### **OSL Series Disc Harrow**

#### **ATTENTION:**

ALL WARRANTY WORK MUST BE APPROVED BY BROWN MFG. CORP.

**BEFORE** WORK BEGINS



### Owner / Operator Manual



MANUFACTURING CORPORATION **6001 E. Hwy 27 •** OZARK, ALABAMA 36360 PHONE: (334) 795-6603 • FAX: (334) 795-3029 WEB: www.brownmfgcorp.com



Before operating your machine, stop and read this owners manual. Do not attempt to operate the unit until you fully understand the material covered in this manual. Without the knowledge contained in this manual, injury or death can result.

# Copyright Copyright ©2000 Brown Manufacturing Corporation. All photos and illustrations are property of Brown Manufacturing Corporation. This publication may be freely reproduced, either in whole or in part, provided that the content herein is not altered. Cover Pictured: Model OSL-900 disc harrow. **Disclaimer** Due to engineering improvements and revision of product specifications, the information contained in this manual is subject to change without notice.

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### Warranty Statement

#### LIMITED WARRANTY

BROWN MANUFACTURING CORP. hereby warrants that Brown's products will be free from defects in material and workmanship under normal use according to the provisions and limitations herein set forth. All parts, specifically EXCLUD-ING expendable 'wear' parts, that become unserviceable, due to defective material or workmanship, within twelve months / 365 days from date of the original retail purchase, shall, at Brown's option, be repaired or replaced.

#### LIMITATIONS

The obligations of Brown for breach of warranty shall be limited to products manufactured by Brown; (1) that are installed, operated, and maintained according to Brown's instruction furnished and/or available to the purchaser upon request; (2) that are installed according to all other applicable Federal, State, and local codes or regulations; and (3) that the purchaser substantiates were defective in material and workmanship notwithstanding that they were properly installed and correctly maintained as set forth and were not abused or misused. The obligation of Brown shall be limited to replacing or repairing the detective product, at the option of Brown. Brown shall not be responsible for any labor or cost of removal or repairing or reinstallation of its products and shall not be liable for transportation costs to and from its plant in Ozark, Alabama. Use of parts for modification or repair of the product or any component part thereof not authorized or manufactured by Brown specifically for such product shall void this warranty. This warranty shall not apply to any damage to or defect in the Brown's products that is directly or indirectly caused by; (1) FORCE MAJEURE, act of GOD, or other accident not related to an inherent product defect; or (2) abuse, misuse, or neglect of the such product, including any damage caused by improper assembly, installation, adjustment, or faulty instruction of the purchaser. OTHER THAN AS EXPRESSLY SET FORTH HEREINABOVE, BROWN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RE-SPECT TO ANY OF BROWN'S PRODUCTS, INCLUDED BUT NOT LIMITED TO ANY MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BROWN BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE SUFFERED BY PURCHASER OR ANY OTHER PERSON OR ENTITY CAUSED IN WHOLE OR IN PART BY ANY OF BROWN'S PRODUCTS. Any person or entity to whom this warranty extends and who claims breach of warranty against Brown must bring suit thereon within one year from the date of occurrence of such breach of warranty or be forever barred from any and all legal or other remedies for such breach of warranty. Brown is not responsible for and hereby disclaims any undertaking, representation, or warranty made by any dealer, distributor, or other person that is inconsistent with or in any way more expensive than the provisions of this limited warranty. This warranty grants specific legal rights and shall be read in conformity with applicable state law. In some jurisdictions, the applicable law mandates warranty provisions that provide greater rights than those provided for herein. In such case, this limited warranty shall be read to include such mandates provisions; and any provision herein that is prohibited or unenforceable in any such jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceable without invalidating the remaining provisions and without affecting the validity or enforceability of such provisions in any other jurisdiction.

#### STATEMENT OF POLICY

In accordance with our established policy of constant improvement, we reserve the right to amend these specifications at any time without notice.

#### WARRANTY BY MANUFACTURER

Dealer/distributor understands and agrees that the manufacturer extends only the following warranty to its customers. In the event dealer/distributor extends any additional warranty such as enlarging the scope or period of warranty or undertaking a warranty of fitness for any particular purpose or obligation not encompassed in manufacturer's warranty, dealer/distributor shall be solely responsible therefore and shall have no recourse against manufacturer with respect thereto.

### Owner Registration

To place the manufacturer's warranty into effect, the registration card below must be mailed within thirty (30) days after receiving equipment.

Owner Registration	Brown
Important: To place the manufacturer's warranty into effect, the card must be mailed within thirty (30) days after receiving equipment.	Model: OSL
For further information: Brown Manufacturing Corp. 6001 East Hwy 27 Ozark, AL 36360	Serial No.:
Phone: (334) 795-6603 Toll Free: (800) 663-8909 FAX: (334) 795-3029	Dealer:
www.brownmfgcorp.com brown@brownmfgcorp.com	

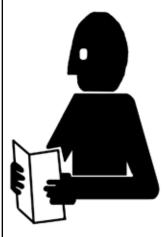
Owner Registration		Brown
Important: To place the manufacturer's warranty into	) Address:	
effect, this card must be mailed within thirty (30) days after receiving equipment.	City: Model: OSL	State:
Deferm to	Serial No.:	
Return to: Brown Manufacturing Corp.	Date Purchased: _	//
6001 East Hwy 27 Ozark, AL 36360	Dealer:	

Please use envelope.

### Warning: Read this manual before operation.

Operators of the equipment must read and understand this manual. Failure to read this manual and follow these safety and operating instructions could result in serious bodily injury or even death.

### **M**WARNING



Before operating your machine, stop and read this owners manual. Do not attempt to operate the unit until you fully understand the material covered in this manual. Without the knowledge contained in this manual, injury or death can result.

#### Recognize safety information

This is the safety alert symbol. When you see this symbol on your equipment or in this manual, be alert to the potential for personal injury or injury to others.



#### Understand signal words

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



WARNING indicates a potentially hazardous situation which, if not avoided, <u>could</u> result in <u>death or serious injury</u>.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

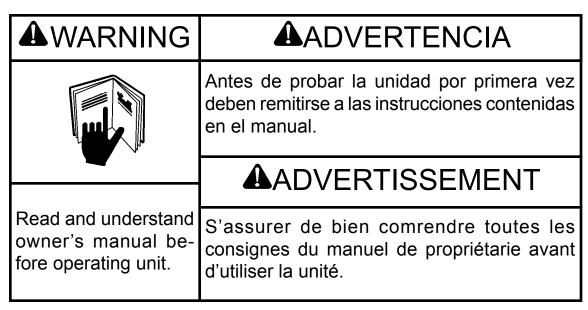


#### Follow safety instructions.

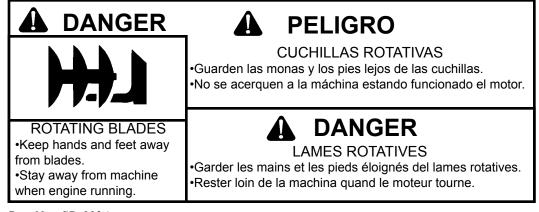
- Read owner/operator manual.
- Replace missing or damaged safety decals.
- Safety decals and this manual must be considered a permanent part of your equipment.
- Should ownership of the equipment be transferred, this manual must also be transferred.
- Unauthorized modifications to the equipment are not recommended. This could impair the function, safety, and life of the machine.
- For any part of this manual that you do not understand, contact your dealer or Brown Manufacturing Corporation at (800) 633-8909.
- All implements with moving parts are potentially dangerous. Due to this fact, there is no substitute for a safe, knowledgeable operator. It is important that all persons operating this equipment read, understand, and follow the instructions provided in this manual.

#### Safety Decals

The following safety decals should be attached to the equipment at all times. Should any decal become damaged or lost, it is the responsibility of the owner to replace it. Additional decals may be obtained from the manufacturer.



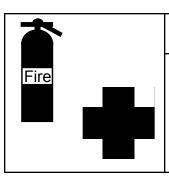
Part No.: SD-010.



Part No.: SD-012A.

# Warning! Prepare for emergencies.

Keep fire extinguisher and first aid kit available.

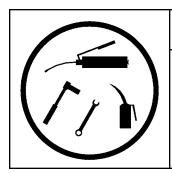


#### **AWARNING**

Prepare for emergencies.
Keep fire extinguisher and first aid kit available.

# Warning! Check equipment before operating.

Tighten all nuts and bolts before operating. Make certain that equipment is lowered to ground before attempting to make adjustments or perform maintenance.



#### **AWARNING**

Check equipment before operation. Tighten all nuts and bolts.

# Danger! Stay clear of rotating blades.

The harrow is designed to cut soil, turf, and groundlitter. Keep hands and feet away from blades!



### **A** DANGER

Rotating blades. Keep hands and feet away from blades.

# Danger! Keep riders off machine.

Riders can be seriously injured or killed by entanglement or by falling.



#### **A** DANGER

Riders can be injured or killed. Keep riders off machine.

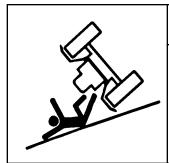


### **AWARNING**

Transport with care. Use slow-moving vehicle emblem and flashing light. Follow local traffic regulations.

### Warning! Transport with care.

Before transporting to a new location, make certain that the slow-moving vehicle emblem is installed and is clearly visible. Use flashing lights and follow local traffic regulations.

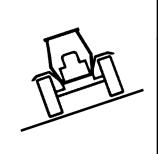


#### **AWARNING**

Use only with tractors equipped with a certified roll-over protection system.

### Warning! Roll-over protection.

Do not operate the harrow on any tractor not equipped with a certified roll-over protection system.



#### **AWARNING**

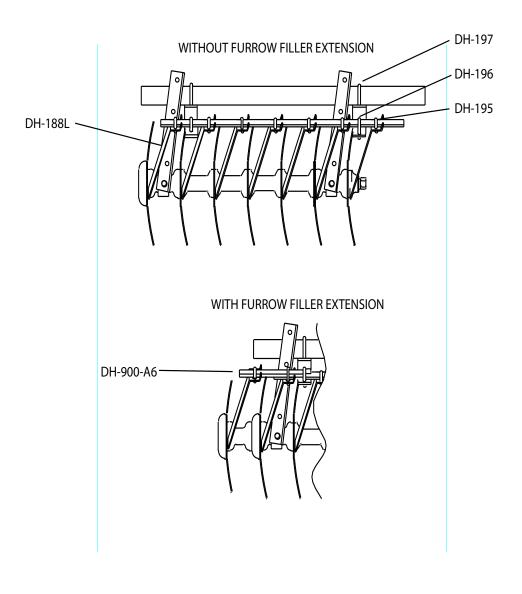
Slow travel speed when operating on slopes or rough terrain.

# Warning! Slopes and rough terrain.

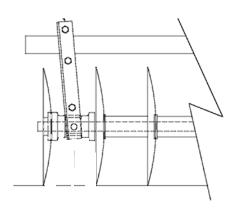
When operating on slopes or rough terrain, slow travel speed. Do not operate in an area where the tractor could roll over. Be sure to fasten safety belt when operating tractor!

### Assembly

### **Optional Blade Scraper Assembly Instructions**



### Bearing Replacement



- 1- Attach the tractor to the disc harrow
- 2- Loosen the axle nut while the axle is still attached to the frame but do not remove.
- 3- Remove the 5/8" bolts from the bearing hanger that attach the axle to the gang arm. There are 3-bolts on each bearing hanger.
- 4- Once the two bearing hangers are removed from the axle, lift the disc harrow frame with your tractor and move the unit away from the axle assembly.
- 5- Stand the axle assembly up with the axle nut on top, secure the axle assembly in the standing position in a manner that it cannot fall over.
- 6- Remove axle nut from the axle and unstack the assembly down to the bearing that you wish to replace Note the order and the position of the components as you remove them. This will insure the proper order for reassembling the axle.
- 7- With new bearing assembly replaced on the axle restack all the components back onto the axle, in the same order as they were removed.
- 8- Start the axle nut onto the axle but do not torque it at this time
- 9- Lay axle assembly back down on the ground and back the harrow frame over the axle assembly. Lower the frame down to the axle and remount the bearing hanger to the axle assembly.
- 10- Now is the time to torque the axle nut, make sure that the axle nut has about 400 to 500 foot Lbs. of torque, its very important that axle nut is tight and must be rechecked after the first hour of operation.

### Operation



Before hitching harrow to your tractor, make sure all safety devices are installed on the trac-

Please follow all safety instructions and procedures.

#### Attach equipment to tractor.

Be sure the tractor is equipped with the correct category hitchpins, top link, etc.

Be extremely careful when positioning tractor to hitch to the equipment.

Caution! Never allow anyone between the tractor and the equipment during the hitching process.

#### Adjust cutting depth.

Be sure the tractor engine is off, key is removed, and all movement of the tractor has stopped before dismounting to make adjustments.

Using the center link adjustment and the lift arms of the tractor, set the equipment so that the front and rear gangs are cutting at the same depth. The left-to-right pitch is obtained by adjusting the lift lengths. Set the lift stop at the required position to maintain a uniform depth.

When cutting, the frame should be parallel to the ground. Additional pressure can be applied to the rear gangs by adding spring pressure in the A-frame brace. On the OSL-600- and OSL-750 models, extend tractor top link to collapse springs. Remove spring retainer thur bolts on each side & reinstall bolts through one of the four holes to achieve desired pressure. There are two holes in the retaining collar & two holes in the inner spring pipe. The collar can be reversed for more pressure. On the OSL-900 model, merely tighten nuts on the end of the adjustment rods

#### Operating speed

Proper operating speed for equipment will depend upon the soil conditions and the particular application.



Warning! Avoid personal injury. Never allow anyone to ride on the tractor or harrow.

**Remember:** The safe operation of this equipment is the responsibility of the operator. The operator should be familiar with both the tractor and the equipment. He should read and understand all applicable operator manuals and follow all safety practices.

### **General Information**

**Specifications** 

Model	No./Dia. Blades	Spacing	Width Cut	Weight	No. Bear- ings	Horse power Required
OSL-600-1622	16/20	9/9	6'4"	1310 Lbs.	8	60
OSL-750-2022	20/22	9/9	7'6"	1455 Lbs.	8	70
OSL-900-2422	24/22	9/9	9'1"	1830 Lbs.	8	90

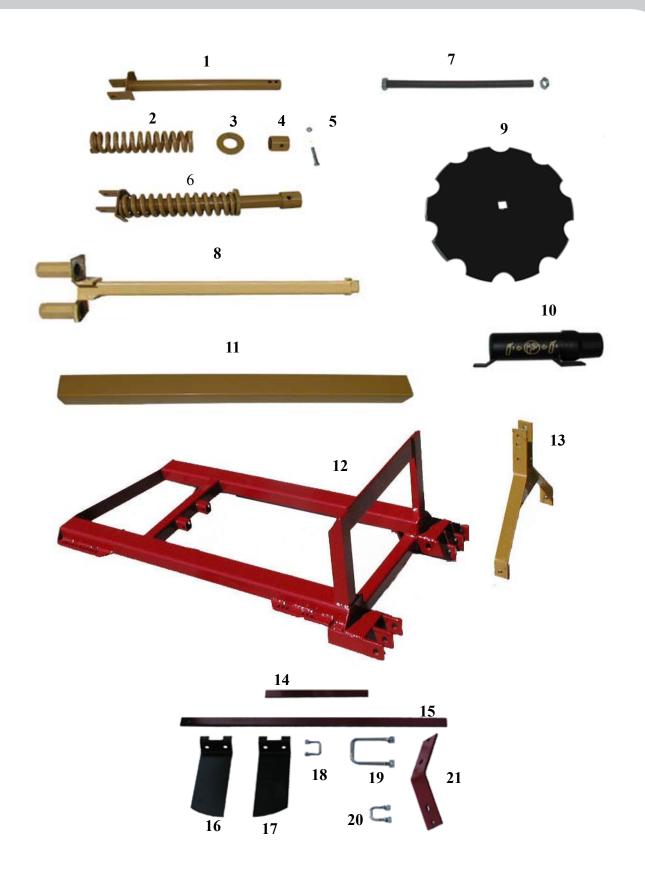
Standard Features
3" x 5" High Tensile Steel Tube Frame
Adjustable 3" x 4" Gang Arm
Triple-Sealed Ball Bearing
Self-Aligning Bearing Housing
1-1/8" Forged Square Axle
Cast Iron Spacers
22" Notched 7 Ga. Blades
Weight Rack
Cat. II Clevis Hitch
Dual Spring Loaded A-Frame Brace

**Optional Equipment** 

Options	Part No.
Scraper (need one per blade)	DH-188A
Furrow Filler adapter (two needed)	DH-122A

**Troubleshooting** 

Problem	Possible Cause(s)	Possible Solution(s)
	1. Hard or Dry Ground	1. Add Additional Weight
Blades Penetration	2. Gang Arm Angle	2. Reduce / Increase Gang Arm Angle
	3. Improper Tractor Lift / Draft	3. Check Tractor Lift / Draft
Side Draft / Pulling	1. Lift Arms Are Not Matched	1. Match Lift Arm Lenghts
To Side	2. Unequal Rear Tire Pressure	2. Check Tire Pressure
Rear Blades Not Cutting	1. Top Link Out Of Adjustment	Adjust Top Link So Both Gangs     Make Ground Contact Together / Equally     Add Spring Pressure To Rear Gangs
Plugging Between	1. Extremely Wet Soil	1. Allow Soil To Dry
Blades	2. Gangs Set At Too Great An Angle	2. Reduce Angle
Diaucs	3. Not Using Blade Scrapers	3. Install Scrapers

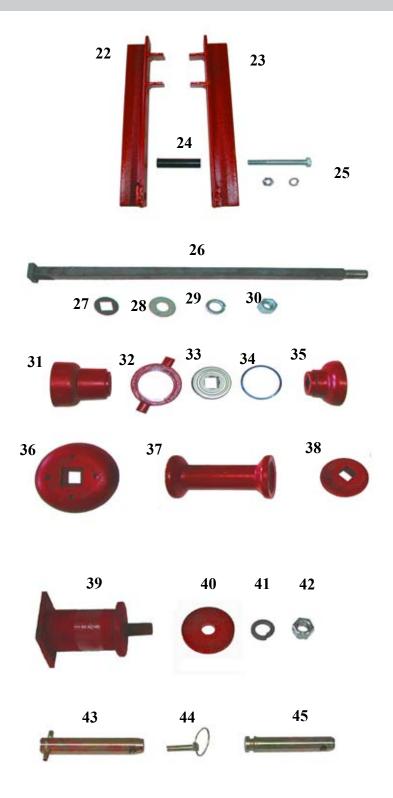


Ref.#	Part Number	Description
1	234-0005	Guide, Inner, Spring, OSL-600 & OSL-750
1	234-0007	Guide, Inner, Spring, OSL-900
2	234-001	Spring, A-Frame, All Models
3	TC2C-A39	Washer, 1/2" Thrust, All Models
4	700-234-0011	Collar, Tension, OSL-600 & OSL-750
5	HC58C56Z	1/2" x 3-1/2" Bolt, Gr 5
5	NSB50CZ	1/2" Lock Nut, Stover
6	234-0032	Spring Assembly, OSL-600 & OSL-750
7	234-0008	Rod, Spring Adjuster, OSL-900
0	234-0002	Brace, A-Frame, OSL-600 & OSL-750
8	234-0006	Brace, A-Frame, OSL-900
9	DH-116-22	Blade, 22" Diameter Notched
10	MH-01	Container, Manual
	700-234-0028	Arm, Gang, 4"x 3"x 5/16"x 60" Long, OSL-600
11	700-234-0020	Arm, Gang, 4"x 3"x 5/16"x 79-1/2" Long, OSL-750
	700-234-0034	Arm, Gang, 4"x 3"x 5/16"x 96" Long, OSL-900
12	234-0001	Frame, OSL-600 & OSL750
12	234-0009	Frame, OSL-900
13	DH-159	A-Frame, OSL-600 & OSL-750
13	234-0028	A-Frame, OSL-900
*N/P	750-234-0023	Bushing, Lower A-Frame, OSL-600 & OSL-750
14	DH-900-A6	Bar, Mounting, Scraper, Furrow Filler, Extension
	DH-600-50	Bar, Mounting, Scraper, 30" OSL-600
15	DH-750-003	Bar, Mounting, Scraper, 38" OSL-750
	DH-900-109	Bar, Mounting, Scraper, 48" OSL-900
16	DH-188R	Blade, Scraper, Right
17	DH-188L	Blade, Scraper, Left
18	DH-195	U-Bolt, 3/8" x 1-1/2" x 1-1/2"
19	DH-197	U-Bolt, 1/2" x 4" x 4"
20	DH-196	U-Bolt, 1/2" x 1-1/2" x 1-3/4"
21	DH-198	Bracket, Mount, Scraper Bar

<sup>\*</sup> NOT PICTURED

### Ordering replacement parts

Please contact the nearest Brown dealer for replacements parts. They will be able to meet most of your equipment needs. PLEASE HAVE MODEL NUMBER AND SERIAL NUMBER AVAILABLE.



Ref.#	Part Number	Description
22	DH-1254L	Hanger, Bearing
23	DH-1254R	Hanger, Bearing
24	DH-1254A	Spacer
	HC510C80Z	Bolt, 5/8" x 5", Gr. 5
25	LOC58Z	Washer, Lock, 5/8"
	HN258CZ	Nut, 5/8"
ASSY	DH-1254B	Hanger, Bearing, Assembly (Ref.# 13, 14, 15, & 16)
	DH-95	Axle, 1-1/8" x 31" OSL-600
26	DH-99	Axle, 1-1/8" x 39-3/4" OSL-750
	DH-97	Axle, 1-1/8" x 48-3/4" OSL-900
27	DH-204	Washer, Flat, Square Hole
28	DH-119	Washer, Flat, 1-1/8"
29	DH-120	Washer, Lock, 1-1/8"
30	DH-121	Nut, 1-1/8"
31	DH-111	Spacer, Bearing, Long 4-1/2"
32	DH-113	Housing, Bearing
33	DH-115	Bearing, Ball
34	DH-117	Ring, Lock
ASSY.	DH-115A	Bearing, Assembly (Ref# 23, 24 & 25)
35	DH-112	Spacer, Bearing, Short 2-5/8
36	DH-107A	Washer, Bumper With Holes
37	DH-106	Spacer, Blade, 9"
38	DH-108	Washer, End Nut
39	DH-122	Adapter, Furrow Filler
40	DH-123	Washer,Furrow Filler
41	DH-124	Washer, Lock, 1"
42	DH-124A	Nut, 1"
ASSY	DH-122A	Assembly, Furrow Filler (Ref# 30, 31, 32 & 33)
43	TC-126	Pin, Lower Lift, Cat II
44	TC-126A	Pin, Lynch
45	500-22	Pin, Top Hitch, Cat II

Ordering replacement parts

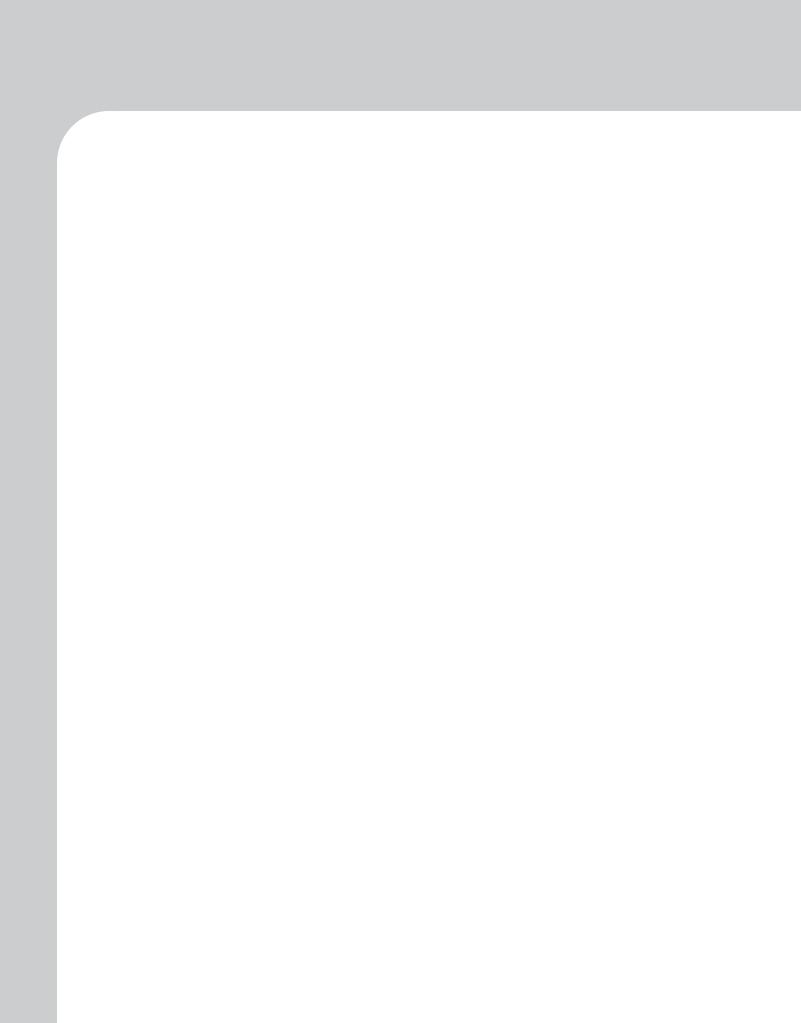
Please contact the nearest Brown dealer for replacements parts. They will be able to meet most of your equipment needs.



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