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REPAIRS

FEATURES:

ALGEBRAIC ENTRY -

Allows entry of numbers and arithmetic functions in the same sequence as the problem develops.

FLOATING DECIMAL (Arithmetic Operation) — Decimal point is automatically positioned to display eight digit accuracy.

AUTO CONSTANT -

Permits repetitive addition, subtraction, multiplication and division operations without re-entering constant or function. The first number entered is constant.

RUGGED CONSTRUCTION -

High impact ABS plastic case and full solid state integrated circuitry.

OPERATING TIME -

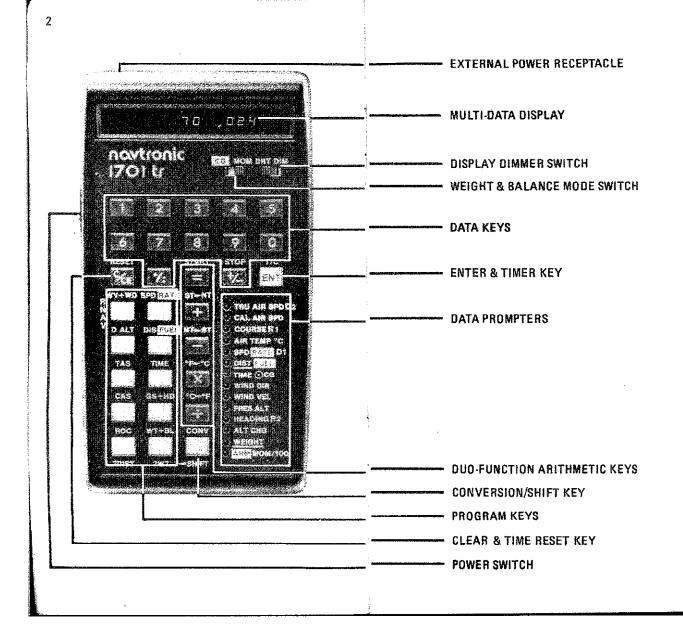
High efficiency circuits permit approximately 4 hours of continuous use.

POWER SUPPLY -

NI-CAD rechargeable industrial batteries will provide thousands of hours of service life. (See BATTERY CARE.)

AIRCRAFT POWER CORD -

Designed to automatically provide proper operating voltage to your novtronic when supplied with 12 - 28 volts D.C. (Plugs into cigarette lighter.)



4			5
	KEY FUNCTIONS		PROGRAM KEYS:
1 - 0	DATA KEYS: Press to display numbers.	WV+WD	Press to initiate Unknown Wind program.
72	Press once to display decimal point. This key is also used to display "Time" data in hours, minutes and seconds. (See Timer Operation example.)	D ALT	Press to initiate Density Altitude program.
*/_	Press to change the sign of the number shown in the display. This key is also used to display negative data when necessary for flight program processing.	TAS CAS	Press to initiate True Air Speed program.
	ARITHMETIC KEYS: Press to terminate an arithmetic calculation.		Press to initiate Calibrated Air Speed program.
	Press to add display to following number.	ROC	Press to initiate Rate Of Climb program.
	Press to subtract following number from display.	SPDEAGE	tiess to mittate dioning Shear biodigit in Life:
X	Press to multiply display by following number.	DISTUE	Consumption Rate program. Press to initiate Range program, Fuel Required
8	Press to divide display by following number.		program, Distance Traveled program or Fuel Con-
CONV	CONVERSION KEY: Display data then press conversion key immediately prior to desired arithmetic key to convert data displayed to nautical, statute, ⁰ centigrade or ⁰ faren-	TIME	sumed program. Press to initiate Time Enroute program or Endurance program.
<u> </u>	heit as indicated on the panel above arithmetic key pressed.	GS+HD	Press to initiate Estimated Ground Speed & Heading program.
	SHIFT KEY: The Shift key must be pressed first to activate a	WT+BL	Press to initiate Weight & Balance program.
SHIFT	gold legend program. When in a gold legend program and the prompters light use the gold prompter titles.	?WT	Press to initiate Unknown Weight program,
% .	CLEAR KEY: Press once to clear display. Press twice to clear	TSID?	Press to initiate Unknown Distance program.
	computer. ENTER KEY:	R N O	Press to initiate RNAV program,
ENT	Press after displaying requested data for flight program processing.	See page	27 for an explanation of the Timer Keys.
BRT DIM	DISPLAY DIMMER SWITCH: Set to desired display brightness.	CG MOM	WEIGHT & BALANCE MODE SWITCH: Set to desired position for center of gravity or moment data entry in weight & balance program.

123.45678

BATTERY CARE

Your nevtronic is powered by a rechargeable NI-CAD battery pack, which will last indefinitely when used properly. Since rechargeable NI-CAD batteries develop a "memory" of operating time between charges, we recommend that you occasionally "retrain" your batteries by completely discharging them and then bringing them back up to full charge. To expedite discharging, turn on your newtronic, display 8888888 and set the display dimmer switch to "BRT". When the display is no longer visible, turn your nextronic off and connect the A.C. charger. Your batteries will be fully charged in 6 hours. You may operate your novtronic with the A.C. charger connected. However, the recharge time will be about twice as long with the newtronic operating. WARNING! DO NOT OVERCHARGE! BATTERIES CAN BE PERMANENTLY DAMAGED BY REPEATED OVER-CHARGING! You may leave the A.C. charger connected for up to 24 hours without fear of overcharging. However, it should be disconnected from both the nextronic and the A.C. power source when not in use.

Your navtronic comes complete with an aircraft power cord designed to operate over a range of 12 to 28 volts D.C. This power cord is designed to protect your navtronic against transient power surges caused by other aircraft equipment. It is not recommended for use to recharge your batteries.

The batteries in your newtronic should not be recharged in ambient temperatures of less than 10°C (50°F) as they are vulnerable to damage when charged at low temperatures.

SPECIAL SYMBOLS

When symbols show in display window:

- indicates overflow condition restart problem
- E indicates improper data entered
- L indicates low battery.

ARITHMETIC OPERATIONS EXAMPLES FLOATING DECIMAL POINT DISPLAY: 1 2 7 3 4 5 6 7 8 X 12.345678 1 0 0 0 6 12345,678

CLEAR ENTRY:

123.45678 x 110 = 13580.245 1 2 3 7 4 5 6 7 8 X /23.45678 1 1 1 5/ce 0.

1 1 0 = 13580.245

OVERFLOW:

CHANGE SIGN: 123 x (-.45) = -55.35

11 2 3 X 7 4 5 7 = -55.35

ADDITION: 1234 + 9876 = 11110

1234+9876= 11110.

SUBTRACTION: 123.4 - 56.78 = 86.62

1 2 3 7 4 **-** 5 6 7 7 8 **-**

66.62

O			J
MULTIPLICATION: (543) x 21 = -11.493		AUTOMATIC CONSTANT: 1.79 + 38 + 1.79 = 41.58	
7.5437.21	-11.403	1.79 + 2.94 = 4.73 1.79 + 4.73 = 6.52	
			41.58
DIVISION: 23 ÷ 45.678 = .5035246		2 7 9 4 =	4.73
2 3 🖨		÷	6.52
457678=	0.5035246	3.74 - 2.96 = .78 3.74 - 1.89 = 1.85	
SQUARE:		3 7 7 4 - 2 7 9 6 =	0.78
142 = 196 2,732 = 7.4529		1 7 8 9 =	1.85
1 4 X 🗏	196.	4.63 - 2.85 = 1.78	
2 % 7 3 X =	7.4529	6.27 - 2.85 = 3.42	1 .78
		2 7 8 5 7 + 4 7 6 3	3.42
POWER OF NUMBER: 213 = 9261		6 7 2 7 =	<i>ॐ.°₹&</i>
.495 = .0282475	9261.	2.8 x 3.5 x 2.8 = 27.44 2.8 x 76 = 212.8	
2 1 X = = 7 4 9 X = = = =	9201. 0.0282475	2	27.44
	0.02024/5	. 78 =	2/2.8
RECIPROCAL:		483 ÷ .19 = 2542.1052	
x = 37 1/x = .027027		483 ÷ 3 = 161	يكسريس يترم سريس
08328	0.027027		2542.1052
		3 =	/61.
CHAIN OPERATION: $\frac{[(2 \times 3) + 8]^2}{-7} - 5 = -33$		621 ÷ 37 = 16.783783 2.9 ÷ 37 = .6783783	
2 X 3 + 8 X =		11	16.783783
	–33 .	2 7 9 =	0.0783783
present for the little make an annual and the little properties.			

TIME ADDITION:			CONVERSIONS	
2 hrs. 34 min. 51 sec.			TIME:	
+ 48 min. 27 sec. = 3 hrs. 23 min. 18 sec.			2 hrs. 8 min. 19 sec. = 2.1386111 hrs.	
2 7 7 3 4 7 5 1 +		,	2 % % 8 % 1 9 + % =	2./386///
7 7 4 8 7 2 7 =	03 23 18	,	3.47513 hrs. = 3 hrs. 28 min, 30 sec.	
		ش	3 7 4 7 5 1 3	
TIME SUBTRACTION: 12 hrs. 34 min. 56 sec 5 hrs. 26 min. 47 sec. = 7 hrs. 8 min. 9 sec.		i		03 28 30
1 2 % % 3 4 % 5 6 - 5 % % 2 6 % 4 7 =	07 08 09		DISTANCE/SPEED: 768 Nautical = 883.79857 Statute	
	07 00 09		7 6 8	768
TIME MULTIPLICATION:			CONV NT+ST	700
7.4 x 6 hrs. 34 min. = 48 hrs. 35 min. 36 sec.		•		883.79857
7 % 4 X 6 % % 3 4 =	48 35 36		174 mph = 151.20187 knots	
			CONV ST-NT	174
TIME DIVISION: 57 hrs. 3 min. 9 sec. \div 8 = 7 hrs. 7 min. 53 sec				151.20187
5777379	,			
# 8 Z Z =	07 07 53	+	TEMPERATURE: 210F =-6.11111110C	
5 hrs. 24 sec. ÷ 23 min, 18 sec. = 12.8925			20 CONV °F →°C	21
5 74 74 74 2 4 ÷		ė	CONVIFE	-6.771111
7 7 2 3 7 1 8 =			-7°C = 19.4°F	
+ 73 =	12.8925		7 72	
			CONV °C →°F	19 4
NOTE: When solving time arithmetic probler will be in the same FORMAT as the last number	ns the answer rentered.			1.00° min

BASIC AVIATION PROGRAM OPERATING INSTRUCTIONS

STEP 1.

Press the white program key that corresponds with the flight program you wish to solve. This will initiate the desired flight program and cause one of the data prompters to light.

STEP 2.

Press the necessary data keys to display the required data requested by the illuminated data prompter.

STEP 3.

Press the enter ENT key. This will enter the data displayed and cause a different data prompter to light if additional data is required to complete the program.

Repeat steps 2 and 3 until no further data is requested by a data prompter and the answer is displayed.

NOTE: When both the display and the data prompters are out at the same time, the computer is processing the problem. WAIT for a data prompter to light or your answer to display before doing anything further.

The four arithmetic functions (+,-,x), $\stackrel{\bullet}{\bullet}$ and the conversion functions may be used during any flight program while a data prompter light is on without affecting the program. The information displayed at the conclusion of these calculations may be entered by pressing the button or may be cleared by pressing the button once before proceeding with the program.

AVIATION PROGRAM EXAMPLES

WEIGHT AND BALANCE

This example shows how to:

- (A.) Load a sample aircraft using data in both "ARM" and "MOMENT" format.
- (8.) Off-load baggage (or fuel burned).
- (C.) Determine how far to move a known weight to achieve a desired C.G.
- (D.) Determine how much weight to move a known distance to achieve a desired C.G.
- (E.) Convert C.G. to MOM/100.
- (F.) Convert MOM/100 to C.G.

When in the	WT	. &	BL	program	in	the	C.G.	mode	press
SHIFT ?WT	to	init	iate	unknown	W	eight	shift	progra	am to
move C.G. to	desi	red	loca	tion.					

When in the WT & BL program		
→ SHIET ? DIST to initiate unknown	distance shift	program to
move C.G. to desired location.		

If you display wrong data you may correct your error prior to pressing the ENT key by pressing the You have already pressed the ENT key, complete the data set, and then off-load the incorrect data. If you can not remember the incorrect data entered, you must clear the program by pressing the Yes key twice. You may then restart the program either at the beginning or at any point that you know the current gross weight and balance.

What is the gross weight and	C.G. of this aircraft loaded and
ready for takeoff?	

NO.	ITEM	WT.	ARM	MOM/100
1.	Aircraft empty wt.	4472		6715.1
2.	Oil 24 qts.	45		141,4
3.	Fuel main 100 gal.	600	150	
4.	Fuel aux. 28 gal.		163	
5.	Crew	310	119	
6.	Passengers	275	178	
7.	Baggage forward		77	
8.	Baggage aft	230	245	

PRESS	SEE	PRESS	SET	SEE	
(key)	(data	(keys)	(switch)	(display)	
	aromater)				

Place mode switch in "MOM" position. WT+BL

4 4 7 2

4472

ENT **■ MOM/100**

WEIGHT

WEIGHT

671521

6715.1

ENT WEIGHT

6715 4472

@ MOM/100 ENT

2.

4 5

45

· WEIGHT

1 4 1 7:4

141.4 4517 6857

3. **WEIGHT**

ENT

· ARM

600 150 600

150

Place mode switch in "CG" position

GG MOM

ENT @ WEIGHT

5117 151.6

4.		会	WEIGHT	28×6=	Ī	168.
	ENT	0	ARM	6 3		163
i	ENT	#	WEIGHT		5285	151.9
5.	-	0	WEIGHT	3 1 0		310
ř	ENT	0	ARM	119		119
	ENT	4	WEIGHT		5595	150.1
6.		*	WEIGHT	2 7 5		275
	ENT	4	ARM	78		778
	ENT	6	WEIGHT		5870	151.4
8.			WEIGHT	230		230
	ENT	*	ARM	2 4 5		245
	ENT	: @	WEIGHT		6100	155,0

The gross weight is 6100 lbs, and the C.G. is 155.0 inches aft of datum. DO NOT CLEAR THE PROGRAM. What will the C.G. be if you remove 100 lbs. from baggage station 245?

6100 155.0 1002 -100 **₩EIGHT** 2 4 5 e ARM 245 ENT WEIGHT 6000 153.5 EMT

The gross weight now is 6000 lbs, and the C.G. is 153.5 ins. aft of datum.

? DISTANCE SHIFT

At a gross weight of 6000 lbs., and a C.G. of 153.5" you are aft of the C.G. envelope. How far forward would you move 130 lbs. of baggage from station 245 to place your C.G. at 151.5?

						1		
WT+BL			emiin.	0144440	-			
	*	WEIGHT	6	0	0	0		6000
ENT	0	ARM		5	3	7 /2	5	153.5
ENT	盤	WEIGHT					6000	153.5
-≪SHIFT								
?DIST	8	⊙¢G	1	5		1/2	3	151.5
. ENT	*	WEIGHT		0	0			130

You would have to move the baggage forward 92" from station 245 to station 153. DO NOT CLEAR PROGRAM.

? WEIGHT SHIFT

WEIGHT

ENT

SHIFT

Assume that there is no room for baggage at station 153, but you do have forward storage at station 77. How much baggage would you have to move from station 245 to station 77 to place your C.G. at 151.5"? To recall your position in program press FIT [ENT]

6000 153.5

92.307692

© © © © 0 1 5 1 7 5 151.5

ENT © DIST 2 4 5 − 7 7 5 168.

ENT © WEIGHT 71.428571

You would have to move 71 lbs. of baggage from station 245 to station 77.

CONVERT C.G. TO MOM/100

When weight & C.G. is displayed you can convert C.G. to MOM/100 by placing the mode switch in the "MOM" position and press Tell ENT ENT

ос мом Example: WT+BL WEIGHT 6000 6000 1 5 1 7 5 151.5 WEIGHT ENT 6000 151.5 ес мом Move switch WEIGHT 0 0 ENT MOM/100 0. ENT WEIGHT 6000 9090 Now remove 100 lbs. with a MOM/100 of 90. 10012 WEIGHT -100 MOM/100 907ENT - 90 WEIGHT 5900 9000

DO NOT CLEAR PROGRAM.

Continued

18		19
CONVERT MOM/100 TO C Place the mode switch in the C.C		TIME ENROUTE: What will your time enroute be from Santa Fe to Winslow? Distance 231 n.m.;
O ENT ENT		Estimated Ground Speed 123 knots.
Example:		a pist 221
# WEIGHT	5900 9000	
Move switch	CC MOM	ENT * SPD 1 2 3 123
■ WEIGHT		ENT 01 52 40
		Your time enroute will be 1 hr. 52 min. 40 sec.
ENT S ARM	0,	
ENT . WEIGHT	5900 152.5	FUEL REQUIREMENTS:
		How much fuel will you need? Fuel Consumption Rate 15.8 g.p.h.;
ESTIMATED GROUND SPI		Time enroute 1 hr. 52 min. 40 sec.
What will be your ground speed Santa Fe, N.M. to Winslow, Ariz		FUEL 5 2/8 15.8
True Air Speed 140 knots; Avera	age Magnetic Course 247°;	
Wind Direction 320°; Wind Velo Variation 13° East.	city 30 knots;	ENT * TIME 1 2 2 5 2
GS+HD		2.40 1 52 40
	0 = 11 8 = 307.	· ENT 29.7
	200	You will need a minimum of 29.7 gal, of fuel.
ENT ® COURSE 2 4	7 247	
ENT . WIND VEL 3 0	30	
ENT S TRU AIR SPD 1 4	[6]	How much endurance will you have? Useable Fuel 48 gal.:
ENI S INO AIR SPUBLE Z	U /*/	Fuel Flow Rate 15.8 g.p.h.
ENT	123 258	TIME FUEL 4.8
Your ground speed will be 123 i	knots and your heading 258°.	
		ENT * FATE 1 5 7. 8 15.8
		ENT 03 02 16
		You will have 3 hr. 2 min. 16 sec, of endurance.

.

The density altitude is 9458 ft. RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 n.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC DIST BOS BOSO 650 650 650 650 650 650 650 65	20		21
# DIST 9 PINE 3 7 7 2 16 3 02 16 17 18 PINE 3 7 7 2 18 PINE 3 7 3.6	How much range will you have? Ground Speed 123 knots; Endurance 3 hr. 2 min. 16 sec.	•	TO FEET PER MINUTE: What must your rate of climb be to clear an obstacle? Climb Gradient 300 ft. per n.m.; Ground Speed 97 knots.
TIME 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	* SPD 11 2 3	123 .	and the same of th
You will have a range of 373.6 n.m. DENSITY ALTITUDE: What is the density altitude at Sante Fe? Pressure Altitude 6344 ft.; Temperature 86°F. O ALT PRESSURE ALT O ALT A PRES ALT CONV PENC ENT A AIR TEMP C B C X 30. ENT PASS The density altitude is 9458 ft. RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 a.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC O DIST O	ENT D TIME 3 7 7	**	
You will have a range of 373.6 n.m. DENSITY ALTITUDE: What is the density altitude at Sante Fe? Pressure Altitude 6344 ft.; Temperature 86°F. O ALT O	7.116	3 02 16	
You will have a range of 3/3.8 n.m. DENSITY ALTITUDE: What is the density altitude at Sante Fe? Pressure Altitude 6344 ft.; Temperature 86°F. O ALT PRES ALT O ALT PRES ALT O ALT ACONV *FF**C ENT AIR TEMP**C 8 6		373.6	405.0
What is the density altitude at Sante Fe? Pressure Altitude 6344 ft.; Temperature 86°F. D ALT PRES ALT PRES ALT AIR TEMP C 3 6 X 30. ENT PATE OF CLIMB: How long will it take to climb to altitude? Cruise Altitude 12500 ft.; Airport Elevation 6344 ft.; Rate of Climb 650 ft. per min. 11ME Cruise Altitude 12500 ft.; Airport Elevation 6344 ft.; Rate of Climb 650 ft. per min. 11ME PRES ALT OBJECT ON PRES ALT OBJECT ON PRES ALT OBJECT ON OF PRES ALT OBJECT OBJECT	•		C 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
ENT AIR TEMP C 8 6 2 30. ENT 9458 The density altitude is 9458 ft. RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 n.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC DIST DIST DIST FINT SPD SPD TO ALT CHG SPD SPD SPD SPD SPD SPD SPD SP	What is the density altitude at Sante Pressure Altitude 6344 ft.; Temperature 86°F. D ALT PRES ALT	4 6344	TIME TO CLIMB: How long will it take to climb to altitude? Cruise Altitude 12500 ft.; Airport Elevation 6344 ft.; Rate of Climb 650 ft. per min.
The density altitude is 9458 ft. RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 n.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC BOS BOS BOS BOS BOS BOS BOS B			
RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 n.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC DIST DIST FINT POP POP POP POP POP POP POP P	ENT	9458	6344 = 6156.
RATE OF CLIMB: What must your rate of climb be to cross a Fix 6.7 n.m. from your take off area at an altitude of 8800 ft. MSL? Ground speed 97 knots; Airport elevation 6344 ft. ROC BOS BOS BOS BOS BOS BOS BOS B	The density altitude is 9458 ft.		ENT * HATE 6 5 0 650
Ground speed 97 knots; Airport elevation 6344 ft. ROC BOLIND SPEED: What is your ground speed between checkpoints? Distance 17 n.m.; ENT B ALT CHG 8 8 0 0 5 ENT ALT CHG 8 8 0 0 5 ENT TIME 7 7 9 7 2 6 0 09 26	What must your rate of climb be to c		© 09 28 ≫ (
Distance 17 n.m.; ENT • SPD 9 7 97 Elapsed Time 9 min. 26 sec. SPD • DIST 7 7 17 6 3 4 4 = 2456. ENT • TIME 7 7 9 7 24 2 6 0 09 26	Ground speed 97 knots; Airport elevation 6344 ft.		(Note: Disregard last 2 digits because rate is ft. per min.) GROUND SPEED:
ENT * SPD 97 Elapsed Time 9 min. 26 sec. ENT * ALT CHG 8 8 0 0 =	* DIST 6 7. 7	6.7	
ENT * ALT CHG	ENT SPD 97	97	Elapsed Time 9 min. 26 sec.
6341 = 2456. ENT * TIME ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ	ENT # ALT CHG 8 8 0	0 =	
592.6	634	ZIB 2456.	
Lari	ENT		
Your rate of climb must be 592.6 ft. per min. Your ground speed is 188.1 knots.	Your rate of climb must be 592.6 ft.	per min.	

TRUE AIR SPEED: What is your true air speed? Pressure Altitude 12340 ft.; True Air Temperature — 4°C;		UNKNOWN WIND: What is the velocity and direction of the wind? Magnetic Heading 258°; Magnetic Course 245°; Ground Speed 108 knots; True Air Speed 140 knots.
Calibrated Air Speed 121 knots.	•	WY+WD 2 5 8 258
TAS • PRES ALT 1 2 3 4 0	12340	ENT • COURSE 2 4 5 245
CAST TO ADD TENS TO	e. H	ENT * SPD 1 0 8 108
ENT & AIR TEMP C 4 7	ranser III.	ENT & TRU AIR SPD 1 4 0 140
ENT @ CAL AIR SPD 1 2	121	ENT 42 293
	.aa. sa	The wind velocity is 42 knots from 2939 magnetic.
Your true air speed is 148 knots.	148	FUEL CONSUMPTION RATE: What is your fuel consumption rate? Fuel Burned 20 gal.; Time 1 br. 10 min.
CALIDDATED AID COULD		GATE 2 0 20
CALIBRATED AIR SPEED: What calibrated air speed should you fly to maintai	n a	ENT • TIME 1 7. 7.10 1 10
true air speed of 140 knots?	13 E C	емт 17.1
Pressure Altitude 12340 ft.; True Air Temperature — 4°C.		Your fuel consumption rate is 17.1 gal, per hr.
CAS PRES ALT 12340	12340	DISTANCE TRAVELED: How far have you traveled? Ground Speed 108 knots;
ENT . AIR TEMP C ZI Z	A	Elapsed Time 1 hr. 10 min.
ENT & TRU AIR SPD 1 4 0	140	DIS
ENT	115	ENT 126.0
You should fly at 115 knots calibrated air speed.		You have traveled 126.0 n.m.

ROC

DISTANCE TO DESCEND:

How far from your destination should you start your descent?

Cruise Altitude 12500 ft.; Pattern Altitude 5938 ft.;

Rate of Descent 300 ft. per min.; Ground Speed 145 knots.

	DIST	3 0	O		300
ENT 🏶	SPD	1 4	6		145
ENT 🏚	ALT CHG	1 2	5 0	0 -	
		5 9	38		6562.
ENT					52.9

You should start your descent 52.9 $_{\Pi_{\nu}\Pi_{\lambda}}$ from your destination.

FUEL CONSUMED:

How much fuel have you burned? Fuel Consumption Rate 17.1 gal. per hr.; Time Enroute 2 hr. 8 min, 20 sec.

EUE								
•	BATE		7	12			1	7.1
ENT *	TIME	2 %	7.	8	7: 2 0	2	08	20
ENT							3	6.6

You will have consumed 36.6 gal. of fuel.

RNAV

(1701r and 1701tr only)

This program will tell you the distance and course between two waypoints addressed by the same VOR. This program uses four prompters with gold titles.

R1: Waypoint #1 Radial from VOR D1: Waypoint #1 Distance from VOR R2: Waypoint #2 Radial from VOR D2: Waypoint #2 Distance from VOR

If you departed from Santa Fe (Waypoint #1) which is on the 030° Radial and 49 n.m. from ABQ, and your present position (Waypoint #2) is on the 275° Radial and 56 n.m. from ABQ, how far and what course have you flown?

-→SHIFT				
R N A V	R2	2 7 5		275
ENT *	R1	3 0		30
ENT 🏶	D1	4 9		49
ENT *	D2	56		56
ENT			89	245

You have flown 89 n.m. on a course of 245°.

If your present position (Waypoint #1) is on the 084° Radial and 54 n.m. from GUP, and your next Waypoint (#2) is on the 190° Radial and 14 n.m. from GUP, how far and what course do you fly to your next waypoint?

SHIFT		
R N A V ⊕ R2	1 9 0	190
ENT # R1	8 4	84
ENT @ D1	5 4	54
ENT @ D2	1 4	. 14
ENT		59 251

You must fly $59~\mathrm{n.m.}$ on a course of $253^{\,0}$ to your next way-point.

By using the "RNAV" program and checking your ground speed you can then find "Unknown Wind". Once you know the wind velocity and direction, you can find a new heading to get on course by using the "RNAV" program and the "Ground Speed and Heading" program.

TIMER OPERATING INSTRUCTIONS

(1701t and 1701tr only)

The timer can be started, stopped, or reset ONLY while in the timer mode.

TIMER KEYS CONV T/C Press to access the timer mode or to return to the computer mode. START Press to start the timer. STOP Press to stop the timer. RESET Press to reset the timer and to silence the alarm. (Will also silence the alarm while in the computer mode.)

To operate the timer as a count up timer display $90\ 90\ 90$ and press \blacksquare

To operate the timer as a count down alarm, display the amount of time you want to elapse before the alarm sounds and press START

When the timer reaches 00 00 00 the alarm will sound, the display will begin to flash, and the timer will start counting up.

To silence the alarm press

You may stop and restart the timer as often as you wish without resetting and it will resume counting. You may also use all computer functions while the timer is counting. Press CONV T/C to access the computer mode. The timer will ENT continue counting. If it is counting down the alarm will sound when the timer reaches 00 00 00 even though the time is not being displayed. To silence the alarm press

You may return to the timer mode at any time while operating CONV T/C a flight program. To do this press The computer ENT will retain the data entered to that point, and the data prompter will remain on until you return to the computer mode. If the time display is flashing when you return to the timer mode it is a reminder that the timer has counted down to 00 00 00 and is now counting up. To stop the flashing press RESET . The timer will continue counting until

%



pressed.

IF YOU PLAN TO USE THE TIMER FOR MORE THAN 2 HOURS CONTINUOUSLY YOU SHOULD CONNECT THE NAVTRONIC AIRCRAFT POWER CORD SUPPLIED WITH YOUR COMPUTER.

LIMITED ONE-YEAR WARRANTY

SPECIALIZED ELECTRONICS CORPORATION (SEC), 9629 IRVING PARK ROAD, SCHILLER PARK, IL 60176, warrants the nextronic FLIGHT COMPUTER for one full year from the date of purchase, against any defect in materials or workmanship not due to owner misuse or neglect or improper handling or shipment by the owner.

Should any such defect occur within the warranty period, SEC will repair or replace the defective FLIGHT COMPUTER, and return it without further cost to you, except for the cost of return postage, provided that the purchaser return the FLIGHT COMPUTER, COMPLETE WITH ALL ACCESSORIES, to SEC, postage prepaid.

THIS WARRANTY SHALL BE THE SOLE EXPRESS WARRANTY MADE BY SPECIALIZED ELECTRONICS CORPORATION WITH RESPECT TO THE newtronic FLIGHT COMPUTER.

ALL WARRANTIES IMPLIED BY LAW WITH RESPECT TO THE NOVITORIC FLIGHT COMPUTER, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY, SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY.

THE REPAIR OR REPLACEMENT REMEDY DESCRIBED HERE-IN SHALL BE THE EXCLUSIVE REMEDY FOR BREACH OF WARRANTY WITH RESPECT TO THE newtronic FLIGHT COMPUTER. SPECIALIZED ELECTRONICS CORPORATION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE newtronic FLIGHT COMPUTER.

Note: Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Should you require service on your novtronic pack your computer, aircraft power cord, A.C. charger and carrying case in a secure manner to prevent damage to parts. Return packed unit to:

SPECIALIZED ELECTRONICS CORPORATION 9629 IRVING PARK ROAD SCHILLER PARK, IL 60176

DO NOT RETURN TO YOUR DEALER.