System Specification OCR giro
for Mastercard Payment Services

CONTENTS

1 Adjustment and clearing of fields

Unless otherwise specified, the following rules apply for all

fields: Alphanumeric fields:
- Data will be left-aligned
- Empty positions should be blanked

Numeric fields:
- Data will be right-aligned
- Empty positions should be filled in with zeros.

2 Record types, record layout and entering data

Transmissions from Mastercard Payment Services must always start with:

A. START RECORD FOR TRANSMISSION
B. START RECORD FOR ASSIGNMENTS
C. TRANSACTION RECORD (containing amount items 1 and 2)
D. END RECORD FOR ASSIGNMENT
E. END RECORD FOR TRANSMISSION

A transmission can contain assignments for several services for the same data recipient (per customer unit ID).

One assignment can only contain transactions for a single-service-type assignment and one and the same bank account.

```
a)    Startrecord record for transmission

      b) Startrecord for assignment
2)            c)Transaction srecord
                    Amount item 1
                    Amount itemt 2
              Transaction record
                    Amount item 1
                    Amoun item 2
                    Amount item 3
              Transaction record
                    Amoun item 1
                    Amount item 2
              Transaction record
                    Amount item 1
              Amount item 2

      d) End record for assignment

      e) End record for transmission
```
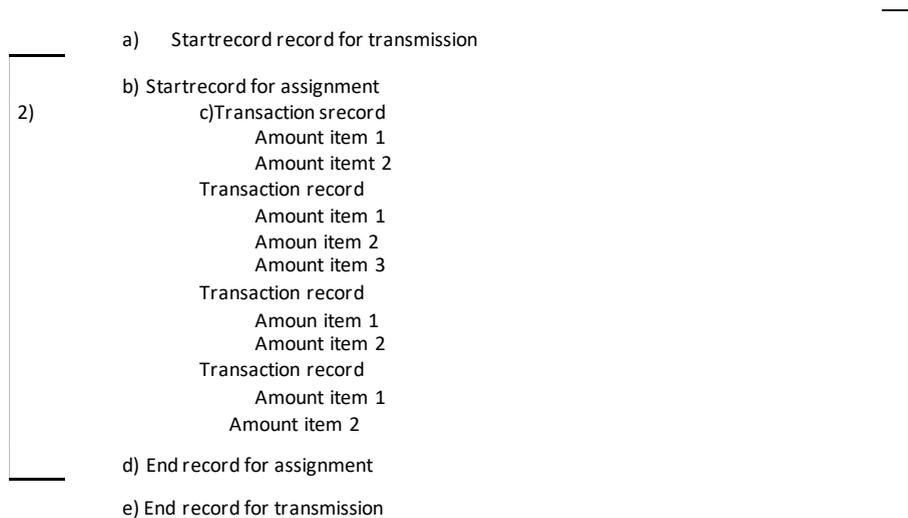
Filling out the first four fields of a transaction identifies the transaction. The overview below shows the current records with the respective codes:

Record	Format	Service	Transmission/ Assignment/ Transaction type	Recordtype
Startrecord transmission	NY	00	00	10
Startrecord assignment for OCR data	NY	09	00	20
Transaction record Amount item 1 Amount item 2 Amount item 3 (even tents)	NY	09	Transaction type; 10,11,12,13,14,15,16,17,18,19,20, 21	30 31 32
End record assigment for OCR data	NY	09	00	88
Endrecord transmission	NY	00	00	89

Information transactions from terminals and internet-payments collected through Mastercard Payment Services.

In addition to payments from giro and electronic payments with KID, assignments can also have information transactions from terminals and internet-payments collected through Mastercard Payment Services. The payee can use this information for updating the customer system.

Information transactions from terminals have these transaction types:
- Reversing with KID   - 18 (one-eight)
- Purchase with KID   - 19 (one-nine)
- Reversing with free text   - 20 (two-zero)
- Purchase with free text   - 21 (two-one)

For information transactions with type 20 and 21 (contains free text), there will be 3 amount items per transaction record.

2.1   STARTRECORD FOR TRANSMISSION

The first record in every transmission.
The record can only occur once per transmission.

FIELD	1	2	3	4	5	6	7	8
FIELD NAME	FORMAT CODE	SERVICE CODE	TRANSM. TYPE	RECORD TYPE	DATA-TRANSM	TRANSM. NUMBER	DATA-RECIPIENT	FILLER
POS.	1 - 2	3 - 4	5 - 6	7 – 8	9 - 16	17 - 23	24 - 31	32 - 80

FIELD 1 - FORMAT CODE
-   Alphanumeric, 2 positions
-   Always = NY (Norwegian for "new")

FIELD 2 - SERVICE CODE
-   Numeric, 2 positions
-   Always = 00 (zero-zero)

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FIELD 3 - TRANSMISSION TYPE
- Numeric, 2 positions
- Always = 00 (zero-zero)

FIELD 4 - RECORD TYPE
- Numeric, 2 positions
- Record type start transmission always = 10 (one-zero)

FIELD 5 - DATA TRANSMITTER
- Numeric, 8 positions
- Is filled in with **Mastercard Payment Services**' ID = 00008080

FIELD 6 - TRANSMISSION NUMBER
- Numeric, 7 positions
- Is filled in with serial numbers generated by **Mastercard Payment Services**.

FIELD 7 - DATA RECIPIENT
- Numeric, 8 positions
- Is filled in with data recipient's CUSTOMER UNIT ID.

FIELD 8 - FILLER
- Numeric, 49 positions
- Is filled in with zeroes

2.2   START RECORD FOR ASSIGNMENT

The first record for every assignment in the transmission. The record can only occur per assignment

FIELD	1	2	3	4	5	6	7	8
FIELD NAME	FORMA T CODE	SERVIC E CODE	ASSIGNM E NT TYPE	RECOR D TYPE	AVTAL E ID	AGREEMENT ID	ASSIGNMEN T ACCOUNT	FILLER
POS.	1 - 2	3 - 4	5 - 6	7 - 8	9 - 17	18 - 24	25 - 35	36 - 80

FIELD 1 - FORMAT CODE
- Alphanumeric, 2 positions
- Always = NY (Norwegian for "new")

FIELD 2 - SERVICE CODE
- Numeric, 2 positions
- OCR giro service code always = 09 (zero-nine)

FIELD 3 - ASSIGNMENT TYPE
- Numeric, 2 positions
- Always = 00 (zero-zero)

FIELD 4 - RECORD TYPE
- Numeric, 2 positions
- Record type start assignment always = 20 (two-zero)

FIELD 5 – AGREEMENT ID
- Numeric, 9 positions
-   Is filled in with registered AGREEMENT ID issued
     by **Mastercard Payment Services**, for the
     assignment account.

FIELD 6 - ASSIGNMENT NUMBER
- Numeric, 7 positions
- Is filled in with serial number accumulated per assignment in the transmission.

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FIELD 7 - ASSIGNMENT ACCOUNT
- Numeric, 11 positions
- Is filled in with the payee's (agreement's) account number.

FIELD 8 - FILLER
- Numeric, 45 positions
- Is filled in with zeroes

2.3 TRANSACTION RECORD

A valid OCR transaction consist of booth an amount 1 item and amount 2 (for transaction type 20 and 22 there will be additional amount item 3)

2.3.1 AMOUNT ITEM 1

FIELD	1	2	3	4	5	6	7	8
FIELD NAME	FORMAT CODE	SERVICE CODE	TRANS TYPE	RECORD TYPE	TRANS NR	DATE	CENTRE ID	DAY CODE
POS.	1 - 2	3 - 4	5 - 6	7 - 8	9 - 15	16 - 21	22 - 23	24 - 25

FIELD	9	10	11	12	13	14	15
FIELD NAME	PARTIAL SETTLEMENT NUMBER	SERIAL NUMBER	SIGN	AMOUNT	KID	FILLER	FILLER
POS.	26	27 - 31	32	33 - 49	50 - 74	75 - 80	77 - 80

FIELD 1 - FORMAT CODE
- Alphanumeric, 2 positions
- Always = NY (Norwegian for "new")

FIELD 2 - SERVICE CODE
- Numeric, 2 positions
- OCR giro service code always = 09 (zero-nine)

FIELD 3 - TRANSACTION TYPE
- Numeric, 2 positions
  Valid transaction types for the OCR giro service:

Transaction from giro debited account   - 10
Transaction from standing orders   - 11
Transaction from direct remittance   - 12
Transaction from BTG (Business Terminal Giro)- 13
Transaction from counter giro   - 14
Transaction from AvtaleGiro   - 15
Transaction from Telegiro   - 16
Transaction from giro - paid in cash   - 17
Transaction from terminal and internet-payments:
Reversing with KID   -18
Purchase with KID   -19
Reversing with free text   -20
Purchase with free text   -21

FIELD 4 - RECORD TYPE
- Numeric, 2 positions

- Record type for amount item 1 always = 30 (three-

zero) FIELD 5 - TRANSACTION NUMBER
- Numeric, 7 positions
- Is filled in by Mastercard Payment Services with the serial number accumulated per transaction in the assignment.

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FIELD 6 - DATE
- Numeric, 6 positions
- Is filled in with **Mastercard Payment Services** processing date, DDMMYY (day, month, year) for the transaction

FIELD 7 - CENTRE ID
- Numeric, 2 positions
- Is filled out by **Mastercard Payment Services** and contains the first two positions in the identification number of the bank data centre to which the transaction was transferred

FIELD 8 - DAY CODE
- Numeric, 2 positions
- Is filled out by **Mastercard Payment Services** and contains the day of the month when the transaction was processed, the numbers run from 01 to 31.

FIELD 9 - PARTIAL SETTLEMENT NUMBER
- Numeric, 1 position
- Is filled out by **Mastercard Payment Services** and contains the number of the partial settlement in which the transaction was processed.
- For transaction type 18, 19, 20 and 21, the field will be filled in with 0 (zero)

FIELD 10 - SERIAL NUMBER
- Numeric, 5 positions
- Is filled in with serial number within the partial settlement

The sum of all transactions with the same serial number is

specified on the bank statement.

FIELD 11 - SIGN
- Numeric, 1 position
- Is filled in with "-" (negative sign) if receiver is able to process a credit note electronic in the account current book (conditional, depends on OCR agreement)
- Is filled in with zeroes if receiver is not able to process a credit note electronic in the account current book (conditional, depends on OCR agreement)

FIELD 12 - AMOUNT
- Numeric, 17 positions
- The amount is specified in øre (one øre = NOK 0.01)

FIELD 13 - KID
- Alphanumeric, 25 positions
- The field contains the payee's "KID" (customer identification) including the verification digit and without special characters.
- The "KID" is right- aligned and any empty positions are blanked. The "KID" cannot contain letters of the alphabet.

FIELD 14 - FILLER
- Numeric, 6 positions
- Is filled in with zeroes.

Sorting sequence
The transactions are sorted ascendingly on **Mastercard Payment Services** date.

2.3.2 AMOUNT ITEM 2

FIELD	1	2	3	4	5	6	7	8	9
FIELD NAME	FORMAT CODE	SERVICE CODE	TRANS TYPE	RECORD TYPE	TRANS NUMBER	FORM NUMBER	AGREEMENT/ ARCIVE REFERENCE.	FILLER	BANK DATE
POS.	1 - 2	3 - 4	5 - 6	7 - 8	9 - 15	16 - 25	26 - 34	35 - 41	42 - 47

FELT	10	11
FELT NAVN	DEBIT ACCOUNT	FILLER
POS.	48 - 58	59 - 80

FIELD 1 - FORMAT CODE
- Alfa numeric, 2 positions
- Always = NY

FIELD 2 - SERVICE CODE
- Numeric, 2 positions
- OCR giro service code always = 09 (zero-nine)

FIELD 3 - TRANSACTION TYPE
- Numeric, 2 positions

Valid types of transactions for OCR giros:
Transaction from giro debited account - 10
Transaction from standing orders - 11
Transaction from direct remittance - 12
Transaction from BTG (Business Terminal Giro) - 13
Transaction from counter giro - 14
Transaction from AvtaleGiro - 15
Transaction from Telegiro - 16
Transaction from giro - paid in cash - 17
Transaction from terminal and internet-payments:
Reversing with KID -18
Purchase with KID -19
Reversing with free text -20
Purchase with free text -21

FIELD 4 - RECORD TYPE
- Numeric, 2 positions
- Record type for amount item 2 always = 31 (three-one)

FIELD 5 - TRANSACTION NUMBER
- Numeric, 7 positions
- Transaction number from amount item 1.

FIELD 6 - FORM NUMBER
- Numeric, 10 positions
- If the giro was debited in a bank the field will contain the form number on the giro.
- For standing order transactions, the field will be filled in with the type of form and zeroes.
- For other transaction the field will be filled in with zeroes.

FIELD 7 – AGREEMENT-ID/ARCHIVE REFERENCE
- Numeric, 9 positions
- In transactions from direct remittance, the field will contain the payer's AGREEMENT ID in Mastercard Payment Services.
- In transactions from BTG (BTG = Corporate Terminal Giro) and standing orders, the field will contain the ARCHIVE REFERENCE from the input to Mastercard Payment Services.

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- In transactions from form, the field will contain the ARCHIVE REFERENCE in **Mastercard Payment Services**.

- For transactions with transaction type 18, 19, 20 and 21, this will consist of bax- Number (6 digits) and session number (3 digits).

FIELD 8 - FILLER
- Numeric, 7 positions
- The field is filled in with zeros.

FIELD 9 - BANK DATE
- Numeric, 6 positions
- The field is filled in the DDMMYY (day, month, year)

FIELD 10 - DEBIT ACCOUNT
- Numeric, 11 positions
- The payer's bank account, if known, is entered here. Otherwise the field is filled in with zeros.

- For transactions with transaction type 18, 19, 20 and 21, the field is always filled in with zeros.

FIELD 11 - FILLER
- Numeric, 22 positions
- The field is filled in with zeroes

2.3.3 AMOUNT ITEM 3
– WILL ONLY OCCUR AT TRANSACTION TYPES 20 AND 21

FIELD	1	2	3	4	5	6	7
FIEKD NAME	FORMA T CODE	SERVIC E CODE	TRAN S TYPE	RECOR D TYPE	TRANS NUMBE R	FREETEX T MESSAG E	FILLER
POS.	1 - 2	3 - 4	5 - 6	7 - 8	9 - 15	16 - 55	56 - 80

FIELD 1 – FORMAT CODE
- Alphanumeric, 2 positions
- Always = NY (Norwegian for "new")

FIELD 2 – SERVICE CODE
- Numeric, 2 positions
- OCR giro always service code = 09 (zero-nine)

FIELD 3 – TRANSACTION TYPE
- Numeric, 2 positions
- Valid transactions types OCR giro are:
  - Transaction from terminal and internet payment collected through Mastercard Payment Services
    - Reversing with free text - 20 (to-null)
    - Purchase with free text - 21 (to-en)

FIELD 4 – RECORD TYPE
- Numeric, 2 positions
- Record type amount item 2 always = 32 (three-two)

FIELD 5 – TRANSACTION NUMBER
- Numeric, 7 positions
- Transaction number from amount item 1 and 2.

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FIELD 6 – FREE TEXT MESSAGE
- Alphanumeric, 40 positions.
- Contains a free text message sent from the payment terminal.

FIELD – FILLER
- Numeric, 25 positions
- Is filled in with zeros.

2.4 END RECORD FOR ASSIGNMENT

The last record for every assignment in the transmission. The record can only occur once per assignment

FIELD	1	2	3	4	5	6	7	8
FIELD NAME	FORMAT CODE	SERVICE CODE	ASSIGNM TYPE	RECORD TYPE	NUMBER TRANCE	NUMBER RECORD	TOTAL AMOUNT	DATE
POS.	1 - 2	3 – 4	5 - 6	7 - 8	9 - 16	17 - 24	25 - 41	42 - 47

FELT	9	10	11
FELT NAVN	EARLIES DATE	LATEST DATE	FILLER
POS.	48 - 53	54 - 59	60 - 80

FIELD 1 - FORMAT CODE
- Alphanumeric, 2 positions.
- Always = NY (Norwegian for "new").

FIELD 2 - SERVICE CODE
- Numeric, 2 positions
- The OCR giro service code always = 09 (zero-nine)

FIELD 3 - ASSIGNMENT TYPE
- Numeric, 2 positions
- Is filled in with zeroes

FIELD 4 - RECORD TYPE
- Numeric, 2 positions
- Record type end assignment = 88 (eight-eight)

FIELD 5 - NUMBER OF TRANSACTIONS
- Numeric, 8 positions
- Specifies the number of transactions in the assignment.
    (Amount item 1 + amount item 2 + amount item 3 (if used) = a transaction).

FIELD 6 - NUMBER OF RECORDS
- Numeric, 8 positions
- Specifies the total number of items/records in the assignment,
    including the assignment's start record and the end record.

FIELD 7 - TOTAL AMOUNT
- Numeric, 17 positions
- Specifies the sum of all the transactions in the assignment (field 12 in amount item 1).
- (Amount from revisions, transaction type 18 and 20, are also added to
    the sum amount. Is not deducted.)
- The amount is specified in øre. (one øre = NOK 0.01)

FIELD 8 - DATE
- Numeric, 6 positions
- The field contains the date when the assignment was generated in **Mastercard Payment Services**. Is filled in with DDMMYY

FIELD 9 - EARLIEST DATE
- Numeric, 6 positions
- Earliest **Mastercard Payment Services** processing date for transactions in the assignment.

FIELD 10 - LATEST DATE
- Numeric, 6 positions
- Latest **Mastercard Payment Services** processing date (DDMMYY) for transactions in the assignment.

FIELD 11 - FILLER
- Numeric, 21 positions
- The field is filled in with zeroes.

2.5 END RECORD FOR THE TRANSMISSION

The last record in the transmission.
The record can only occur once per transmission.

FIELD	1	2	3	4	5	6	7	8	9
FIELD NAME	FORMAT CODE	SERVICE CODE	TRANSMISSION.TYPE	RECORD TYPE	NUMBER OF TRANC	NUMBER OF RECORDS	TOTAL AMOUNT	DATE	FILLER
POS.	1 - 2	3 - 4	5 - 6	7 - 8	9 - 16	17 - 24	25 - 41	42 - 47	48 - 80

FIELD 1 - FORMAT CODE
- Alphanumeric, 2 positions
- Always = NY (Norwegian for "new")

FIELD 2 - SERVICE CODE
- Numeric, 2 positions
- Always = 00 (zero-zero).

FIELD 3 - TRANSMISSION TYPE
- Numeric, 2 positions
- Always = 00 (zero-zero)

FIELD 4 - RECORD TYPE
- Numeric, 2 positions
- Record type end transmission = 89 (eight-nine)

FIELD 5 - NUMBER OF TRANSACTIONS
- Numeric, 8 positions
- Specifies the number of transactions in the transmission
- (Amount item 1 + amount item 2 + amount item 3 (if used) = a transaction).

FIELD 6 - NUMBER OF RECORDS
- Numeric, 8 positions
- Specifies the number of items/records in the transmission, including the assignment's start and end record, and the start and end record for the transmission.

FIELD 7 - TOTAL AMOUNT
- Numeric, 17 positions
- Specifies the total amount of all the transactions in the transmission.
- The amount is specified in øre. (one øre = NOK 0.01)

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FIELD 8 - DATE
-       Numeric, 6 positions.
-       The field contains the date the transmission was generated in **Mastercard Payment Services**.
-       Is filled in with the DDMMYY (day, month, year).

FIELD 9 - FILLER
-       Numeric, 33 positions
-       The field is filled in with zeroes.

3 APPROVED, PROCESSED TRANSACTIONS

Example file;

```
********************** TOP OF DATA **************************
NY0000100000808001700310001020000000000000000000000000000000000000000000000
NY0900200017676760000001999911111110000000000000000000000000000000000000000
NY091030000000124030401241123450000000000000044000       33000083672049000000
NY091031000000160004322610945611540000000230304888810111280000000000000000000000
NY091030000000224030401241123450000000000000008000 33000158843046000000
NY091031000000260004333650944552120000000230304888810111360000000000000000000000
NY091030000000324030401241123450000000000000150000 33000163680003000000
NY091031000000360004332510965888510000000230304888810111440000000000000000000000
NY091030000000424030401241123450000000000000150000 33000164573025000000
NY091031000000460004336140945666540000000230304888810111520000000000000000000000
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NY091331000000900000000006105011380000000240304888810111870000000000000000000000
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NY091331000001500000000006001011400000000240304888810111870000000000000000000000
NY091330000001624030401249678 90-0000000000000040000 44000366980090000000
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NY091330000001724030401249678 90-0000000000000150000 44000007860156000000
NY091331000001700000000006105011380000000240304888810111870000000000000000000000
NY091330000001824030401249678900000000000000030000 44000000380020000000
NY091331000001800000000005802017930000000240304888810111950000000000000000000000
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NY091331000001900000000005802017930000000240304888810111950000000000000000000000
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NY091330000002124030401249678900000000000000045000 44000000730042000000
NY091331000002100000000005802017930000000240304888810111950000000000000000000000
NY091330000002224030401249678900000000000000075000 44000001060027000000
NY091331000002200000000005986667840000000240304888810111010000000000000000000000
NY091330000002324030401249678900000000000000085000 44000001100070000000
NY091331000002300000000005986667840000000240304888810111010000000000000000000000
NY090088000000230000004800000000000156300024030424030424030400000000000000000000
NY000089000000230000005000000000000156300024030400000000000000000000000000000000
******************** BOTTOM OF DATA ********************
```

4 Example på utregning av kontrollsiffer i modulus 10 og 11

Modulus 10

Modulus 10 - Example:

Field without verification digit	1	2	3	4	5	6	7	8	
Weigting:	1	2	1	2	1	2	1	2	
Products:	1	4	3	8	5	12	7	16	
Sum of digits:	1	+4	+3	+8	+5	+1+2	+7	+1+6	=38
Verification digit	10	-8	=2						

Fields with verification digits 1 2 3 4 5 6 7 8 2. The digits in the field are multiplied by the weighting- numbers 2 1 2 1, **computed from right to left.**

PLEASE NOTE: According to this method one does <u>not</u> add the products, but rather the individual digits in the products. The product 12 thus contributes 1+2 to the sum of the digits. The single (last) digit in the sum of the digits (in this case 8) is subtracted from 10 thus giving the verification digit (in this case 2). If the single digit in the sum of the digits is 0, the verification number will be 0.

Modulus 11

Modulus 11 - Example:

Field without verification digit	1	2	3	4	5	6	7	8	
Weigting:	3	2	7	6	5	4	3	2	
Products:	3	+4	+21	+24	+25	+24	+21	+16	=138
Divisjon:	138 : 11 = 12			<u>And a rest of 6</u>					
Verification digit	11 - 6 = 5								

Fields with verification digits: 1 2 3 4 5 6 7 8 5
The digits in the field are multiplied with the weighting numbers 2 3 4 5 6 7 2 3 etc. **computed from right to left**.

The sum of the products (in this case 138) is divided by 11. The rest after the division (in this case 6) is subtracted from 11, and the result is the verification digit (in this case 5). If the division comes out even (rest = 0), the verification digit is 0.
If the verification digit is 10 (rest = 1) the verification digits must be replaced with a - (minus sign).

5 LOGG

Vers.	Pkt.	Beskrivelse av endring	Dato	Sign.
4.0	All over	Update all over	30-09-18	hha