



1. Acoustic doors

● Observation Window

An 1200mm x 1150mm (L x W) observation window was installed in between the control room and the studio, at a height of about 750 mm from the floor, (see Photo No. 2). Two different thicknesses of glasses were used in order to avoid resonance, if any. One layer of them is detachable and can be opened for cleaning, if necessary. Silica crystals were placed inside to absorb moisture.

Acoustic Treatment

● Studio

(a) The floor was carpeted with underfelt.

(b) An acoustic ceiling was installed just below the air-conditioning ducts.

(c) All wall surfaces were fixed with 50mm 80 kg/m<sup>3</sup> rock wool and covered with acoustic transparent fabric and framed with ramin wooden strips. Photo No. 3, showing the acoustic contractor checking the wall treatment after completion.

● Control room

(a) The floor was carpeted.

(b) An acoustic ceiling was fixed just below the down lights.

(c) The surfaces of the wall with observation window and the rear wall were fixed with 50mm 80kg/m<sup>3</sup> rock wool and covered with acoustic transparent fabric and framed with ramin wooden strips, while the other two walls were covered with carpet.

Installation Of Air-Conditioning System

● Studio

An 1.5 HP Acson split unit air-conditioner was installed outside the control room for the studio as shown in Fig.2. Both the supply and supply air were ducted as shown in Photo No. 4. These ducts were both lined internally and externally. Since no silencers were



2. Observation window of the studio

used, the ducts were therefore made slightly longer, with some 90 degree turns to further improve the sound attenuation.

The supply and return air grilles were installed at corners with intention to further prevent the noise from reaching the microphones, which are normally placed at the centre of the studio.

● Control Room

An 1 HP National split-unit air-conditioner was installed at the rear wall of the control room for the control room. The National model was selected because of its low noise level, which was considered to be suitable for use in the control room in view of the budget constraints. No ducts or silencers were provided for this unit.

Electrical Work

● 13A power points

The following 13A power points were provided in the studio and control room:

Studio - 3 points, and

Control room - 4 points

● Down lights

Four and three 18 watt down-lights were provided in the studio and control room respectively.

In the studio, the down lights were connected to a dimmer.

● Laying of cables

Three pvc pipes were provided above the walls between the studio and control room for the laying of audio and mains cables from the control room to the studio via their ceilings as shown in Photo No. 5. These pipes were later properly sealed after completion of construction to improve the sound isolation.

Inside the studio and control room, these cables were run along the corners up to the acoustic ceiling and covered with ramin wooden panel as shown in Photo No. 5. The wooden panel is detachable for future maintenance.



3. Acoustic contractor checking the wall treatment