FOSTEX

Addendum to the *RD-8* User's Guide

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New Features in 2.0 Software

Park Point Offset

The Park Point Offset is a new feature that helps the RD-8 lock-up to an external SMPTE timecode source, such as a video deck, film dubber, etc. It is often the case that video decks, when playback is stopped, stop transmitting timecode before the transport actually stops the tape. In this situation, if you were to resume playback on the video deck from the same point on tape, the RD-8 would have to spend time catching up to where the timecode has seemed to have "jumped ahead to". What makes matters worse is the fact that timecode may not startup again until after the video deck has been playing for a few seconds.

By setting the Park Point Offset to .5 or 1 second (maximum 2 seconds), the RD-8 will continue playing for that amount of time after SMPTE timecode has stopped being received. This way, the RD-8 is already ahead, and will lock-up much faster to the external SMPTE timecode when it reappears.

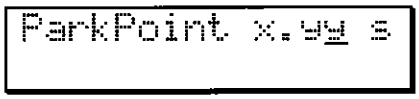
The Park Point Offset should be set for best operation with your timecode source. Increase the Park Point Offset if the RD-8 enters fast forward each time the timecode source is played. Decrease the offset amount if the RD-8 sits and waits for a few seconds, or rewinds, when the timecode source is played.

Adjusting the Park Point Offset

1 **Press the [DATA EDIT] button to enter Edit mode;**

2 **Press the [CHASE ON/OFF] button.**

3 **Press the [NEXT] button repeatedly until the Park Point parameter appears.**
The display should look like this:



...where **x.yy** is the offset amount in seconds and milliseconds. The range is from 0.00 to 2.00.

4 **Use the [▲] and [▼] buttons to adjust the value.**

Tape Length and T-180 Compatibility

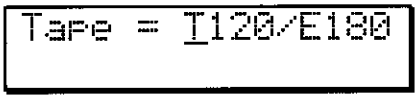
The RD-8 has been optimized to take advantage of the extra recording time on tapes longer than the standard T-120. Also, you can now use T-180 tapes, for over one full hour of recording time. T-60 tapes can also be used for shorter projects; the RD-8 automatically recognizes the shorter length of the T-60 because the hubs are large. However, there is no way for the RD-8 to tell apart a T-120, T-160 or T-180 tape, since these all use the same, smaller size hubs. Therefore, you must select the tape length on the RD-8.

Setting the Tape Length

1 Simultaneously press [HOME] and [NEXT].
This returns the LCD display to the first page of the Main Function Menu.

2 Press [NEXT] 7 times.
The display will advance to page 8 of the Main Function Menu.

3 Press [F1].
The display will advance to the Tape Length page.



4 Use the [▲] and [▼] buttons to select a tape length.
The options are: T120/E180, T60/E90, T160/E240 and T180/E260.

- The tape length setting is not reset when a tape is ejected, or if you power down and up again.
- If connected to an Alesis BRC, the tape length may be set on the BRC.
- If using more than one RD-8 and/or ADAT, you must make sure all connected slave are loaded with tapes of the same length.

It is very important that the Tape Length setting and the actual tape's length are the same. Never use a shorter tape length than what you have indicated on the RD-8.

Below is a list of the four S-VHS tapes which can be used with the RD-8, with their European equivalents and approximate recording times:

Type	Euro	Rec. Time
T-60	n/a	22 min.
T-120	SE-180	40 min.
T-160	SE-240	54 min.
T-180	SE-260	62 min.

Note: European tapes are actually slightly longer than their US equivalents. Therefore, you may get a few more minutes if using European tape.

Compatibility with Digidesign's ADAT Interface

The RD-8 has been optimized to be fully compatible with Digidesign's ADAT Interface. This is an important element when transferring digital audio between an RD-8 and a computer-based digital audio program, such as Session 8. Refer to the Digidesign equipment's respective reference manuals for more information on using them with the RD-8.

RS-422 Implementation

The RD-8 now has Sony 9-pin protocol implemented which is available via the RS-422 port on the rear panel. The Sony 9-pin protocol was established as a means of controlling tape machines form a single controller source.

To take advantage of Sony 9-pin protocol you must have a Sony 9-pin equipped editor/controller connected to the RD-8's RS-422 port. When the RD-8 is set to RS-422 as its Remote Control In source, it will emulate a Sony BVU video tape recorder. For best results, you should select this device driver in the video editor/controller.

Unlike other standard protocols, like MIDI, the Sony 9-pin protocol is extremely non-standardized. Although there exists a short list of command commands which all compatible devices can recognize, the appearance of specialized functions and features on a variety of products

have forced manufacturers to develop their own extended list of commands for those features not addressed in the standard Sony protocol.

The result of this is an extremely long list of commands and variations of common commands to accommodate a large number of products and various feature sets. This is why you cannot always just "connect it and forget it." Depending on the products being used together, there may be a bit of preparation required before you they will work properly together. On many video editors/controllers, you have a long list of drivers to choose from, supporting many different manufacturers and product models.

As stated before, the RD-8 emulates a Sony BVU video recorder. Therefore, you should select this device driver in your video editor/controller in order for things to work properly.

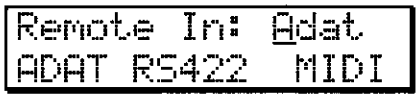
Because of the nature of the RD-8, a couple of commands will be ignored when sent from the editor/controller to the RD-8. These include true vari-speed commands and frame-advance.

The bottom line is that every machine which supports Sony 9-pin protocol is different, and thus your results will vary depending on the type of machine your using with the RD-8.

Setting the Remote In Source to RS-422

1 **Press [DATA EDIT], if its LED is not already turned on.**

2 **Press [REMOTE LOCAL].**
The display will advance to the Remote In page.



3 **Press [F2] to select RS422.**

4 **Press [DATA EDIT] to exit Data Edit mode.**

5 **Press [REMOTE LOCAL] repeatedly until either Remote Only mode (red LED only) or Remote & Local mode (both red and green LEDs) is selected.**

RS-422 Compatibility

The following is a list of Sony 9-pin equipped products which the RD-8 has been tested with, along with comments to assist in their operation.

Product	Compatible	Notes
Alesis AI-2	No	
Fostex Foundation 2000	Yes	
Sony BVU-950	Yes	Doesn't support true vari-speed or frame advance commands.
Sony BVE-2000, Sony BVE-950	Yes	Two parameters must be changed, in "VTR Settings": Set *Trajectory* to "80" (hex); Set *TC Read Delay* to "0C" (hex).
Sony RM450	No	
Grass Valley	Yes	
CMX	Yes	
TimeLine MicroLynx	Yes	Requires v. 1.32 software or later. Set *Reader Mode* to "SerialTC". Does not require timecode from RD-8.
AudioMedia Alex	Yes	
VideoMedia V-LAN Remote, V-LAN Cue, and OZ	Yes	
Sundance	Yes	

Corrections to the RD-8 User's Guide

Formatting

Recording Timecode While Formatting

If you intend to synchronize the RD-8 using timecode, we suggest that you consider recording timecode onto the TC track of the tape **while** you are formatting (see page 2-4). This will save a great deal of time later, since the timecode will already be there when you need it.

Formatting with 44.1K

If you plan on recording onto an RD-8 tape at a sample rate of 44.1kHz, it is imperative that the tape be formatted at 44.1kHz. This means you should go into the Main Menu (simultaneously press [HOME] and [NEXT]) and select the 44.1kHz sample rate (press [F1] twice) **before** formatting tape.

Connections

If you are using 2-lead cables on the balanced output of the RD-8 (see page 3-5), the resulting audio will suffer a loss of 6dBu. However, you can compensate for this by shorting out the cold and ground leads.

Synchronization

Using Internal Clock when Synchronizing to Timecode

The RD-8 User's Manual suggests that when synchronizing to timecode from an external source, it is best to use the timecode as both a locate reference and a clock source. This is not correct. In reality, this can cause problems, since the RD-8 will be looking for the timecode as its clock source the entire time, and when the source timecode is not present (such as when the source is not in play), the RD-8 will not have anything to synchronize its clock to. Also, if there is any jitter experienced on the source tape, this could confuse the RD-8 as well.

Therefore, it is imperative that when synchronizing to timecode where no other clock source is available (such as video or word), that you leave the RD-8's Clock set to "Internal". By using its own internal clock, the RD-8 will operate correctly while maintaining an accurate locate reference to the incoming timecode.

Live/Long-Term Recording

Pages 6-3 and 6-4 of the manual erroneously suggest that, by setting a slave RD-8 to an offset up to 35 minutes beyond the master RD-8, you can create a continuous recording scenario. This unfortunately is false. However, this can be accomplished manually. When you are recording a long performance, and the audio is being routed to two RD-8s (or two sets of multiple RD-8 systems), you can manually put the second (or second system) into record when the first (or first system) has almost reached the end of tape. Of course, the two systems will overlap, and this can be used to your advantage since hopefully an opportune moment will exist during this overlap where the two recordings can be spliced together again when mixed to a master (DAT, for example).

You still have the option of using longer tape lengths, and now the RD-8 can take advantage of the even longer T180 type tapes to provide over 60 minutes of recording time.

Recording Timecode

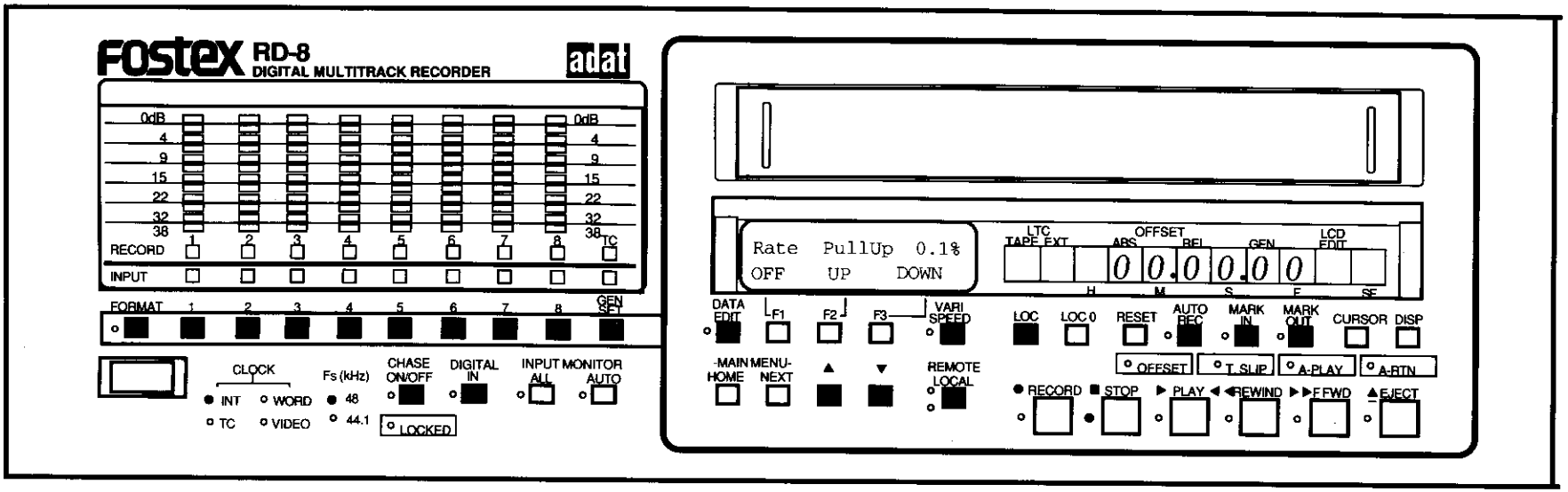
In order to record timecode onto the TC track, you must have the Generator's Address Mode (see page 5-22) set to either "ABS" or "NEW", but not "TAPE". This has been a matter of confusion, since this parameter's default setting is "TAPE". The only time you would want "TAPE" selected is when you wanted to extend existing timecode.

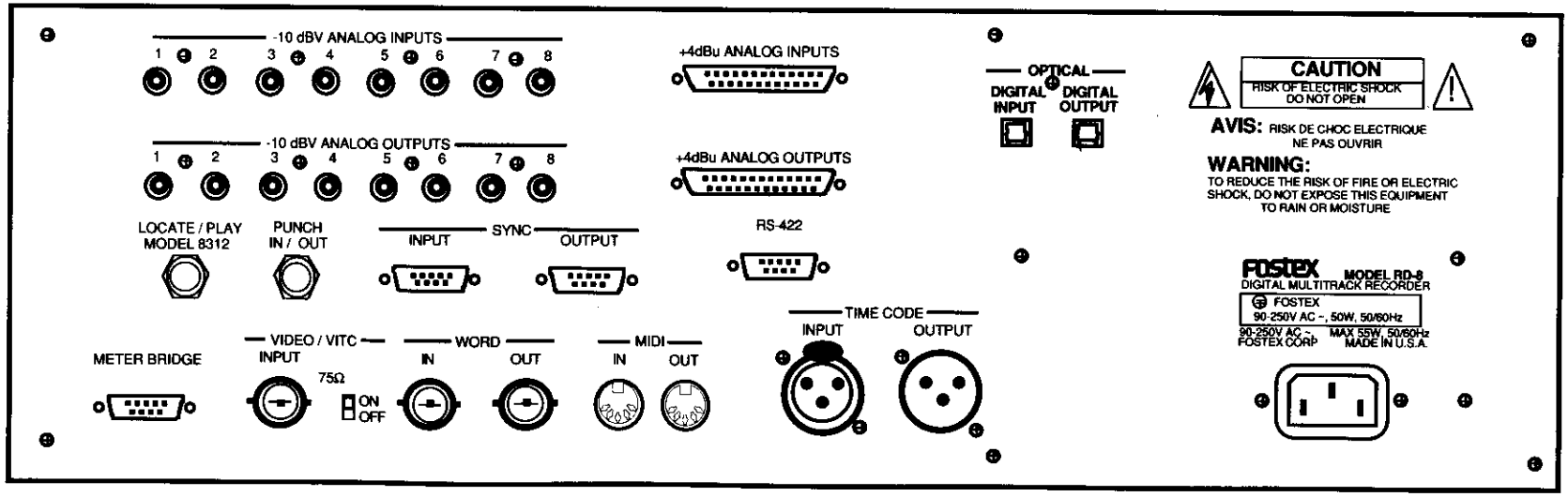
Transmitting MTC

Although the RD-8 User's Manual suggests otherwise, it is possible to transmit MTC from the RD-8 even when no timecode has been recorded onto the TC track. However, this requires that the Sync Code Reference parameter (in Chase Mode) be set to "ABS" (see page 5-15). You can then select which frame rate the MTC should use from the Main Menu (see page 7-20).

Digital Transfer

If you are digitally transferring audio from one RD-8 or ADAT to another and they are not connected using the 9-pin SYNC cable, it is important that the RD-8 you are recording to (called the *target*) has its Clock Source (see page 5-7) set to Word Clock Optical ("WordOpt"). Neglecting to do this will result in pops and other undesirables in the target's recording. If, on the other hand, you have connected the two machines using the 9-pin SYNC cable, it is not necessary to set the target RD-8's clock to "WordOpt" if the Remote Source is set to ADAT and either REMOTE ONLY or REMOTE AND LOCAL mode is selected. ■


FOSTEX RD-8
DIGITAL MULTITRACK RECORDER
adat
0dB
4
9
15
22
32
38
RECORD
INPUT
TC
FORMAT
GEN SET
CLOCK
INT
WORD
TC
VIDEO
Fs (kHz)
48
44.1
CHASE ON/OFF
LOCKED
DIGITAL IN
INPUT MONITOR ALL
AUTO
Rate PullUp 0.1%
OFF UP DOWN
LTC TAPE EXT
OFFSET
ABS
REL
GEN
LCD EDIT
H
M
S
F
SF
DATA EDIT
F1
F2
F3
VARI SPEED
LOC
LOC 0
RESET
AUTO REC
MARK IN
MARK OUT
CURSOR
DISP
OFFSET
T. SLIP
A-PLAY
A-RTN
MAIN HOME
MENU- NEXT
REMOTE LOCAL
RECORD
STOP
PLAY
REWIND
F.FWD
EJECT


-10 dBV ANALOG INPUTS
1 2 3 4 5 6 7 8
+4dBu ANALOG INPUTS
OPTICAL
DIGITAL INPUT
DIGITAL OUTPUT
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
AVIS: RISK DE CHOC ELECTRIQUE NE PAS OUVRIR
WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE
-10 dBV ANALOG OUTPUTS
1 2 3 4 5 6 7 8
+4dBu ANALOG OUTPUTS
LOCATE / PLAY MODEL 8312
PUNCH IN / OUT
SYNC
INPUT
OUTPUT
RS-422
TIME CODE
INPUT
OUTPUT
METER BRIDGE
VIDEO / VITC
INPUT
75Ω
ON
OFF
WORD
IN
OUT
MIDI
IN
OUT
FOSTEX MODEL RD-8
DIGITAL MULTITRACK RECORDER
FOSTEX
90-250V AC ~, 50W, 50/60Hz
90-250V AC ~, MAX 55W, 50/60Hz
FOSTEX CORP MADE IN U.S.A.