PRECISION FLIGHT CONTROLS
THE ULTIMATE FLYING MACHINE™

C2 PROFESSIONAL
DESKTOP FLIGHT CONSOLE

OPERATIONS AND SETUP GUIDE

CONTENTS

1 | PRECAUTIONS & WARNINGS

SAFETY

THIS PRODUCT HAS BEEN DESIGNED WITH CONCERN FOR SAFETY. HOWEVER, ANY ELECTRICAL DEVICE, IF USED IMPROPERLY, HAS THE POTENTIAL FOR CAUSING FIRE, ELECTRICAL SHOCK OR PERSONAL INJURY.

TO HELP ENSURE ACCIDENT-FREE OPERATION, FOLLOW THESE GUIDELINES:

- OBSERVE ALL WARNINGS, PRECAUTIONS AND INSTRUCTIONS.
- REGULARLY INSPECT POWER AND USB CONNECTIONS.
- STOP USE AND DISCONNECT FROM ELECTRICAL OUTLET IMMEDIATELY IF POWER OR USB CONNECTION ARE
- DAMAGED OR IF DEVICE PRODUCES UNUSUAL SOUNDS OR SMELL OR BECOMES HOT TO THE TOUCH.

PRECAUTIONS

BEFORE USING THE PRODUCT, CAREFULLY READ THIS MANUAL AND RETAIN IT FOR FUTURE REFERENCE. IT IS IMPORTANT TO ENSURE THAT ALL USERS FOLLOW SAFETY PRECAUTIONS AND WARNINGS.

WARNINGS

THIS DEVICE IS ONLY FOR FLIGHT SIMULATION USE. NO OTHER USE IS RECOMMENDED.

THIS DEVICE IS FOR INDOOR USE ONLY. DO NOT EXPOSE TO MOISTURE, LIQUID OR HEAT.

THE DEVICE IS NOT A TOY. CHILDREN SHOULD NOT OPERATE IT WITHOUT ADULT SUPERVISION.

ELECTRIC SHOCK / FIRE HAZARD. USE ONLY THE POWER SUPPLY PROVIDED BY PRECISION FLIGHT CONTROLS.

MAKE SURE THAT THE DEVICE IS ON A FLAT STABLE SURFACE. FAILURE TO DO SO MAY RESULT IN THE DEVICE FALLING WHICH MAY RESULT BODILY INJURY, DEATH AND DAMAGE TO THE DEVICE.

DO NOT REMOVE THE COVER. OPERATION WITHOUT THE COVER MAY RESULT IN ELECTRIC SHOCK.

DO NOT ATTEMPT TO SERVICE THE DEVICE. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

DO NOT PLACE DEVICE ON SURFACES THAT ARE UNSTABLE, TILTED OR SUBJECT TO VIBRATION.

DO NOT PLACE THE SYSTEM IN AN AREA SUBJECT TO EXCESSIVE DUST OR CIGARETTE SMOKE. DUST BUILD-UP OR CIGARETTE SMOKE RESIDUE ON THE INTERNAL COMPONENTS MAY CAUSE THE DEVICE TO MALFUNCTION.

2 | INTRODUCTION

CONGRATULATIONS ON YOUR PURCHASE OF THE PFC C2 PROFESSIONAL DESKTOP FLIGHT CONSOLE!
THE C2 PROFESSIONAL DESKTOP FLIGHT CONSOLE FEATURES TACTILE SWITCHES, ROBUST YOKE MECHANISM AND CAST ALUMINUM YOKES.

THE YOKE MECHANISM FEATURES PRECISION BALL BEARINGS WITH SELF ALIGNING BUSHINGS THAT ENSURES SMOOTH AND REALISTIC FEEL THROUGH OUT THE CONTROL MOVEMENT. THE BEARINGS ARE MATCHED WITH A STEEL SHAFT THAT IS PRECISION GROUND AND POLISHED. IT IS EQUIPPED WITH STATE-OF-THE-ART HALL EFFECT SENSORS FOR PITCH AND ROLL INPUTS FOR LONG TERM FIDELITY.

DEFINITIONS AND ABBREVIATIONS
C2PRO : C2 PROFESSIONAL DESKTOP FLIGHT CONSOLE
USB: UNIVERSAL SERIAL BUS (CONNECTION USED BY THE C2PRO TO THE COMPUTER)

COMPATIBILITY
THE C2PRO IS FULLY COMPATIBLE WITH X-PLANE 9.70. BETA DRIVERS MAY BE AVAILABLE FOR LATER VERSION OF X-PLANE. THE C2PRO IS NOT COMPATIBLE WITH FS9, FSX OR PREPAR3D OR PREPAR3D V4.

DIMENSIONS & WEIGHT

| WEIGHT	WIDTH	DEPTH	HEIGHT
49 LBS / 22.23 kg	31IN. / 78.74 cm	16 IN. / 40.64 cm	9 IN. / 22.86 cm

PACKAGE CONTENTS
(1) C2PRO CONSOLE
(1) 6 FOOT USB CABLE
(1) USER'S GUIDE
(1) 12 VOLT DC POWER SUPPLY

3 | INSTALLATION

1. CHECK PACKAGING FOR DAMAGE. DO NOT UNPACK ITEM IF THERE ARE ANY DAMAGE. REPORT ANY DAMAGE TO THE CARRIER AND PFC TECHNICAL SUPPORT. TAKE CLEAR PICTURE OF ANY DAMAGE AND EMAIL THE PICTURES TO techsupport@flypfc.com.
2. IF C2PRO IS UNDAMAGED. CAREFULLY LIFT IT OUT OF THE BOX.
3. SET THE C2PRO ONTO YOUR DESK.
4. CONNECT THE USB CABLE ON THE BACK OF THE C2PRO.
5. CONNECT THE POWER SUPPLY TO THE BACK OF THE C2PRO.
6. CONNECT THE POWER SUPPLY TO AN ELECTRICAL SOCKET.
7. CONNECT THE USB CABLE TO AN OPEN USB 2.0 PORT ON BACK OF THE COMPUTER.
8. PROCEED TO THE NEXT PAGE TO INSTALL THE USBHIDPLUGIN FOR X-PLANE 9.70

C2PRO CONSOLE CONNECTION DIAGRAM
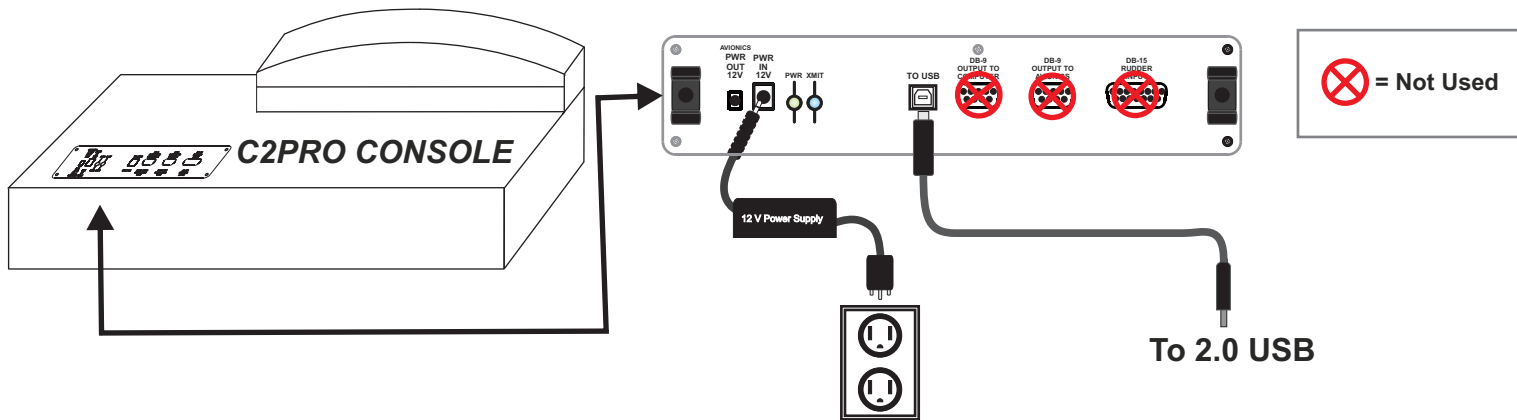
4 | *INSTALLATION OF PFCUSBHID PLUGIN FOR X-PLANE*

THE PFC USBHID PLUGIN, IS THE SOFTWARE THAT MAKES THE USB DEVICES MANUFACTURED BY PRECISION FLIGHT CONTROLS, INC WORK WITH X-PLANE 9.70. THIS GUIDE ASSUMES THAT YOU HAVE PROPERLY INSTALLED THE X-PLANE 9.70 AND THAT YOU HAVE RUN IT AT LEAST ONCE. IF YOU HAVE NOT, PLEASE REFER TO YOUR SOFTWARE MANUAL FOR SOFTWARE INSTALLATION.
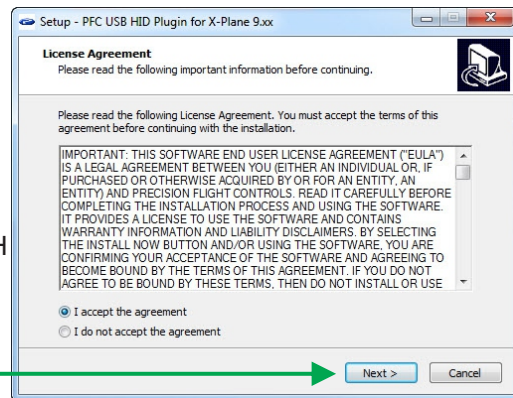
PFCUSBHID INSTALLATION STEPS
1. GO TO https://flypfc.com/support/#usbdriverutils
2. CLICK ON DOWNLOAD PFC USB HID PLUGIN FOR X-PLANE 9.70
3. SELECT THE DESKTOP AS YOUR DOWNLOAD DESTINATION.
4. UNZIP THE PFCUSBHIDPLUGIN-XPLANE970.ZIP FILE.

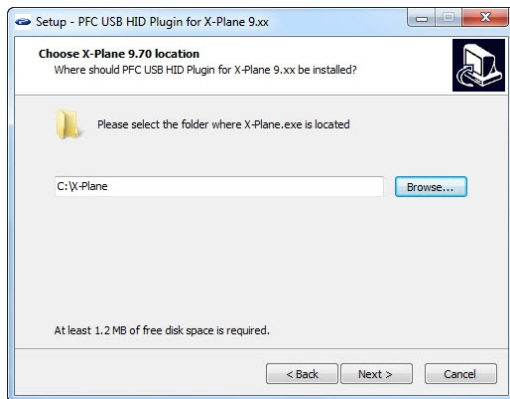5. DOUBLE CLICK ON THE PFCUSBHID_PLUGIN_XP9.XX_XXXX.EXE

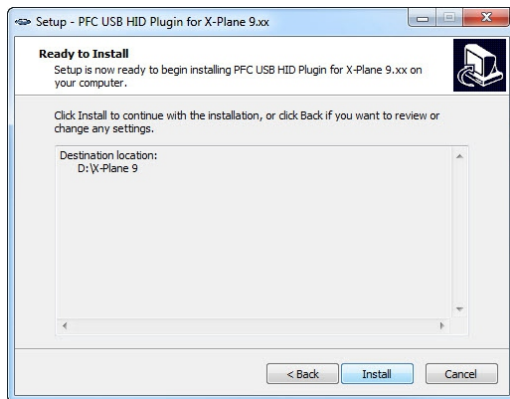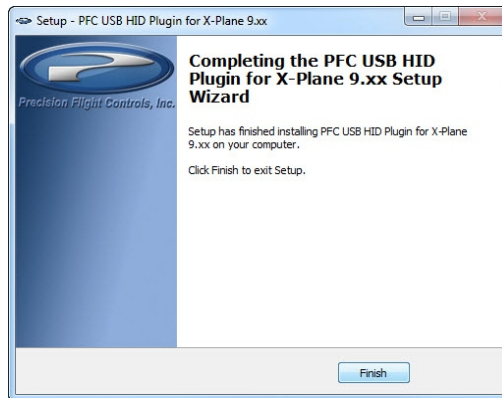6. READ THE LICENSE AGREEMENT AND CLICK ON NEXT IF YOU AGREE WITH THE TERMS.

7. AFTER SELECTING THE FOLDER, CLICK ON NEXT.

Setup - PFC USB HID Plugin for X-Plane 9.xx

Choose X-Plane 9.70 location
Where should PFC USB HID Plugin for X-Plane 9.xx be installed?

Please select the folder where X-Plane.exe is located

C:\X-Plane   [Browse...]

At least 1.2 MB of free disk space is required.

[< Back] [Next >] [Cancel]

8. CLICK ON INSTALL IN THIS WINDOW

Setup - PFC USB HID Plugin for X-Plane 9.xx

Ready to Install
Setup is now ready to begin installing PFC USB HID Plugin for X-Plane 9.xx on your computer.

Click Install to continue with the installation, or click Back if you want to review or change any settings.

Destination location:
   D:\X-Plane 9

[< Back] [Install] [Cancel]

9. NOW CLICK ON FINISH.

Setup - PFC USB HID Plugin for X-Plane 9.xx

Completing the PFC USB HID Plugin for X-Plane 9.xx Setup Wizard

Precision Flight Controls, Inc.

Setup has finished installing PFC USB HID Plugin for X-Plane 9.xx on your computer.

Click Finish to exit Setup.

[Finish]

## 10. INSTALLATION OF PLUGIN IS COMPLETE, YOU MAY NOW START X-PLANE 9.70.

5 | *SWITCHING QUADRANTS*

THERE ARE 2 MAIN STYLES OF POWER CONTROL FOR THE C2PRO. THE QUADRANT STYLE AND VERNIER STYLE. PFC MANUFACTURES DIFFERENT QUADRANTS AND VERNIER CONTROLS FOR PISTON SINGLE AND TWIN, SINGLE AND TWIN TURBO PROP, ONE, TWO, THREE AND FOUR ENGINE JETS.

SWITCHING TO STANDARD QUADRANT STYLE
1. PULL ALL THE LEVERS BACK.
2. REMOVE THE THUMBSCREW ON EACH SIDE.
3. ALIGN NEW QUADRANT TO PUSH RODS.
4. REINSTALL THUMBSCREWS.
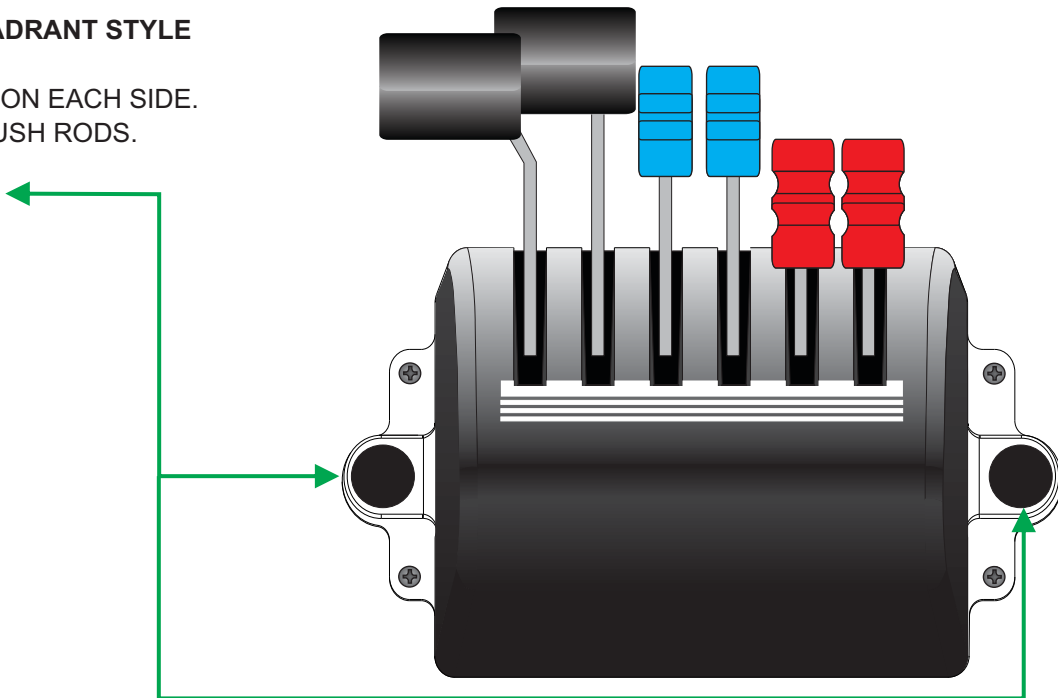
6 | SWITCHING TO VERNIER CONTROLS

1. INSTALL A TWIN NON-VERNIER QUADRANT. (SEE SECTION 5 FOR STEPS)
2. REMOVE THE FOUR (4) SCREWS AROUND THE PANEL.
3. CAREFULLY PULL THE ASSEMBLY OUT.
4. DISCONNECT THE RJ-45 CABLE.
5. CONNECT THE RJ-45 CABLE TO THE VERNIER UNIT.
6. CAREFULLY INSERT AND THEN ALIGN THE SCREW HOLES.
7. SECURE THE UNIT WITH THE SCREWS.
8. STORE THE NON VERNIER UNIT IN A SAFE PLACE.
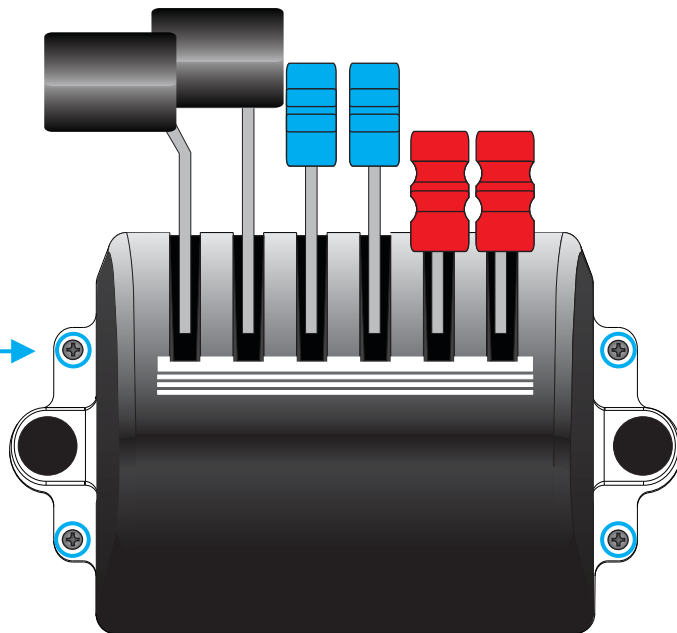
7 | USBHIDPLUGIN OPTIONS

THE USBHIDPLUGIN HAVE USER CONFIGURABLE OPTIONS THAT INCLUDES:

ELEVATOR TRIM HAND TURN
THIS CHANGES THE NUMBER OF ELEVATOR TRIM TURN FROM FULL NOSE DOWN TO FULL NOSE UP TRIM.

ALT AIR SWITCH
CHANGE ALT AIR FUNCTION FROM ALTERNATE STATIC SOURCE TO ALTERNATE ENGINE AIR SOURCE.

AI REFERENCE
CHANGE THE HORIZON BAR ADJUSTMENT TO WORK WITH ALL AIRCRAFT OR AIRCRAFT WITHOUT FLIGHT DIRECTORS ONLY.

AIRSPEED KNOB
CHANGE THE A/S KNOB FROM CALIBRATED AIRSPEED (CAS) TO JET AIRSPEED BUG ADJUSTMENT. NOTE THAT X-PLANE DOES NOT SUPPORT CAS FUNCTION.

PILOT YOKE BUTTON
CHANGES THE AUTOPILOT BUTTON ON THE YOKE FROM AUTOPILOT DISCONNECT TO PUSH TO TALK BUTTON.

PFC STANDARD THROTTLE QUADRANT
CHANGES THE OUTPUT OF THE QUADRANT BASED ON THE QUADRANT STYLE SELECTED. THE SELECTION SHOULD MATCH THE QUADRANT OR VERNIER INSTALLED ON YOUR C2PRO CONSOLE.

ACCESSING THE USBHIDPLUGIN MENU

TO CHANGE ANY OF THE OPTIONS OF THE USBHIDPLUGIN, YOU MUST FIRST ACCESS THE USBHIDPLUGIN MENU.

1. WITH X-PLANE RUNNING, ACCESS THE X-PLANE MENU BY MOVING YOUR MOUSE TO THE TOP OF THE SCREEN.
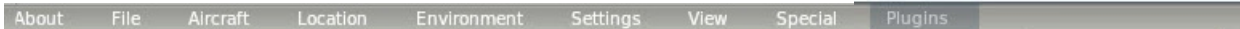
2. FROM THE MENU CLICK ON THE "PLUGINS" MENU.

3. FROM THE PLUGINS MENU, CHOOSE THE OPTION YOU WISH TO
   CHANGE.
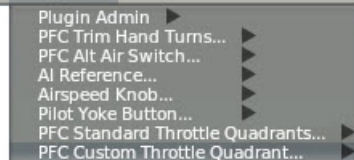
PFC TRIM HAND TURNS

THE NUMBER OF TURN FROM NOSE UP TO NOSE DOWN TRIM CAN BE CHANGED TO MAKE THE TRIM MORE OR LESS SENSITIVE.

TO CHANGE IT:

1. FROM THE PLUGINS CHOOSE "PFC TRIM HAND TURNS."
2. FROM THE SELECTION WINDOW CHANGE THE SELECTED VALUE. THE HIGHER THE NUMBER THE LESS SENSITIVE THE TRIM WILL BE.
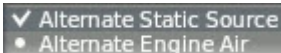
PFC ALT AIR SWITCH

THE PFC ALT AIR SWITCH CAN BE CHANGED BETWEEN ALTERNATE STATIC SOURCE OR ALTERNATE ENGINE AIR SOURCE.

TO CHANGE IT :

1. FROM THE PLUGINS MENU CHOOSE "PFC ALT AIR SWITCH"
2. FROM THE SELECTION WINDOW, CHOOSE THE OPTION YOU PREFER.

AI REFERENCE

THE AI REFERENCE OPTION ALTERS THE HORIZON BAR ADJUSTMENT TO WORK WITH ALL AIRCRAFT OR ONLY AIRCRAFT WITHOUT FLIGHT DIRECTORS.

TO CHANGE IT:
1. FROM THE PLUGINS CHOOSE "AI REFERENCE."
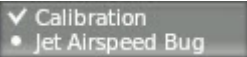2. FROM THE SELECTION WINDOW CHOOSE THE OPTION YOU PREFER.

> ✓ All Aircraft
> • Non-FD Aircraft

AIRSPEED KNOB

THE AIRSPEED KNOB ALT AIR OPTION ALTERS THE AIRSPEED KNOB TO ADJUST THE AIR SPEED BUG ON JETS OR THE CALIBRATED AIRSPEED (CAS) ADJUSTMENT. THE CAS ADJUSTMENT IS NOT SUPPORTED BY X-PLANE 9.

1. FROM THE PLUGINS MENU CHOOSE "AIRSPEED KNOB"
2. FROM THE SELECTION WINDOW, CHOOSE THE OPTION YOU PREFER.

> ✓ Calibration
> • Jet Airspeed Bug

PILOT YOKE BUTTON

THE PILOT YOKE BUTTON REFERS TO THE AUTOPILOT DISCONNECT BUTTON ON THE YOKE. THIS OPTION CHANGES THE FUNCTION BETWEEN AUTOPILOT DISCONNECT OR PUSH TO TALK.

TO CHANGE IT:
1. FROM THE PLUGINS CHOOSE "PILOT YOKE BUTTON."
2. FROM THE SELECTION WINDOW CHOOSE YOUR PREFERRED OPTION.

> ✓ Autopilot Disconnect
> • Push-to-Talk

PFC STANDARD THROTTLE QUADRANTS
THE C2PRO CAN BE MATED WITH ANY OF THE PISTON, TURBO PROP AND JET QUADRANTS AS WELL AS ANY OF THE VERNIER STYLE CONTROLS THAT PFC MANUFACTURES.

THE PFC STANDARD THROTTLE QUADRANT OPTION WILL ALLOW YOU TO CHANGE THE PLUGIN SETTING TO MATCH THE QUADRANT OR VERNIER CONTROL YOU HAVE INSTALLED ON THE CONSOLE.

TO CHANGE IT:
1. FROM THE PLUGINS CHOOSE "PFC STANDARD THROTTLE QUADRANTS."
2. FROM THE SELECTION WINDOW CHOOSE YOUR PREFERRED OPTION.

Single-Engine (Standard or Vernier):
• Fuel-injected
• Carbureted
✓ High-Performance (Throttle/Prop/Mixture)
• High-Performance (Mixture/Throttle/Prop)
Multi-Engine:
• Throttle/Prop/Mixture
• Prop/Throttle/Mixture
Turboprop:
• Single
• PC-12
• Caravan
• Twin
Jet:
• Jet Enhanced
• Two-engine
• Three-engine
• Four-engine
• CUSTOM

8 | *LIMITED WARRANTY INFORMATION*

WHAT'S COVERED BY OUR LIMITED WARRANY

PRECISION FLIGHT CONTROLS, INC. (HEREAFTER "PFC") WARRANTS ITS HARDWARE PRODUCTS TO THE ORIGINAL OWNER TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS WHEN USED PROPERLY FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF DELIVERY.

- PRODUCT FAILURE DUE TO IMPROPER INSTALLATION, MAINTENANCE, MISUSE, ACCIDENT, ABUSE, NEGLECT, UNAUTHORIZED REPAIR, MODIFICATION OR ALTERATION.
- REMOVAL OR REPLACEMENT COSTS.
- COSTS OR LOSS OF REVENUE INCURRED DUE TO DOWNTIME.
- DAMAGE TO RELATED COMPONENTS.
- NORMAL WEAR-AND-TEAR.
- DAMAGE INCURRED DURING SHIPPING.
- PRODUCTS MANUFACTURED BY OTHER COMPANIES.
- SOFTWARE OR DATA LOSS.
- COSMETIC DAMAGES SUCH AS CARPET, UPHOLSTERY, PAINT, POWDER COAT, STICKERS, WRAPS, SILK SCREEN OR ANY OTHER DAMAGES THAT DO NOT DIRECTLY IMPACT THE USE OF THE PRODUCT IN ITS INTENDED ROLE AS A AVIATION TRAINING DEVICE.
- EXPENDABLE ITEMS SUCH AS LIGHT BULBS, BATTERIES AND ETC.
- LANDING GEAR SWITCH

WHAT WILL PFC DO IN THE EVENT OF AN APPROVED WARRANTY CLAIM…

IF DURING THE WARRANTY PERIOD YOU SUBMIT A WARRANTY CLAIM AND IT IS APPROVED BY PFC, AT PFC'S SOLE DISCRETION WE WILL:

- REPAIR THE PRODUCT USING NEW OR RECONDITIONED PARTS WHICH ARE FUNCTIONALLY EQUIVALENT TO NEW IN PERFORMANCE AND RELIABILITY.
- REPLACE THE PRODUCT USING NEW OR RECONDITIONED PRODUCTS WHICH ARE FUNCTIONALLY EQUIVALENT TO NEW IN PERFORMANCE AND RELIABILITY.
- IN THE EVENT A WARRANTY CLAIM IS APPROVED AND THE PRODUCT IS RETURNED DUE TO DEFECT AS STATED ABOVE, A REFUND IN FULL WILL BE ISSUED.
-

WHAT WILL PFC DO IN THE EVENT OF A WARRANTY CLAIM (CONTINUED):

- IF PRODUCT IS RETURNED WITHIN THE WARRANTY PERIOD, BUT THE RETURN IS NOT RELATED TO DEFECT, A REFUND WILL BE ISSUED LESS A FIFTEEN PERCENT (15%) RESTOCKING FEE.

OBTAINING WARRANTY EVALUATION & SERVICE

ALL WARRANTY QUESTIONS OR CLAIMS MUST FIRST BE DIRECTED TO THE PFC TECHNICAL SUPPORT TEAM. PLEASE BE PREPARED TO PROVIDE THE PFC WITH THE PRODUCT SERIAL NUMBER AND/OR PURCHASE INVOICE NUMBER FOR VERIFICATION. PFC'S TECHNICAL SUPPORT TEAM MAY BE REACHED BY:

- PHONE: (916) 414-1316
- EMAIL: techsupport@flypfc.com

PFC WILL DETERMINE IF THE PRODUCT HAS FAILED DUE TO DEFECTIVE WORKMANSHIP OR MATERIALS. PFC RESERVES THE RIGHT TO ASSESS FEES ASSOCIATED WITH DIAGNOSTIC SERVICES. IF THE PRODUCT IS DETERMINED TO HAVE AN ISSUE WHICH IS COVERED BY THE WARRANTY, THE CUSTOMER MAY CHOOSE ONE OF SERVICE OPTIONS BELOW:

- **MAIL IN SERVICE**
  THIS SERVICE WILL REQUIRE THE CUSTOMER TO SEND THE DEFECTIVE PRODUCT OR PART TO PFC. THE CUSTOMER MUST FOLLOW PFC'S RETURN MATERIAL AUTHORIZATION (RMA) PROCEDURE PRIOR TO RETURNING ANY ITEM. PLEASE NOTE THAT IN THE EVENT AN ITEM IS RETURNED AND THE PACKAGE DOES NOT DISPLAY THE RMA NUMBER (PER THE RMA PROCESS), THE DELIVERY MAY BE REFUSED. FULL INSTRUCTIONS FOR PFC'S RMA PROCESS CAN BE FOUND AT: https://flypfc.com/wp-content/uploads/support/rma_form.pdf

- **ADVANCE REPLACEMENT PART SERVICE**
  THIS SERVICE ALLOWS OUR CUSTOMERS TO SERVICE THEIR OWN PFC PRODUCT. PFC WILL SEND THE REPLACEMENT PART SO THE CUSTOMER MAY PERFORM THE INSTALLATION OF THE PART. PFC WILL REQUIRE ADVANCE PAYMENT FOR THE PART AND SHIPPING CHARGES. THE ORIGINAL PART MUST BE RETURNED TO PFC VIA A REPUTABLE SHIPPING SERVICE WITHIN TEN (10) BUSINESS DAYS. IN THE EVENT THE CUSTOMER DOES NOT RETURN THE PART WITHIN THE ALLOTTED TIME PERIOD, NO REFUND WILL BE ISSUED.

WARRANTY SERVICE OPTIONS (CONTINUED):

- **ON-SITE REPAIR SERVICE**
  THIS SERVICE IS AVAILABLE FOR ADVANCED AVIATION TRAINING DEVICE (AATD) ONLY. SCHEDULE PERMITTING, PFC WILL SEND A TECHNICIAN TO YOUR LOCATION TO SERVICE THE AATD. AFTER THE FIRST 90 DAYS FROM THE DATE OF SHIPMENT, THE CUSTOMER WILL BE RESPONSIBLE FOR ALL EXPENSES AND LABOR COST FOR THE ON-SITE SERVICE.

WARRANTY FOR REPLACEMENT PARTS OR UNITS

ANY REPLACEMENT PARTS OR UNIT PROVIDED DURING THE WARRANTY PERIOD WILL BE COVERED BY THE REMAINING BALANCE OF TIME ON THE CUSTOMER'S ORIGINAL LIMITED WARRANTY. REPLACEMENT PARTS WILL NOT BE COVERED BY AN EXTENDED OR SEPARATE WARRANTY PERIOD.

RETURN SHIPMENT OPTIONS…

PFC, AT ITS OWN EXPENSE, WILL SHIP THE REPAIRED OR REPLACEMENT PRODUCT TO THE CUSTOMER'S ORIGINAL SHIPPING ADDRESS AS REFLECTED ON THE ORIGINAL ORDER/INVOICE. PFC WILL SHIP VIA UPS GROUND OR AN EQUIVALENT SERVICE. IF EXPEDITED SHIPPING IS REQUIRED, THE CUSTOMER WILL BE RESPONSIBLE FOR ALL SHIPPING CHARGES.