

## 。 <br> ESCC 250

Model C and D


1. FOLDING LEG
2. ON-OFF SWITCH
3. METER
4. ZERO ADJUST
5. MARKET TREND SWITCH
6. DOW-JONES DIAL
7. STOCK PRICE DIAL.
8. STOCK PRICE SWITCH
9. C RANGE SWITCH
10. INPUT A DIAL.
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## INTRODUCTION

## Analog Computers

The ISEC 250 is a solid state electronic analog computer. In general, an analog computer is designed to study mathematical models of problems with changing variables. One such problem is stock investment analysis. The ISEC 250 is designed to correlate current investment information resulting in meaningful stock evaluation. To understand how the computer does this, a brief description of the computer's operation is given below.

The ISEC 250, like other analog computers, is designed with the following operations in mind.

1. An analog computer will accurately obey the mathematical instructions it is given.
2. Input quantities must be readily available for programming ease.
3. The results should be in meaningful form.
4. The system parameters can be adjusted to judge the effect of changing vaxiables.
5. The computation is carried out on all parts of the equation simultaneously as opposed to the digital process of successive steps.
6. The computation requires only a few milliseconds to complete.

USING THE COMPUTER

## Description of Unit

The ISEC 250 is a scientifically engineered and precision manufactured instrument. A few minutes taken to familiarize yourself with the function of each control before attempting to operate the unit will prove most beneficial. Referring to the diagram on inside front cover each control or item is identified by a reference designation number.

1. Folding Leg: The instrument is equipped with a folding leg bar which enables the unit to be tilted for a more desirable viewing and operating position.
2. ON-OFF Switch: The slide type switch is located on the right side of the panel and is labeled "POWER".
3. Meter: The result of each computation is read out on the meter which is calibrated between -30 and +30 . The number which the readout meter indicates is called the Stock Potential Index Number (SPIN).
4. Zero Adjust: The zero adjust knob is recessed directly behind the folding leg on the underside of the cabinet. Occasionally, it may be necessary to re-zero the meter. This adjustment is made by rotating the knob.
5. Market Trend Switch: A two-position lever switch labeled UP and DOWN.
6. Dow Jones Dial: This control, which is calibrated 0 to 2000 programs the computex with the current industrial average.
7. Stock Price Dial: This control, calibrated 0 to 100 , programs the computex with the current price of the stock. This control is used in conjunction with the Stock Price Switch.
8. Stock Price Switch: A two-position lever switch labeled 100 and 1000 used in conjunction with the Stock Price Dial.
9. C Range Switch: This two-position lever switch is operated in conjunction with the "C" Imput dial in precisely the same manner that the stock price dial and switch are operated.
10. Input Dial A
11. Input Dial B
12. Input Dial C
$\left\{\begin{array}{l}\text { These controls program the } \\ \text { computer with the } A, B, \text { and } \\ \text { C inputs obtained from the } \\ \text { Weekly Index Sheets. }\end{array}\right.$
13. Press to Read: This control activates the computer.
14. Press to Reset: This illuminated button lights when (1) the unit has been improperly programmed; (2) sudden line voltage changes occur; or (3) unusually high or low SPIN's endanger computer circuitry.
15. Market Indicators: These lights indicate market action.
16. Index Marks: These are the dial set points.

## Set Up Instructions

Please unpack your computer carefully. Accidental abuse can shorten its useful life and, more importantly, can cause incorrect readings which could result in costly buying or selling errors.

Before each use you will go through a series of 8 steps to obtain your first reading. Each stock evaluated after the first one will require only 6 steps and should take less than a minute.

1. Plug the unit into a 120 volt A.C. 60 cycle outlet.
2. The front leg may be folded down to tilt the unit to the best angle for easy viewing (\#l in illustration).
3. Turn the Power Switch on (\#2 in illustration).
4. Make sure the Meter light and Press to Read lights are on (\#3 in illustration). Should the Press to Reset light be lit push it in until the light goes out and the Press to Read light comes back on. (See "In Event of Difficulty", page 38.)
5. Meter should read 0. If not; look under computer. There is a hole in the case with a knob visible. Turn the knob until the meter reads 0 . Very little adjustment should be necessary (\#4 in illustration).
6. To check the computer circuits, set up the following tests.


## Format Explanation

The format of the Weekly Input Data Sheet calls for some explanation. Typical entry appears as follows:
(Columns)

| 1 | 2 |
| :---: | :---: |
| INPUT A $=93$ |  |


|  | FUNDAMENTAL INPUTS |  |  | TECHNICAL INPUTS |  | $\begin{aligned} & \text { LATEST } \\ & 12 \text { MO } \\ & \text { EARNING } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DESCRIPTION | LP | B | C | B1 | VLTY |  |  |
| BAXTER LABORATORIES | 45 | 135 | 112 | +03+ | 03 | + | - 79 |
| BAYUK CIGARS INC | 16 | 134 | 346 | +03+ | 07 | + | - 68 |
| BEARINGS INC | 41. | 195 | 243 | +03+ | 16 | $+$ | 3.20 |
| BEATRICE FOODS CO | 80 | 129 | 73 | +02+ | 06 | + | $3 \cdot 68$ |
| BECKMAN INSTRUMENTS | 49 | 117 | 108 | +03+ | 04 | + | 1.23 |
| BECTON DICKINSN \& CO | 68 | 135 | 87 | $+06+$ | 06 |  | 1.26 |
| BEECH AIRCRAFT CORP | 44 | 132 | 126 | $-01+$ | 05 |  | 1.81 |
| BELCO PETROLEUM CORP | 50 | 134 | 90 | -0) $4+$ | 06 |  | 1.54 |
| BELDING HEMINGWAY CO | 41 | 147 | 127 | +06+ | 08 | + | 2.04 E |
| BELL \& HOWELL CO | 72 | 133 | 73 | +03+ | 05 | + | 2.25 |
| BELL INTERCONTINENTL | 14 | 137 | 268 | $-01+$ | 05 | + | . 45 |
| BEMIS CO INC | 69 | 142 | 84 | +018 | 06 |  | 4.06 |
| BENDIX CORP | 50 | 161 | 184 | $+04 \mathrm{~B}$ | 14 |  | $3 \cdot 10$ |
| BENEFICIAL FINANCE | 55 | 155 | 151 | +05+ | 13 | $+$ | 3.43 |
| BENGUET CONSOLIDATED | 13 | 97 | 178 | +01. | 04 | + | . 17 |
| BENGUET CONSOL FGN | 11 | 134 | 500 | -015 | 08 | + | -17 |
| BERKEY PHOTO INC | 43 | 134 | 109 | -03+ | 07 |  | 1.29 |
| BERMEC CORP | 68 | 235 | 63 | -01+ | 07 |  | 1.62 |
| BETHLEHEM STEEL CORP | 31 | 162 | 242 | -03- | 06 |  | 3.43 E |
| BIG THREE IND GAS EQ | 33 | 134 | 161 | -01- | 03 |  | 1.39 |
| BLACK \& DECKER MFG | 62 | 140 | 91 | +01- | 05 |  | 2.09 |
| BLISS LAUGHLIN IND | 34 | 175 | 290 | +05+ | 16 |  | 2.26 |

Column \#1. This entry will be $a>$, $a-$, or blank. The signs indicate the approximate area of the computer scale that this company should read. $A>$ sign indicates a possible buying situation or in any case a situation close to the low risk area. A "-" indicates a possible sell situation or in any case a situation close to the high risk area. No sign present indicates a probable hold situation. Each symbol is correct as of the printing date of the Index only.

Column \#2. This is the company name. All common stocks selling on the NYSE and AMEX for more than $\$ 4.00$ with regularly reported earnings are listed.

Column \#3. This column, labeled "LP", indicates the last price of the stock, as of the Data Processing Date, rounded off to the nearest dollar. It is correct as of the date when we begin Data Processing.

Columns 4 and 5 are fundamentally derived figures.
Column \#4. This column is labeled "Input B" and is the number entered on the B Dial when checking any given stock. It is calculated from fundamental information and should be used for earnings estimates, etc., as described in this manual.

Column \#5. This column is "Input $C$ " and is used to set the C Dial.
 Columns 6, 7 and 8 are technically derived figures. theta phone thous

Column \#6. This column is labeled "Input B-1" and is a price momentum number. These numbers will change from week to week. They are calculated from a moving average based on the percentage price change of each stock.

Column \#7. "B" is printed when the Input B-1 goes from below zero last week to zero or above this week. "S" is printed when the Input B-1 goes from zero or above last week to below zero this week. A " + ", is printed when this week's B-1 is higher than last week. A "-" is printed when B-1 is lower than last week.

Column \#8. This column is the Volatility Rating number to be used in price prediction as discussed further on in this manual.

Column \#9. A " + " number indicates reported earnings are positive and not deficits. A "-" number indicates a deficit.

Column \#10. These are the latest twelve month earnings per share as reported to us.

Column \#11. An "E" is printed whenever new earnings are incorporated. " $D$ " is printed if the changes being incorporated are stock dividends or splits.

## Using the Computer

1. Set Dial "A" with the number following "Input A" at the top of your latest Input Data Sheet.
2. Set the Dow Jones Dial to the value of the current Dow Jones Industrial Average which you will find listed in the Wall Street Journal, New York Times, or other daily paper.
3. Determine the market trend and set the market trend switch. For practice set the switch in the "UP" position unless otherwise specified. (See ISETEK Market Forecast Chart Section).

You have now completed the general steps. These first three steps need not be repeated when evaluating additional stocks.
4. Pick a stock you wish to evaluate, set Dial "B" to the number shown on the ISEC Index for the specific stock.
5. Set the "C Range" switch in the 1000 position if " $C$ " on the Data Sheet is between 101 and 1000. Set the "C Range" switch in the 100 position if " C " is between 0 and 100 . Now set Dial " $C$ " to the number shown on the ISEC Index for the stock.

(Picture 1)

(Picture 2)

Example 1. In Picture \#l, the "C" setting is equal to 45.
Example 2. In Picture \#2, the "C" setting is equal to 135.
6. Set the Stock Price Switch to 100 if the price of the stock is between 0 and 100 dollars/share. Set the Stock Price

Switch to 1000 if the price of the stock is between 101 and 1000 dollars/share.
7. The Stock Price Dial is set to the current price of the stock. The Stock Price Switch sets the correct decimal point. For example, prices of 80 and 800 are both set at 80 on the dial. In order to convert from one to the other, the stock price switch is moved from the 100 range (a price of 80 ), to the 1000 range, giving a price of 800 . Othex typical settings are illustrated below.


## Stock Price

| Example 1 | $45-1 / 2$ |
| :--- | :---: |
|  |  |
| Example 2 | 125 |
|  |  |
| Example 3 | 50 |
| Example 4 | 510 |
| Example 5 | $5-1 / 2$ |
| Example 6 | 240 |

Stock Price
Dial Setting
between 45-46
(See Picture 3)
between 12-13 1000
(See Picture 4)
50
between 5 \& 6
24

Stock Price
Switch Setting
100

100
1000
100
1000
8. Push the Press to Read button. Read the degree of risk from the meter and make a note of the answer.

To check another stock or stocks, repeat the steps starting with \#4. IMPORTANT: The most common mistake is incorrect setting of the Stock Price Switch (8), or the "C" Range Switch (9).
9. When the switches are set in the wrong position, the meter pointer may swing off the scale and/or the "Press to Reset" button light up. The settings should be rechecked and the "Reset" button pushed. If the settings are correct the computer will repeat its action. This means that the particular stock is a "needle bender". It is either such a good buy or sell candidate that it is off the scale. Action to be taken will be discussed later.

## Practice Programs

The examples below indicate the basic method of programming and provide practice in using the computer. Note that the Market Trend Switch, Dial "A", and the dial for the Dow Jones remain set from reading to reading. This simplifies the programming of the computer.

Example 1 General Motors is selling at 95; the Market Trend is up and the Dow Jones Industrial Average is 900.

Step 1 - Look up the Input numbers on the Data Input Sheet (ISEC Index). Input "A" is found at the top of Page 1 and is common to all stocks. It does not need to be reset until you receive the next issue of the Index. The dial should be checked before each use to make sure it has not been accidentally moved, however. Inputs "B" and "C" are specific for General Motors and are found in Columns 4 and 5 of the ISEC Index (see "Format Explantion"). In this case, let us assume the Inputs are " $A$ " $=80$, " B " = 128 and $" \mathrm{C}$ " = 45 .

Step 2 - Set Dial "A" at 80.

Step 3 - Set Dia1 "B" at 128.

Step 4 - Set Dial "C" át 45.

Step 5-Set the switch marked "C Range" to the 100 position, because " $C$ " is between 0 and 100.

Step 6 - Set the Stock Price dial to 95.
Step 7 - Set the Dow Jones dial to 900 .
Step 8 - Set the Market Trend Switch in the "UP" position.

Step 9 - Set the Stock Price Switch to the 100 range.
Step 10 - Check all the settings and then press the "Push to Read" button. The "Buy" light should go on and the pointer should read about $+12-1 / 2$ indicating a low risk purchase.

Example 2 Admiral Corp. is selling at 130; the market trend is up and the Dow Jones is 900 . This situation is programmed as follows:

```
Step 1 - Look up the Inputs in the ISEC Index. In this case
        assume they are "A" = 80, " B" = 94 and "C" = 25.
Step 2 - Set "A" at 80.
Step 3 - Set "B" at 94.
Step 4 - Set "C" at 25.
Step 5 - Check the Dow Jones dial to make sure it is still
        properly set.
Step 6 - Set the Stock Price Dial to 13 (the machine reads
        this as }130\mathrm{ when the Stock Price Range Switch is set
        in the }1000\mathrm{ position.)
Step 7 - Set the Stock Price Switch to the }1000\mathrm{ position.
Step 8 - Make sure the Market Trend Switch is in the "UP"
        position.
Step 9 - Set the "C" Range Switch to the 100 position.
Step 10 - Check all settings and push the "Press to Read" button
        in. The "Buy" light should go on and the pointer should
        move into the red high risk area and read about -10.
        This indicates a favorable market climate but an un-
        favorable stock.
Example 3 Try Bell Intercontinental using the figures from the
        format explanation. Set "A" at 93, "B" at 137, "C"
        at 268, the Dow Jones Dial at 967 and the stock price
        at 14. Check Stock Price and "C Range" switches for
        correct settings (Stock Price switch should be at 100
        position. "C Range" switch at l000 position.)
        The answer should be about +12.
    Examples 4 and 5 Try Baxtex Laboratories and Bayuk Cigar. The
        answers are about 0 for Baxter and -6 for Bayuk. If
        you did not get these answers check your Input "C"'
        setting. The "C" dial should be set at l12 or slightly
        over }11\mathrm{ with "C" Range switch in the 1000 position for
        Baxter and the "C" dial should be set at 346 or ha1f-
        way between 34 and 35 with the "C" Range switch in the
        1000 position for Bayuk. If you are still having trouble
        try the other examples. The correct answers are near
        the end of the manual.
```

The Market
The market (usually represented by the Dow Jones Industrial Average, Standard \& Poor's 500 or the Exchange Averages) is the context within which every investor operates.

A market that is moving strongly downward will tend to carry most stocks along with it. Some will move down faster and some more slowly. Some stocks will even move up, but they are rare. In a strong downtrend less than $5 \%$ of all stocks will manage to post substantial gains.

Given this context, it is important for every investor to try to time his moves in and out of stocks so that they tend to be "in tune" with the market movement. Buying a security that is undervalued when the market is oversold (popular averages are low) can help add many points to an investor's profit because the market will tend to carry the stock up to a fair price more quickly and very possibly into the area where it is overpriced for its current earnings.

To illustrate this, let us say the market has moved from 900 to 800 on the Dow Jones Industrial Average. It has now steadied and even gone back up to 810. Business and international news is stable and you have some cash to invest. This is the perfect time to invest in a stock that has been carried by the market below its true value.

DO NOT ASK YOUR INVESTOR FRIENDS IF NOW IS THE TIME TO INVEST:
They will all tell you it isn't. The reason is simple. The have just lost a lot of money. If a man had $\$ 9000$ in the market when it was at 900 he now has (assuming his investments were average) only $\$ 8100$. He is frustrated and unhappy. There are millions of people just like him -- people who wouldn't put a nickel in "this rotten market" and they all wish they had gotten out at the top. Of course, at the top everything was rosy and you couldn't have gotten them to sell out for anything. But here we are at 810.

It is at this depressing time that the people who know value will begin to buy stocks. By and large, these are the professionals. These men are good. They spend their entire working life studying the market and they will buy low and sell high more consistently than an amateur. They are your competition. Either you are going to lose money to them or they are going to lose money to you.
REMEMBER: The day that the market tops out with a big gain and the papers talk about "Buying", there was for every "buy" a "sale". Every share purchased was sold by someone.

If you can control your emotions, very ordinary stocks will turn in tidy profits, simply because they follow the market up and down. In the ISEC System we will have you buying stocks just after the valleys (lows) and selling tham just after the peaks (highs).

## Selecting Stocks

It is one thing to judge the market and quite another to select, hold and sell a few stocks. Let's consider some of the factors that affect stocks aside from the general market which we have already discussed.

Basic to the evaluation of every stock is its earnings. The ISEC System carefully computes a firm's earnings and the rate of growth that the company has shown. It is the cornerstone of the System that an increasing rate of earnings growth will be reflected in higher stock prices. Conversely, lower earnings or a lower rate of earnings growth will be reflected by a lower price/earnings ratio for the stock and lower stock prices.

Perhaps the single most important factor in determing the price of a stock at any given moment is emotion. Most amateurs buy a stock when they are told "we expect it to double." Another line you hear is that "a stock is going to 100 in six months." Many stocks are purchased because "the company has a great new product." A major manufacturex we know introduces between ten and fifteen "great new products" every yeax into test markets. Only one or two eventually sees the light of day as a profit contributor. The foolishness of buying stocks based on unsupported statements should be obvious. What is not so obvious is that the people who buy on this kind of evidence will make a stock rise above its true value range and when these people panic they can depress the price of a stock below its true value. You can make money by recognizing these stock price distortion. The ISEC System will not let you purchase a security unless the corporate earnings picture is very bright and shows consistent growth over. an extended period. But this is not enough. The System will also insist that you act on recent earnings reports, not data that is older and which may be already discounted by the market.

Even this ị not enough, While a firm may have sound fundamentals, emotional factors (such as pending law suits or government contracts awards) may depress the stock or raise it, above rational levels for extended periods. So ISEC will not allow purchase or sale until technical factors also indicate that a move is about to get underway.


Lastly, we consider volatility. A stock may be undervalued at 50 and overpriced at 53. On such a trade most of your profit is eaten up by commissions. Using the ISEC computer you can predict (with better than $75 \%$ accuracy) the price range of any stock for the next 90 days. The idea is to help you pick stocks which will have the biggest price swings.

Remember: Over $50 \%$ of all major stock moves begin to occur after the release of good or bad earnings news about a company. There are two inferences you can draw from this:

1. ISEC does not catch every stock. That is correct. Many stocks have moved out of the buying range by the time we have hard news about the firm (as opposed to rumors). Since we don't invest in more than a few stocks at a time and since we have never had fewer than 17 potentially undervalued situations on the NYSE (the lowest number ever in one week) that still leaves several situations a week to look at. Typically, we will have about 200 for you to scan. So just ignore the ones that get away. There is plenty of money to be made in the stocks that people are guessing incorrectly about.
2. The second inference is that if about $50 \%$ of stocks start to move before earnings announcements because someone foresaw what was going to happen, then either they guessed incorrectly about the others or they weren't even looking at them. As one professional invester once confessed to us, "I sometimes get behind on my homework."

## SUMMARY

The ISEC System correlates the market level with fundamental data on each of over 2100 stocks, then technical factors are used for timing, along with volatility measures in the final selection of a purchase or sale.

The System also allows you to compare stocks in different industries and even update or insert earnings estimates.

The ISEC System is a little different because it doesn't give you warm words about the soundness of management (that's reflected in their earnings) or the prospects for the industry. But if you can relax, try it with a few stocks and see what it can do, we are confident you will find the ISEC System both rewarding and fun to use.

## PRELIMINARY STOCK SCREENING

The ISEC 250 can be used to evaluate any of the 2100 or more stocks 1isted in the ISEC Index. However, in the past, the group of stocks pre-keyed by ISEC have done substantially better than the rest of the market. Do not go through the entire list. Each stock is already keyed for you with one of three symbols which will accurately reflect its status -- as of the time of printing the Index. Low Risk Stocks: " $>$ " indicates a potential buy as of printing date of the Index. Hold Stocks: these stocks have no symbol preceding the name. High Risk Stocks: "-" indicates a stock that is a high risk.

We have also provided an "E" or "D" which follows the earnings figures. The "E" or "D" indicates that the data is based upon new information. It is important to note the number of weeks since the last "E" or "D" so that you will not purchase a security which is about to reflect new earnings.

To find likely investment candidates, we recommend that the list be scanned for those stocks which are marked with a " $>$ " and a favorable Input $B-1$ or an "E". While it is not particularly important to have an "E" in the week a security is purchased, it is important that the "E" has occurred on that stock within the past few weeks.

Once you have a list of stocks which are likely candidates, then determine the strategy best suited to your market philosophy. These follow "Definitions". Now check each of the screened stocks on the computer, using the current prices and market levels.

After you have a list of securities which appear to be good selections you should then investigate each of these stocks using the techniques and strategy selected and then make sure that the outlook for the firm(s) you intend to buy into are indeed as bright as the computer indicates. THEN BUY THE SECURITIES:

## DEFINITIONS

MARKET TOP - A market TOP ocours anytime the ISETEK Forecast Chart reads over $60 \%$. A market sell signal is given if the ISETEK Forecast Chart goes from above $60 \%$ to below $60 \%$.

FLOATING POINT STOP LOSS - A price projected with a stock's own volatility which gives a logical point to sell. A price range can be projected with the ISEC computer. If a stock can reach the lower end of its projected price range it is probably weak enough to consider selling. All prices are projected from the highest price that stock reaches after purchase. All projections are done with the current volatility figures.

MARKET BOTTOM - A Market Bottom occurs anytime the ISETEK Forecast Chart reads under $30 \%$. A market buy signal is given when the ISETEK Forecast Chart goes from below $30 \%$ to above $30 \%$.

SPIN - Stock Potential Index Number. This is the answer that the computer giyes. It is the number the readout meter indicates and shows the relative fundamental position of each stock.

VOLATILITY - ISEC calculates a volatility for each stock based on a three-month price movement. The volatility numbers in the ISEC Index are computer-generated numbers indicating number of meter marks to be used in price projection.

PRICE OBJECTIVE - This is the price projected by the computer as being the most probable price to be reached in the succeeding three months.

INPUT $\mathrm{B}-1$ - This is a computer - generated number which describes the length and strength of the current price movement of each stock.
-5 RULE - This rule states that a stock should be sold whenever the Input B-l reaches -5 while the ISETEK Forecast Chart is at a Market Top or within two weeks after a Market Sell signal. This rule was formulated to prevent holding stocks through a severe decline.

## OPERATING RULES

The basic ISEC System consists of four parts:
A. Four Operating Strategies.
B. The ISETEK Forecast Chart to detexmine the overall market climate (favorable or unfavorable).
C. The fundamental rating (SPIN) to determine which stocks to consider.
D. The technical rating (Input $B-1$ ) to determine when to take action.
A. The overall System can be applied to a number of different operating strategies. The one used will depend on your tax position and emotional makeup.

The various strategies are summarized below:

1. Buy - Hold - Buy " $>$ " stocks when the ISETEK Forecast Chart gives a buy signal. Hold for long periods of time until company outlook significantly changes.
2. Long-Term Gains - Buy " $>$ " stocks when the ISETEK Forecast Chart gives a buy signal and the Input B-1 is higher than the prior week. Sell when stock becomes a high risk and Input $B-1$ goes from + to -.
3. Preferred Long Term Gain - Buy high SPIN ( +15 or greater) , High Volatile ( $15 \%$ or better potential) stocks when the ISETEK Forecast Chart gives a buy signal and the Input B-1 is higher than the prior week. Sell when stock reaches a Floating Point Stop-Loss or a -5 Input $B-1$ near a market top (as defined by the ISETEK Forecast Chart.)
4. Trading - Buy high SPIN (+15 or greater), high volatility ( $15 \%$ or better potential) stocks when the ISETEK Forecast Chart gives a buy signal and the Input $B-1$ is higher than the prior week. Sell when stock reaches price objective. Sell balance of stocks on a Floating Point Stop-Loss or a -5 Input B-l near a Market Top (as defined by the ISETEK Forecast Chart).

Continuing computer analysis is being done on the use of the ISEC System. In one analysis a number of commonly used operating strategies were tested, with the four listed below showing the best results. All potentially undervalued stocks on the New York Stock Exchange were included. There were four ISETEK Foxecast Chart buy signals and these were the starting point for the analysis.

1. Buy-Hold - Buy " $>$ " stocks when the ISETEK Forecast Chart gives a buy signal. Hold for long periods.

RESULTS: The average " $>$ " stock bought under this strategy performed 3.7 times better than the popular averages. In other words the " $>$ " stocks substantially outperformed the market for the fifty-four week period of study.
2. Long Term Gains - Buy " $>$ " stocks when the ISETEK Forecast Chart gives a buy signal and the Input B-1 is higher than the prior week.

Sell when the stock becomes a high risk and Input B-1 goes from plus to minus.

RESULTS: The average stock under this strategy outpexformed the popular averages by a factor of 4.8 times. When purchases were made the week of the ISETEK Chart buy signal only, the average was 7.1 times better than the popular averages. In other words money was kept in stocks as long as they were not overpriced and while they were still moving up.
3. Preferred Long Term Gain Strategy - Buy high SPIN (15 or greater), high volatility ( $15 \%$ of better) potential stocks when the ISETEK Forecast Chart gives a buy signal and the Input B-1 is higher than the prior week.

Sell when the stock reaches a FLOATING POINT STOP LOSS or a -5 Input B-1 during a market top (as defined by the ISETEK Forecast Chart).

RESULTS: The average stock under this strategy outperformed the popular averages by a factor of 8.1 times. In other words, this method kept money in stocks moving up regardless of overevaluation but caused sales to be made when a good indication of a technical downtrend occurred.
4. Trading - Buy high SPIN (15 or greater), high volatility (15\% or better potential) stocks when the ISETEK Forecast Chart gives a buy signal and the Input B-l is higher than a week ago.

Sell when the stock reaches the short term prices objective set at the time of purchase.

Se11 balance of stocks on a FLOATING POINT STOP LOSS or a -5 Input B-1 at a market top (as defined by the ISETEK Forecast Chart).

RESULTS: The average stock under this strategy outperformed the popular averages for short periods of time by 13.0 times. The average ovjective was reached in about six weeks if it was reached at all. In other words, money was made constantly available for new fast moving situations and presumably could have been used in short sales.

It is possible to use a combination of some features in each of the strategies. For example, half of a position could be sold when reaching its objective and the balance held under the Preferred Long Term Gain Strategy. Some other percentage could be used. Results would depend on the strategy mix.
B. HOW TO USE THE ISETEK FORECAST CHART

The two charts of the New York and American Stock Exchange Averages also include a graph of an accurate market forecasting technique. This is called the ISETEK Market Trend Indicator.

ISETEK is a positive measure of current market climate and is a major advance toward the objective of making percentages work for the investor. All figures in the ISETEK System are mathematically derived. Use of the ISETEK Forecast Chart will help prevent whipsaws. ISETEK will show if the market climate is favorable for intermediate or longer term investing. ISETEK Chart \#l contains three graphs:

1. Weekly closing, New York Stock Exchange Average;
2. A dotted line;
3. A solid line.

The dotted line is an Input $B-1$ number calculated for the New York Stock Exchange composite average itself. The solid line is the percentage of NYSE stocks in technical uptrends.

ISETEK Chart \#2 contains three graphs:

1. Weekly closing American Stock Exchange Average;
2. A dotted line;
3. A solid line.

The dotted line is an Input B-1 number calculated for the American Exchange Price Index itself. The solid line is the percentage of AMEX stocks in technical uptrends.

ISETEK MARKET FORECAST CHART OPERATING RULES
Buy Signals

1. When the solid line goes from below 30 to above 30 and the dotted line is in an uptrend.
2. When the solid line goes from below 60 to above 60 and the market average is higher than it was ten days ago.

## Sell Signals

1. When the solid line goes from above 60 to below 60 and the dotted line is in a downtrend.
2. When the solid line goes from above 30 to below 30 and the market average is lower than it was ten days ago.

A rising dotted line indicates a strong or strengthening market. A falling dotted line indicates a weak or weakening market.

A strong market is not possible unless most stocks are in uptrends. This is indicated by the solid line. Also, a weak market is not possible unless most stocks are in downtrends. This is indicated by the solid line also. Most changes in market trend will be signaled by these overall market factors.

The ISETEK System developed by ISEC is unique in that there is no chart interpretation necessary to determine if the market is in an UP-TREND. The mathematical model used to determine stock trends will often call trend changes at or near the top or bottom of the trend. This allows us to use the sum of these changes in the ISETEK System.

Applying the rules, the accompanying chart shows a sell signal was given on September 29, 1967, a buy signal on November 24, 1967, a sell signal on January 26, 1968, a buy signal on April 5, 1968, a sell signal on June 28, 1968, and a buy signal on August 23, 1968. The ISETEK Market Trend Indicator helps prevent whipsaws and allows you to stay invested with confidence on both the long and shoxt side, whichever is the major trend of the market.


USING THE SYSTEM

When you receive your first ISETEK Forecast Chart the chances are small that it will be the exact week when a market signal is given. If it is, go ahead and buy or sell just as the Forecast Chart indicates you should. If, as is more usual, the last market signal was given some weeks ago you have three options:

1. Go ahead and buy or sell securities as though the signal had just been given;
2. Wait for the next signal.
3. Use the Ten-Day Rule. (Explained below.)

Over the course of the chart period ISETEK averaged nearly ten weeks between signals, ranging from a high of twelve to a low of eight.

Therefore, if the signal was given five weeks ago or more, it would probably be best to wait for the next signal. If the signal was given less then five weeks ago, it is probably safe to act as indicated by the last signal. It is conceivable that the market could continue a trend in one direction for considerably longer periods than twelve weeks. The System does not give any indication of the length of time a trend will continue and so the initial timing of getting into or out of the market can be difficult. If you are in doubt, the best course may be to proceed as indicated by the latest signal, understanding that, should anothex signal be given within a few weeks, positions taken during the "start up" period will be less profitable than those encompassing a full "buy" to "sell" cycle.

If the market continued in a bullish trend for a long period of time no buy signals would be given. The best way to enter the market at that point would be using the Ten-Day Rule. This rule states that the market trend is considered "up" if the closing value of any major stock average (Dow Jones, Standard \& Poor, New York Stock Exchange) is higher than it was ten business days ago. The trend is considered "down" if the average is lower than it was ten business days ago. To determine whethex the average is up or down, use a newspaper with a chart of one of the averages. (The Wall Street Journal charts the Dow Jones Industrials, for instance.) The trend can then be determined by inspection of the chart. Under this rule the best point to take a position is when the signal is first given.



## C. SPIN

The number which the readout meter indicates is called the Stock Potential Index Number (SPIN). This SPIN will vary between -30 and +30 . The number is a relative indication of stock potential and is a positive method of evaluating stock purchases. When evaluations are run on the computer, there is little difference in gain potential where the ratings are +10 and +11 for two stocks. However, there is a considerable difference in stocks evaluated at +1 and +10 . In this case, the stock reading +10 (the reading closer to the green area of the meter) would have the better potential.

In general the higher the reading in the low risk area the higher the chances of gain. After purchase, when a stock is re-evaluated periodically, different readings will be obtained, usually in the white or hold area. The drop in the SPIN indicates that the market is tending to agree with your choice and is correcting an undervalued situation. This change may occur slowly or rapidly.

There are two possible reasons why the red area is reached. First, where there has been a change in the company fundamentals, such as an earnings decrease or slow-down in growth, the stock should be sold promptly when the stock turns down. (reflected in B-1) The second reason is that the price of the stock may have had a rapid rise and outrun its growth rate.

From time to time there will be a few stocks which will give results off the end of the meter scale. In order to check these "needle benders" for the best reading the Input A Dial should be turned until the meter can be read. All the off scale "needle benders" then should be reprogrammed. This should allow the highest reading stock to be determined.

Since neither the market nor any stock continues to move in one direction forever, it should be apparent that the market is more likely to go down than up next week, if there have been ten consecutive weeks of gains. The same is true for any given stock. Therefore, we recommend buying and selling as close to market trend changes (as defined in the system) as possible. The further you are in time from the point at which the market changed direction, the moxe likely the results are to be disappointing,

The ISEC System is based on a mathematical model of the market place and cannot take into account some types of distortion. The most significant distortion occurs when earnings are being compared
against periods encompassing strike losses. This will cause a higher earnings growth rate to appear than is warranted. Therefore, as a minimum check before buying a stock we recommend looking at the current earnings quality. If no major distortions have occurred in the last fifteen months the ISEC ratings will be correct. This is a very important cross check!

Several other considerations will aid in improving results. When the market is at very high levels, as indicated by relatively few buying opportunities, short sales should be considered or, at the very least, a prudent approach to investment commitments should be maintained.

## D. INPUT B-1 or PRICE MOMENTUM

The number appearing in column labeled "Input B-1" describes the strength and direction of the current price move of the stock. A stock in an uptrend will have a positive Input B-1 or at the very least it will have a positive direction to its Input $B-1$. (Such as going from -4 in week 1 to -2 in week 2.) A stock in a downtrend will have a minus $B-1$ or at the very least it will have a minus direction to its Input $B-1$. A large value will indicate a very strong trend in progress.

In general, the stronger the trend, the more likely it is that the stock is closer to the end of that trend. The best time to buy a stock is near the start of an uptrend. (a minus Input $B-1$ starting up). If purchases are delayed until a strong uptrend is evident (a high + value) there is a high probability the purchase will be made at an intermediate top for that stock. The idea is to buy low and not at the top.

To sum up: The technical buying rules are to buy when a minus Input $\mathrm{B}-1$ starts up. The latest time to buy is when Input B-1 goes from - to +.

The Input $\mathrm{B}-1$ is used in selling in the reverse manner (sell when Input $B-1$ is starting down).

A simple rule is used to help prevent losses. This rule is to sell a stock anytime Input $B-1$ moves DOWN to -5 from a higher level and the ISETEK Forecast Chart is over $60 \%$ or is less than two weeks after a sell signal. The reasoning here is that the stock is showing substantial weakness ahead of the market. Such securities often have further substantial down moves. If it is longer than two weeks after the sell signal then the stock is probably having a normal reaction and the -5 rule can be ignored. This is particularly true if the stock has a low risk SPIN rating.

One final word on investment selection: If, after purchase of an issue meeting all the above criteria it does not immediately make a substantial rise, do not become impatient. You may have made a poor selection, but as long as the ISEC System gives a reasonable risk rating for that issue, the market should eventually recognize its undervalued state. When that happens, the stock will more than likely have a substantial move.

## SPECIAL TECHNIQUES

"Buy" and "Sell" Objectives
It is possible to determine at what price any stock becomes a buy or sell under current earnings and market conditions. This is done by rotating the Stock Price dial until a reading of +12.5 is obtained and observing the price that the dial indicates is the buy point. The sell area can be determined in the same way by adjusting the dial to a reading of -12.5 . These prices are long-term objectives based on fundamentals and many times will appear out of line with reality. Furthermore, they tend to change dramatically as new information becomes available. The changes, however, reflect constantly shifting market evaluations. (The prices arrived at are only valid under current market conditions.)

## Fair Value Price

To determine the current degree of distortion from a Fair Value Price is a simple matter. A stock is programmed into the computer and the stock price dial is turned until the meter reads zero. The price on the dial is the price that the computer system would call a fair value. There are times, it should be noted, that this price will appear considerably out of line with reality. This can occur when the earnings axe in a strong trend. The System is then saying that an extreme change in earnings trend so distorts the fair value price as to make it ridiculous. Accurate figures would have to wait until the earnings trend becomes more stable.

## Earnings Estimates

ISEC does not use estimates of earnings in its statistical model; however, it is possible to put in your own estimates to check the effect on a stock's evaluation. This is done in the following manner:

1. For each $2 \%$ rise in estimated earnings for the next 12 months period, add 1 to the $B$ Input. For example, the $B$ Input is 130 and a $10 \%$ rise in earnings is estimated. Add 5 to 130 and use 135 as the new B Input. The change in evaluation that results shows the stock potential based on estimated earnings.
2. To estimate next year's stock price based on estimated earnings, proceed as follows. Before changing the $B$ Input as in 1 above, note the meter reading. Then change the $B$ Input to conform to the new estimates.

Now change the Stock Price dial until the meter has the same reading as the current actual stock rating, based on your latest ISEC Index. The stock price now indicated on the stock price dial is the price that the stock can be expected to go to if the earnings estimates are valid and the market evaluates that stock at the same $\mathrm{P} / \mathrm{E}$. Whether the meter is reading high risk or low risk makes no difference. The computer is saying that if the market is willing to pay that risk level 12 months from when the estimate is entered, the price of the stock will reflect that risk level. This predicted stock price is the price that reflects the same $P / E$ as the current level, but based on the estimated earnings.
3. For estimating the effect of an earnings decline, the same procedure is used except that the numbers to change the B Input are subtracted. Example: For each $2 \%$ decline in estimate subtract 1 from the $B$ Input. An example might be: The B Input is 130 and $10 \%$ decline is estimated; subtract 5 from $130=125$ for the new B Input.

A problem arises when earnings have been non-existent or at a very low level. An example is where the earnings are going from a deficit to a positive value. Obviously, projected earnings of $\$ 1.00$ when previous earnings have been 0 is an infinitely large percentage increase. Therefore, a maximum projected percentage gain of $100 \%$ or adding 50 to the $B$ Input is the maximum increase.

The technique will give results within the accuracy of the estimates. It should be remembered that data published by ISEC does not use this estimating technique. Estimation of earnings involves large risks of error if one does not possess extensive current information on a corporation. Therefore, we do not recommend the use of estimates.

Price Prediction -- Volatility Index
One of the most important uses of the ISEC computer is forecasting price ranges for stocks. This arises in trying to determine which of several stocks with close to the same SPIN (Stock Potential Index Number) should be purchased for maximum price appreciation.

Many stocks may have favorable ratings, but the most volatile are more likely to produce substantial gains. However, these are also most volatile on the downside, and investment in volatile stocks is recommended only when all the circumstances are favorable.


Non-volatile stocks can also produce capital gains if they are purchased at the right time. Non-volatile stocks have a higher degree of safety and since, in general, there will be less price movement, a projection of how far such a stock will go becomes very important in selecting these stocks.

To determine the most probable range for any stock, a volatility measure is used. The current volatility numbers to be used are included in each issue of the ISEC Index for each stock. They are used in detexmining the projected price range for any stock for the next three-month period in the following manner:

All evaluations for purchase should be made with the Market Trend Switch in the "UP" position. Then let us select a stock such as Englehard Industries. In the November 10, 1967 issue of the ISEC Index, Input $A$ was 95 , Input $B$ was 152 , and Input $C$ was 112. There was an asterisk next to Englehard and, on checking back, there was an $X$ beside the stock in a recent issue, indicating the ratings would be based on recent information. The stock price was about 41. When these figures are entered into the computer, the rating comes out a respectable positive value.


Englehard Industries is certainly not a High Flyer, but is somewhat more speculative than average, so the volatility number 5 appears on your ISEC Index next to Englehard. This number is now used to determine the most probable range for the next three months. First, a note is made of the rating for Englehard, then the Stock Price dial is turned until the Readout Metex is 5 marks
higher. For example, if the Englehard reading was +12 , the meter would then read +17 . A note is made of the price on the Stock Price dial. The Stock Price dial is now turned to read 5 marks less than the original reading. In this case, +7 would now be on the meter. A note is made of this price. These two prices are the most probable limits that Englehard will trade between in the next three months. In this case, the indicated range is between 46 and 36 .


Next, see if such a trading range offers a reasonable chance for profit. With a positive reading, the most probable price for Englehard is 46. Therefore, with a current price of 41 and a good prospect of reaching 46, Englehard offers a reasonable investment opportunity. Purchase should have been made when the market turned up on November 22, 1967.

An example of a more speculative situation is E G \& G at 70. In the February 17 issue of the ISEC Index, with the DJIA at 850 , Input A is 116, Input $B$ is 113 , and Input $C$ is 81 . The market trend had just turned down and $E G \& G$ rated well over in the high risk side. A short sale might have been considered and should have been checked as follows: The volatility number for E G \& G was 10 . Since the stock is rated off the scale, the meter must be adjusted to give an on-scale reading. This is accomplished by turning the Input A dial until the meter pointer is near the center of the scale. We are checking the range and most probable price of a specific stock, so the market action can be ignored for this particular test. Therefore, it is permissible to get the meter to read on scale by adjusting Input A. A good point to adjust to is 0 .

Now, the stock price dial is turned until the meter moves +10 marks and -10 marks. This indicates a most probable range for $E G \& G$ of $80-60$. The most probable price would be 60 because of the strong negative evaluation. In fact, this price was reached before the end of February. With the price objective reached, a prudent investor would close his short position or protect his short position profit with a stop-loss.

In general, this procedure will give reasonable price ranges and objectives. On test runs these limits were correct about $80 \%$ of the time. The most probable price was reached about $70 \%$ of the time. We feel that this will offer individuals the flexibility of setting realistic price objectives.

## PROGRAM

Your ISEC 250 computer is programmed to solve a formula based on a combination of fundamental and technical factors derived by conservative analytical techniques. The computer combines historical data from the ISEC Index with up to the minute information to give an instant evaluation of any programmed stock.

The progxam is based on several premises.
l. There is a good time to buy and a good time to sell every stock. No stock should be locked away forever. On the other hand, no stock should be sold without good reason. The ISEC program was developed to help in timing these moves.
2. The Dow Jones Industrial Average has an enormous influence on market activity whether it is justified economically or not. The ISEC program takes this fact into account.
3. The New York and American Exchange Averages are becoming increasingly meaningful. The ISEC program incorporates significant information from these averages in its program.
4. Because the current tax structure favors capital gains the ISEC program is designed to select stocks which offer better than average opportunities for capital appreciation and with a good chance for long term gains.
5. A combination of factors such as market climate, stock fundamentals and technical trends give better results when combined in a proper relationship.
6. Factors incorporated for picking long term gain possibilities can assist traders as well in making investment decisions.

The fundamental Inputs supplied with the ISEC Index axe the result of hundreds of calculations done on a central computer. The numbers are obtained by combining a stock's historical evaluation, its earnings and earnings growth rate with the relationship of the stock to these factors for the market as a whole. These are then compared to the current market and stock levels.

The central ISEC computer calculates a fair value price for each stock. This value detexmines the Index numbers sent each week in the ISEC Index. The small individual analog computer determines the current value and direction of price distortion from the fair value price.

The ISEC Index consists of a number of dial settings for your computer. These settings are called Inputs. These Inputs are Input "A", " B " and "C". Inputs A, B and C are based essentially on historical fundamental information. Inputs $\dot{B}-1$ and volatility are primarily technically derived numbers.

Input "A" is a whole market number derived from a consideration of the Dow Jones Average. ISEC considers each stock as well as the whole market to move in its own price-earnings channel. For example, the Dow Jones Average during 1965 went between $15-20$ times earnings. In general, if the average could have been purchased when it was at 15 times and sold when it was at 20 times earnings, substantial profits would have resulted.

Input "A" is also the mathematically derived description of the channel. These numbers will shift as the channel limits change, or, since the channel is partly described by earnings, as the Dow Jones earnings change. A two-year history is used to initiate a channel and the importance of the limits of the channel are weighted by the growth rate. Furthermore, historical analysis shows that when the Dow Jones exceeds 20 times earnings it is on vulnerable ground and the weighting is such that when this situation occurs, all stocks have a higher degree of risk.

Inputs " $B$ " and " $C$ " are derived in the same manner for individual stocks. This allows a comparison of each stock against the current market level as well as against any other stocks progxammed.

A number of other factors are used in setting up our weighting system. For example, stocks that have high P/E ratios do not have their earnings weighted as heavily as low $\mathrm{P} / \mathrm{E}$ stocks with the same growth rate. Furthermore, the ISEC System has a strong bias against stocks with declining earnings. For this reason some stocks will show a "fair value" price of $\$ 0$, also, there will be times when well-known companies will appear as strong sell situations, particularly when their earnings have been distorted by strikes or other events. However, when this occurs the fact of a strike is public knowledge and evaluations can be used with this consideration in mind. The system, being a mathematical model, cannot take emotional factors into account, and as a result, will not show stocks as buying situations while earnings are in major downtrends.

Input B-1 is a mathematical description of the price movement and direction for a stock. A large + figure would indicate a strong uptrend. A large minus figure would indicate a strong downtrend. A number near zero would indicate a possible change in trend. The Input B-l is calculated independently of the other imputs but is used in conjunction to determine when to buy or sell.

The volatility is a function of the three-month price fluctuations of the stock. It is used to help determine price objectives and selection of one security over another.

ISEC does not use estimates of earnings for stocks, nor does the computer attempt to predict the action of the overall market. Too many unexpected changes can occur making the use of estimates unrealistic. However, if reliable estimates are available, they may be used in the previously described procedure. The fundamental inputs supplied by ISEC will tend to change slowly, since corporate fundamentals do not change rapidly. The public's evaluation of a stock tends to change rapidly. The technical aspects of the ISEC program lets you take advantage of this fact, buying before a stock is "discovered" and selling before the ultimate price breakdown of a "hot" stock. ISEC believes that the intelligent investor, using his own computer, can be more rapidly informed of price distortions in a given stock and so insure satisfactory capital appreciation on the modern investment battleground.

Test 1 - Assume a Buy-Hold strategy, (see page 17), is being followed. Which of the stocks in the format explanation on page 6 are purchased?

Test 2 - Assume a Long-Term strategy is being followed. Which stocks on page 6 are purchased?

Which are sold?

Test 3 - Assume a Prefexred Long-Term strategy is being followed, which stocks are purchased?

Test 4 - In the example of Test 3, assume that a high price of 90 is reached for Bermec. What is the Floating Point Stop-Loss price if all figures used are the same as in the format explanation? Remember this is the price projection from the high to the lower end of the range.

Test 5 - Assume a Trading Strategy. What is the price objective of the stocks to be purchased?

Test 6- Assume a Long-Term Preferred strategy.
(A) What do you do if a stock goes to a high risk after purchase? $\qquad$
(B) If the Input B-1 goes + to - ? $\qquad$
(C) If both of the above happen and the ISETEK Chart gives a sell signal? $\qquad$
(D) If stock then has an Input B-1 of -5 ?
(E) Use the format explanation figures (page 6) and assume the previous high price was 33 for Bethlehem Steel and 37 for Big Three Ind. Gas. Do you sell either or both? $\qquad$
$\qquad$

Test 7 - Assume a Trading Strategy. Have you sold Bermec if the high price subsequently reached was 90 ?
$\qquad$

1. Bell Intercontinental

Bermec Corp.
2. Bell Intercontinental -- purchased under Long Term Gain Bermec Corp. -- purchased under Long Term Gain Benguet Consolidated Fgn. -- sold under Long Term Gain
3. Bermec Corp. -- because it has the best potential gain and a SPIN of more than +15 .
4. The Floating Point Price is approsimately 79. As one can see, the stop loss area will quickly become a confirmed profit if the stock has a substantial upward move.
5. Bell Intercontinental -- 16-1/2 from 14.

Bermec Corp. -- 80 from 68.
6. (A) Nothing unless a Floating Point Price is reached.
(B) Nothing unless a Floating Point Price is reached.
(C) Nothing unless a Floating Point Price is reached.
(D) Sell if within two weeks of ISETEK sell signal.
(E) Do not sell Bethlehem Steel because it did not reach a Floating Point Price;
Sell Big Three because it has surpassed its Floating Point Price.
7. Yes, because it surpassed its price objective.

|  | SPIN | $\begin{aligned} & \text { ORIGINAL } \\ & \text { PRICE } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { SUBSEQUENT } \\ & \text { HIGH } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| BAXTER LABORATORIES | - 2 | 45 | 45 |
| BAYUK CIGARS | - 7 | 16 | 21-3/4 |
| BEARINGS, INC. | $+5$ | 41 | 45 |
| BEATRICE FOODS | -19 | 80 | 84-1/2 |
| BECKMAN INST. | -25 | 49 | 57 |
| BECTON DICKINSON | -12 | 68 | 73-1/2 |
| BEECH AIRCRAFT | -11 | 44 | 46-1/2 |
| BELCO PETROLEUM | 0 | 50 | 50 |
| BELDING HEMMINGWAY | +6 | 41 | 43-1/2 |
| BELL \& HOWELL | - 9 | 72 | 78 |
| BELL INTERCONTINENTAL | +11 | 14 | 16 * |
| BEMIS CO. | - 6 | 69 | 75 |
| BENDIX CORP. | -21 | 50 | 53-1/2 |
| BENEFICIAL FINANCE | -17 | 55 | 57 |
| BENGUET CONSOLIDATED | -15 | 13 | 20 |
| BENGUET CONSOL. FGN. | - 8 | 11 | 19 |
| BERKEY PHOTO | - 2 | 42 | 47/7/8 |
| BERMEC CORP. (Needle Bender) | $+$ | 68 | 90 |
| BETHLEHEM STEEL | - 2 | 31 | 33-1/2 |
| BIG THREE IND. GAS | - 8 | 33 | 36 |
| BLACK \& DECKER MFG. | -6 | 62 | 66 |
| BLISS LAUGHLIN IND. | -13 | 34 | 36 |

As can be seen the ISEC System picked out one of the most successful stocks while keeping you out of many non-performers.

MODEL PORTFOLIO OPERATION
Every time a market signal is given or whenever changes occur, ISEC will bring you up to date on the ISEC Model Portfolio changes. This portfolio is only an illustration of the ISEC System and does not represent any real investment. However, its success and operation are such as can be duplicated by any subscriber who picks the same securities.

The ISEC Model Portfolio is operated under the Preferred Long Term Gain strategy, Prior to January 1969 the portfolio was being operated under a long-Term Gain strategy in which purchases were made when the Input $B-1$ went from - to + when market buy signals occurred. After computer analysis of the whole ISEC System showed that better results were likely by changing strategies slightly, the Preferred Long Term Gain strategy was decided upon as one representing an average investor's practical approach to the market.

Investigation shows that most apparent difficulties are the result of improper settings on the dials and switches of your computer. please check this instruction manual carefully to make sure that you have set the unit properly.

1. Unit doesn't light.

- Remedy: Check to make sure that computer is plugged in and turned on. Make sure there is power at the outlet. If unit still fails to light up, notify ISEC.

2. Meter not lighted but Press to Read or Press to Reset buttons do light.

- Notify ISEC.

3. Meter lighted but neither Press to Read nor Press to Reset buttons are lighted.

- The light bulb in one or both of the buttons may be burned out. Check the test equations. If they are correct, computer is operating properly and ISEC will supply you with new bulbs.

4. Meter does not read 0 when the Press to Read button is lighted.

- Adjust meter with knob underneath case (\#4 in illustration).

5. Meter does not read 0 when Press to Reset button is lighted.

- This is correct for Model C Units. Meter should read in minus area. Push Press to Reset button until the Press to Read button is lighted. Meter should now read 0; if not, adjust as in \#4 above.

D Model Computers will read near zero when Press to Reset button is lighted.
6. Press to Reset button stays on and immediately comes back on after pushing and releasing.

- Set up test equation settings. Try Push to Reset. If the Reset light goes out the previous settings were considerably off scale. If the Push to Read button still will not stay on, try a different outlet.


## IN EVENT OF DIFFICULTY (continued)

Voltage fluctuations will sometimes cause this problem. They do not affect the computer results, but may cause the Press to Reset button to remain on or come on frequently. Voltage fluctuations on another line may be less severe.

If this does not work, set up test equation \#1 and carefully push both buttons at the same time. If the meter gives the correct answer, the computer is operating properly and the trouble is in the particular outlet being used. If not, try another outlet. If no satisfactory outlet can be found, notify ISEC. If the meter goes rapidly off scale when both buttons are pushed, release them immediately and notify ISEC.
7. Buy light comes on when stock is in high risk area.

- This is noxmal operation. The system is saying that although the market is in a buying area, this particular stock is not.

8. Se11 light comes on when stock is in low risk area.

- This is normal operation. The system is saying that this, will be a good stock to look at when the market becomes favorable.

9. Buy or Sell light on all the time (Model C only. These are units with Serial \#'s 1-200).

- This is normal for these units.

10. $\quad 0$ on dials does not line up exactly with index marks when turned to the mechanical stop.

- This is normal. Do not try to adjust these dials as they are precisely adjusted at the factory and are correct for the usable range of the dial.

11. Never attempt to remove the unit from cabinet. In addition to the danger from high voltage, evidence of attempted removal of the unit will void our warranty.
12. Other problems:

- If any question arises as to the operation, reliability or use of the ISEC System, please notify ISEC by phone; (609) 924-3366. We will put you in touch with a regional distributor with repaix facilities or ship a new computer to you.

PLEASE, if you return the unit to us, indicate the nature of the trouble on a sheet of paper and include it with the unit. This will speed servicing and aid in the prompt return of your computer.

WARRANTY

Each unit is warranted to be free from defects in parts and workmanship for a pexiod of one year from the date of shipment. ISEC shall be the sole judge of whether or not a defect in operation is due to faulty parts or assembly, or to abuse or accidental damage on the part of the user. Units sent for repair will be reshipped at buyer's expense to the user no later than the second working day after receipt.

While every effort is made to insure the accuracy of data, we cannot guarantee the accuracy of results, since information supplied to us may, in some instances, be incorrect; nor are we able to insure proper operation of the computer, since computer readings are the result of settings by individual operators.

