



Treadmills

S E R V I C E M A N U A L

500Tm Treadmill

600Tm Treadmill

700Tm Treadmill

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Safety Guidelines

Electrical

High voltage is present beneath the motor cover while the treadmill is connected to a power source. Residual high voltage remains for a few minutes after power is removed. To prevent high-voltage electrical shock, please use the following guidelines:

1. Unplug the power cable and use caution every time you remove the motor cover.
2. Before working on or around any electrical or mechanical component under the motor cover, wait at least two minutes from the time you unplug the power cable.
3. Turn off the circuit breaker on the treadmill before connecting or disconnecting the treadmill to the wall outlet.
4. Be sure treadmill area is free of liquid spills before removing motor cover.

Mechanical

For general safety use the following guidelines:

1. Be sure the treadmill power cable is unplugged before working with components, belts, and pulleys.
2. Secure long hair, loose clothing, and jewelry before working near the treadmill, particularly near running surfaces and rotating parts.
3. Before running the treadmill, check for worn parts which could break loose during service or operation.
4. Keep fingers away from rotating parts.
5. To avoid eye contaminants, clean away dust and debris from moving parts before servicing.
6. Beware of sharp edges when replacing worn parts.
7. Never start the belt when someone is on the treadmill.
8. Improper lifting can cause back strain. It also can cause injury to others if the treadmill is dropped. Lifting the treadmill requires at least two people.

Break-in Period (Belt Noise)

When a new treadmill or belt is first used, the belt may create a thumping noise during operation. This happens because the rubber in the belt has not yet "relaxed" and it is NORMAL. This noise does not indicate anything wrong with either the belt or the treadmill. After 6-8 hours of use, the noise should fade.

Troubleshooting Guide

ELECTRICAL SYSTEM

No power

*There is no apparent power to the console
LEDs are not lit up and keys are not functioning*

A. If power switch is in on position, but red light is off:

1. Check that power cord is properly plugged in.
2. Check the wall socket for power (Procedure 1)
3. Check the ON/OFF Switch for power (Procedure 2)
4. Check the circuit breaker status. Reset it if necessary (Procedure 3)

B. If power switch is in on position , and red light is lit:

1. Check the safety key (Procedure 4)
2. Inspect the wire harness and connectors (Procedure 5)
3. Check the Controller (Procedure 6)
4. Check the Console (Procedure 7)

"EO1" Error Message

Elevation Motor error

1. Power unit off and on again and retry
2. Check Elevation Motor (Procedure 10)
3. Inspect wiring harness (Procedure 5)
4. Check the Lower Board (Procedure 6)
5. Check the Console (Procedure 7)

"EO2" Error Message

Console error

1. Power unit off and on again and retry
2. Replace the Console

"EO3" Error Message

Drive Motor error

1. Power unit off and on again and retry
2. Check Speed Sensor (Procedure 8)
3. Check Drive Motor (Procedure 9)
4. Inspect the wiring harness (Procedure 5)
5. Check the Console (Procedure 7)
6. If Console or Controller was replaced calibrate the unit. (Procedure 18)

Partial LEDs

The Console has power but some of the Console lights are dim or out completely.

1. Check wall socket for power (Procedure 1)
2. Inspect the wiring harness (Procedure 5)
3. Run Console diagnostics (see Console diagnostics instructions)
4. Check Console (Procedure 7)

Key(s) not responding

No changes when keys are depressed

1. Check user's programming (see owner's manual)
2. Inspect the wiring harness (Procedure 5)
3. Run Console diagnostics (see Console diagnostics instructions)
4. Check Console (Procedure 7)
5. Check the Key connection inside the console
6. Check Controller (Procedure 6)

Troubleshooting Guide

Console resets

The Console starts normally then resets during workout

1. Check user's programming (see owner's manual)
2. Check ON/OFF Switch for power (Procedure 2)
3. Check wiring harness (Procedure 5)
4. Check Console (Procedure 7)
5. Check Heart rate, 98% of max HR is safety shutoff point.

Console Frozen

No change in display or data

1. Check user's programming (see owner's manual)
2. Power unit off and then on again
3. Check wiring harness (Procedure 5)
4. Replace Console (Procedure 7).

Console Ineffective

Console continues counting time, but changing speed and/or elevation has no effect

1. Check user's programming (see owner's manual)
2. Power unit off and then on again
3. Inspect wiring harness/connectors (Procedure 5)
4. Check Controller (Procedure 6)
5. Check Console (Procedure 7)

Heart rate problems

Erratic heart rate readings; too low, too high or not working at all

1. Chest strap must be worn for pulse feedback, (or use hand sensors on 700Tm only).
2. Apply water or ECG gel to skin, where the strap is going to be making contact with skin
3. Make sure chest strap battery is still good
4. Check results with another user
5. Check for background electronic noise (Procedure 17)
6. Check the Hand Pulse sensors (700Tm only, Procedure 16)
7. Replace the Console (Procedure 7)

Programming Problems

Not starting correctly, not accepting program time, not taking user info...etc.

1. Check user's programming (see owner's manual)
2. Run Console diagnostics (see Console diagnostics instructions)
3. Replace the Console (Procedure 7)

Troubleshooting Guide

MECHANICAL SYSTEM

Unit vibrates excessively

1. Use Allen wrench to tighten all assembly bolts
2. Inspect the rollers (Procedure 11)
3. Ensure that the Drive Motor is securely bolted to frame
4. Check flywheel for on-center rotation

Running belt slips

1. Adjust the running belt's tension (Procedure 12)
2. Be sure the deck is properly lubricated
3. Inspect drive belt for foreign substances (Procedure 13)
4. Adjust the drive belt tension (Procedure 13)

Running belt not centered

The running belt is not centered on the deck

1. Adjust the position of the Running Belt (Procedure 12)

Mechanical Noise

Unit squeaks or clicks constantly when Drive Motor is running

1. Use Allen wrench to tighten all assembly bolts
2. Make sure the unit is leveled
3. Make sure Motor Cover is not loose or interfering with anything
4. Inspect drive belt for foreign substances (Procedure 13)
5. Check for interference of object with flywheel
6. Check that Drive Motor is securely bolted down
7. Check Drive Motor brushes (Procedure 9.2)
8. Check Front and Rear Roller bearings
9. Be sure deck is properly lubricated
10. Be sure the deck screws are tightened
11. Check the incline structure to make sure all contact points are greased

Mechanical Noise

Unit squeaks when your foot impacts the running deck

1. Use Allen wrench to tighten all assembly bolts
2. Inspect the step rails
3. Check frame integrity thoroughly
4. Check that Drive Motor is securely bolted down

Please review the safety guidelines in this manual before working on any treadmill.

PROCEDURE 1: Checking the wall socket for power

- 1.1 Check whether there is a wall switch controlling this wall socket
- 1.2 Set voltmeter to the appropriate setting for your country (U.S. = AC/200 Volt setting)
- 1.3 Place the test lead into the hot and neutral receptacles on the outlet.
- 1.4 Your meter should display the appropriate output for your region (U.S. = 110-120 volts)

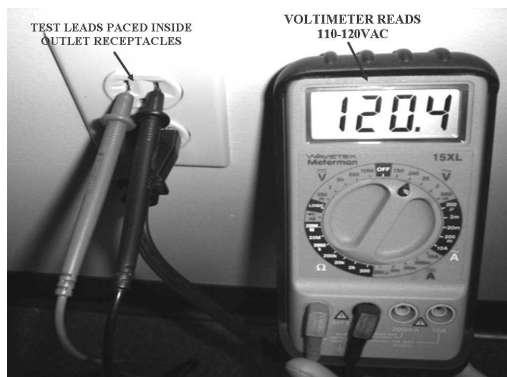


Fig. 1A

PROCEDURE 2: ON/OFF Switch

- 2.1 Checking the ON/OFF Switch
 - 2.1.1 Plug the power cord in and turn the power switch to the ON position
 - 2.1.2 Verify that the Red switch light is lit and not blinking. If it doesn't light up, or it blinks, check the wall socket (Procedure 1). If the wall socket is OK, inspect the power cord, make sure the cord is not damaged and properly plugged into the treadmill
 - 2.1.3 Remove the motor cover
 - 2.1.4 Set the voltmeter to the AC volts setting
 - 2.1.5 Place the test leads in the White and Black wire connection slots of the ON/OFF Switch. Make sure the leads are in contact with metal in the slots.
 - 2.1.6 Your meter should display the appropriate output for your region (U.S. = 110-120volts)
 - 2.1.7 If you don't see any voltage, replace the switch

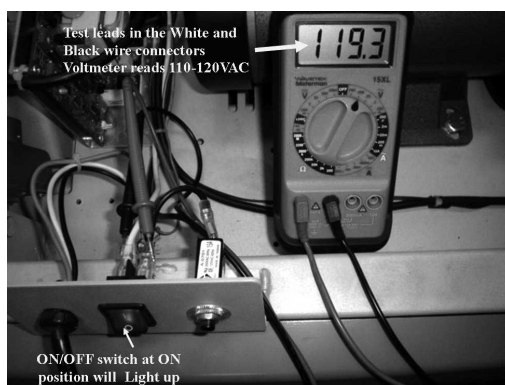


Fig. 2A

Repair Procedures

- 2.2 Replace the ON/OFF Switch
 - 2.2.1 Unplug the unit
 - 2.2.2 Remove the Motor Covers
 - 2.2.3 Unplug the four wires from the switch
 - 2.2.4 With a flat screw driver push down the two clips that attach the switch to the frame and push the switch towards the front of the unit. Do the same thing with the clips at the bottom of the switch
 - 2.2.5 Reverse the above steps to install the new switch

PROCEDURE 3: Circuit Breaker

- 3.1 Checking the Circuit Breaker
 - 3.1.1 Turn power switch OFF and press the Fuse Reset button at the front of the unit
 - 3.1.2 Turn power switch ON and verify that the red switch light is lit
 - 3.1.3 Test unit for power
 - 3.1.3 If unsuccessful, remove the Motor Cover
 - 3.1.4 Set the voltmeter to the AC volts setting
 - 3.1.5 Place one test lead on the white wire at the top of the ON/OFF switch, and place the second test lead at the bottom of the circuit breaker connector
 - 3.1.6 Your meter should display the appropriate output for your region (U.S. = 110-120volts)
 - 3.1.7 If after resetting the Circuit breaker there is still no voltage, replace the breaker

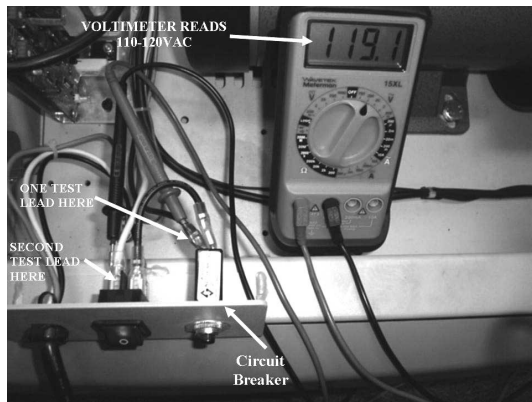


Fig. 3A

PROCEDURE 4: Safety Key

- 4.1 Ensure that the Safety key is in place
- 4.2 Remove the back cover of the Console
- 4.3 The sensor should be right underneath where the Safety Key rests
- 4.4 Ensure that only half of the Safety Key's sensor is on the metal plate that holds the key in place
- 4.5 Unplug the Safety Key Sensor from the Console's electronics board
- 4.6 Set the Voltmeter to read resistance (Ohms)
- 4.7 Place the test leads inside the sensor's connector
- 4.8 The meter should read close to 0 Ohms with the Safety key engaged

Repair Procedures

- 4.9 Remove the Safety key, the meter should read infinity (or very high) ohms
- 4.10 If the measurements with the Voltmeter are not what is mentioned above, reposition the sensor. If after repositioning the sensor you still see the same issue, replace the sensor.

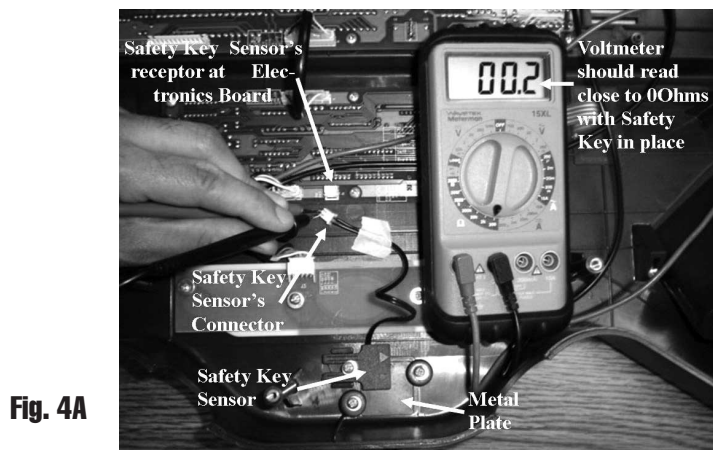


Fig. 4A

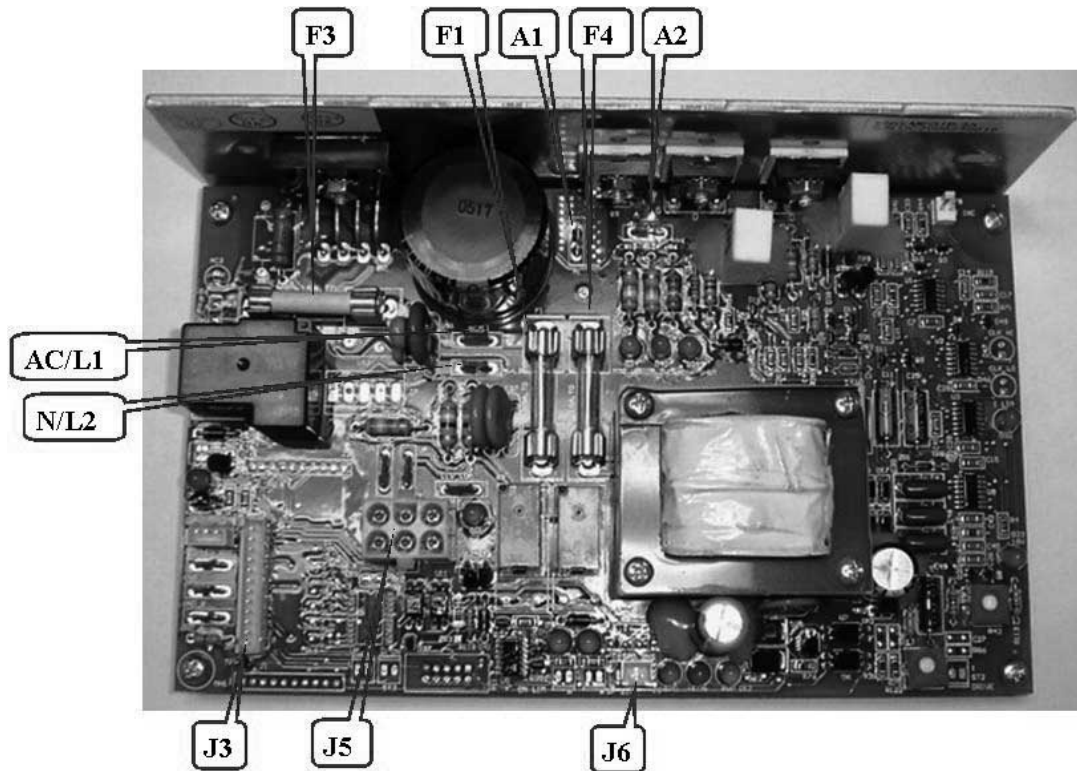
PROCEDURE 5: Inspect the wire harness and connectors

- 5.1 Unplug the unit
- 5.2 Remove the left and right Console Mast Cover, the Console, Motor Covers, and Console Mast
- 5.3 Visually inspect all connection points to ensure proper connection
- 5.4 Visually inspect full length of wires for burns, cuts, etc. Common places for wire harness damage are at the connection points
- 5.5 Ensure that all connectors are properly attached to the controller and that there are no bent pins
- 5.6 Using an ohmmeter, check continuity of all 12 pins on the main wiring harness. If wires are damaged or broken, replace wire harness
- 5.7 Be careful not to pinch the wire harness when assembling the Console Mast or Console

Repair Procedures

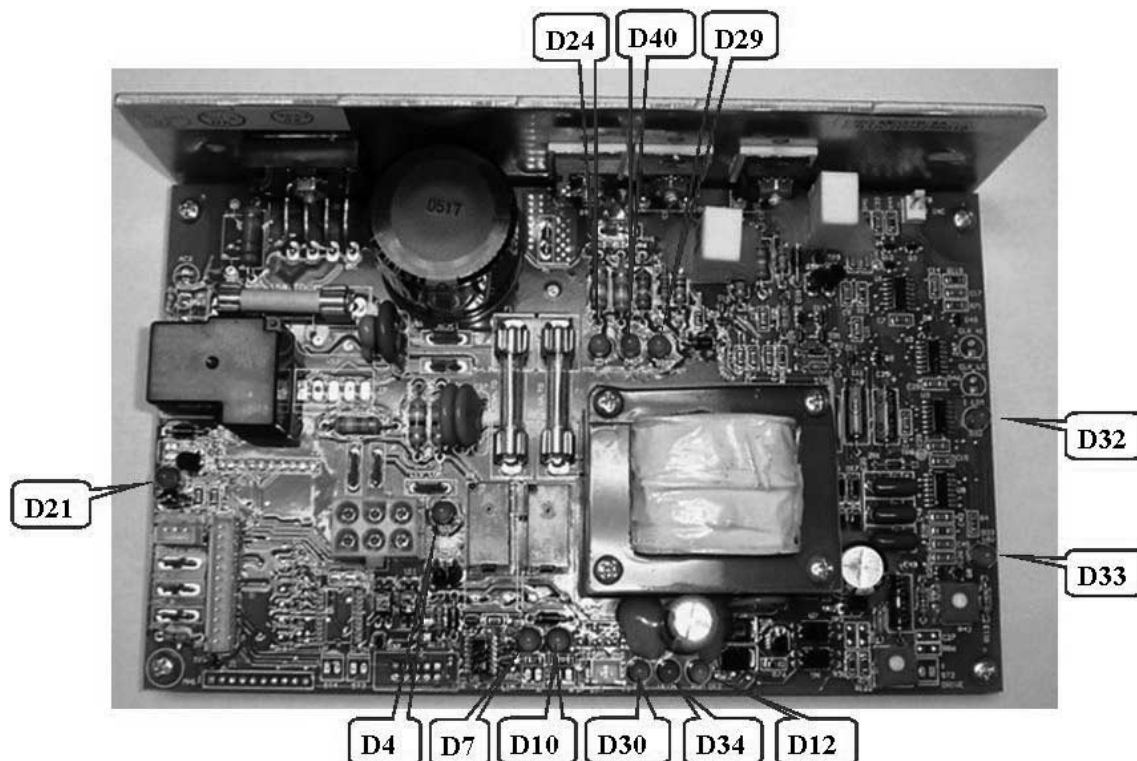
PROCEDURE 6: Controller

6.1 Fuses and Connectors



- F1 = 1.5A, Glass fuse for Elevation Motor
- F3 = 15A, Ceramic fuse in series with Drive Motor
- F4 = 0.5A, Glass fuse for Transformer input
- A1 = Positive connection to Drive Motor
- A2 = Negative connection to Drive Motor
- AC/L1 = Hot AC line input
- N/L2 = Neutral AC line input
- J3 = Console I/O Power and signals from and to Console
- J5 = Power and signals from and to Elevation Motor
- J6 = Signal from Speed Sensor

6.2 LEDs



- D4 - AC1: AC voltage is present at the transformer input. It will illuminate when ON/OFF Switch is turned on.
- D7 - DOWN: the Elevation Motor is being commanded to move down
- D10 - UP: the Elevation Motor is being commanded to move up
- D12 - PWM: there is a PWM command from the console, the brighter it gets the higher the signal
- D21 - RELAY: the main relay for the Drive Motor is on
- D24 - MTR VOL: it will illuminate when ON/OFF Switch is turned on.
- D29 - MTR SHRT: Driver Motor short
- D30 - SPD: there is a speed signal going from the Controller to the Console. It will blink when the Drive motor is running.
- D32 - I LIM: the maximum operational current has been reached
- D33 - 18V: there is an output from the transformer. It will illuminate when ON/OFF Switch is turned on.
- D34 - VCON: there is an output from the transformer. It will illuminate when ON/OFF Switch is turned on.
- D40 - M_PWM: there is current flowing through the Drive Motor. As speed increases LED will get brighter

Repair Procedures

- 6.3 Checking the Controller — begin with unit unplugged
 - 6.3.1 Remove the Motor Covers
 - 6.3.2 Check each of the fuses by removing them one by one and testing them for continuity. Once you test one, put it back on the board
 - 6.3.3 Plug the unit into the wall socket
 - 6.3.4 Turn the ON/OFF switch to the "ON" position
 - 6.3.5 Check the AC voltage input
 - 6.3.5.1 Set voltmeter to the appropriate setting for your country (U.S. = AC/200 Volt setting)
 - 6.3.5.2 Place the test leads into AC/L1 and N/L2
 - 6.3.5.3 Your meter should display the appropriate output for your region (U.S. = 110-120 volts)
 - 6.3.5.4 If you don't see any voltage, check the wall outlet (procedure 1), check the ON/OFF switch (procedure 2), and Check the Circuit breaker (procedure 3).
 - 6.3.6 Check the outputs to the Console
 - 6.3.6.1 Set your voltmeter to the DC Volts setting
 - 6.3.6.2 Place the black test lead at Connector J3-7, blue wire. Place the red test lead at Connector J3-4, orange wire
 - 6.3.6.3 You should read 10-15VDC. If you don't see this voltage, replace the controller
 - 6.3.6.4 Place the black test lead at Connector J3-8, purple wire
 - 6.3.6.5 Place the red test lead at Connector J3-4, orange wire
 - 6.3.6.6 You should read 10-15VDC. If you don't see this voltage, replace the controller
 - 6.3.6.7 Place the black test lead at Connector J3-7, blue wire. Place the red test lead on Connector J3-9, gray wire
 - 6.3.6.8 With your hand move the Running belt so that the magnet on the Front Roller's pulley is adjacent to the Speed Sensor. You should read 0 volts and the SPD LED will light up. With the magnet away from the Speed sensor you should read 5VDC and the SPD LED will be off. If you don't see the output voltage, check the Speed Sensor (Procedure 8). If Speed sensor is ok, replace the Controller
 - 6.3.6.9 Press the Start key on the Console and wait for the Running Belt to start moving
 - 6.3.6.10 Press the Incline UP key on the console
 - 6.3.6.11 Place the black test lead at Connector J3-7, blue wire. Place the red test lead at Connector J3-11, pink wire
 - 6.3.6.12 The voltage will start increasing from 0.5VDC and stop increasing when the Elevation Motor stops. If the voltage is constant even though the Elevation Motor is moving, check 6.3.7.6 - 6.3.7.13

6.3.7 Check the inputs from the Console

- 6.3.7.1 Press the Start key on the Console
- 6.3.7.2 Place the black test lead at Connector J3-7, blue wire. Place the red test lead on Connector J3-5, yellow wire
- 6.3.7.3 You should read 10-15VDC. This signal will enable the Drive Motor
- 6.3.7.4 Place the black test lead at Connector J3-7, blue wire. Place the red test lead on Connector J3-6, green wire
- 6.3.7.5 You should read 0.3-3.5VDC. It will start low and as you increase the Speed the signal will increase.
- 6.3.7.6 Place the black test lead at Connector J3-12, light blue wire. Place the red test lead at Connector J3-10, white wire
- 6.3.7.7 You should read 5VDC
- 6.3.7.8 With the Running Belt moving press the Incline Up Key on the console
- 6.3.7.9 Place the black test lead at Connector J3-7, blue wire. Place the red test lead at Connector J3-3, red wire
- 6.3.7.10 You should read 5VDC when the elevation motor is moving up and 0VDC when motor is at rest or moving down.
- 6.3.7.11 With the Running Belt Moving and the unit elevated, press the Incline Down key
- 6.3.7.12 Place the black test lead on Connector J3-7, blue wire. Place the red test lead on Connector J3-2, brown wire
- 6.3.7.13 You should read 5VDC when the elevation motor is moving down and 0VDC when motor is at rest or moving up.

Note: For steps 6.3.7.1 - 6.3.7.12 if you don't see the mentioned voltage, inspect the wiring harness (procedure 5); if wiring harness is ok replace the Console.

6.3.8 Check the output to the Drive motor

- 6.3.8.1 Press the Start key on the Console
- 6.3.8.2 After 4 seconds place the black test lead on Pin A2 (Where Black wire from Drive motor connects). Place the red test lead on Pin A1 (Where Red wire From the Drive Motor connects)
- 6.3.8.3 Depending on the speed you will read 0-90VDC
- 6.3.8.4 If steps 6.3.7.1 - 6.3.7.5 are OK and you don't see any output voltage, replace the Controller

6.3.9 Check the output to the Elevation Motor

- 6.3.9.1 Set your voltmeter to DC Volts setting
- 6.3.9.2 Place the black test lead on connector J5-3, blue wire. Place the red test lead on connector J5-1 brown wire
- 6.3.9.3 You should read 5VDC
- 6.3.9.4 Set your voltmeter to the AC Volts setting
- 6.3.9.5 Press the Start key on the Console and once the Running Belt is moving press the Incline Up key
- 6.3.9.6 Place the black test lead on Connector J5-6, white wire. Place the red test lead on Connector J5-5, red wire
- 6.3.9.7 You should read 120VAC
- 6.3.9.8 With the Running belt moving and unit elevated, press the Incline Down Key
- 6.3.9.9 Place the black test lead on connector J5-6, white wire. Place the red test lead on connector J5-4, black wire
- 6.3.9.10 You should read 120VAC
- 6.3.9.11 If steps 6.3.7.5 - 6.3.7.13 are OK and you don't see any output voltage, replace the Controller

Repair Procedures

6.3.10 Check the input from the Elevation Motor

6.3.10.1 Press the Start key on the Console. Once the Running Belt starts moving, press the Incline Up Key

6.3.10.2 Place the black test lead on connector J5-3, blue wire

6.3.10.3 Place the red test lead on connector J5-2, brown wire

6.3.10.4 You should read 0.5-3.5VDC for the 500Tm and 600Tm, or 0.5 -4.4VDC on the 700Tm. As the Elevation Motor moves up, the voltage will be increasing. If you don't see the input voltage check the output voltage to the motor on step 6.3.9 and if OK, replace the Elevation Motor

6.3.11 Check the input from Speed sensor

6.3.11.1 Make sure the Drive Belt is not moving

6.3.11.2 Place the black test lead on connector J6-1, black wire

6.3.11.3 Place the red test lead on connector J6-2, black/white

6.3.11.4 With your hand, move the Running belt so that the magnet on the Front Roller's pulley is adjacent to the Speed Sensor. You should read 0 volts and SPD LED will light up. With the magnet away from the Speed sensor you should read 5VDC and the SPD LED will be off

6.3.11.5 If you don't see the input signal check the Speed Sensor (Procedure 8), if OK replace the Controller

6.4 Replacing the Controller - begin with unit unplugged

6.4.1 Remove the motor cover

6.4.2 Disconnect all of the cables on the controller (see wiring diagram)

6.4.3 Remove the two Phillips screws that attach the controller to the frame of the unit.

6.4.4 Set the new board in place and carefully screw the two screws back in.

6.4.5 Reconnect all of the cables to the controller

PROCEDURE 7: Console

7.1 Checking the Console

7.1.1 Make sure that the Safety Key is in place

7.1.2 Remove the left Console Mast Cover

7.1.3 Gently pull the main wire harness to access the connectors P1 and P2 (see wiring diagram)

7.1.4 Plug the power cord in and turn the power switch to the on position

7.1.5 Set your voltmeter to the DC Volts setting. You will be testing the input voltage to the console

7.1.6 Place your red test lead on the black wire and the black lead on the blue wire; make sure that the leads are making contact with the wires. You should read 10-15 VDC.

7.1.7 Place your red lead on the orange wire and the black lead on the purple wire; make sure that the leads are making contact with the wires. You should read 10-15 VDC.

7.1.8 If console is not lighting up and steps 7.1.6 and steps 7.1.7 are OK, replace the Console.

7.1.9 Place the black test lead on blue wire and red test lead on yellow wire

7.1.10 Press the Start key

- 7.1.11 You should read 10-15VDC. This signal will enable the Drive Motor
- 7.1.12 Place the black test lead on the blue wire and red test lead on green wire
- 7.1.13 You should read 0.3-3.5VDC. The signal will start low and it will increase as the speed increases.
- 7.1.14 Place the black test lead on light blue wire and red test lead on white wire
- 7.1.15 You should read 5VDC
- 7.1.16 With the Running Belt moving press the Incline Up Key.
- 7.1.17 Place the black test lead on the blue wire and red test lead on the red wire
- 7.1.18 You should read 5VDC when the Elevation Motor is moving up and 0 volts when motor is at rest or moving down
- 7.1.19 With the Running Belt Moving and the unit elevated press the Incline Down key
- 7.1.20 Place the black test lead on the blue wire and the red test lead on the brown wire
- 7.1.21 You should read 5VDC when the Elevation Motor is moving down. You will see 0 volts when the motor is at rest or moving up
- 7.1.22 Replace the Console if you don't see one or more of the signals mentioned above in steps 7.1.9 to 7.2.19.

7.2 Replacing the Console

- 7.2.1 Unplug the unit
- 7.2.2 Remove the left and right Console Mast Covers
- 7.2.3 Remove the twelve bolts that hold the Console to the left and right Console Masts
- 7.2.4 Remove the Console from the Console Masts
- 7.2.5 Disconnect the wiring harness
- 7.2.6 Reverse the above steps to install the new console. Be careful not to pinch the wire harness
- 7.2.7 Calibrate the unit (Procedure 18)

PROCEDURE 8: Speed Sensor

8.1 Checking the Speed Sensor

- 8.1.1 Unplug the unit
- 8.1.2 Remove the Motor Cover
- 8.1.3 Verify that the Roller's Pulley magnet is still in its slot
- 8.1.4 Make sure that the Speed Sensor is sufficiently close to the pulley (approx. 1/8 inch)
- 8.1.5 Set the voltmeter to read resistance (Ohms)
- 8.1.6 Detach Speed Sensor's connector from the Controller, and place test leads inside sensor's connector
- 8.1.7 With the magnet rotated adjacent to the sensor, the meter should read close to 0 Ohms
- 8.1.8 With the magnet rotated away from the sensor, the meter should read infinite (or very high) resistance
- 8.1.9 If the readings on the voltmeter are always infinity or 0 ohms regardless of magnet position, replace the Speed sensor
- 8.1.10 Connect the Speed Sensor the Controller
- 8.1.11 With the magnet rotated adjacent to the sensor, the SPD LED on the Controller will be on
- 8.1.12 With the magnet rotated away from the sensor, the SPD LED on the Controller will be off
- 8.1.13 If the SPD LED on the Controller is not lighting up, double check the Speed Sensor. Replace the Controller if not working

Repair Procedures

- 8.2 Replacing the Speed Sensor
 - 8.2.1 Unplug the unit
 - 8.2.2 Remove the original Speed Sensor by unscrewing and unplugging the wires from the controller
 - 8.2.3 Be sure to place the new sensor close to the magnet on the roller's pulley (approx. 1/8 inch) and covering half of the sensor with the magnet
 - 8.2.4 Secure the sensor with the screw that was removed and plug the wires into the controller
- only

PROCEDURE 9: Drive motor

- 9.1 Checking the Drive Motor
 - 9.1.1 Unplug the unit
 - 9.1.2 Remove the Motor Covers
 - 9.1.3 Visually verify that the motor is properly bolted to the frame and wires are properly connected to the Controller
 - 9.1.4 Turn the flywheel to verify that the drive belt/pulley system is functional. If the brushes on the motor are making noise, see step 9.2
 - 9.1.5 Check flywheel to see if the rotation is off center and/or unbalanced
 - 9.1.6 Disconnect the Drive Motor from the Controller
 - 9.1.7 Plug the power cord in and turn the power switch to the on position
 - 9.1.8 Set your voltmeter to DC Volts, you will be measuring the output from the control board to the motor
 - 9.1.9 Press the Start key on the Console and wait about 3 seconds
 - 9.1.10 Place the red test lead at A1 and the black lead at A2 where the red and black wire from the Drive motor used to be connected
 - 9.1.11 You should read between 5-90VDC
 - 9.1.12 If you see a voltage output from the Controller and the motor doesn't move, replace the motor

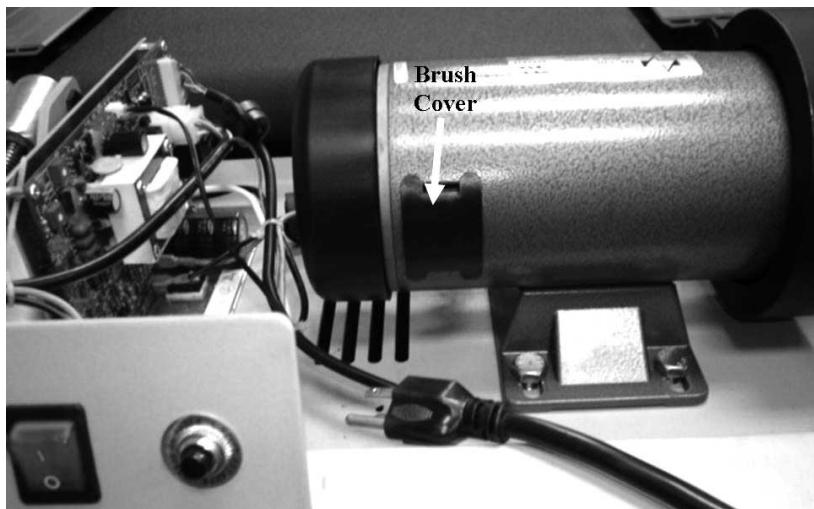


Fig. 9A

Repair Procedures

9.2 Checking the motor Brushes

- 9.2.1 With the unit unplugged, remove the two brush covers on the sides of the motor (Fig. 9A)
- 9.2.2 Remove the brushes by using long nose pliers and gently pull on the clip that holds the brushes in place. Pull on the wire attached to the brush and the brush will come out
- 9.2.3 Clean the brushes and armature using contact cleaner
- 9.2.4 After the armature and brushes are clean put the brushes back in by pulling on the brush clip and pushing the brush into place
- 9.2.5 The brushes may still make noise; this noise will go away once they wear in

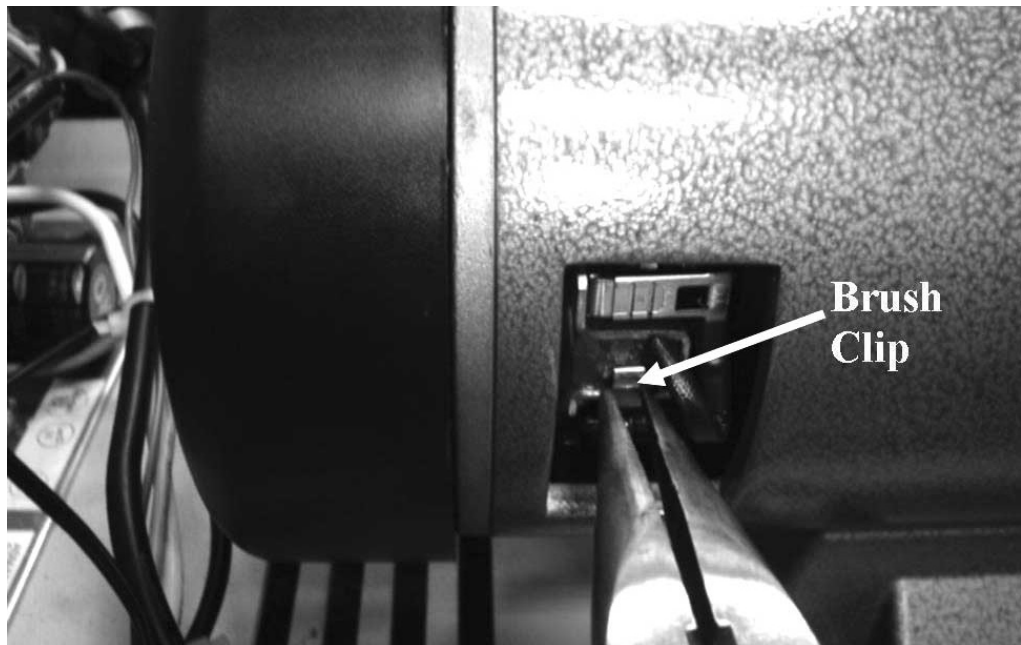


Fig. 9B

9.3 Replacing the Drive Motor

- 9.3.1 Unplug the unit
- 9.3.2 Remove the Motor Covers
- 9.3.3 Unplug the red and black motor power lines and remove all the tie wraps
- 9.3.4 Remove the ferrite ring from the red and black wires
- 9.3.5 Using a 17mm socket, a 6" extension and a ratchet, loosen the 4 bolts that attach the motor to the frame
- 9.3.6 Using a 1/2" open end or adjustable wrench, loosen the nut on the jack screw and the jack screw itself
- 9.3.7 Derail the Drive Belt from the pulley on the motor
- 9.3.8 Remove the 4 bolts that attach the motor to the frame

Repair Procedures

- 9.3.9 The motor assembly will now be free from the frame. Repeat the procedure in reverse to attach the new motor
- 9.3.10 Adjust the drive belt tension as in Procedure 13.2 before operating the unit
- 9.3.11 Calibrate the unit (Procedure 18)

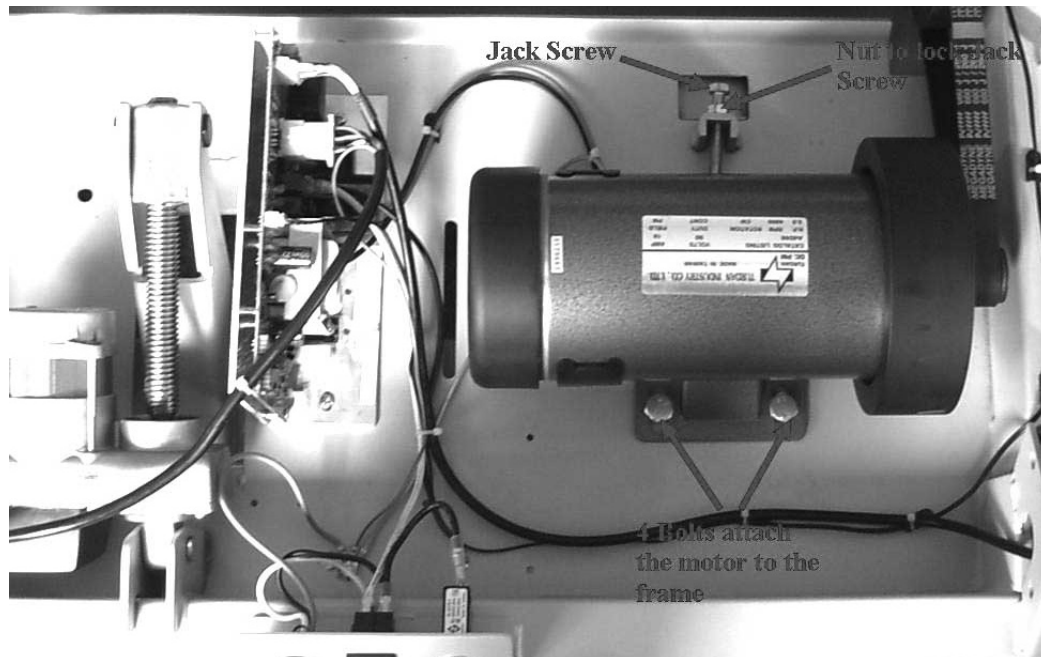


Fig. 9C

PROCEDURE 10: Elevation Motor

- 10.1 Checking the Elevation Motor
 - 10.1.1 Unplug the unit
 - 10.1.2 Remove the Motor Cover
 - 10.1.3 Check the connection at the Controller to the Elevation Motor
 - 10.1.4 Plug the power cord in and turn the power switch to the ON position
 - 10.1.5 Press Start on the Console and wait for the treadmill to start up
 - 10.1.6 Set your voltmeter to the AC Volts setting. You will be checking the AC output from the Controller to the motor at J5 and P9 (see wiring diagram)
 - 10.1.7 Press the Start Key on the Console. Once the Running Belt starts moving, press the Incline Up key
 - 10.1.8 Place your red test lead at the red wire and your black lead at the white wire
 - 10.1.9 You should read 120VAC as the motor is moving up
 - 10.1.10 With the unit running and elevated, press the Incline Down key
 - 10.1.11 Place your red test lead at the black wire and your black lead at the white wire
 - 10.1.12 You should read 120VAC as the motor is moving down
 - 10.1.13 Replace the Motor if you see the 120VAC and Motor doesn't move

- 10.1.14 Set your voltmeter to the DC Volts setting. You will check the input and output to and from the position sensor at J5 and P9 (see wiring diagram)
 - 10.1.15 Place your red test lead at orange wire and black test lead at blue wire
 - 10.1.16 At 0% of incline you should read approximately 0.5VDC
 - 10.1.17 Adjust the incline to max, at 12% on the 500Tm and 600Tm you should read approximately 3.6VDC or at 15% on the 700Tm you should see 4.4VDC
 - 10.1.18 Check the output to the motor's sensor
 - 10.1.19 Set your voltmeter to the 20VDC setting
 - 10.1.20 Place your red test lead at the brown wire and black test lead at the blue wire
 - 10.1.21 You should read approximately 5VDC
 - 10.1.22 If you don't see one or more of the signals mentioned check the controller (Procedure 6) and console (Procedure 7). If they are OK replace the Motor.
- 10.2 Replacing the Elevation Motor
- 10.2.1 Unplug the unit
 - 10.2.2 Set the unit on blocks and allow the elevation structure to move freely
 - 10.2.3 Remove the Motor Cover
 - 10.2.4 Disconnect the wires leading to the incline motor
 - 10.2.5 Remove locking pin from the bolt, then remove the bolt
 - 10.2.6 Remove the two nuts from the incline assembly
 - 10.2.7 The motor will now be free from the frame and the elevation structure
 - 10.2.8 On the new motor assembly, adjust the sleeve on the incline screw, so that it is the same distance from the motor housing as on the old motor assembly (242.5mm from the center of the hold for the bolt and locking pin to the center of the hold in the sleeve for the 500Tm and 600Tm and 264mm for the 700Tm)
 - 10.2.9 Plug in the wires from the new Elevation Motor to the Controller connector J5
 - 10.2.10 Turn the ON/OFF switch to the ON position, the motor will start moving and will calibrate with the Console (Motor may already be calibrated and may not move)
 - 10.2.11 Turn the ON/OFF switch to the OFF position and unplug the unit
 - 10.2.12 Reverse steps 10.2.1 to 10.2.6 to finish installation)



Fig. 10A

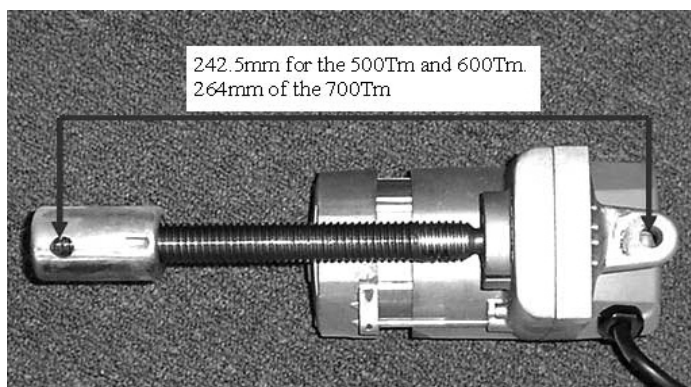


Fig. 10B

Repair Procedures

PROCEDURE 11: Rollers

- 11.1 Inspect the rollers
 - 11.1.1 Unplug the unit
 - 11.1.2 Remove the Motor Cover
 - 11.1.3 Visually inspect the Front Roller for signs of wear or damage to the contact surfaces
 - 11.1.4 Make sure the roller is clean and unobstructed.
 - 11.1.5 Turn the Running Belt by hand while watching the performance of it. The roller should turn smoothly without hesitating, jerking, or slipping. You should not hear any clicking or grinding sounds coming from it.
 - 11.1.6 Remove the End Caps at the rear of the unit
 - 11.1.7 Repeat step 11.1.3 - 11.1.5 to inspect the rear roller
- 11.2 Replace Rear Roller
 - 11.2.1 Unplug the unit
 - 11.2.2 Remove the left and right end caps by removing the three screws from them (2 at the end one at the bottom)
 - 11.2.3 Using a 6mm Allen wrench, turn the Allen head screw counter-clockwise one turn on each screw until the screw comes completely off of the roller axle
 - 11.2.4 Slide the roller out of the Running belt to either side
 - 11.2.5 Reverse the above two steps to install new roller
 - 11.2.6 Adjust the tension on the Running Belt (Procedure 12.1)



Fig. 11A

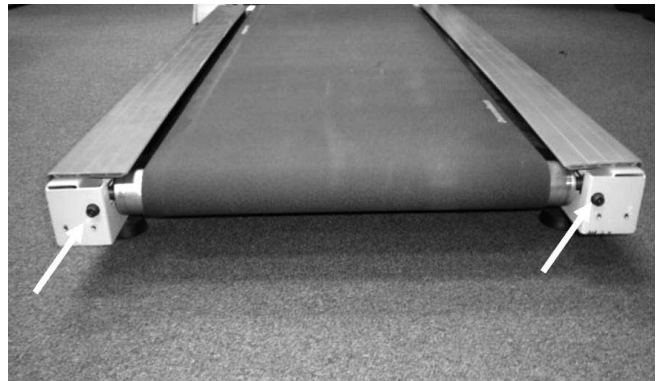


Fig. 11B

Repair Procedures

- 11.3 Replace Front Roller
 - 11.3.1 Unplug the unit
 - 11.3.2 Remove the Motor Covers
 - 11.3.3 Remove the tension on the Running Belt by adjusting both bolts inside each of the end caps counter-clockwise by the same amount of turns using a 6mm Allen wrench.
 - 11.3.4 Remove the tension on the Drive Belt:
 - 11.3.4.1 Using a 17mm socket, a 6" extension and a ratchet, loosen the 4 bolts that attach the motor to the frame
 - 11.3.4.2 Using a 1/2" open end or adjustable wrench, loosen the nut on the jack screw, and the jack screw itself.
 - 11.3.5 Derail the Drive Belt from the pulley on the roller
 - 11.3.6 Using a 6mm Allen wrench, remove the bolt on the right side of the Front Roller.
 - 11.3.7 Pull the right side of the roller up and then slightly to the right and the roller will come free from the frame.
 - 11.3.8 Pull the roller to the left side to slide it out of the Running Belt
 - 11.3.9 Reverse the above steps to install the new roller
 - 11.3.10 Adjust the Drive Belt's tension (Procedure 13)
 - 11.3.11 Adjust the Running Belt's tension (Procedure 12.1)



Fig. 11C

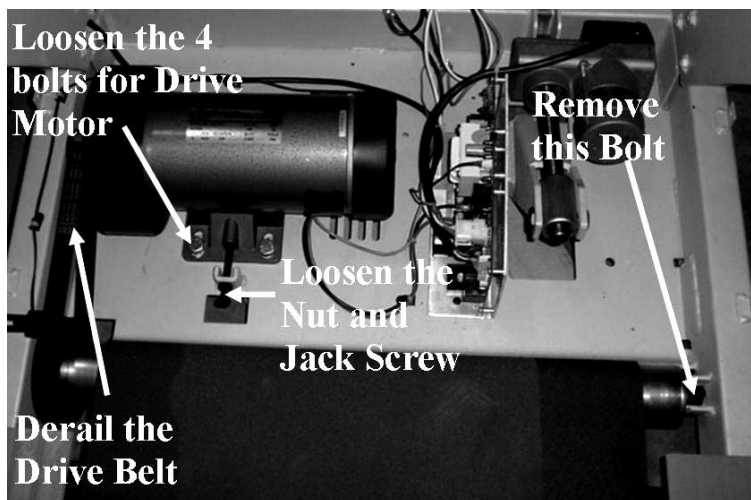


Fig. 11D

Repair Procedures

PROCEDURE 12: Running Belt

- 12.1 Checking the Tension on the Running Belt
 - 12.1.1 Start the treadmill at 0.5mph
 - 12.1.2 While one person steps on the unit, adjust the bolts inside the end caps clockwise on both sides of the unit
 - 12.1.3 Once the Running belt doesn't slip at 0.5pmh, increase the speed to 6mph
 - 12.1.4 If the Running Belt slips at 6mph, turn the bolts inside the end caps clockwise until the belt stops slipping
 - 12.1.5 Adjust the belt's position (Procedure 12.2)
- 12.2 Centering the Running Belt
 - 12.2.1 Turning the bolt inside the End Cap counter-clockwise will bring the belt towards one side. Turning the bolt clockwise will push it to the opposite side
 - 12.2.2 Start the treadmill at its slowest speed setting
 - 12.2.3 Adjust the bolt on the side that the Running Belt is moving towards the outside, clockwise 1/4 turn at a time. Allow the treadmill to run 15-30 seconds, do more adjustments as needed
 - 12.2.4 Increase the Speed to 6mph to make sure the belt sits securely in the center of the roller. If it doesn't, Adjust the bolt again clockwise or counter-clockwise as needed until it does
 - 12.2.5 When adjusted, the running belt should not be loose or slipping at all (see procedure 12 to adjust the tension on it if loose)



Fig. 12A

- 12.3 Replacing the Running Belt
 - 12.3.1 Unplug the unit
 - 12.3.2 Remove the Rear Roller (Procedure 11.2)
 - 12.3.3 Remove the Front Roller (Procedure 11.3)
 - 12.3.4 Remove the Running Deck (Procedure 15)
 - 12.3.5 Slide the Running Deck inside the new Running Belt
 - 12.3.6 Reverse steps 12.3.1 to 12.3.4 to install new Running Belt
 - 12.3.7 Adjust the belt's tension (Procedure 12.1)

PROCEDURE 13: Drive Belt

- 13.1 Inspect the Drive Belt
 - 13.1.1 Unplug the unit
 - 13.1.2 Remove the Motor Cover
 - 13.1.3 Turn the running belt by hand and while inspecting the inside surface of the drive belt, the belt should be clean and free of grease, dirt, or other contaminants
 - 13.1.4 While turning the running belt, use a clean cloth to wipe the inside surface of the Drive Belt
- 13.2 Adjust the Tension on the Drive Belt
 - 13.2.1 Unplug the unit
 - 13.2.2 Remove the Motor Cover
 - 13.2.3 Check the tension in the drive belt by turning it by hand. The belt should turn smoothly and should not slip at all on either of its pulleys
 - 13.2.4 Check the tension in the belt by pressing on it between the pulleys. The belt should be tight, with only slight give when pressing
 - 13.2.5 If the belt has visible stretch marks or severe wear, it should be replaced
 - 13.2.6 To adjust the tension:
 - 13.2.6.1 Using a 17mm socket, a 6" extension and a ratchet, loosen the 4 bolts that attach the Drive Motor to the frame
 - 13.2.6.2 Using a 1/2" open end wrench or an adjustable wrench, loosen the nut on the jack screw
 - 13.2.7 Using the 1/2" open end wrench or adjustable wrench adjust the jack screw
 - 13.2.8 Recheck the tension in the drive belt; adjust the bolt until the tension is correct and tighten the nut on the jack screw
 - 13.2.9 Once the tension is adjusted, tighten the 4 bolts that hold the Drive Motor to the frame
- 13.3 Replacing the Drive Belt
 - 13.3.1 Unplug the unit
 - 13.3.2 Remove the Motor Cover
 - 13.3.3 Using a 17mm socket, a 6" extension and a ratchet, loosen the 4 bolts that attach the Drive Motor to the frame
 - 13.3.4 Using a 1/2" open end wrench or an adjustable wrench, loosen the nut on the jack screw
 - 13.3.5 Remove the Front Roller (see procedure 11.3)
 - 13.3.6 Remove the old Drive Belt
 - 13.3.7 Reverse steps 13.3.1 to 13.3.5 for installation of new belt

Repair Procedures

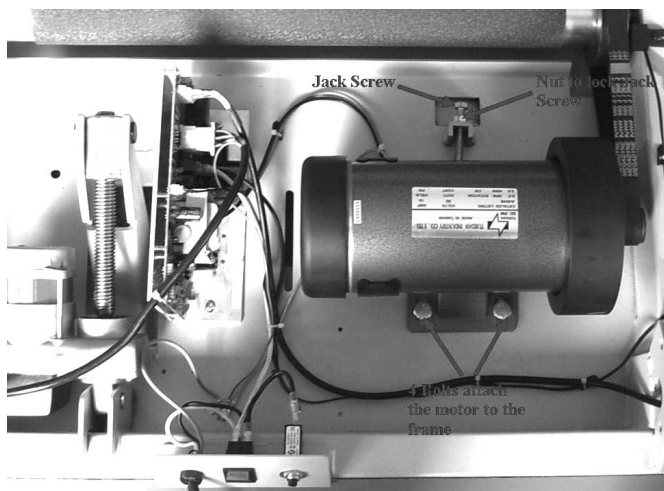


Fig. 13A

PROCEDURE 14: Lubricating the Running Deck

- 14.1 Unplug the unit
 - 14.2 Loosen the tension on the Running Belt by turning the screws in the end caps by the same amount of turns counter-clockwise
 - 14.3 Clean the Running Deck
 - 14.4 Using a treadmill lubrication kit, apply lubricant evenly on one side of the foam pad of the applicator wand
 - 14.5 Insert applicator wand between the Running Belt and the Running Deck with lubricant side face down
 - 14.6 Slide the applicator wand 3 times back and forth onto the deck
 - 14.7 Repeat steps 14.4-14.6 if Running Deck is too dry.
 - 14.8 Adjust the tension on the Running Belt by turning the screws in the end caps by the same amount of turns used when loosening them
- The Running Deck should be lubricated every 6 months or 180hrs. To find out how many hours the unit has been in use, press and hold the Enter key for more than two seconds, then press the Enter key one more time. The Time Display will show the number of hours the unit has been in use. Press and hold the Stop Key to reset the Console back to idle mode

PROCEDURE 15: Replacing the Running Deck

- 15.1 Unplug the unit
- 15.2 Remove the rear roller (see procedure 11.2)
- 15.3 Remove the Side Motor Covers by removing the three screws on each one
- 15.4 Remove the Motor Cover by removing the four screws that attach it to the frame
- 15.5 Remove the Step Rails by removing one screw towards the front of the unit on each one and slide it towards the rear of the unit.
- 15.6 Remove the eight screws that attach the deck to the frame (four on each side)
- 15.7 The deck should now be free. Slide the deck to the side of the unit.
- 15.8 Reverse the above steps to install the new deck.
- 15.9 Lubricate the new deck after installation is completed
- 15.10 Adjust the tension on the Running Belt (Procedure 12)

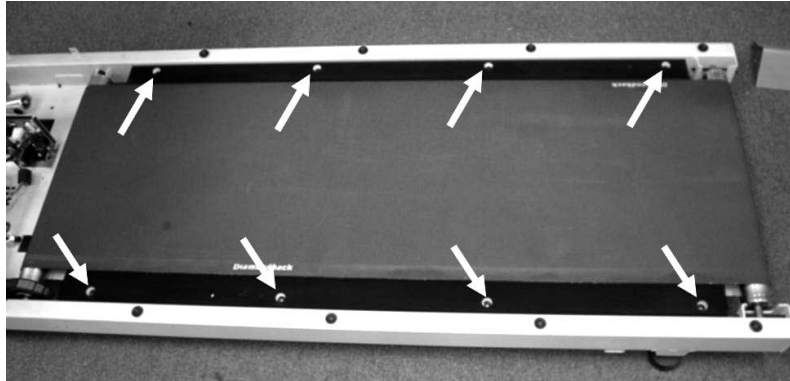


Fig. 15A

PROCEDURE 16: Hand Sensors (700Tm Only)

- 16.1 Checking the sensors
 - 16.1.1 Remove the Back Cover from the Console
 - 16.1.2 Disconnect the Sensors from the Electronics Board
 - 16.1.3 Set your voltmeter to read ohms
 - 16.1.4 Check for continuity from the sensor to the end of the wire to the Electronics board
 - 16.1.5 If this test fails, check the connection at the sensors by taking the sensors apart and making sure that the wires are connected properly
- 16.2 Replacing the HR Hand Sensors
 - 16.2.1 Using a small flat screwdriver, remove both stainless sensors out of their housings
 - 16.2.2 Loosen the hardware and remove the plastic housings
 - 16.2.3 Unplug the wire attached to each sensor
 - 16.2.4 Reverse this procedure for installation

PROCEDURE 17: Checking for Electronic interference from outside sources

- 17.1 Inspect the immediate area for any running electrical motors.
- 17.2 High-powered florescent lights, TVs, computers, cell phones, high voltage power lines (both above and below ground)
- 17.3 Static electricity in clothing or a flapping shirt can cause electrical interference as well

PROCEDURE 18: Calibration Procedure

- 18.1 From idle mode, press the Enter key and hold it for more than two seconds
- 18.2 Press the Enter key 6 times and the Console will enter the calibration mode
- 18.3 The message "CALIBRATION" will appear on the Console
- 18.4 The Drive belt will start moving
- 18.5 When it finishes self-calibrating, the message "OK" will be displayed. If the message "FAIL" comes up, check the Drive Motor (Procedure 9) and check the Controller (Procedure 6)

Console Diagnostics

500Tm and 600Tm

1. To enter the service mode from the idle mode, press the Enter key and hold it for more than two seconds. Once in this mode, the Console can be reset into idle mode by pressing and holding the Stop key down.
2. The Dot Matrix display will show the model number "500Tm" or "600Tm" and the time display will show software version "X.X"
3. Press Enter key - the accumulated time in hours "XXXX" will be displayed in the Time display. The Time LED will be illuminated.
4. Press Enter Key - the accumulated distance in miles or kilometers "XXXX" will be displayed in the time display and the Distance LED will be illuminated. When the total accumulated miles exceeds 9,999, the display will begin showing the mileage in Kmi in the format XX.XX where the maximum distance displayable is 99,990 mi. If the total distance exceeds 99,990 the counter will reset to 0.
5. Press the Enter Key - Display Test will start
 - 5.1 All LED's will be turned on including the Dot Matrix display
 - 5.2 Next, the Dot Matrix will illuminate row-by-row and column-by-column
 - 5.3 Next, starting with the INCLINE, then SPEED, then CALORIES, then TIME, then PULSE, the numeric LED's will cycle through each segment of each LED one by one
 - 5.4 Next, each indicator LED will illuminate one by one
 - 5.5 The display will cycle again and again until the Enter key is pressed.
6. Press Enter Key — The Key Test will start, the Dot Matrix display will scroll the message "KEY TEST". All LEDs will turn off. By pressing a key, it will turn on the appropriate display as shown below:

Key Press	Display Action
CLASSIC PROGRAMS	All program indicator lights for this group illuminate
HR INTERACTIVE	All program indicator lights for this group illuminate
CUSTOM PROGRAMS	All program indicator lights for this group illuminate
INCLINE UP	Incline displays "+"
INCLINE DOWN	Incline displays "--"
SPEED UP	Speed displays "+"
SPEED DOWN	Speed displays "--"
SELECT (CAL)	All three LED's associated with SELECT key light
SELECT (TIME)	All four LED's associated with SELECT key light
START	Display "St" (using segments) in Pulse display
STOP	Display "SP" (using segments) in Pulse display
ENTER	Display "Et" (using segments) in Pulse display
1	Pulse display shows "1"
2	Pulse display shows "2"
3	Pulse display shows "3"
4	Pulse display shows "4"
5	Pulse display shows "5"
6	Pulse display shows "6"
7	Pulse display shows "7"
8	Pulse display shows "8"
9	Pulse display shows "9"
INCLINE	Display "INC" in Dot Matrix Display
CLEAR	Display "CLR" in Dot Matrix Display

Each display action will stay on as long as the key is pressed. The first time the ENTER key is pressed "Et" will be displayed. The second time it will continue with the calibration test.

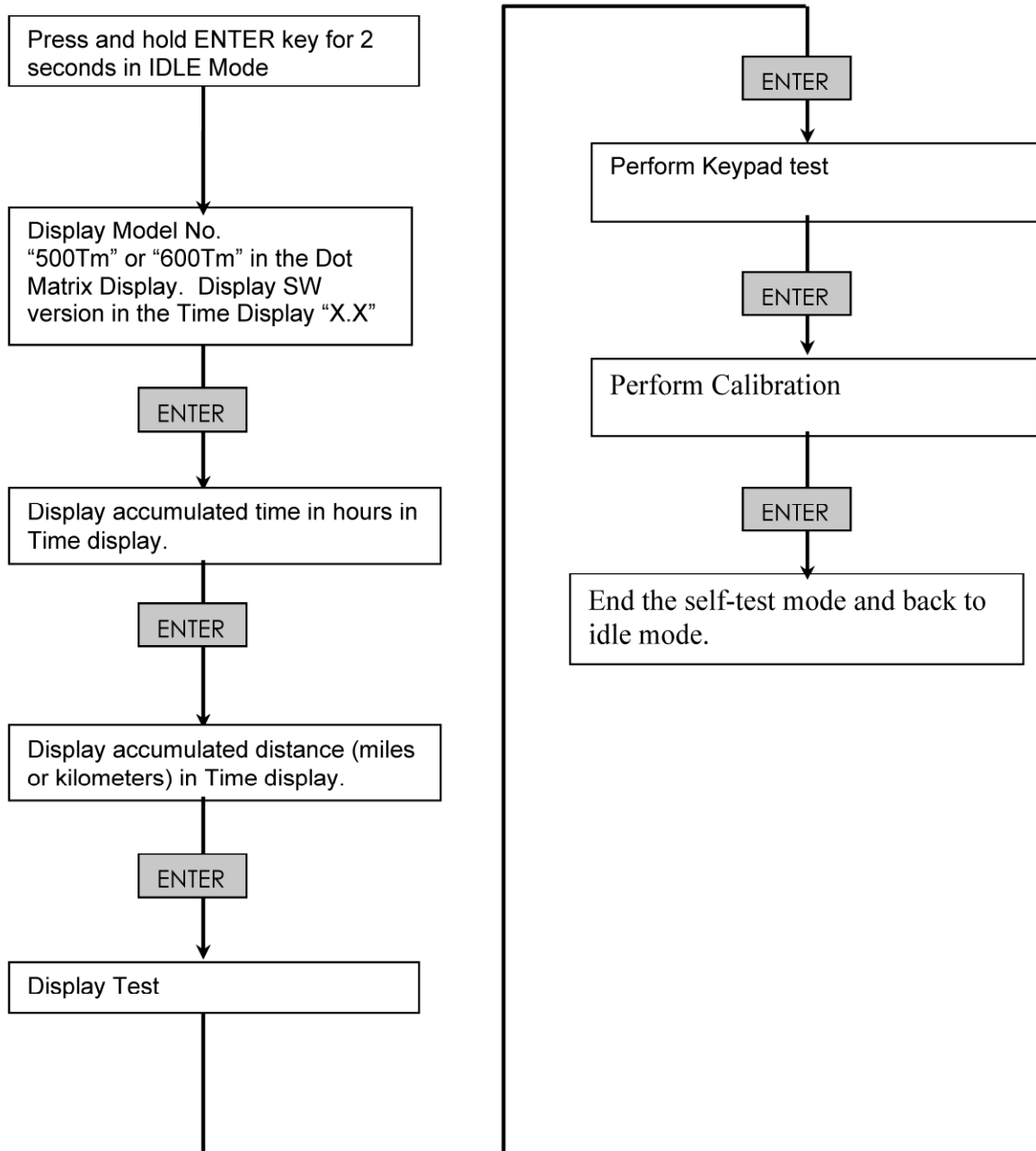
Console Diagnostics

500Tm and 600Tm

7. Press Enter Key — The unit will perform a self calibration process. The Dot Matrix will scroll "CALIBRATION". The Drive belt will start moving. When it finishes self calibrating, the Dot Matrix display window will show "OK" for pass or "FAIL" for test failed.
8. The treadmill will reset itself to idle mode after performing the calibration routine.

Console Diagnostics Flow Chart

500Tm and 600Tm



Console Diagnostics

700Tm

1. To enter the service mode from the idle mode press & hold the Enter key more than two seconds
2. The data display will show the model number and the software version "700Tm SW X.X"
3. Pressing Enter Key - the accumulated total time in hours XXXX will be display in the Time display. The Time LED will be illuminated
4. Press Enter Key - the accumulated total distance in miles XXXX or kilometers will be displayed in the Distance display. The Distance LED will light up. When the total accumulated miles exceeds 9,999, the display will begin showing the mileage in Kmi in the format XX.XX where the maximum distance displayable is 99,990 mi. If the total distance exceeds 99,990 the counter will reset to 0.
5. Press the Enter Key - Display Test will start.
 - 5.1 The data display will flash the message "DISPLAY TEST" once.
 - 5.2 All LED's will be turned on including the dot matrix display
 - 5.3 The dot matrix will illuminate row-by-row and column-by column
 - 5.4 Starting with the INCLINE, then SPEED, then the message display, the numeric LED's will cycle through each segment of each LED one by one
 - 5.5 Each indicator LED will illuminate one by one
6. Press Enter Key — The Key Test will start, the data display will flash the message "KEY TEST". By pressing a key, it will turn on the appropriate display as shown below:

Key Press	Display Action
CLASSIC PROGRAMS	All program indicator lights for this group illuminate
HR INTERACTIVE	All program indicator lights for this group illuminate
CUSTOM PROGRAMS	All program indicator lights for this group illuminate
INCLINE UP	Incline displays "+"
INCLINE DOWN	Incline displays "--"
SPEED UP	Speed displays "+"
SPEED DOWN	Speed displays "--"
SELECT (TIME)	All 4 LED's associated with SELECT key light
SELECT (DISTANCE)	All 3 LED's associated with SELECT key light
SELECT (CALORIES)	All 3 LED's associated with SELECT key light
SELECT (PULSE)	All 2 LED's associated with SELECT key light
START	Display "START" in the data display
STOP	Display "STOP" in the data display
ENTER	Display "ENTER" in the data display
1	Display "1" in the data display
2	Display "2" in the data display
3	Display "3" in the data display
4	Display "4" in the data display
5	Display "5" in the data display
6	Display "6" in the data display
7	Display "7" in the data display
8	Display "8" in the data display
9	Display "9" in the data display
0	Display "0" in the data display
INCLINE	Display "INCLINE" in data Display
CLEAR	Display "CLEAR" in data Display

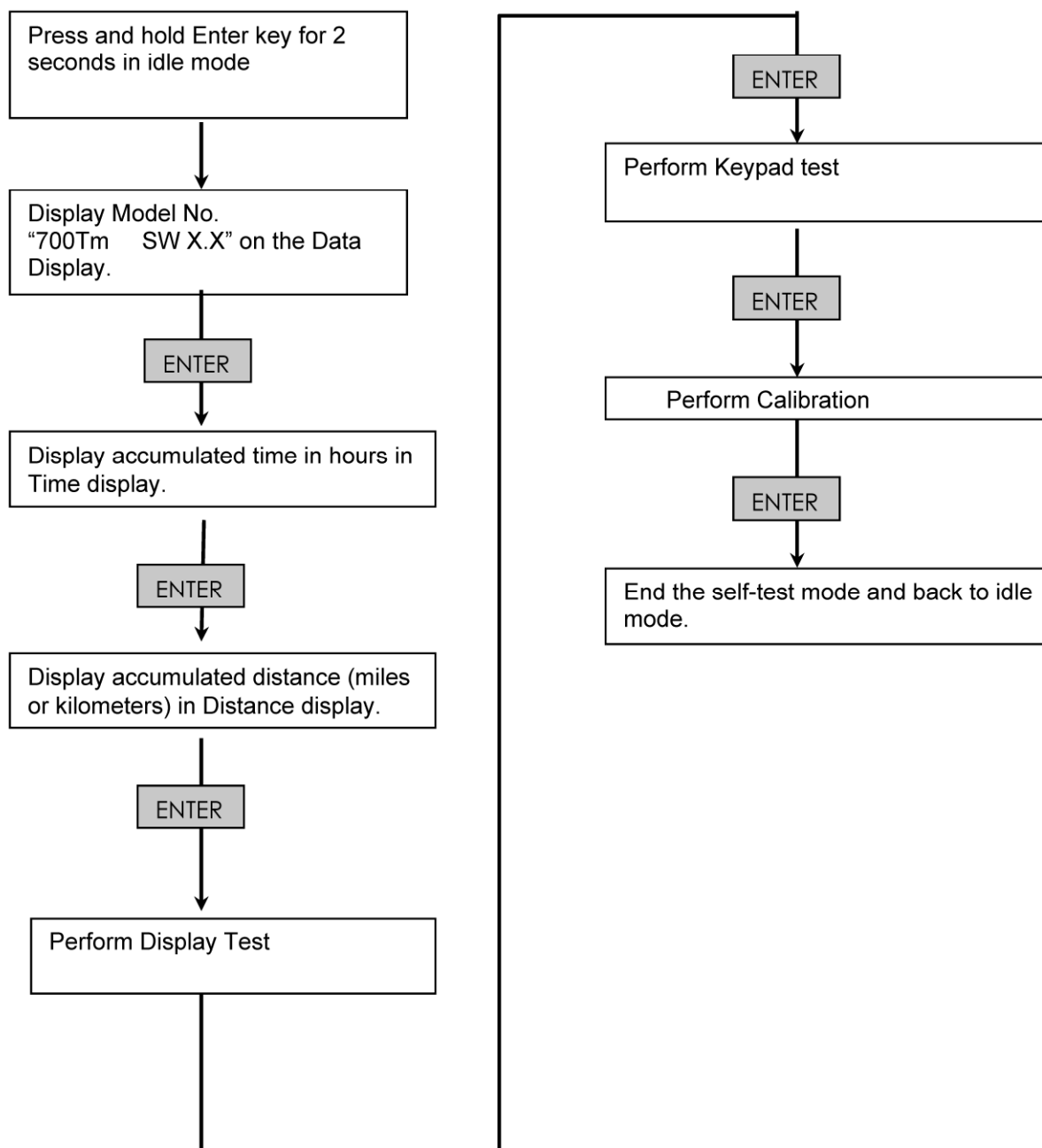
Each display will stay on as long as the key is pressed. The first time the ENTER key is pressed the display action will result. The second time the ENTER key is pressed, the program will continue on to the Calibration Test.

Console Diagnostics

700Tm

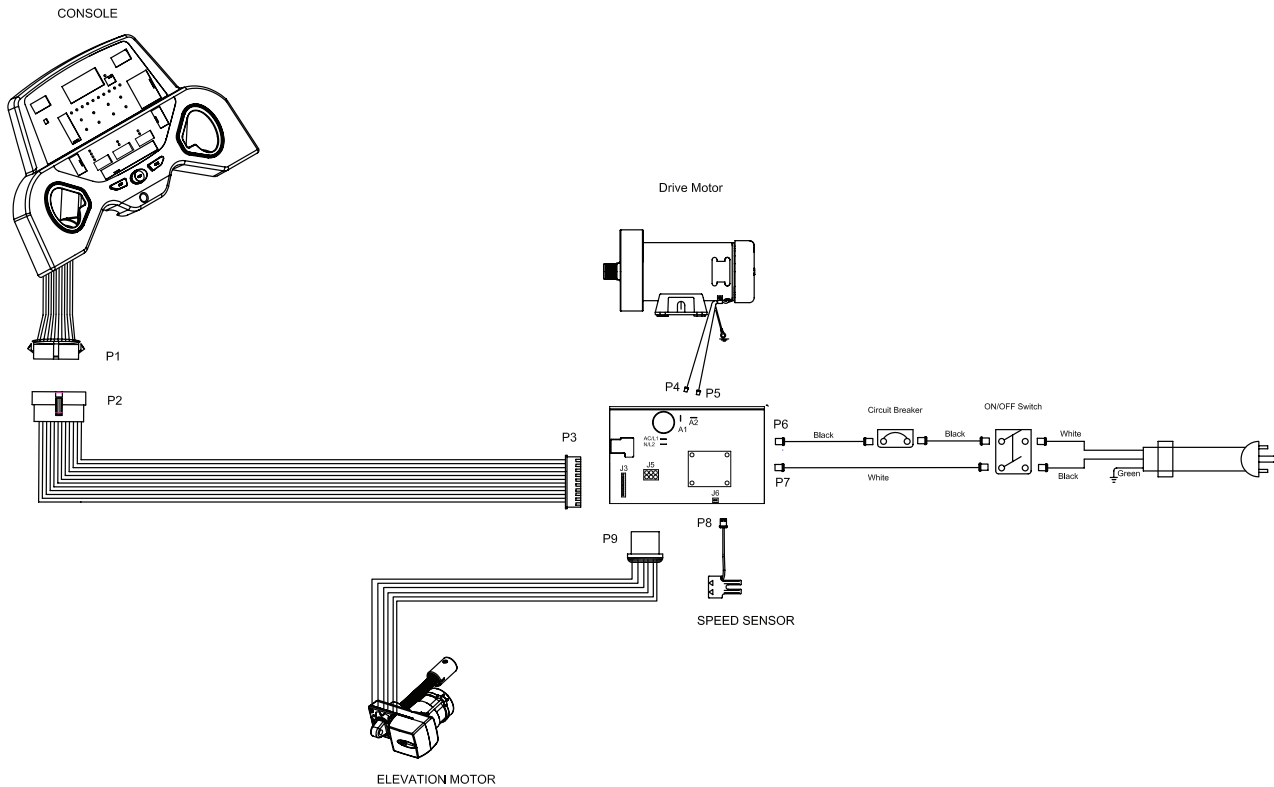
7. Press Enter Key — The unit will perform a self calibration process. The message display will flash “CALIBRATION TEST” and then display “ CAL OK” for test passing or “CAL FAIL” for failing
8. The treadmill will reset itself to idle mode after performing the calibration routine.

Console Diagnostics Flow Chart 700Tm



Wiring Diagram

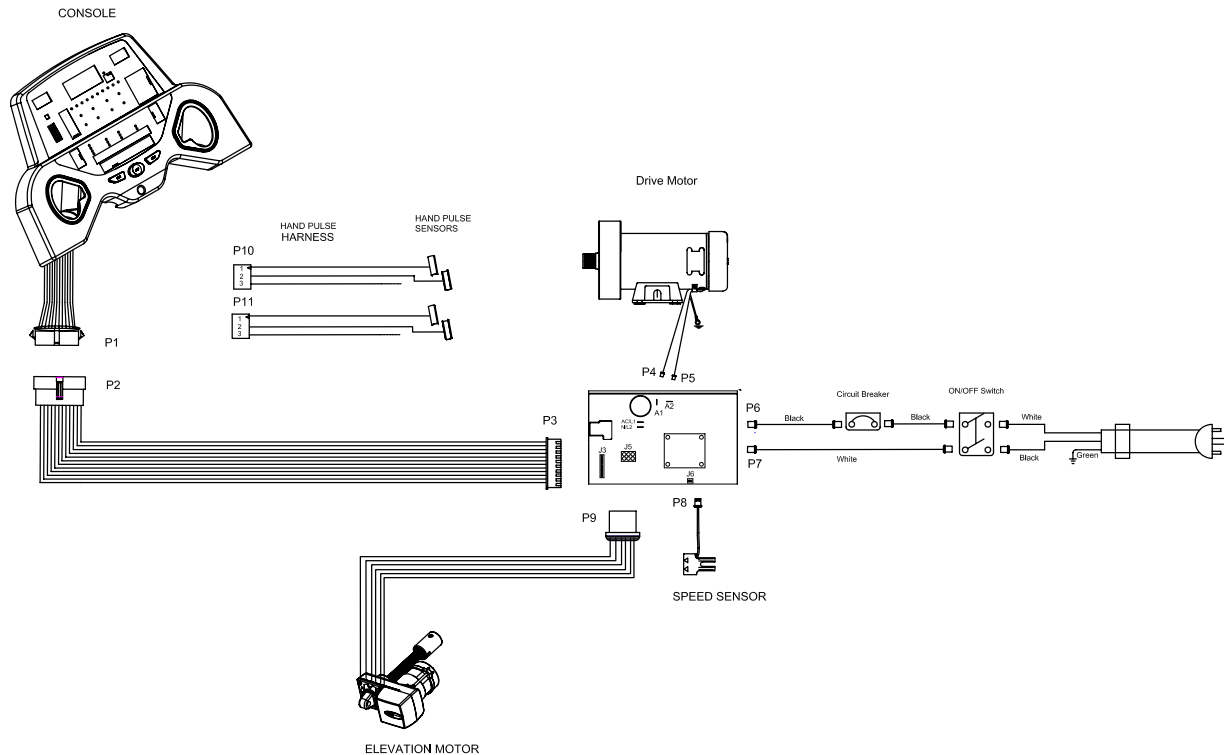
500Tm and 600Tm



Signal Name	Signal Level	Color	From	To
+11V	10-15VDC	Black	Controller J3-1	P3-1, 92-1, Console P1-1
Up	Down: 0V UP: 5VDC	Red	Console P1-3	P2-3, P3-3, Controller J3-3
Down	Down: 5VDC UP: 0V	Brown	Console P1-2	P2-2, P3-2, Controller J3-2
+11V	10-15VDC	Orange	Controller J3-4	P3-4, P2-4, Console P1-4
On/Off	10-12VDC	Yellow	Console P1-5	P2-5, P3-5, Controller J3-5
PWM	0.3 - 3.5VDC	Green	Console P1-6	P2-6, P3-6, Controller J3-6
GND	0V	Blue	Controller J3-7	P3-7, P2-7, Console P1-7
GND	0V	Purple	Controller J3-8	P3-8, P2-8, Console P1-8
RPM	On 0V, Off 5VDC	Gray	Controller J3-9	P3-9, P2-9, Console P1-9
5VDC_OUT	5VDC	White	Console P1-10	P2-10, P3-10, Controller J3-10
VR_POS	0.5 - 3.6VDC	Pink	Controller J3-11	P3-11, P2-11, Console P1-11
VR_GND	0V	Lt. Blue	Console P1-12	P2-12, P3-12, Console J3-12
AC IN	120	Black	Source	ON/OFF SW, Circuit Braker, P6, Controller AC/L1
AC IN	120	White	Source	ON/OFF SW, P7, Controller N/L2
Motor +	0-90V	Red	Controller A1	Drive Motor P4
Motor -	0	Black	Controller A2	Drive Motor P5
Elev. Mtr Up	120VAC	Red	Controller J5-5	Elev. Motor P9-5
Elev. Mtr Down	120VAC	Black	Controller J5-4	Elev. Motor P9-4
Elev. Mtr. Com	0V	White	Controller J5-6	Elev. Motor P9-6
Elv. 5VDC In	5VDC	Brown	Controller J5-1	Elev. Motor P9-1
VR_POS	0.5 - 3.6VDC	Orange	Elev. Motor P9-2	Controller J5-2
VR_GND	0V	Blue	Controller J5-3	Elev. Motor P9-3
RPM	On 0V, Off 5VDC	Black	RPM Sensor P8-1	Controller J6-1
RPM	On 0V, Off 5VDC	Black/White stripe	RPM Sensor P8-2	Controller J6-2

Wiring Diagram

700Tm



Signal Name	Signal Level	Color	From	To
+11V	10-15VDC	Black	Controller J3-1	P3-1, P2-1, Console P1-1
Up	Down: 0V UP: 5VDC	Red	Console P1-3	P2-3, P3-3, Controller J3-3
Down	Down: 5VDC UP: 0V	Brown	Console P1-2	P2-2, P3-2, Controller J3-2
+11V	10-15VDC	Orange	Controller J3-4	P3-4, P2-4, Console P1-4
On/Off	10-12VDC	Yellow	Console P1-5	P2-5, P3-5, Controller J3-5
PWM	0.3 - 3.5VDC	Green	Console P1-6	P2-6, P3-6, Controller J3-6
GND	0V	Blue	Controller J3-7	P3-7, P2-7, Console P1-7
GND	0V	Purple	Controller J3-8	P3-8, P2-8, Console P1-8
RPM	On 0V, Off 5VDC	Gray	Controller J3-9	P3-9, P2-9, Console P1-9
5VDC_OUT	5VDC	White	Console P1-10	P2-10, P3-10, Controller J3-10
VR_POS	0.5 - 4.4VDC	Pink	Controller J3-11	P3-11, P2-11, Console P1-11
VR_GND	0V	Lt. Blue	Console P1-12	P2-12, P3-12, Console J3-12
AC IN	120	Black	Source	ON/OFF SW, Circuit Braker, P6, Controller AC/L1
AC IN	120	White	Source	ON/OFF SW, P7, Controller N/L2
Motor +	0-90V	Red	Controller A1	Drive Motor P4
Motor -	0	Black	Controller A2	Drive Motor P5
Elev. Mtr Up	120VAC	Red	Controller J5-5	Elev. Motor P9-5
Elev. Mtr Down	120VAC	Black	Controller J5-4	Elev. Motor P9-4
Elev. Mtr. Com	0V	White	Controller J5-6	Elev. Motor P9-6
Elv. 5VDC In	5VDC	Brown	Controller J5-1	Elev. Motor P9-1
VR_POS	0.5 - 4.4VDC	Orange	Elev. Motor P9-2	Controller J5-2
VR_GND	0V	Blue	Controller J5-3	Elev. Motor P9-3
RPM	On 0V, Off 5VDC	Black	RPM Sensor P8-1	Controller J6-1
RPM	On 0V, Off 5VDC	Black/White stripe	RPM Sensor P8-2	Controller J6-2
HGP - LH	0 Ω	BROWN	HGP Sensor	P10-3, Console
HGP COM - LH	0 Ω	BLACK	HGP Sensor	P10-2, Console
HGP SHIELDING - LH	0 Ω	Black/White stripe	HP Wire Harness	P10-1, Console
HGP - RH	0 Ω	BROWN	HGP Sensor	P11-3, Console
HGP COM - RH	0 Ω	BLACK	HGP Sensor	P11-2, Console
HGP SHIELDING - RH	0 Ω	Black/White stripe	HP Wire Harness	P11-1, Console

Treadmill Specifications

	700Tm	600Tm	500Tm
Console Display	2 LED Windows plus Dot Matrix, HR Bar & Scrolling Alphanumeric Display	5 LED Windows plus Dot Matrix	5 LED Windows plus Dot Matrix
Programs	Manual, Random Hills, Interval Trainer, Hill Walk, Easy Jog, Thigh Burner, Glute Toner, Fast Track, 5K Train & 10K Run	Manual, Random Hills, Interval Trainer, Hill Walk, Easy Jog, Thigh Burner, 5K Train & 10K Run	Manual, Random Hills, Interval Trainer, Hill Walk, Easy Jog, 5K Train
	Target HR, HR Intervals, HR Hill, Cardio Training	Target HR, HR Intervals, HR Hill, Cardio Training	Target HR, HR Intervals
	4 Custom Programs	4 Custom Programs	
	Cardio Coach A & B		
Console Feedback	Incline, Speed, Time, Seg. Time, Distance, Ave. Speed, Vertical Distance, Pace, Ave. Pace, Calories, CAL/min, METs, Heart Rate, %max HR	Incline, Speed, Time, Distance, Pace, Calories, CAL/min, Heart Rate, %max HR	Incline, Speed, Time, Distance, Pace, Calories, CAL/min, Heart Rate, %max HR
Numeric Quick Keys	Yes	Yes	No
Heart Rate Device	Contact handgrips and Polar® compatible wireless receiver (includes chest strap)	Polar® compatible wireless receiver (includes chest strap)	Polar® compatible wireless receiver (chest strap optional)
Drive Motor	3.0HP continuous duty	3.0HP continuous duty	2.5HP continuous duty
Motor Controller	PWM	PWM	PWM
Speed Range (MPH)	0.5 - 12	0.5- 11	0.5 - 11
Max. Incline	15%	12%	12%
Frame	Heavy Gauge Steel Welded Frame	Heavy Gauge Steel Welded Frame	Heavy Gauge Steel Welded Frame
Running Area	20" x 60"	20" x 55"	20" x 55"
Running Belt	2-ply anti-static	2-ply anti-static	2-ply anti-static
Lubrication	Silicone Lubricant	Silicone Lubricant	Silicone Lubricant
Running Deck	1" shock-mounted	1" shock-mounted	1" shock-mounted
Roller Diameter	2.5"	2.5"	2.5"
Handlebar	Krayton Comfort Grips	Krayton Comfort Grips	Krayton Comfort Grips
User Weight Capacity	350lb	350lb	350lb
Product Weight	272lb	257lb	257lb
Dimensions (Assembled)	88"L x 33"W x 58"H	83" x 33" x 58"	83" x 33" x 58"
Dimensions (Packaged)	91"L x 31"W x 19"H	85" x 31" x 19"	85" x 31" x 19"
Warranty (Home)			
Frame	Lifetime Limited	Lifetime Limited	Lifetime Limited
Drive Motor	Lifetime Limited	Lifetime Limited	Lifetime Limited
Parts & Electronics	5 years	5 years	5 years
Wear Items (Foam Grips, other touch points)	90 days	90 days	90 days
Labor	1 year	1 year	1 year

Product Service Policy

All Diamondback Fitness Dealers are required to agree to the following. This document outlines the relationship between Diamondback and our authorized dealers in the areas of: a) service after sales; b) warranty parts support and purchase; and c) labor authorization and support.

- 12 It is the responsibility of the Dealer to diagnose/troubleshoot, service, repair or otherwise correct any problems that may occur with a Diamondback Fitness Product that they sell, regardless of where the product has been placed.
- 13 Initial assembly of each Diamondback Fitness unit is the responsibility of the dealer. The Dealer is responsible for any damage and or costs incurred due to improper assembly, accident, misuse, improper maintenance or failure to follow instructions, and or warnings in the owner's manual.
- 14 All warranties are valid from the original date of purchase to the original purchaser only [proof of purchase is required]. In the event that the original date of purchase cannot be verified, the warranty will be valid from six (6) months after the manufacturing date of the unit.
- 15 Warranty exclusions for Diamondback products placed under light commercial warranty include: health clubs, schools or correctional facilities.
- 16 Diamondback Fitness will credit the Dealer's account a flat rate of US\$75 for each pre-authorized labor claim. The credit will be issued one time to correct a problem on a unit. Additional labor claims can be submitted against the unit if another [different] problem occurs during the labor period.
- 17 If, after working with the Diamondback Fitness Warranty/Technical department a minimum of three separate occasions, it is determined that we cannot repair a specific problem with a unit, Diamondback will RA the unit and replace, freight prepaid.
- 18 Defective return units must be boxed in suitable packaging and include all parts and accessories originally included with the unit. Any parts missing or damage incurred due to improper packaging will be deducted from the total credit at listed dealer cost.
- 19 All Diamondback Fitness Dealers will be billed for warranty replacement parts. Dealers receive credit upon return of the replacement parts to Diamondback. See Warranty Credit Processing policy for more details.
- 20 All returned, potentially defective, items are tested on arrival to Diamondback. Dealer will incur a bench charge for any items that are determined to be in good working order and not defective. Dealer will incur a bench charge, be re-invoiced for the original cost of the item[s], and will have item[s] returned freight collect if defective due to abuse; improper installation. See Warranty Credit Processing policy for more details.
- 21 All Labor Credits must be submitted on the proper Diamondback Fitness form, with a Diamondback Fitness Authorization Number within 30 days of acquiring authorization. We cannot process incomplete forms.
- 22 Any outstanding unapplied labor credits may be voided if Dealer account goes past due.

Effective Date: August 3rd, 2006

Warranty Information

(Applies to all product sold and placed within the continental US only) **Effective: August 2006**

Diamondback warrants its Treadmills to be free from defects in material and workmanship under normal use in the home. Diamondback's obligation under this Warranty is limited to repair or replacement of any defective part without charge through an authorized service agent to the original purchaser with the following parameters:

Who is Covered

The Warranty is extended to the individual or legal entity whose name appears on the Warranty registration card filed with Diamondback and may not be transferred to any other individual or legal entity.

To obtain service

To obtain service you must contact your authorized Diamondback Fitness dealer. Your dealer is also your authorized service agent. An authorized service agent must diagnose your unit in order to determine Warranty claims/issues.

Sales where the unit is delivered unassembled (in a carton) to the end user (e.g. mail order or Internet sales) without a service contract purchased through the dealer voids the Warranty.

Warranty Registration

Warranty commitments are valid only with a completed Warranty card that is returned within reasonable time frame from the date of purchase and includes the product serial number. Online registration is available at www.diamondbackfitness.com.

Proof of purchase from Diamondback's authorized dealer will be required if the Warranty card is not registered prior to any consideration of Warranty claim.

What is covered

500Tm, 600Tm and 700Tm Warranty term:

Home Environment use only

Maximum usage: 14 hours per week.

Frame: Lifetime limited warranty, covers defects in welds, materials and workmanship.

Parts & Electronics: 5 Years

Motor Lifetime limited

Normal Wear Items: 90-day limited

Labor: 1 Year



Warranty Information

Warranty voided if

The Warranty does not apply to any failure of the product, or any parts of the product, due to: assembly errors, alterations, modifications, misuse, abuse, accident, improper maintenance, or if the serial number on the product has been removed, altered or defaced. Assembly errors include but are not limited to:

- Damaged wire harness
- Bolts used in the wrong location

Parts & Service

Contact the authorized Diamondback dealer where unit was originally purchased. If you have moved, or that retailer is unavailable, use our dealer locator at www.diamondbackfitness.com to help find another authorized dealer.

Diamondback is not responsible for arranging Warranty service and/or honoring extended warranties provided by dealers.

Exclusions:

Warranty is void if the unit is placed in any commercial or light institutional environment, such as health club, school, or correctional facility.

Additional Rights

This Warranty is expressly in lieu of all other warranties, and any implied warranties of merchantability or fitness for a particular purpose created hereby, are limited to the same duration as the express Warranty herein. Diamondback Fitness Inc. shall not be liable for any incidental or consequential damages. Some states do not allow the exclusion or limitations of implied warranties, incidental or consequential, so the above limitations and exclusions may not apply to you.

Retailers and wholesale outlets for Diamondback Fitness Inc. products are not authorized to modify this Warranty in any way.

This Warranty gives the original owner specific legal rights. Other additional rights may vary from state to state.

Diamondback Fitness Inc.
300 Camarillo Ranch Road
Camarillo, CA 93012
800-776-7642

Ordering Replacement Parts



Please review the following information before placing any order with the Diamondback Warranty Department:

1. Look up the needed part the Diamondback exercise unit in the appropriate Service Manual.
There are pages that list all sub assembly parts in the Service Manual.
2. The part will be marked with a three (3) digit number. This number corresponds to the last three (3) numbers in the DB SKU (DB stock keeping unit number). On the Parts List page, which faces the expanding drawing, all drawing numbers are listed in descending numerical order. Next to the drawing number, we list the full DB SKU number, part description, and page number where you will find the exploded view of the part you have selected.
3. When you turn to the proper page, the Diamondback SKU number will be at the top and the picture will show all the items that are included with that specific part.
4. If the part is to be ordered as a warranty replacement, be prepared to give the following information at your time of order placement:
 - a) The type and model unit.
 - b) The purchase date.
 - c) The serial number of the unit.
 - d) The symptoms the unit is displaying.
5. Diamondback National Warranty can be reached at 800.776.7642 to place parts orders or get troubleshooting advice.

Warranty Order/ Credit Processing

When a warranty parts order is placed and shipped, your account will be invoiced for the parts shipment. In order to receive credit for the warranty parts shipment, you MUST return the assumed defective parts to Diamondback. We will bench test all returned parts. To ensure your credit is properly processed, please follow these steps:

1. **Keep paperwork and parts:**
Keep all warranty order packing slips along with all part(s) you have diagnosed as defective. If we have invoiced your account (packing slip will have a cost greater than \$0.00) for the replacement parts with a charge, in order to receive credit back, you must send the part(s) back. If you destroy any diagnosed defective parts and therefore do not send the parts back to Diamondback for testing and credit, the invoice for the replacement part will now become due.
2. **Review the paperwork:**
If you have any questions or are not certain which parts need to be returned, please call Diamondback Warranty at 800.776.7642 to review the packing slip and returns.
3. **Send the part:**
If any of the item(s) on the packing slip have a cost greater than \$0.00, a Return Service Tag will be included in the carton by Diamondback. Send the return item(s) along with the packing slip back to Diamondback using the Return Service Tag. Of course, the carton can also be reused to ship the part(s) back to Diamondback.

Note: Products must be returned within 45 days in order to receive proper processing of dealer claim and credit.
4. **Testing:**
All returned, potentially defective items will be tested on arrival. Dealer will incur a US\$30 bench charge for any items that are determined to be in good working order and not defective. Dealer will incur US\$30 bench charge, be re-invoiced for the original cost of the item(s), and will have the item(s) returned freight collect if defective due to abuse or improper installation. See Warranty Credit policy for more details.

WHAT IF?

1. **What if all the items on the packing slip shows a \$0.00 cost?:**
If all the items on the packing slip are zero cost, please properly destroy all old parts you are replacing. This type of parts shipment is a “destroy-in-field” shipment. Promptly destroy and dispose the old parts.
2. **What if there are items that you need to return but did not receive an return tag?:**
Call Diamondback Warranty at 800.776.7642 and we will immediately mail a tag to you.
3. **What if my account has not been credited for parts I have shipped back?:**
It normally takes 30-45 days to post a credit (shipping, testing, paper processing). Depending on the billing cycle, it is possible the parts credit did not appear on the first statement after return. Do not deduct credits you feel you might be owed from another invoice! This will greatly complicate your statement. If you have any questions about a credit status, please call Diamondback Warranty at 800.776.7642. We will be able to give you an update regarding where the credit stands within the system.

Effective date: August 25th, 2005

Labor Credit Policy

In the event a Diamondback Fitness unit is delivered with a factory defect or if a malfunction occurs within the prescribed warranty period, an authorized Diamondback Fitness dealer may seek credit for his expended labor. To insure prompt credit for your labor, Diamondback requires authorized Diamondback Fitness dealers to follow the guidelines listed below:

1. Verify the purchase date of the unit. Proof of Purchase may be required. In the event that the original date of purchase cannot be verified, the warranty will be valid from six [6] months after the manufacturing date of the unit.
2. Verify the warranty of the unit. The Warranty for a Diamondback Fitness unit can be found in the back of the original owner's manual.
3. Call Diamondback's National Warranty / Customer Service PRIOR to attempting any repairs to receive a work authorization number. Please be prepared to give the following information:
 - a. Your Diamondback account number and location
 - b. Model of unit
 - c. Specific problem the unit is experiencing
 - d. Date of purchase
 - e. Serial number of unit
4. If appropriate, the Diamondback Warranty/Customer Service Representative will issue a work authorization number and/or enter an order for the necessary parts.
5. The Diamondback labor credit form must be completely filled out. We cannot process incomplete paperwork:
 - a. If the labor claim meets all the above listed criteria, Diamondback Fitness will credit the dealer's account a flat rate of US\$75 for each pre-authorized claim. The credit will be issued one time to correct a problem on a unit. Addition labor claims can be submitted against the unit if another [different] problem occurs during the labor period.
 - b. Once the servicing Diamondback Fitness dealer or Service Provider receives the parts, he should make the necessary repairs and complete the labor credit form.
 - c. Once the labor credit form has been filled out, return it to the address listed below or fax it to Diamondback Warranty at [800] 395-9548 within 30 days of date of issue.
6. All Diamondback Fitness Dealers or Service Providers will be billed for warranty replacement parts. For a Dealer or Provider to receive credit on the replacement parts they a] must box up the defective parts with a copy of the

Labor Credit Policy

original packing slip; b] attach the included Return Tag and deliver the package to the local carrier [DHL]. After the parts are received and tested, a credit will be issued for the original invoice. All returned, potentially defective, items will be tested on arrival. Dealer or provider will incur a US\$30 bench charge for any items that are determined to be in good working order and not defective. Dealer or provider will incur a US\$30 bench charge, be re-invoiced for the original cost of the item[s], and will have item[s] returned freight collect if defective due to abuse; improper installation.

7. Any outstanding unapplied labor credits may be voided if Dealer or Service Provider account goes past due.

If you have any questions, contact National Warranty / Customer Service Department @ [800] 776 7642.

Effective Date: August 25th, 2005

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Labor Credit Form

NOTICE: You MUST call Diamondback Fitness and obtain a DB Authorization Number PRIOR to performing service. **ANY FORM SUBMITTED INCOMPLETE WILL BE REFUSED.**

DB Authorization Number: _____ Date of Repair: _____

Dealer's Information: (Please Print Clearly)

Account Name: _____

Account Number: _____ Technician's Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Facility's / Consumer's Information that Received Service:

Name: _____

Address: _____

Phone Number: _____ Contact: _____

Unit Information:

Model Repaired (i.e.: 700Tm): _____ Date Unit Purchased: _____

Serial Number: _____

Description of Problem:

Repair Performed:

Product History Report

Dealer:		Service Date	Sales Order	RA Number
Account Number:		1		
Technician:		2		
Phone:		3		
Fax:		4		
Model:		5		
Serial Number:	- Sales Order # for any parts received for repair. - RA Number for labor authorization for repair.			
Consumers Name:				
Date of Purchase:				
Consumer Phone/Fax/Contact:				
Consumer Address:				

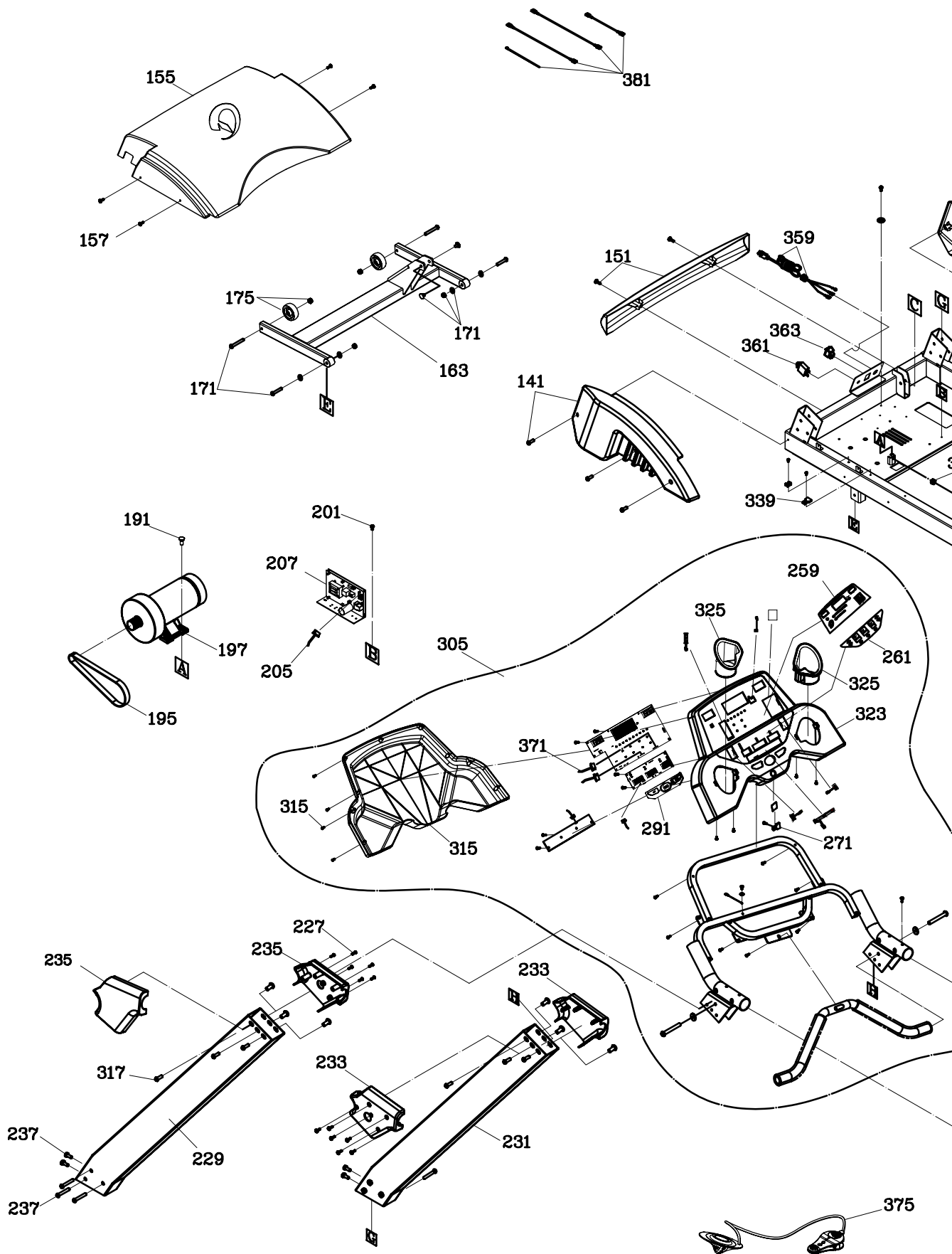
Service Information All fields must be filled out completely including the sales order number which replacement parts (if any) were ordered under.
Original Complaint
1st Service (parts replaced)
2nd Service (parts replaced)
3rd Service (parts replaced)
Fill out form completely and fax to the Diamondback Fitness Warranty department at 1-800-395-9548. Any potential unit return must meet the criteria set forth in the Product Service Policy, Line item 7, a copy of which is attached with this sheet.

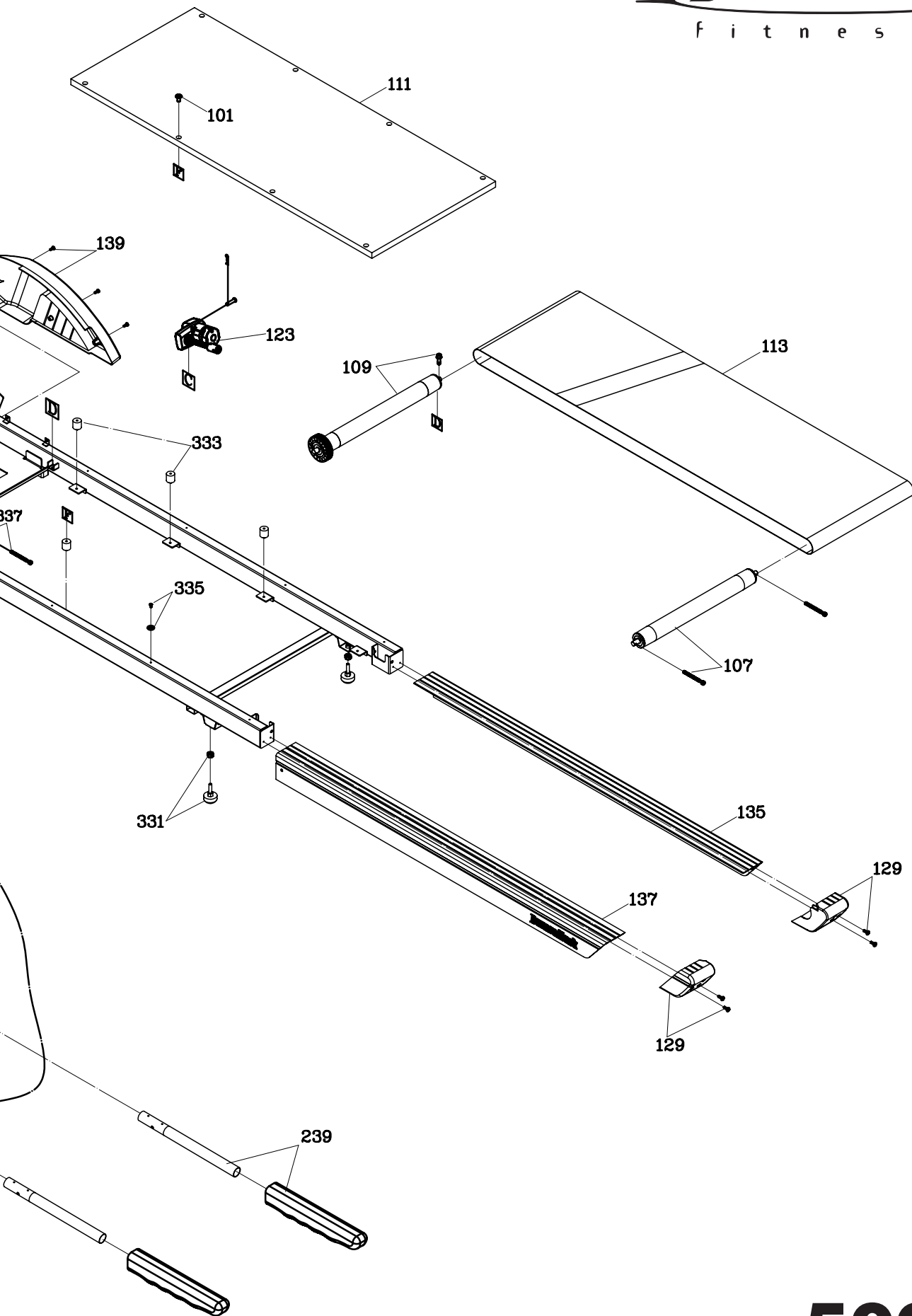
Treadmills Parts List

Exploded Dwg No.	Part Number	Description	Model	Model	Model	Page Number
101	22-13-101	Deck Screws	700Tm	600Tm	500Tm	55
103	22-13-103	Deck	700Tm	x	x	56
105	22-13-105	Running Belt	700Tm	x	x	57
107	22-13-107	Rear Roller	700Tm	600Tm	500Tm	58
109	22-13-109	Front Roller	700Tm	600Tm	500Tm	59
111	22-13-111	Deck	x	600Tm	500Tm	60
113	22-13-113	Running Belt	x	600Tm	500Tm	61
121	22-13-121	Elevation Motor	700Tm	x	x	62
123	22-13-123	Elevation Motor	x	600Tm	500Tm	63
129	22-13-129	End Caps	700Tm	600Tm	500Tm	64
131	22-13-131	Right Side Step Rail	700Tm	x	x	65
133	22-13-133	Left Side Step Rail	700Tm	x	x	66
135	22-13-135	Right Side Step Rail	x	600Tm	500Tm	67
137	22-13-137	Left Side Step Rail	x	600Tm	500Tm	68
139	22-13-139	Front Cover - Right Side	700Tm	600Tm	500Tm	69
141	22-13-141	Front Cover - Left Side	700Tm	600Tm	500Tm	70
143	22-13-143	End Cap Bolt Kit	700Tm	600Tm	x	71
151	22-13-151	Front Cover - Front	700Tm	600Tm	500Tm	72
155	22-13-155	Motor Cover	700Tm	600Tm	500Tm	73
157	22-13-157	Motor Cover's Bolts x 4	700Tm	600Tm	500Tm	74
161	22-13-161	H Bracket	700Tm	x	x	75
163	22-13-163	H Bracket	x	600Tm	500Tm	76
171	22-13-171	H Bracket Hardware Kit	700Tm	600Tm	500Tm	77
175	22-13-175	Front Roller Wheels	700Tm	600Tm	500Tm	78
191	22-13-191	Drive Motor Hardware Kit	700Tm	600Tm	500Tm	79
193	22-13-193	Drive Motor w/Hardware and Drive Belt	700Tm	600Tm	x	80
195	22-13-195	Drive Belt	700Tm	600Tm	500Tm	81
197	22-13-197	Drive Motor w/Hardware and Drive Belt	x	x	500Tm	82
201	22-13-201	Controller Hardware Kit	700Tm	600Tm	500Tm	83
203	22-13-203	Controller	700Tm	600Tm	x	84
205	22-13-205	Main Wire Harness - Controller Board	700Tm	600Tm	500Tm	85
207	22-13-207	Controller	x	x	500Tm	86
219	22-13-219	Console Mast Left Side	700Tm	600Tm	x	87
221	22-13-221	Console Mast Right Side	700Tm	600Tm	x	88
223	22-13-223	Console Mast Covers - Right Side	700Tm	600Tm	x	89
225	22-13-225	Console Mast Covers - Left Side	700Tm	600Tm	x	90
227	22-13-227	Console Mast Cover Hardware Kit	700Tm	600Tm	500Tm	91
229	22-13-229	Console Mast Left Side	x	x	500Tm	92
231	22-13-231	Console Mast Right Side	x	x	500Tm	93
233	22-13-233	Console Mast Covers - Right Side	x	x	500Tm	94
235	22-13-235	Console Mast Covers - Left Side	x	x	500Tm	95
237	22-13-237	Console Mast Hardware Kit	700Tm	600Tm	500Tm	96
239	22-13-239	Handrails w/Grips - Pair	700Tm	600Tm	500Tm	97
251	22-13-251	Upper Overlay & Keypads	700Tm	x	x	98

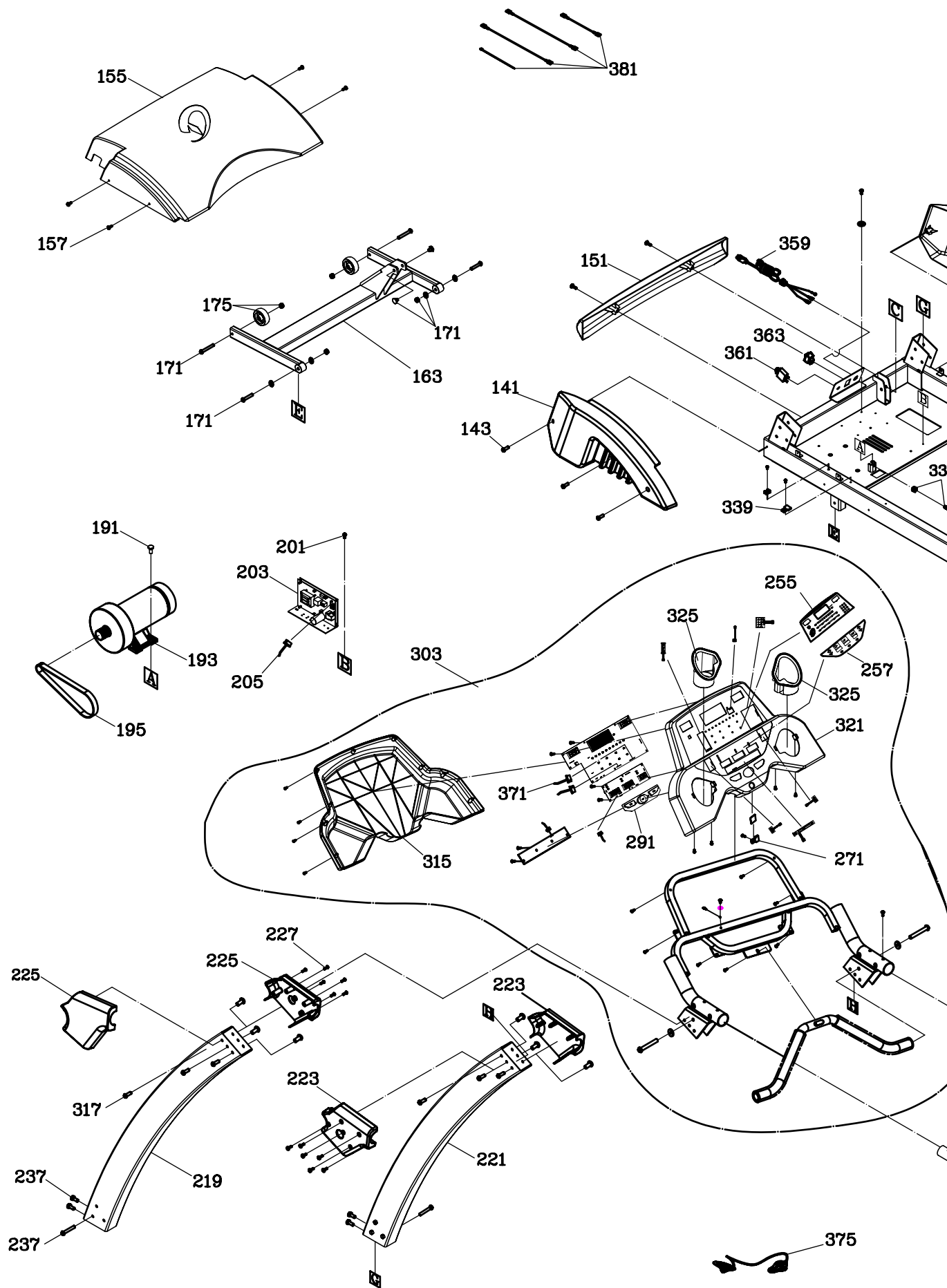
Treadmills Parts List

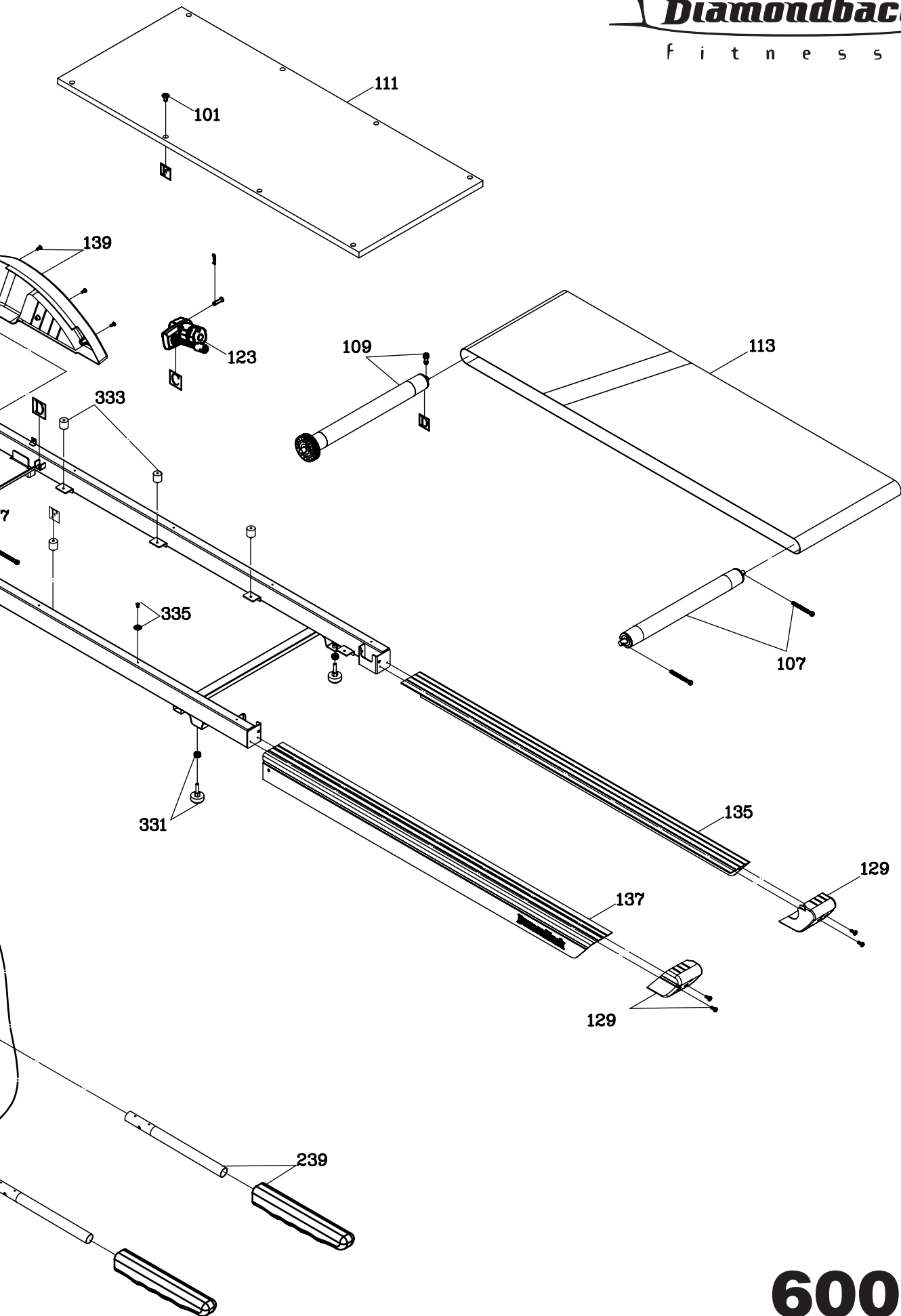
Exploded Dwg No.	Part Number	Description	Model	Model	Model	Page Number
253	22-13-253	Lower Overlay & Keypads	700Tm	x	x	99
255	22-13-255	Upper Overlay & Keypads	x	600Tm	x	100
257	22-13-257	Lower Overlay & Keypads	x	600Tm	x	101
259	22-13-259	Upper Overlay & Keypads	x	x	500Tm	102
261	22-13-261	Lower Overlay & Keypads	x	x	500Tm	103
271	22-13-271	Reed Switch for Safety Key	700Tm	600Tm	500Tm	104
291	22-13-291	Rubber Start/Stop/Enter Keys	700Tm	600Tm	500Tm	105
301	22-13-301	700Tm Console Assembly	700Tm	x	x	106
303	22-13-303	600Tm Console Assembly	x	600Tm	x	107
305	22-13-305	500Tm Console Assembly	x	x	500T-m	108
311	22-13-311	Handpulse Sensors & Hardware	700Tm	x	x	109
313	22-13-313	Handpulse Harness	700Tm	x	x	110
315	22-13-315	Console - Back Cover and Bolts	700Tm	600Tm	500Tm	111
313	22-13-317	Console Hardware Kit for Back Cover	700Tm	600Tm	500Tm	112
319	22-13-319	Console - Front Cover	700Tm	x	x	113
321	22-13-321	Console - Front Cover	x	600Tm	x	114
323	22-13-323	Console - Front Cover	x	x	500Tm	115
325	22-13-325	Console Cup Holders	700Tm	600Tm	500Tm	116
331	22-13-331	Rear Stabilizers	700Tm	600Tm	500Tm	117
333	22-13-333	Deck Impact Absorbers	700Tm	600Tm	500Tm	118
335	22-13-335	Side Rail Guide Screws	700Tm	600Tm	500Tm	119
337	22-13-337	Drive Belt Jack Screw	700Tm	600Tm	500Tm	120
339	22-13-339	RPM Sensor	700Tm	600Tm	500Tm	121
355	22-13-355	Input Jack	700Tm	600Tm	500Tm	122
357	22-13-357	Power Cord - Removable	700Tm	600Tm	500Tm	123
359	22-13-359	Power Cord - Non-removable	700Tm	600Tm	500Tm	124
361	22-13-361	Circuit Breaker	700Tm	600Tm	500Tm	125
363	22-13-363	Power Switch	700Tm	600Tm	500Tm	126
371	22-13-371	Main Wire Harness - Console	700Tm	600Tm	500Tm	127
375	22-13-375	Safety Key	700Tm	600Tm	500Tm	128
381	22-13-381	Wire Jumpers	700Tm	600Tm	500Tm	129



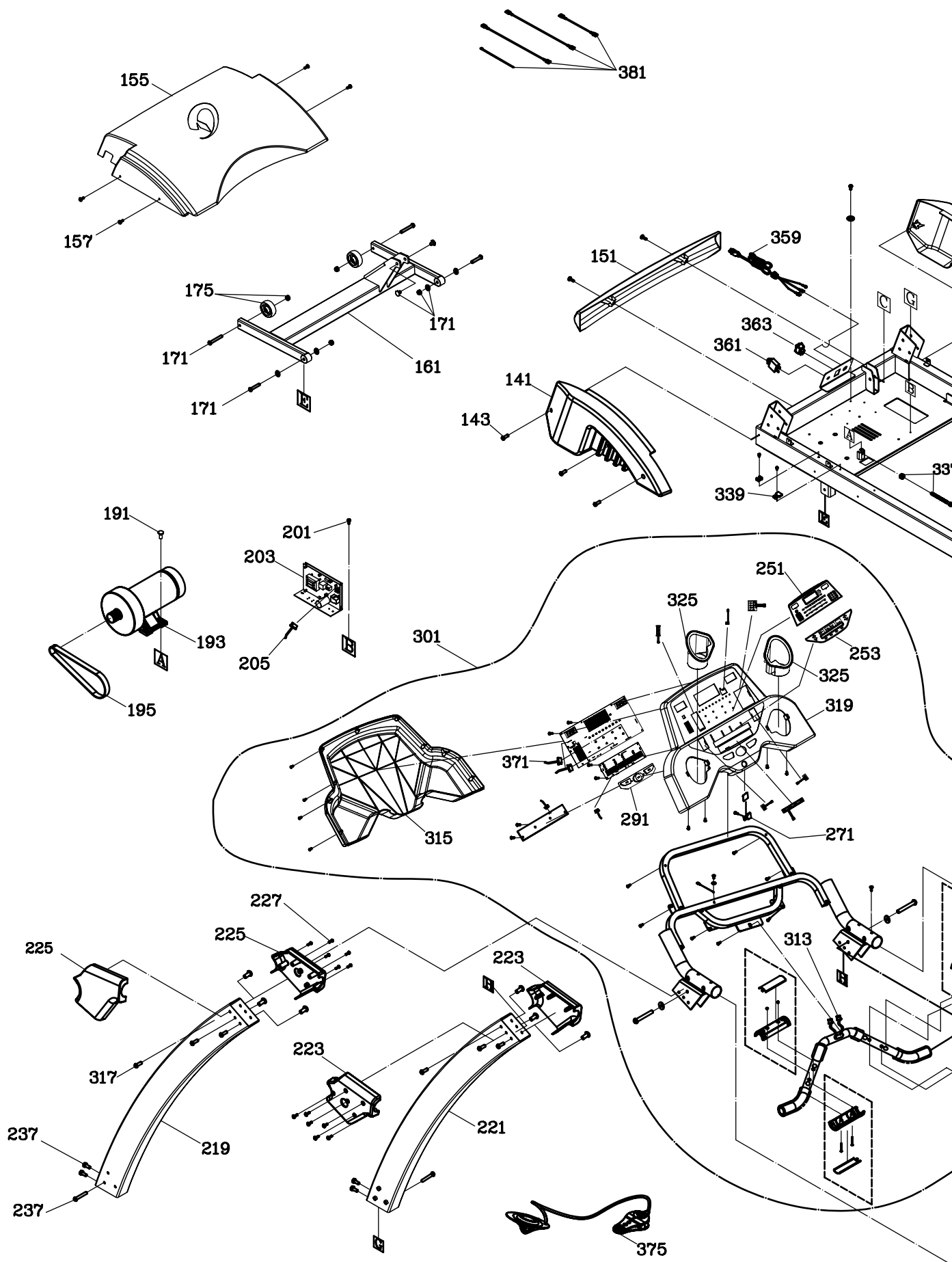


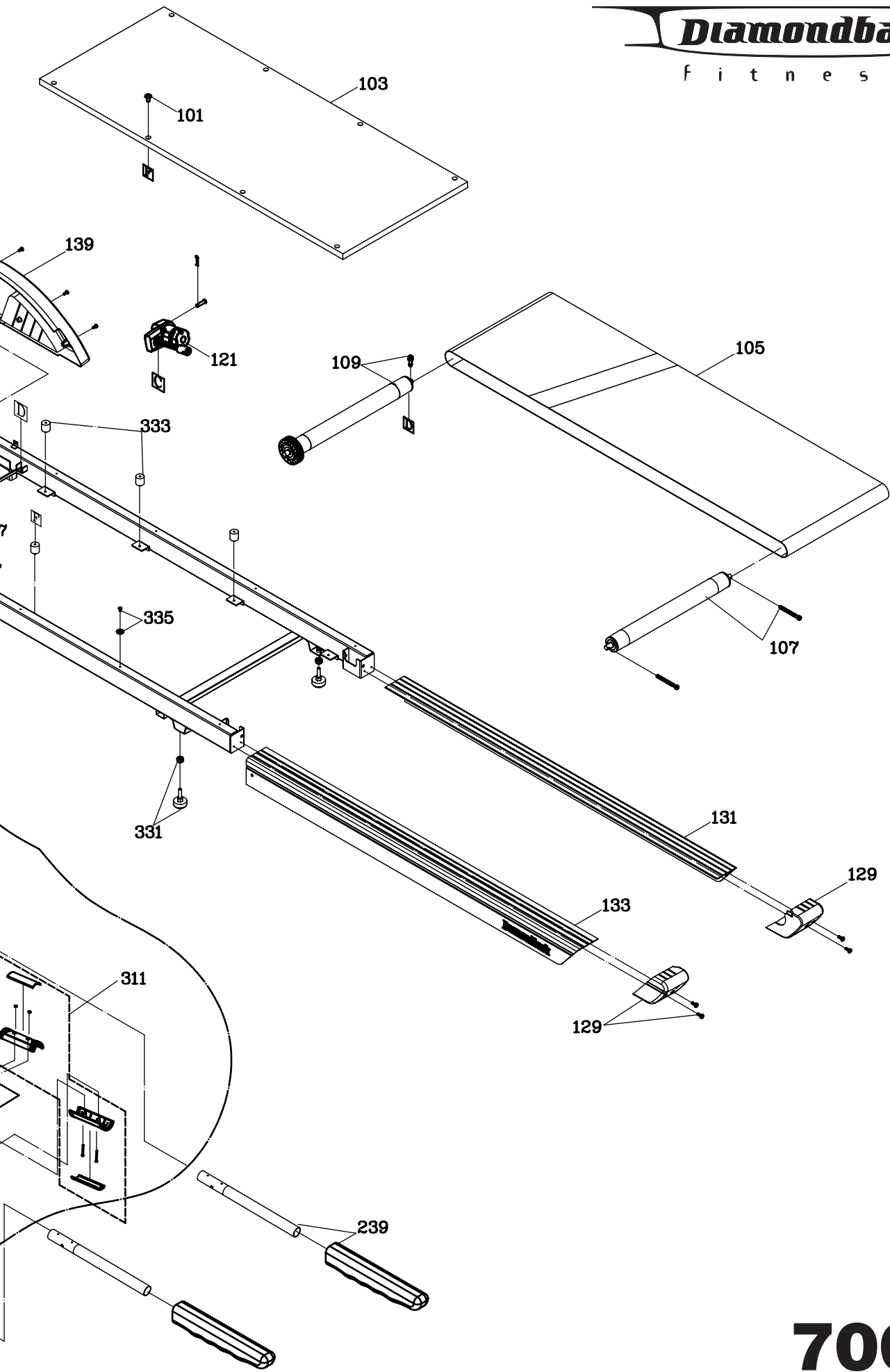
500Tm





600Tm



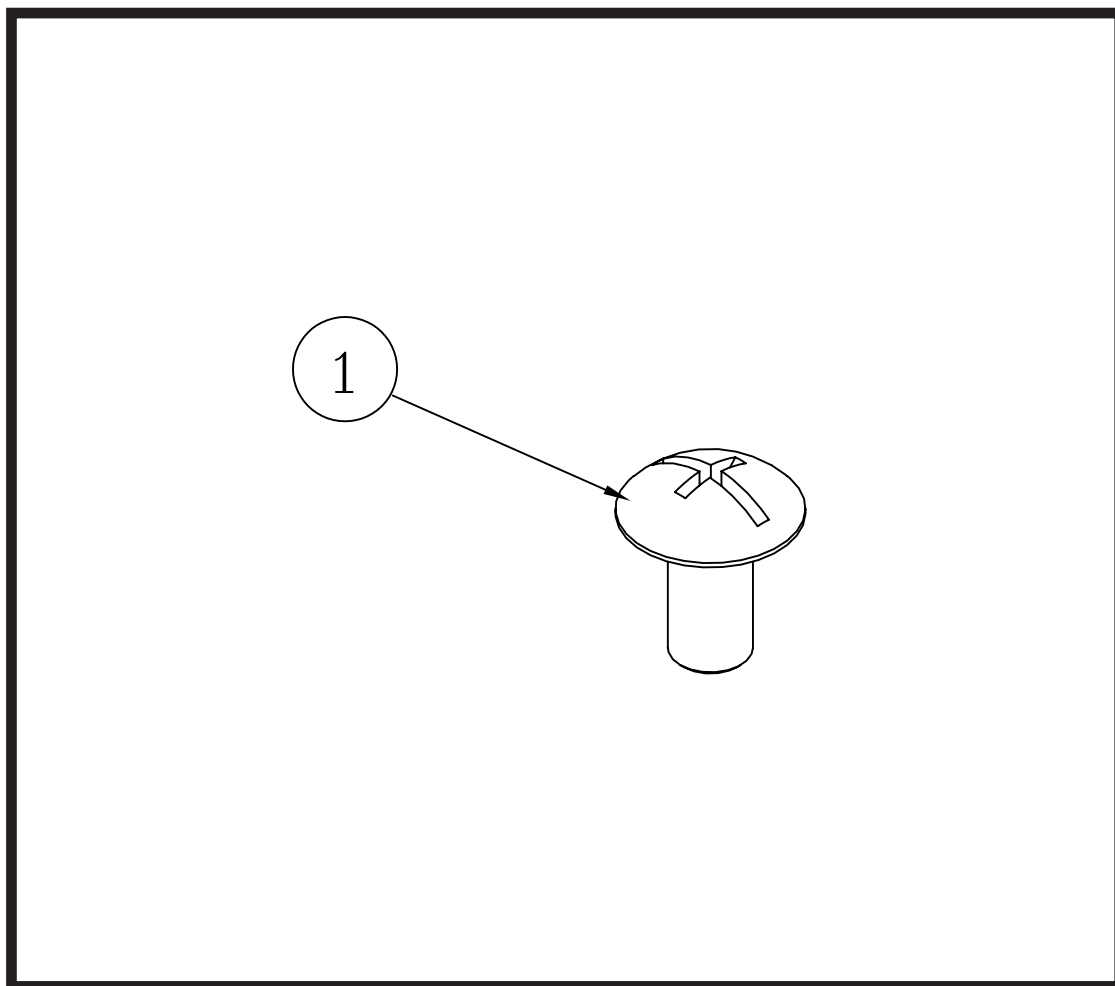


700Tm

22-13-101

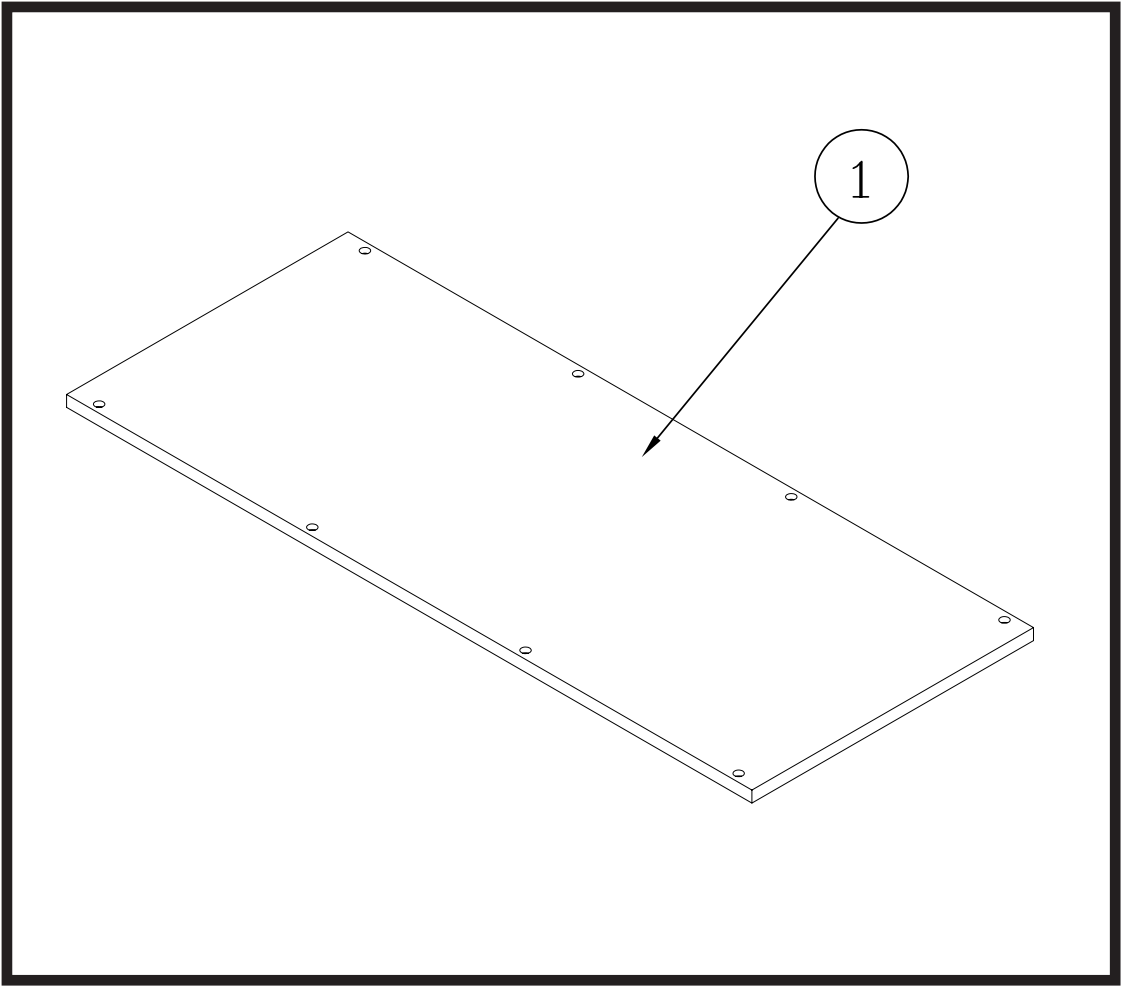
Deck Screw

500, 600, 700Tm



Description	Quantity	Item Number
Deck Screws	8	1

22-13-103
Deck
700Tm

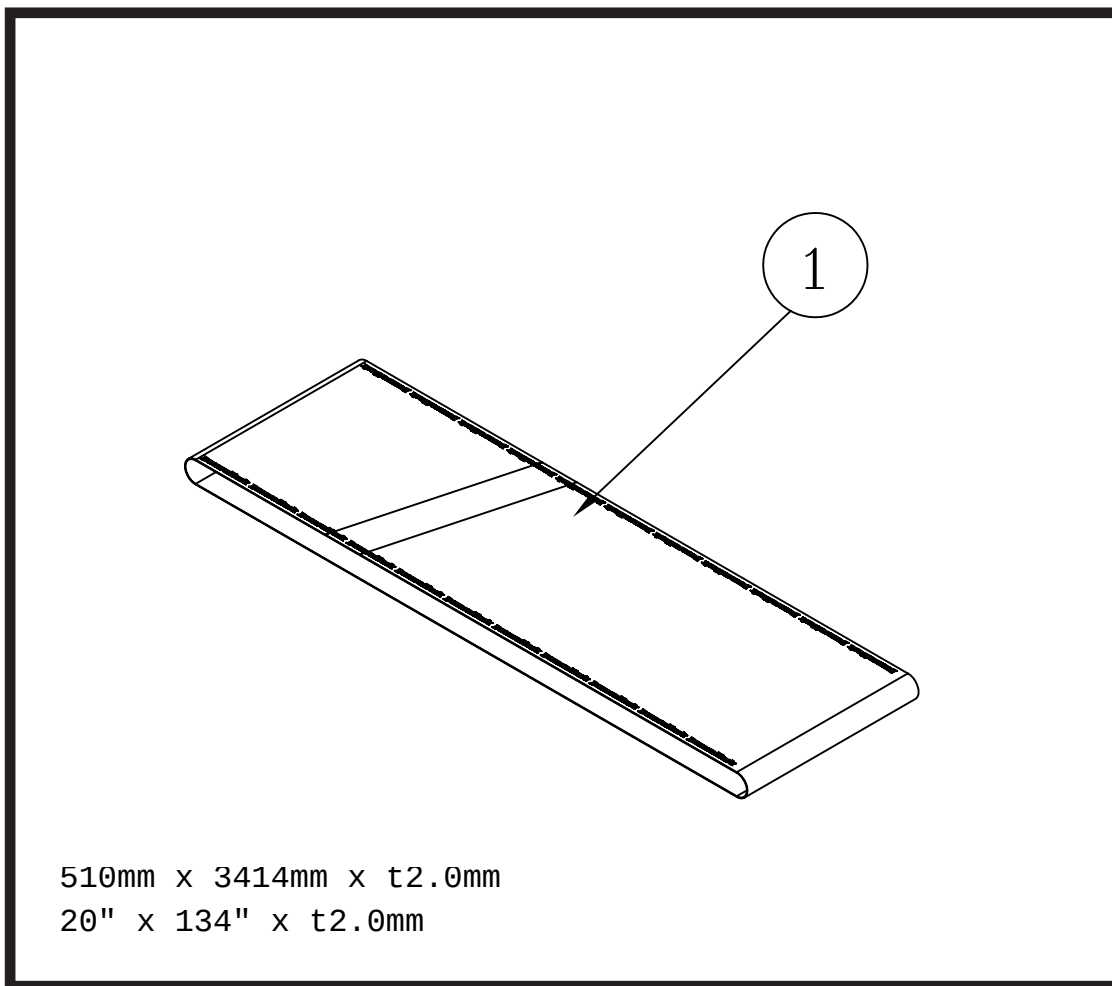


Description	Quantity	Item Number
Deck	1	1

22-13-105

Running Belt

700Tm

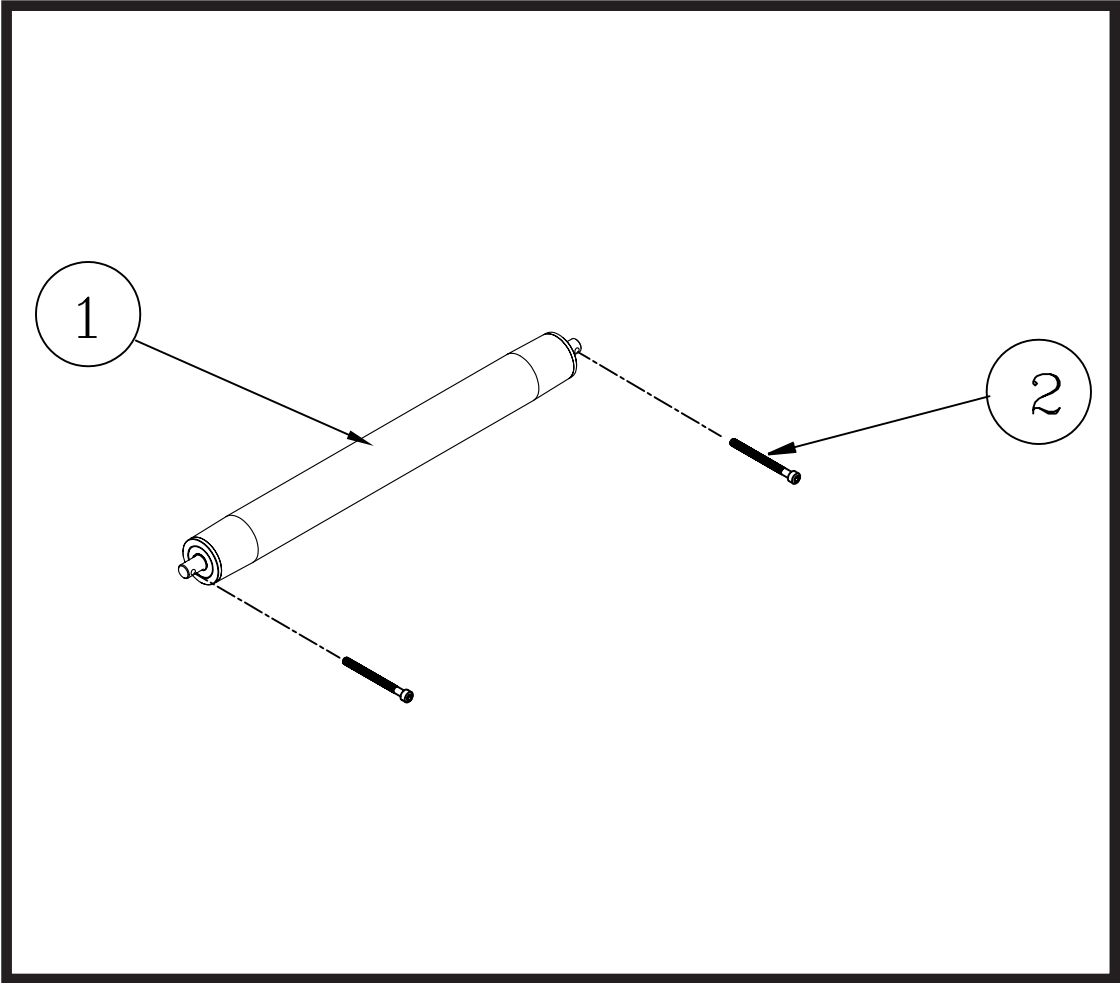


Description	Quantity	Item Number
Running Belt.....	1	1

22-13-107

Rear Roller

500, 600, 700Tm

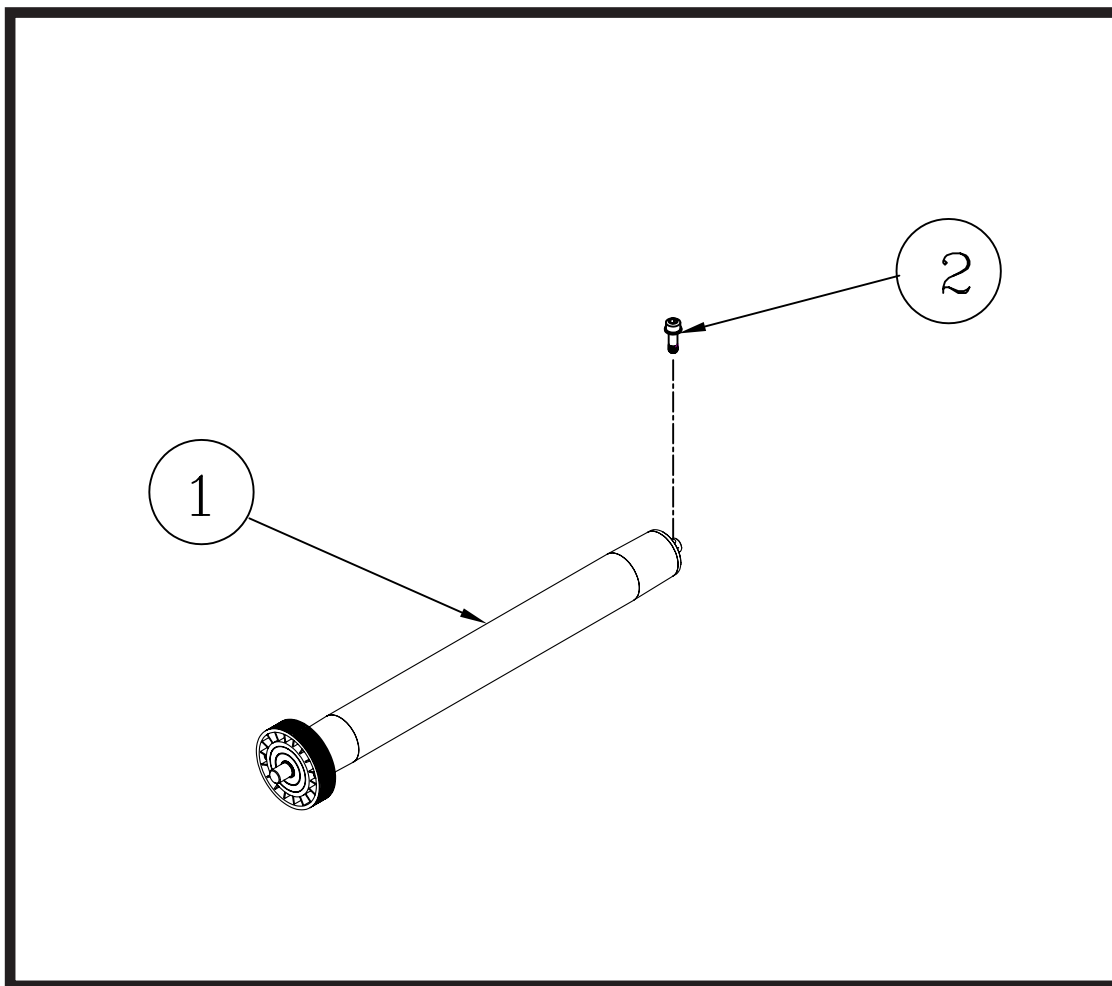


Description	Quantity	Item Number
Rear Roller.....	1	1
Bolts	2	2

22-13-109

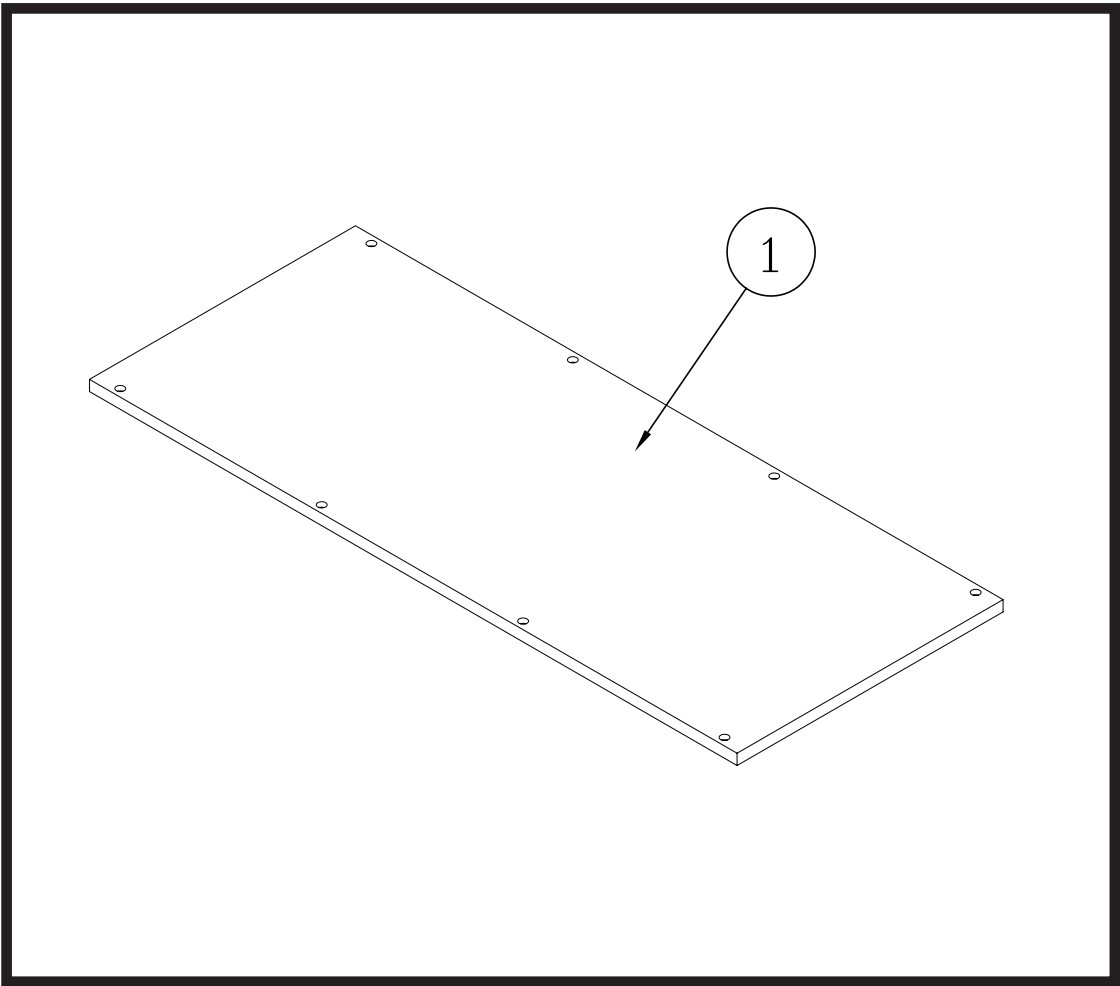
Front Roller

500, 600, 700Tm



Description	Quantity	Item Number
Front Roller w/Pulley	1	1
Front Roller Bolt	1	1

22-13-111
Deck
500, 600Tm

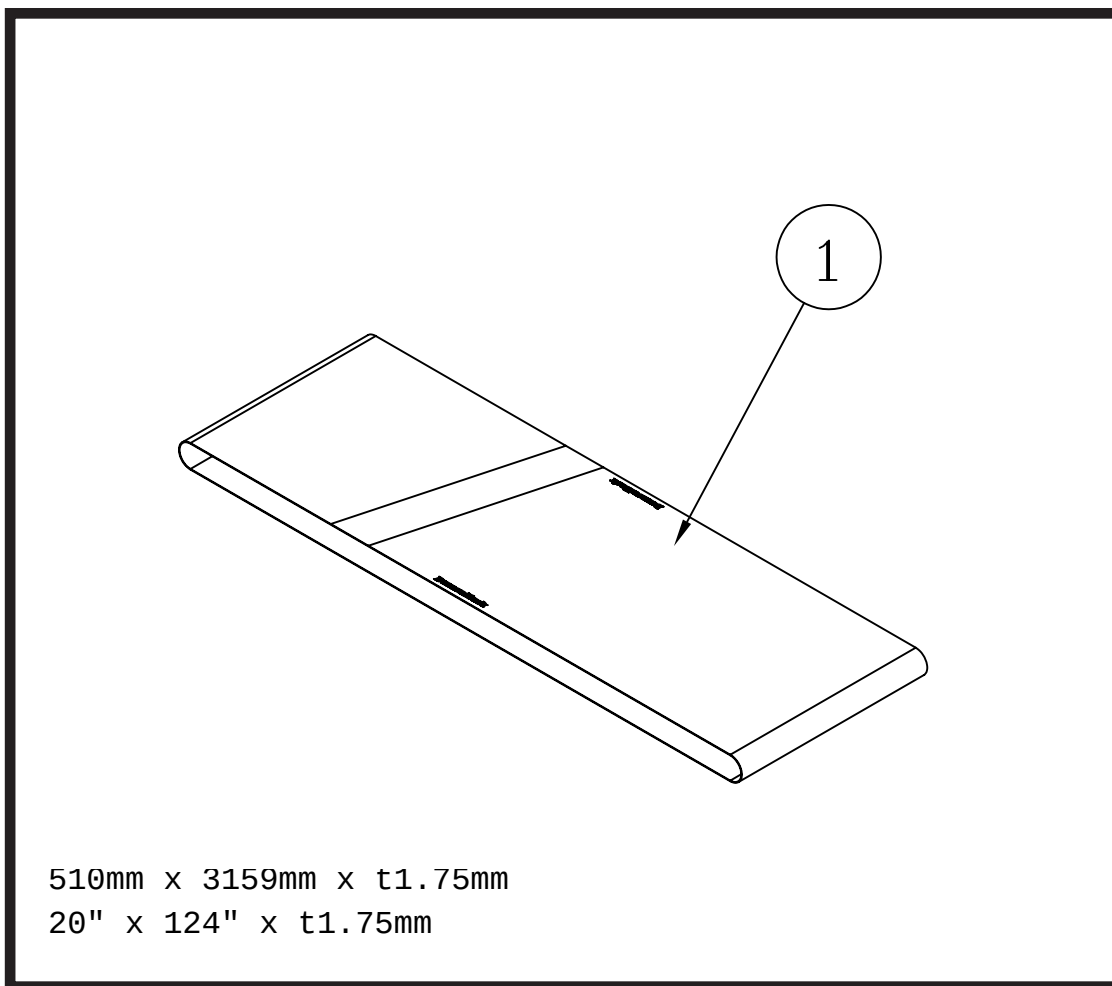


Description	Quantity	Item Number
Deck	1	1

22-13-113

Running Belt

500, 600Tm

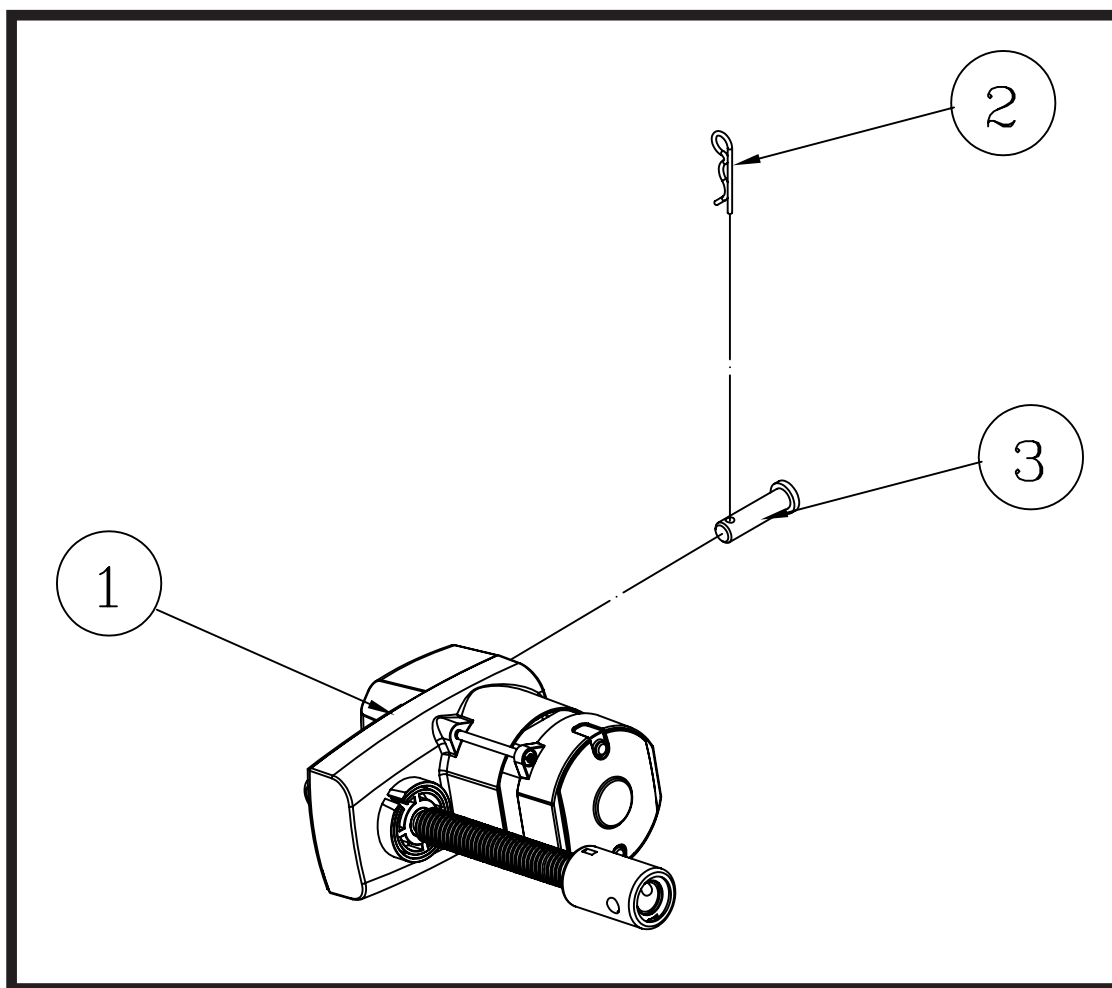


Description	Quantity	Item Number
Running Belt.....	1	1

22-13-121

Elevation Motor

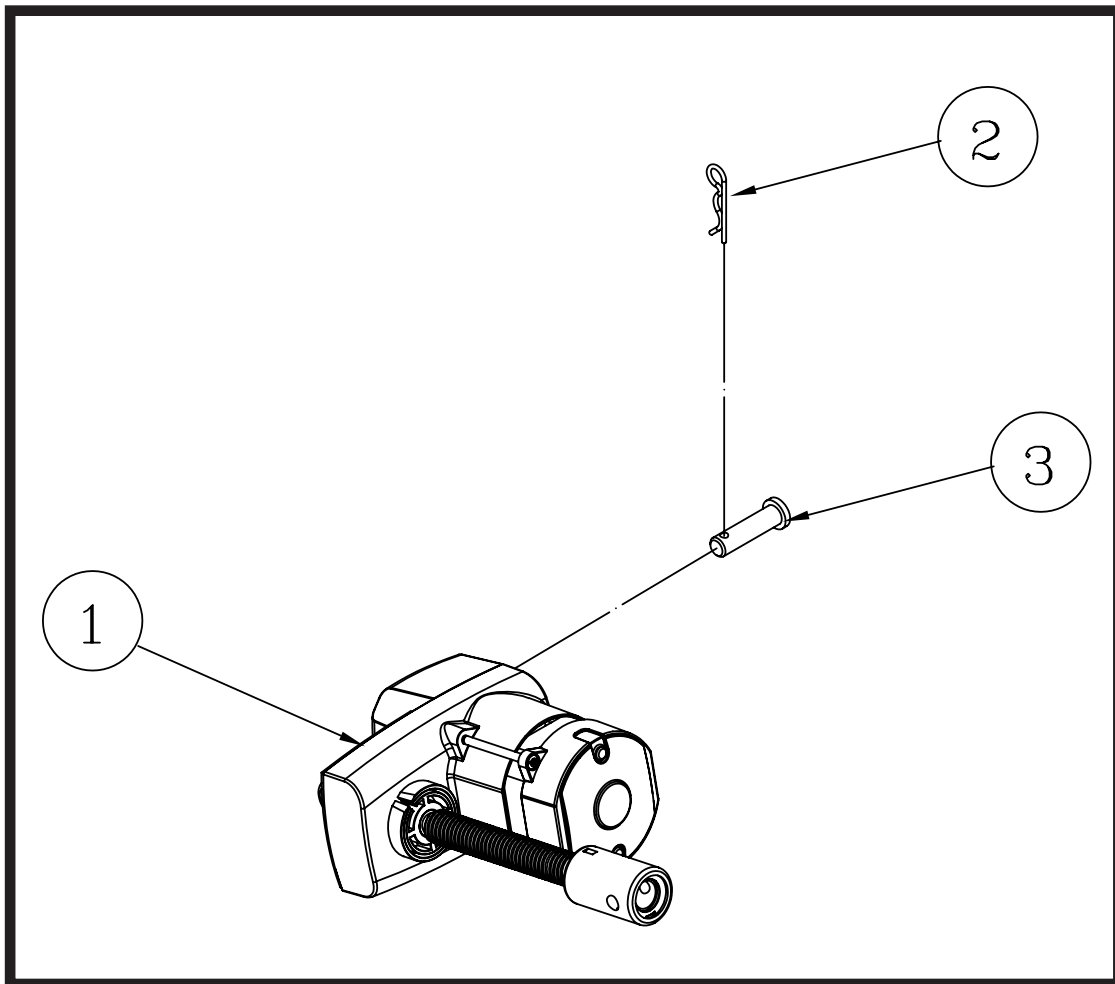
700Tm



Description	Quantity	Item Number
Elevation Motor	1	1
Hairpin	1	2
Locking pin	1	3

22-13-123

Elevation Motor 500, 600Tm

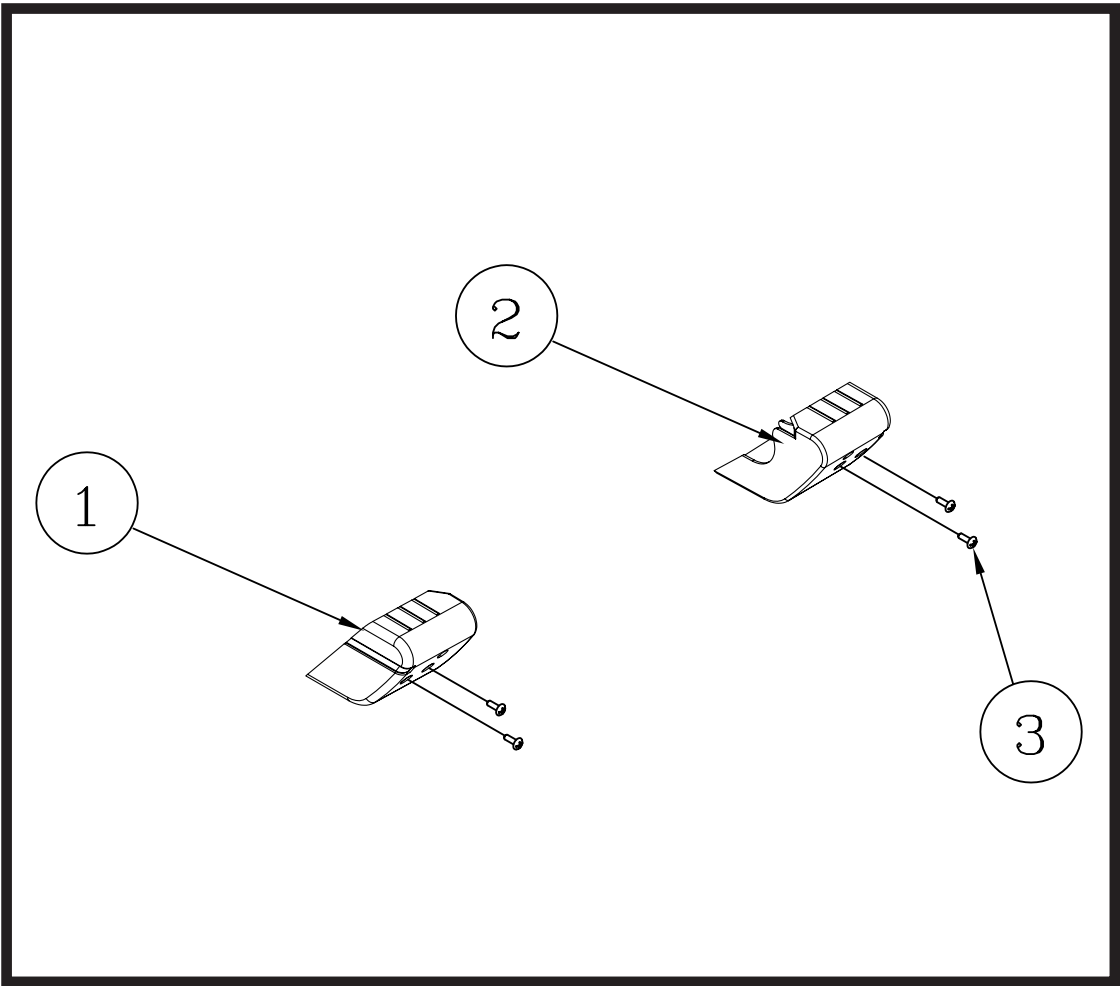


Description	Quantity	Item Number
Elevation Motor	1	1
Hairpin	1	2
Locking pin	1	3

22-13-129

End Caps

500, 600, 700Tm

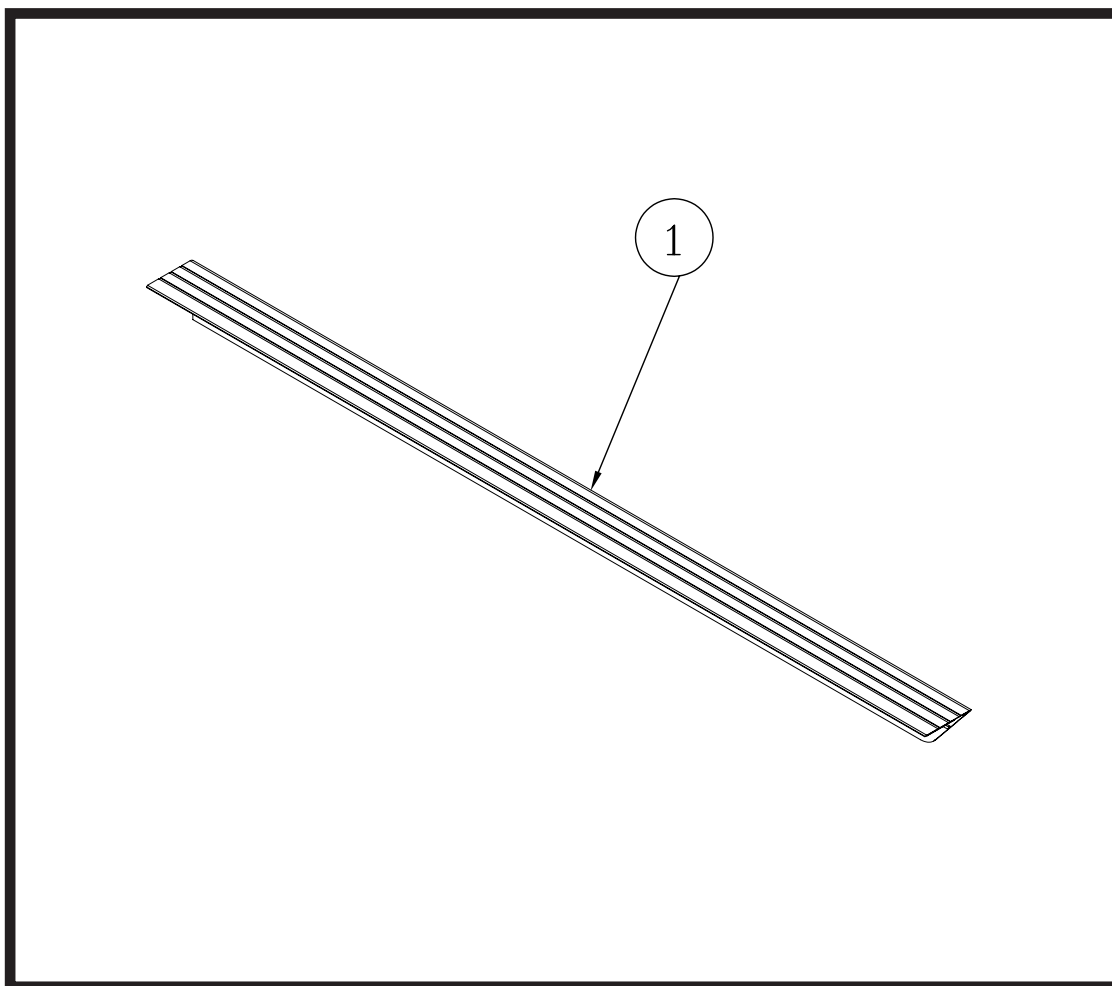


Description	Quantity	Item Number
End Cap (L).....	1	1
End Cap (R)	1	2
Bolt	4	3

22-13-131

Right Side Step Rail

700Tm

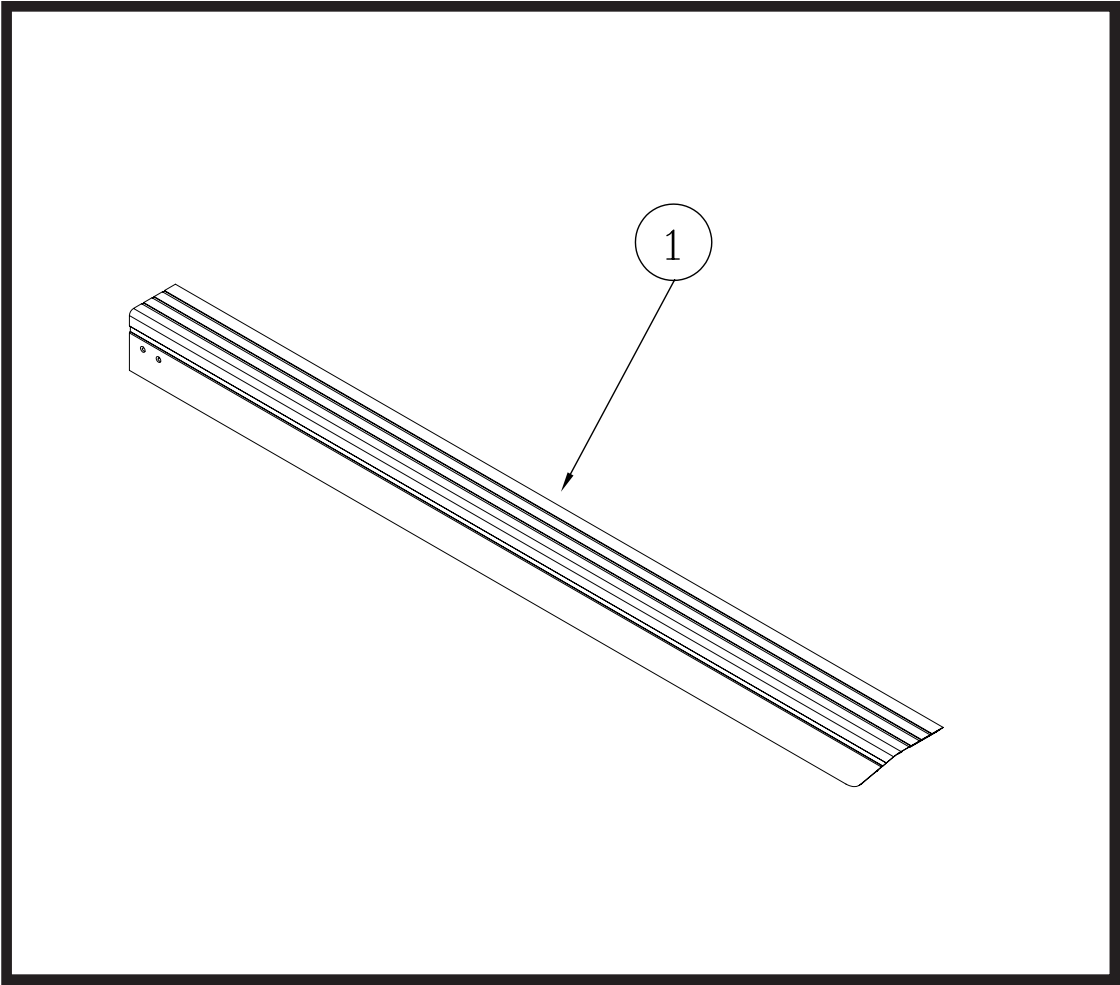


Description	Quantity	Item Number
Step Rail —RH	1	1

22-13-133

Left Side Step Rail

700Tm

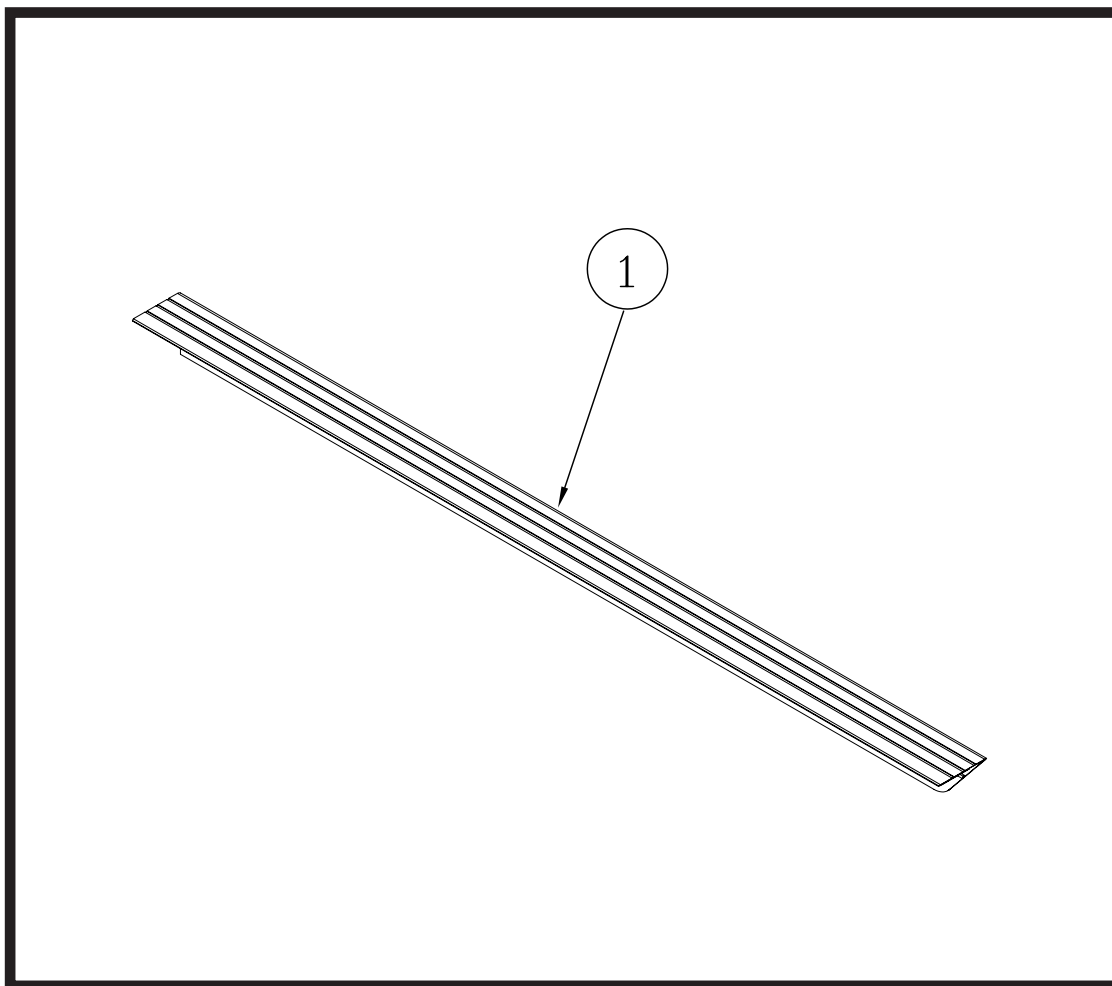


Description	Quantity	Item Number
Step Rail — LH.....	1	1

22-13-135

Right Side Step Rail

500, 600Tm

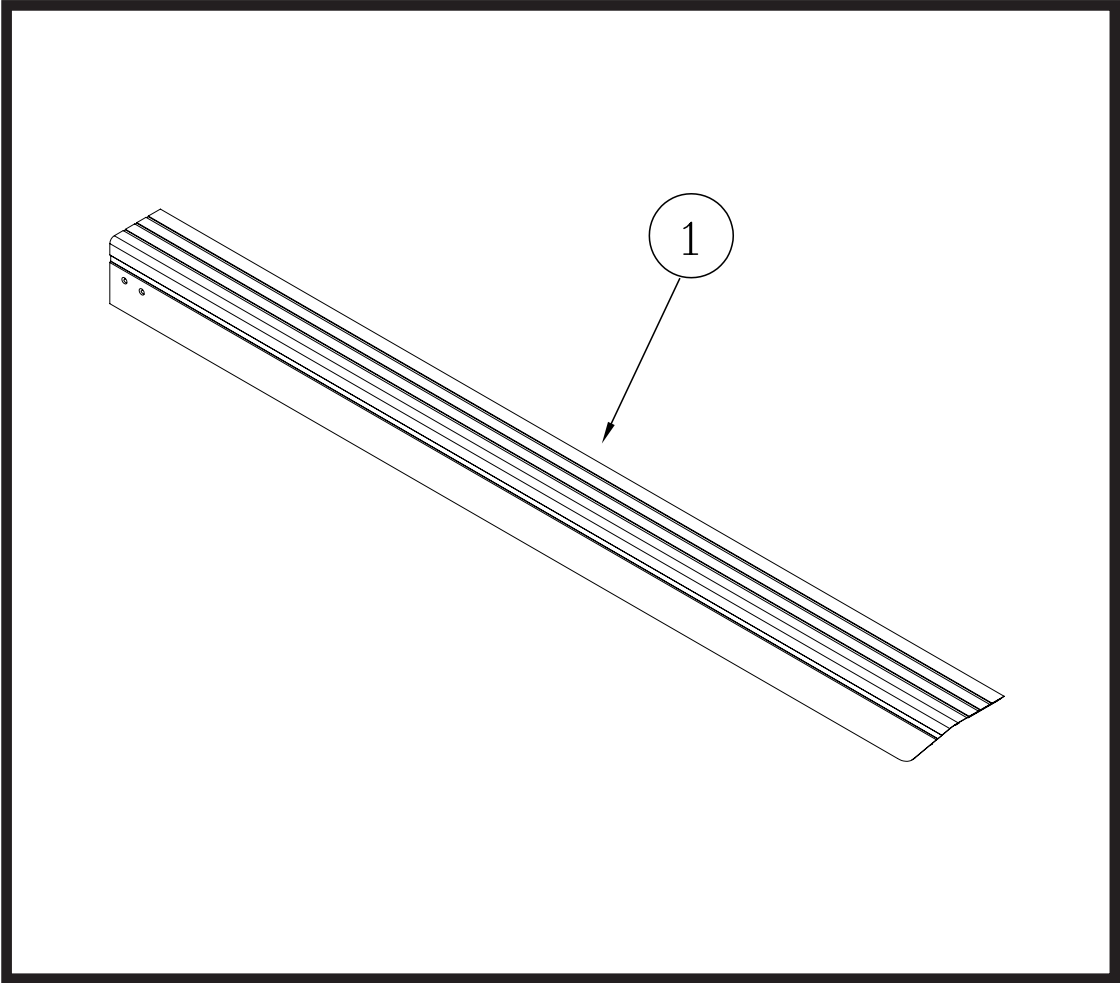


Description	Quantity	Item Number
Step Rail — RH	1	1

22-13-137

Left Side Step Rail

500, 600Tm

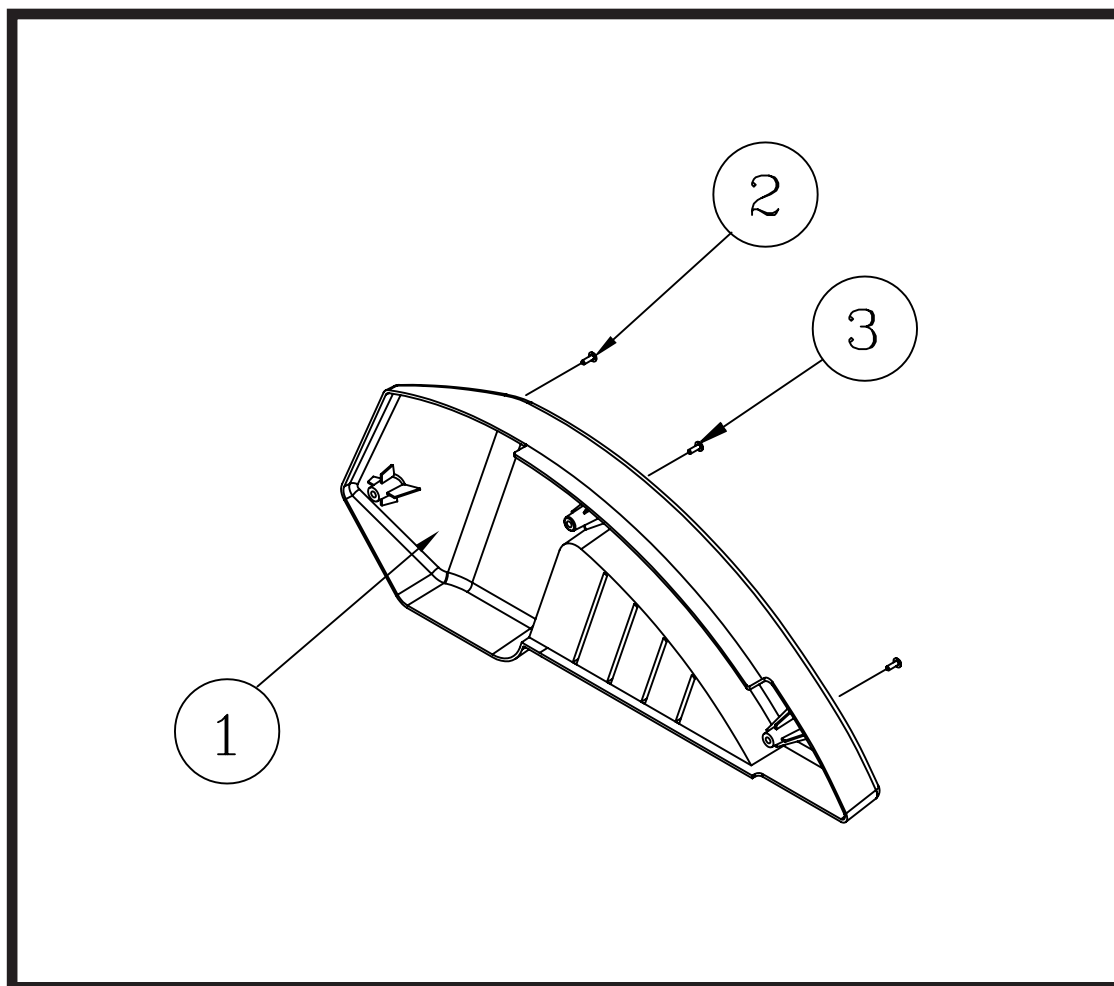


Description	Quantity	Item Number
Step Rail — LH.....	1	1

22-13-139

Front Cover — Right Side

500, 600, 700Tm

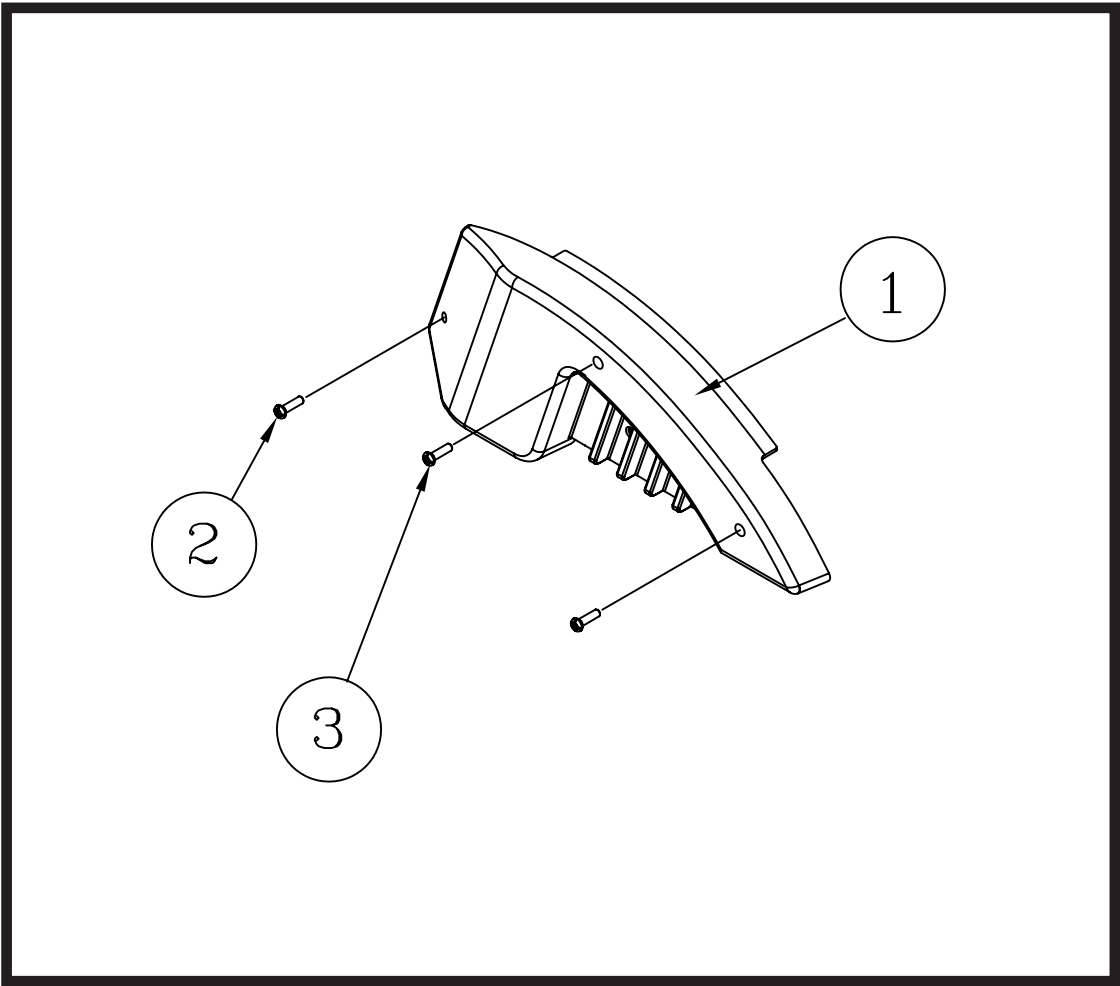


Description	Quantity	Item Number
Side Cover (R)	1	1
Bolt	2	2
Self Taping Screw	1	3

22-13-141

Front Cover — Left Side

500, 600, 700Tm

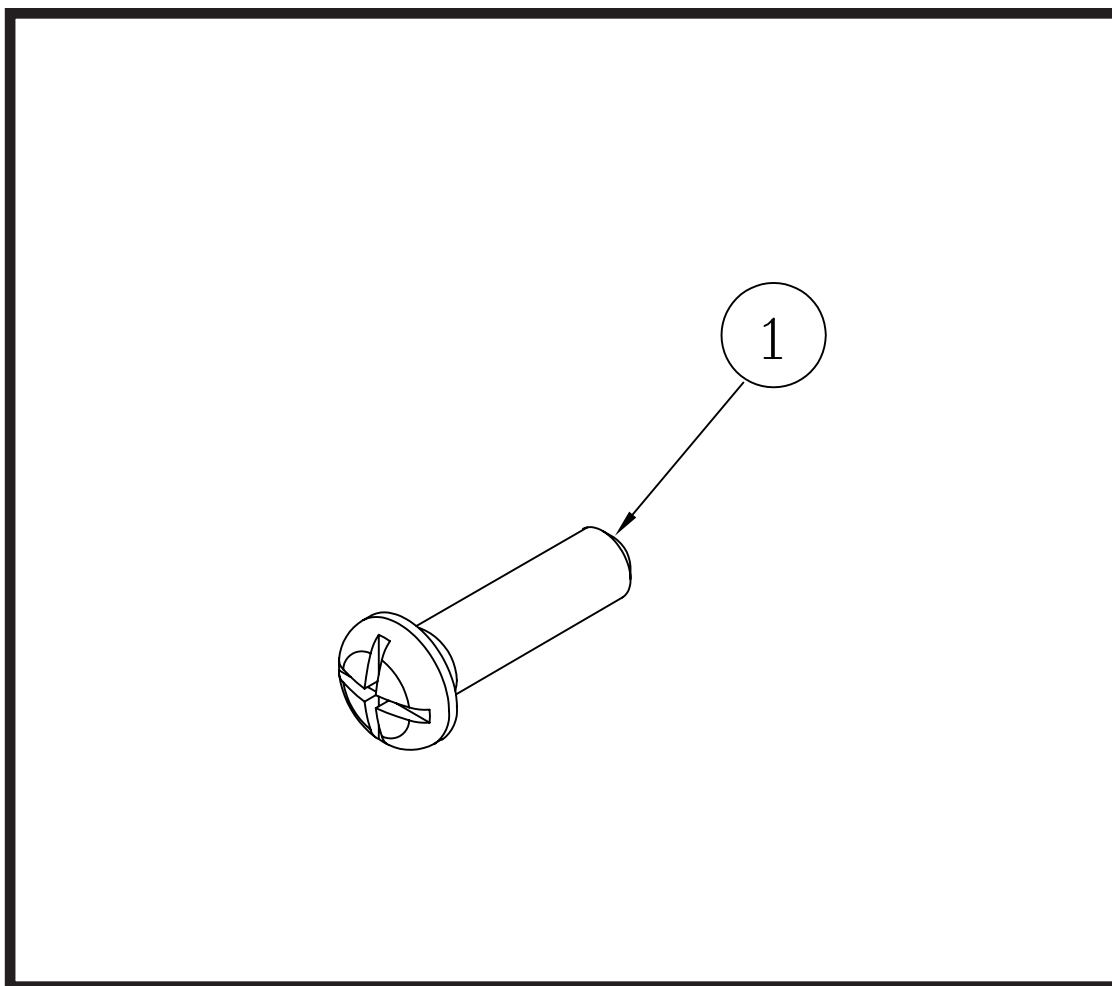


Description	Quantity	Item Number
Side Cover (L).....	1	1
Bolt	2	2
Self Taping Screw	1	3

22-13-143

End Cap Bolt Kit

500, 600, 700Tm

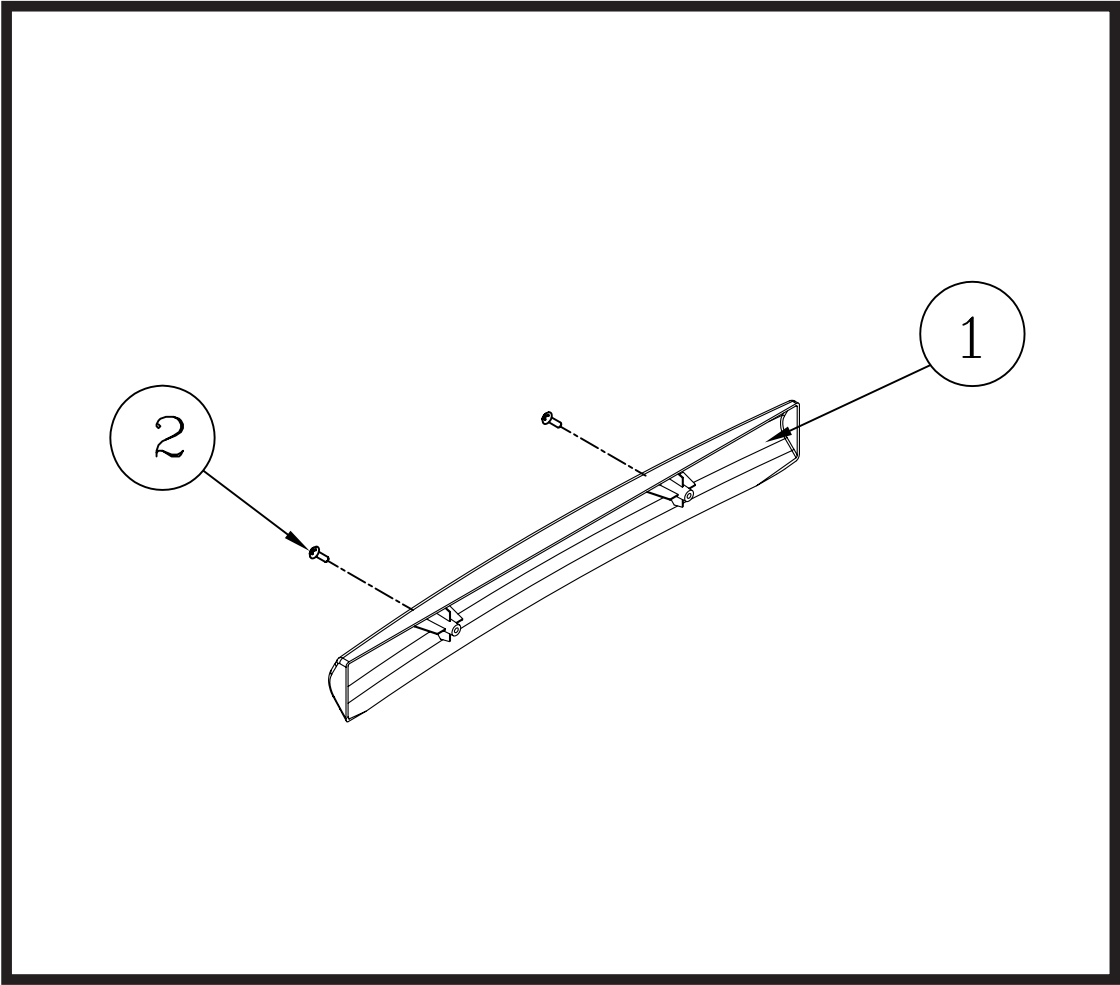


Description	Quantity	Item Number
Bolt	24	1

22-13-151

Front Cover — Front

500, 600, 700Tm

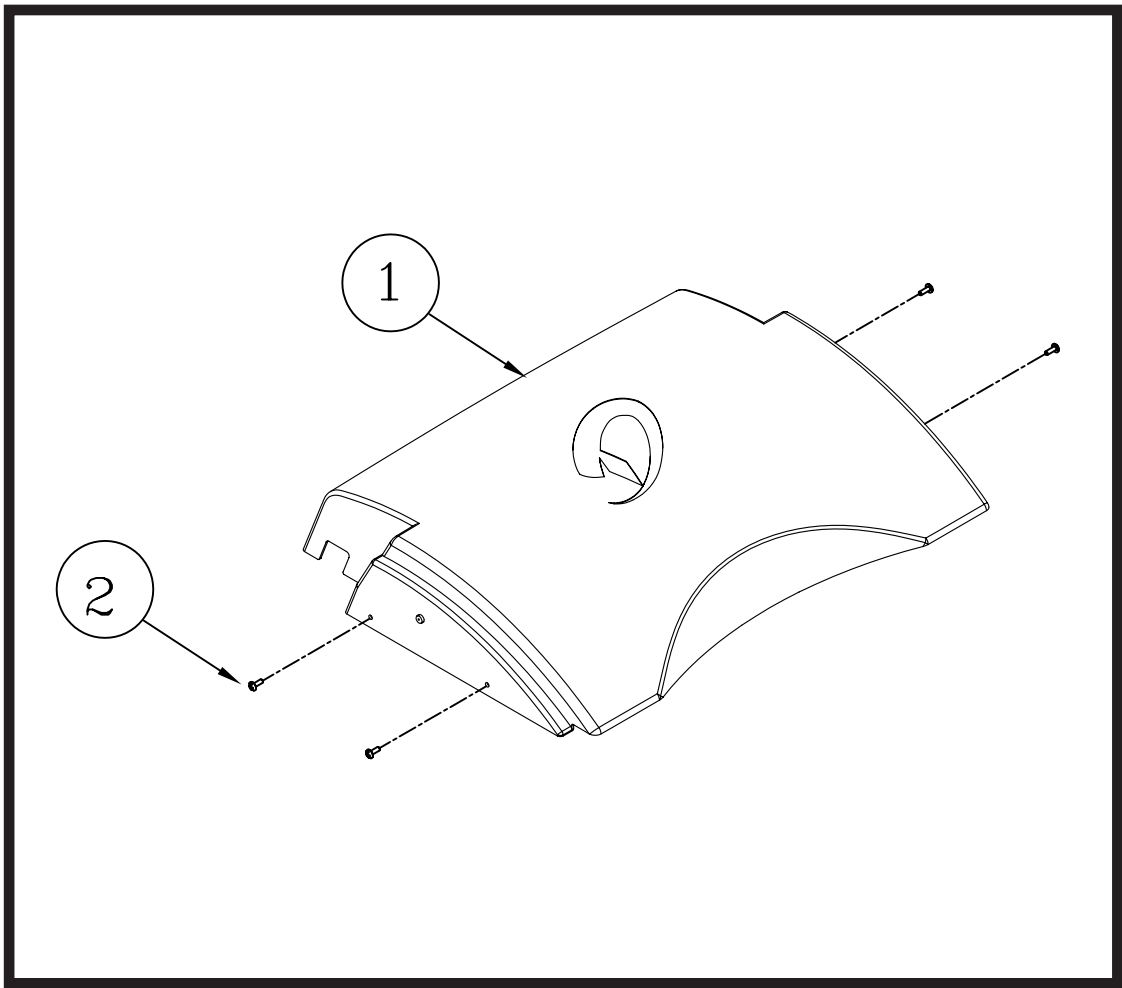


Description	Quantity	Item Number
Front Cover	1	1
Bolt	2	2

22-13-155

Motor Cover

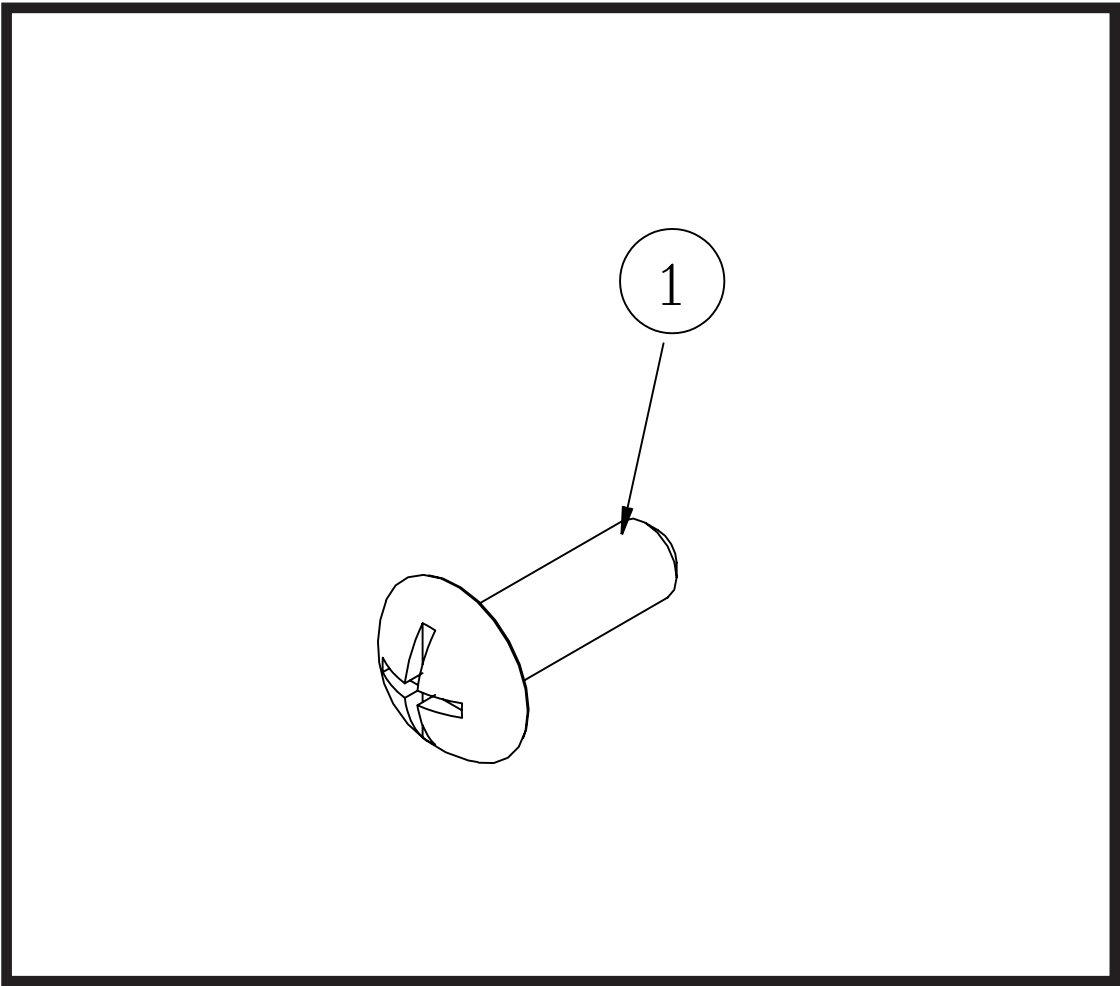
500, 600, 700Tm



Description	Quantity	Item Number
Motor Cover	1	1
Bolt	4	2

22-13-157

Motor Cover Bolt Kit

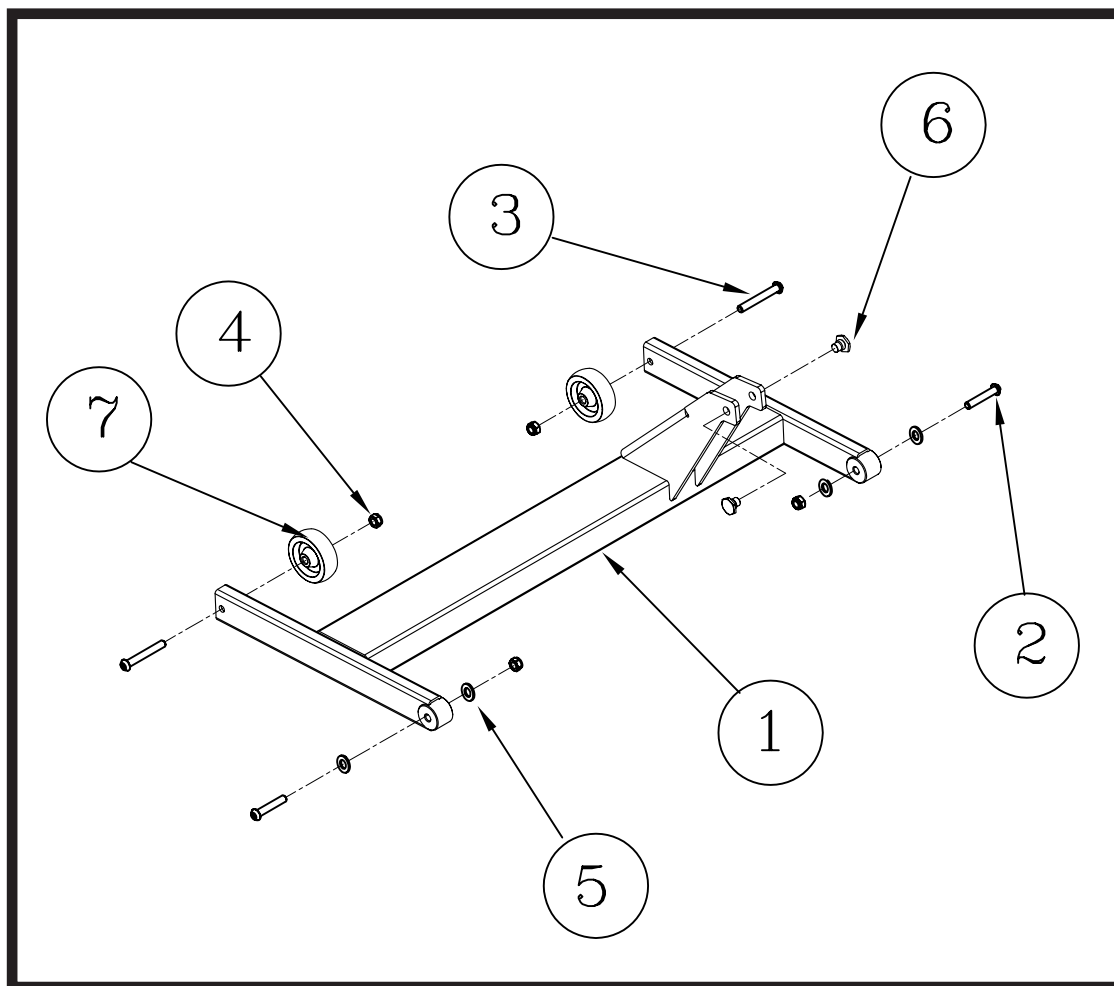


Description	Quantity	Item Number
Bolt	4	1

22-13-161

H Bracket

700Tm

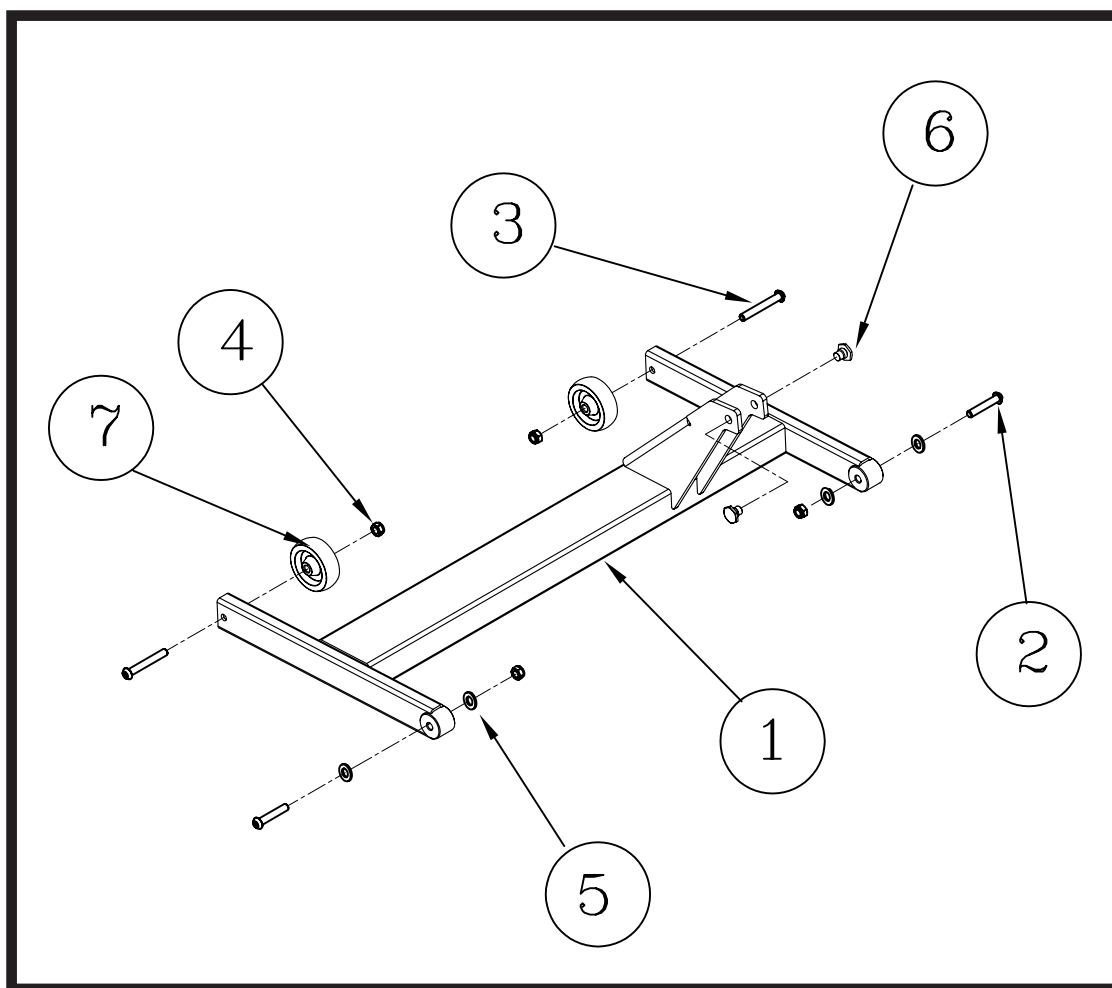


Description	Quantity	Item Number
H Bracket	1	1
Bolt	2	2
Bolt	2	3
Lock Nut	4	4
Flat Washer.....	4	5
Clamp Bolt.....	2	6
Front Roller Wheel.....	2	7

22-13-163

H Bracket

500, 600Tm

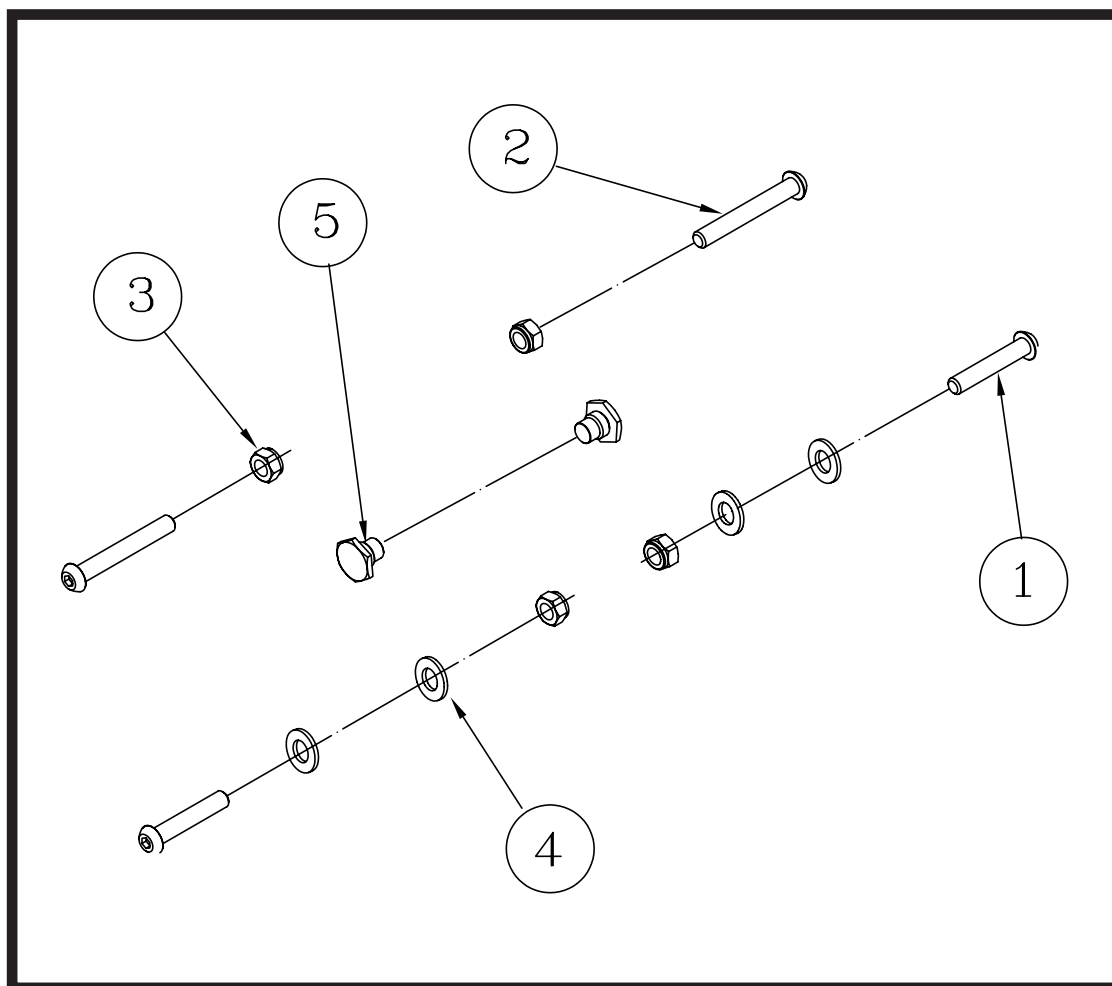


Description	Quantity	Item Number
H Bracket	1	1
Bolt	2	2
Bolt	2	3
Lock Nut	4	4
Flat Washer	4	5
Clamp Bolt	2	6
Front Roller Wheel	2	7

22-13-171

H Bracket Hardware Kit

500, 600, 700Tm

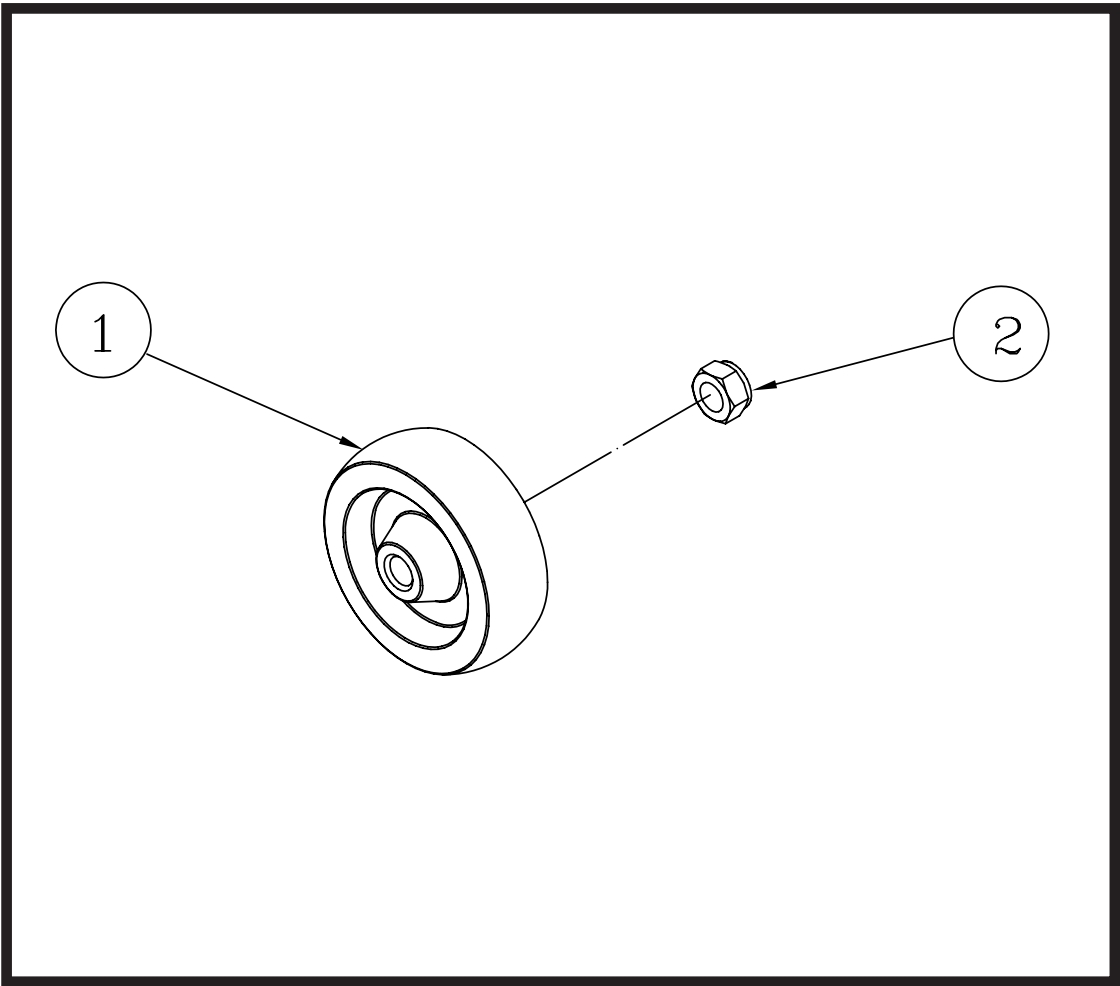


Description	Quantity	Item Number
Bolt	2	1
Bolt	2	2
Lock Nut	4	3
Flat Washer	4	4
Clamp Bolt	2	5

22-13-175

Front Roller Wheels

500, 600, 700Tm

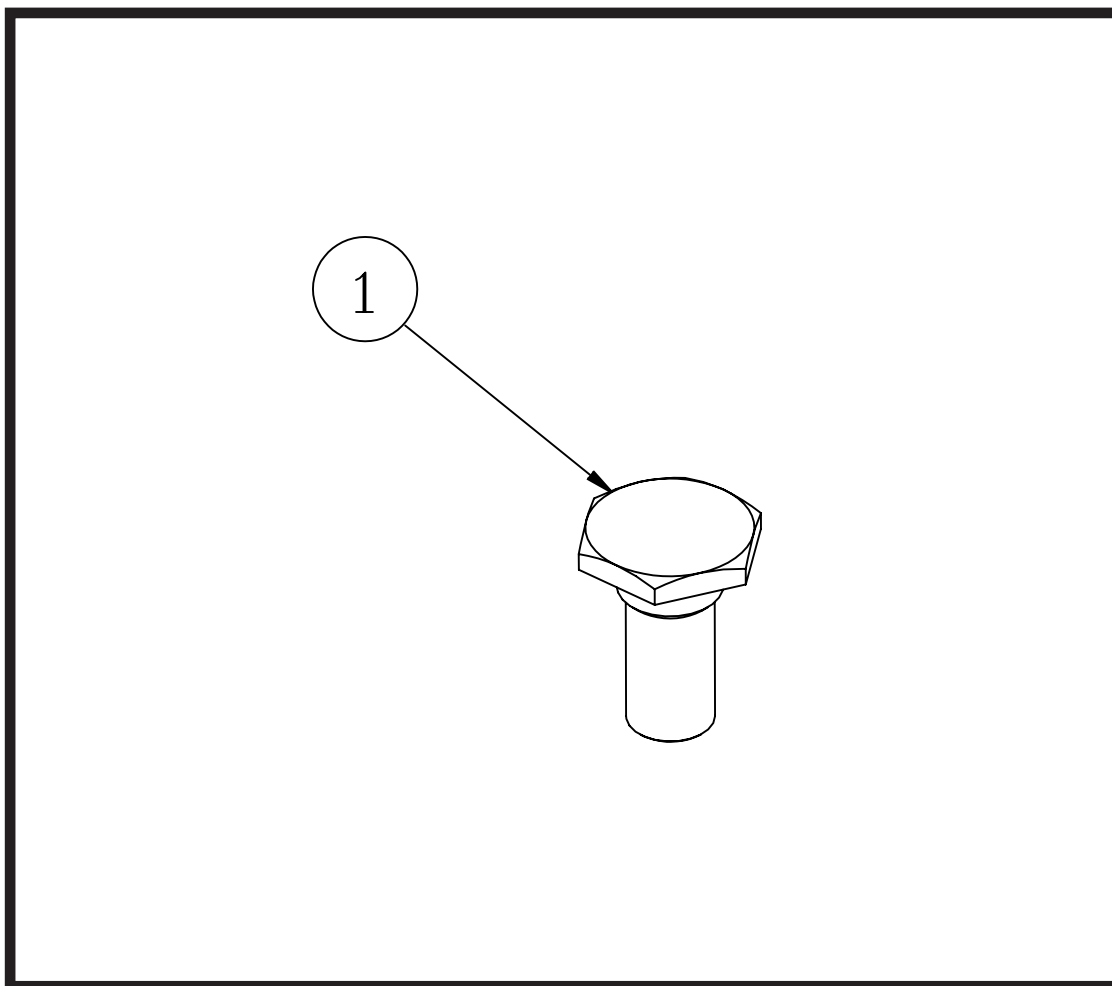


Description	Quantity	Item Number
Front Roller Wheel	2	1
Nut	2	2

22-13-191

Motor Hardware Kit

500, 600, 700Tm

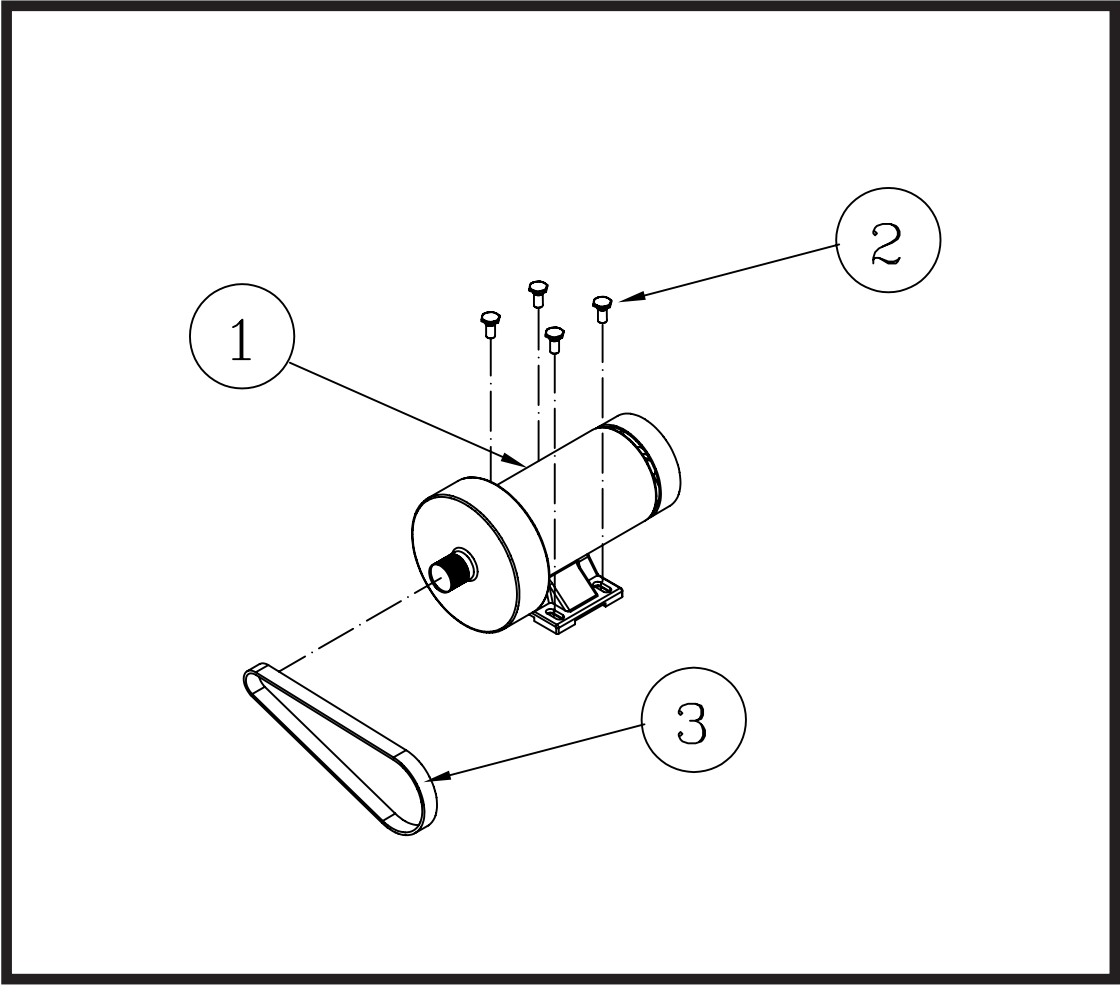


Description	Quantity	Item Number
Bolt	4	1

22-13-193

Drive Motor

600, 700Tm

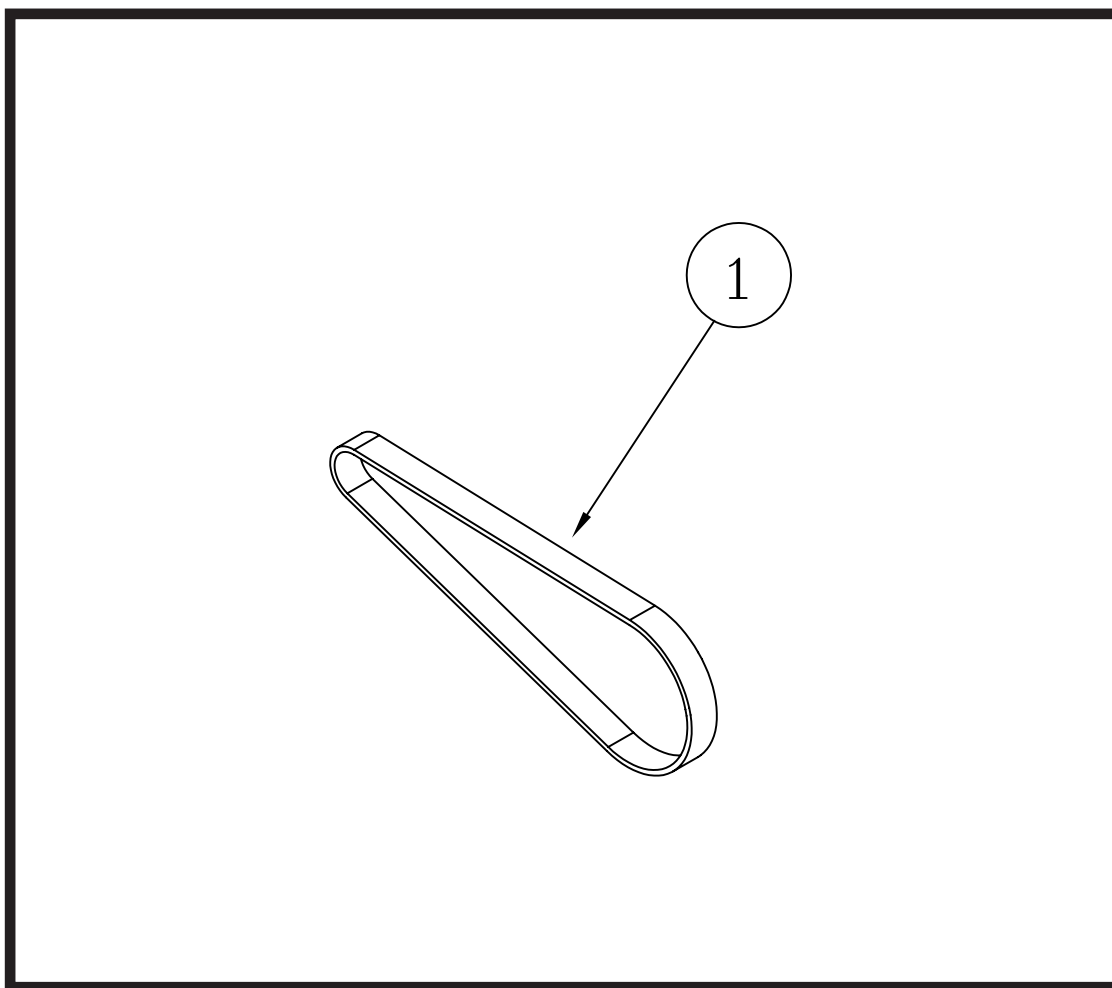


Description	Quantity	Item Number
Drive Motor.....	1	1
Bolt	4	2
Drive Belt	1	3

22-13-195

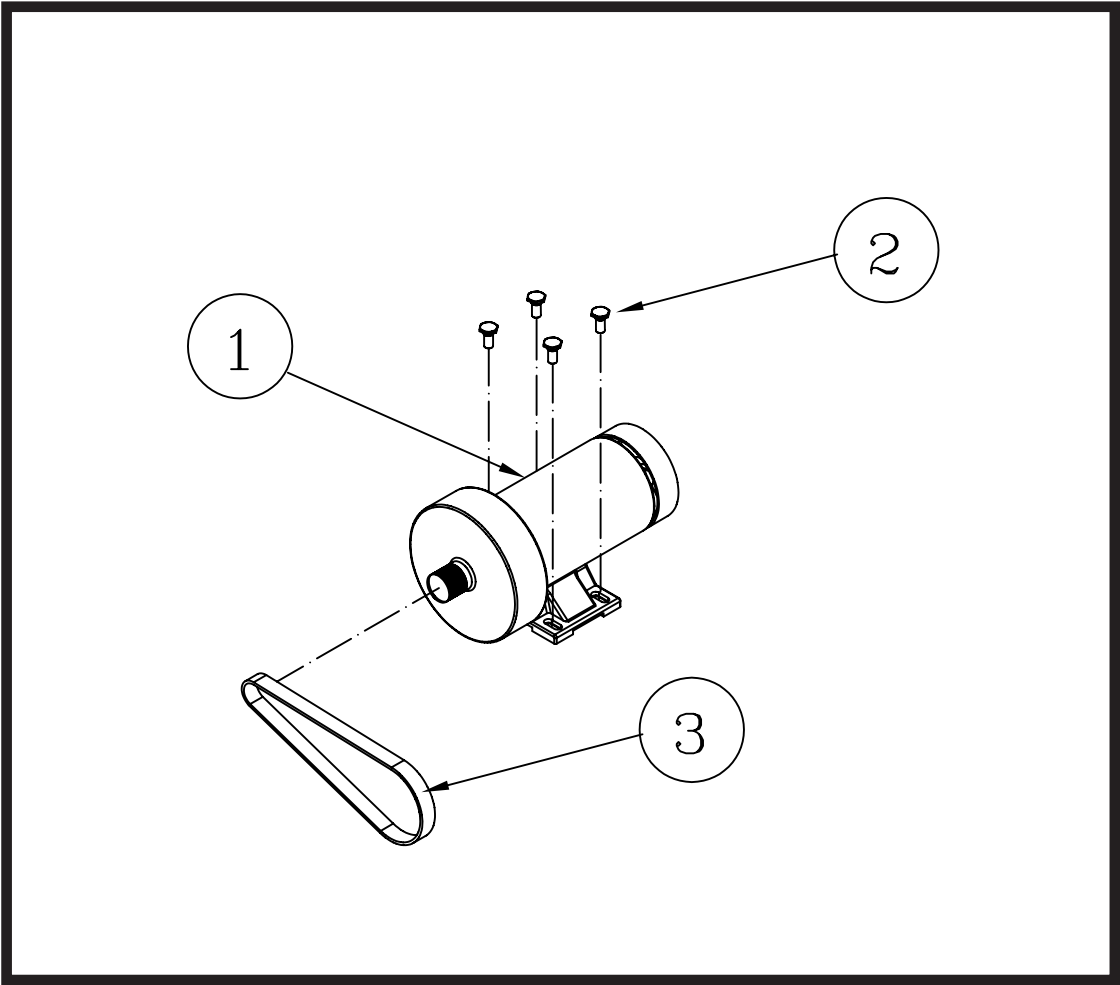
Drive Belt

500, 600, 700Tm



Description	Quantity	Item Number
Drive Belt	1	1

22-13-197
Drive Motor
500Tm

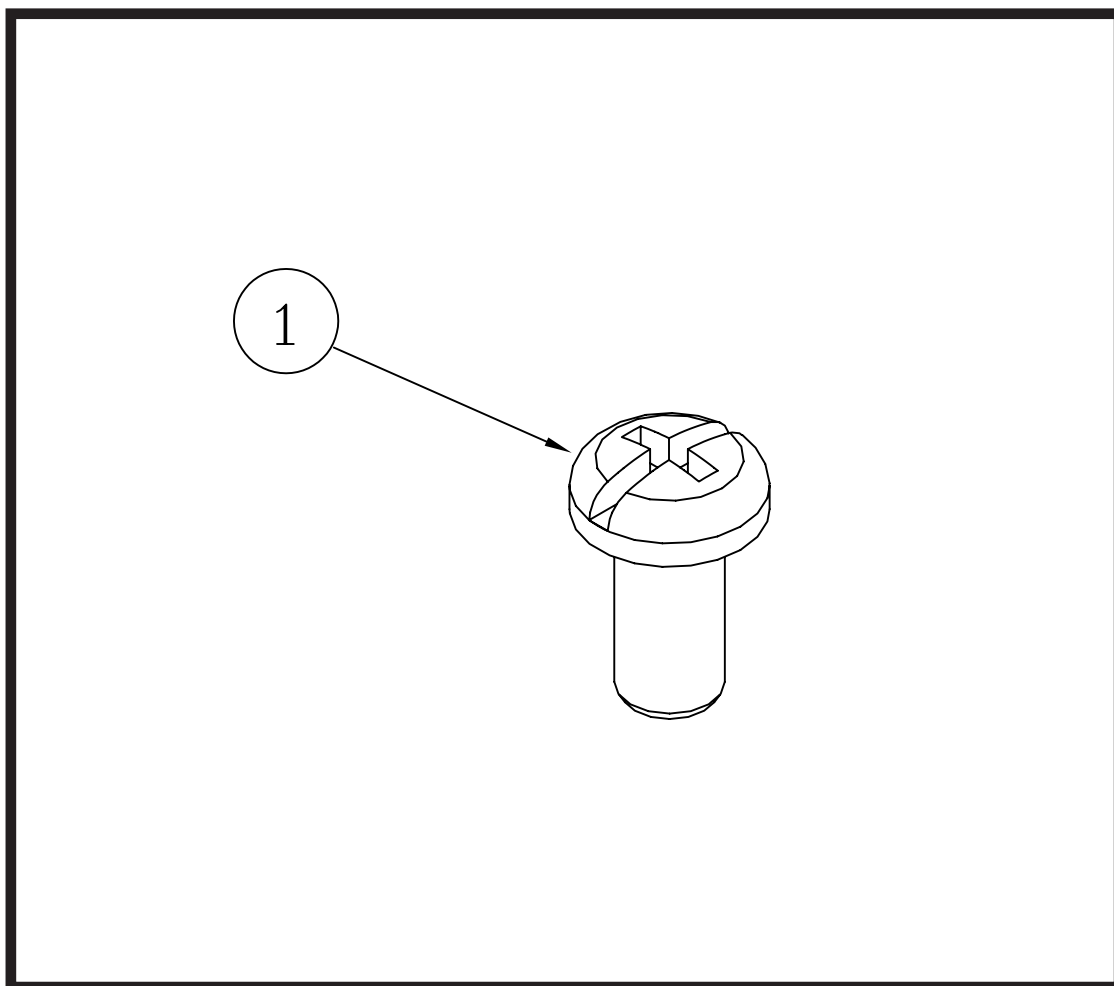


Description	Quantity	Item Number
Drive Motor.....	1	1
Bolt	4	2
Drive Belt	1	3

22-13-201

Controller Hardware Kit

500, 600, 700Tm

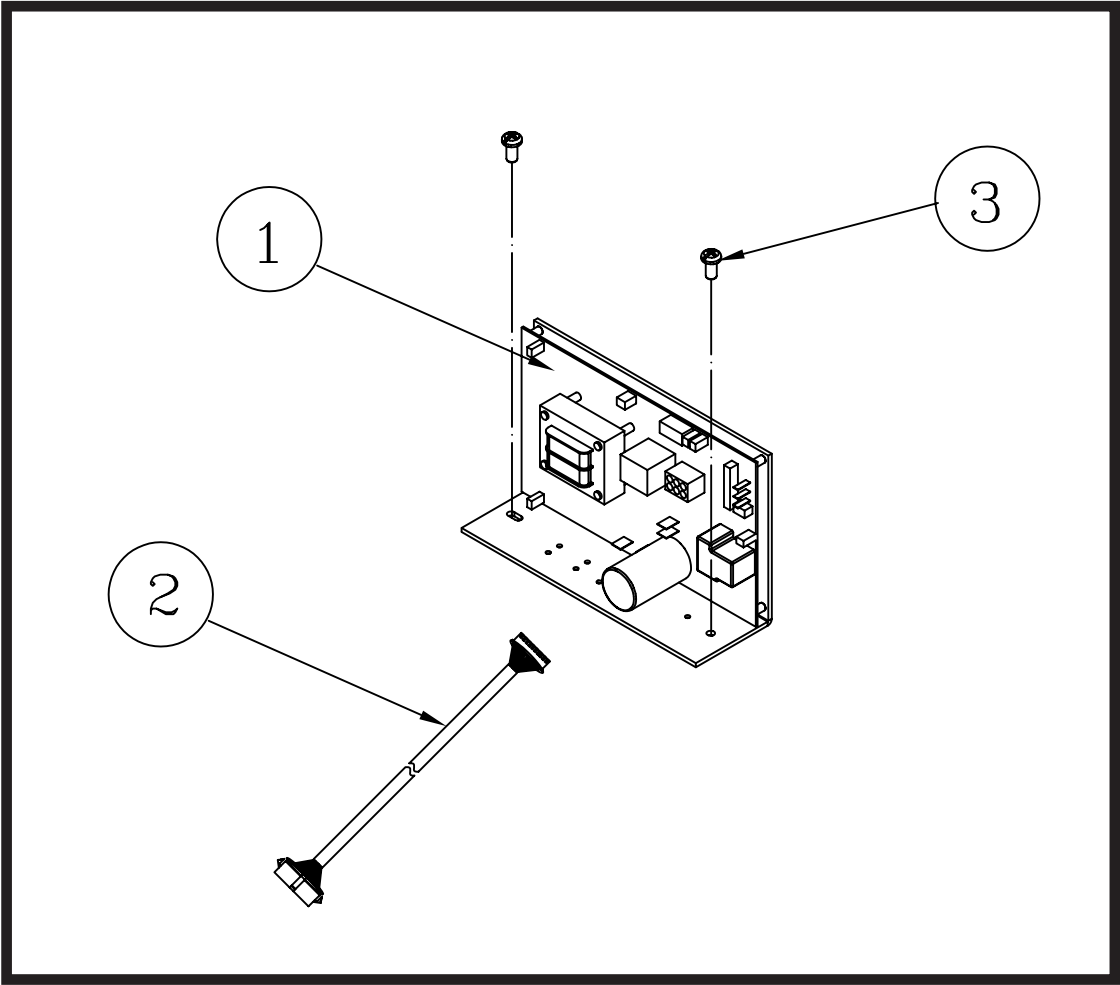


Description	Quantity	Item Number
Bolt	6	1

22-13-203

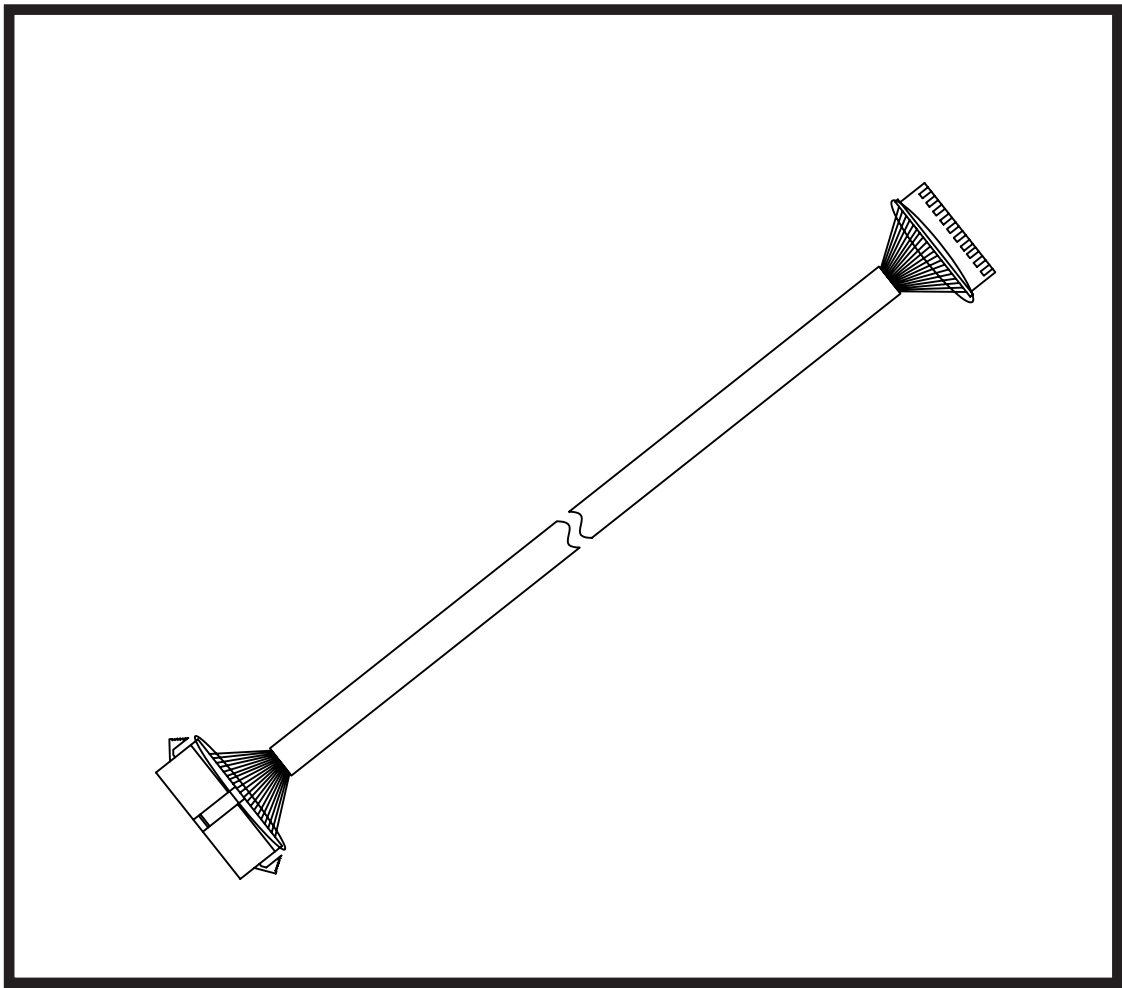
Controller

600, 700Tm



Description	Quantity	Item Number
Controller	1	1
Harness	1	2
Bolt	6	3

**Main Wire Harness - Controller Board
500, 600, 700Tm**

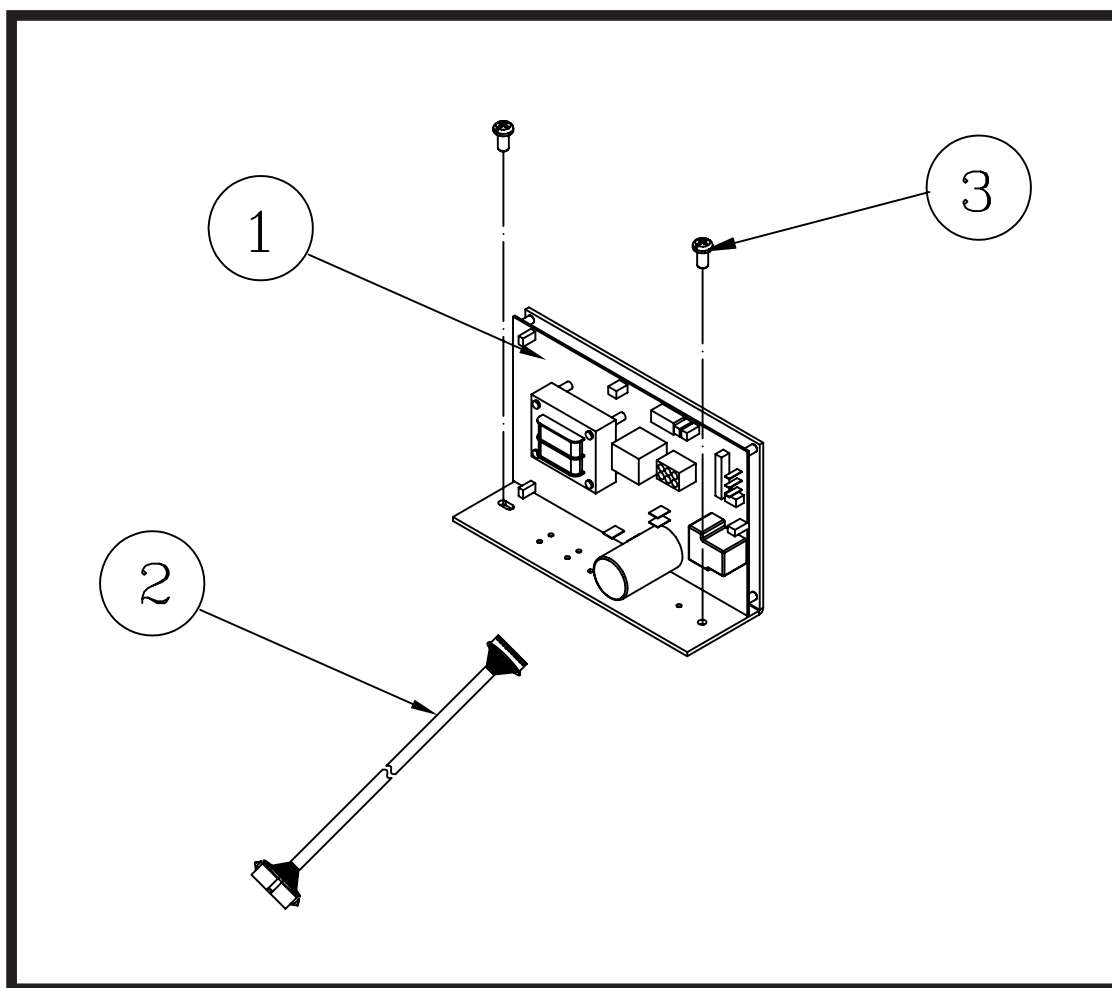


Description	Quantity	Item Number
Wire Harness	1	1

22-13-207

Controller

500Tm

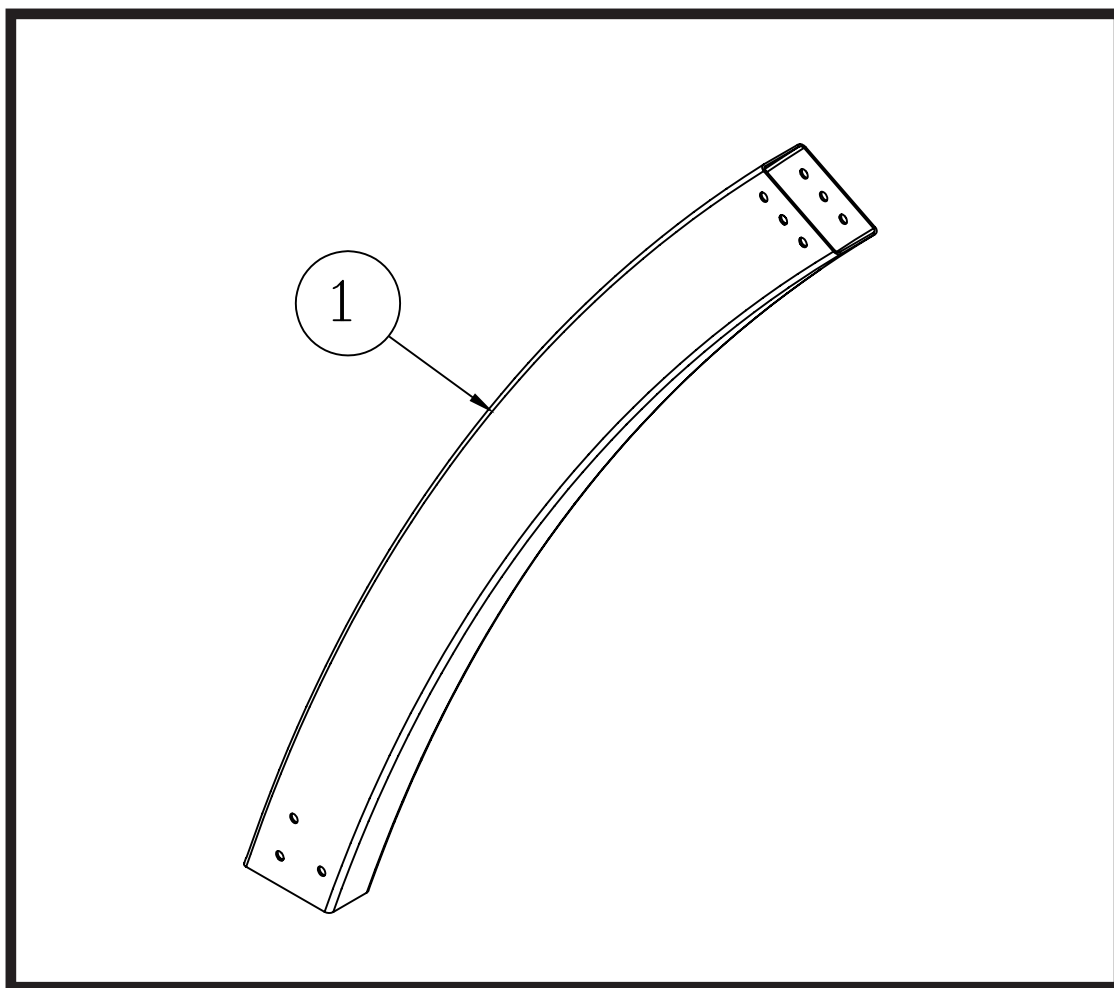


Description	Quantity	Item Number
Controller	1	1
Harness	1	2
Bolt	6	3

22-13-219

Console Mast - Left

600, 700Tm

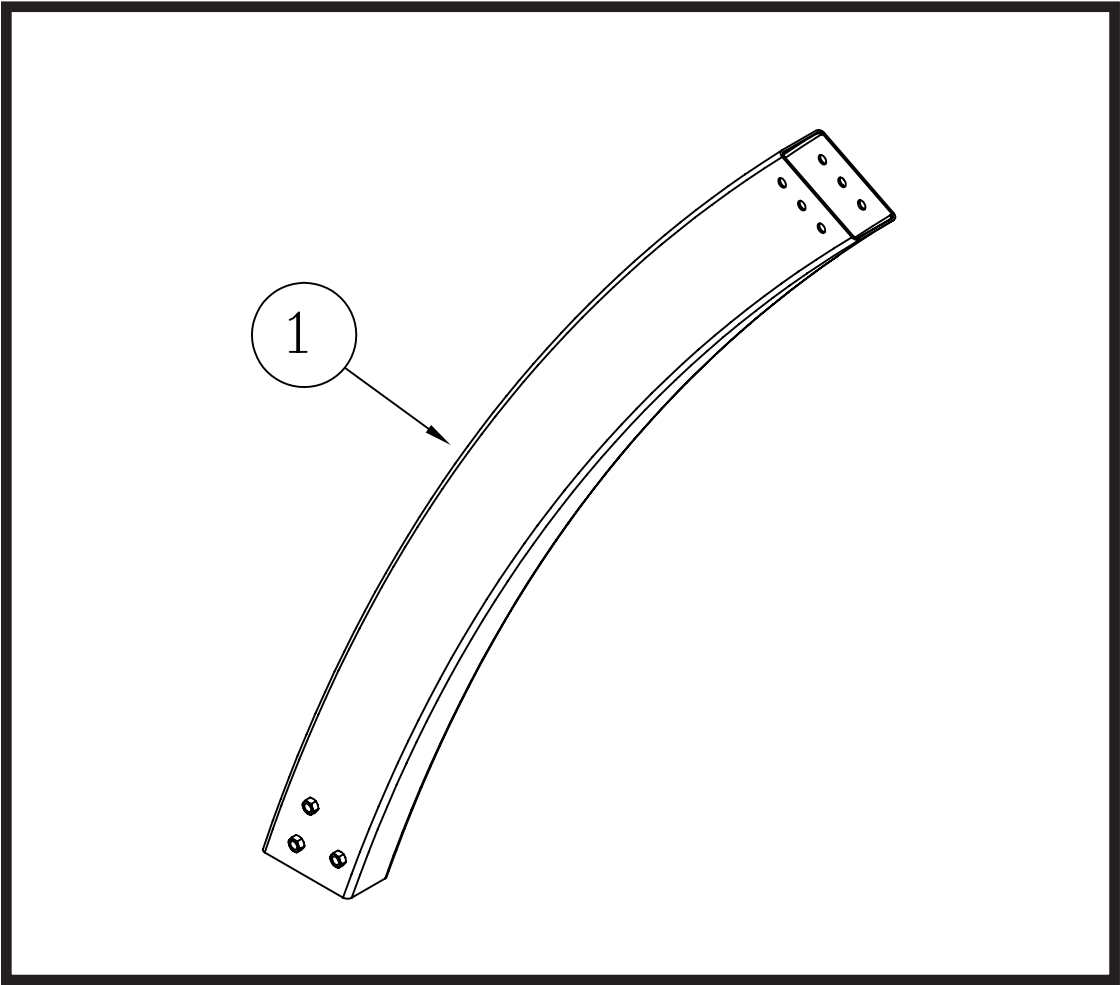


Description	Quantity	Item Number
Console Mast (L)	1	1

22-13-221

Console Mast - Right

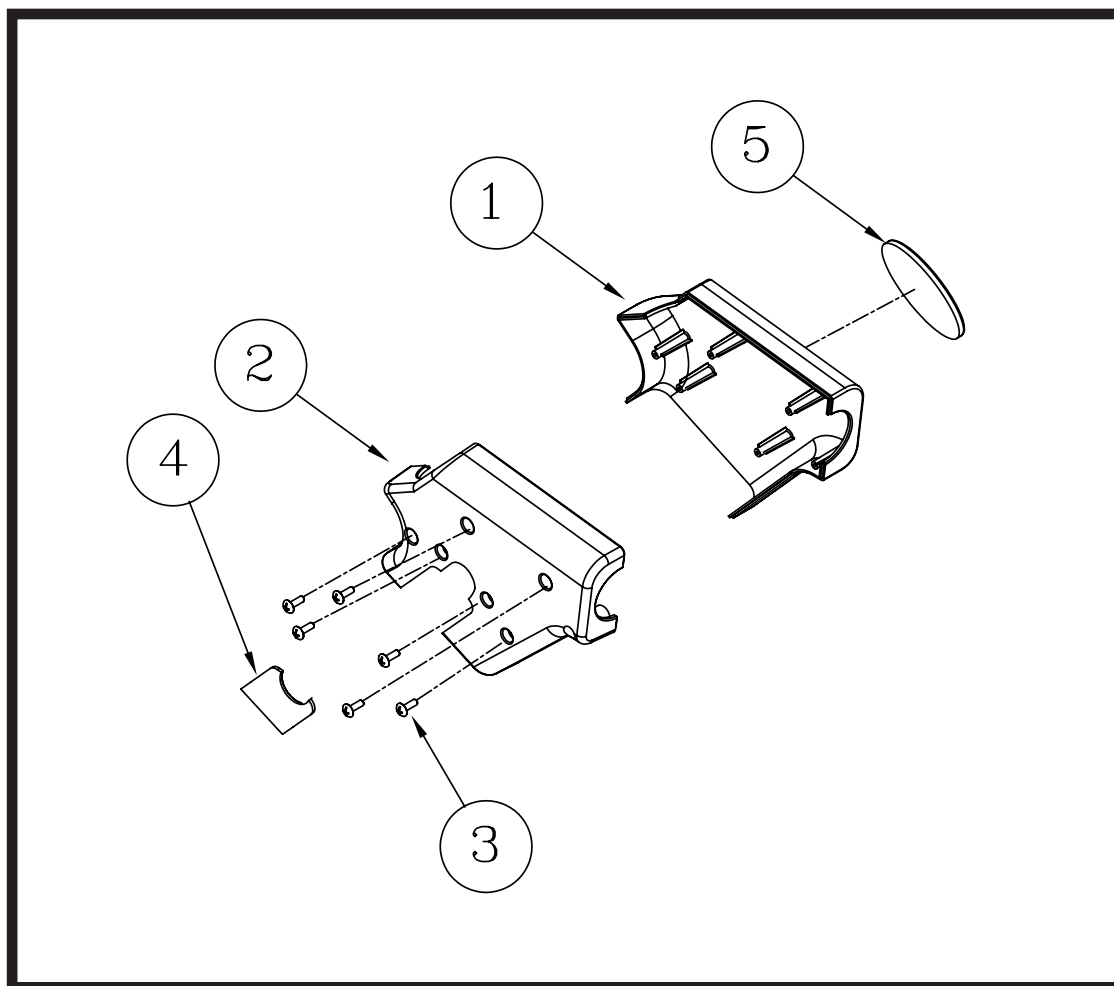
600, 700Tm



Description	Quantity	Item Number
Console Mast (R)	1	1

22-13-223

Console Mast Covers - Right 600, 700Tm

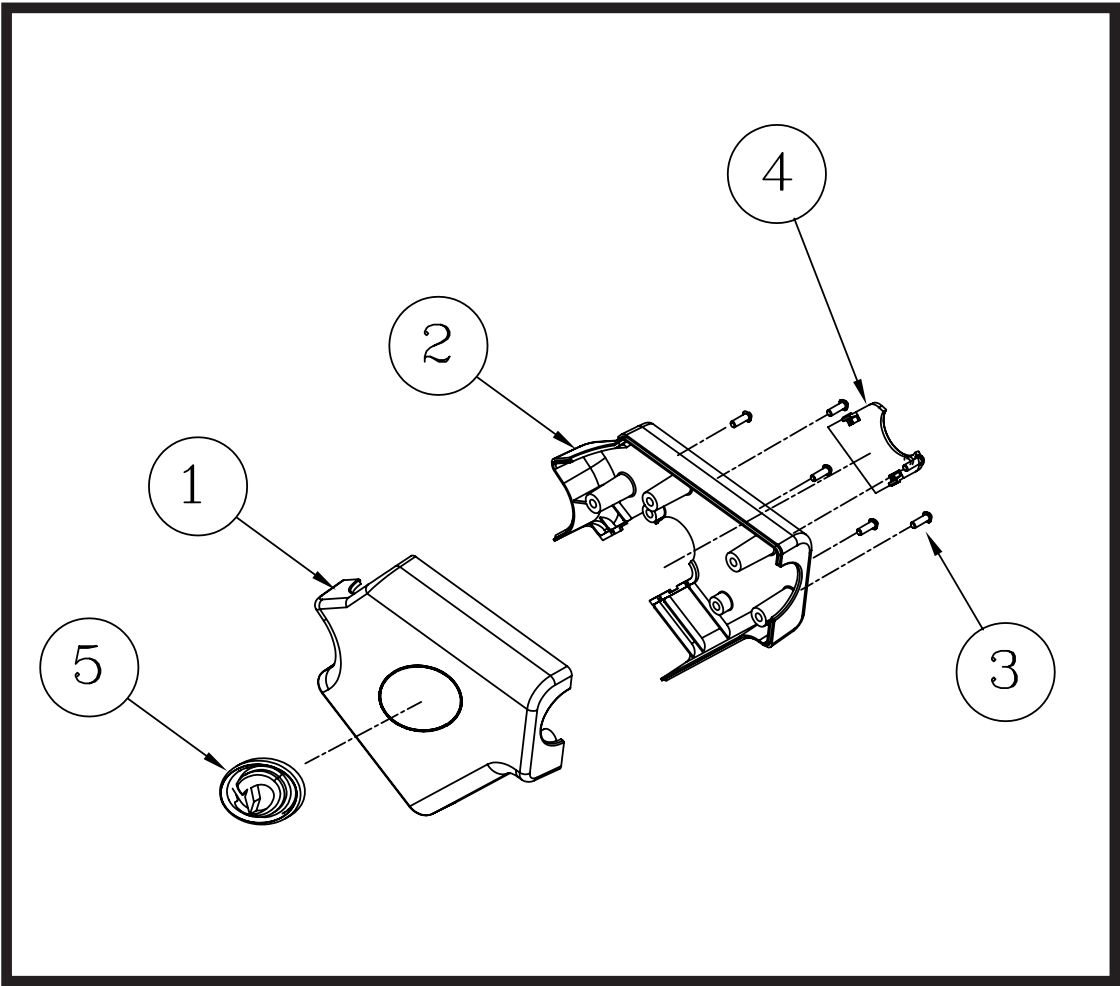


Description	Quantity	Item Number
Console Mast Cover (R)	1	1
Console Mast Cover (L)	1	2
Bolt	6	3
Guard Plate	1	4
Trademark Label	1	5

22-13-225

Console Mast Covers - Left

600, 700Tm

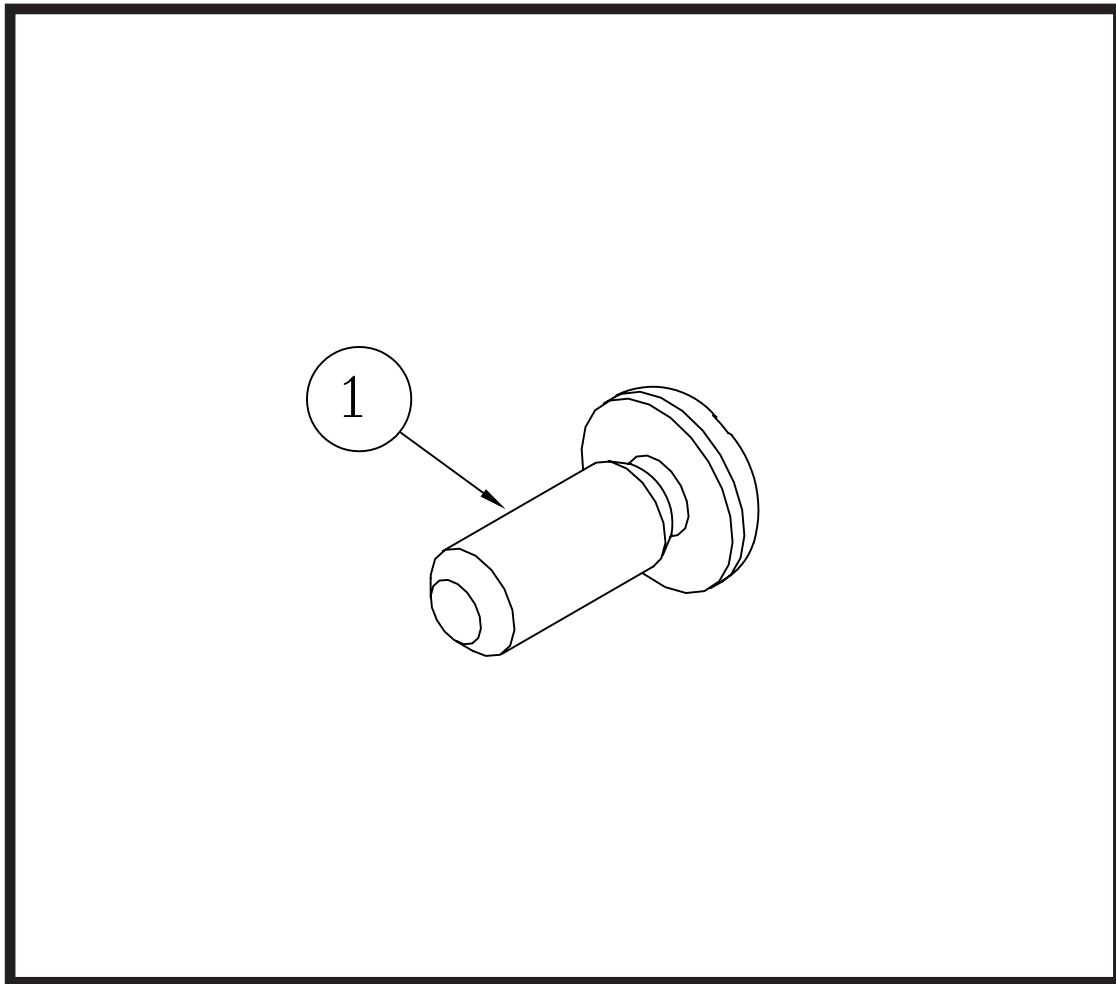


Description	Quantity	Item Number
Console Mast Cover (L).....	1	1
Console Mast Cover (R)	1	2
Bolt	6	3
Guard Plate	1	4
Trademark Label.....	1	5

22-13-227

Console Mast Cover Hardware Kit

500, 600, 700Tm

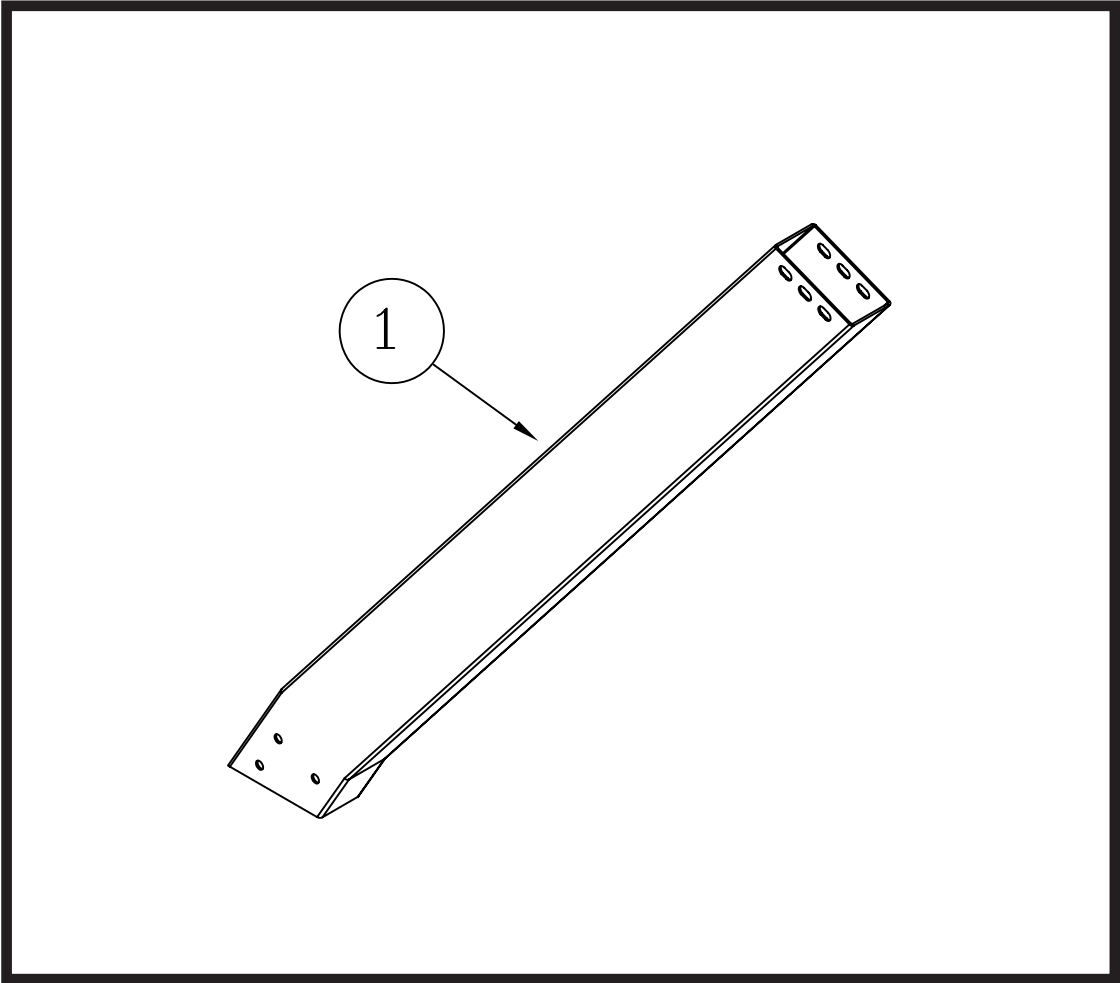


Description	Quantity	Item Number
Bolt	12	1

22-13-229

Console Mast - Left

500Tm

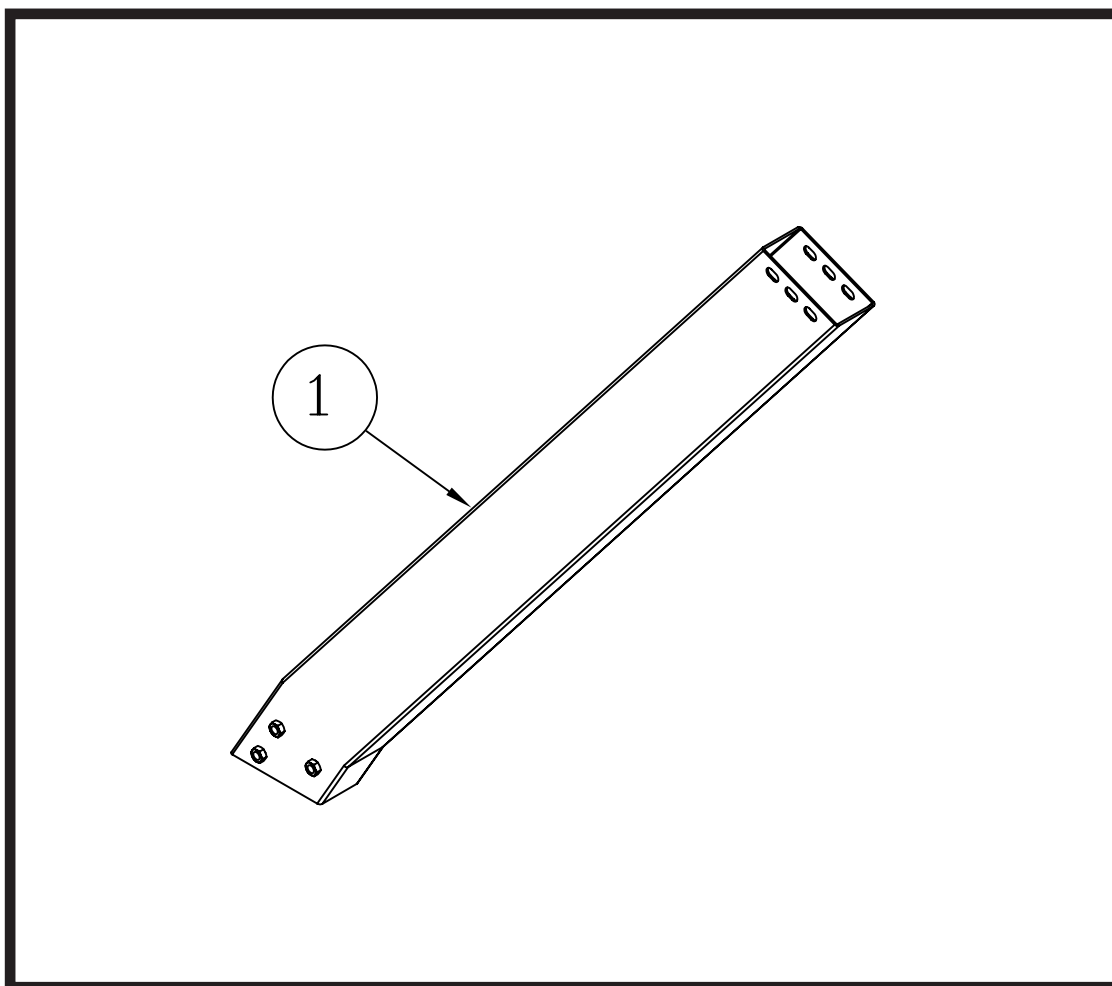


Description	Quantity	Item Number
Console Mast (L)	1	1

22-13-231

Console Mast - Right

500Tm

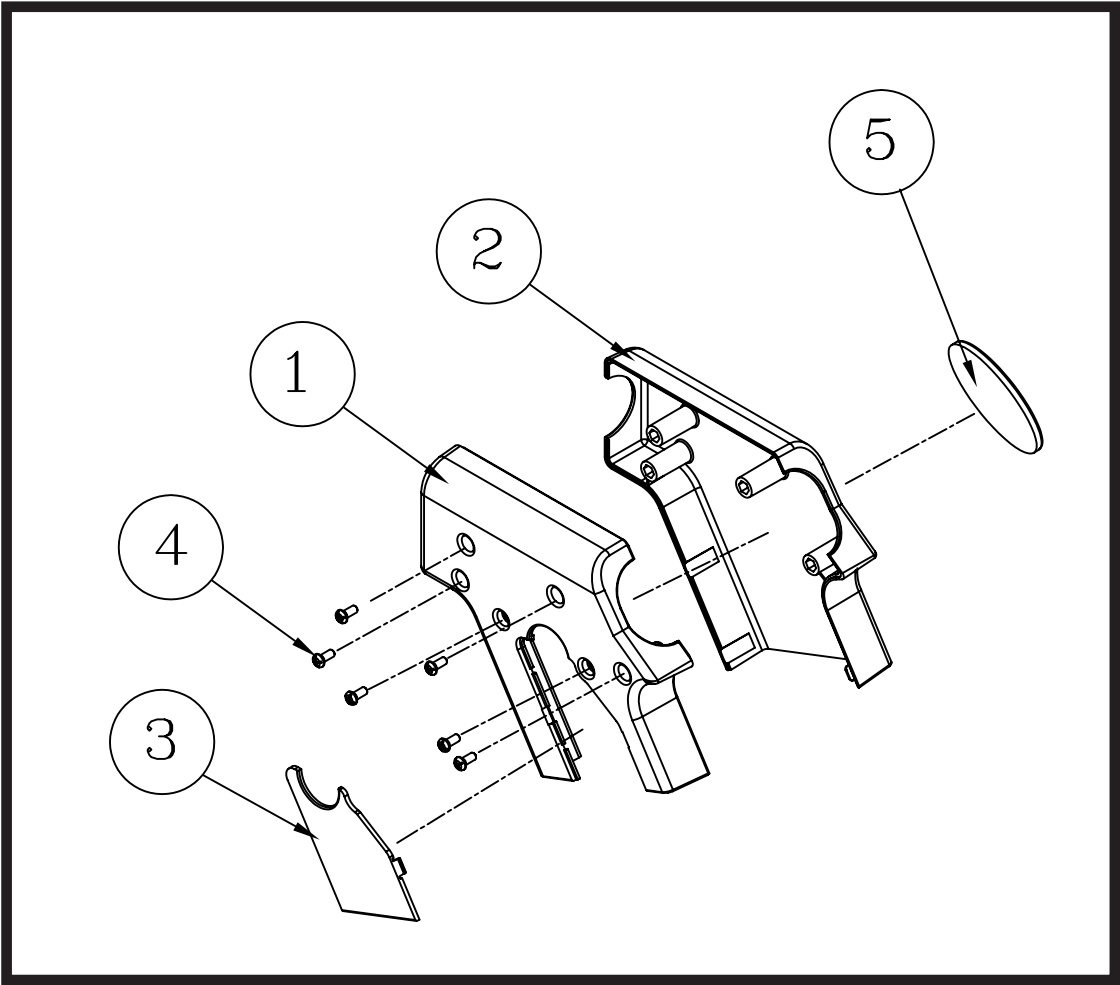


Description	Quantity	Item Number
Console Mast (R)	1	1

22-13-233

Console Mast Covers - Right

500Tm

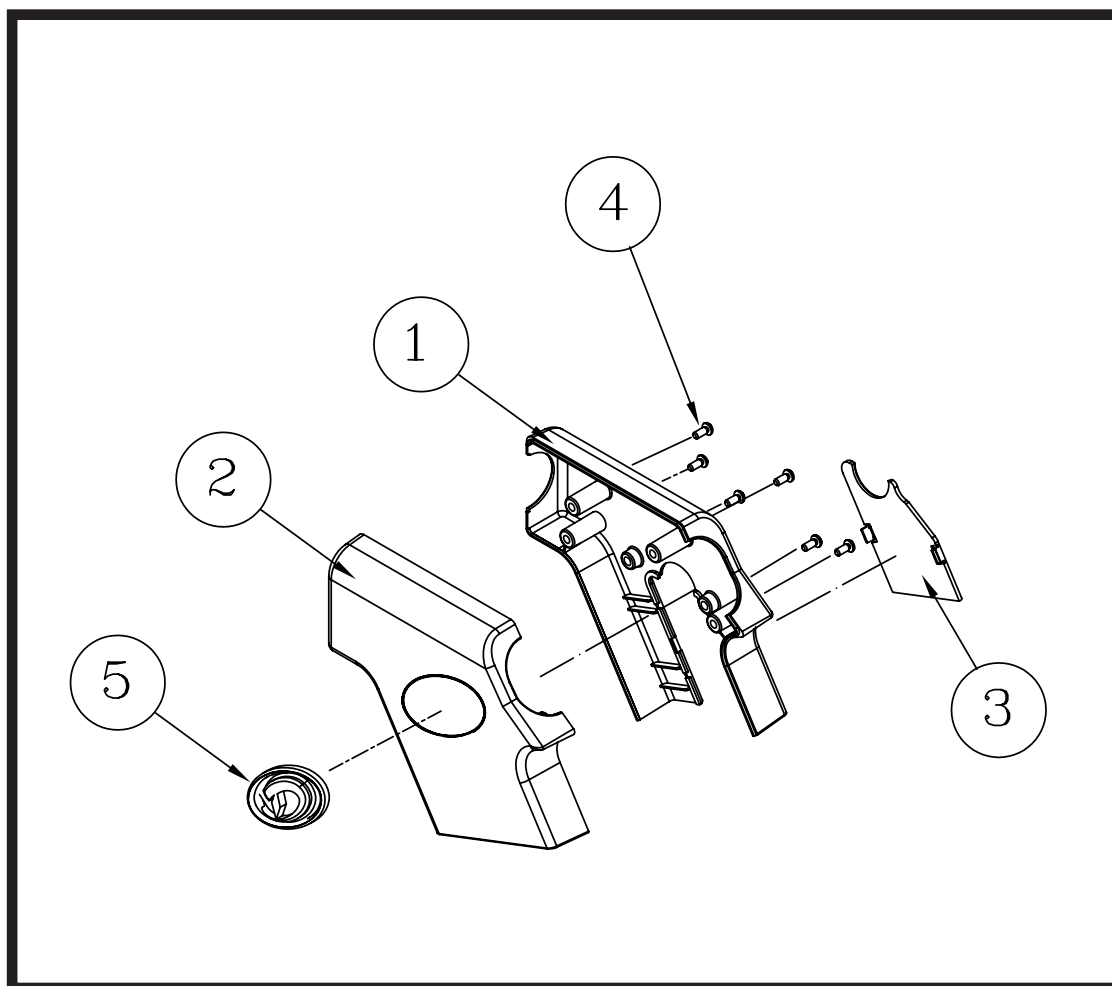


Description	Quantity	Item Number
Console Mast Cover (L).....	1	1
Console Mast Cover (R)	1	2
Guard Plate	1	3
Bolt	6	4
Trademark Label.....	1	5

22-13-235

Console Mast Covers - Left

500Tm

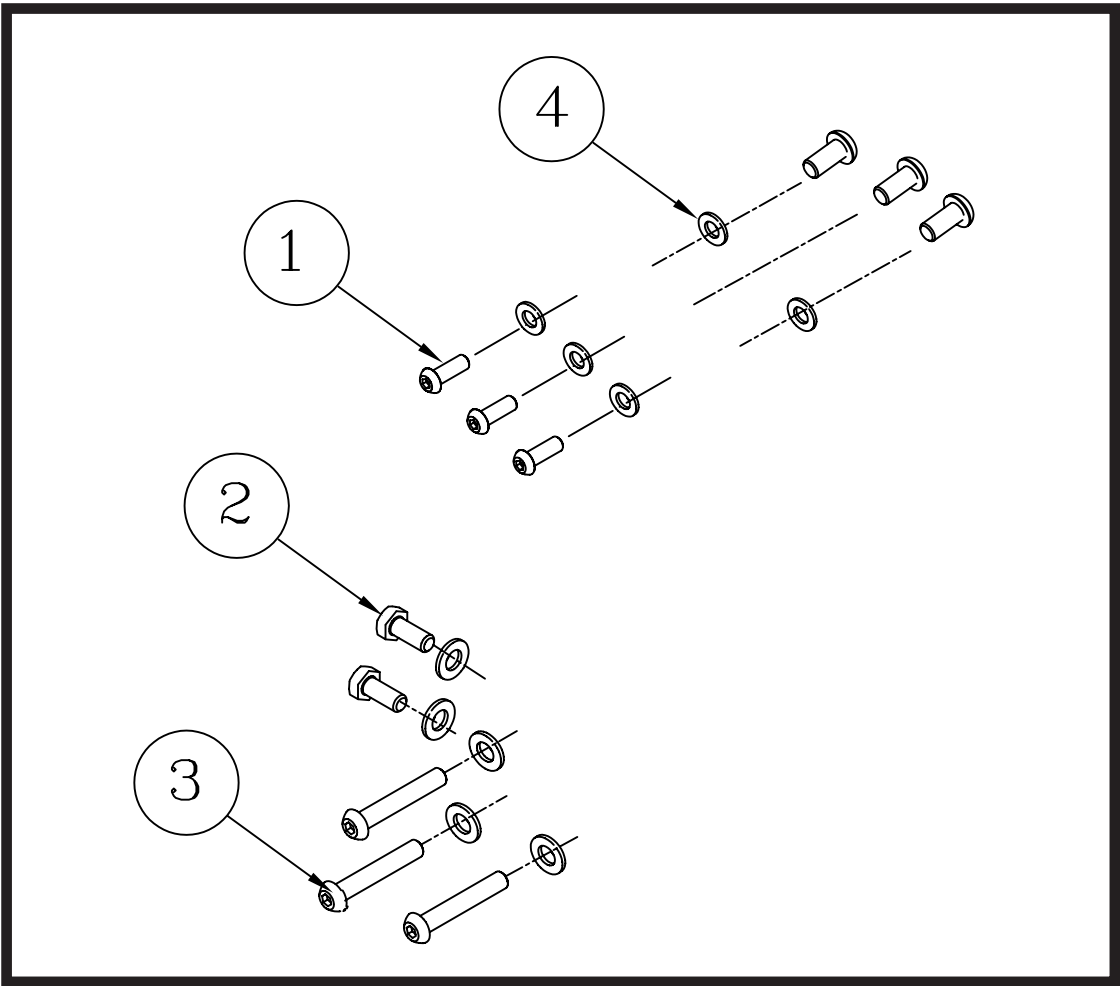


Description	Quantity	Item Number
Console Mast Cover (R)	1	1
Console Mast Cover (L)	1	2
Guard Plate	1	3
Bolt	6	4
Trademark Label	1	5

22-13-237

Console Mast Hardware Kit

500, 600, 700Tm

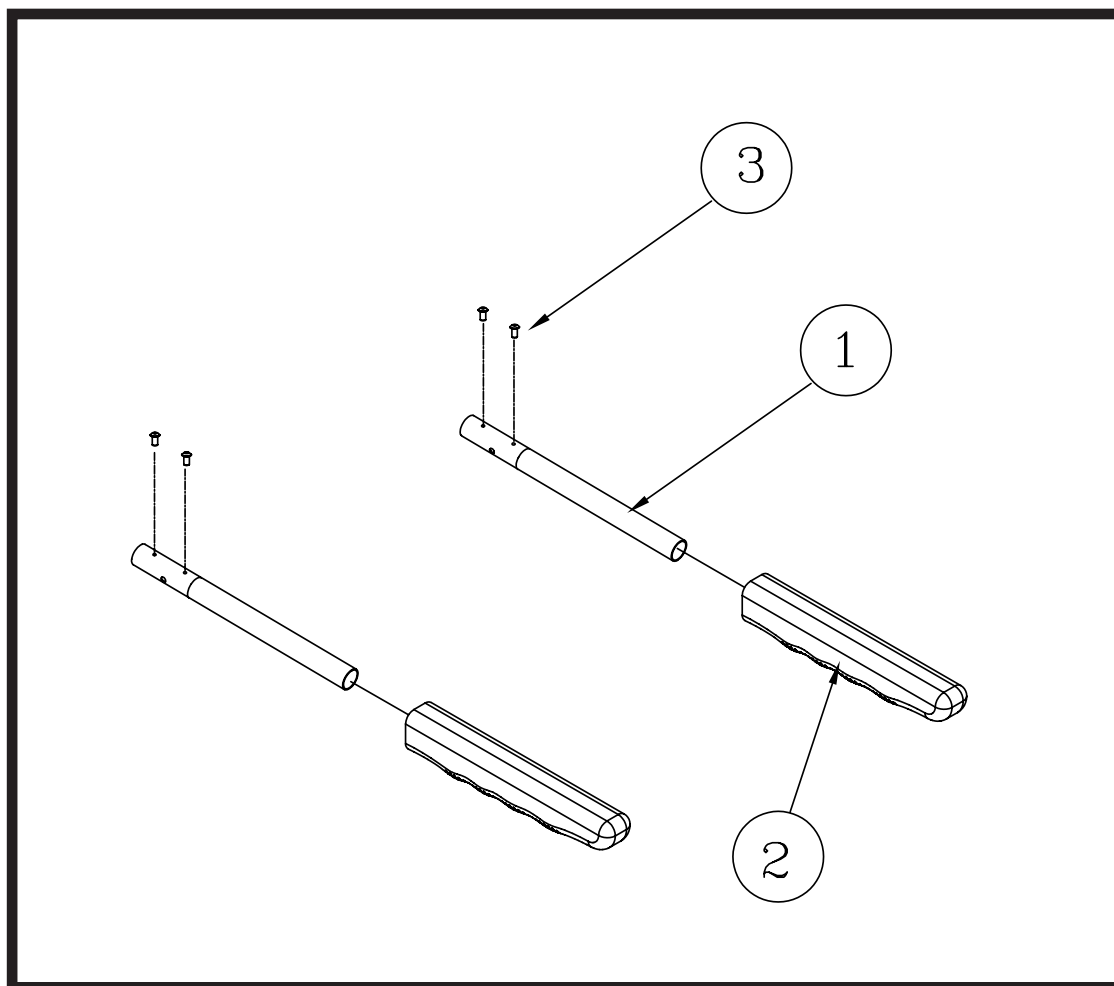


Description	Quantity	Item Number
Bolt M8 x 12mm.....	12	1
Bolt M8 x 15mm.....	4	2
Bolt M8 x 55mm.....	6	3
Flat Washer.....	22	4

22-13-239

Handrail w/Grips - Pair

500, 600, 700Tm

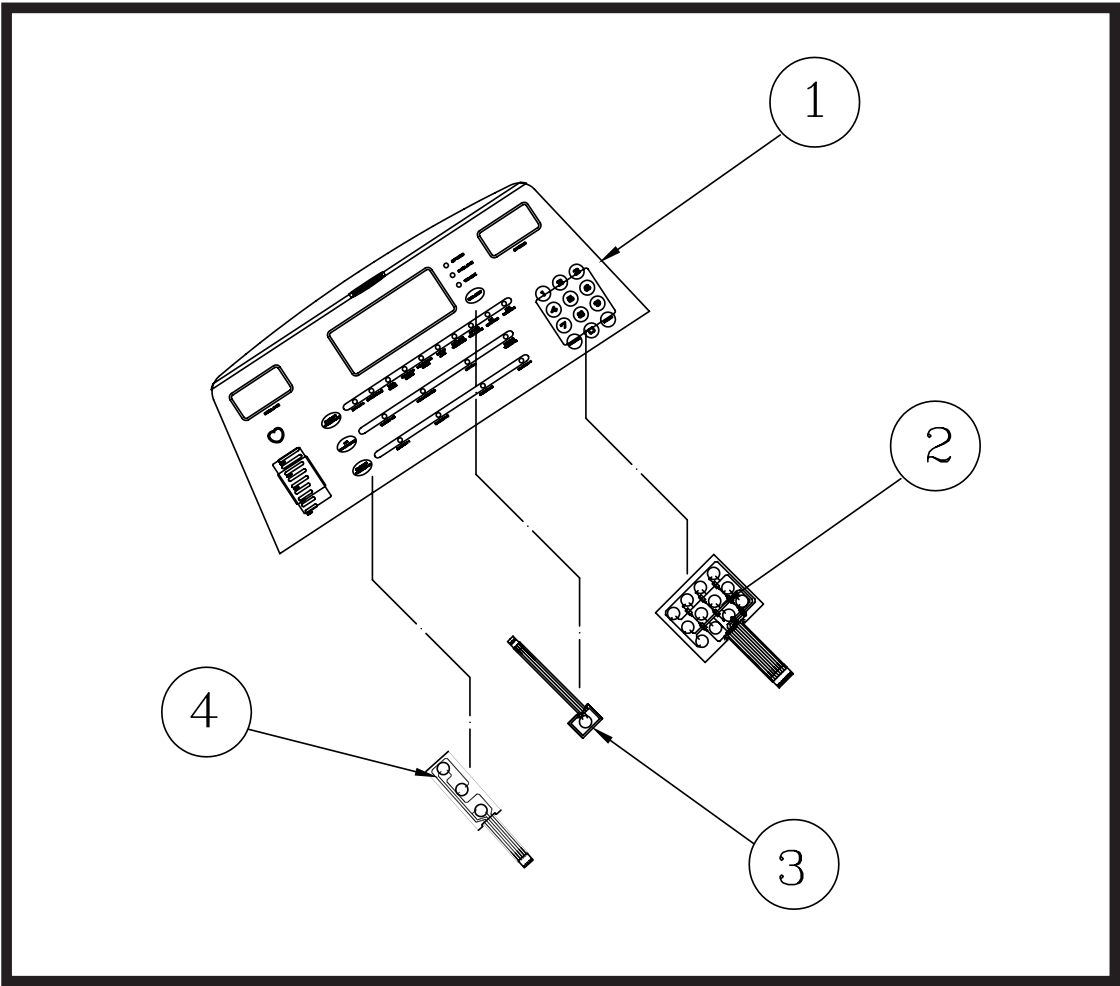


Description	Quantity	Item Number
Hand Rail.....	2	1
Grip.....	2	2
Screw	4	3

22-13-251

Upper Overlay & Keypads

700Tm

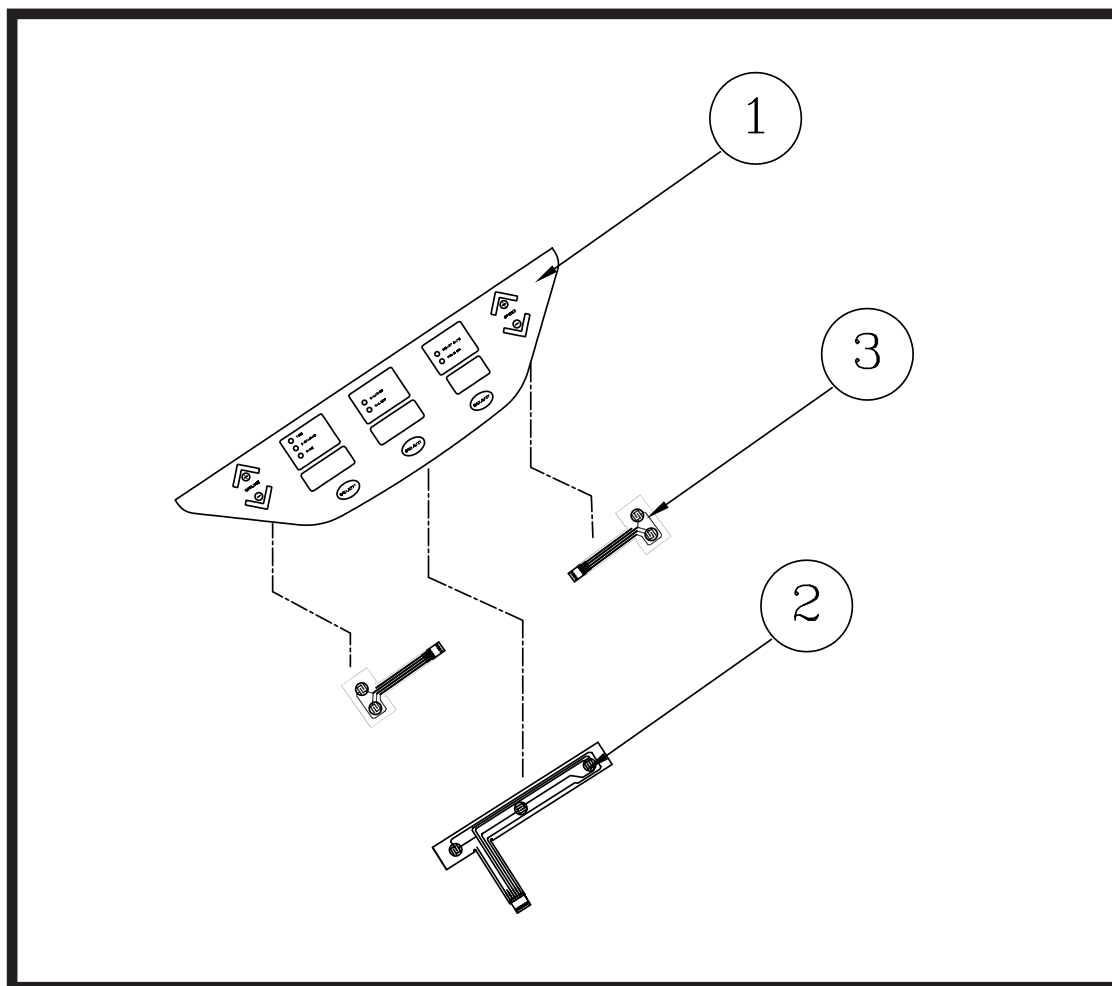


Description	Quantity	Item Number
Upper Overlay	1	1
Numeric Key Pad	1	2
Display Select Key Pad	1	3
Program Select Key Pad	1	4

22-13-253

Lower Overlay & Keypads

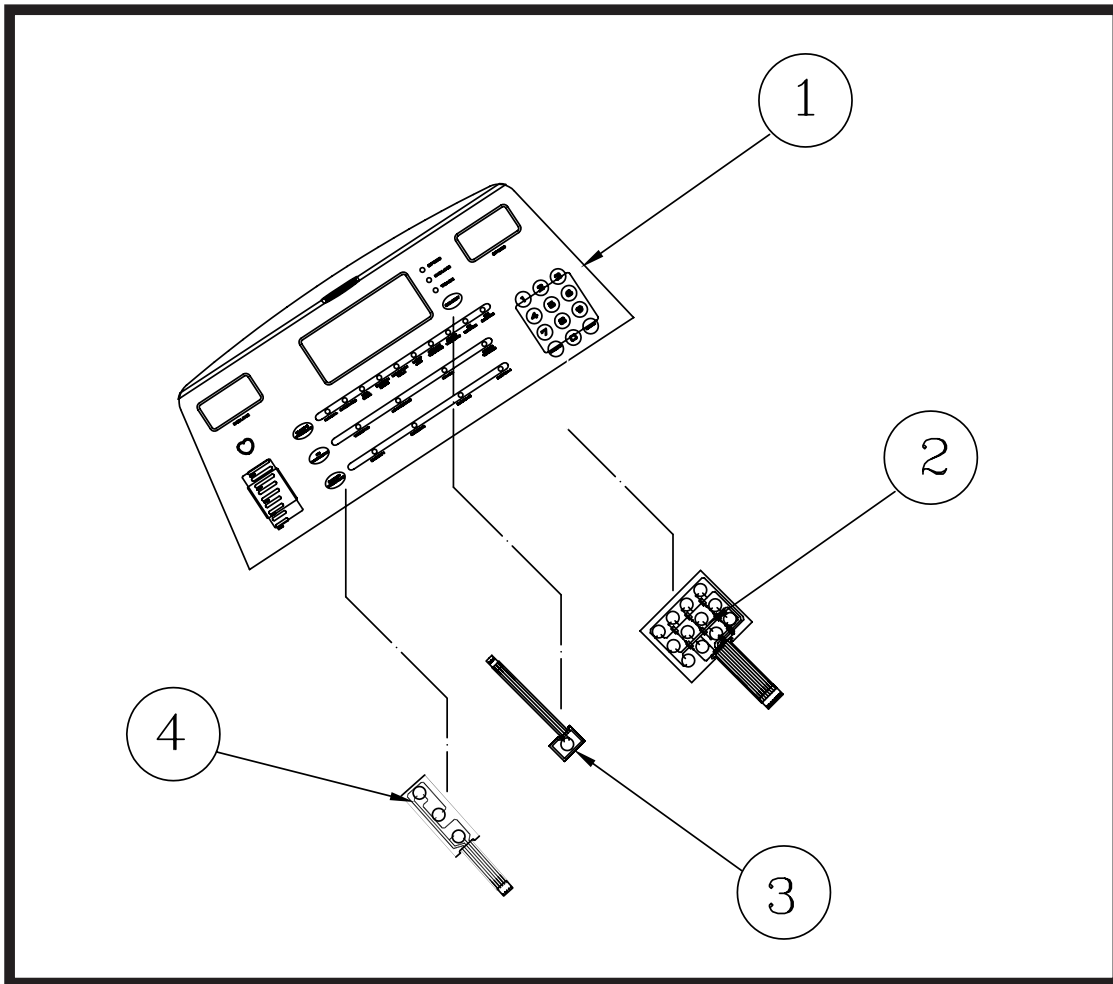
700Tm



Description	Quantity	Item Number
Lower Overlay	1	1
Data Select Key Pad	1	2
UP/DOWN Key Pad.....	2	3

22-13-255

Upper Overlay & Keypads 600Tm

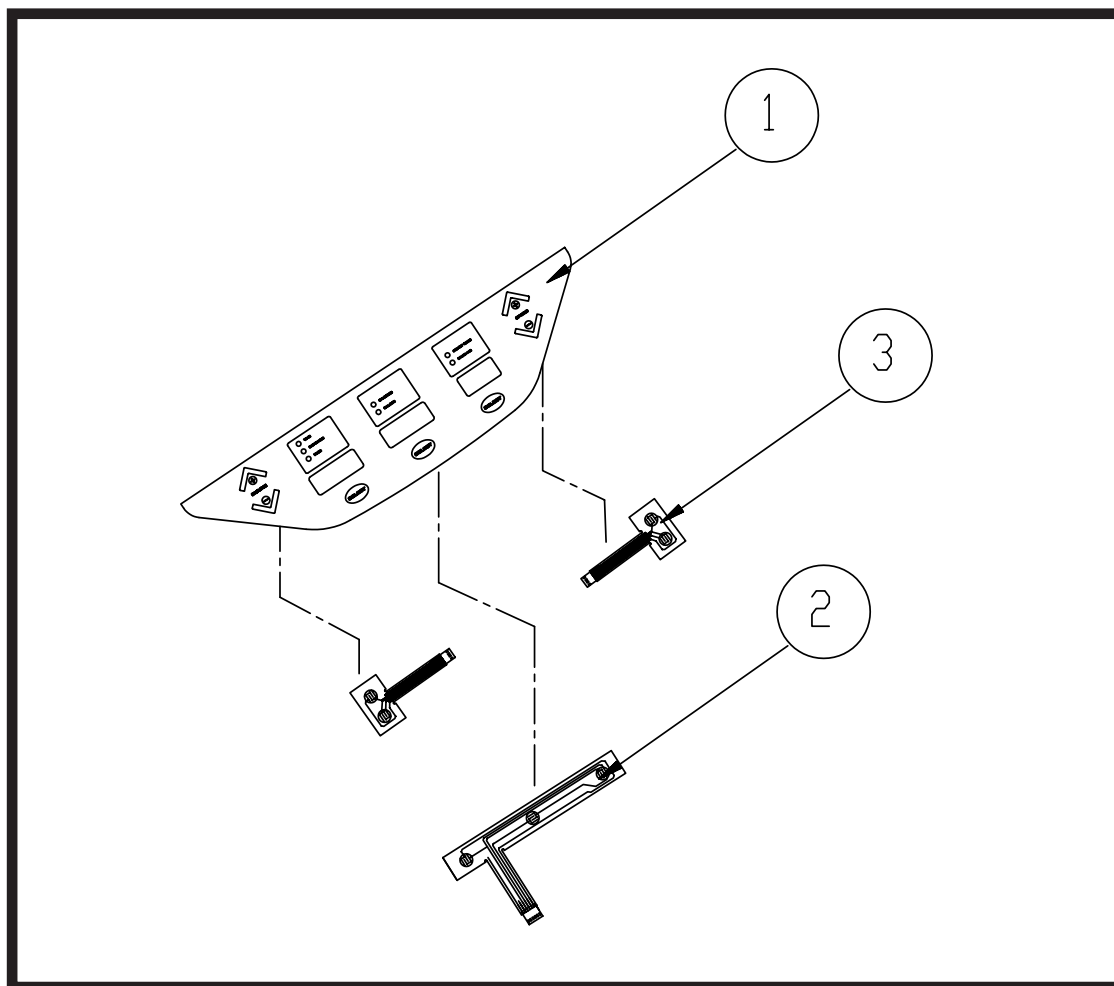


Description	Quantity	Item Number
Upper Overlay	1	1
Numeric Key Pad	1	2
Display Select Key Pad	1	3
Program Select Key Pad	1	4

22-13-257

Lower Overlay & Keypads

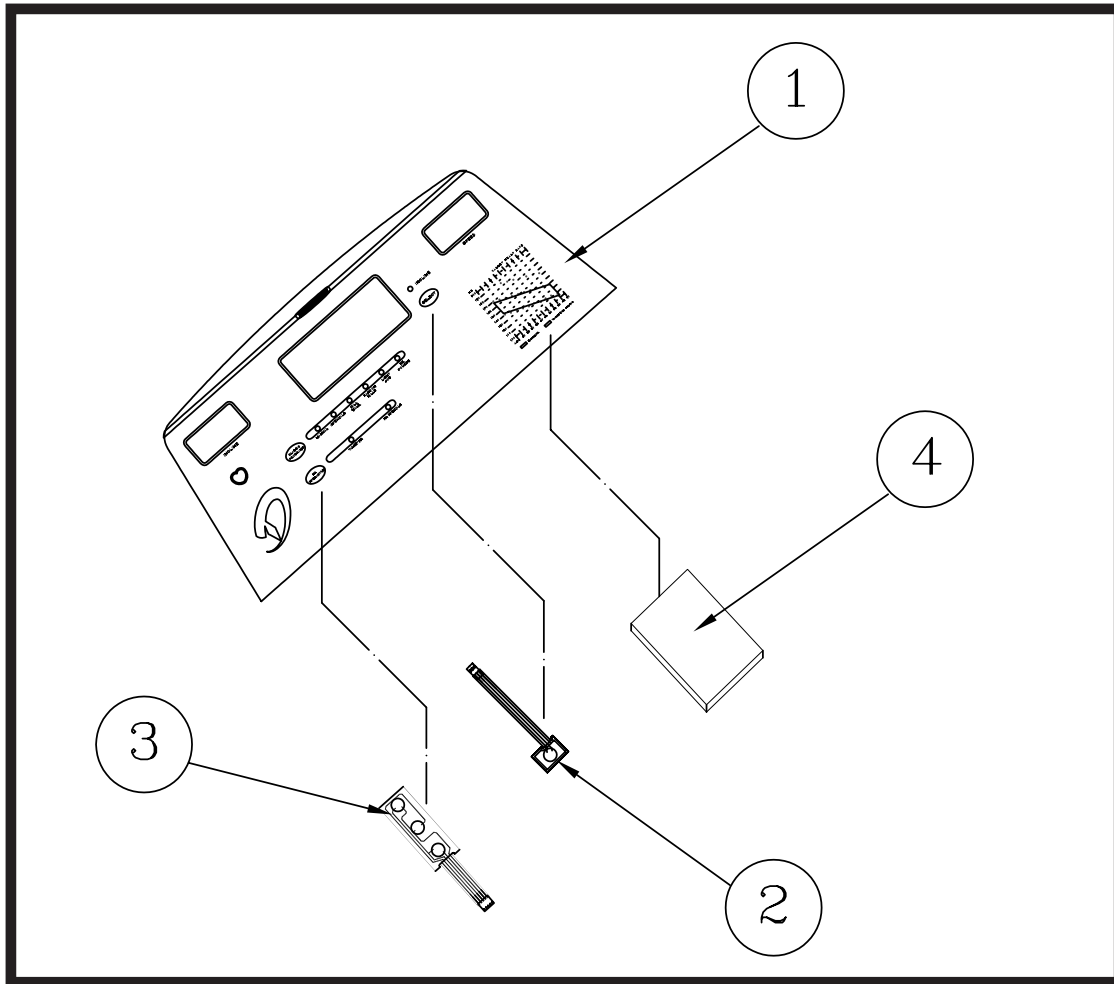
600Tm



Description	Quantity	Item Number
Lower Overlay	1	1
Data Select Key Pad	1	2
UP/DOWN Key Pad.....	2	3

22-13-259

Upper Overlay & Keypads 500Tm

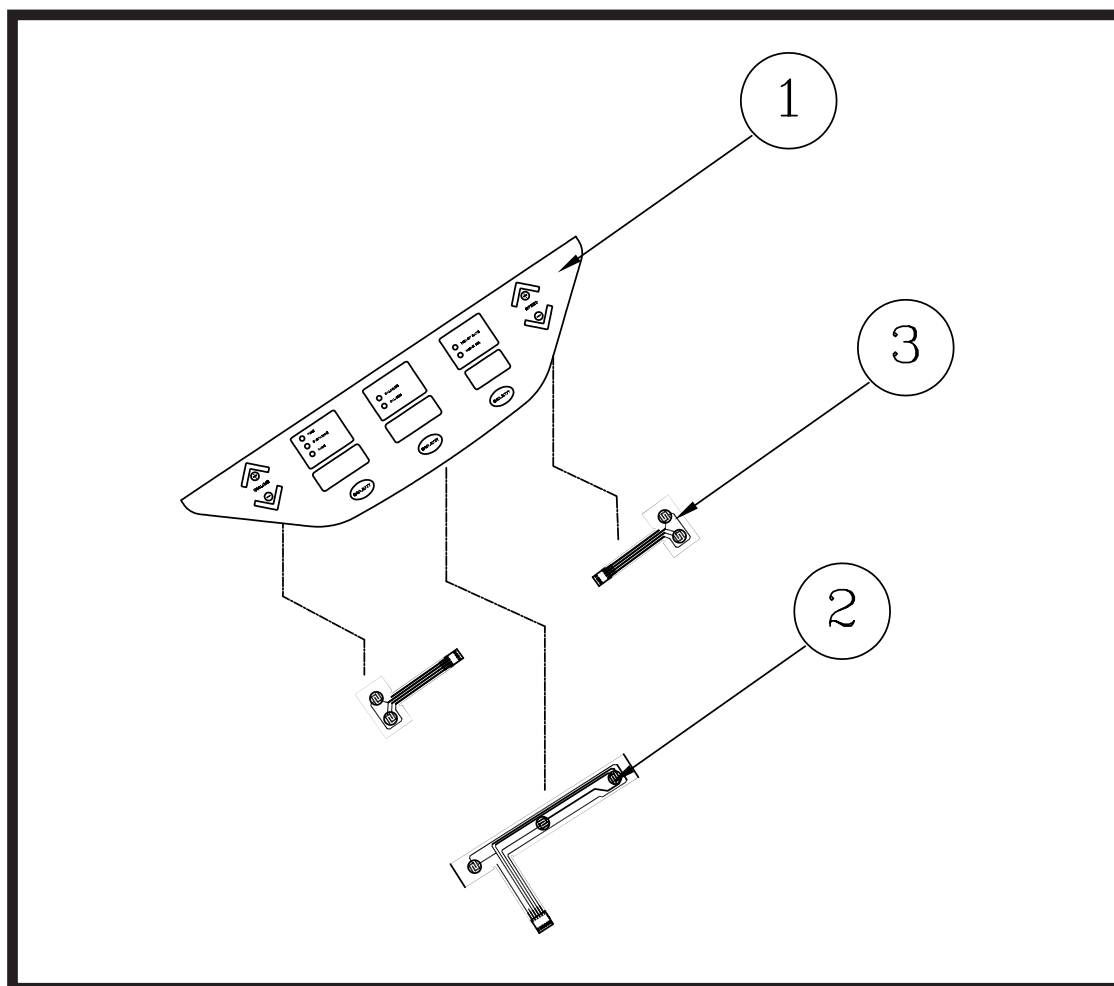


Description	Quantity	Item Number
Upper Overlay	1	1
Display Select Key Pad	1	2
Program Select Key Pad	1	3
Spacer	1	4

22-13-261

Lower Overlay & Keypads

500Tm

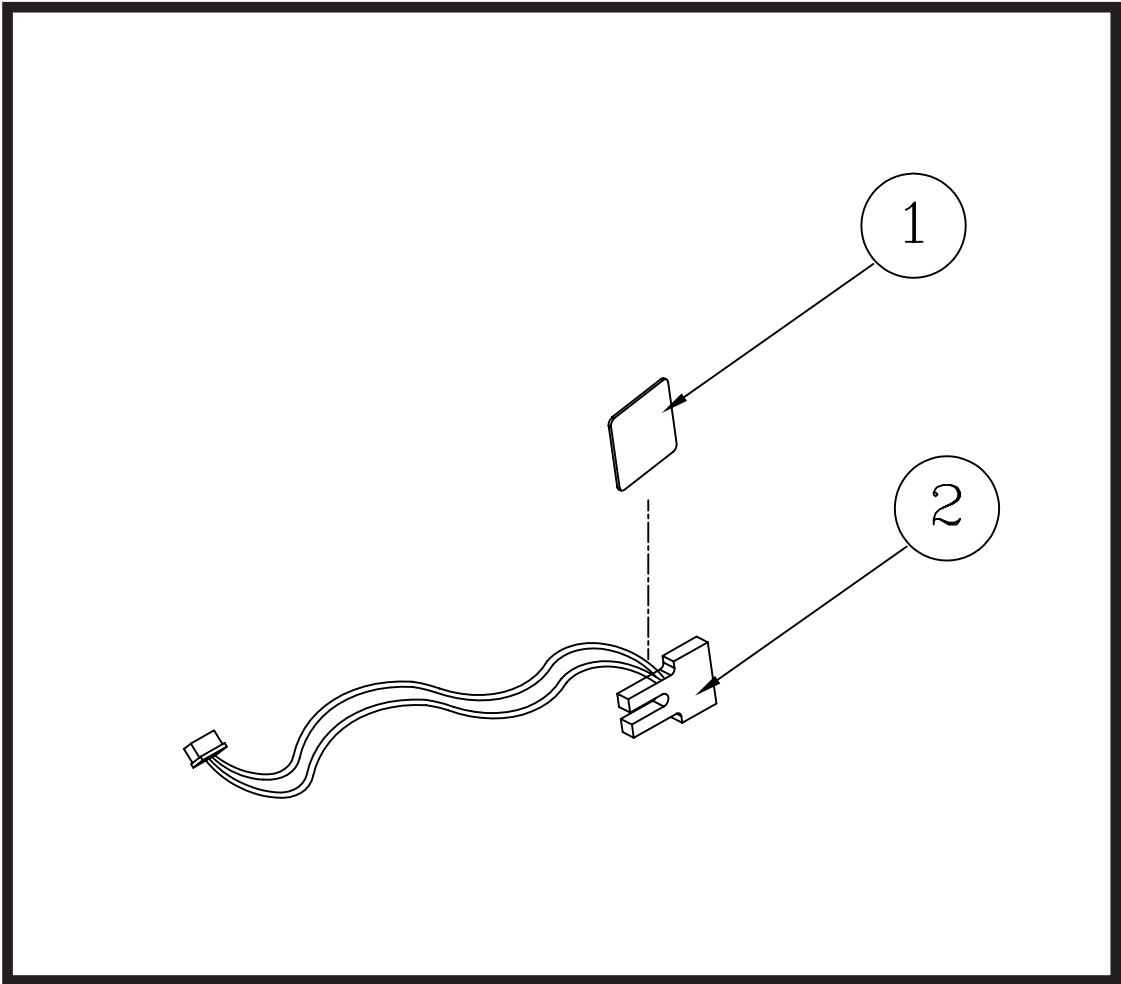


Description	Quantity	Item Number
Lower Overlay	1	1
Data Select Key Pad	1	2
UP/DOWN Key Pad.....	2	3

22-13-271

Reed Switch for Safety Key

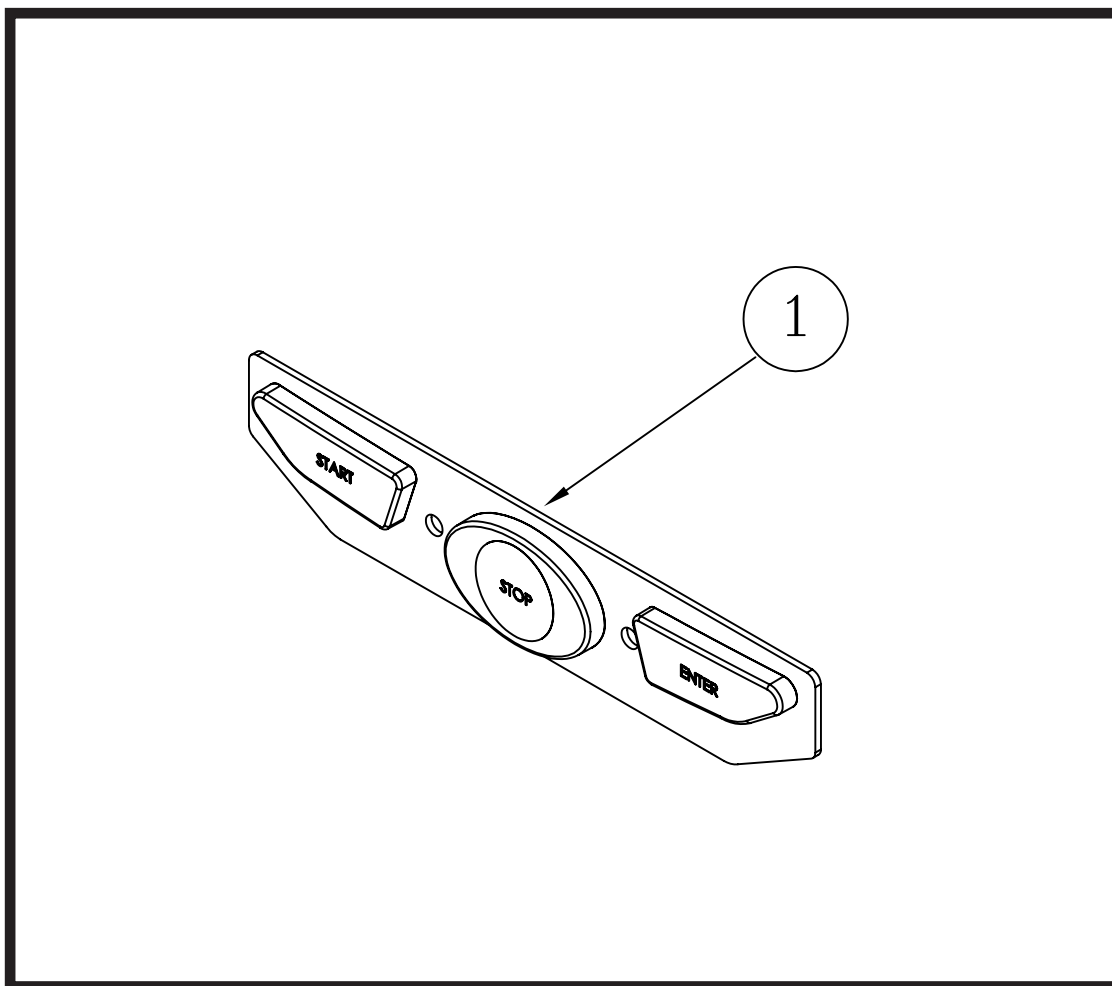
500, 600, 700Tm



Description	Quantity	Item Number
Metal Plate	1	1
Reed Switch	1	2

22-13-291

Rubber Start/Stop/Enter Keys 500, 600, 700Tm

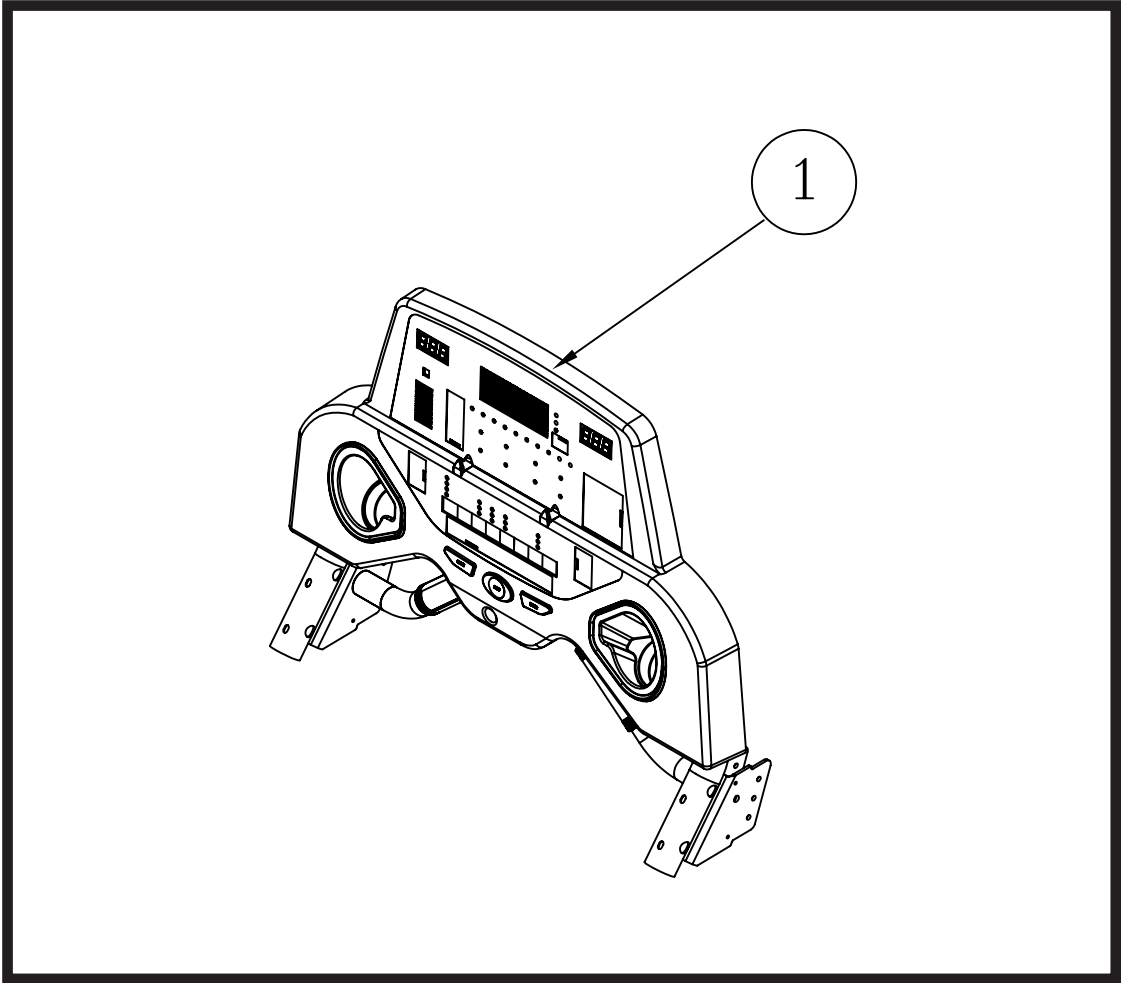


Description	Quantity	Item Number
Rubber Start/Stop/Enter Keys	1	1

22-13-301

Console Assembly

700Tm

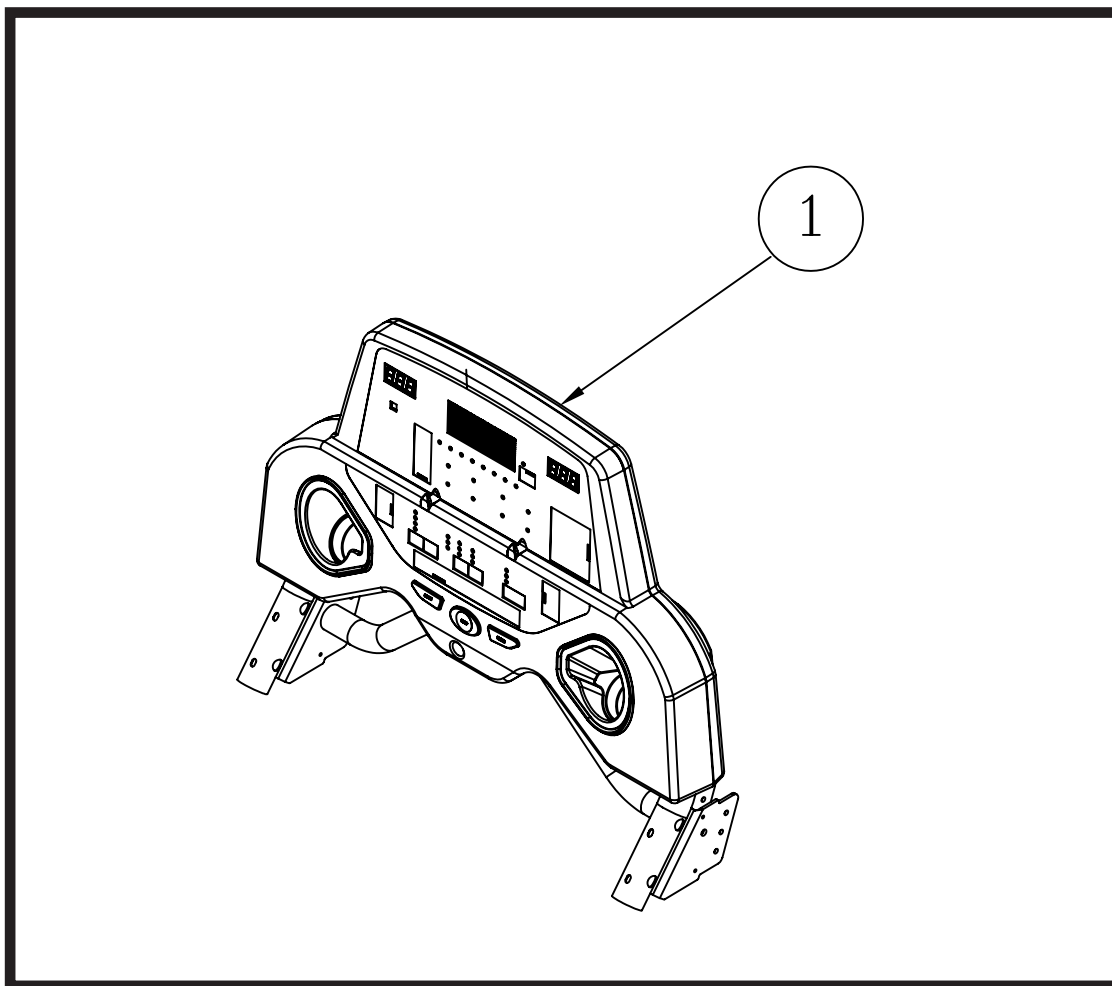


Description	Quantity	Item Number
Console	1	1

22-13-303

Console Assembly

600Tm

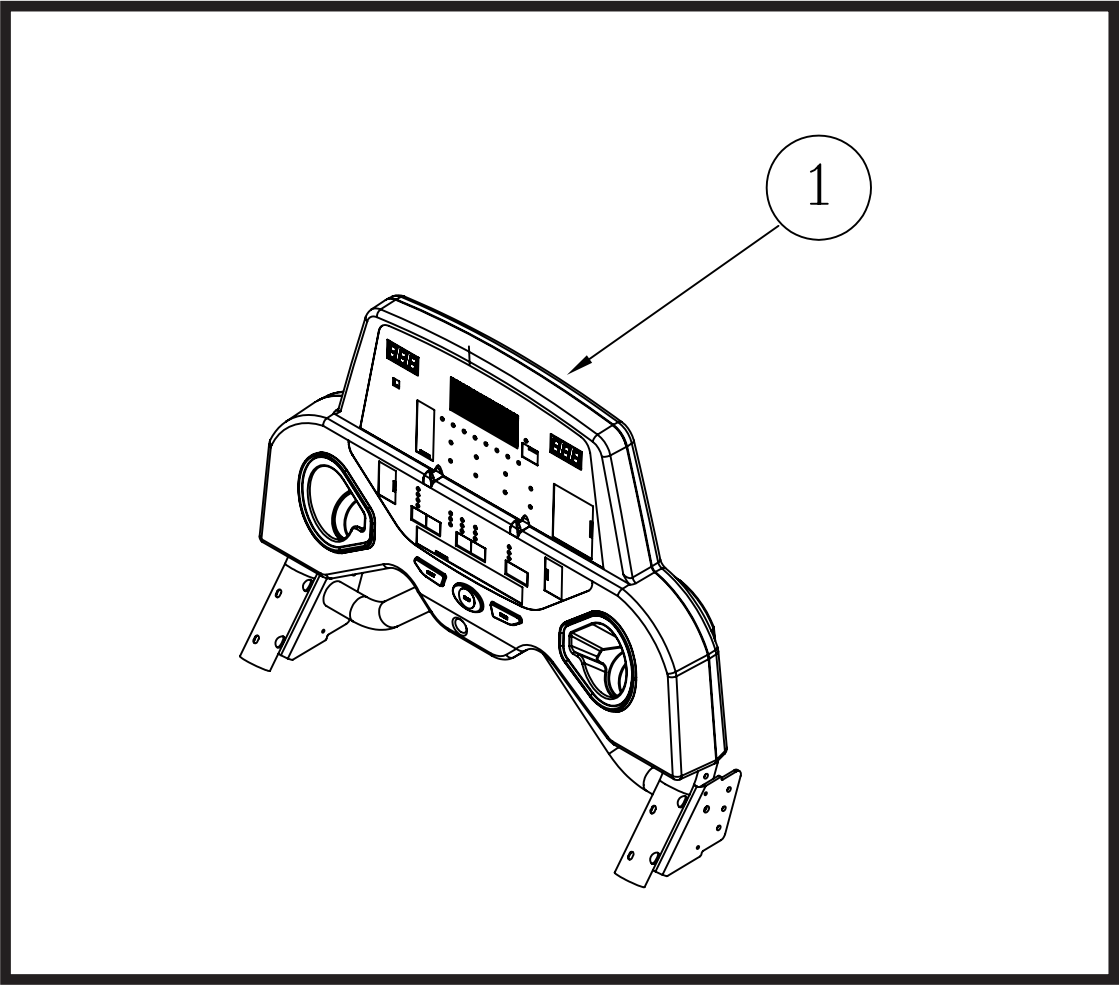


Description	Quantity	Item Number
Console	1	1

22-13-305

Console Assembly

500Tm

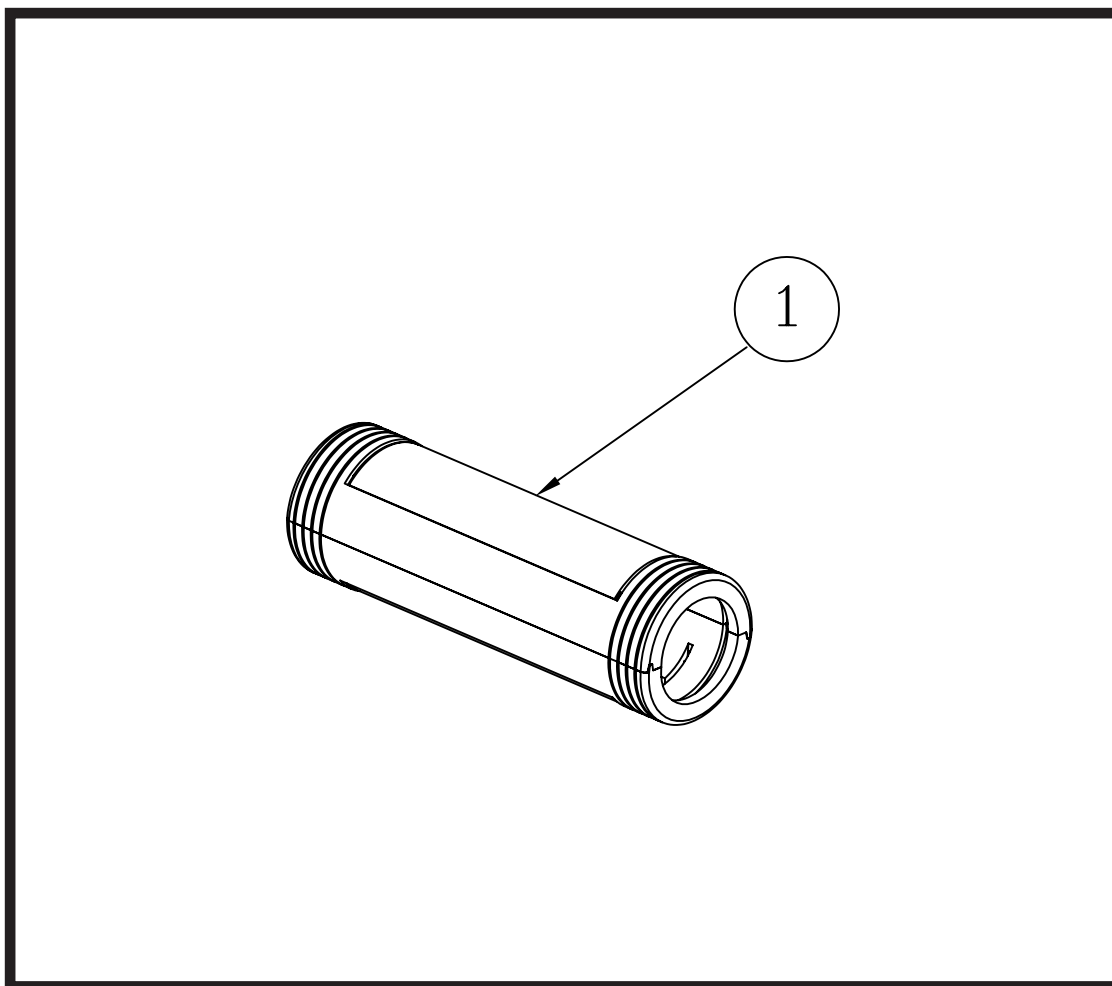


Description	Quantity	Item Number
Console	1	1

22-13-311

Handpulse Sensors & Hardware

700Tm

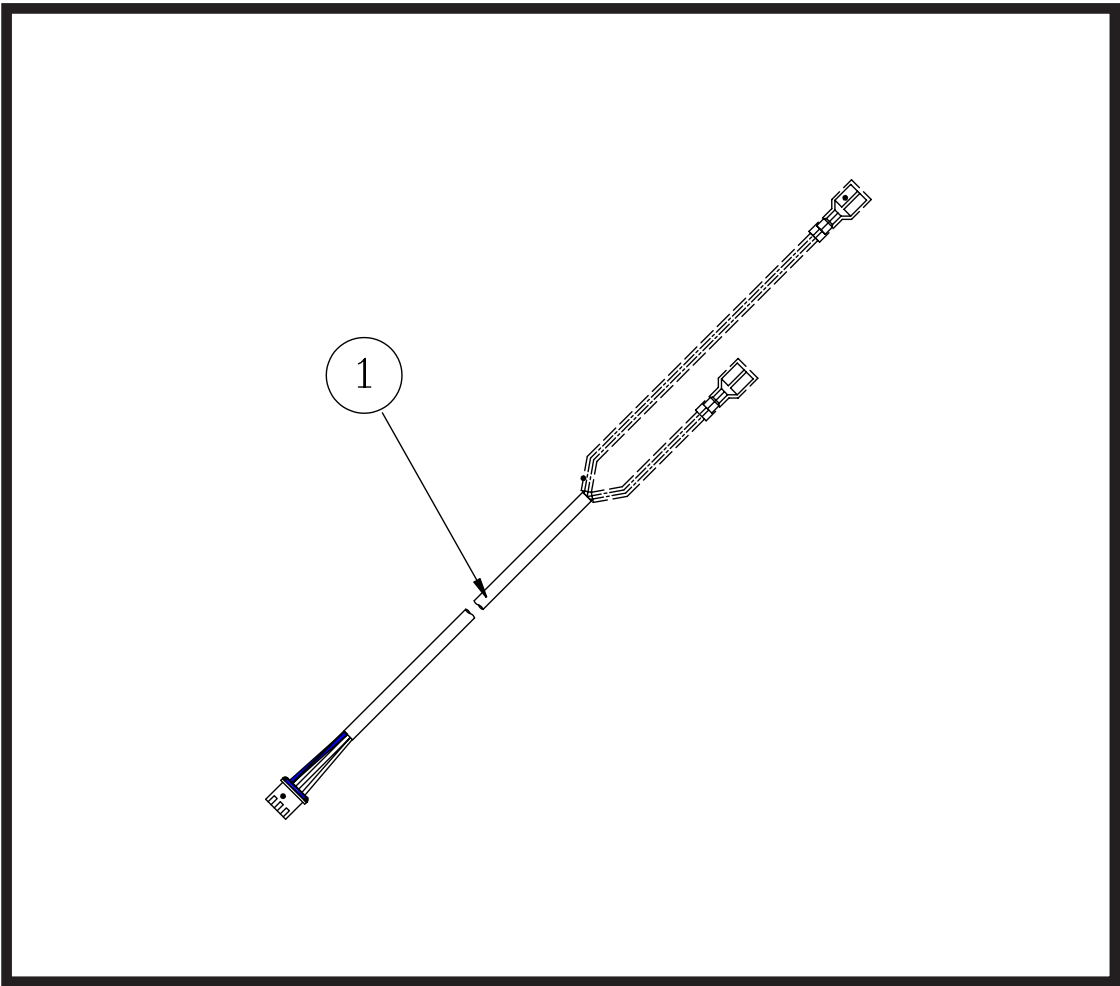


Description	Quantity	Item Number
Handpulse Sensors & Hardware	1	1

22-13-313

Handpulse Harness

700Tm

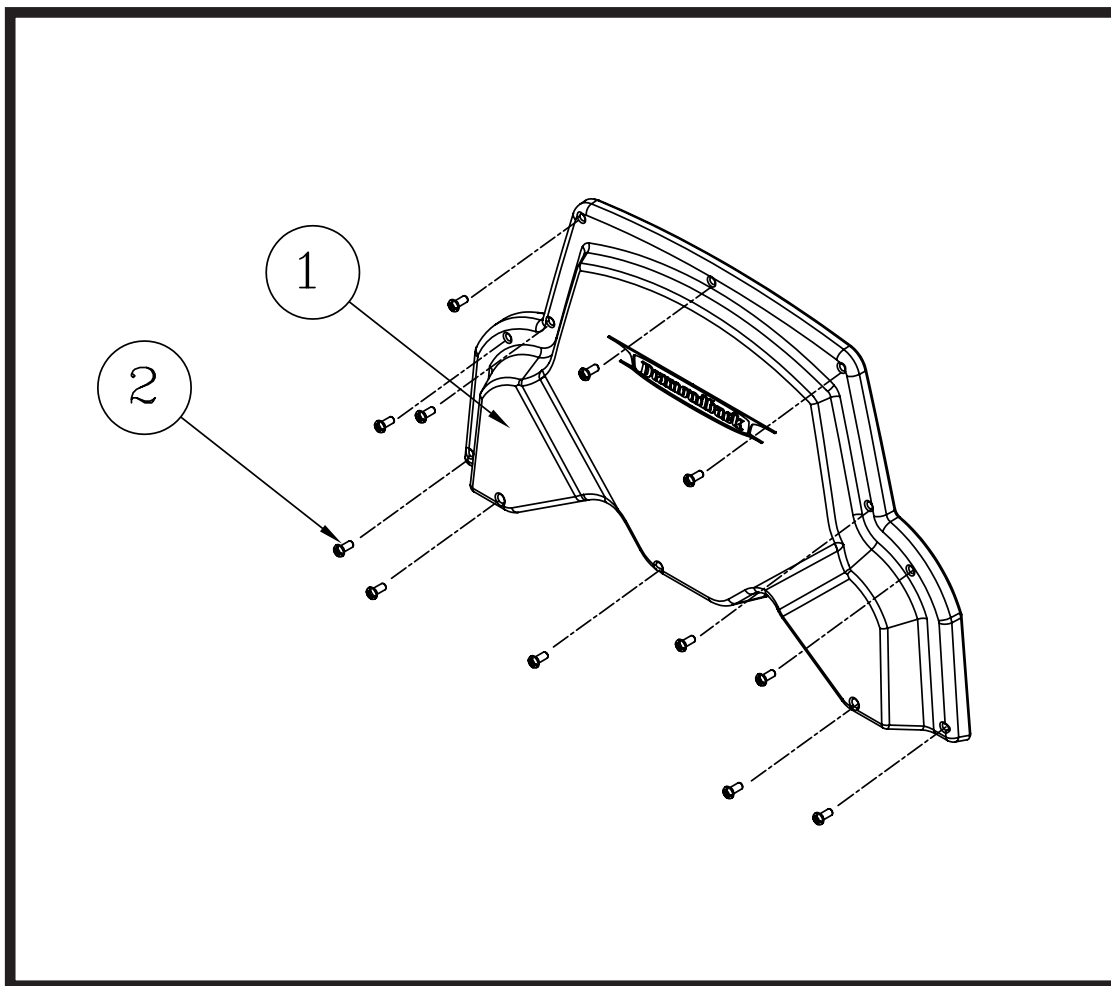


Description	Quantity	Item Number
Handpulse Harness.....	2	1

22-13-315

Console - Back Cover and Bolts

500, 600, 700Tm

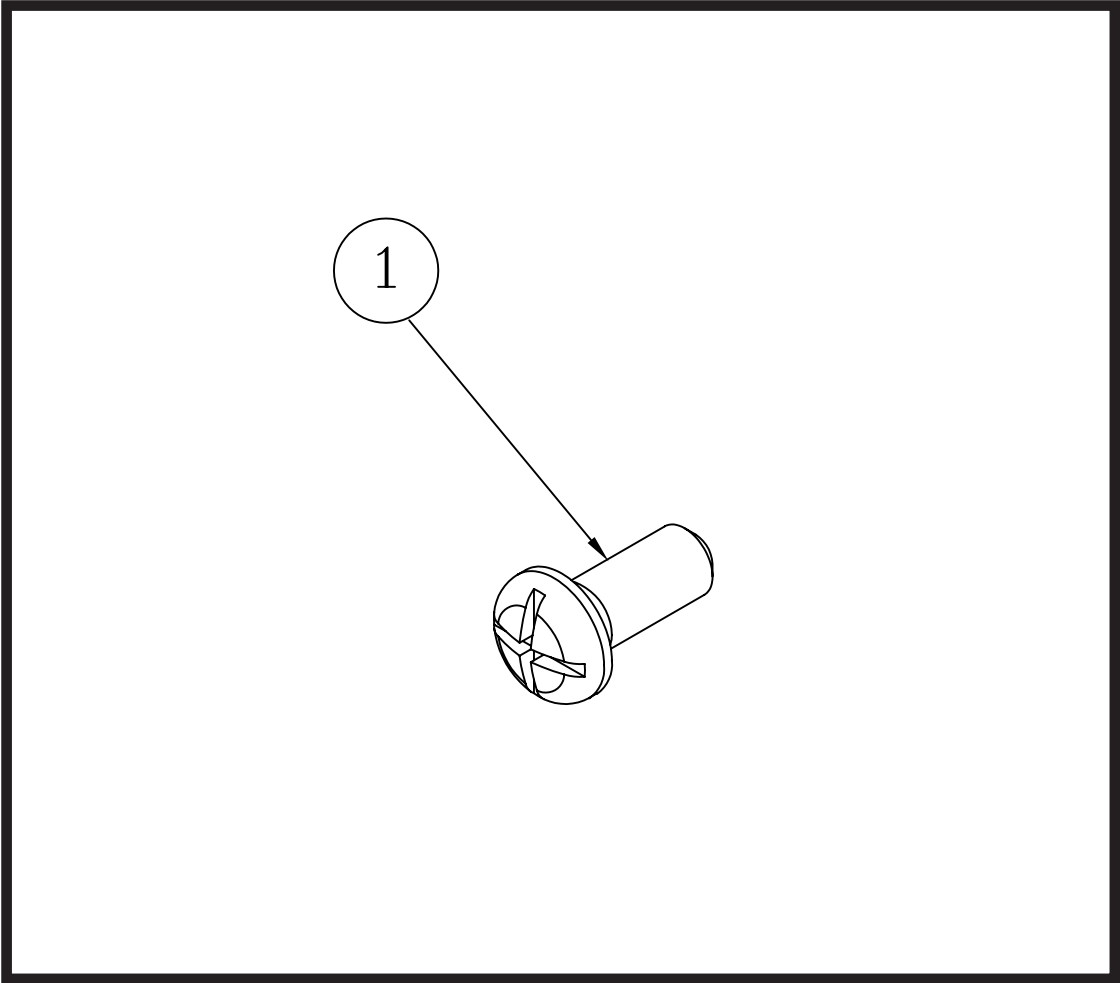


Description	Quantity	Item Number
Console's Back Cover	1	1
Bolt	12	2

22-13-317

Console Hardware Kit for Back Cover

500, 600, 700Tm

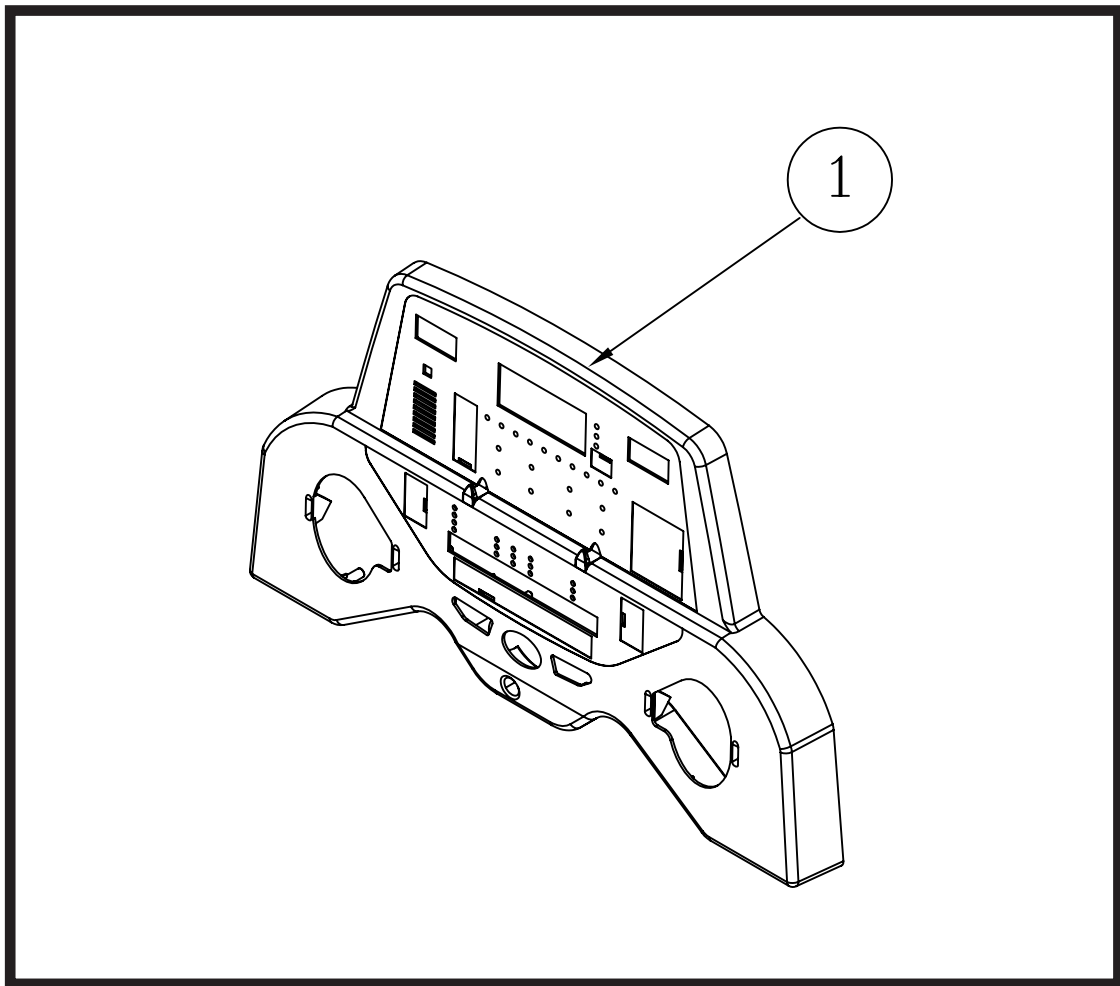


Description	Quantity	Item Number
Bolt	12	1

22-13-319

Console - Front Cover

700Tm

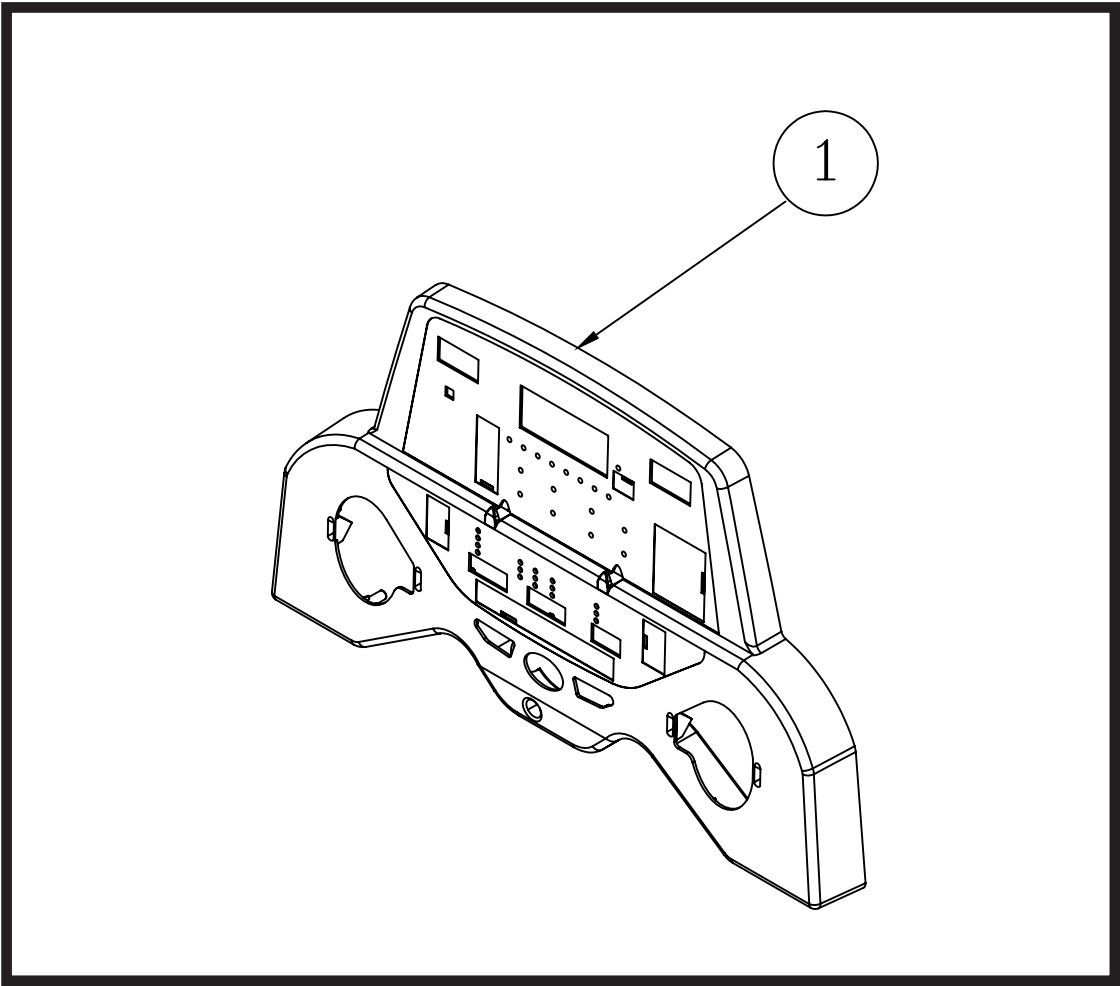


Description	Quantity	Item Number
Console's Front Cover Assy.	1	1

22-13-321

Console - Front Cover

600Tm

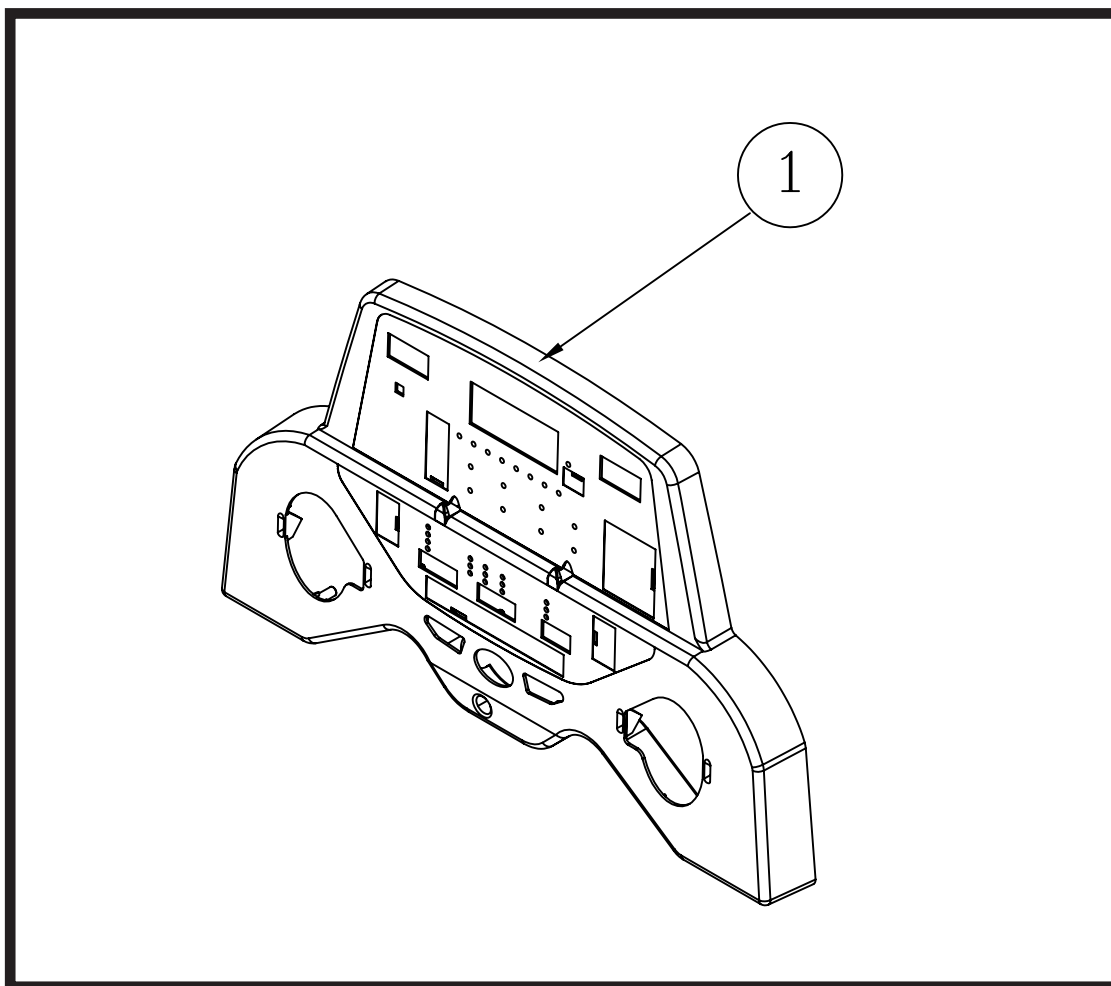


Description	Quantity	Item Number
Console's Front Cover Assy.	1	 1

22-13-323

Console - Front Cover

500Tm

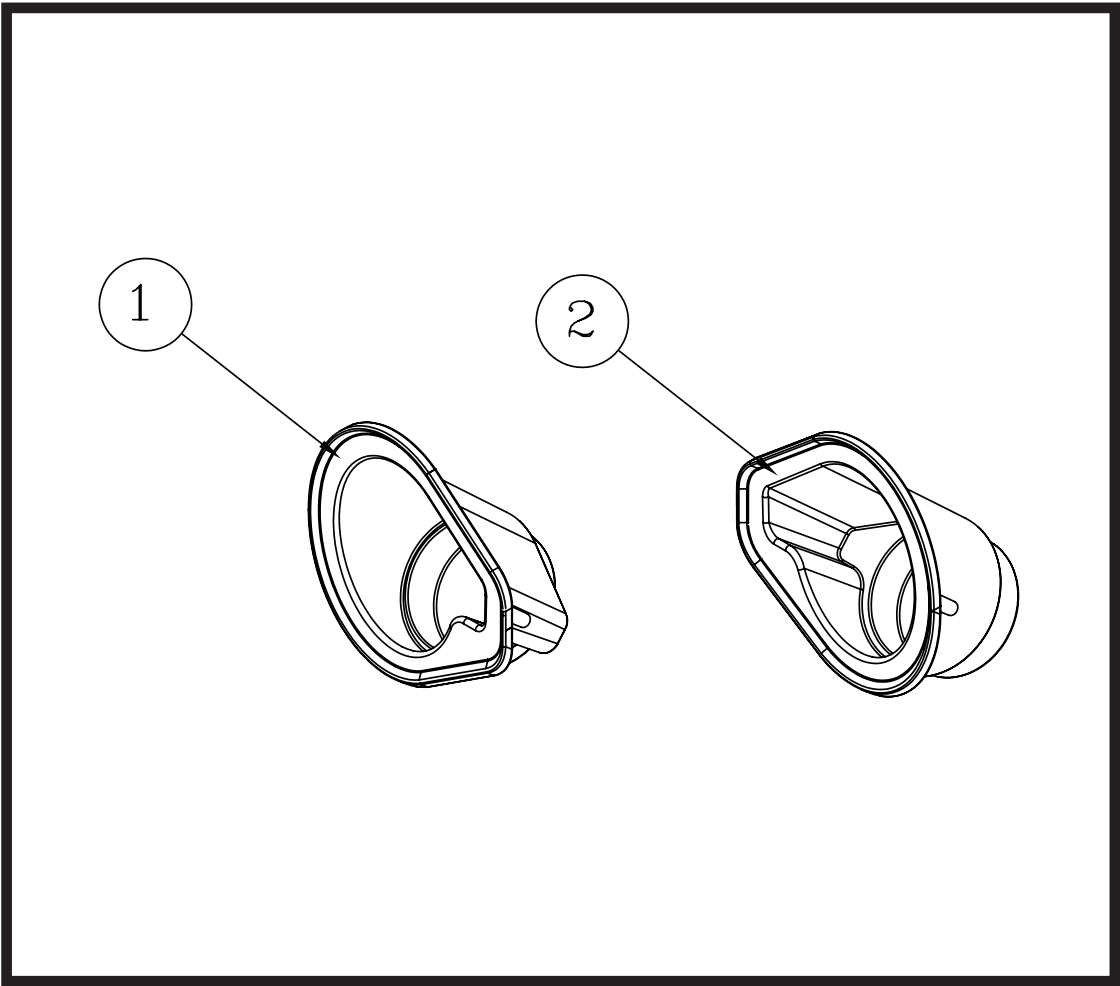


Description	Quantity	Item Number
Console's Front Cover Assy.	1	1

22-13-325

Console Cup Holders

500, 600, 700Tm

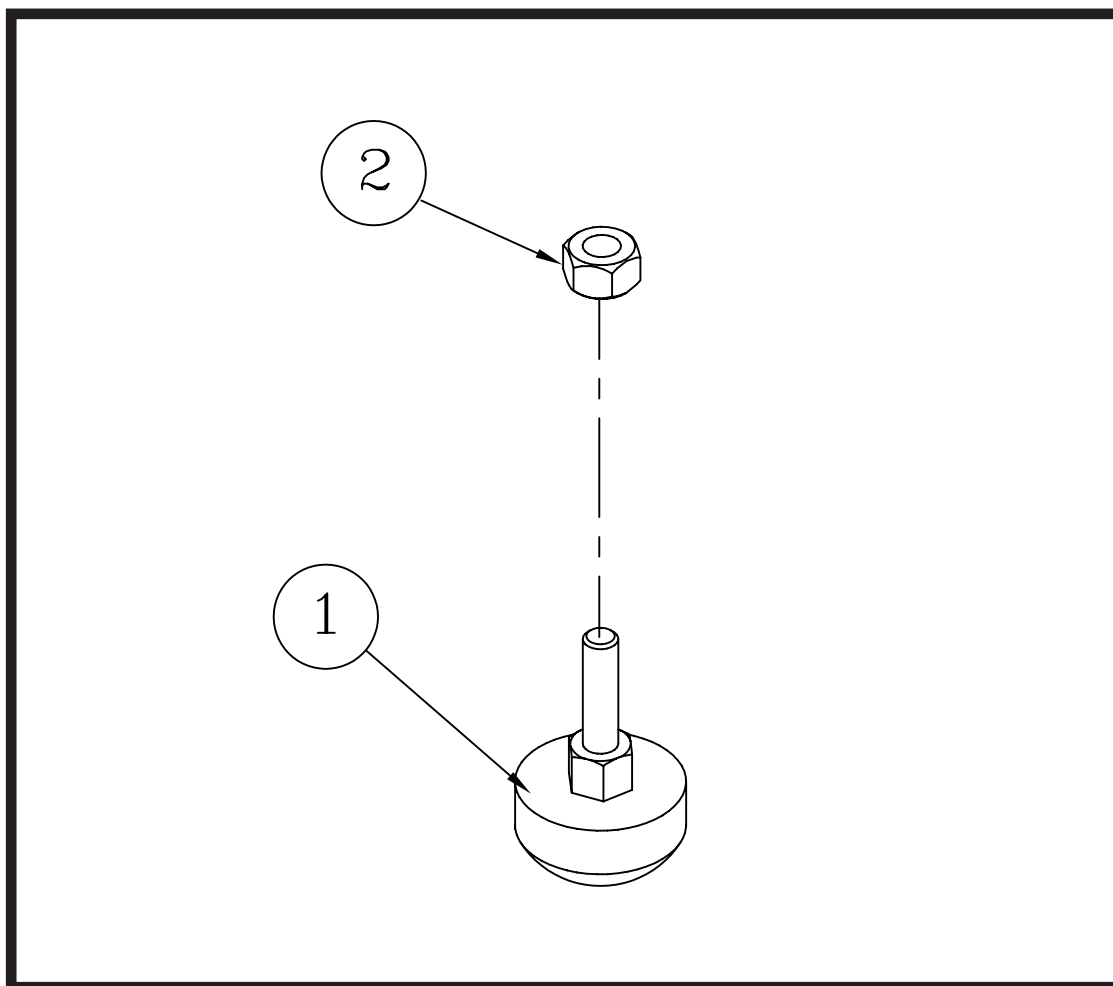


Description	Quantity	Item Number
Cup Holders (L)	1	1
Cup Holders (R)	1	2

22-13-331

Rear Stabilizer

500, 600, 700Tm

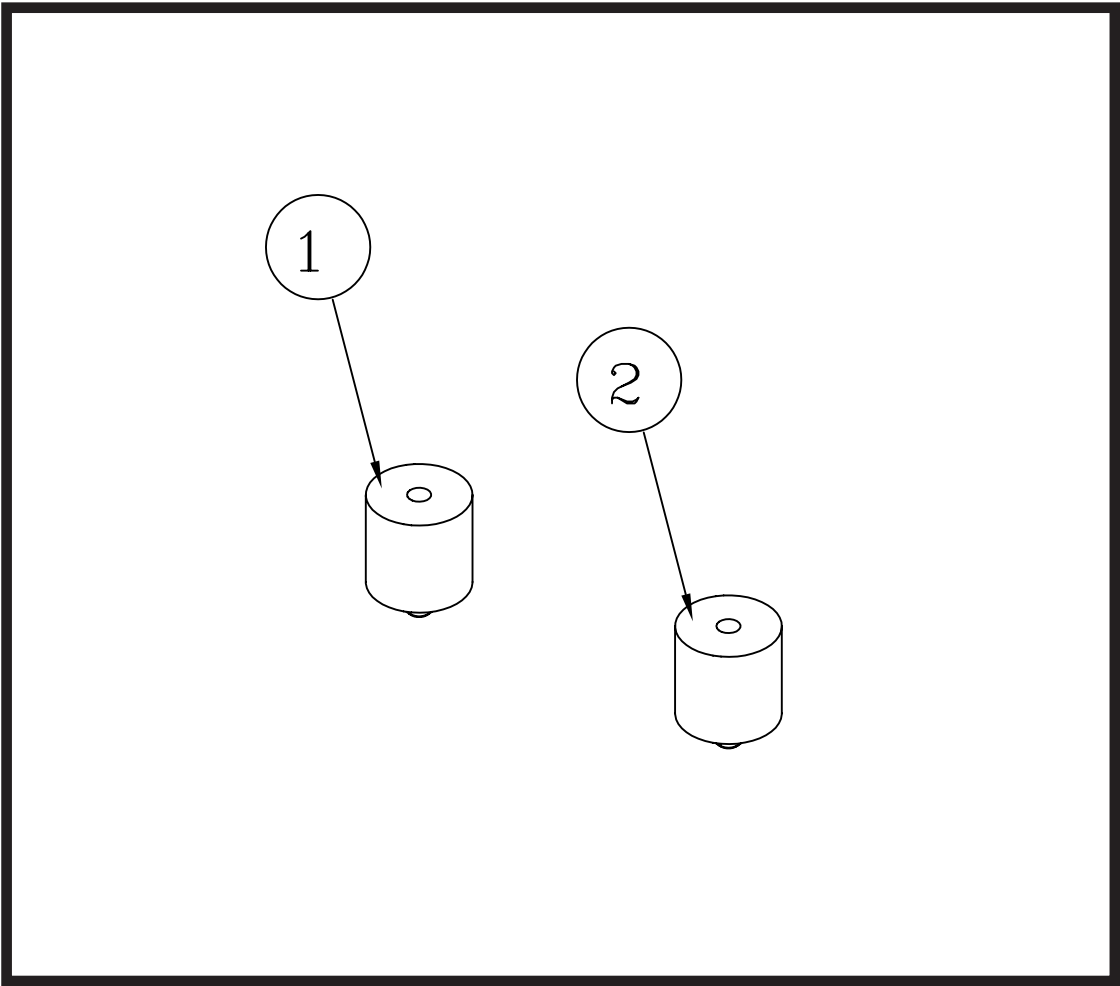


Description	Quantity	Item Number
Stabilizer.....	2	1
Nut.....	2	2

22-13-333

Deck Impact Absorbers

500, 600, 700Tm

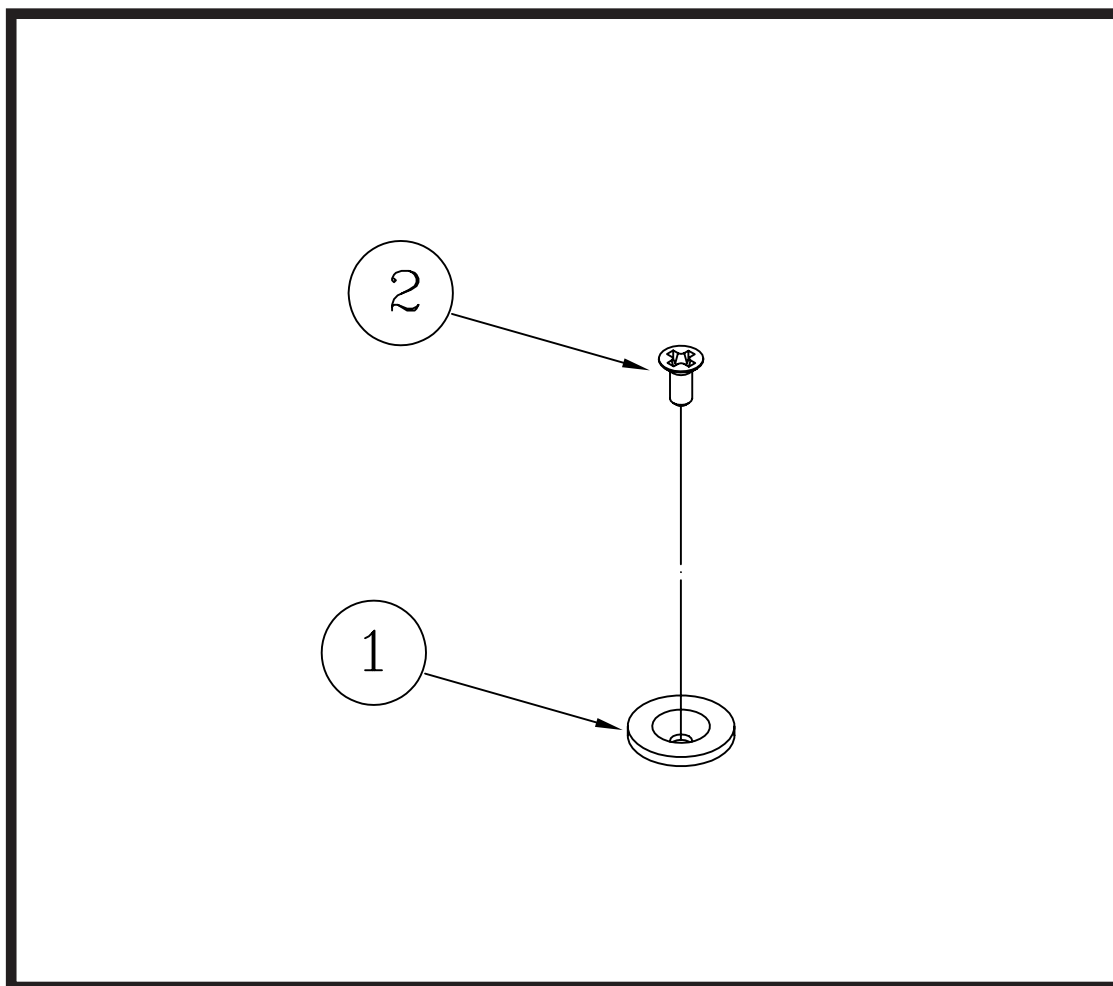


Description	Quantity	Item Number
Cushiner (Yellow)	2	1
Cushiner (Red).....	4	2

22-13-335

Side Rail Guide Screws

500, 600, 700Tm

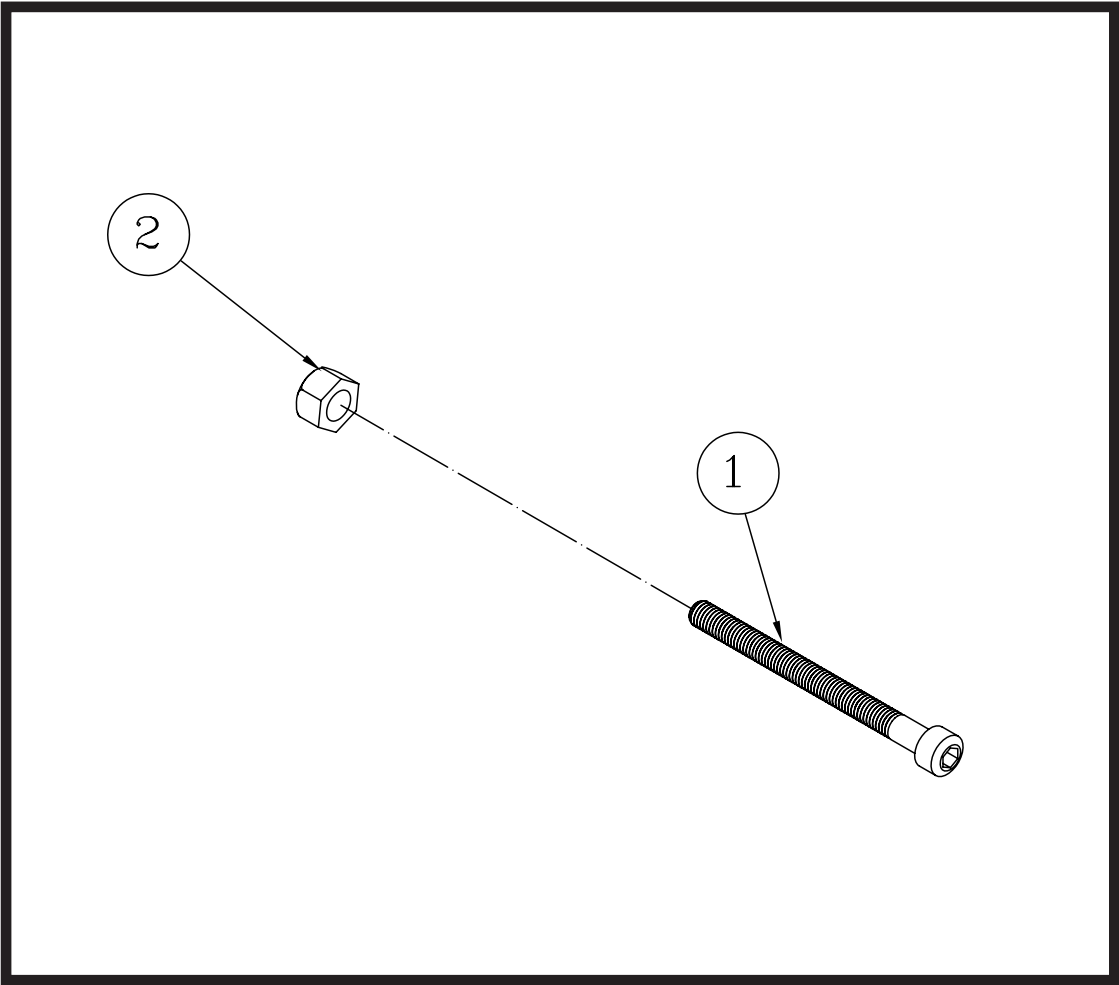


Description	Quantity	Item Number
Rail Guide	8	1
Screw	8	2

22-13-337

Drive Belt Jack Screw

500, 600, 700Tm

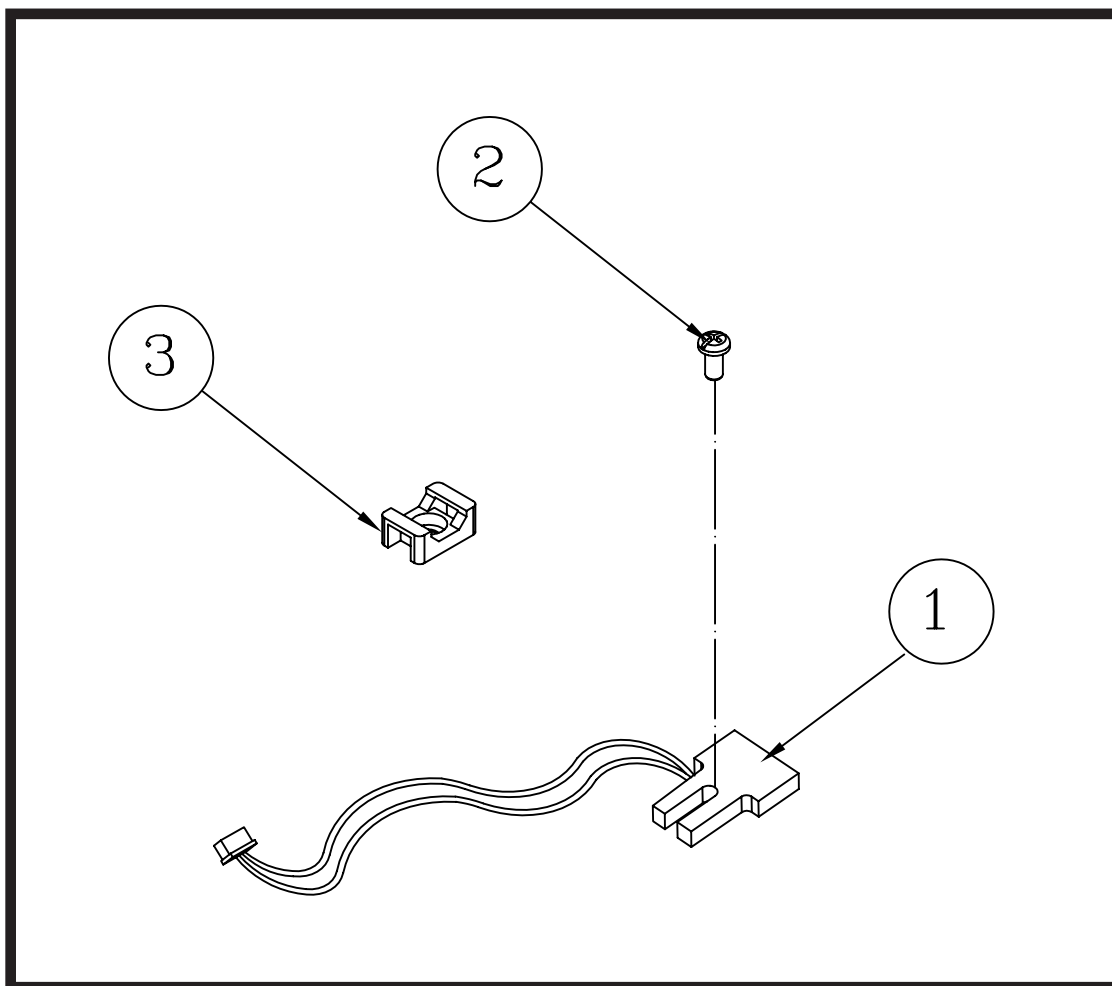


Description	Quantity	Item Number
Screw	1	1
Nut.....	1	2

22-13-339

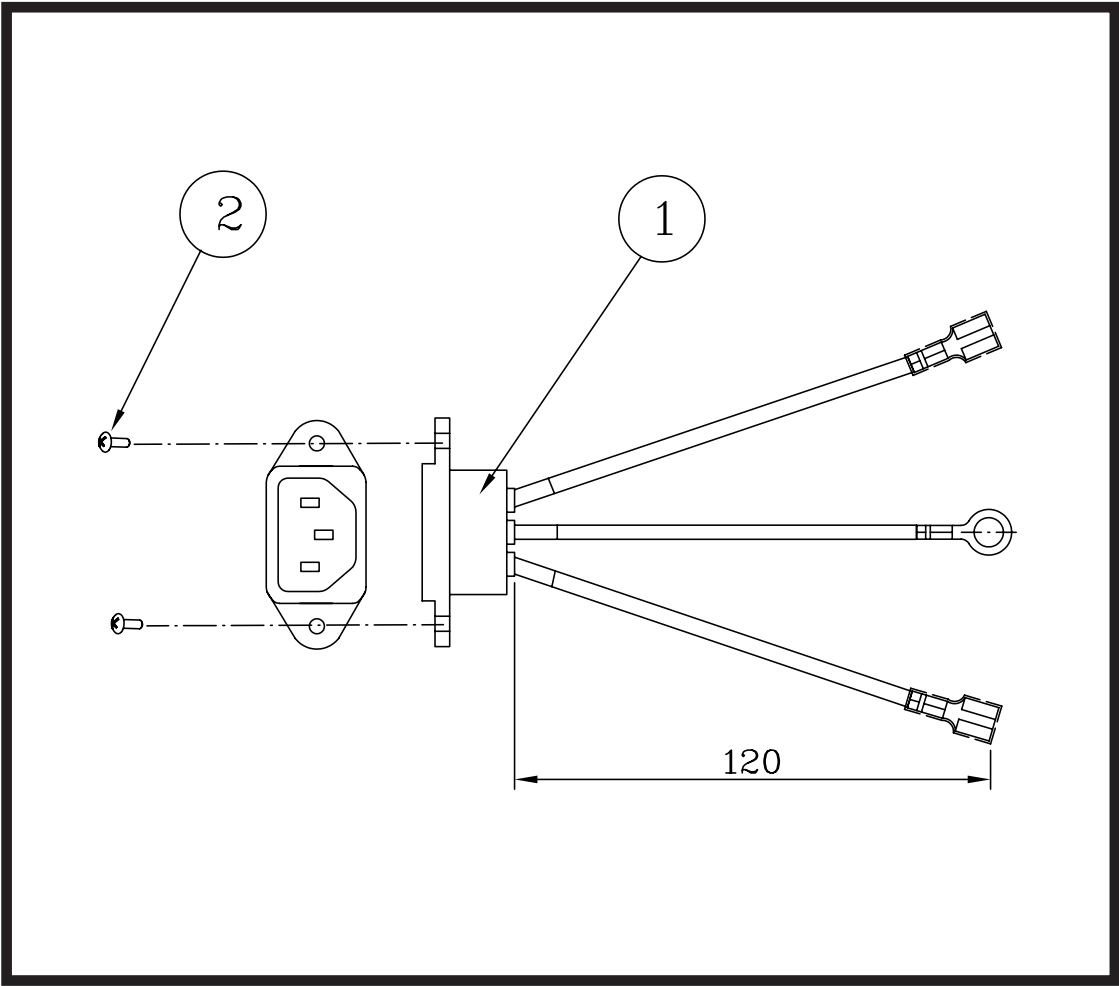
RPM Sensor

500, 600, 700Tm



Description	Quantity	Item Number
RPM Sensor	1	1
Bolt	1	2
Zip Tie Mounting Bracket	1	3

22-13-355
Input Jack
500, 600, 700Tm

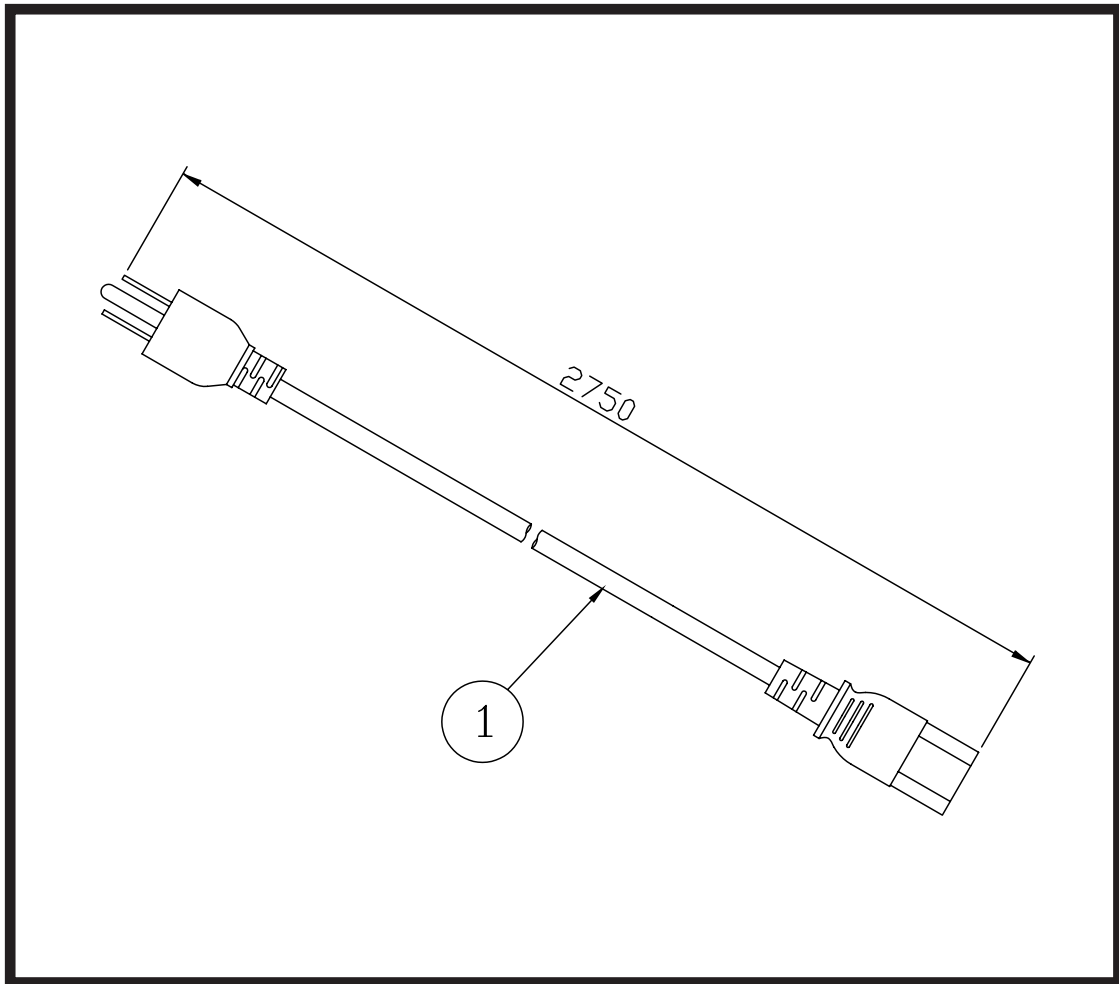


Description	Quantity	Item Number
Input Jack Assy.	1	1
Screw	2	2

22-13-357

Power Cord — Removable

500, 600, 700Tm

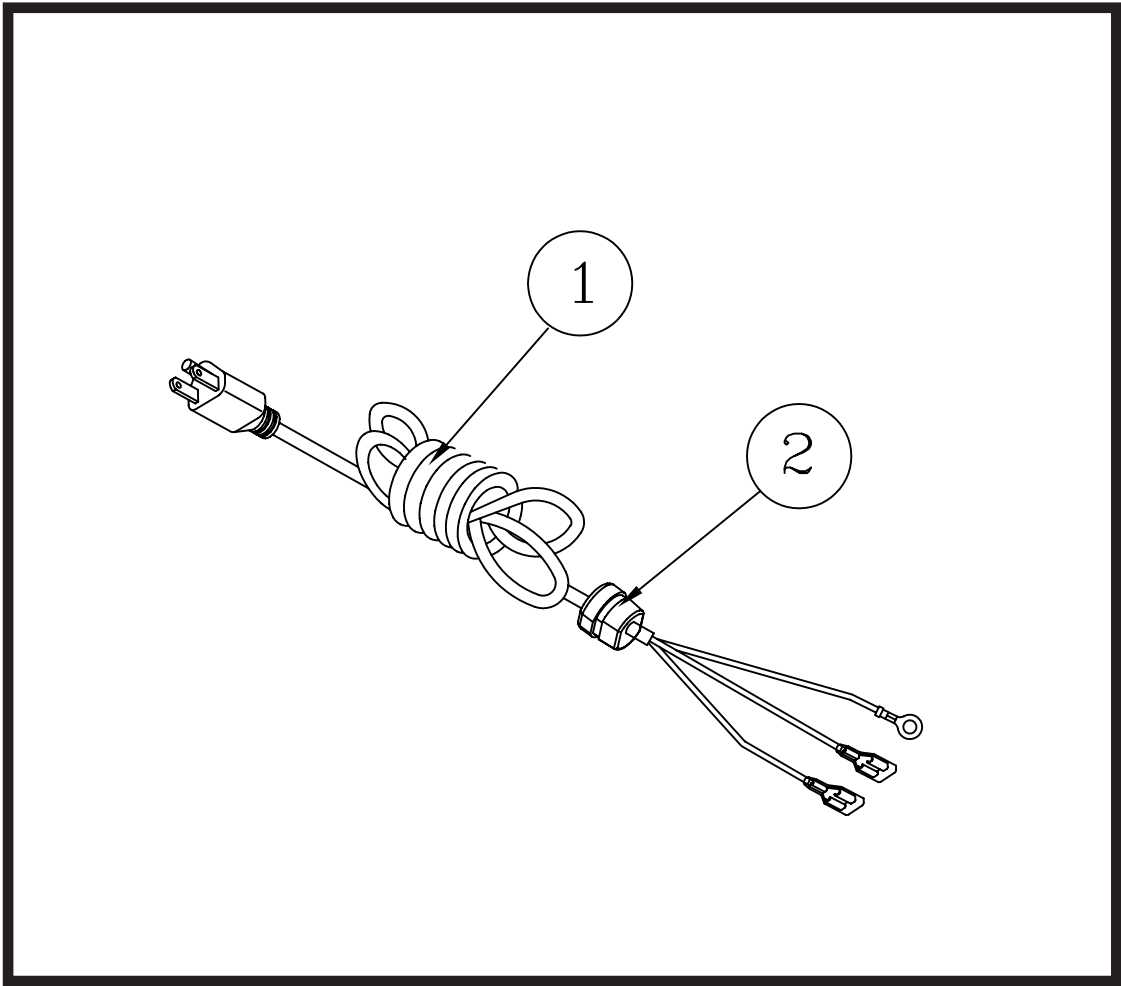


Description	Quantity	Item Number
Power Cord (9Ft)	1	1

22-13-359

Power Cord — Non-removable

500, 600, 700Tm

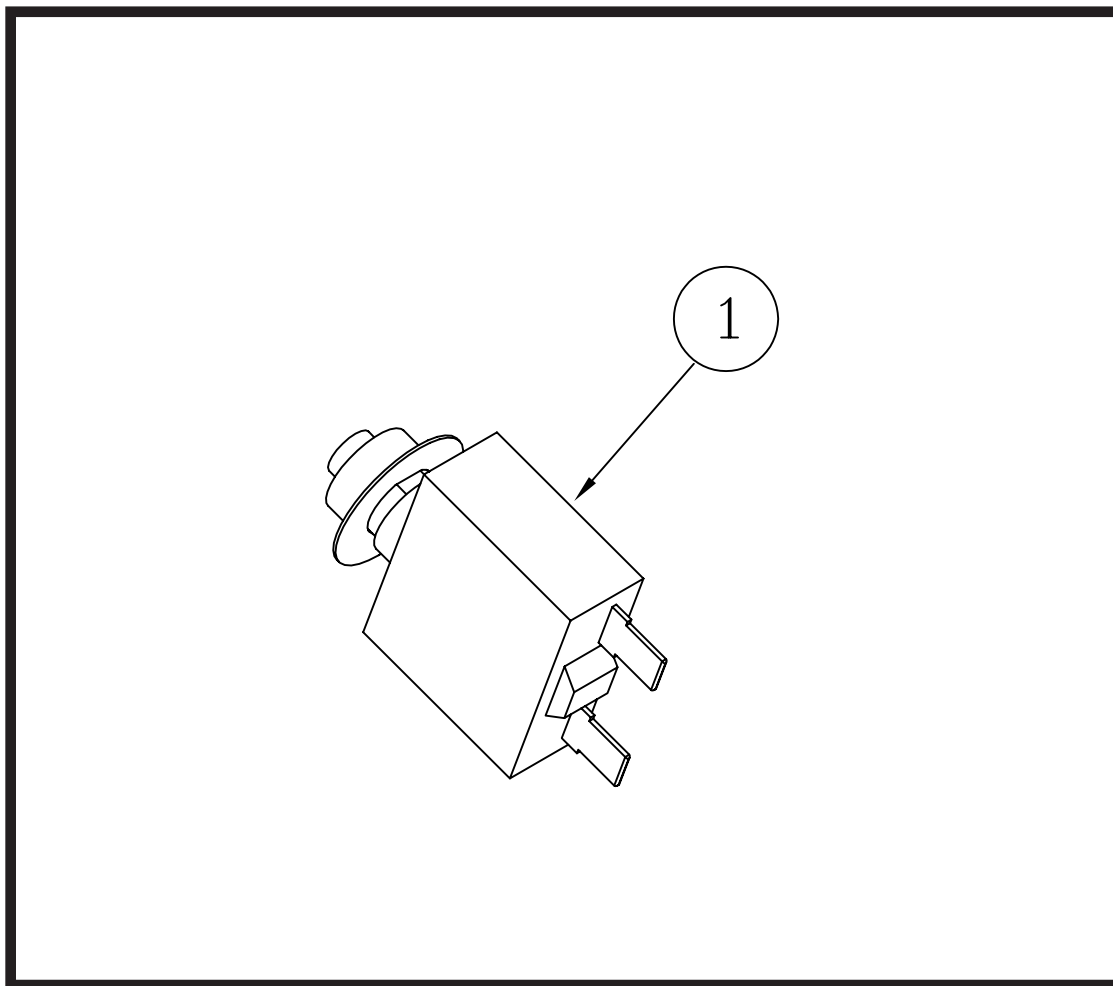


Description	Quantity	Item Number
Power Cord	1	1
Strain Relief	1	2

22-13-361

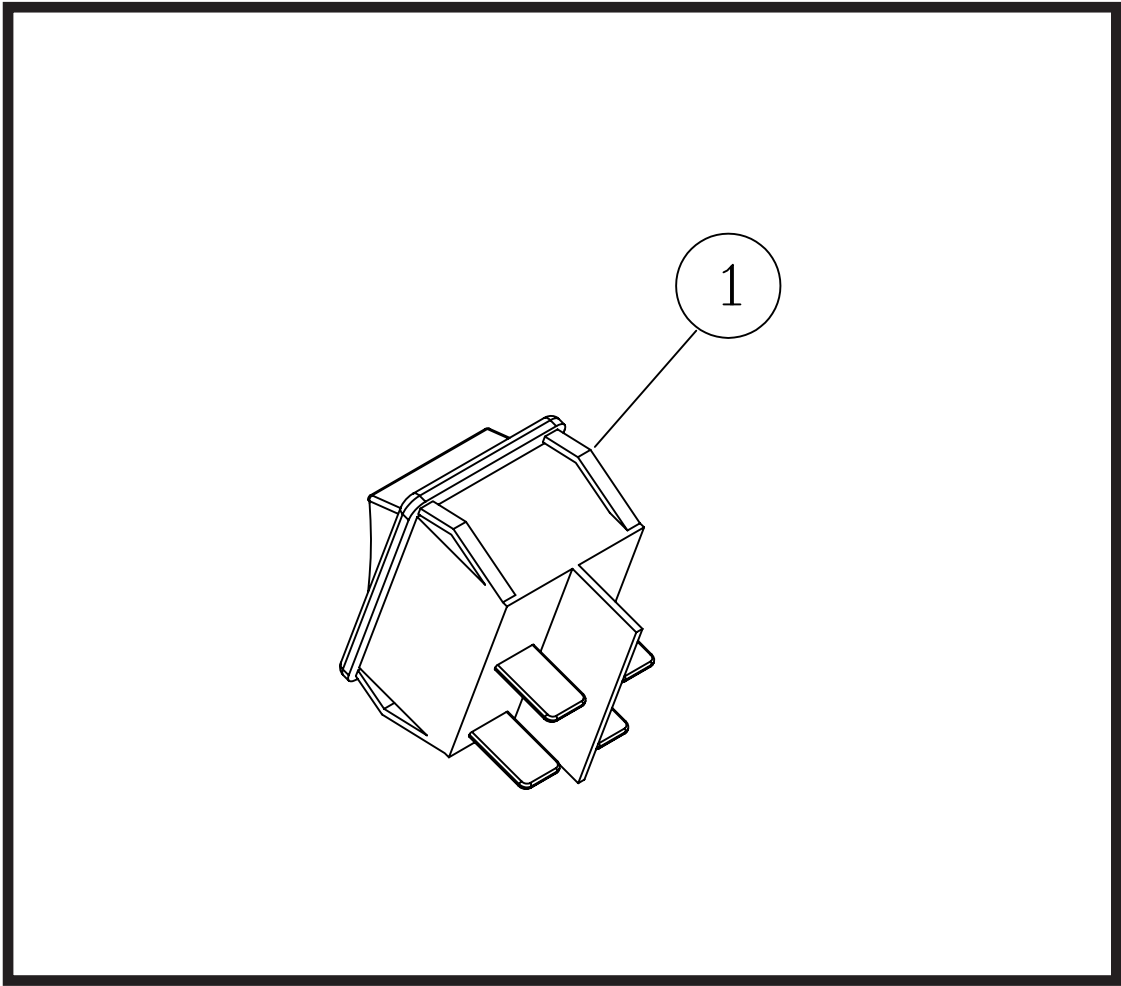
Circuit Breaker

500, 600, 700Tm



Description	Quantity	Item Number
Circuit Breaker.....	1	1

22-13-363
Power Switch
500, 600, 700Tm

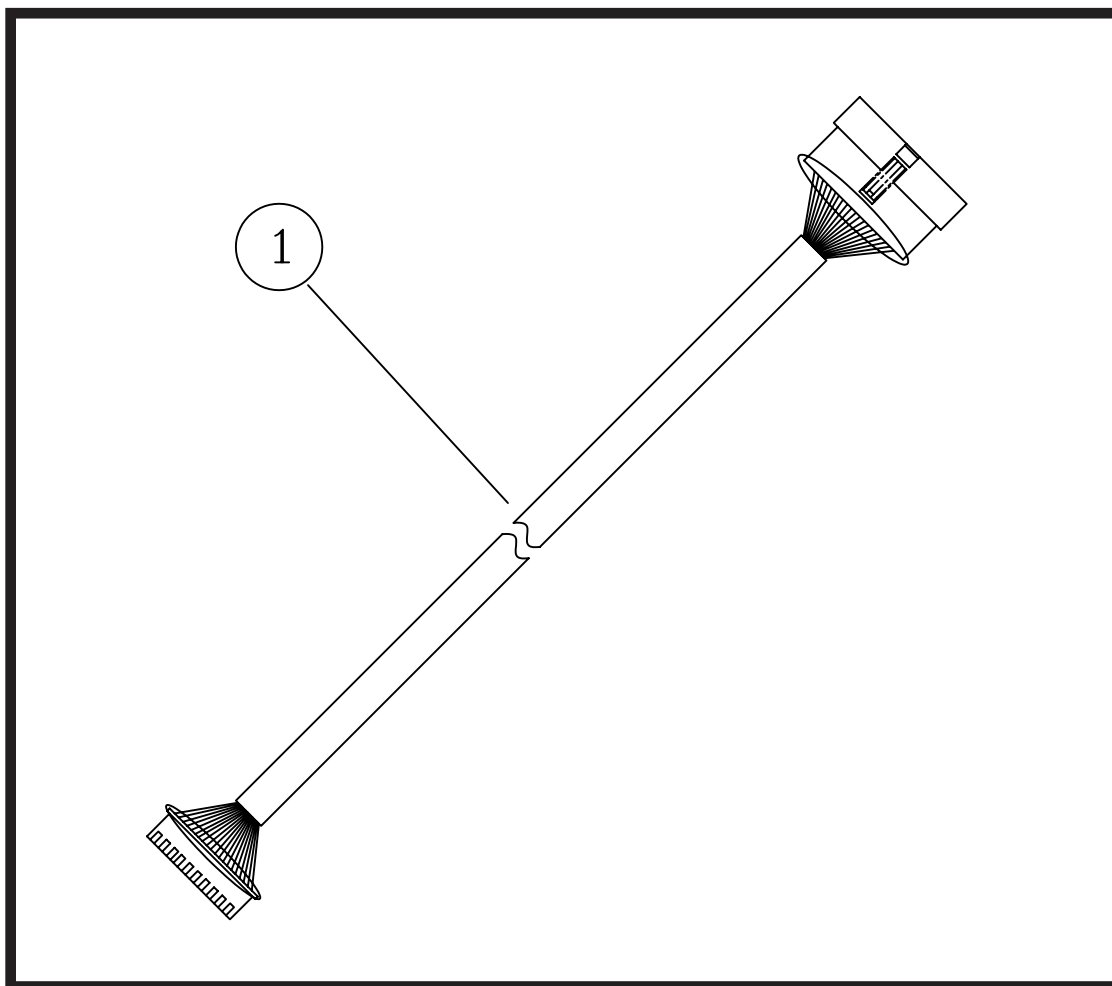


Description	Quantity	Item Number
Rocker Switch	1	1

22-13-371

Main Wire Harness - Console

500, 600, 700Tm

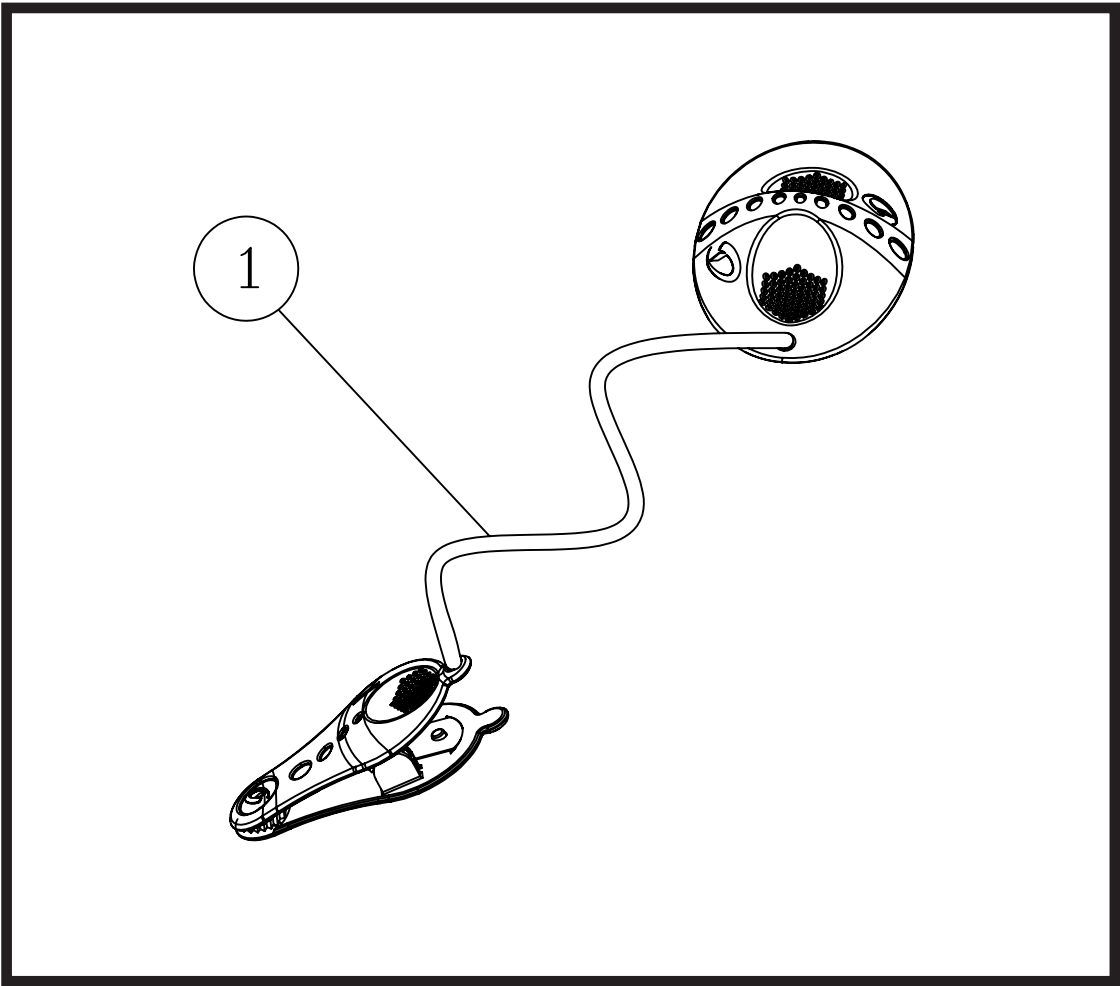


Description	Quantity	Item Number
Wire Harness	1	1

22-13-375

Safety Key

500, 600, 700Tm

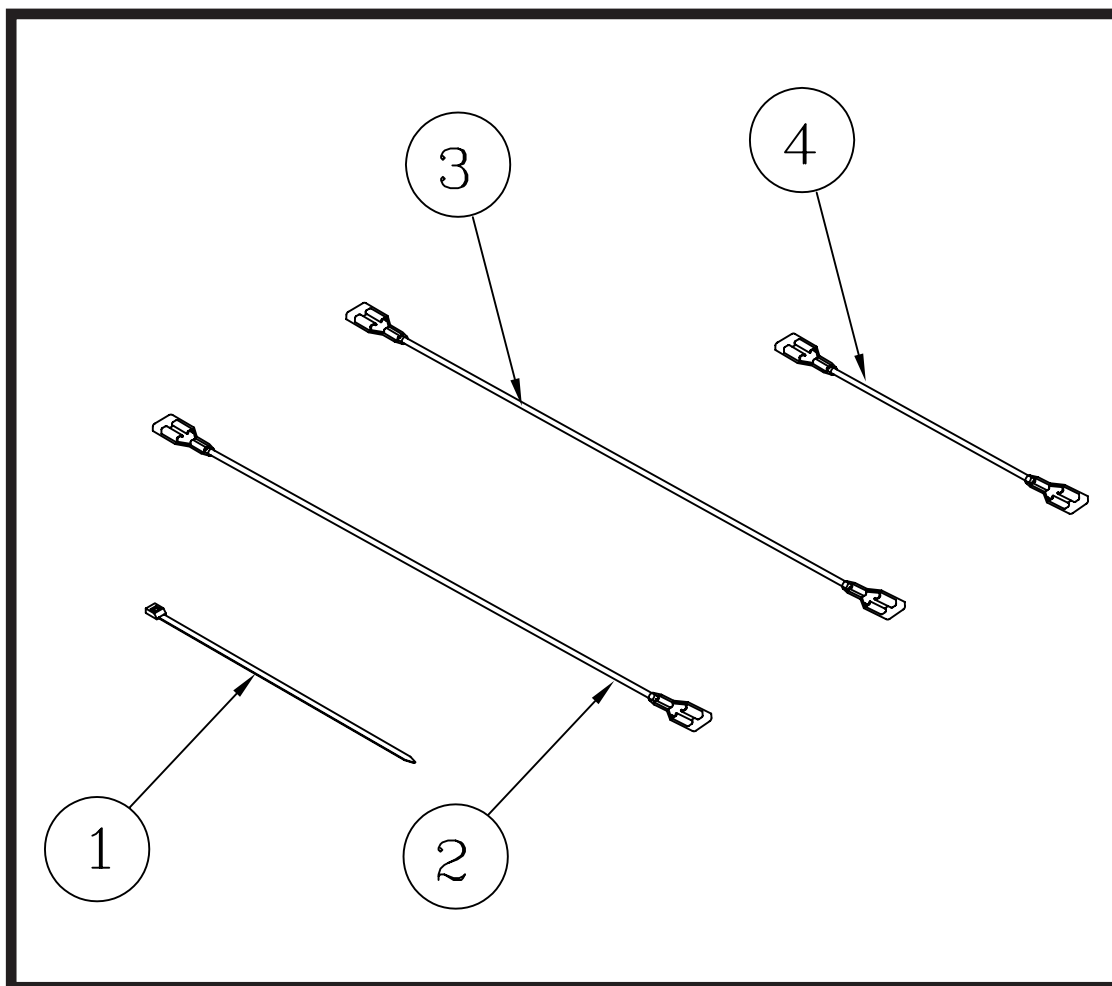


Description	Quantity	Item Number
Safety Key	1	1

22-13-381

Wire Jumpers

500, 600, 700Tm



Description	Quantity	Item Number
Zip Tie.....	10	1
Black - On/Off SW to Controller.....	1	2
White - Circuit Breaker to Controller	1	3
Black - On/Off SW to Circuit Breaker.....	1	4