

**GORBEL**<sup>®</sup>  
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Model Q & iQ

# Preventative Maintenance Bulletin

## **IMPORTANT! DO NOT DISCARD**

This document contains important preventative maintenance procedures that could help eliminate potential service issues and prolong the life of your G-Force<sup>®</sup> unit.

Please familiarize your G-Force<sup>®</sup> operators and maintenance staff with the procedures detailed in this bulletin.

For a copy of the G-Force<sup>®</sup> Service Manual, call 1-800-821-0086, or contact your Gorbels distributor.





# G-Force<sup>®</sup> Q & iQ models



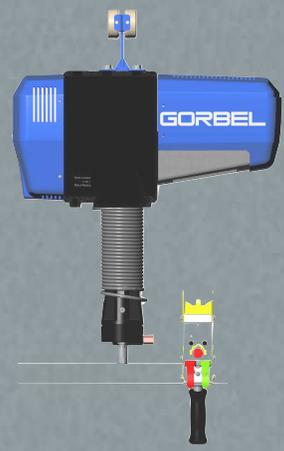
**Note:**

iQ model shown with in-line slide handle. See illustrations below for alternate configurations.



Remote Sliding Handle

\* tooling by others



Remote Pendant Handle

\* tooling by others



Suspended Pendant Handle

## Preventative Maintenance Introduction

This document is intended to be used as a guide for preventative maintenance. Some maintenance items may require the use of the Q – iQ Service Manual for specific removal and replacement procedures.

If you observe any unusual wear or damage to the components outlined in this document as well as any other associated components, replace them before they fail completely and cause unscheduled downtime.

The procedures are divided into four specific intervals; daily, monthly, quarterly and yearly. Refer to the image on the opposite page for the approximate location of the components listed by numbers 1 through 19 on the following pages.

You may find it necessary to increase the frequency based on equipment use and environmental conditions in your facility.

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## Daily Checks

These are quick visual checks that do not require any tools.

### 1. Wire Rope:

Look for any obvious external defects, damage or excessive wear. Check the lower end where it attaches to the Handle, Swivel Assembly or tooling (by others) for signs of damage or excessive wear.

### 2. Coil Cord:

Look for any obvious external defects or damage caused by the Wire Rope or other external causes. Make sure all the Coil Cord Clamps are in place.

### 3. Air Hose (if equipped):

Look for any obvious external damage or wear caused by the Wire Rope or other external causes. Make sure the Air Hose is secured properly with the correct clamps.

### 4. Load Hook and/or tooling (by others):

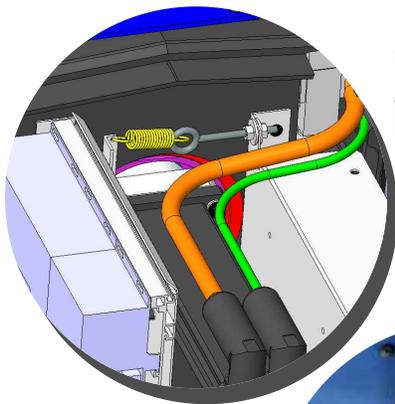
Check that the Load Hook is secured properly to the handle or swivel. Make sure lock washers are compressed completely and any other associated hardware is secure.

## Monthly Tasks

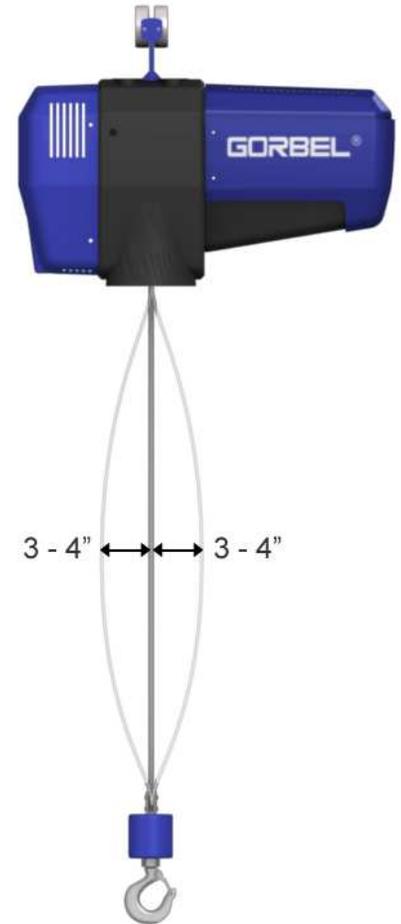
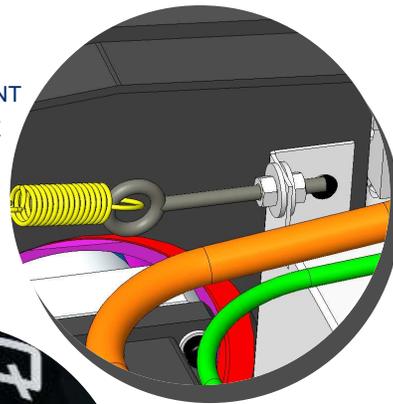
Tools may be required, as well as a clean dry cloth and compressed air.

### 5. Slack Switch Adjustment:

Using the Handle, lower the Wire Rope until it goes slack. There should be no additional movement downward once it is slack. If the Wire Rope continues to pay out, stop immediately and refer to the Q – iQ Service Manual, section 9 to perform the Slack Switch Adjustment. Check the Coil Cord and Air Hose Clamps on the Wear Ring to insure the Wear Ring is moving freely inside the Actuator opening.



SLACK  
ADJUSTMENT  
HARDWARE



### 6. Wire Rope:

Expose as much of the Wire Rope as possible and wipe it off with a clean dry cloth. Use the Jog Buttons to pay out as much of the Wire Rope as possible.



## Monthly Tasks

Tools may be required, as well as a clean dry cloth and compressed air.

### 7. Operator Present Sensor (sliding handle only):



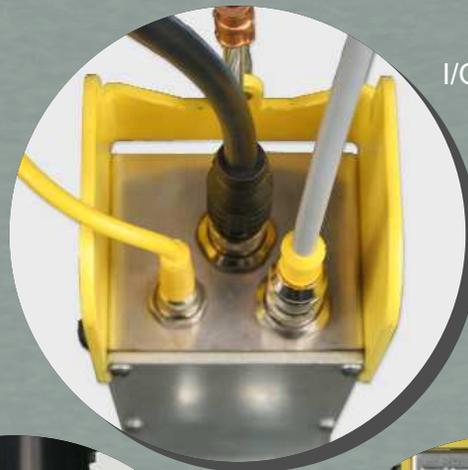
Use a gentle puff of compressed air or a soft cloth to clean the sensor. Do not apply any pressure to the lens or do anything that may scratch it.

OPERATOR PRESENT SENSOR

*NOTE: PHOTO ENHANCED TO SHOW LOCATION OF SENSOR. RED BEAM WILL NOT BE VISIBLE DURING NORMAL OPERATION.*

### 8. Handle I/O Connections (both handles):

Check connections at handle (if equipped). Wipe off any oil or other contamination from either Handle at this time. Clean the LCD screen as well.



I/O CONNECTION PORTS



LCD SCREENS



## Quarterly Tasks

Tools, compressed air and specific lubricants are required.

### 9. Limit Switch Assembly Actuator:

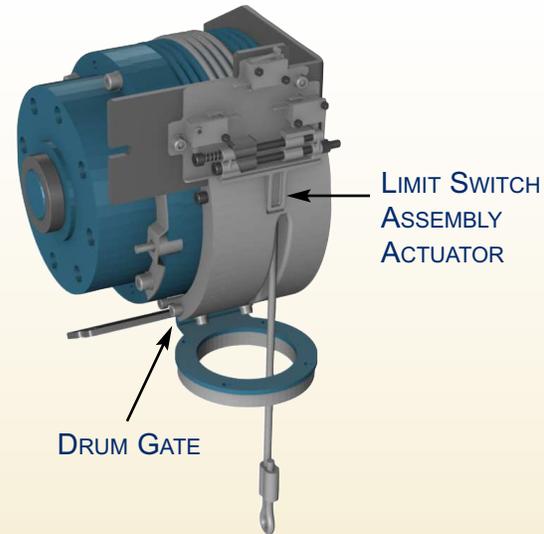
Check for excessive wear and for proper position with the Drum Gate.

*Refer to the Q – iQ Service Manual, section 10 for removal and replacement procedures.*

### 10. Drum gate:

Remove and look for excessive wear.

*Refer to the Q – iQ Service Manual, section 10 for removal and replacement procedures.*



### 11. Air Swivel Assembly (if equipped) O-rings:

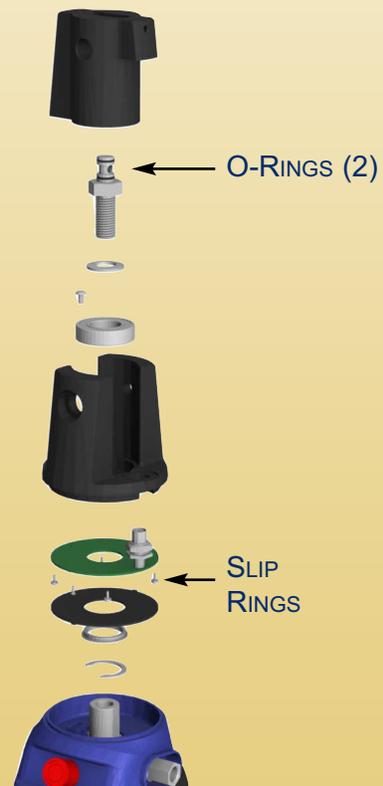
These should be replaced if worn or damaged. Apply a thin coating of non-synthetic general purpose grease.

*Refer to the Q – iQ Service Manual, section 10 for removal and replacement procedures.*

### 12. Swivel Assembly Slip Rings:

Check for wear. Wipe clean with a soft dry cloth and apply a thin layer of DeoxIT. This also applies to the independent G360.

*Refer to the Q – iQ Service Manual, section 10 for removal and replacement procedures.*

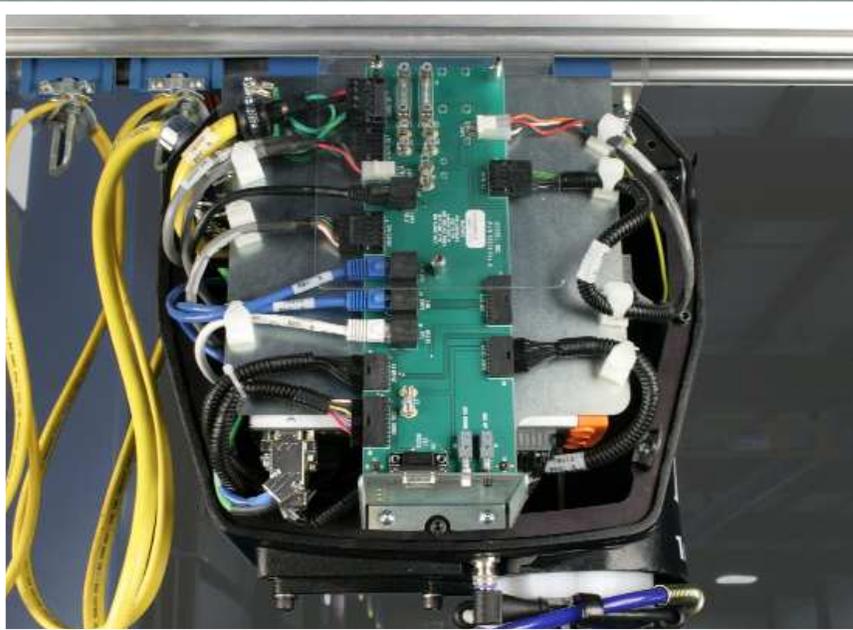


## Yearly Tasks

Tools, compressed air and specific lubricants are required.

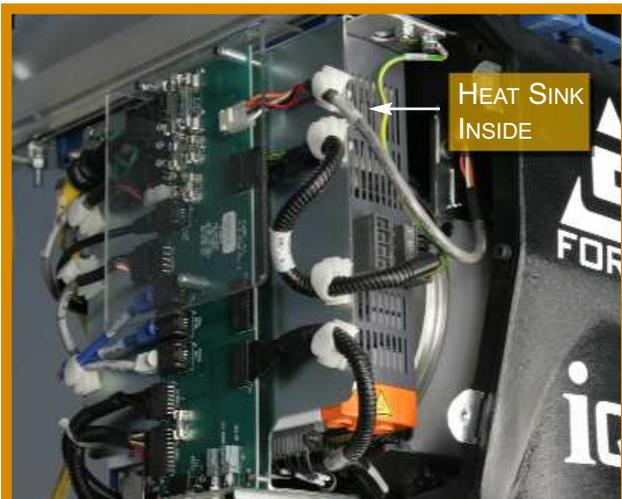
### 13. Internal and External Electrical Connectors:

This includes Coil Cord, Swivel Assembly and Main pwb connectors. Check each connector carefully. Some are secured with hardware, some are the quick disconnect type.



### 14. Servo Drive Heat Sink:

Clean this area only if the operating environment is especially dusty. Use compressed air and safety glasses.



### 15. Cooling Fan (if equipped):

Clean this area if it appears to be dirty. Use compressed air and safety glasses.



## Yearly Tasks

Tools, compressed air and specific lubricants are required.

### 16. Sliding Handle:

The ball bearings on the slide mechanism should be lubricated with white lithium grease. Use the grease sparingly and wipe any excess off immediately.



### 17. Linear Transducer Position:

Check the Linear Transducer by using the Diagnostic Menu as described in the Q – iQ Service Manual, section 9. Adjust only if necessary.



### 18. Trolley Wheels:

Check for excessive wear and / or contamination.



### 19. Crane or supporting structure:

Check for wear or excessive contamination inside the bridge. Check lock washers and other hardware for proper tightness.

