



ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

No: TL 10 / 74 (1)/AMED/2009 – MED

Office of the VC&MD,
Bus Bhavan, Musheerabad,
Hyderabad – 500624.

Circular no. 20/2009-MED dt. 19-08-2009

SUBJECT : VEHICLES – Provision of 'RETRO-REFLECTIVE CONSPICUITY MARKING TAPES' on Buses – issue of guidelines for Implementation – Reg.

REF: 1. G.S.R.No.784(E), dated 12-11-2008 of Government of India
2. Circular no. 9/3499/R1/ 2009, Dated 30-7-09 of Transport Commissioner, Government of Andhra Pradesh

I. INTRODUCTION:

The Govt.of India, vide reference cited above has amended the Rule 104 of CMV Rules 1989 notifying to affix Class-C, 'Retro-reflective Conspicuity marking Tapes' on all M3 category vehicles i.e., all passenger vehicles with a seating capacity of 10 in all or more but exceeding 5 tonnes of GVW in order to enhance the visibility and detection of vehicles during the day, night, poor light and in adverse weather conditions.

On this The Transport Commissioner, Government of Andhra Pradesh vide Circular no. 9/3499/R1/ 2009, Dated 30-7-09 issued instructions to all the district Officers to ensure compliance of the above provision at the time of new registration or re-registration of a transport vehicle manufactured on or after April 2009.

II. SCOPE:

In view of statutory obligation, all the transport vehicles of the Corporation shall be affixed with 'Retro-reflective Conspicuity marking Tapes' with immediate effect.

The Retro Reflective Conspicuity Marking Tapes of 50 mm wide shall be provided at a height ranging from 250 mm and 1500 mm from the ground. The cumulative length of marking tape shall cover at least 80% of horizontal dimension of vehicle:

- a. White color on front face
- b. Yellow color on body sides
- c. Red color on rear of body

III. SPECIFICATIONS:

- a. The 'Retro-reflective Conspicuity marking Tapes' shall be of class 'C' and shall conform to all the testing standards mentioned in AIS: 90 – 2005.
- b. The manufacturer shall submit the approval of ARAI/Pune along with test certificates.
- c. The manufacturer shall also submit the approvals of State Transport Authority, Transport Department, Govt. of A.P. along with their supplies.
- d. Brand name of the manufacturer and class of tape must be embossed / etched on each tape at 500 mm intervals along the length of tape.
- e. Each Retro Reflective Conspicuity Marking Tape shall have a shelf life of two years.
- f. Each Retro Reflective Conspicuity Marking Tape shall have a **performance guarantee for a period of seven years.**
- g. Free replacement shall be made against any material and manufacturing defects.

III. APPLICATION :

These 'Retro-reflective Conspicuity marking Tapes' shall be affixed on our buses / departmental vehicles at the following locations:

- a. Front: On front bumper running across the width of body covering at least 80% of vehicle width in white color 50 mm wide
- b. Sides: Below window frames running along the length of body covering at least 80% of vehicle length in yellow color 50 mm wide
- c. Rear: On rear bumper for City and Palle Velugu buses.
Rectangle type profiling for Garuda, Super Luxury, Deluxe, Express type buses covering at least 80% of vehicle width above the rear saloon glass and on rear bumper, also both side vertical lengths in red color 50 mm wide

IV. FIXING ;

While affixing these marking tapes the following precautions shall be adopted:

1. The marking tapes shall not be affixed on corroded surfaces, loose or chalking painted surfaces, irregular shaped frame work, bolts, rivet heads larger than 12 mm high, on weld joints, at the edge of vehicle surfaces and with in 75 mm of mandatory signals.

2. The application surface must be most clean, free from moisture/ dirt/ oil and corrosion etc.,
3. The surfaces must be cleaned thoroughly prior to affixing with detergent and water and dried up.
4. Solvent wipe the surface by using paper towel saturated with Isopropyl alcohol and immediately dry the surface with dry paper towel before the solvent dries up.
5. The marking tapes shall be affixed when the atmosphere and surface temperatures are within the limits of 38° C and 10 ° C.
6. Marking tapes must be cut to the required size as per the surface of application. Do not cut at the brand name/ class indicators. Avoid affixing Marking tapes on rivets/fasteners to the extent possible.
7. Remove the release paper from the back of marking tape, position and align with the surface and slightly tack down to hold in that position.
8. **Do not stretch the Marking Tape while fixing.**
9. Apply firm pressure on the tape in overlapping strokes by a roller type tool.
10. Be sure that edges are adhered to properly by re-squeezing along the edges. Wrinkling / edge lifting occurs if not fixed properly or affixed close the edge of vehicle panels.
11. **Do not overlap Marking Tapes to make seams or joints. Markings can be butted together.**

12. Cleaning of Marking Tapes:

- i. Wash with sponge, cloth or soft brush using detergent and water.
- ii. In case of high pressure car washing it should be ensured that maximum pressure does not exceed 80 bar and water temperature does not exceed 60 ° C.
- iii. Maintain a clear distance of 12" between spray nozzle tip and marking tape to avoid damage.
- iv. The position of spray nozzle shall not be at a greater angle than 45 ° to the perpendicular of marking tape surface.

13. Removing of Marking Tapes from the body surface:

- i. Use handled tool containing a new single edged razor blade to lift an edge of the marking.

- ii. While keeping the edge of the razor close to the surface of the substrate, begin to work the razor from side-to-side in small strokes in the direction of removal.
- iii. Pull the loose marking with minimal tension at approximately 45 degrees away from the substrate while working the razor back and forth, markings will break away from the substrate.
- iv. It is important to change razor blades frequently. A sharp blade will give best results.
- v. Spray adhesive removal products onto the adhesive residue, soak for 3-5 minutes, scrap and wipe off residue adhesive from the substrate.

Therefore, all the depot Managers are instructed to arrange to affix the above mentioned '**Retro-reflective Conspicuity marking Tapes**' on all the buses of the corporation duly drawing the material from Zonal Stores and duly following the procedure for fixing as detailed above.

All the Dy.CME's / RM's shall organize training in co-ordination with the manufacturers / suppliers to the artisans on fixing of 'Retro-reflective Conspicuity marking Tapes' at any of the major depots under their jurisdiction to get familiarized with the procedure. Regional Managers are also advised to ensure the affixing of these Marking Tapes on all 'Hire buses' also.

Chief Controllers of Stores shall organize to procure the material as per the specifications enclosed. Estimated requirement of Reflective tape per bus is enclosed herewith.

This has the approval of F.A.

Please acknowledge.



VICE CHAIRMAN & MANAGING DIRECTOR

Encl: 1. Sketches for affixing Marking Tapes
2. Estimated requirement of Reflective Tape

To

All the Depot Managers,

Copy to: Director (V&S) for information,

Copy to: ED (E & IT), ED (A&P), ED (AM& HZ), ED(HCZ), ED(KRMR), ED(V&V),
ED(K&N) for Information

Copy to: FA, CAO, CFM for information,

Copy to: CME(C&B), CME(O), CCOS, CTM, CE(IE&IT) for information and
necessary action,

Copy to: All the Regional Managers for information and necessary action,

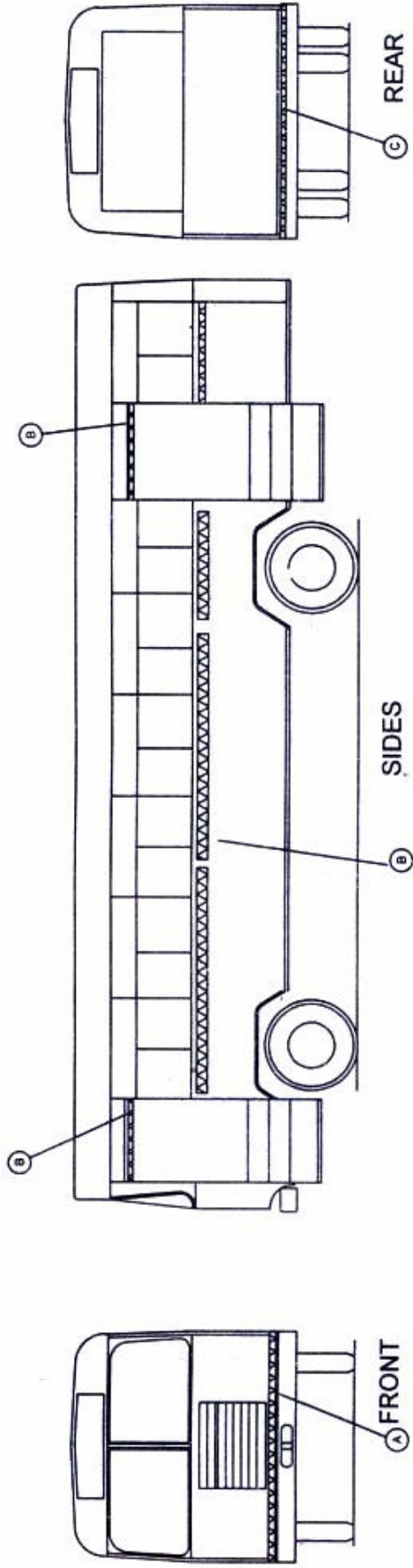
Copy to: Dy.CME(C&B), DY.CME (O), Dy.CME(P), Dy.CME (IE) for information and necessary action,

Copy to: All the Dy.CMEs / WMs / CsOS for information and necessary action,

Copy to: All the Maintenance In-charges for information and necessary action,

Copy to: Manual section

CITY ORDINARY

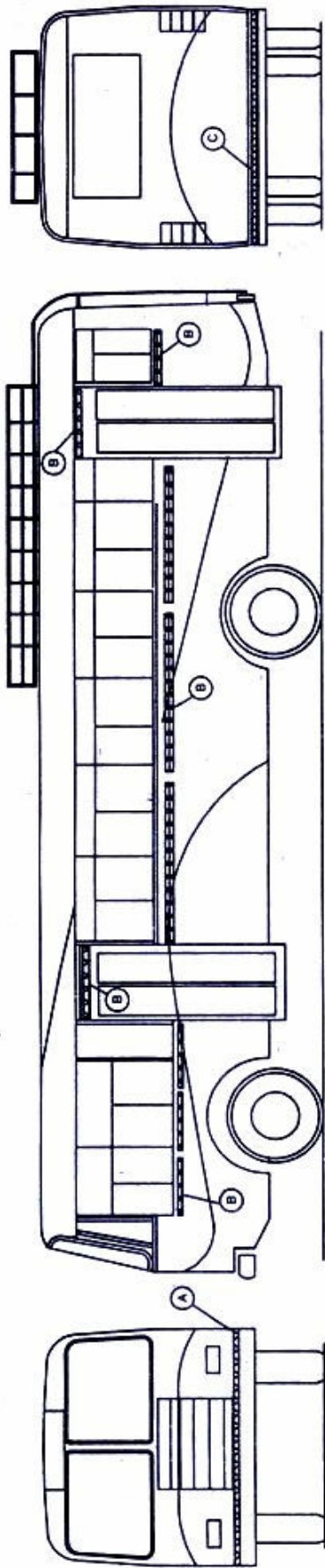


Item A, B & C - Retro Reflective marking tape 50 mm wide
 as per AIS:90-2005

- A Front - White in color
- B Sides - Yellow in color
- C Rear - Red in color

AME(Designs)

PALLEVELUGU



FRONT

SIDES

REAR

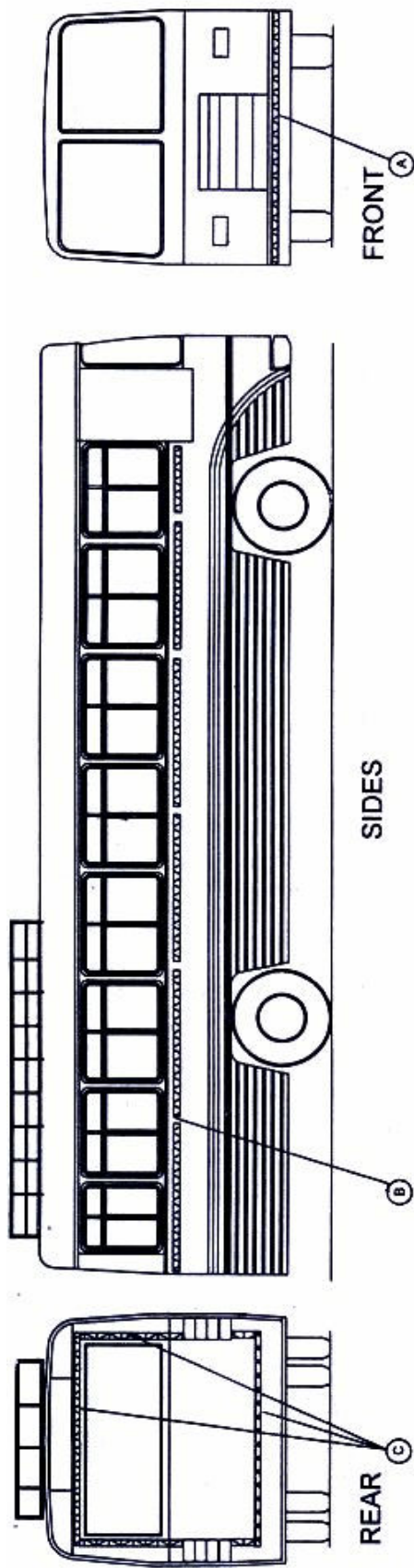
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AME(Designs)

EXPRESS



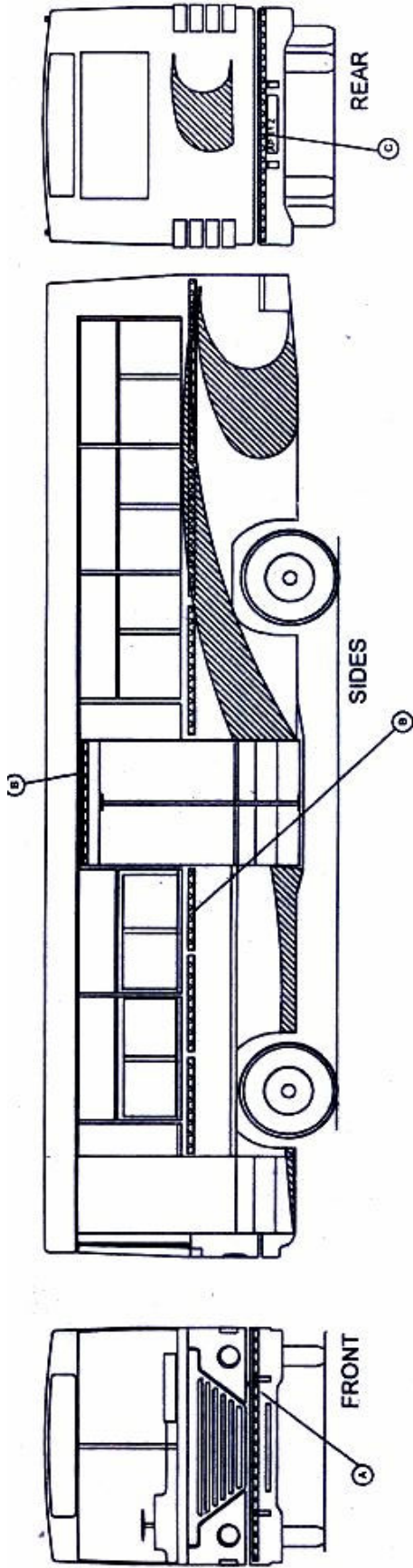
Item A, B & C - Retro Reflective marking tape 50 mm wide
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- C Rear - Red in color



AME(Designs)

METRO EXPRESS

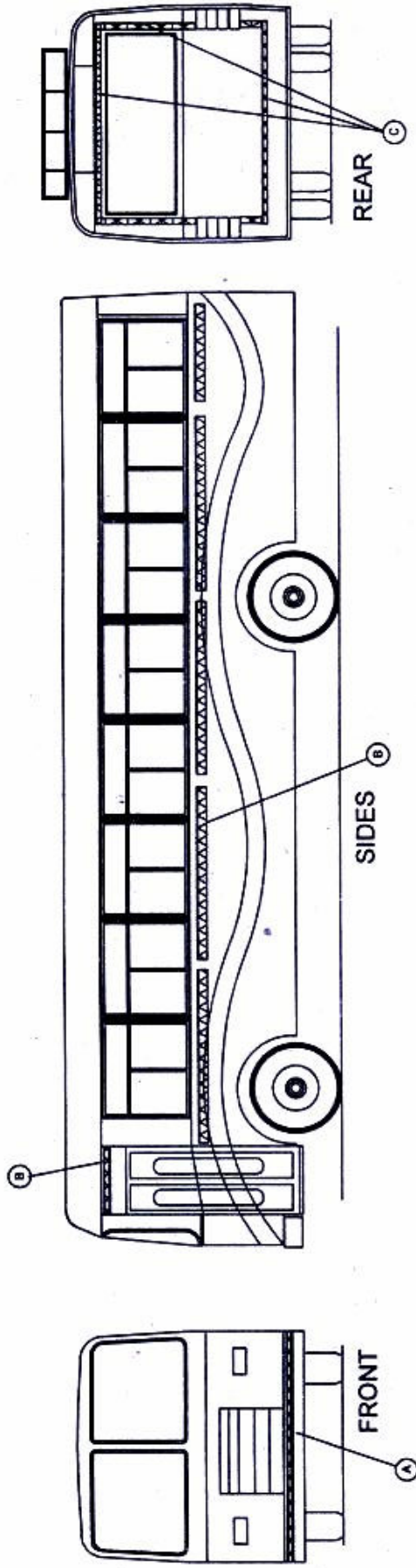


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AME(Designs)

DELUXE

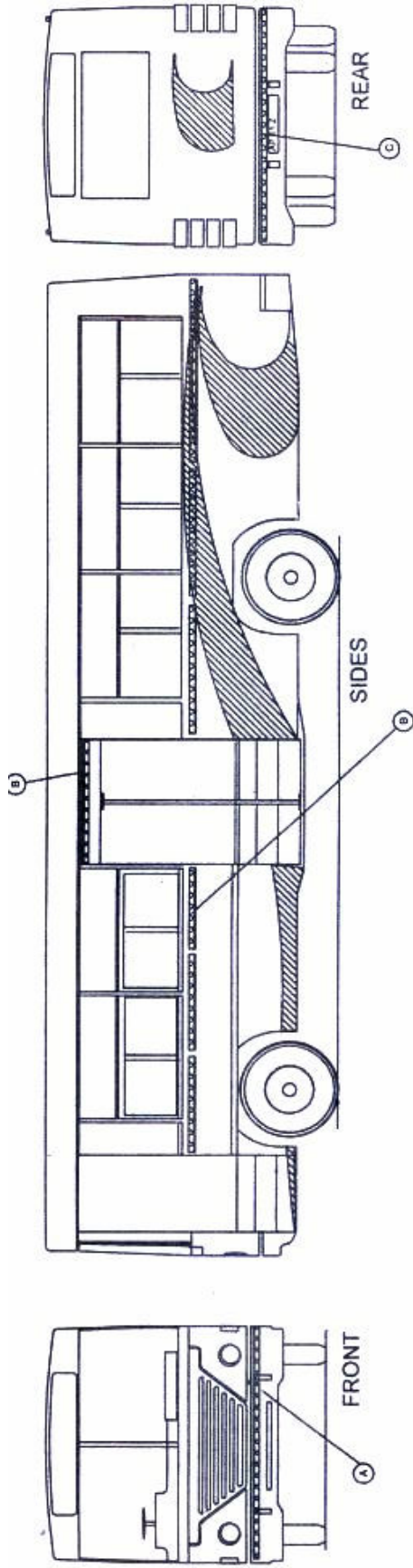


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AME(Designs)

METRO DELUXE

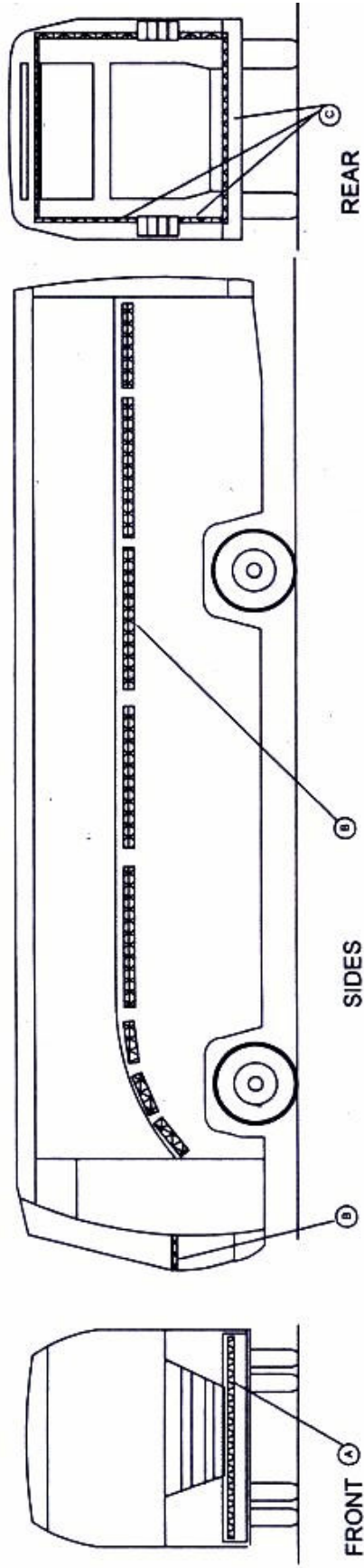


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as per AIS:90-2005

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- C Rear - Red in color



SUPER LUXURY – MEGHDOOT – GARUDA



Item A, B & C - Retro Reflective marking tape 50 mm wide
as per AIS:90-2005

- A Front - White in color
- B Sides - Yellow in color
- C Rear - Red in color

