

mw 8-4-99

BOX ASSIGNMENTS

08-09-1999

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RECORD PATENT AP		101112232	
TO THE ASSISTANT COMMISSIONER OF PATENTS SIR: PLEASE RECORD THE ATTACHED ORIGINAL D.			
1. NAME OF CONVEYING PARTY(IES) (ASSIGNORS(S)): 1. OPTEC D.D. MELCO LABORATORY CO., LTD. 3. 6027 5. 7.		2. OPTEC DAI-ICHI DENKO CO., LTD. 4. 6. 8.	
ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACHED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST: NAME: MELCO TECHNOREX CO., LTD. ADDRESS: 1929-1 Aza Sotonokirikaichi, Hamakawa Shinden, Daitou-cho, Ogasa-gun, Shizuoka, Japan			
ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
3. NATURE OF CONVEYANCE (DOCUMENT): (Submit herewith <u>only one document</u> for recordation—multiple copies of same Assignment signed by different inventors is one document)			
<input checked="" type="checkbox"/> ASSIGNMENT OF		<input type="checkbox"/> WHOLE <input checked="" type="checkbox"/> PART INTEREST	
<input type="checkbox"/> CHANGE OF NAME		<input type="checkbox"/> ACCURATE TRANSLATION	
<input type="checkbox"/> SECURITY		<input type="checkbox"/> MERGER <input type="checkbox"/> OTHER:	
EXEC. DATE: August 31, 1998			
EXECUTION DATE(S) ON THE DECLARATION IF FILED HEREWITH: (NOTE: IF DATES ON DECLARATION AND ASSIGNMENT DIFFER SEE ATTY!)			
4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL SHEET(S) attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
A. PAT. APP. NO.(S) series code/serial no	M#	1 st INVENTOR if not in item 1	B. PATENT NO(S) M# 1 st INVENTOR if not in item 1
			5,212,380 95914 SATO
5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918		6. NUMBER INVOLVED: APPLNS _____ + PATS <u>1</u> = TOTAL <u>1</u>	
5.5 ATTY DKT: PMS 95914 MATTER NO.		7. AMOUNT OF FEE ENCLOSED: (Code 581) ABOVE TOTAL x \$40 = \$40	
US-9042-DA CLIENT REF.		8. IF ABOVE FEE IS MISSING OR INADEQUATE CHARGE INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 03-3975	
		UNDER ORDER NO	7326 95914
		dup. sheet not required	CLIENT NO. MATTER NO.
9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.			
Signature Attorney: Timothy J. Klima Reg. No. 34852 Atty/Sec: TJK/blg			10. Total number of pages including this cover sheet, attachments and document (do not file dup. Cover sheet) 3
Date: August 4, 1999 FAX: (202) 822-0944			

FILE WITH PTO RETURN RECEIPT (PAT-103A)

06/05/1999 NTHAI1 00000173 5212380

01 FC:581

40.00 OP

Please return signed/recorded to:
 Pillsbury Madison & Sutro IP Group
 Ninth Floor, East Tower
 1100 New York Avenue, N.W.
 Washington, D.C. 20005-3918

ASSIGNMENT

For ten dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the recipient,

Optec D.D. Melco Laboratory Co., Ltd., a corporation organized under Japanese law, having a place of business at 2-9, Hachiman-cho 1 chome, Higashikurume-shi, Tokyo, Japan, and

Optec Dai-Ichi Denko Co., Ltd., a corporation organized under Japanese law, having a place of business at 1-1, Marunouchi 3-chome, Chiyoda-ku, Tokyo, Japan, both hereinafter referred to as "Assignors," which are joint owners with Mitsubishi Denki Kabushiki Kaisha, a corporation organized under Japanese law, having a place of business at 2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, Japan of all rights in the following five issued United States patents:

Patentee	Patent No.	Issue Date	Title
Kurosawa et al.	5,038,031	06 August 1991	OPTICAL ROTARY ENCODER
Yamaguchi et al.	5,015,056	14 May 1991	PHOTOINTERRUPTOR FOR USE IN LIGHT-TRANSMISSION TYPE ROTARY ENCODER
Sato et al.	5,130,536	14 July 1992	OPTICAL ROTARY ENCODER
Sato et al.	5,212,380	18 May 1993	AUTOMOTIVE ENGINE CONTROL SYSTEM WITH ROTARY ENCODER
Sato et al.	5,073,001	17 December 1991	PHOTOINTERRUPTOR FOR USE IN OPTICAL TRANSMISSION TYPE ROTARY ENCODER

and of all rights for the territory of the United States in the inventions disclosed and claimed therein, at the request of Melco Technorex Co., Ltd., a corporation organized under Japanese law, having a place of business at 1929-1 Aza Sotonokirikaichi, Hamakawa Shinden, Daitou-cho, Ogasa-gun, Shizuoka, Japan, hereinafter "Assignee," hereby sell, assign and transfer to

Assignee their entire right, title and interest for the United States, as defined in U.S.C. § 100, in an to the five above-listed patents and the inventions disclosed and claimed therein, and in and to all divisions, continuations, substitutes, extensions, and reissues of those patents and the respective underlying United States patent applications, and all resulting United States patents, as well as all of their rights to sue and recover for past and/or continuing infringement thereof.

The undersigned Assignors hereby authorize and request the United States Commissioner of Patents and Trademarks to issue any of said resulting jointly to Assignee and Mitsubishi Denki Kabushiki Kaisha for their interests, and to the resulting joint assignees' successors, assigns and legal representatives.

The undersigned Assignees hereby agree that the attorneys of record in the patents, patent applications and resulting patents referred to above may hereinafter act on behalf of the resulting joint assignees, successors, assigns and legal representatives.

The undersigned Assignors hereby agree to testify and to execute any papers for the resulting joint assignees, successors, assigns and legal representatives, deemed essential by any of the latter to full protection of and title to the patents, applications and resulting patents the transferring assignors rights to which are transferred by this Assignment.

OPTEC D.D. MELCO LABORATORY CO., LTD.

by: Kanji Hara
Kanji Hara

its duly authorized General Manager

Date: 31 August 1998

OPTEC DAI-ICHI DENKO CO., LTD.

by: Yoshio Maki
Yoshio Maki

its duly authorized President

Date: 31 August 1998

DWB:rei