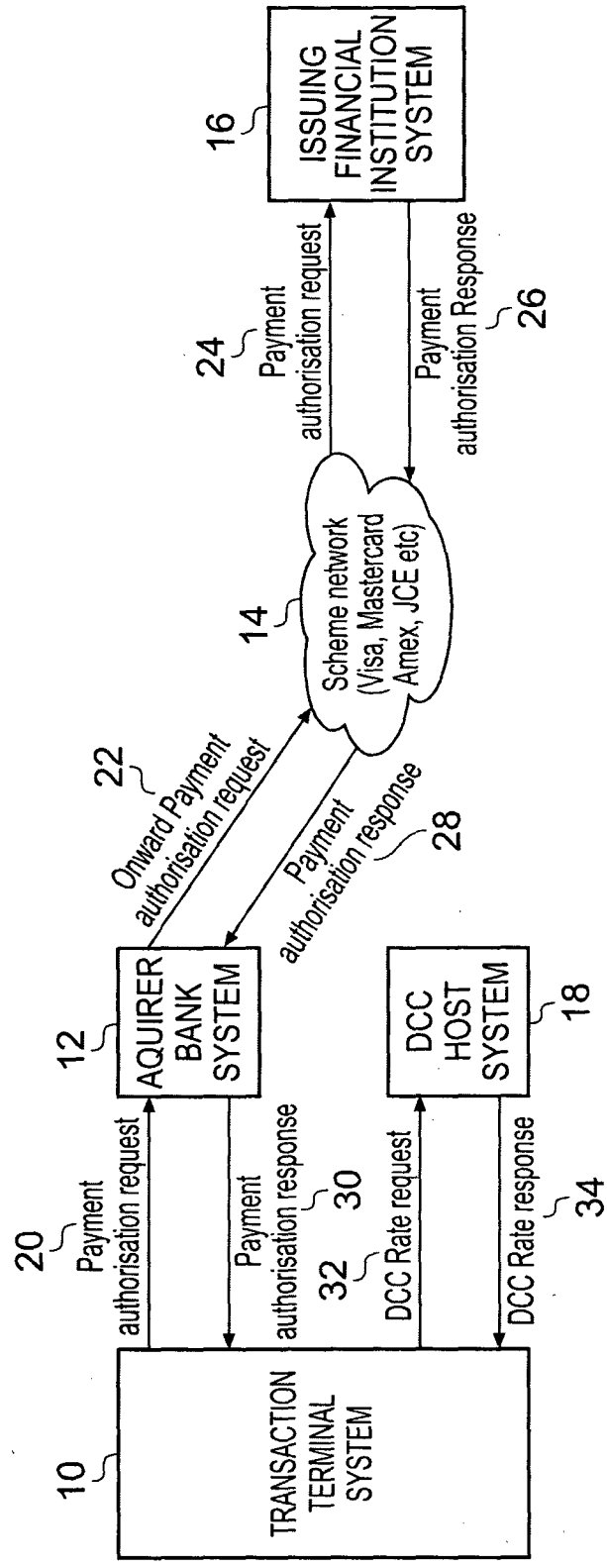

ISSUING FINANCIAL INSTITUTION SYSTEM
16
24
Payment authorisation request
Payment authorisation Response
26
Scheme network (Visa, Mastercard Amex, JCE etc)
14
22
Onward Payment authorisation request
Payment authorisation response
28
AQUIRER BANK SYSTEM
12
DCC HOST SYSTEM
18
20
Payment authorisation request
Payment authorisation response
30
32
DCC Rate request
DCC Rate response
34
TRANSACTION TERMINAL SYSTEM
10
100

FIG. 1

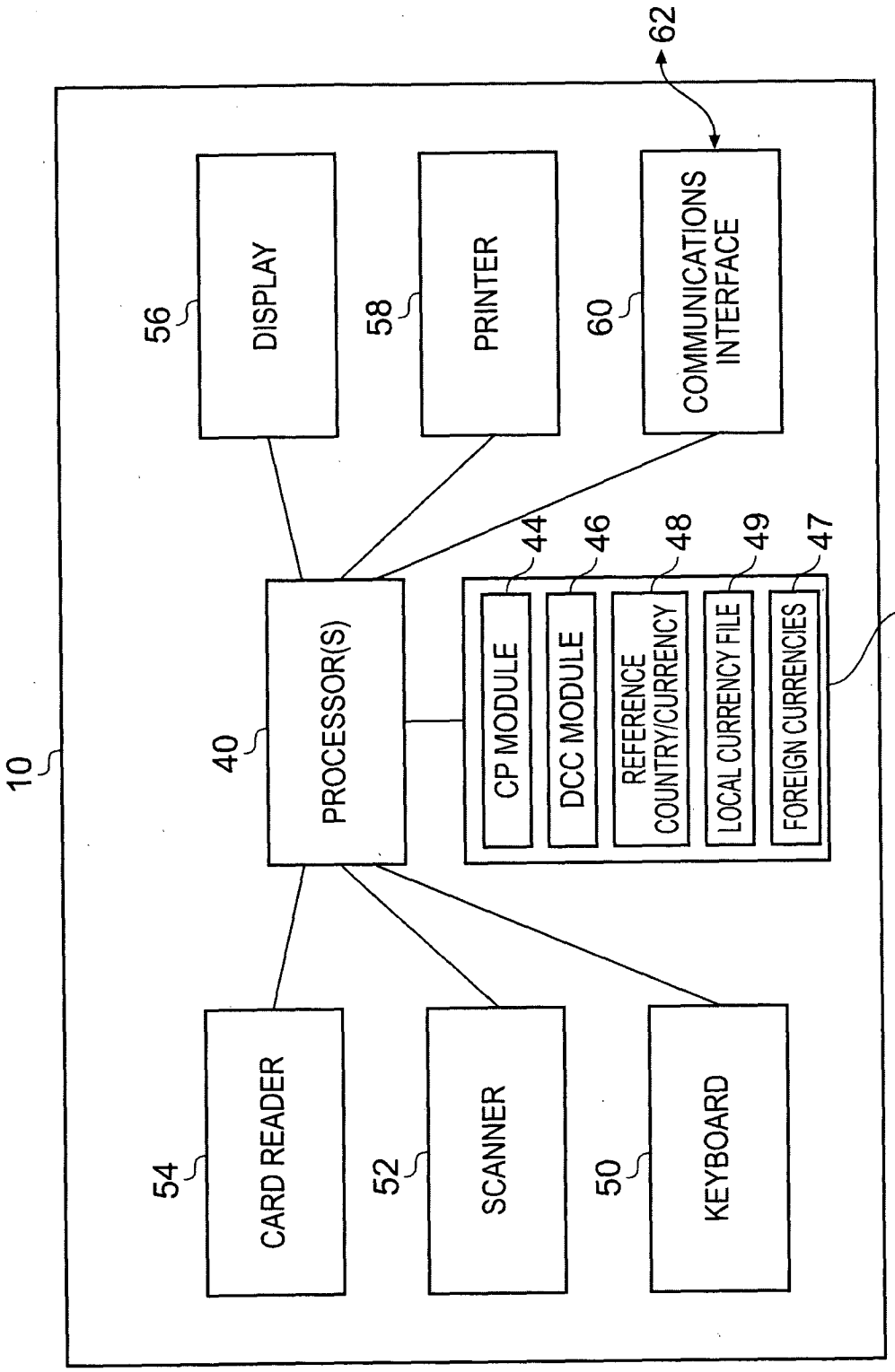

62
DISPLAY
56
PRINTER
58
COMMUNICATIONS INTERFACE
60
44
46
48
49
47
CP MODULE
DCC MODULE
REFERENCE COUNTRY/CURRENCY
LOCAL CURRENCY FILE
FOREIGN CURRENCIES
42
10
40
PROCESSOR(S)
CARD READER
54
SCANNER
52
KEYBOARD
50

FIG. 2

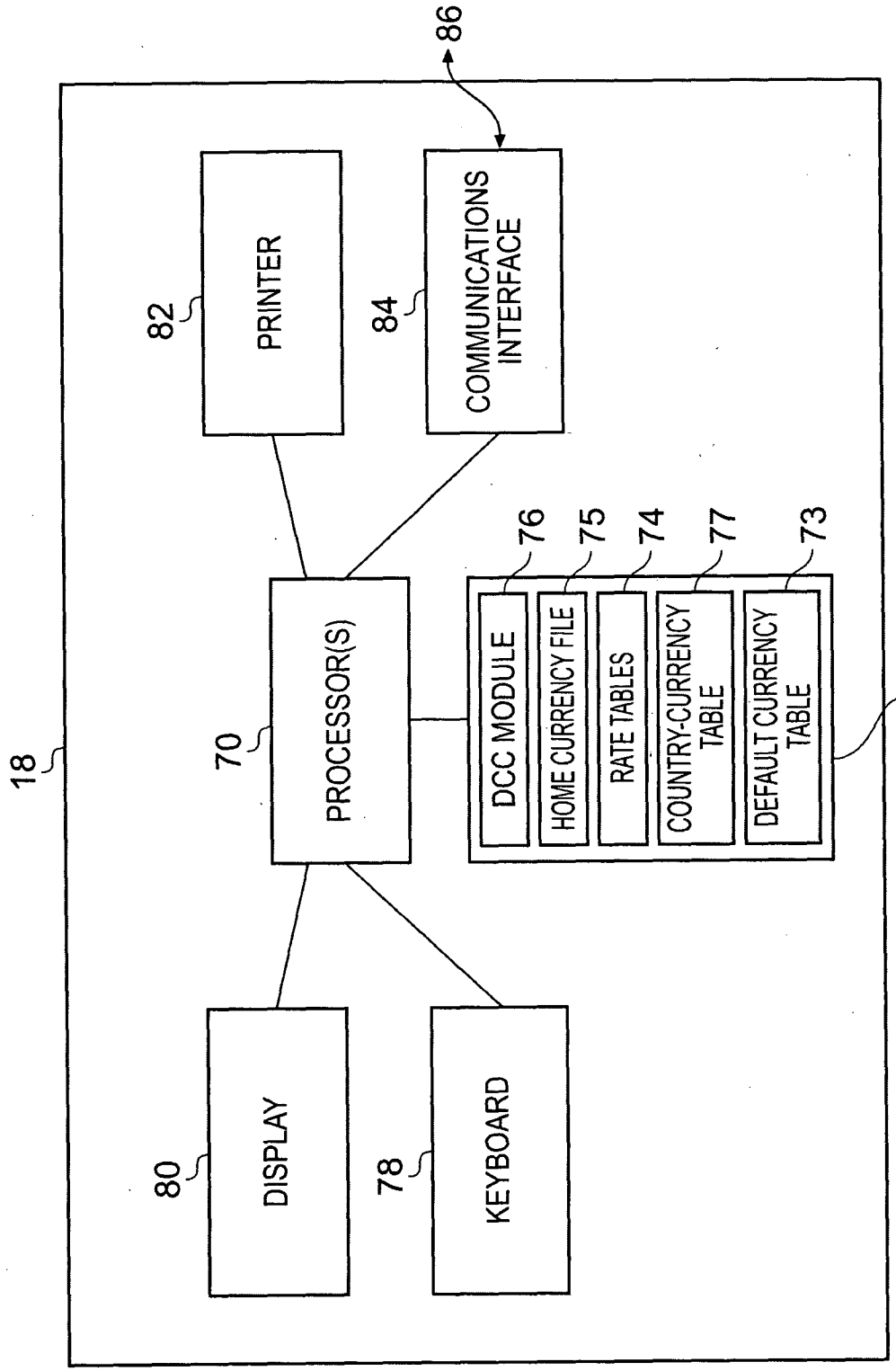

86
PRINTER
82
COMMUNICATIONS INTERFACE
84
76
75
74
77
73
DCC MODULE
HOME CURRENCY FILE
RATE TABLES
COUNTRY-CURRENCY TABLE
DEFAULT CURRENCY TABLE
72
PROCESSOR(S)
70
18
DISPLAY
80
KEYBOARD
78

FIG. 3

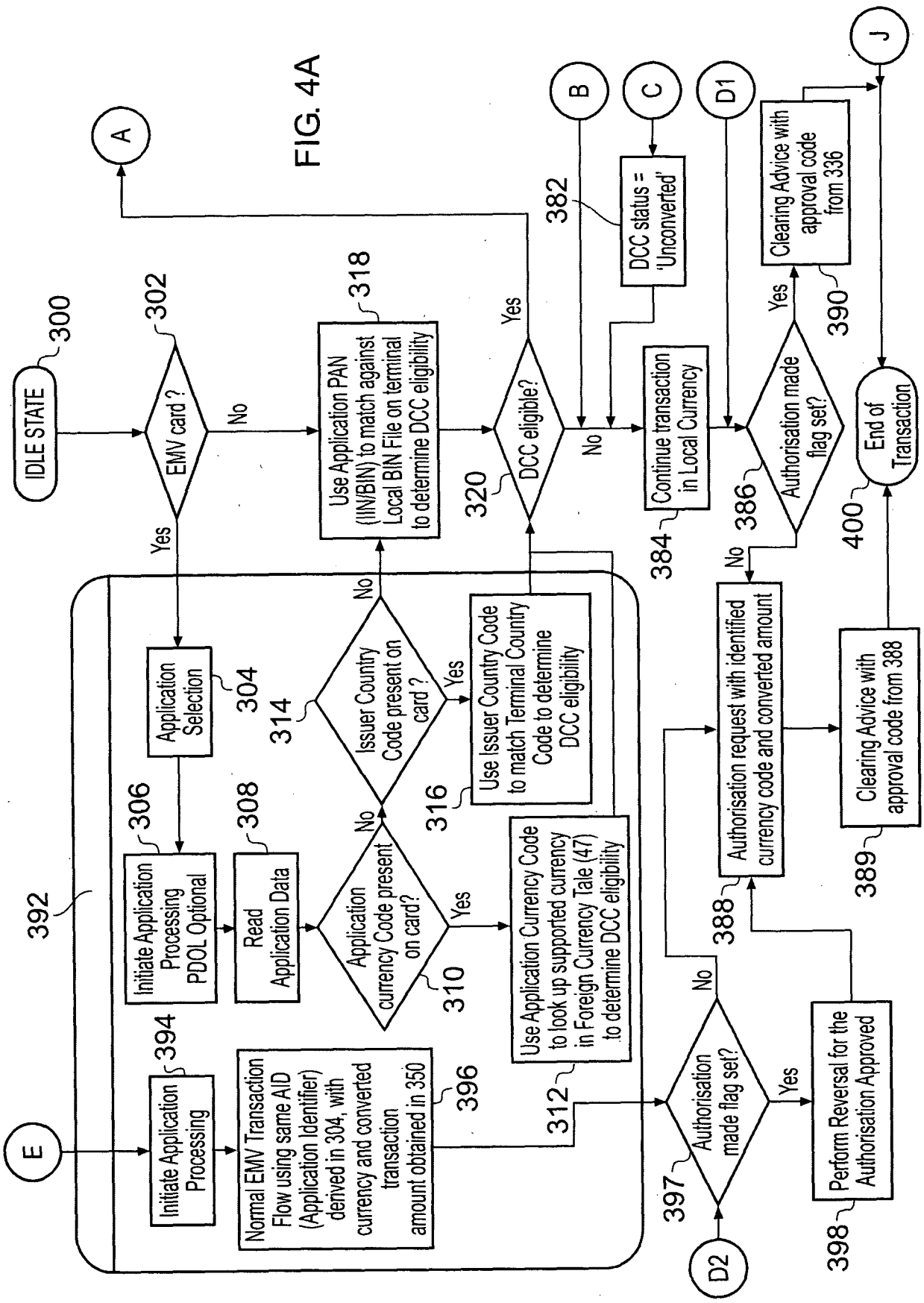

IDLE STATE
300
EMV card ?
302
Yes
No
Application Selection
304
Initiate Application Processing PDOL Optional
306
Read Application Data
308
Application currency Code present on card?
310
Yes
No
Use Application Currency Code to look up supported currency in Foreign Currency Tale (47) to determine DCC eligibility
312
Issuer Country Code present on card ?
314
Yes
No
Use Issuer Country Code to match Terminal Country Code to determine DCC eligibility
316
Use Application PAN (IIN/BIN) to match against Local BIN File on terminal to determine DCC eligibility
318
DCC eligible?
320
Yes
No
DCC status = 'Unconverted'
382
Continue transaction in Local Currency
384
Authorisation made flag set?
386
Yes
No
Clearing Advice with approval code from 336
390
End of Transaction
400
Authorisation request with identified currency code and converted amount
388
Clearing Advice with approval code from 388
389
Initiate Application Processing
394
Normal EMV Transaction Flow using same AID (Application Identifier) derived in 304, with currency and converted transaction amount obtained in 350
396
Authorisation made flag set?
397
Yes
No
Perform Reversal for the Authorisation Approved
398
392
A
B
C
D1
D2
E
J

FIG. 4A

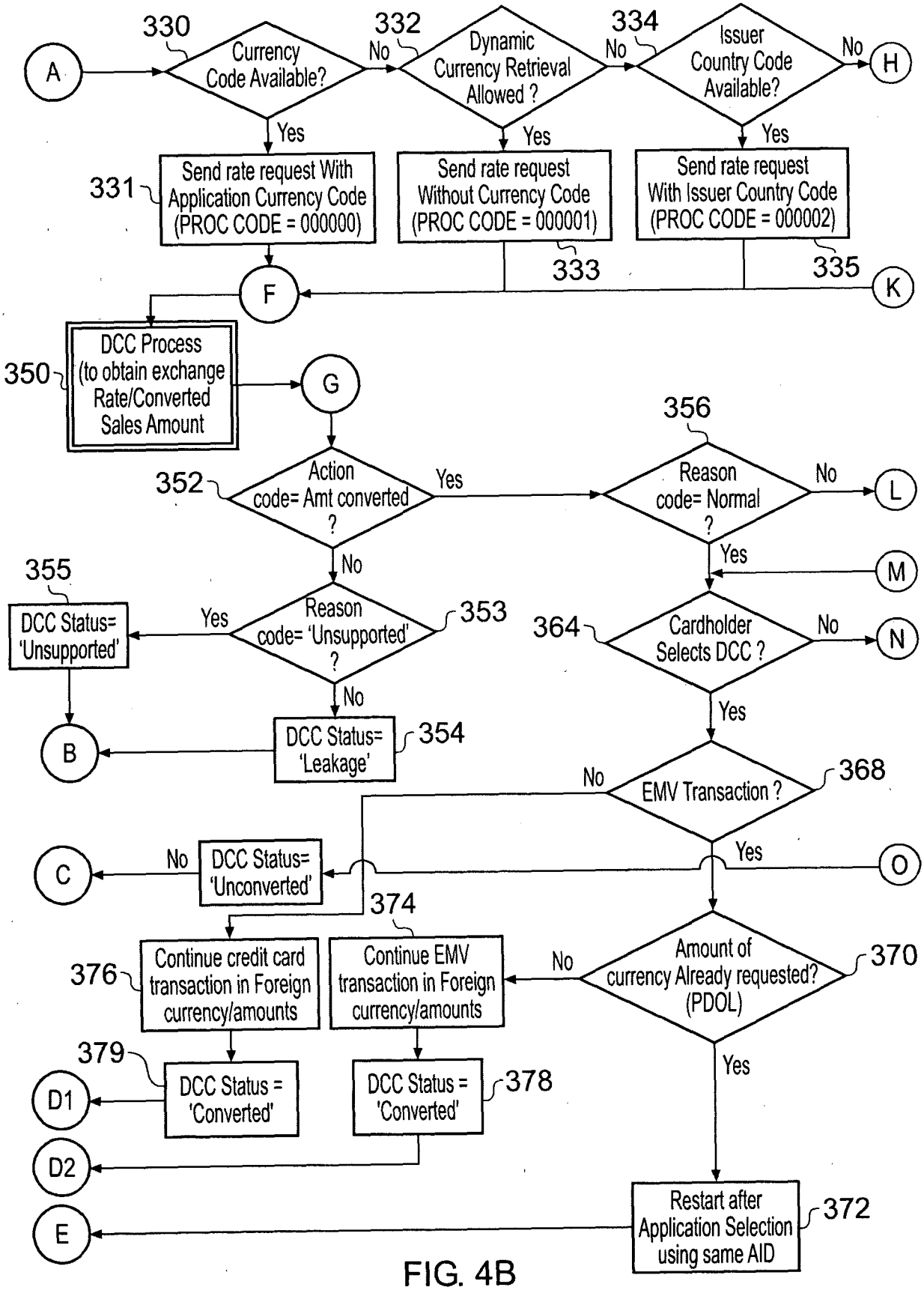

A
330
Currency Code Available?
No
332
Dynamic Currency Retrieval Allowed ?
No
334
Issuer Country Code Available?
No
H
Yes
Yes
Yes
331
Send rate request With Application Currency Code (PROC CODE = 000000)
Send rate request Without Currency Code (PROC CODE = 000001)
333
Send rate request With Issuer Country Code (PROC CODE = 000002)
335
K
F
350
DCC Process (to obtain exchange Rate/Converted Sales Amount
G
356
352
Action code= Amt converted ?
Yes
Reason code= Normal ?
No
L
No
Yes
M
355
DCC Status= 'Unsupported'
Yes
Reason code= 'Unsupported' ?
353
364
Cardholder Selects DCC ?
No
N
No
Yes
B
DCC Status= 'Leakage'
354
No
EMV Transaction ?
368
C
No
DCC Status= 'Unconverted'
Yes
O
374
376
Continue credit card transaction in Foreign currency/amounts
Continue EMV transaction in Foreign currency/amounts
No
Amount of currency Already requested? (PDOL)
370
379
Yes
D1
DCC Status = 'Converted'
DCC Status = 'Converted'
378
D2
Restart after Application Selection using same AID
372
E

FIG. 4B

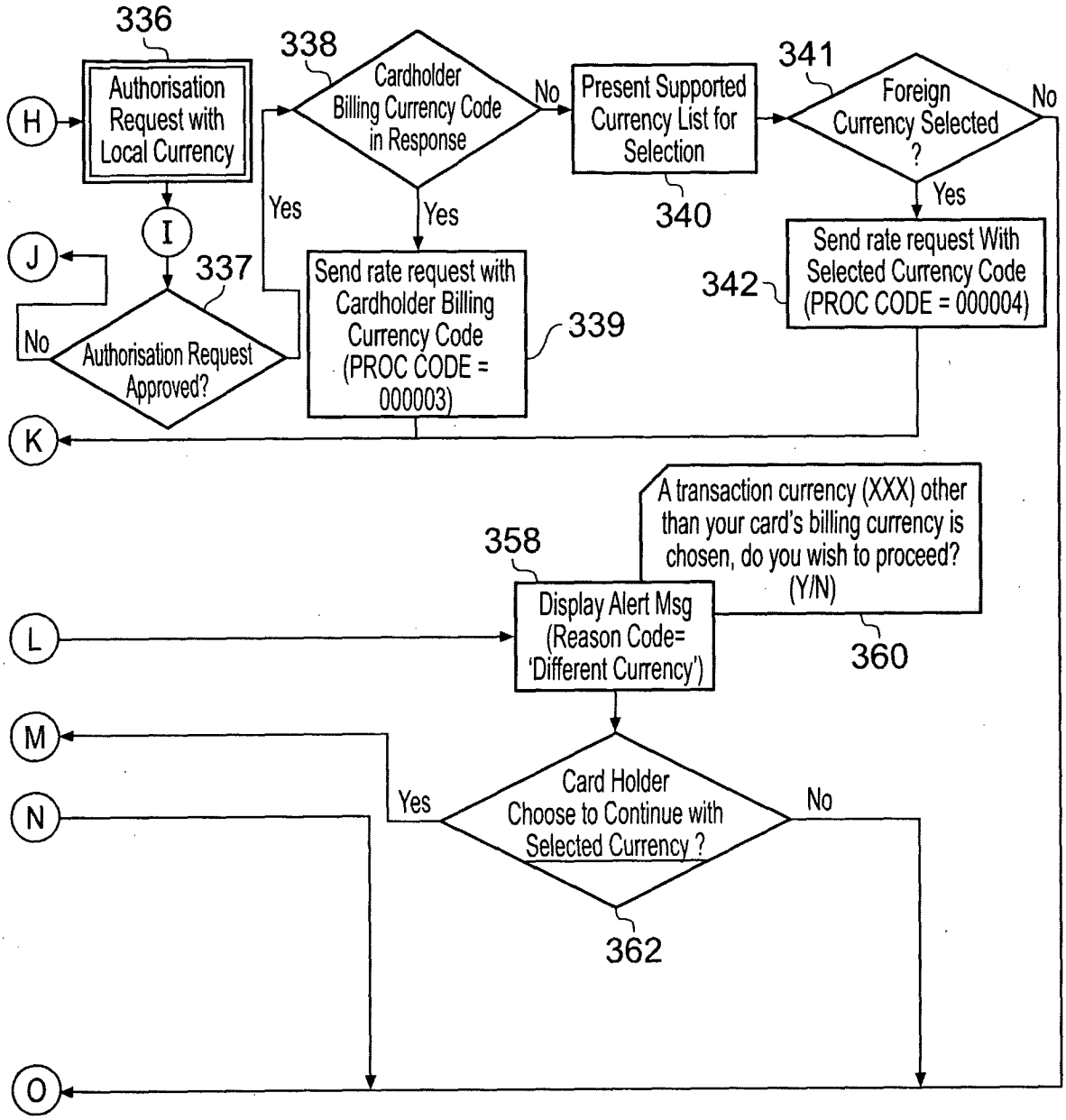

336
Authorisation Request with Local Currency
H
I
J
337
Authorisation Request Approved?
No
Yes
338
Cardholder Billing Currency Code in Response
Yes
No
Send rate request with Cardholder Billing Currency Code (PROC CODE = 000003)
339
Present Supported Currency List for Selection
340
341
Foreign Currency Selected ?
No
Yes
342
Send rate request With Selected Currency Code (PROC CODE = 000004)
K
358
A transaction currency (XXX) other than your card's billing currency is chosen, do you wish to proceed? (Y/N)
Display Alert Msg (Reason Code= 'Different Currency')
360
L
M
N
Yes
Card Holder Choose to Continue with Selected Currency ?
No
362
O

FIG. 4C

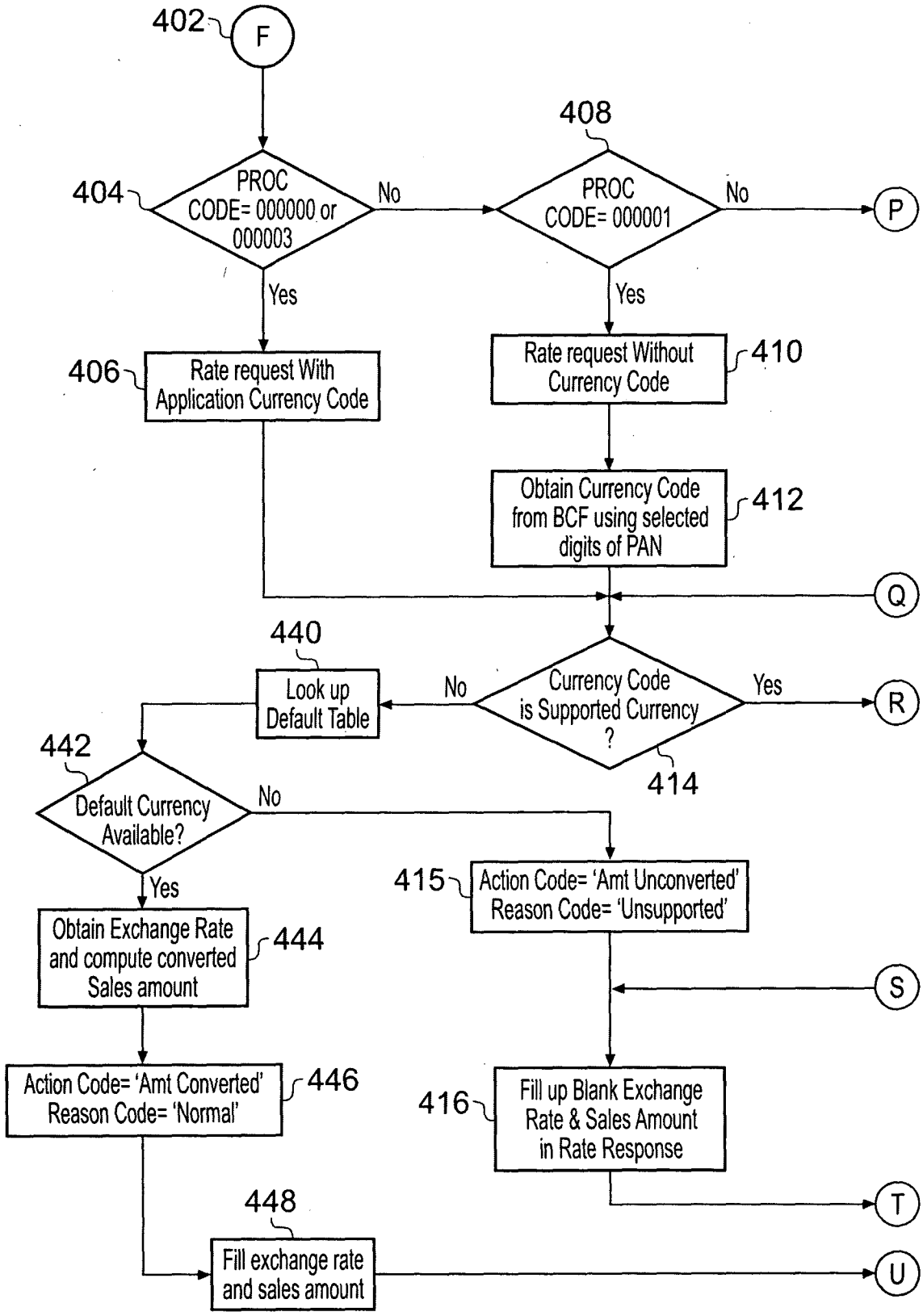

402
F
404
PROC CODE= 000000 or 000003
No
408
PROC CODE= 000001
No
P
Yes
Yes
406
Rate request With Application Currency Code
Rate request Without Currency Code
410
Obtain Currency Code from BCF using selected digits of PAN
412
Q
440
Look up Default Table
No
Currency Code is Supported Currency ?
Yes
R
414
442
Default Currency Available?
No
Yes
415
Action Code= 'Amt Unconverted' Reason Code= 'Unsupported'
Obtain Exchange Rate and compute converted Sales amount
444
S
Action Code= 'Amt Converted' Reason Code= 'Normal'
446
416
Fill up Blank Exchange Rate & Sales Amount in Rate Response
T
448
Fill exchange rate and sales amount
U

FIG. 5A

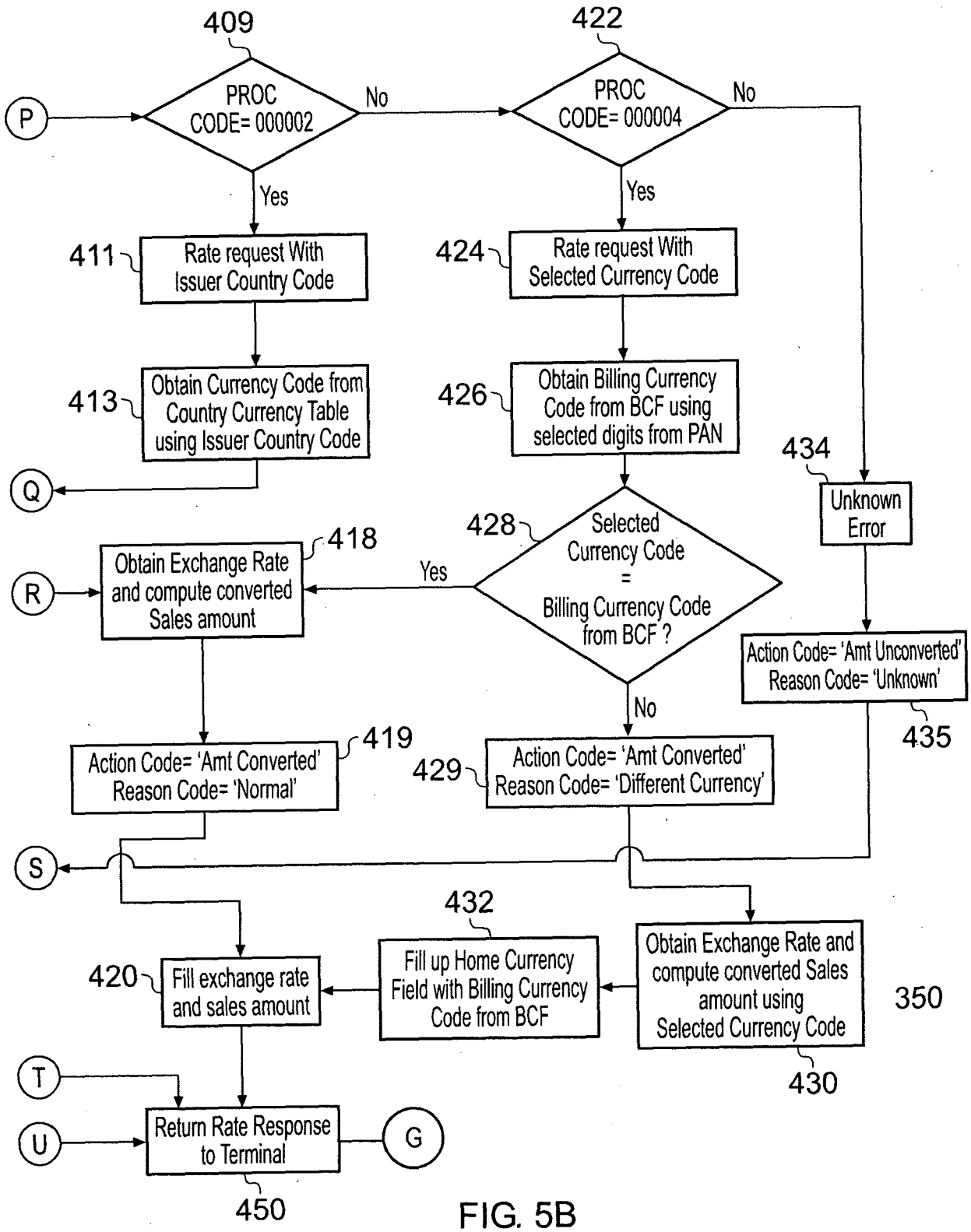

409
PROC CODE= 000002
No
422
PROC CODE= 000004
No
P
Yes
Yes
411
Rate request With Issuer Country Code
424
Rate request With Selected Currency Code
413
Obtain Currency Code from Country Currency Table using Issuer Country Code
426
Obtain Billing Currency Code from BCF using selected digits from PAN
434
Unknown Error
Q
428
Selected Currency Code = Billing Currency Code from BCF ?
418
Obtain Exchange Rate and compute converted Sales amount
R
Yes
Action Code= 'Amt Unconverted' Reason Code= 'Unknown'
435
No
419
Action Code= 'Amt Converted' Reason Code= 'Normal'
429
Action Code= 'Amt Converted' Reason Code= 'Different Currency'
S
432
Fill up Home Currency Field with Billing Currency Code from BCF
Obtain Exchange Rate and compute converted Sales amount using Selected Currency Code
350
420
Fill exchange rate and sales amount
430
T
U
Return Rate Response to Terminal
G
450

FIG. 5B

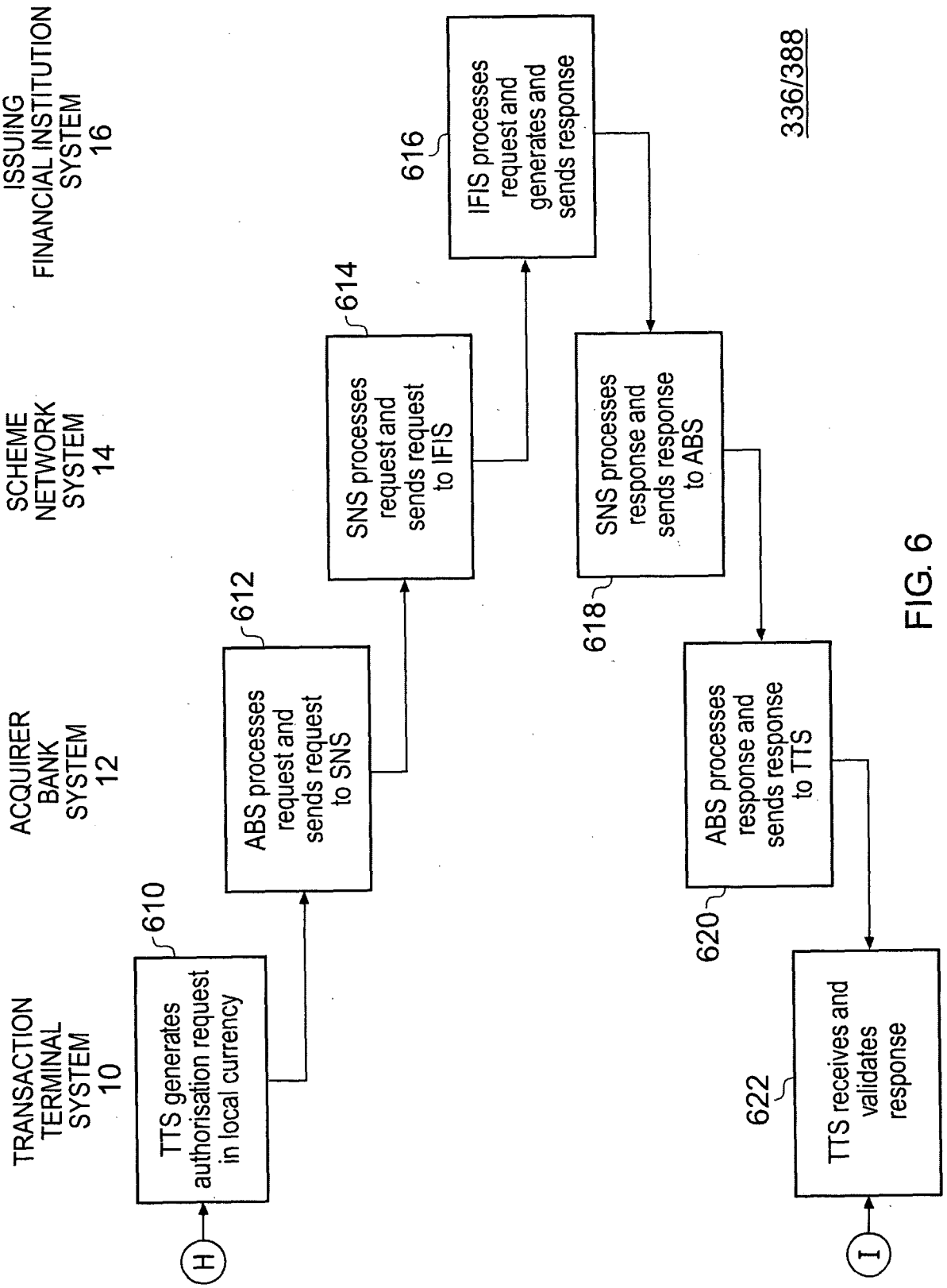

TRANSACTION TERMINAL SYSTEM 10
ACQUIRER BANK SYSTEM 12
SCHEME NETWORK SYSTEM 14
ISSUING FINANCIAL INSTITUTION SYSTEM 16
H
TTS generates authorisation request in local currency
610
ABS processes request and sends request to SNS
612
SNS processes request and sends request to IFIS
614
IFIS processes request and generates and sends response
616
SNS processes response and sends response to ABS
618
ABS processes response and sends response to TTS
620
TTS receives and validates response
622
I
336/388

FIG. 6