TOA

SPOT ANNOUNCING MACHINE   AM-821

TOA Corporation

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■ GENERAL DESCRIPTION

The TOA AM-821 fully automatic spot announcing machine is designed for use where recorded tape messages are required to be repeated at specific time intervals or on command during background music play. Instant live announcements may also be made. Designed for easy operation using normal cassette tape. Unrecorded sound section necessary for automatic playback can be easily made in the tape. Also, the built-in AGC keeps output levels constant and you can turn out message tapes for yourselves. You can skip unneccessary messages between the first and the ninth message if you wish.

The AM-821 has a built-in timer for distributing the message at prearranged intervals. The message tape may also be played at specific time intervals by using an external timer.

The microphone may be used for both recording and paging. Paging level can be kept constant by the built-in AGC.

Remote control of the cassette operation during recording is possible with the RM-820 optinal remote microphone.

Fitted with an input terminal for background music and the announcement takes precedence of the background music.

Can be mounted on the 19" rack cabinet with the help of optional mounting brackets.

■ FEATURES

1. Permits any normal type of cassette tape
2. Priority function overriding BGM
3. Message omit selectors
4. Built-in interval timer
5. Built-in AGC circuit
6. Balanced, transformer isolated output
7. Rack mountable with optional brackets

■ PRECAUTIONS

1. Avoid setting up unit in the locations exposed to direct sunlight, or heaters or other heat sources, or with high humidity or dust.
2. The cassette tape can last only 200 hours on average. After 200 hours of use, replace the tape with the new one.
3. Do not use the C-120 cassette tape. (You may use other normal tapes.)

■ USER CARE

1. CLEANING THE HEAD SECTION
If the head, capstan or pinch roller gets dirty or accumulates dust, the deterioration of the sound quality or unstable operation will result. An occasional wiping down with soft cloth damped with alcohol is recommended to keep unit in good shape.

2. DEMAGNETIZING THE HEAD
The recording head becomes magnetized when the recorder is used for prolonged periods of time. This results in noise being generated and the treble dropping off during recording. So, the recording head should be regularly demagnetized with the head eraser.
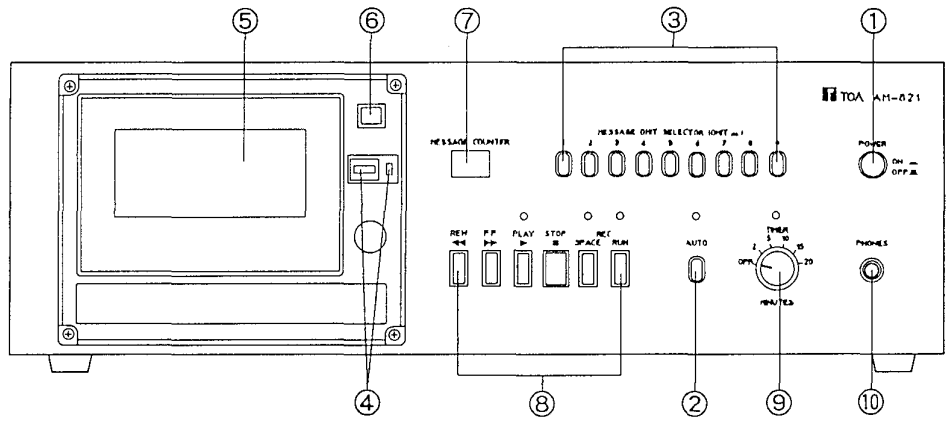
3. HANDLING CASSETTE TAPES
* The AM-821 can accept normal tape only. Do not use chrome or metal tapes to avoid loss of sound quality.
* Do not use the C-120 cassette tape. Since the it is thin and easily damaged, they may stretch during use causing unstable tape movement which may result in the tape becoming tagled in the rotating parts of this unit.
* Do not use tapes which have been stored in a hot moist place or close to a television or speaker. Such tapes may curl or have greasy places altering tape speed and preventing proper tape performance. Always store in a cool, dry place which is free from dirt, oil and magnetic effects.
* Before using a tape, check to confirm if tape slack exists. Because the tape slack causes the tape twist or tangle around the pinch rollers and capstans, take up the slack, if necessary, by inserting a pencil through the reel hub and turning it.
* To prevent erasing of recorded sounds, remove the erase-prevention tabs using a screwdriver or similar object to break out the tab (thus preventing recording). To record again, cover the slot with adhesive tape.
* The cassette tape can last only 200 hours on average. After 200 hours of use, replace the tape with the new one.

4. CLEANING THE FRONT PANEL
Use a soft cloth to wipe off dust and grease of the front panel and cassette receptacle covers. When they are very dirty, damp the soft cloth slightly with neutral cleanser, remove the dirt and wipe with a dry cloth. Never use volatile spirits like thinners, benzines or alcohol because they will damage the panel's finish.

5. Avoid setting up the recorder in the locations exposed to direct sunlight, or near heaters or other heat sources, or in areas of high humidity or dust.

■ PART DESCRIPTION

① POWER SWITCH

Place this switch in the ON position and power is supplied.

Note : When not loading the tape :
- The auto switch ② is placed in the manual mode.

When loading the tape :
- Unrecorded tape •••• the auto switch ② is placed in the manual mode.
- Recorded tape •••••• the auto switch ② is placed in the automatic mode.

② AUTO SWITCH

When using a built-in interval timer ⑨ or an external timer ⑮ , set this switch to ON (automatic mode). Place this switch in the OFF position (manual mode) for the tape deck operation ⑧.

③ MESSAGE OMIT SELECTOR

These selectors function only when placing the auto switch ② in the automatic mode. If wishing to omit one or more of the recorded messages (No.1 through No.9), depress this switch(es).

④ TAPE COUNTER, RESET BUTTON

This indicates how far the tape has travelled. Depress the reset button to reset the tape counter display to "000".

⑤ CASSETTE RECEPTACLE

Load the cassette tape with the exposed tape face down, and then close lid.

Note : Be sure to depress the eject button after the auto switch ② is turned to the manual mode. Ejecting the tape in the automatic mode may lead to malfunction of the deck.

⑥ EJECT BUTTON

Depress this button to open lid of the cassette receptacle. (Do not depress this button while the cassette tape is travelling.)

⑦ MESSAGE COUNTER

This indicates the message number while its announcement is being made. The message number to follow next is indicated when the tape motion stops.

⑧ TAPE DECK CONTROLS and LED INDICATIONS

These controls function only when placing the auto switch ② in the manual mode.

*RWD ◄◄ Rewinds the tape at high speed.

*F.F. ►► Advances the tape at high speed.

*PLAY ► Advances the tape for playback, and the green LED illluminates during playback. The tape stops travelling automatically after each announcement has been finished.

*STOP ■ Depress this button to stop the tape motion or to release the recording mode.

*REC SPACE

First of all, depress this button before starting recording. Thereafter, also depress after recording of each message is finished. The tape continues to travel for approximately 7 seconds to make an unrecorded sound section on the tape even after the recording is finished and this button is depressed. The red LED of this button flashes during tape travel and it illuminates instead of flashing when the tape motion stops.

*REC RUN

After placing in the recording standby mode by depressing the REC SPACE button, depress this switch and record with the remote microphone RM-820.
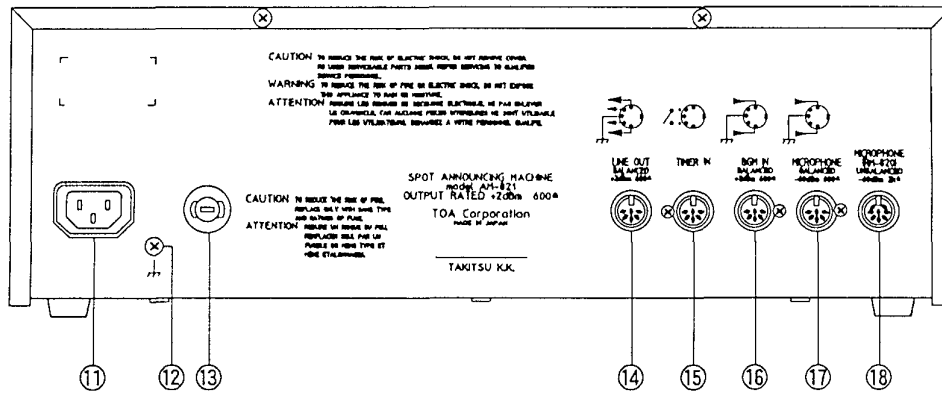
⑨ TIMER SWITCH

This functions only when placing the auto switch ② in the automatic mode. Place this switch in the OFF position when an external timer is used.

⑩ PHONES (HEADPHONE) JACK

Accomodates stereo or monaural headphone. Insertion of the headphone into this jack cuts line output out.

Note : When inserting the headphone into this jack, output signal from the line out ⑬ is not fed.

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⑪ **AC MAINS INLET**
Connects to a power cord.

⑫ **EARTH TERMINAL**

⑬ **FUSE**

⑭ **LINE OUT SOCKET**
Connects to input of the external amplifier. Make-contact is provided during tape playback and output signal Is fed to this socket.

⑮ **TIMER IN SOCKET**
When placing the auto switch ② in the automatic mode and the time switch ⑨ in the OFF position, accepts make-contact of external timer and permits the prerecorded announcement.

⑯ **BGM IN SOCKET**
Connects to output of the background music machine.

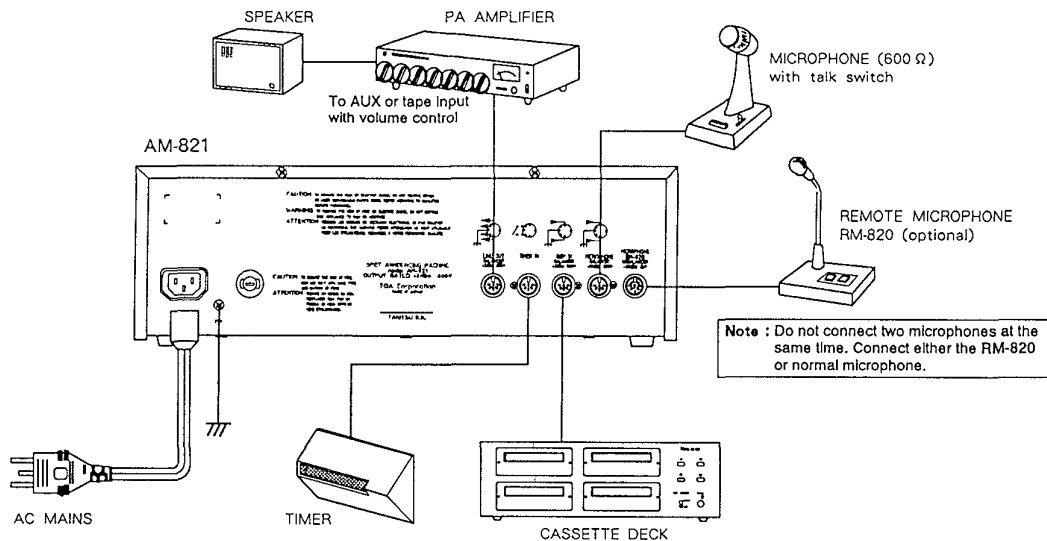Note: The spot announcement or paging takes precedence of the background music.

⑰ **MIC IN SOCKET**
Connects microphone for recording and paging. Has a built-in AGC circuit.
Note: Do not use this socket when the remote microphone socket is used.

⑱ **REMOTE MIC SOCKET**
Connects the optional remote microphone RM-820 that can be remote controlled and is used for microphone paging and recording.

■ CONNECTIONS

■ RECORDING PROCEDURE

This Spot Announcing Machine stops tape motion by sensing the unrecorded sound section on the tape. Announcements may be commenced overriding the background music by detecting the recorded level.
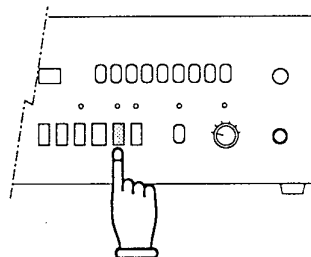
To ensure that your desired message is announced without fail, we suggest you keep records of the message numbers and their contents when recording. During recording, the recorded signals are sent out to the external amplifier. To prevent this, insert the headphone into the headphone jack and no signal is transmitted to the amplifier.

1. Connect the microphone to the microphone input, set the microphone switch to ON and switch the power on.
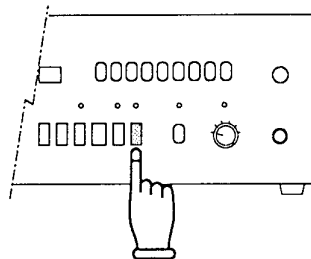
2. Load the tape after confirming that the auto switch ② is placed in the manual mode.
    Note : Be sure to confirm that the tape is provided with erasure prevention tabs.

3. Depress the REC SPACE button. The tape begins travelling and stops in about 7 seconds after producing the unrecorded sound section on the tape. The SPACE LED flashes (the RUN LED also illuminates) during tape travel and illuminates when the tape motion stops.

4. Depress the REC RUN button. The RUN LED illuminates (the SPACE LED also illuminates) and the tape begins to travel to permit recording.
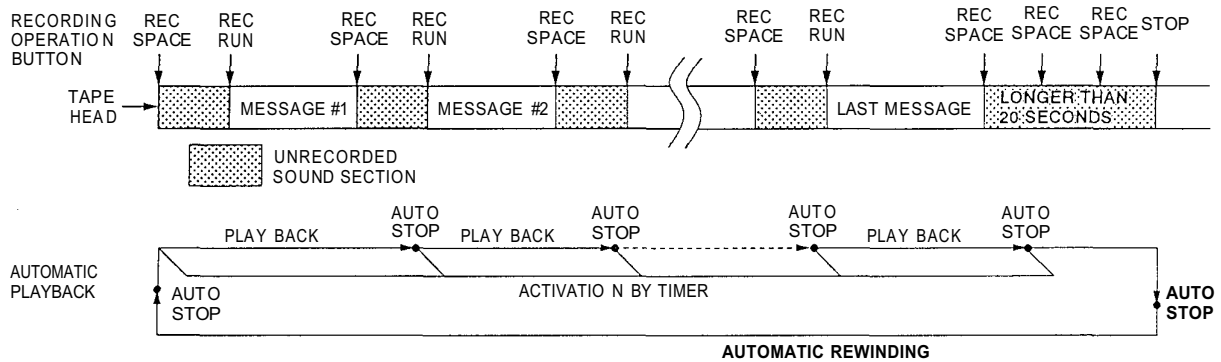   (Do not make a break of longer than 4 seconds during recording.)

5. Depress the REC SPACE button after recording. The tape begins travelling and stops in about 7 seconds after producing the unrecorded sound section on the tape. The SPACE LED flashes (the RUN LED also illuminates) during tape travel and illuminates when the tape motion stops.

6. Repeat the procedure of Item steps 4 through 5 for further recording. After all messages have been recorded, make more than three unrecorded sound sections on the tape by depressing the REC SPACE button three times. (This is necessary for automatic tape rewinding.)

7. Depress the stop button to release the recording mode.

The built-in AGC circuit keeps recording level constant. When using the microphone of very low sensitivity, the recording level becomes low. In this event, recording should be made with the mouth closer to the microphone, or replace the microphone by one with higher sensitivity.

● COMPLETED TAPE AFTER RECORDING PROCEDURE

RECORDING OPERATION BUTTON	REC SPACE	REC RUN	REC SPACE	REC RUN	REC SPACE	REC RUN	REC SPACE	REC RUN	REC SPACE	REC SPACE	REC SPACE STOP

TAPE HEAD →

MESSAGE #1   MESSAGE #2   LAST MESSAGE   LONGER THAN 20 SECONDS

UNRECORDED SOUND SECTION

AUTOMATIC PLAYBACK

PLAY BACK — AUTO STOP — PLAY BACK — AUTO STOP — AUTO STOP — PLAY BACK — AUTO STOP

AUTO STOP   ACTIVATION BY TIMER   AUTO STOP

AUTOMATIC REWINDING

■ CONFIRMATION OF RECORDING

To ensure that the recorded message can be annnounced properly, confirm if

(A) the number appearing on message counter display is in agreement with the indexing number for the announced message. Be sure to always start operation from the beginning of the tape after initial automatic tape rewinding as the number indicated on message counter display does not always correspond to the announced message after Fast Forward or Rewind facility has been used.

(B) the tape motion does not stop during announcement due to a long break made during recording.

(C) the recorded level is adequate enough to override the background music.

(D) the tape is provided with the unrecorded sound section that is sufficient for automatic tape rewinding after all messages have been announced.

1. Switch the power on.

2. Place the auto switch ② in the manual mode, load the recorded tape and rewind it. (The "1" is indicated on message counter display.)

3. Depress the PLAY (►) button. The tape begins travelling to play message No.1. In this event, confirm that the announcement overrides the background music. The tape motion stops automatically after the announcement of message No.1 is finished and "2" appears on message counter display, restoring the background music.

4. Repeat the procedure of step 3 and check the recording situation as well as Items (A) through (C).

5. After all announcements have been finished, again depress the PLAY (►) button to confirm that the unrecorded sound section continues to travel for longer than 20 seconds.

■ AUTOMATIC PLAYBACK PROCEDURE

● Automatic playback

1. Switch the power on. (When the recorded tape is already loaded in the deck, the tape is automatically rewound, and the auto switch ② is placed in the automatic mode.)

2. Load the tape and depress the auto switch ② to place in the automatic mode.

3. You can omit any of the messages from No.1 through No.9. Depress the message omit selector for the message(s) you wish to omit.

4. When the built-in timer is used for automatic announcements, set the timer switch at the required time interval. Place the timer switch in the OFF position when the external timer is used.

● Manual playback

1. Switch the power on. (When the recorded tape is already loaded in the deck, the tape is automatically rewound, and is placed in the automatic mode. Make sure to depress the auto switch ② to place in the manual mode.)

2. Load the tape.

3. Select the tape deck control button (RWD, F.F. or PLAY).

■ MICROPHONE PAGING AND ORDER OF PRIORITY

1. A microphone connected to the AM-821 can be used for recording and direct paging. Placing the microphone switch in the ON position enables you to make the microphone paging when the power is being fed to the AM-821. The built-in AGC circuit releases you from work to adjust the sound volume frequency.

2. The AM-821 is designed to allow the microphone paging to have the highest priority, overriding the background music and tape playback. Several seconds after the microphone paging is restored. When no microphone paging is being made, the pre-recorded announcement takes precedence of the background music.

   Caution : Be sure to place the microphone switch in the OFF position after the microphone paging has been finished.

■ TROUBLE-SHOOTING

Check the following points before you think there is a failure.
- Are the remote microphone and other equipment properly connected to the AM-821 ?
- Is a power cord not plugged in ?
- Are switches and volume controls placed in the right position ?

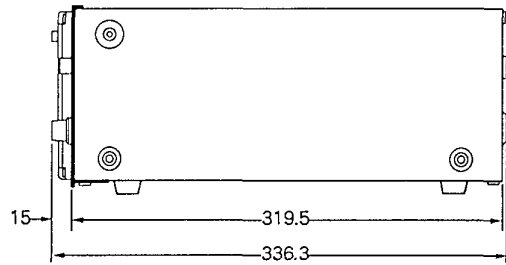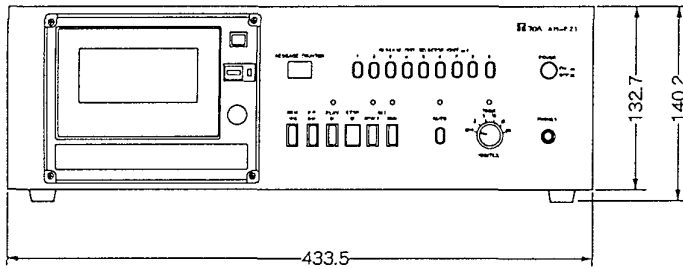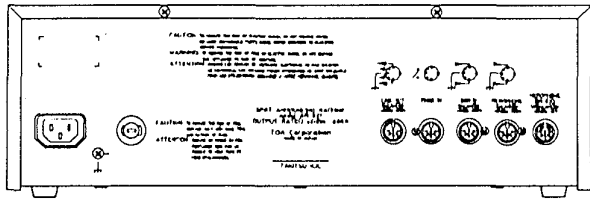| SYMPTON	CAUSE	REMEDY
A tape does not travel.	A tape is loaded improperly. Control buttons are pushed while the auto switch is set to ON. The auto switch is set to OFF and cassette tape motion is not activated by the external timer.	Remove a tape and load properly. Set the auto switch to OFF. Set the auto switch to ON when the external timer is used.
No output signal is delivered.	Output cord is connected improperly. A headphone plug is inserted. A microphone picks up surrounding noise.	Connect a cord correctly. Detach a headphone plug. Set the microphone switch to OFF.
Cannot record.	Tape's erasure prevention tab has been broken off. A Head is dirty. A microphone is connected improperly.	Replace a tape or cover a tab opening with adhesive tape. Clean a head. Connect a microphone correctly.
High frequencies are weak. Sound is unsteady. Excessive noise.	A Head is dirty. A Head is magnetized. A capstan is dirty. A tape is old.	Clean a head. Demagnetize a head. Clean a capstan and a pinch roller. Replace a tape.
A tape does not stop automatically.	Noise is high in unrecorded sound section. Period of time of unrecorded sound section is short.	Record again.
A tape is not rewound automatically.	Noise is high in unrecorded sound section. Period of time of unrecorded sound section is short. The auto switch is set to OFF.	Record again. Set the auto switch to ON.
Paging through a microphone does not take precedence.	Microphone output level is too low.	Use a microphone with high sensitivity.
Pre-recorded message does not take precedence of background music.	Recording level is too low. A Head is dirty. A tape is old.	Record again by using a microphone with high sensitivity. Clean a head. Replace a tape and record again.

■ SPECIFICATIONS

Power Requirements	AC Mains, 50/60 Hz 14 V A M A X
Outputs	LINE : +2dBm 600 Ω balanced PHONE : stereo or monaural headphone
Inputs	MIC : −60dBm 600 Ω balanced REMOTE MIC : −60dBV 2k Ω unbalanced BGM : + 2dBm 600 Ω balanced
Frequency Response	MIC : 100~15,000Hz ±3dB TAPE : 100~ 7,000Hz ±3dB
Distortion	MIC : less than 2% at 1 kHz TAPE : less than 3% at 1 kHz
S/N	MIC : better than 55dB TAPE : better than 50dB
Usable Tape	Compact cassette normal tape
Wow and Flutter	Less than 0.3% WRMS
Control Terminals	Input jack for external timer-accepts signal pulse with no voltage Output for muting-make contact with no voltage
Interval Timer	2, 5, 15, 20 minutes and OFF (switchable)
Omissible Message	Message No.1 through No.9
Mesage Number Indication	1 through 99
Dimensions (W x H x D)	433.5 x 140.2 x 336.3 mm [17.07 x 5.52 x 13.24 in.]
Weight	6.5kg[14.3lb.]

* Specifications are subject to change without notice.

● Accessories (120V MODEL ONLY)

Fuse (250 V 0.3 A) · · · · · · · · · · · · · · · 1
DIN Plug (5P) · · · · · · · · · · · · · · · · · · · 3

■ DIMENSIONS (mm)