

12. MAINTAINING THE BASE INTERIOR



- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Do not touch undesignated places. Touching places not designated can cause electric shock or short circuit.
- This work should be performed by the site maintenance individual or other skilled professional. Performing work by non-technical personnel can cause electric shock hazard.
- Do not perform work other than those specified in this Manual in order to prevent accidents during performing work and operation after performing work. Performing work not specified in this Manual may require special training for this product. If performing work other than those stated in this manual is required for repair, contact the offices herein stated in this manual or where you purchased the product from and ask for repair or inquire how to repair.
- Be very careful when soldering. Handling a soldering iron carelessly may result in a fire or a burn.
- Be extremely careful when heating the heat-shrinkable tube. Failure to do so may result in a fire or burns.
- After making adjustments or replacements, check the surrounding area before turning the power on. The machine will automatically go through initialization after the power is turned on, and any persons in the vicinity may be struck and/or knocked down by the moving seat.
- Requests for maintenance of the seat motion mechanism should be directed to the office listed in this manual or your retailer. Attempts to perform maintenance by persons other than specially trained technicians may result in injury to the party performing the maintenance and/or to players during product operation.
- Be careful not to trap hands or fingers inside mechanical parts. Doing so may result in broken bones and other serious injury.



When adjusting or changing the variable resistor, set the variable resistor values on the Volume Settings screen and check the values on the Input Test screen in Test mode.

If directional control response is less than ideal and adjusting the settings on the Volume Settings screen in Test mode has no effect, the problem is most likely due to an incorrectly engaged gear in the steering VR or a broken variable resistor.

Follow the steps listed below to correct the gear engagement or replace the variable resistor. In the case of faulty movement in the seat, the source of the problem is most likely an incorrectly engaged gear or broken variable resistor in the Roll VR.

The steering VR and Roll VR are both located on the AC unit side of the base interior.

12 — 1 ADJUSTING AND REPLACING THE STEERING VR

The variable resistor that detects steering in the directional controls is called the X-axis steering VR. There are VR units located on the top and bottom of the base interior, just inside the front lid. The steering VR unit is the one on top.

In this machine, the VR will not be damaged as long as its axle rotates within its range of motion when the steering unit is turned all the way to the left and right. Secure the VR so that its axle points in the indicated direction and the gear is properly engaged when the steering unit is in the straight position.

The following tools and instruments are required to perform these operations.

- M4-size Phillips screwdriver
- 1.5mm diameter hexagonal screwdriver or wrench
- 11-12mm diameter spanner
- Nippers
- Cutters
- Soldering iron
- Industrial dryer

ADJUSTMENT PROCEDURE

- ① Turn off the power.
- ② Remove the 6 truss screws holding the front lid of the base in place and then remove the lid.

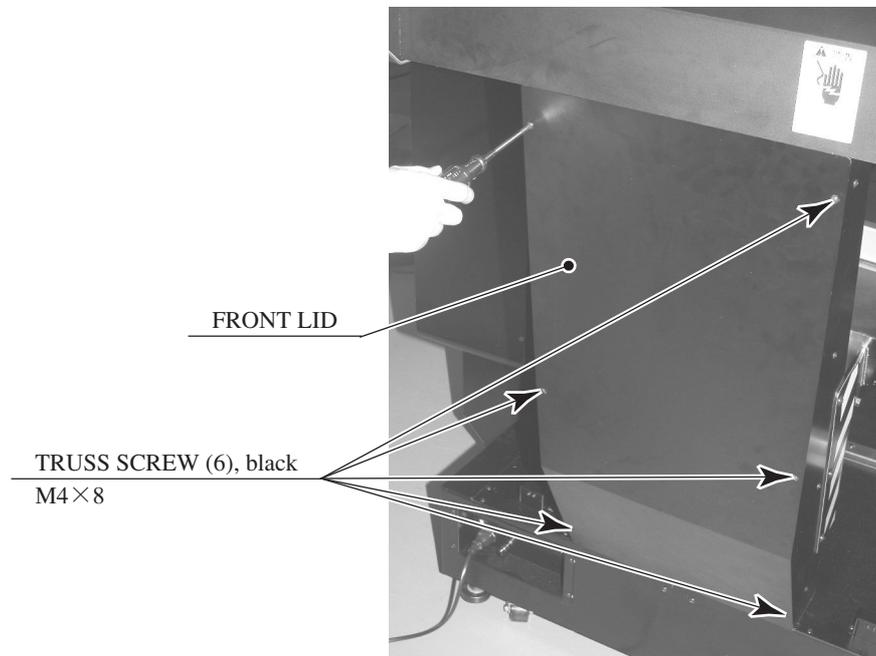


PHOTO 12. 1 a

- ③ Loosen the 2 screws holding the steering VR bracket in place and disengage the gear.

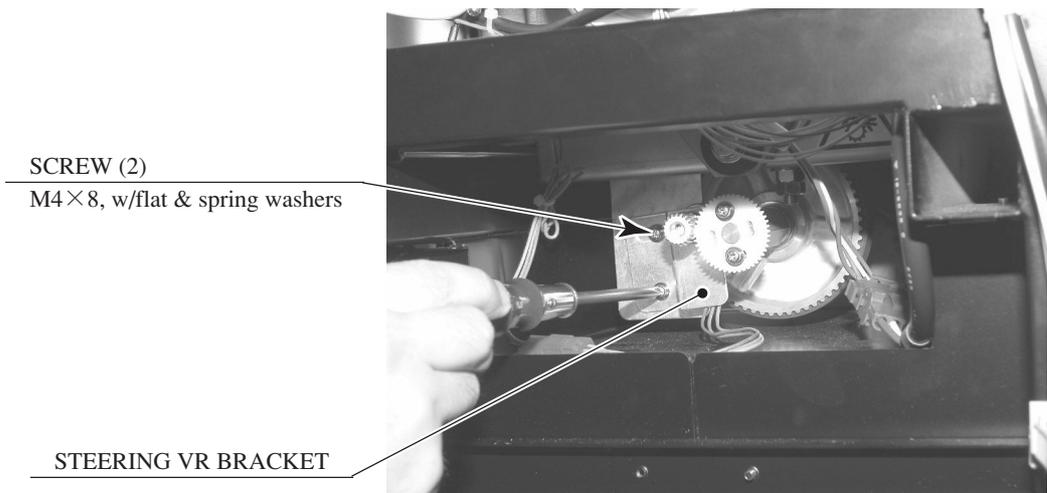
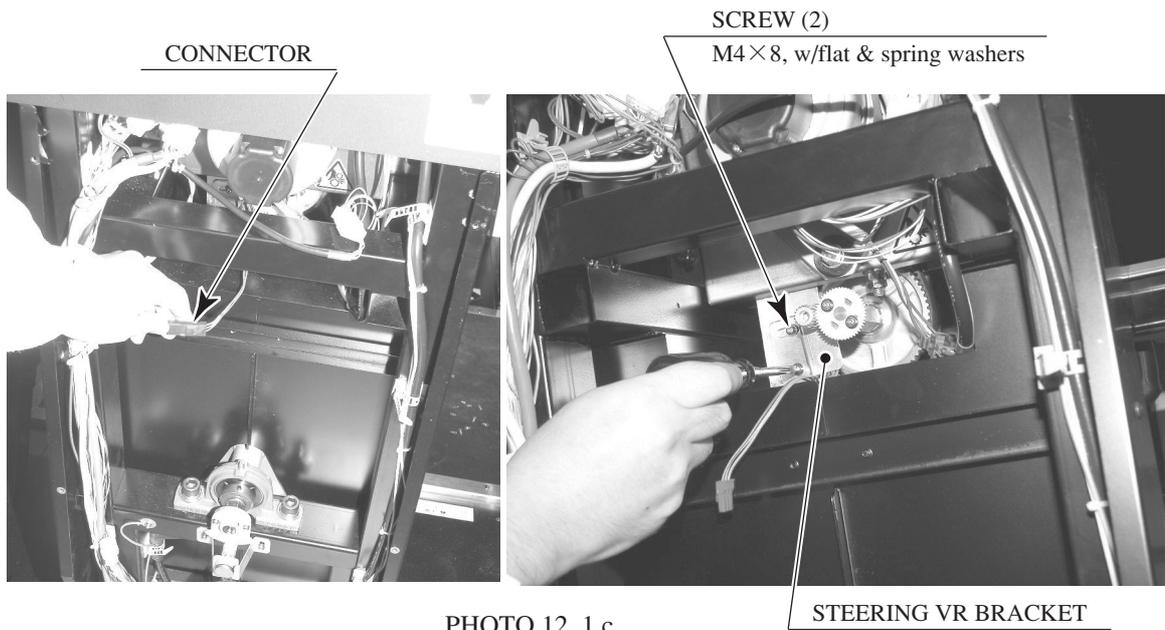


PHOTO 12.1 b

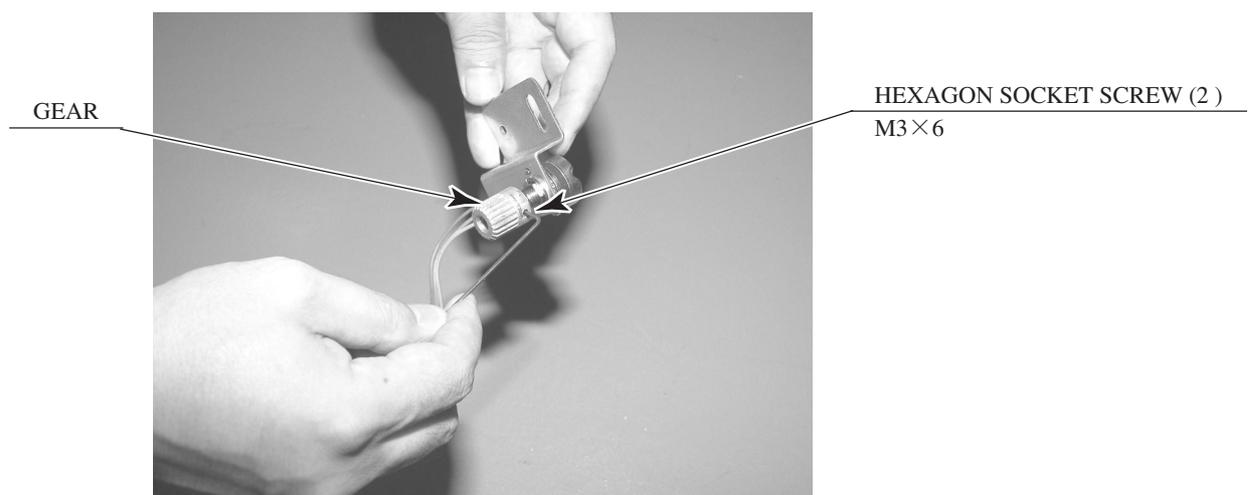
- ④ Engage the gear so that the D-cut side of the VR axle is level and facing downward when the steering unit is in the straight position (see Figure 12-1).
- ⑤ Tighten the 2 screws holding the bracket in place.
- ⑥ Adjust the variable resistor settings on the Volume Settings screen (see 10-3G).
- ⑦ Check to make sure the "STEERING X" value on the Input Test screen is within the range $80H \pm 8H$ when the steering unit is in the straight position.

REPLACEMENT PROCEDURE

- ① Turn off the power.
- ② Remove the 6 truss screws holding the front lid of the base in place and then remove the lid.
- ③ Remove the steering VR unit. Unplug the connectors and remove the 2 screws holding the steering VR bracket in place.



- ④ Loosen the 2 socket screws holding the gear in place and disengage the gear from the VR axle.



- ⑤ Remove the nut securing the steering VR bracket and then remove the VR from the bracket.

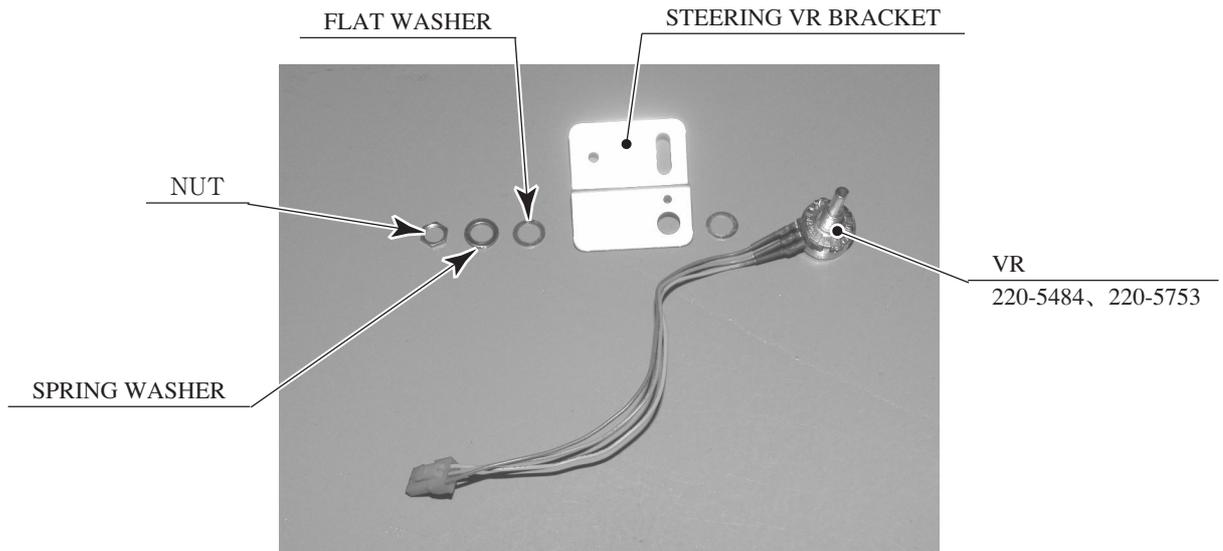


PHOTO 12.1 e

- ⑥ The wires connected to the old VR can be reused for the new VR. Remove the heat contraction tube covering the soldered areas, use the soldering iron to melt the solder, and remove the wires from the VR.
- ⑦ Solder the wires to the new VR. Check the wiring diagram to make sure there are no mistakes in the wiring. In addition, use a heat contraction tube or other device to prevent short-circuiting.
- ⑧ Install the new VR and the gear in the steering VR bracket.
- ⑨ Install the steering VR unit.
Engage the gear so that the D-cut side of the VR axle is level and facing downward when the steering unit is in the straight position, and secure it with 2 screws.

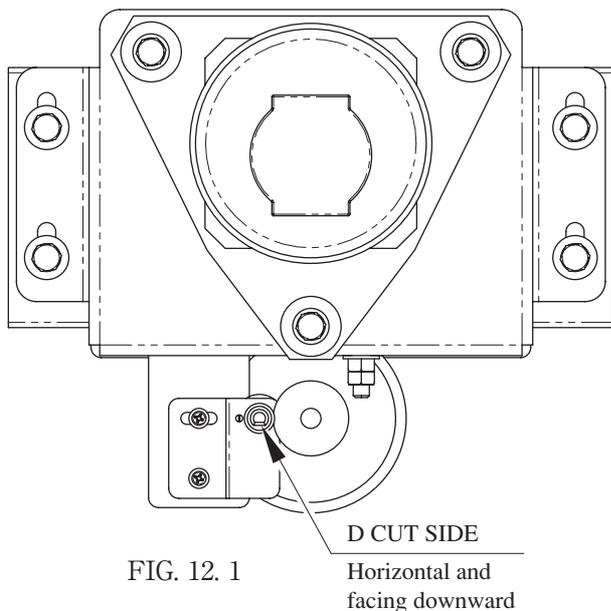


FIG. 12.1

D CUT SIDE
Horizontal and facing downward

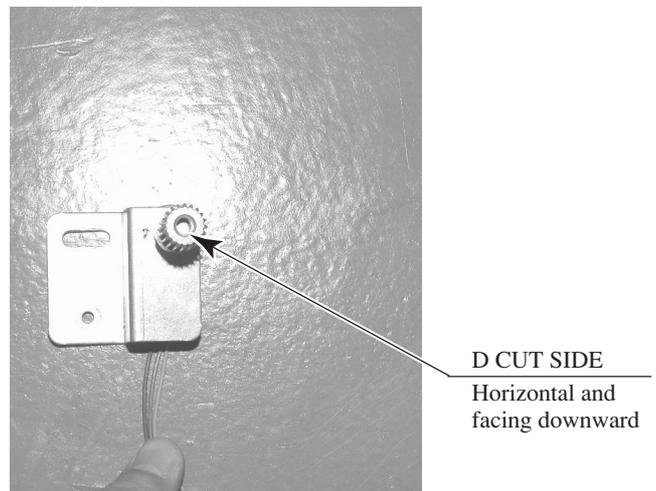


PHOTO 12.1 f

D CUT SIDE
Horizontal and facing downward

- ⑩ Plug in the connectors.
- ⑪ Adjust the variable resistor settings on the Volume Settings screen (see 10-3G).
- ⑫ Check to make sure the "STEERING X" value on the Input Test screen is within the range $80H \pm 8H$ when the steering unit is in the straight position.

12 — 2 ADJUSTING AND REPLACING THE ROLL VR

The variable resistor that detects the degree of tilt in the seat is called the roll VR. There are VR units located on the top and bottom of the base interior, just inside the front lid. The Roll VR is the one on the bottom.

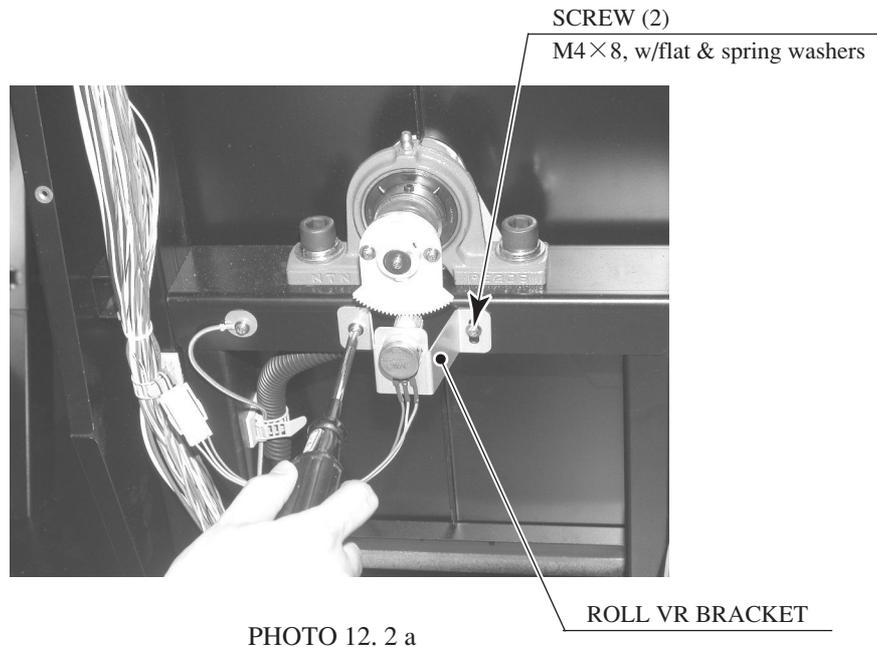
In this machine, no damage should occur to the VR as long as its axle rotates within its range of motion when the seat swings all the way to the left and right. Secure the VR so that its axle points in the indicated direction and the gear is properly engaged when the seat is level.

The following tools and instruments are required to perform these operations:

- M4-size Phillips screwdriver
- 1.5mm diameter hexagonal screwdriver or wrench
- 11-12mm diameter spanner
- Nippers
- Cutters
- Soldering iron
- Industrial dryer

ADJUSTMENT PROCEDURE

- ① Turn of the power
- ② Remove the 6 truss screws holding the front lid of the base in place and then remove the lid.
- ③ Remove the 2 screws holding the Roll VR bracket in place and then remove the Roll VR unit.



- ④ Rotate the gear so that the D-cut side of the VR axle is horizontal and facing downward.
- ⑤ Insert the VR unit without causing the gear to rotate and secure it with 2 screws. The gear engagement should also be adjusted at this time.
- ⑥ Check to make sure the "SEAT MOTION" value on the Input Test screen is within the range $80H \pm 8H$ when the seat is level. If the value is outside this range, adjust the VR again.

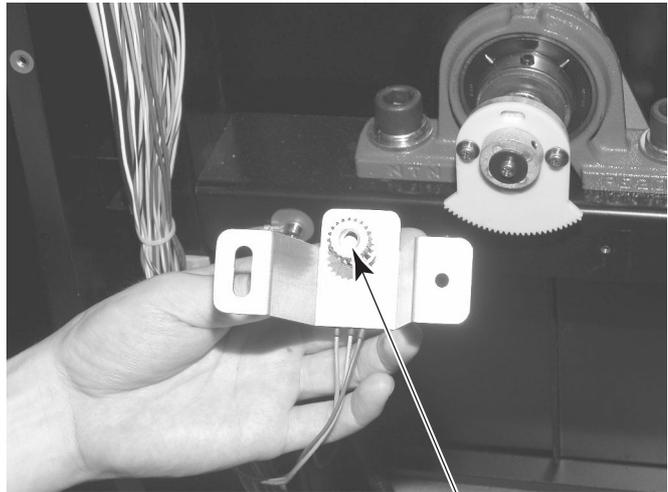


PHOTO 12. 2 b

D CUT SIDE
Horizontal and
facing downward

REPLACEMENT PROCEDURE

- ① Turn off the power.
- ② Remove the 6 truss screws holding the front lid of the base in place and then remove the lid.
- ③ Remove the roll VR unit. Unplug the connectors and remove the 2 screws holding the roll VR bracket in place.

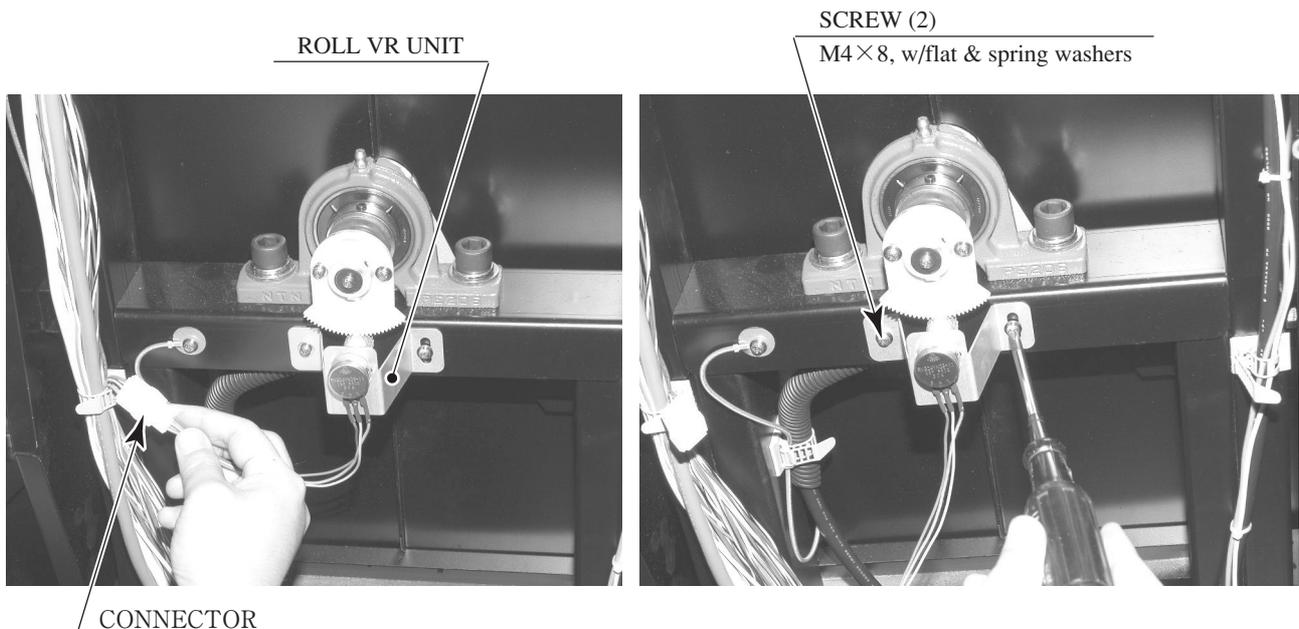
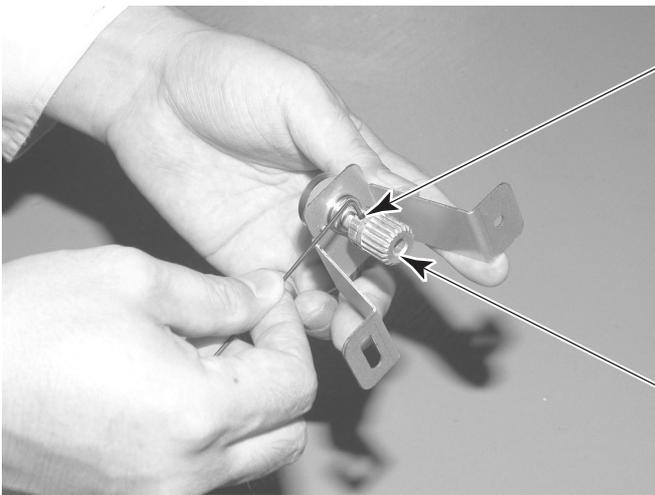


PHOTO 12. 2 c



HEXAGON SOCKET SCREW (2)
M3×6

- ④ Loosen the 2 hexagon socket screws holding the gear in place and remove the gear from the VR axle.

GEAR

PHOTO 12. 2 d

- ⑤ Remove the nut securing the roll VR bracket and then remove the VR from the bracket.

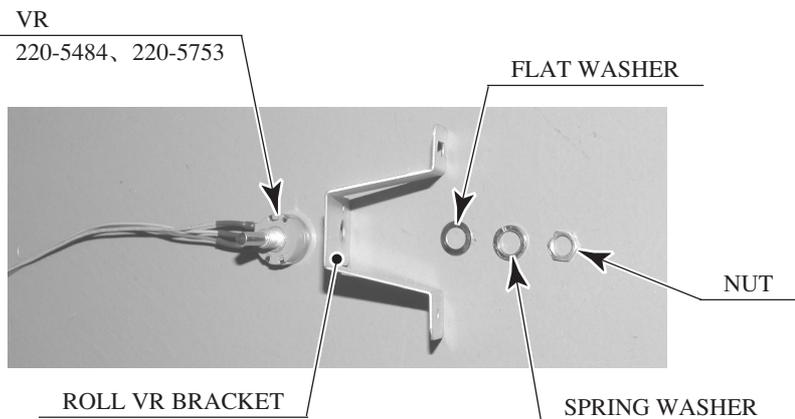


PHOTO 12. 2 e

- ⑥ The wires connected to the old VR can be reused for the new VR. Remove the heat contraction tube covering the soldered areas, use the soldering iron to melt the solder, and remove the wires from the VR.
- ⑦ Solder the wires to the new VR. Check the wiring diagram to make sure there are no mistakes in the wiring. In addition, use a heat contraction tube or other device to prevent short-circuiting.
- ⑧ Install the new VR and the gear in the Roll VR bracket.
- ⑨ Rotate the gear so that the D-cut side of the VR axle is horizontal and facing downward.

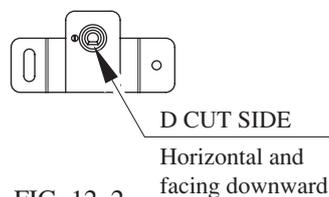


FIG. 12. 2

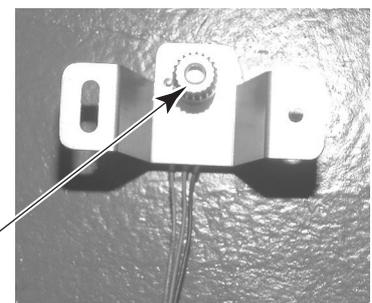


PHOTO 12. 2 f

- ⑩ Check to make sure the seat is level.
- ⑪ Install the Roll VR unit. Insert the Roll VR unit without causing the gear to rotate and secure it with 2 screws.
The gear engagement should also be adjusted at this time.
- ⑫ Check to make sure the "SEAT MOTION" value on the Input Test screen is within the range $80H \pm 8H$ when the seat is level. If the value is outside this range, adjust the VR again.



- Be sure to use the designated type of grease. If a non-designated type grease is used, components may break.
- Do not apply grease to any part of the machine other than those parts specifically indicated. Doing so may result in malfunctioning and/or deterioration of parts.
- The period for greasing specified herein is a standard. Apply greasing to the specified portions as occasion arises.

Use spray grease once every three months to grease up the gear mesh portion of the constituent parts.
Use "Grease Mate" (part number 090-0066) for the spray grease.

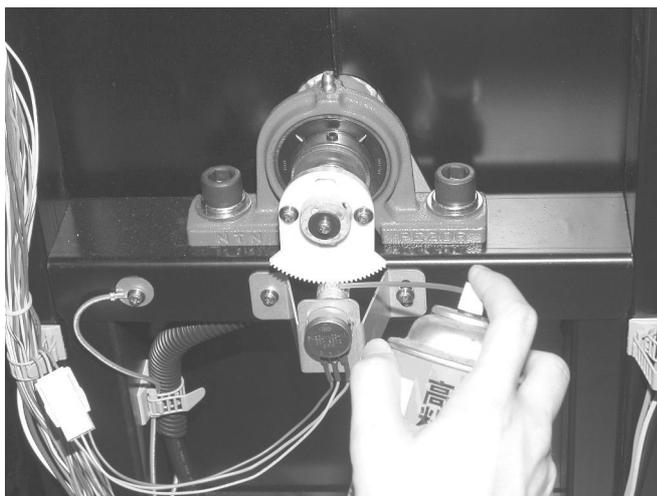
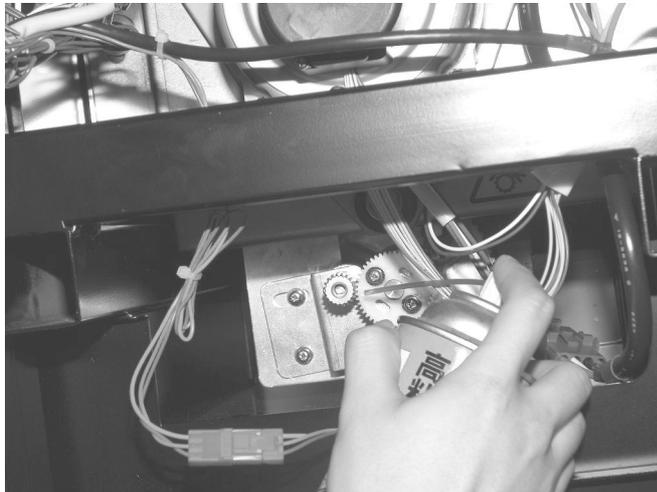


PHOTO 12. 3

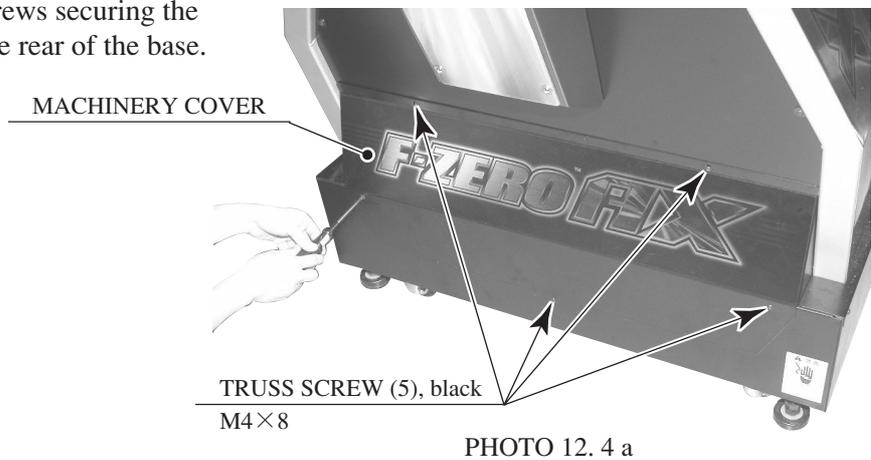


- If the seat motion mechanism begins to malfunction, immediately cease operation, turn off the power, unplug the power cord, and contact the office listed in this manual or your retailer. Continuing to operate the machine without resolving the problem may result in serious accidents such as electric shock, short circuits, or fire, and/or cause the machine to tip over.
- Requests for maintenance of the seat motion mechanism should be directed to the office listed in this manual or your retailer. Attempts to perform maintenance by persons other than specially trained technicians may result in injury to the party performing the maintenance and/or to players during product operation.
- Contact the office listed In this manual or the product's point of purchase once a year for regular maintenance of the seat motion mechanism. Failure to service the mechanism may result in sudden breakdown and accidents.

Contact the office listed In this manual or the product's point of purchase once a year for regular maintenance on the seat motion (rolling) mechanism. Scheduling the maintenance to coincide with cleaning of the machine's interior is recommended.

The following is a general outline of the maintenance process. Special tools are required.

- ① Turn off the power.
- ② Remove the 5 truss screws securing the machinery cover on the rear of the base.

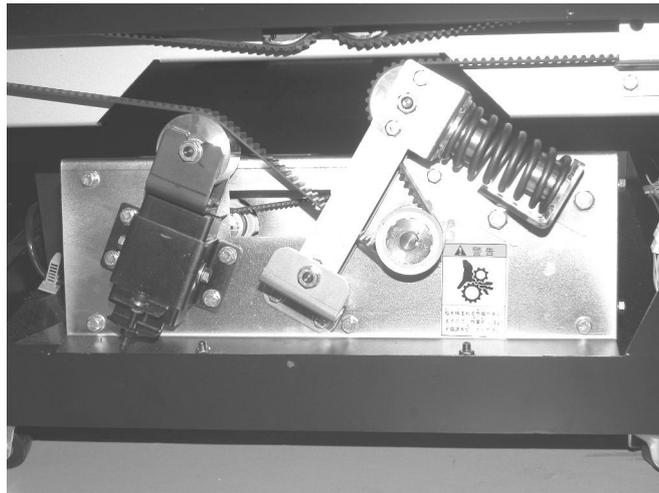


- ③ Remove the machinery cover from the rear of the base.



④ Removing the machinery cover will reveal the seat motion mechanism. The following maintenance tasks will now be performed:

- Check motion
- Check fasteners
- Tighten fasteners
- Grease-up
- Adjust belt tension
- Replace worn-out parts



PHORO 12. 4 c