# Dynamixel AX-12A Smart Serial Servo

# Upgrade Information

## 1. Easier and stable cable organization

Additional holes created for easier and stable cable organization.



### 2. Second notch for zeroing added at the horn

Easier to verify zeroing with notch I (top) and notch II (bottom).



The notches, I top, in both products are still the same. Please keep in mind during assembly.

## 3. Strengthened frame assembly at nut/bolt holes

The new design increases durability and reduces damaged rates.



### 4. Nut assembly improvement

The horn and nuts have been fixed inside the horn to strengthen assembly.



### **SPECIFICATIONS**

• Weight: 54.6g

Dimension: 32mm x 50.1mm x 40mm
Minimum Control Angle: 0.29j Æ X 1,204

Gear Ratio: 254:1

Holding Torque: 15kgf.cm (at 12V, 1.5A)

No Road Speed: 59 RPM 12V

Motor: Cored MotorOperating Mode:

1. Actuator Mode (0; Æ ~ 300; Æ)

2. Wheel Mode (Endless Turn)

Operating Temperature: -5C~ +70C

Operating Voltage: 9V ~ 12V (Recommended Voltage 11.1V)

Maximum Currents: 900mAStandby Currents: 50mA

Command Signal: Digital Packet

 Protocol Type: Half dúplex Asynchronous Serial Communication (8bit, 1stop, No Parity)

• Link (Physical): TTL Level Multi Drop (Daisy Chain Type Connector)

• ID: 254ID (0 ~ 253)

• Communication Speed: 7843bps ~ 1Mbps

• Feedback: Position, Temperature, Load, Input Voltage, etc.

Material: Engineering plasticPosition Sensor: Potentiometer

### INITIAL SETTING (default)

• ID: 1

• Baud rate: 1 Mbps

• Please change the setting of ID and baud rate depending on your operating environment.

### **COMPATIBLE PRODUCTS**

• Controller: CM-5, CM-510, CM-2+, CM-700

Interface(I/F): USB2DynamixelFrame: Frames for Bioloids

Accessories NOT included