Member of Parliament Local Area Development Scheme

भारत सरकार
सांख्यिकी एवं कार्यक्रम कार्यान्वयन मंत्रालय
सरदार पटेल भवन, नई दिल्ली -110001
GOVERNMENT OF INDIA
MINISTRY OF STATISTICS & PROGRAMME IMPLEMENTATION
SARDAR PATEL BHAVAN, NEW DELHI-110001
FAX : 011-23364197
E-mail : mplads@nic.in

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

F.No. C-42/2011-MPLADS (Part-II)

Dated ....06.10.2016.....

To

(1) The Commissioners,
Corporations of Kolkata / Chennai / Delhi

(2) All District Collectors/District Magistrates/ Deputy Commissioners

Subject: Financial assistance to be provided under MPLADS to differently abled persons with disabilities.

Sir/Madam,

Para 3.28 of the Guidelines on MPLADS provides that assistance can be given for purchase of tricyle (manual / battery operated / motorized), wheelchair (motorized / battery operated) and artificial limbs for differently abled deserving persons with disabilities. The total assistance for such devices was limited to Rs. 10 lakh per year.

2. It has been decided to include essential items in respect of differently abled persons with visual and hearing impairment in the MPLADS and to enhance the financial assistance from Rs. 10 lakh to Rs. 20 lakh per MP per annum for purchase of assistive devices. Accordingly, para 3.28 of the Guidelines on MPLADS may be read as follows:

> **3.28 Utilisation of MPLADS Fund for welfare of the differently abled persons:** MPs may recommend upto a maximum of Rs.20 lakhs per year, with effect from the financial year 2016-17, from their MPLADS fund for giving assistance to the physically challenged. Such assistance will be given only for the purchase of tricycles (manual / battery operated / motorized), motorized / battery operated wheelchair and artificial limbs and aids / devices approved for visually impaired / hearing impaired as per the instructions contained in Ministry of Social Justice and Empowerment, Department of Disability Affairs O.M. Nos. 4-2(7)/2014/DD-I dated 23.07.2014 and 4-2(8)/2014/DD-I dated 20.10.2014 (Annexure-I) for differently abled deserving persons.
>
> Grant of artificial limb, etc can be given only by one Hon'ble MP to one person and that other Hon'ble MPs cannot then add further grants to the

same person. Clubbing of grants by Hon'ble MPs to one person is not permissible under the MPLADS.'

3. Serial no. 3 of Annexure-II A of the Guidelines provides the procedure for financial assistance to the physically challenged persons. The assistance to visually / hearing impaired has also to be incorporated in this para. It may be amended to be read as follows:

> **Utilisation of MPLADS Fund for welfare of the differently abled persons (Para 3.28):** MPs may recommend upto a maximum of Rs.20 lakh per year with effect from the financial year 2016-17, from their MPLADS fund for giving assistance to the physically challenged persons. Such assistance will be given only for the purchase of tricycles (manual / battery operated / motorized), motorized / battery operated wheelchair and artificial limbs and aids / devices approved for visually / hearing impaired as per the instructions contained in Ministry of Social Justice & Empowerment, Department of Disability Affairs, O.M. No. 4-2(7)/2014/DD-I dated 23.07.2014 and 4-2(8)/2014/DD-I dated 20.10.2014 (Annexure-I) for differently abled deserving persons. All applications for such assistance shall be examined and approved by a Committee under the Chief Medical Officer of the District to ensure proper eligibility. The District Authority will be fully involved in the selection of such eligible persons. The Committee will also certify the reasonability of the rate. No recurring expenses will be admissible. No cash grant will be permissible, but the item would be obtained and given to the deserving differently abled person in a public function.

4. This issues with the approval of the Competent Authority.

Yours faithfully,

Saibaba 6/10/16

(D. Sai Baba)
Director (MPLADS)

Copy to:

1. All Hon'ble Members of Parliament (Lok Sabha/Rajya Sabha).
2. The Nodal Secretaries / Chief Secretaries of all States/UTs.
3. Rajya Sabha Committee on MPLADS, Rajya Sabha Sectt., New Delhi.
4. Lok Sabha Committee on MPLADS, Lok Sabha Sectt., New Delhi.
5. To all concerned in MPLADS Division.
6. NIC for uploading on the MPLADS website.

(14) 254 Annexure-I

GUIDELINES FOR FITMENT AND PROCUREMENT OF HEARING AIDS / ASSISTIVE LISTENING DEVICES UNDER ADIP SCHEME (2014-2015)

As per the recommendations of the expert committee meeting held on 22-08-2014

19/09/14 19/09/14

Hearing aids/Assistive listening devices under ADIP scheme

(A) Objective:

The main objective of the Scheme is to assist the hearing disabled persons in procuring durable, sophisticated and scientifically manufactured, modern, standard hearing aids/assistive listening devices to rehabilitation of Persons with Hearing Disabilities by reducing the effects of disabilities and at the same time enhance their economic potential.

The Scheme will be implemented through the Implementing Agencies. The Agencies will be given financial assistance for purchase, fabrication and distribution of such standard aids and appliances that are in conformity with objectives of the Scheme. The Implementing Agencies will take care of/make suitable arrangements for fitting and post-fitting care of the aids and appliances distributed under the Scheme. The Implementing Agencies will give wide publicity of the distribution of such aid and appliances to PwDs. Further, prior to the camp they will inform the District Collector, BDO, a local public representative, State Government and the Department of Disability Affairs at least one week in advance about the date and the location of the camp. After the camps, they shall provide a list of beneficiaries and the details of aids and assistive devices with the cost incurred to the State Government and the Department of Disability Affairs. The list of beneficiaries shall be prominently displayed in the website of the Implementing Agency.

(B) Eligibility of the Beneficiaries

A person with disabilities fulfilling the following conditions would be eligible for assistance under ADIP Scheme.

i. An Indian citizen of any age.
ii. Holds a 40% Disablement Certificate.
iii. Has monthly income from all sources not exceeding Rs. 20,000/- per month.
iv. In case of dependents, the income of parents/guardians should not exceed Rs 20,000/- per month.
v. Who have not received assistance during the last 3 years for the same purpose from any source. However, for children below 12 years of age, this limit would be one year.

Note: - Income certificate of beneficiaries staying in orphanages and half-way homes etc. may be accepted on certification of District Collector or Head of the organization concerned. Such beneficiaries will be provided aids & appliances under this Scheme by the implementing agencies.

19/09/14

(143) 256

(C) Quantum of Assistance

(i) For aids and appliances costing up to Rs. 10,000/-.

Aids/appliances which do not cost more than Rs. 10,000/- are covered under the Scheme for single disability. However, in the case of SwDs, students beyond IX class, the limit would be raised to Rs.12, 000/-

In the case of multiple disabilities, the limit will apply to individual items separately in case more than one aid/appliance is required.

(ii) For providing modern assistive devices for all categories of PwDs both physical and mental and multiple disability impaired groups, e.g. Daisy Book players and other Talking Devices, Net Book Laptop and Digital Magnifiers for visual impairment and Behind the Ear (hearing aid) for hearing impairment, the items will be decided by an Expert Committee constituted in the Department of Disability Affairs with the approval of Minister for Social Justice & Empowerment. The extent of financial support would be limited to Rs. 10,000 for each disability and Rs. 12,000 for students with disabilities in respect of devices costing up to Rs. 20,000. Further, all expensive items costing above Rs. 20,000, except cochlear implant, eligible for assistance under the scheme, subject to income ceiling, would be listed out. Government of India shall bear 50% of cost of these items thus listed by the Committee and the remainder shall be contributed by either the State Govt. or the NGO or any other agency or by the beneficiary concerned subject to prior approval of Ministry on case to case basis; limited to 20% of the Budget under the Scheme.

(iii) Cochlear implant

Ministry of Social Justice and Empowerment will recognize an Institute of national stature from each zone to recommend children eligible under the Scheme for cochlear implant, with a ceiling of Rs.6.00 lakh per unit to be borne by the Government. Ministry will also identify and recognize the Institutes in the zones wherein the surgery will be undertaken. Ministry will identify suitable agencies for providing cochlear implant (500 children per year) under the Scheme. Income ceiling for the beneficiaries will be same as for other aids/appliances.

Note: - Beneficiaries will be linked with Aadhaar number or Ration Card or Voter I-card from 2014-15 and with Aadhaar number from 2015-16.

(D) The amount of assistance will be as follows:

(i) Monthly Income up to Rs. 15,000/- per month: full cost of the hearing aid/assistive listening devices

(ii) Monthly Income Rs.15,001/- to Rs. 20,000/- per month: 50% of the cost of hearing aid/assistive listening devices

19/09/14

(E) List of Hearing aids/assistive listening devices

1. Body level hearing aids
2. Analog/Non Programmable (Behind the ear(BTE), In the ear(ITE), In the canal (ITC), Completely in the canal(CIC))
3. Digital/Programmable (Behind the ear(BTE), In the ear(ITE), In the canal (ITC), Completely in the canal (CIC))
4. Personal FM Hearing Aids
5. Bluetooth neck loop for hearing aids
6. Vibratory Alarm
7. Baby-crying Alerting Wireless device
8. Door Bell Signaler
9. Fire Smoke Alarm
10. Telephone Signaler
11. Amplified Telephone
12. Telephone amplifier
13. Audio induction loop
14. Infrared system
15. Hearing aids with bone vibrator
16. Educational kit (Children up to 10 years of age can be provided with a choice of multiple assistive devices along with educational kit as per the recommendations of the rehabilitation professionals. However, the onetime quantum of assistance should not exceed an amount of Rs. 10,000/-)
    a) Language (Vocabulary) book
    b) Articulation drill book
    c) Story book
    d) Other materials (Family Hand Puppets, 5 Puzzles, Montessori equipments/toys, Shape sorter clock, One set of noise makers, Block sorter boxes, Set of verb cards, 5 soft toys)

Details of Quantum of Assistance for Hearing Impaired:

i. Hearing Aids/Assistive Listening Devices costing up to Rs.10,000/- for persons with Hearing Impairment

ii. Hearing Aids/Assistive Listening Devices costing up to Rs.12, 000/- for students with disabilities (HI) beyond IX Standard

iii. Hearing Aids/Assistive Listening Devices costing up to Rs.20, 000/- for students with disabilities (HI) beyond IX standard wherein Rs. 12,000/- will be borne by the Govt. (Under ADIP) Scheme) and the remaining amount to be paid by the beneficiary/State Govt./NGO or any other agency.

iv. Hearing Aids/Assistive Listening Devices costing above Rs.20,000/- except cochlear implant for students with disabilities (HI) beyond IX standard wherein 50% will be borne by the Govt. (limited to 20% of the budget under the ADIP scheme) and the remaining amount to be paid by the beneficiary/State Govt./NGO or any other agency.

Specification for Hearing Aids/Assistive Listening Devices

I. Hearing Aids/Assistive Listening Devices costing up to Rs.10,000/- for persons with Hearing Impairment

1. Body level hearing aids costing up to Rs. 3,000/-

Justification:

1. As the size of hearing aid is large it would be easy to operate the controls by individuals having dexterity problems, visual problems (due to old age), and young children with multiple disabilities.
2. Minimized effect due to body perspiration
3. Withstands shocks, drops and other mechanical damages
4. Available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL
5. Body level aids with either audio input or telecoil to connect to external devices connecting to TV and MP3 players etc, to let clients enjoy recreational activities.

- **Physical features:**

a. **Dimensions and Mass**

Overall Height (max)	:	80 mm
Overall width (max)	:	65 mm
Thickness (max)	:	20 mm
Mass (max)	:	60 gms

(excluding batteries, cords & earplugs)

b. **Controls**

The hearing aid shall contain On/Off switch, Volume control, Telecoil, Tone control (L/N/H or N/H/HH), AGC / MPO trimmer control to manipulate the gain of the hearing aid.

c. **Accessories**

Earphone receiver – Air conduction type
Cord – 'S' or 'V' cord
Three sets of different sizes of Ear tips
Two rechargeable batteries and Solar Battery Charger for all types or 24 Non-rechargeable Pen-torch cells (Size 'AA'/ R6 – 1.5V, IS: 9128) should be accommodated in hearing aid pack.

19/09/14

- **Electro-acoustic features**

The body level hearing aids are available in mild, moderate, strong and extra strong classes.

BIS IS 10775: 1984

Sr. No	Parameters	Mild	Moderate	Strong	Extra strong*
1	Maximum SSPL	115 dB	125 dB	135 dB	>135 dB
2	Average OSPL 90	105 to 114 dB	115 to 124 dB	125 to 134 dB	> 130 dB
3	Full on acoustic gain	45dB(min)	55dB(min)	65dB(min)	>70dB
4	HF Avg. Full on Gain	40 dB (Min.)	50 dB (Min.)	60 dB (Min.)	> 60 dB
5	Frequency range	At least between 250 Hz to 3150 Hz for all categories			
6	Total Harmonic Distortion	should not exceed 7 % (at 1.5V) and 10 % (at 1V)			
7	Difference in gain between 1V & 1.5V	≤ 10dB for all classes of aids			
8	Battery Current	≤ 5 mA	≤ 10mA	≤ 15mA	≤ 20 mA
9	Equivalent I/P noise levels	≤ 30 dB SPL			
10	Tele coil	Min 75 dB	Min 85 dB	Min 95 dB	Min 95 dB

***BIS standards for extra strong hearing aids are not available. However, as these hearing aids are beneficial to individuals with severe to profound hearing loss, the expert committee has recommended the same.**

2. Analog Hearing aids/non programmable Digital Behind The Ear (BTE), In the Ear(ITE), In the canal (ITC), Completely in the canal (CIC) hearing aids costing up to Rs. 10,000/-

Analog hearing aids/non programmable Digital Behind the Ear Hearing aid are of linear amplification in which the amount of output increased will be equal to the increase in the input until the hearing aid saturation is reached.

Justification:

1. As the hearing aid is at ear level provides better speech perception and better signal to noise ratio.
2. Various types and models are available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL.

19/08/14.

260

(12)

- **Physical features**

a. Color options such as cream/brown/black are available

b. Controls

The hearing aid shall contain On/Off switch, Volume control, Telecoil, Tone control (N-H) BTE/ITE. On/Off switch, volume control for ITC, CIC.

c. Accessories

Three sets of different sizes of Ear tips with tubes for BTEs

Two rechargeable batteries and Battery Charger for all types or 36 non chargeable Zinc air Button cells should be accommodated in hearing aid pack.

- **Electro-acoustic features (As there are no BIS standards for analog behind the ear (BTE) hearing aids the specifications are adopted from the Body-worn Hearing Aid standards).**

S.N	Parameters	Category I	Category II	Category III
1	Maximum SSPL	115 dB	125dB	135dB
2	Average OSPL 90	105 to 114dB	115 to 124 dB	125 to 134 dB
3	HF Avg. full on Gain	40 dB (Min.)	50 dB (Min.)	60 dB (Min.)
4	Frequency range	At least between 250 Hz to 3150 Hz for all categories		
5	Total Harmonic Distortion	should not exceed 7 % (at 1.4V)		
6	Battery Current	≤ 5 mA	≤ 10mA	≤ 15mA
7	Equivalent I/P noise levels	≤ 30 dB SPL		
8	Tele coil	Min 75 dB	Min 85 dB	Min 95 dB

*The analog BTE hearing aids which are not having BIS standards are also included as these are beneficial for individuals with hearing loss. The expert committee recommended the same and the proposed parameters are adopted from body worn hearing aid specifications.

19/09/14.

- **Electro-acoustic features (As there are no BIS standards for In the ear (ITEs), In the canal (ITC) the specifications are adopted from the Body-worn Hearing Aid standards).**

S.N	Parameters	Category I	Category II	Category III
1	Maximum SSPL	105 dB	115 dB	125dB
2	Avg. OSPL 90	95 to 104 dB	105 to 114 dB	115 to 124 dB
3	HF Avg. Full on Gain	30 dB (Min.)	40 dB (Min.)	50 dB (Min.)
4	Frequency range	At least between 250 Hz to 3150 Hz for all categories		
5	Total Harmonic Distortion	should not exceed 7 % (at 1.4V)		
6	Battery Current	≤ 5 mA	≤ 10mA	≤ 15mA
7	Equivalent I/P noise levels	≤ 30 dB SPL		

*The analog ITE and ITC hearing aids which are not having BIS standards are also included as these are beneficial for individuals with hearing loss. The expert committee recommended the same and the proposed parameters are adapted from body worn hearing aid specifications.

- **Electro-acoustic features (As there are no BIS standards for completely in the canal (CICs), the specifications are adopted from the Body-worn Hearing Aid standards).**

S.N	Parameters	Category I	Category II
1	Maximum SSPL	110 dB	120 dB
2	Average OSPL 90	100 to 109 dB	110 to 119 dB
3	HF Avg. Full on Gain	30 dB (Min.)	40dB (Min.)
4	Frequency range	At least between 250 Hz to 3150 Hz for all categories	
5	Total Harmonic Distortion	should not exceed 7 % (at 1.4V)	
6	Battery Current	≤ 5 mA	≤ 10mA
7	Equivalent Input noise levels	≤ 30 dB SPL	

*The analog CIC hearing aids which are not having BIS standards are also included as these are beneficial for individuals with hearing loss. The expert committee recommended the same and the proposed parameters are adapted from body worn hearing aid specifications. Committee recommended the same and the proposed parameters are adapted from body worn hearing aid specifications.

19/09/14

4. Digital/Programmable/Adaptive automatic Digital ready to fit Hearing aids: Behind the Ear (BTE) hearing aids costing upto Rs.10, 000/-

Digital programmable or adaptive automatic Digital ready to fit hearing aids work with non linear amplification in which the amount of output is controlled using various compression circuits.

Justification:

1. They provide programmable gain which can be adjusted as per the configuration of the audiogram and number of channels present.
2. May contains up to 2 - 4 channels and 2 programs for different listening conditions (Eg: noise, feedback cancellation etc.) and have greater durability (optional).
3. As the hearing aid is at ear level it provides better speech perception and good signal to noise ratio.
4. Better signal to noise ratio for sloping hearing losses as low frequency gain can be reduced and has different channels (up to 2 - 4 channels) in the frequency range
5. Various types and models are available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL

- **Physical features:**

a) Color options such as cream/brown/black are available

b) Digitally programmable

c) Controls

The hearing aid shall contain On/Off switch, Volume control, Telecoil in BTE/ITE.
Digital Signal Processing amplifier
Hearing Level control / Volume Control (for adjustment of Gain and MPO)

Accessories

Three sets of Ear tip and tubes in different sizes for BTEs
Two rechargeable batteries and Battery Charger or 36 non Chargeable Zinc Air Button cells should be accommodated in hearing aid pack.

19/08/14

155

263

- **Electro-acoustic features for Behind the ear (BTEs) as per IS 16127 : 2013**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 135dB
2	HF Avg. Full on Gain	Type I: 40 dB (min), Type II: 45 dB (min),Type III: 50 dB (min)
3	No. of Channels / (Optional) bands	Two or Four
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 10 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Telecoil	75 dB(min)

Procedure for Procurement:

- Warranty period for 2 Years
- Children below 12 years are allowed two body level hearing aids or two behind the ear Hearing Aids (Binaural). However cost should not exceed more than ADIP limit of Rs. 10, 000/- for each hearing aids.
- Children up to 10 years of age are provided with a choice of multiple assistive devices along with educational kit. However, the onetime quantum of assistance should not exceed an amount of Rs. 10,000/-
- The implementing agencies need to carry out 1% of sample check for electro-acoustic characteristics (EAC) measurements for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category hearing aids.
- The implementing agencies should send the randomly selected 1% of the sample for Electro acoustic Characteristics of Hearing aid for certification (EAC) to AYJNIHH and its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of hearing aids and assistive devices will be done by the implementing agencies by following procedural codes as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.
- Dispensing of ITEs, ITCs and CICs are allowed only at National Institutes and their Regional Centres and Composite regional Centres.

19/09/17

5. Other Assistive Listening Devices costing up to 10,000/-

Assistive technology helps people who are deaf and hard of hearing to live more independently. Technology is continuously improving and changing. Some of the assistive listening devices recommended include:

I. Communication devices

a. Personal FM Hearing Aids,
b. Bluetooth neck loop for hearing aids
c. Amplified Telephone
d. Telephone amplifier

II. Alerting devices

a. Vibratory Alarm,
b. Baby-crying Alerting Wireless device,
c. Door Bell Signaler,
d. Fire Smoke Alarm,
e. Telephone Signaler,

I. Communication devices

a. FM systems - Personal body-worn FM device

Physical Features

a. FM microphone
b. Personal FM receiver attached to hearing aid worn by the listener.
c. FM transmitter

Specifications

- FM systems broadcast across the frequency region between 72 to 76 MHz and 216 to 217 GHz
- Modulation type Analogue FM (narrowband)
- Range Up to 30 feet

19/09/14

b. Bluetooth neck loop for hearing aids:

The bluetooth neck loop provides hands free cell phone conversation. Neck loops are compatible with wireless computer and communication apps such as Skype. They provide good signal strength with reduced background noise. They are telecoil compatible with BTE, ITE and ITC aids.

Features	Description
Frequency Band	2.4GHz ISM Spectrum
Modulation	GFSK (Gaussian Frequency Shift Keying)
RF Power	Class 2, -6-6dBm
Operating Range	Up to 10m/30ft (indoor)
Compatibility	Mobile phones supporting Bluetooth 1.1 (and above), Other Stereo Audio Devices supporting Bluetooth 1.1 (and above), Headset.
Dimension	30mmx60mmx20mm (approx)
Weight	15 gms (approx)
Loop Size	1000mm (approx)

c. Amplified Telephone:

Numerous telephones have built-in amplifiers that vary in range from 25 to 55 decibels. Many of these telephones have variable tone selectors and loud ringers.

Features	Description
Amplification	Up to 50 dB incoming
Power supply	Base input: 7.5 V, 300 mA
Base dimensions	200mm x 200mm x 40mm (variable)
Jacks	AUDIO NECKLOOP (Output): 3.5 mm (Headset) 2.5 mm (variable)
Vibrating pad	3.5 mm (approx)
Caller ID	FSK standard, DTMF signaling

d. Tele Phone Amplifier:

A light weight battery operated device with an adjustable volume control that fits over the listening end of the handset.

Features	Description
Amplification	40 dB (Can be made available with slider control)
Power	AC adapter or 9-volt battery
Size	100mmx 75mm x 50mm (approx)

19/09/17

II. Alerting devices

Alerting devices use a loud tone, flashing lights or vibrations to alert people with a hearing loss to various environmental sounds. They respond to a variety of signals: the ring of a doorbell or telephone, the cry of a baby, and the sound of alarm clocks, fire/smoke alarms. Many of these systems transmit signals to receivers located throughout a home or office, activating a light to flash or a device to vibrate.

All these devices help the persons with hearing loss to remain alert in all problem arising situations. So, it is mandatory that all individuals with hearing loss are provided access to own such devices for self-protection and other needs without missing out the important sounds of day to day life

a. Vibration Alarm:

Signalers vary from portable alarm clocks with built-in strobe lights to alarm clocks with a built-in outlet where a lamp or vibrating alert can be plugged in.

Features	Description
Ring Volume	105-113 dB extra-loud alarm (with adjustable tone & volume control)
Power (Vibration)	12-volt bed shaker
Light Signal	flashing alert lights
Snooze time	1-10 minutes choice
Alarm duration	from 1-20 minutes
Power	Battery operated

b. Baby-crying Alerting Wireless device:

1. Enables people to be alerted to baby sounds.
2. Enables Hearing Impaired parents to be alerted to their babies cry
3. Gives them an indication even when they are not in the same room
4. It has an adjustable sensitivity dial to pick up the softest sound and send a signal.

Features	Description
Light Signal	flashing alert lights (flash patterns can be selected)
Power	Battery operated
Dimensions	125mm x 50mm x 75mm (approx)
Weight	500gms. (approx)

19/09/14

c. Doorbell Signaler:

Works with or without an existing doorbell system to let people know that someone is at the door.

Features	Description
Light Signal	flashing alert lights (flash patterns can be selected)
Power	Battery operated
Dimensions	125mm x 50mm x 75 mm (approx)
Weight	500gms. (approx)

d. Fire/Smoke Alarm:

Alerts people who are deaf or hard of hearing that the smoke alarm has been activated. Some alarms have built in strobe lights.

Features	Description
Ring frequency	Low frequency
Power (Vibration)	10- 12-volt bed shaker
Light Signal	flashing alert lights
Power	Battery operated

e. Telephone Signaler:

One type of signaler plugs directly into the telephone line and electrical outlet. Another type can be attached to the side of the telephone to pick up the sound of the bell.

Features	Description
Light Signal	flashing alert lights (flash patterns can be varied)
Power	Battery operated
Dimensions	125mm x 50mm x 75mm (approx)
Weight	500 gm. (approx)

Procedure for Procurement:

- Warranty period for 2 Years
- As there are no BIS standards for above assistive listening devices and they are beneficial for clients, Committee recommends the same.
- The implementing agencies need to carry out 1% of sample check for testing for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category assistive devices.

19/09/14

- The implementing agencies should send the randomly selected 1% of the sample for testing of assistive devices for confirmation of satisfactory functioning to AYJNIHH Mumbai or its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of assistive listening devices will be done by the implementing agencies by following procedures codes as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.

II. Hearing Aids/Assistive Listening Devices costing up to Rs. 12,000/- for students with disabilities (HI) beyond IX Standard

1. Digital/Programmable Behind The Ear (BTE), In the Ear (ITE),In the canal (ITC), Completely in the canal (CIC)
2. Personal FM Hearing Aids
3. Bluetooth Neck Loop System (can be connected to laptops, mobile phones, TV & Audio systems etc.)
4. Video phone

1. Digital/Programmable Hearing aids: Behind the Ear (BTE), In the ear (ITE), In the canal (ITC) & Completely in the canal (CIC) hearing aids costing upto Rs.12, 000/-

Digital programmable hearing aids work with non linear amplification in which the amount of output is controlled using various compression circuits.

Justification:

1. They provide programmable gain which can be adjusted as per the configuration of the audiogram and number of channels present.
2. Contains up to minimum 2 programs for different listening conditions (Eg: noise, quiet, telecoil etc) and have greater durability.
3. As the hearing aid is at ear level it provides better speech perception and high signal to noise ratio.
4. Audio input or Bluetooth or wireless connectivity options with the hearing aid
5. Better signal to noise ratio for sloping hearing losses as low frequency gain can be reduced and has different channels (up to 4 channels) in the frequency range
6. Various types and models are available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL

19/09/14

- **Physical features:**

a. Color options such as cream/brown/black are available

b. Controls

The hearing aid shall contain On/Off switch, Volume control, Telecoil in BTE/ITE.
Fixed Directionality
Noise Reduction
Feedback Management
2 configurable programs (min)
4 or 8 channels
Sound indicator for programs and low battery warning
Power On delay

c. Accessories

Three sets of Ear tip and tubes in different sizes for BTEs
Two rechargeable batteries and Battery Charger or 36 Zinc air non chargeable Button cells should be accommodated in hearing aid pack.

- **Electroacoustic features for behind the ear (BTE) hearing aid as per IS 16127: 2013**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 135dB
2	HF Avg. Full on Gain	Type I: 40 dB (min), Type II: 45 dB (min), Type III: 50 dB (min),
3	No. of Channels/bands	Four / Eight
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 10 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	2(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)
10	Telecoil	75dB(min)

19/09/14

- **Electroacoustic features (As there are no BIS standards for In the ear (ITEs) & In the canal (ITC) hearing aids the specifications are adopted from the specification IS 16127: 2013 digital BTE standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 125dB
2	HF Avg. Full on Gain	Type I: 30 dB (min), Type II: 40 dB (min), Type III: 50 dB (min),
3	No. of Channels / bands	Four / Eight
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	2(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

- **Electroacoustic features (As there are no BIS standards for completely in the canal (CIC) hearing aid the specifications are adopted from the specification 16127: 2013 digital BTE standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 120dB
2	HF Avg. Full on Gain	Type I: 30dB (min), Type II: 40dB (min)
3	No. of Channels / bands	Four/Eight
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	2(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

19/09/14

Procedure for Procurement:

- Warranty period for 2 Years
- Mono-aural only
- There are no BIS standards for ITE, ITC & CIC hearing aids however these hearing aids are beneficial to individuals with hearing loss the above specifications were adopted from digital BTE standards and Committee recommended these hearing aids.
- The implementing agencies need to carry out 1% of sample check for electroacoustic characteristics (EAC) measurements for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category hearing aids.
- The implementing agencies should send the randomly selected 1% of the sample for Electro acoustic Characteristics of Hearing aid for certification (EAC) to AYJNIHH, Mumbai or its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of hearing aids and assistive devices will be done by the implementing agencies by following procedural codes as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.
- Dispensing of ITEs, ITCs and CICs are allowed only at National Institutes and their Regional Centres and Composite regional Centres.

2. Other Assistive Listening Devices costing up to 12,000/-

Assistive technology helps people who are deaf and hard of hearing to live more independently. Technology is continuously improving and changing. Some of the assistive listening devices recommended include:

I. Communication devices

a) Personal FM Hearing Aids,
b) Bluetooth neck loop for hearing aids
c) Video phone

a. Personal FM systems

Consists of

Microphone
Transmitter
Receiver

19/09/14

- **Features**

Receiver

i. DAI –Direct Audio Input – connects to BTE hearing aid
ii. LED indicator confirms that the child is receiving a clear signal
iii. Simple, on-the-spot programming – no need for PCs and extra cables
iv. Discreet receivers that stay in place
v. Clear, authentic sound quality for optimum speech understanding
vi. Fully compatible with hearing aids
vii. attack and release times as fast as 30 and 600 ms respectively
viii. DAI/FM + HA (default)
ix. Also available with neck loop
x. DAI cords – monaural & binaural

Transmitter

i. Transmitter and programmer in one
ii. Covers World FM Band
iii. Bandwidth 8.5 kHz
iv. Digital Signal Processing
v. External antenna built into microphone cord
vi. FM Channel Wizard - Monitor FM channels

b. Bluetooth neck loop for hearing aids:

The Bluetooth neck loop provides hands free cell phone conversation. Neck loops are compatible with wireless computer and communication apps such as Skype. They provide good signal strength with reduced background noise. They are telecoil compatible with BTE, ITE and ITC aids.

Features	Description
Frequency Band	2.4GHz ISM Spectrum
Modulation	GFSK (Gaussian Frequency Shift Keying)
RF Power	Class 2, -6-6dBm
Operating Range	Up to 10m/30ft (indoor)
Compatibility	Mobile phones supporting Bluetooth 1.1 (and above), Other Stereo Audio Devices supporting Bluetooth 1.1 (and above), Headset.
Dimension	30 x 60 x 18 mm. approx
Weight	15 gms (approx)
Loop Size	1000mm (approx)

19/09/14

c. Video Phone:

Using video phones, two people who know sign language can communicate directly with each other, or a person who is deaf and knows sign language can call a non-signing person through the video relay service (VRS). An interpreter at VRS facilitates communication between the person who uses sign language and the person who does not use sign language.

Justification:

Video phones are helpful for individuals who communicate through sign language

Features

Specification	Description
Fully Integrated Unit Including	LCD screen, camera, microphone, loudspeaker, keypad and handset Delivered with power supply/cable and Ethernet cable
Bandwidth	1152 kbps
Video Standards	H.264, H.263+, H.263
Video Features	Native 16:9 Widescreen Picture in Picture (PIP)
Audio Standards	MPEG4 AAC-LD, G.729ab, G.722, G.722.1, G.711
Audio Features	1. Ultra wideband 20 kHz speaker phone 2. Wideband 10 kHz handset 3. Automatic Gain Control (ACG) 4. Automatic Noise Reduction 5. Active lip synchronization
Privacy Features	Camera with integrated privacy shutter
User Interface	On-screen graphic user interface
Internet Connectivity	YES
Captioned Telephony (Optional)	TTY (Telephone Text) support via handset

Procedure for Procurement:

- Warranty period for 2 Years
- There are no BIS standards for the above assistive devices; however these devices are beneficial to individuals with hearing loss the above are recommended.
- The implementing agencies need to carry out 1% of sample check for testing for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category assistive devices.

19/09/14

- The implementing agencies should send the randomly selected 1% of the sample for testing of assistive devices for confirmation of satisfactory functioning to AYJNIHH Mumbai or its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of assistive listening devices will be done by the implementing agencies by following codal procedures as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.

III. Hearing Aids/Assistive Listening Devices costing up to Rs.20, 000/- for students with disabilities (HI) beyond IX standard wherein Rs. 12,000/- will be borne by the Govt. (Under ADIP) Scheme) and the remaining amount to be paid by the beneficiary/State Govt./NGO/any other Agency

1. Digital/Programmable Behind The Ear (BTE), In the Ear (ITE),In the canal (ITC), Completely in the canal (CIC)
2. Personal FM Hearing Aids
3. Audio induction loop
4. Infrared system

1. Digital/Programmable Hearing aids: Behind The Ear (BTE), In the ear(ITE), In the canal(ITC) & Completely in the canal(CIC) hearing aids costing up to Rs.20, 000/-

Digital programmable hearing aids work with non linear amplification in which the amount of output is controlled using various compression circuits.

Justification:

1. They provide programmable gain which can be adjusted as per the configuration of the audiogram with 4/ 8/ 12 channels / bands.
2. Contains 3 programs (min) for different listening conditions (Eg : noise, quiet, telecoil, speech mode etc.) and have greater durability.
3. As the hearing aid is at ear level it provides better speech perception and high signal to noise ratio.
4. Better signal to noise ratio for sloping hearing losses as low frequency gain can be reduced
5. Various types and models are available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL

19/09/14

- **Physical features:**

a. Color options such as cream/brown/black are available

b. **Controls**
   - The hearing aid shall contain On/Off switch, Volume control, Telecoil in BTE/ITE.
   - Bandwidth upto 8 kHz for ITEs. For BTEs, as per BIS standard
   - Directionality (both Omni & Uni)
   - Noise Management
   - Automatic Feedback Cancellation facility
   - 3 user programs(min)
   - 4/ 8/ 12 channels / bands
   - Direct audio input(DAI) or FM or wireless compatible (optional)
   - T-coil/ Auto Phone program
   - Battery Low warning
   - Sound indicators for program shifts
   - Power on delay

c. **Accessories**

Three sets of Ear tips of different sizes with tubes for BTEs

Two rechargeable batteries and Battery Charger or 36 Zinc Air non chargeable Button cells should be accommodated in hearing aid pack.

Electroacoustic features for behind the ear (BTE) hearing aid as per IS 16127: 2013

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 135dB
2	HF Avg. Full on Gain	Type I: 40dB (min),Type II: 45dB (min),TypeIII:50dB(min)
3	No, of Channels / bands	Four / Eight / Twelve
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 10 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	3(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)
10	Telecoil	75dB(min)

19/09/17

- **Electroacoustic features (As there are no BIS standards for In the ear (ITEs) & In the canal (ITC) the specifications are adopted from the IS 16127: 2013 digital BTE hearing aid standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 125dB
2	HF Avg. full on Gain	Type I: 30dB (min),Type II: 40dB (min),Type III:50dB (min)
3	No. of Channels / bands	Four / Eight / Twelve
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	3(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

- **Electroacoustic features (As there are no BIS standards for completely in the canal (CIC) the specifications are adopted from the IS 16127: 2013 of digital BTE hearing standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 120dB
2	HF Avg. Full on Gain	Type I: 30 dB (min), Type II: 40 dB (min)
3	No. of Channels / bands	Four / Eight / Twelve
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	3(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

19/09/17

Procedure for Procurement:

- Warranty period for 2 Years
- Mono-aural only
- There are no BIS standards for ITE, ITC & CIC hearing aids however these hearing aids are beneficial to individuals with hearing loss the above specifications were adopted from digital BTE standards and Committee recommended these hearing aids.
- The implementing agencies need to carry out 1% of sample check for electroacoustic characteristics (EAC) measurements for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category hearing aids.
- The implementing agencies should send the randomly selected 1% of the sample for Electro acoustic Characteristics of Hearing aid for certification (EAC) to AYJNIHH, Mumbai and its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of hearing aids and assistive devices will be done by the implementing agencies by following procedural codes as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.
- Dispensing of ITEs, ITCs and CICs are allowed only at National Institutes and their Regional Centres and Composite regional Centres.

2. Other Assistive Listening Devices costing up to 20,000/-

Assistive technology helps people who are deaf and hard of hearing to live more independently. Technology is continuously improving and changing. Some of the assistive listening devices recommended include:

I. Communication devices

a) Personal FM Hearing Aids,
b) Audio induction loop
c) Infrared system

a. Personal FM systems

Consists of
Microphone
Transmitter
Receiver attached to child's own FM compatible hearing aid

19/09/14

- **features**

Receiver

xi. DAI –direct audio input or tele Neck loop / Bluetooth streaming – connections to BTE hearing aid
xii. LED indicator confirms that the child is receiving a clear signal
xiii. Simple, on-the-spot programming – no need for PCs and extra cables
xiv. Discreet receivers that stay in place
xv. Clear, authentic sound quality for optimum speech understanding
xvi. Fully compatible with hearing aids
xvii. attack and release times as fast as 30 and 600 ms respectively
xviii. DAI or FM / Neck loop + HA (default)
xix. Also available with neck loop or Bluetooth streamer
xx. DAI cords – monaural & binaural (Optional)
xxi. has multiple frequency bands

Transmitter

i. Transmitter and programmer in one
ii. Covers World FM Band
iii. Bandwidth 8.5 kHz
iv. Digital Signal Processing
v. External antenna built into microphone cord
vi. FM Channel Wizard - Monitor FM channels

b. Audio Induction Loop:

1. Consists of a microphone, an amplifier, and a length of properly sized wire or cable which encircles the seating area.
2. To pick up the signals, listeners who are deaf and/or hard of hearing must have their hearing aids turned to the Telecoil switch and sit within or near the loop or encircled seating area.

Features	Description
Frequency response	100-5000Hz ±3dB relative to 1000Hz
Field strength	400mA/m peak response
S/N ratio	40- 45dB approx
Magnetic field	1.2m (Seating) - 1.7m (Standing)
Microphone	Omni directional
Loop cable Size	Adjustable (up to 100m reels)
Power consumption	20w
Dimensions	300 x 250 x 100 mm. (approx)
Coverage area	1.2-1.5 Sq. m (approx.)

c. Infrared System:

19/09/14

1. This wireless system transmits sound via invisible light beams.
2. The receiver must be in direct line of sight of the light beam from the transmitter.
3. These systems can only be used indoors and are generally located in churches, theaters and auditoriums.
4. There are infrared devices made for home television listening. The transmitter is placed on the TV and plugs into an electrical outlet.
5. The user wears a headset (receiver) operated by batteries. The volume is controlled from the headset rather than from the TV; the volume of the TV can then be set at a comfortable volume for other listeners.

Modulation	FM
Nominal deviation	+/- 50 kHz
Carrier frequency	2.3 MHz
Output impedance	50 Ohm
IR diodes	10 to 70
Coverage area	80 m^2 to 400 m^2
Effective radiated power	0.5W to 2 W
Operating voltage	24 V DC to 29 V DC
Radio microphone system	Channels- up to 16 with Range- 25m (approx.)

Procedure for Procurement:

- Warranty period for 2 Years
- Even though there are no BIS standards for above assistive listening devices and they are beneficial for clients, Committee recommends the same.
- The implementing agencies need to carry out 1% of sample check for testing for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category assistive devices.
- The implementing agencies should send the randomly selected 1% of the sample for testing of assistive devices for confirmation of satisfactory functioning to AYJNIHH Mumbai or its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of assistive listening devices will be done by the implementing agencies by following codal procedures as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.

19/09/14

IV. Hearing Aids/Assistive Listening Devices costing above Rs.20,000/- for students with disabilities (HI) beyond IX standard wherein 50% will be borne by the Govt. (Limited to 20% of the budget under ADIP) Scheme) and the remaining amount to be paid by the beneficiary/State Govt./NGO/any other Agency

1. Digital/Programmable Behind The Ear (BTE), In the Ear (ITE),In the canal (ITC), Completely in the canal (CIC)
2. Personal FM Hearing Aids

1. Digital/Programmable Hearing aids: Behind The Ear (BTE), receiver in the ear(RITE), In the ear(ITE), In the canal(ITC) & Completely in the canal(CIC) hearing aids costing above Rs.20, 000/-

Digital programmable hearing aids work with non linear amplification in which the amount of output is controlled using various compression circuits.

Justification:

1. They provide programmable gain which can be adjusted as per the configuration of the audiogram.
2. Contains 4 programs for different listening conditions (Eg: noise, quiet etc) and have greater durability.
3. As the hearing aid is at ear level it provides better speech perception and high signal to noise ratio.
4. Better signal to noise ratio for sloping hearing losses as low frequency gain can be reduced and has different channels (up to 16 gain channels) in the frequency range.
5. Various types and models are available for all degrees of losses and provides maximum gain for individuals with hearing loss >90dBHL.

- **Physical features:**

a. Color options such as cream/brown/black are available

b. Controls

- The hearing aid shall contain On/Off switch, Volume control, Telecoil in BTE/ITE.
- Bandwidth upto 8 kHz for ITEs. For BTEs, as per BIS standard
- Automatic / Adaptive Directionality
- Noise Management (modulation)
- Adaptation Manager
- Feedback Management

19/02/14

- Wind noise protection
- Multiple Memory (4 programs)
- DAI or FM (Optional)
- Twin Mic technology
- Real ear measurement(Optional)
- T-coil/ Auto Phone program
- Battery Low warning
- Sound indicators for program shifts
- Power On delay

c. Accessories

Three sets of Ear tip of different sizes with tubes for BTEs

Two rechargeable batteries with charger should be accommodated in hearing aid pack for all types or 36 button cells should be supplied

- **Electroacoustic features for behind the ear (BTE) hearing aid as per IS 16127 : 2013**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 135dB
2	HF Avg. full on Gain	Type I: 40dB (min),Type II: 45dB (min), Type III: 50dB (min),
3	No. of Channels / bands	12(min)
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 10 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	4(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)
10	Telecoil	75dB (min)

19/09/14

- **Electroacoustic features for Receiver in the ear (RITEs) aid as per IS 16127 : 2013 (since RITE fitting is a variant of BTE hearing aid with receiver in the ear canal)**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 135dB
2	HF Avg. Full on Gain	Type I: 40 dB (min), Type II: 45 dB (min), Type III: 50 dB (min),
3	No. of Channels / bands	12 (Min.)
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 10 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	4(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)
10	Telecoil	75dB(min)

- **Electroacoustic features (As there are no BIS standards for in the ear (ITEs) & in the canal (ITC) the specifications are adopted from the IS 16127: 2013 digital BTE hearing aid standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 125dB
2	HF Avg. Full on Gain	Type I: 30 dB (min), Type II: 40 dB (min), Type III: 50 dB (min)
3	No. of Channels / bands	12 (Minimum)
4	Frequency range	200 Hz to 4500 Hz for gain of 105 to 115dB 200 Hz to 4000 Hz for gain of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	4(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

19/09/14

- **Electroacoustic features (As there are no BIS standards for completely in the canal (CIC), the specifications are adopted from the specification of IS 16127: 2013 of digital BTE hearing aid standards).**

S.N	Parameters	Values
1	Maximum OSPL 90	105dB - 120dB
2	HF Avg. Full on Gain	Type I: 30 dB (min), Type II: 40 dB (min)
3	No. of Channels/ bands	12 (Minimum)
4	Frequency range	200 Hz to 4500 Hz for OSPL of 105 to 115dB 200 Hz to 4000 Hz for OSPL of 115 to 135dB
5	Total Harmonic Distortion	should not exceed 7 % @ 500, 800 & 1600Hz at RTG position
6	Battery Current	≤ 5 mA
7	Equivalent I/P noise levels	≤ 30 dB SPL
8	Programs	4(min)
9	Dynamic characteristics of AGC	(+/- 5 ms or +/- 50 % of the values specified by the manufacturer)

Procedure for Procurement:

- Warranty period for 2 Years
- Mono-aural only
- There are no BIS standards for ITE, ITC & CIC hearing aids however these hearing aids are beneficial to individuals with hearing loss the above specifications were adopted from digital BTE standards and Committee recommended these hearing aids.
- The implementing agencies need to carry out 1% of sample check for electroacoustic characteristics (EAC) measurements for confirmation of satisfactory functioning. This procedure should be carried for orders placed on each occasion for each category hearing aids.
- The implementing agencies should send the randomly selected 1% of the sample for Electro acoustic Characteristics of Hearing aid for certification (EAC) to AYJNIHH, Mumbai and its regional centres (Secunderabad, Kolkata, New Delhi, Bhubaneshwar depending upon availability of testing facility or All India Institute of Speech and Hearing (AIISH), Mysore.
- Procurement of hearing aids and assistive devices will be done by the implementing agencies by following procedural codes as per GFRs.

19/09/14

- The implementing agencies may follow the procedures adopted by government agencies.
- Dispensing of ITEs, ITCs and CICs are allowed only at National Institutes and their Regional Centres and Composite regional Centres.

2. Other Assistive Listening Devices costing above 20,000/-

Assistive technology helps people who are deaf and hard of hearing to live more independently. Technology is continuously improving and changing. Some of the assistive listening devices recommended include:

I. Communication devices

a) Personal FM Hearing Aids,

a. Personal wireless FM systems

Consists of
Microphone cum Transmitter
Button Receiver attached to child's own FM compatible hearing aid

- Features

Receiver

i. DAI – direct audio input / Tele Neck loop / Bluetooth streamer– connects to child's own BTE hearing aid
ii. Discreet receivers that stay in place
iii. Clear, authentic sound quality for optimum speech understanding
iv. Fully compatible with hearing aids
v. attack and release times as fast as 30 and 600 ms respectively
vi. Also available with neck loop
vii. has multiple frequency bands
viii. can be attached to hearing aids, cochlear implant and bone anchored hearing aids

Transmitter

i. Transmitter and programmer in one
ii. Covers World FM Band
iii. Bandwidth 8.5 kHz
iv. Digital Signal Processing
v. External antenna built into microphone cord
vi. FM Channel Wizard - Monitor FM channels

Procedure for Procurement:

19/09/14

- Warranty period for 2 Years
- The cost of the FM device should not be more than Rs.40,000/-
- Even though there are no BIS standards for above assistive listening devices and they are beneficial for clients, Committee recommends the same.
- Procurement of assistive listening devices will be done by the implementing agencies by following codal procedures as per GFRs.
- The implementing agencies may follow the procedures adopted by government agencies.

6. Hearing aid with Bone Vibrator:

Cost: within the ceiling limit of the scheme (Rs. 10,000/-)

Justification:

1. Effective in transmitting sounds to individuals with absence of external auditory canal (Atresia), absence of the pinna, chronic middle ear infections.
2. Non-surgical and noninvasive.
3. Helps in auditory stimulation for individuals when there is no provision for surgery or delay in surgery (especially in children as early intervention is crucial).
4. Less cost compared to bone anchored hearing aid (BAHA) and other surgical procedures concerned with Atresia.

Specifications:

a) The specifications for the hearing aid are same as of traditional body worn hearing aids.
b) The bone vibrator general specifications are as follows:

Dimensions: 30 X 15 X 15 mm approx
Weight: 20 gm Approx.
Contact pressure: 5.4N across contact area of 2.0 $cm^{2.}$
Impedance Range: 10 - 300 ohms

19/09/14

7. Educational Kit (Children from 2 to 5 years, Pre-school going children)

Justification:

1. To improve the vocabulary
2. To improve the language from word to sentence level
3. Helps in improving the speech intelligibility
4. Guide the parents regarding the speech and language stimulation to be done at home.
5. Helps in developing the school readiness in children with HI

To develop communication

a) Language book
b) Articulation book
c) Story book

Specifications:

a) **Language Book:**
Paper Quality: 300 GSM
No. of pages: 60 approx.
Content: Pictorial with written representation
Age group: 2 - 5 years

b) **Articulation Book:**
Paper Quality: 300 GSM
No. of pages: 90 approx.
Content: Pictorial with written representation
Age group: 2 - 5 years

c) **Story Book:**
Paper Quality: 300 GSM
No. of pages: 60 approx.
Content: Pictorial with written representation
Age group: 2 - 7 years

- Total cost for the above items not exceeding Rs.1000/-

19.09.14

d) Other materials:

S.N	Material	Description	Cost
1	Family hand puppets	Set thumbkin finger/hand puppets	Rs. 500/-
2	5 Puzzles	Puzzles age /activity appropriate	Rs. 1000/-
3	Montessori equipments/toys	Sets Like fruit and vegetable play set , capital alphabets with knobs, vegetable set knobbed , body parts girls, body parts boys	Rs. 400/-
4	Shape sorter clock	Tidlo Sorting and Teaching Clock - For undertaking multipurpose activities based on colors, shapes, size, time	Rs. 2000/-
5	One set of noise makers	Funskool Pip squeaks Or any other noise makers	Rs. 200/-
6	Block sorter boxes	For undertaking multipurpose activities based on colors, shapes, size	Rs 600/-
7	Set of verb cards	Language development	Rs. 200/-
8	5 Soft toys	Language development	Rs. 1000/-

19/09/14