Keeping Track Of National

a guide
to help you
and National
serve your
customers better

KEEPING TRACK OF NATIONAL

With Love, From Customer Service

You're a very important person to us.

A company doesn't live on sales alone. It survives only if orders are processed smoothly and products are shipped in time to meet customer needs.

You are a big part of this whole process, and you play a very important role in how successful National is. We know that sometimes you've lacked information or been pressured on the job. But, we and you work together better if we have a really clear understanding of the many procedures involved in handling a customer's order.

This manual contains the basics—the how we do things here at National and why, and we've also included some helpful hints to expedite the work you do for National.

We hope you'll read this guide from cover to cover —maybe not all at once, and that you'll use it as a ready reference for those times when problems arise or you're looking for ways to improve our service image with your customers. We'll be adding information to it from time to time as we update procedures or think of new things to share with you.

Above all, we hope this manual helps make the job you do for National a lot easier, and that together we can better serve your customers.

"National Semiconductor?
They collect your tickets on
the train."
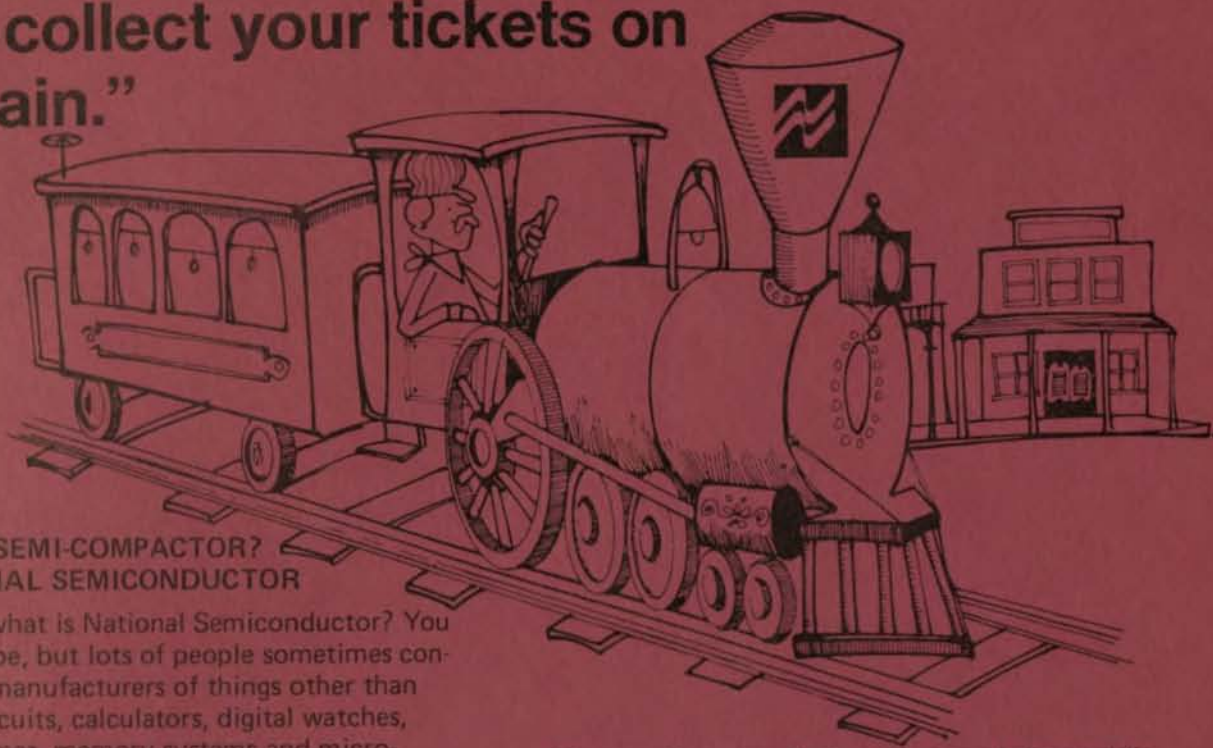
NATIONAL SEMI-COMPACTOR?
NO, NATIONAL SEMICONDUCTOR

Just who or what is National Semiconductor? You know, we hope, but lots of people sometimes confuse us with manufacturers of things other than integrated circuits, calculators, digital watches, electronic games, memory systems and microprocessors.

We took an "Ask The People" survey recently, and here are the results:

"National Semiconductor? Well anyone knows they collect your tickets on the train."

"National Semiconductor transfers all the, ah, electricity across the Nation in a big pipe of some sort."

"It's a big tractor, isn't it?"

"Oh yeah, they dig up all the . . . they make all those big . . . I dunno."

"We have one locally, I didn't know they were National."

"I don't get involved in politics . . ."

"My favorite National Semi Conductor? Leonard Bernstein."

"Oh! They make digital watches; I think for the railroad . . . right?"

Noooo . . . wrong! While many people think they know just who or what National is, they don't realize that National Semiconductor, founded in 1959, designs, develops, manufactures, and sells electronic products that are based on semiconductor technology. Our products encompass not only about 6000 types of integrated circuits and discrete transistors, but also finished memory systems, microcomputer systems, calculators, timekeeping and TV entertainment products, electronic point-of-sale systems, and large mainframe computers.

Measured by sales, National is one of the world's largest manufacturers of semiconductor products. We offer the second-largest number of products available from any single source in the industry, and our product line is growing faster than that of any other worldwide semiconductor manufacturer.

National carries out its activities in many locations. From world headquarters in Santa Clara, California, to West Jordan, Utah and Danbury, Connecticut; to Scotland, France, and West Germany; to the Republic of Singapore, Hong Kong, Malaysia, Thailand, Indonesia, the Philippines, Australia, and Brazil. In all, we own or lease close to one million square feet of assembly and test facilities around the world — facilities manned by over 20,000 National employees.

Just about anything new and exciting that makes our lives a little bit easier (computers, processors, teaching machines, televisions, organs, calculators, watches, traffic control systems, home heating controls, automobiles, home entertainment centers, cameras, medical monitoring equipment, heart pacemakers, and a variety of military and space age products) has a number of semiconductor devices in it. And, you can bet that in most cases, National Semiconductor is there, too. First with the best, thanks to people like you who make it happen.

National Semi-Compactor?

No . . . National Semiconductor!

Faster than a speeding bullet . . .
Able to leap buildings in a single bound . . .
Responsible for your order from the time the
customer thinks he gave it to the salesman
until it's shipped . . .

This phenomenal person is your Customer Service Account Rep

Your Customer Service Account Rep (CSAR) is the one person who is more responsible for your order than any other person at National. It is his or her job to coordinate the solution of any problems that concern your orders.

Here are the CSAR's areas of responsibility. You can expect him to help you with just about any request you make in the following areas:

Open Orders The accuracy of the order as well as the open order listing is up to the CSAR. This is the most important information you and we have.

Orders Not On The Tab It's the CSAR's job to get the order booked as fast as possible with the best ship date. Unless it's an emergency, it is best to wait four or five days before making any inquiry on new orders.

Delivery Quotes Your CSAR will supply all delivery quotes for standard, custom and Rel products as well as information on stamp-off quotes. In fact, all delivery quotes must go through your CSAR; so let him work for you. The CSAR doesn't feel responsible for quotes that come from other sources, however.

Schedules and Reschedules The CSAR works with production to secure the best schedules possible for your customer. He is your only source of information for schedules and reschedules. If this information is unacceptable, contact your CSAR's immediate supervisor. These people are pros at handling problems.

Delivery Information and Status Your CSAR should have or be able to get, within a reasonable time, the latest status of all your orders. In fact, he'll keep you posted daily as to shipping information and provide you with a microfiche of your open order status each week.

Expediting Service is the name of the game. You can expect expediting help on all orders through the factory, including tracers if you need them, from your CSAR.

CMR's Although the actual work on the devices is performed by other groups, the CSAR monitors the flow, signs off the CMR and expeditiously enters the replacement orders if necessary.

Customer Calls Your CSAR will accept and handle any call from a customer, and many excellent customer relationships have developed as a result of the CSAR's work with customers. When he is involved, he'll keep you informed as to what transpired. He'll keep you up to date.

Customer Visits The CSAR is a public relations person for you by acting in your behalf when the customer asks about order status during in-plant visits. He can give your customer order status information, but if it is a sensitive situation, someone from your office should also be with the customer to take care of those problems.

Problem Solving When you don't know what to do about a customer problem, call your CSAR. He or she will help you work with Marketing, Accounting, Spec Control or whoever to iron out those problems.

In Summary The Customer Service Account Rep is responsible for quickly answering your questions about an order and expediting that order for you and your customer. His or her job is to coordinate many activities within National so that we satisfy your customer's needs. After all, we're all in this together. Our successes are yours, and vice versa. .

Who's Who At National And How They Can Help You

You know we're a pretty big company, and we've got lots of specialists on all sorts of things from integrated circuits to credit, from sales literature to shipping. Here's a list of some of the departments and kinds of people who are here to help you:

Customer Service — This is the department responsible for your customer's order from the time he thinks he gave it to National until it's shipped. Customer Services keeps order status information for you and is in business to solve problems if they occur.

Spec Control — Reviews customer specifications drawings to evaluate them before product is to be manufactured.

Accounting (Sales) — Sets up new accounts, gets new customer codes for you. Administers rep commissions and maintains customer statements.

Accounting (Credit) — Keeps money rolling in for all of us. Arranges credit terms for customers; tries to make sound credit arrangements for both the customer and National.

Quality Assurance — Technical problem solvers, these people assure the quality of our products. They also check returns and verify those allowable for technical reasons.

Marketing Services — Produces and distributes price lists, product brochures, data sheets, sales literature, product marketing bulletins, etc., etc., etc.

Production Control — This group plans assembly, test, and shipment of products. Scheduling's the name of their game, and they only talk with CSAR's; so don't bug them. Check with your CSAR.

Product Marketing — Responsible for strategy on future products. These people have no information on current orders.

Major Customer Marketing — Responsible for strategy and co-ordination of major account marketing; also handles contract negotiations.

Regional Sales Manager — He's supposed to be your main man, a sort of god in civvies. Above all, he's your answer man.

FAE's — These guys are the "brainy good guys." Loaded with lots of technical expertise, they're available to work with your customer so that our products can be designed into his products.

Who To Call When You Need Help

Pricing — Regional Sales Manager
Request for delivery quotes — CSAR
Order Entry — CSAR
Spec Review — Send the customer's drawings to the appropriate major marketing group (all military customers or requests for product evaluations for military type devices go to the Military Marketing Manager, computer product evaluations to Computer Marketing Manager, telecommunications to Telecommunications, etc.). If the customer doesn't fit into any major marketing category, then the request for evaluation can be sent to Spec Control.
Scheduling — CSAR
Expediting — CSAR
Tracing lost shipments — CSAR
Order Status — CSAR
Order Changes — CSAR
Returns — CSAR for administrative reasons
    — QA for defective products
Sales Literature — Marketing Services
Whatever else you can think of — Customer Services Supervisor

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Inside National

Here's What Happens When You Place An Order

Now, you may think your order has slipped through the proverbial "crack." Not so. We hope this chart has shown you what an orderly process the whole thing is. If you provide us with all the information we need, there will be no slipups. Sometimes, it just takes a little

longer than we all thought at the beginning, and sometimes the order isn't lost, it's showing up bright and clear on the tab run and in the computer information reports supplied you.

Rest assured, we can't afford to lose orders because we can't afford to lose customers.

```
ORDER PLACED          NEW          NON-STANDARD PRODUCT     SPEC
BY TWX, PHONE   →     ORDER   →     (Not on CPL)        →    CONTROL
OR MAIL               DESK
                                   STANDARD PRODUCT
                                   (e.g., BLC 80/10, DM7400N,
                                   ISP 8C/100N)

HOLDS (but we hope not)

ACCOUNTING (A)
(credit)

MARKETING (M)
(price)
                                                    ORDER ENTRY
                                                    COMPUTER KEY STATIONS
SPEC (S)
(configuration)

CUSTOMER SERVICE (C)
(any other reason as
determined by CSAR.)

PRODUCTION BACKLOG
(Factory now knows      →   MANUFACTURING   →   SHIPPING
there's an order.)
```

Note: Production doesn't see the order until all holds are cleared.

Paperwork. . . How To Make Things Happen

In The

Beginning. . .
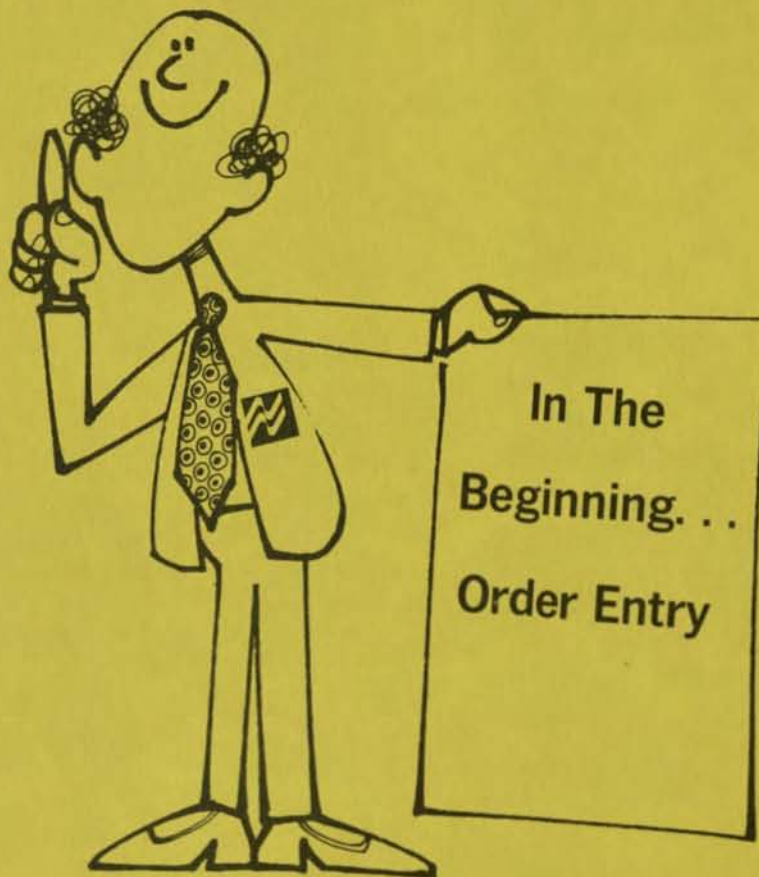
Order Entry

It all starts here. You TWX the customer's order to us. If order entry is done correctly, the order's on the way! If not, there may be costly delays. So, make sure you send us all the information we need to start processing the order. Make sure it's clear and concise. That way the order entry time is reduced, and that means faster, better service for your customer.

In the beginning . . . we receive your order via the old faithful TWX or telex machine. There's some very essential information that must be on the telex to make sure it gets processed promptly. Basically there are two kinds of information needed to complete an order—order information and item information.

1. **Order Information**—this identifies you and your purchase order

    Customer Code—an eleven digit number which uniquely identifies your customer and his specific ship-to location. If this is unknown, we must have the complete billing and shipping address.

Customer Service Account Rep Code—a two-digit code which identifies the person within Customer Service who is responsible for your account.

Purchase Order Number—must be present for the order to be accepted by National

Method of Shipment—indicate air, surface, etc.

Tax—indicate sales tax if applicable

2. **Item Information**—describes the quantity, price and date required for each part ordered by the customer. Information needed:

    Item Number—a number assigned by you to distinguish one item from another.

    Quantity—the specific number of parts requested for shipment by the customer on a particular day. Abbreviated "QTY."

    Unit Price—price per device as quoted to customer.

Customer Part Number—identifies part ordered by the customer, abbreviated "CPN." Always enter the part number just as the customer gives it to you. A customer may order a part by its National Part Number and then add a verbal description. When further information is given to identify the part being ordered, it should be contained in a section noted as "COMMENTS" or in accompanying text to the item. Above all, tell us what it is.

CPN Revision—gives the customer's revision number or revision level for his drawing or part number (CPN). This is entered immediately after "CPN."

Request Date—the date your customer needs to receive the parts. A date or the term ASAP must appear on the order.

How about ordering different quantities on different dates?—Sure, it's only necessary to enter the unit price and part number for the first entry of the item. As far as scheduling goes, as long as the CPN does not change, you don't have to restate the unit price. For every quantity, though, there must be a request date, and for every request date, there must be a quantity. When there is more than one request date for your order, the total quantity ordered is given first, followed by quantities and dates for each requested delivery.

Additional Order Information
Special shipping or routing comments are:

PREPAID (we prefer to ship collect)
COLLECT
SHIP VIA
DROP SHIP TO: (we must also have the customer's final P.O. number. It will assist the end customer's receiving department.)

When used, these comments should immediately follow your P.O. number.

Inspection and Certification Comments
Another group of special comments exists to present information about required inspection or certification. These are:

GSI—government source inspection
OSI—other, non-government source inspection (could be CSI—customer source inspection)
C of C—certification of compliance

Other Comments
Finally, additional comments that would further clarify the order can be entered by making a "COMMENT" entry on a new line of the telex. This is a big catch all, but it greatly helps us understand the order better. The easier we can understand it, the faster we can process it.

Don't assume we'll be able to figure it out. We, more than likely will be able to, but it will take more time. Clarify whenever you can.

Special Cases: Those Few Exceptions and How To Take Care of Them   •

• **Renegotiable Government Contract Data —** Two special Order Information comments are provided for these cases: CONTRACT and PRIORITY. We must have both. CONTRACT refers to the contract number, and PRIORITY refers to the government rating of the contract.

• **Grouping and Kitting P.O.'s —** When a customer needs several different part numbers on the same P.O. shipped in equal quantities together, Customer Service (Order Entry) can GROUP the order so partial shipments do not occur. When all the product is in stock on each of the devices and the customer request date is within the shipping period, we'll ship equal quantities of the devices at the same time. No partial shipments will occur unless the CSAR is instructed to partial the order.

When grouping an order, all part numbers show an individual price and will be invoiced normally. If grouping is required, it must be stated on the order entry TWX; otherwise, the P. O. will be entered normally and the devices may ship separately.

KITTING a P.O. is done in exactly the same manner as grouping a P.O. The only difference in the two is that a "Kit" has a kit number assigned by marketing for a specific group of parts, and the prices for all part types in the kit are consolidated into one total kit price appearing only under the assigned kit number: individual part types appear at zero dollars.

Teletyping a basic order is simple, here's how:

```
TO:     NATIONAL SEMICONDUCTOR
        ORDER ENTRY
FROM:   DELTA TECH.
CODE:   00000002006           CSAR 00
SHIP TO S.S.I.  152 1ST ST. SALEM, MASS.
SHIP VIA AIR  COLLECT

ITEM 1  500    UNIT PRICE 100.00    CPN  LX1000D
        250    11/15/77
        250    11/30/77

COMMENT: TRANSDUCER

END
```

```
TO:     NATIONAL SEMICONDUCTOR
        ORDER ENTRY

FROM:   LEJ COMPONENTS
CODE:   12345678912           CSAR 20
SHIP TO:  ATARI, 124 SAN JOSE AVE.  LOS GATOS, CALIF.

ITEM 1  QTY. 5  UNIT PRICE .10  CPN DM8000N
     2     10              1.00      DM74LS193N

DELIVERY DATE  11/11/77

SHIP COLLECT AIR

COMMENT:  QUOTE #1345

END
```

```
TO:     NATIONAL SEMICONDUCTOR
        ORDER ENTRY

FROM:   ELECTRO SALES

CODE:   00022751010    CSAR: 60

SHIP TO: STC. BROOMFIELD, COLO.    COLLECT BEST SURFACE

ITEM 1, 4  168  UPGRADE $40,322.00  11/22/77

COMMENT:  THIS IS A MEMORY SYSTEMS ORDER

END
```

```
TO:     NATIONAL SEMICONDUCTOR
        ORDER ENTRY
FROM:   HAMILTON-AVNET BALTIMORE

CODE:   00000002006           CSAR: 40

PO:  01-230-DAT, COL. BEST AIR
CONTRACT NO.  DA27-0342-DX-A7-14321   PRIORITY: DXA7

DROP SHIP:  ABC ELECTRONICS
            456 7TH AVE.
            NEW YORK CITY, NEW YORK

ITEM 1  QTY 1600  $1.45 CPN BMS-893685   2/25/78
COMMENT:  HUGHES DRAWING

COMMENT:  REL DEL QUOTE DQ-A382
```

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TELETYPING A KIT ORDER

```
TO:  NATIONAL SEMICONDUCTOR
     ORDER ENTRY

FROM:  LEJ COMPONENTS

CODE:  00015645013  CSAR  66

BILL AND SHIP  MINER ELECTRONICS CORP.
               56 WEST 45TH STREET
               NEW YORK, NEW YORK 10036

P.O. EP-384

1000 PCS. SK1122 KIT @ 7.85 EA.

DELV:  300 KITS TO BE SHIPPED BY 11-11-78   SHIP VIA FED.
       700 KITS TO BE SHIPPED BY 11-31-78   EXPRESS
                                            COLLECT

COMMENT:   SK1122 KIT INCLUDES
             1  MM57105N
             1  MM53114N
             1  LM1889N
             1  2N4403

END
```

TELETYPING A GROUPED ORDER

```
TO:  NATIONAL SEMICONDUCTOR
     ORDER ENTRY

FROM:  DELTA TECH
CODE   00000002006        CSAR  00

SHIP TO LOCKHEED AEROSPACE
        104 MARY ST.
        SUNNYVALE, CALIF. 12345

SHIP VIA UPS

ITEM 1  QTY   5 UNIT PRICE 1.19 CPN LM1889N
     2       50             1.10     MM53104N
     3      100               90     MM57100N

THIS IS A GROUPED ORDER — MUST ALL SHIP TOGETHER
DO NOT SHIP PARTIALS.

END
```

New ROM Orders

1. ROM orders should be sent to Order Entry ROM Control, labels are available from Customer Service Order Entry.

2. Customer must state NSID type on purchase order (no pre-assigning of ROM codes before a purchase order is received).

3. Negative or positive logic of the ROM must be indicated.

4. Truth table, card deck or tape should accompany order. (Define in Application Note 100)

When the ROM order has been programmed, a print out of the truth table is sent to the customer for varification. This should be reviewed as soon as possible and returned to ROM Control.
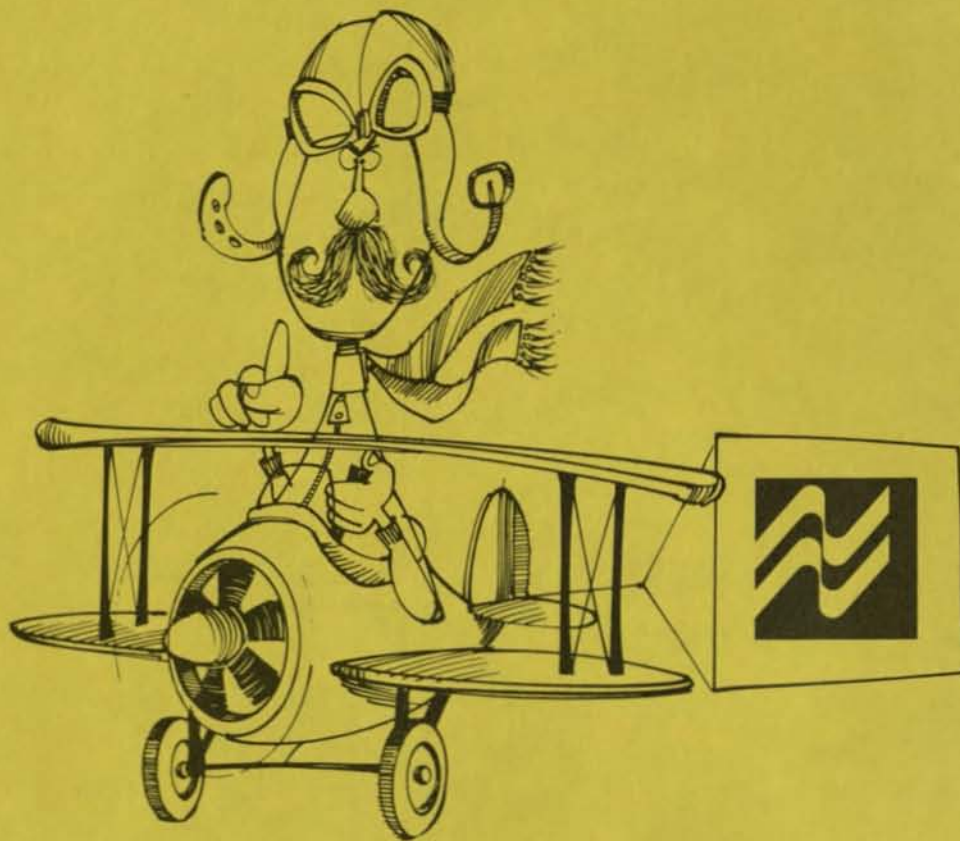
Samples . . . You Want 'Em, We Got 'Em!!!

There's a handy sample order procedure. You become the customer. That's right! Place your sample order using your personal customer code, just as you would any other order. Make sure you TWX your sample order using the Standard order entry format, but send it to SAMPLES, instead of ORDER ENTRY.

Send the order to the Customer Service Sample Desk with:

1. Your P.O. Number
2. Device type and package
3. Quantity

The P.O. you assign is your way of identifying the customer, salesman, etc. The numbers should run numerically, and a log should be kept to insure that duplication of a P.O. does not occur which would only create delays.

The advantages of this system are:

1. You can see all the open sample orders on your field Packet.
2. Your daily shippers will show samples shipped.

Remember, timely shipments of samples are important for both of us: so be sure to use this sample order procedure. Make it work for you.

THOSE SPECIAL SAMPLE ORDERS

"Qual" samples and samples requiring "read and record" data should be coordinated through product marketing or a major marketing group.

In emergencies, call the Special Services group of Customer Service.

How To Tell Your Change Order From An RMA From A CMR And A Jet Number

Changes are O.K. with us.

Returns can be easy.

Use the green label

When an RMA becomes a CMR and more. . . . .
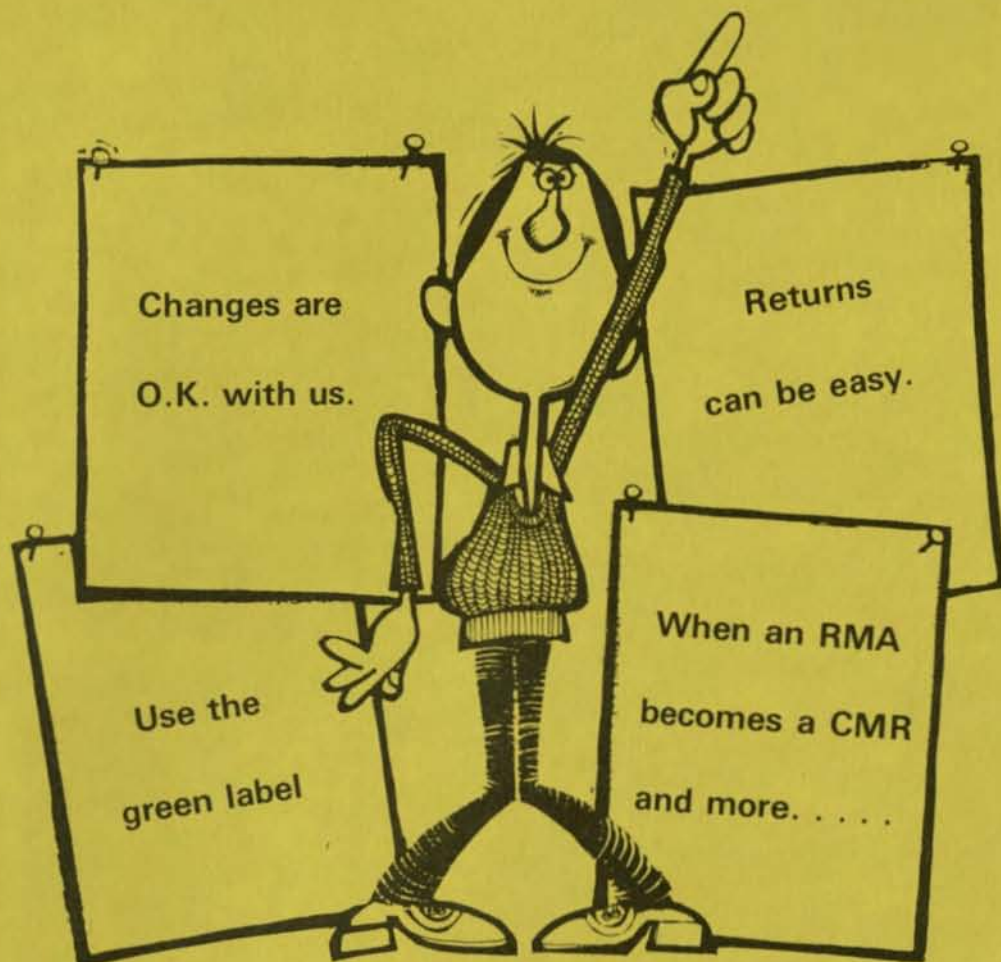
Change Orders

Change Orders are used whenever a customer changes an existing order. Some typical change orders are:

- Increases
- Decreases
- Cancellations
- Request Date Change
- Part Number Change
- Item Additions
- Quantity Additions
- Price Changes
- Ship-to Address Change
- Purchase Order Number Change

The required information for a TWX Change Order is the same that is required for a New Order except that the words "CHANGE ORDER" are entered below the line starting with "FROM."

The more clear and concise the change order is, the better we can help you. You should only transmit the information to be changed; it's not necessary to repeat the entire original order.

There are only three important points to remember regarding a change order:

1. Include the words "CHANGE ORDER."
2. Include a "COMMENT" explaining the intent of the change.
3. Always use the total order quantity on any increase or decrease, not the balance due.

Examples of Change Orders

```
TO:    NATIONAL SEMICONDUCTOR
       ORDER ENTRY

FROM:  TRIMARK

                      CHANGE ORDER

CODE 00012345014              CSAR 61

ITEM 1 , QTY  250

P. O. TR 1103

COMMENT: DECREASE IN QTY FROM 500 TO 250.

END.




TO:    NATIONAL SEMICONDUCTOR
       ORDER ENTRY
                      CHANGE ORDER
FROM:  LEJ

CODE 00000002006              CSAR 00

P. O. AX560

ITEM 05, DELIVERY TO WILL ADVISE

COMMENT:   DELIVERY DATE CHANGED TO WILL ADVISE
           PER CUSTOMER.

END.
```

Returns

RMA's

Return Material Authorizations are issued for all returns by the regional sales office or the rep office with the approval of the regional sales manager.

JET

A JET is issued by Customer Service and Quality Control for returns of $1000 or more.

1. QC issues JETS for defective product and other quality reasons (inoperative, parts mixed in rails, bent leads, etc.)

2. Administrative returns are issued by Customer Service for cosmetic problems, schedule problems, order entry problems, wrong parts ordered and marketing policy reasons

Customer Material Returns, CMR's

A CMR number is assigned to the physical group of parts when the parts are actually returned to the factory. It's the number we assign the RMA when the parts arrive at the factory.

More On CMR's

Authorization numbers are used in getting the parts here. Once they arrive, we all talk CMR numbers. In the past, a CMR was not entered into the "system" until all dispositioning was complete, sometimes causing weeks delay before it would surface. This has changed. We have changed the system so that a return is re-entered into the Customer Service tab system within two days after receipt of the parts by the CMR group. To prevent parts from allocating, it is immediately placed on Customer Service hold. It will thus appear in the new order and order hold sections of the field packet that you receive weekly.

We don't allow returns for credit only. If we choose to alter this procedure, the decision rests with the appropriate Product Marketing Manager. He is contacted through your CSAR.

This is a "Marketing Policy" decision. Even when the customer gives us another equal order for the same parts, it is not classified as "Credit Only." When calling in for a JET number, say "credit only with an offsetting P.O." We must have the offsetting P.O. number at that time.

Validity of Returns

A return is valid if the reason for requested return is actually a fact. A return is invalid for these reasons:

1. No return paperwork on file

2. CSAR determines customer claim not valid

3. Parts are not in same condition as when we shipped them to the customer—leads may be cut, parts soldered, device improperly packaged, etc.

4. Non-National devices requested to be returned.

The Green Label

This is a pre-addressed label for returns. Use it; it works. Use it on returns; it speeds the return and gets it to the right place in the factory in a hurry.

Order Entry:

How You Can Help Us

Help You Better

Here's a list of some ideas that will save all of us lots of time processing Order Entry TWX's. Following these will help us help you better.

1. Leave adequate line feed (space) between purchase orders. We need the extra space.

2. Send your orders only to Customer Service. Don't copy anyone else; it only delays the process. You can send them separate TWX's later or make a copy of the order and mail it to them later.

3. Always include the Customer Code.

4. Double check to see that Customer Codes don't get mixed up on the TWX.

5. Putting more than one P. O. on a TWX with the customer's name only on the top causes us problems. Every P. O. should have customer code and name on it even when several P. O.'s are sent together.

6. Be sure to indicate unit prices.

7. Clearly indicate when you want an order drop shipped; it will save all sorts of delays.

8. Indicate special pricing authorization to avoid confusion and delays in the order entry process.

9. Make sure scheduled out quantities agree with the total quantity ordered.

10. When breaking down the total order, specify the quantities. If the total is 10K, and you want 10% delivered in August, 20% in September and the balance in November, don't use percentages; specify the quantities.

11. TWX's should indicate if the P. O. is taxable. Putting this information on confirming paperwork may be too late.

12. Indicate the method of shipment.

13. Include REL delivery quote number when applicable.

14. Don't assume we can figure everything out; tell us all you know about the order.

Translating Those Field Packet Reports

Sometimes it's not easy. There is lots of pertinent information in National's Field Packet Reports.

This key should help you find what you're looking for.

Order Status

Customer Name
APPLIED DIGITAL DATA
100 MARCUS BOULEVARD
HAUPPAUGE   NEW YORK

Customer Code
0000144600 4
CSAR 27
CSAR Rep No.

Sales Rep Code
POD A20D

Maximun No. Of Weeks We Can Ship Ahead
ADV SHIP 2 WEEKS

We Advise Rep Office with a TWX
SHIP ADVISE

Actual Credit Manager
CREDIT MGR = A

PO 10471
P.O. Number

SO 10471 ENT 10/20/77 SHIP PRE VIA UPS
ADV SHIP 2 WEEKS

Customer Material Return Number
CMR6849

MM5869N Part Ordered By Customer   G11N MM5869N

ORD   100 SHP   100 BAL   0 PR   2.500 AMT   .00

PO R-12252-DS   SO 37521 ENT 08/12/77 SHIP COL VIA UPS BLUE   End Customer That Parts Are Shipped To
DROP SHIP TO TRANSMATION   977 MT. REED BLVD.   ROCHESTER, N.Y. 14606   Total Shipped   Balance Due   Unit Price   Total Dollar Amount Still Open
FINAL P.O. NO   18067-098
LM308AH Quantity   561H   LM308AH   Current Ship Schedule Date
End Customer's 0102 Due On 1760 01/15/78 01/15/78 01/15/78   Original   ORD   7000 SHP   1760 BAL   5240 PR   -.720 AMT   3772.80
P.O. Number   0103 Date   1760 04/15/78 04/15/78 04/15/78   Schedule   Total Ordered   SHIP   1760 10/31UPS B   042911
                0104   1720 07/15/78 07/15/78 07/15/78   Ship Date   Quantity, Date and Waybill No. Of Shipment

PO R-12256   Customer Request Date   SO 40285 ENT 08/24/77 SHIP COL VIA UPS B
DM5427J   150J   DM5427J/7027J
      0201   50 08/23/77 11/23/77 11/23/77   ORD   50 SHP   BAL   50 PR   1.000 AMT   50.00

PO 17967   SO 25719 ENT 07/05/77 SHIP COL VIA UPS BLUE   Method Of Shipment
800903-8 R/O   110N   DM7438N/8038N
      0101   5891 11/16/77 11/16/77 11/16/77   ORD   5891 SHP   BAL   5891 PR   -.135 AMT   795.28
930347-1 R/O   110N   DM7420N/8020N   ORD   2593 SHP   2593 BAL   0 PR   -.108 AMT   .00
                                                              SHIP   2593 10/27UPS BLUE   1390397
CPN, Customer's No. Of Part Ordered For Reference Only
930347-10 R/O   110N   DM7410N/8010N NS ID   ORD   1647 SHP   1647 BAL   0 PR   -.108 AMT   .00
                Product Code of NSID   SHIP   1647 10/27UPS BLUE   1390397
930347-12 R/O   110N   DM7451N/8051N
      0401   1621 11/16/77 11/16/77 11/16/77   ORD   1621 SHP   BAL   1621 PR   -.108 AMT   175.06
800904-2 R/O   41UN   LM556CN   ORD   496 SHP   496 BAL   0 PR   -.420 AMT   .00
                                                              SHIP   496 10/27UPS BLUE   1390397

                                                              SHIP   1042 10/11UPS B   038196   Priority Rating

PO 565350   Order Entry Date   SO 41010 ENT 08/25/77 SHIP COL VIA B/W   National's Special No.   Government Contract Date
                                                                                          CON N//383-77-A-7904   DDAT
396348-1   290J   DS7830J
      0101 29 10/01/77 10/28/77 10/28/77 R REL   SD10114   ORD   29 SHP   BAL   29 PR   17.750 AMT   514.75
LOT ACCEPT TEST   290J   DS7830J
      0201 1 10/01/77 10/28/77 10/28/77 R   SD10114   ORD   1 SHP   BAL   1 PR   500.000 AMT   500.00
395634-1   46RH   LM105H
      0301 65 01/02/78 01/02/78 01/02/78 R   SL10085   ORD   65 SHP   BAL   65 PR   7.260 AMT   471.90
X-RAY   46RH   LM105H
      0401 65 01/02/78 01/02/78 01/02/78 R   SL10085   ORD   65 SHP   BAL   65 PR   .500 AMT   32.50

PO 8217   SO 54776 ENT 10/12/77 SHIP COL VIA UPS
P7112   1472   1472   T140458   ORD   60000 SHP   29928 BAL   30072 PR   -.065 AMT   1954.68
      0101 72 11/10/77 11/10/77 11/10/77 S Stamp-Off
      0102 15000 05/10/78 05/10/78 05/10/78 S   SHIP   29928 11/11UPS   053656
      0103 15000 08/10/78 08/10/78 08/10/78 S

PO-8217   SO 57812 ENT 10/24/77 CANCELED 10/25/77DUPLICATE
P7112   1472   1472   Cancelled   T140458   ORD   SHP   BAL   0 PR   -.065 AMT   .00
DUPLICATE   -0101   30000 11/10/77
DUPLICATE   -0102   15000 05/10/78   S
DUPLICATE   -0103   15000 08/10/78   S
Duplicate Order Put On Hold And Cancelled

PO 8572   Factory Sales Order Number   SO 64861 ENT 11/11/77 SHIP COL VIA B/W
CD4071BE   SO 64861
MS-0101   4800 11/25/77   ORD   4800 SHP   BAL   4800 PR   -.120 AMT   576.00
Order's On Marketing And Spec Hold

Translating Those Field Packet Reports

New Orders Received

R450-71   Time frame this report covers   11/04/77 TO 11/10/77

NATIONAL SEMICONDUCTOR
FIELD PACKET
NEW ORDERS RECEIVED

PAGE 4   POD A20D   CTL= ABS

CUSTOMER NAME PURCHASE ORDER	CUSTOMER CODE CUSTOMER PART NU.	NSC REP ENTRY DATE	NATIONAL ID	SPEC NUM	QUANTITY	UNIT PRICE $	AMOUNT	REQ DATE PC SCH STAT
	0000031701	27 CREDIT MGR	B					

Customer Service Account Rep.

A P F
ARTHUR J FRITZ BLVD
1039 W HILLCREST BLVD
INGLEWOOD, CA

552K	ADS8861N	11/10/77	DS8861N		1,733	.420	$727.86 SHIPPED
552K	ADS8861N	11/10/77	DS8861N		67	.420	$28.14 11/09/77
552K	ADS8861N	11/10/77	DS8861N		17,200	.420	$7,224.00 11/25/77
552K	ADS8861N	11/10/77	DS8861N		40,000	.420	$16,800.00 WADV 99
552K	ADS8870N	11/10/77	DS8870N		3,424	.360	$1,232.64 SHIPPED
552K	ADS8870N	11/10/77	DS8870N		76	.360	$27.36 11/09/77
552K	ADS8870N	11/10/77	DS8870N		6,900	.360	$2,484.00 12/09/77
552K	ADS8870N	11/10/77	DS8870N		41,600	.360	$14,976.00 WADV 99

CUSTOMER TOTAL *** $43,500.00

AEROSPACE AVIONICS   0000052901   27 CREDIT MGR   E
110 WILBUR PLACE   *Credit Hold* [A]
AIRPORT INTERNATIONAL PL
BOHEMIA NEW YORK

43556	A000316	11/09/77		368	11.130	$4,095.84 12/06/77 *Marketing Hold* [MH]
43556	A000360	11/09/77		253	11.070	$2,800.71 11/26/77 *Spec. Hold* [HS]

CUSTOMER TOTAL *** $6,896.55

ALARM DEVICE   0000062501   27 CREDIT MGR   E
165 EILEEN WAY
SYOSSET NEW YORK

6546	AP7650	11/04/77	LM380N-8		2,200	.460	$1,012.00 12/01/77 120477

CUSTOMER TOTAL *** $1,012.00

Billings and Credits Issued

R450-12   01/13/78 TO 01/19/78

NATIONAL SEMICONDUCTOR
FIELD PACKET
BILLINGS AND CREDITS ISSUED

POD A30A POD-CTL =AES
PAGE 34

CUSTOMER NAME PURCHASE ORDER	CUSTOMER CODE CUST PART	NSC REP REV NATIONAL ID	SPEC NUM NATIONAL ID	QUANTITY	UNIT PR	$ AMOUNT	INVOICE	DATE of Shipment	CARRIER	WAYBILL
	0000023A01	20								

ACME ELECTRIC
4 WATER ST
CHINA NEW YORK

11-8362	733W00042	DM7400N/AU00N	SD14271	900	$0.140	$126.00	858901	01-16-78	UPS 8037111
11-8362	707W00081	1372	T13041A	2,725	$0.080	$218.00	858901	01-16-78	UPS 8037111
21-0492	707W00091	1372	T13041A	5,700	$0.080	$456.00	858902	01-16-78	UPS 8037111
						$456.00 **			

CUSTOMER TOTAL $800.00

EASTMAN KODAK   0000655101   20
APPARATUS DIVISION
901 ELM GROVE ROAD
BUILDING 6
ROCHESTER NEW YORK

12-0886-12177-W1	210126	LM1832N	SL34103	875	$1.800	$1,575.00	860107	01-17-78	EMERY63989
						$1,575.00 **			
17-0887-42651	DM7411N/SD34475	DM7411N/8011	NSD34475	550	$0.190	$104.50	860106	01-17-78	EMERY63989
						$104.50 **			

CUSTOMER TOTAL $1,679.50

VR 1482

CS MAR 78

Translating Those Field Packet Reports

Recap of Holds

```
R450-73S                         RECAP OF HOLDS OVER 5 DAYS                      01/20/78                    AES

                          CLEAR UP HOLDS ASAP TO AVOID DELAYS
*** LEGEND: A=ACCOUNTING HOLD,  C=CUSTOMER SERVICE HOLD,   M=MARKETING HOLD,   S=SPECIFICATION HOLD  ***
```

CUSTMR NAME	CUSTMR CODE	CUSTMR P/O NMBR	ITEM/SCH	NATIONAL ID			HOLD CODES	
GENERAL ELECTRIC	0190890702	A25-T-5163/R	0101	JM4611ABCB	2	JM38510	Marketing Hold—[M]	A30A
GENERAL ELECTRIC	0190890702	A25-T-5550/R	0101	JM4601ABCB	2	JM38510	M	A30A
GENERAL ELECTRIC	0190890702	A25-T-5734K	0101	JM4612ABCB	2	JM38510	M	A30A
GENERAL ELECTRIC	0190890702	A25-T-6555	0101	SM-111H	3	WAIVERS	Spec Hold—M[S]	A30A
HARVEY-FEDERAL ELECTRONIC	0130818001	05994	0101	AM287H	1		M	A30A
HARVEY-FEDERAL ELECTRONIC	0130818001	05994	0201	AM290D	1		M	A30A
EASTMAN KODAK	0000655101	12-0647-30334	0201	C10X	1		M	A30A
MOHAWK DATA SCIENCES	0351556501	253794	0101	LM376N	1		M	A30A
MOHAWK DATA SCIENCES	0351556501	260703	0101	DM8847N	1		M[S]	A30A
SUMMIT DISTRIBUTORS	0002281001	4-58834	0101	DM74LS85N	2A+		Customer Service Hold—[C]	A30A
SUMMIT DISTRIBUTORS	0002281001	4-59141	0301	LM0070-2H	1		M	A30A
SUMMIT DISTRIBUTORS	0002281001	4-59221	0201	LM0070-1H	1		M	A30A
BERNZOMATIC CR	0000316001	4295	0101	LM1801N	1		Credit Hold—[A]	A30A
XCITON CORP	0002784301	5191	0101	NSC0014	2	SJ62193	A	A30A

Reschedule Summary

```
R450-73S                          RESCHEDULE SUMMARY                             01/20/78                    AGS

          **********       THE DELIVERY SCHEDULE ON THE FOLLOWING ITEMS HAS BEEN CHANGED    **********
          **********       BY 14 DAYS OR MORE.  NOTIFY YOUR CUSTOMER OF THESE CHANGES NOW.  **********
```

CUSTOMER	CUSTOMER CODE	PURCHASE ORDER	ITEM SCHED	NATIONAL PART ID			CUSTOMER REQUEST	NEW SCHEDULE	OLD SCHEDULE	POD
ELECTRO SONIC	0000692500	NBR W02031	4101	LM309H	1		111177	022178	012478	A50H
ELECTRO SONIC	0000692500	NBR W02076	0501	DM8845N	1		112277	021078	012278	A50H
ELECTRO SONIC	0000692500	NBRW02139	0601	2N4236	1		120677	012078	010678	A50H
LITTON SYSTEMS CAN	0301361002	088923	0101	LM111H	3	SL19039	122077	022078	011478	A50H
HAMILTON-AVNET	0151022701	59-202871	0501	LM134H	1		061077	022878	011778	A50H
HAMILTON-AVNET	0151022701	59-203-367	0301	MM5619BN	1		111577	012078	022078	A50H
HAMILTON-AVNET	0151022701	59-203-657	0301	LM309H	1		120277	030778	013178	A50H
HAMILTON-AVNET	0151022701	59-203-747	0601	MM5619BN	1		122177	012078	022278	A50H
HAMILTON-AVNET	0151022701	59-203-776	0401	LF13331N	1		010378	012078	021078	A50H
HAMILTON-AVNET	0151022701	59-203-781	0101	LM723CH	1		010378	012578	032178	A50H
SEMAD ELECTRONICS	0002730501	8109	1301	DM8500N	1		110577	021678	011578	A50H
SEMAD ELECTRONICS	0002730501	8223	0401	DM8097J	1		120677	012078	022278	A50H
SEMAD ELECTRONICS	0002730501	8304DF	0801	LM317H	1		010678	022078	012978	A50H
I T T CANADA LTD	0251127400	83910	0101	DM8038N	1		011578	022178	012478	A50H

```
**NOTIFY YOUR CUSTOMERS NOW OF THE ABOVE RESCHEDULES**
```

How Things Work

Quoting Procedures For Field Sales Offices

All quotes on delivery of new orders must originate in Customer Service to be valid. And, quotes should only be given out by the Customer Service Account Rep handling the account or that rep's supervisor. In emergency situations, any CSAR is qualified to give quotes.

Standard Product Quotes

First you call or TWX the appropriate CSAR with the complete part number, total quantity needed and customer's requested schedule. If the quantity of the quote falls within quantities on the established quote guide, the CSAR can give you a quote immediately.

If the quantities are larger or there is a particular problem on the part, the CSAR must contact the appropriate Production Control person for a quote. Above all, all requests for quotes will be answered within 24 hours—if not sooner.

On selected customers or at a CSAR's discretion, quote numbers will be issued with quote to be entered with the Purchase Order. This allows the CSAR to double check Production Control dates when the P.O. hits the backlog.

Standard product quotes are based on product sold on a "first come first served basis." National does not "hold" products quoted for any period of time. If the customer need is urgent, the Field Sales Office must make arrangements with its CSAR.

Stamp-off Quotes

Any product that requires special marking or selected testing or both will only be quoted by the CSAR after contacting Production Control. Your procedure is the same as for Standard Quotes. A 24-hour response time is in effect unless special considerations exist. For example, with electrically selected units, yields to spec must be considered and might require more time for response. At no time should this exception be more than 48 hours.

Delays in stamp-off quotes will happen only if National does not have a copy of the customer's drawing (including latest revisions) in Santa Clara Spec Control.

Any requests for quotes where the customer part number is presented "For Reference Only," no deviation from standard product, the quote issued is for standard product. If, in fact, there is a deviation from standard product (special mark on part,
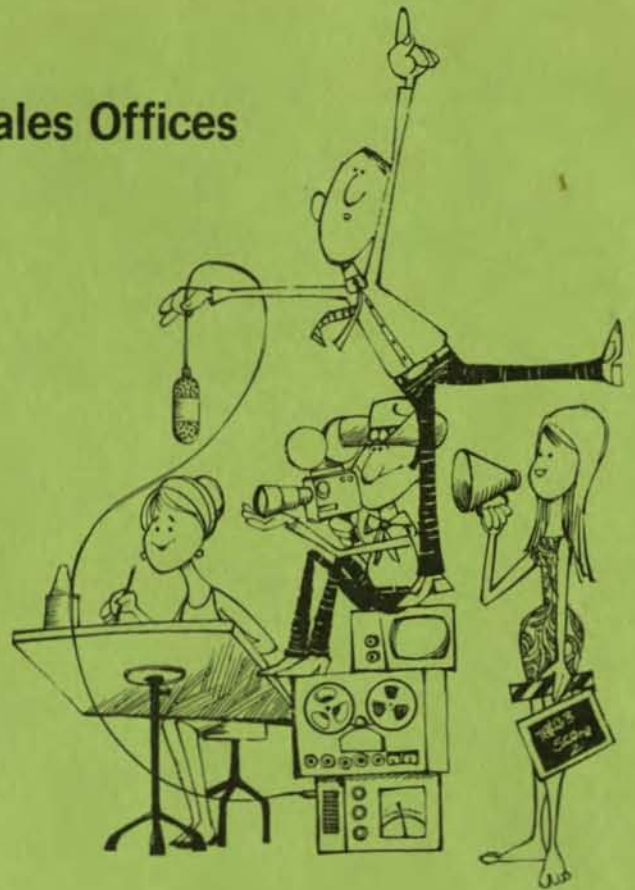
shipping container marking, etc.) the quote is void. If any doubt exists as to the customer's part number versus standard or stamp-off, enter quote for customer part number.

Standard Rel Quotes and Custom Rel Quotes

Many delivery problems with REL orders can be directly traced to a poor communication between the field and the factory during the Quote and Order Entry Cycle. In order to improve this situation, the following procedure should be used:

1. All of the information indicated in the top half of the form (see example) will be required in order to obtain a "REL Delivery Quote." This procedure applies to all REL orders including discrete, standard, and custom REL. Request the quote via TWX to Customer Service, making sure all the right information is in the quote. However, phone delivery quote requests will be accepted provided all of the required information is available.

2. The delivery quote will be sent back by TWX.

3. All of the information on the form will then be TWX'ed to the field so that each salesman has a hard copy of what was quoted, including any special conditions or exceptions on the quote. In emergencies, this information will be given over the telephone. However it will still be followed up by the hard copy TWX. The following comments are worth noting:

4. All deliveries are quoted in time AFTER RE-CEIPT OF REQUIRED WAIVERS.

5. If the delivery is out of line with the requested delivery date, we will offer alternative delivery options in order to meet the requested date. For example, if SEM analysis can be waived from an order, four to eight weeks might be saved in production. This type of information will give the customer options BEFORE HE PLACES THE ORDER.

6. All orders must be entered by TWX. They must have all of the same information required for the delivery quote plus comments regarding the customer's acceptance of any requested changes or waivers. Without this information the order will be placed on hold and processing is delayed.

7. All Rel orders being entered to a customer spec MUST include the rel quote number.

How About Those Hidden Requirements In RFQ's And Purchase Orders?

When getting an RFQ (Request For Quote) for a new program or when taking over a new account, spend a few minutes with the buyer and ask him to review with you the requirements of the various clauses and attachments to the RFQ and/or purchase order. While this may take a few minutes of your time BEFORE the order, it may save a few weeks of your time AFTER the order is taken and relayed to the factory.

You may need to revise the quote specs by adding some of these out-of-the-ordinary requirements:

    special testing
    special processing
    special handling

In many cases the buyer may forget to add those requirements in the RFQ even though they appear on the final purchase order. These additional requirements cost more money and can also change the delivery schedule. So, be sure to add them to the RFQ . . . in the beginning.

TWX Services, Some New Angles For That Old TWX.

Fortunately for all of us, all TWX Order Entries take first priority and are immediately sent to Customer Service.

But, if you want to send a TWX message other than an Order Entry, here are some hints to make sure things happen as fast as they can:

MAILSTOPS

If you want to be sure the right person gets the message you are sending at the appropriate time, be sure the message has a mail stop number on it (see your National Interplant Telephone Directory). For example: ATTN: JOE SMITH/790
              cc: RICK JONES/830,
                   JOHN GREEN/790

CC's

Copies for the "cc's" are made by TWX people twice a day or as time is available. This means a slight delay for messages to reach everyone but the intended receiver. Never "cc" an Order Entry TWX.

URGENT/RUSH MESSAGES

These should be marked as such by the sending location. When TWX room personnel see RUSH or URGENT at the beginning of a message they personally hand carry it to a mail clerk who in turn calls the intended receiver notifying him or her that there is an urgent message in his or her mailbox. People cc'd on rush messages won't be called.

A word of caution, don't abuse this Urgent/Rush service; it just slows down all the other TWX services. Save it for when you're in a real panic.

DELIVERY QUOTATION REQUEST / REPLY

QUOTE NO.: _____

PAGE: ____ OF _____

ATTEN: _____

DATE: _____

CUSTOMER _____ LOCATION: _____ ORIGINATOR _____ M/S

ITEM 1

CPN: _____ REV NO: _____ NSID: _____

QTY: _____ REQ. DATE: _____ DEL QUOTE: _____

☐ Precap   ☐ SEM   ☐ X-Ray   ☐ Gp B   ☐ Gp C   ☐ GSI   ☐ CSI   ☐ No Source

FLOW: _____

REMARKS: _____

_____

QUOTE EXPIRES: _____ QUOTE BY: _____

ITEM 2

CPN: _____ REV NO: _____ NSID: _____

QTY: _____ REQ. DATE: _____ DEL QUOTE: _____

☐ Precap   ☐ SEM   ☐ X-Ray   ☐ Gp B   ☐ Gp C   ☐ GSI   ☐ CSI   ☐ No Source

FLOW: _____

REMARKS: _____

_____

QUOTE EXPIRES: _____ QUOTE BY: _____

ITEM 3

CPN: _____ REV NO: _____ NSID: _____

QTY: _____ REQ. DATE: _____ DEL QUOTE: _____

☐ Precap   ☐ SEM   ☐ X-Ray   ☐ Gp B   ☐ Gp C   ☐ GSI   ☐ CSI   ☐ No Source

FLOW: _____

REMARKS: _____

_____

QUOTE EXPIRES: _____ QUOTE BY: _____

ITEM 4

CPN: _____ REV NO: _____ NSID: _____

QTY: _____ REQ. DATE: _____ DEL QUOTE: _____

☐ Precap   ☐ SEM   ☐ X-Ray   ☐ Gp B   ☐ Gp C   ☐ GSI   ☐ CSI   ☐ No Source

FLOW: _____

REMARKS: _____

_____

QUOTE EXPIRES: _____ QUOTE BY: _____

ITEM 5

CPN: _____ REV NO: _____ NSID: _____

QTY: _____ REQ. DATE: _____ DEL QUOTE: _____

☐ Precap   ☐ SEM   ☐ X-Ray   ☐ Gp B   ☐ Gp C   ☐ GSI   ☐ CSI   ☐ No Source

FLOW: _____

REMARKS: _____

_____

QUOTE EXPIRES: _____ QUOTE BY: _____

RAU-1

CS MAR 78

How Do You Get Your Spec Reviewed?

Remember. . . .

most specs should

not be sent to

Spec Control.

It's easy, most of the time. First thing to remember is that drawing reviews should be sent to the appropriate Major Account marketing group or Spec Control if not part of a major account group. For instance:

1. All Military customers or requests for product evaluations for military type devices must go to Military Marketing. If your request is sent elsewhere, you've lost time, because no one in Spec Control looks at it until Military Marketing has blessed it. Be sure to use the "Request for Evaluation of Customer Specification" form.

2. All key computer, industrial and telecommunications accounts' spec drawings should be sent to their respective Major Industrial Account Marketing Manager (computer to Computer Marketing Manager, etc.); so they can see if it makes business sense to review the drawing. Then the spec drawings are sent to Spec Control. Again, you'll just waste time if you send the drawings to Spec Control first. Be sure to use the "Request for Evaluation of Customer Specification" form.

3. Other accounts that are not part of any major marketing category can be sent to Spec Control first. But, make sure to use the "Request for Evaluation of Customer Specification" form. You understand by now, we're sure; if you don't use the form, you'll waste lots of valuable time.

For all specs to be reviewed, **you must fill out the "Review" form. Those with the form properly filled out get looked at first.** So, be sure to fill in all the blanks and be sure to indicate the generic device type. These forms are available from Marketing Services, and using them pays off for you and your customer.

So, now that you've done everything properly, what can you expect from Spec Control in the way of a turn-around time? Well, they've set a target of one week or less, but sometimes things happen and it may take a little longer, particularly for complex electrical evaluations.

REQUEST FOR EVALUATION OF CUSTOMER SPECIFICATION

NATIONAL

14106

CUST:	LOC:	DATE SENT:

DWG #:	REV:	CUST RFQ#:	DUE:

THE FOLLOWING BLOCK MUST BE COMPLETED BY FIELD SALES OR THE SPEC WILL NOT BE REVIEWED.

SALESMAN:	OFFICE:	REG. MGR:

CUSTOMER CONTACT	NAME:	POTENTIAL UNIT SALES VOLUMN	IMMED: _____ PER YEAR: _____ FOR _____ YEARS
PHONE:	TITLE:		PER SYSTEM: _____ #SYST: _____ OVER _____ YEARS

PRODUCT DESCRIPTION:
(TYPE IF KNOWN)

☐ SPECIAL MARK ☐ SPEC ELECT ☐ REL
☐ SPEC MARK/PKG ☐ CUSTOM DEV ☐ STD PROD

COMPETITION:	THEIR PRICE:	PRICE NEEDED:

PROGRAM:	ESTIMATED AWARD DATE:

HAS CUSTOMER PREVIOUSLY PURCHASED THIS PART? ☐ YES ☐ NO   IF YES, FROM ☐ NSC ☐ COMPETITION

PREV. QUANTITY: _____ PRICE: _____ AGAINST: ☐ THIS DRAWING ☐ NO DWG ☐ _____

☐ REVIEW NEEDED WITHIN 2 WEEKS   ☐ REVIEW NEEDED, NO PRIORITY   ☐ FILE DWG, NO RESPONSE REQUIRED

COMMENTS:

ACKNOWLEDGEMENT

RECEIVED AT SANTA CLARA: _____.   ESTIMATED DATE OF COMPLETION OF EVALUATION: _____

☐ FORWARDED TO _____ IN SPEC REVIEW, CONTACT AT EXTENSION _____

☐ NON-APL, FORWARDED TO _____ AT EXTENSION _____ (☐ PROD MKTG ☐ ENGINEERING)

COMMENTS:

MARKETING COMMENTS

NSC ☐ IS ☐ IS NOT   INTERESTED IN THIS BUSINESS   PRODUCT TYPE IS:

PRODUCT STATUS ☐ APL ☐ DUE _____ QUARTER OF 19 _____ ☐ STD PRODUCT   ☐ CUSTOM   ☐ NO PROD PLANS

☐ FIELD SALES NOTIFIED ON _____ THAT THIS DRAWING IS TO BE NO BID PER _____

MARKETING MANAGER:	DATE EVALUATED:

Scheduling: Which Comes First, The Chicken Or The Egg? And When?

That's the essence of scheduling, figuring out what gets produced and when it can be delivered. Scheduling is important to you and your customer; and it's very important to our whole operation.

How we schedule things determines how we perform for your customer. Scheduling can't be left to chance and neither can changes in delivery schedules. Here's a summary of our basic scheduling philosophy. It should assist you greatly in dealing with your customers and their product needs.

1. Typically, orders for standard products are scheduled automatically by referring to the quote guide provided for the Customer Service Account Reps by Production Control line schedulers. These orders are entered and automatically scheduled in the computer. If the order is for 2,000 pieces to be delivered as soon as possible and the quote guide reflects 2,000 in three weeks, the order will be scheduled to ship three weeks from the order entry date.

2. Orders are shipped to the current schedule date. In most cases, this is the same as the original schedule date.

3. National's delivery quotes are based on product availability at the time of the quote, and in case of multiple quotes the product is available on a first come first serve basis. Quotes for Standard and Custom Rel are valid for a specified period of time as defined by the quote.

4. If an unresolved technical problem inhibits realistic order schedules, the schedule will be changed to reflect "99999" in the current schedule column. This technological problem advise should then be communicated immediately to the customer if we are unable to schedule his order. This is up to you. We want to tell him in advance of a problem.

5. In fact, we feel the customer must be advised of all changes in the status of his order as soon as possible. All schedules missed should be reported to the customer *before* the miss and as early in the production cycle as possible. We are constantly trying to improve ways to get this information to you so that you can, in turn, get it to your customer. National feels this is an essential part of developing a good service image.

6. We believe that arrangements with customers should be honored or not made at all. If support is not intended, no commitment should be made. But sometimes orders have to be rescheduled or substitutes found; when that happens, we'll work with you to meet the customer's needs as best we can. We'll have to work together, though, to make sure things go smoothly.

7. If we do have to reschedule an order, rest assured that rescheduled orders take precedence over all others. And if an order has to be rescheduled several times by National, the more times it is rescheduled, the higher it ranks on the priority list.

When You Have To Substitute:
Product Alternatives For New And Existing Purchase Orders

Sometimes you'll need to find an alternate product or substitute product:

> when quoting a new Purchase Order if the initial delivery date is critical
>
> when a customer wants to pull in delivery on a P.O. to immediate delivery
>
> when National has fallen delinquent on a product commitment

What's important is that there are alternatives and they should definitely be suggested to the customer.

You should consider the following types of alternatives:

1. different package type (same pinout)
2. different temperature ranges (military vs. commercial)
3. different military tested grades (883, 38510, JAN, etc.)
4. parts marked to other customer drawing numbers, or A+ or B+ parts

Here's another good hint: The alternatives can overlap each other; for example, instead of a standard DM7400N, you could substitute a DM5400J/883 (different package, temperature range and 883 level).

When in need of an alternative, be sure to ask your CSAR to check all possibilities. Depending on the situation, substitute parts might cost more. Marketing will need to be contacted for price adjustments.
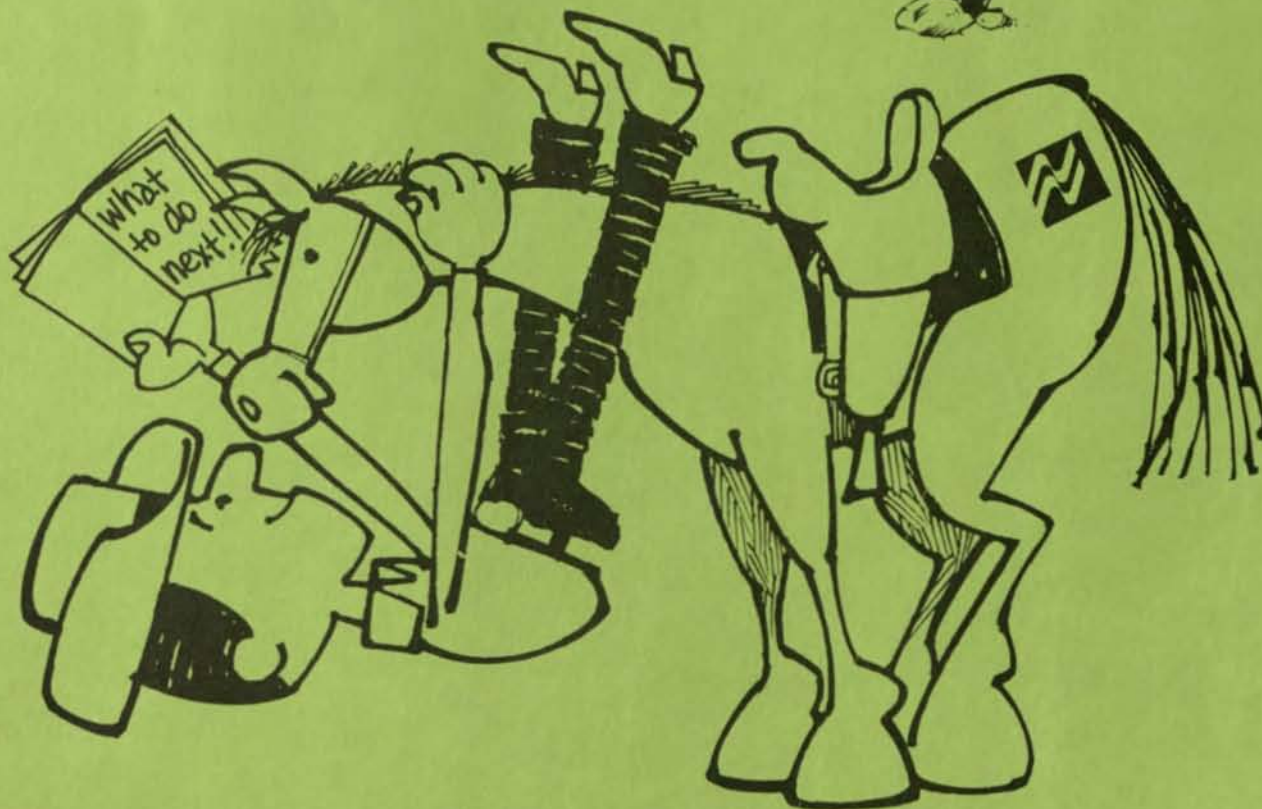
Examples:

1. different package type (same pinout)

package needed:		alternate:	
	D		J (medium*), N (low*)
	J		D (high*), N (medium)
	N		D and J (high)
	F		W (medium)
	W		F (high)
	H		none
	T		P (medium)
	P		T (high)
	Z		P (low), requires some lead form
	K		KC (high)
	KC		K (high)

2. different temperature ranges (military vs. commercial)

package needed:		alternate:	
	DM54XX		DM54XX883 (high), DM74XX (low)
	DM54XX/883		DM54XX (medium)
	DM74XX		DM54XX (high), DM54XX/883 (high), DM74XX A+ (high)
			DM74XX B+ (high), DM74XX/883 (high)
	LM118H		LM118H/883 (high), LM218H (medium)
	LM318H		LM118H/883 (high), LM118H (high), LM218H (high)
			LM318H A+ (high)
	2N2222		PN2222 (high), 2N2222AJTX (high)
	PN2222		2N2222 (high), 2N2222AJTX (high)

3. different military tested grades (883,38510, JAN, etc.)

Find the part you are looking for on chart; then read up the chart to find a better part:

Military Grade:	38510	Highest Military Grade:	Linear LM1XX
	JANTXV		Digital DM54XX
	JANTX		MM4XXX
	883		
	Standard	Industrial Grade:	Linear LM2XX
		Commercial Grade:	Linear LM3XX
			Digital DM74XX
			DM8XXX

4. another alternative would be parts marked to other than the customer drawing number

Commercial Grade: 883
A+
B+
Special Mark
Standard

*Probability of acceptance by customer:

High (90-100%)
Medium (70-90%)
Low (50-60%)

A Little Help For Our Friends From Marketing Services

Extra, Extra, Read All About It . . .

Ad Reprints, Data Sheets, Brochures

SALES TOOLS:

You may need some product literature, ad reprints, data sheets, brochures, product marketing bulletins, price lists, whatever. Well, National's Marketing Services group can provide all the sale literature you need and a few extra promotional materials to boot!

Here are a few of the most helpful:

The National Literature Index

It all starts here. National's Literature Index is a complete reference to all currently available data sheets, application notes, guides, handbooks and catalogs. Published twice a year, the index represents National's entire line of devices as they appear in the many Databook volumes.

Product Marketing Bulletin

National's PMB is published every month. It contains price changes, new product information, announcements of new product literature and in general is designed to keep you and the sales force up to date with the most current information on National's products and product support materials. Bulk amounts are mailed to sales offices and individual copies can be mailed to salesmen's homes. Advance notice should be given the Field Communications Specialist (reporting to Military Marketing) to change quantities needed by your office and to make additions or corrections to the mailing list. There just aren't extra copies of this publication available, so plan ahead.

OEM Price Lists

These are published every quarter, and you get them automatically. If you need more, just fill out the Literature Request form and send it to Marketing Services.

Data Sheets, Product Literature, Brochures, Etc.

You're on our mailing list as soon as you sign on with National, but if you need additional brochures, price lists, etc., or if our system fails, just contact Marketing Services Field Coordinator. And, be sure to use a Literature Request form. It works wonders!

Here's another form that you'll need to have plenty of — the Request for Evaluation of Customer Specification form. It's most important to you for speedy turnarounds of spec reviews. So ask Marketing Services to send you a bunch.

The Data Bookshelf

This is a compendium of information. The fifteen independent volumes that comprise the Bookshelf—over 5000 pages—describe in excess of 6000 solid-state devices; devices that span the entire spectrum of semiconductor processes, and that range from the simplest of discrete transistors to microprocessors. Geared for the design engineer, it is the ultimate reference source.

GREAT ADS:

Marketing Services also oversees National's ads that appear in all the trade papers and magazines. Ad reprints are available should you need them.

SALES LEADS

Marketing Services fields all the coupon request cards from ads and sends copies to appropriate sales offices for you to follow up on.

SERVICES, TOO

Marketing Services also produces special sales promotion materials, and on occasion designs special newsletters, customer mailings and forms needed by various sales groups. They're big in buttons, binders, T-shirts, posters and pitch-packs, too. In short, whatever the sales tool, Marketing Services has it or can design it. The group is in business to help you sell our customers on National. Make sure you call on them, if you need their help.

How To Get What You Need. . . When You Need It

Various methods are used to distribute National's many data sheets, application notes, catalogs, price sheets and brochures to the field. Here are the general procedures:

THINGS THAT JUST COME NATURALLY

You'll get these automatically.

Initial Shipment of New Catalogs — Because of their size and the cost of printing, catalogs are sent first to the regional sales offices. Coupons are printed up for each new catalog or reprint and are apportioned (based on customers sales) to the Regional Managers. These coupons are dispersed through the field offices, Reps and distributors in their territory and must be sent in with a lit request for catalogs. Additional catalogs over the allotment may be purchased by the distributors for $1 each.

Price Sheets — These are sent quarterly.

1. **OEM Price Sheets** — One copy is sent with the PMB to each person on the 004 list. Bulk shipments are not held for consolidation; they are sent air or first class to Area and Regional Managers, to sales offices, district offices, FAE's and Reps, but not to distributors. Varying quantities are sent to each office. In fact, the OEM shipment is combined with the Distributor Price Sheet shipment if feasible.

2. **Distributor Price Sheets** — These are bulked in small quantities to NSC offices and distributors so that they can arrive on a Monday. No individual copies are sent due to the "guarantee of arrival" and the Distributor Price Sheet is not sent with the PMB.

PMB (Product Marketing Bulletin) — This is sent out approximately every month and is the main source of communication between the Marketing Department and the sales force. One copy is sent out first class to the 004 computer list. One sample of each new data sheet, app note, guide, brochures, OEM and financial quarterlies is sent with the PMB. Bulk quantities are also sent to field sales offices and reps.

Data Update/National Anthem — These are sent out once each quarter alternately to approximately 26,000 people on the customer list, bulk rate.

Other Things — Announcements, seminars, memos, office address changes, etc., are sent out using various lists or parts of lists as appropriate.

CHANGE OF ADDRESS

This should be sent to the Marketing Services Field Coordinator well in advance of any change, and make sure you indicate which list or lists should be changed.

MAIL SENT OUT IN RESPONSE TO OUTSIDE REQUESTS

Field Requests

Additional data sheets, app notes and catalogs can be requested after the first bulk shipment by filling out a six-part form (Literature Request Form). A coupon must be sent with catalog requests. You may specify the method of shipment and will be billed accordingly. Non-rush items are shipped the least expensive way (surface) and consolidated for weekly shipments on Friday of each week.

Customer Information Requests

Coupons clipped out of technical publication ads or from direct mailings generate lots of response. These and letters from customers are handled promptly. Catalogs, because of their cost, must be accompanied by cash or check before being shipped.

LISTS, WHO'S ON THEM

Addressograph Plate List — This is used for bulk mailings mostly, and it is subdivided into about 15 categories: area offices, regional office, FAEs, district offices, Reps offices, distributor offices, foreign NSC offices, foreign Rep offices, etc. Addresses are kept current by inputs from the field and from Marketing to the lit group in Marketing Services. It is used for sending out data sheets, OEM price sheets, Data Updates in varying quantities to any office.

PMB 004 List — This has approximately 250 home addresses of most, but not all National salesmen and reps (no customers, no distributors). The Marketing Services Field Co-ordinator controls who goes on the list.

Customer List — This contains approximately 26,000 names and is kept and coded by product line interest and area zip code. Input is restricted by Regional Managers and Reps. Each customer must be added by filling out a TIDS (Technical Information Distribution Services) card. These cards should then be sent in bulk to the Marketing Services Field Coordinator.
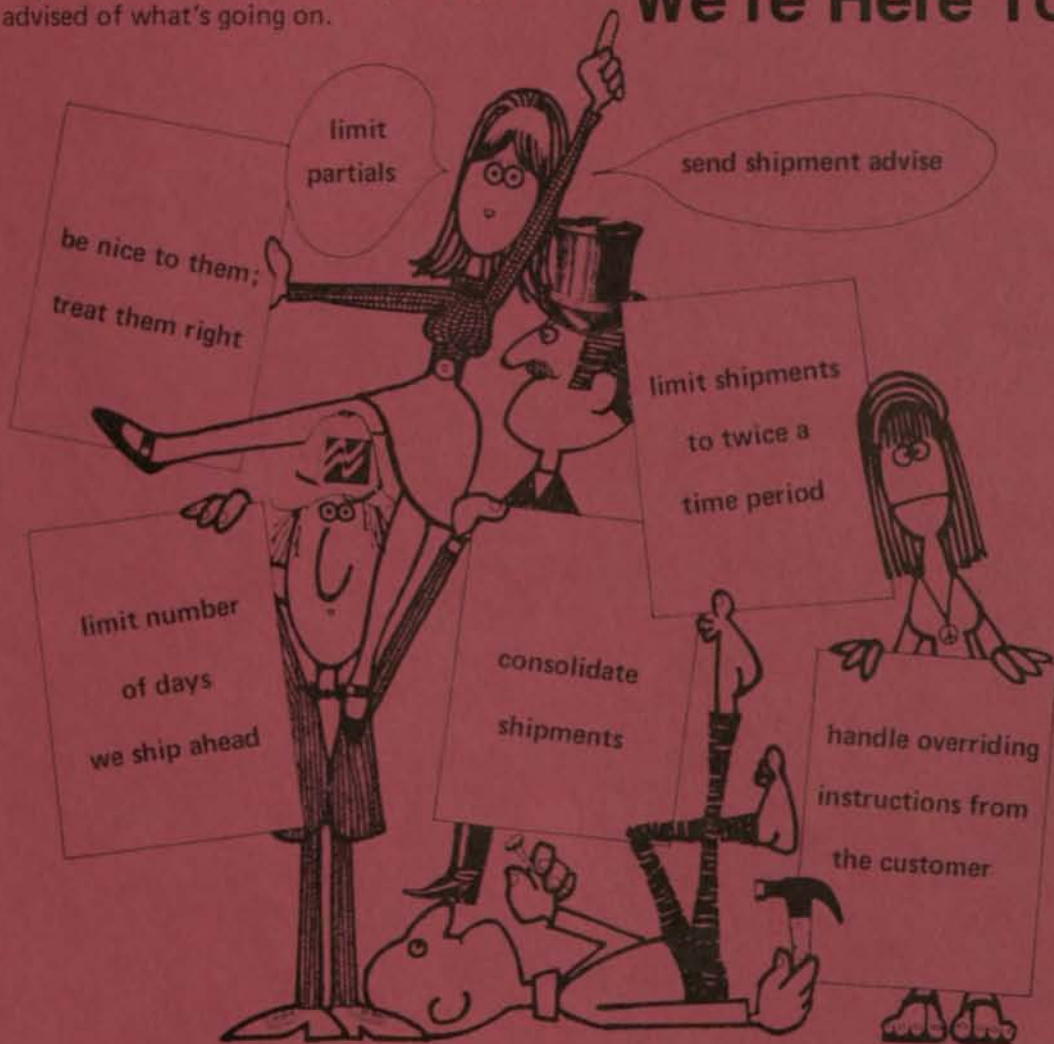
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Literature Request Form

PLEASE PRINT CLEARLY

Ship Code	Trans #		Order Type
CMC #	Carrier/Method		
Ship Date			
Shipping Amount			
		Total $	

Ship to _____

Company _____

Address _____

City _____ State _____ Zip _____

Must Reach by _____ Lit. Req. # _____ Date Ordered _____ Requested by _____

QUANTITY	TITLE	LITERATURE INVENTORY NUMBER
_____	_____	_____
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Extra Services
We Can Offer Your Customers . . .

Sometimes there are things we can do you might not think of. Here are a few ideas. As you think of more, just jot them down here, and be sure to let us know so that we may share them with other sales offices.

We can:

1. Consolidate shipments. This means just one waybill and could save your customer some money.

2. Limit shipments to just one or two days a week or just two times per period. This means fewer invoices, less paperwork for all of us.

3. Send shipment advise via telex to you or to the buyer or his secretary. This keeps everyone advised of what's going on.

4. Limit partial shipments to cut costs. We never make a shipment of less than $200 unless it closes out a total quantity due on a specific date.

5. Have the computer limit the number of days we ship ahead of the customer's request if you let us know.

6. Incorporate overriding instructions from the customer to assure shipment the way he wants it. Just let us know, and this information will always take precedence over the original order instructions regardless of what they were.

We're Here To Help

limit partials

send shipment advise

be nice to them; treat them right

limit shipments to twice a time period

limit number of days we ship ahead

consolidate shipments

handle overriding instructions from the customer

Know Thy Customer

It's important to know the rules of any game, and in our game it's imperative that we know how our customers measure us. We've found it's by delivery, quality and price. It's as simple as that. Assume that we have a competitive price and good quality. These are facts or we wouldn't still be in business. As for delivery, if we deliver on time, the customers love us; if we don't, we've got problems. Unfortunately, our problems also become yours.

That's why it's important to know how our customers measure us. We know that they usually measure us by the following criteria:

1. the number of delinquent items per his request and per our commitment.
2. the percentage of parts delivered on time per his request and per our commitment.
3. the percentage of shipments on time per his request and per our commitment.
4. returns on delinquent purchase orders.

Here's what you can do to help us improve our performance and image. These things should also save you some headaches later.

1. Constantly review what National's order status says versus what the customer's order status says. We measure our performance according to the original schedule; that's what we committed to do. Let the customer know when we're performing; let us know when we're not.

2. Have buyer cancel small insignificant open quantities. This eliminates delinquencies and inconsequential deliveries.

3. Make sure you are aware of any obvious discrepancies and take care of them. For instance, if parts are received by the customer against one purchase order when National shipped against another, there will be two obvious discrepancies. We would overship on one and be delinquent on the other. Who needs that!

4. Make certain that we understand other things that are important to the customer in his measuring National. We need to know so that we can perform better and so you won't get complaints.

Neither of us wants any customer problems; so let's work at preventing them before they happen. Knowing our customer is the first step.

Hopefully, the end result will be more business for both of us!

Delivery
Quality
Price

REMEMBER TCAYARAGE
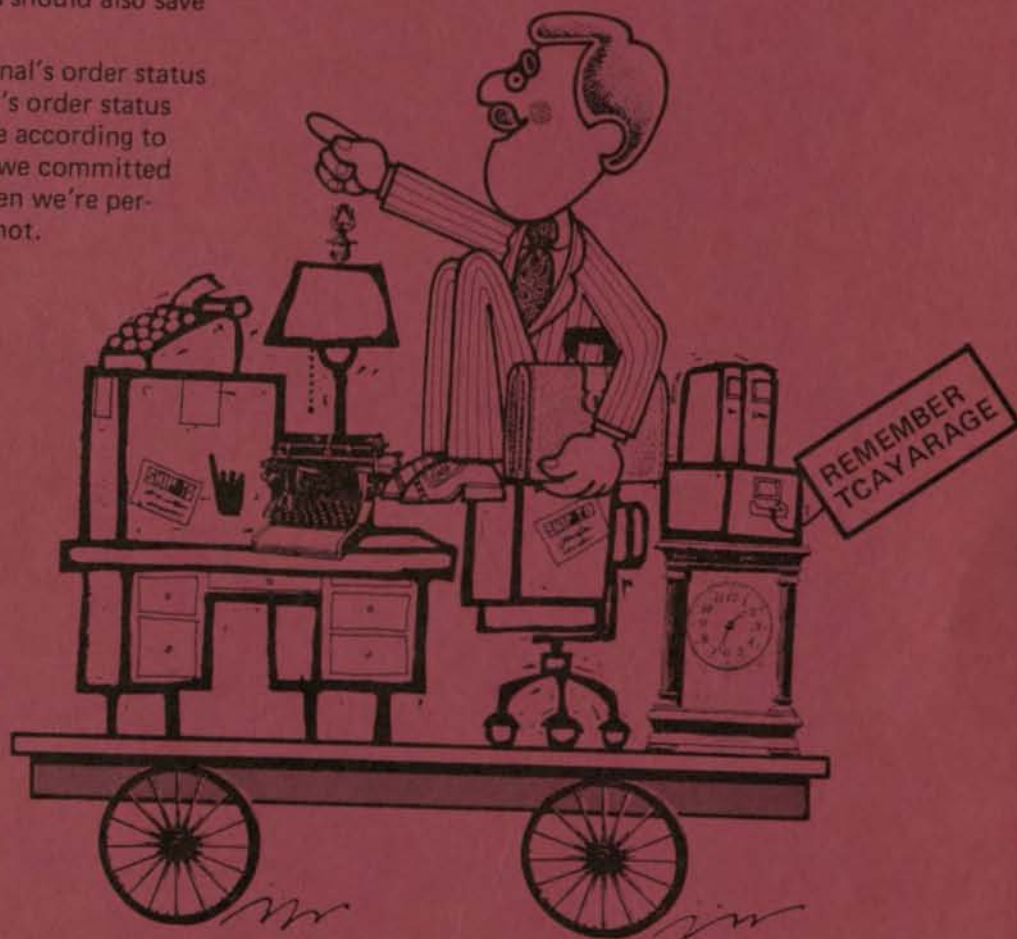
TCAYARAGE=The customer agrees you are right and goes elsewhere

Speakin' The Language

ROM?
Rel? MIS?
Speedy Orders?
Hold?
Truth table?
RMA? C of C?
Stampoff?
CIA!!!

Here's a glossary of terms, just in case there are some words or terms you're not familiar with. And, you never know when they'll come in handy during those lulls at cocktail parties and other social gatherings.

Really, though, it's the language of the industry spiced with a few National colloquialisms.

Accounting period—The 28-day cycle in which National does business. Accounting periods do not correspond with calendar months. Unless otherwise indicated, references to period in the manual refer to the accounting period.

Accounts Receivable Hold—See credit hold.

Allocation—The process of committing parts in inventory to fill orders from customers. Allocation may be automatic (carried on by CSS to perform certain allocation actions).

Alpha characters—A through Z of the alphabet.

Backlog—The total of shippable orders (orders not on a processing hold) that have not been filled.

Bill-to—The address to which invoices are to be sent.

C of C or Certificate of Compliance—Also Certificate of Conformance. A signed statement by quality control that National's product meets the customer's specification.

Change Order—A transaction entered by Customer Service to change information on an order.

CIA—Cash in advance. Money is collected from the customer prior to any shipment of parts.

CMR#—Customer Material Return number.

Collect/prepaid—The way in which a customer wishes to pay for freight charges.

Comments—Explanations or instructions added to orders.

CPL or Customer Products List—A computer-printed list of all approved products produced by National. The CPL shows common customer part numbers, standard industry numbers and corresponding NSID's, in addition to other product information.

CSAR or Customer Service Account Representative—The Customer Service employee responsible for a particular customer from the time the customer thinks he gave the order to National.

CSS or Customer Status System—National's computer-based System for entering, processing and shipping orders.

Customer code—An 11 digit number used by CSS to identify a customer, the address to which his shipments are to be sent, and the address to which his invoices are to be sent.

CPN or Customer Part Number—The number a customer uses to identify a part he is ordering. The customer part number may or may not be a National part number.

Customer Service Hold—An action taken by Customer Service to prevent the processing or shipping of an order.

Debit Memo—Notification by a customer to accounts receivable that money is owed.

Dollar minimum rule—A product rule that will prevent partial allocation of parts worth less than a minimum amount.

DM#—Debit memo number.

Drop ship—An address other than the normal shipping address in the customer code.

Extended price—The unit price for a part multiplied by the number of units ordered.

Final P. O. number—For drop shipments, the purchase order of the customer who will actually receive the parts.

GSI or Government Source Inspection—Government source inspection is required for the order.

Hold—A pre-processing hold removes the order from the backlog or doesn't allow it on the backlog. Holds may be placed by Customer Service, Product Marketing, Spec Control, or the Credit Department.

IC—Integrated circuit.

JET #—Authorization number given out for a potential return.

Item—The individual products ordered by a customer. Each kind of part ordered (regardless of quantity or request date) is a separate item.

Item-level—The portion of an order which describes the parts being ordered (e.g., part number, quantity, request date, price, etc.).

Item release—See item-schedule.

Item schedule—Item-level information that specifies the number of parts requested for delivery at one time.

Line item—See item-schedule.

Marketing hold—An action taken to prevent the processing of an order.

Microfiche—Computer reports printed on 4 x 6 film.

MIS or Management Information System—The National organization responsible for operating automated data systems.

NSID or National Semiconductor Identification number—A number used within National to identify the device family, device number, and type of package of a specific product.

OEM or Original Equipment Manufacturer—A customer who buys National parts for assembly in his own products.

Order acknowledgement—Written notice to a customer that his order has been received and is being processed by National. An acknowledgement of our terms and conditions is sent if we have not shipped within 30 days, and at the specific request of the customer.

Order-level—The portion of an order containing information that applies to the entire order, e.g., customer code, purchase order number, etc. (cf. item-level).

OSI or Other Source Inspection—An indication that customer source inspection is required for the order. May be referred to as Customer Source Inspection.

Partial shipment—Shipping fewer parts than a customer ordered on a specific date.

POD—A code that identifies the sales rep who will receive credit for sales to a given customer.

PO or Purchase order number—The number assigned by the customer to his order.

Quantity—The number of parts of one kind ordered by a customer.

Rel—Standard reliability or high reliability.

Request date—The date on which the customer desires to receive his order.

RMA—Return Material Authorization given out by Regional Sales Manager.

ROM — A Read Only Memory device programmed to read out pre-stated instructions.

SEM Analysis—Scanning a wafer through an Electron Microscope.

Ship-to—The address to which the customer's orders are to be shipped.

Ship via—Indication of the method of shipment desired by the customer.

Spec hold—An action taken by Spec Control to prevent processing of an order for a product whose specification requirements are not fully defined.

Speedy order—An order that is to be shipped the same day the order is received. Speedy orders require special processing that bypasses checks built into our system. They are to be used only in exceptional situations.

Speedy packing list—A packing list prepared manually to allow parts to be shipped the same day the request for the parts is received. A Speedy Packing List may apply to a new order (see Speedy order) or to an order already on the backlog.

Standard Product—Products that do not require special processing to meet the customer's specification. Standard products are shipped "off the shelf."

Stampoff—A standardized optional process applied to a standard product at the request of the customer.

Truth Table — One method used to define programming instructions for a ROM.

You're Part Of The Team

And it wouldn't be the same if you weren't.

And, as part of National's team, we'd like to hear from you more often with ideas and suggestions. Let us know if we need to clarify things. Or, if you need additional information or support from us, let us know. Send your ideas to the Director of Customer Service.

We count on you; we count on you a lot.

To:

From:

This has been on my mind for some time:

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