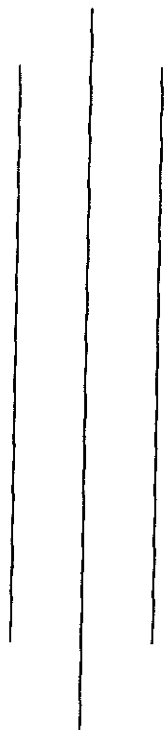


PROJECT PROFILE**ON****TITLE : " REPAIR & SERVICE OF CONSUMER ELECTRONIC PRODUCTS
(UPDATED)****PRODUCT CODE :****(iv) ASICC : 97100****(v) NIC : 52602****(vi) ITC(HS):****QUALITY STANDARD : As per customers requirement****PRODUCTION CAPACITY****QTY : 2,700Nos. Per Annum****YEAR OF PREPARATION****: 2006 - 07****PREPARED AND UPDATED BY : Assistant Director (Elect)
SMALL INDUSTRIES SERVICE INSTITUTE
INDUSTRIAL ESTATE, TAKYELPAT
IMPHAL - 795001, MANIPUR**

1. **INTRODUCTION ;**

With the increase expansion of electrification throughout the country Electricity is now available in remote rural areas also, not only in urban areas. Consumers electronics products find extensive used in domestic,commercial,institution.Hospitals,banks,office,Aiports,industrial etc.Consumer electronic products are increasingly becoming popular day after day with the rise in standard of living and economic prosperity. They are extensively used not only in Town/Cities but also in remote and far flung areas too. In Manipur, for example where power problem is there, Inverters are extensively used for lighting purpose. In fact, they became an item of daily needs. There is a good scope for taking up these venture. This has results in increase used of household and other purposes electrical

2. **MARKET POTENTIAL :**

Consumer electronic product sector is the backbone of the electronic Industry and contribute to about 1/3rd of the total electronic production. These Sector is one of the fast growing sector with an annual growth of 8 %.The demand Of consumer electronic products has been growing year after year. The after sale Service offer by manufacturers are mostly confine to big towns and cities and Many consumers are not able to get these service. This service facility is not Available in many remote and far flung areas.

The demand for these products are mainly governed by spread of educational Institutions, expansion of trade & commerce, improvement in living standards And many others. Hence, there is a good scope for undertaking such ventures.

3. **BASIS AND PRESUMPTION**

- a) The basis for calculation of production capacity has been taken on a single Shift basis on 75 % efficiency.
- b) The maximum capacity utilization on a single shift basis for 300 days a year. During the first year and second year of operations the capacity utilization is 60 % and 80 % respectively The unit is expected to achieve full capacity utilization from the third year onwards.
- c) The salary and wages, cost of materials,utilities,rents,etc. are base on the Prevailing rates in and around Imphal. These cost factors are likely to vary with time and location.
- d) Interest on term loan and working capital loan must be preferably current rate. Otherwise, the rate of 14 % on an average may be taken.
- e) The cost of machineries and equipments refer to a particular make/model And prices are approximate.
- f) The breakeven point percentage indicated is of full capacity utilization.
- g) The project preparation cost etc. whenever required could be consider as pre-operative expenses.
- h) The essential production machinery and test equipment required for the project have been indicated.

4. IMPLEMENTATION SCHEDULED

The major activities in the implementation of the project listed and the average time for Implementation of the project is estimated at 12 months:

Sl.no	Events	Period(in months)
5.	Preparation of project report	1/2
6.	Registration and other formalities	1/2
7.	Sanction of loans by financial institutions	2
8.	Plant and Machinery	
	a) Placement of order	1
	b) Procurement	1
	c) Power connection/electrification	1/2
	d) Installation/Erection of machineries/Test equipments	1/2
5.	Recruitment of technical persons	1
6.	commercial production	1/2
	Total	7 1/2 mths

5. TECHNICAL ASPECTS

5.1 .PROCESS OF MANUFACTURE :

Since this is a service oriented unit, the process involved fault detection By visual observation, testing with measuring instruments etc. may be carried out before any parts is repair/service or replace. The process flowchart is given below :

Assessment of nature of complaint



Trace, identify and locate the fault



Replace the faulty parts & components/rewind the coils



Make end connection



Solder and insulate each end connection



Pre-heat and varnish the winding



Assemble the unit & test for its working

5.2 QUALITY STANDARDS ; As per customers requirement

5.3 PRODUCTION CAPACITY PER ANNUM

QTY : 2,700 nos electrical appliance/equipment

VALUE : Rs, 7,35,000/-

5.4 MOTIVE POWER : 5KVA(Appx.)

6. POLLUTION CONTROL

The Govt. accords utmost importance to control environments pollution. The small scale entrepreneurs should have an environmental friendly attitude and adopt pollution control measures by process modification and technology substitutions. India having acceded to the Montreal Protocol in Sept. 1992 the production and use of Ozone Depleting Substance(ODS) Like CHLOROFLUONE CARBON (CFC),Carbon Tetrachloride,Halons and methyl chloroform etc. need to be phase out immediately with alternative chemical/Solvents. A notification for detail rules to regulate ODS phase out under the Environment Protection Act,1986 have been put in place with effect from 19th July,2000. The following steps are suggested which may help to control pollution in electronics industries wherever applicable:

- iii) In electronic industry fumes and gases are released during hand soldering/wave soldering/Dip soldering, which are harmful to people as well as environment and the end products,. Alternate technologies may be used to phase out the existing polluting technologies.Numerous new flux have been Developed containing 2- 10% solids as opposed to the traditional 15-35 % solids
- iv) Electronics industry uses CFC s,Carbon Tetrachloride and Methyl Chloroform for cleaning of printed circuit board after assembly to remove flux residues left after soldering, and various kinds of foam for packing.

Many alternatives solvents could replace CFC -113 and methyl Chloroform in Electronic industry cleaning. Other chlorinated solvents such as trichloroethylene, per chloroethyle and methylene chloride have been used as effective cleaners in electronic industry for many years. Other organic solvents such as ketenes and alcohols are effective in removing both solder fluxes and many polar contaminants.

7. ENERGY CONSERVATION

With the growing energy needs and shortage coupled with rising energy cost, a greater Thrust in energy efficiency in industrial sector has been given by the Govt. of India since 1980s.The energy conservation Act 2001, which provides for efficient used of

energy, its conservation & capacity building of Bureau of Energy Efficiency created under the Act.

The following steps may help for conservation of electrical energy:

- vi) Adoption of energy conservation technologies, production aids and testing Facilities.
- vii) Efficient management of process/manufacturing machineries and systems QC, and testing equipments for yielding maximum energy conservation.
- viii) Optimum used of electrical energy for heating during soldering process can be obtained by using efficient temperature controlled soldering and de soldering stations.
- ix) Periodical maintenance of Motor compressors etc.
- x) Use of power factor correction capacitors. Proper selection and layout of lighting system, timely switching off of the lights, use of compact fluorescent lamps wherever possible etc.

8. FINANCIAL ASPECTS

Land and Building		
Built-up Area	70 aq.mts (Rented)	Rs. 2,500
Office ,Stores	15 sq .mts	--
Assembly and testing	50 sq mts	--
Rent payable per annum		--
	Total	Rs. 30,000

9. MACHINERY AND EQUIPMENT

Sl.no	Description	Ind/Imp	Qty.	Value (Rs.)
1.	Oscilloscope	Ind	1no	22,000
2.	AM/FM Signal Generator	-do-	1no	8,000
4.	Manual Winding Machine	-do-	1 no	7,000
3.	Color TV Kit	-do-	1no	7,500
4.	Telephone Test Kit	-do-	1no	3,500
5.	Digital Millimeter	-do-	1no	5,000
6.	Analogue Millimeter	-do-	1no	1,500
7.	Portable drilling machine	-do-	1no	5,000
8.	Soldering Iron & Pumps	-do-	1no	1,500
9.	HV TV Probe, TV/VCR Remote tester, Transistor tester	-do-	1no	2,000
	TOTAL			63,000
	Other fixed assets			
	Electrification charges @ 10 % of the cost of machinery and equipments	--	--	6,300
	Office equipments, furniture and working tables etc.	-do-	L.S	15,000
	Tools, Jigs and fixtures, etc.	-do-	L.S	6,000
	Pre-operative expenses		L.S	10,000
			Total	1,00,300
			Total Fixed capital	1,00,000

(10) WORKING CAPITAL PER MONTH
(ii) Staffs & Labor

Sl.no	Designation	No. of persons	Salary/Month(Rs.)	Total salary per month (Rs.)
1.	Service Engineer	1 nos	5,000	5,000
2.	Skill Technician	3 nos	3,500	10,500
3.	Helper	1 no.	1,500	1,500
	Add perquisites @15% of salary		Total	17,000
				2,550
			Total	19,550
			Say,	20,000

(ii) Raw Materials Requirement per month

Sl.no	Particulars	Ind/Imp	Qty	Amount(Rs.)
1.	ICs, Timers, Transistor, Diodes, Leads, Resistors, capacitors, presets, Mosfet etc.	Ind	L.S	8,000
2.	PCBs, Relays, Buzzers, Switches, Sockets, Knobs, Fuses etc.	Ind	L.S	7,000
3.	Copper winding wires	Ind	L.S	4,500
4.	PVC sleeves, Bobbins, insulating paper/oil etc.	Ind	L.S	1,000
	Total			20,500

(iii) Utilities per month

Power	600 units @ Rs.2.50	1,500
Water	L.S	100
Total		1,600

(iv) Other Contingent expenses per month

Sl.no.	Particular	Amount (Rs.)
1.	Rent	2,500
2.	Postage and stationery	3,00
3.	Telephone/Fax/ charges	500
4.	Repair and maintenance	600
5.	Transport and conveyance	800
6.	Advertisement and publicity	500
7.	Insurance and taxes	700
8.	Misc. Expenses	300
9.	Total	6,200

Total Recurring Expenditure per month

(i) + (ii) + (iii) + (iv)

:
; Rs. 48,300

11. Total Capital Investment

Sl.no	Particular	Amount (Rs.)
1.	Fixed Capital	1,00,000
2.	Working capital for three months	1,44,900
	Total	2,44,900

Financial Analysis :

12. Cost of Production (per annum)

Sl.no	Particular	Amount (Rs.)
1.	Recurring Expenses	5,79,600
1.	Depreciation on machinery and equipment @10%	6,300
2.	Depreciation on Tools, Jigs, & Fixtures @ 25%	1,500
3.	Depreciation on office Equipments, furniture @20%	3,000
4.	Interest on capital investment @ 14 %	34,000
5.	Total	6,24,400
6.	Say	6,24,000

13. Turnover per annum

Item	Quantity (Nos)	Rate/unit (Rs.)	Total sales (Rs.)
Repair & Service charge of different TV/CD/VCR/ Audio systems	900, nos	600	5,40,000
Repair Service of Voltage stabilizers, UPS/Inverters/Emergency lamp	300 nos	350	1,05,000
Repair & Service of Telephone, Electronic Toys, Cordless phones & Misc. items	1500 nos.	100	1,50,000
	Total		7,35,000

14. Profit per Annum(before taxes)

$$\begin{aligned} \text{Turnover per annum} - \text{Cost of production per annum} &= \text{Rs. } 7,35,000 - 6,24,000 \\ &= \text{Rs. } 1,11,000 \end{aligned}$$

Net profit ratio

$$\begin{aligned} &= \frac{(\text{Profit/annum}) * 100}{(\text{Sales/ annum})} \\ &= 15.10 \% \end{aligned}$$

Rate of Return

$$\begin{aligned} &= \frac{\text{Profit/annum} * 100}{\text{Total capital investment}} \\ &= 45 \% \end{aligned}$$

15. **Break Even Point**
Fixed Cost per annum

Sl. no	Particular	Amount (Rs.)
1.	Rent	30,000
2.	Depreciation on machinery and equipment @ 10 %	6,300
3.	Depreciation on tools, jigs and fixtures @ 25 %	1,500
4.	Depreciation on office equipments, furniture @ 20 %	3,000
5.	Interest on total capital investment @ 14 %	34,000
6.	40 % salaries and wages	96,000
7.	40 % other contingents & utilities	37,500
8.	Total fixed cost	2,08,300
	Or say	2,00,000

Break Even Point

$$\frac{\text{Fixed Cost} * 100}{\text{Fixed cost} + \text{profit}} = 53.90 \%$$

16. **Additional Information's**

- i) The project profile may be modified/tailor to suit the individual entrepreneurship Quality, production programme and also to suit the location characteristic, Wherever applicable.
- j) The electronics technology is undergoing rapid strides of changes and there is Need for regular monitoring of the international technology scenario. The unit may Therefore, keep abreast with the new technologies in order to keep them in pace With the developments for global competition.
- c) Quality today is not only confined to product or service alone. It also extend to the process and environment in which they are generated. The ISO-9000 defines standards for environment management systems and ISO-14001 defines standards for environmental management system for Acceptability at international level. The unit may therefore adopt these standards For global competition.

The margin money recommended is 25 % of the working capital requirement at an Average. However, the percentage of margin money may vary as per banks discretion.

17. Name and Addresses of the Machinery & Equipment Supplier

- | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 1 | Electronic Corporation of India
ECIL Post, Hyderabad – 500062

Bharat Electronics Ltd.
116/2, Race Course Road
Bangalore -560001 | Electronic Components |
| 2. | (a) Meco Instruments Pvt. Ltd
301, Bharat Indl. Estate
T.J Road, Sewree
Mumbai – 400015 | Test and measuring
Equipments |
| 3. | (b) Signet Electronics Pvt. Ltd
213, Champak Indl. Estate
105, SION (e) Mumbai -400022 | |
| 4. | Arora Electronic
Thangal Bazar
Imphal -79501

India Electronic
Khoyathong Road
Imphal -795001 | Misc Electronic Items |