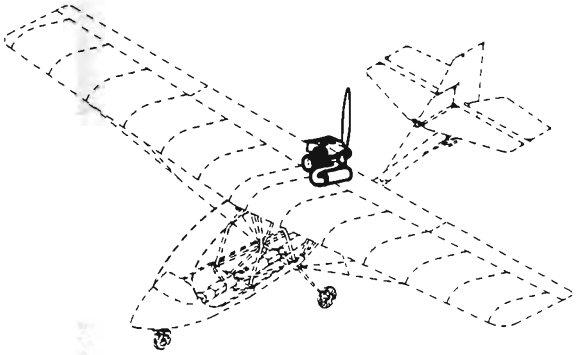
SECTION 4 - ENGINE



582

FOR ROTAX (582) POWERPLANT

DOC # 902-1 DATE 03/28/90

SECTION 4 - ENGINE

SECTION 4

POWERPLANT (ROTAX 582)

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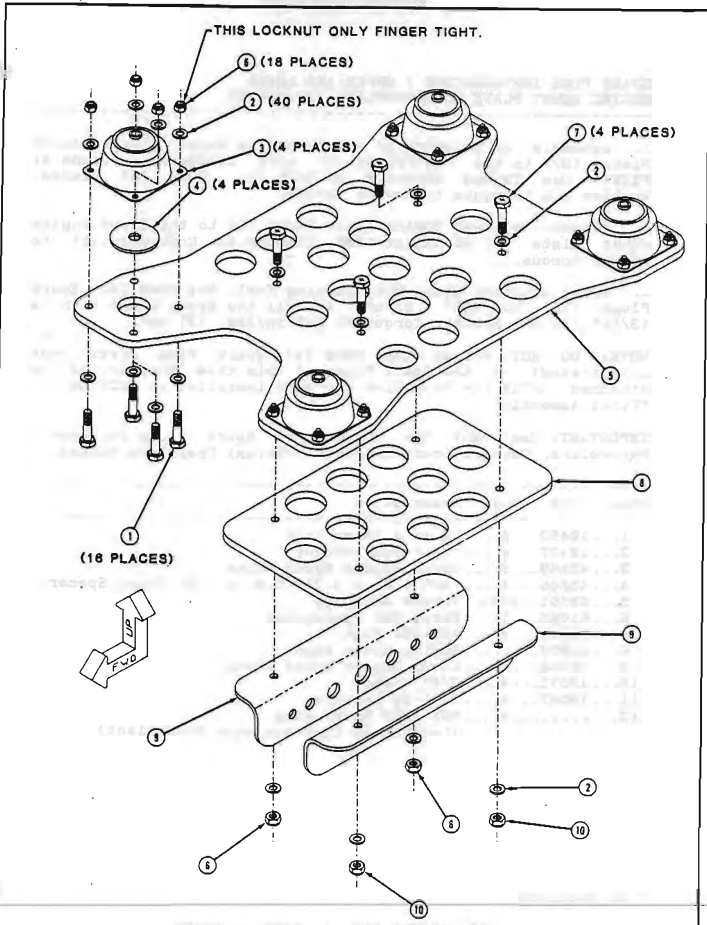
SPARK PLUG WIRE ATTACHMENT.....4-46

LOWER ENGINE MOUNT PLATE TO
LOWER ENGINE MOUNT ANGLE ATTACHMENT

1. Assemble as illustrated. Tighten ALL Locknuts to proper torque EXCEPT the ONE [1] Locknut (6) which should be installed FINGER TIGHT at that location only. It will be secured in a later sequence. DO NOT TIGHTEN the Locknuts (10) "ALL THE WAY" at this time. Leave them SLIGHTLY loose as they will be secured in a later sequence.

NOTE: Install the Snubbing Washer (4) BETWEEN the Engine Shock Mount (2) and the Lower Engine Mount Plate (5).

Item	P/N	Qty	Description
1	10060	16	AN4-6A Bolt
2	10550	40	1/4" Washer
3	61036	4	Engine Shock Mount
4	61037	4	39" x 1.88" x .06" Snubbing Washer
5	45868	1	Lower Engine Mount Plate
6	10510	18	1/4" Locknut
7	10064	4	AN4-11A Bolt
8	45867	1	582 Engine Mount Spacer Plate
9	45836	2	Engine Mount Angle
10	10510	2	1/4" Locknut


THIS LOCKNUT ONLY FINGER TIGHT.
6 (18 PLACES)
2 (40 PLACES)
3 (4 PLACES)
4 (4 PLACES)
7 (4 PLACES)
2
5
8
1
(18 PLACES)
9
9
2
6
10
6
10
UP
FWD

SPARK PLUG INSTALLATION / UPPER AND LOWER ENGINE MOUNT PLATE TO POWERPLANT ATTACHMENT

1. Assemble as illustrated attaching the Upper Engine Mount Plate (3) to the Powerplant (6) with Hardware (1, 2 and 4) FIRST. Use Thread Adhesive on Bolt (1), FOUR [4] places. Tighten ALL Locknuts to proper torque.

2. Attach the Lower Engine Mount Plate (9) to the Upper Engine Mount Plate (3) as illustrated. Tighten ALL Locknuts (11) to proper torque.

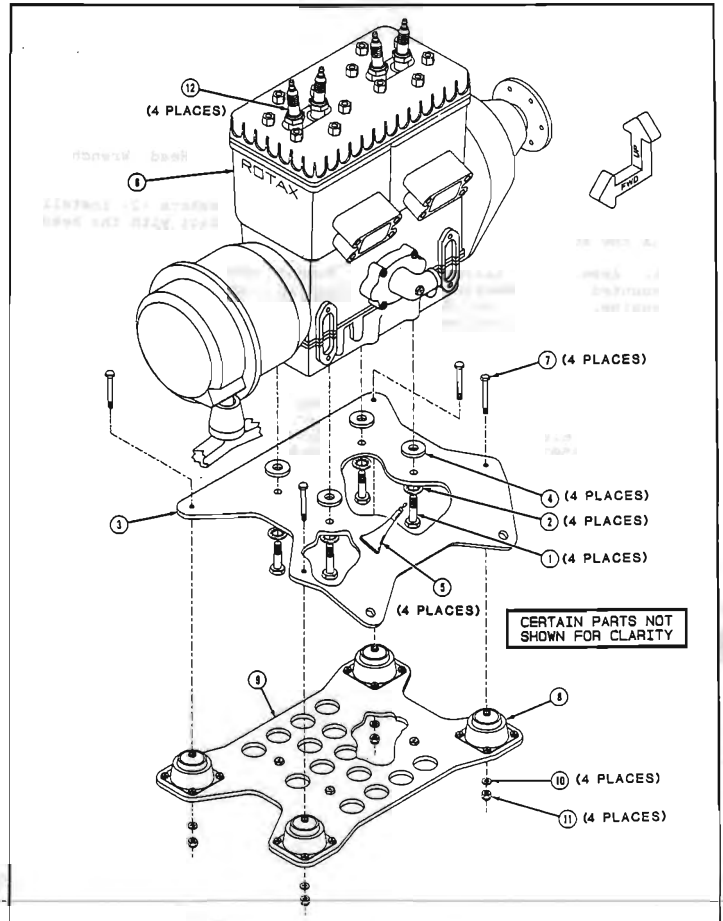
3. Using a proper Spark Plug Gapping Tool, Gap FOUR [4] Spark Plugs (12) to .020" (.51 mm). Install the Spark Plugs with a 13/16" (21 mm) Socket. Torque to 240 in/lbs, (27 nm).

NOTE: DO NOT attach the FOUR [4] Spark Plug Wires (not illustrated) to the Spark Plugs at this time. They are to be attached AFTER the Propeller has been installed in SECTION 7, "Final Assembly".

IMPORTANT: Use ONLY the recommended Spark Plugs for your Powerplant. Consult your Powerplant (Rotax) Operators Manual.

Item	P/N	Qty	Description
1	10492	4	10 mm x 30 mm Bolt
2	10437	4	7/16" Star Washer
*3	45869	1	Upper Engine Mount Plate
4	45866	4	.43" I.D. x 1.25" O.D. x .25" Thick Spacer
5	60591	A/R*	Thread Adhesive
6	61085	1	Rotax 582 Powerplant
7	10399	4	AN6-20A Bolt
8	61036		Engine Shock Mount
*9	45868	1	Lower Engine Mount Plate
10	10575	4	3/8" Washer
11	10547	4	3/8"-24 Locknut
12		4	NGK B8ES Spark Plug (Located in Carb box with Powerplant)

* As Required


12
(4 PLACES)
8
ROTAX
FWD
7 (4 PLACES)
4 (4 PLACES)
3
2 (4 PLACES)
1 (4 PLACES)
5
(4 PLACES)
CERTAIN PARTS NOT SHOWN FOR CLARITY
9
8
10 (4 PLACES)
11 (4 PLACES)

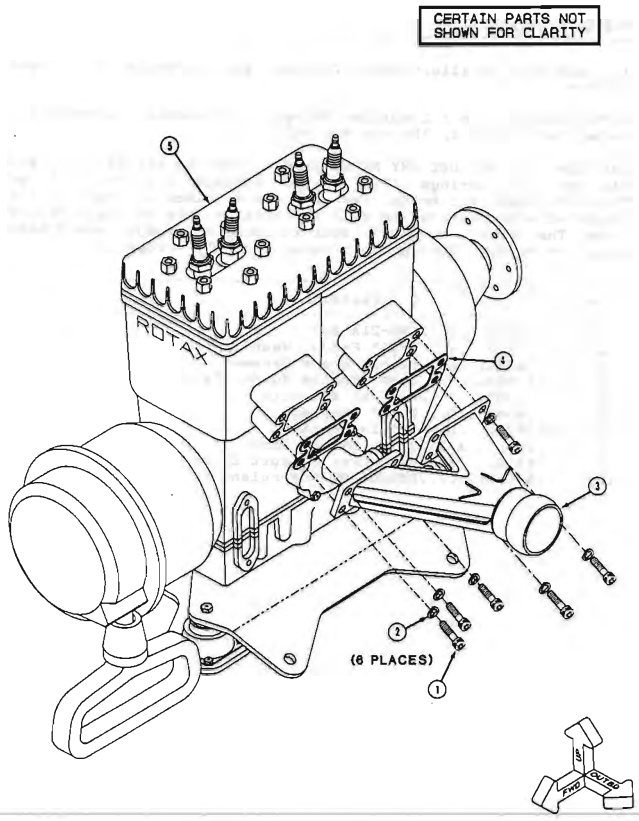
EXHAUST MANIFOLD ATTACHMENT TO POWERPLANT

NOTE 1: You will need a 6 mm Allen or Hex Head Wrench to complete the following sequence.

NOTE 2: If you are supplied with Split Ring Washers (2) install them with the curved split facing or in contact with the head of the Bolt (1).

1. Assemble as illustrated. The Exhaust manifold (3) should be mounted with manifold angle oriented toward the top of the engine. Torque ALL Bolts (1) ALTERNATELY and "a little at a time" until 210 in/lbs (24 nm) has been reached.

Item	P/N	Qty	Description
1	00840941	6	8 mm Socket Head Cap Screw
2	00945752	6	8 mm Lock Washer
3	61086	1	Rotax 582 Exhaust Manifold
4	00850300	2	Rotax 582 Exhaust Manifold Gasket
5	61085		Rotax 582 Powerplant


CERTAIN PARTS NOT SHOWN FOR CLARITY
5
ROTAX
4
3
2
(6 PLACES)
1
UP
FWD
OUTBD

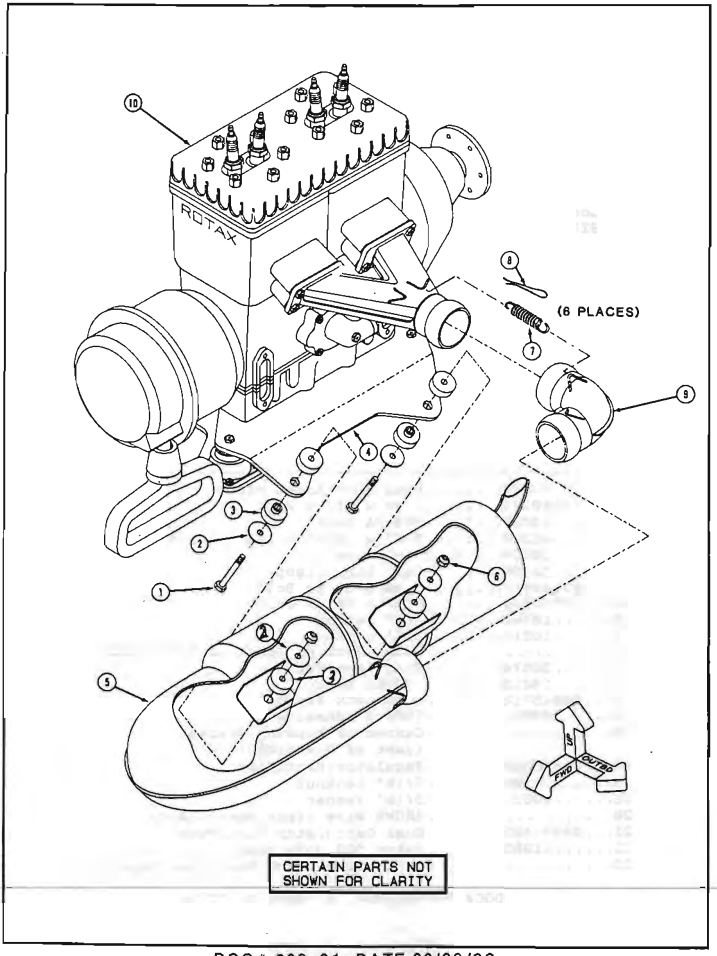
MUFFLER ATTACHMENT

1. Assemble as illustrated. Tighten ALL Locknuts to proper torque.

NOTE: Safety Wire ALL Muffler Spings (7) correctly as required. Refer to Section 1, "Safety Wiring",.

CAUTION: DO NOT USE ANY METAL OBJECT such as pliers to attach the Muffler Springs (7). If the Springs are "scored" or "nicked" they may break. You may use a piece of rope or the shaft of a Screwdriver to pull the Springs onto the appropriate tabs. The Safety Wire (8), when attached correctly, would then keep the Muffler Springs from going into the Propeller.

Item	P/N	Qty	Description
1	10331	2	AN5-21A Bolt
2	10600	4	5/16" Fender Washer
3	30380	6	Rubber Shock Grommet
4	45869	1	Upper Engine Mount Plate
5	61067	1	Muffler Assembly
6	10540	2	5/16" Locknut
7	00838790	6	Muffler Spring
8	20467	A/R	.041" Safety Wire
9	61082	1	90 Degree Exhaust Elbow
10	61085		Rotax 582 Powerplant


10
ROTAX
8
(6 PLACES)
7
9
4
3
2
1
6
5
FWD
OUTBD
CERTAIN PARTS NOT SHOWN FOR CLARITY

FUEL PUMP AND RECTIFIER/REGULATOR ATTACHMENT

1. Drill hole "X" to 5/16" (8 mm) diameter. Attach Fuel Pump (21) and Rectifier/Regulator (17) to Fuel Pump Mount Plate (1). Attach Fuel Line (5) to Fuel Pump (21) and Powerplant (22).

2. Disconnect the BROWN (Ground) Wire (24) attached to the Bracket (16) located on the SIDE of the Powerplant.

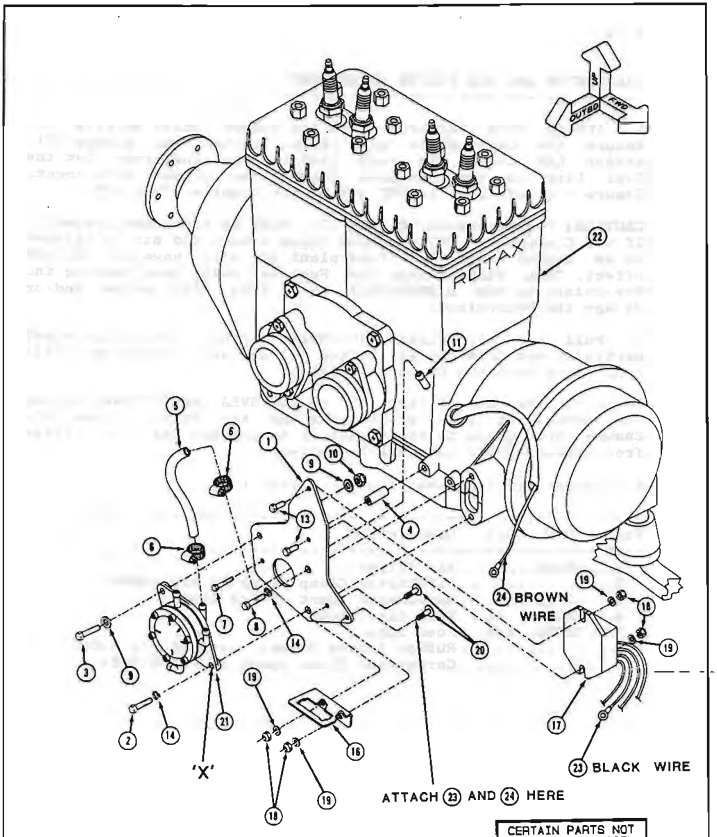
3. Locate and REMOVE the Connector Housing Bracket (16) from the SIDE of the Powerplant.

4. Attach the Connector Housing Bracket (16) to the Fuel Pump Mount Plate (1) using Hardware (20, 19 and 18). FINGER TIGHTEN ONLY.

5. Attach (by crimping) a Ring Connector (12) to the BLACK Wire (23) on the Rectifier/Regulator and attach with the BROWN Wire (24) to Screw (20).

6. Attach the Fuel Pump Mount Plate (1) to Powerplant as illustrated. Tighten ALL Locknuts to proper torque. DO NOT OVER TORQUE THE CLAMPS (6).

Item	P/N	Qty	Description
1	45859	1	Fuel Pump Mount Plate
2	00240275	1	8 mm x 25 mm Bolt
3	10062	1	AN4-7A Bolt
4	40343	1	3/8" x .058" x 7/8" Long Spacer
5	30220	A/R	Fuel Line
6	30230	2	Fuel Line Clamp
7	00240415		5 mm x 32 mm Bolt
8	00940581		8 mm x 16 mm Bolt
9	10560		1/4" Washer
10	10510		1/4" Locknut
11			Pulse Fitting (part of P/N 61085)
12	30074		Ring Connector
13	10015	4	AN3-6A Bolt
14	00845310		8 mm Lock Washer
15	60591		Thread Adhesive
16			Connector Housing Bracket (part of P/N 61085)
17	00866080		Regulator/Rectifier
18	10500		3/16" Locknut
19	10550		3/16" Washer
20			BROWN Wire (from Powerplant)
21	00994485		Dual Carburetor Fuel Pump
22	61085		Rotax 582 Powerplant
23			BLACK Wire (from Rectifier/Regulator)


ROTAX
22
11
5
6
1
9
10
4
13
8
7
14
20
3
2
21
'X'
19
18
16
24 BROWN WIRE
17
23 BLACK WIRE
ATTACH 23 AND 24 HERE
CERTAIN PARTS NOT SHOWN FOR CLARITY

CARBURETOR AND AIR FILTER ATTACHMENT

1. Attach BOTH Carburetors to the Rubber Intake Sockets (6). Ensure the Carburetors are LEVEL. Tighten the Clamps (7). Attach ONE end of the Fuel Line (5) as illustrated. Cut the Fuel Line to the required length for proper attachment. Ensure the Fuel Line is NOT pulled too tight or "kinked".

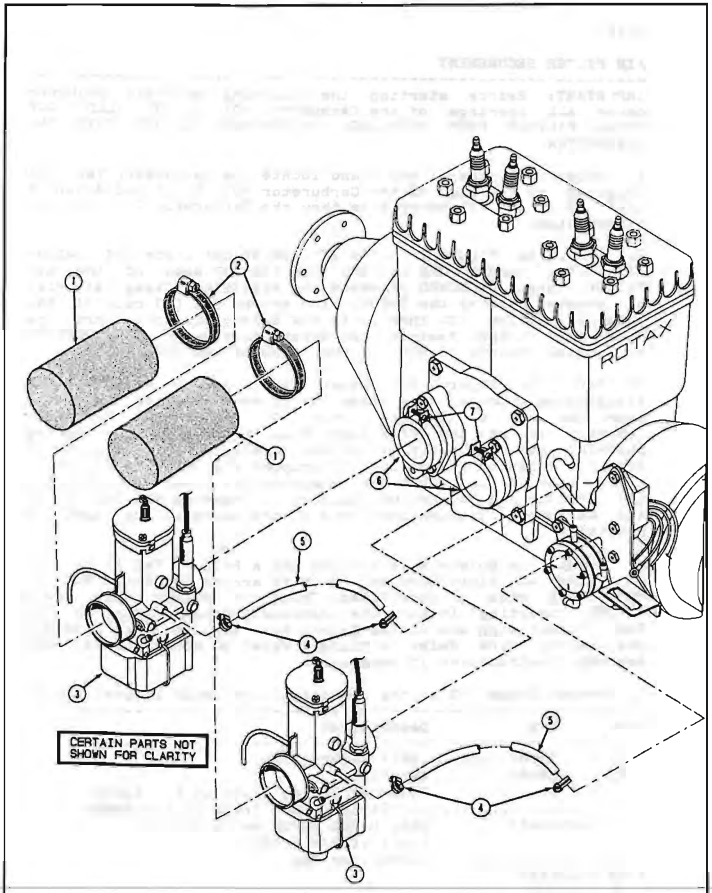
CAUTION: The Carburetor Clamps (7) MUST be tightened properly. If the Clamps are NOT torqued tight enough and air is allowed to be sucked into the Powerplant it WILL have an ADVERSE effect. This WILL change the Fuel/Air ratio thus forcing the Powerplant to run DANGEROUSLY LEAN. This WILL seize and/or damage the Powerplant.

2. Pull the Air Filter INTERNAL Spring (not illustrated) partially out from the Air Filter (1) and wrap A MINIMUM of SIX FULL turns onto the Carburetor Inlet.

3. Slide the Air Filter (1) UP and OVER the INTERNAL Spring and secure it into place with the Air Filter Clamp (2). Ensure the Clamp is tight enough to prevent the Air Filter from vibrating off into the Propeller.

4. Repeat for the remaining Air Filter (1).

Item	P/N	Qty	Description
1	60000	2	Air Filter
2		2	Air Filter Clamp (part of P/N 60000)
3		2	Carburetor (part of P/N 61085)
4	30230	4	Fuel Line Clamp
5	30220	A/R	Fuel Line
6			Rubber Intake Socket (part of P/N 61085)
7			Carburetor Clamp (part of P/N 61085)


ROTAX
CERTAIN PARTS NOT SHOWN FOR CLARITY

AIR FILTER SECUREMENT

IMPORTANT: Before starting the following assembly sequence cover ALL openings of the Carburetor (5). DO NOT ALLOW ANY METAL FILINGS FROM DRILLING AND DEBURRING TO GET INTO THE CARBURETOR.

1. Refer to Figures 1 and 2 and locate the Carburetor Tab (6) attached to the side of the Carburetor (5). Drill and deburr a 1/8" (3.2 mm) diameter hole thru the Carburetor Tab (6) as illustrated.

2. Refer to Figure 1. Cut a 12" (30.48 cm) piece of Saftey Wire (1). Insert ONE [1] end thru the TOP side of the Air Filter (just OUTBOARD of where the Air Filter Clamp (4) will be located). Wrap the Safety Wire around ONE [1] coil of the Internal Spring (3) then route the Safety Wire back thru the Foam Air Filter. Position the Safety Wire so it is CENTERED with EQUAL amounts of Wire on each side of the Spring.

3. Refer to Figure 2. Twist the Safety Wire (1) as illustrated. Loosen the Clamp (4) if necessary and slide it over the end of the Air Filter (2) Ensure the Screw/Nut assembly is at the UPPER side. Pull the end of the Spring SLIGHTLY out of the Air Filter and ensure the are a MINIMUM of SIX [6] coils of the Spring (3) wrapped around the "throat" or inlet side of the Carburetor. Position the Clamp over the SIX [6] Springs and "butted up" against or touching the Tab (6) on the Carburetor. Tighten the Screw on the Clamp (3) as tight as possible.

4. Twist the Safety Wire (1) ONE AND A HALF to TWO [1 1/2 to 2] turns as illustrated and route it around the Screw/Nut at the UPPER side of the Clamp. Twist the Safety Wire again BEFORE inserting it thru the previously drilled hole in the Tab. Insert ench end of the Safety Wire thru the hole. Secure the Safety Wire. Refer to "Safety Wire" in SECTION 1 of your Assembly Instructions if necessary.

5. Repeat Steps 1-3 on the remaining Carburetor if applicable.

Item	P/N	Qty	Description
1	20467	A/R*	.041" Safety Wire
2	60000		Air Filter
3			Internal Spring (part of P/N 60000)
4			Air Filter Clamp (part of P/N 60000)
5	00996417		Bing Model 54/36 mm Carburetor (part of P/N 61085)
6			Carburetor Tab

* As Required

FIG. 1

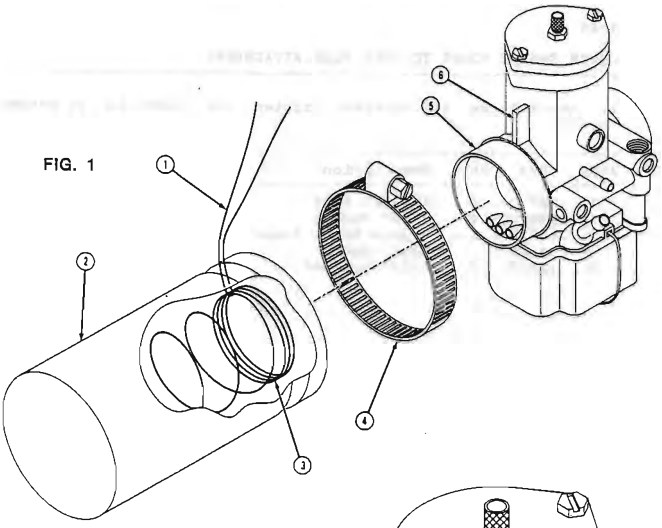


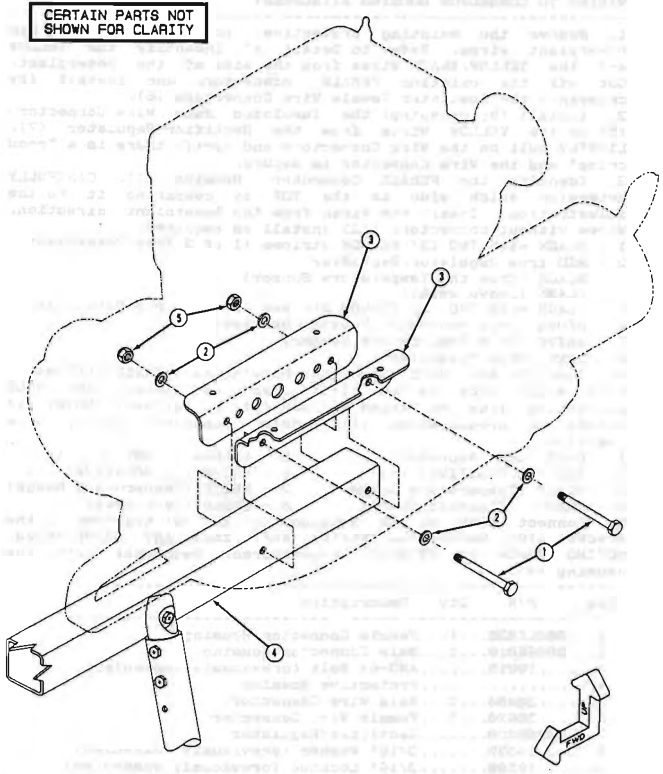
FIG. 2



LOWER ENGINE MOUNT TO ROOT TUBE ATTACHMENT

1. Assemble as illustrated. Tighten ALL Locknuts to proper torque.

Item	P/N	Qty	Description
1	10325	2	AN5-26A Bolt
2	10570	4	5/16" Washer
3	45836	2	Engine Mount Angle
4	45668		Root Tube
5	10540	2	5/16" Locknut



POWERPLANT NOT SHOWN FOR CLARITY.

WIRING TO CONNECTOR HOUSING ATTACHMENT

1. Remove the existing protective housing (4) from the Powerplant wires. Refer to Detail 'A'. Indentify the YELLOW and the YELLOW/BLACK Wires from the side of the Powerplant. Cut off the existing FEMALE connectors and install (by crimping) the Insulated Female Wire Connectors (6).
2. Install (by crimping) the Insulated Male Wire Connectors (5) on the YELLOW Wires from the Rectifier/Regulator (7). LIGHTLY pull on the Wire Connectors and verify there is a "good crimp" and the Wire Connector is secure.
3. Identify the FEMALE Connector Housing (1). CAREFULLY determine which side is the TOP by comparing it to the illustration. Insert the Wires from the Powerplant direction. Wires without connectors (12) install as required.

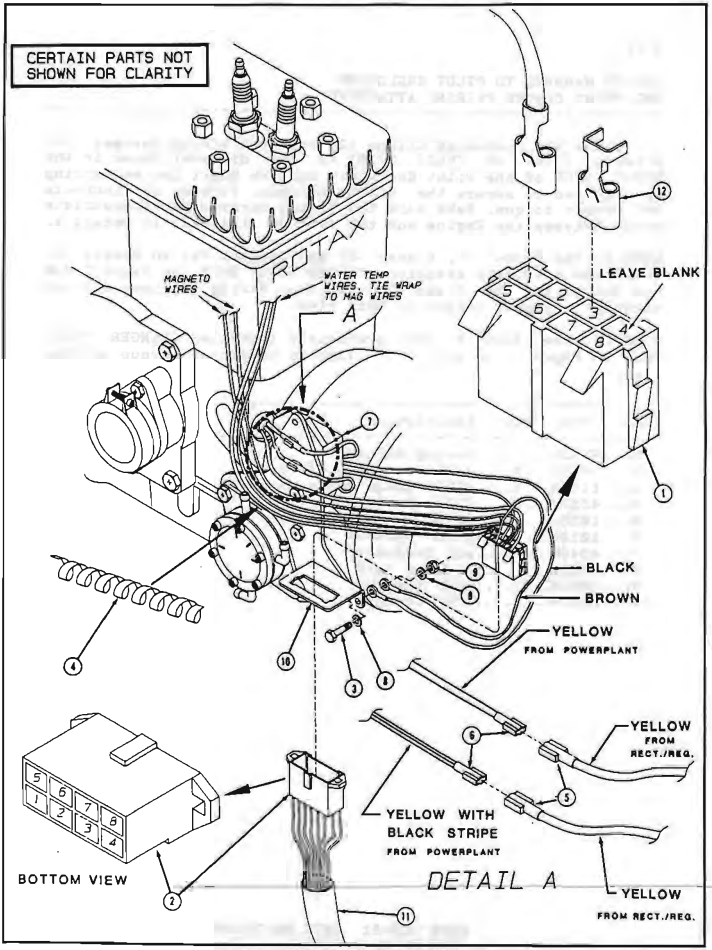
1 - BLACK with TWO [2] YELLOW Stripes (1 of 2 from Powerplant)
2 - RED from Regulator/Rectifier
3 - BLACK (from the Temperature Sensor)
4 - BLANK (leave empty)
5 - BLACK with TWO [2] YELLOW Stripes (2 of 2 from Powerplant)
6 - BROWN (from connector Housing Bracket)
7 - WHITE (from Temperature Sensor)
8 - GREY (from Powerplant)

4. Identify the MALE Connector Housing (2). CAREFULLY determine which side is "as illustrated" and insert the MALE Connectors from the Wiring Harness (11) as follows: (NOTE: if wiring is preassembled with Male Connector varify wire positions)

1 - BLUE (LEFT Magneto)
2 - RED (DC POSITIVE) [+]
3 - BLACK (Temperature Guage)
4 - ORANGE (Electric Start)
5 - YELLOW (RIGHT Magneto)
6 - BROWN (DC NEGATIVE) [-]
7 - WHITE (Temperature Guage)
8 - GREEN (Tachometer)

5. Connect BOTH of the Housings (1) and (2) together at the Bracket (10). Secure ALL Wiring AWAY from ANY SHARP edges, MOVING Parts or EXTREME temperatures. Reinstall prtective housing (4).

Item	P/N	Qty	Description
1	00866025	1	Female Connector Housing
2	00866010	1	Male Connector Housing
3	10015		AN3-6A Bolt (previously assembled)
4			Protective Housing
5	30080	2	Male Wire Connector
6	30070	2	Female Wire Connector
7	00866080		Rectifier/Regulator
8	10550		3/16" Washer (previously assembled)
9	10500		3/16" Locknut (previously assembled)
10			Bracket (part of P/N 61085)
11	45631	1	Wiring Harness
12	30075	A/R	Female Locking Wire Connectors


CERTAIN PARTS NOT SHOWN FOR CLARITY
ROTAX
MAGNETO WIRES
WATER TEMP WIRES, TIE WRAP TO MAG WIRES
A
LEAVE BLANK
BLACK
BROWN
YELLOW
FROM POWERPLANT
YELLOW
FROM RECT./REG.
YELLOW WITH BLACK STRIPE
FROM POWERPLANT
YELLOW
FROM RECT./REG.
BOTTOM VIEW
DETAIL A

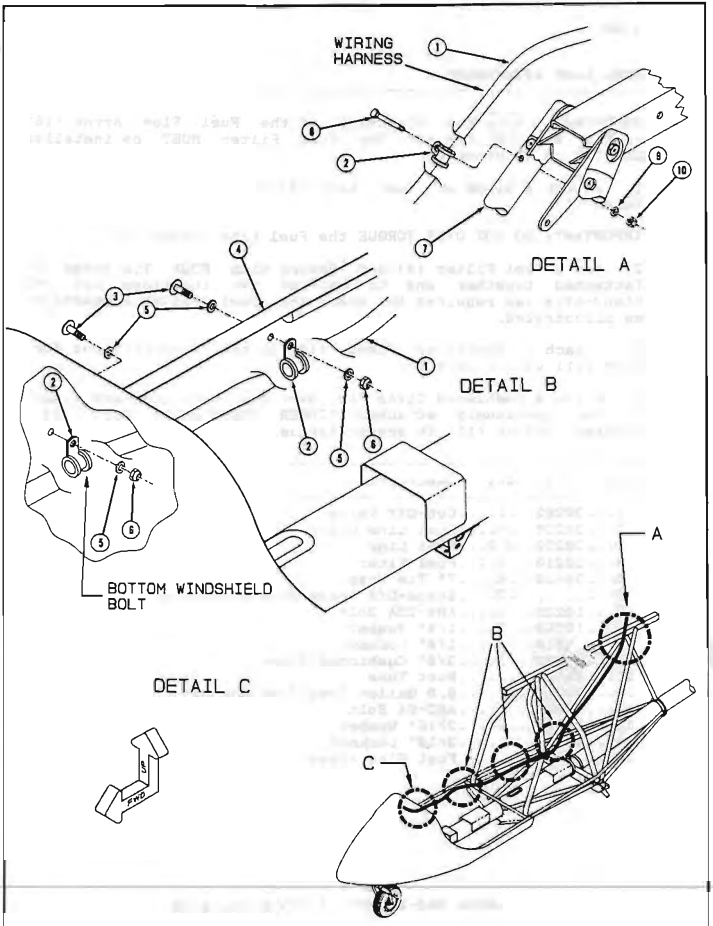
WIRING HARNESS TO PILOT ENCLOSURE
AND RIGHT CENTER FAIRING ATTACHMENT

1. Slide the Cushioned Clamps (2) onto the Wiring Harness (1). Drill a TOTAL of THREE 3/16" (4.7 mm) diameter holes in the RIGHT SIDE of the Pilot Enclosure and the Right Center Fairing as required to secure the Wiring Harness. Tighten ALL Locknuts to proper torque. Make sure the wiring harness has appropriate slack between the Engine and the cushion clamp (2) in Detail A.

NOTE 1: The Screw (3), Washer (5) and Locknut (6) in Detail 'C' have been previosly attached FINGER TIGHT ONLY on Pages 2-130 and 2-131. Add the Clamp (2) with the Wiring Harness (1) and tighten to proper torque at this time.

NOTE 2: The Bolt (8) was previously installed FINGER TIGHT ONLY on Pages 2-16 and 2-17. Tighten to proper torque at this time.

Item	P/N	Qty	Description
1	45631		Wiring Harness
2	20432	5	3/8" Cushioned Clamp
3	11075	4	AN525 10R10 Washer Head Screw
4	45578		Pilot Enclosure
5	10550	6	3/16" Washer
6	10500	3	3/16" Locknut
7	45465		Aft Downtube
8	10120		AN4-15A Bolt
9	10560		1/4" Washer
10	10510		1/4" Locknut


WIRING HARNESS
1
9
2
8
10
7
DETAIL A
4
3
5
1
DETAIL B
2
2
5
6
2
5
6
BOTTOM WINDSHIELD BOLT
A
B
DETAIL C
C
FWD

FUEL LINE ATTACHMENT

IMPORTANT: Note the direction of the Fuel Flow Arrow (16) on the Fuel Filter (4). The Fuel Filter MUST be installed EXACTLY as illustrated.

1. Attach a piece of Fuel Line (3) to the Fuel Tank Cut-Off Valve (1).

IMPORTANT: DO NOT OVER TORQUE the Fuel Line Clamps (2).

2. Add a Fuel Filter (4) and Secure with FOUR Tie Wraps (5) [attached together end to end] at TWO locations. Cut TWO Stand-offs (as required to space the Fuel Filter adequately) as illustrated.

3. Attach a Cushioned Clamp (10) to the Fuel Line and Root Tube (11) with a Bolt (7).

4. Slide a Cushioned Clamp (10) over the Fuel Line and attach to the previously attached (FINGER TIGHT ONLY) Bolt (13). Tighten Locknut (15) to proper torque.

Item	P/N	Qty	Description
1	30282		Cut-Off Valve
2	30230	4	Fuel Line Clamp
3	30220	A/R	Fuel Line
4	30210	1	Fuel Fiter
5	30480	4	7" Tie Wrap
6		2	Stand-Off (made from P/N 30220)
7	10235	1	AN4-25A Bolt
8	10560	2	1/4" Washer
9	10510	1	1/4" Locknut
10	20432	1	3/8" Cushioned Clamp
11	45668		Root Tube
12	30254	1	8.5 Gallon Fuel Tank Assembly
13	10010		AN3-5A Bolt
14	10550		3/16" Washer
15	10500		3/16" Locknut
16			Fuel Flow Arrow

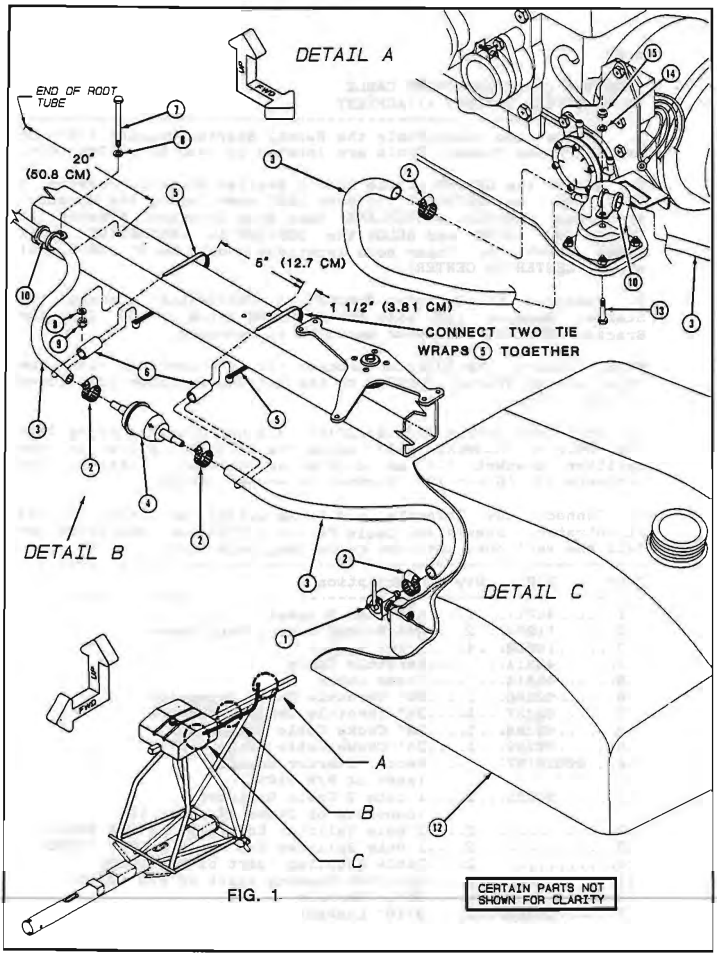

DETAIL A
END OF ROOT TUBE
20" (50.8 CM)
5" (12.7 CM)
1 1/2" (3.81 CM)
CONNECT TWO TIE WRAPS (5) TOGETHER
DETAIL B
DETAIL C
A
B
C
CERTAIN PARTS NOT SHOWN FOR CLARITY

FIG. 1

THROTTLE CABLE AND CHOKE CABLE TO SPLITTTER BRACKET ATTACHMENT

1. Remove and disassemble the Recoil Starter Housing (10) as per the Rotax Manual. Tools are located in your Rotax Tool Kit.

2. Locate the CENTER of the Recoil Starter Housing. Measure 1 1/2" (38.1 mm) OUTBOARD (to your LEFT when facing the Housing) from the VERTICAL CENTERLINE. Mark this location. Measure 1" (25.4 mm) ABOVE and BELOW the HORIZONTAL CENTERLINE. Mark these locations. These hole locations should be 2" (50.8 mm) apart (CENTER to CENTER).

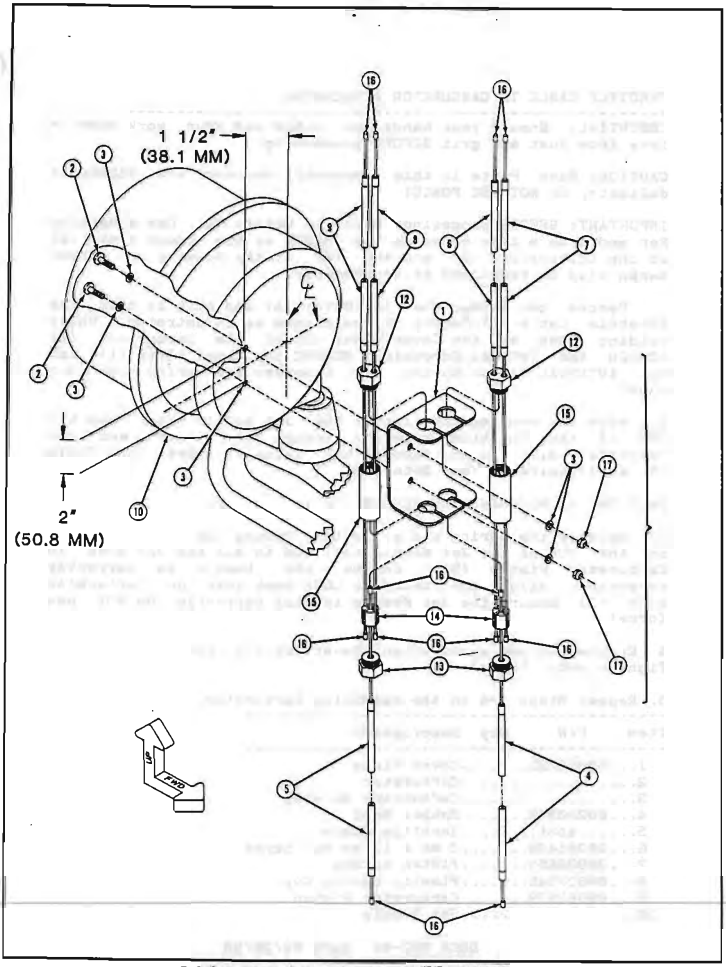
3. Position the Splitter Bracket (1) VERTICALLY against the Starter Housing (10) with the EXISTING holes in the Splitter Bracket CENTERED OVER your marks as illustrated.

NOTE: Ensure the Splitter Bracket (1) is orientated with the edge of the Bracket CLOSEST to the attachment holes positioned to your LEFT.

4. Drill and deburr TWO [2] 3/16" (4.8 mm) diameter holes into the Starter Housing (10) using the EXISTING holes in the Splitter Bracket (1) as a guide or template. Attach with Hardware (2, 16 and 17). Tighten to proper torque.

5. Connect the Throttle and Choke Cables (4) thru (9) as illustrated. Ensure ALL Cable Ferrules (16) seat completely or "all the way" down into the Cable Couplings (14).

Item	P/N	Qty	Description
1.	46011	1	Splitter Bracket
2.	11074	2	AN525-10R9 Washer Head Screw
3.	10550	4	3/16" Washer
4.	45811		Throttle Cable
5.	45814		Choke Cable
6.	90286	1	20" Throttle Cable Extension
7.	90287	1	24" Throttle Cable Extension
8.	90288	1	20" Choke Cable Extension
9.	90289	1	24" Choke Cable Extension
10.	00910107		Recoil Starter Housing (part of P/N 61085)
11.	90285	1	1 into 2 Cable Splitter (consists of Items 12, 13, 14, 15)
12.		2	2 Hole Splitter End (part of P/N 90285)
13.		2	1 Hole Splitter End (part of P/N 90285)
14.		2	Cable Coupling (part of P/N 90285)
15.		1	Splitter Housing (part of P/N 90285)
16.			Cable Ferrule
17.	10500	2	3/16" Locknut


1 1/2"
(38.1 MM)
2"
(50.8 MM)
℄
1
2
3
4
5
6
7
8
9
10
12
13
14
15
16
17
UP
FWD

THROTTLE CABLE TO CARBURETOR ATTACHMENT

ESSENTIAL: Ensure your hands are CLEAN and your work area is free from dust and grit BEFORE proceeding.

CAUTION: Some Parts in this assembly sequence are EXTREMELY delicate. DO NOT USE FORCE!

IMPORTANT: BEFORE proceeing, Refer to Detail 'A'. Use a Marking Pen and draw a line crossing the SIDE of the Cover Plate (1) of the Carburetor (2) and the TOP of the Housing (3). These marks will be realigned at re-assembly.

1. Remove the Rubber Boot (4)(Detail A) and slip it onto the Throttle Cable (5)(Detail C) positioned as illustrated. While holding DOWN on the Cover Plate (1) of the Carburetor (2) LOOSEN the TWO Hex Screws(6). REMOVE the Cover Plate (1) and the INTERNAL Piston Spring. (7). Compress the Spring with your thumb.

2. Note the seating position of the Jet Needle (10). Pass the END of the Throttle Cable (5) through (1),(7),(8) and the "keyhole" slot in the base of the Piston (9). Seat the Cable (5) as illustrated (See Detail B).

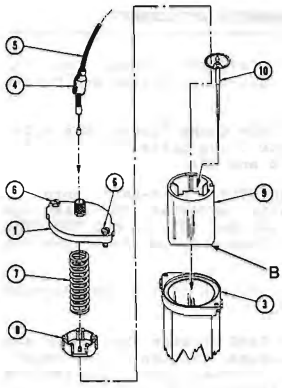
CAUTION: DO NOT BEND THE NEEDLE (10)!

3. Release the Spring and allow the Spring Cup (8) to re-seat on the TOP of the Jet Needle (10) and is all the way down in Carburetor Piston (9). Ensure the Needle is correctly re-seated. Allow the Piston to LOCK back into the Carburetor Body (3). Ensure the Jet Needle locates correctly. Do NOT use force!

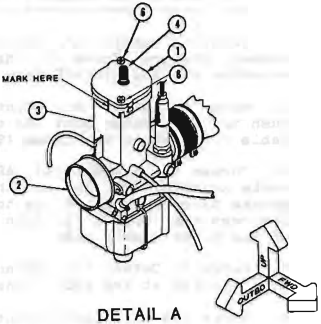
4 Ensure the pen marks align. Re-attach the Cover Plate (1). Tighten until "snug".

5. Repeat Steps 1-4 on the remaining Carburetor.

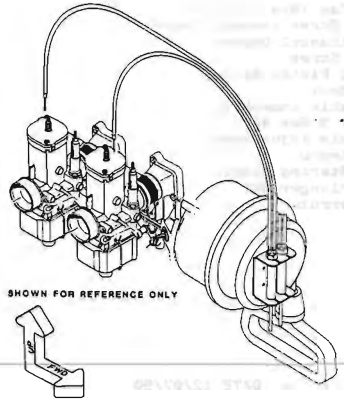
Item	P/N	Qty	Description
1	00963721		Cover Plate
2			Carburetor
3			Carburetor Housing
4	00260370		Rubber Boot
5	45811		Throttle Cable
6	00241430		5 mm x 12 mm Hex Screw
7	00938655		Piston Spring
8	00827345		Plastic Spring Cup
9	00963679		Carburetor Piston
10			Jet Needle

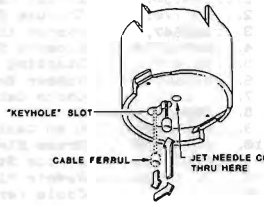


DETAIL C



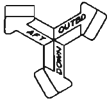
DETAIL A





DETAIL 'B'

BOTTOM VIEW



REMOTE CHOKE CABLE ASSEMBLY TO CARBURETER ATTACHMENT

1. Refer to Detail 'A'. Remove the EXISTING Rubber Cap (1), Manual Closure Screw (2), Manual Starting Piston and Spring Assembly (3) and DISCARD them.

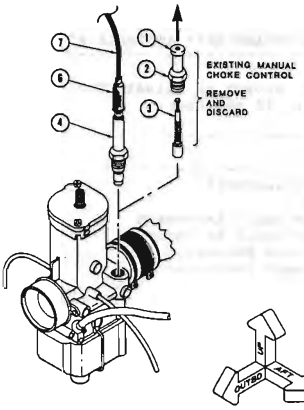
2. Refer to Detail 'B'. Locate the NEW Choke Plunger Kit (12). Push the NEW Rubber Boot (6) onto the Choke Cable (7). Pass the Cable (7) through the Items (9,8,4,5 and 10).

3. Thread the Jam Nut (8) APPROXIMATELY "HALF-WAY" onto the Cable Adjuster (9). Thread the Cable Adjuster (9) into the Remote Closure Screw (4) up to the Jam Nut (8). DO NOT TIGHTEN. Compress the Spring (5) into the Closure Screw (4) by pushing on the Brass Sleeve (10).

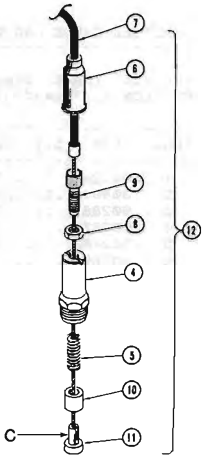
4. Refer to Detail 'C'. Attach the Piston (11) to the Ferrule (13) located at the END of the Cable (7).

5. Screw the NEW Assembly into the SAME threads from which the OLD Choke Plunger Assembly was removed. Tighten until "snug". Tighten the Jam Nut (8) against the Closure Screw (4). Replace the Rubber Boot (6) OVER the Cable Adjuster (9).

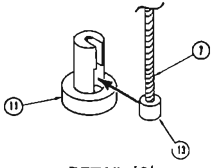
Item	P/N	Qty	Description
1	260990		Rubber Cap (Manual Choke)
2	261770		Closure Screw (Manual Choke)
3	268847		Piston (Manual Choke)
4	00963750		Closure Screw
5	661090		Starting Piston Spring
6	00260370		Rubber Boot
7			Choke Cable Assembly
8	00942541		6 mm x .75 Hex Nut
9	00241440		6 mm Cable Adjustment
10	00268450		Brass Sleeve
11	00963740		Remote Staring Piston
12	60216		Remote Plunger Kit
13			Cable Ferrule



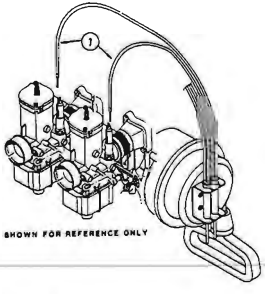
DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

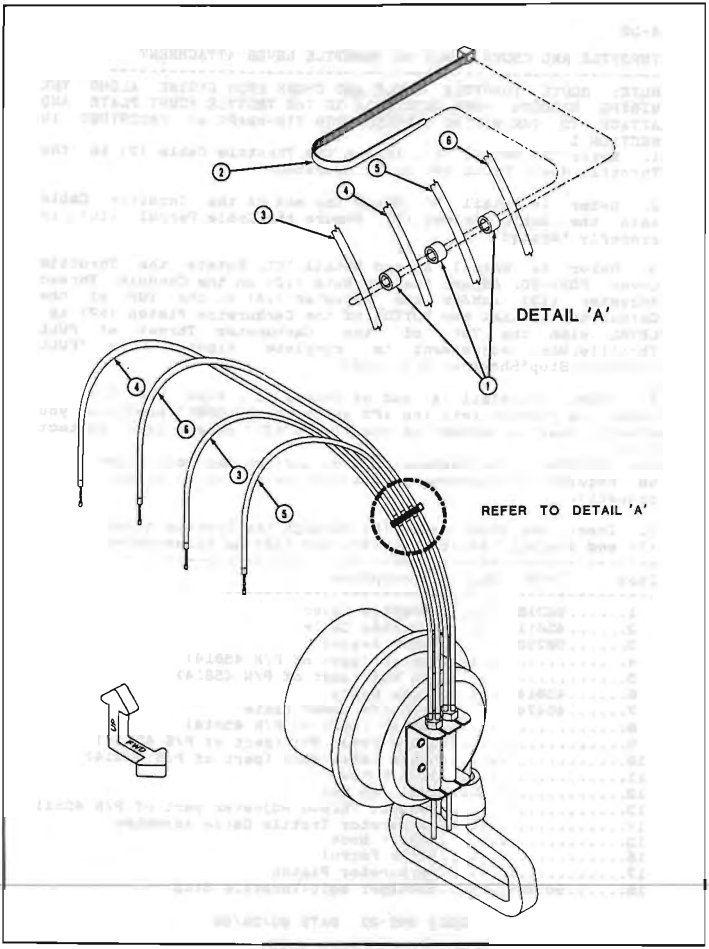


SHOWN FOR REFERENCE ONLY

THROTTLE CABLE AND CHOKE CABLE "STAND-OFF" ASSEMBLY ATTACHMENT

1. Cut THREE Stand-offs and attach as illustrated. Refer to SECTION 1, "Stand-Off" Assembly, if necessary.

Item	P/N	Qty	Description
1	30220	3	Fuel Line "Stand-Off"
2	30480	1	7" Tie Wrap
3	90286		20" Throttle Cable Extension
4	90287		24" Throttle Cable Extension
5	90288		20" Choke Cable Extension
6	90289		24" Choke Cable Extension


DETAIL 'A'
REFER TO DETAIL 'A'
UP
FWD

THROTTLE AND CHOKE CABLE TO THROTTLE LEVER ATTACHMENT

NOTE: ROUTE THROTTLE CABLE AND CHOKE FROM ENGINE ALONG THE WIRING HARNESS (SEE DETAIL D) TO THE THROTTLE MOUNT PLATE AND ATTACH TO THE WIRING HARNESS WITH TIE-WRAPS AS PRECRIBED IN SECTION I.

1. Refer to Detail 'A'. Attach the Throttle Cable (2) to the Throttle Mount Plate (7) as illustrated.

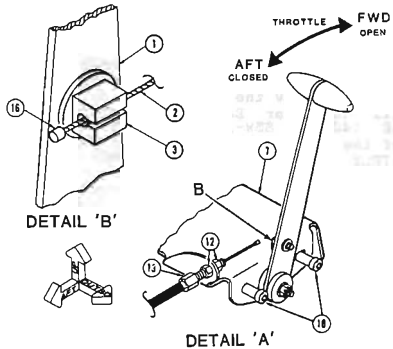
2. Refer to Detail 'B'. Slide the end of the Throttle Cable into the Cable Swivel (3). Ensure the Cable Ferrul (16) is properly "seated".

3. Refer to Datail 'A' and Detail 'C'. Rotate the Throttle Lever FORWARD. Adjust the Jam Nuts (12) on the Conduit Thread Adjuster (13) and/or the Adjuster (14) on the TOP of the Carburetor so that the BOTTOM of the Carburetor Piston (17) is LEVEL with the TOP of the Carburetor Throat at FULL Throttle.When adjustment is complete tighten the "FULL Throttle Stop"Shoulder Bolt (18).

4. Refer to Detail 'A' and of Detail 'C'. When the Throttle Lever is rotated into the AFT or to the "CLOSED" position you should hear a "click" as the Piston (17) comes into contact with
the BOTTOM of the Carburetor Body. Adjust the Idle Screw (11) as required ,if necessary to allow the Piston to be positioned properly.

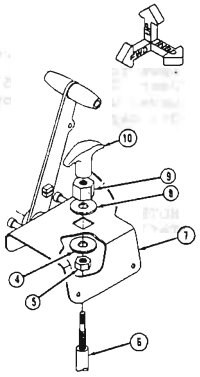
5. Insert the Choke Cable (6) through the Trottle Mount Plate (7) and install (4),(5),(8),(9), and (10) as illustrated.

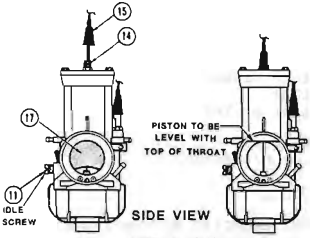
Item	P/N	Qty	Description
1	90215		Throttle Lever
2	45811		Throttle Cable
3	90250		Cable Swivel
4			Washer (part of P/N 45814)
5			Jam Nut (part of P/N 45814)
6	45814		Choke Cable
7	45474		Throttle Mount Plate
8			Washer (part of P/N 45814)
9			Choke Cable Nut (part of P/N 45814)
10			Choke Cable Knob (part of P/N 45814)
11			Idle Screw
12		2	1/4" Jam Nut
13			Conduit Thread Adjuster part of P/N 45811
14			Carburetor Trottle Cable Adjuster
15			Rubber boot
16			Cable Ferrul
17			Carburetor Piston
18	90300		Shoulder bolt(Throttle Stop)



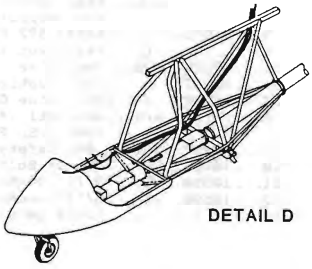
DETAIL 'B'

DETAIL 'A'





DETAIL 'C'



DETAIL D

SOME PARTS NOT SHOWN FOR CLARITY.

COOLANT TEMPERATURE SENSOR AND OIL BREATHER LINE ATTACHMENT

1. Refer to Figures 1 and 2. Unscrew the LOWER Level Oil Plug next to the Line (13). Fill the Gear Box with the specified Gear Oil (API-GL5 , GL6SAE 140 or 85W-140EP) to this Line Level until it flows out of the LOWER Plug hole. The Gear Box Oil capacity is APPROXIMATELY ONE U.S. PINT DO NOT OVER FILL.

2. Refer to Figure 1. Assemble the Vent Plug (4), Line (5) and Hardware (6,7 10,11 and 12) as illustrated. Tighten the Locknut (12) to proper torque.

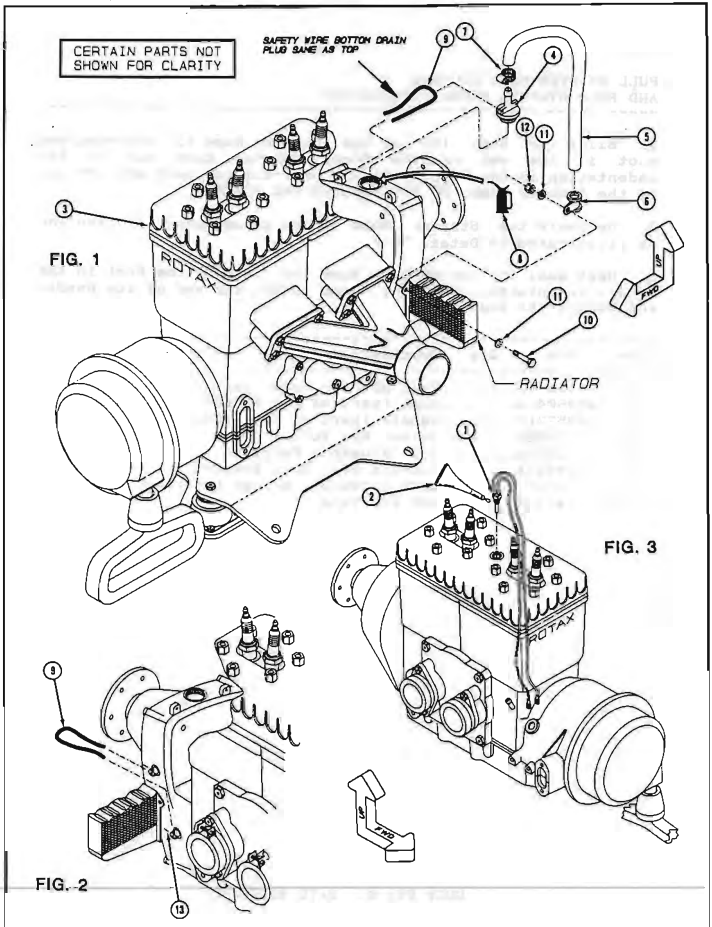
NOTE 1: Thread Sealant (2) is NOT Thread Adhesive (P/N 60591). Teflon Tape may be substituted for Sealant. Neither Silicone Thread Sealant or Teflon Tape is supplied.

NOTE 2: DO NOT OVER TORQUE the Fuel Line Clamps (7).

3. Secure the LOWER Plug. Secure the UPPER Plug (Screw). Safety Wire BOTH Plugs together as illustrated in "Safety Wire" Section 1.

4. Install the coolant temp sensor (1) and apply thread sealant as illustrated in Fig. 3. DO NOT OVER-TORQUE

Item	P/N	Qty	Description
1	90124	1	Coolant Temperature Sensor (part of P/N 90125)
2		A/R	Pipe Thread Sealant or Teflon Tape (not supplied)
3	61085		Rotax 582 Powerplant
4		1	Vent Plug (part of P/N 61085)
5	30220	A/R	Fuel Line
6	20432	1	3/8" Cushioned Clamp
7	30230	1	Fuel Line Clamp
8		A/R	Gear Oil (API-GL5,GL6SAE140 or 85W-140EP) (ONE U.S. Pint- not supplied))
9	20467	A/R	.041 Safety Wire
10	10008	1	AN3-4A Bolt
11	10550	2	3/16" Washer
12	10500	1	3/16" Locknut
13			LOWER Level Oil Plug Line


CERTAIN PARTS NOT SHOWN FOR CLARITY
SAFETY WIRE BOTTOM DRAIN PLUG SAME AS TOP
9
7
4
12
11
5
6
3
8
ROTAX
FWD
11
10
RADIATOR
FIG. 1
1
2
FIG. 3
ROTAX
FWD
9
13
FIG. 2

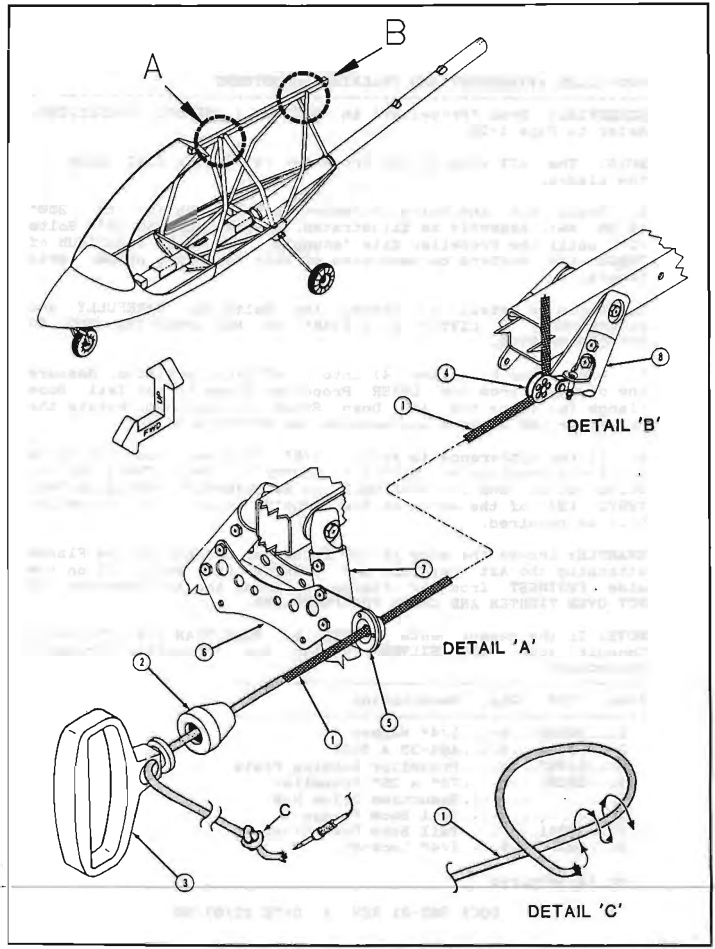
PULL STARTER ROPE ROUTING
AND PULL STARTER HANDLE ATTACHMENT

1. Slide the Boot (2) up the Starter Rope (1) exposing the knot in the end of the Rope. Pull the Knot out of the indentation in the Handle (3) and heat-cut the knot off the end of the Starter Rope. DO NOT BREATHE THE FUMES.

2. Re-route the Starter Rope (1) as illustrated. Tie the end as illustrated in Detail 'C'.

3. Heat seal the end of the Rope and re-seat the Knot in the Handle indentation. Pull the Boot OVER the end of the Handle and Secure the Boot.

Item	P/N	Qty	Description
1	00952799		Pull Starter Rope (part of P/N 61085)
2	00960415		Boot (part of P/N 61085)
3	00852715		Handle (part of P/N 61085)
4	20228		Swivel Eye Pulley
5	20236		1/2" Aluminum Fairlead
6	45429		Forward Seat Belt Bracket
7	45471		Left Forward Fuselage Downtube
8	45465		Aft Downtube


A
B
DETAIL 'B'
DETAIL 'A'
DETAIL 'C'
C

PROPELLER ATTACHMENT AND TRACKING ADJUSTMENT

ESSENTIAL: Read "Propeller" in SECTION 1 BEFORE PROCEEDING. Refer to Page 1-22.

NOTE: The AFT side of the Propeller (4) is the FLAT side of the blades.

1. Drill out the holes in Reduction Drive Hub (5) to .250" (6.35 mm). Assemble as illustrated. Tighten ALL SIX [6] Bolts (2) until the Propeller fits "snuggly". Use up to a MAXIMUM of THREE [3] Washers on each side of Bolt to ensure proper grip length.

2. Refer to Detail 'A'. Tighen the Bolts (2) CAREFULLY and ALTERNATELY, "A LITTLE AT A TIME". DO NOT CRUSH THE WOOD. DO NOT OVERTIGHTEN.

3. Rotate the Propeller (4) into a VERTICAL position. Measure the distance from the LOWER Propeller Blade to the Tail Boom Flange (6) where the Aft Down Strut (7) attaches. Rotate the Propeller 180 Degrees and measure the OPPOSITE Blade.

4. If the difference is within 1/8" (3.2 mm) you can "fine tune" the tracking by SLIGHTLY LOOSENING ONLY THREE of the Bolts (2) on ONE [1] SIDE ONLY and by SLIGHTLY TIGHTENING ONLY THREE [3] of the Bolts on the OPPOSITE side of the Propeller ONLY as required.

EXAMPLE: Loosen the side of the Propeller CLOSEST to the Flange attaching the Aft Downtube and TIGHTEN the Bolts (2) on the side FURTHEST from the Flange attaching the Aft Downtube. DO NOT OVER TIGHTEN AND CRUSH THE PROPELLER.

NOTE: If the measurements DIFFER by MORE THAN 1/8" (3.2 mm). Consult your **QUICKSILVER** Dealer for "Propeller Tracking Procedure".

Item	P/N	Qty	Description
1	10560	6*	1/4" Washer
2	10283	6	AN4-33 A Bolt
3	61062	1	Propeller Backing Plate
4	30351	1	70" x 36" Propeller
5			Reduction Drive Hub
6			Tail Boom Flange
7	45541		Tail Boom Down Strut
8	10510	6	1/4" Locknut

* or As Required

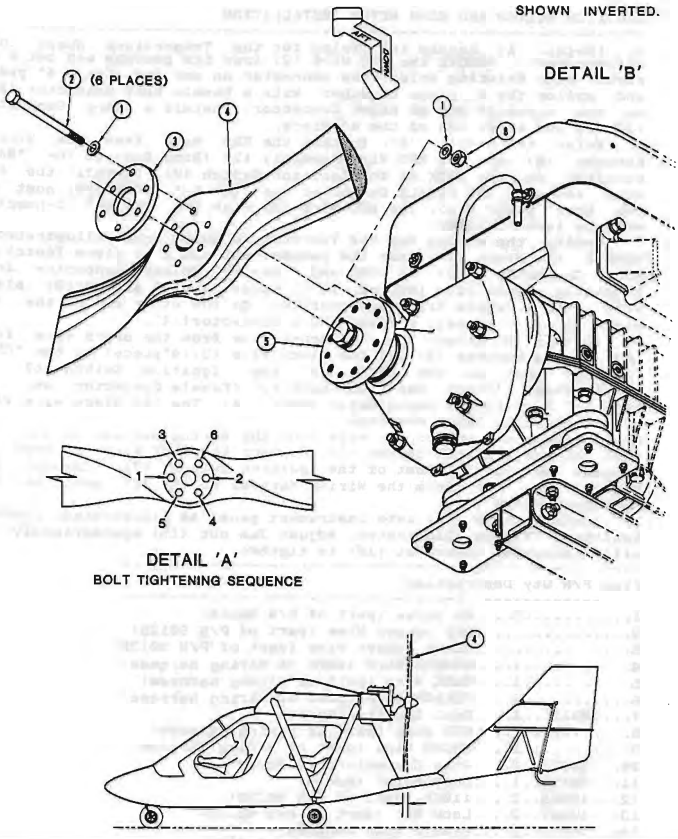
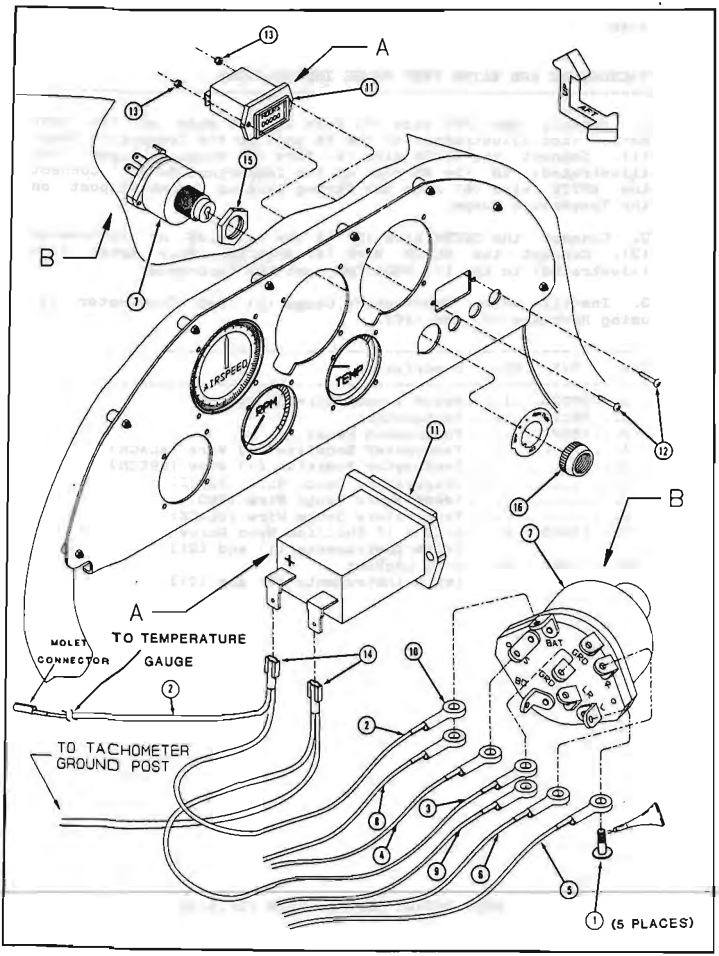

NOTE: GEAR BOX
SHOWN INVERTED.
DETAIL 'B'
2 (6 PLACES)
1
3
4
5
3
6
1
2
5
4
DETAIL 'A'
BOLT TIGHTENING SEQUENCE
4

FIG. 1

IGNITION SWITCH AND HOUR METER INSTALLATION

1. (Detail A) Locate the wiring for the Temperature Guage (not illustrated). REMOVE the RED Wire (2) from its package and cut a 8" piece with Existing Molet wire connector on one end. Cut a 4" piece and splice the 8" piece together with a Female Wire Connector (14) on the opposite end as Molet Connector. Install a Ring Connector (10) to the other end of the 4" Piece.
2. Refer to Detail 'B'. Install the RED Wire from the Wiring Harness (8) and the RED Wire Assembly (2) (Ring End) to the "BAT" terminal on the BACK of the Ignition Switch (7). Install the RED Wire Assembly (2) FEMALE Connector onto the "+" (POSITIVE) post on the Hour Meter (11). The RED Wire (2) with the "Molet" Connector will be install later.
3. Locate the wiring for the Temperature Guage (not illustrated). REMOVE the Black Wire from its package and cut a 4" piece Install a Ring Connector (10) to ONE end. Remove Molete Connector from remaining Black wire (approx. 10"). Splice the 4" and 10"(3) black wire with a Female Wire Connector(14). On the other end of the 10" Black wire (3) install a Female Wire Connector(14).
5. (Detail B) Attach the ring connectors from the BROWN wire from the Wiring Harness (9) and the black wire (3)(4"piece) to the "GRD" (GROUND) post on the BACK of the Ignition Switch (7) as illustrated. Attach the Black wire (3) (Female Connector end) to the "-" Post of the Hobbs Meter (Detail A). The 10" black wire will be installed in later sequence.
6. Connect the ORANGE (4) Wire from the Wiring Harness to the "S" Post of the Ignition Switch (7). Connect the BLUE Wire (5) from the Harness to the "L"Post of the Ignition Switch (7). Connect the YELLOW Wire (6) from the Wiring Harness to the "R" post of the Ignition Switch (7).
7. Install Hobbs (11) into instrument panel as illustrated. Install Ignition (7) as illustrated. Adjust Jam nut (15) appropriately to allow Iginition Cover Nut (16) to tigthen.

Item	P/N	Qty	Description
1		5	#4 Screw (part of P/N 30315)
2			RED Jumper Wire (part of P/N 90125)
3			BLACK Jumper Wire (part of P/N 90125)
4		1	ORANGE Wire (part of wiring harness)
5		1	BLUE Wire (part of wiring harness)
6		1	YELLOW Wire (part of wiring harness)
7	30315	1	Dual Ignition Switch
8		1	RED Wire (part of Wiring Harness)
9		1	BROWN Wire (part of Wiring Harness)
10	30073	2	Ring Connector, #4 Screw
11	90120	1	Hour Meter (Hobbs)
12	10065	2	11065 (part of P/N 90120)
13	10067	2	Lock Nut (part of P/N 90120)
14	30070	3	Female Wire Connetor
15		1	Jam Nut (part of P/N 30315)
16		1	Cover Nut (part of P/N 30315)


A
B
A
B
TO TEMPERATURE GAUGE
MOLET CONNECTOR
TO TACHOMETER GROUND POST
(5 PLACES)
BAT
IGN
TACH
S
L
TEMP
SPEED
RPM

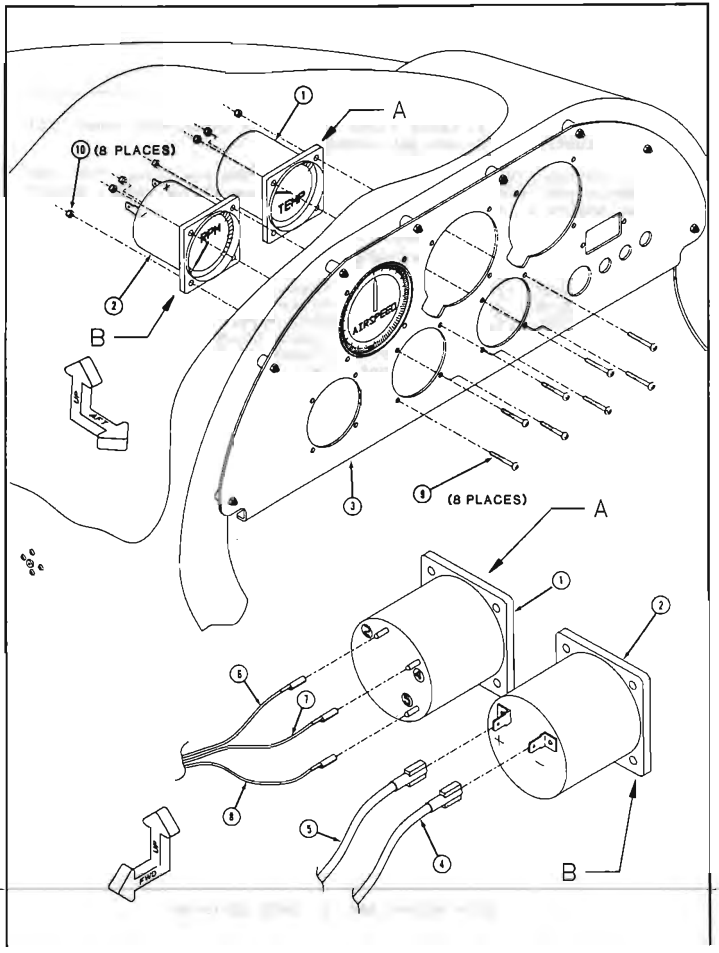
TACHOMETER AND WATER TEMP GAUGE INSTALLATION

1. Install the RED wire (7) from the [+] side of the Hour Meter (not illustrated) to the #4 post on the Temperture Gauge (1). Connect the BLACK wire (8) form the Wiring Harness (not illustrated) to the #5 post of the Temperture Gauge. Connect the WHITE wire (6) from the Wiring Harness to the #2 post on the Temperture Guage.

2. Connect the GREEN wire (5) to the [+] side of Tachometer (2). Connect the BLACK Wire (4) from the Hour Meter (not illustrated) to the [-] NEGATIVE post the Tachometer.

3. Install Water Temperature Gauge (1) and Tachometer (2) using Hardware (9) and (10).

Item	P/N	Qty	Description
1	90125	1	Water Temperature Gauge
2	90128	1	Tachometer
3	45574		Instrument Panel
4			Tachometer Negative [-] Wire (BLACK)
5			Tachometer Positive [+] Wire (GREEN)
6			Temperature Gauge Wire (WHITE)
7			Temperature Gauge Wire (RED)
8			Temperature Gauge Wire (BLACK)
9	11065	8	6-32 x 1" Phillips Head Screw [with Instruments (1) and (2)]
10	11067	8	6-32 Locknut [with Instruments (1) and (2)]

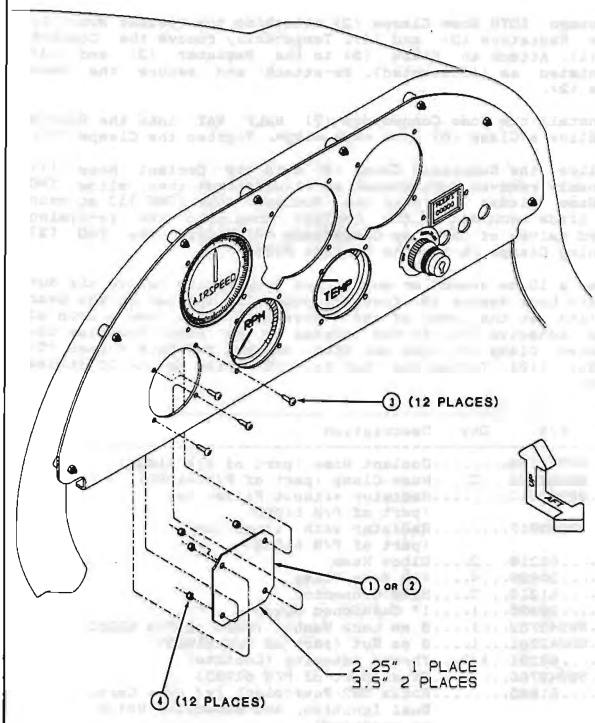

1
A
10 (8 PLACES)
TEMP
TRIM
2
B
UP
TRIM
AIRSPEED
3
9 (8 PLACES)
A
1
2
6
7
8
5
4
B
TRIM
END

INSTRUMENT PANEL COVER PLATE ATTACHMENT

1. Attach ONE [1] Cover Plate (1) to the Instrument Panel (5) as illustrated. Secure ALL Locknuts (4).

2. Attach TWO [2] Cover Plates (2) to the remaining TWO [2] Instrument cut-out holes in the Panel as illustrated. Secure ALL Locknuts (4).

Item	P/N	Qty	Description
1	90148	1	2 1/4" Cover Plate
2	90149	2	3 1/8" Cover Plate
3	11066	10	6-32 x 1/2" (PPH) Screw (Phillips Pan Head) (Black)
4	11067	10	6-32 (Nylock) Locknut
5	45574		Instrument Panel


AIRSPEED
TEMP
RPM
3 (12 PLACES)
OR
LEFT
1 OR 2
2.25" 1 PLACE
3.5" 2 PLACES
4 (12 PLACES)

COOLANT HOSE ATTACHMENT

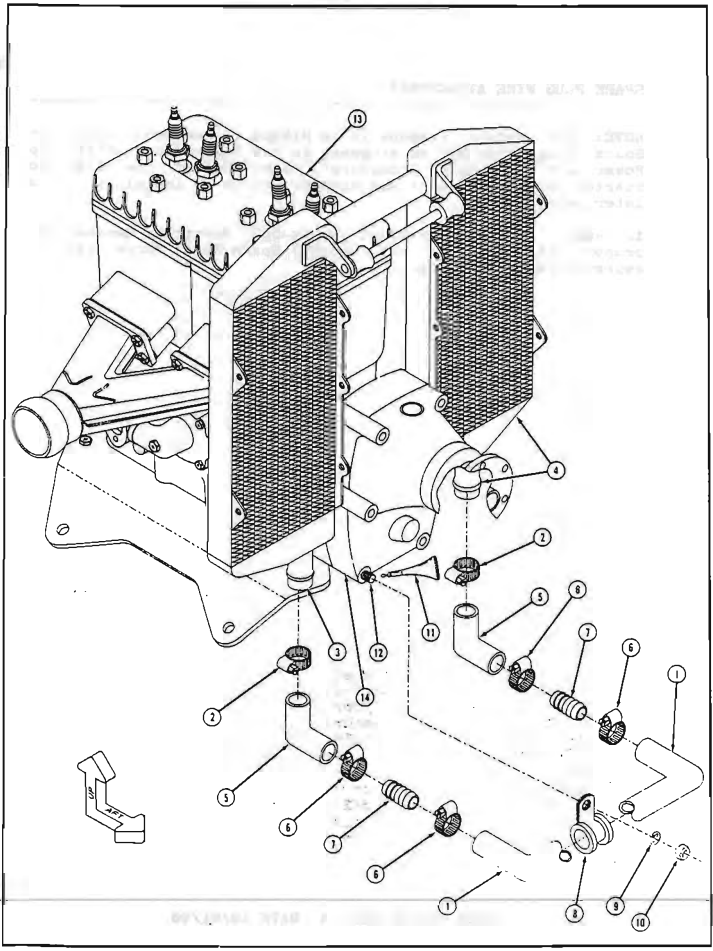
1. Loosen BOTH Hose Clamps (2) attaching the Coolant Hose (1) to the Radiators (3) and (4). Temporarily remove the Coolant Hose (1). Attach an Elbow (5) to the Radiator (3) and (4) (orientated as illustrated). Re-attach and secure the Hose Clamps (2).

2. Install the Hose Connectors (7) HALF WAY into the Elbows (5). Slide a Clamp (6) onto each Elbow. Tighten the Clamps (6).

3. Slide the Cushioned Clamp (8) onto the Coolant Hose (1) previously removed (orientated as illustrated) then slide TWO [2] Hose Clamps (6) onto the Coolant Hose (ONE [1] at each end). Slide each end of the Coolant Hose onto the remaining exposed halves of the Hose Connectors (7) Tighten the TWO [2] remaining Clamps (6) on the Coolant Hose.

4. Use a 13 mm wrench or socket and temporarily remove the Nut (10) and Lock Washer (9) from the Stud (12) located on the Gear Box (14) at the rear of the Powerplant (13). Add a drop of Thread Adhesive (11) to the threads of the Stud. Position the Cushioned Clamp (8) onto the Stud. Replace the Lock Washer (9) and Nut (10). Torque the Nut to 195 in/lbs or 16.25 ft/lbs (22 nm).

Item	P/N	Qty	Description
1	00922190		Coolant Hose (part of P/N 61085)
2	00951870	2	Hose Clamp (part of P/N 61085)
3	00995912		Radiator without Filler Cap (part of P/N 61085)
4	00995917		Radiator with Filler Cap (part of P/N 61085)
5	61210	2	Elbow Hose
6	20426	4	#10 Hose Clamp
7	61215	2	Hose Connector
8	20435	1	1" Cushioned Clamp
9	00945752	1	8 mm Lock Washer (part of P/N 61085)
10	00242201	1	8 mm Nut (part of P/N 61085)
11	60591	A/R	Thread Adhesive (Loctite)
12	00940766		Stud (part of P/N 61085)
13	61085		Rotax 582 Powerplant (w/ Dual Carb, Dual Ignition, and Reduction Drive as received)
14			Gear Box (Reduction Drive) (part of P/N 61085)


13
4
2
5
8
7
6
1
3
12
11
14
2
3
6
7
8
1
8
9
10

SPARK PLUG WIRE ATTACHMENT

NOTE: For safety reasons it is HIGHLY recommended that the Spark Plug Wires NOT be attached to the Spark Plugs until the Powerplant "Break-In Procedure" especially if the Electric Starter Kit (optional) and Battery are to be installed in a later sequence.

1. Refer to your Powerplant (Rotax 582) Operators Manual for proper attachment of ALL FOUR [4] Spark Plug Wires to the appropriate Spark Plugs.