

GDS2213
GDX1813
GDM1013
GDHS713
RDS2250
RDX1850
RDM1150
RDSM750



RDS2270
RDX2070
GDS2219
GDX2019



GSS208
GSX168
GSM128
RSS2030
RSX1630
RSM1130



Jam/Free™
series

SERVICE MANUAL
(2009.12.18)

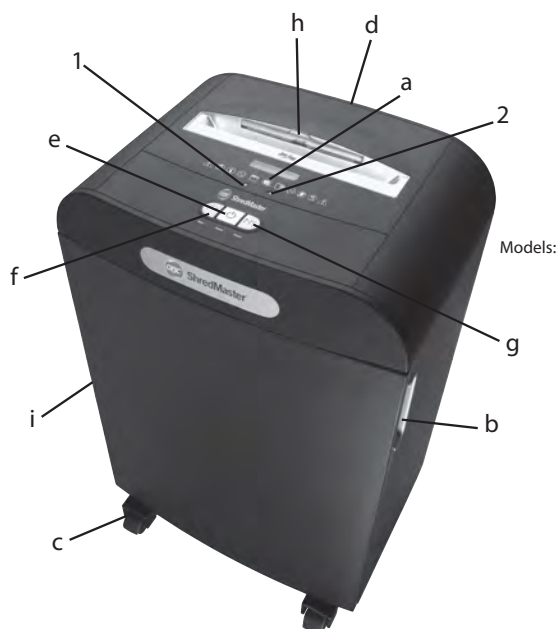
© 2009 All Rights Reserved

No part of this publication
may be reproduced in any
form without expressed
written permission from



Electronically Printed
and Designed in the USA.

INTRODUCTION	1
SPECIFICATIONS	2
SAFETY INSTRUCTIONS	2
TROUBLESHOOTING	3-7
DISASSEMBLY/ADJUSTMENTS	8-9



Introduction

Thank you for choosing this shredder from GBC. We are sure it will serve you well, but please take a little time to study these instructions to ensure you get the best out of your machine.

- | | |
|---|-------------------------|
| a Important Safety Symbols | 1 Bin Full (Red Light) |
| b GSS208, GSX168, GSM128:
Pull Out Drawer | 2 Door Open (Red Light) |
| GDS2213, GDX1813, GDS2219, GDX2019, GDM1013,
GDHS713: Door for Bin | 3 Cool Down (Red Light) |
| c Wheels | |
| d On/Off Button (Rear of machine) | |
| e Auto Button | |
| f Reverse Button | |
| g Continuous Forward Function | |
| h CD Guide (not fitted on GDM1013, GDHS713, GSM128) | |



Specifications

Models	GSS208	GSX168	GSM128	GDS2213	GDX1813
Sheet Capacity 80gsm paper - 	17-20 sheets	15-16 sheets	10-11 sheets	19-22 sheets	16-18 sheets
Duty Cycle	4 mins on / 20 mins off	4 mins on / 20 mins off	4 mins on / 20 mins off	Continuous	Continuous
Volts / Hz	120V / 60Hz	120V AC / 60Hz	120V AC / 60Hz	120V AC / 60Hz	120V AC / 60Hz
Amperage		4.0A		3.0A	4.5A
CD / Credit Card	Yes	Yes	No	Yes	Yes

Models	GDM1013	GDHS713	GDS2219	GDX2019	
Sheet Capacity 80gsm paper - 	10-11 sheets	6-7 sheets	21-22 sheets	18-20 sheets	
Duty Cycle	Continuous	Continuous	Continuous	Continuous	
Volts / Hz	120V AC / 60Hz	120V AC / 60Hz	120V AC / 60Hz	120V AC / 60Hz	
Amperage			3.0A	5.0A	
CD / Credit Card	No	No	Yes	Yes	

IMPORTANT: ONLY INSERT ONE CD OR ONE CREDIT CARD AT A TIME.

Models GDM1013, GDHS713 and GSM128 cannot shred CDs, credit cards, paper clips or staples.
Sheet capacity may vary with AC line voltage.

Specifications

Models	RSS2030	RSX1630	RSM1130	RSX1632	RSS2232	RDS2250
Sheet Capacity 80gsm paper - 	20 sheets (19 sheets @ 207V/50Hz)	16 sheets (15 sheets @ 207V/50Hz)	11 sheets (10 sheets @ 207V/50Hz)	16 sheets (15 sheets @ 207V/50Hz)	22 sheets (21 sheets @ 207V/50Hz)	22 sheets (21 sheets @ 207V/50Hz)
Duty Cycle - 	4 mins on / 20 mins off	4 mins on / 20 mins off	4 mins on / 20 mins off	4 min on / 30 min off	4 min on / 30 min off	Continuous
Volts / Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz
Amperage	1.5A	1.9A	2.2A	2.9A	1.9A	1.2A

Models	RDX1850	RDM1050	RDSM750	RDS2270	RDX2070
Sheet Capacity 80gsm paper - 	18 sheets (17 sheets @ 207V/50Hz)	11 sheets (10 sheets @ 207V/50Hz)	7 sheets (6 sheets @ 207V/50Hz)	22 sheets (21 sheets @ 207V/50Hz)	20 sheets (19 sheets @ 207V/50Hz)
Duty Cycle - 	Continuous	Continuous	Continuous	Continuous	Continuous
Volts / Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz	230V AC / 50Hz
Amperage	2.0A	3.5A	3.5A	1.2A	2.0A

m IMPORTANT: ONLY INSERT ONE CD OR ONE CREDIT CARD AT A TIME.
Models RDM1150, RDSM750 and RSM1130 cannot shred CDs, credit cards, paper clips or staples

Mechanical Operation

The shredder uses two rotating cutting shafts, which are driven by an electrical motor to shred paper.

Electrical Operation

When the on/off switch on back of unit is on, and center auto button is pressed. This will illuminate the anti-jam indicator. The shredder will now be in standby mode and the "Power-on" symbol on the indicator panel will be illuminated amber. When the shredder is in standby mode and the cabinet door is open, the normally closed door ajar micro switch is opened and prevents power to the motor until the door is closed. When the bag full sensor is triggered, the bag full icon will illuminate. The control board will then disable the motor circuit until the shredder bag is either cleared or emptied.

When the shredder is severely loaded down, the control board will illuminate red and disable the motor circuit.

Electrical Components

Motor - Thermally protected motor designed for continuous operation.

Capacitor - AC motor run capacitor.

Power on/Auto feed on switch - The Power on /Auto feed on switch, when depressed, connects the hot and neutral circuits to electrical components of the shredder.

Door ajar, Machine head safety switch - The safety switch is a normally open micro switch which is actuated by a trigger located inside of the cabinet door. The switch is normally closed when the door is closed and when the machine head is installed on the cabinet.

Bag Full Flap Sensor - The Bag Full Sensor is a normally closed switch actuated by paper blocking sensor path. When the shred bag becomes full of shredded material, the bag full sensor is blocked and power is then removed from the motor circuit.

Paper Sensors - Located in the throat area consisting of two components, the emitter and receiver.

Emitter - The infrared light beam from the light emitting diode is sensed by the receiver to activate/deactivate the control board.

Receiver - The receiver is a light activated diode, which works in conjunction with the emitter to activate/deactivate the control board.

Testing Electrical Components

WARNING!

Always disconnect the power cord from receptacle before making continuity or resistance tests.

Switches

Set meter to read resistance. Check switches for continuity from common to closed contacts and infinity from common to the open contact.

Emitter - Set meter to the diode setting. Disconnect emitters from the control board. With the positive meter probe on the emitter wire and the negative meter probe on the black-stripped emitter wire, check for approximately .639 ohms. Reverse the meter leads and infinity should be read.

Receiver - Set meter to read 20M ohms. Disconnect the receiver from the control board. With the positive meter probe on the receiver wire and the negative meter probe on the receiver wire check for approximately 4.62 Mega ohms under normal room light. The resistance will increase when blocked. Reverse the meter leads and infinity should be read.

General Troubleshooting

Malfunction corrections are based on visual observations made by the operator. The causes of the malfunctions are isolated by the symptom of the malfunction and noting at which point in the operating cycle the malfunction occurred. Malfunctions may be pinpointed to a defective electrical component or mechanical part by referring to the Principles of Operation, the troubleshooting guide and the wiring diagram.

Troubleshooting Chart

The troubleshooting guide chart that follows is arranged in order of the normal operational sequence. When a malfunction occurs, read down the SYMPTOM column until you find the appropriate description for your symptom. Read the corresponding PROBABLE CAUSE, then perform the recommended procedure in the CORRECTIVE ACTION column. When replacing electrical components that have push on terminals, label the electrical leads that were removed, to facilitate reconnecting them. Refer to the wiring diagram in Figure 5.7 to resolve any wiring difficulties that may occur.



WARNING!

Always unplug the shredder to avoid possible electrical shock hazard before attempting to perform any repairs.

Shredder Does Not Operate, No Indication Of Power

Power Cord Disconnected.

Connect Power Cord

Power switch Defective
Main Board Defective

Replace Power Switch
Replace Main Board

Shredder Does Not Operate, With Indication Of Power Present

Shredder Head Not Installed Properly

Reposition Shredder Head

Cabinet Door Open

Close Door

Shred Bag Full

Empty Bag

Motor Thermal Cut Off Triggered

Allow Motor To Cool

Door Switch Defective

Replace Door Switch

Shredder Does Not Operate, (When Paper Is Present In The Throat)

Defective Capacitor

Replace Capacitor

Motor Defective

Check Motor Input Voltage
Replace Motor If Necessary

Emitter/Receiver Defective

Replace If Necessary

Main Board Defective

Replace If Necessary

Shredder Runs Continuously

Dust Or Scratch On Emitter/Receiver

Clean Or Replace

Defective Control Board

Replace If Necessary

Emitter/Receiver Defective

Replace If Necessary

Sheet Capacity Diminished

Dry Blades

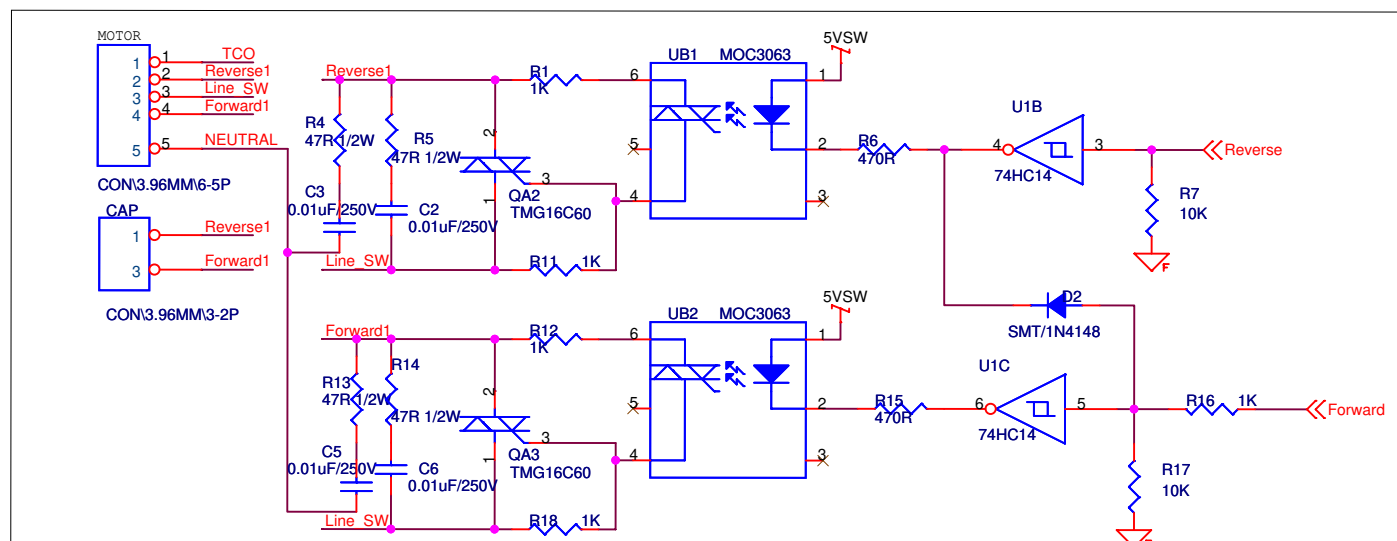
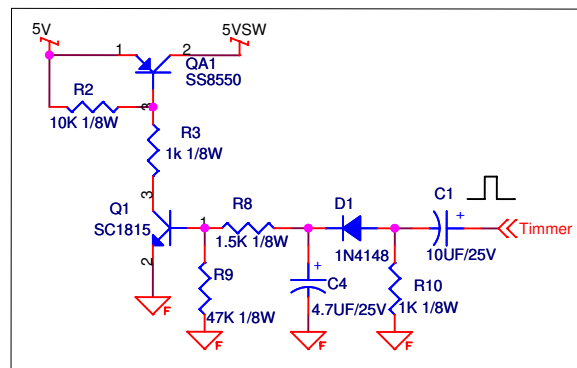
Lubricate Cutters

Dull Cutters

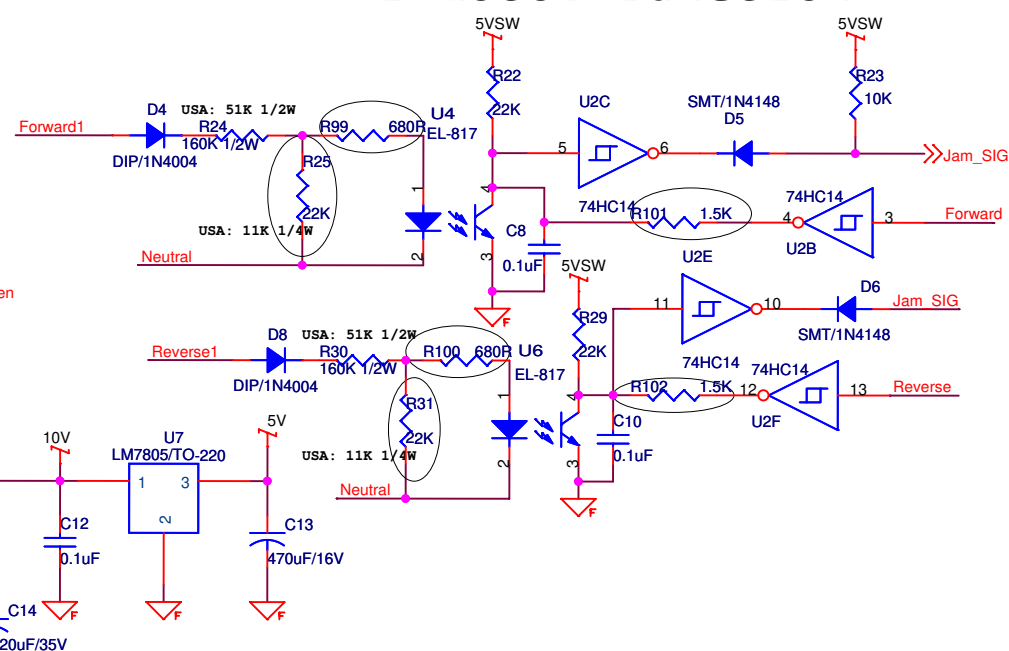
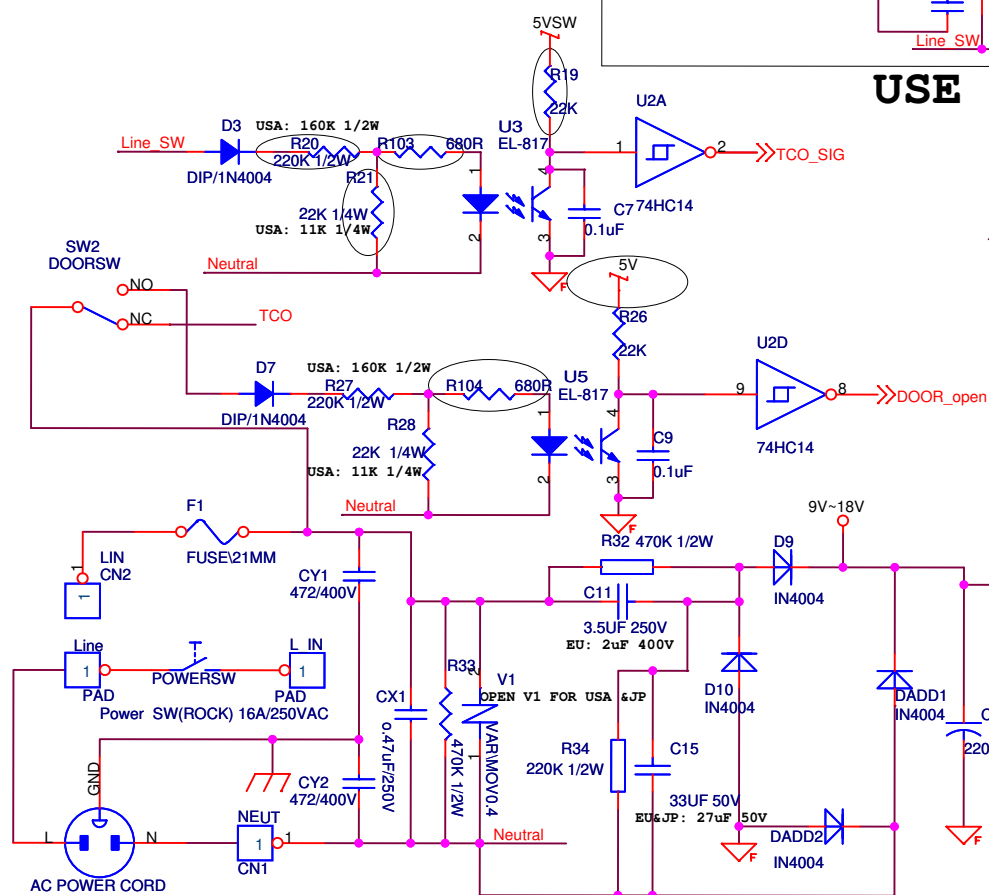
Replace Cutters

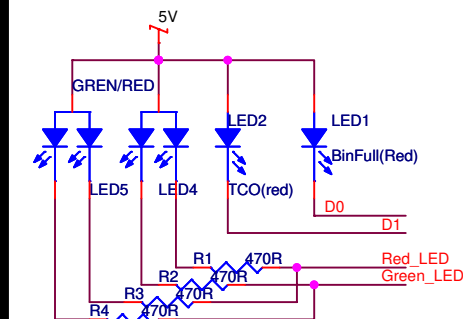
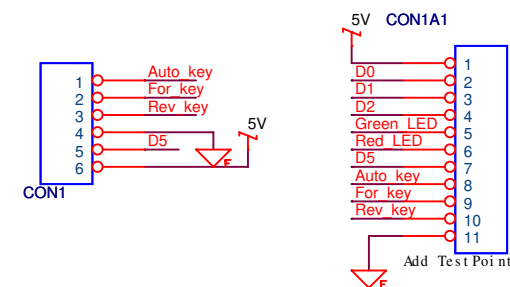
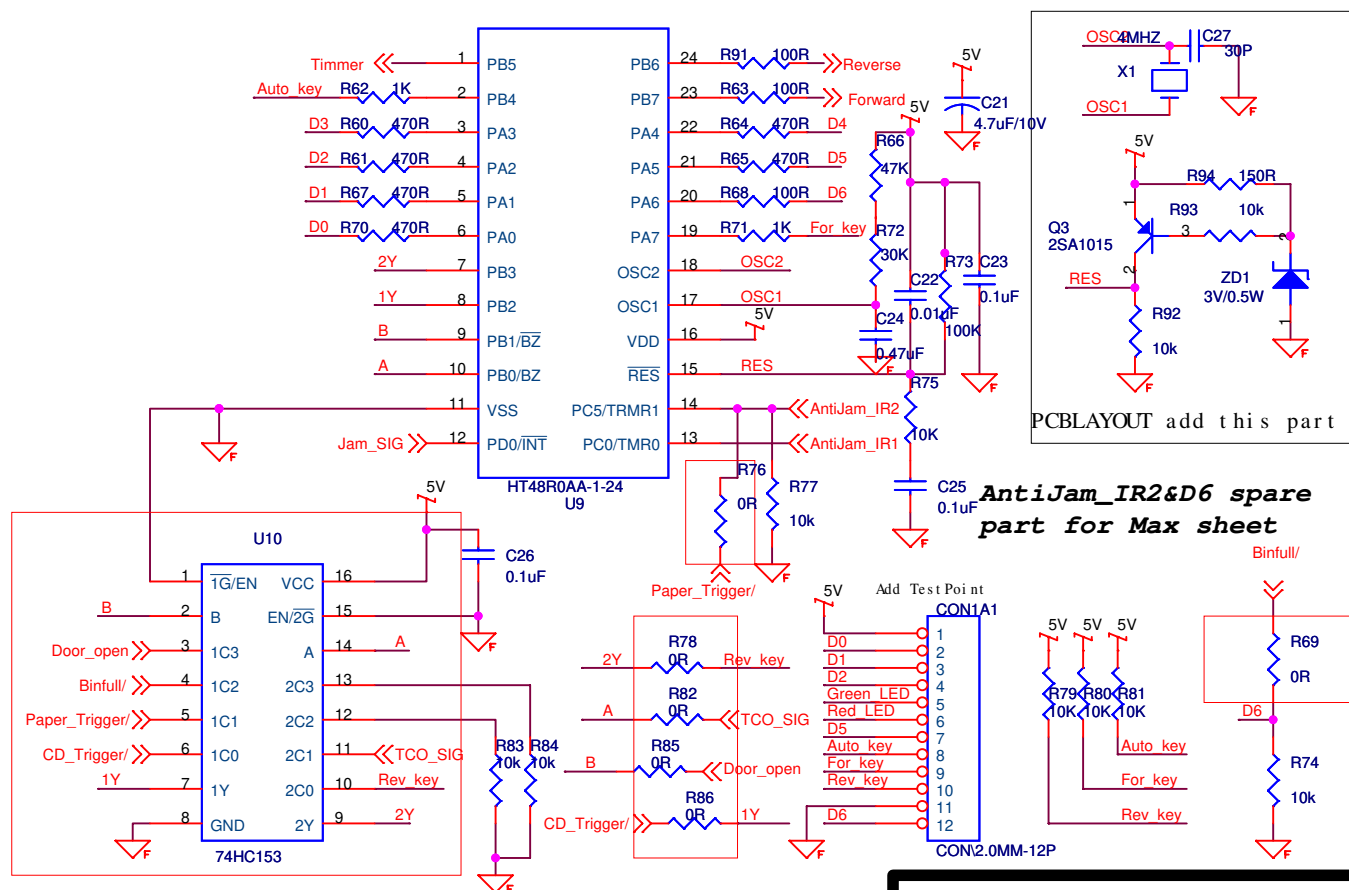
Worn Bearings

Replace Bearings

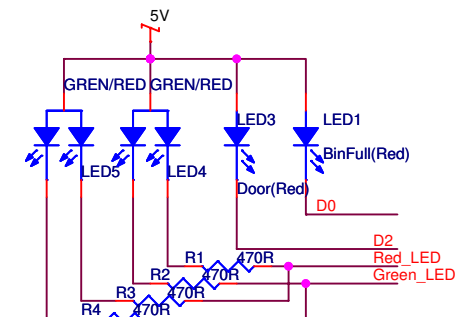


USE Traic control motor function

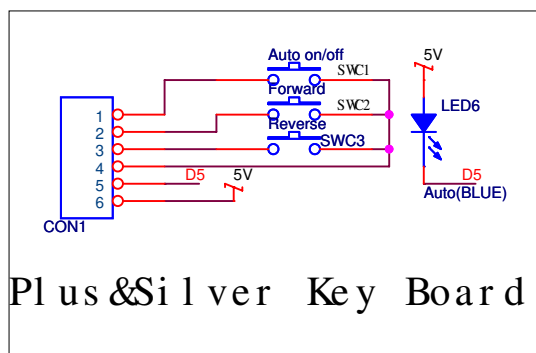
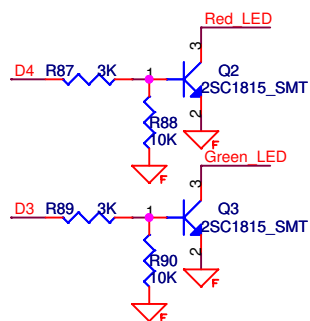




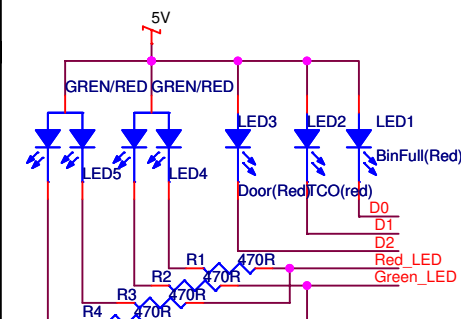
Design D+ LED PCBA



Silver F+ LED Board



Plus & Silver Key Board



Silver E+ LED Board

Necessary Tools

1. Adjustable wrench
2. #2 Phillips Screwdriver

Disassembly of the shredder is described in the following steps.

Bottom Housing Removal



WARNING!

Disconnect the unit from the receptacle before performing any disassembly procedures.

1. Unplug the power cord from the outlet power supply.
2. Open cabinet door and remove the 5 philip head screws that secure shredder head to cabinet base.
3. Remove shredder head from cabinet by sliding it towards you. Lay the unit upside down with the back of the head facing up.
4. Remove the eleven philip head screws supporting the bottom housing
5. Flip unit over so top housing is facing up. Remove top cover.



1. Complete Section, Bottom Housing Removal.



2. Remove the capacitor and six phillips screws that attach main board to bottom housing.
3. Remove the four philip screws that secure the cutting head to the bottom base.
4. Remove the ground wires from the right hand side frame. Also disconnect any wires from main board that are mounted to cutting head assy.



4. Carefully rotate the complete cutter assembly toward you and place the underside of the cutter assembly on your work area.

Gear Box Removal



1. Remove the six phillips screws from the gear box cover.
2. Remove the gear box cover

Motor Removal



1. Remove both metal and nylon double drive gears.
2. Remove the eight philips screws that secure the motor in place, remove motor.

External Cleaning

Make sure you disconnect the shredder from its power source before cleaning. The cover and cabinet may be cleaned with a soft cloth moistened with a mild detergent and warm water. Do not use chemical cleaners or solvents as these may have a harmful effect. Use detergent sparingly to avoid contact with electronic components.

Inspection

Whenever the cover has been removed for corrective maintenance, visually inspect for defects such as loose screws or nuts, damaged wire insulation, loose terminals, etc. Correct any defects before returning the shredder into service.



Full Circle Service™
10303 80th Avenue
Pleasant Praire, Wi 53158USA

12/18/09