

Air*flō*[®]

Quick-Silver™ **SNOW PLOWS**

OPERATION & MAINTENANCE MANUAL

INTRODUCTION

Congratulations on the purchase of your new Air-Flo® Quick-Silver™ Snow Plow. Air-Flo® Manufacturing has produced this Operation and Maintenance Manual to familiarize you with the distinct features we have created for snow plowing safety and efficiency, and to help you get the MAXIMUM PERFORMANCE from your Air-Flo® Quick-Silver™ Snow Plow. By following the recommended operation and maintenance instructions, your Quick-Silver™ Snow Plow will be ready before the first snow and you will be an expert in it's operation.

Most vehicle manufacturers insist that vehicles which are to be used for snow plow operations be equipped with distinct options and accessories. Vehicles with Air-Flo® Quick-Silver™ Snow Plows installed Must be equipped as to meet vehicle manufacturer 's specifications and recommended options for snow plowing use. DO NOT EQUIP ANY VEHICLE WITH A SNOW PLOW WITHOUT CONSULTING VEHICLE MANUFACTURER'S RECOMMENDATIONS.

WARNING: Air bag deployment while using an Air-Flo® snow plow is not covered under Air-Flo® Manufacturing, Inc. Warranty.

For optimum performance, Air-Flo® Manufacturing recommends that vehicles used for snow plowing be equipped with the following options:

- 4 Wheel Drive
- Snow Plow Prep Package
- Mud and Snow Tires
- Increased Radiator Cooling
- Transmission Cooler
- Automatic Transmission
- Power Steering
- Power Brakes
- Minimum 100 Amp Alternator
- Minimum 600 C.C.A. Battery

Air-Flo Manufacturing reserves the right to change design specifications and furnish products so altered without prior notice.

Air-Flo® Manufacturing Quick-Silver™ snow plow equipment should be used only on vehicles equipped with manufacturer 's snow plow preparation packages. Plowing snow without the original snow plow preparation package may damage your vehicle or impair the operation and control of the vehicle with the added weight of the equipment. Snow plowing with a vehicle not recommended by the manufacturer for that purpose may void your new vehicle warranty. If your vehicle is not originally equipped with a snow plow preparation package, additional equipment and options may be necessary before plowing. Owners should consult with their truck dealers before the purchase and installation of this equipment. **CAUTION:** The installation, on any vehicle, of these parts is not a substitute for the original snow plow preparation package as offered from the vehicle's manufacturer.

TABLE OF CONTENTS

Page

The Quick-Silver™ Snow Plow	2
Quick-Silver™ Models	4
Quick-Silver™ Operation	6
Vehicle Application Requirements	12
Parts Diagram and List	14
General Maintenance	26
Wiring	27
Quick-Stick™ Hand Held Control	36
Trouble Shooting Guide	38
Safety	44
Hydraulic System	46
Warranty	47
Notes	48

1

PLEASE READ

Air-Flo Manufacturing requests that you read this manual completely. It is the consumers responsibility to be completely aware of all important operation and safety recommendations.

ALWAYS INSIST ON GENUINE AIR-FLO PARTS & ASSESSORIES

- Warranty Protection
- Made Specific to Air-Flo® Specifications
- Always the Right Fit
- Longer Wear
- Better Performance
- Always Your Best Value

2 QUICK-SILVER™ SNOW PLOW

Please get to know your Quick-Silver™ Snow Plow. It is the consumers responsibility for proper operation and maintenance.

MOLD BOARD

11 gauge 304 Stainless Steel or 11 gauge Carbon Steel

CUTTING EDGE

Produced with Hi Carbon Steel for an extended operating life.

Easily Replaceable.

SKID SHOES

Adjustable and easily replaceable that allow you to plow at the proper height.

QUADRANT

Produced of high quality carbon steel. Allows mold board to adjust to for plowing angles.

PIVOT PIN

Made of stainless steel. Attaches mold board to quadrant.

RIBS

Made of 1/4 "304 stainless or carbon steel. Help support the mold board.

A-FRAME

Attaches plow and quadrant to the light mount assembly.

LIGHT MOUNT ASSEMBLY

Houses light mounts, hydraulics, electrical components, Quick-Latch® assembly, height adjuster brackets and mounting forks.

PLow LIGHTS

Complies with all State and Federal Vehicle Safety Standards with the Auto-Light™ feature.

ELECTRIC / HYDRAULIC POWER UNIT

Hydraulically adjusts mold board position. Raises, lowers, angles left and right, holds and floats the moldboard.

QUICK-LATCH® ASSEMBLY

Allows for mounting and dismounting from chassis in seconds.

LATCH TAB

Readies the cam latch handle for mounting.

QUICK-LATCH® LOCKING CAMS

Spring loaded mechanism to automatically lock plow to chassis.

LATCH CAM HANDLES

Indicates that Quick-Latch® is successfully locked. Also allows for manual connection to chassis mount.

LOCK HANDLE

Single arm lever to allows for easy connection and disconnection from the drivers side of the snow plow.

LIFT FRAME

Attachment for lift cylinder and dual chains to lift and lower plow to proper position.

PIVOTING JACK STAND

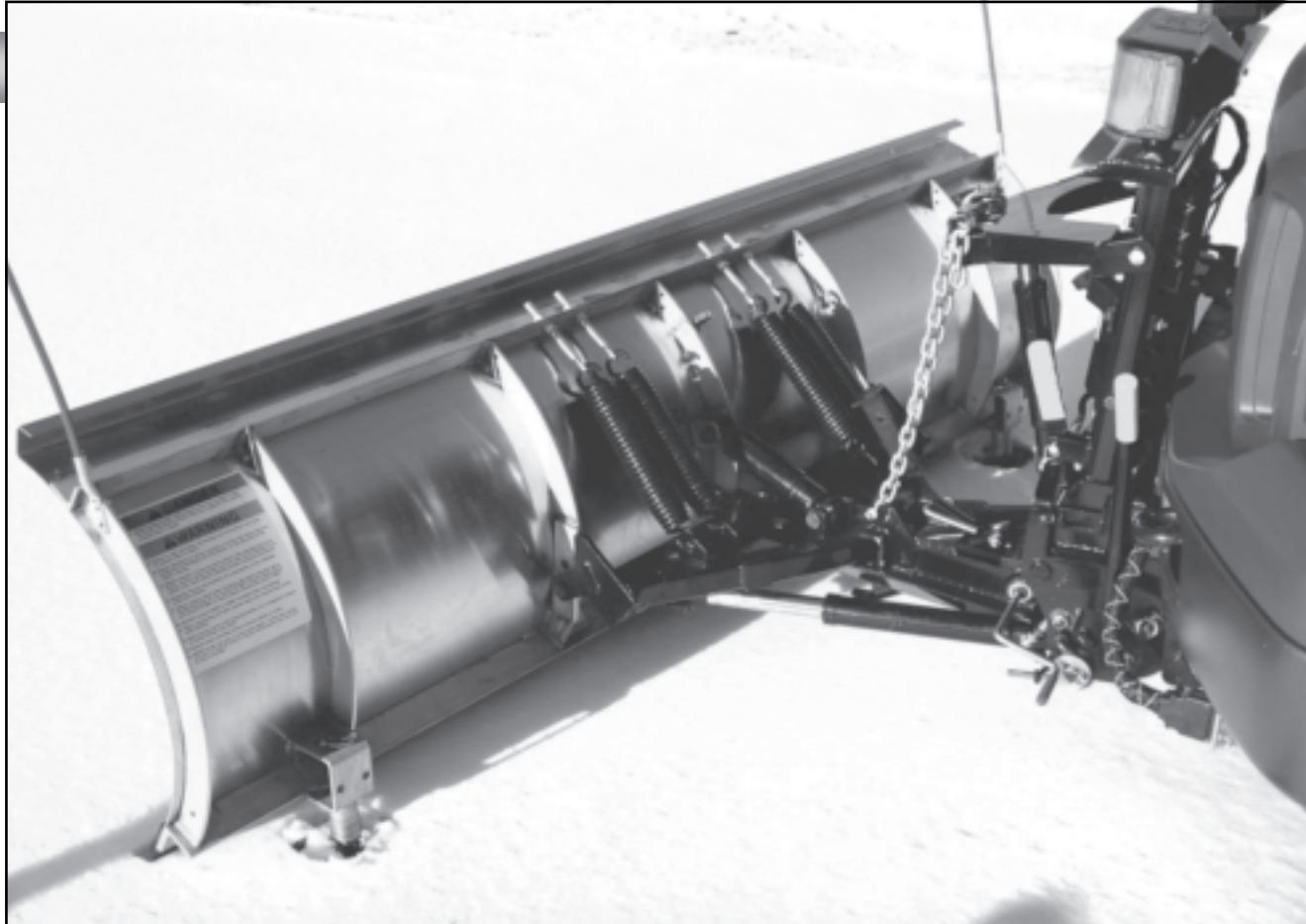
Positions plow for easy mounting and dismounting from chassis.

WIRING HARNESS

Convenient single plug connection to power your plow.

CHASSIS MOUNTING BRACKET

Connects snow plow assembly to chassis frame.



4 **QUICK SILVER™ MODELS**

The Quick-Silver™ Snow Plow is available in 3 sizes with either Carbon Steel or Stainless Steel Mold Boards. All of the plows come with our exclusive Quick-Latch® Mounting System.



QSC-75 - 7' 6" Carbon Steel Mold Board

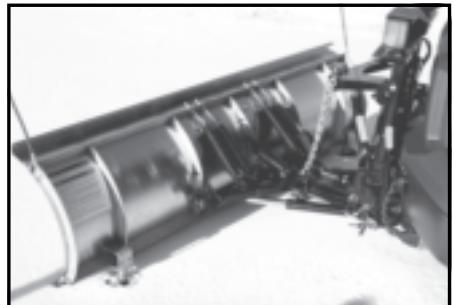
QSS-75 - 7' 6" Stainless Steel Mold Board

QSC-80 - 8' Carbon Steel Mold Board

QSS-80 - 8' Stainless Steel Mold Board

QSC-85 - 8' 6" Carbon Steel Mold Board

QSS-85 - 8' 6" Stainless Steel Mold Board



SPECIFICATIONS

MODEL	BLADE STEEL	BLADE WIDTH	BLADE HEIGHT	BLADE GAUGE	TRIP SPRINGS	VERTICAL RIBS	SHOCK ABSORBER	ANGLING RAMS	PLOWING WIDTH	APPROX. WEIGHT	CUTTING EDGE
QSS-75	Stainless	7 1/2'	29"	11	4	7	1	1 1/2' X 10"	6' 6"	641	3/8" x 6"
QSC-75	Carbon	7 1/2'	29"	11	4	7	1	1 1/2' x 10"	6' 6"	641	3/8" x 6"
QSS-80	Stainless	8'	29"	11	4	7	1	1 1/2' x 10"	6' 11"	657	3/8" x 6"
QSC-80	Carbon	8'	29"	11	4	7	1	1 1/2' x 10"	6' 11"	657	3/8" x 6"
QSS-85	Stainless	8 1/2'	29"	11	4	7	1	1 1/2' x 10"	7' 4"	674	3/8" x 6"
QSC-85	Carbon	8 1/2'	29"	11	4	7	1	1 1/2' x 10"	7' 4"	674	3/8" x 6"

6 **QUICK-SILVER™ OPERATION**



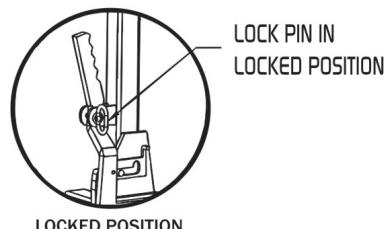
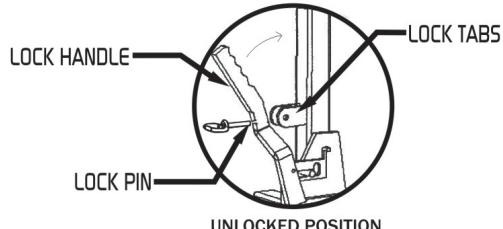
DANGER

NEVER transport plow without the plow being fully attached to the vehicle by ensuring the following:

- 1) The latch cam handles are vertical and the cams are attached around the truck receiver rod.



- 2) The lock handle is positioned fully rearward into the locked position. (see diagram below)
- 3) The lock pin is positioned through the lock tabs and lock handle. (see diagram below)



Failure to follow the above procedures may cause the plow to separate from the vehicle causing injury or death.



WARNING

- Failure to read and follow all warnings and instructions may lead to serious injury or death.
- Before attempting to attach, operate or service this plow read and understand all warnings and instructions on the plow and in the owner's manual.
- NEVER attempt to transport plow without fully engaging the latch hook and lock pin installed through cam lock handle in the locked position. Plow separation from vehicle may result without following proper mounting procedures.
- Regularly inspect and maintain all components of the complete plow system.
- Always reduce speed when traveling with blade attached. When transporting plow do not exceed 45 MPH. Plowing speed should not exceed 10 MPH or where hidden obstructions exist 5 MPH.
- DO NOT exceed GVWR or GAWR including blade and ballast.
- When transporting, DO NOT operate plow, and always lower blade when parked.
- Never service plow in the tripped position, as a dangerous release of stored energy may result.
- Remove blade assembly before placing vehicle on hoist.
- NEVER locate any part of body under blade. At NO time should any part of body be used to remove obstructions from any part of plow assembly.

8 **QUICK-SILVER™ OPERATION** **TO ATTACH PLOW**

If failure to follow installation and removal procedures may result in serious injury, death or damage to property.

1. Make sure jack stand is set at proper height (See initial Jack Settings) and hitch extensions are level. (#10)
2. Place latch cam handles in horizontal (down) position.
3. Pull up on latch tab to release handle. (#3)
4. Drive into plow until latch cams automatically engage the receiver rod. If plow attaches and latch cam handle moves fully rearward (as in Diagram #9), go to step #5. If not, see #4a & #4b below
 - a) If hitch extensions will not partially engage, then jack stand can be raised or lowered to allow engagement.
 - b) If hitch extensions are only partially engaged, then plug in electrics and place plow in float by holding the down control until float light is on. Once in float, check to see if jack stand needs to be raised or lowered and make necessary adjustments. Then, repeat step #4
5. Place lock pin (#5) through lock handle and lock tabs after plow is attached.
6. Connect power harness. (#6)
7. Raise plow to full up position.
8. Raise jack stand by pulling spring loaded jack pin while pulling up on the jack positioning handle. Release spring loaded jack pin and allow jack to lock in the raised horizontal position.



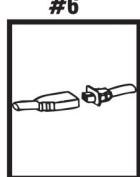
LATCH CAM
AND HANDLE



LATCH TAB



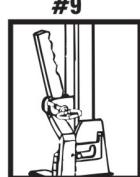
LOCK PIN



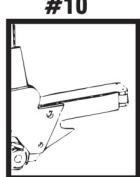
POWER HARNESS



LOCK HANDLE
UNLOCKED POSITION



LOCK HANDLE
LOCKED POSITION

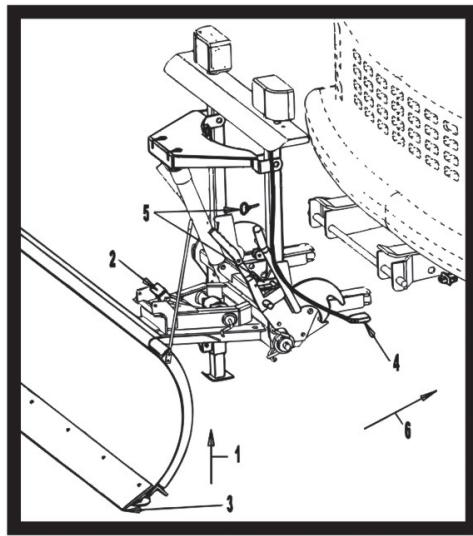
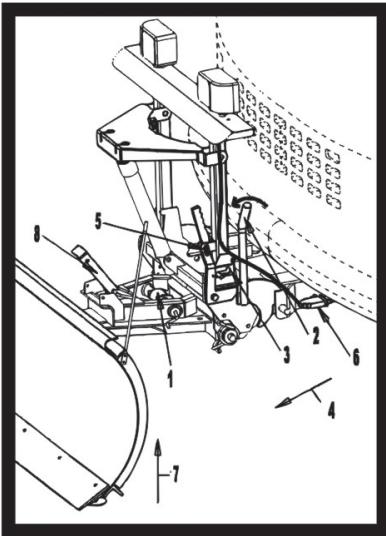


HITCH EXTENSIONS

INITIAL JACK STAND SETTINGS

NOTE: Truck receiver height and plow hitch extensions (#10)should be aligned level. Any variance can be eliminated with the jack stand.

1. From a level surface, measure from the ground to any reference point on the plow mount attached to the truck.
Note measurement.
2. Attach the plow to the truck. Lower the jack stand, and then lower the plow.
3. Take the same measurement as in step 1. Note any difference in height.
4. Crank the jack stand up or down to restore truck chassis to original height noted in Step 1. Once the initial setting is done on the jack stand, little or no adjustment is needed for future plow operations.



10 **QUICK SILVER™ OPERATION**

TO REMOVE PLOW

!Failure to follow installation and removal procedures may result in serious injury, death or damage to property.

1. Raise plow to full up position with blade straight.
2. Lower jack stand by pulling spring loaded jack locking pin while pushing down on the jack positioning handle.
Release spring loaded pin and allow jack to lock in the lowered, vertical position.
3. Position plow blade on the ground with the "float" control off.
NOTE: It may be necessary to raise the plow slightly off the ground to deactivate the float control, and then set the plow back on the ground. It is important that the plow lift chains remain taut.
4. Disconnect power plug harness. Install weather cap on "truck" side plug. Push plow side plug into frame holder for protection.
5. Remove lock pin on lock handle (#5), pull handle forward until holding latch drops into place. Plow is ready to dismount.
6. Using caution, slowly back truck away from plow, making sure no obstructions exist.



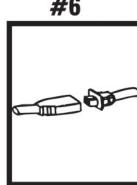
LATCH CAM
AND HANDLE



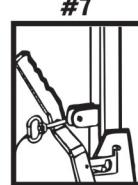
LATCH TAB



LOCK PIN



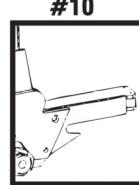
POWER HARNESS



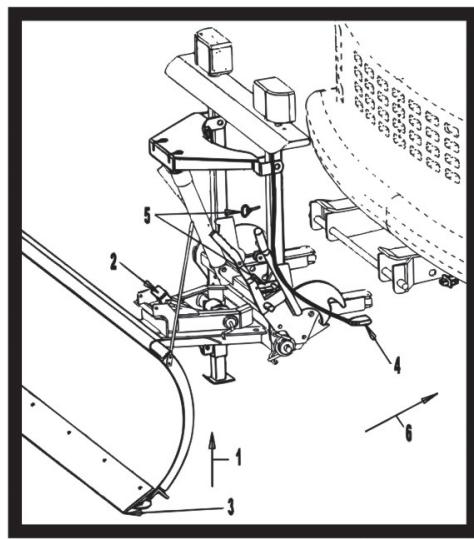
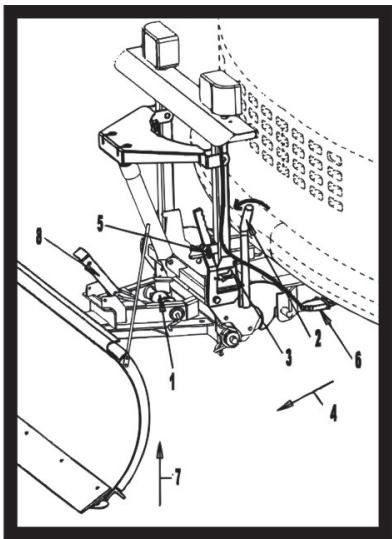
LOCK HANDLE
UNLOCKED POSITION



LOCK HANDLE
LOCKED POSITION



HITCH EXTENSIONS



NOTE: Read and understand all operating instructions prior to operating plow. Refer to owners manual for complete operating instructions.

12 VEHICLE APPLICATION REQUIREMENTS

RECOMMENDATIONS ARE BASED ON THE FOLLOWING:

- *The snow plow, when installed on the vehicle, must comply with the applicable Federal Motor Vehicle Standards (FMVSS).*
- *The snow plow, when installed on the vehicle, must comply with the vehicle manufacturers stated gross vehicle and axle weight ratings & front and rear weight distribution ratio.*

Note: Gross vehicle and axle weight ratings are found on the driver side door cornerpost of the vehicle. Rear ballast may be required to comply with these requirements in some cases. Refer to Ballast Requirements (pg. 13).

- *Representative vehicle equipped with snow plow, all options, and front seat occupants must not exceed vehicle GVWR or GAWR.*
- *Additional limitations and requirements may apply in some cases.*
- *Installation, modification, and additional accessories must comply with Air-Flo instructions and recommendations. Loading the vehicle with additional cargo, other truck equipment, or installing snow plow accessories decreases the available capacity.*
- *The actual vehicle as configured must be weighed if there is any uncertainty to whether available capacity exists.*

BALLAST REQUIREMENTS:

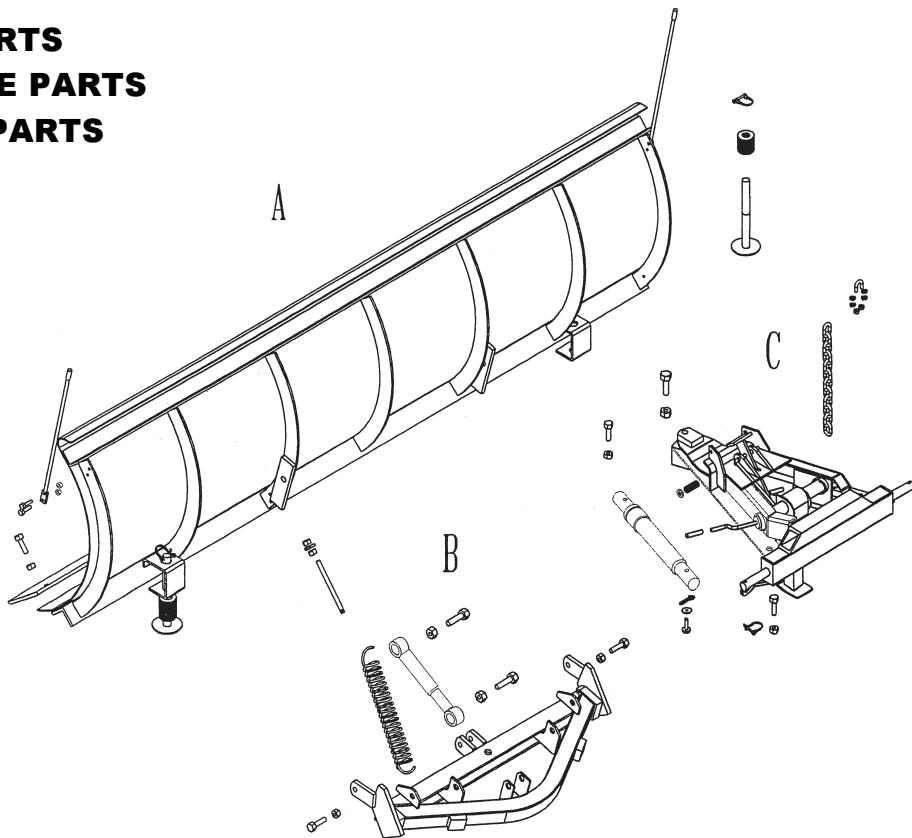
- *When qualifying vehicles for snow plow eligibility, ballast (additional weight) must be considered. To remain in compliance with the axle ratios and settings as specified by the vehicle manufacturer, when necessary, rear ballast must be used.*
- *It is important if ballast is required, that it is secured properly behind the rear axle. Sand bags may be used as a ballast but must be contained using a retainer.*
- *Please refer to manufacturer or dealer specifications for recommended ballast requirements.*

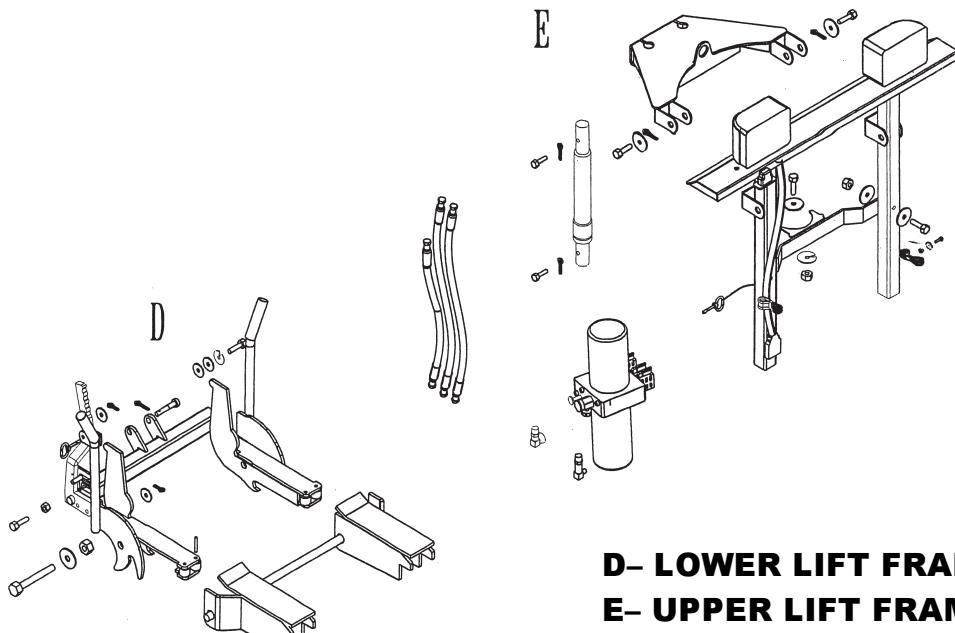
14 QUICK-SILVER™ PARTS DIAGRAM & LIST

A- BLADE SERVICE PARTS

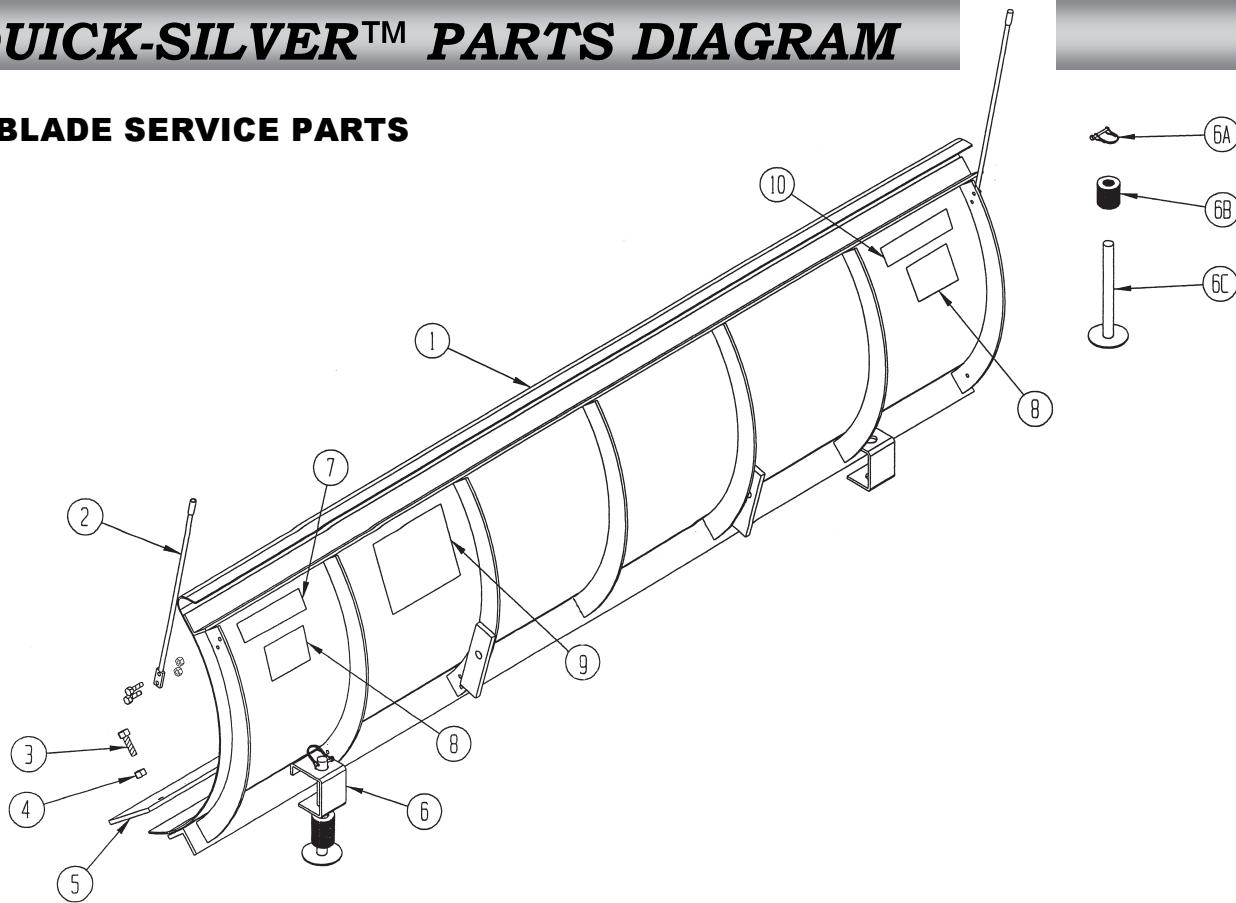
B- QUADRANT SERVICE PARTS

C- A-FRAME SERVICE PARTS





D- LOWER LIFT FRAME SERVICE PARTS
E- UPPER LIFT FRAME SERVICE PARTS
**F- NON-RETAIL SERVICE PARTS
(NOT SHOWN)**

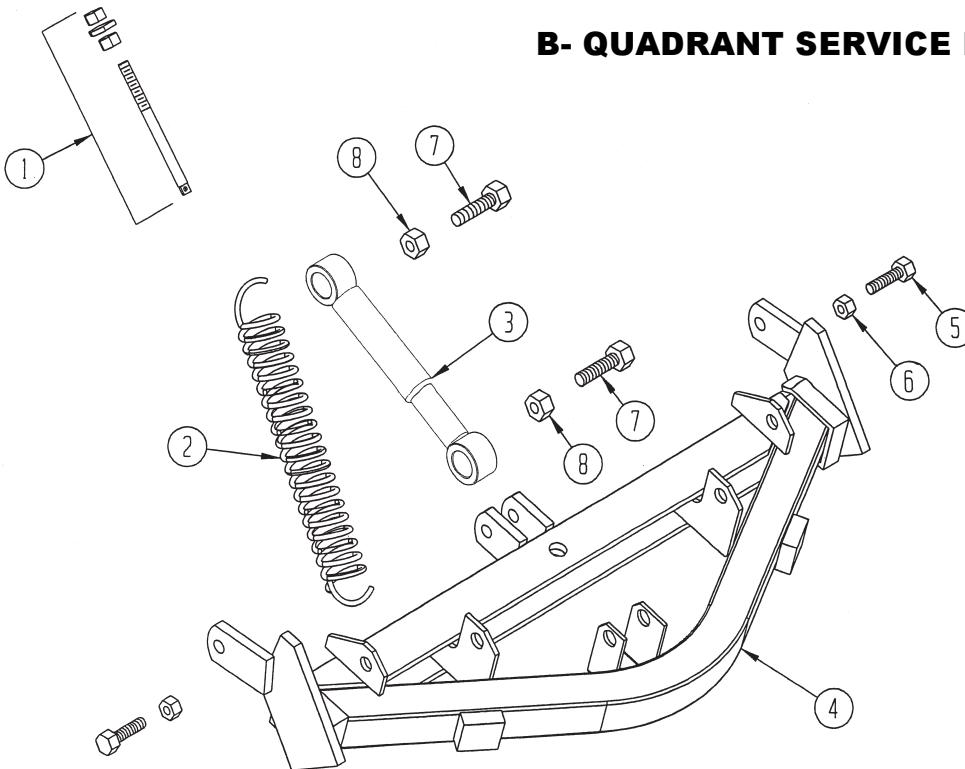
A- BLADE SERVICE PARTS

A- BLADE SERVICE PARTS

ITEM#	QTY	PART #	DESCRIPTION	ITEM	QTY	PART#	DESCRIPTION
1A	1	51001	7.5' SS PLOW BLADE	6	2	51014	PLOW (SKID) SHOE ASSY
1B	1	51003	8.0' SS PLOW BLADE	6A	2	01484	7/16" LYNCH PIN
1C	1	51005	8.5' SS PLOW BLADE	6B	52	01471	1 1/16" ID X 1 3/4" OD FLAT WASHER
1D	1	51000	7.5' C PLOW BLADE	6C	2	51013	PLOW SHOE
1E	1	51002	8.0' C PLOW BLADE	7	1	24000	LABEL, SERIAL TAG
1F	1	51004	8.5' C PLOW BLADE	8	2	24090	LABEL, DANGER/WARNING
2	1 SET	10025	PLOW GUIDE ASSY W/ FASTENERS	9	1	24095	LABEL, ATTACH/DETACH
3	8	01076	1/2" X 1 3/4" GR. 8 CARRIAGE BOLT	10	1	24092	LABEL, AIR FLO
4	8	01487	1/2" TOPLOCK NUT	11	1	24094	LABEL, QUICKSILVER
5A	1	51006	7.5' CUTTING EDGE	12	1	24091	LABEL, LARGE AIR-FLO
5B	1	51007	8.0' CUTTING EDGE				
5C	1	51008	8.5' CUTTING EDGE				

18 **QUICK-SILVER™ PARTS DIAGRAM**

B- QUADRANT SERVICE PARTS



B- QUADRANT SERVICE PARTS

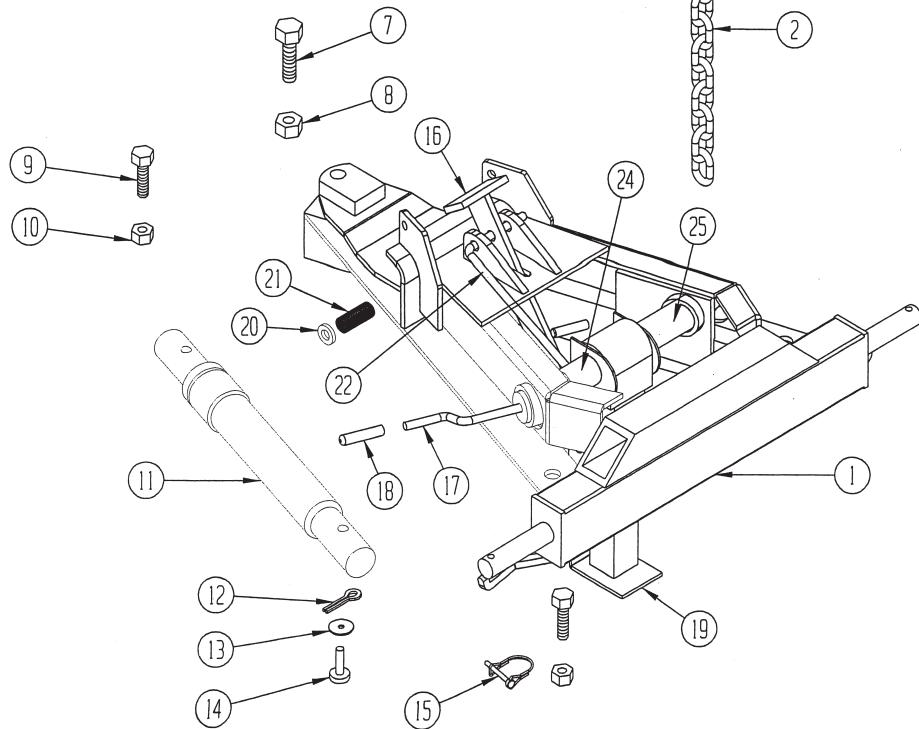
ITEM#	QTY	PART #	DESCRIPTION
1	4	01442	5/8" EYE BOLT ASSY
2	4	10016	TRIP SPRING
3	1	37052	SHOCK
4	1	51012	QUADRANT
5	3	01478	5/8" X 3" HEX BOLT GR. 8
6	3	01479	5/8" TOPLOCK NUT
7	2	01476	3/4" X 3 1/4" HEX BOLT GR. 8
8	1	01477	3/4" JAM NUT
9	1	01475	3/4" TOP LOCK NUT

F- NON RETAIL SERVICE PARTS (Not Shown)

QTY	PART #	DESCRIPTION
1	15064	BASE ASSEMBLY (18249)
2	15056	MOTOR DC, 12V - 4.5"
3	15057	CARTRIDGE 4-W/2-P
4	15058	CARTRIDGE 2W/2P, NC
5	15065	CAP SCREW SS 1/4"-20 X 2 3/4"
6	15059	SUCTION FILTER
7	15060	PUMP KIT
8	15066	TUBE, RTN 1/8" NPT
9	15067	TUBE, SUCTION 3/8" NPT
10	15061	RESV, 6 DIA X 5.5
11	15062	RESV, BREATHER - 3/8 NPT
12	15063	CARTRIDGE, 3W/2P
13	15055	COIL 10VDC, 2 PIN
14	15068	PLUG, FLUSH 3/8" NPT

20 **QUICK-SILVER™ PARTS DIAGRAM**

C- A-FRAME SERVICE PARTS

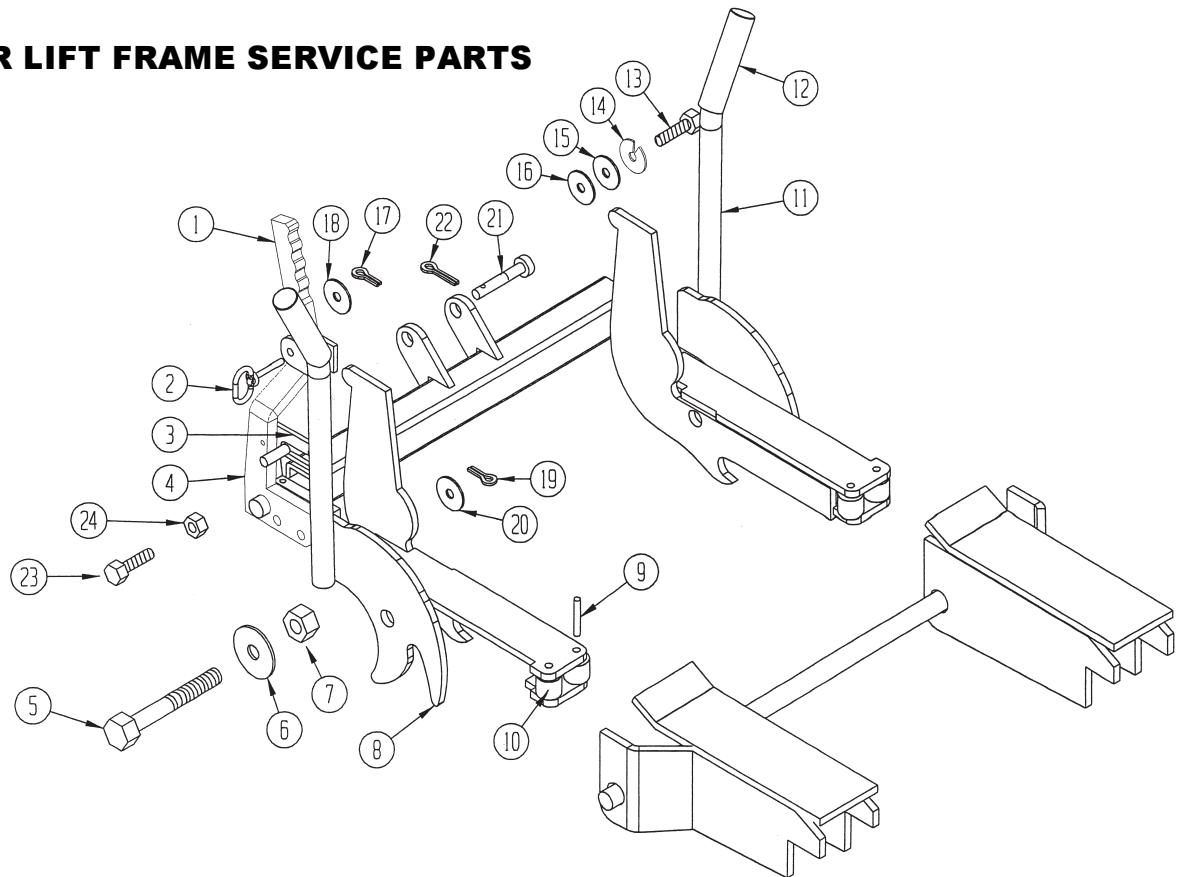


C- A-FRAME SERVICE PARTS

ITEM#	QTY	PART#	DESCRIPTION	ITEM#	QTY	PART#	DESCRIPTION
1	1	51001	A-FRAME	16	1	51031	S/S JACK ADJ. HANDLE
2	2	01426	CHAIN - 30 LINKS	17	1	51032	S/S JACK HANDLE
3	2	01010	3/8" U-BOLT	18	1	09035	7/16" X 3 1/4" SILVER HANDLE COVER
4	2	01018	3/8" FLAT WASHER	19	1	51025	SCREW JACK FOOT
5	2	01016	3/8" LOCK WASHER	20	1	01508	3/4" INTERNAL RETAINING RING
6	2	01270	3/8" NUT	21	1	10028	JACK RELEASE SPRING
7	1	01480	3/4" X 4" FLANGE BOLT GR.8	22	1	51033	S/S JACK LOCK PIN
8	1	01475	3/4" TOPLOCK NUT	23	1	09038	7/16" X 2" SILVER HANDLE COVER
9	2	01011	3/4" X 3 1/2" HEX BOLT GR.8	24	1	51026	LEFT HAND SCREW JACK MOUNT
10	2	01475	3/4" TOPLOCK NUT	25	1	51027	RIGHT HAND SCREW JACK MOUNT
11	2	37051	ANGLE CYLINDER	26	1	51028	SCREW JACK EXTENTION TUBE (NOT SHOWN)
12	2	01189	5/32" X 3 1/2" COTTER PIN	27	1	01029	3/8" X 2" HEX BOLT GR. 8 - TUBE EXTENSION (NOT SHOWN)
13	2	01036	3/4" FLAT WASHER	28	1	01486	3/8" X 2 3/4" HEX BOLT GR. 8 - JACK FOOT
14	2	01482	3/4" X 3 1/2" CLEVIS PIN	29	2	01034	3/8" LOCK NUT
15	2	01472	5/16" X 1 1/2" LYNCH PIN				

22 QUICK-SILVER™ PARTS DIAGRAM

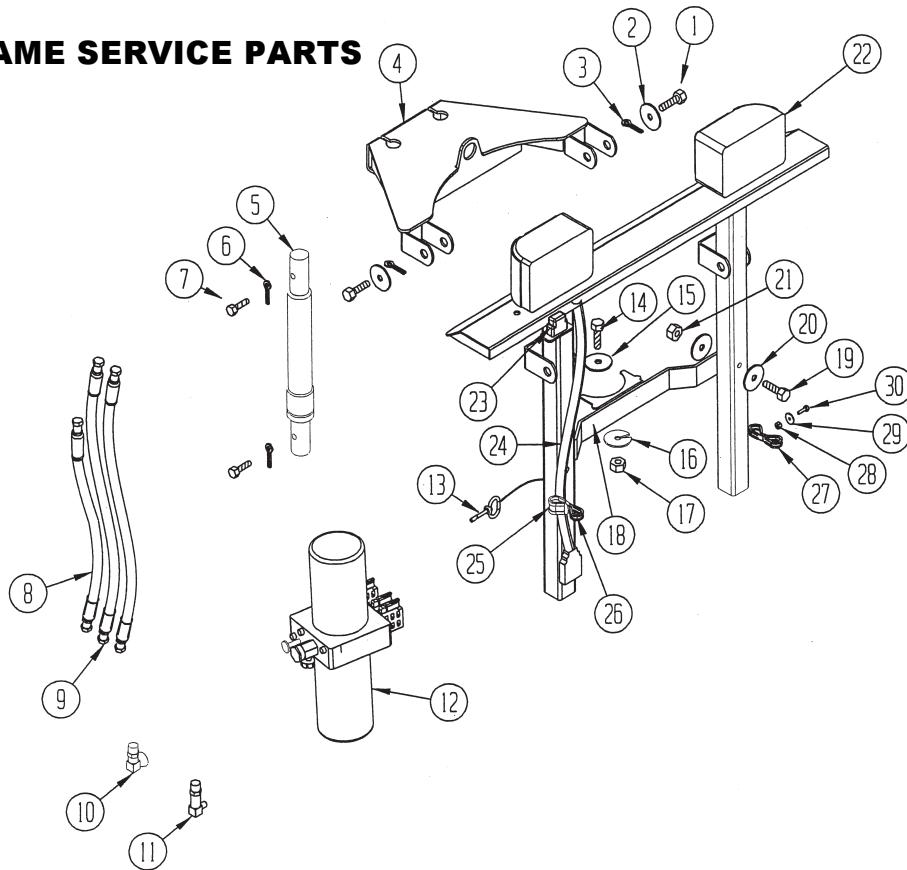
D- LOWER LIFT FRAME SERVICE PARTS



D- LOWER LIFT FRAME SERVICE PARTS

ITEM#	QTY	PART # DESCRIPTION	ITEM#	QTY	PART# DESCRIPTION
1	1	09037 RED VINYL GRIP	13	1	01500 3/8" X 3/4" HEX BOLT GR. 8
2	1	01430 DETENTION PIN W/ LANYARD	14	1	01047 3/8" LOCK WASHER
3	1	51023 LOCK HANDLE CATCH	15	1	01420 3/8" FLAT WASHER
4	1	51022 CAM BLOCK W/ CROSS SHAFT (ASSEMBLED)	16	1	01049 1/2" FLAT WASHER
5	2	01428 7/9"-9 X 4 3/4" HEX BOLT GR. 8	18	1	01420 3/8" FLAT WASHER
6	2	01491 7/8" FLAT WASHER	19	1	01188 1/8" X 1" COTTER PIN
7	2	01492 7/8" CENTERLOCK NUT	20	4	01420 3/8" FLAT WASHER
8	1	51021 LEFT HAND CAM ASSIST HANDLE	21	1	01496 3/4" X 3" CLEVIS PIN
9	4	01019 5/16" X 2" ROLL PIN - SS	22	1	01189 5/32" X 1 1/2" COTTER PIN
10	4	51015 TRUCK HITCH ROLLERS - SS	23	4	01012 5/8" X 2" HEX BOLT GR.8
11	1	51020 RIGHT HAND CAM ASSIST HANDLE	24	4	01479 5/8" TOPLOCK NUT
12	2	09036 SILVER HANDLE COVER			

E- UPPER LIFT FRAME SERVICE PARTS



E- UPPER LIFT FRAME SERVICE PARTS

ITEM#	QTY	PART #	DESCRIPTION	ITEM#	QTY	PART#	DESCRIPTION
1	2	01496	3/4" x 3" CLEVIS PIN	16	2	01042	1/4" LOCK WASHER
2	2	01037	3/4" NYLON WASHER	17	2	01305	1/4" NUT
3	2	01189	5/32" X 1 1/2" COTTER PIN	18	1	51024	PUMP MOUNT
4	1	51010	LIFT FRAME	19	2	01015	1/2" x 3 1/4" HEX BOLT GR.8
5	1	37050	LIFT CYLINDER	20	2	01049	1/2" FLAT WASHER
6	2	01189	5/32" X 1 1/2" COTTER PIN	21	2	01337	1/2" LOCK NUT
7	2	01496	3/4" x 3" CLEVIS PIN	22	1 SET	07180	LIGHT KIT
8A	1	13040	HOSE KIT - INCLUDES 8,9,10, & 11	23	1	07200	STORAGE PLUG W/ CARRIAGE BOLTS
8	1	13042	1/4" X 24" HOSE	24	1	07182	PLOW SIDE WIRING HARNESS
9	2	13041	1/4" X 41" HOSE	25	1	07188	1 1/8" CLAMP
10	1	13043	#6 MORB X 1/4" MALE JIC 90°	26	1	07187	1/2" CLAMP
11	5	13044	#6 MORB X 1/4" FEMALE JIC 90°	27	2	07187	1/2" CLAMP
12	1	15054	PUMP	28	2	01305	1/4" NUT
13	1	01430	DETENTION PIN W/ LANYARD	29	2	01042	1/4" LOCK WASHER
14	2	01509	1/4" X 2 1/4" HEX BOLT GR. 8	30	2	01328	1/4"-20 X 1" HEX BOLT GR. 8
15	8	01329	1/4" FLAT WASHER				

26 **QUICK-SILVER™ GENERAL MAINTENANCE**

! To reduce friction and wear between moving parts, inspect the overall condition of the complete snow plow on a regular basis.

- Lubricate all shafts, pivots, and cam lock hitches with low temperature grease.
- To ensure proper connection and conductivity, clean plow harness ends with brake cleaner, coat contacts with white lithium or dielectric grease and place weather caps on both plow-side and truck-side when not in use. Air-Flo Manufacturing recommends this procedure be completed on the snow plow harness, both plow-side and truck-side plugs, every 25 hours. All other connections need to be serviced every 100 hours.
- Hydraulic hoses, hose ends, connectors, cylinders, and wiring connectors need to be inspected periodically. Any excessive wear or damage requires replacement of all affected components.
- Before the start of each plowing season, it is recommended to change pump fluid using a Dexron automatic transmission fluid. Also installation of the plow and activation of the pump at least once during the unused months is recommended.
- To avoid rust or corrosion, any paint chips on the plow frame should be touched up with black paint.
- Check all hardware, including nuts, bolts, pins, springs, and spring hardware, making sure they are tight and in good condition. Replace any damaged, worn, or broken hardware or components immediately.
- Check pump reservoir regularly for proper fluid level. Fluid level should be approximately 1/2" below bottom of filler neck. **DO NOT OVERFILL.**

Vehicle Side Wiring Harness

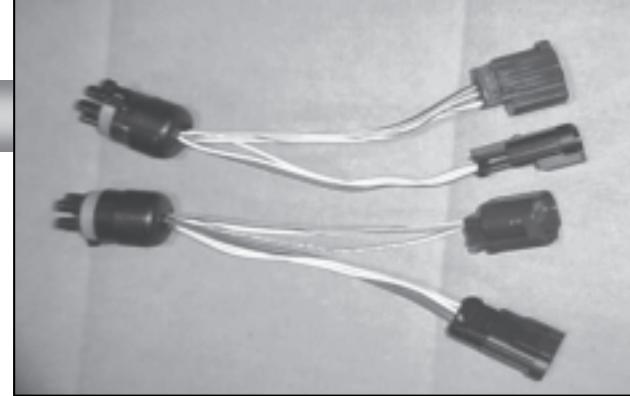
KIT INCLUDES:

- 1- Vehicle Side Wire Harness
- 3- Blue Splice Lock Connectors
- 1- V.S Weather Cap
- 3- Relays
- 1- Relay Plug Chart
- 1- V.S Mount Bracket



Headlight Adapter Kit

P/N



Installation & Operating Instructions for Advanced Adapter System ADAPTER INSTALLATION PROCEDURE:

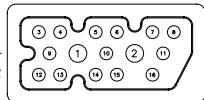
1. Remove existing vehicle headlight connector from headlight.
2. Plug in (ASS) headlight connector into the vehicle headlight receptacle.
**Note: If more than one plug is present, match color of connectors; i.e.
Gray to Gray, Black to Black. In Chevy daylight running: Clear to Gray.**
3. Plug the existing vehicle headlight connector into the (ASS) headlight adaptor.
4. Plug in the Black five pin connector into the White five pin connector on the (ASS) harness.

Final Steps:

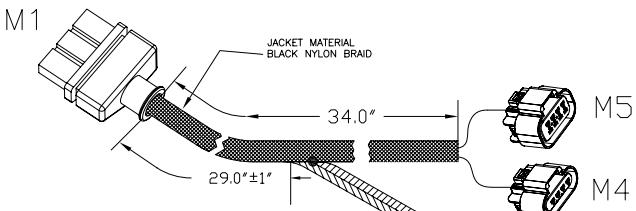
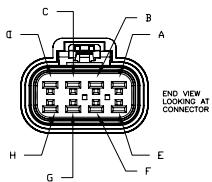
- Check for proper operation of headlights.
- Check that all wiring is secure.

Vehicle Side Wiring Harness—MAIN PLUG

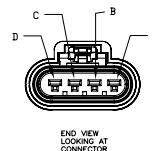
M1			
PIN #	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	BLACK	GROUND	18
3	RED	12 VDC (+)	4
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	ORANGE	FLOAT	18
7	WHITE	RAISE	18
8	GREEN	RIGHT	18
9	N/A	N/A	N/A
10	N/A	N/A	N/A
11	WHITE	COMMON	16
12	GREEN/BLK	LOW BEAM	16
13	YELLOW/BLK	HIGH BEAM	16
14	GRAY	RUN	18
15	WHITE/BLACK	RELAY (+)	18
16	VIOLET	L TURN	18
	PINK	R TURN	18



M5			
PIN #	COLOR	FUNCTION	AWG
A	GREEN/YELLOW	ALT	18
B	WHITE	COMMON	16
C	GREEN/BLACK	LOW BEAM	16
D	YELLOW/BLACK	HIGH BEAM	16
E	GRAY	RUN	18
F	WHITE/BLACK	RELAY (+)	16
G	VIOLET	L TURN	18
H	PINK	R TURN	18

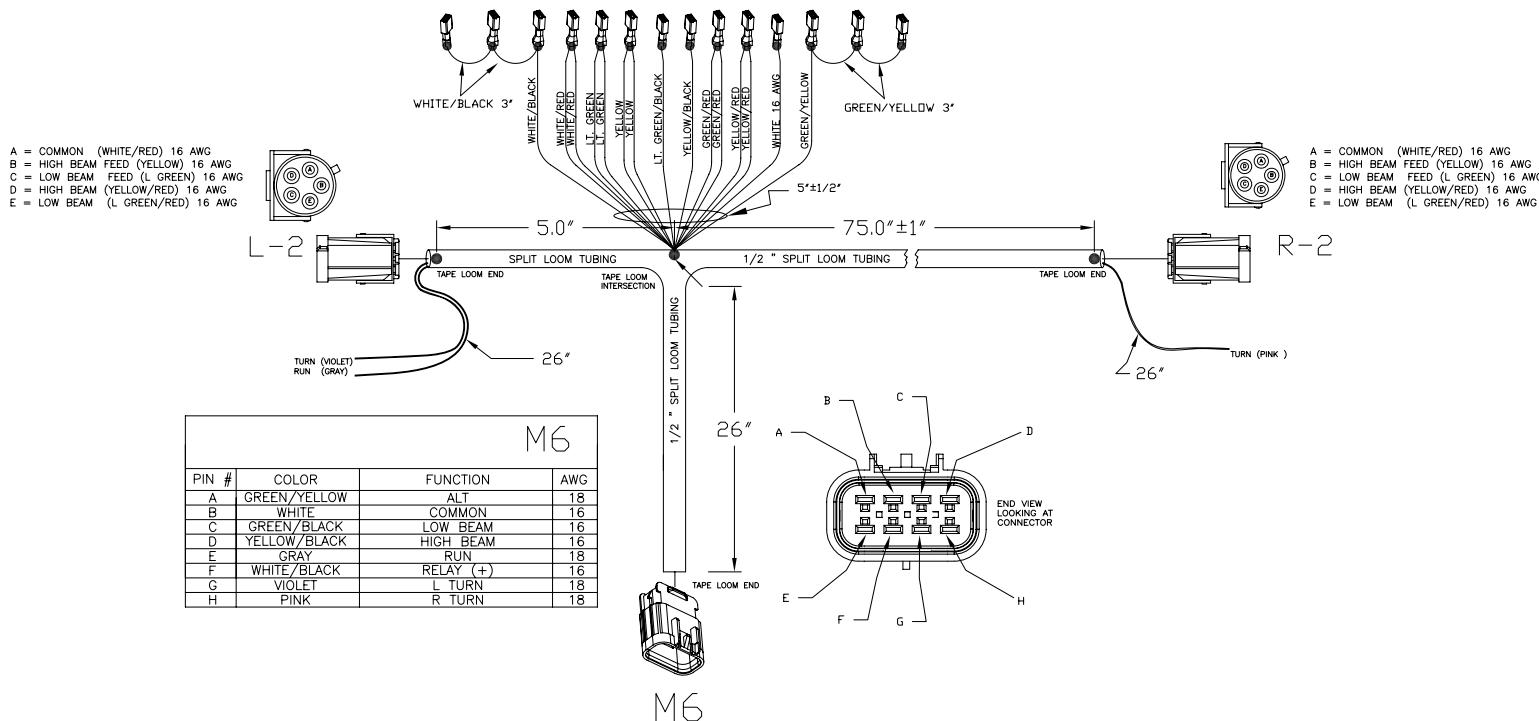


M4			
PIN #	COLOR	FUNCTION	AWG
A	BLACK	GROUND	18
B	ORANGE	FLOAT	18
C	WHITE	RAISE	18
D	GREEN	RIGHT	18

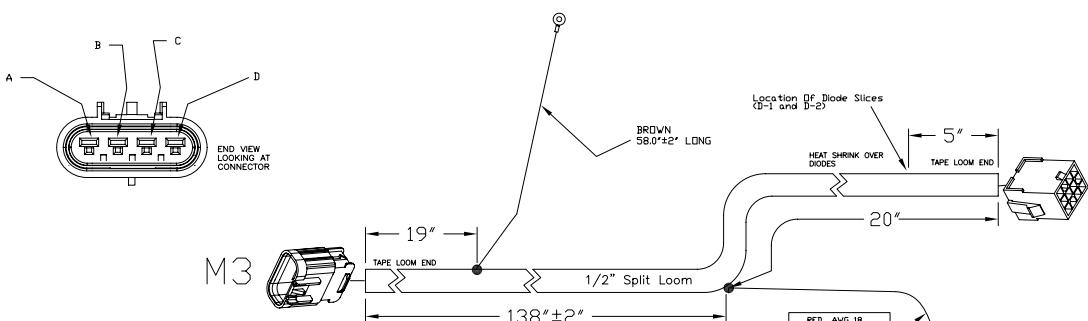


BLACK 50"±1"
RED 56"±1"

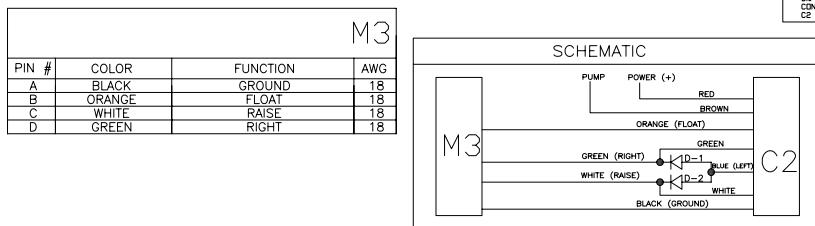
Vehicle Side Wiring Harness - LIGHTING HARNESS



Vehicle Side Wiring Harness - CONTROL HARNESS



C2			
PIN #	COLOR	FUNCTION	AWG
1	RED	POS (+)	18
2	WHITE	RAISE	18
3	ORANGE	FLOAT	18
4	BROWN	PUMP SOLENOID	18
5	GREEN	RIGHT	18
6	BLUE	LEFT	18
7	N/A	N/A	N/A
8	N/A	N/A	N/A
9	N/A	N/A	N/A
10	N/A	N/A	N/A
11	N/A	N/A	N/A
12	BLACK	GROUND	18



Vehicle Side Wiring Harness - RELAYS**PLUGGING CHART FOR RELAYS****RELAY # 1**

	HIGH	
PIN#	COLOR	AWG
85	GREEN/YELLOW	18
86	WHITE/BLACK	18
30	YELLOW	16
87	YELLOW/BLACK	16
87a	YELLOW/RED	16

RELAY # 2

	LOW	
PIN #	COLOR	AWG
85	GREEN/YELLOW	18
86	WHITE/BLACK	18
30	GREEN	16
87	GREEN/BLACK	16
87a	GREEN/RED	16

RELAY # 3

	GROUND	
PIN #	COLOR	AWG
85	GREEN/YELLOW	18
86	WHITE/BLACK	18
30	WHITE/RED	16
87	WHITE	16
87a	N/A	18

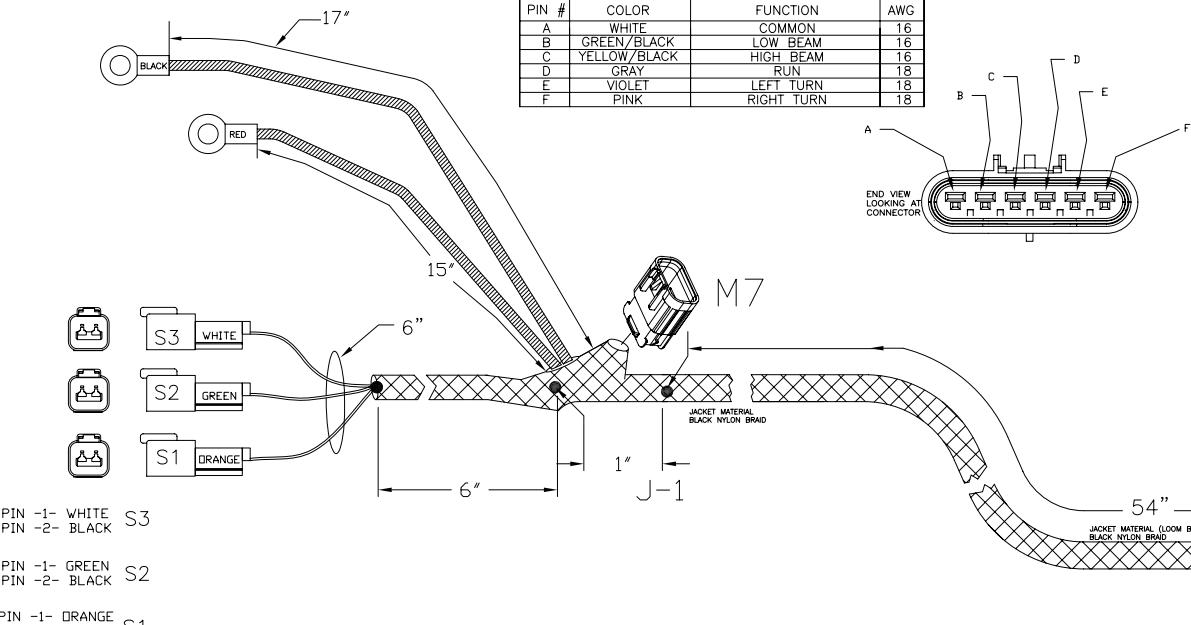
Plow Side Wiring Harness

KIT INCLUDES:

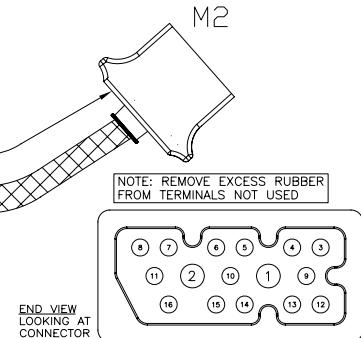
- 1- Plow Side Wire Harness.
- 1- P.S Weather Cap.
- 3- Screws for DIN Connector



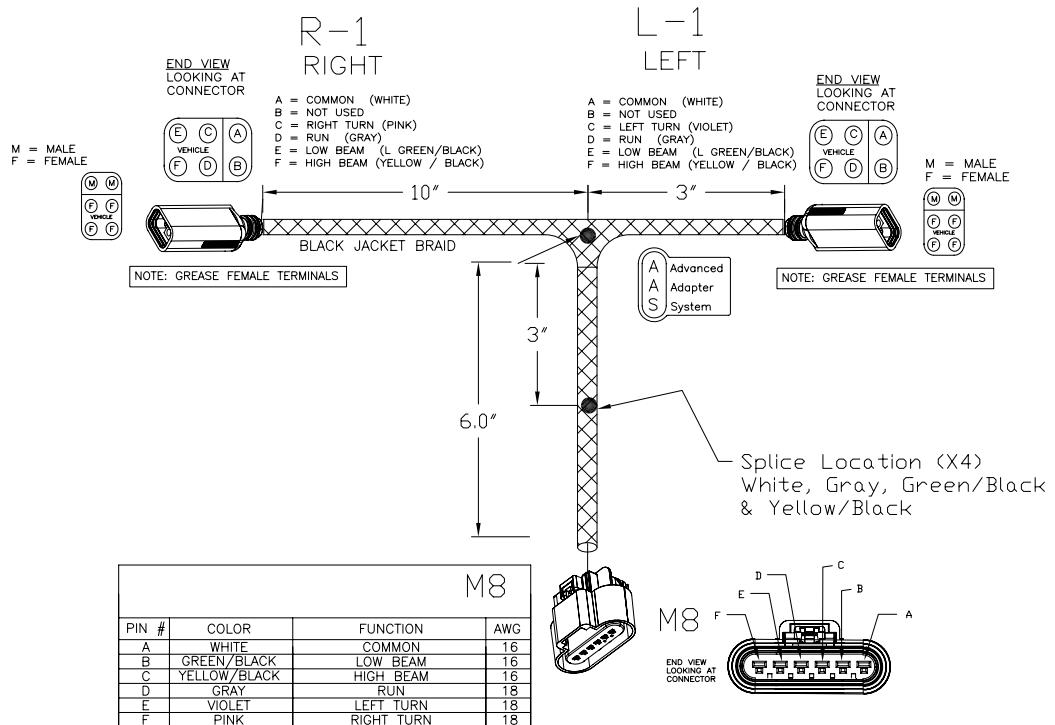
Plow Side Wiring Harness - MAIN PLUG



M2			
PIN #	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	RED	12 VDC (+)	4
3	N/A	N/A	N/A
4	ORANGE	FLOAT	18
5	WHITE	RAISE	18
6	GREEN	RIGHT	18
7	N/A	N/A	N/A
8	N/A	N/A	N/A
9	GRN/YEL	ALT	18
10	N/A	N/A	N/A
11	WHITE	COMMON (DBL)	16
12	GREEN/BLK	LOW BEAM (DBL)	16
13	N/A	N/A	N/A
14	YELLOW/BLK	HIGH BEAM (DBL)	16
15	N/A	N/A	N/A
16	VIOLET	R TURN	18



Plow Side Wiring Harness - LIGHTING HARNESS



36 **QUICK-STICK™ Hand Held Control**

HANDHELD CONTROL

1. Depending on how the truck side plow harness is wired, the Quick-Stick may operate with the ignition switch in the ON or OFF position. Please consult with your installer.
2. Turn the ON/OFF switch on the control to the ON position. The control keypad will glow green, indicating the control is on. **NOTE: THE ON/OFF SWITCH CAN BE USED AS AN EMERGENCY STOP WHEN REQUIRED.**
3. To control the plow, press the corresponding buttons on the keypad.
4. To engage the FLOAT Mode, press the down button for 1.3 seconds. The FLOAT indicator light, located in the center of the keypad (logo), will change from green to red. To cancel the FLOAT mode, momentarily press the UP button. FLOAT mode will automatically cancel after 17 minutes and the FLOAT indicator light will turn back to green. To restart FLOAT mode, repeat step 4.

BLADE OPERATION TIME OUTS

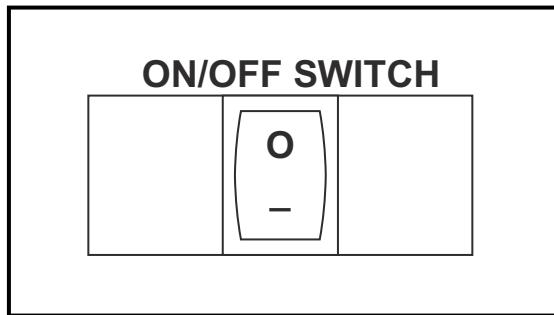
All control functions automatically time out (shut off) after a period of time. This helps reduce wear on the pump motor and prevent unnecessary battery drain. The UP function will time out after 2.6 seconds, while the LEFT and RIGHT functions will time out after 3.0 seconds.

AUTOMATIC SHUTDOWN

After being idle for approximately 22 minutes, the control will automatically turn off and the indicator light located at the center of the keypad (logo) will blink from red to green. To restart the control, turn the control OFF (ON/OFF switch) and then back ON.

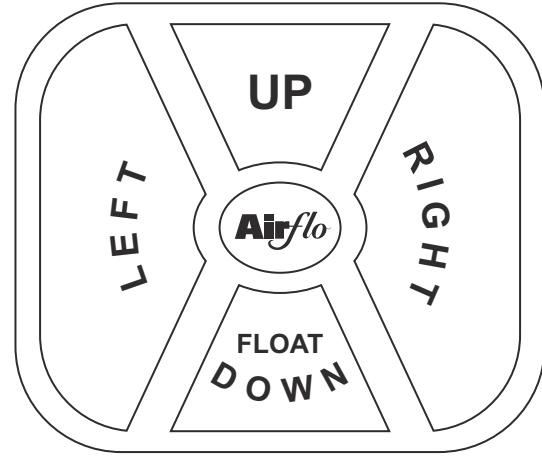
SOFT STOP

The Control automatically allows the blade to coast to a soft stop. This results in a smoother operation and decreased wear on the plows hydraulic system.



ON/OFF SWITCH

(Located on the Top of the Handheld control)



KEY PAD

! WARNING
**TO PREVENT ACCIDENTAL ACTIVATION OF PLOW, TURN PLOW
OFF WHEN NOT IN USE**

38 **QUICK-SILVER™ Trouble Shooting Guide**

This guide is provided as a general reference to possible plow failures. Please remember to contact your local Air-Flo *Quick Silver™* Dealer for factory original parts and trained service.

CONDITION	POSSIBLE CAUSE	CORRECTION
Motor does not run.	1) Snow plow harness not connected. 2) Fuses are blown. 3) Cab control malfunction or fault in wiring.	1) Properly connect all wire harnesses. 2) Replace fuses. 3) See an Air-Flo dealer for repair information.
Motor will not shut off.	Motor relay or cab control malfunction or fault in wiring.	See an Air-Flo dealer for repair information.
Snowplow will not raise or raises slowly or partially.	1) Excesses weight on the blade and A-frame. 2) Hydraulic Fluid level low or incorrect fluid is used. 3) Fuses are blown. 4) Truck battery weak or malfunction in charging system. 5) Motor worn or damaged or fault in wiring. 6) Pump filter clogged, worn or damaged pump, or hydraulic system malfunction.	1) Remove built up snow and ice or any after market accessories 2) Fill reservoir to proper level with recommended fluid. 3) Replace fuse. 4) Replace battery and/or check charging system. 5) See an Air-Flo dealer for repair information. 6) See an Air-Flo dealer for repair information.

CONDITION	POSSIBLE CAUSE	CORRECTION
Snowplow angles move slowly or partially.	1) Hydraulic fluid level low or incorrect fluid is used. 2) Vehicle battery weak or malfunction is charging system. 3) Air in angle cylinders. 4) Angle cylinders damaged or leaking. 5) Motor worn or damaged or fault in wiring. 6) Pump filter clogged, worn or damaged pump, or hydraulic system malfunction.	1) Fill reservoir to proper level with recommended fluid. 2) Replace battery and/or check charging system. 3) Cycle plow to remove air. 4) See an Air-Flo dealer for repair information. 5) See an Air-Flo dealer for repair information. 6) See an Air-Flo dealer for repair information.
Snowplow will not lower, lowers slowly, or will not float.	1) Hydraulic fluid is incorrect for outside temperature. 2) Quill adjusted in too far. 3) Blown fuse. 4) Cab control or hydraulic system malfunction or fault in wiring.	1) Use recommended fluid. 2) Adjust Quill out. 3) Replace fuse. 4) See Air-Flo dealer for repair information
Snowplow lowers by itself or will not stay in the raised position.	1) Hydraulic fittings or hoses loose or damaged. 2) Cab control or hydraulic system malfunction.	1) Tighten or replace components or see an Air-Flo dealer for repair information 2) See an Air-Flo dealer for repair information.

CONDITION	POSSIBLE CAUSE	CORRECTION
Snowplow does not perform the selected function or performs a different function.	1) Hydraulic hose routing is incorrect. 2) Cab control or hydraulic system malfunction.	1) See an Air-Flo dealer for repair information. 2) See an Air-Flo dealer for repair information.
Fluid Leaks from the hydraulic power unit.	1) Reservoir overfilled. 2) Loose or damaged hydraulic fittings, hoses, plugs, or hardware.	1) Drain excess fluid and verify proper fluid level. 2) Tighten loose components or see an Air-Flo dealer for repair information.
Fluid leaks from angle or lift arms.	1) Angle or lift ram gland nut loose. 2) Hydraulic fittings or hoses loose or damaged. 3) Angle or lift rams damaged.	1) Tighten ram gland nut or see an Air-Flo dealer for repair information. 2) Tighten or replace components, or see an Air-Flo dealer for repair information. 3) See an Air-Flo dealer for repair information.
Cab control fuses blown.	1) Motor relay or cab control malfunction, or fault in wiring.	1) See an Air-Flo dealer for repair information.

CONDITION	POSSIBLE CAUSE	CORRECTION
Excessive load on vehicle electrical system while using snow plow.	1) Too many accessories on. 2) Hydraulic fluid not correct for outside temperature. 3) Quill adjusted in too far. 4) Vehicle battery weak or charging system Malfunction. 5) Worn or damaged motor or pump, or fault in wiring.	1) Turn off unnecessary accessories. 2) Use recommended fluid. 3) Adjust Quill out. 4) Replace battery and/or check charging system. 5) See an Air-Flo dealer for repair information.
Vehicle battery loses charge when snow plow is not being used.	1) Vehicle battery weak. 2) Fault in wiring.	1) Replace battery. 2) See an Air-Flo dealer for repair information.
Snow plow headlamps operate irregularly or not at all (snow plow attached).	1) Snow plow wire harness not connected. 2) Burned out bulbs or vehicle fuse. 3) Fault in wiring.	1) Properly connect wire harness. 2) Replace bulbs, clean contacts. 3) See an Air-Flo dealer for repair information.

CONDITION	POSSIBLE CAUSE	CORRECTION
Vehicle headlamps operate irregularly or not at all (snow plow removed).	1) Burned out bulbs or vehicle fuse. 3) Fault in wiring.	1) Replace bulbs or fuse. 3) See an Air-Flo dealer for repair information.
Snow plow park / turn lamps not operating.	1) Burned out bulb or vehicle fuse. 2) Fault in wiring.	1) Replace bulbs or fuse. 2) See an Air-Flo dealer for repair information.

Notes

SAFETY PRECAUTIONS

!CAUTION: *Read owners manual prior to operation of plow.*

!WARNING: *To avoid serious injury: Lower blade when vehicle is parked. Be aware of temperature changes which can change hydraulic pressure. In turn, this can cause blade to drop unexpectedly. This may also cause damage to hydraulic components.*

!WARNING: *Including vehicle, blade and ballast: Do Not Exceed GVWR or GAWR. The vehicle rating label is found on the drivers side vehicle door corner post.*

!WARNING: *Before placing vehicle on hoist, remove blade assembly.*

!CAUTION: *Plowing speed should not exceed 10 mph and transport speed should not exceed 45 mph. Speed should be reduced under adverse conditions.*

For Your Personal Protection

- *Batteries produce explosive gases which can cause personal injury. Disconnect the battery before removing or replacing any electrical connections. Always use and wear protective equipment when working around batteries.*
- *While operating snow plow, the airborne noise emmissions should be below 70db.*
- *Wear safety goggles to protect your eyes from gasoline, battery acid and other foreign matter.*

For Your Personal Protection

- *Avoid touching hot surfaces such as exhaust pipes, hoses, engine and radiator.*
- *Always have a BC rated fire extinguisher available for flammable liquid and electrical fires.*
- *Gasoline is highly flammable and gasoline vapor is explosive. Keep all open flames away from gasoline tanks and lines. Clean up any spilled gasoline immediately.*
- *Be aware that vehicle exhaust contains deadly carbon monoxide gas. Vent exhaust to the outside if operating vehicle in an enclosed area.*
- *Always inspect hydraulic hoses and components before using snow plow. Replace damaged or worn parts immediately.*
- *Do not use your hand to detect a hydraulic fluid leak as hydraulic fluid under pressure can cause skin infection injury. Use a piece of cardboard or wood to detect possible leaks.*

46 HYDRAULIC SYSTEM

Air-Flo Manufacturing's Quick-Flo® hydraulic system provides a simple and reliable system for trouble free service. This efficient hydraulic system allows for smooth and fast plow operations with minimal amperage draw. For hydraulic fluid type, filling instructions and fluid change intervals, see General Maintenance Section.

System Capacity / Pump Motor Specifications
System Capacity - Reservoir: 1.5 qts.
12 Volt DC with +/- Connections
1500 PSI Pump Relief Valve
2000 PSI Angling Relief Valve
4 1/2" Diameter 1000 kw Motor
Gal/Rev Pump: 2.75 GPM @ 0 PSI 2 GPM @ 500 PSI 1.5 GP @ 1000 PSI 1.3 GPM @ 1500 PSI
Hydraulic Hose SAE 1/4"

QUICK-SILVER™ Snow Plow WARRANTY

47

AIR-FLO MANUFACTURING CO., INC., hereinafter referred to as "Manufacturer", warrants each new Quick-Silver™ Snow Plow sold by the manufacturer to be free from defects in material and workmanship, under normal use and service, for a period of Two (2) years after the date of delivery to the original retail purchaser, and Manufacturer will, at its option, replace or repair, at one of the Manufacturer's Dealer's, or at a point designated by the Manufacturer, any part or parts which shall appear to the satisfaction of the Manufacturer upon inspection at such point, to have been defective in material or workmanship. This warranty does not obligate the Manufacturer to bear any transportation charges in connection with the replacement or repair of defective parts.

This warranty shall not apply to any Unit which shall have been installed or operated in a manner not recommended by the Manufacturer, nor any Unit which shall have been repaired, altered, neglected or used in any way which, in the Manufacturer's opinion, adversely affects it's performance; nor to any Unit in which parts not manufactured by the Manufacturer, or supplied by the Manufacturer or by one of Manufacturer's Distributors or Service Centers, have been used; nor any accessories installed on the unit where the accessory manufacturer has its own warranty; nor to normal maintenance services or replacement of normal service items. Items this would pertain to include the Electric/Hydraulic Pump Assembly and Hydraulic Cylinders.

Manufacturer reserves the right to modify, alter, and improve a Unit or parts without incurring any obligation to replace any Unit or parts previously sold with such modified, altered, or improved Unit or part.

THIS WARRANTY, AND THE MANUFACTURER'S OBLIGATION HEREUNDER, IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTIES OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, and all other obligations or liabilities, including special or consequential damages or contingent liabilities arising out of the failure of any Unit or part to operate properly. No person is authorized to give any other warranty or to assume any additional obligation on the Manufacturer's behalf unless made in writing and signed by the Manufacturer.

Air-Flo Mfg. Co., Inc.
Prattsburgh, New York 14873

48 **NOTES**

IMPORTANT: Please fill out completely and retain for your records. This information will be necessary to process any warranty claims.

Date of Purchase: _____

Serial Number: _____

Dealer: _____

Dealer Contact: _____

Telephone: _____

Vehicle Mount Kit: _____

Vehicle Make: _____

Vehicle Model: _____

Vehicle Year: _____

Blade Size: 7 1/2' 8' 8 1/2 '



Air-Flo Manufacturing
40 South Main Street
Prattsburgh, NY 14873