

Music-on-Hold and Music-on-Wait using TMU

INSTALLATION INSTRUCTIONS



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GENERAL

1.1

SCOPE

The feature Music-on-Hold/Music-on-Wait (MoH/MoW) can be installed in all application systems.

Board type TMU is used for MoH/MoW. The TMU board is a multi-purpose board for auxiliary devices with two (2) analog inputs for connection of sound equipment.

The number of individuals per TMU to be used for MoH/MoW is changeable by command *ASPAC* (PARNUM=154).

There are three different cases:

- No individual on TMU is used for MoH/MoW.
- One individual per TMU is used for MoH/MoW. Individual No. 1 on the TMU board in the lowest board position among the TMU boards in a LIM is used for MUSIC-ON-HOLD1. Individual No. 1 on the second TMU board, in order of board positions, is used for MUSIC-ON-HOLD2. Individual No. 1 on the third TMU board, in order of board positions, is used for MUSIC-ON-HOLD3.
- Two individuals per TMU board are used for MoH/MoW. Individual No. 1 on the TMU board in the lowest board position among the TMU boards in a LIM is used for MUSIC-ON-HOLD1. Individual No. 2 on the TMU board in the lowest board position among the TMU boards in a LIM is used for MUSIC-ON-HOLD2. Individual No. 1 on the second TMU board, in order of board positions, is used for MUSIC-ON-HOLD3.

MUSIC-ON-HOLD1 is used in all application systems at parking. The usage of MUSIC-ON-HOLD2 and MUSIC-ON-HOLD3 is application system dependent.

The sound equipment is connected directly to the TMU board through the MDF.

1.2

SPACE REQUIREMENTS

Extra space is required only for the sound equipment, which can be installed anywhere within the range of the cable.

1.3

ENVIRONMENTAL REQUIREMENTS

Office environment or environment according to the instructions of the manufacturer of the sound equipment.

2 AIDS

2.1 TOOLS

2.2 DOCUMENTS

- Manual for the sound equipment concerned
- Installation instruction for the PBX
- Feature Description for Music-on-Hold and Music-on-Wait

3 PREPARATIONS

Make sure that power can be supplied to the sound equipment.

4 DELIVERY METHOD

TMU boards and cables are delivered by the supplier of the PBX. The sound equipment is delivered by a supplier chosen by the customer.

5 UNPACKING

Make sure that the following items have been delivered without damages:

TMU-board	ROF 137 5335/2	(ROF 137 5335/1)
- Cable	TSR 491 0306/20M	(for 19-inch MX-ONE)
- Cable	RPM 603 177/10000	(for all types)

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MOUNTING

The equipment is to be installed when no traffic is handled by the PBX.

- Make sure that the new TMU boards are correctly strapped according to strapping instructions for TMU.

Execution

1. Choose appropriate characteristics with command *ASPAC* (PARNUM=154). This could already have been done for an earlier initiated message of another kind.
2. Key the command *ASPAP* to control the initiation.
3. For every internal extension/operator that shall be assigned with MoH/MoW, enter the command *RACEI*. For every internal group hunting group/ACD group/operator group that shall be assigned with MoH/MoW, enter the command *RAGAP*. Set an appropriate value in the CONT parameter for these commands.
4. Enter the command *RACEP* or *RAGAP* to control the initiation.

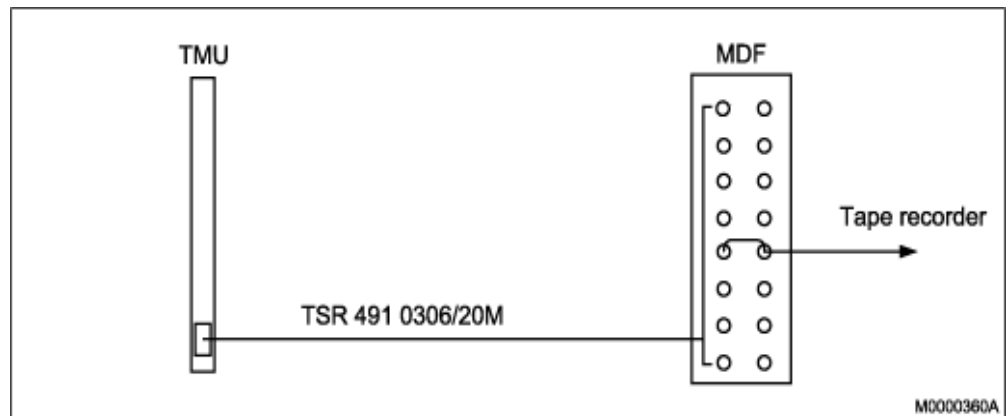


Figure 1: TMU Board Connected to Sound Equipment

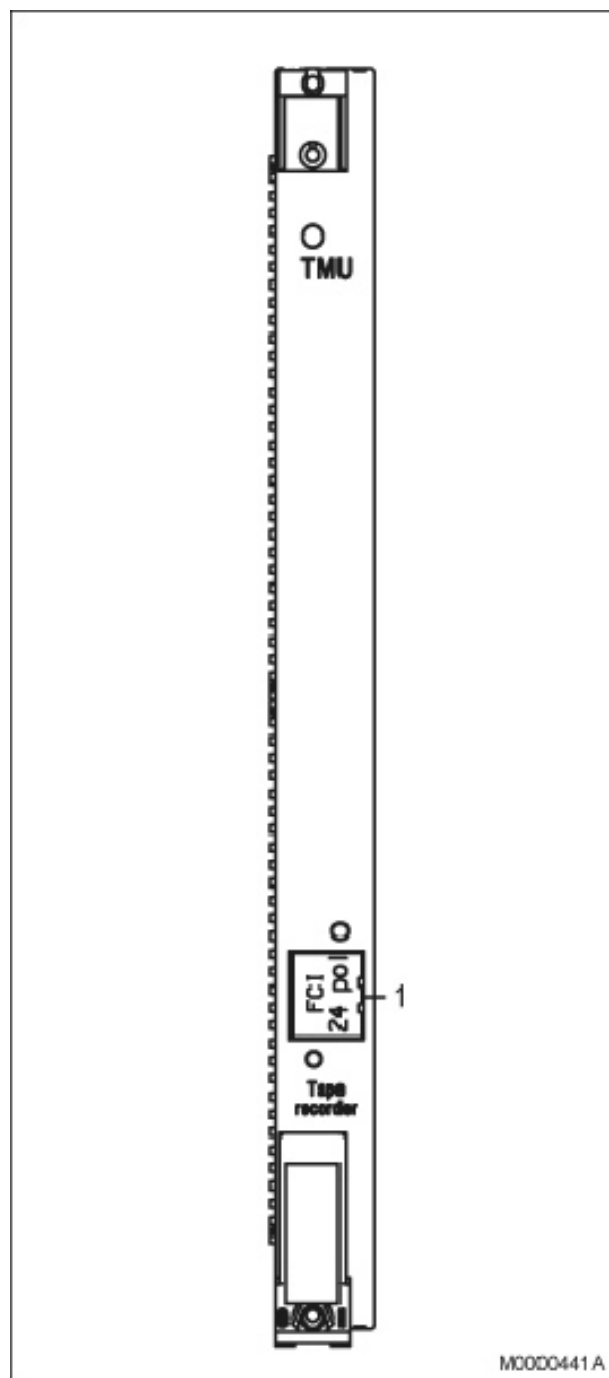


Figure 2: Board front of TMU

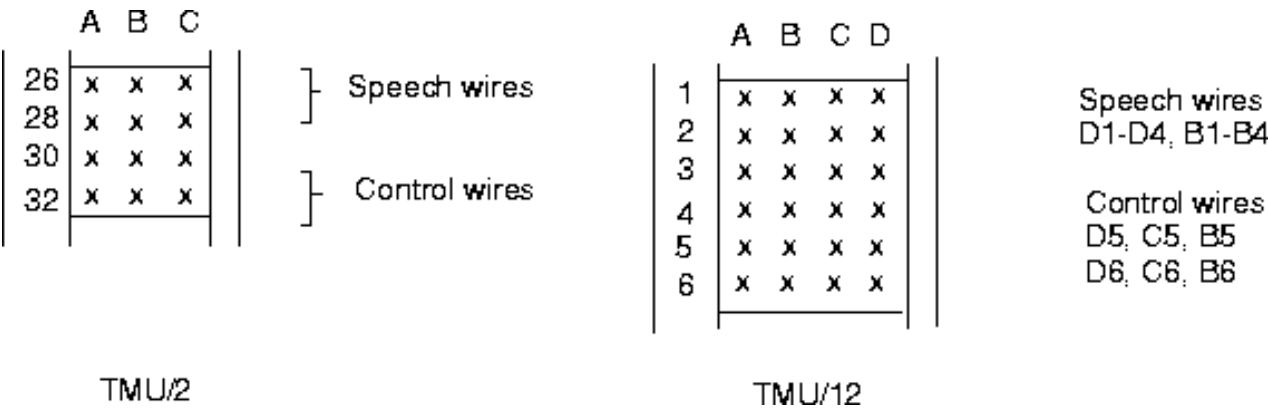


Figure 3: Individual No. 1

Table 1 Pin position for the TMU board

SPEECH WIRES	CONTROL WIRES		INDIVIDUAL
Wire pairs	Make	Break	
4A26 - 4A28	2A30 - 2A32	2A30 - 2C32	Ind. No. 1
4A18 - 4A20	2A22 - 2A24	2A22 - 2C24	Ind. No. 2

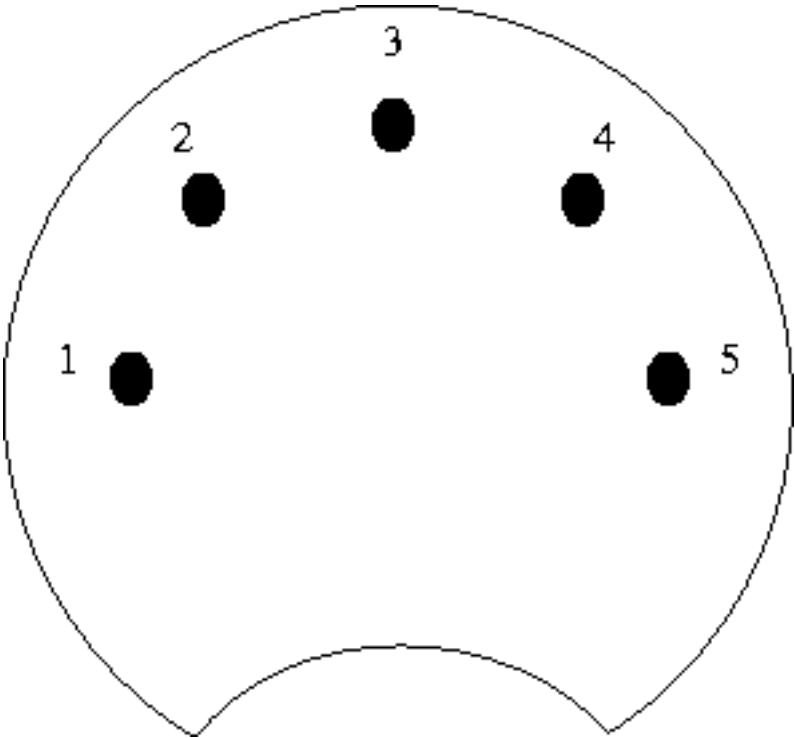


Figure 4: Viewed from the connector side
Pin positions (original 5-pole, 180 DIN)

Table 2 Pin positions for sound equipment cable RPM 603 177/10000

Pin 1	Spare
Pin 2	Speech wire + cable screen
Pin 3	Speech wire
Pin 4	Spare
Pin 5	Spare
	The spare wires are used for controlling the sound equipment.

7 POWER EQUIPMENT

Power for the sound equipment can be supplied in two ways, direct from the mains or from the battery backup of the PBX. In the latter case the capacity must be sufficient to operate both the PBX and the sound equipment.

8 EARTHING

The sound equipment (with earth connection) is earthed to the same point as the PBX. See the manual for the equipment concerned.

9 CABLING

The following cables are used at the installation described in figure 1 TMU Board Connected to Sound Equipment on page 5 and table 1 Pin position for the TMU board on page 7 and table 2 Pin positions for sound equipment cable RPM 603 177/10000 on page 8.

Connection between the SOUND EQUIPMENT and MDF

- Cable RPM 603 177/10000

Connection between TMU board and MDF.

- Cable TSR 491 0306/20M

Remember that the total permissible cable length from the TMU board is maximum 15 meters (50 feet).

The MDF is used for parallel connection of all cables from the TMU boards and for connecting them to the cable to the sound equipment, see figure 5 Parallel connections in MDF on page 10. As regards pin positions for the TMU board front and the cable to the sound equipment, see table 1 Pin position for the TMU board on page 7 and table 2 Pin positions for sound equipment cable RPM 603 177/10000 on page 8.

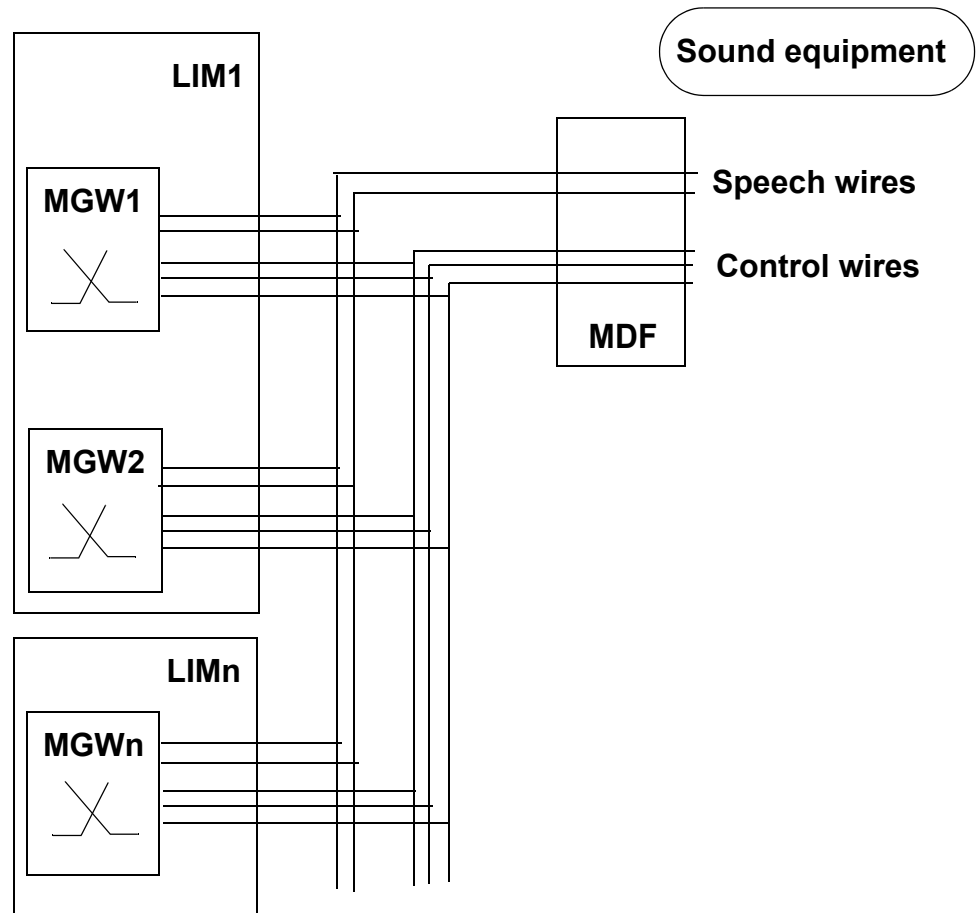


Figure 5: Parallel connections in MDF

Note: Filter units are not supported in MX-ONE.

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POST INSTALLATION MEASURES

Any doors and cabinet plates that have been removed are to be remounted and are to be left in the same state as prior to removal.