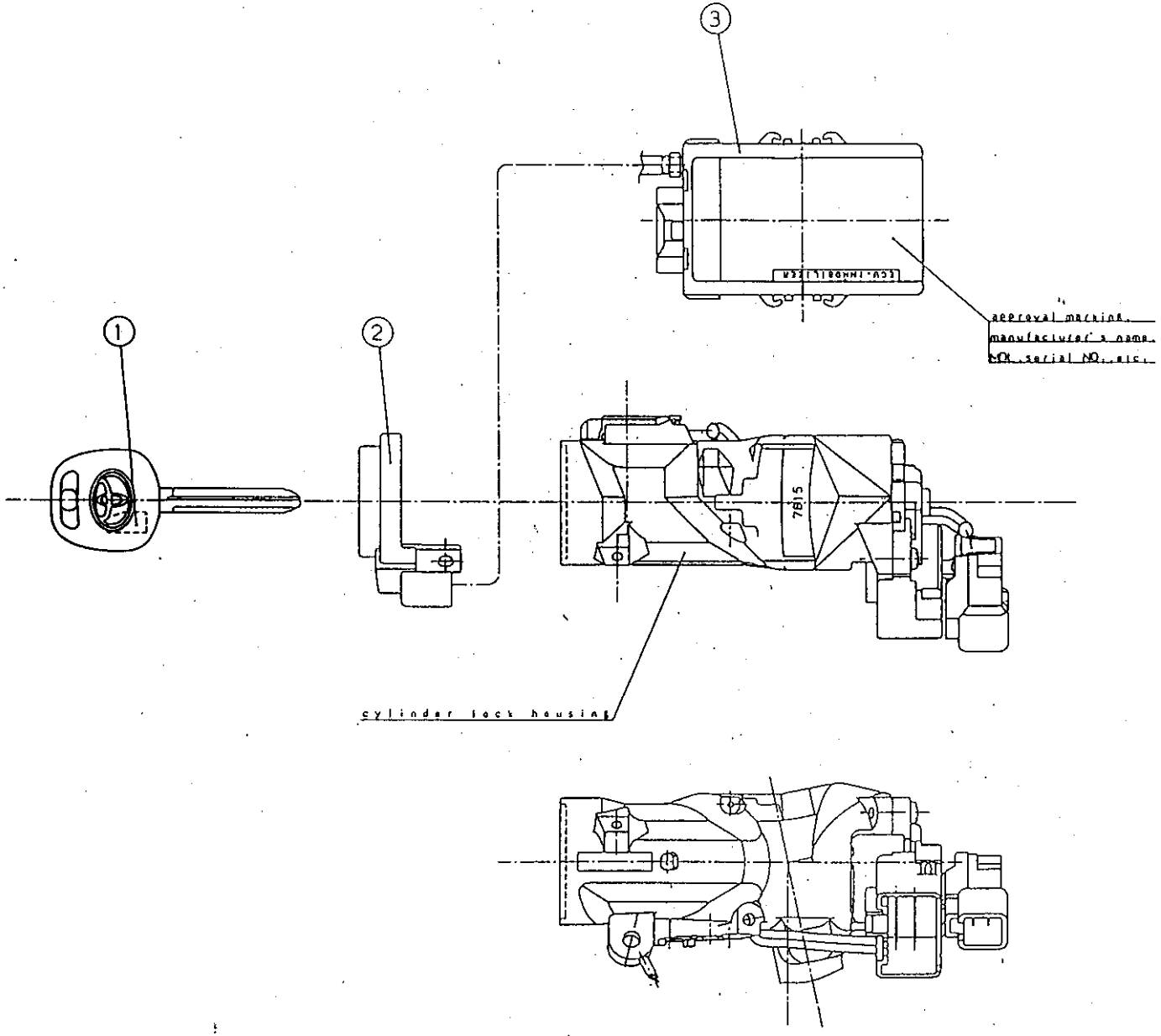
④ After receiving the electric power from the coiled antenna, the transponder transmits the ID code using the received electric power.

⑤ The ID code is received by the coiled antenna. Then it is amplified and shaped to 0-5 V digital signal at the amplifier and transmitted to the controller.

⑥ The controller judges whether the received ID code corresponds with the registered one. When correspondence is recognized, the controller transmits a permission code to the engine management system.

⑦ When the engine management system receives and recognizes the permission code, it starts the engine.

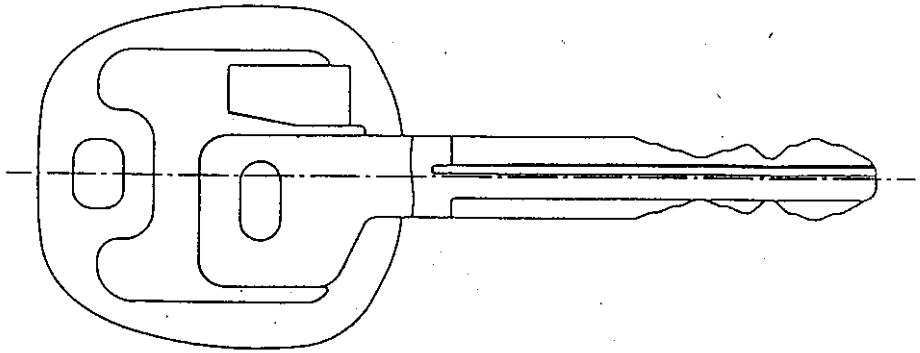
SYM NO	PART NO.	PART NAME	Q'TY
1	271210-003	TRANSPONDER	1
2	627449-000	COILED ANTENNA	1
3	627941-000	CONTROLLER w/ AMP	1



* For the purpose of radio-technical test, cylinder lock housing is a support for fixing the coiled antenna.
The shapes is designed for each vehicle type.

FCC ID:MOZRI-9BTY-1

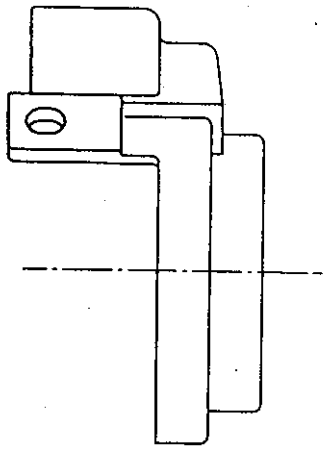
NAME	IMMOBILIZER
MDL	RI-9BTY-1
SCALE	FREE



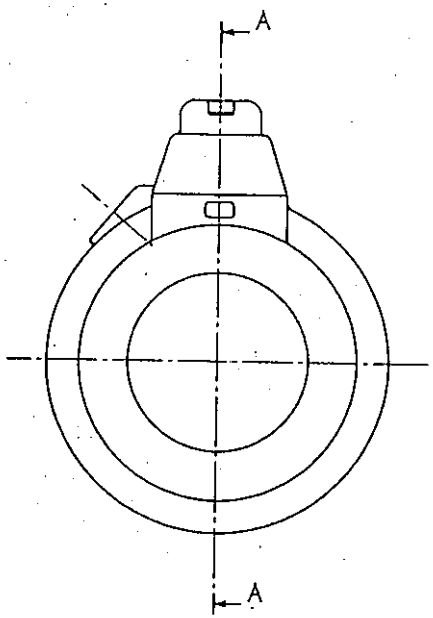
*Key plate and plastic mold part are designed for each vehicle type.

FCC ID:MOZRI-9BTY-1

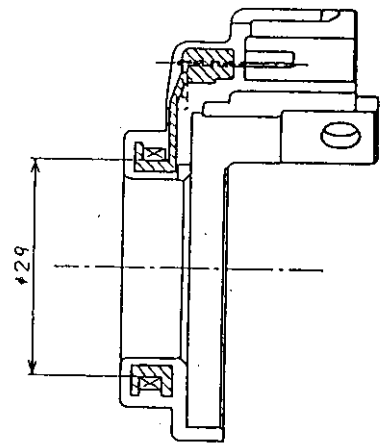
NAME	TRANSPONDER
PART NO	271210-003
SCALE	FREE



SIDE VIEW



FRONT VIEW



A—A

SPECIFICATIONS

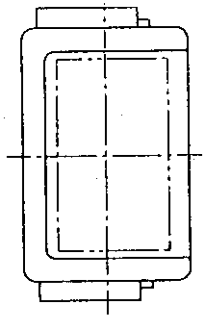
(when installed on cylinder lock housing)

Wire: 2PEW;φ0.3
Turn: 28T
Inductance: 30μH (f=134.2kHz)
Q: Min.13 (f=134.2kHz)
Resistance: 0.66Ω

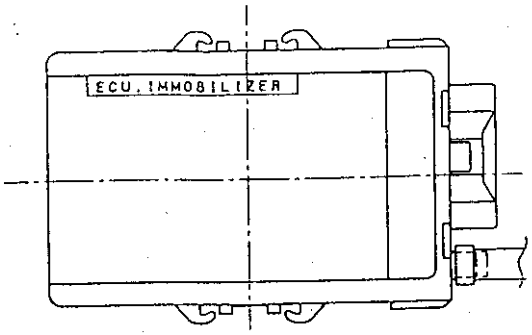
*Plastic mold part of coiled antenna is designed for each vehicle type.

NAME	COILED ANTENNA
PART NO.	627449-000
SCALE	FREE

FCC ID:MOZRI-9BTY-1



SIDE VIEW



TOP VIEW

* Mounting bracket of controller with amplifier is designed for each vehicle type.

FCC ID:MOZRI-9BTY-1

NAME	CONTROLLER.W/ AMP
PART NO	627941-000
SCALE	FREE