

# WIN PAS-III PRODUCT ASSESSMENT REPORT

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**PROJECT NO: PP004**

**PRODUCT: E-Z Knob Lock**

**NOTE:** The WIN Product Assessment (PAS-III) format is the product of over 25 years of experience and research. It is a refinement of the PIES-IX (ninth edition of the Preliminary Innovation Evaluation System), and PEVAP-II, the second revision of the Support American Made Product Evaluation and Venture Assessment Protocol. The several versions and modifications of the PIES format have been used to evaluate an estimated 30,000+ new product ideas and inventions. The PEVAP format has been used to evaluate over 2200 products. PAS-III draws upon the experiences gained from both to provide innovators with an independent third party assessment of the risks and potential of their products. This profile is intended to serve as an aid in decision-making, and where appropriate, to suggest strategies for further direction, especially if they are growth-oriented and their plans include targeting sophisticated buying organizations.

The PAS-III format is biased toward newer products. However, it is used at all stages of the product life cycle. Hence, some of the criteria and/or individual responses may be less appropriate for mature products. Likewise, the use of the PAS-III format across a wide spectrum of products and markets has resulted in some loss of specificity. Hence, some adjustment may be necessary.

All of the responses to each criteria are shown here to allow those who are not familiar with the PAS-III format to understand the evaluator's frame of reference. The selected response appears in bold lettering. "Don't Know" and "Not Applicable" responses are added whenever appropriate. The PAS-III evaluation instrument is relatively straightforward and easy to use. However, its design has not been a casual affair. Considerable time, thought, and research have gone into the design and evolution of this evaluation system during the last 25 years. This process will continue.

# WIN PAS-III PRODUCT ASSESSMENT REPORT

Readers wishing more information on any of the above criteria may refer to the indicated page number in the manual supplied with this report. Please note that there will be some differences in the questions and answers between this report and those provided in the manual. In addition, several of the "channels" criteria are new to this format and will not be found in the manual. The manual is under revision. We have opted to use the PEVAP-II manual in order to bring PAS-III on line faster.

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## PAS-III PRODUCT ASSESSMENT REPORT

Innovators should be sure they understand the criteria and their interrelationships before they attempt to use their PAS-III report in deciding what they should do next. For your convenience, the page numbers of criteria discussed in the manual are referenced in your report. New criteria not discussed are so indicated by the notation [xxx]. Like earlier versions of the PIES and PEVAP formats, PAS-III has been designed to help entrepreneurs better understand the product development process as well as serve their assessment needs. Please note that the manual covers criteria not contained in this report. These criteria relate to venture assessment as opposed to product assessment. The following pages of this report are dedicated to this dual purpose. Some of the criteria, particularly those in the product strategy & experience channels section, do not attempt to access risk or potential. Their function is to suggest strategies for future commercialization.

### SOCIETAL CRITERIA

1. **LEGALITY:** In terms of applicable laws, particularly product liability, regulations, and product standards, this product...[p.37]
  - might not meet regulations/standards, or reduce liability, even if changed.
  - might need substantial change to meet regulations/standards, reduce liability.
  - might require modest revision.
  - might require minor changes.
  - **no problems/change likely.**
  
2. **SAFETY:** Considering potential hazards and side effects, the use of this product will be...[p.39]
  - very unsafe, even when used as intended.
  - unsafe under reasonably foreseeable circumstances.
  - relatively safe for careful, instructed users.
  - **safe when used as intended, with no foreseeable hazards.**
    - very safe under all conditions, including misuse.
  
3. **ENVIRONMENTAL IMPACT:** In terms of pollution, litter, misuse of natural resources, etc., use of this product might...[p.41]
  - violate environmental regulations/dangerous environmental consequences.
  - have some negative effect on the environment.
  - have no effect on the environment if properly used.
  - **have no effect on the environment.**
    - have a positive effect on the environment.

# WIN

## PAS-III PRODUCT ASSESSMENT REPORT

4. **SOCIETAL IMPACT:** In terms of the impact (benefit) upon the general welfare of society, use might... [p.42]
- have substantial negative effect.
  - have some negative effect.
  - have no effect if properly used.
  - have no effect on society.
- **have a positive benefit to society if properly used.**

### BUSINESS RISK CRITERIA

5. **FUNCTIONAL FEASIBILITY:** In terms of intended functions, with this product actually do what it is intended to do? This product... [p.46]
- is not sound; cannot be made to work
  - won't work now, but might if modified.
  - will work, but major changes might be needed.
  - will work, but minor changes might be needed.
- **will work, no changes necessary.**
6. **PRODUCTION FEASIBILITY:** With regard to technical process or equipment required for production, this product will... [p.48]
- be impossible to produce now or in the foreseeable future.
  - be very difficult to produce.
  - have some problems which can be overcome.
  - have only minor problems.
- **have no problems.**
7. **STAGE OF COMMERCIALIZATION:** Based on available information, this product... [p.48]
- falls short of being market ready.
  - will require substantial time/effort to be market ready.
  - could market through informal channels; formal will require change/testing.
- **is ready to go; few changes/testing required.**
  - an established product; no changes/testing required.
8. **INVESTMENT COSTS:** The amount of capital needed for commercialization of this product is likely to be... [p.49]
- greater than expected returns – product should be dropped./
  - excessive – expenses might not be recoverable.
  - heavy – probably recoverable.
  - moderate – recoverable within five years.
- **low – recoverable within three years.**
  - NA – product established.

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## PAS-III PRODUCT ASSESSMENT REPORT

9. **PAYBACK PERIOD:** The expected payback period (time required to recover new commercialization costs) is likely to be...[p.50]
- Over 10 years.
  - 7 to 10 years.
  - 4 to 6 years.
- **1 to 3 years.**
    - less than one year.
10. **PROFITABILITY:** Profitability, or return on investment (ROI), is defined as the extent to which anticipated revenues will cover the relevant costs (direct, indirect and capital). Anticipated revenues...[p.54]
- might not cover any of the relevant costs.
  - might cover direct costs, and contribute to indirect and capital costs.
  - might cover direct and indirect costs, but might not meet capital costs.
- **might cover direct and indirect costs and exceed capital costs.**
    - will cover direct and indirect costs and easily exceed capital costs.
11. **MARKETING RESEARCH:** The marketing research required for expanded commercialization of this product is likely to be...[p.55]
- extremely difficult, complex and costly.
  - relatively difficult, complex and costly.
  - moderately difficult and costly.
- **relatively easy, simple and inexpensive.**
    - very simple, straightforward and inexpensive.
12. **RESEARCH AND DEVELOPMENT:** The research and development yet to be done on this product is...[p.56]
- very extensive.
  - extensive.
  - modest in terms of extent, difficulty and cost.
  - is likely to be modest.
- **very minor, if any at all.**
    - none – product established.

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## PAS-III PRODUCT ASSESSMENT REPORT

### DEMAND ANALYSIS CRITERIA

13. **POTENTIAL MARKET:** The total market for products of this type might be...[p.61]  
very small – very specialized or local in nature.  
small – relatively specialized or regional in nature.
- **medium – limited national market.**  
large – broad national market.  
very large – extensive national and possible international market.
14. **POTENTIAL SALES:** Expected sales of this product might be...[p.63]  
very small – economies of large scale not possible.  
small – economies of large scale not likely.
- **medium – economies of large scale are possible.**  
large – economies of large scale are likely.  
very large – economies of large scale will be substantial.
15. **TREND OF DEMAND:** The market demand for products of this type appears to be...[p.65]  
rapidly declining – product might soon become obsolete.  
declining – potentially obsolete in the near future.
- **steady – demand expected to remain constant.**  
growing slowly – modest potential.  
rapidly expanding – significant growth opportunity.
16. **STABILITY OF DEMAND:** Fluctuation in demand for products of this type is likely to be...[p.66]  
highly unstable – subject to severe, unpredictable fluctuations.  
unstable – susceptible to moderately unpredictable fluctuations.
- **predictable – variations can be foreseen with reasonable accuracy.**  
stable – modest variations can be accurately foreseen.  
highly stable – not susceptible to fluctuations.

# WIN

## PAS-III PRODUCT ASSESSMENT REPORT

17. **PRODUCT LIFE CYCLE:** The product life cycle (PLC) refers to how long a product can be profitably sold before the market shifts, or is replaced by competitive new products. The PLC has nothing to do with durability, or how long a product will last in use. In this case the PLC, which is averaging about four years, is likely to be...[p.67]
- less than two years.
  - two to four years.
  - **five to seven years.**
    - eight to ten years.
    - more than ten years.
18. **PRODUCT LINE POTENTIAL:** The potential for additional products, multiple styles, qualities, price ranges, etc., is...[p.69]
- very limited – single product only.
  - **limited to minor modifications only.**
    - moderate – multiple markets/use potential.
    - high – new product spin-offs likely.
    - very high – could be foundation of a new industry.

### MARKET ACCEPTANCE CRITERIA

19. **USE PATTERN COMPATIBILITY:** Compatibility with existing attitudes and methods of use for this product is...[p.73]
- very low – will block market acceptance.
  - **some conflict; might slow market acceptance.**
    - moderate – no negative effects.
    - high – compatibility will aid marketing effort.
    - very high – will give market acceptance a strong boost.
20. **LEARNING:** The amount of learning required for correct use is...[p.75]
- very high – expensive and/or time-consuming training required.
  - high – detailed instructions required.
  - moderate – normal instructions sufficient for most users.
  - **low – minimal instructions needed.**
    - very low – no instructions needed.

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## PAS-III PRODUCT ASSESSMENT REPORT

21. **NEED:** The level of need filled, or utility provided, by this innovation is... [p.76]  
very low – gimmick soon forgotten by the owner.  
low – only superficially fulfill psychological or physical non-essential needs.
- **moderate – fulfills both psychological and physical non-essential needs.**  
high – fulfills either basic psychological or physical needs.  
very high – fulfills both psychological and physical needs.
22. **DEPENDENCE:** The degree to which the sale or use of this product is dependent upon the purchase or ownership of other products, processes, or systems is... [p.78]  
very high – no market control.  
high – little market control.  
moderate – reasonable market control.
- **low – strong market control.**  
very low – complete market control.
23. **VISIBILITY:** The advantages and benefits of this product are... [p.80]  
very obscure – very difficult and/or costly to communicate.  
obscure – requires substantial explanation.  
visible – requires some explanation.
- **obvious – easily communicated.**  
very visible – might generate word of mouth communication.
24. **PROMOTION:** The costs and effort required to promote the advantages, features, and benefits of this product are likely to be... [p.81]  
very high – prohibitive in relation to expected sales.  
high – relative to expected sales.
- **moderate – commensurate with expected sales.**  
low – relative to expected sales.  
very low – relative to expected sales.
25. **DISTRIBUTION:** The cost and difficulty of establishing new distribution channels for this product are likely to be... [p.82]  
very high – prohibitive in relation to expected sales.  
high – relative to expected sales.
- **moderate – commensurate with expected sales.**  
low – relative to expected sales.  
very low – relative to expected sales.  
NA – product established.



WIN  
PAS-III PRODUCT ASSESSMENT REPORT

26. **SERVICE:** The cost and difficulty associated with providing service for this product is likely to be...[p.83]  
very high – will require frequent service and parts.  
high – will need periodic service and parts.  
moderate – will need occasional service and parts.  
low – need for service and parts will be infrequent.
- **very low – will require little or no parts and service.**  
does not apply.

**COMPETITIVE CRITERIA**

27. **APPEARANCE:** Relative to competition, and/or substitutes, appearance of this product might be perceived by potential customers as...[p.88]  
very inferior – no customer appeal.  
inferior – little customer appeal.  
similar to other products.
- **superior – has customer appeal.**  
very superior – has strong customer appeal.
28. **FUNCTION:** Relative to competition and/or substitutes, performance of this product is likely to be perceived as...[p.89]  
very inferior – a significant competitive disadvantage.  
inferior – some competitive disadvantage.  
similar – not noticeably better or worse.
- **superior – a noticeable improvement and competitive advantage.**  
very superior – a major improvement and a significant competitive advantage.
29. **DURABILITY:** Relative to competition and/or substitutes, durability of this product is likely to be perceived as...[p.90]  
very inferior – a definite competitive disadvantage.  
inferior – cannot be promoted as an improvement.
- **similar – not noticeably better.**  
superior – easily promoted as a major improvement.  
very superior – easily promoted as a major improvement.  
does not apply.
30. **PRICE:** Relative to competition and/or substitutes, price is likely to be viewed as...[p.91]  
much higher – a definite competitive disadvantage.  
higher – a competitive disadvantage.
- **about the same as competition/substitutes.**  
lower – a competitive advantage.  
much lower – an important competitive advantage.

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## PAS-III PRODUCT ASSESSMENT REPORT

31. **EXISTING COMPETITION:** Existing direct and indirect competition for this product appears to be...[p.93]  
very high – new entry will be difficult and costly.  
high – only a small market share is likely.  
moderate – market penetration can be gained with reasonable effort/expense.
- **low – a significant market share might be possible.**  
very low – entry might be easy/relatively inexpensive.
32. **NEW COMPETITION:** Competition for this product from new entrant or competitive reaction is expected to be...[p.94]  
very high – product lead will be very short.  
high – product lead will be relatively short.
- **moderate – market share can be maintained.**  
low – product lead will be relatively long.  
very low – a strong chance to sustain large market share.
33. **PROTECTION:** Considering patents, copyrights, technical difficulty, secrecy, or other bars to competitive reaction, the prospects for protection appears to be...[p.95]  
no meaningful legal or other protection likely.  
no meaningful legal protection, but some other protection might be possible.  
limited legal protection, but some other protection might be possible.  
moderate patent, copyright, and/or long term trade secrecy possible.
- **patent, copyright, and/or trade secrecy in place.**

### EXPERIENCE AND STRATEGY CRITERIA

34. **TECHNOLOGY TRANSFER:** The potential for licensing or selling this product is...[p.100]  
very low – chances are very remote.  
low – firms typically reject ideas of this type.  
modest – worth very limited investment of personal time and effort.
- **good – worth some personal effort.**  
very good – worth investing in.
35. **NEW VENTURE:** The potential for using this product to start a new business venture is...[p.103]  
very poor – should not be considered.  
poor – potential to support even a small venture is questionable.
- **modest – might support a self-financed small business.**  
good – might attract informal smaller investors.  
very good – might attract serious/large investors.

WIN  
PAS-III PRODUCT ASSESSMENT REPORT

36. **MARKETING EXPERIENCE:** Expanded commercialization of this product will require...[p.108]  
a very high level of marketing experience and sophistication.  
a high level of marketing experience/sophistication.
- **a moderate degree of marketing experience/sophistication.**  
a low level of marketing experience.  
a very low level of marketing experience.
37. **TECHNICAL EXPERIENCE:** Expanded commercialization of this product will require...[p.111]  
a very high level of technical experience and sophistication.  
a high level of technical experience/sophistication.  
a moderate degree of technical experience/sophistication.  
a low level of technical experience.
- **a very low level of technical experience.**
38. **FINANCIAL EXPERIENCE AND RESOURCES:** Expanded commercialization of this product will require...[p.112]  
a very high level of financial experience and/or very substantial resources.  
a high level of financial experience/sophistication & substantial resources.  
a moderate degree of financial experience/resources.
- **a low level of financial experience/resources.**  
a very low level of financial experience and commitment/resources.
39. **PRODUCTION MANAGEMENT EXPERIENCE:** Expanded commercialization of this product will require...[p.114]  
a very high level of production experience and sophistication.  
a high level of production experience/sophistication.
- **a moderate degree of production experience/sophistication.**  
a low level of production experience.  
a very low level of production experience.

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## PAS-III PRODUCT ASSESSMENT REPORT

### CHANNEL-RELATED CRITERIA

40. **PROMOTIONAL REQUIREMENTS:** In terms of promotional efforts, especially point of purchase required to support sales, this product is best suited to...[p.115]  
informal local channels, such as craft shows.  
stores w/high level of personal selling available (high-end specialty stores).
- **channels providing some promotional support (specialty stores and catalogs).**  
general merchandise stores with some promotional support.
  - **small mass merchandisers with limited promotional support.**  
**national mass merchandisers w/wide distribution, but little promo.**  
**electronic channels of distribution (Internet & home shopping).**  
industrial/institutional/government channels.
41. **SALES/SELLING PRICE:** Given expected selling price and/or sales levels, this product is best suited to...[p.116]  
mail order and/or informal channels with a high degree of flexibility.
- **specialty catalogs/stores with narrowly defined limited specialty markets.**  
**drug/hardware/grocery stores.**  
chain department stores.
  - **chain discount stores.**  
electronic channels of distribution (Internet & home shopping)  
industrial/institutional/government channels.
42. **PACKAGING REQUIREMENTS:** The packaging for this product is presently...[xxx]  
unsatisfactory for most channels/markets.  
satisfactory for informal channels.  
suitable for electronic/mail order distribution.  
appropriate for some channels of distribution.
- **may meet the standards of sophisticated buying organizations/markets.**
43. **VOLUME SUITABILITY:** In light of likely demand, this product is best suited to...[xxx]  
informal channels of distribution.
- **specialty, Internet and other low volume tolerant channels.**  
general merchandise stores.
  - **smaller mass merchandisers.**  
national mass merchandisers.  
electronic channels of distribution (Internet & home shopping).  
industrial/institutional/government channels.

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## PAS-III PRODUCT ASSESSMENT REPORT

44. **DISTRIBUTION STRATEGY:** *If recommended*, the optimal channels for introducing this product into the marketplace are likely to be...[xxx]  
informal local channels, such as craft shows.  
those with high level of personal selling (high-end specialty stores).
- **channels with some promotional support (specialty stores & catalogs).**  
general merchandise stores with limited promotional support.
  - **small mass merchandisers with some promotional support.**  
mass merchandisers w/wide distribution, but little promotional support.
  - **electronic channels of distribution (Internet & home shopping).**  
industrial/institutional/government channels.

### SUMMARY CRITERIA

45. **OVERALL BARRIERS TO MARKET EXPANSION:** The barriers to market expansion faced by this product are...[xxx]  
very high – need established, well-financed, sophisticated product champion.  
high – will require solid financing and an experienced management team.  
moderate – will require substantial input from experienced consultants.
- **low – a small company should be able to handle this project.**  
very low – easy entry; could be handled by a new venture start-up.
46. **OVERALL MARKET ATTRACTIVENESS:** Considering competition, difficulty of establishing channels of distribution, cost of reaching target market, financial, ethnical and other barriers, and potential risk vs. potential profit, the risk-profit ratio of this market opportunity is...[xxx]  
very weak.  
likely to be weak.  
marginal.
- **marginally acceptable.**  
acceptable.  
likely to be strong.  
very strong.

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PAS-III PRODUCT ASSESSMENT REPORT

47. **PRODUCT OVERALL STATE OF READINESS:** All things considered, this product appears to be...[p.131]  
of low potential; may not be worth further development.  
not ready for the market; substantial work remains to be done.  
not quite ready; some work remains.  
may be ready for cautious limited distribution.  
ready for some channels, but will need modification in others.
- **ready for the market; few, if any, changes needed.**
48. **PRODUCT COMPETITIVE ADVANTAGES:** Relative to existing/potential competition, the competitive advantages of this product are...[xxx]  
inferior – prospects for capturing available share of market are poor.  
similar – taking market share away from competitors will be difficult.
- **better – might gain market share in niche market.**  
much better – can compete with marginally entrenched competitors.  
significantly better – might compete with well-entrenched competitors.

# WIN PAS-III PRODUCT ASSESSMENT REPORT

## EVALUATOR'S SUMMARY OPINION

Based on the above findings, it is the evaluator's opinion that the Commercial Assessment Rating of this product is 41 CAR as indicated below:

0	10	20	25	30	35	40	42	50	60	70	80	90	100
+	+	+	+	+	+	+X	+	+	+	+	+	+	+

The Commercial Assessment Rating (CAR) score reflects the evaluator's summary judgment of the likelihood that you will be able to successfully market and/or license your product. Because of the dynamic interaction of the forty-eight criteria contained in the WIN PAS-III format, we have elected to rely on the evaluator's judgment in determining a CAR for this product. This score was not determined by calculating a numerical score for each criterion and adding them to reach a final score. There are methodological problems to this approach. Consequently, we have elected to draw upon the chief evaluator's experience and judgment. This is the approach used virtually by all industrial and retail buyers. However, few buying organizations use a formal and structured evaluation format.

Very few products receive a CAR score above 50%. This is consistent with the philosophy that it takes more than a better mousetrap to be successful; it also takes sound management, adequate financing and good marketing, all venture-related factors not known at the preliminary evaluation stage. Do not rely solely on the CAR in making decisions about further development and/or commercialization of this project. Study the forty-eight criteria carefully, and use the manual as an aid in developing a better understanding of how these criteria interact with one another, and how these interactions may affect your decisions and your strategies for development and commercialization of this project.

WIN  
PAS-III PRODUCT ASSESSMENT REPORT

**EVALUATOR'S RECOMMENDATION**

Risk is present in the development of every product. Further investment should be made only after careful consideration of the risks involved. Our experience indicates that products receiving a Commercial Assessment Rating (SLR) below thirty (30) have unacceptable risks and probably should be abandoned. Those with CAR scores between thirty and thirty-four (30-34) carry a high degree of risk, but may have sufficient (but limited) potential to warrant very limited and cautious investment. Ratings between thirty-five and thirty-nine (35-39) appear to have at least modest potential, but typically have some unknowns that need to be resolved. Products scoring a CAR of forty or forty-one (40-41) are considered to have an acceptable level of risk and sufficient potential to warrant further development, but have unknowns that need to be resolved. Ratings of forty-two (42) or more are considered to involve an acceptable level of risk and are recommended for further development.

Accordingly, further investment in your product:

- IS NOT RECOMMENDED -----(Under 30 CAR)
- SHOULD BE VERY LIMITED AND CAUTIOUS -----(Between 30-34 CAR)
- SHOULD BE LIMITED AND CAUTIOUS -----(Between 35-40 CAR)
- ✓ **IS RECOMMENDED BUT NEED TO RESOLVE UNKNOWN**----- **(40-41 CAR)**
- IS RECOMMENDED FOR SMALLER/SPECIALTY  
CHANNELS OF DISTRIBUTION----- (Over 42 CAR)
- IS RECOMMENDED AFOR LARGER/NATIONAL  
CHANNELS OF DISTRIBUTION ----- (Over 42 CAR)

*In pursuing further commercialization of your product, pay particular attention to the experience, strategy and channel criteria. Be very cautious about pursuing commercialization yourself, unless you have the background required (or have access to those who do) for successful commercialization as indicated by criteria 36-39 above. Criteria 35, 40 and 41 are also very important, especially to entrepreneurs. Consider your circumstances, resources, talents, and abilities in your decision-making.*