



#### PLEASE READ THROUGH THE ENTIRE MANUAL BEFORE INSTALLING YOUR BRAKE SYSTEM

### WARNING - DO NOT USE BRAKE FLUID - USE ATF HYDRAULIC FLUID ONLY

**\*\*IMPORTANT\*\*** DO NOT USE ANY OTHER SEALS OTHER THEN WHAT IS SUPPLIED WITH THIS SYSTEM. INCOMPATIBLE SEALS WILL RESULT IN SYSTEM FAILURE

**\*\*IMPORTANT\*\*** USE ATF FLUID ONLY (Automatic Transmission Fluid) ANY OTHER FLUID MAY DAMAGE THE SYSTEM

**\*\*IMPORTANT**\*\* DO NOT USE BRAKE FLUID WITH THIS SYSTEM. BRAKE FLUID WILL DAMAGE THE SEALS

**\*\*IMPORTANT\*\*** DO NOT EXCEED THE GROSS WEIGHT LIMIT OF 1000 LBS

**\*\*IMPORTANT\*\*** USE PROVIDED LOCK NUTS AND LOCK WASHERS TO PREVENT WHEEL FROM LOOSENING

**\*\*IMPORTANT\*\*** REPLACE TIRES ANNUALLY OR WHEN SHOWING EXCESSIVE WEAR.

**\*\*IMPORTANT\*\*** DO NOT USE IF THERE IS ANY SIGN OF LEAKING. MAKE REPAIRS IMMEDIATELY

**\*\*IMPORTANT\*\*** MOUNT CALIPER WITH A BLEEDER SCREW LOCATED IN THE TOP POSITION ONLY. USE THE NYLON TIPPED SET SCREWS TO PLUG THE TWO OTHER UNUSED BLEEDER SCREW LOCATIONS.

\*\*IMPORTANT\*\* MOUNT THE MASTER CYLINDER IN AN UPRIGHT POSITION TO PREVENT OIL FROM LEAKING FROM THE VENT PLUG. NOTE: MASTER CYLINDER CAN BE MOUNTED SIDEWAYS WITH SPECIAL VENT KIT.

**\*\*IMPORTANT\*\*** NOTICE THE ATF HYDRAULIC FLUID WILL DISCOLOR IN DIRECT SUN LIGHT AND SHOW CLEAR IN SOME AREAS AND WILL APPEAR AS IF THERE IS AIR IN THE LINES

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1   44772   Wheel hub assembly   1     2   44746   Brake rotor   1     3   44766   BX-1000 caliper assembly   1     4   44748   Wheel axle bolt   1     5   44750   woodruff key   1     6   15101   5/8"-11 Nyloc thin nut   1     7   AN960-1016   5/8" Flat washer   1     8   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     14   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     14   44774   5/16" lock washer   3     15   Filek   Material   1     Moleckerse   Filek   1   BX-1000 wheel/brake assembly     Part #   Qty Req   Part #		10 6 7		9	12		
1   44772   Wheel hub assembly   1     2   44746   Brake rotor   1     3   44766   BX-1000 caliper assembly   1     4   44748   Wheel axle bolt   1     5   44750   woodruff key   1     6   15101   5/8"-11 Nyloc thin nut   1     7   AN960-1016   5/8" Flat washer   1     8   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     14   44774   5/16" lock washer   3     12   44774   5/16" lock washer   3     14   44774   5/16" lock washer   3     15   Filek   Material   1     Moleckerse   Filek   1   BX-1000 wheel/brake assembly     Part #   Qty Req   Part #	ITEM NO.	PART NUMBER	DESCRIPTION	De	efault/QT	3	
2   44746   Brake rotor   1     3   44766   BX-1000 caliper assembly   1     4   44748   Wheel axle bolt   1     5   44750   woodruff key   1     6   15101   5/8" Flat washer   1     7   AN960-1016   5/8" Flat washer   1     8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16" lock washer   3     12   44774   5/16" jam nut   3	1			nbly		0	
3   44766   BX-1000 caliper assembly   1     4   44748   Wheel axle bolt   1     5   44750   woodruff key   1     6   15101   5/8" Flat washer   1     7   AN960-1016   5/8" Flat washer   1     8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" Lock washer   3     11   44773   5/16" X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3	2						
4   44748   Wheel axle bolt   1     5   44750   woodruff key   1     6   15101   5/8"-11 Nyloc thin nut   1     7   AN960-1016   5/8" Flat washer   1     8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16" X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3     IMMESS OTHERWISE SPECIFIED:     DIMENSIONS ARE IN INCHES   FRACTIONALE 1/8"   MATERIAL     VIDESS OTHERWISE SPECIFIED:   DIMENSIONS ARE IN INCHES   FINSH     VIDERANCES:   MATERIAL   MATERIAL   BX-1000 wheel/brake assembly     Part #   Qty Req"     YMOP FLACE DECIMAL ± 0.00 "   FINSH   SCALE: 1/8 MEICHT:   PEV/:				embly			<b>'4</b>
5   44750   woodruff key   1     6   15101   5/8"-11 Nyloc thin nut   1     7   AN960-1016   5/8" Flat washer   1     8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16"X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3							•
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7   AN960-1016   5/8" Flat washer   1     8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16" X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3     INTERS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: 1/8" ANGULAR: MACH: .5" BEND ±1" TWO PLACE DECIMAL ±.030   MATERIAL   TITLE: BX-1000 wheel/brake assembly     Part #   Qty Req"     VIEW OF LACE DECIMAL ±.030   FINISH   Construction of the tire							
8   14303   6" tire   1     9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16" X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3     ITTLE:     DIMENSIONS ARE IN INCHES     TOLERANCES:   MATERIAL     Part #   Qty Req'     FINSH   MATERIAL     TWO PLACE DECIMAL ±.030   FINSH     Scale BIRDD   Scale 1.18, WEICHT:							
9   14302   6" polished aluminum wheel   1     10   44775   5/16" lock washer   3     11   44773   5/16" X 1 zinc plated cap screw   3     12   44774   5/16" jam nut   3     INTLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL±1/8" ANGULAR: MACH±.5" BEND ±1" TWO PLACE DECIMAL ±.030   MATERIAL   ITTLE: BX-1000 wheel/brake assembly     Part #   Qty Req"     Part #   Qty Req"							
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL±1/8" ANGULAR: MACH±.5* BEND ±1* TWO PLACE DECIMAL ±.030   MATERIAL   BX-1000 wheel/brake assembly     FINISH   FINISH   Qty Req*			5/16" lock wash	her			
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UNLESS OTHERWISE SPECIFIED:   MATERIAL     DIMENSIONS ARE IN INCHES   TOLERANCES:     FRACTIONAL±1/8"   FINISH     ANGULAR: MACH±.5° BEND±1°   FINISH     TWO FLACE DECIMAL ±.030   FOLLOS DUISEDUISEDUISEDUISEDUISEDUISEDUISEDUISE							ake assembly
	tes:		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL±1/8" ANGULAR: MACH±.5* BEND±1*		ĆĐ		Qty Req'c
			IWO PLACE DECIMAL ±.030				

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	44742	Master Cylinder	1
2	44747	Brake handle	1
3	44756 1/8" NPT to 1/8" tube compression fitting		1
4	44758	1/8" NPT plug	1
5	44759	1/8" NPT vent plug	1
6	44761	Return spring	1
7	44760	1/8" NPT plug	1
8	44763	1/4"-20 SHCS S.S.	1
9	44762	Shoulder screw	1
10	44749	O-ring	1
11	44745	Master cylinder piston	1
12	44776	Cup Seal	1
13	44777	Cup seal washer	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL±1/8" ANGULAR: MACH± .5° BEND ±1°

TWO PLACE DECIMAL ±.030

THREE PLACE DECIMAL ±.005

4

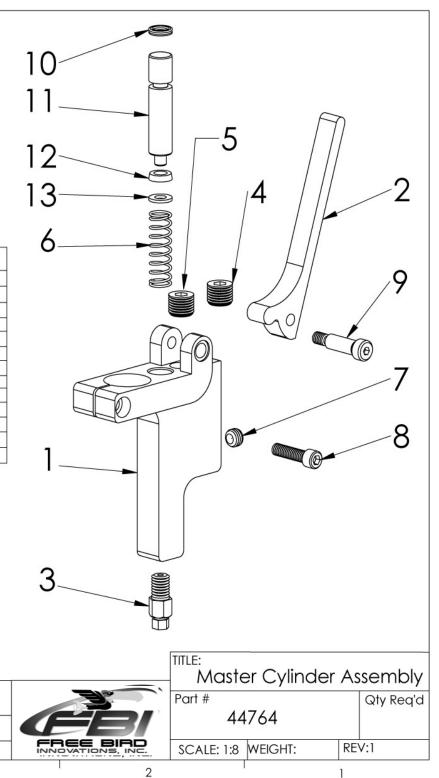
MATERIAL

DO NOT SCALE DRAWING

3

FINISH

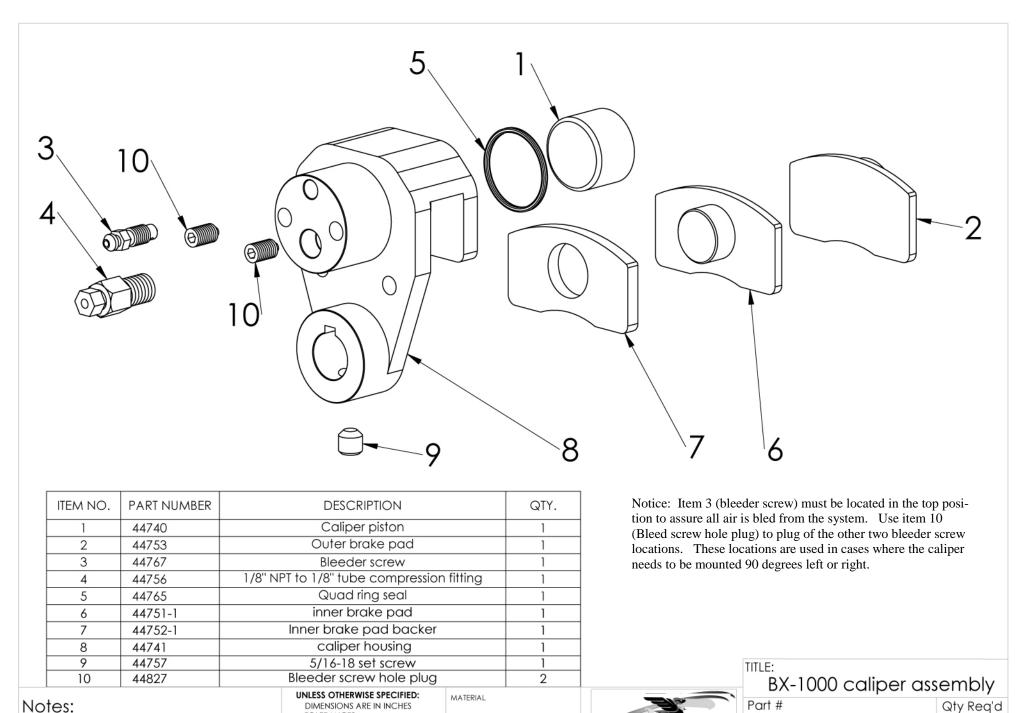
Notice: If replacing item 3, 5, or 7 make sure to use a loctite sealant or teflon tape.



1

5

Notes:



Notes:

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TOLERANCES:

FRACTIONAL±1/8"

DIMENSIONS ARE IN INCHES

ANGULAR: MACH± .5° BEND ±1° TWO PLACE DECIMAL ±.030

THREE PLACE DECIMAL ±.005

4

3

DO NOT SCALE DRAWING

FINISH

44766

REV:

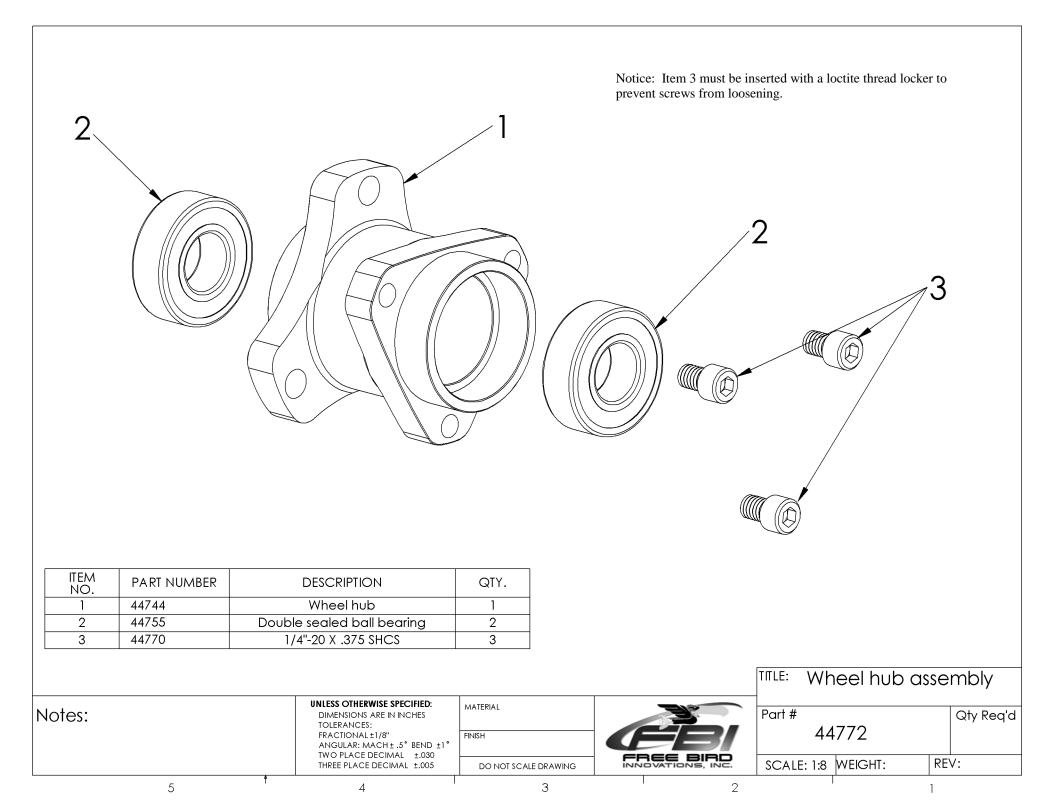
1

SCALE: 1:8 WEIGHT:

BIRD

2

INNOVATIONS



## 1. Mount Tire

Apply soapy water to edge of tire bead and wheel rim. Push one side of tire on to rim at a time with a twisting motion at a slight angle. Place a wood block under rim and with firm pressure seat the bottom tire bead to the bottom rim. (Make sure valve stem is facing up) Flip the tire and rim and set the tire between two wood blocks or a 5 gallon bucket. Connect air chuck and with the air flowing into rim press down on the rim to seat the top edge of tire bead. Inflate to desired pressure.

## 2. Mount Hub To Wheel

Attach the hub to the wheel on the opposite side of valve stem with supplied hex headed bolts. Apply the flange nuts to the back side of hex headed bolts to secure hub to wheel.

Note: Make sure to insert lock washers under the bolt head

# 3. Mount 5/8" Axle

Mount supplied 5/8" axel bolt to your air frame with key way slot facing up allowing 3" of clearance plus the length of threads for the caliper and wheel hub.

(Note: You may need to fabricate your own mounting system or contact FBI for custom made mounting hardware.)

## 4. Mount Caliper To Axle Bolt

Making sure that the woodruff key is inserted into the 5/8" axle and that the bleeder screw is in the highest position, slide caliper on to axle and secure the set screw located at the bottom. Note: bleeder screw should be located at the highest position and the other two bleeder screw locations are to be plugged.

### 5. Install Rotor

Insert the rotor between the brake pads.





















# 6. Install Wheel and Hub Assembly On To Axle

Install the socket headed cap screws to back side of hub. Slide the wheel and hub assembly on to the 5/8" axle and line up the 3 rotor holes over the heads of the socket headed cap screws. Tighten main axle nut up slightly snug and back it up 1/4 turn or until wheel spins freely.

*Note: This rotor is a full floating rotor and does not have any other mounting hard-ware to fasten to the wheel hub.* 

# 7. Mount Master Cylinder To Control Stick

Slide Master cylinder over 1" control stick locating the brake handle forward and secure by tightening the clamp screw.

# 8. Install Brake Line and Compression Fittings

Connect fittings to the calipers and master cylinder. Using the "T" connecter route brake line and connect both calipers to the master cylinder by inserting the brake line about 1/2" through the male compression fitting into the female fitting keeping the line inside fitting as far as it will go and then tighten the male fitting. *Note: The ferrule will break free from the male compression fitting once it has been tightened.* 

# 9. Add Oil and Bleed System

Remove reservoir plug and fill reservoir with ATF fluid. Crack the bleeder screw on one of the calipers and pump the master cylinder handle. Continue to add ATF fluid into the reservoir until you have pumped fluid into the calipers and removed all air. Make sure you do not deplete the reservoir of ATF fluid while bleeding the system to prevent any air entering the lines. Once fluid has passed through the bleeder screw, lightly tighten and continue this step with the other caliper until all air is gone.

## **10.** Congratulations

You just installed the best brake system on the market.

















