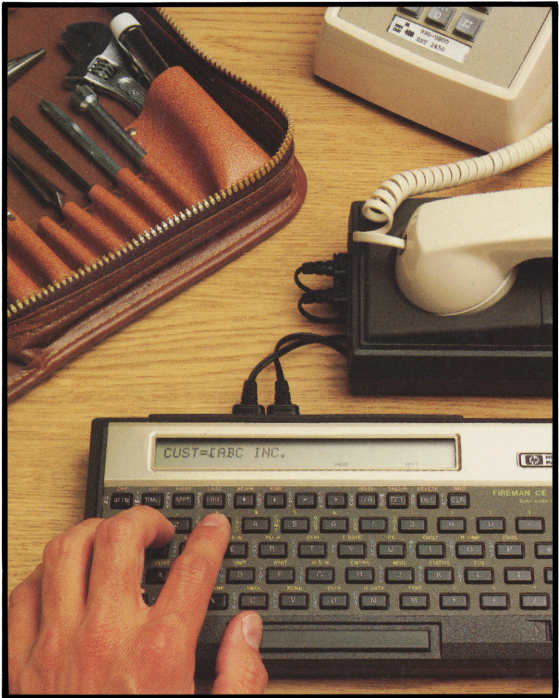




FIREMAN/HCETS CE Pocket Guide

Handheld CE Terminal System

Computer Support Division
Field Marketing Systems



CSO Codes

Standard Repair Types

- 02F – Installation
 - 05Q – Preventive Maintenance
 - 01 – Trade: Time and materials
 - 02N – Normal Warranty
 - 05R – Service Contract Repair
 - Other (3-character field required. See “Other Repair Types” and “Repair Subtype Codes.”)
- EXAMPLE: REP TYP = [03Q]
(for an Intracorporate PM)

Other Repair Types

(used with one Subtype Code)

Code Description

- | | |
|----|---|
| 01 | Trade — Used for all customer transactions where the customer is to be invoiced, except for the sale of service contracts. |
| 02 | Product Support (Warranty) — These are intracorporate (I/C) transactions used solely to process all charges for the support of a supplier’s product by a sales region. REPAIR TYPE 02 is the only link to a supplier’s quality assurance program. |
| 03 | Intra Corporate — All I/C transactions, except warranty, are processed using this REPAIR TYPE. |
| 04 | Trade Support Agreement — Used only for the sale of support agreements. |
| 05 | Service Contract Support — Records the cost (at list) of supporting a service agreement. |
| 06 | Intra-region — Used to record a variety of specific departmental level transactions. |

CSO Codes

07/08	Used to process field exchange board repairs.
09/12	Do not use.
13/21	Stat only.
22/23	Do not use.
24	Stat only.
25/26	Stat only. Used by product divisions.
27/99	Stat only.

Repair Subtype Codes

Code	Description	Types
C	Sale of an I/C service contract.	03,06
D	Repair or refurbish demo consignment or service consignment loaners.	03,06
F	Installation. Installations usually include pre-site inspection and site prep.	01,02 03,05 06,24
G	Extended Warranty. If equipment is out of normal factory warranty and the division is to bear the expense, then subtype G should be used. As a REPAIR TYPE 06 (or 03), use when warranty given to a customer on demo equipment and is chargeable to sales; or to absorb charges against warranty extensions due to delay of installation.	02,24 03,06
H	Parts only warranty. If the part was received defective from stock or failed within the warranty period of the part, this subtype should be used.	02,24
I	Service to products from HP Canada, HPSA, ICON, and other HP international entities for other than warranty repairs.	03

CSO Codes

J	Use to bill the factory for a charge that will be absorbed by their marketing group.	02,24
	Used for GSA billings.	03
	Used for gratis service chargeable to Sales or Service.	03,06
L	Service performed on shop equipment, capitalized HP equipment used as normal equipment.	03,06
M	Re-repair. Used if original repair was billed to a repair type 01,03,06.	03,06
N	Normal warranty for REPAIR TYPE 02.	02,24
P	Software maintenance work done against service contract.	03,05
Q	Identifies standard PM work on a service contract.	03,05
R	If the repair is for support of a contract and the billing is for other than standard PM work, then this is used.	03,05
S	Can be used with REPAIR TYPE 01 or 02 billing to separate site prep charges from installation charges. This should be used to bill only the divisions that will pay for the site-prep.	01,02 03,24
T	Training billable to customer.	01,03 06
U	Miscellaneous. Used when no other REPAIR TYPE applies.	03
V	Guaranteed Uptime Service (GUS) allowance.	04

CSO Codes

Failure Codes

Mechanical

- 09 Alignment, tilt, slant
- 69 Appearance
- 54 Circuit foil lifted
- 04 Damaged, broken, cracked
- 23 Detent action poor
- 02 Distorted, bent
- 62 Excess insulation
- 20 Excessive wear, worn out
- 60 Insulation damage
- 61 Insulation insufficient
- 52 Lead(s) pinched
- 53 Lead placement
- 12 Loose, slippage, not tight
- 45 Noise (mech)
- 03 Restricted, binding, stuck
- 49 Scratched
- 59 Solder-bridge
- 67 Stripped threads
- 64 Too long
- 63 Too short
- 56 Void, hole, pit
- 65 Wrong bend

Electrical

- 01 Arcing
- 48 Burnt, overheated
- 06 Changed value
- 36 Excess current
- 08 Gassy
- 33 High output, gain
- 30 Incorrect count
- 38 Intermittent
- 11 Leakage (elec)
- 32 Linearity poor, tracking

CSO Codes

- 13 Low output, gain
- 66 Marginal
- 22 Microphonic
- 28 Mismatched
- 15 Noise (elec)
- 26 No output, dead
- 16 Open
- 68 Padding required
- 27 Sensitive to freq. change
- 19 Sensitive to high temp.
- 21 Sensitive to humidity
- 25 Sensitive to low temp.
- 42 Sensitive to voltage change
- 18 Shorted
- 24 Spurious output
- 31 Unstable, drifts

Miscellaneous

- 40 Bad solder joint
- 07 Corroded
- 55 Defective from stock
- 46 Design error
- 44 Dirty, contaminated, unclean
- 47 Documentation error
- 50 Extra material
- 05 Fungus
- 10 Incorrect part
- 37 Leakage (liquid or gas)
- 58 Mis-configured
- 41 Mis-marked
- 14 Missing part
- 39 Mis-wired
- 43 Modification
- 29 Not in specs
- 35 No trouble found, problem isolation
- 17 Out of adjustment

CSO Codes

- 34 Reversed part, mis-inserted
- 51 Sharp, burred
- 00 Unknown
- 99 Other, none of the above

Repair Class

- AO Alignment/adjustment only
- AR Associated repair
- CC Cal and cert
- CO Repair-component
- IN Installation
- IR Incomplete repair
- MO Modification only
- NT No trouble found
- OV Overhaul
- PM Preventive maintenance
- UC User-caused problem
- UN Undefined (other)

Product Type

- 00 Allocated
- 01 Instruments
- 02 Systems
- 03 Medical
- 04 Analytical
- 08 Components
- *09 Other
- *10 Parts
- 11 Measurement systems
service

* *Unused for service*

CSO Codes

Miscellaneous Charge Codes

* CALIB	Standard lab calibration
* CONTR	Service agreement
* EMRSP	Special response
# FRGHT	Shipping and handling
# INTEF	Shipping and handling (Canada only)
* LOANR	Service loaner
# NONHP	Sub-contract repair
# PERDM	Per diem
* STDCC	Standard calibration charge
* STREP	Standard repair price
# TRAVL	Travel expense
# ZONEC	Negotiated zone charge

* Standard charges — *FORMAT* must be blank.
FORMAT must be blank, "P", or "C".

Display Messages

Display Messages — Modem

Message and Description	Action to Take
Aborted I/O The I/O Routine was aborted prematurely by the FIREMAN System. Could be caused by: 1. Timeouts resulting from datacomm problems; 2. Parity errors; 3. Invalid number in the header; 4. A bad record separator count; or 5. An invalid block type.	Hang up and dial FIREMAN System again.
Bad data record format Datacomm error or data corruption in terminal memory.	Retransmit. If persists, try replacing modem batteries. If still persists, contact HCETS/FIREMAN support person.
Bad header format Same.	Same.
Call The local I/O edits have been successfully completed and the modem is ready for transmissions.	Dial the FIREMAN System and place the receiver in the modem.
Can't delete This CSO cannot be deleted at this time.	See description of "Cancel" status code in section VI, "CSO Fields," HCETS REFERENCE MANUAL.

Display Messages

Can't modify

The CSO in the FIREMAN data base not assigned to you or is already completed. It can't be modified.

To remove the CSO from the 75C if it is not assigned to you, set the status to CN. When the other CSO is sent to SORDS, HCETS Driver will remove the CSO on the next transmission. If CSO is already completed by you, contact dispatcher and have status lowered to RC.

CE doesn't have a term

"TO" CE named in your general message doesn't have a terminal.

Delete the GMSG.

CSOs full

The 75C terminal doesn't have room to receive the pending CSO.

Edit and transmit old CSOs as quickly as possible. Call dispatcher to get information on pending CSO.

CSO _____ fails edits

This CSO failed the edit checks and was not transmitted or was rejected.

See section IX, "Transmitting by Modem" in the HCETS REFERENCE MANUAL. Correct the errors and retransmit.

Data base error

There is something wrong with the FIREMAN data base.

Contact your FIREMAN support person.

Display Messages

Editing

The local I/O edit checks are being performed on CSOs that are to be transmitted.

None.

Fails edits

CSO failed an edit check during attempt to transmit.

See HCETS REFERENCE MANUAL Section IX, "Transmitting by Modem."

GMSG full

The 75C doesn't have room to receive the pending GMSG.

Delete old messages. (See section VIII.) Dial FIREMAN system again.

Illegal access

The tech number transmitted is not identified in the FIREMAN data base as having a handheld terminal.

Verify the transmitted tech number by looking at the CE field of one of your CSOs. If correct, the data base administrator should set the flag in the FIREMAN data base. If incorrect, you will need to reload and enter the correct tech number.

Invalid block type

Datacomm error or data corruption in terminal.

Retransmit. If persists, reset or replace modem batteries. If still persists, contact HCETS/FIREMAN support person.

Invalid CE password

Could be caused by a noisy phone line (datacomm error). Or else the FIREMAN password you entered

Try again. If the transmission fails with the same error message, then reload using the correct password (or have the password

Display Messages

Invalid CE password (*Continued*)

when loading does not match the password in the FIREMAN data base.

changed in the data base).

Invalid CSO-KEY

CSO from handheld terminal doesn't exist in FIREMAN data base.

Retransmit. If persists, contact HCETS/FIREMAN support person.

Invalid office

In creating a new CSO, you probably made a typo in entering the office number.

Use a valid office #. If that doesn't work, see that your administrator enters a range for this office in the data base.

Invalid status

Datacomm error or data corruption in terminal.

Verify statuses are valid. Correct if not. Retransmit. If persists, contact HCETS/FIREMAN support person.

Invalid tech number

The tech number transmitted was not found in the FIREMAN data base.

Retransmit (could be transmission error). If persists, you will need to reload the software with the correct tech number.

Invalid term type

The terminal type passed to the driver is invalid.

Retransmit. If persists, reloading the software will be necessary.

Loop timeout

There is no response from the modem.

Make sure modem cables are connected properly. If no response, reset battery and try again. If this

Display Messages

Loop timeout (*Continued*)

doesn't work, replace modem batteries.

Modem set up

HCETS is setting up X/OFF X/ON protocol and odd parity for the modem.

Connect HPIL cables to modem and 75C. Wait for "Call" message.

Needs CSO KEY

When the CSO was first transmitted to FIREMAN, HCETS Driver aborted prematurely.

Complete the I/O routine. Then hang up and dial FIREMAN system again.

Non-existent CE

"TO" CE named in general message doesn't exist.

Delete the GMSG or correct the "To" name.

No response

The FIREMAN System did not acknowledge your terminal, so the I/O routine was aborted. Could be caused by:

1. Bad phone connection;
2. Low batteries in modem;
3. Port malfunction;
4. Port/terminal driver not activated;
5. System down.

Dial the FIREMAN System and try again. If this doesn't work, reset or replace modem batteries. If problem persists, call the Operations staff.

Out of sequence

Datacomm error.

Retransmit. If persists, try resetting or replacing modem batteries. If still persists, contact HCETS/FIREMAN support person.

Display Messages

Part count >8

Same.

Same.

Rec'd: CSO __,GM __ Errors: __

This is a summary of the number of errors that have occurred during the last I/O routine, as well as the number of CSOs and GMSGs received.

Scroll through the CSOs with edit errors.

When these have all been looked at, "Restarting" displays.

Received invalid flag — abort

Datacomm error or data corruption in terminal.

Retransmit. If persists, try resetting or replacing modem batteries. If still persists, contact HCETS/FIREMAN support person.

Receiving

Data is being received from FIREMAN and stored in your terminal.

None.

Restarting

The I/O routine has been completed, the CSOs with edit errors have been viewed, and the 75C is being prepared for normal interactive operation.

As soon as customer name displays, scroll through memory for new CSOs and new messages.

Retry

A parity error has been detected and the last block of data is being retransmitted.

None.

Display Messages

Rev _._._ required — abort

The software in the 75C isn't compatible with the terminal driver. This could be caused by: 1. datacomm error or 2. the wrong version of the software.

Dial the FIREMAN system and try again. If the problem persists, you need to reload the software with the newer HCETS version.

Timeout (2,3)

The time allotted for a response from the FIREMAN System during this portion of the I/O routine has been exceeded, and the I/O routine was aborted. Could be caused by: 1. Poor phone connection or 2. Weak batteries in the modem.

Dial the FIREMAN System and try again. If the problem persists, reset or replace the modem batteries and try again.

Transmission error

The integrity of the transmission is questionable, so the the I/O routine has been aborted. Could be caused by: 1. Poor phone connection, or 2. Weak batteries in the modem.

Dial the FIREMAN System and try again. If the problem persists, reset or replace the modem batteries and try again.

Transmitting

Data is being transmitted to the FIREMAN System.

None.

Unexpected EOF on input buffer

Datacomm error or data corruption in terminal.

Retransmit. If persists, try resetting or replacing modem batteries. If still persists, contact HCETS/

Display Messages

Unexpected EOF on input buffer (*Continued*)

FIREMAN support person.

Display Messages — Other

Messages	Description	Action to Take
Can't purge CSO	The DELETE key will only function for general messages.	To remove a CSO, see section VI, "CSO Fields," subsection "Status Keys."
Copying	The customer information of the current CSO is being copied to the CSO with the new ITEM NUMBER.	None.
Delete?	If "YES" is entered, the last GMSG displayed will be deleted.	Enter 'YES' to purge message.
E= on	This is a program error number and the program line number the error occurred on.	Write down these numbers and report them to HCETS/FIREMAN support person. Press any key to restart. If this does not work, try WARM or COOL.
FIREMAN password =>	Prompt that appears while loading HCETS software into the 75C.	Type in your assigned FIREMAN System password.

Display Messages

HCETS _._._

This is the revision level of the HCETS program in the 75C.

None.

Mem full

There isn't enough room in the 75C to receive any CSOs or GMSGs from the FIREMAN System.

Maximum = 9 CSOs and 9 GMSGs. Delete old messages. Edit and transmit completed CSOs.

Mem low

There isn't much room left in the terminal.

Delete old messages. Edit one completed CSO and transmit.

New CSO?

This prompt appears if you press ADD while displaying any CSO.

If you want a new CSO or new CSO Item, then enter 'Y'. If not, then press RTN.

New GMSG?

This prompt appears if you press ADD while displaying any general message.

If you want to create a new general message, enter 'Y'. If not, press RTN.

New item?

This prompt appears if you press ADD and answer 'Y' to the "New CSO?" inquiry.

If you want the CSO created to be a MULTI-ITEM, enter 'Y'. If you want a totally new CSO, press RTN.

No entry

There are no CSOs or general messages present in the 75C.

None.

Display Messages

No more parts allowed

The maximum number of parts allowed in the 75C has been reached. (Maximum = 8 parts for any one CSO; not to total more than 16 parts for all CSOs combined.)

To make room for more parts, edit and transmit as many completed CSOs as possible.

No room

There is no room to add a CSO/GMSG to the 75C.

Delete old messages. Edit and transmit completed CSOs.

Office =>

Prompt that appears when CE is creating a new CSO.

Enter a 4-character OFFICE NUMBER for the new CSO Key.

Tech number =>

Prompt that appears while you are loading.

Enter your tech number.

Xmt new CSO first

This message displays if the CE attempts to create a multi-item CSO from a CSO that was created in the terminal and hasn't received a valid CSO Key.

Transmit the CSO which you created to receive a permanent CSO Key. Then create the multi-item.

75C password =>

You are loading HCETS software, which includes choosing your password.

Choose and type in your personal password for operating your terminal.

Numbered Error Messages

Error Codes	Field to Correct	Description of Error
541	M	TYPE field must be 2 digits 1 alpha; or 2 digits 1 blank.
545	>,p,s,v	MISC. CHARGE FORMAT code must be B, C, or P.
548	E,G	5th character of SERIAL NUMBER is required and should be alpha.
550	O	RECEIVED TIME format is HHMM (HH = 00-23, MM = 00-59).
551	X	START TIME format is HHMM (HH = 00-23, MM = 00-59).
552	Z	FINISHED TIME format is HHMM (HH = 00-23, MM = 00-59).
554	H	Invalid CONTROL NUMBER format. Issue (9th character) must be numeric.
555	H	Invalid CONTROL NUMBER format. Split (10th character) must be alpha or blank.
*576	x	SUPPLYING DIVISION must be blank.
579	d,e,f,n, q,t,w,N, O,W,X, Y,Z	Field must be numeric.
580	d	SOLD HOURS cannot be more than 5 times greater than STANDARD HOURS without an override.
581	d	SOLD HOURS cannot be less than 1/5th of STANDARD HOURS without an override.
582	e	SOLD HOURS cannot be more than 5 times greater than STANDARD HOURS without an override.

* Call dispatcher for assistance, if necessary.

Numbered Error Messages

583	e	SOLD HOURS cannot be less than 1/5th of STANDARD HOURS without an override.
590	F	SYSTEM not found on PRODUCT FILE.
591	>	PRODUCT FILE error.
597	D	REPAIRED UNIT not found on PRODUCT FILE.
612	D	REPAIRED UNIT NUMBER is required.
614	D	REPAIRED UNIT check digit must be numeric or R.
615	F	SERIAL NUMBER check digit must be numeric or R.
617	x	First 2 digits of REPAIR OFFICE cannot equal first 2 digits of SUPPLYING DIV.
618	x	First 2 digits of REPAIR OFFICE must equal first 2 digits of SUPPLYING DIV.
622	f	CE A must have HOUR/AMOUNT, MISC. CHARGE, or PART coded.
625	R	P.O. NUMBER is required.
628	H	CONTROL NUMBER is required for all CONTRACT repair types.
630	I, a	FAULT DESCRIP. and ENGINEER COMMENTS are required.
632	N,W,Y	RECEIVED, START, and FINISHED DATES are required for this repair.
633	W	START DATE must be later than RECEIVED DATE.
634	Y	FINISHED DATE must be later than START DATE.
635	Y	RECEIVED DATE cannot be later than FINISHED DATE.

Numbered Error Messages

636	X	START TIME cannot be earlier than RECEIVED TIME.
637	X	START TIME cannot be later than FINISHED TIME.
638	Z	RECEIVED TIME cannot be later than FINISHED TIME.
639	Y	FINISHED DATE cannot be later than the current date.
645	g	TRAVEL TIME is required.
*647	d	STANDARD TIME cannot be coded.
651	d	STANDARD TIME is required if SOLD TIME or AMOUNT is coded.
654	n,q,t,w	MISC. AMOUNT required if MISC. CHARGE or AMOUNT is coded.
658	n,q,t,w	MISC. AMOUNT cannot be entered unless MISC. DESCRIP. is coded.
659	>,p,s,v	FORMAT CODE cannot be entered unless MISC. DESCRIP. is coded.
660	n,q,t,w	MISC. AMOUNT cannot be over \$2500 without an override.
668	Pts 1-8	No blank lines allowed between parts.
671	Pts 1-8	PART QUANTITY may not be entered unless PART NUMBER is coded.
675	Pts 1-8	CHECK DIGIT is required unless an AMOUNT has been coded.
676	Pts 1-8	1st 2 digits of REPAIR OFFICE must be equal to the first 2 digits of PART OFFICE.
680	Pts 1-8	OFFICE LOC. must be K or T.

* Call dispatcher for assistance, if necessary.

Numbered Error Messages

683	Pts 1-8	PART LOC. is required if a PART OFFICE is entered.
684	Pt 1	No more than two different locations per CE allowed.
688	Pts 1-8	FAIL CODE is required for repair type 02 or 04.
694	Pts 1-8	NEW SERIAL NUMBER is required.
698	Pts 1-8	USE CODE is required.
724	V	ZONE is required.
725	b	REPAIR CLASS is required.
*743	h	WORK-FOR DEPARTMENT is required.
*744	i	WORK-FOR DISCIPLINE is required.
755	b	REPAIR CLASS must be alpha or blank.
800	O	RECEIVED TIME is required.
801	X	START TIME is required.
802	Z	FINISHED TIME is required.
822	Pts 1-8	K cannot be coded without a PART LOCATION.
830	H	CONTROL NUMBER format is 4 office, 4 base, 1 issue, 1 split.
849	Pts 1-8	PART CHECK DIGIT must be numeric.
859	l,o,r,u	CHARGE DESCRIPTION must be alphabetic.
*890	x	SUPPLYING DIVISION is required.
*891	y	PRODUCT TYPE is required.
*892	z	PRODUCT LINE is required.

* Call dispatcher for assistance, if necessary.

CSO Statuses

CSO Statuses

Key	Status	Template	Notes
1	RA-Repair Acknowledged	ACK	
2	IT-In Transit	INTR	
3	OS-On Site	ONST	
4	NC-Repair Not Complete	INCO	
5	RC-Repair Complete	COMP	Purged after transmission
6	RL-Reroute (repair logged)	ROUT	Purged after transmission
7	CN-Cancel CSO	CAN+	Purged after transmission
8	VO-Void CSO	VOID	Purged after transmission

+ Not accepted by FIREMAN until status SS, AW, PF, CL, VO, or OK; or unless created by CE.

CSO Statuses

HCETS Local Edits

When transmitting a CSO at status RL, RA, IT, OS, NC, or RC, the following fields are required:

- Customer Name
- System City
- Repaired Unit
- Unit Serial Number
- Fault Description
- CSO Status
- Repair Type
- Received Date
- Received Time
- Contact
- CSO Key
- Office Number
- CE 'A' Number

If the status is RC, these additional fields are required:

- Zone
- Start Date
- Start Time
- Finished Date
- Finished Time
- CE Comment

For a CSO at status RL or VO, the following fields are required:

- CSO Message
- CSO Status

CSO Data Fields

Customer Data Fields

Field	How Long	Notes
A Customer Name	40	*
B System City	24	*
C System Handle	20	
D Repaired Unit	16	*
E Unit Serial No	10	*
F Repaired System	16	
G System Serial No	10	
H Contract No	12	
I Fault Descrip	62	*
J CSO Message	48	+
K CSO Status	2	* + Protected
L Time In	10	Protected
M Repair Type	3	* 3-digit code required
N Received Date	6	* Numeric only; YYMMDD
O Received Time	4	* Numeric only; HHMM
P Contact	24	*
Q Phone Number	18	
R P.O. Number	24	
S CSO Key	16	* Protected
T Office Number	6	* Numeric only
U CE 'A' Number	8	* Protected
V Zone	2	*

* Required field if status is RA, IT, OS, NC, RC, RL, VO.

+ Required field if status is VO or RL.

CSO Data Fields

CE Information Fields

Standard Repair Details

Field	How Long	Notes
Repair Time Fields		
W Start Date	6	** Numeric only; YYMMDD
X Start Time	4	** Numeric only; HHMM
Y Finished Date	6	**Numeric only; YYMMDD
Z Finished Time	4	** Numeric only; HHMM
Other Standard Repair Details		
a CE Comment	62	** +
b Repair Class	2	Alphabetic only; codes required
c Print Time Meter	8	Numeric only
d Standard Time	4	Numeric only; hrs & tenths
e Overtime	4	Numeric only; hrs & tenths
f Sold time	4	Numeric only; hrs & tenths
g Travel Time	4	Numeric only; hrs & tenths

** Required field if status is RC

+ Required field if status is VO or RL

CSO Data Fields

CE Information Fields

Seldom-Used Repair Details

Field	How Long	Notes
i Work-for Discpl	2	Numeric only
j Safe	4	
k Repeat Visits	2	Numeric only
l Charge Descrip (#1)	5	Alphabetic only; codes required
m (Not available)		
* Format #1	1	Codes required
n Amount	9	Numeric only
o Charge Descrip (#2)	5	Alphabetic only; codes required
p Format (#2)	1	Codes required
q Amount (#2)	9	Numeric only
r Misc. Charge Descrip (#3)	5	Alphabetic only; codes required
s Format (#3)	1	Codes required
t Amount (#3)	9	Numeric only
u Misc. Charge Descrip (#4)	5	Alphabetic only; codes required
v Format (#4)	1	Codes required
w Amount (#4)	9	Numeric only
x Supply Div	4	
y Product Type	2	Numeric only
z Product Line	2	Numeric only

* Indirect access fields.

CSO Data Fields

* Invoice Statement Code	2	Numeric only; codes required
* Item Statement Code	2	Numeric only; codes required
* Work-Done-for Dept	4	Numeric only

CE Information Fields

Parts Fields

Field	How Long	Notes
* Part Number) (P/N)	20	
* Quantity	2	Numeric only
* Office	4	
* T/K (Tech's inventory or kit)	1	T or K
* Location	8	
* Fail Code	2	Codes required
* Defective Serial No	12	
* New Serial No	12	
* Use Code	1	Codes required

* Indirect access fields.

CSO Fields/Keys

C	CE Number	Shift U
	CE Comments	Ctl A
	CSO Key	Shift S
	CSO Message	Shift J
	City	Shift B
	Contact	Shift P
	Contract	Shift H
	Customer	Shift A
D	Defective Serial Number	Part No +
F	Fail Code	Part No +
	Fault	Shift I
	Finished Date	Shift Y
	Finished Time	Shift Z
H	Handle	Shift C
I	Invoice Statement Code	Shift End and Rev
	Item Statement Code	Shift End
L	Location	Part No +
M	Miscellaneous Charge Description 1	Ctl L
	Miscellaneous Format 1	Ctl L and Fwd
	Miscellaneous Amount 1	Ctl N
	Miscellaneous Charge Description 2	Ctl O
	Miscellaneous Format 2	Ctl P
	Miscellaneous Amount 2	Ctl Q
	Miscellaneous Charge Description 3	Ctl R
	Miscellaneous Format 3	Ctl S
	Miscellaneous Amount 3	Ctl T

+ Part Number field is retrieved by Ctl-Fwd or Ctl-Rev. Just Fwd or Rev brings up remaining fields for that part.

CSO Fields/Keys

	Miscellaneous Charge Description 4	Ctl U
	Miscellaneous Format 4	Ctl V
	Miscellaneous Amount 4	Ctl W
N	New Serial Number	Part No +
O	Office	Shift T
	Office	Part No +
	Overtime	Ctl E
P	P.O.	Shift R
	Part Number	Ctl Fwd or Ctl Rev +
	Phone Number	Shift Q
	Print (also used for Service Codes)	Ctl C
	Product Line	Ctl Z
	Product Type	Ctl Y
Q	Quantity	Part No +
R	Received Date	Shift N
	Received Time	Shift O
	Repair Class	Ctl B
	Repair Type	Shift M
	Repeat	Ctl K
S	Safety	Ctl J
	Service Codes (also used for Print)	Ctl C
	Sold Time	Ctl F
	Standard Time	Ctl D
	Start Date	Shift W
	Start Time	Shift X
	Status	Shift K
	Supply Division	Ctl X
	System	Shift F

+ Part Number field is retrieved by Ctl-Fwd or Ctl-Rev. Just Fwd or Rev brings up remaining fields for that part.

CSO Fields/Keys

	System Serial Number	Shift G
T	T/K Time In Travel Time	Part No + Shift L Ctl G
U	Unit Unit Serial Number Use Code	Shift D Shift E Part No +
W	Work-Done-for Department Work-Done-for Discipline	Ctl G and Fwd Ctl I
Z	Zone	Shift V

+ Part Number field is retrieved by Ctl-Fwd or Ctl-Rev. Just Fwd or Rev brings up remaining fields for that part.

75C Control Keys (HCETS)

Function Type	Function	Keys
On/off	On	ON
	Off	SHIFT OFF
	Recovery.....	WARM
	Recovery.....	COOL
Bring up CSO or messages	Messages	MSG
	CSOs	CSO
	Create message.....	ADD
	Create CSO	ADD
Locate CSO or messages	Oldest CSO or	
	message	SHIFT FIRST
	Newest CSO or	
	message	SHIFT LAST
	Earlier CSO or message.....	PREV
Locate field	Later CSO or message	NEXT
	First field	SHIFT BEGIN
	Last field	SHIFT END
	Next field.....	FWD or RTN
	Previous field	REV
Locate parts field	1st part number.....	CTL FWD
	Next part number ...	CTL FWD
	Previous part number	CTL REV
	Next part field	FWD
	Previous part field.....	REV

75C Control Keys (HCETS)

Move cursor	To the right one position CUR ->	
	To the left one position..... CUR<-	
	End of display area CTL CUR ->	
	Start of display area CTL CUR <-	
	Right end of field SHIFT CUR ->	
	Left end of field SHIFT CUR <-	
Data entry and editing tools	Insert character.....INSCH	
	Delete character DELCH	
	Backspace.....BACK	
	Recover overwritten data UNDO	
	Erase field CLR	
Modem	Terminal edits and remote transmissionSHIFT I/O	

Display Messages

Display Messages – Modem

Message and Description Action to Take

ComNet Unavail

The ComNet message file cannot be accessed.

The CSO is removed from terminal and at status UT on FIREMAN.

Is a HOTSITE: H-

The CSO key shown has triggered a hot site.

Follow local procedures for handling the hot site indicated by the hot site code.

No SAM response

Results of SAM edits are not back during this connection.

CSO may be returned at a later connection if CSO fails SAM edits.

Could be caused by:

1. ComNet down
2. SAM down
3. Slow/busy network

CSO Data Fields

CE Information Fields

Parts Fields

Field	How Long	Notes
T/K (Tech's inventory or kit)	1	S, T, O, C, or K

Numbered Error Messages

Error Codes	Field to Correct	Description of Error
461	0	SAM shows unconsumed parts for this CSO.
462	Pts 1-8	PART NUMBER does not exist on PRIME or SAM for local parts file.
463	Pts 1-8	LIST PRICE must be positive and less than \$1,000,000.00.
464	Pts 1-8	Another CE assigned to this CSO on SAM.
465	Pts 1-8	Pool-ID does not exist on SAM data base.
466	Pts 1-8	There are not this many unconsumed parts assigned to this CSO.
467	Pts 1-8	Part quantity must be a positive integer.
468	0	CSO does not exist on SAM data base.
469	Pts 1-8	PART QUANTITY exceeds the quantity assigned to CSO on SAM.
470	0	Can't move part from CSO - Part matches two or more lines on CSO.
471	Pts 1-8	Part is an expense part only—it can't be issued to a CSO.
472	0	REPAIRING OFFICE entered is not tracked on the SAM data base.
473	0	EMPLOYEE NUMBER entered is not found on ESS data base.
474	0	PRIME data base cannot be opened by SAM.
475	Pts 1-8	Part owning office is not in this region.

Numbered Error Messages

- | | | |
|-----|---------|--|
| 478 | 0 | This CSO has been made unavailable for additional parts activity. |
| 479 | 0 | Repairing office must match transaction office. |
| 480 | Pts 1-8 | There is not enough of the part in this pool for this transaction. |
| 481 | Pts 1-8 | This part has been SIS Validated and can't be changed. |
| 482 | 0 | CSO not complete—there are outstanding orders or requests. |
| 483 | Pts 1-8 | There are not enough orders to satisfy the quantity specified. |
| 669 | Pts 1-8 | PART NUMBER not found on PRIME. |
| 680 | Pts 1-8 | 5th character of OFFICE LOCATION must be S, T, O, C, or K. |
| 698 | Pts 1-8 | USE CODE must be Y, N, or U. |
| 823 | Pts 1-8 | "C" cannot be coded without an OFFICE and LOCATION. |



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