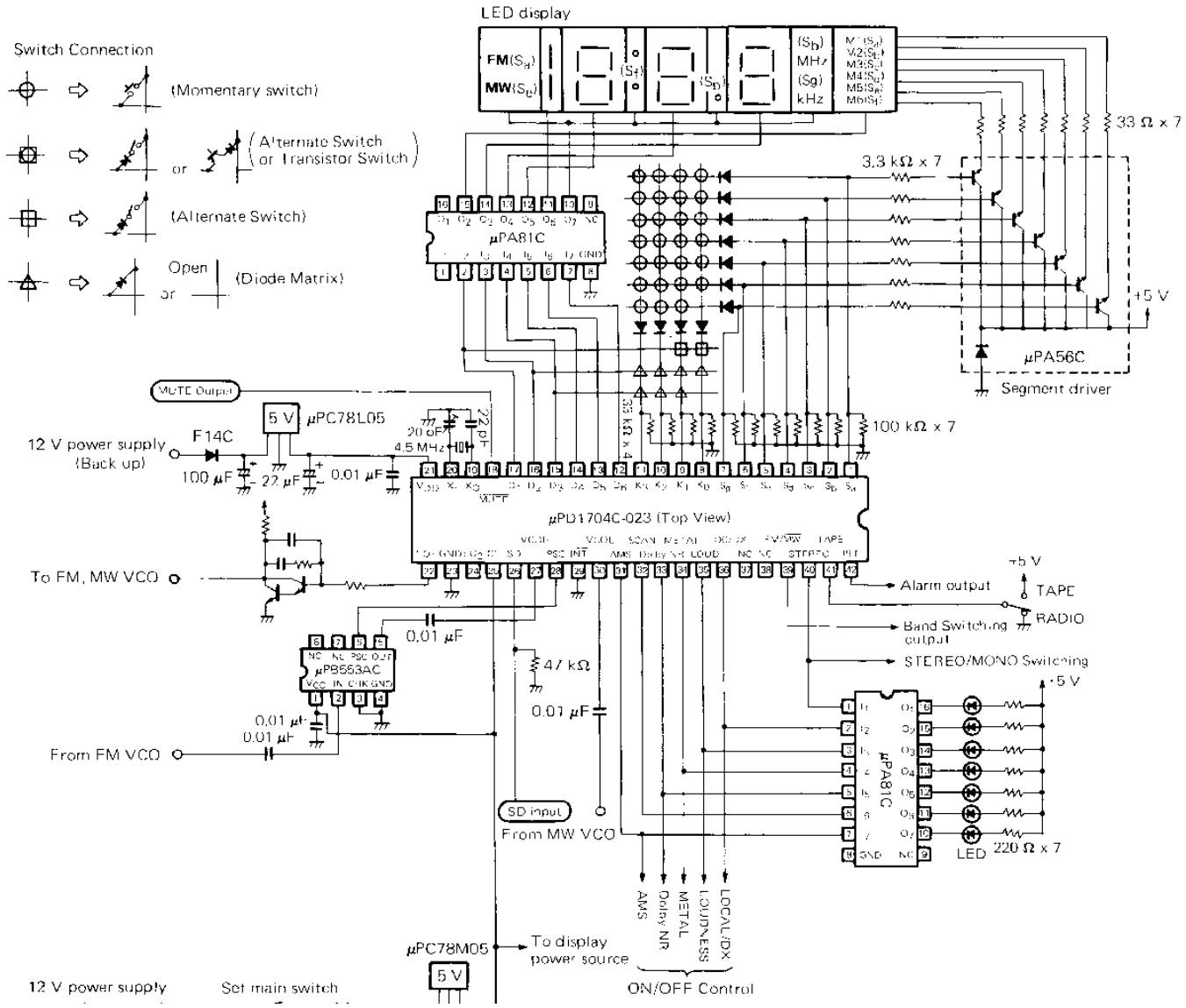4. APPLICATION CIRCUIT