TRUTRAK
Flight Systems
# Table of Contents

- Sorcerer Autopilot ................................................................. 3
- RV-10 Autopilot ................................................................. 4
- AP-100 .......................................................................... 4
- Digiflight II Series Autopilots ............................................. 5
- Digiflight II Flat Pack Series Autopilots ......................... 6
- CT Pilot Series Autopilots .................................................. 7
- Pictorial Pilot ................................................................. 8
- ADI Pilot ....................................................................... 9
- Digitrak Autopilot .......................................................... 10
- Altrak Altitude Hold ....................................................... 10
- Autopilot Add Ons .......................................................... 11
- Turn & Bank Flight Instruments ....................................... 12
- ADI Flight Instruments .................................................... 13
- Front Mount EFIS .......................................................... 14
- Diagonal Corner EFIS ...................................................... 15
- Avionics Stack EFIS ....................................................... 16
- EFIS Features .................................................................. 17
- EFIS Pricing ................................................................. 18
- Warranty Information ...................................................... 19
SORCERER AUTOPILOT

SORCERER AS

![SORCERER AS](image)

SORCERER ATI

![SORCERER ATI](image)

- GPS-Slaved solid-state DG
- Digital Ground Track Selector
- VOR / LOC / ILS
- VOR / LOC Reverse
- Selected-angle Intercept
- GPS Nav Mode
- GPS Steering
- Solid-state gyroscopically-controlled pitch axis
- Selected Vertical Speed climbs and descents
- Altitude Hold
- Built-in Digital Altimeter
- V-NAV
- Vertical GPS Steering (GPSV)
- Altitude Selector with 50-ft resolution for approaches
- Selectable airspeed for altitude transitions (in addition to VS)
- Simplified user interface
- 12-28 Volts
- True Control Wheel Steering†

Sorcerer AS Dimensions - 1.7”H x 6.25”W x 7”D
Sorcerer ATI Dimensions – 3.4”H x 3.4”W x 7”D
Standard weight including servos - 7lb

*Sorcerer AS $9500
*Sorcerer ATI $9500

---

†True control wheel steering means that upon release of the control wheel switch, the system synchronizes to the direction of flight and vertical speed, in units with vertical speed select. This is the only multi-servo autopilot system available with this feature.
RV-10 AUTOPILOT

RV-10 AP

GPS-Slaved solid-state DG
Digital Ground Track Selector
GPS Nav Mode
GPS Steering
Simplified user interface
12-28 Volts
True Control Wheel Steering†
Dimensions - 1.7"H x 6.25"W x 7"D
Standard weight including servos - 7lb

Solid-state gyroscopically-controlled pitch axis
Selected Vertical Speed climbs and descents
Altitude Hold
Built-in Digital Altimeter
V-NAV
Vertical GPS Steering (GPSV)
Altitude Selector with 50-ft resolution
*RV10AP $7250
includes harness and RV-10 specific hardware

AP-100

AP-100

GPS-Slaved solid-state DG
Digital Ground Track Selector
VOR/LOC/ILS
VOR/LOC Reverse
Selected-angle Intercept
GPS Nav Mode
GPS Steering
Simplified user interface
12-28 Volts
Dimensions - 1.7"H x 6.25"W x 7"D
Standard weight including servos - 7lb

Solid-state gyroscopically-controlled pitch axis
Selected Vertical Speed climbs and descents
Altitude Hold
Vertical GPS Steering (GPSV)
12-28 Volts
True Control Wheel Steering†
*AP100 $6900
DIGIFLIGHT II SERIES AUTOPILOTS

DIGIFLIGHT II

- Fits Standard 2.25" Round Instrument Hole
- Built-in Digital Slaved Directional Gyro
- Digital Track Selector
- GPS Nav Mode
- Altitude Hold
- Simple Intuitive User Interface
- All Solid-State Sensors
- Lighter and Smaller than Comparable Systems

**DIGIFLIGHT (GPSS) Optional (Digiflight II**G)

- True Control Wheel Steering†
- 12-28 volts
- Dimensions - 2.5"H x 2.5"W x 5.5"D
- Standard weight including servos - 6lb

*DII $3850
*DII G $4225

DIGIFLIGHT IIVS

- All DigiFlight II Features plus
- Climb and Descend on Vertical Speed
- Trim Sensing Pitch Servo that Annunciates for Trim

**DIGIFLIGHT (GPSS) Optional (Digiflight IIVS**G)

- 12-28 volts
- Dimensions - 2.5"H x 2.5"W x 5.5"D
- Standard weight including servos - 6lb

*DII VS $4350
*DII VSG $4750

DIGIFLIGHT IIVSGV

- All DigiFlight IIVS Features plus
- GPS Steering (GPSS)
- Vertical GPS Steering (GPSV)

- 12-28 volts
- Dimensions - 2.5"H x 2.5"W x 5.5"D
- Standard weight including servos - 6lb

*DII VSGV $5225

†True control wheel steering means that upon release of
the control wheel switch, the system synchronizes to the
direction of flight and vertical speed, in units with vertical
speed select. This is the only multi-servo autopilot
system available with this feature.
DIGIFLIGHT II FLAT PACK SERIES AUTOPILOTS

DIGIFLIGHT II FP

- Fits 1.4” x 4.1” Cut-out
- Built-in Digital Slaved Directional Gyro
- Digital Track Selector
- GPS Nav Mode
- Altitude Hold
- Simple Intuitive User Interface
- All Solid-State Sensors
- Lighter and Smaller than Comparable Systems
- GPS Steering (GPSS) Optional (Digiflight IIG FP)

True Control Wheel Steering†
- 12-28 volts
- Dimensions – 1.6”H x 4.3”W x 5.5”D
- Standard weight including servos - 6lb

*DII FP $3850
*DII G FP $4225

DIGIFLIGHT IIVS FP

- All DigiFlight II Features plus
- Climb and Descend on Vertical Speed
- Trim Sensing Pitch Servo that Annunciates for Trim
- GPS Steering (GPSS) Optional (Digiflight IIVSG)

12-28 volts
- Dimensions - 1.6”H x 4.3”W x 5.5”D
- Standard weight including servos - 6lb

*DII VS FP $4350
*DII VSG FP $4725

DIGIFLIGHT IIVSGV FP

- All DigiFlight IIVS Features plus
- GPS Steering (GPSS)
- Vertical GPS Steering (GPSV)

12-28 volts
- Dimensions - 1.6”H x 4.3”W x 5.5”D
- Standard weight including servos - 6lb

*DII VSGV FP $5225
CT PILOT SERIES AUTOPILOTS

CT PILOT

- Fits 4.1” x 1.4” Cut-out
- Built-in Digital Slaved Directional Gyro
- Digital Track Selector
- GPS Nav Mode
- Altitude Hold
- Simple Intuitive User Interface
- All Solid-State Sensors
- Lighter and Smaller than Comparable Systems

**GPS Steering (GPSS) Optional (Digiflight IIG FP)**
- True Control Wheel Steering†
- 12-28 volts
- Dimensions – 4.3”H x 1.6”W x 5.5”D
- Standard weight including servos - 6lb
- *CT PILOT $3850
- *CT PILOT G $4225

CT PILOT VS

- All DigiFlight II Features plus
- Climb and Descend on Vertical Speed
- Trim Sensing Pitch Servo that Annunciates for Trim

**GPS Steering (GPSS) Optional (Digiflight IIIVSG)**
- 12-28 volts
- Dimensions - 4.3”H x 1.6”W x 5.5”D
- Standard weight including servos - 6lb
- *CT PILOT VS $4350
- *CT PILOT VSG $4725

CT PILOT VSGV (NOT PICTURED)

- All DigiFlight IIIVS Features plus
- GPS Steering (GPSS)
- Vertical GPS Steering (GPSV)
- 12-28 volts
- Dimensions - 4.3”H x 1.6”W x 5.5”D
- Standard weight including servos - 6lb
- *CT PILOT VSGV $5225
Pictorial Pilot

2-1/4” Pictorial Pilot

- 2-1/4” $2095

GPS-Slaved solid-state DG
Digital Ground Track Selector
GPS Nav Mode
Magnetic Backup Mode
True Control Wheel Steering†

Built-in Pictorial Turn & Bank
In contrast to the turn coordinator, the Pictorial Turn & Bank provides a display that agrees with the artificial horizon, and likewise the real horizon. The dynamic performance of this display is equal to that of an artificial horizon.

12-28 volts
2-1/4” Dimensions - 2.5” H x 2.5” W x 3.5” D
3-1/8” Dimensions - 3.4” H x 3.4” W x 3.5” D
Standard weight including servo - 3.5lb

3-1/8” Pictorial Pilot

- 3-1/8” $2145

†True control wheel steering means that upon release of the control wheel switch, the system synchronizes to the direction of flight and vertical speed, in units with vertical speed select. This is the only multi-servo autopilot system available with this feature.
ADI PILOT

ADI PILOT I

- GPS-Slaved solid-state DG
- Digital Ground Track Selector
- GPS Nav Mode
- True Control Wheel Steering†
- Built-in ADI
- 12-28 volts
- 3-1/8" Dimensions - 3.4" H x 3.4" W x 3.6" D
- Standard weight including servo - 3.5lb
- *ADI Pilot I $2795

ADI PILOT II

- GPS-Slaved solid-state DG
- Digital Ground Track Selector
- GPS Nav Mode
- True Control Wheel Steering†
- Built-in ADI
- Altitude Hold
- Altitude adjust for baro change
- 12-28 volts
- 3-1/8" Dimensions - 3.4" H x 3.4" W x 3.6" D
- Standard weight including servos - 6lb
- *ADI Pilot II $3995
DIGITRAK AUTOPILOT

2-1/4” DIGITRAK

- GPS-Slaved solid-state DG
- Digital Ground Track Selector
- GPS Nav Mode
- Magnetic Backup Mode
- True Control Wheel Steering†
- 12 Volts only
- 2-1/4” Dimensions 2.5” H x 2.5” W x 3.5” D
- Standard weight including servo - 3.5 lb

3-1/8” DIGITRAK

- *Digitrak 2-1/4” $1695
- *Digitrak 3-1/8” $1745

ALTRAK & ALTRAK VS

- Can be used alone or with any roll servo Autopilot
- Only panel space required is for engage/disengage button
- Solid-state gyroscopically-controlled pitch axis
- Flight dynamics equal to higher priced systems
- Control Wheel Steering

Available with vertical speed select (Altrak VS)

- 12 Volts only
- Programmer Dimensions 3” H x 0.9” W x 2.8” D
- Standard weight including servo - 3 lb
- *Altrak $1695
- *Altrak VS $1995

†True control wheel steering means that upon release of the control wheel switch, the system synchronizes to the direction of flight and vertical speed, in units with vertical speed select. This is the only multi-servo autopilot system available with this feature.
AUTOPILOT ADD-ONS

**YAW DAMPER**

The Yaw Damper employs a solid state rate gyro to damp out short term yaw oscillation, and a transverse accelerometer to control rudder position long term, so as to keep the ball centered.

The Yaw Damper can be added to the AP-100, RV-10AP and Sorcerer autopilots.

12-28 volts

Dimensions - 4.12"W x 1.69"D x 2.05"H

Standard Weight including servo - 3.25 lb

*Yaw Damper $1500 (plus servo)

Servo price depends on aircraft

**AUTOMATIC TRIM**

Failsafe Automatic Pitch Trim can be added to any system with vertical speed select.

TruTrak is the only company serving the experimental market to offer Failsafe Automatic Pitch Trim; this ensures that a single failure will not cause runaway trim.

Automatic Trim can be added to the Yaw Damper.

12-28 volts

Dimensions - 4.12"W x 1.69"D x 2.05"H

Weight - 4 oz

*Failsafe w/ Link Sensor $975
In contrast to the turn coordinator, the Pictorial Turn & Bank provides a display that agrees with the artificial horizon, and likewise the real horizon. The dynamic performance of this display is equal to that of an artificial horizon.

12-28 volts
2-1/4" Dimensions - 2.5"H x 2.5"W x 3.5"D
3-1/8" Dimensions - 3.4"H x 3.4"W x 3.6"D
Weight - 6 oz
*2-1/4" $495
*3-1/8" $545
Bank angle is instantaneous gyro data.
Pitch is gyro enhanced vertical speed.
Direction is an electronic DG showing track.
Extreme bank angle is enunciated by flashing red arrows which indicate required stick motion to correct unusual attitude.
Low airspeed warning is enunciated by flashing A-S on the display.
Solid state rate gyros for pitch and roll
Built in GPS (optional)
Backup battery (optional)
12-28 volts
2-1/4” Dimensions - 2.5”H x 2.5”W x 6.625”D
2-1/4” Weight - 16 oz
3-1/8” Dimensions - 3.4”H x 3.4”W x 4.6”D
3-1/8” Weight - 12 oz
2-1/4” Pricing
*Standard $1295
*With Internal GPS $1445
*Battery Backup additional $100

3-1/8” Pricing
*Standard $1095
*With Internal GPS $1245
*Battery Backup additional $100
Front Mount EFIS

12-28 volts
Unit Dimensions – 6"H x 7.25"W x 3.3"D
Cut-out Dimensions – 5.875"H x 6.5"W
Weight – 2.33 lb
Diagonal Corner EFIS

12-28 volts
Unit Dimensions – 5.85”H x 6.45”W x 3.3”D
Cut-out Dimensions – 5.65”H x 6.25”W
Weight – 2.33 lb
Avionics Stack EFIS

12-28 volts
Unit Dimensions – 5.85"H x 7.05"W x 3.3"D
Cut-out Dimensions – 5.875"H x 6.28"W
Weight – 2.33 lb
EFIS FEATURES

Consider first the pitch display. Motion of the pitch display short term is gyroscopic as it must be to fly in IMC. Long term it is VSI. This display has two distinct advantages, the first being that it provides an instantaneous vertical speed presentation. The second is that when the reference airplane is on the horizon the aircraft is neither climbing nor descending. This eliminates the need for adjusting the position of the pitch reference airplane to compensate for the angle the fuselage is flying. The resulting benefit of the concept is that it makes holding altitude easier.

The HSI is placed below the horizon as in the larger more expensive displays. It is in the form of an ellipse for two reasons. First, an ellipse when compared with a circle of the height provides a broader scale at the top where it is read. Second, it looks as a circle would when laid out on the ground ahead of the aircraft. The boldness of the high quality display in combination with its location enhances the flyability of the overall instrument.

The analog presentations of airspeed and altitude are based on the belief that round is better. It will be noted that after having tried other presentations the automobile industry is back to round instruments. Nothing in the modern world of vertical tapes compares with the dynamic effect of a round altimeter dial rotating about a fixed pointer. As a target altitude is approached it is natural for the pilot to slow the needle velocity so as to arrive at the altitude without overshoot.

Within the bank angle scale, indicators are inserted, which show the angle for a standard rate turn. These indicators move outward on the bank angle scale as airspeed increases. Placed above the bank angle scale is an inclinometer that looks just like a conventional ball in a curved tube.

Still another convenient feature is the optional presentation of important engine data, in the pilot’s direct field of vision, displayed across the top of the instrument.

A flight director is standard even in the basic flight instrument. Like our autopilots, when the power setting is not sufficient to comply with altitude or vertical speed commands, the flight director transitions to an airspeed mode in which airspeed is held at or above a minimum value pre-set to the specific aircraft. The result is the highest level of safety.

The automatic arrival transition is also included in every EFIS. This is a feature that will help even the experienced pilot when approaching an unfamiliar airport. To initiate the arrival transition click CRS – set the HSI course pointer to the selected runway direction – press APPR – using the flight director or autopilot, fly the arrival path to the selected runway. This will work from any direction. See graphic on opposite page.
EFIS PRICING

EFIS SG - $3800

EFIS AP I - $5300
EFIS with built-in single axis autopilot
Autopilot features:
  GPS-slaved solid state DG
  Digital Ground Track Selector
  GPS Nav Mode
  Control wheel steering

EFIS AP II - $6700
EFIS with built-in dual two axis autopilot
Autopilot features:
  All features of EFIS AP I plus:
    Altitude hold

EFIS AP III - $7200
EFIS with built-in dual axis autopilot
Autopilot features:
  All features of EFIS AP II plus:
    Climb and descend on vertical speed
    Trim sensing pitch servo that annunciates need for trim
    Altitude selector

EFIS AP IV - $8900
EFIS with built-in dual axis autopilot
Autopilot features:
  All features of EFIS AP III plus:
    GPS steering
    V-NAV
    Vertical GPS steering (GPSV)

Optional Ultra bright display - $500
Warranty On TruTrak Flight Systems Products

We here at TruTrak Flight Systems know how important it is to feel as though the customer is purchasing a product that the manufacturer is going to stand behind. For this reason we have decided to once again change our warranty policy. We have decided to switch to a limited LIFETIME warranty. This means that as long as the original purchaser of a product owns the product it will be covered under the warranty against all manufacturing defects and normal wear. Abuse and misuse of a product are not covered under this warranty. Modification to a product may void the warranty, as well as carry a penalty when upgrading to another product. This limited lifetime warranty will be for all TruTrak products except the Pictorial Turn & Bank, which will continue to have a warranty of one year from the date of purchase.