



**5.27**

**RAD1 Function User's  
Guide (Version 2)**



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                                 August 2014 – Deleted receiver exemption page 7



## 5.27 RAD Update (RAD1): Function User's Guide

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## 1 Objectives of This Chapter

The objectives of this chapter are to:

- Give an overview of RAD1 INPUT functions
- Illustrate the formats of required records

## 2 RAD1 Function OVERVIEW

Function RAD1 is used for MDH & MQ transmissions. The functionality does not change between input media.

A RAD approval/cancel (RAD1) is a transaction received by the Depository Trust & Clearing Corporation requesting immediate approval or cancellation of a transaction previously sent to Receiver Authorized Delivery System (RAD). The "delivering" participant may cancel the transaction, while an eligible, "receiving" participant may approve or cancel.

A User may use the RAD1 function to transmit RAD instruction to DTC starting at 3:00 a.m. and continuing throughout the business day based on the Cut-Off Time Schedule.

### 2.1 RAD1 Transmissions

When using the RAD1 functions, the User transmits RAD approval/cancel transactions to DTC and receives responses indicating any errors that have been detected in the transmitted transactions.

If the transactions transmitted to DTC via RAD1 are considered critical, the User should prepare procedures to be invoked in the event the transmission media is unavailable.



## 2.2 Settlement Date Cutoff Time Schedule for RAD1 Transmissions

**NOTE:** Valued transactions are those with a dollar amount greater than zero. Free transactions are those with a dollar amount equal to zero. RAD (Receiver Authorized Deliveries) may be approved or cancelled through PTS or MDH until the following times:

| <b>RAD1 TRANSACTION TYPE</b>          | <b>FROM</b>          | <b>To</b>              |
|---------------------------------------|----------------------|------------------------|
| Valued Transaction<br>Valued Issuance | Midnight<br>Midnight | 3:30 p.m.<br>2:45 p.m. |
| Valued Settling Bank Transactions     | 3:00 a.m.            | 5:00 p.m.              |
| Free Transactions                     | 3:00 a.m.            | 6:30 p.m.              |

**NOTE:** The times listed above describe the cutoff times for input. The position update at DTCC will usually be between 5-15 minutes later than the input time.

Valued Original and Non-matched Reclaims transactions will be accepted:

- between 3:00 a.m. and 3:00 p.m., and are subject to normal RAD (Receiver Authorized Deliveries) Rules as described in the SDFS manual.
- between 3:00 p.m. and 3:20 p.m., all transactions are forced to RAD.

Valued Original and Non-matched Reclaim transactions between a deliverer and its Settling Bank will be accepted between 3:00 a.m. and 5:00 p.m.

**NOTE:** After 3:00 p.m., these transactions will be forced to RAD.

Free MMI New Issuances and Turnaround DO transactions will be accepted between the hours of 3:00 a.m. and 4:45 p.m.

Free Non-MMI transactions will be accepted between the hours of 3:00 a.m. and 6:00 p.m.

Free MMI existing CUSIP transactions will be accepted between the hours of 3:00 a.m. and 6:00 p.m. These transactions will always be processed through the RAD system.



RAD1 test transmissions (where the Production Test Indicator = T) will be accepted during PTS operating hours. In no event will deliver order transactions be accepted after the cutoff times specified above.

Any RAD1 transmission initiated prior to cutoff will be allowed to continue to completion.



### 3 RAD Approvals/ Cancels Input Record Format

The RAD1 input record is defined in the following subsections. This record, consisting of a transaction header and application detail data, has a record length of 96.

#### 3.1 Standard Transaction Header (Input)

| Position | Length | Format    | Field Name                | Field Description                                                                                                                                            |
|----------|--------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-1      | 1      | Character | Feedback Indicator        | Blank on input. On output, used to indicate if any errors were encountered during processing                                                                 |
| 2-2      | 1      | Character | Production/Test Indicator | P = Production<br>T = Test                                                                                                                                   |
| 3-8      | 6      | Character | Record Type               | RADUPD                                                                                                                                                       |
| 9-10     | 2      | Numeric   | Record Suffix             | Indicator of the Record Number on single and multiple data records within a transaction                                                                      |
| 11-12    | 2      | Numeric   | Version Number            | Indicator of which version the data is in; for example: latest or previous format.<br><br>01 = Version 1                                                     |
| 13-18    | 6      | Character | User Reference Number     | Optional unique transmitter-defined transaction identifier                                                                                                   |
| 19-26    | 8      | Character | Addressee                 | The entity on behalf of whom the transaction is being processed. Right justified, zero filled for numeric addressee or 'Mnnnnnnn' for non-numeric addressee. |



### 3.2 RAD Input Record

| Position | Length | Format    | Field Name           | Field Description                                                                                                                                                                                                                  |
|----------|--------|-----------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27-34    | 8      | Numeric   | Deliverer            | Delivering Participant number (right-justified with leading zeroes).                                                                                                                                                               |
| 35-42    | 8      | Numeric   | Receiver             | Receiving Participant number (right-justified with leading zeroes).                                                                                                                                                                |
| 43-50    | 8      | Character | RAD Sequence Number  | This the number, generated by DTC which uniquely identifies the RAD transaction.                                                                                                                                                   |
| 51-54    | 4      | Character | RAD Input Source     | Input Source of the original RAD transaction.                                                                                                                                                                                      |
| 55       | 1      | Character | RAD Request Code     | The request codes have the following values:<br>'A' – approved by Receiver<br>'C' – cancelled by Receiver<br>'D' – cancelled by Deliverer<br><b>'R' - Approval reversal (unapprove) by Receiver</b><br><br><b>(Stage 4 change)</b> |
| 56-68    | 13     | Character | Cancel Reason Line 1 | Supplied by Participant on cancellation only. Otherwise must be spaces.                                                                                                                                                            |
| 69-81    | 13     | Character | Cancel Reason Line 2 | Supplied by Participant on cancellation only. Otherwise must be spaces.                                                                                                                                                            |
| 82-86    | 5      | Numeric   | Auth. Date           | The date of the authorization notice in Julian format – YYDDD                                                                                                                                                                      |
| 87       | 1      | Character | Auth Record Type     | Type of RAD processing:<br>'R' – Regular RAD<br>'M' – MMI Indexed to Principal RAD                                                                                                                                                 |
| 88-89    | 2      | Character | Processing Period    | Possible Values:<br>'P1' – Valued DO (non-Settling Bank)<br>'P2' – Valued DO (Settling Bank)<br>'P3' – Free Do                                                                                                                     |





|       |   |           |        |                         |
|-------|---|-----------|--------|-------------------------|
| 90-96 | 7 | Character | Filler | Reserved for Future Use |
|-------|---|-----------|--------|-------------------------|

#### 4 RAD1 Error Codes

The machine-readable input error codes are a combination of the field in error (a 4-byte field code) and the error type (a 4-byte reason code). The resultant 8-byte error codes identify the specific fields and the types of errors that prevented an input message from being processed. Inputs containing one or more errors are returned to the submitter for correction. The following error code table is sorted alphabetically by field code (column one) and then by reason code (column two).

| RAD 1 Error Codes |            |                                                                |
|-------------------|------------|----------------------------------------------------------------|
| Field Code        | Error Code | Explanation                                                    |
| AZZZ              | 9AAL       | Transaction past cutoff time                                   |
| AZZZ              | 9ACO       | Transaction not found in database                              |
| AZZZ              | 9AA7       | Transaction rejected. The RAD item has been processed already. |
| BABU              | 9AAA       | Auth Date is invalid                                           |
| BACX              | 9AAA       | Processing Period is invalid                                   |
| CAAL              | 9AAA       | Receiving Participant is invalid                               |
| CAAL              | 9ACK       | Receiving Participant is locked                                |
| CAAL              | 9ACN       | Receiving Participant is chilled for this type of transaction  |
| CAAL              | IACB       | System error happened on Receiving Participant Verification    |
| CAAM              | 9AAA       | Delivering Participant is invalid                              |
| CAAM              | 9ACK       | Delivering Participant is locked                               |
| CAAM              | 9ACN       | Delivering Participant is chilled for this type of transaction |
| CAAM              | IACB       | System error happened on Delivering Participant Verification   |
| EAGC              | 9AAA       | RAD Input Source is invalid                                    |
| GAHQ              | 9AA5       | RAD Sequence Number is blank                                   |
| HADD              | 9AAA       | Auth Record Type is invalid                                    |
| JCCD              | 9AAA       | Cancel Reason Lines are invalid                                |
| KAAE              | 9AAA       | RAD Request Code is invalid                                    |