Smooth Operator Configuration Note

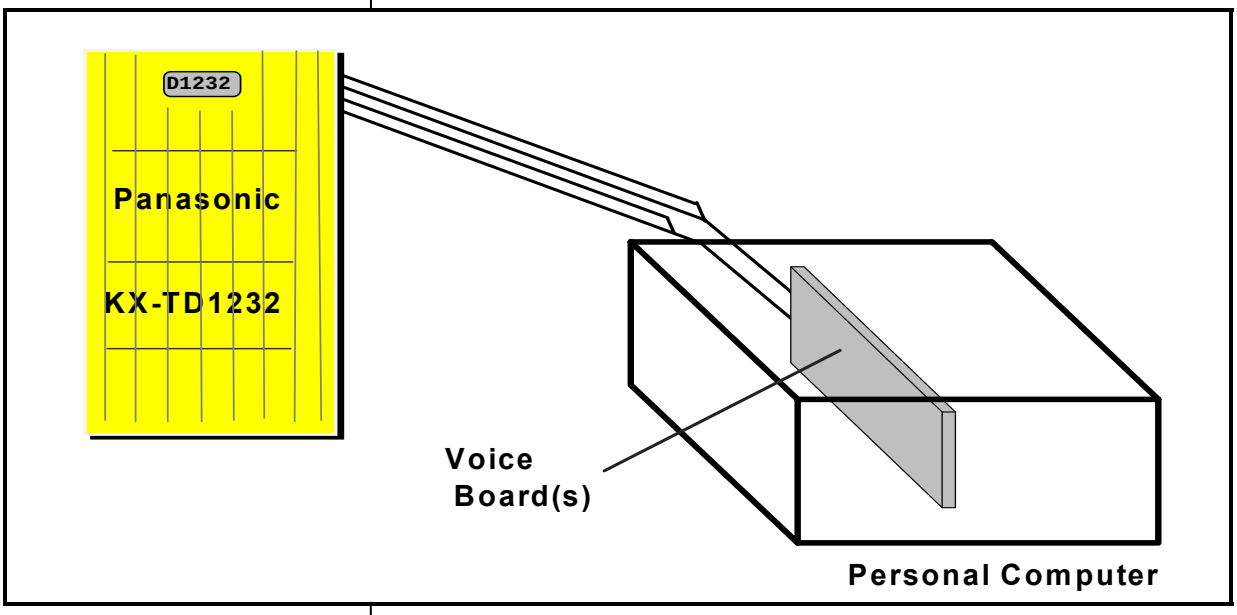
For Smooth Operator Family of Products

Octel
Voice
Processing
Module

Configuration Note 77208

Panasonic Digital Super Hybrid System KX-TD1232*

Revised 9/17/97



Inband signaling is used for integration

1.0 METHOD OF INTEGRATION

Inband. The Smooth Operator family of products can achieve call forward to personal greeting by DTMF signals passed from the Panasonic Digital Super Hybrid System KX-TD1232* with the call. Message waiting indicators are set and canceled by dialing a DTMF feature access code prefix and the subscriber's extension. A hookflash followed by the extension transfers the caller to the operator.

All references to Smooth Operator pertain to the entire family of products

2.0 SMOOTH OPERATOR ORDERING INFORMATION

There are many options available for both kit and turnkey versions of these products, depending on the application. Please consult with your sales representative.

Disclaimer: Configuration Notes are designed to be a general guide reflecting Octel's experience configuring its systems. These notes cannot anticipate every configuration possibility given the inherent variations in all hardware and software products. Please understand that you may experience a problem not detailed in a Configuration Note. If so, please notify Sales Engineering at (408)324-3066, and if appropriate we will include it in our next revision. Octel accepts no responsibility for errors or omissions contained herein.

3.0 PBX HARDWARE REQUIREMENTS

PBX Hardware Requirements

Presently we support Panasonic Digital Super Hybrid KX-TD1232BX/C/NZ/X. The suffix defines system power and a difference in bundling of default settings.

- One Panasonic KX-TD1232 Digital 1232 analog port per Smooth Operator port
- One RJ-14 jack with 4-conductor line cord for every two Smooth Operator ports
- One analog line for remote service access
- One RJ-11 Jack for above and 2-conductor modular telephone cord.
- If FaxMail is installed.
  - One Panasonic KX-TD1232 Digital 1232 analog port per FAX port.
  - One RJ-11 Jack for every Brooktrout TR-112 fax port OR one RJ-14 Jack for every two Brooktrout TR-114 fax ports, along with 4-conductor modular telephone cord

3.1 PBX SOFTWARE REQUIREMENTS

PBX software requirements

- P011V40722D

4.0 SUPPORTED FEATURES

Supported integration features

[✓] Items are supported

System Forward to Personal Greeting		**Message Waiting**	
All Calls	[ ]	LCD Display	[ ]
Ring/no answer	[✓]	LED	[✓]
Busy	[ ]	Lamp	[ ]
Busy/No Answer	[ ]	Audible / Stutter Dial Tone	[✓]
Do Not Disturb	[ ]	**Multiple Return to Operator**	[✓]
Station Forward to Personal Greeting		**Direct Call** [1]	[✓]
All Calls	[✓]	**Auto Attendant**	[✓]
Ring/no answer	[✓]	**Outcalling**	[✓]
Busy	[✓]	**Personal Greeting of Original-Called Party**	
Busy/No Answer	[✓]	Multiple Call Forward	[ ]
Do Not Disturb	[ ]	Double Call Forward	[ ]
Flexible Forwarding		Call Coverage	[ ]
Forward to No Answer Greeting	[ ]	**Intercom Paging**	[ ]
Forward to Busy Greeting	[ ]	**Supervised Transfers**	
Intercom/CO Forwarding	[ ]	Call Screening	[✓]
		Call Queuing	[✓]
		Intercom Paging	[✓]
Note:* [1] *See Section 7.2		**Record Telephone Conversation**	[ ]

4.1 DISCONNECT TYPE

Disconnect is achieved by a hangup string sent from the switch. For proper external disconnect supervision, Ground start trunks or Supervised loop start CO lines are recommended.

5.0 CONFIGURING THE PANASONIC KX-TD1232 DIGITAL 1232

Configuring the Panasonic KX-TD1232 Digital 1232

Connections - There are only two DTMF receivers per extension module; therefore, only two Smooth Operator ports can be attached to each module. The basic system has two extension modules, eight jacks per extension module. Each jack has tip/ring for an analog phone, D1/D2 for a proprietary digital phone and P1/P2 for phones using Off hook Call Announce.

- Basic 8x16 system = Four Smooth Operator ports.
- Basic 8x16 system with two Extension Expansion modules = Eight Smooth Operator ports.
- Basic 8x16 system with two Extension Expansion modules plus a Slave 8x16 system with two Extension Expansion modules = sixteen System ports. This is the MAX limit for the Digital PBX.

All references to Smooth Operator pertain to the entire family of products

Programming - Switch programming can be performed through either a computer or a proprietary digital phone.

We recommend using the Panasonic Digital Super Hybrid System Operation and Maintenance tool ver2.27, a DOS based program, which offers the ability to use a Lap-top or on-site computer for programming. Our testing was done using this program. The same program and Remote Card KX-TD196 allow for off-site programming.

Programming can also be done through a proprietary digital phone, such as the KX-T7230, by entering a three digit program address, changing the contents and storing the new data. Soft keys are available as aids in programming. Refer to section 4, System Programming, of the Panasonic Digital Super Hybrid System KX-TD1232 Installation Manual for information on entering, saving, and exiting database programming. Before you begin, we recommend that a hard copy of the customer database be completed using Panasonic KX-TD1232 Digital 1232 programming records to verify existing programming.

From a Digital phone connected to Jack 01 (or any Jack programmed as a Manager phone) press Program.

Display: **Program**
Enter *# plus System Password **[*#1234].**
Display: **SYS-PGM NO? ->**

Note: The following programming instructions assume that at system startup the default settings are used. If problems with intermittent integration persist, then compare the following with site requirements. Brackets [ ] indicate programming address. Whenever possible, a portion of the database printout is included to make programming clearer. Not all administrative possibilities are shown. The scope of this document does not include discussing all features and their interactions.

Programming the Panasonic KX-TD1232 Digital 1232 for integration with Smooth Operator is divided into six sub-areas:

5.1 Programming VM Status and VM Commands Set parameters
5.2 Option Programming
5.3 Timer Programming
5.4 CO Line Programming
5.5 COS Programming
5.6 Extension Programming

Programming VM Status and VM Commands Set parameters

5.1 PROGRAMMING VM STATUS AND VM COMMANDS SET PARAMETERS

Program [113] VM Status DTMF Set**.**
Assigns the DTMF signals sent by the Panasonic KX-TD1232 Digital 1232 that indicate status of a call during transfer and disconnect. Smooth Operator monitors call progress by listening to tones and does not need these signals for transfers. The DTMF signals for disconnect are required by Smooth Operator. Program the VM status DTMF set as follows:

All references to Smooth Operator pertain to the entire family of products

Display: **SYS-PGM NO? ->**
Enter **[113]** Display: **VM Status Set**
Press **NEXT** Display: **RBT :1**
Press **CLEAR**
Voice Mail
Extension Status

Ringback Tone	[ ]
Busy Tone	[ ]
Reorder Tone	[ ]
DND Tone	[ ]
Extension Answer	[ ]
Extension Disconnect	**[#9#]**
Confirmation Tone	[ ]
FWD to VM Ringback Tone	[ ]
FWD to VM Busy Tone	[ ]
FWD to Extension Ringback Tone	[ ]

When changes are complete Press **STORE.**
To continue with the next entry Press **NEXT.**
To continue with the next area Press **END.**
To continue with the next area Press **NEXT.**
Display: **VM Command Set**
Press **NEXT** Display: **LV-MSG:H**

Program [114] VM Commands DTMF Set
Assigns the DTMF signals sent to Smooth Operator when a station is forwarded to voice mail or when a subscriber presses his MSG key or dials 'Message waiting callback code' [702]. Delete the value for AAS-SVC.

Mail Command

Leave Message	**[H]**
Get Message	**[*H]**
AA Service	[Blank]
VM Service	**[#6]**

When changes are complete Press **STORE.**
To continue with the next entry Press **NEXT.**
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

5.2 OPTION PROGRAMMING

Option Programming

System Additional Information are system-wide characteristics that have no association with any specific line or set. There are four areas (01 to 04) of 16 bits.

Display: **SYS-PGM NO? ->**
Enter **[990]** Display : **System Add Inf.**
Press NEXT Display: **Area NO? ->**
Enter **[01]**

Program [990] System Additional Information [01] for Area 1 (SYS1)

Bit - 1 Sound Source during transfer.
Default is 1 for Music On Hold. Set this value to 0 to avoid complaints that the System hangs up on a Caller when there is no music source.

All references to Smooth Operator pertain to the entire family of products

Bit - 2 Result of pressing the hookswitch lightly and then placing down the handset (during a CO line call; standard telephones onl**y).**
Do not change from default (0) for Consultation Hold. If value is 1, Smooth Operator will hang up on a CO line Caller during transfer.

Bit - 9 Result of pressing the hookswitch lightly (standard telephones only).
Do not change from default (0) for Consultation Hold. If value is 1, Smooth Operator will hang up on a Caller during transfer.

Bit - 10 Sets the duration of the DTMF signals sent to the Smooth Operator ports.
Do not change from default (0) for 80 milliseconds. A 1 will set the duration to 160 milliseconds.

Bit - 11, 12 Sets the time the system waits before sending DTMF signals (such as a mailbox number to The System after it answers a call).
Default is 10, for 1.5 seconds. Change this value to 00 for .5 seconds.
Other values available are 01 for 1.0 Seconds and 11 for 2.0 seconds.

Bit - 13, 14 Sets the time the system waits before sending DTMF signals (programmed in [program 113]) to The System after it calls an extension.
Default is 10, for 1.5 seconds. Change this value to 00 for .5 seconds. We rely on this value to send disconnect signaling when a station hangs up.
Other values available are 01 for 1.0 Seconds and 11 for 2.0 seconds.

Bit - 15 Assigns whether the system turns off the Message Waiting Indicator or The System does when the user hears a message recorded in a mailbox.
Default is 0 for system. Change from default to 1 to allow Smooth Operator to turn off indicators. Direct call is available when there are unheard

messages. The indicator will not turn off if a subscriber exits from his mailbox before listening to all messages.

Bit - 16 Assigns whether or not the system starts the Automated Attendant Service if a CO call is directed to Smooth Operator by Call Forwarding or Intercept Routing.
Do not change from default (0), for do not start. Changing from default to 1 will transmit to the Smooth Operator port the "AA-SVC" code programmed in program [114] and the Follow On ID function does not work.

FNC	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SYS1	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	1	1	0	0	0	0	**0**	**0**

When changes to this section are complete Press **STORE.**
To continue with the next area Press **SELECT.**
Display: Area NO? ->
Enter **[02]**

All references to Smooth Operator pertain to the entire family of products

Program [990] System Additional Information [02] for Area 2 (SYS2)

Bit - 1 Call Transfer, Unscreened - to Extension.
Do not change from default (0) for extension. If Smooth Operator does an unsupervised transfer to an Extension the call will recall the System and the Caller will be treated as a new caller when the number of rings reaches the Recall time-out value. If the value is 1 then the same call will ring at the attendant station.

Bit - 8 Assigns if an extension's mailbox number is substituted by the extension number or it is programmable (free).
Do not change from default (0), for extension number. If a call is forwarded or rerouted to the Smooth Operator the mailbox number is automatically transmitted. If 1 (free) is entered then assign the number in program [609] 'Voice Mail Access Codes' for all Extensions used.

Bit - 14 Selects intercom dial Tone Frequency.
Default is 0 (normal, 350 + 440Hz) for KX-TD1232BX/C/NZ and 1 (distinctive, 620Hz) for KX-TD1232HK/X. Should be 0 or the System will encounter problems when outcalling. *Refer to section 7.0 Considerations/Alternatives if there is a problem with this value.*

FNC	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SYS2	1	1	**1**	0	0	1	0	0	**0**	0	1	0	1	1	0	**0**

When changes to this section are complete Press **STORE.**
To continue with the next area Press **SELECT.**
Display: **Area NO? ->**
Enter **[04]**

Program [990] System Additional Information [04] for Area 4 (SYS4)

Bit - 9 Prohibits or allows a call originated by an Auto Attendant port to another AA port.
On '**X**' series software; do not change from default (0), for prohibit. Calls to the Smooth Operator should not be routed as an Auto Attendant call as they will receive the wrong greeting.

Note: On '**Y**' series software, **Bit 9** should be set to **1** or calls to a busy extension may not forward to Voice Mail. Also, calls to a truly busy extension may be seen as ring no answer.

FNC	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SYS4	1	1	1	1	1	1	1	**0**	0	0	0	0	0	0	0	0

When changes to this section are complete Press **STORE.**
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

5.3 TIMER PROGRAMMING

Timer Programming

Provide timers to control various features or functions.

Refer to section 7.6 Supervised Transfer, Call Queuing and Paging when determining these values.

Program [202] Call Forwarding - No Answer Time
Sets the number of rings for the Call Forwarding - No Answer feature. If a call is not answered before the programmed number of rings, the call is forwarded to the destination.

Display: **SYS-PGM NO? ->**
Enter **[202]** Display : **No Answer Time**
Press **NEXT** Display: **Time : 3 rings**
Press **CLEAR then new number of rings**.
Press **STORE**
Press **NEXT** Display : **Intercept time**

Program [203] Intercept Time
Sets the number of rings for the Intercept Routing - No Answer feature. If a call is not answered before the programmed number of rings, the call is redirected to the programmed station.

Press **NEXT** Display: **Time : 12 rings**
Press **CLEAR then new number of rings**. *Set to the Same value as Call Forwarding - No Answer Time.*
Press **STORE**
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

5.4 CO LINE PROGRAMMING

CO Line Programming

CO Line Programming assigns characteristics that are associated with a specific CO line.

Display: **SYS-PGM NO? ->**
Enter **[407]** Display : **DIL 1:1 Asn Day**
Press **NEXT** Display: **CO Line NO?->**
*To Assign all CO lines to one selection, Press the * key.*
Enter **[01]** Display : **CO01:DIsable**
Press **CLEAR** then enter the extension number.

Program [407] CO Line 1 : 1 Extension - Day Assignment
When the Smooth Operator is used as the primary answer point, assign the first member of the voice mail hunt group.

Press **STORE**
To continue with another line Press **NEXT.**
Repeat until all lines that require a changed have been programmed.
To continue with the next area Press **END.**

Display: **SYS-PGM NO? ->**
Enter **[408]** Display: **DIL 1:1 Asn Nite**
Press **NEXT** Display: **CO Line NO?->**
*To Assign all CO lines to one selection, Press the * key.*
Enter **[01]** Display : **CO01:DIsable**
Press **CLEAR** then enter the extension number.

All references to Smooth Operator pertain to the entire family of products

Program [408] CO Line 1 : 1 Extension - Night Assignment
When the Smooth Operator is used as the primary answer point, assign the first member of the voice mail hunt group.

Press **STORE**
To continue with another line Press **NEXT.**
Repeat until all lines that require a changed have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

CO Line Setting

CO No	CO	TRG	DIAL	DTMF	PPS	CID	CPC Detection Mode	CPC Detection Out	DIL 1:1 EXT No Day	DIL 1:1 EXT No Night
01	Y	[2]	D	160	20	N	400ms	Enable	EXT**[202]**	EXT**[202]**
02	Y	[2]	D	160	20	N	400ms	Enable	EXT[101]	EXT**[202]**
02	Y	[2]	D	160	20	N	400ms	Enable	EXT[101]	EXT[107]

CO LINE GROUP PROGRAMMING

CO Line Group Programming assigns characteristics that are associated with a specific CO Line Group.

Display: **SYS-PGM NO? ->**
Enter **[409]** Display : **TRG Intercpt Day**
Press **NEXT** Display: **TRK GRP NO?->**
*To Assign all CO line Groups to one selection, Press the * key.*
Enter **[1]** Display : **TRG1:DIsable**
Press **CLEAR** then enter the extension number.

Program [409] CO Line Group Intercept Extension - Day Assignment
Smooth Operator used as the Intercept answer point will insure that CO line calls, that go unanswered when encountering a hunt group or a forwarding that was not to voice mail, are answered with a personal greeting. Assign the first member of the voice mail hunt group as the intercept extension.

Press **STORE**
To continue with another line Group Press **NEXT.**
Repeat until all line Groups that require a changed have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Enter **[410]** Display: **TRG Intercpt Night**
Press **NEXT** Display: **TRK GRP NO?->**
*To Assign all CO line Groups to one selection, Press the * key.*
Enter **[1]** Display : **TRG1:Disable**
Press **CLEAR** then enter the extension number.

Program [410] CO Line Group Intercept Extension - Night Assignment
Assign the first member of the voice mail hunt group as the intercept extension for the same reason as for the day assignment.

Press **STORE**
To continue with another line Group Press **NEXT.**
Repeat until all line Groups that require a changed have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

CO Line Groups (TRG)

T R G	Intercept EXT No Day	Night	Flash Time (msec)	Pause Time (sec)	DSC Time (sec)	PBX Access 1 2 3 4
1	EXT**[202]**	EXT**[202]**	600	1.5	1.5	[ ][ ][ ][ ]
2	EXT**[202]**	EXT**[202]**	600	1.5	1.5	[ ][ ][ ][ ]

5.5 COS PROGRAMMING

COS Programming

Select a COS for use with the Smooth Operator ports. Eight Class Of Services are available and other extensions may share them without disrupting Smooth Operator functionality.

Display: **SYS-PGM NO? ->**
Enter **[502]** Display: **CO Durat. Limit**
Press **NEXT** Display: **COS NO?->**
*To Assign all COS numbers to one selection, Press the * key.*
Enter **[n]** Display: **COSn:Disable**
where n = COS chosen for Smooth Operator
Press **SELECT** until desired selection is displayed.

All references to Smooth Operator pertain to the entire family of products

Program [502] Extension - to - CO Line Call Duration Limit.
The COS for Smooth Operator should not have a duration limit. Otherwise, Message delivery , FaxMail and Subscribers at remote locations may encounter premature disconnects. Select **Disable** for COS assigned to the Smooth Operator ports.

Press **STORE**
To continue with another COS Press **SELECT** enter the next COS to change.
Repeat until all COS that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

Enter **[507]** Display: **CO Durat. Limit**
Press **NEXT** Display: **COS NO?->**
*To Assign all COS numbers to one selection, Press the * key.*
Enter **[n]** Display: **COSn:Disable**
where n = COS chosen for Smooth Operator
Press **SELECT** until Disable is again displayed.

Program [507] Do Not Disturb Override.
Enables the Smooth Operator to override a station that has programmed Do Not Disturb at their extension.

All references to Smooth Operator pertain to the entire family of products

Caution should be used when using this function. Refer to Section 7.7, Do Not Disturb Override and Call Waiting Code Parameters, when determining this values.

Press **STORE**
To continue with another COS Press **SELECT**, enter next COS to change.
Repeat until all COS that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**

Class of Service

COS	TRS-Level Day	Night	Durat Limit	TRNSF to CO	Call FWD to CO	Busy OVRID	Busy OVRID Deny	DND OVRID	Account Code
8	[1]	[1]	**Disable**	Disable	Disable	Disable	Disable	**Disable**	Option

5.6 EXTENSION PROGRAMMING

Extension Programming

Extension Programming assigns characteristics that are associated with a specific Jack or Jack extension.

Display: **SYS-PGM NO? ->**
Enter **[106]** Display: **Call Hunting**
Press **NEXT** Display: **EXT GRP NO ->**
Enter extension group number for Smooth Operator.
Display: Groupx: Disabled *x = the Smooth Operator group number*
Press **SELECT until V is displayed.**

Program [106] Station Hunting Type.

Used to enable or disable hunting and set the station Hunting type for each extension group. Assign next available Extension Group as Voice Mail. Do not attempt to assign Automated Attendant. All Smooth Operator ports should be in the Same group.

Call Hunting => EXG No. =	1	2	3	4	5	6	7	**8**
	D	C	D	C	D	D	D	**V**

D = Extension Group Disabled T = EXG Terminate
C = EXG Circular V = EXG Voice Mail
A = EXG Automated Attendant
When changes to this section are complete Press **STORE.**

To continue with the next area Press **END.**

Display: **SYS-PGM NO? ->**
Enter **[003]** Display: **EXT Number Set**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** where xx = a jack chosen for Smooth Operator port.
Display: **#xx-1:ext1xx**

Two extension's numbers can be assigned per jack. If XDP is disabled for the jack in program [600] "EXtra Device Port," the extension number of the second port (xx-2) is not available.

Press **NEXT** if XDP is enabled. Display: **#xx-2:ext2xx**
Press **CLEAR** then enter the extension number.

Program [003] Extension Number Set.
Customer requirements may require that extensions used for voice mail be different then the default.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **Ext Name Set**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** Display: **#xx-1:Not Stored**
where xx = a jack chosen for Smooth Operator port.
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:ext2xx**
Press **CLEAR** then Enter a Name.

All references to Smooth Operator pertain to the entire family of products

Program [004] Extension Name Set
VoiceMailX, may be assigned as a name for the Smooth Operator ports. X is the position of the port in the hunt group.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Enter **[600]** Display: **XDP Assign**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: #xx-1:Disable
Press SELECT until desired selection is displayed.

Program [600] EXtra Device Port
The Panasonic KX-TD1232 has eight jacks per extension module. Each jack has Tip/Ring for an analog phone, D1/D2 for a proprietary digital phone and P1/P2 for phones using Off hook Call Announce. If EXtra Device Port is Disabled, then Tip/Ring and D1/D2 have the same extension number. Enabling EXtra Device Port causes Tip/Ring and D1/D2 to each be assigned their own extension.

If Smooth Operator or fax ports will share the Jack with a proprietary digital phone then **Enable** EXtra Device Port.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Enter **[602]** Display: **EXT Group Asn**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator* port.
Display: **#xx-1:EXG1**
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:EXG1**
Enter extension group chosen for Smooth Operator.

Program [602] Extension Group Assignment
Assign the Extension Group defined in Program [106] Station Hunting Type.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **DIL 1: N Asn Day**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port*.
Display: **#xx-1:TG1:Immdt**
Press NEXT if XDP is enabled. Display: #xx-2:TG1:Immdt
Press **SELECT** until the desired selection is displayed

All references to Smooth Operator pertain to the entire family of products

Program [603] DIL 1:N Extension and Delayed Ringing - Day
Assign the Extensions and notification method for each CO Line Group in day mode. This method is not used. Set all groups for all Smooth Operator ports to NO RNG.

Section selections are:

[Disable] No incoming Call **[Immdt]** rings immediately
[1RNG] 1 ring delay [**2RNG]** 2 ring delay
[3RNG] 3 ring delay [6RNG] 6 ring delay
[**NO RNG]** No Ring indicator flashes

Caution should be used when using this function. Refer to Section 7.8 DIL 1:N Extension and Delayed Ringing - Day / Night when determining this selection.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **DIL 1: N Asn Night**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator* port.
Display: **#xx-1:TG1:Immdt**
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:TG1:Immdt**
Press SELECT until the desired selection is displayed

Program [604] DIL 1:N Extension and Delayed Ringing - Night
Assign the Extensions and notification method for each CO Line Group in day mode. This method is not used. Set all groups for all Smooth Operator ports to **NO RNG.**

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **CO Out Day**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: #xx-1:CO01:Enabl
Press NEXT if XDP is enabled. Display: #xx-2:CO01:Enabl
Press SELECT until the desired selection is displayed

Program [605] Outgoing Permitted CO Line Assignment - Day
Assign the CO Lines that can be used for outgoing CO calls. Set all lines for all Smooth Operator ports to **Enabl.** The Smooth Operator functions of message delivery, FAX retrieval, and beeper calls require access to a CO line.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **CO Out Night**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: **#xx-1:CO01:**Enabl
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:CO01:Enabl**
Press **SELECT** until the desired selection is displayed

All references to Smooth Operator pertain to the entire family of products

Program [606] Outgoing Permitted CO Line Assignment - Night
Assign the CO Lines that can be used for outgoing CO calls. Set all lines for all Smooth Operator ports to **Enabl.**

Press **STORE**
To continue with another Jack Press **SELECT**, enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **Doorphone in Day**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: **#xx-1:1234**
Press NEXT if XDP is enabled. Display: #xx-2:1234
Press **CLEAR**

Program [607] Doorphone Ringing Assignment Day
For Security purposes do not let the Doorphone Ring at Smooth Operator

ports. Doorphones only ring at the extension programmed and can not forward or hunt. **Clear** for all Smooth Operator ports.

Press **STORE**
To continue with another Jack Press **SELECT**, enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Press **NEXT** Display: **Doorphone in Night**
Press **NEXT** Display: **Jack NO?->**
Enter [xx] where xx = a jack chosen for Smooth Operator port.
Display: #xx-1:1234
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:1234**
Press **CLEAR**

Program [608] Doorphone Ringing Assignment Night
For Security purposes do not let the Doorphones Ring at Smooth Operator ports. Doorphones only ring at the extension programmed and can not forward or hunt. Clear for all Smooth Operator ports.

Press **STORE**
To continue with another Jack Press **SELECT** and enter the next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**

Jack	EXT	Name	X D P	E X G	Doorphone Day 1	2	3	4	Night 1	2	3	4
02-1	[102]	[System MGR]	Y	[2]	N	N	N	N	N	N	N	N
02-2	**[202]**	**[VoiceMail1]**	**-**	**[8]**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
04-1	**[104]**	**[VoiceMail2]**		**[8]**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
04-2	[204]	[ ]	-	[8]	N	N	N	N	N	N	N	N

Display: **SYS-PGM NO? ->**
Enter **[601]** Display: **COS Assign**
Press **NEXT** Display: **Jack NO?->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: **#xx-1:COS1**
Press NEXT if XDP is enabled. Display: #xx-2:COS1
Press **CLEAR enter new COS**

All references to Smooth Operator pertain to the entire family of products

Program [601] Class Of Service.
Assign the COS defined in Program COS Programming.

Press **STORE**
To continue with another Jack Press **SELECT,** enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: **SYS-PGM NO? ->**
Enter **[609]** Display: Mailbox ID Code
Press **NEXT** Display: **Jack NO?->**

Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: **#xx-1:1234**
Press **NEXT** *if XDP is enabled.* Display: **#xx-2:Not Stored**
If there are codes present Press **CLEAR**

Program [609] Voice Mail Access Codes.
Voice mail Access Code requires Program 990 System Additional Information Area 4, be programmed as a 1. We do not use Voice Mail Access Codes.

Press **STORE**
To continue with another Jack Press **SELECT**, enter next Jack to change.
Repeat until all Jacks that require a change have been programmed.
To continue with the next area Press **END.**
Display: SYS-PGM **NO? ->**

Station Setting 2

Jack	COS	Mailbox ID
02-1	[1]	[ ]
02-2	**[8]**	**[ ]**
04-1	**[8]**	**[ ]**
04-2	[8]	[ ]

Display: **SYS-PGM NO? ->**
Enter **[005]** Display : **Flexible Key Asn**
Press NEXT Display: **Jack NO? ->**
Enter **[xx]** *where xx = a jack chosen for Smooth Operator port.*
Display: **PT - PGM MODE**
Press a CO button to be Changed.
Display shows the contents pre-assigned to the button.
Display : **CO - 01**
Enter Button Code (Plus parameter)

All references to Smooth Operator pertain to the entire family of products

Program [005] Flexible CO Button Assignment.
Assigns the use of the flexible CO buttons on proprietary telephones. Some phones may not have a Message Key; you assign a another key as a Message button. Some phones may not have a Do Not Disturb / Forward button; assign a key as Do - Not - Disturb / Forward. On each Operator digital phone assign a Voice Mail Transfer button.

Button Codes (Plus parameter, if required):

Button Code [3] Message Wait
Button Code [4] Do - Not - Disturb / Forward
Button Code [8] Voice Mail Transfer plus Voice Mail Extension

When changes to the first button are complete Press **STORE.**
To continue with another key Press the **next CO button to be Changed.**
To continue with the next Jack Press **Select.**
Display: **Jack NO? ->**
Enter **[Next Jack Number]** Display: **PT - PGM MODE**
Repeat until all stations that require button changed have been programmed.
To continue with the next area Press END.
Display: **SYS-PGM NO? ->**

System Programming

6.0 SMOOTH OPERATOR PROGRAMMING

During the install process CONFIGUR.EXE and INTEGRAT.EXE are run to enable proper Smooth Operator functionality.

Run the Integrator program and choose the Panasonic KX-TD1232 Digital 1232. The Integrator will place appropriate feature codes into the Smooth Operator Setup. The integrator should insert the following codes.

The integrator inserts the following codes with three digit extensions assumed. Adjust to match site requirements.

Outside Line Access Code	**9,**
Off Hook Delay (OFFHDLY)	**50**
Hook Flash Interval (FLINTVL)	**50**
DTMF Tone Length (TONELEN)	**8**
Intercom Paging Parameters	
Intercom Paging Code	**&,C3320NR**
Release Code for Intercom Paging	**&**
Message Waiting Parameters	
Permit Message Waiting Lights	**Enable**
Message Waiting Light Prefix ON	**701**
Message Waiting Light Prefix OFF	**700**
Hangup Detection Parameters	
Hangup String (HANGUPSTR)	**#9#**
Hangup String Timeout (HANGUPDLY)	**50**
Inband Parameters	
Total Number of DID Digits	**5**
DID Terminating Character	▒ *(Space)*
Location of Inband Signaling Code	**1**
Seconds to Wait for First Digit	**1**
Millisecs to Wait for Next Digit	**500**
Code for Go to Voice Mail	**#6**
Start at End of String for Go to Voice Mail	**Enable**
Location of Mailbox Number for Go to Voice Mail	**3**
Code for Immediate Subscriber Login to Mailbox	*****
Start at End of String for Immediate Login	**Enable**
Location of Mailbox Number for Immediate Login	**3**
Start at End of String for Default Code	**Enable**
Location of Mailbox Number for Default Code	**3**

Note: Verify these dialing sequences for your PBX

6.1 SUPERVISED TRANSFERS - CALL ANALYSIS

Analysis Consideration Before Running Call

During the system installation the Call Analysis program will be run. This program can also be run from DOS at any time Smooth Operator is not running by typing CCA at a \CVR prompt. The purpose of Call Analysis is to analyze the various tones and cadences returned by the switch during a supervised transfer, thus enabling the Smooth Operator to monitor call progress. Usually Call Analysis may be run without setting any special parameters

1. Target extension should have all forwarding functions removed and should not be assigned an active Hunt group number.
2. Run Call Analysis in automatic mode.

7.0 CONSIDERATIONS / ALTERNATIVES

Important Notes Concerning This Integration

The following items should be considered, below:

- ☐ Call Forwarding Required for Unsupervised Transfers to Busy
- ☐ Direct Call only when Message Waiting Active
- ☐ Extension and Port Wiring
- ☐ Intercom Dial Tone Frequency
- ☐ Station Hunting
- ☐ Supervised Transfer, Call Queuing and Paging
- ☐ Do Not Disturb override and Call Waiting Code Parameters
- ☐ DIL 1:N Extension and Delayed Ringing - Day/Night

7.1 CALL FORWARDING REQUIRED FOR UNSUPERVISED TRANSFERS TO BUSY

Call Forwarding Required for Unsupervised transfers to busy

The Panasonic KX-TD1232 Digital 1232 does not support unsupervised transfers to busy stations without call forward programming. Calls will return to Smooth Operator main menu as new calls. Ensure that all applicable extensions have call forwarding programmed, including all extensions configured as personal operators.

7.2 DIRECT CALL ONLY WHEN MESSAGE WAITING ACTIVE

Direct Call only when Message waiting active

Direct Call is available whenever the message waiting indicator is active. If there are no waiting messages, Direct Call does not function on the switch. Therefore subscribers must be instructed to call voice mail and, during the main greeting, enter **# and their extension number,** unless they have a waiting message, when they can call directly.

7.3 EXTENSION AND PORT WIRING

Extension and Port Wiring

There are eight jacks per extension module. Each jack has Tip/Ring for an analog phone, D1/D2 for a proprietary digital phone and P1/P2 for phones

using Off hook Call Announce. If EXtra Device Port is Disabled then Tip/Ring and D1/D2 are treated as the same extension. Enabling EXtra Device Port Tip/Ring and D1/D2 are each assigned their own extension. When programming an extension for a Jack, the Digital line is considered first and the Standard Telephone device second. The Jack wiring has the Standard Telephone first and the Digital line second. Care must be given when wiring on the main frame and Smooth Operator or Fax lines are sharing Jack wiring with digital phones.

7.4 INTERCOM DIAL TONE FREQUENCY

Intercom Dial Tone Frequency

Program [990] System Additional Information [02] for Area 2 (SYS2) Bit - 14 Selects intercom dial Tone Frequency. If it must be a 1 then in SETUP for the Smooth Operator set Outbound Calls Parameter 'Time to wait for possible incoming call (SCHDWAIT)' to 0. The Message Delivery parameter 'Dialtone time-out during message delivery (DTONWAIT)' should also be set to 0.

7.5 STATION HUNTING

Station Hunting

Subscribers in hunt groups must rely on Intercept Ring No Answer to send calls to a personal greeting in voice mail. If they program their phone for Do - Not - Disturb or with Call Forwarding, their extension number will be blocked from the hunt group. Hunting will be restored once the programming has been canceled.

All references to Smooth Operator pertain to the entire family of products

Hunting Starts at the extension dialed and then continues to the next Jack with same Extension group assignment. If Extra Device port is Enabled and both Extensions have the same Extension group assignment, a call to the first Jack extension (Digital phone) would hunt to the Standard line extension before hunting to the next Jack extension with the same Extension group assignment.

If you must assign Smooth Operator ports as outbound ports they should all be assigned to a group number that is **Disabled**.

7.6 SUPERVISED TRANSFER, CALL QUEUING AND PAGING

Supervised Transfer, Call Queuing and Paging

The method used for call supervision by Smooth Operator is different from that used by the switch. Therefore the System functions of Supervised Transfer, Queuing and Paging require Subscribers to **not** program the switch's Call Forward Busy and Call Forward Busy / No Answer. Program Call Forward No Answer to go to the Smooth Operator extension. The switch's Forward No Answer timer should be set higher than the Max Rings in the mailbox Class Of Service.

When Call Queuing is in use and CO lines do not provide disconnect supervision, enable the option, “Require Caller to Press Star to Stay in Queue" in the Smooth Operator Setup, Call Queuing Parameters. Unsupervised CO lines will cause the Subscriber to receive phantom calls

whenever callers decide not to wait in queue. Making this setting will alleviate the perception that the called subscriber is losing calls.

Call Queuing
Require Caller to Press Star to Stay in Queue **Enabled**

7.7 DO NOT DISTURB OVERRIDE AND CALL WAITING CODE PARAMETERS

Do Not Disturb Override and Call Waiting Code Parameters.

Smooth Operator can be assigned a COS that allows for override of Do not Disturb. For this feature to work, Smooth Operator Call waiting must be enabled. Any call that encounters a busy extension will be processed as a Call waiting, only the extension with Do not disturb active will hear the prompt 'You Have a call waiting.' At the end of the Call waiting attempt the caller is informed that the station is busy. In System Setup for the Smooth Operator Call Waiting is programmed as follows:

Call Waiting Code Parameters

Call Waiting Code	1
Number of Attempts for Call Waiting	3
Release Code for Call Waiting	&

Refer to 5.5 COS Programming for Panasonic KX-TD1232 Digital 1232 programming instructions. Caution should be used when using this function.

7.8 DIL 1:N EXTENSION AND DELAYED RINGING - DAY/NIGHT

DIL 1:N Extension and Delayed Ringing - Day / Night

Caution should be used if the DIL 1:N Extension and Delayed Ringing is needed. All incoming calls from the programmed CO line groups are directed to the specified extensions. If the group is directed to one extension in the Smooth Operator group, then the second simultaneous call will ring until the first call is complete. If the group is directed to all extensions in the Smooth Operator group then the first call will cause all extensions to ring and they will all attempt to answer the call. This is not the appropriate method for directing calls to The System.

Refer to 5.6 Extension Programming for Panasonic KX-TD1232 Digital 1232 programming instructions. Caution should be used when using this function.

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